

Sausalito Bay Community Development District

Engineer's Report
Infrastructure Improvements

Prepared for
Sausalito Bay Community Development District
Board of Supervisors
Miami-Dade County, Florida

Prepared by
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August 13, 2003

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I. Introduction.

The Sausalito Bay Community Development District (the District) was created for the purpose of financing and managing the acquisition, construction and maintenance of the infrastructure of Sausalito Bay, a 104 gross acre residential development located in Southwest Miami-Dade County, Florida. The development offers single family dwellings, as well as townhouse residences.

See Exhibit 1 for a graphical representation of the development.

The infrastructure is a network of roadway, drainage, water and sanitary sewer systems that will give access and service to 225 single family dwellings and 204 townhouses.

As of the date of this report, construction of the development is under way, with clearing, grubbing, and earthwork activities taking place mostly on the 30 most northern acres of the site, adjacent to SW 8 Street. It is estimated that the infrastructure will be constructed according to the following schedule:

Earthwork: Begin on February 2003. End on October 2003.

Roadway Improvements: Begin on December, 2003. End on June 2004.

Stormwater Management: Begin on November, 2003. End on May, 2004.

Water Distribution System: Begin on October, 2003. End on April, 2004.

Sanitary Sewer System: Begin on September, 2003. End on March, 2004.

II. District Description.

The District was established under Ordinance No. 03-104 of the Miami-Dade County Commission. The Ordinance was passed and adopted on May 6, 2003 and became effective ten days later, on May 16, 2003.

The District is located in Sections 4 and 9, Township 54S, Range 39E, in Miami-Dade County, Florida. It is bounded by SW 152 Avenue and SW 153 Court on the east, SW 154 Avenue and theoretical SW 155 Avenue on the west, SW 18 Street on the south and SW 10 Street and SW 8 Street (Tamiami Trail) on the north. The address of the development is 15200 SW 8 Street, Miami, Florida 33194. See Exhibit 1.

III. Description of the Infrastructure.**1. Roadway Improvements.**

A network of interior roads and driveways is proposed to provide circulation to the general public.

From the north the development may be accessed from SW 8 Street at SW 153 Court, from the south the project may be entered from SW 18 Street. From these entrances a series of streets originate in order to provide access to the dwelling units. The interior streets consist of crowned sections with valley or curbed gutters and sidewalks on the sides. The typical section for all the interior streets consists of a 12 inch stabilized subgrade, an 8 inch limerock base and a 1 ½ inch or 2 inch asphalt course.

The roads within this development are public and will be maintained by Miami-Dade County.

See Exhibits 2A and 2B for a graphical representation of the roadway improvements.

2. Stormwater Management.

The stormwater management facilities consist of inlets, manholes, storm pipes and approximately 4,505 Linear Feet (LF) of exfiltration trenches, which, in combination with four lakes, measuring approximately 25 acres, have been designed to retain the storm runoff within the development.

In accordance with the Federal Emergency Management Agency (FEMA, Map Number 12025C0165 J, dated March 2, 1994) this development falls within Zone AH, Elevation 8.0 Ft above the National Geodetic Vertical Datum (NGVD). The paving and drainage plans for the development call for the finish floor elevation of the residences to be set at a minimum elevation of 9.2 Ft above NGVD, and the crown of the roads at 8.5 Ft above NGVD.

See Exhibits 3A and 3B for a graphical representation of the stormwater management system.

3. Water Distribution System.

The water distribution system is composed of variable pipe sizes ranging from 6 to 12 inch diameters for water service and fire protection. The system is connected to an existing 12 inch water main located on SW 18 Street and to an existing 30 inch water main on SW 8 Street. The water system encompasses approximately 5,500 linear feet of 12 inch pipe, 19,000 linear feet of 8 inch pipe, 1,100 linear feet of 6 inch pipe and 40 fire hydrants.

When completed, the water distribution system will be donated to Miami-Dade County Water And Sewer Department (WASD) for operation and maintenance.

See Exhibits 4A and 4B for a graphical representation of the water distribution system.

4. Sanitary Sewer System.

The sanitary sewer collection system consists of approximately 15,800 linear feet of gravity pipe 8 inches in diameter, 429 service laterals, and 69 manholes. The system also includes the extension of existing force mains. The extensions require approximately 1650 linear feet of 8 inch diameter Ductile Iron Pipe (DIP) and 2,000 linear feet of 20 inch DIP.

When completed, the sanitary sewer collection system will be donated to WASD for operation and maintenance.

See Exhibits 5A and 5B for a graphical representation of the sanitary sewer system.

IV. Ownership and Maintenance.

The District will finance the acquisition and/or construction of the improvements. It will then transfer the land and improvements to the following agencies for ownership and maintenance:

Description	Future Ownership	Future Maintenance
Roads	Miami-Dade County	Miami-Dade County
Stormwater Management:		
a. Road Drainage System	Miami-Dade County	Miami-Dade County
b. Lakes	Sausalito Bay CDD	Sausalito Bay CDD
Water Distribution System	WASD	WASD
Sanitary Sewer System	WASD	WASD

V. Permitting Status.**1. Platting.**

Tentative Plats dated October, 2001. Approved February 1, 2003.

2. Roadway, Paving, Grading and Drainage Permits.

Approval by Miami-Dade County Public Works Department on May, 2002. Numbers T-21087, T-21084, T-21086 and T-21085.

3. Stormwater Management System and Wetlands

Approval by SFWMD on May 9, 2002. Environmental Resource Permit Number 13-01848-P.

