



Agenda Item # \_\_\_\_\_

# Staff Report

## City of Manhattan Beach

**TO:** Parking and Public Improvements Commission

**FROM:** Jim Arndt, Director of Public Works *JA for JA*  
Steve Finton, City Engineer *SF*

**DATE:** April 28, 2011

**SUBJECT:** Review of Proposed Fiscal Year 2011-2012 Capital Improvement Plan

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### **RECOMMENDATION:**

Staff recommends that the Commission review the proposed Fiscal Year 2011-2012 Capital Improvement Plan and provide comments that will be provided to the City Council.

### **BACKGROUND and DISCUSSION:**

The City maintains a 5-year Capital Improvement Plan (CIP) addressing capital investment required to maintain the City's infrastructure assets in serviceable condition. Staff has prepared a draft Fiscal Year 2012-2016 CIP (Attachment 1) that identifies projects totaling to \$71.5 million. With carry over projects, the total reaches \$84.7 million. The proposed fiscal year 2012-2016 CIP was developed to achieve the following goals:

- Replace or rehabilitate aging water and sewer infrastructure
- Rehabilitate existing public buildings
- Maintain and improve roadway pavement
- Improve energy efficiency at City facilities
- Improve traffic circulation, and
- Achieve regulatory compliance.

City Council will be considering CIP proposals during their upcoming budget discussions. City Council will be evaluating and appropriating funds for fiscal year 2011-2012 projects only. Projects identified in out years are provided to establish the City's plan for future appropriations.

### Need Assessment

The five year CIP was developed using condition assessments performed for City facilities and water, sewer and street systems. Staff performed an assessment of City buildings in 2010 to identify needed rehabilitation. Water and sewer system master plans were completed in 2009 which identified and prioritized required system improvements and rehabilitation. Pavement evaluation was performed in 2010 which prioritized roadway segments for rehabilitation.

The extent of planned capital investment is dependent on need and available funding. Water and

sewer funding provided through recent rate increases is adequate, whereas, funding deficiencies exist for street pavement, storm drains and City buildings.

Overall, funding levels have increased due to escalated capital funding provided through new water and sewer rates and the advent of Measure R South Bay transportation funds. Funding for 39 projects in the total amount of \$71.5 Million is proposed during the five years of the CIP. Roughly half of this total (\$33.8 million) is designated for three projects including the Sepulveda Bridge Widening project, a new water well and a replacement water reservoir. In fiscal year 2011-12, funding for 23 projects in the amount of \$13.5 Million is proposed. Lastly, funding for 29 projects in the amount of \$13.3 Million was appropriated by City Council previously and will be carried over into fiscal year 2011-2012. Several of the carryover projects are nearing construction and will be completed in the first half of the next fiscal year, whereas, several received earlier design appropriations and will receive construction funding in fiscal year 2011-2012.

The Table below indicates existing CIP funding and funding proposed in fiscal year 2011-12

***FY 2011-12 Capital Improvement Plan***

Below are the CIP Projects recommended for funding in FY 2011-12.

<b>PROJECT TITLE</b>	<i>Existing CIP Funding (Funded Carryover)</i>	<b>Proposed For FY2011-12</b>
<b>SUMMARY ALL PROJECT TYPES</b>		
<b>FACILITIES</b>	\$2,683,180	\$1,950,000
<b>STREETS</b>	\$7,111,296	\$6,040,766
<b>UTILITIES</b>	\$3,465,277	\$5,535,000
<b>PROJECT BY TYPE TOTAL</b>	\$13,259,753	\$13,525,766
<b>FACILITIES</b>		
1. City-Owned Refuse Enclosure Improvements (design only)		\$150,000
2. High Efficiency HVAC and Lighting at City Hall (design only)		\$300,000
3. Pier Localized Structural Rehabilitation		\$500,000
4. Marine Avenue Park Synthetic Grass Field		\$1,000,000
5. <i>Joslyn Center Improvements</i>	\$718,000	
6. <i>Manhattan Heights Community Center Improvements</i>	\$508,000	
7. <i>Begg Pool Improvements</i>	\$706,000	
8. <i>Live Oak Ceramic Studio Improvements</i>	\$25,000	
9. <i>Live Oak Recreation Hall Improvements</i>	\$25,000	
10. <i>Alternative Fuel Station Expansion</i>	\$100,000	

<b>PROJECT TITLE</b>	<i>Existing CIP Funding (Funded Carryover)</i>	<b>Proposed For FY2011-12</b>
<i>11. City Yard Cover</i>	\$601,180	
<b>Facilities TOTAL</b>	\$2,683,180	\$1,950,000
<b>STREETS</b>		
1. Annual Curb, Gutter and Ramp Replacement Project	\$450,000	\$700,000
2. Annual Slurry Seal Program	\$350,000	\$425,000
3. Street Resurfacing Project: Pacific Avenue	\$543,749	\$300,000
4. Dual Left-Turn Lanes on Marine Ave at Sepulveda Blvd		\$335,000
5. Manhattan Ave./Highland Ave. Improvement Project (1st-8th)	\$543,706	\$160,530
6. Street Resurfacing Project: Ardmore and Valley		\$700,000
7. Sepulveda Bridge Widening Project (33rd-Valley) (design and portion of construction)	\$1,285,440	\$3,420,236
8. Dual Left-Turn Lanes on MBB at Sepulveda EB, NB, WB	\$414,593	
9. Street Resurfacing Project: Rosecrans Avenue	\$250,000	
10. Strand Stairs (Phase I)	\$1,920,000	
11. Safe Routes to School Program	\$797,468	
12. South Side Rosecrans Ave. Widening	\$346,396	
13. So Rosecrans Utility Undergrounding-Street Work	\$209,944	
<b>Streets TOTAL</b>	\$7,111,296	\$6,040,766
<b>UTILITIES</b>		
<b>Parking Projects</b>		
1. Automated Parking Meters	\$741,265	
2. Automated Parking Meters	\$532,532	
3. North MB BID Improvement Project	\$222,525	
<b>Parking TOTAL</b>	\$1,496,321	
<b>Storm Water Projects</b>		
Infiltration site study	\$50,000	
<b>Storm Water Fund TOTAL</b>	\$50,000	

<b>PROJECT TITLE</b>	<i>Existing CIP Funding (Funded Carryover)</i>	<b>Proposed For FY2011-12</b>
<b><i>Wastewater Projects</i></b>		
1. FY11-12 Rehabilitation of Gravity Sewer Mains (Area 7)	\$200,000	\$1,140,000
2. Utility Telemetry (Funded 50% Sewer 50% Water)	\$32,500	\$317,500
3. FY12-13 Rehabilitation of Gravity Sewer Mains-(Areas 1, 2 & 3)(design only)		\$150,000
4. FY11-12 thru 14-15 Rehabilitation of Sewer Manholes		\$100,000
5. <i>FY10-11 Rehabilitation of Gravity Sewer Mains (Area 6 &amp; 7)</i>	\$1,050,000	
6. <i>Public Works Maint Facility Master Plan</i>	\$7,559	
7. <i>Utility Master Plan</i>	\$155,654	
<b><i>Wastewater TOTAL</i></b>	\$1,445,712	\$1,707,500
<b><i>Water Projects</i></b>		
1. Peck Res. Disinfection and Mixing System		\$230,000
2. Blending Line Flow Control Facility		\$120,000
3. Well 11A Rehabilitation		\$230,000
4. 2nd Street Booster Pump Station	\$50,000	\$580,000
5. Pipe Replacement Program and Fire Hydrant Installation (Area 7)	\$200,000	\$2,000,000
6. Utility Telemetry (Funded 50% Sewer 50% Water)	\$32,500	\$317,500
7. Larsson Street Pump Station Improvement (design only)		\$100,000
8. Pipe Replacement Program and Fire Hydrant Installation (Area 1) (design only)		\$150,000
9. Water Main Replacement: Sepulveda Boulevard & 2nd Street (Sep-MBB to 2nd; 2nd-Larsson Pump to 2nd St Pump) (design only)		\$100,000
10. <i>Utility Master Plan</i>	\$190,743	
<b><i>Water TOTAL</i></b>	\$473,243	\$3,827,500
<b>Utilities TOTAL</b>	\$3,465,277	\$5,535,000
<b>SUMMARY ALL PROJECT TYPES</b>		
<b>FACILITIES</b>	\$2,683,180	\$1,950,000
<b>STREETS</b>	\$7,111,296	\$6,040,766
<b>UTILITIES</b>	\$3,465,277	\$5,535,000
<b>PROJECT BY TYPE TOTAL</b>	\$13,259,753	\$13,525,766

***Unfunded CIP Projects***

The table below lists Unfunded CIP Projects identified as needs in the current and previous years but which have not yet been recommended for funding:

<b>UNFUNDED PROJECT TITLE</b>	<b>TOTAL COST</b>
11-12 Annual Stormwater System Improvement Project	\$350,000
12-13 Annual Stormwater System Improvement Project	\$350,000
13-14 Annual Stormwater System Improvement Project	\$350,000
14-15 Annual Stormwater System Improvement Project	\$350,000
Bell Avenue Storm Drain Replacement	\$1,000,000
Opticom Traffic Signal Preemption (Phase III)	\$285,000
Pier Force Main Replacement	\$486,000
<i>28th Street Storm Drain Infiltration Project</i>	<i>\$12,000,000</i>
<i>Beach Access Pathway</i>	<i>\$150,000</i>
<i>Downtown Streetscape Rehabilitation</i>	<i>\$650,000</i>
<i>Deferred Maintenance - City Buildings</i>	<i>\$500,000</i>
<b>TOTAL</b>	<b>\$16,471,000</b>
<b><i>Italics = added to Unfunded in 2010</i></b>	

**CONCLUSION:**

Staff recommends that the Commission review the Proposed CIP and Unfunded CIP Projects lists and provide comments for City Council consideration.

- Attachments: 1. Fiscal Year 2012-2016 CIP Spreadsheet by project type  
 2. Project Descriptions for Fiscal Year 2012-2016  
 Capital Improvement Plan Projects

City of Manhattan Beach, Capital Improvement Plan 2012-2016  
**PROJECTS BY TYPE FOR FY2011-2012 THRU FY2015-2016**

**BY TYPE**

PROJECT TITLE	Funded Carryover Project Budget	FY2011-12	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FIVE YEAR TOTAL (Includes Carryover Project Totals)	FUND SOURCE(S)
<b>SUMMARY ALL PROJECT TYPES</b>								
FACILITIES	\$ 2,683,180	\$ 1,950,000	\$ 1,170,000	\$ 620,000	\$ -	\$ -	\$ 6,423,180	See Below
STREETS	\$ 7,111,296	\$ 6,040,766	\$ 6,923,937	\$ 13,900,472	\$ 1,065,000	\$ 3,115,000	\$ 38,156,471	See Below
UTILITIES	\$ 3,465,277	\$ 5,535,000	\$ 5,405,000	\$ 7,262,000	\$ 9,686,900	\$ 8,800,000	\$ 40,154,177	See Below
<b>PROJECT BY TYPE TOTAL</b>	<b>\$ 13,259,753</b>	<b>\$ 13,525,766</b>	<b>\$ 13,498,937</b>	<b>\$ 21,782,472</b>	<b>\$ 10,751,900</b>	<b>\$ 11,915,000</b>	<b>\$ 84,733,828</b>	
<b>FACILITIES</b>								
City-Owned Refuse Enclosure Improvements		\$ 150,000	\$ 550,000				\$ 700,000	Refuse Fund
High Efficiency HVAC and Lighting at City Hall***		\$ 300,000	\$ 620,000	\$ 620,000			\$ 1,540,000	CIP Fund
Pier Localized Structural Rehabilitation		\$ 500,000					\$ 500,000	Pier Fund
Marine Avenue Park Synthetic Grass Field		\$ 1,000,000					\$ 1,000,000	Private Contributions
<b>Funded Carryover Projects**</b>								
Joslyn Center Improvements***	\$ 718,000						\$ 718,000	CIP Fund
Manhattan Heights Community Center Improvements***	\$ 508,000						\$ 508,000	CIP Fund
Begg Pool Improvements***	\$ 706,000						\$ 706,000	CIP Fund
Live Oak Ceramic Studio Improvements***	\$ 25,000						\$ 25,000	CIP Fund
Live Oak Recreation Hall Improvements***	\$ 25,000						\$ 25,000	CIP Fund
Alternative Fuel Station Expansion	\$ 100,000						\$ 100,000	AB 2766
City Yard Cover	\$ 601,180						\$ 601,180	CIP Fund Refuse Fund Sewer Fund Water Fund Stormwater Fund
<b>Facilities TOTAL</b>	<b>\$ 2,683,180</b>	<b>\$ 1,950,000</b>	<b>\$ 1,170,000</b>	<b>\$ 620,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,423,180</b>	

\*\*Available funds for Carryover Projects is effective 06/30/11. Funds spent after this date will be reflected on next year's budget.

\*\*\*Appropriated on 3/1/11

City of Manhattan Beach, Capital Improvement Plan 2012-2016  
**PROJECTS BY TYPE FOR FY2011-2012 THRU FY2015-2016**

**BY TYPE**

PROJECT TITLE	Funded Carryover Project Budget	FY2011-12	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FIVE YEAR TOTAL (Includes Carryover Project Totals)	FUND SOURCE(S)
<b>STREETS</b>								
Annual Curb, Gutter and Ramp Replacement Project	\$ 450,000	\$ 700,000	\$ 320,000	\$ 365,000	\$ 365,000	\$ 365,000	\$ 2,565,000	Gas Tax Fund
Annual Slurry Seal Program	\$ 350,000	\$ 425,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 2,175,000	Gas Tax Fund
Street Resurfacing Project: Pacific Avenue	\$ 543,749	\$ 300,000					\$ 843,749	Gas Tax Fund
Dual Left-Turn Lanes on Marine Ave at Sepulveda Blvd		\$ 335,000					\$ 335,000	Gas Tax Fund
Manhattan Ave./Highland Ave. Improvement Project (1st-8th)	\$ 543,706	\$ 160,530					\$ 704,236	Prop. 1B
Street Resurfacing Project: Ardmore and Valley		\$ 700,000					\$ 700,000	Gas Tax Fund
Sepulveda Bridge Widening Project (33rd-Valley)	\$ 1,285,440	\$ 3,420,236	\$ 6,253,937	\$ 10,265,472			\$ 21,225,085	Grant Fund Measure R SBHwy Prop C (New & Cryvr)
Street Resurfacing Project: Blanche, Marine, Oak, 27th St & 11th St				\$ 400,000			\$ 400,000	Gas Tax Fund
Aviation at Marine, Dual SB Lefts				\$ 1,500,000			\$ 1,500,000	Measure R SBHwy
Dual Left-Turn Lanes on MBB at Sepulveda EB, NB, WB	\$ 414,593			\$ 980,000			\$ 1,394,593	Measure R SBHwy
Triennial Pavement Management System Update				\$ 40,000			\$ 40,000	Gas Tax Fund
Morningside Drive Rehabilitation					\$ 250,000		\$ 250,000	Gas Tax Fund
Manhattan Beach Bl. Rehab. Sepulveda to Aviation					\$ 100,000	\$ 900,000	\$ 1,000,000	Prop. C
Aviation at Artesia, SB Right-Turn Lane						\$ 1,500,000	\$ 1,500,000	Measure R SBHwy
<b>Funded Carryover Projects**</b>								
Street Resurfacing Project: Rosecrans Avenue	\$ 250,000						\$ 250,000	Gas Tax Fund
Strand Stairs (Phase I)	\$ 1,920,000						\$ 1,920,000	Grant Fund CIP Fund
Safe Routes to School Program	\$ 797,468						\$ 797,468	CIP Fund
South Side Rosecrans Ave. Widening	\$ 346,396						\$ 346,396	Grant Fund
So Rosecrans Utility Undergrounding-Street Work	\$ 209,944						\$ 209,944	Prop C
<b>Streets TOTAL</b>	<b>\$ 7,111,296</b>	<b>\$ 6,040,766</b>	<b>\$ 6,923,937</b>	<b>\$ 13,900,472</b>	<b>\$ 1,065,000</b>	<b>\$ 3,115,000</b>	<b>\$ 38,156,471</b>	

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\*\*\*Appropriated on 3/1/11



City of Manhattan Beach, Capital Improvement Plan 2012-2016  
**PROJECTS BY TYPE FOR FY2011-2012 THRU FY2015-2016**

**BY TYPE**

PROJECT TITLE	Funded Carryover Project Budget	FY2011-12	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FIVE YEAR TOTAL (Includes Carryover Project Totals)	FUND SOURCE(S)
<b>UTILITIES</b>								
<b>Parking Projects</b>								
<b>Funded Carryover Projects**</b>								
Automated Parking Meters	\$ 741,265						\$ 741,265	Parking Fund
Automated Parking Meters	\$ 532,532						\$ 532,532	St. Pier and Prkg Lot Fund
North MB BID Improvement Project	\$ 222,525						\$ 222,525	NMB-BID Funds
<b>Parking TOTAL</b>	<b>\$ 1,496,321</b>						<b>\$ 1,496,321</b>	
<b>Stormwater Projects</b>								
<b>FY11-12 thru FY15-16 Projects</b>								
No projects requested								
<b>FY11-12 thru FY15-16 Subtotal</b>								
<b>Funded Carryover Projects**</b>								
Infiltration site study	\$ 50,000						\$ 50,000	Storm Water Fund
<b>Stormwater Fund TOTAL</b>	<b>\$ 50,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 50,000</b>	
<b>Wastewater Projects</b>								
<b>FY11-12 Rehabilitation of Gravity Sewer Mains</b>								
Full Replacement Locations								
-Highland Av. Sidewalk Btwn 32nd Pl. & 33rd Pl. (15' replacement)								
-Marine Av. Highland Av. to Grandview Dr.								
-Alma Av. 24th St to 27th St.								
-3rd Street Crest Drive to Ingleside Drive								
-4th Street - Ingleside to Valley								
-Ingleside Drive 7th Street to 5th Street								
-24th Street Strand to Highland Avenue								
-7th Street Crest Drive to Valley Drive								
	\$ 200,000	\$ 1,140,000					\$ 1,340,000	Wastewater Fund
Utility Radio Telemetry (Previously Fiber Optic Improvement)	\$ 32,500	\$ 317,500					\$ 350,000	Wastewater Fund
Funded 50% Sewer 50% Water								

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\*\*\*Appropriated on 3/1/11



**PROJECTS BY TYPE FOR FY2011-2012 THRU FY2015-2016**

**BY TYPE**

PROJECT TITLE	Funded Carryover Project Budget	FY2011-12	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FIVE YEAR TOTAL (Includes Carryover Project Totals)	FUND SOURCE(S)
<b>FY12-13 Rehabilitation of Gravity Sewer Mains</b> -11th Street Dianthus Street to Sepulveda Boulevard -Ardmore Avenue S/O 11th Street -10th Street Dianthus Street to Sepulveda Boulevard -Dianthus Street 3rd Street to 6th Street -2nd Street Poinsettia Street to Anderson Street -8th Street Poinsettia Street to Anderson Street -8th Street Anderson Street to Dianthus Street -9th Street Ardmore Avenue to Railroad Place -Boundary Place Dianthus Street to Sepulveda Boulevard -11th Place W/O Highview Avenue -6th Street John Street to John Place -1ST Street E/O Ardmore Avenue -Johnson Street 2nd to 3rd Streets -3rd Street Johnson Street to Meadows Avenue -Rowell Avenue Gates Avenue to Curtis Avenue -8th Street W/O Johnson Street -9th Street At Johnson Street -Meadows Avenue Curtis Avenue and Voorhees Avenue -2nd Street Sepulveda Boulevard to Johnson Street -8th Street E/O Johnson Street -9th Street W/O Meadows Avenue -Longfellow Drive E/O Allura Way -Shores Parking Lot W/O Peck Avenue -Johnson Street 3rd to 4th Streets -Johnson Street 4th to 5th Streets -9th Street Rowell Avenue to Peck Avenue -3rd Street Johnson Street to Meadows Street -Tennyson Street Chabella Drive to Prospect Avenue -2nd Street Herrin Avenue to Redondo Avenue (Full Replacement) -Nelson Avenue Peck Avenue to Herrin Street -Herrin Street 1st Street to Gates Avenue -Aviation Boulevard 10th Street to 11th Street -1ST Street Redondo Avenue to Aviation Boulevard		\$ 150,000	\$ 1,300,000				\$ 1,450,000	Wastewater Fund
<b>FY11-12 thru 14-15 Rehabilitation of Sewer Manholes</b>		\$ 100,000	\$ 150,000		\$ 150,000		\$ 400,000	Wastewater Fund
<b>Poinsettia Sewage Pump Station</b>			\$ 405,000	\$ 2,362,000			\$ 2,767,000	Wastewater Fund
<b>Pacific Pump Station Upgrade</b>				\$ 100,000	\$ 836,900		\$ 936,900	Wastewater Fund
<b>FY14-15 Rehabilitation of Gravity Sewer Mains (Spot Repairs)</b> -Harkness St 15th Street to 19th Street 1 spot repair -Faymont Ave 15th Street to 19th Street 1 spot repair -18th St Herrin Street to Redondo Avenue 2 spot repairs -19th St Herrin Street to Redondo Avenue 1 spot repair -21st st 20th Street to Meadows Avenue 1 spot repair Additional locations will be identified through future CCTV inspections				\$ 100,000	\$ 1,200,000		\$ 1,300,000	Wastewater Fund

\*\*Available funds for Carryover Projects is effective 06/30/11. Funds spent after this date will be reflected on next year's budget.

