City of Ormond Beach, Florida
Adopted
Capital Improvements Program
FY 2016-17 through FY 2020-21

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CITY OF ORMOND BEACH

August 12, 2016

Honorable Mayor Kelley, City Commissioners and the Citizens of Ormond Beach

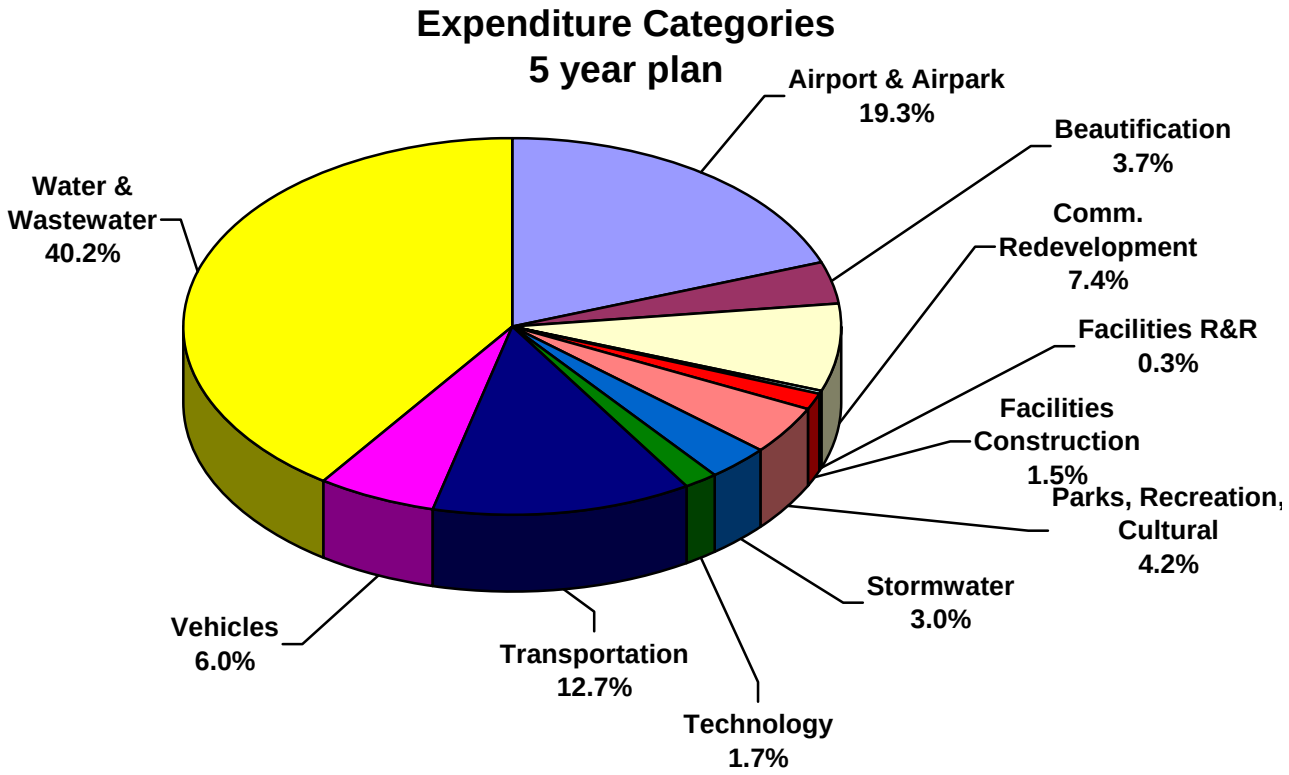
Enclosed is the Five-Year Capital Improvements Program (CIP) for the period FY 2016-17 through FY 2020-21 as required by Section 2-294 of the City Code of Ordinances. The Five-Year Capital Improvement Program totals $55,825,527 with $17,831,604 for FY 2016-17.

Projects included in the CIP reflect one or more of the following factors with maintenance or upgrade of existing facilities being the highest priority:

- Involves necessary or planned maintenance, renovation or construction of an existing facility, equipment or infrastructure.
- Reflects a prior multi-year commitment previously approved by the City Commission.
- Enhances the use or appearance of an existing facility or City-maintained public area.
- Included in a previous Master Plan or conceptual plan previously considered and endorsed or reviewed by the City Commission.

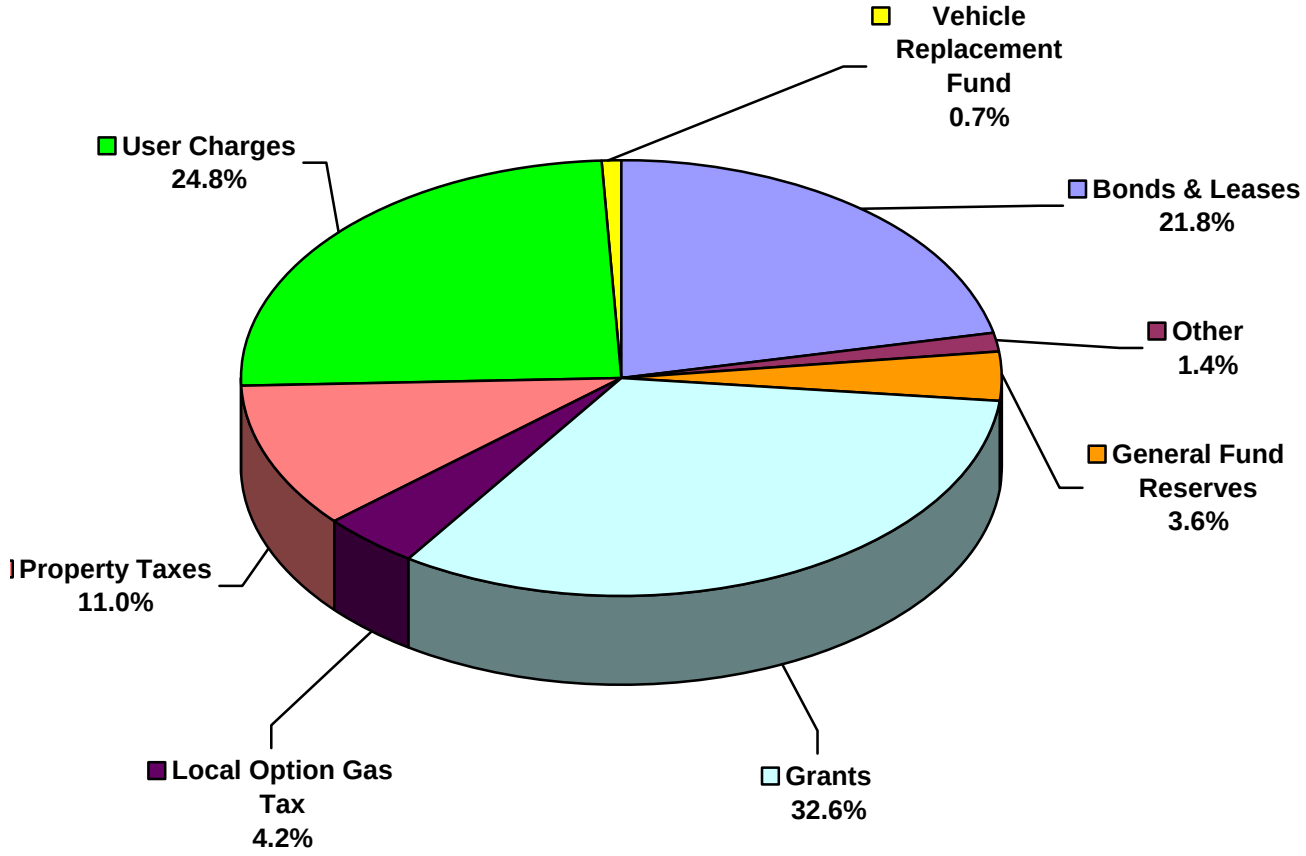
Overview

The City's Five-Year Capital Improvements Program represents a substantial effort to identify and schedule capital investments for a multi-year period complete with a project description and justification, as well as recommended financing for each project. The CIP reflects projects that have been identified as being essential to the organization.



Category	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total
Airport & Airpark	449,000	640,000	7,303,000	345,000	2,055,000	10,792,000
Beautification	1,080,000	1,000,000	-	-	-	2,080,000
Community Redevelopment	1,161,100	960,000	450,000	500,000	1,066,500	4,137,600
Facility Renewal & Replacement	85,250	30,000	25,000	-	-	140,250
Facility Construction & Renovation	300,000	428,000	90,000	-	-	818,000
Parks, Recreation, Cultural	588,000	150,000	1,040,000	55,000	500,000	2,333,000
Stormwater	692,200	250,000	250,000	250,000	250,000	1,692,200
Technology	-	935,934	-	-	-	935,934
Transportation	1,540,388	2,360,094	1,884,000	831,600	495,000	7,111,082
Vehicles	1,453,266	743,695	359,400	787,200	-	3,343,561
Water & Wastewater	10,482,400	6,183,000	2,837,000	1,282,000	1,657,500	22,441,900
Total	**17,831,604**	**13,680,723**	**14,238,400**	**4,050,800**	**6,024,000**	**55,825,527**

Funding Sources
5 year plan



Category	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total
Grants/Donations	3,920,489	3,337,814	8,453,100	340,600	2,143,875	18,195,878
Property Taxes	1,696,749	1,596,280	1,003,400	740,000	1,111,625	6,148,054
General Fund Reserves	565,776	254,900	471,900	299,200	411,000	2,002,776
Bond Proceeds/Financing	7,185,605	3,170,934	1,800,000	-	-	12,156,539
User Charges	3,857,485	4,754,795	1,378,000	1,923,000	1,907,500	13,820,780
Local Option Gas Tax	500,000	460,000	470,000	453,000	450,000	2,333,000
Vehicle Replacement Fund	100,000	100,000	100,000	100,000	-	400,000
Other	5,500	6,000	562,000	195,000	-	768,500
Total	**17,831,604**	**13,680,723**	**14,238,400**	**4,050,800**	**6,024,000**	**55,825,527**

FY 2016-17 CIP Projects

Airport Improvement

Wildlife Hazard Assessment ($110,000), Airport Access Roads Design ($64,000) and Rehabilitation and Extend Runway 8/26 Assessment ($275,000) are schedule for FY 2016-17 and will be largely funded by FDOT and FAA grants.