Approval by Miami-Dade County Department of Environmental Resources Management, Natural Resources Division on February 3, 2003. Class IV Wetland Permit Pursuant to US Army Corps of Engineers General Permit SAJ-74. Permit authorizes the filling and excavating of 30 Acres provided a mitigation impact fee of \$29,704 per acre is contributed.

Approval by Miami-Dade County Department of Environmental Resources Management, Natural Resources Division on February 3, 2003. Class IV Wetland Permit Pursuant to US Army Corps of Engineers General Permit SAJ-74. Permit authorizes the filling and excavating of 73.64 Acres provided a mitigation impact fee of \$29,704 per acre is contributed.

Approval by Miami-Dade County Department of Planning and Zoning for the excavation of the lakes on May 31, 2004. Permit Number L200300705.

Approval by Miami-Dade County Department of Planning and Zoning for the excavation of the lakes on May 31, 2004. Permit Number L200300704.

Approval by Miami-Dade County Department of Planning and Zoning for the excavation of the lakes on May 31, 2004. Permit Number L200300703.

Approval by Miami-Dade County Department of Planning and Zoning for the excavation of the lakes on May 31, 2004. Permit Number L200300702.

4. Water Distribution System

Approval by WASD on April, 2002. Permits Number DW2002-060, DW2002-061, DW2002-062 and DW2002-063.

Approval by Miami-Dade County Fire Department on April, 2002. Permits Number 02340-00076, 02340-00077, 02340-00078 and 02340-00079.

Approval by Miami-Dade Department of Health on April, 2002. Permit No. 125199-602 DSGP, 125199-603-DSGP, 125199-604-DSGP and 125199-605-DSGP.

Approval by State of Florida Department of Transportation on November, 2002. Utility Permit No. 02H6900184.

5. Sanitary Sewer System.

Approval by WASD on April, 2002. Permits Numbers DS2002-537, DS2002-540 and DS2002-539.

Approval by DERM Sewerage Facilities on May, 2002. Permit Serial Numbers SE02-66, SE02-68 and SE02-69.

Approval by State of Florida Department of Transportation on November, 2002. Utility Permit No. 02H6900185.

VI. Estimate of Capital Improvement Costs.

Roadway Improvements	\$ 3,162,734.48
Stormwater Management	\$ 4,841,525.42
Water Distribution System	\$ 1,227,515.44
Sanitary Sewer System	<u>\$ 1,266,074.98</u>
Total	\$10,497,750.32

Tables 1 through 6 show line item estimates for each category of infrastructure.

The costs of the infrastructure will be allocated to each residential unit within the development in the form of special assessments, in accordance with the approved methodology described in the "Special Assessment Methodology Report" prepared for Sausalito Bay Community Development District by Special District Services, Inc.

VII. Engineer's Certification.

It is our opinion that the extent of proposed improvements and their estimated costs are fair and reasonable. We believe that the permits necessary to begin construction have been obtained and that the infrastructure can be constructed and installed at the costs described in this report.

I hereby certify that the foregoing is a true and correct copy of the Engineer's Report for the Sausalito Bay Community Development District.

Juan R. Alvarez, PE
Florida Registration No. 38522
Alvarez Engineers, Inc.
August 13, 2003.

TABLES AND EXHIBITS

Sausalito Bay CDD Construction Cost Estimates

Summary Table

[illegible]

Sausalito Bay CDD
Construction Cost Estimates
Roadway Improvements

Description of Work	Quantity	Unit	Unit Price	Total Estimated Cost
Clearing & Grubbing (Road R/W's)	25.32	AC	\$4,300.00	\$108,876.00
Earthwork (Road R/W's)	25.32	AC	\$3,500.00	\$88,620.00
12" Subgrade	82,331	SY	\$0.50	\$41,165.50
8" Baserock	67,543	SY	\$5.50	\$371,486.50
1½" Asphaltic Concrete Course	43,727	SY	\$4.00	\$174,908.00
2" Asphaltic Concrete Course	22,050	SY	\$5.00	\$110,250.00
4" Concrete Sidewalk	26,789	SY	\$18.00	\$482,202.00
Type "F" Curb & Gutter	7,850	LF	\$7.75	\$60,837.50
Valley Gutter	36,660	LF	\$7.50	\$274,950.00
Guardrail	6,410	LF	\$12.00	\$76,920.00
End Treatment	14	EA	\$500.00	\$7,000.00
Sod (swales)	39,208	SY	\$2.50	\$98,020.00
Finish Soil layer (swales)	39,208	SY	\$0.70	\$27,445.60
Signing and Pavment Marking	25.32	AC	\$2,350.00	\$59,502.00
Surveying and As-Builts	4%	LS	\$1,873,307.10	\$74,932.28
Maintenance of Traffic	1	LS	\$5,000.00	\$5,000.00
Densities	150	EA	\$75.00	\$11,250.00
Permits	1	LS	\$20,000.00	\$20,000.00
Wetland Mitigation (Road R/W's)	25.32	AC	\$29,704.00	\$752,105.28
Soft Costs (Eng and Prof. Fees)	6%	LS	\$2,845,470.66	\$170,728.24
Contingency*	7%	LS	\$2,093,365.38	\$146,535.58
* Does not include Wetland Mitigation				
Total				\$3,162,734.48