\*\*\*Appropriated on 3/1/11

City of Manhattan Beach, Capital Improvement Plan 2012-2016  
**PROJECTS BY TYPE FOR FY2011-2012 THRU FY2015-2016**

**BY TYPE**

PROJECT TITLE	Funded Carryover Project Budget	FY2011-12	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FIVE YEAR TOTAL (Includes Carryover Project Totals)	FUND SOURCE(S)
<b>FY15-16 Rehabilitation of Gravity Sewer Mains</b> -20th Street Highland Ave. East to end -19th Street Highland Ave. East to end -18th Street Highland Ave. East to end -16th Place W/O Live Oak Park -Highview Avenue N/O Manhattan Bch Blvd. -Manhattan Bch Blvd. Ardmore Av. to Fisher Av. -289th Street Grandview to Alma -31st Street W/O Grandview -31st Street E/O Highland -Manhattan Av. 28th St. to 29th St. -32nd Street Manhattan Av. to Strand					\$ 150,000	\$ 1,400,000	\$ 1,550,000	Wastewater Fund
<b>Funded Carryover Projects**</b>								
<b>FY10-11 Rehabilitation of Gravity Sewer Mains</b> Spot Repair Locations Marine Avenue — Blanche Rd to Floumoy Rd -23rd Street — Blanche Rd to 25th Street -27th Street — at Floumoy Rd -29th Street — Blanche Rd to Bell Ave -29th Street — at Laurel Ave -Bell Avenue — Street to 30th Street -30th Street — Blanche Rd to Bell Ave -31st Place — Blanche Rd to Floumoy Rd -33rd Place — at Blanche Rd -Rosecrans Avenue — sidewalk e/o Vista Drive -39th Street — between 218 39th St and Highland Ave -38th Place — between 200 and 222 38th Place -Manhattan Avenue — 36th St to Rosecrans Ave, sidewalk -Highland Avenue — 33rd St to 34th St, sidewalk -33 Street — Highland Ave to Crest Dr -9th Street — Manhattan Ave to Highland Ave	\$ 1,050,000						\$ 1,050,000	Wastewater Fund
Public Works Maint Facility Master Plan	\$ 7,559						\$ 7,559	Wastewater Fund
Utility Master Plan	\$ 155,654						\$ 155,654	Wastewater Fund
<b>Wastewater TOTAL</b>	<b>\$ 1,445,712</b>	<b>\$ 1,707,500</b>	<b>\$ 1,855,000</b>	<b>\$ 2,562,000</b>	<b>\$ 2,336,900</b>	<b>\$ 1,400,000</b>	<b>\$ 11,307,112</b>	
<b>Water Projects</b>								
Peck Res. Disinfection and Mixing System		\$ 230,000					\$ 230,000	Water Fund
Blending Line Flow Control Facility		\$ 120,000					\$ 120,000	Water Fund
Well 11A Rehabilitation		\$ 230,000					\$ 230,000	Water Fund
2nd Street Booster Pump Station	\$ 50,000	\$ 580,000					\$ 630,000	Water Fund

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\*\*\*Appropriated on 3/1/11

PROJECTS BY TYPE FOR FY2011-2012 THRU FY2015-2016

BY TYPE

PROJECT TITLE	Funded Carryover Project Budget	FY2011-12	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FIVE YEAR TOTAL (Includes Carryover Project Totals)	FUND SOURCE(S)
<b>Pipe Replacement Program and Fire Hydrant Installation (Area 7)</b> Phase 1 -1st St. Highland Ave. to Valley Dr. -1st St. Ocean Dr. to Highland Ave. -3rd St. Ocean Dr. to Highland Ave. -4th St. Ocean Dr. to Highland Ave. -5th St. Ocean Dr. to Manhattan Ave. -Highland Ave. 1st St. to Homer St. -Highland Ave. 2nd St. to 1st St. -Homer St. Highland Ave. to Morningside Dr. -Manhattan Ave 8th St to 15th St -Morningside Dr. 1st St. to Homer St. -Vista Dr. Rosecrans Ave. to 27th St. Phase 2 -Highland Ave 6th Street to 10th Street -7th Street (walk street) Ocean Drive to Valley Drive -8th Street (walk street) Ocean Drive to Highland Ave -Morningside Drive 2nd Street to 3rd Street	\$ 200,000	\$ 2,000,000					\$ 2,200,000	Water Fund
Utility Radio Telemetry (Previously Fiber Optic Improvement) Funded 50% Sewer 50% Water	\$ 32,500	\$ 317,500					\$ 350,000	Water Fund
Larsson Street Pump Station Improvement		\$ 100,000	\$ 500,000				\$ 600,000	Water Fund
<b>Pipe Replacement Program and Fire Hydrant Installation (Area 1)</b> -11th Street (Ardmore Avenue to John Street) -10th Street (Highview Avenue to Pacific Avenue) -9th Street (Ardmore Avenue to Highview Avenue) Low Pressure Zone -9th Street (Highview Avenue to Pacific Avenue) High pressure zone -Highview Avenue (9th Street to 10th Street) Convert to high pressure zone -Pacific Avenue (11th Street to Manhattan Beach Boulevard) Low pressure zone -John Street (10th Street to 11th Street) High pressure zone -9th Street (John to Poinsettia) High pressure zone -Poinsettia (8th Street to 9th Street) High pressure zone -Poinsettia (8th Street to 9th Street) Low pressure zone -8th Street (Pointsettia to Sepulveda) Low pressure zone		\$ 150,000	\$ 1,050,000				\$ 1,200,000	Water Fund
Water Main Replacement: Sepulveda Boulevard & 2nd Street (Sep-MBB to 2nd; 2nd-Larsson Pump to 2nd St Pump)		\$ 100,000	\$ 800,000				\$ 900,000	Water Fund
<b>Pipe Replacement Program and Fire Hydrant Installation (Area 2)</b> -9th Street (Meadows Avenue to Rowell Avenue) -10th Street (Meadows Avenue to Rowell Avenue) -11th Street (Meadows Avenue to Rowell Avenue) -Rhonda Drive/Longfellow Drive (Kuhn Drive N. to Kuhn Drive S.) -Terraza Place (Rhonda Drive to end) -Chabela Drive (Keats Street to Longfellow Drive) -Altura Way (Keats Street to Longfellow Drive) -Shelley Street (Prospect Avenue to Chabela Drive) -5th Street (Rowell Avenue to Peck Avenue) -3rd Street (Rowell Avenue to Peck Avenue)			\$ 200,000	\$ 1,600,000			\$ 1,800,000	Water Fund

\*\*Available funds for Carryover Projects is effective 06/30/11. Funds spent after this date will be reflected on next year's budget.

\*\*\*Appropriated on 3/1/11

City of Manhattan Beach, Capital Improvement Plan 2012-2016  
**PROJECTS BY TYPE FOR FY2011-2012 THRU FY2015-2016**

**BY TYPE**

PROJECT TITLE	Funded Carryover Project Budget	FY2011-12	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FIVE YEAR TOTAL (Includes Carryover Project Totals)	FUND SOURCE(S)
Water Well at Aviation Boulevard/6th Street (Well 13)			\$ 1,000,000	\$ 2,500,000	\$ 2,250,000		\$ 5,750,000	Water Fund
Pipe Replacement Program and Fire Hydrant Installation (Area 3)				\$ 100,000	\$ 900,000		\$ 1,000,000	Water Fund
-Redondo Av. 2nd St to Artesia Bl.								
-1st St. Redondo Av. To Aviation Bl.								
Well Collection line From Well 11A to Block 35				\$ 500,000	\$ 3,500,000		\$ 4,000,000	Water Fund
Block 35 Ground Level Reservoir Replacement					\$ 700,000	\$ 7,400,000	\$ 8,100,000	Water Fund
<b>Funded Carryover Projects**</b>								
Utility Master Plan	\$ 190,743						\$ 190,743	Water Fund
<b>Water TOTAL</b>	<b>\$ 473,243</b>	<b>\$ 3,827,500</b>	<b>\$ 3,550,000</b>	<b>\$ 4,700,000</b>	<b>\$ 7,350,000</b>	<b>\$ 7,400,000</b>	<b>\$ 27,300,743</b>	
<b>Utilities TOTAL</b>	<b>\$ 3,465,277</b>	<b>\$ 5,535,000</b>	<b>\$ 5,405,000</b>	<b>\$ 7,262,000</b>	<b>\$ 9,686,900</b>	<b>\$ 8,800,000</b>	<b>\$ 40,154,177</b>	
<b>SUMMARY ALL PROJECT TYPES</b>								
<b>FACILITIES</b>	<b>\$ 2,683,180</b>	<b>\$ 1,950,000</b>	<b>\$ 1,170,000</b>	<b>\$ 620,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,423,180</b>	See Above
<b>STREETS</b>	<b>\$ 7,111,296</b>	<b>\$ 6,040,766</b>	<b>\$ 6,923,937</b>	<b>\$ 13,900,472</b>	<b>\$ 1,065,000</b>	<b>\$ 3,115,000</b>	<b>\$ 38,156,471</b>	See Above
<b>UTILITIES</b>	<b>\$ 3,465,277</b>	<b>\$ 5,535,000</b>	<b>\$ 5,405,000</b>	<b>\$ 7,262,000</b>	<b>\$ 9,686,900</b>	<b>\$ 8,800,000</b>	<b>\$ 40,154,177</b>	See Above
<b>PROJECT BY TYPE TOTAL</b>	<b>\$ 13,259,753</b>	<b>\$ 13,525,766</b>	<b>\$ 13,498,937</b>	<b>\$ 21,782,472</b>	<b>\$ 10,751,900</b>	<b>\$ 11,915,000</b>	<b>\$ 84,733,828</b>	

\*\*Available funds for Carryover Projects is effective 06/30/11. Funds spent after this date will be reflected on next year's budget.

\*\*\*Appropriated on 3/1/11

**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type:** Facilities

**Project Title:** City-Owned Refuse Enclosure Improvements

**Description:** Perform improvements to 18 city-owned refuse enclosures by connecting all enclosures to the sanitary sewer, rebuilding enclosures to a size appropriate for trash, recycling, and green waste cans or bins, painting and installing new hardware.

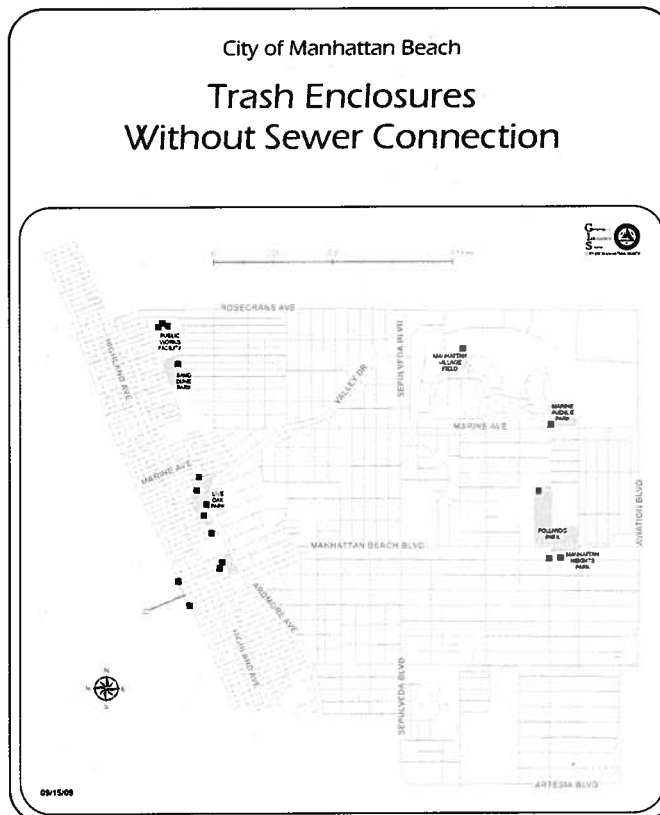
**Justification:** The city applied for illegal dumping grant funds to make these changes (our reasoning: enclosures that are not connected to the sanitary sewer pose a threat of debris and leachate (liquid trash) illegally dumping into the storm drain system), but the state did not believe that Manhattan Beach had a severe problem to warrant the grant funding.

**Project Cost Information:**

Capital Costs:

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Refuse Fund	\$150,000	\$550,000				\$700,000
<b>TOTAL</b>	<b>\$150,000</b>	<b>\$550,000</b>				<b>\$700,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

Project Type: Facilities

**Project Title:** High Efficiency HVAC and Lighting at City Hall

**Description:** Installation of an ice storage unit in the Police/Fire facility utilizing the existing refrigeration unit there and installation of chilled water piping from the Police/Fire facility to City Hall. Modification of the City Hall system to utilize chilled water from the Police/Fire ice storage. All ducting, lighting and ceilings in City Hall will be replaced due to the venting being integrated with lighting and suspended ceiling system. Lastly, more efficient thermal windows will be installed to prevent disparate climate zones.

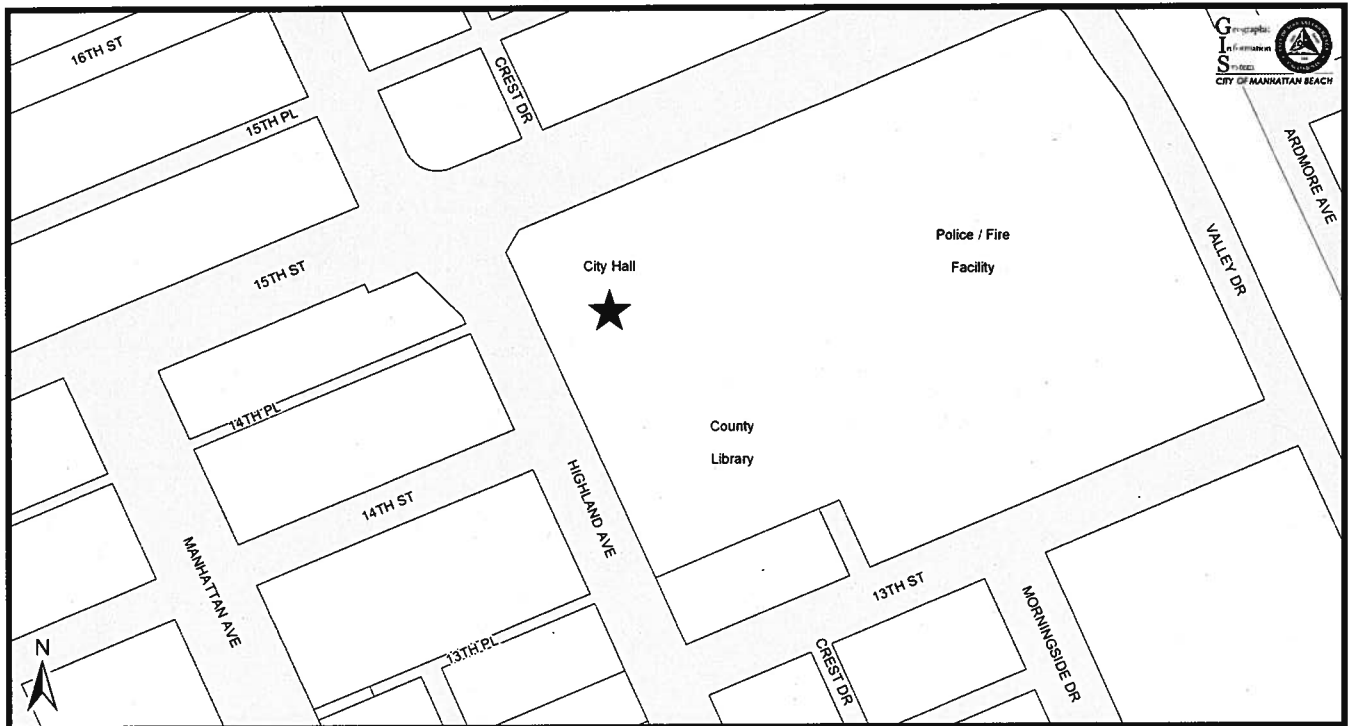
**Justification:** The project will allow the City to make ice at night at cheaper electric rates, and then use the ice during the day to cool. With the improved zone control, there will be less or no reheating needed as is presently required in different areas during the day. It is estimated that energy savings would be in excess of \$80,000 per year.

**Project Cost Information:**

Capital Costs:

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
CIP Funds	\$300,000	\$620,000	\$620,000			\$1,540,000
<b>TOTAL</b>	<b>\$300,000</b>	<b>\$620,000</b>	<b>\$620,000</b>			<b>\$1,540,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Facilities**

**Project Title: Pier Localized Structural Rehabilitation**

**Description:** Minor spot repairs to pier.

**Justification:** The marine environment and surf is extremely hard on structures. The main superstructure of the pier (columns and girders) was built in 1917. The pier deck was replaced and localized repairs were made to columns and girders in 1992. The last full condition assessment was conducted at that time.

A full condition assessment of the pier was performed in Winter 2011. The Pier is in good condition; however, minor localized deterioration was detected that requires repair. The deterioration is minor and located on elements above the water. This project would perform these localized structural repairs.

**Project Cost Information:**

**Capital Costs:**

<b>Funding Source(s)</b>	<b>FY 2011-12</b>	<b>FY 2012-13</b>	<b>FY 2013-14</b>	<b>FY 2014-15</b>	<b>FY 2015-16</b>	<b>TOTAL</b>
State Pier and Parking Lot Funds	\$500,000					<b>\$500,000</b>
<b>TOTAL</b>	<b>\$500,000</b>					<b>\$500,000</b>

**Location Map:**





**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Facilities**

**Project Title: Marine Avenue Park Synthetic Grass Field**

**Description:** Installation of a synthetic grass athletic field on the west side of the park.

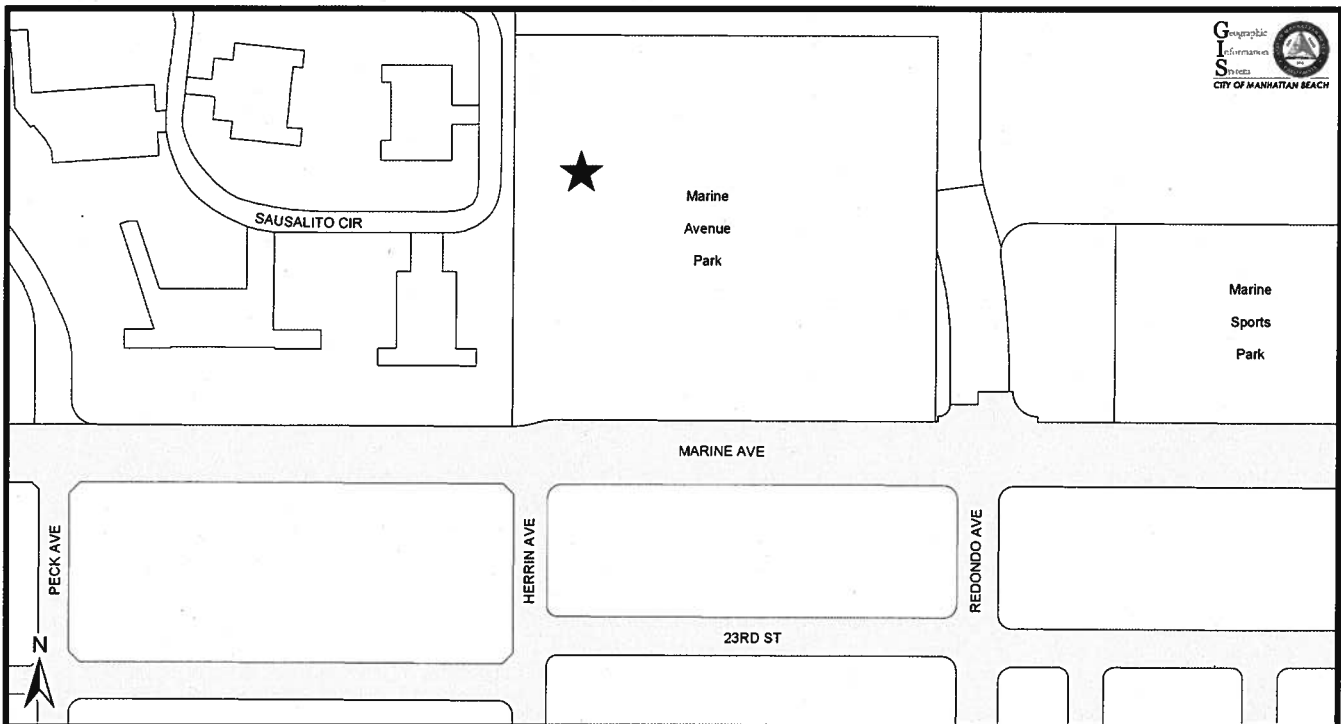
**Justification:** The existing athletic field on the west side of Marine Avenue park suffers from poor drainage and turf wear that limits available play time. Installation of a synthetic grass field (soccer field size) would permit virtually constant use, whereas the current grass field must recover for several months per year and can't be used for periods after rains. The American Youth Soccer Organization (AYSO) has offered to fund the project and the City would administer construction.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
AYSO Donation	\$1,000,000					\$1,000,000
<b>TOTAL</b>	<b>\$1,000,000</b>					<b>\$1,000,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Streets**

**Project Title:** Annual Curb, Gutter and Ramp Replacement Project

**Description:** Replacement of concrete improvements in advance of slurry sealing to mitigate trip hazards and gutter ponding. Curb ramps will also be installed as needed to comply with the Americans with Disabilities Act. The 2011-12 project will focus on Area 7 shown below.