Beautification

Bridge Sideslope Landscaping ($80,000) is planned for FY 2016-17. Additionally, North US1 Landscape Beautification is planned ($1,000,000) with 80% being funded by an FDOT JPA.

Downtown Improvements

Downtown improvements are funded through property tax revenue which is expendable only within the downtown area. Projects for FY 2016-17 in this category include Cassen Park Public Dock ($772,100 pending 100% grant funding), Cassen Park Restroom Construction and Parking Lot Design $225,000) Rockefeller Garden Stage Shade Cover ($49,000), Stormwater Improvements ($50,000) and an annual allocation for Upgrades and Improvements ($65,000).

Facility Renewal and Replacement

The Facility Renewal and Replacement fund was established in FY 2005-06 in response to the ongoing need for dedicated funding for maintenance of all City facilities and parks. For FY 2016-17, replacement of the dock walkway at Central Park I ($50,250) and Sports Field Improvements ($35,000) are planned. ***Projects below the CIP threshold of $25,000 will be included as part of the annual operating budget.***

Facility Construction and Renovation

The FY 2016-17 Capital Improvement Plan includes Seawall Repairs at Ames Park and Riviera Park ($94,000), CDBG Projects ($150,000), and Police Department Roof and Sally Port replacement ($56,000).

Parks, Recreation and Cultural Facility Improvements

Projects for next year include Ormond Beach Sports Complex Field 9 and 10 Lighting ($450,000), West Ormond Community Center Feasibility Study ($50,000) and Design for softball fields 3 and 7 at the Ormond Beach Sports Complex ($88,000).

Stormwater Drainage Improvements

FY 2016-17 projects include the continuation of the Corrugated Metal Pipe Rehabilitation project ($250,000), Fleming Avenue Stormdrain study ($50,000) and Wilmette Avenue Pump Station ($171,600).

Technology

The implementation of a replacement program is pending the recommendations of the IT Strategic Plan currently under development. Although not a capital project, the computer replacement schedule has been provided under this category.

Transportation

Transportation projects include Amsden Road Rehabilitation ($223,000) Forest Hill Trail ($589,288), Railroad Crossings ($50,000), Road Resurfacing Program ($500,000), Street Light Maintenance ($40,000), US 1 North Sidewalk Design ($61,700), A1A Mast Arm Installation design ($50,000) and Williamson Boulevard and Hand Avenue Pedestrian Improvement design ($26,400).

Vehicle Replacement

The FY 2016-17 plan includes the replacement of five Advanced Life Support Cardiac Monitors ($110,676), replacement of Fire Engine 94 ($343,605), nine General Fund vehicles ($334,776), two Stormwater vehicles ($52,000), and six Water/Wastewater vehicles and two generators ($622,885) including a TV inspection vehicle.

Water and Wastewater System Improvements

Highlights of the projects proposed for FY 2016-17 include Water Storage Tank Repairs ($690,000) Outfall Pipe Replacement ($720,000) the fourth phase of a City-wide Meter Replacement ($543,000), Process and Instrumentation Control Improvements ($300,000), South Peninsula Reclaimed ($3,338,400) North Peninsula Water System Improvements ($562,000) Water Main Replacement ($1,575,000), WTP Solids Handling Facility Upgrade ($1,200,000) and Lift Station Rehabilitation ($400,000).

Additional Projects Reviewed

Due to funding restrictions, several projects were considered but are not being recommended for inclusion in the five years Capital Improvement Program as follows:

Ocean District Streetlight Replacement: Decorative lighting on the Westside of the Granada Bridge.

MacDonald House Improvements: Repairs or demolition of building.

PAL House: Purchase of land and construction of a new facility.

Doug Thomas Way Extension: Extend two-way paved roads from Harmony to Hull behind fields 9-12.

Environmental Learning Center: Provide an encounter area/outdoor classroom.

Nova Community Park Access Road: Convert one-way road to two-way road.

Nova Community Park Master Plan: Projects as outlined in the recent master plan.

Ormond Beach Sports Complex Parking: Paved parking at softball Quad, Wendelstedt fields, and Kiwanis/soccer fields.

Ormond Beach Sports Complex Lighting: Replace lighting on Soccer Fields 4, 5 and 6.

Public Art Project: Provide public art at various City facilities.

Tennis Center Building: Construction of a new facility to serve the tennis center.

Three Chimneys: Construction of parking area. A detailed project scope has not been developed at this time. Given this site is not owned by the City, this project is not likely to be funded in future CIP cycles. Staff will, however, continue to monitor this project for potential funding through grant sources.

West Ormond Neighborhood Park: Provide a park with athletic fields, open spaces and playgrounds.

Lisa Lake Dredging: If pursued, staff is recommending this project be funded through a special assessment requiring 51% approval by the impacted property owners.

May 2009 Flood Study Phase II: This project was contingent upon grant funding that has yet to materialize.

Body Cameras: Purchase of 65 body cameras and associated storage for Police personnel.

Communications Infrastructure: Expansion of the City's fiber optic network.

In car Cameras: Purchase of 37 in car cameras for Police personnel vehicles.

South Peninsula Reclaimed Water Main: Extend water main and connect existing dry lines.

Board Recommendations

The Leisure Services Advisory Board recommended adopting the CIP as presented at their May 11th meeting with a request that the Girls softball field #7 be based on three phases rather than one large project. The board also recommended funded several additional projects currently in the CIP but unfunded: PAL House, OBSC Lighting of Soccer #4, #5 & #6, OBSC Access & Drainage Improvements and Three Chimneys Dedicated Parking. The board further recommended a new project: Ormond Beach Middle School playground.

The Quality of Life Board will meet on June 2nd and supports the three areas they reviewed which are Beautification, Recreation and Cultural Improvements and Facilities Renewal and Replacement sections of the CIP as presented. .

The Aviation Advisory Board reviewed the CIP on May 16th and accepted it as presented.

The Public Works Advisory Board reviewed the CIP on May 26th and accepted it as presented.

Ormond Main Street reviewed the CIP and their recommended changes to the Upgrades and Improvements project have been incorporated into the proposed CIP.

Respectfully submitted,

Joyce A. Shanahan
City Manager

Projects by Category

	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Airport Business Park						
Expenditures						
Airport Business Park Expansion	0	0	428,000	0	0	428,000
Business Park Drive Phase II	0	0	0	195,000	2,055,000	2,250,000
Airport Business Park	0	0	428,000	195,000	2,055,000	2,678,000
Airport Business Park						
Revenues						
FDOT	0	0	0	0	1,644,000	1,644,000
General Fund Reserves	0	0	0	0	411,000	411,000
Land Sales	0	0	0	195,000	0	195,000
Private Developer	0	0	428,000	0	0	428,000
Airport Business Park	0	0	428,000	195,000	2,055,000	2,678,000
Airport Improvements						
Expenditures						
Wildlife Hazard Assessment	110,000	0	0	0	0	110,000
Airport Access Roads	64,000	340,000	0	0	0	404,000
Rehabilitate and Extend Runway 8/26	275,000	300,000	6,700,000	0	0	7,275,000
Replace AWOS	0	0	175,000	0	0	175,000
Rehabilitate, Mark and Light Taxiway "E"	0	0	0	150,000	0	150,000
Airport Improvements	449,000	640,000	6,875,000	150,000	0	8,114,000
Airport Improvements						
Revenues						
Airport Fund	5,500	6,000	134,000	0	0	145,500
FAA	346,500	270,000	6,187,500	135,000	0	6,939,000
FDOT	66,000	296,000	550,000	12,000	0	924,000
General Fund Reserves	31,000	68,000	3,500	3,000	0	105,500
Airport Improvements	449,000	640,000	6,875,000	150,000	0	8,114,000

Projects by Category

	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Beautification						
Expenditures						
Bridge Sideslope Landscape Improvements	80,000	0	0	0	0	80,000
Granada Boulevard Landscape Beautification	0	1,000,000	0	0	0	1,000,000
North US1 Landscape Beautification	1,000,000	0	0	0	0	1,000,000
Beautification	1,080,000	1,000,000	0	0	0	2,080,000
Beautification						
Revenues						
FDOT JPA	800,000	900,000	0	0	0	1,700,000
General Fund Reserves	200,000	100,000	0	0	0	300,000
Property Taxes-General CIP	80,000	0	0	0	0	80,000
Beautification	1,080,000	1,000,000	0	0	0	2,080,000
Community Redevelopment						
Expenditures						
Downtown: Cassen Park Public Dock	772,100	0	0	0	0	772,100
Downtown: Rockefeller Garden Stage Shade Co	49,000	0	0	0	0	49,000
Downtown: Cassen Park Improvements	225,000	335,000	0	0	0	560,000
Downtown: Thompson Creek, Phase II	0	25,000	0	0	666,500	691,500
Downtown: Land Acquisitions/Redevelopment	0	50,000	0	0	0	50,000
Downtown: Stormwater Improvements	50,000	550,000	100,000	500,000	400,000	1,600,000
Downtown: Sidewalk Renovations	0	0	350,000	0	0	350,000
Downtown: Upgrades and Improvements	65,000	0	0	0	0	65,000
Community Redevelopment	1,161,100	960,000	450,000	500,000	1,066,500	4,137,600
Community Redevelopment						
Revenues						
FBIG(pending approval)	400,000	0	0	0	0	400,000
FIND Grant (pending approval)	372,100	0	0	0	0	372,100
Property Taxes-TIF	389,000	941,250	450,000	500,000	566,625	2,846,875
TPO Grant (pending)	0	18,750	0	0	499,875	518,625
Community Redevelopment	1,161,100	960,000	450,000	500,000	1,066,500	4,137,600