Sausalito Bay CDD
Construction Cost Estimates
Stormwater Management

Description of Work	Quantity	Unit	Unit Price	Total Estimated Cost
Clearing (Lake Tracts)	25.04	AC	\$825.00	\$20,658.00
Lake Excavation	591,105	CY	\$3.75	\$2,216,643.75
Lake Side Slopes Grading	6.26	AC	\$10,000.00	\$62,600.00
Sod Lake Side Slopes	30,298	SY	\$2.50	\$75,746.00
15" CMP (HPDE)	13,367	LF	\$27.00	\$360,909.00
18" CMP (HPDE)	1,640	LF	\$31.00	\$50,840.00
24" CMP (HPDE)	787	LF	\$36.00	\$28,332.00
Exfiltration Trench w/15" HDPE	3,415	LF	\$50.00	\$170,750.00
Exfiltration Trench w/18" HDPE	290	LF	\$60.00	\$17,400.00
Exfiltration Trench w/24" HDPE	800	LF	\$75.00	\$60,000.00
VGI w/ P Box	108	EA	\$1,200.00	\$129,600.00
VGI w/ J Box	54	EA	\$2,000.00	\$108,000.00
MH w/ P Box	7	EA	\$1,500.00	\$10,500.00
MH w/ J Box	32	EA	\$1,600.00	\$51,200.00
Endwall	9	EA	\$750.00	\$6,750.00
Drainage Structure (WCS)	9	EA	\$3,000.00	\$27,000.00
CB Grates & MH Rings	181	EA	\$160.00	\$28,960.00
Surveying and As-Builts	4%	LS	\$3,405,230.75	\$136,209.23
Densities	63	EA	\$75.00	\$4,725.00
Permits	1	LS	\$20,000.00	\$20,000.00
Wetland Mitigation (Lake Tracts))	25.04	AC	\$29,704.00	\$743,788.16
Soft Costs (Eng and Prof. Fees)	6%	LS	\$4,330,611.14	\$259,836.67
Contingency*	7%	LS	\$3,586,822.98	\$251,077.61
* Does not include Wetland Mitigation				
Total				\$4,841,525.42

Table 3 of 6

Sausalito Bay CDD
Construction Cost Estimates
Water Distribution System

Description of Work	Quantity	Unit	Unit Price	Total Estimated Cost
Connect to Existing W.M.	13	LS	\$2,000.00	\$26,000.00
6" D.I.P.(Assumed 25'/FH Branch)	1,050	LF	\$20.14	\$21,147.00
8" D.I.P.	19,009	LF	\$23.00	\$437,207.00
12" D.I.P.	5,475	LF	\$25.44	\$139,284.00
6" Gate Valve & Box	40	EA	\$551.20	\$22,048.00
8" Gate Valve & Box	64	EA	\$689.00	\$44,096.00
12" Gate Valve & Box	15	EA	\$1,314.40	\$19,716.00
Fire Hydrants	40	EA	\$1,380.00	\$55,200.00
8" Tee & Cross	23	EA	\$380.00	\$8,740.00
8" x 6" Tee	22	EA	\$380.00	\$8,360.00
12" x 8" Tee	12	EA	\$447.00	\$5,364.00
12" x 6" Tee	9	EA	\$400.00	\$3,600.00
8"x12" offset	5	EA	\$400.00	\$2,000.00
8"x18" offset	28	EA	\$500.00	\$14,000.00
8"x24" offset	2	EA	\$500.00	\$1,000.00
8"x30" offset	2	EA	\$500.00	\$1,000.00
12" Cross & Tee	6	EA	\$487.60	\$2,925.60
8" Bend	180	EA	\$380.00	\$68,400.00
12" Bend	19	EA	\$400.00	\$7,600.00
Plug	17	EA	\$325.00	\$5,525.00
8" x 2" CAP W/ 2" F.V.O.	2	EA	\$400.00	\$800.00
12" x 2" CAP W/ 2" F.V.O.	1	EA	\$400.00	\$400.00
1" Single Service	36	EA	\$350.00	\$12,600.00
1" Dual Service	200	EA	\$350.00	\$70,000.00
Miscellaneous	4	LS	\$5,000.00	\$20,000.00
Maintenance of Traffic	1	LS	\$3,000.00	\$3,000.00
Densities	4	LS	\$5,000.00	\$20,000.00
Surveying & As-Builts	4%	LS	\$997,012.60	\$39,880.50
Chlorinating & Testing	25,261	LF	\$0.25	\$6,315.25
Permit	1	LS	\$20,000.00	\$20,000.00
Soft Costs (Eng and Prof. Fees)	6%	LS	\$1,086,208.35	\$65,172.50
Contingency	7%	LS	\$1,086,208.35	\$76,034.58
Total				\$1,227,415.44