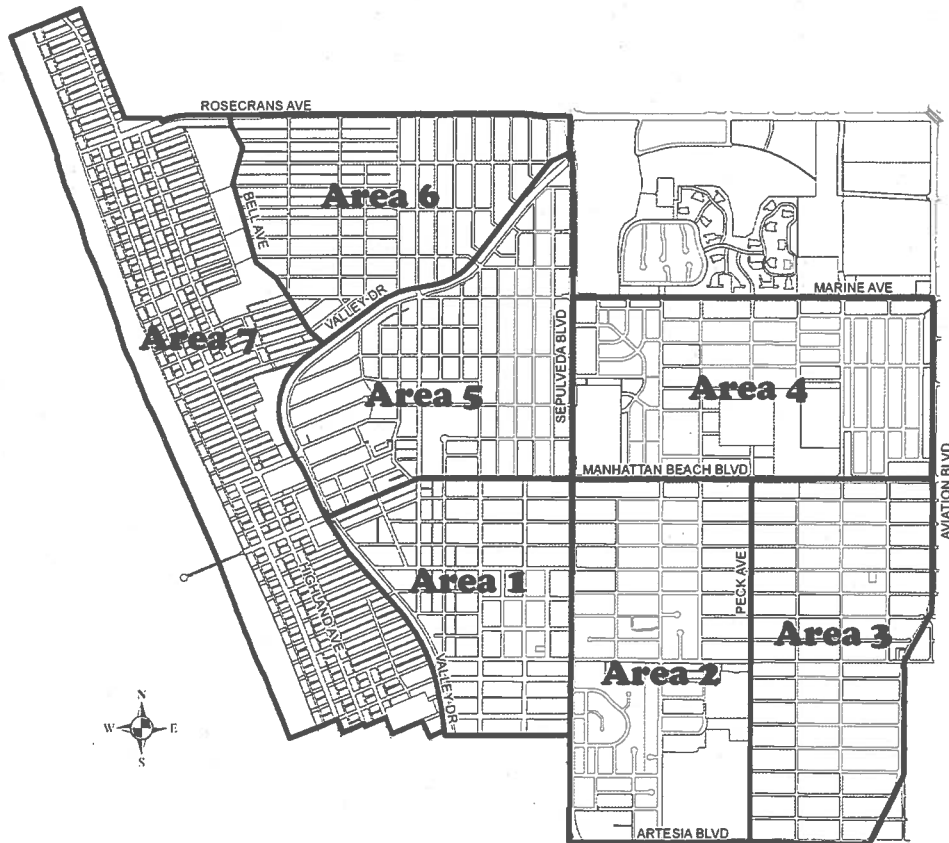
**Justification:** Tree roots and soil settlement cause displacement of curbs gutters and sidewalk. This project will eliminate displacements and gutter ponding.

**Project Cost Information:**

Capital Costs:

<b>Funding Source</b>	<b><u>FY2011-12</u> <u>Areas 7</u></b>	<b><u>FY2012-13</u> <u>Area 1</u></b>	<b><u>FY 2013-14</u> <u>Area 2</u></b>	<b><u>FY2014-15</u> <u>Area 3</u></b>	<b><u>FY2015-16</u> <u>Area 4</u></b>	<b><u>TOTAL</u></b>
Gas Tax	\$680,000	\$300,000	\$345,000	\$345,000	\$345,000	<b>\$2,015,000</b>
TDA – Art. 3	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	<b>\$ 100,000</b>
<b>TOTAL</b>	<b>\$700,000</b>	<b>\$320,000</b>	<b>\$365,000</b>	<b>\$365,000</b>	<b>\$365,000</b>	<b>\$2,115,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Streets**

**Project Title: Annual Slurry Seal Program**

**Description:** Annual program to slurry seal City's streets.

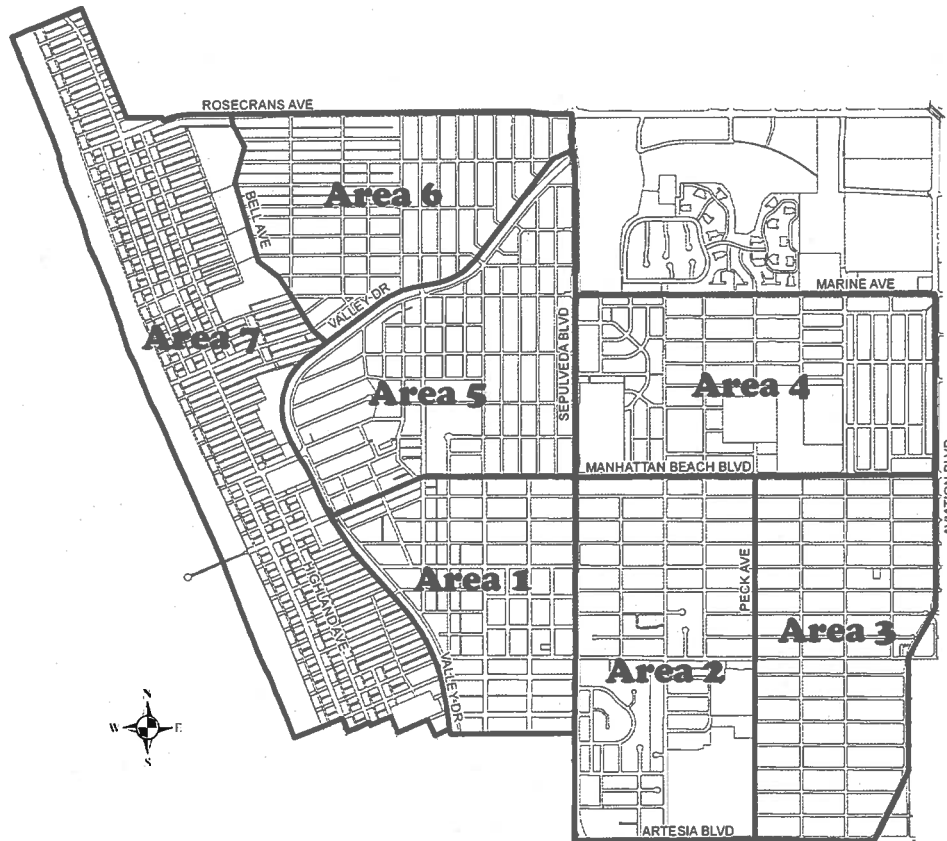
**Justification:** The slurry seal process works to protect and prolong the life of City streets, delaying the need for costly and intrusive street resurfacing for typically 5 – 10 years. This cost is dependent upon asphalt prices and is adjusted based upon current cost data. The program reflects a continuation of the City's policy to slurry seal streets on a seven year cycle.

**Project Cost Information:**

Capital Costs:

<u>Funding Source(s)</u>	<u>FY 2011-12 Area 7</u>	<u>FY 2012-13 Area 1</u>	<u>FY 2013-14 Area 2</u>	<u>FY 2014-15 Area 3</u>	<u>FY 2015-16 Area 4</u>	<u>TOTAL</u>
Gas Tax	\$425,000	\$350,000	\$350,000	\$350,000	\$350,000	\$1,825,000
<b>TOTAL</b>	<b>\$425,000</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$1,825,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Streets**

**Project Title:** Street Resurfacing Project: Pacific Avenue

**Description:** The project will mill and overlay the pavement surface and replace displaced curbs, gutters and sidewalk.

**Justification:** The existing pavement on Pacific Avenue with the project limits is deteriorated and rehabilitation is required. The Public Works Department recently replaced the water main in this street in preparation for street paving

**Project Cost Information:**

Capital Costs:

<u>Funding Source (s)</u>	<u>Previous Approp'ns</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
ARRA	\$543,749						\$543,749
Gas Tax		\$300,000					\$300,000
<b>TOTAL</b>	<b>\$543,749</b>	<b>\$300,000</b>					<b>\$843,749</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type:** Streets

**Project Title:** Sepulveda Boulevard at Marine Avenue Dual Westbound to Southbound Left-Turn Lanes

**Description:** Widening of the north side of the Marine to provide a dual westbound to southbound left-turn lanes.

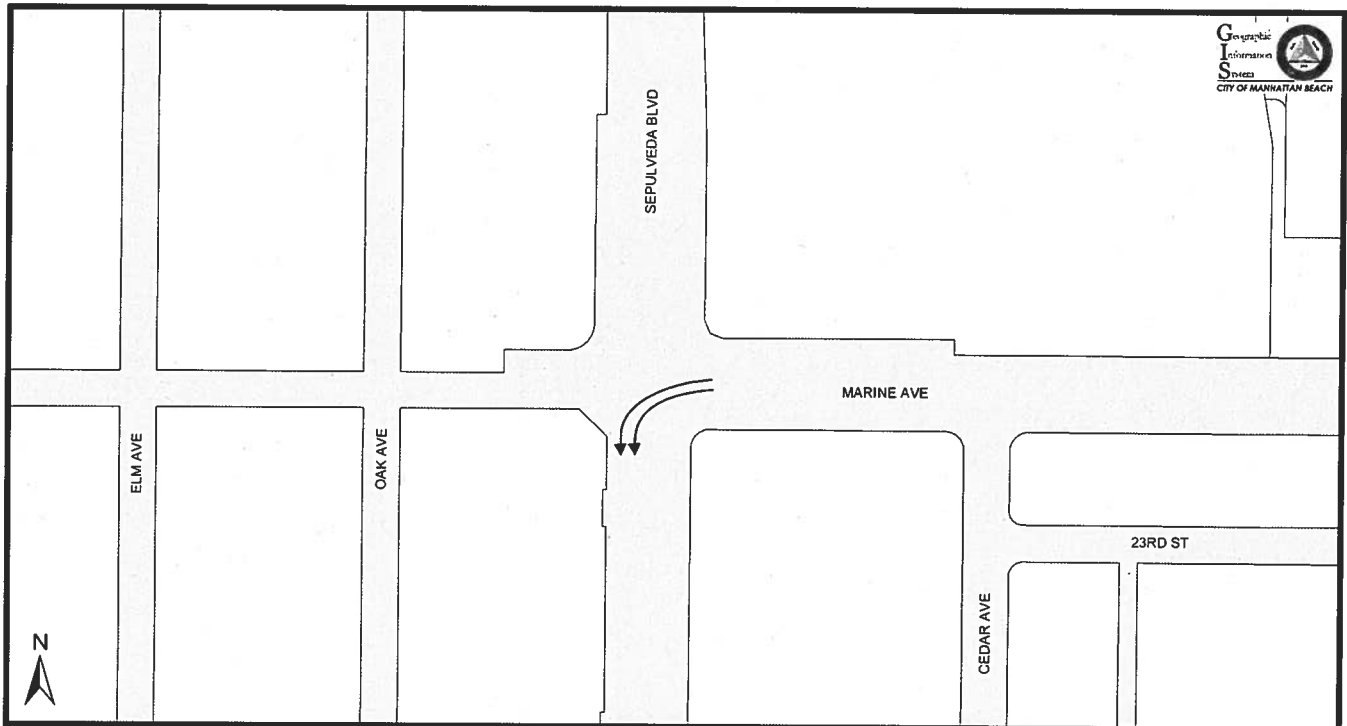
**Justification:** Westbound traffic at Sepulveda Boulevard at Marine Avenue intersection is congested due the lack of lane capacity.

**Project Cost Information:**

Capital Costs:

<u>Funding Source (s)</u>	<u>Previous Approp'ns</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
Measure R		\$235,000					<b>\$235,000</b>
Gas Tax		\$100,000					<b>\$100,000</b>
<b>TOTAL</b>		<b>\$335,000</b>					<b>\$335,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Streets**

**Project Title:** **Street Resurfacing Project: Manhattan Avenue and Highland Avenue**

**Description:** The project will mill and overlay the pavement surface and replace displaced curbs, gutters and sidewalk.

**Justification:** The existing pavement on Manhattan Avenue and Highland Avenue with the project limits is deteriorated and rehabilitation is required.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source (s)</u>	<u>Previous Approp'ns</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
Prop 1B	\$543,706	\$160,530					\$704,236
<b>TOTAL</b>	<b>\$543,706</b>	<b>\$160,530</b>					<b>\$704,236</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Streets**

**Project Title: Street Resurfacing Project: Ardmore Avenue and Valley Drive**

**Description:** The project will mill and overlay the pavement surface and replace displaced curbs, gutters and sidewalk.

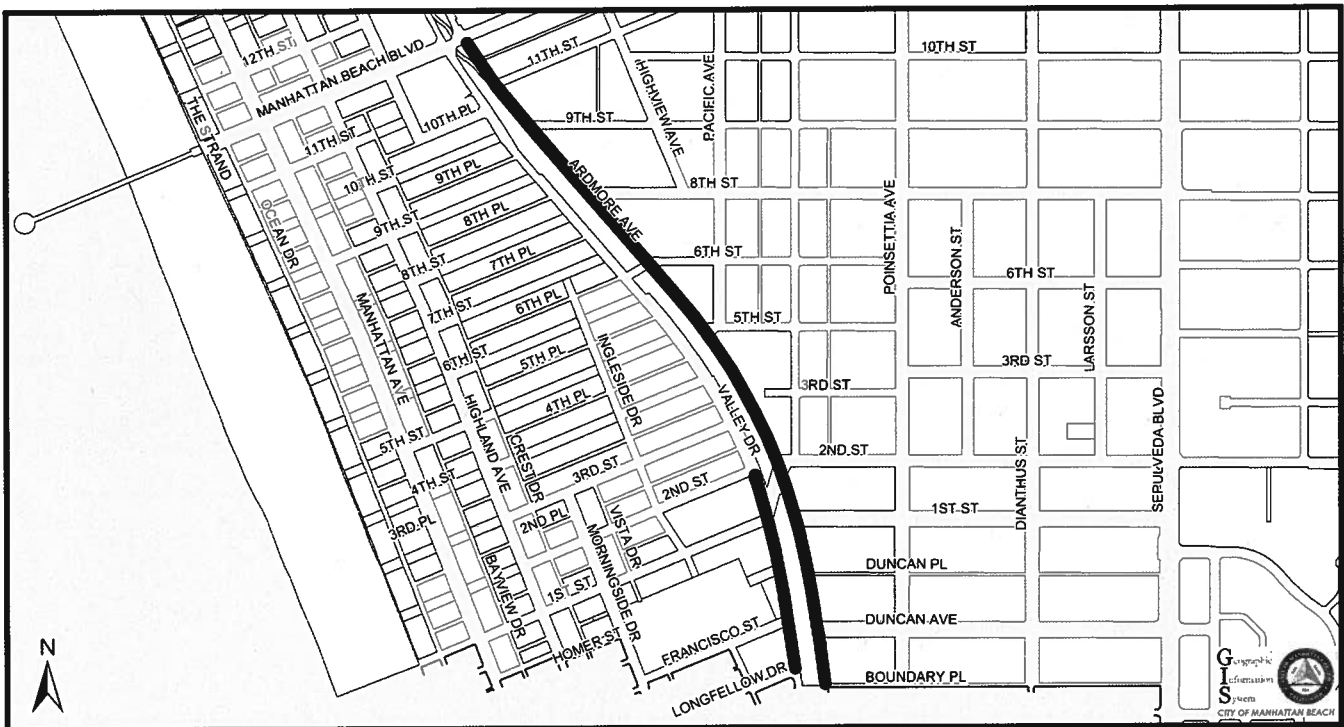
**Justification:** The existing pavement on Valley Drive and Ardmore Ave. within the project limits is deteriorated and rehabilitation is required. Ponding occurs near Manhattan Beach Boulevard after rains and pavement deterioration is escalated due to dry weather drainage sheeting across the roadway.

**Project Cost Information:**

Capital Costs:

<u>Funding Source(s)</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
Gas Tax	\$582,696					\$582,696
MTA STP-L	\$117,304					\$117,304
<b>TOTAL</b>	<b>\$700,000</b>					<b>\$700,000</b>

**Location Map:**





**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Streets**

**Project Title: Sepulveda Bridge Widening Project**

**Description:** Add one northbound through lane by widening Sepulveda Bridge on the east side.

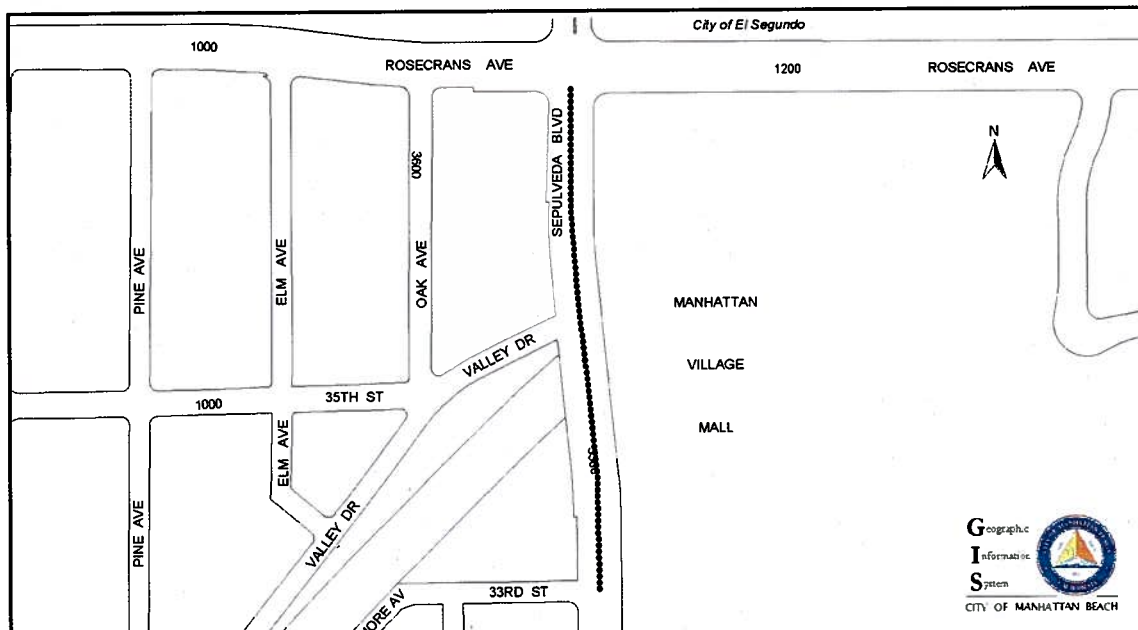
**Justification:** This project will improve traffic flow on Sepulveda Boulevard (a major north-south regional arterial street) by eliminating a bottleneck that exists at the bridge. As of April 2011, funding in the amount of \$21,268,645 has been secured for the estimated \$17.3 Million project. Policies regarding the use of Measure R South Bay funds are currently being developed. At this time, it is unsure if Metro will permit the City to substitute Measure R South Bay funds for Proposition C Funds previously dedicated to the project; therefore, the budget shown below includes excess funding in the amount of \$3,968,645 pending issuance of final ruling regarding substitution of previously allocation funding.