Projects by Category

	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Equipment and Vehicle Replacement						
Expenditures						
Advanced Life Support Cardiac Monitors	110,676	0	0	0	0	110,676
Vehicle Replacement-Fire 94	343,605	0	0	0	0	343,605
Vehicle Replacement-General	324,100	134,400	268,400	396,200	0	1,123,100
Vehicle Replacement-Stormwater	52,000	314,000	0	345,000	0	711,000
Vehicle Replacement-Water & Wastewater	622,885	295,295	91,000	46,000	0	1,055,180
Equipment and Vehicle Replacement	1,453,266	743,695	359,400	787,200	0	3,343,561
Equipment and Vehicle Replacement						
Revenues						
General Fund Reserves	110,676	0	0	0	0	110,676
Stormwater Charges	52,000	314,000	0	345,000	0	711,000
Vehicle Lease Purchase	343,605	0	0	0	0	343,605
Vehicle Replacement Fund	324,100	134,400	268,400	396,200	0	1,123,100
Water & Sewer Charges	622,885	295,295	91,000	46,000	0	1,055,180
Equipment and Vehicle Replacement	1,453,266	743,695	359,400	787,200	0	3,343,561
Facilities Renewal and Replacement						
Expenditures						
Dock Walkway Replacement CP I	50,250	0	0	0	0	50,250
Sports Field Improvements	35,000	0	0	0	0	35,000
South Ormond Neighborhood Center	0	30,000	0	0	0	30,000
Ames Park	0	0	25,000	0	0	25,000
Facilities Renewal and Replacement	85,250	30,000	25,000	0	0	140,250
Facilities Renewal and Replacement						
Revenues						
Property Taxes-R&R	85,250	30,000	25,000	0	0	140,250
Facilities Renewal and Replacement	85,250	30,000	25,000	0	0	140,250

Projects by Category

	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Facility Construction and Renovation						
Expenditures						
Seawall Repairs	94,000	0	0	0	0	94,000
CDBG Projects	150,000	100,000	90,000	0	0	340,000
HVAC - Chiller Replacement	0	103,000	0	0	0	103,000
Police Department Roof and Sally Port	56,000	225,000	0	0	0	281,000
Facility Construction and Renovation	300,000	428,000	90,000	0	0	818,000
Facility Construction and Renovation						
Revenues						
CDBG Grant	150,000	100,000	90,000	0	0	340,000
Property Taxes-General CIP	150,000	328,000	0	0	0	478,000
Facility Construction and Renovation	300,000	428,000	90,000	0	0	818,000
Recreation and Cultural Facility Improvements						
Expenditures						
Ormond Beach Sports Complex Field 9 / 10 Ligh	450,000	0	0	0	0	450,000
OBSC Improvements	88,000	0	1,040,000	0	0	1,128,000
West Ormond Community Center	50,000	0	0	0	0	50,000
Nova Community Park Renovations	0	150,000	0	0	0	150,000
Underground Electric Utilities	0	0	0	55,000	0	55,000
Nova Community Park Master Plan Phase I	0	0	0	0	500,000	500,000
Recreation and Cultural Facility Improvement	588,000	150,000	1,040,000	55,000	500,000	2,333,000
Recreation and Cultural Facility Improvements						
Revenues						
Echo	0	0	400,000	0	0	400,000
FRDAP (pending approval)	0	112,500	115,000	0	0	227,500
General Fund Reserves	0	0	300,000	0	0	300,000
Impact Fees	50,000	0	0	0	0	50,000
Property Taxes-General CIP	538,000	37,500	225,000	55,000	500,000	1,355,500
Recreation and Cultural Facility Improvements	588,000	150,000	1,040,000	55,000	500,000	2,333,000

Projects by Category

	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Stormwater Improvements						
Expenditures						
Fleming Ave Stormdrain Improvements	220,000	0	0	0	0	220,000
Sandpiper Lane Drainage Improvement	50,600	0	0	0	0	50,600
Wilmette Avenue Pump Station	171,600	0	0	0	0	171,600
Corrugated Metal Pipe Rehabilitation	250,000	250,000	250,000	250,000	250,000	1,250,000
Stormwater Improvements	692,200	250,000	250,000	250,000	250,000	1,692,200
Stormwater Improvements						
Revenues						
Stormwater Charges	692,200	250,000	250,000	250,000	250,000	1,692,200
Stormwater Improvements	692,200	250,000	250,000	250,000	250,000	1,692,200
Technology						
Expenditures						
P25 Compliant Radios	0	830,934	0	0	0	830,934
Backup Server Upgrade	0	105,000	0	0	0	105,000
Technology	0	935,934	0	0	0	935,934
Technology						
Revenues						
Equipment Financing	0	830,934	0	0	0	830,934
General Fund Reserves	0	52,500	0	0	0	52,500
Water & Sewer Charges	0	52,500	0	0	0	52,500
Technology	0	935,934	0	0	0	935,934

Projects by Category

	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Transportation						
Expenditures						
Amsden Rd Rehabilitation	223,000	0	0	0	0	223,000
Forest Hill Trail	589,288	0	0	0	0	589,288
Railroad Crossing	50,000	50,000	50,000	50,000	0	200,000
Road Resurfacing	500,000	460,000	470,000	453,000	450,000	2,333,000
Street Light Maintenance	40,000	30,000	65,000	65,000	0	200,000
US 1 North Sidewalk	61,700	185,100	1,234,000	0	0	1,480,800
A1A Mast Arm Installation	50,000	500,205	0	0	0	550,205
Williamson Blvd./Hand Ave. Pedestrian Improve	26,400	0	0	193,600	0	220,000
Tomoka State Park Sidewalk	0	945,989	0	0	0	945,989
Tomoka Elementary Connector Sidewalk	0	118,800	0	0	0	118,800
Traffic Signal Maintenance	0	70,000	65,000	70,000	45,000	250,000
Transportation	1,540,388	2,360,094	1,884,000	831,600	495,000	7,111,082

Transportation						
Revenues						
FDOT JPA	530,359	0	0	0	0	530,359
Local Option Gas Tax	500,000	460,000	470,000	453,000	450,000	2,333,000
Property Taxes-Transportation	454,499	259,530	303,400	185,000	45,000	1,247,429
TPO Grant (pending)	55,530	1,640,564	1,110,600	193,600	0	3,000,294
Transportation	1,540,388	2,360,094	1,884,000	831,600	495,000	7,111,082

Projects by Category

	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Water and Wastewater Improvements						
Expenditures						
WTP Lime Slaker Unit Replacement	35,000	350,000	0	0	0	385,000
WTP Sodium Hypochlorite Generator Replacem	18,000	180,000	0	0	0	198,000
WWTP Influent Pump Station VFD Replacement	25,000	170,000	0	0	0	195,000
Hydrant Replacement	161,000	0	0	0	0	161,000
City-wide Meter Replacement	543,000	243,000	247,000	256,000	250,000	1,539,000
General Facility and System Upgrades	200,000	200,000	200,000	200,000	200,000	1,000,000
Water Storage Tank Repairs	690,000	110,000	400,000	136,000	200,000	1,536,000
Lift Station Rehabilitation	400,000	400,000	600,000	400,000	0	1,800,000
Meter Installation	90,000	90,000	90,000	90,000	90,000	450,000
Pretreatment Effluent Pump (PEP) Replacement	100,000	100,000	100,000	100,000	100,000	500,000
Sanitary Sewer Inflow Infiltration	0	0	0	100,000	0	100,000
Water Main Replacement	1,575,000	180,000	1,200,000	0	0	2,955,000
Outfall Pipe Replacement	720,000	0	0	0	0	720,000
MLS Comminutor	30,000	0	0	0	0	30,000
South Peninsula Reclaimed Water Main Expansi	3,338,400	0	0	0	0	3,338,400
N. Peninsula Water System Improvements	562,000	0	0	0	0	562,000
Process and Instrumentation Control Improveme	300,000	200,000	0	0	0	500,000
WTTP Sludge Dewatering Improvements	195,000	1,560,000	0	0	0	1,755,000
WTP Solids Handling Facility Upgrades	1,200,000	0	0	0	0	1,200,000
Secondary Raw Water Main	300,000	2,400,000	0	0	0	2,700,000
Airport Road Reclaim Water Main PH 2	0	0	0	0	130,500	130,500
Filter Demolition and New Storage Building	0	0	0	0	45,000	45,000
Halifax River Force Main Crossing	0	0	0	0	117,000	117,000
Hudson Wellfield Expansion	0	0	0	0	255,000	255,000
Replace Lime Softening Filters	0	0	0	0	270,000	270,000

Projects by Category

	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Water and Wastewater Improvements	10,482,400	6,183,000	2,837,000	1,282,000	1,657,500	22,441,900
Water and Wastewater Improvements						
Revenues						
Bond Proceeds	6,842,000	2,340,000	1,800,000	0	0	10,982,000
SJRWMD Grant	1,200,000	0	0	0	0	1,200,000
Wastewater Impact Fees	938,400	0	0	0	372,000	1,310,400
Water & Sewer Charges	1,202,000	1,443,000	1,037,000	1,282,000	1,285,500	6,249,500
Water Impact Fees	300,000	2,400,000	0	0	0	2,700,000
Water and Wastewater Improvements	10,482,400	6,183,000	2,837,000	1,282,000	1,657,500	22,441,900
Grand Total	**17,831,604**	**13,680,723**	**14,238,400**	**4,050,800**	**6,024,000**	**55,825,527**