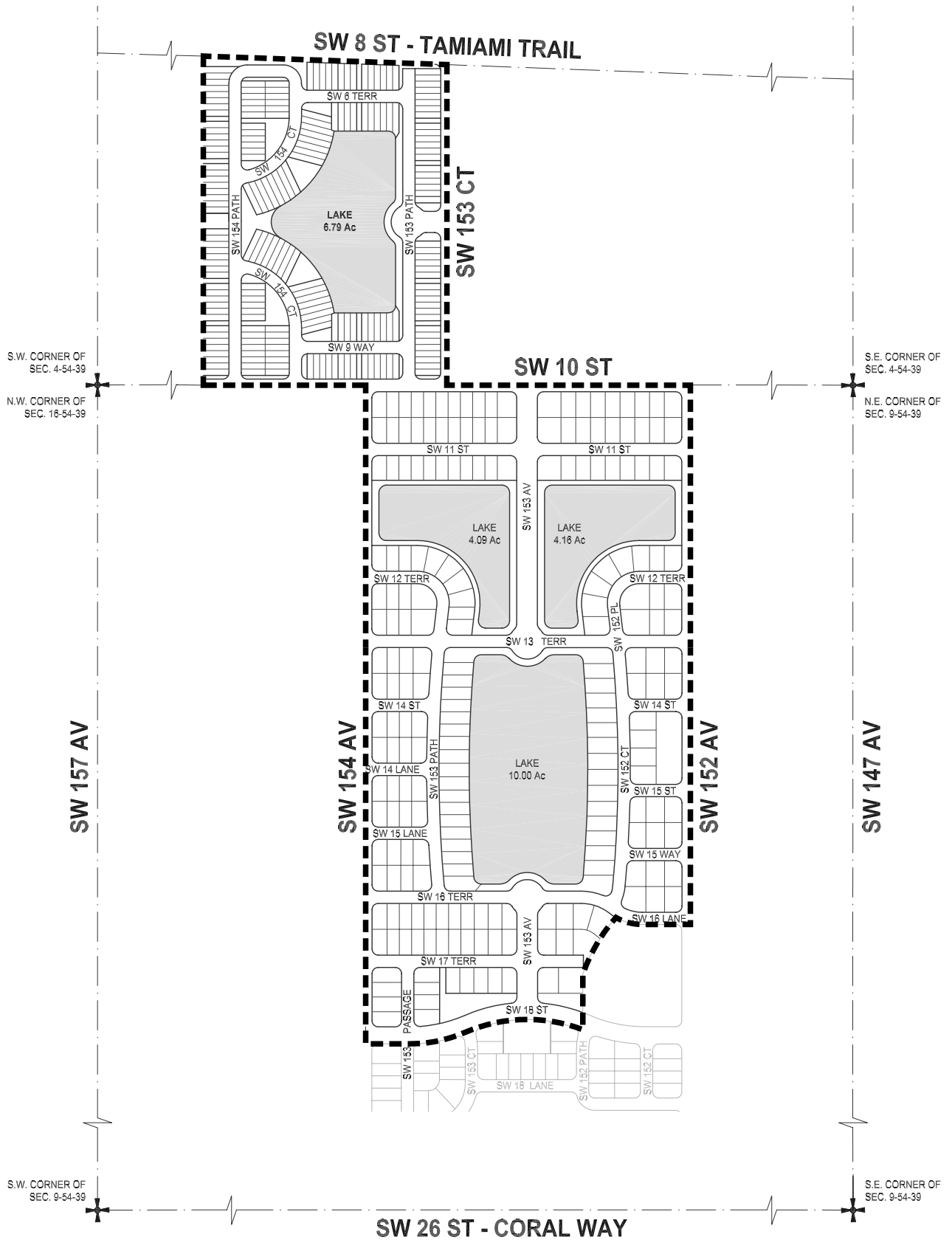
Sausalito Bay CDD Construction Cost Estimates Sanitary Sewer System - Gravity System				
Description of Work	Quantity	Unit	Unit Price	Total Estimated Cost
Connect to Existing MH	5		\$2,000.00	\$10,000.00
Connect to Existing Main	5		\$1,000.00	\$5,000.00
8" PVC (0'-6')	5839	LF	\$20.00	\$116,780.00
8" PVC (6'-8')	3485	LF	\$26.00	\$90,610.00
8"PVC (8'-10')	1517	LF	\$30.00	\$45,510.00
8" PVC (10'-12')	1489	LF	\$38.00	\$56,582.00
8" PVC (12'-14')	1546	LF	\$46.00	\$71,116.00
8" PVC (14'-16')	1317	LF	\$50.00	\$65,850.00
8" PVC (16'-18')	535	LF	\$52.00	\$27,820.00
8" PVC (18'-20')	81	LF	\$54.00	\$4,374.00
MH (0'-6')	39	EA	\$1,300.00	\$50,700.00
MH (6'-8')	8	EA	\$1,800.00	\$14,400.00
MH (6'-8') w/drop inlet	2	EA	\$1,900.00	\$3,800.00
MH (8'-10')	1	EA	\$1,900.00	\$1,900.00
MH (8'-10') w/drop inlet	2	EA	\$2,200.00	\$4,400.00
MH (10'-12')	3	EA	\$2,251.00	\$6,753.00
MH (10'-12') w/ Drop Inlet	2	EA	\$3,200.00	\$6,400.00
MH (12'-14')	2	EA	\$2,500.00	\$5,000.00
MH (12'-14') w/ Drop Inlet	3	EA	\$2,700.00	\$8,100.00
MH (14'-16')	3	EA	\$2,900.00	\$8,700.00
MH (14'-16') w/ Drop Inlet	2	EA	\$3,400.00	\$6,800.00
MH (16'-18')	1	EA	\$3,200.00	\$3,200.00
MH (16'-18') w/ Drop Inlet	1	EA	\$3,500.00	\$3,500.00
6" PVC Lateral (SS1.0)	310	EA	\$360.00	\$111,600.00
6" PVC Lateral (SS2.0)	119	EA	\$320.00	\$38,080.00
MH Connection	138	EA	\$85.00	\$11,730.00
MH Inverts & Ring	71	EA	\$235.00	\$16,685.00
Gravel # 57	6350	TN	\$8.50	\$53,975.00
Miscellaneous	4	LS	\$6,000.00	\$24,000.00
Densities	53	EA	\$75.00	\$3,975.00
Cleaning & Testing	15760	LF	\$0.65	\$10,244.00
Permit	1	LS	\$20,000.00	\$20,000.00
Surveying & As-Builts	4%	LS	\$873,365.00	\$34,934.60
Sub-Total Gravity System				\$942,518.60