**Project Cost Information:**

Capital Costs:

<u>Funding Source</u>	<u>Previous Apprp'ns</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
MTA Call 2009		\$2,102,000	\$1,082,000	\$3,629,325			\$6,813,325
Safetea-Lu Earmark	\$1,079,000	\$360,000					\$1,439,000
Safetea-Lu STPL				500,000			\$500,000
Prop C, Incl Dev. Contr.	\$250,000	\$958,236	\$621,937	\$1,586,147			\$3,416,320
Measure R South Bay			\$4,550,000	\$4,550,000			\$9,100,000
<b>TOTAL</b>	<b>\$1,329,000</b>	<b>\$3,420,236</b>	<b>\$6,253,937</b>	<b>\$10,265,472</b>			<b>\$21,268,645</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type:** Streets

**Project Title:** Street Resurfacing Project: Blanche Road, Marine Avenue, Oak Street, 27th Street, and 11th Street

**Description:** The project will mill and overlay the pavement surface and replace displaced curbs, gutters and sidewalk.

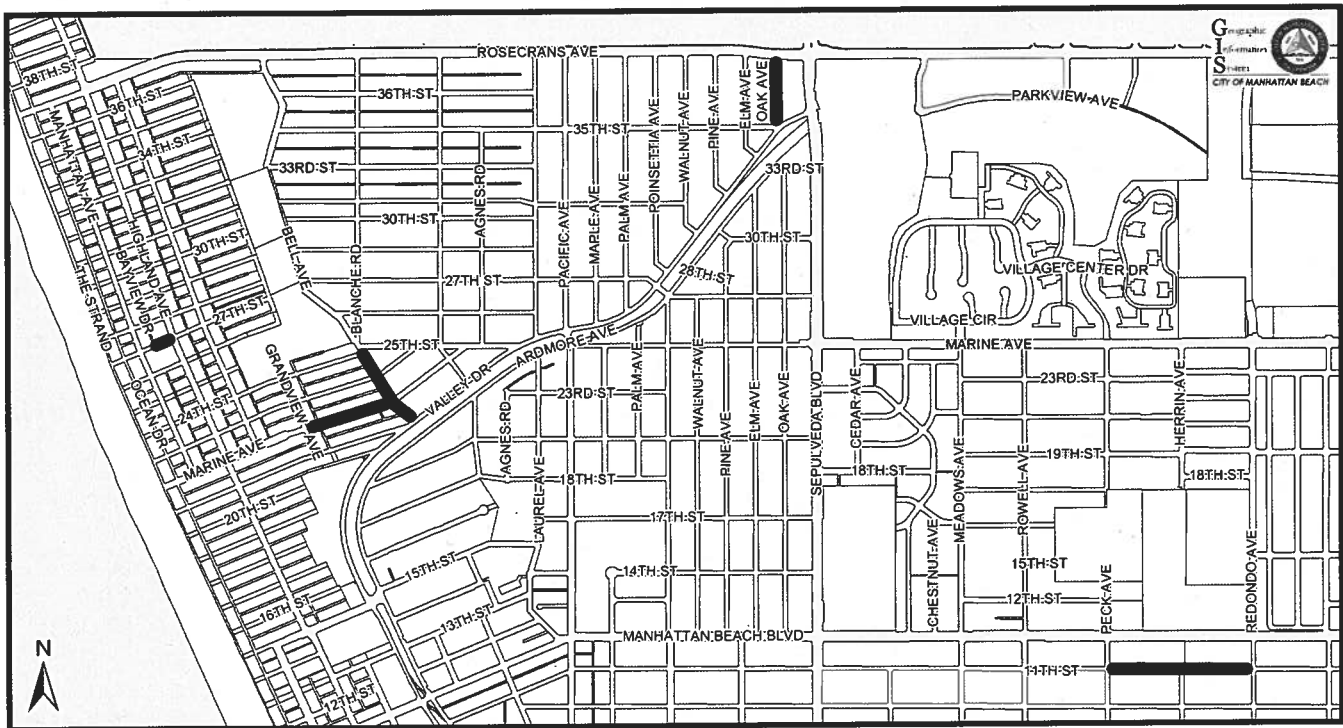
**Justification:** The existing pavement on the streets within the project limits is deteriorated and rehabilitation is required.

**Project Cost Information:**

Capital Costs:

<u>Funding Source(s)</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
Gas Tax			\$400,000			\$400,000
<b>TOTAL</b>			<b>\$400,000</b>			<b>\$400,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Streets**

**Project Title:** **Aviation Boulevard at Marine Avenue Southbound to Eastbound Left-Turn Lanes**

**Description:** Utility pole relocation, widening and restriping of the northwest corner of the intersection of Aviation Boulevard at Marine Avenue to provide Southbound to Eastbound Left-Turn Lanes.

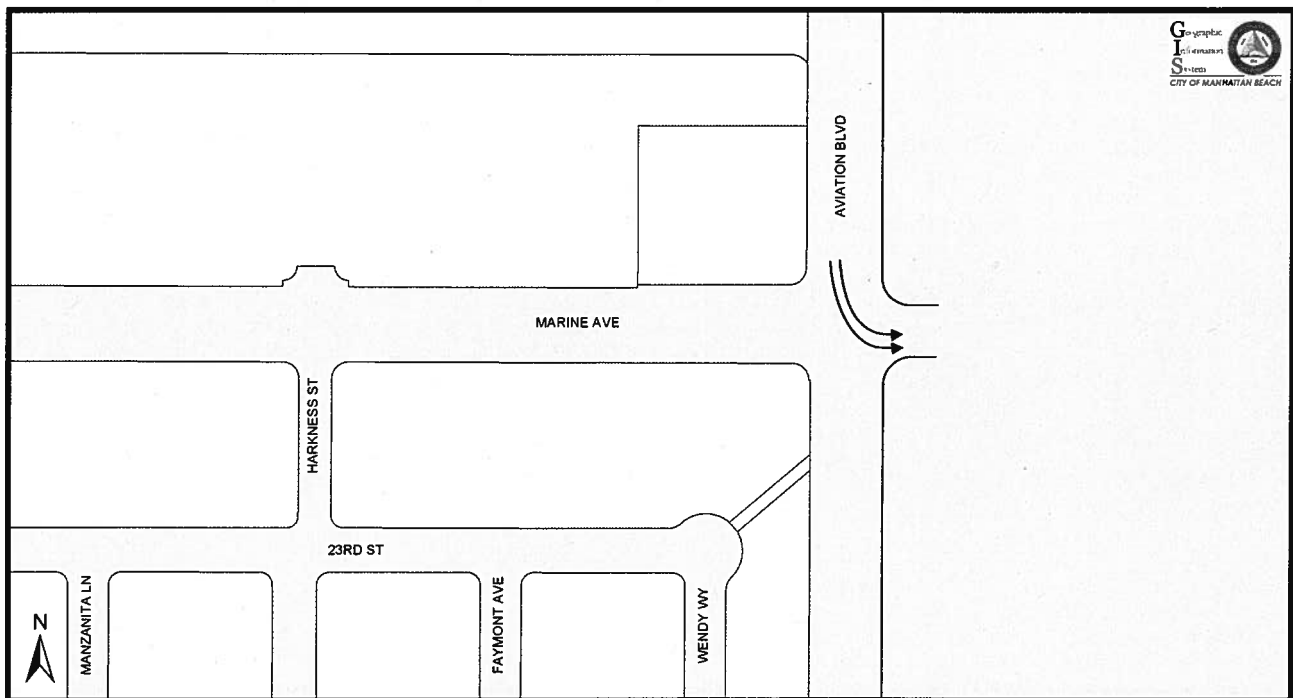
**Justification:** The southbound to eastbound Left-turn movement at Aviation Boulevard at Marine Avenue is congested due the lack of lane capacity.

**Project Cost Information:**

**Capital Costs:**

<b><u>Funding Source(s)</u></b>	<b><u>FY2011-12</u></b>	<b><u>FY2012-13</u></b>	<b><u>FY 2013-14</u></b>	<b><u>FY2014-15</u></b>	<b><u>FY2015-16</u></b>	<b><u>TOTAL</u></b>
Measure R SB Hwy			\$1,500,000			\$1,500,000
<b>TOTAL</b>			<b>\$1,500,000</b>			<b>\$1,500,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Streets**

**Project Title:** Sepulveda Boulevard at Manhattan Beach Boulevard Dual Westbound to Southbound, Eastbound to Northbound and Northbound to Westbound Left-Turn Lanes

**Description:** Widening and restriping of the intersection of Sepulveda Boulevard at Manhattan Beach Boulevard to provide Westbound to Southbound, Eastbound to Northbound and Northbound to Westbound Left-Turn Lanes

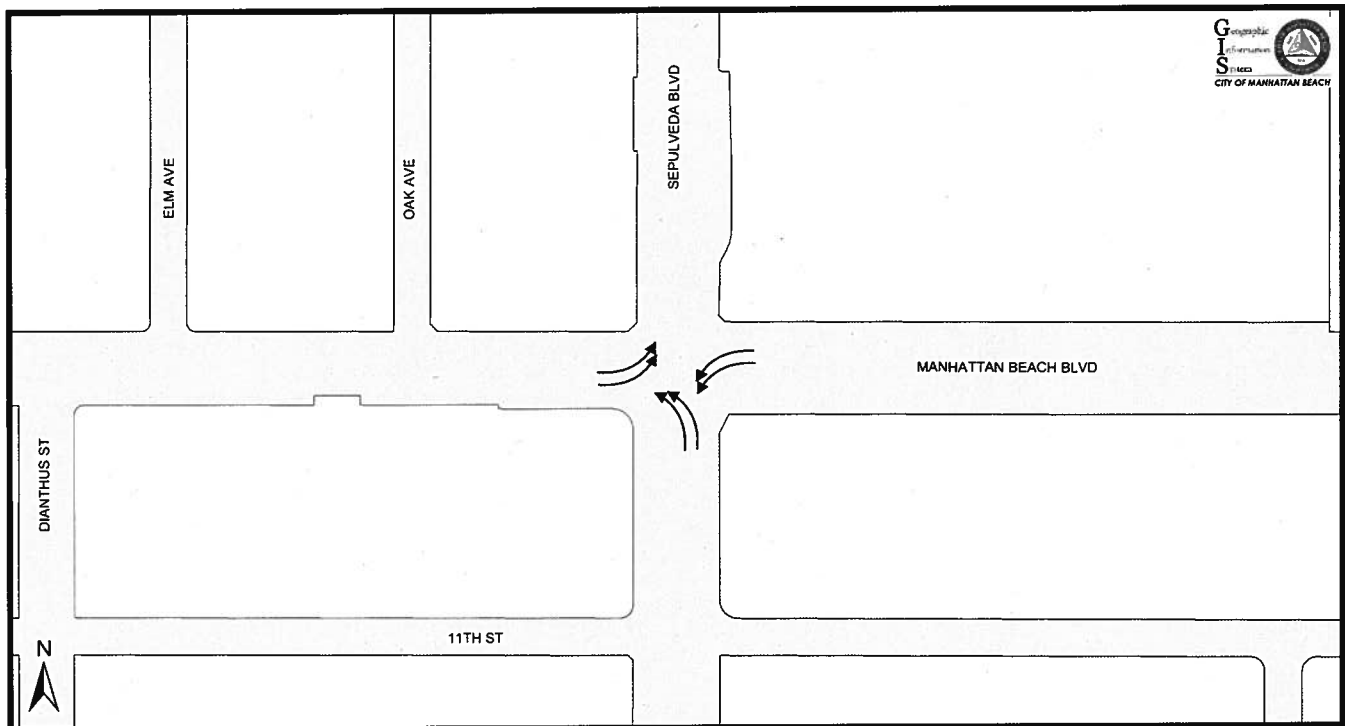
**Justification:** Left-turn movements at Sepulveda Boulevard at Manhattan Beach Boulevard are congested due the lack of lane capacity.

**Project Cost Information:**

Capital Costs:

<u>Funding Source (s)</u>	<u>Previous Approp'ns</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
Measure R				\$980,000			\$980,000
Prop. C	\$414,593						\$414,593
<b>TOTAL</b>	\$414,593			\$980,000			\$1,394,593

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type:** Streets

**Project Title:**        **Tiennial Pavement Management System Update**

**Description:**        Inspection of pavement surfaces to assess condition, prioritize rehabilitation and determine resources required to maintain street pavements in good condition.

**Justification:**        State, federal and county regulations require that Cities maintain a pavement management system. A pavement management system is a management tool to assist in the development of efficient pavement maintenance and rehabilitation programs. The City is required to inspect pavement condition on a triennial basis. The last pavement evaluation was completed in 2011 and is required to be updated again in 2014. The evaluations will update pavement condition for all streets in the City except Sepulveda Boulevard which is a State Highway.

**Project Cost Information:**

**Capital Costs:**

<b><u>Funding Source(s)</u></b>	<b><u>FY 2011-12</u></b>	<b><u>FY 2012-13</u></b>	<b><u>FY 2013-14</u></b>	<b><u>FY 2014-15</u></b>	<b><u>FY 2015-16</u></b>	<b><u>TOTAL</u></b>
Proposition C Funds			\$40,000			\$40,000
<b>TOTAL</b>			<b>\$40,000</b>			<b>\$40,000</b>

**Location Map:**

No map (streets citywide).

**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Streets**

**Project Title: Morningside Drive Rehabilitation**

**Description:** The project will rehabilitate the pavement surface and replace displaced curbs, gutters and ramps.

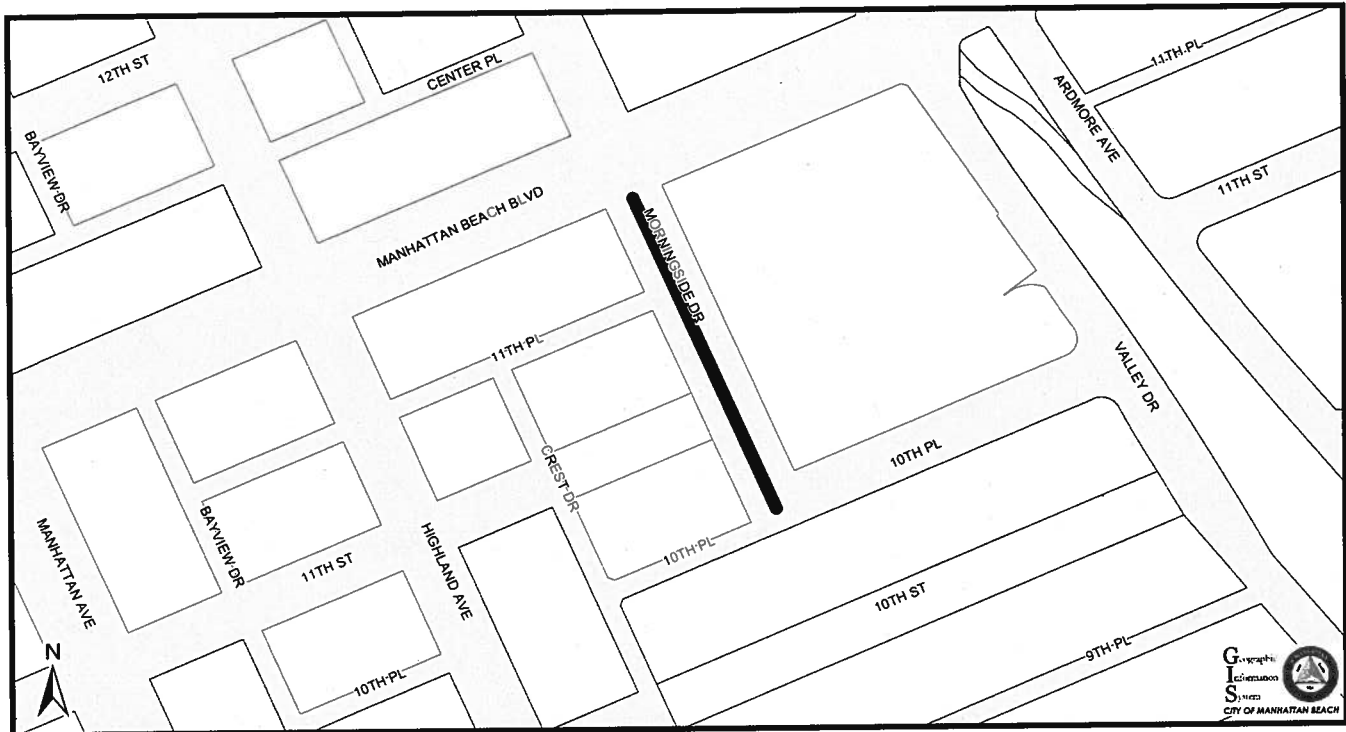
**Justification:** The existing pavement on Morningside Drive within the project limits is deteriorated and rehabilitation is required.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Gas Tax				\$250,000		\$250,000
<b>TOTAL</b>				<b>\$250,000</b>		<b>\$250,000</b>

**Location Map:**



# City of Manhattan Beach 2012-2016 Capital Improvement Plan Funded Project Information

**Project Type:** Streets

**Project Title:** Resurfacing Project: Manhattan Beach Boulevard, Sepulveda Blvd. to Aviation Blvd.

**Description:** The project will mill and overlay the pavement surface, replace displaced curbs, gutters and sidewalk to extend the pavement useful life.

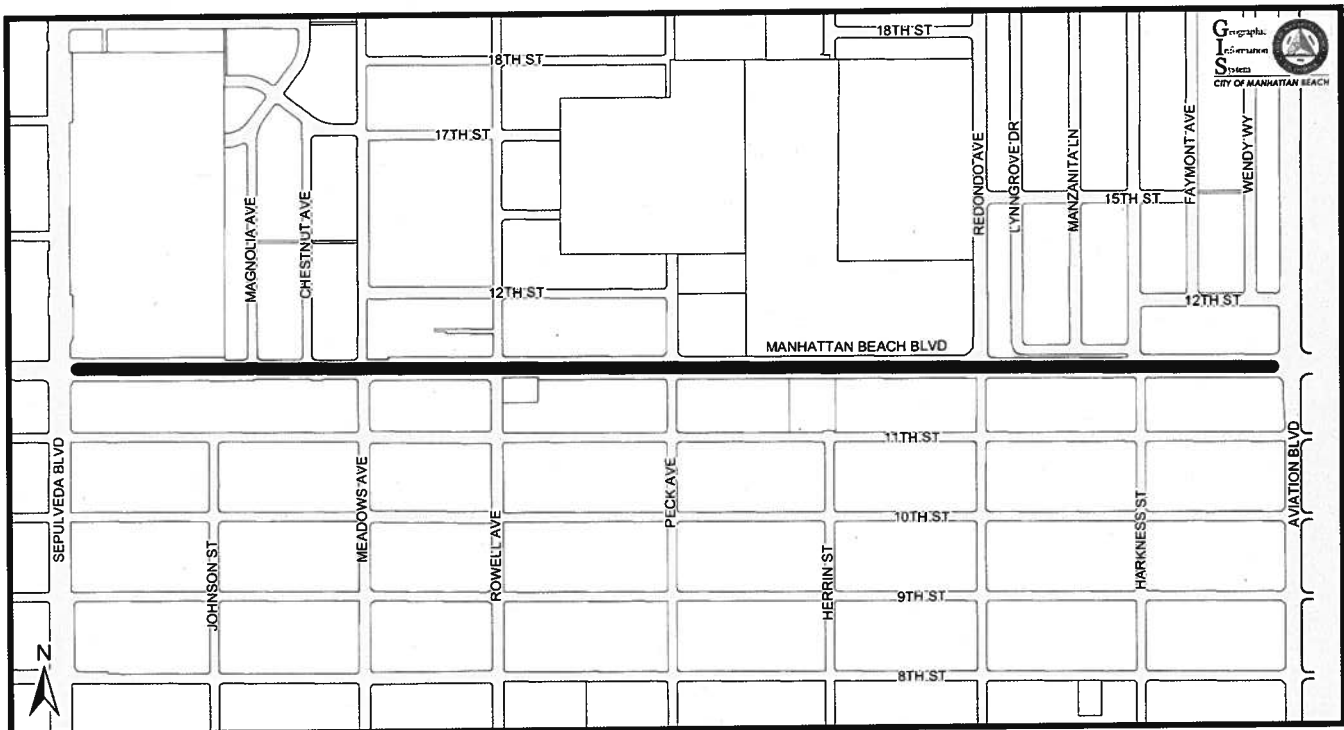
**Justification:** The existing pavement on Manhattan Beach Boulevard within the project limits is deteriorated and rehabilitation is required.