Projects by Fund

	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
104-TIF						
EXPENDITURE						
Downtown: Cassen Park Improvements	225,000	335,000	0	0	0	560,000
Downtown: Cassen Park Public Dock	772,100	0	0	0	0	772,100
Downtown: Land Acquisitions/Redevelopme	0	50,000	0	0	0	50,000
Downtown: Rockefeller Garden Stage Shade	49,000	0	0	0	0	49,000
Downtown: Sidewalk Renovations	0	0	350,000	0	0	350,000
Downtown: Stormwater Improvements	50,000	550,000	100,000	500,000	400,000	1,600,000
Downtown: Thompson Creek, Phase II	0	25,000	0	0	666,500	691,500
Downtown: Upgrades and Improvements	65,000	0	0	0	0	65,000
TOTAL EXPENDITURE	**1,161,100**	**960,000**	**450,000**	**500,000**	**1,066,500**	**4,137,600**
FUNDING						
FBIG(pending approval)	400,000	0	0	0	0	400,000
FIND Grant (pending approval)	372,100	0	0	0	0	372,100
Property Taxes-TIF	389,000	941,250	450,000	500,000	566,625	2,846,875
TPO Grant (pending)	0	18,750	0	0	499,875	518,625
TOTAL FUNDING	**1,161,100**	**960,000**	**450,000**	**500,000**	**1,066,500**	**4,137,600**
107-Stormwater						
EXPENDITURE						
Corrugated Metal Pipe Rehabilitation	250,000	250,000	250,000	250,000	250,000	1,250,000
Fleming Ave Stormdrain Improvements	220,000	0	0	0	0	220,000
Sandpiper Lane Drainage Improvement	50,600	0	0	0	0	50,600
Vehicle Replacement-Stormwater	52,000	314,000	0	345,000	0	711,000
Wilmette Avenue Pump Station	171,600	0	0	0	0	171,600
TOTAL EXPENDITURE	**744,200**	**564,000**	**250,000**	**595,000**	**250,000**	**2,403,200**
FUNDING						
Stormwater Charges	744,200	564,000	250,000	595,000	250,000	2,403,200
TOTAL FUNDING	**744,200**	**564,000**	**250,000**	**595,000**	**250,000**	**2,403,200**

	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
108-Airport						
EXPENDITURE						
Airport Access Roads	64,000	340,000	0	0	0	404,000
Rehabilitate and Extend Runway 8/26	275,000	300,000	6,700,000	0	0	7,275,000
Rehabilitate, Mark and Light Taxiway "E"	0	0	0	150,000	0	150,000
Replace AWOS	0	0	175,000	0	0	175,000
Wildlife Hazard Assessment	110,000	0	0	0	0	110,000
TOTAL EXPENDITURE	**449,000**	**640,000**	**6,875,000**	**150,000**	**0**	**8,114,000**
FUNDING						
Airport Fund	5,500	6,000	134,000	0	0	145,500
FAA	346,500	270,000	6,187,500	135,000	0	6,939,000
FDOT	66,000	296,000	550,000	12,000	0	924,000
General Fund Reserves	31,000	68,000	3,500	3,000	0	105,500
TOTAL FUNDING	**449,000**	**640,000**	**6,875,000**	**150,000**	**0**	**8,114,000**
110-Economic Development Fund						
EXPENDITURE						
Airport Business Park Expansion	0	0	428,000	0	0	428,000
Business Park Drive Phase II	0	0	0	195,000	2,055,000	2,250,000
TOTAL EXPENDITURE	**0**	**0**	**428,000**	**195,000**	**2,055,000**	**2,678,000**
FUNDING						
FDOT	0	0	0	0	1,644,000	1,644,000
General Fund Reserves	0	0	0	0	411,000	411,000
Land Sales	0	0	0	195,000	0	195,000
Private Developer	0	0	428,000	0	0	428,000
TOTAL FUNDING	**0**	**0**	**428,000**	**195,000**	**2,055,000**	**2,678,000**

	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
116-Grant Fund						
EXPENDITURE						
CDBG Projects	150,000	100,000	90,000	0	0	340,000
Granada Boulevard Landscape Beautificatio	0	1,000,000	0	0	0	1,000,000
North US1 Landscape Beautification	1,000,000	0	0	0	0	1,000,000
Nova Community Park Renovations	0	150,000	0	0	0	150,000
OBSC Improvements	88,000	0	1,040,000	0	0	1,128,000
TOTAL EXPENDITURE	**1,238,000**	**1,250,000**	**1,130,000**	**0**	**0**	**3,618,000**
FUNDING						
CDBG Grant	150,000	100,000	90,000	0	0	340,000
Echo	0	0	400,000	0	0	400,000
FDOT JPA	800,000	900,000	0	0	0	1,700,000
FRDAP (pending approval)	0	112,500	115,000	0	0	227,500
General Fund Reserves	200,000	100,000	300,000	0	0	600,000
Property Taxes-General CIP	88,000	37,500	225,000	0	0	350,500
TOTAL FUNDING	**1,238,000**	**1,250,000**	**1,130,000**	**0**	**0**	**3,618,000**
117-Facilities Renewal and Replacement						
EXPENDITURE						
Ames Park	0	0	25,000	0	0	25,000
Dock Walkway Replacement CP I	50,250	0	0	0	0	50,250
South Ormond Neighborhood Center	0	30,000	0	0	0	30,000
Sports Field Improvements	35,000	0	0	0	0	35,000
TOTAL EXPENDITURE	**85,250**	**30,000**	**25,000**	**0**	**0**	**140,250**
FUNDING						
Property Taxes-R&R	85,250	30,000	25,000	0	0	140,250
TOTAL FUNDING	**85,250**	**30,000**	**25,000**	**0**	**0**	**140,250**

	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
301-General Improvement Fund						
EXPENDITURE						
Advanced Life Support Cardiac Monitors	110,676	0	0	0	0	110,676
Backup Server Upgrade	0	105,000	0	0	0	105,000
Bridge Sideslope Landscape Improvements	80,000	0	0	0	0	80,000
HVAC - Chiller Replacement	0	103,000	0	0	0	103,000
Nova Community Park Master Plan Phase I	0	0	0	0	500,000	500,000
Ormond Beach Sports Complex Field 9 / 10	450,000	0	0	0	0	450,000
P25 Compliant Radios	0	830,934	0	0	0	830,934
Police Department Roof and Sally Port	56,000	225,000	0	0	0	281,000
Seawall Repairs	94,000	0	0	0	0	94,000
Underground Electric Utilities	0	0	0	55,000	0	55,000
TOTAL EXPENDITURE	**790,676**	**1,263,934**	**0**	**55,000**	**500,000**	**2,609,610**
FUNDING						
Equipment Financing	0	830,934	0	0	0	830,934
General Fund Reserves	110,676	52,500	0	0	0	163,176
Property Taxes-General CIP	680,000	328,000	0	55,000	500,000	1,563,000
Water & Sewer Charges	0	52,500	0	0	0	52,500
TOTAL FUNDING	**790,676**	**1,263,934**	**0**	**55,000**	**500,000**	**2,609,610**
302-General Vehicle Replacement Fund						
EXPENDITURE						
Vehicle Replacement-Fire 94	343,605	0	0	0	0	343,605
Vehicle Replacement-General	324,100	134,400	268,400	396,200	0	1,123,100
TOTAL EXPENDITURE	**667,705**	**134,400**	**268,400**	**396,200**	**0**	**1,466,705**
FUNDING						
Vehicle Lease Purchase	343,605	0	0	0	0	343,605
Vehicle Replacement Fund	324,100	134,400	268,400	396,200	0	1,123,100
TOTAL FUNDING	**667,705**	**134,400**	**268,400**	**396,200**	**0**	**1,466,705**

	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
308-Transportation						
EXPENDITURE						
A1A Mast Arm Installation	50,000	500,205	0	0	0	550,205
Amsden Rd Rehabilitation	223,000	0	0	0	0	223,000
Forest Hill Trail	589,288	0	0	0	0	589,288
Railroad Crossing	50,000	50,000	50,000	50,000	0	200,000
Road Resurfacing	500,000	460,000	470,000	453,000	450,000	2,333,000
Street Light Maintenance	40,000	30,000	65,000	65,000	0	200,000
Tomoka Elementary Connector Sidewalk	0	118,800	0	0	0	118,800
Tomoka State Park Sidewalk	0	945,989	0	0	0	945,989
Traffic Signal Maintenance	0	70,000	65,000	70,000	45,000	250,000
US 1 North Sidewalk	61,700	185,100	1,234,000	0	0	1,480,800
Williamson Blvd./Hand Ave. Pedestrian Impr	26,400	0	0	193,600	0	220,000
TOTAL EXPENDITURE	**1,540,388**	**2,360,094**	**1,884,000**	**831,600**	**495,000**	**7,111,082**
FUNDING						
FDOT JPA	530,359	0	0	0	0	530,359
Local Option Gas Tax	500,000	460,000	470,000	453,000	450,000	2,333,000
Property Taxes-Transportation	454,499	259,530	303,400	185,000	45,000	1,247,429
TPO Grant (pending)	55,530	1,640,564	1,110,600	193,600	0	3,000,294
TOTAL FUNDING	**1,540,388**	**2,360,094**	**1,884,000**	**831,600**	**495,000**	**7,111,082**
310-Impact Fees						
EXPENDITURE						
West Ormond Community Center	50,000	0	0	0	0	50,000
TOTAL EXPENDITURE	**50,000**	**0**	**0**	**0**	**0**	**50,000**
FUNDING						
Impact Fees	50,000	0	0	0	0	50,000
TOTAL FUNDING	**50,000**	**0**	**0**	**0**	**0**	**50,000**