Table 5 of 6

Sausalito Bay CDD Construction Cost Estimates

Sanitary Sewer System (Continued) - Force Main

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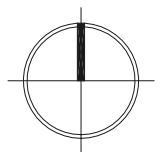
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 --- DISTRICT BOUNDARIES

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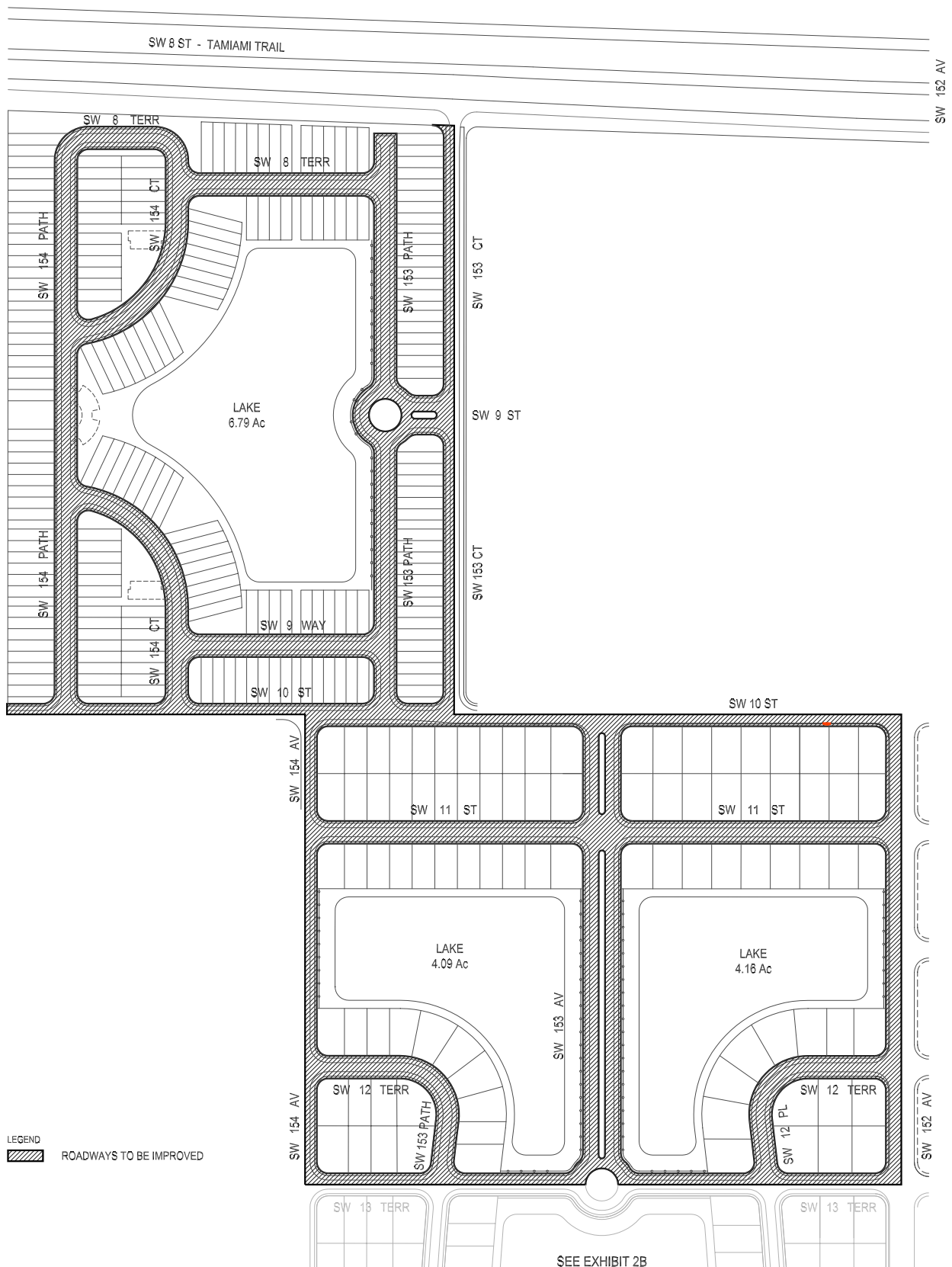
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SAUSALITO BAY C.D.D.

EXHIBIT 1 - **DISTRICT BOUNDARIES**



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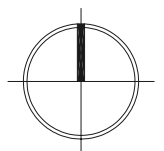