**Project Cost Information:**

Capital Costs:

<u>Funding Source(s)</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
Prop. C				\$100,000	\$900,000	\$1,000,000
<b>TOTAL</b>				<b>\$100,000</b>	<b>\$900,000</b>	<b>\$1,000,000</b>

**Location Map:**





**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type:** Streets

**Project Title:** Aviation Boulevard at Artesia Boulevard Southbound to Westbound Right-Turn Lane

**Description:** Utility relocation, street widening and restriping of the northwest corner of the intersection of Aviation Boulevard at Artesia Boulevard to provide Southbound to westbound left-turn lanes. This project will be coordinated with City of Redondo Beach widening efforts on the southeast corner of this intersection.

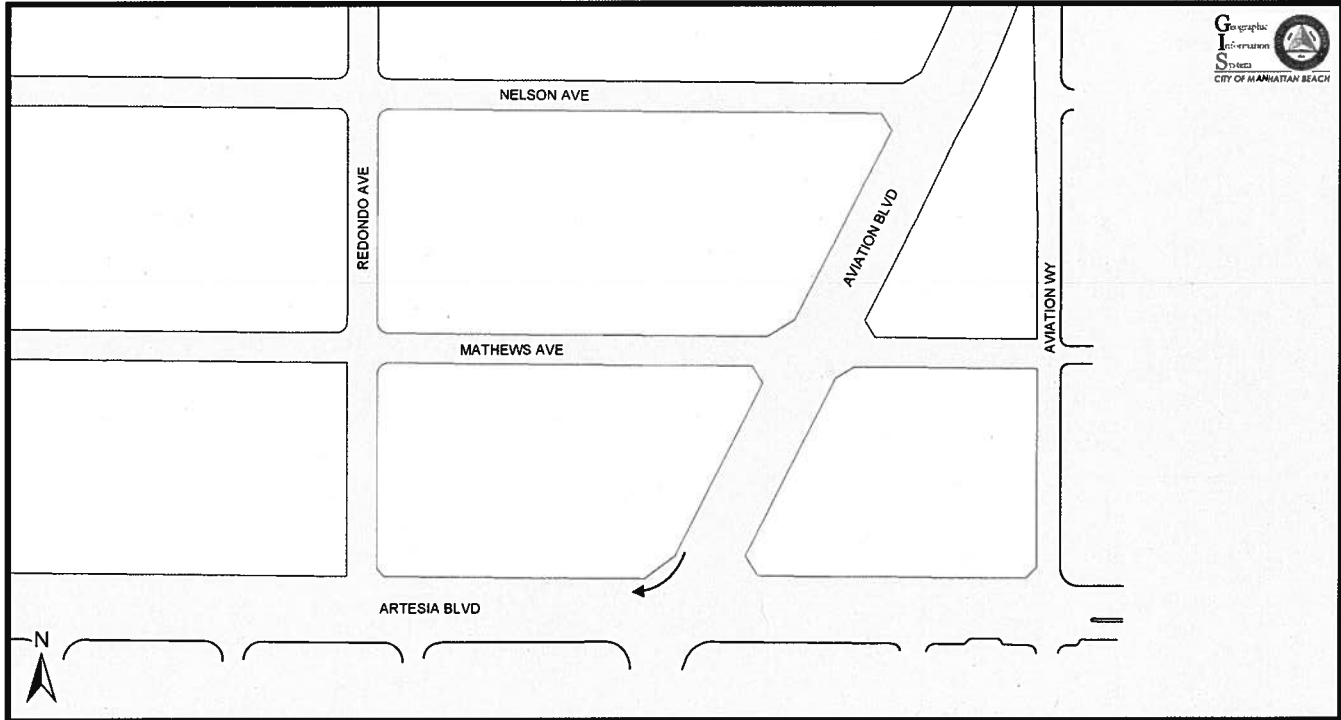
**Justification:** The southbound to westbound right-turn movement at Aviation Boulevard at Artesia Boulevard is congested due the lack of lane capacity.

**Project Cost Information:**

**Capital Costs:**

<b><u>Funding Source(s)</u></b>	<b><u>FY2011-12</u></b>	<b><u>FY2012-13</u></b>	<b><u>FY 2013-14</u></b>	<b><u>FY2014-15</u></b>	<b><u>FY2015-16</u></b>	<b><u>TOTAL</u></b>
Measure R SB Hwy					\$1,500,000	\$1,500,000
<b>TOTAL</b>					<b>\$1,500,000</b>	<b>\$1,500,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Utilities**

**Project Title: Rehabilitation of Gravity Sewer Mains FY 2011-12**

**Description:** Replacement or repair of gravity sewer mains as indicated below:

Street	limits	work	Maintenance Area
Highland Av. Sidewalk	Between 32nd Pl. & 33rd Pl.	(15' replacement)	7
Marine Av	Highland Avenue to Grandview Dr.	(Full Replacement)	7
Alma Av.	24th St to 27th St.	(Full Replacement)	7
3rd Street	Crest Drive to Ingleside Drive	(Full Replacement)	7
4th Street	Ingleside Drive to Valley Drive	(Full Replacement)	7
Ingleside Drive	7th Street to 5th Street	(Full Replacement)	7
24th Street	Strand to Highland Avenue	(Full Replacement)	7
7th Street	Crest Drive to Valley Drive	(Full Replacement)	7

**Justification:** The above locations have been identified by maintenance staff and through CCTV inspection to require rehabilitation or replacement.

**Project Cost Information:**

**Capital Costs:**

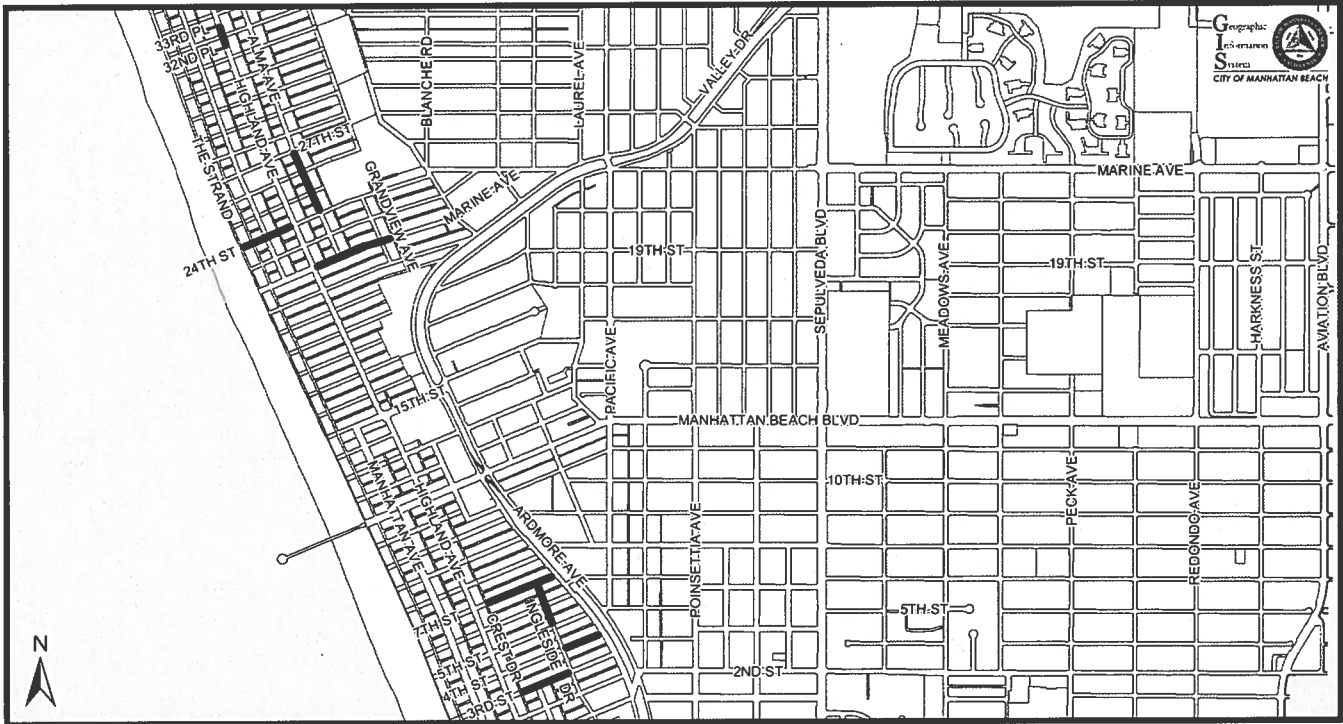
<b><u>Funding Source (s)</u></b>	<b><u>Previous Approp'ns</u></b>	<b><u>FY2011-12</u></b>	<b><u>FY2012-13</u></b>	<b><u>FY 2013-14</u></b>	<b><u>FY2014-15</u></b>	<b><u>FY2015-16</u></b>	<b><u>TOTAL</u></b>
Sewer Funds	\$200,000	\$1,140,000					\$1,340,000
<b>TOTAL</b>	<b>\$200,000</b>	<b>\$1,140,000</b>					<b>\$1,340,000</b>

**Location Map on next page:**

City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information

**Project Title:** Rehabilitation of Gravity Sewer Mains FY 2011-12'  
Continued

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Utilities**

**Project Title: Utility Telemetry**

**Description:** Install radio communications to 21 existing water and wastewater stations the Public Works Maintenance Facility.

**Justification:** The City monitors the function of 21 critical water and sewer facilities on a continuous basis. Presently, telephone is the only communication mode and there is no back-up system. Redundant communication is critical to assure the function of critical water and sewer facilities. It is proposed that a new radio and fiber optic communication system be installed while maintaining the current telephone system for redundancy.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2010-11</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>TOTAL</u>
Water Fund	\$32,500	\$317,500				\$350,000
Sewer Fund	\$32,500	\$317,500				\$350,000
<b>TOTAL</b>	<b>\$65,000</b>	<b>\$635,000</b>				<b>\$700,000</b>

**Location Map:**

No map (21 sites throughout the City of Manhattan Beach).

**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Utilities**

**Project Title: Rehabilitation of Gravity Sewer Mains FY 2012-13**

**Description:** Replacement or repair of gravity sewer mains as indicated below:

Street	limits	work	Maintenance Area
11 <sup>th</sup> Street	Dianthus Street to Sepulveda Boulevard	2 spot repairs	1
Ardmore Avenue	S/O 11 <sup>th</sup> Street	1 spot repair	1
10 <sup>th</sup> Street	Dianthus Street to Sepulveda Boulevard	1 spot repair	1
Dianthus Street	3 <sup>rd</sup> Street to 6 <sup>th</sup> Street	1 spot repair	1
2 <sup>nd</sup> Street	Poinsettia Street To Anderson Street	1 spot repair	1
8 <sup>th</sup> Street	Poinsettia Street To Anderson Street	1 spot repair	1
8 <sup>th</sup> Street	Anderson Street to Dianthus Street	1 spot repair	1
9 <sup>th</sup> Street	Ardmore Avenue to Railroad Place	2 spot repairs	1
Boundary Place	Dianthus Street to Sepulveda Boulevard	1 spot repair	1
11 <sup>th</sup> Place	W/O Highview Avenue	1 spot repair	1
6 <sup>th</sup> Street	John Street to John Place	1 spot repair	1
1 <sup>ST</sup> Street	E/O Ardmore Avenue	1 spot repair	1
Johnson Street	2 <sup>nd</sup> to 3 <sup>rd</sup> Streets	1 spot repair	2
3 <sup>rd</sup> Street	Johnson Street to Meadows Avenue	2 spot repairs	2
Rowell Avenue	Gates Avenue to Curtis Avenue	1 spot repair	2
8 <sup>th</sup> Street	W/O Johnson Street	1 spot repair	2
9 <sup>th</sup> Street	At Johnson Street	1 spot repair	2
Meadows Avenue	Curtis Avenue and Voorhees Avenue	1 spot repair	2
2 <sup>nd</sup> Street	Sepulveda Boulevard to Johnson Street	1 spot repair	2
8 <sup>th</sup> Street	E/O Johnson Street	1 spot repair	2
9 <sup>th</sup> Street	W/O Meadows Avenue	1 spot repair	2
Longfellow Drive	E/O Altura Way	1 spot repair	2
Shores Parking Lot	W/O Peck Avenue	1 spot repair	2
Johnson Street	3 <sup>rd</sup> to 4 <sup>th</sup> Streets	1 spot repair	2
Johnson Street	4 <sup>th</sup> to 5 <sup>th</sup> Streets	1 spot repair	2
9 <sup>th</sup> Street	Rowell Avenue to Peck Avenue	1 spot repair	2
Tennyson Street	Chabella Drive to Prospect Avenue	1 spot repair	2
2 <sup>nd</sup> Street	Herrin Avenue to Redondo Avenue	Full replacement	3
Nelson Avenue	Peck Avenue to Herrin Street	2 spot repairs	3
Herrin Street	1 <sup>st</sup> Street to Gates Avenue	2 spot repairs	3
Aviation Boulevard	10 <sup>th</sup> Street to 11 <sup>th</sup> Street	1 spot repair	3
1 <sup>ST</sup> Street	Redondo Avenue to Aviation Boulevard	1 spot repair	3
Nelson Avenue	Crossing Aviation Boulevard	1 spot repair	3

**Justification:** The above locations have been identified by maintenance staff and through CCTV inspection to require rehabilitation or replacement.

**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

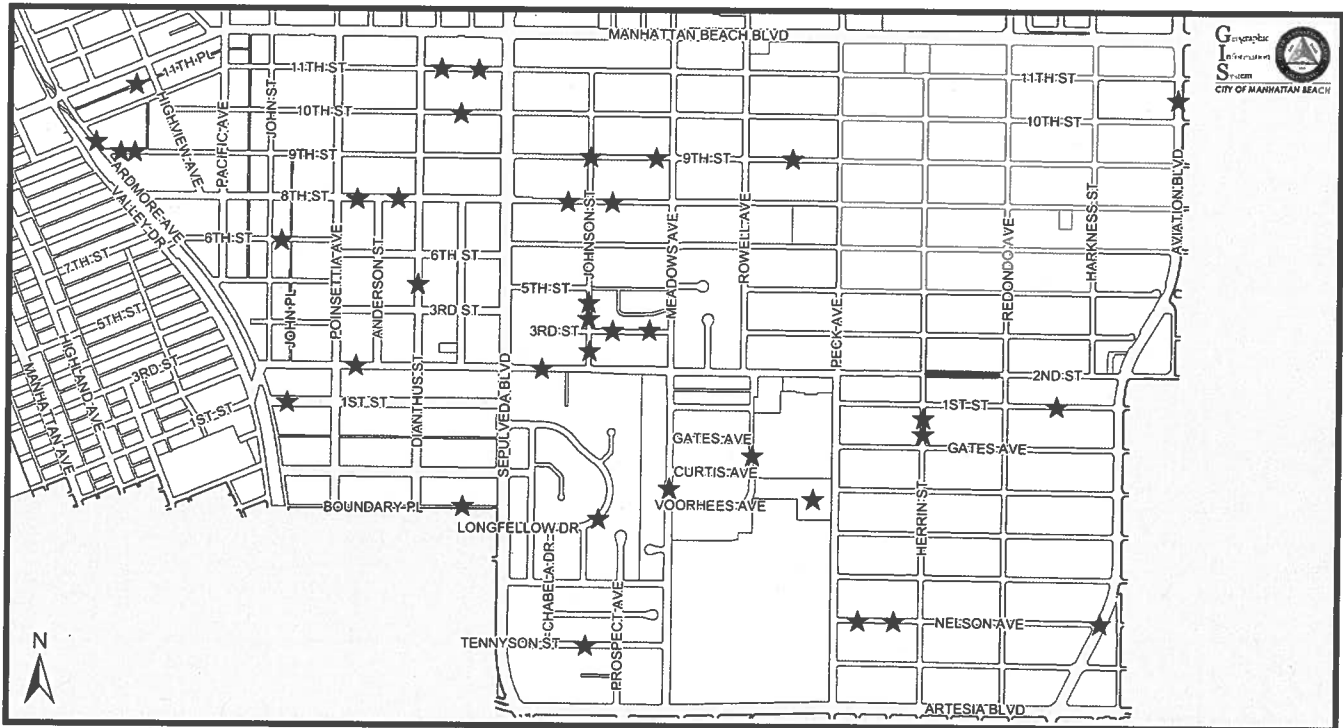
**Project Title: Rehabilitation of Gravity Sewer Mains FY 2012-13  
Continued**

**Project Cost Information:**

**Capital Costs:**

<b>Funding Source(s)</b>	<b><u>FY2011-12</u></b>	<b><u>FY2012-13</u></b>	<b><u>FY 2013-14</u></b>	<b><u>FY2014-15</u></b>	<b><u>FY2015-16</u></b>	<b><u>TOTAL</u></b>
Sewer Fund	\$150,000	\$1,300,000				<b>\$1,450,000</b>
<b>TOTAL</b>	<b>\$150,000</b>	<b>\$1,300,000</b>				<b>\$1,450,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Utilities**

**Project Title: Rehabilitation of Sewer Manholes FY 2012-13 through FY 2014-15**

**Description:**

Rehabilitation of Gravity Sewer Mains at the following locations:

Street	Manhole	Recommendation	Year/Cost
Highland Ave	19-015	Replace	
1st St	01-080	Repair mortar	
Curtis Ave	05-052	Replace manhole cover and line	FY 1011-12
Gates Ave	01-072	Line manhole	\$100K
2nd St	01-086	Line manhole	
Duncan Ave	10-039	Line manhole	
18th St	06-244	Line manhole	
8th St	04-054	Line manhole	
Meadows Ave	05-023	Line manhole	
14th St	06-191	Line manhole	
Cedar Way	25-012	Line manhole	FY 1012-13
Village Dr	25-025	Line manhole	\$150K
11th St	09-028	Line manhole	
Rowell Ave	05-055	Replace manhole cover	
Flournoy Rd	17-057	Line manhole	
14th St	06-050	Line manhole	
14th St	06-077	Line manhole	
31st St	17-053	Line manhole	
Tennyson St	05-020	Line manhole	
Voorhees Ave	05-005	Line manhole	
The Strand	14-064	Replace manhole cover	FY 1014-15
Manhattan Ave	11-116A	Line manhole	\$150K
19th St	06-030	Line manhole	
Blanche Rd	17-040	Line manhole	
1st St	01-061	Line manhole	
Marine Ave	15-053	Repair mortar	
Manhattan Ave	11-117	Line manhole	

**Justification:** The above sewer manholes were inspected and determined to require rehabilitation, repair or replacement. This project will rehabilitate, replace and/or repair the sewer manholes listed above. Manholes provide maintenance access to sewer mains.