	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
408-Water and Wastewater Vehicle Repl.						
EXPENDITURE						
Vehicle Replacement-Water & Wastewater	622,885	295,295	91,000	46,000	0	1,055,180
TOTAL EXPENDITURE	**622,885**	**295,295**	**91,000**	**46,000**	**0**	**1,055,180**
FUNDING						
Water & Sewer Charges	622,885	295,295	91,000	46,000	0	1,055,180
TOTAL FUNDING	**622,885**	**295,295**	**91,000**	**46,000**	**0**	**1,055,180**

	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
409-Water and Wastewater R and R						
EXPENDITURE						
Airport Road Reclaim Water Main PH 2	0	0	0	0	130,500	130,500
City-wide Meter Replacement	543,000	243,000	247,000	256,000	250,000	1,539,000
Filter Demolition and New Storage Building	0	0	0	0	45,000	45,000
General Facility and System Upgrades	200,000	200,000	200,000	200,000	200,000	1,000,000
Halifax River Force Main Crossing	0	0	0	0	117,000	117,000
Hudson Wellfield Expansion	0	0	0	0	255,000	255,000
Hydrant Replacement	161,000	0	0	0	0	161,000
Lift Station Rehabilitation	400,000	400,000	600,000	400,000	0	1,800,000
Meter Installation	90,000	90,000	90,000	90,000	90,000	450,000
MLS Comminutor	30,000	0	0	0	0	30,000
N. Peninsula Water System Improvements	562,000	0	0	0	0	562,000
Outfall Pipe Replacement	720,000	0	0	0	0	720,000
Pretreatment Effluent Pump (PEP) Replace	100,000	100,000	100,000	100,000	100,000	500,000
Process and Instrumentation Control Improv	300,000	200,000	0	0	0	500,000
Replace Lime Softening Filters	0	0	0	0	270,000	270,000
Sanitary Sewer Inflow Infiltration	0	0	0	100,000	0	100,000
Water Main Replacement	1,575,000	180,000	1,200,000	0	0	2,955,000
Water Storage Tank Repairs	690,000	110,000	400,000	136,000	200,000	1,536,000
WTP Lime Slaker Unit Replacement	35,000	350,000	0	0	0	385,000
WTP Sodium Hypochlorite Generator Repla	18,000	180,000	0	0	0	198,000
WTP Solids Handling Facility Upgrades	1,200,000	0	0	0	0	1,200,000
WTTP Sludge Dewatering Improvements	195,000	1,560,000	0	0	0	1,755,000
WWTP Influent Pump Station VFD Replace	25,000	170,000	0	0	0	195,000
TOTAL EXPENDITURE	**6,844,000**	**3,783,000**	**2,837,000**	**1,282,000**	**1,657,500**	**16,403,500**
FUNDING						
Bond Proceeds	5,642,000	2,340,000	1,800,000	0	0	9,782,000
Wastewater Impact Fees	0	0	0	0	372,000	372,000
Water & Sewer Charges	1,202,000	1,443,000	1,037,000	1,282,000	1,285,500	6,249,500
TOTAL FUNDING	**6,844,000**	**3,783,000**	**2,837,000**	**1,282,000**	**1,657,500**	**16,403,500**

	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
434-Water Impact Fees						
EXPENDITURE						
Secondary Raw Water Main	300,000	2,400,000	0	0	0	2,700,000
TOTAL EXPENDITURE	**300,000**	**2,400,000**	**0**	**0**	**0**	**2,700,000**
FUNDING						
Water Impact Fees	300,000	2,400,000	0	0	0	2,700,000
TOTAL FUNDING	**300,000**	**2,400,000**	**0**	**0**	**0**	**2,700,000**
435-Wastewater Impact Fees						
EXPENDITURE						
South Peninsula Reclaimed Water Main Exp	3,338,400	0	0	0	0	3,338,400
TOTAL EXPENDITURE	**3,338,400**	**0**	**0**	**0**	**0**	**3,338,400**
FUNDING						
Bond Proceeds	1,200,000	0	0	0	0	1,200,000
SJRWMD Grant	1,200,000	0	0	0	0	1,200,000
Wastewater Impact Fees	938,400	0	0	0	0	938,400
TOTAL FUNDING	**3,338,400**	**0**	**0**	**0**	**0**	**3,338,400**
Grand Total	**17,831,604**	**13,680,723**	**14,238,400**	**4,050,800**	**6,024,000**	**55,825,527**

CAPITAL IMPROVEMENT PROGRAM SUMMARY

			Project Costs								Funding Sources								
Project Title	Zone	Project #	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FIVE YEAR TOTAL	FUTURE PROJECTS	OPERATING COSTS	Grants/Donations	Property Taxes	General Fund Reserves	Bonds/Financing	User Charges	Gas Tax	Vehicle Repl. Fund	Other	FIVE YEAR TOTAL
Airport Business Park Expansion	1	110014	-	-	428,000	-	-	428,000		-	-	-	-	-	-	-	-	428,000	428,000
Business Park Drive Ph II	1	110012	-	-	-	195,000	2,055,000	2,250,000		-	1,644,000	-	411,000	-	-	-	-	195,000	2,250,000
Wildfire Hazard Assessment	1	108067	110,000	-	-	-	-	110,000		-	107,800	-	2,200	-	-	-	-	-	110,000
Airport Access Roads	1	108066	64,000	340,000	-	-	-	404,000		-	307,200	-	96,800	-	-	-	-	-	404,000
Rehab and Extend Runway 8/26		108075	275,000	300,000	6,700,000	-	-	7,275,000			7,129,500							145,500	7,275,000
Replace AWOS	1	108068	-	-	175,000	-	-	175,000		-	171,500	-	3,500	-	-	-	-	-	175,000
Rehab, Mark, & Light Taxiway E	1	108069	-	-	-	150,000	-	150,000		-	147,000	-	3,000	-	-	-	-	-	150,000
AIRPORT IMPROVEMENTS TOTAL			**449,000**	**640,000**	**7,303,000**	**345,000**	**2,055,000**	**10,792,000**	**-**	**-**	**9,507,000**	**-**	**516,500**	**-**	**-**	**-**	**-**	**768,500**	**10,792,000**
Bridge SideSlope Landscaping	3	301196	80,000	-	-	-	-	80,000		2,000	-	80,000	-	-	-	-	-	-	80,000
Granada Landscape Beautification		116066	-	1,000,000	-	-	-	1,000,000		15,000	900,000	-	100,000	-	-	-	-	-	1,000,000
North US 1 Landscape Beautification		116067	1,000,000	-	-	-	-	1,000,000		15,000	800,000	-	200,000	-	-	-	-	-	1,000,000
BEAUTIFICATION TOTAL			**1,080,000**	**1,000,000**	**-**	**-**	**-**	**2,080,000**	**-**	**32,000**	**1,700,000**	**80,000**	**300,000**	**-**	**-**	**-**	**-**	**-**	**2,080,000**
Downtown: Cassen Park Improvements	1,2	104056	225,000	335,000	-	-	-	560,000		-	-	560,000	-	-	-	-	-	-	560,000
Downtown: Cassen Park Public Dock	1,2	104051	772,100	-	-	-	-	772,100		-	772,100	-	-	-	-	-	-	-	772,100
Downtown: Rockefeller Garden Stage Shade	1,2	104052	49,000	-	-	-	-	49,000		-	-	49,000	-	-	-	-	-	-	49,000
Downtown: Thompson Creek	2	104046	-	25,000	-	-	666,500	691,500		-	518,625	172,875	-	-	-	-	-	-	691,500
Downtown: Land Acquisitions/Redevelopment	2	104048	-	50,000	-	-	-	50,000		-	-	50,000	-	-	-	-	-	-	50,000
Downtown: Stormwater Improvements	2	104044	50,000	550,000	100,000	500,000	400,000	1,600,000		-	-	1,600,000	-	-	-	-	-	-	1,600,000
Downtown: Sidewalk Renovations	2	104050	-	-	350,000	-	-	350,000		-	-	350,000	-	-	-	-	-	-	350,000
Downtown: Upgrades & Improvements	1,2	104057	65,000	-	-	-	-	65,000		-	-	65,000	-	-	-	-	-	-	65,000
COMMUNITY REDEVELOPMENT TOTAL			**1,161,100**	**960,000**	**450,000**	**500,000**	**1,066,500**	**4,137,600**		**-**	**1,290,725**	**2,846,875**	**-**	**-**	**-**	**-**	**-**	**-**	**4,137,600**
Central Park I	4	117020	50,250	-	-	-	-	50,250		-	-	50,250	-	-	-	-	-	-	50,250
Sports Field Improvements	1	117015	35,000	-	-	-	-	35,000		-	-	35,000	-	-	-	-	-	-	35,000
South Ormond Neighborhood Ctr.		117037	-	30,000	-	-	-	30,000			-	30,000	-	-	-	-	-	-	30,000
Ames Park	2	117016	-	-	25,000	-	-	25,000		-	-	25,000	-	-	-	-	-	-	25,000
FACILITIES RENEWAL & REPLACEMENT TOTAL			**85,250**	**30,000**	**25,000**	**-**	**-**	**140,250**		**-**	**-**	**140,250**	**-**	**-**	**-**	**-**	**-**	**-**	**140,250**