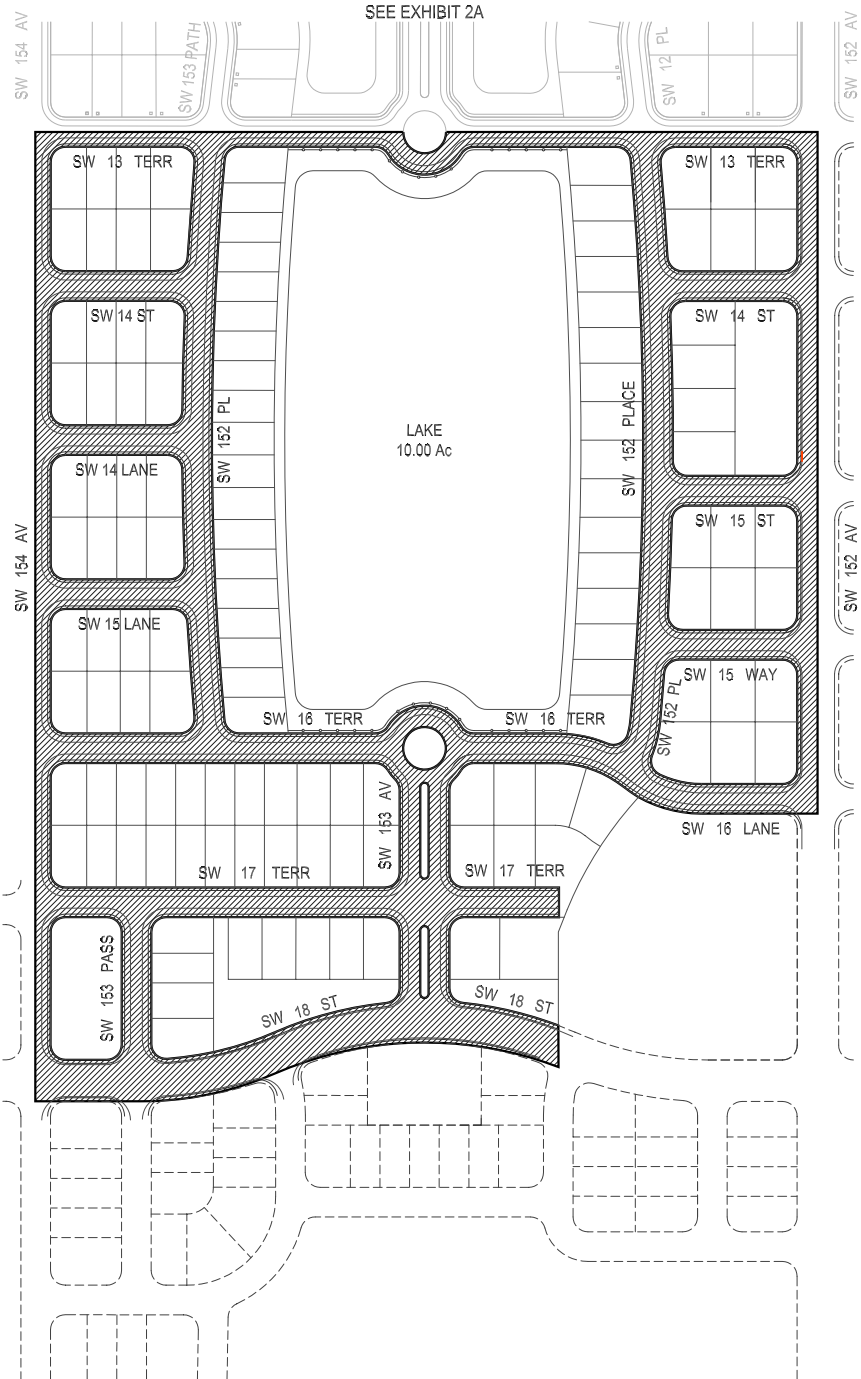
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SAUSALITO BAY C.D.D.

EXHIBIT 2A - **ROADWAY IMPROVEMENTS**





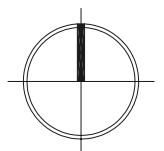
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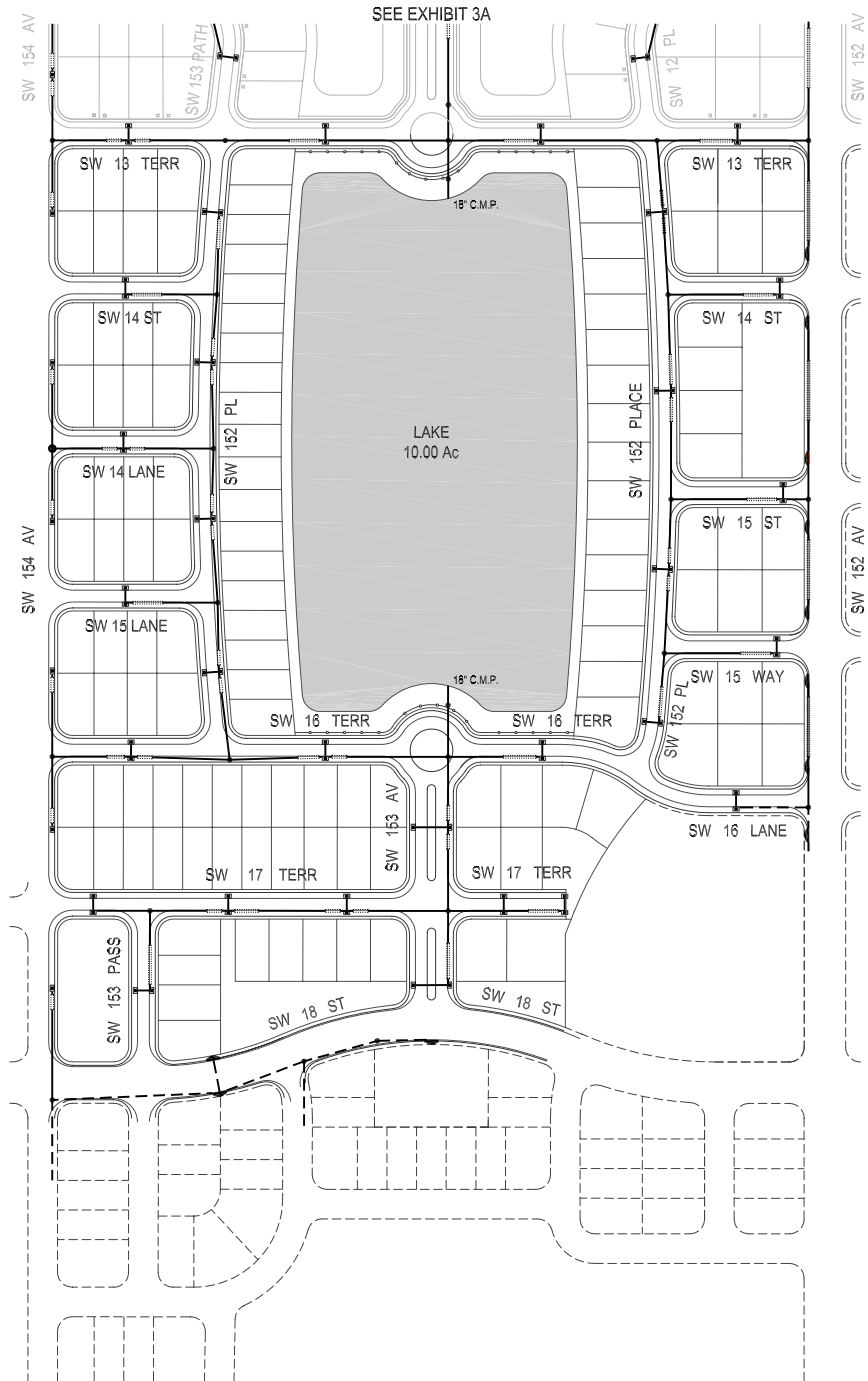
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EXHIBIT 2B - **ROADWAY IMPROVEMENTS**