**Project Cost Information:**

**Capital Costs:**

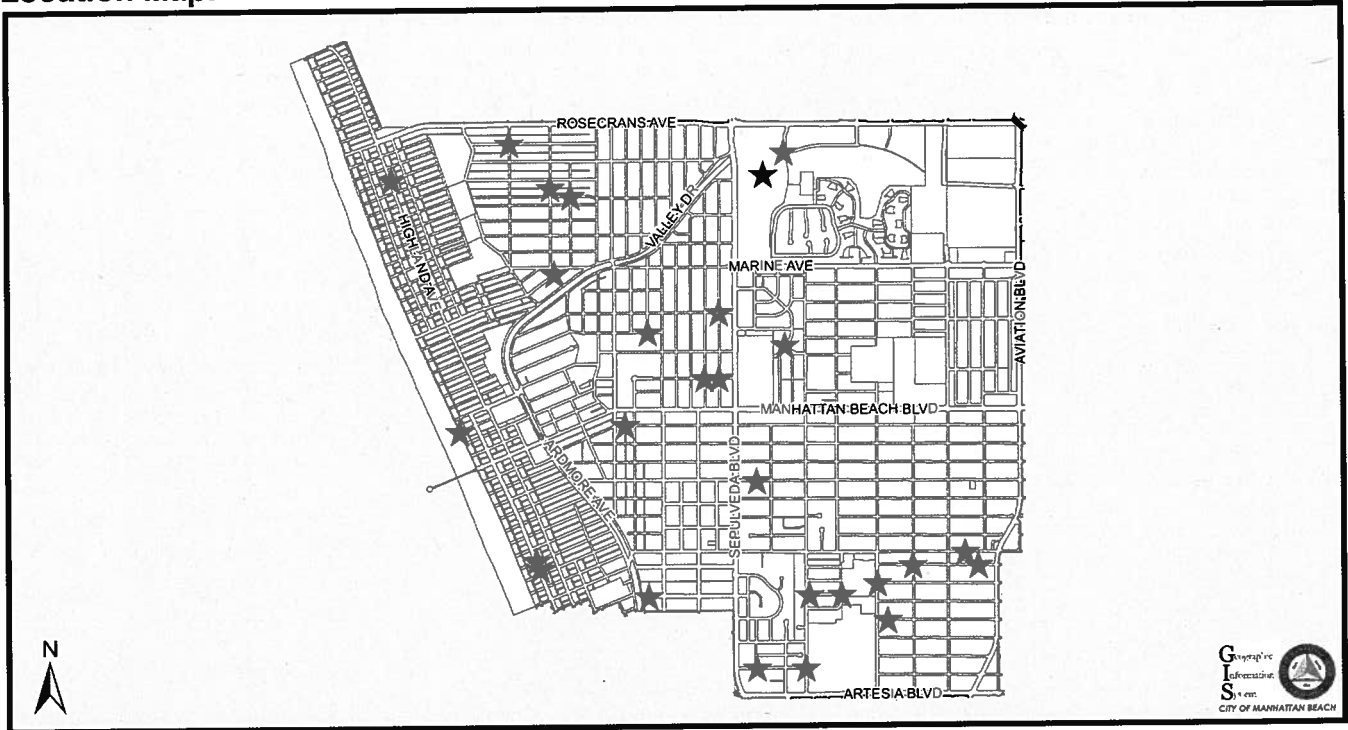
<u>Funding Source(s)</u>	<u>FY 2010-11</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>TOTAL</u>
Sewer Fund		\$100,000	\$150,000		\$150,000	\$400,000
<b>TOTAL</b>		<b>\$100,000</b>	<b>\$150,000</b>		<b>\$150,000</b>	<b>\$400,000</b>



City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information

**Project Title: Rehabilitation of Sewer Manholes FY 2012-13 through FY 2014-15  
Continued**

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Utilities**

**Project Title: Poinsettia Sewage Pump Station**

**Description:** Reconstruction/modification of the Poinsettia Sewage Pump Station and installation of a second force main.

**Justification:** The Poinsettia Sewage Pump Station has the smallest wet well capacity of any of the City's pump stations. It has only 394 gallons and 4.7 minutes of emergency storage at the peak wet weather flow rate of 85 gpm. Emergency storage for a regular dry day during the morning peak is only 8 minutes. This means that if the station fails, sewage would enter the dry well and disable the electrical systems after just 8 minutes. It is recommended that pump stations be equipped with at least 30 minutes of peak wet weather emergency storage. This station should be equipped with a minimum of 2,550 gallons emergency storage.

To provide the additional storage required, a new and deeper wet well must be constructed. It is possible that the existing dry/wet well could be used as the future dry well; however doing so would reduce the efficiency of the pumps and increase cavitation potential. It is recommended that a completely new station be built adjacent to the existing station that will possess a wet well with adequate emergency storage with a new adjacent drywell containing the pumps and controls.

An additional force main will be installed to provide system redundancy. The new force main would be 4" ductile iron pipe and would run from the station to Manhattan Beach Boulevard where it would discharge into a gravity sewer. The old force main would remain and would be available if the primary force main was damaged.

**Project Cost Information:**

**Capital Costs:**

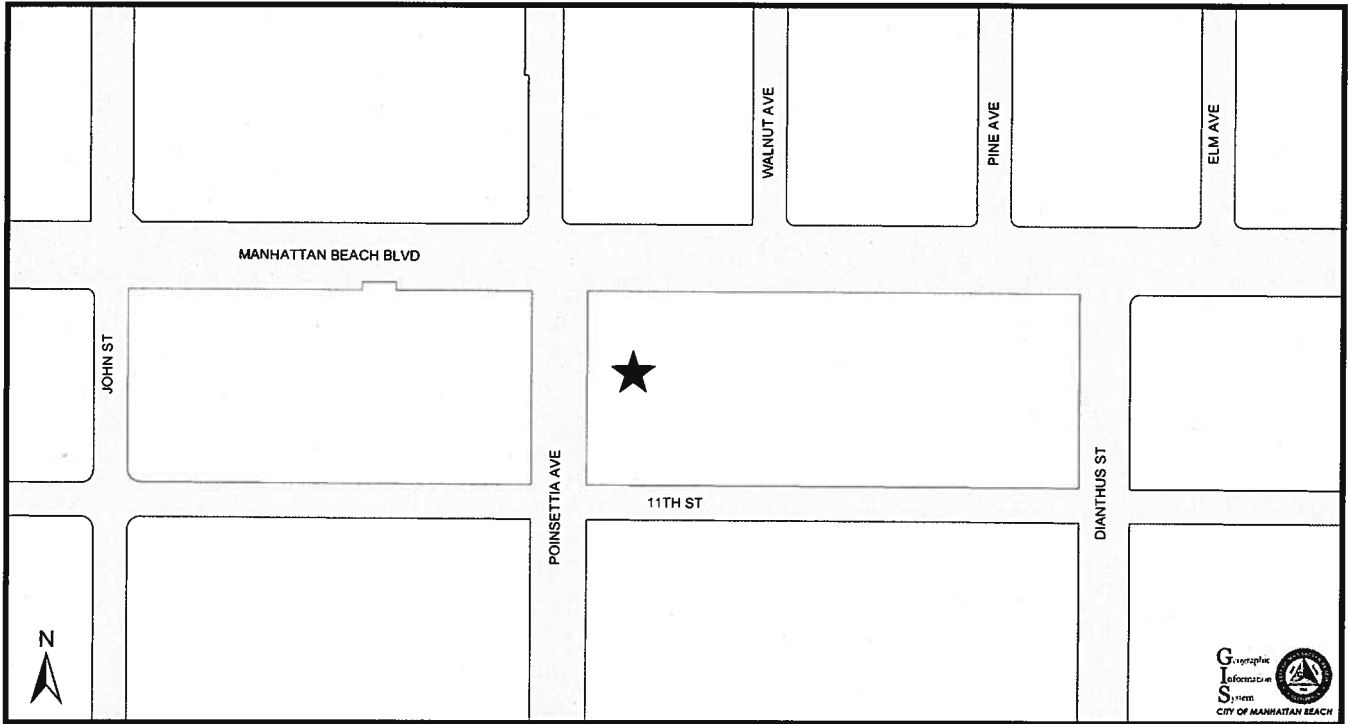
<b><u>Funding Source(s)</u></b>	<b><u>FY 2011-12</u></b>	<b><u>FY 2012-13</u></b>	<b><u>FY 2013-14</u></b>	<b><u>FY 2014-15</u></b>	<b><u>FY 2015-16</u></b>	<b><u>TOTAL</u></b>
Sewer Fund (Pump Station)			\$405,000	\$2,295,000		\$2,700,000
Sewer Fund (Force Main)				\$67,000		\$67,000
<b>TOTAL</b>			<b>\$405,000</b>	<b>\$2,362,000</b>		<b>\$2,767,000</b>

**Location Map on following page:**

City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information

**Project Title:** Poinsettia Sewage Pump Station  
Continued

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type:** Utilities

**Project Title:** Pacific Pump Station Upgrade

**Description:** Improvement of the Pacific Avenue Sewage Pump Station and installation of a second force main.

**Justification:** The Pacific Avenue Pump Station has operational pumping capacity of 291 to 317 gallons per minute. The peak wet weather flows anticipated are 376 gallons per minute. The current station could not pump at the needed rate if one of the two pumps fail or is taken out of service for maintenance. This project will modify the pumps and controls to accommodate two pumps capable of pumping 400 gallons per minute.

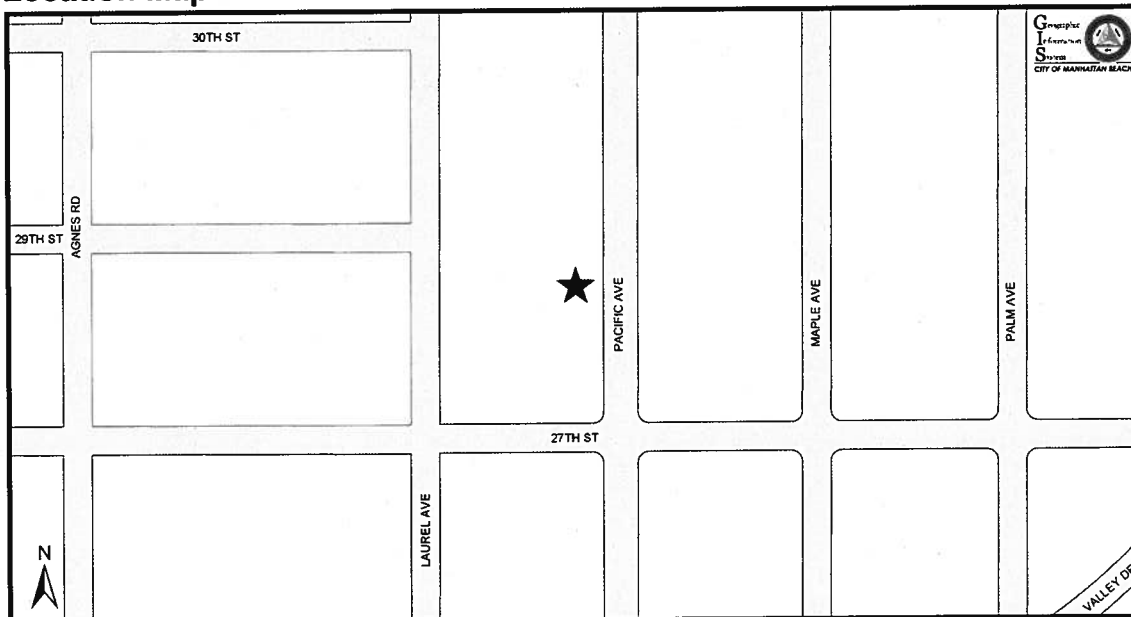
The Pacific Avenue Pump Station pumps sewage through a 57-year-old 6" cast iron force main a distance of 1,225 feet to the intersection of Poinsettia Avenue and Ardmore Avenue. If this line were to break or be damaged by another party, the City would have no option but to set up a temporary bypass pump and hose system to pump sewage inflows to an adjacent gravity sewer drainage area. This could not be set up in time to avoid significant sewage discharge to the street and storm drain system. This project would construct an additional 6" force main to provide two force mains to serve this station.

**Project Cost Information:**

Capital Costs:

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Sewer Fund (Pump Station Upgrade)			\$100,000	\$440,000		\$540,000
Sewer Fund (Force Main)				\$396,900		\$396,900
<b>TOTAL</b>			<b>\$100,000</b>	<b>\$836,900</b>		<b>\$936,900</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Utilities**

**Project Title: Rehabilitation of Gravity Sewer Mains FY 2014-15**

**Description:**

Rehabilitation or Replacement of Gravity Sewer Mains in maintenance area 4 as indicated below:

Street	limits	work	Maintenance Area
HARKNESS ST	15 <sup>th</sup> Street to 19 <sup>th</sup> Street	1 spot repair	4
FAYMONT AVE	15 <sup>th</sup> Street to 19 <sup>th</sup> Street	1 spot repair	4
18TH ST	Herrin Street to Redondo Avenue	2 spot repairs	4
19TH ST	Herrin Street to Redondo Avenue	1 spot repair	4
21ST ST	20 <sup>th</sup> Street to Meadows Avenue	1 spot repair	4
Additional locations will be identified through future CCTV inspections			4

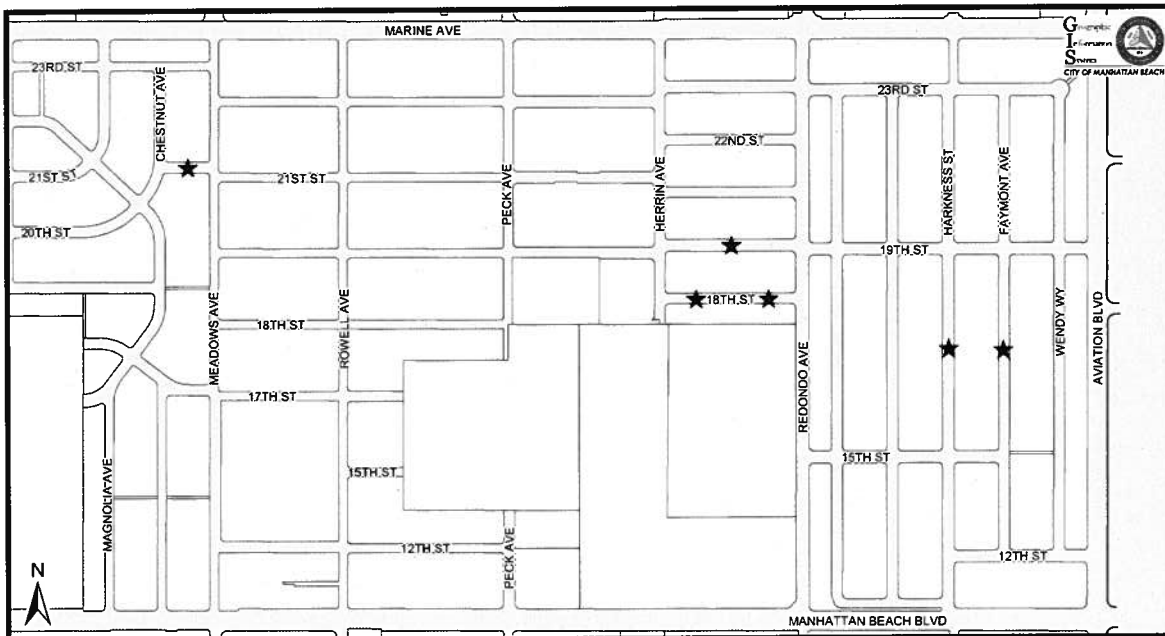
**Justification:** The above locations have been identified by maintenance staff and through CCTV inspection to require rehabilitation or replacement.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Sewer Fund			\$100,000	1,200,000		\$1,300,000
<b>TOTAL</b>			<b>\$100,000</b>	<b>1,200,000</b>		<b>\$1,300,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Utilities**

**Project Title: Rehabilitation of Gravity Sewer Mains FY 2015-16**

**Description:**

Rehabilitation or Replacement of Gravity Sewer Mains in maintenance area 5 and 7 as indicated below:

Street	limits	work	Maintenance Area
20 <sup>th</sup> Street	Highland Ave. East to end	Full Replacement	7
19 <sup>th</sup> Street	Highland Ave. East to end	Full Replacement	7
18 <sup>th</sup> Street	Highland Ave. East to end	Full Replacement	7
16 <sup>th</sup> Place	W/O Live Oak Park	2 Spot repairs	7
Highview Avenue	N/O Manhattan Bch Blvd.	Full Replacement	5
Manhattan Bch Blvd.	Ardmore Av. to Fisher Av.	1 spot repair	5
28 <sup>th</sup> Place	Grandview to Vista	Full Replacement	7
31 <sup>st</sup> Street	W/O Grandview	1 spot repair	7
31 <sup>st</sup> Street	W/O Highland	1 spot repair	7
Manhattan Av.	28 <sup>th</sup> St. to 29 <sup>th</sup> St.	Full Replacement	7
32 <sup>nd</sup> Street	Manhattan Av. to Strand	Full Replacement	7

**Justification:** The above locations have been identified by maintenance staff and through CCTV inspection to require rehabilitation or replacement.

**Project Cost Information:**

**Capital Costs:**

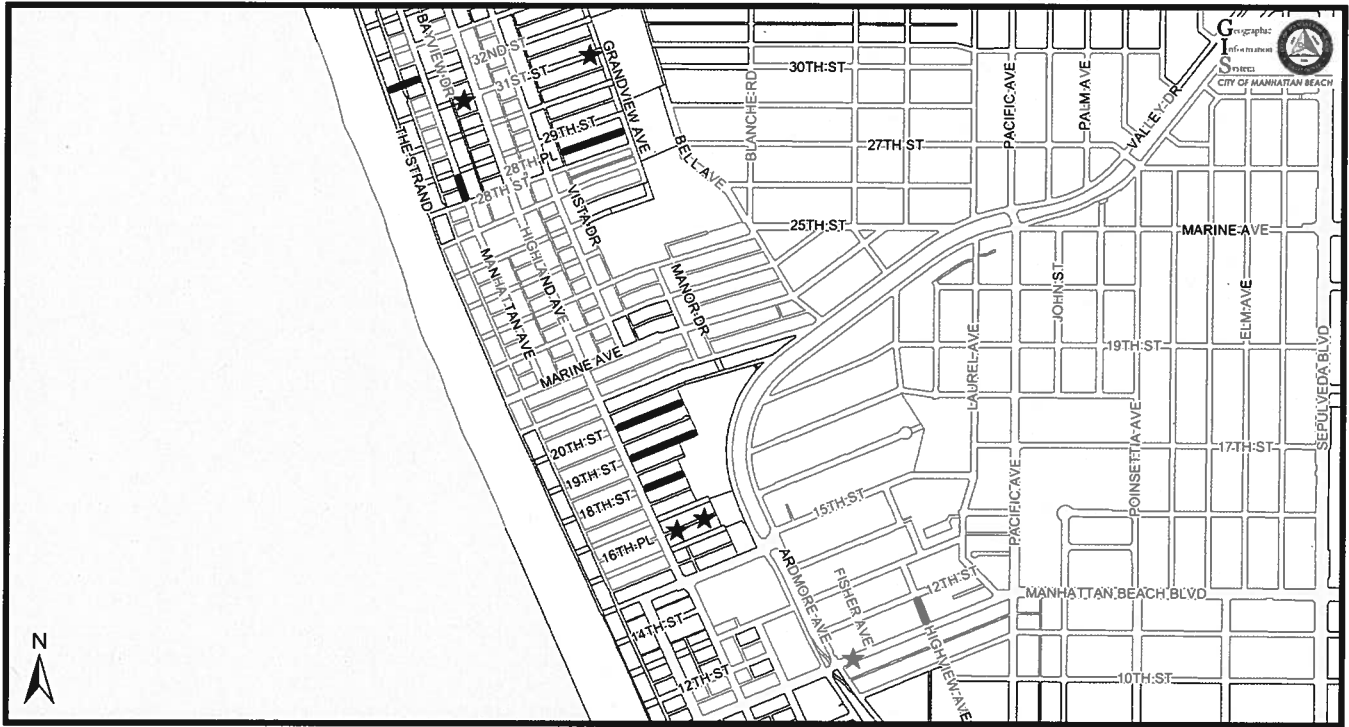
<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Sewer Fund				\$150,000	\$1,400,000	\$1,550,000
<b>TOTAL</b>				<b>\$150,000</b>	<b>\$1,400,000</b>	<b>\$1,550,000</b>

**Location Map on following page:**

City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information

**Project Title:** Rehabilitation of Gravity Sewer Mains FY 2015-16  
Continued

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Utilities**

**Project Title: Peck Reservoir Disinfection and Mixing System**

**Description:** Installation of a mechanical mixing and disinfection injection system at the Peck reservoir.

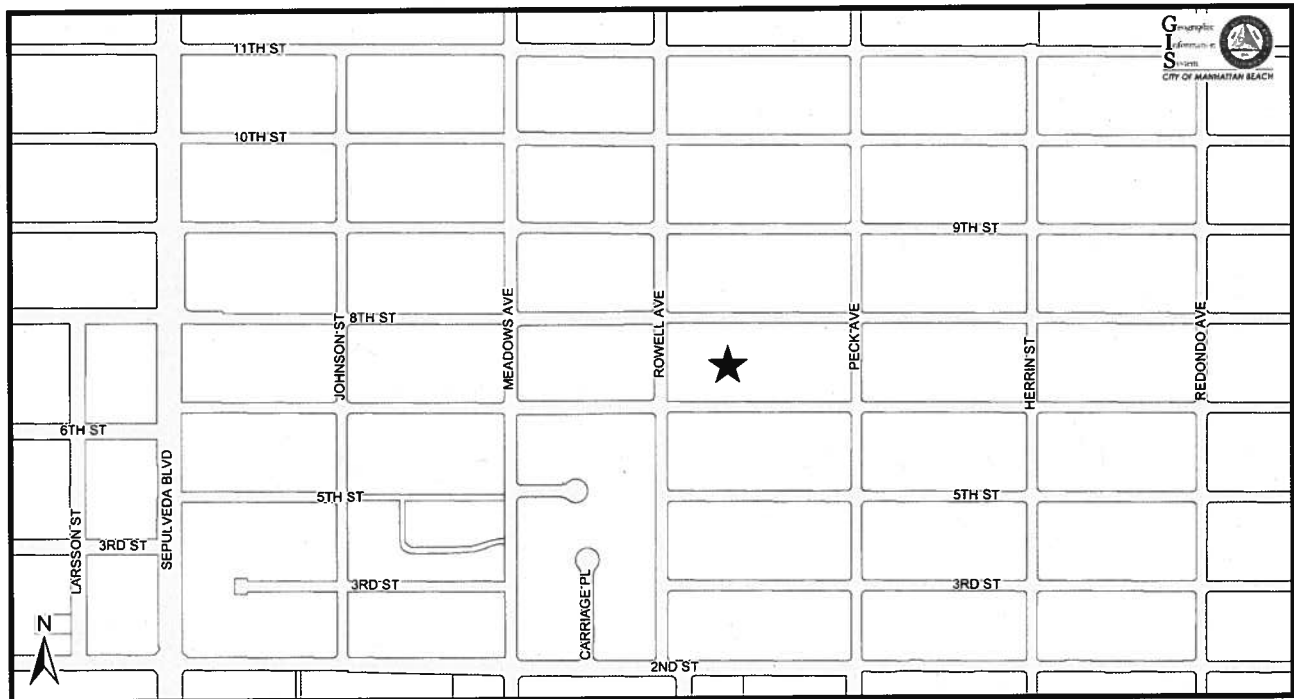
**Justification:** The existing 7.5 million gallon Peck Reservoir suffers from poor internal circulation which causes reduced disinfectant levels. A reservoir mixing and disinfectant injection system would eliminate dead zones within the reservoir and would assure that adequate disinfectant residual is maintained throughout.