CAPITAL IMPROVEMENT PROGRAM SUMMARY

			Project Costs								Funding Sources								
Project Title	Zone	Project #	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FIVE YEAR TOTAL	FUTURE PROJECTS	OPERATING COSTS	Grants/Donations	Property Taxes	General Fund Reserves	Bonds/Financing	User Charges	Gas Tax	Vehicle Repl. Fund	Other	FIVE YEAR TOTAL
Seawall Repairs	2	301170	94,000	-	-	-	-	94,000		-	-	94,000	-	-	-	-	-		94,000
CDBG Projects	2,4	CDBG16	150,000	100,000	90,000	-	-	340,000		-	340,000	-	-	-	-	-	-		340,000
HVAC-Chiller Replacement	2	301186	-	103,000	-	-	-	103,000		-	-	103,000	-	-	-	-	-		103,000
Police Department Roof & Sally Port	2	301173	56,000	225,000	-	-	-	281,000		-	-	281,000	-	-	-	-	-		281,000
FACILITY CONSTRUCTION & RENOVATION TOTAL			**300,000**	**428,000**	**90,000**	**-**	**-**	**818,000**	**-**	**-**	**340,000**	**478,000**	**-**	**-**	**-**	**-**	**-**	**-**	**818,000**
OBSC Fields 9 and 10	1	301193	450,000	-	-	-	-	450,000		-	-	450,000	-	-	-	-	-	-	450,000
OBSC Improvements	1	116065	88,000	-	1,040,000	-	-	1,128,000		1,000	515,000	313,000	300,000	-	-	-	-	-	1,128,000
Nova Community Park Renovations	3	116064	-	150,000	-	-	-	150,000		500	112,500	37,500	-	-	-	-	-	-	150,000
West Ormond Community Center Study		310017	50,000	-	-	-	-	50,000			-	-	-		50,000	-	-	-	50,000
Underground Electric Utilities		301226	-	-	-	55,000	-	55,000			-	55,000	-		-	-	-	-	55,000
Nova Community Park Phase I	3		-	-	-	-	500,000	500,000		-	-	500,000	-	-	-	-	-	-	500,000
PARKS, RECREATION, AND CULTURAL TOTAL			**588,000**	**150,000**	**1,040,000**	**55,000**	**500,000**	**2,333,000**		**1,500**	**627,500**	**1,355,500**	**300,000**	**-**	**50,000**	**-**	**-**	**-**	**2,333,000**
Fleming Avenue		107153	220,000	-	-	-	-	220,000		-	-	-	-	-	220,000	-	-	-	220,000
Sandpiper Lane		107155	50,600	-	-	-	-	50,600			-	-	-	-	50,600	-	-	-	50,600
Wilmette Ave. Pump Station	2	107151	171,600	-	-	-	-	171,600		-	-	-	-	-	171,600	-	-	-	171,600
Corrugated Metal Pipe Rehabilitation	1,2	107152	250,000	250,000	250,000	250,000	250,000	1,250,000		-	-	-	-	-	1,250,000	-	-	-	1,250,000
STORWATER TOTAL			**692,200**	**250,000**	**250,000**	**250,000**	**250,000**	**1,692,200**		**-**	**-**	**-**	**-**	**-**	**1,692,200**	**-**	**-**	**-**	**1,692,200**

CAPITAL IMPROVEMENT PROGRAM SUMMARY

			Project Costs								Funding Sources								
Project Title	Zone	Project #	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FIVE YEAR TOTAL	FUTURE PROJECTS	OPERATING COSTS	Grants/Donations	Property Taxes	General Fund Reserves	Bonds/Financing	User Charges	Gas Tax	Vehicle Repl. Fund	Other	FIVE YEAR TOTAL
P25 Compliant Radios	All	301215	-	830,934	-	-	-	830,934		-	-	-	-	830,934	-	-	-	-	830,934
Backup Server Upgrade	All	301216	-	105,000	-	-	-	105,000		-	-	-	52,500	-	52,500	-	-	-	105,000
TECHNOLOGY TOTAL			**-**	**935,934**	**-**	**-**	**-**	**935,934**		**-**	**-**	**-**	**52,500**	**830,934**	**52,500**	**-**	**-**	**-**	**935,934**
Amdsen Road Rehabilitation		308120	223,000	-	-	-	-	223,000		-	-	223,000	-	-	-	-	-	-	223,000
Forest Hill Trail	4	308101	589,288	-	-	-	-	589,288		-	530,359	58,929	-	-	-	-	-	-	589,288
Railroad Crossing	All	308123	50,000	50,000	50,000	50,000		200,000		-	-	200,000	-	-	-	-	-	-	200,000
Road Resurfacing	All	308124	500,000	460,000	470,000	453,000	450,000	2,333,000		-	-	-	-	-	-	2,333,000	-	-	2,333,000
Street Light Maintenance	2,3,4	308125	40,000	30,000	65,000	65,000	-	200,000		-	-	200,000	-	-	-	-	-	-	200,000
US 1 North Sidewalk	1,2,3	308118	61,700	185,100	1,234,000	-	-	1,480,800			1,332,720	148,080	-	-	-	-	-	-	1,480,800
A1A Mast Arm Installation	2	308107	50,000	500,205	-	-	-	550,205			495,184	55,021	-	-	-	-	-	-	550,205
Williamson Blvd Pedestrian Impr.		308121	26,400	-	-	193,600	-	220,000			193,600	26,400	-	-	-	-	-	-	220,000
Tomoka State Park Sidewalk		308117	-	945,989	-	-	-	945,989			859,990	85,999	-	-	-	-	-	-	945,989
Tomoka Elementary Connector SW		308122	-	118,800	-	-	-	118,800			118,800	-	-	-	-	-	-	-	118,800
Traffic Signal Maintenance		308115	-	70,000	65,000	70,000	45,000	250,000			-	250,000	-	-	-	-	-	-	250,000
TRANSPORTATION TOTAL			**1,540,388**	**2,360,094**	**1,884,000**	**831,600**	**495,000**	**7,111,082**		**-**	**3,530,653**	**1,247,429**	**-**	**-**	**-**	**2,333,000**	**-**	**-**	**7,111,082**
Adv. Life Support Cardiac Monitors	NA	301214	110,676	-	-	-	-	110,676		-	-	-	110,676	-	-	-	-	-	110,676
Vehicle Replacement-General	NA	30217M	324,100	134,400	268,400	396,200	-	1,123,100		-	-	-	-	-	-	-	1,123,100	-	1,123,100
Vehicle Replacement-Stormwater	NA	10717M	52,000	314,000	-	345,000	-	711,000		-	-	-	-	-	711,000	-	-	-	711,000
Vehicle Replacement-Water & Wastewater	NA	40817M	622,885	295,295	91,000	46,000	-	1,055,180		-	-	-	-	-	1,055,180	-	-	-	1,055,180
Vehicle Replacement-Fire E94	NA	30217M	343,605	-	-	-	-	343,605		-	-	-	-	343,605	-	-	-	-	343,605
VEHICLE AND EQUIPMENT REPLACEMENT TOTAL			**1,453,266**	**743,695**	**359,400**	**787,200**	**-**	**3,343,561**		**-**	**-**	**-**	**110,676**	**343,605**	**1,766,180**	**-**	**1,123,100**	**-**	**3,343,561**
WTP Lime Slaker Unit		409207	35,000	350,000	-	-	-	385,000		-	-	-	-	-	385,000	-	-		385,000
WTP Sodium Hypochlorite		409208	18,000	180,000	-	-	-	198,000		-	-	-	-	-	198,000	-	-		198,000
WWTP Influent Pump Station		409209	25,000	170,000	-	-	-	195,000		-	-	-	-	-	195,000	-	-		195,000
Hydrant Replacement	All	409181	161,000	-	-	-	-	161,000		-	-	-	-	-	161,000	-	-		161,000
City-wide Meter Replacement	All	409169	543,000	243,000	247,000	256,000	250,000	1,539,000		-	-	-	-	-	1,539,000	-	-		1,539,000
General Facility and System Upgrades	2	409187	200,000	200,000	200,000	200,000	200,000	1,000,000		-	-	-	-	-	1,000,000	-	-	-	1,000,000
Water Storage Tank Repairs	All	409180	690,000	110,000	400,000	136,000	200,000	1,536,000		-	-	-	-	690,000	846,000	-	-		1,536,000
Lift Station Rehabilitation	All	409175	400,000	400,000	600,000	400,000	-	1,800,000		-	-	-	-	1,400,000	400,000	-	-	-	1,800,000
Meter Installation	All	409178	90,000	90,000	90,000	90,000	90,000	450,000		-	-	-	-	-	450,000	-	-		450,000