1" = 324'





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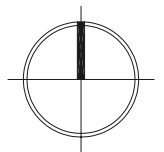
- PIPE LINES
- DRAINAGE STRUCTURE
- CATCH BASINS
- EXFILTRATION TRENCH
- EXISTING STORMWATER

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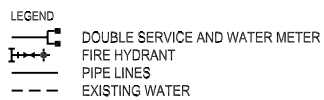
SAUSALITO BAY C.D.D.

EXHIBIT 3B - STORMWATER MANAGEMENT



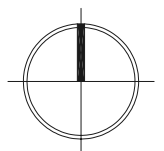
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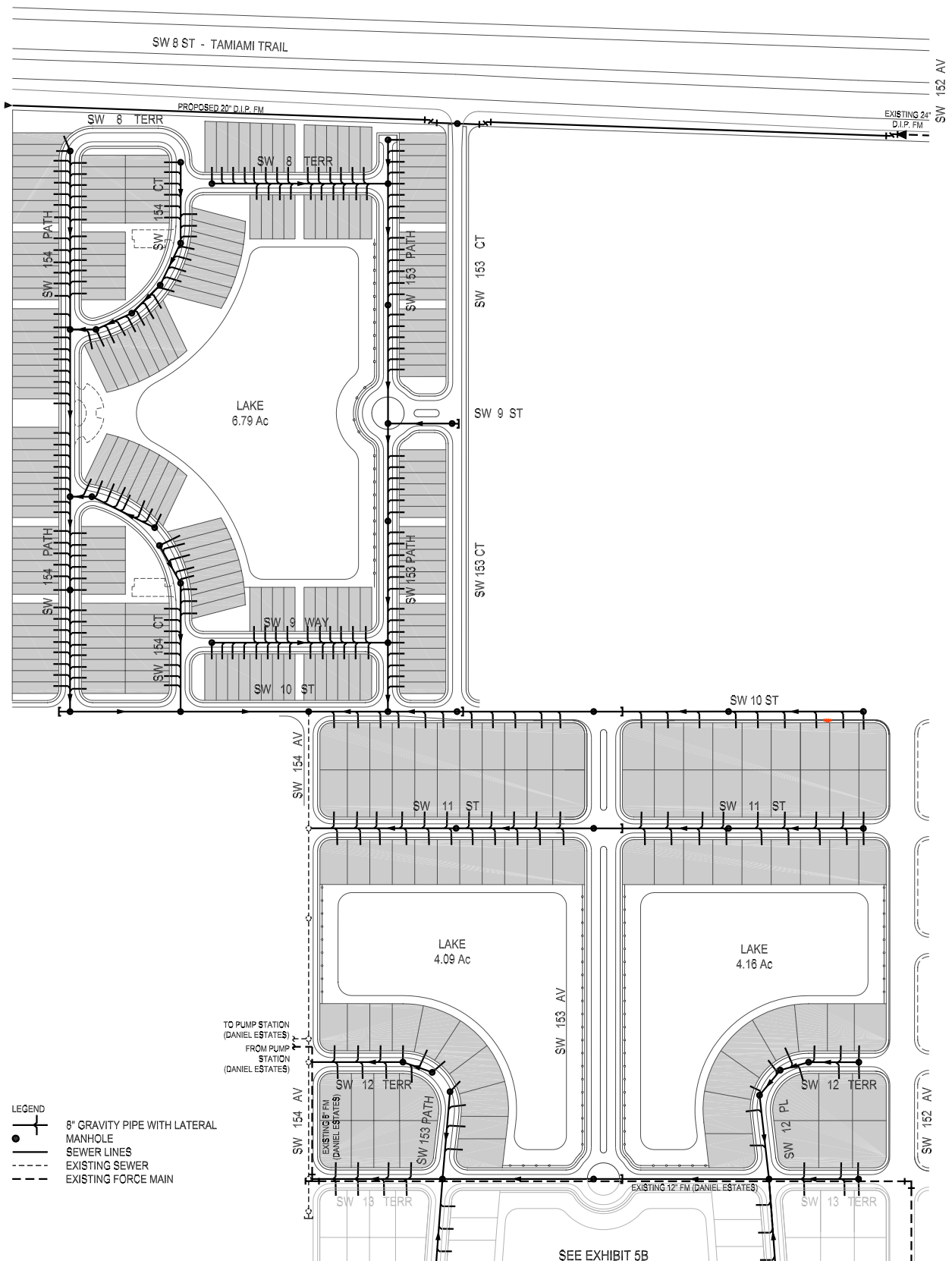