**Project Cost Information:**

Capital Costs:

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund	\$230,000					\$230,000
<b>TOTAL</b>	<b>\$230,000</b>					<b>\$230,000</b>

**Location Map:**





**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Utilities**

**Project Title:** Blending Line Flow Control Facility

**Description:** Installation of a flow control valve and control system to permit blending of well water and purchased water at the Peck Reservoir.

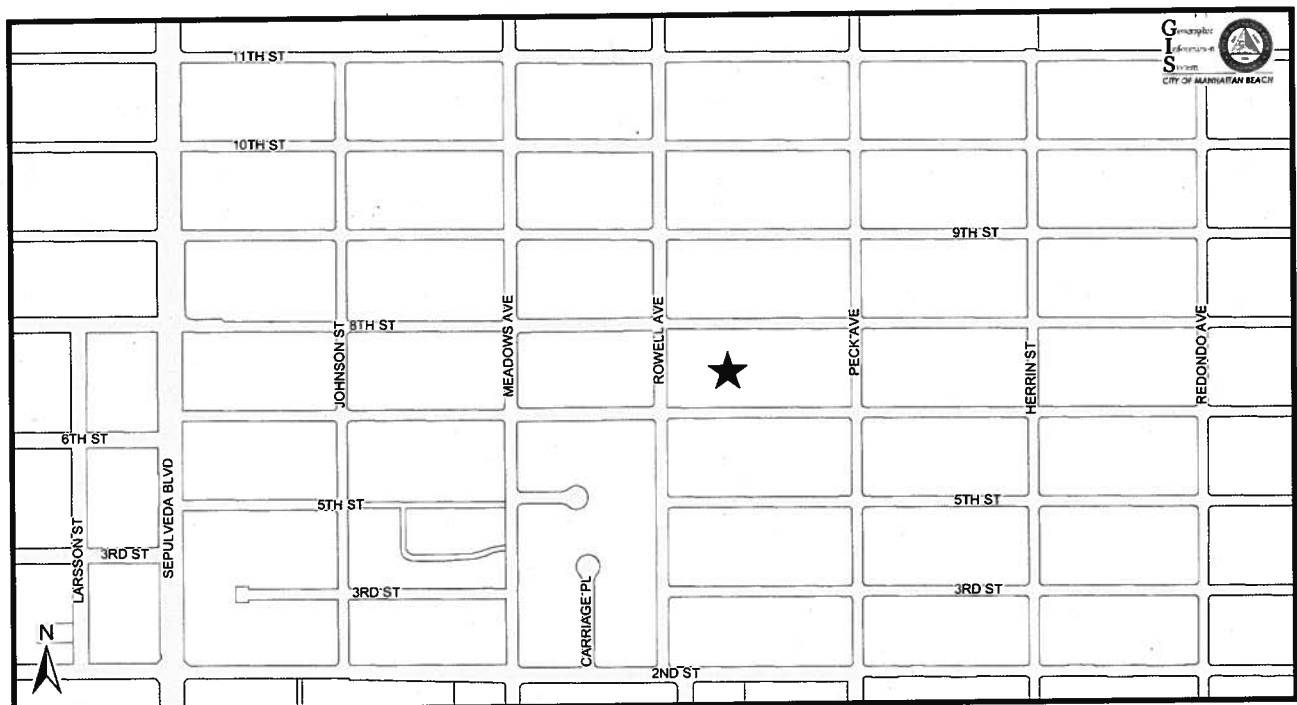
**Justification:** A water main was installed in 2006 between well 11A and Peck Reservoir. That project did not include measures to regulate the flow of well water into the reservoir. This project would construct a vault and flow control valve and SCADA connection to permit the control of well water into the reservoir.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund	\$120,000					\$120,000
<b>TOTAL</b>	<b>\$120,000</b>					<b>\$120,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type:** Utilities

**Project Title:** Well 11A Rehabilitation

**Description:** Rehabilitation of the pumps, motors, pump head, column and/or casings to restore the well to full capacity.

**Justification:** The existing well is experiencing a reduction in capacity. Typically, wells require rehabilitation from time-to-time to restore efficiency. Pump surfaces abrade causing reduction in pump efficiency and the integrity of well columns can be compromised causing further capacity reductions. This project will investigate the cause of the reduction and implement remedial measures.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund	\$230,000					\$230,000
<b>TOTAL</b>	<b>\$230,000</b>					<b>\$230,000</b>

**Location Map:**

**Southwest corner Manhattan Beach Boulevard and Green Lane**

**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Utilities**

**Project Title:** 2<sup>nd</sup> Street Booster Pump Station

**Description:** Installation of new natural gas engine, engine controls, engine muffler, and engine mount vibration insulators.

**Justification:** The 2<sup>nd</sup> Street booster pump station is a back-up pump station in the City's high-pressure zone. This zone, located at the physical high point of the City requires supplemental pumping to maintain normal water system pressures. The Larsson Pump Station is the primary pump station in the high pressure zone; however, when peak domestic or fire flow demand is encountered, the 2nd Street Pump Station is called to provide supplemental flow and pressure.

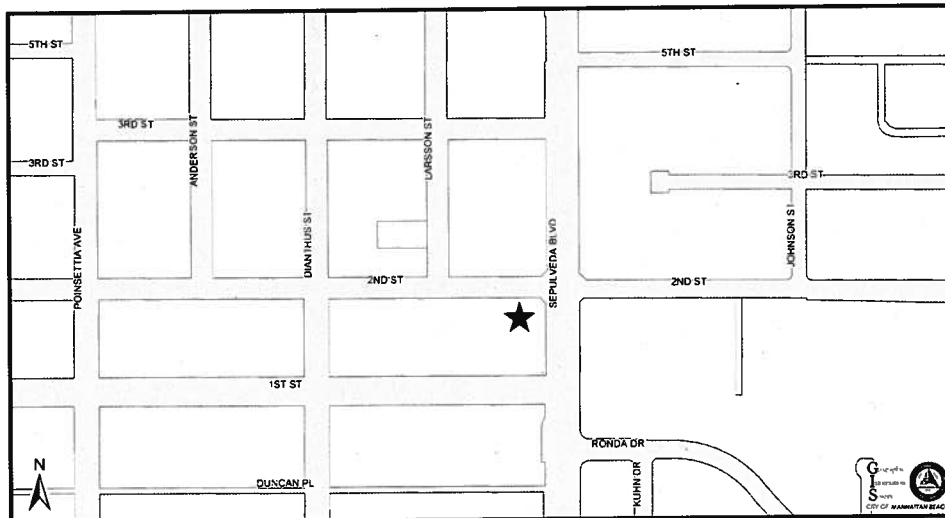
The 2<sup>nd</sup> Street Pump Station is situated in an underground vault in the 2<sup>nd</sup> Street parkway immediately adjacent to an office building. The current engine dates to the 1970s and spare parts are often difficult to locate. Both the engine and the engine control system are antiquated and require replacement. Additionally, vibration and noise from the engine affect the adjacent structure requiring installation of a new exhaust system and vibration insulators.

**Project Cost Information:**

Capital Costs:

<u>Funding Source (s)</u>	<u>Previous Approp'ns</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
Sewer Funds	\$50,000	\$580,000					\$630,000
<b>TOTAL</b>	<b>\$50,000</b>	<b>\$580,000</b>					<b>\$630,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Utilities**

**Project Title: Pipe Replacement Program and Fire Hydrant Installation (Area 7)**

**Description:**

Construction of replacement water mains and new fire hydrants.

Street	From	To	Maintenance Area
<i>Phase 1</i>			
1 <sup>st</sup> St.	Highland Ave.	Valley Dr.	7
1 <sup>st</sup> St.	Ocean Dr.	Highland Ave.	7
3 <sup>rd</sup> St.	Ocean Dr.	Highland Ave.	7
4 <sup>th</sup> St.	Ocean Dr.	Highland Ave.	7
5 <sup>th</sup> St.	Ocean Dr.	Manhattan Ave.	7
Highland Ave.	1st St.	Homer St.	7
Highland Ave.	2nd St.	1st St.	7
Homer St.	Highland Ave.	Morningside Dr.	7
Manhattan Ave	8th St	15th St	7
Morningside Dr.	1st St.	Homer St.	7
Vista Dr.	Rosecrans Ave.	27th St.	7
<i>Phase 2</i>			
Highland Ave	6 <sup>th</sup> Street	10 <sup>th</sup> Street	7
7 <sup>th</sup> Street (walk street)	Ocean Drive	Valley Drive	7
6 <sup>th</sup> Street (walk street)	Ocean Drive	Highland Ave	7
Morningside Drive	2 <sup>nd</sup> Street	3 <sup>rd</sup> Street	7

**Justification:** The existing water mains in this part of Area 7 are mostly 4" cast iron mains more than 80 year old. Staff has encountered water quality problems due to corrosion and sediments attributed to the age of the mains. Additionally, increasing to 6" mains or larger would provide adequate fire flows in the area.

**Project Cost Information:**

**Capital Costs:**

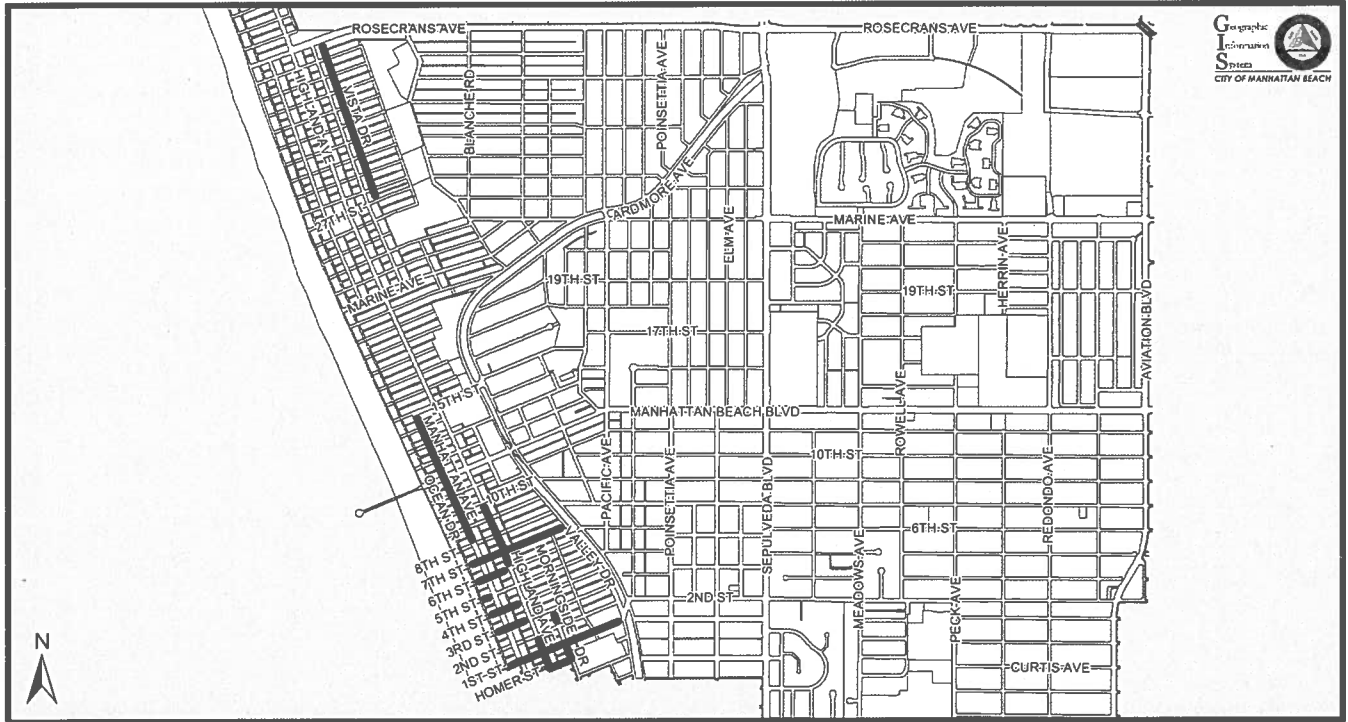
<u>Funding Source (s)</u>	<u>Previous Approp'ns</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
Water Fund	\$200,000	\$2,000,000					\$630,000
<b>TOTAL</b>	<b>\$200,000</b>	<b>\$2,000,000</b>					<b>\$630,000</b>

**Location Map on following page:**

City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information

**Project Title:** Pipe Replacement Program and Fire Hydrant Installation (Area 7)

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Utilities**

**Project Title: Larsson Street Pump Station Improvement**

**Description:** Upgrade pumps, controls, variable speed drives and back-up generator to provide increases pumping capacity.

**Justification:** Presently the Larsson Street Pump Station consists of three electric pumps with variable speed drives. All three pumps are often called to provide peak domestic service and on occasion, the 2<sup>nd</sup> Street Pump Station is also called to assist. Optimally, peak domestic service should be served by two of the three pumps at the station. This would allow one of the pumps to be taken out of service for maintenance without requiring the 2<sup>nd</sup> Street pump station to be called.

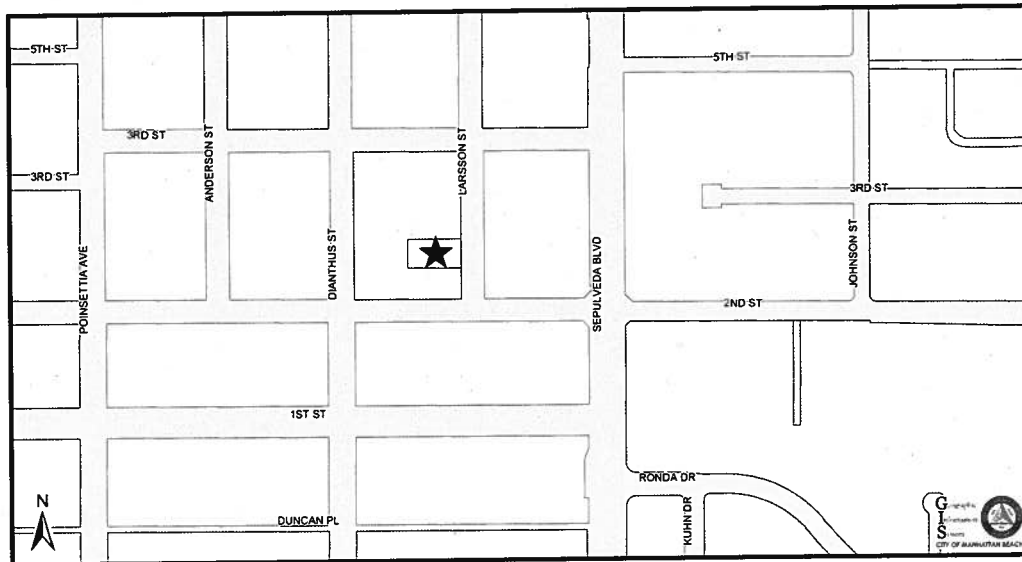
This project would provide three larger pumps at the station such that two pumps would handle peak domestic service. Three new pumps and variable speed drives would be installed along with new motor controls and a larger back-up generator to handle the increased electrical demand of the larger pumps and motors.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund	\$100,000	\$500,000				\$600,000
<b>TOTAL</b>	<b>\$100,000</b>	<b>\$500,000</b>				<b>\$600,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Utilities**

**Project Title: Pipe Replacement Program and Fire Hydrant Installation (Area 1)**

**Description:**

Construction of replacement water mains and new fire hydrants.

Street	From	To	Maintenance Area
11 <sup>th</sup> Street	Ardmore Avenue	John Street	7 Low pressure zone
10 <sup>th</sup> Street	Highview Avenue	Pacific Avenue	7 High pressure zone
9 <sup>th</sup> Street	Ardmore Avenue	Highview Avenue	7 Low Pressure Zone
9 <sup>th</sup> Street	Highview Avenue	Pacific Avenue	7 High pressure zone
Highview Avenue	9 <sup>th</sup> Street	10 <sup>th</sup> Street	7 Convert to high pressure zone
Pacific Avenue	11 <sup>th</sup> Street	Manhattan Beach Boulevard	7 Low pressure zone
John Street	10 <sup>th</sup> Street	11 <sup>th</sup> Street	7 High pressure zone
9 <sup>th</sup> Street	John Street	Poinsettia Avenue	7 High pressure zone
Poinsettia	8 <sup>th</sup> Street	9 <sup>th</sup> Street	7 High pressure zone
8 <sup>th</sup> Street	Pointessettia Avenue	Sepulveda Boulevard	7 Low pressure zone

**Justification:** The existing water mains in this part of Area 1 are mostly 4" cast iron mains more than 60 year old. Increasing to 6" mains or larger would provide adequate fire flows in the area.