CAPITAL IMPROVEMENT PROGRAM SUMMARY

			Project Costs								Funding Sources								
Project Title	Zone	Project #	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FIVE YEAR TOTAL	FUTURE PROJECTS	OPERATING COSTS	Grants/Donations	Property Taxes	General Fund Reserves	Bonds/Financing	User Charges	Gas Tax	Vehicle Repl. Fund	Other	FIVE YEAR TOTAL
Pretreatment Effluent Pump (PEP) Replacement	3	409177	100,000	100,000	100,000	100,000	100,000	500,000		-	-	-	-	-	500,000	-	-	-	500,000
Sanitary Sewer Inflow Infiltration	All	409179	-	-	-	100,000	-	100,000		-	-	-	-	-	100,000	-	-	-	100,000
Water Main Replacement	All	409173	1,575,000	180,000	1,200,000	-	-	2,955,000		-	-	-	-	2,955,000	-	-	-	-	2,955,000
Outfall Pipe Replacement	All	409192	720,000	-	-	-	-	720,000		-	-	-	-	720,000	-	-	-	-	720,000
MLS Comminutor	2	409190	30,000	-	-	-	-	30,000		-	-	-	-	-	30,000	-	-	-	30,000
S. Pen Water System Improvements		435040	3,338,400	-	-	-	-	3,338,400			1,200,000	-	-	1,200,000	938,400	-		-	3,338,400
N. Pen Water System Improvements	1	409191	562,000	-	-	-	-	562,000			-	-	-	562,000	-	-		-	562,000
Process & Instrumentation Control	2	409193	300,000	200,000	-	-	-	500,000			-	-	-	500,000	-	-	-	-	500,000
Sludge Dewatering	2	409195	195,000	1,560,000	-	-	-	1,755,000			-	-	-	1,755,000	-	-	-	-	1,755,000
WTP Solids Handling Facility Upgrade	2	409197	1,200,000	-	-	-	-	1,200,000			-	-	-	1,200,000	-	-	-	-	1,200,000
Secondary Raw Water	3	434027	300,000	2,400,000	-	-	-	2,700,000			-	-	-	-	2,700,000	-	-	-	2,700,000
Airport Road Reclaim		409210	-	-	-	-	130,500	130,500			-	-	-	-	130,500	-	-	-	130,500
Filter Demolition and New Storage Bldg.		409211	-	-	-	-	45,000	45,000			-	-	-	-	45,000	-	-	-	45,000
Halifax River Force Main Crossing		409212	-	-	-	-	117,000	117,000		1,000	-	-	-	-	117,000	-	-	-	117,000
Hudson Wellfield Expansion		409213	-	-	-	-	255,000	255,000		1,000	-	-	-	-	255,000	-	-	-	255,000
Replace Lime Softening Filters		409214	-	-	-	-	270,000	270,000		1,000	-	-	-	-	270,000	-	-	-	270,000
WATER/WASTEWATER TOTAL			**10,482,400**	**6,183,000**	**2,837,000**	**1,282,000**	**1,657,500**	**22,441,900**		**3,000**	**1,200,000**	**-**	**-**	**10,982,000**	**10,259,900**	**-**	**-**	**-**	**22,441,900**
GRAND TOTAL			**17,831,604**	**13,680,723**	**14,238,400**	**4,050,800**	**6,024,000**	**55,825,527**		**36,500**	**18,195,878**	**6,148,054**	**1,279,676**	**12,156,539**	**13,820,780**	**2,333,000**	**1,123,100**	**768,500**	**55,825,527**

AIRPORT/AIRPARK/BUSINESS PARK IMPROVEMENTS

CAPITAL PROJECT DETAIL

PROJECT TITLE

Airport Business Park Expansion

PROJECT#

110014

CATEGORY

Airport Business Park

FUND

110-Economic Development Fund

PROJECT LOCATION

ABP

MANAGEMENT

Economic Development

PROJECT SCOPE

This project involves the determination by the FAA that the former Nursery property, of approximately 15.8 acres, which is part of Airport property and located adjacent to the Airport Business Park, should be considered surplus to the development of the Airport.

JUSTIFICATION

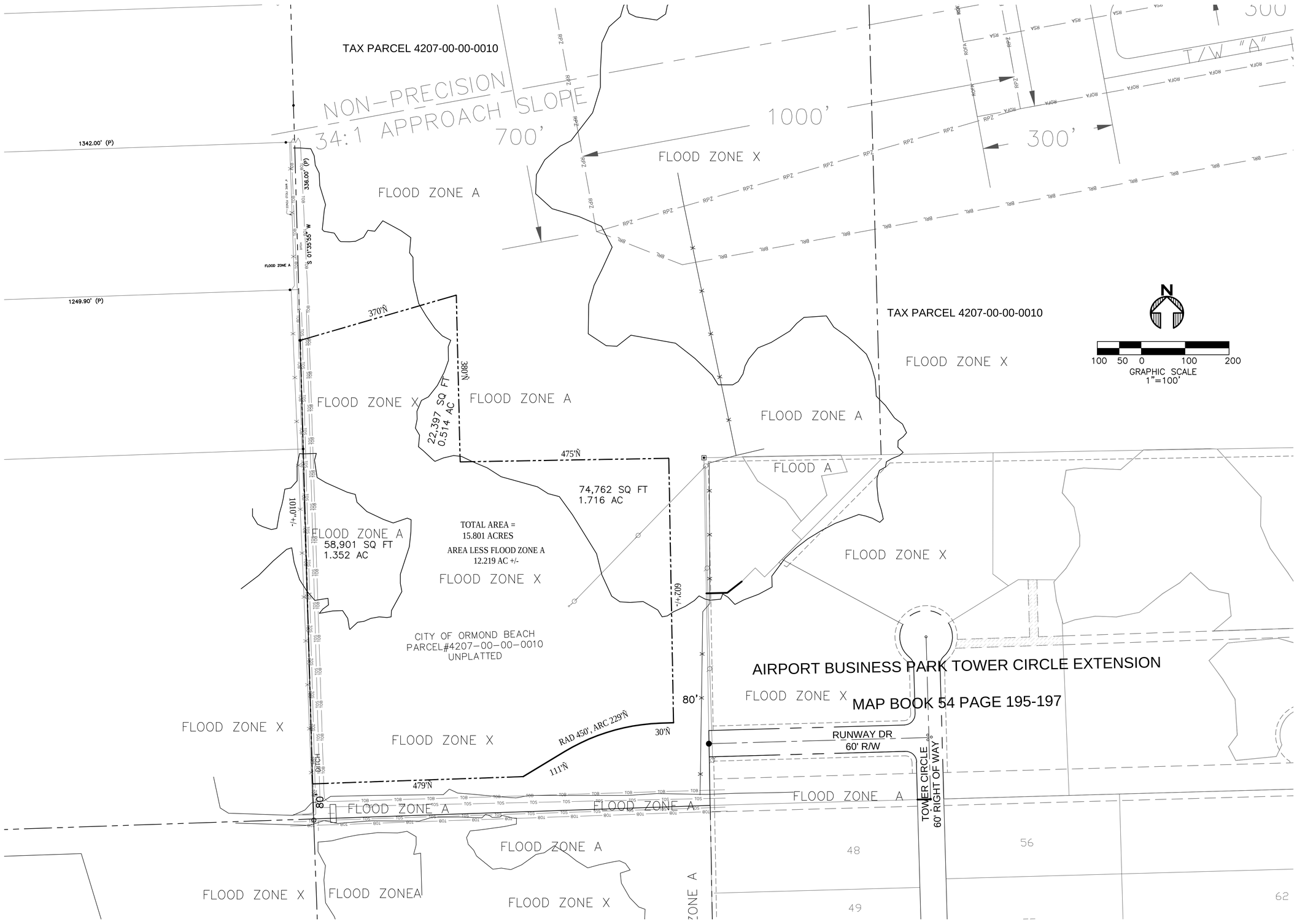
The Nursery property is shown on the current Airport Layout Plan as undeveloped and without access to any planned taxiways or runways. Staff proposes to analyze the property to determine if it should be considered surplus and incorporated into the Airport Business Park for future industrial development. The Airport Business Park is built out and additional land is needed to provide building sites for industrial companies with high wage jobs. A survey of the property was completed in 2014 to determine the northerly boundary (see survey). An appraisal was also completed in 2014 which estimated the value to be $428,000. The Aviation Advisory Board requested that staff integrate the analysis of this property as part of the Airport Master Plan Update process. The City's Airport Master Plan consultant - Hoyle, Tanner & Associates - will prepare an independent analysis of the property. If declared surplus by the FAA, the market value of the property will be paid to the Airport Fund following purchase of the property for development by a private business entity.

PROJECT COST METHODOLOGY

Project costs have been provided Economic Development staff

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Land Purchase	0	0	428,000	0	0	428,000
Total	0	0	428,000	0	0	428,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Private Developer	0	0	428,000	0	0	428,000
Total	0	0	428,000	0	0	428,000



SHEET 1 OF 1

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SKETCH EXHIBIT

THIS MAP IS NEITHER FULL NOR COMPLETE WITHOUT THE REPORT

TYPE OF SURVEY: BOUNDARY

MAP SUBJECT: NURSERY PARCEL

ADDRESS: PART OF 770 AIRPORT RD ORMOND BEACH, FL

PROJECT No:	140514
FIELD WORK BY:	WSH
DATE:	08/06/2014
OFFICE WORK BY:	WSH
DATE:	10/13/2014
FIELD BOOK - PAGE:	55-49
SCALE:	1" = 100'

DRAWING FILE:

28A-144E

CAPITAL PROJECT DETAIL

PROJECT TITLE

Business Park Drive Phase II

PROJECT#

110012

CATEGORY

Airport Business Park

FUND

110-Economic Development Fund

PROJECT LOCATION

Airport Business Park

MANAGEMENT

Engineering

PROJECT SCOPE

Construction of a secondary access road from Pineland Trail to the City's Airport Business Park. The road will be designed to a collector standard roadway.