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EXHIBIT 4B - **WATER DISTRIBUTION SYSTEM**


$$1'' = 324'$$

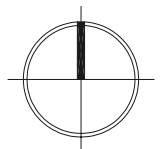


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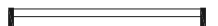
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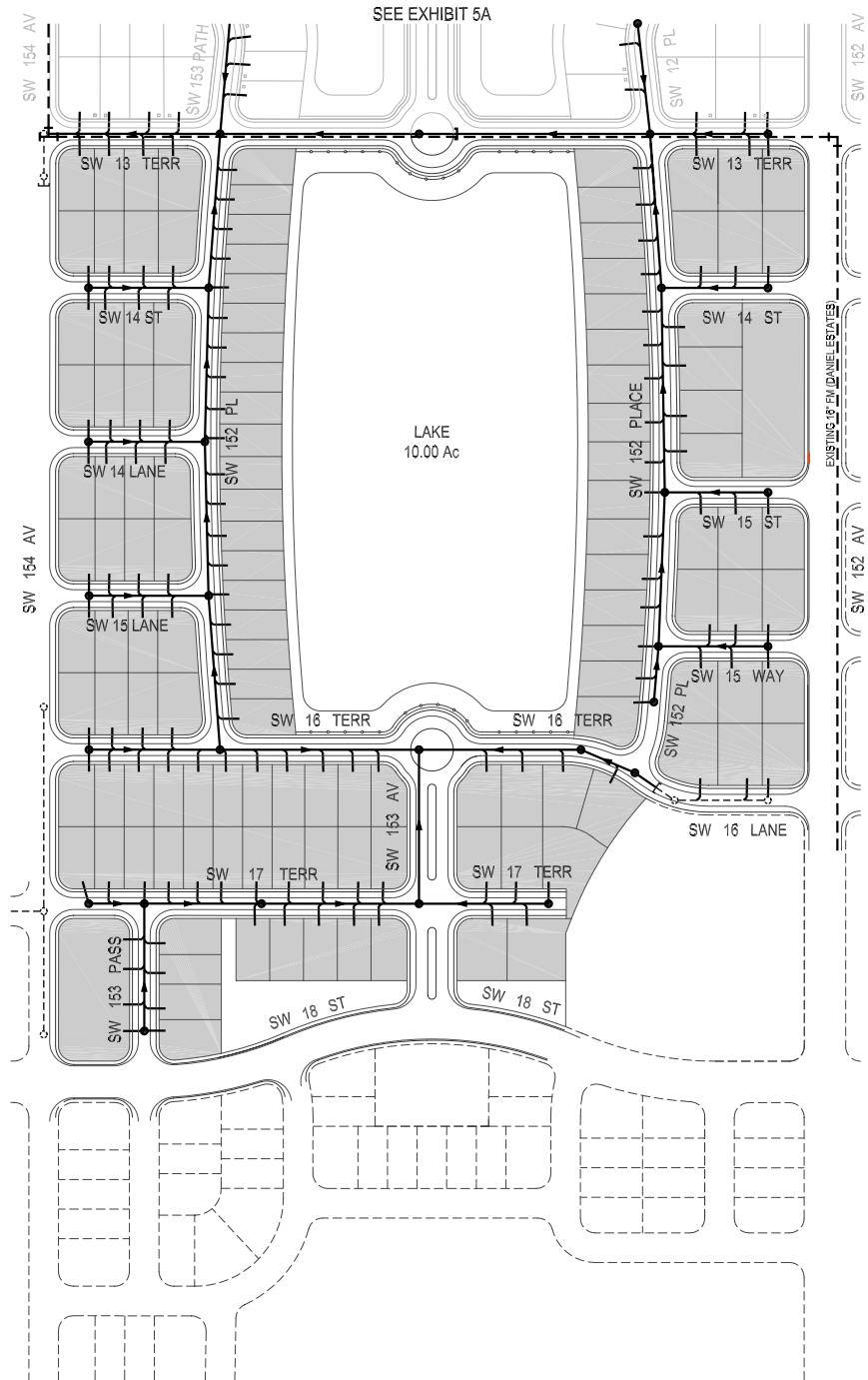
SAUSALITO BAY C.D.D.

EXHIBIT 5A - **SANITARY SEWER SYSTEM**



1" = 324'





LEGEND

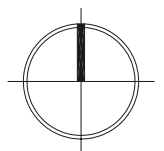
8" GRAVITY PIPE WITH LATERAL
MANHOLE
SEWER LINES
EXISTING SEWER
EXISTING FORCE MAIN

ALVAREZ ENGINEERS, INC.

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SAUSALITO BAY C.D.D.

EXHIBIT 5B - SANITARY SEWER SYSTEM



1" = 324'