**Project Cost Information:**

**Capital Costs:**

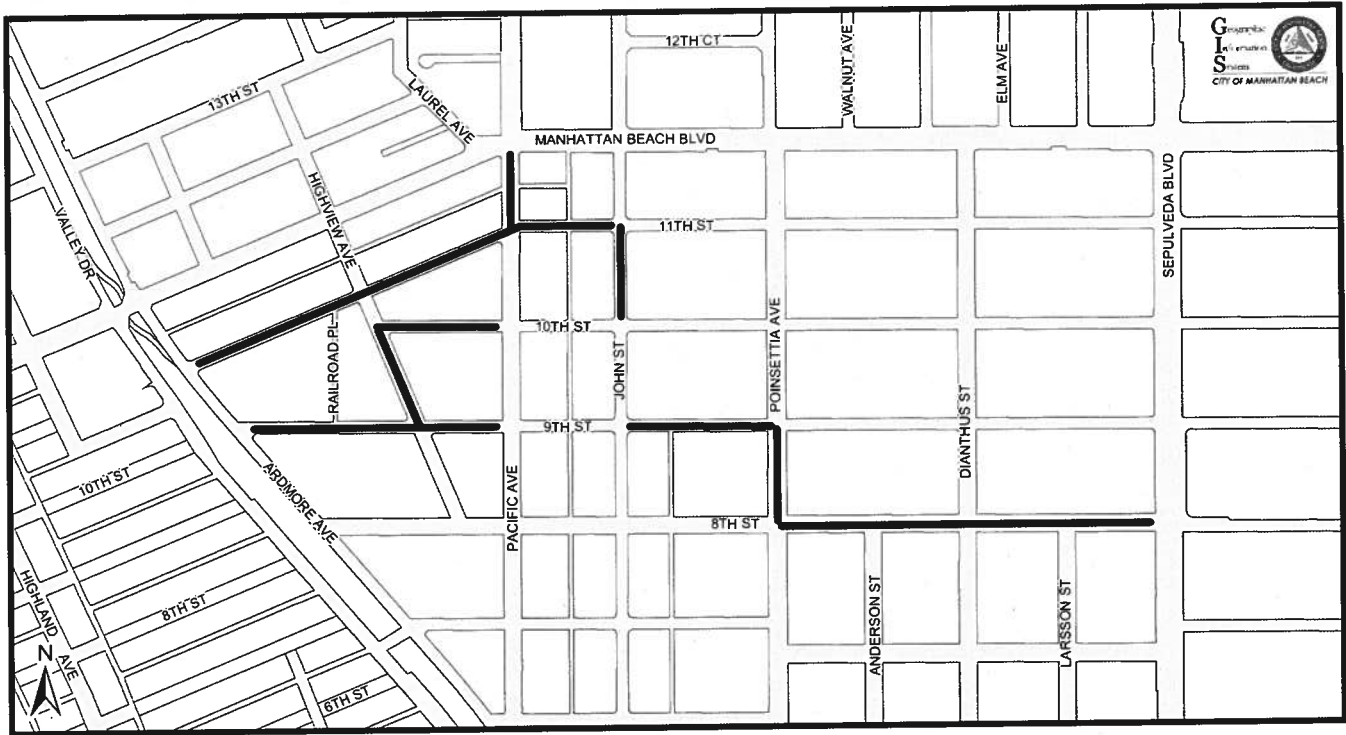
<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund	\$150,000	\$1,050,000				\$1,200,000
<b>TOTAL</b>	<b>\$150,000</b>	<b>\$1,050,000</b>				<b>\$1,200,000</b>

**Location Map on following page:**

City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information

**Project Title:** Pipe Replacement Program and Fire Hydrant Installation (Area 1)  
**Continued**

**Location map:**





**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Utilities**

**Project Title:** Water Main Replacement Project: Sepulveda Boulevard and 2<sup>nd</sup> Street

**Description:** Construction of replacement water mains and new fire hydrants.

Sepulveda Boulevard (Manhattan Beach Boulevard to 2nd Street)  
2<sup>nd</sup> Street (Larsson Pump Station to 2nd St Pump Station)

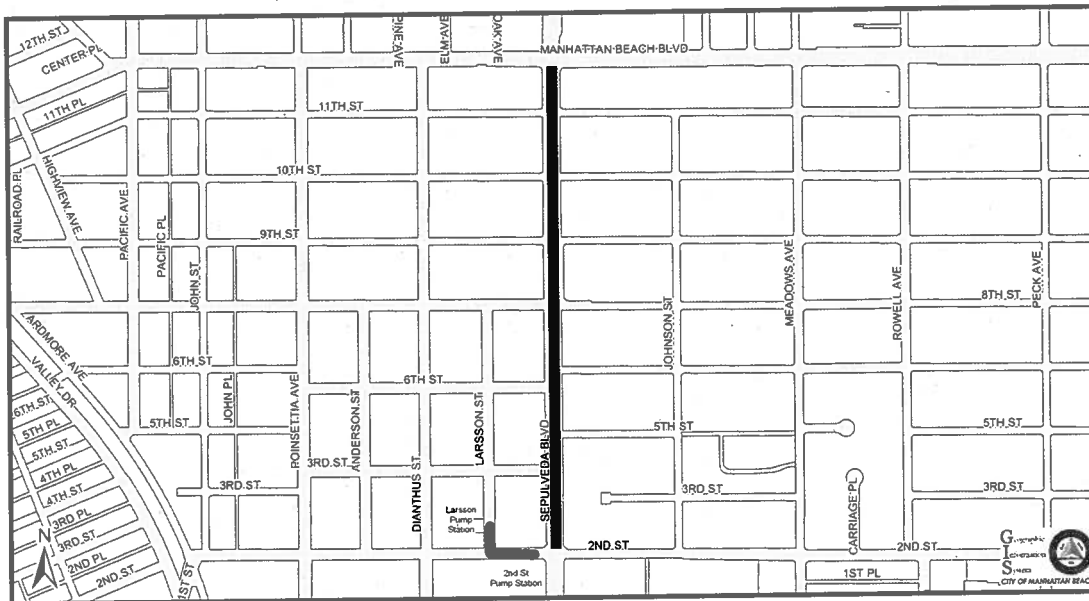
**Justification:** The existing water mains on the west side of Sepulveda Boulevard are 70 and 80 years old. Replacing the mains will restore the useful lives of these mains and will assure the longevity and dependability of the system.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund	\$100,000	\$800,000				\$900,000
<b>TOTAL</b>	<b>\$100,000</b>	<b>\$800,000</b>				<b>\$900,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Utilities**

**Project Title: Pipe Replacement Program and Fire Hydrant Installation (Area 2)**

**Description:**

Construction of replacement water mains and new fire hydrants.

Street	From	To	Maintenance Area
9 <sup>th</sup> Street	Meadows Avenue	Rowell Avenue	2
10th Street	Meadows Avenue	Rowell Avenue	2
11th Street	Meadows Avenue	Rowell Avenue	2
Rhonda Drive/Longfellow Drive	Kuhn Drive N.	Kuhn Drive S.	2
Terraza Place	Rhonda Drive	End	2
Chabela Drive	Keats Street	Longfellow Drive	2
Altura Way	Keats Street	Longfellow Drive	2
Shelley Street	Prospect Avenue	Chabela Drive	2
5th Street	Rowell Avenue	Peck Avenue	2
3rd Street	Rowell Avenue	Peck Avenue	2

**Justification:** The existing water mains in this part of Area 2 are mostly 4" cast iron mains more than 60 year old. Increasing to 6" mains or larger would provide adequate fire flows in the area.

**Project Cost Information:**

**Capital Costs:**

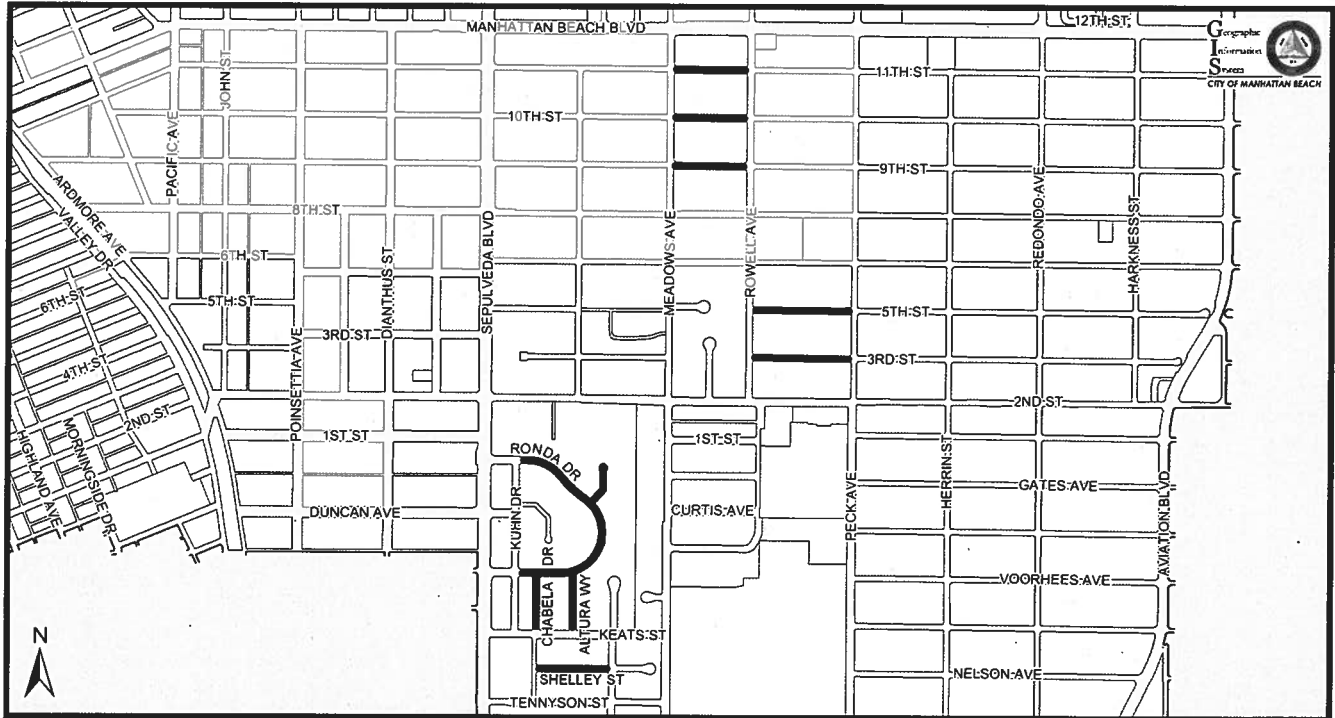
<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund		\$200,000	\$1,600,000			\$1,800,000
<b>TOTAL</b>		<b>\$200,000</b>	<b>\$1,600,000</b>			<b>\$1,800,000</b>

**Location Map on following page:**

City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information

**Project Title:** Pipe Replacement Program and Fire Hydrant Installation (Area 2)  
Continued

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Utilities**

**Project Title: Water Well at Aviation Boulevard/ 6<sup>th</sup> Street (Well 13)**

**Description:** Construction of a new water well and support infrastructure and construction of a new collection water main from the new well to connect to the existing transmission main in 8<sup>th</sup> Street.

**Justification:** The City currently operates two groundwater wells providing a combined maximum flow rate of 3,900 gallons per minute. The City's average daily consumption of potable water is approximately 4,350 gallons per minute. The City uses approximately 7,000 acre feet of water per year and has adjudicated rights to pump 1,131.2 acre feet of groundwater annually. Although the City does not possess adequate adjudicated water rights to depend entirely on groundwater for all its potable water needs, it is prudent for the City to possess adequate well capacity to meet average daily demand (4,350 gpm). This would permit the City to depend entirely on its wells if imported water sources were temporarily curtailed.

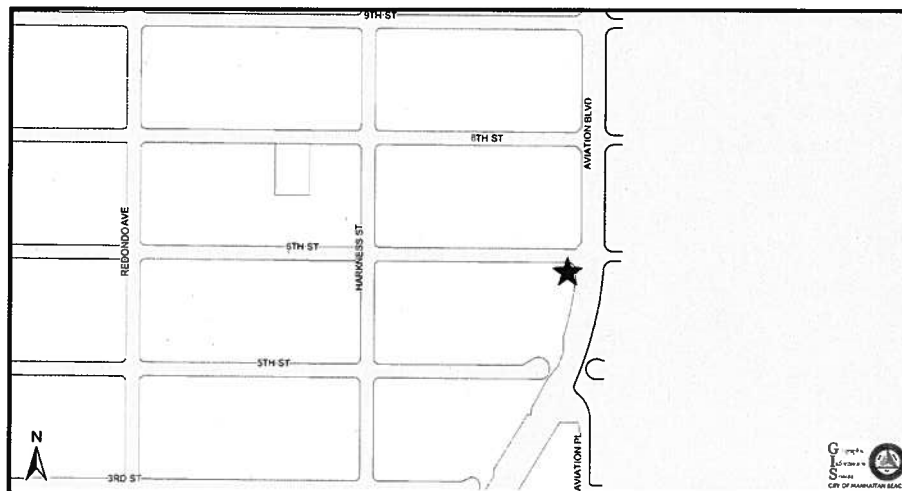
Presently, the City's well capacity is insufficient to meet the average daily demand. It is recommended that a third well be developed to increase the City's well capacity. The City owns a well site on the south west corner of Aviation Boulevard and 6<sup>th</sup> Street. This well operated until the 1970s when salinity and operational problems caused the City to cease operation. It is believed that water quality at the Well 13 site has improved over the years due to the injection of fresh water along the County's barrier injection system. This project would include drilling a test well to verify the viability of the well site. Upon determining viability, design and then construction of the well, support infrastructure and collection main would follow.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund (Well)		\$920,000	\$2,500,000	\$1,950,000		\$3,750,000
Water Fund (Collection Main)		\$80,000		\$300,000		\$380,000
<b>TOTAL</b>		<b>\$1,000,000</b>	<b>\$2,500,000</b>	<b>\$2,250,000</b>		<b>\$5,750,000</b>

**Location Maps:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Utilities**

**Project Title:** Pipe Replacement Program and Fire Hydrant Installation (Area 3)

**Description:** Construction of replacement water mains and new fire hydrants.

Redondo Avenue (2<sup>nd</sup> Street to Artesia Boulevard)  
1<sup>st</sup> Street (Redondo Avenue to Aviation Boulevard)

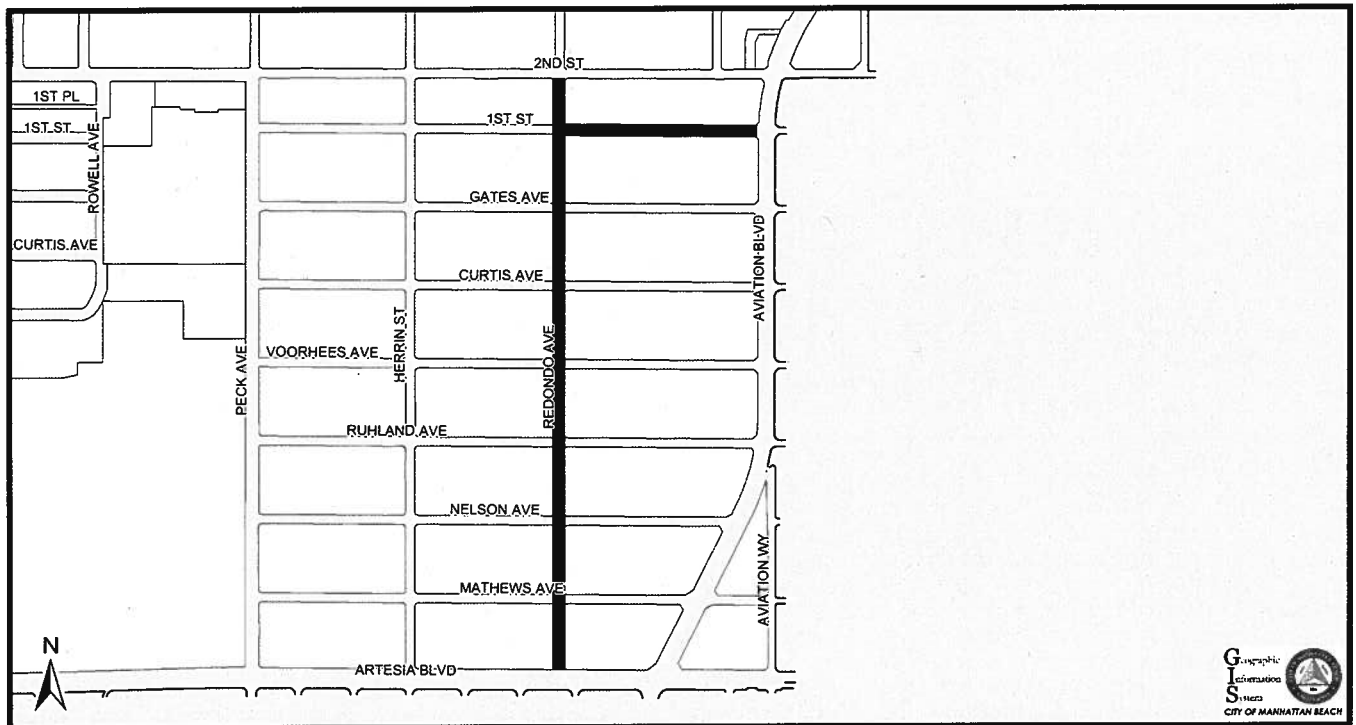
**Justification:** The existing water mains in this part of Area 3 are consist of 4" and 6" cast iron mains and most are more than 70 year old. Replacing the mains will restore the useful lives of these mains; assure the longevity and dependability of the system. Increasing to 6" mains or larger would enhance fire flows in the area.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund			\$100,000	\$900,000		\$1,000,000
<b>TOTAL</b>			<b>\$100,000</b>	<b>\$900,000</b>		<b>\$1,000,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Utilities**

**Project Title:** Well Collection Line

**Description:** Construction of a new well collection line from Well 11A to Block 35.

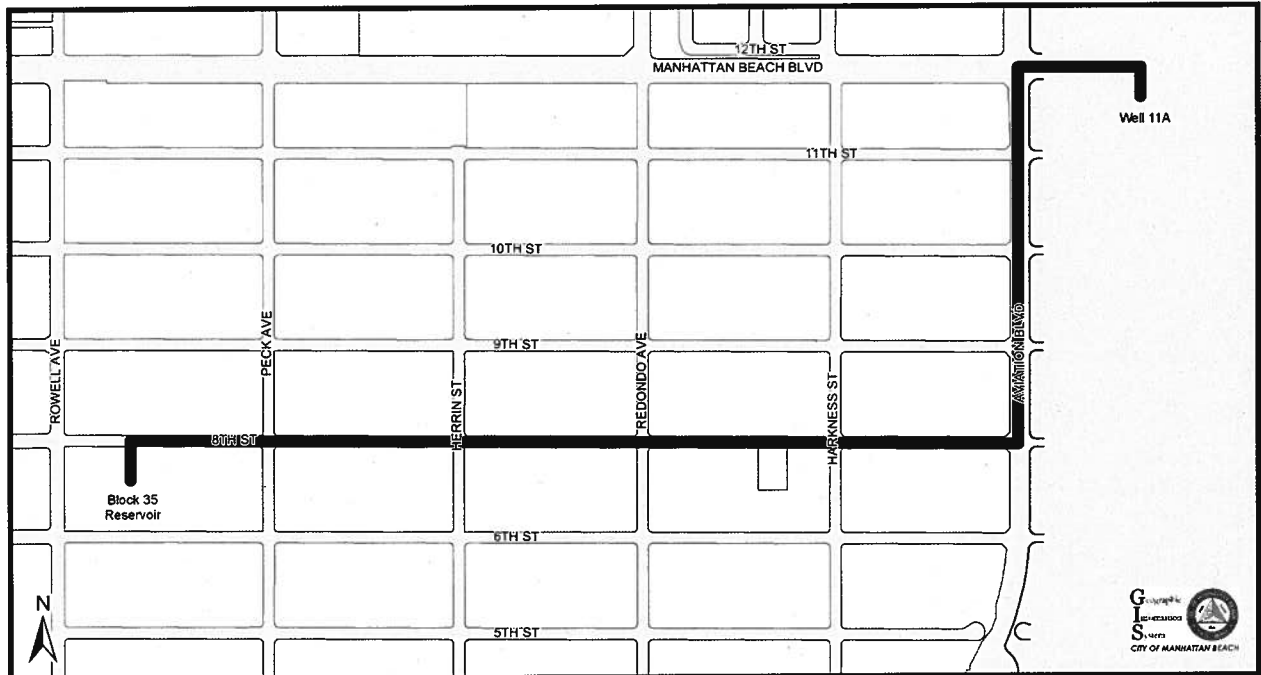
**Justification:** With the addition of a new well at site 13, a larger collection line will be required to convey flows from three operating wells simultaneously at reasonable velocities. The current collection line is 12 inches diameter and reduces to 10 inches diameter. This arrangement would cause large hydraulic losses and reduce well capacities. The new collection line would be 18 inches diameter and could efficiently convey peak flows from all three wells.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund			\$500,000	\$3,500,000		\$4,000,000
<b>TOTAL</b>			<b>\$500,000</b>	<b>\$3,000,000</b>		<b>\$4,000,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**Project Type: Utilities**

**Project Title: Block 35 Ground Level Reservoir Replacement**

**Description:** Construction of a new, larger capacity water reservoir

**Justification:** Block 35 Ground Level Reservoir (2 mg) was originally constructed in 1948. It has an inner wall with 69.17 ft diameter, and an outer wall with 140 ft diameter. The inner wall top is at elevation 182.8 feet, while the outer wall top is at elevation 191.58 feet. The overflow elevation is at 190 feet. Due to leakage at the wall/floor joint at high water levels, the reservoir is operated at half full level. This is the facility where most of the blending takes place, and from where water is pumped into the system. Therefore, its integrity is essential for proper operation of the system. It is at the end of its useful life, and should be replaced with a new, larger reservoir. It is recommended that a 4 million gallon tank to be constructed to provide a total operational storage of 6 million gallons (average day demand) in conjunction with the proposed Peck Reservoir.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund				\$1,000,000	\$7,100,000	8,100,000
<b>TOTAL</b>				<b>\$1,000,000</b>	<b>\$7,100,000</b>	<b>8,100,000</b>

**Location Map:**