JUSTIFICATION

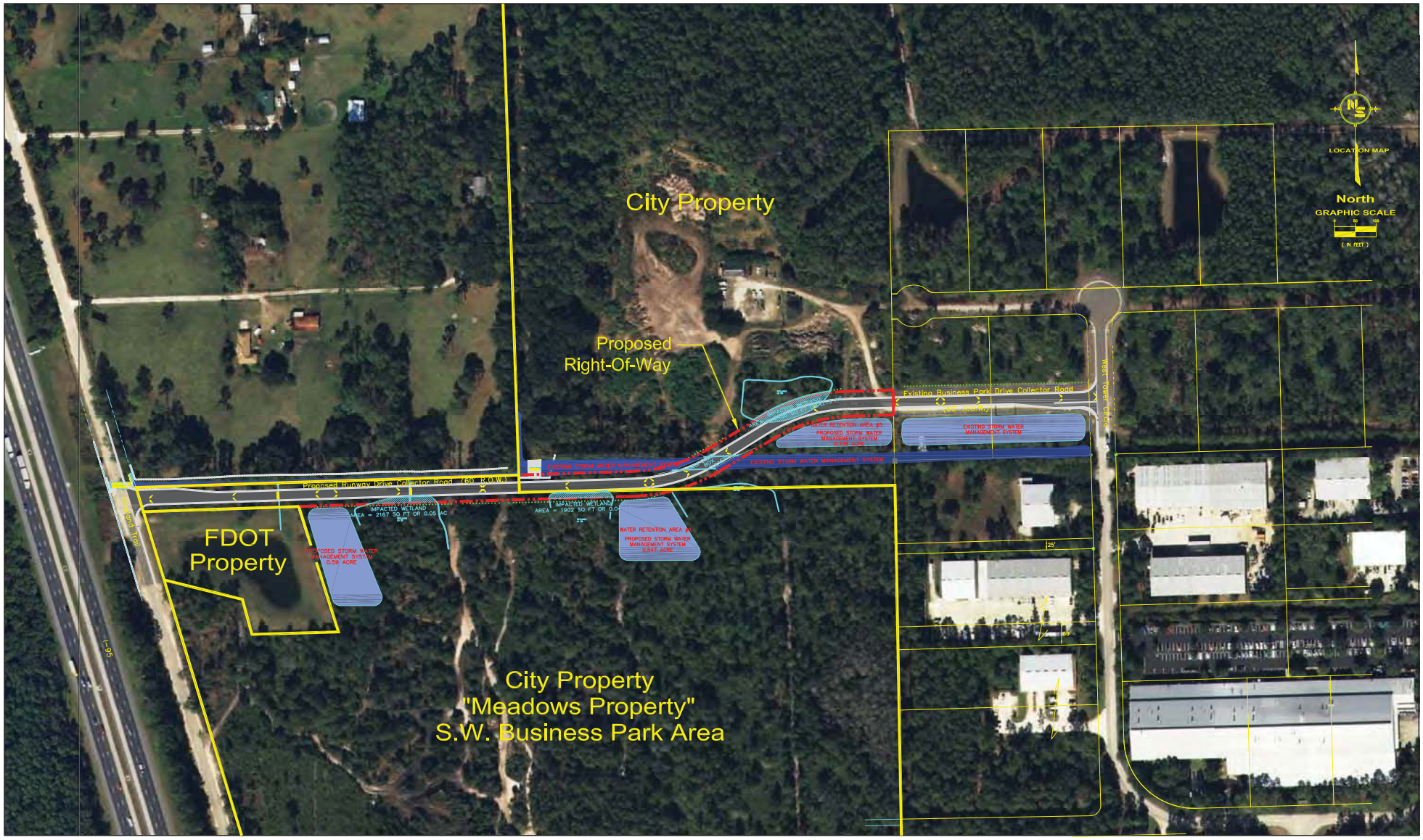
The Ormond Beach Airport Business Park is home to 32 businesses that consist of approximately 870,000 square feet of industrial space and 1,400 employees. Plans are underway by some of the existing businesses and by the City to increase the amount of industrial space and industrial lots over the next few years. All of the traffic generated by the business uses impacts the one entranceway that intersects Airport Road. Completion of this project is contingent upon obtaining the necessary proceeds, primarily from FDOT and the Florida Office of Economic Opportunity (OEO), for projects related to job creation on city-owned industrial land.

PROJECT COST METHODOLOGY

Consultant provided Engineer's cost estimate updated to current cost and scope of work.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Design	0	0	0	195,000	0	195,000
Construction	0	0	0	0	1,890,000	1,890,000
CEI	0	0	0	0	165,000	165,000
Total	0	0	0	195,000	2,055,000	2,250,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Land Sales	0	0	0	195,000	0	195,000
FDOT	0	0	0	0	1,644,000	1,644,000
General Fund Reserves	0	0	0	0	411,000	411,000
Total	0	0	0	195,000	2,055,000	2,250,000



Business Park Drive / Runway Drive Collector Road
Proposed Alignment
Ormond Beach, Florida

NEEL-SCHAFFER
SOLUTIONS YOU CAN BUILD UPON
1705 19th Place, Suite G-3 Vero Beach,
Florida 32960 PH: (772) 770-4707
FAX: (772) 770-4640 CA00008556

Business Park Drive Extension

Updated Cost Estimate (March 2012)

NOTE: Original cost estimate was for extension on 2450 LF of roadway. 450 LF of that road was constructed in 2009; therefore, some items in the estimate have been prorated accordingly.

Cost Code	No.	Description	Quantity	Unit	Unit Price	Amount
	1	Mobilization, Demobilization, Bonds, Permits, Gen. Req. (5% Max.)	1	L.S.	$100,000.00	$100,000.00
	2	Survey and Construction Layout (2%)	1	L.S.	$40,000.00	$40,000.00
	3	Certified As-Built Survey (1.5%)	1	L.S.	$30,000.00	$30,000.00
	4	Maintenance of Traffic (1.5%)	1	L.S.	$30,000.00	$30,000.00
	5	Videotape Existing Conditions	1	L.S.	$2,000.00	$2,000.00
	6	Testing (Geotechnical, Water and Sewer) (1.5%)	1	L.S.	$30,000.00	$30,000.00
	7	Indemnification	1	L.S.	$1,000.00	$1,000.00
		SUBTOTAL				**$233,000.00**
Cost Code	**No.**	**Description**	**Quantity**	**Unit**	**Unit Price**	**Amount**
2221	**I.**	**EARTHWORK**				
	1	Clearing, grubbing, stripping and demucking (including the retention ponds area)	1	L.S.	$25,000.00	$25,000.00
	2	1' deep preliminary excavation to remove all inferior soil and appropriate disposal of such soil per FDEP standards (excluding ponds area)	4,428	C.Y.	$15.00	$66,420.00
	3	50% preliminary excavation of retention ponds area to remove all inferior soil and appropriate disposal of such soil per FDEP standards	3,280	C.Y.	$15.00	$49,200.00
	4	Excavation Volume of functional soil, per the proposed grading plan design	3,280	C.Y.	$15.00	$49,200.00
	5	Import fill volume(incl: Berms, Pads, Roads, etc.)	3,178	C.Y.	$25.00	$79,450.00
	6	Install and maintain staked Silt Fencing	4,100	L.F.	$5.00	$20,500.00
	7	Install and maintain Floating Turbidity Barrier	82	L.F.	$45.00	$3,690.00
	8	Prepare and Implement SWPPP for NPDES	1	L.S.	$5,000.00	$5,000.00
		SUBTOTAL I. EARTHWORK				**$298,460.00**
2222	**II.**	**SOIL STABILIZATION**				
	1	SOD lake banks (Bahia)	2,050	S.Y.	$5.00	$10,250.00
	2	Sod around lake in maintenance easement	2,050	S.Y.	$5.00	$10,250.00
	3	SOD Strip along back of curb to Right of Way (Bahia)	6,724	S.Y.	$5.00	$33,620.00
		SUBTOTAL II. SOIL STABILIZATION				**$54,120.00**
2223	**III.**	**PAVING**				
	1	2 1/2" FDOT Type S3 Asphaltic Concrete (Two Lifts)	738	TONS	$100.00	$73,800.00
	2	8" Compacted Limerock Base or Crushed Concrete Base	984	S.Y.	$12.00	$11,808.00
	3	12" Type "B" Stabilized Subgrade	984	S.Y.	$10.00	$9,840.00
	4	Type "F" Curb	3,980	L.F.	$20.00	$79,600.00
		5300 FDOT Series Retaining Wall (Length =235L.F., Height =6Ft.)				
	5	Concrete	28	C.Y.	$1,000.00	$28,000.00
	6	Steel	0.60	TONS	$1,700.00	$1,020.00
	7	Guardrail (Including Miscellaneous Asphalt under Guardrail)	2,000	L.F.	$125.00	$250,000.00
	8	Standard Flared End Treatments	4	EACH	$2,000.00	$8,000.00
		SUBTOTAL III. PAVING				**$462,068.00**
2224	**IV.**	**DRAINAGE**				
	1	Furnish and Install 18" RCP	1,230	L.F.	$65.00	$79,950.00
	2	Furnish and Install 48" RCP	400	L.F.	$200.00	$80,000.00
	3	Furnish and Install FDOT Type "P" Drainage Manhole With Ring and Cover	3	EACH	$3,000.00	$9,000.00
	4	Furnish and Install FDOT Type "D" Modified Outfall Structure	3	EACH	$7,500.00	$22,500.00
	5	Furnish and Install FDOT Type "P-5" Curb Inlet	4	EACH	$3,500.00	$14,000.00
	6	Furnish and Install FDOT Type "P-6" Curb Inlet	8	EACH	$4,000.00	$32,000.00
	7	Furnish and Install FDOT Mitered End Section	4	EACH	$1,500.00	$6,000.00
	8	Furnish and Install FDOT Standard Endwall	3	EACH	$2,000.00	$6,000.00
	9	Furnish and Install FDOT Index 250 Headwall	140	L.F.	$500.00	$70,000.00
	10	Furnish and Install FDOT Type 6' x 4' Box Culvert (including connection to existing box culvert)	200	L.F.	$500.00	$100,000.00
		Trench safety is included in the unit prices.				
		SUBTOTAL IV. DRAINAGE				**$419,450.00**
2225	**V.**	**WATER DISTRIBUTION**				
	1	Furnish and Install 8" PVC SDR 21 Water Main	750	L.F.	$32.00	$24,000.00
	2	8" x 8" Wet Tap	1	EACH	$1,500.00	$1,500.00
	3	Furnish and Install 8" Gate Valve and Valve Box	2	EACH	$3,000.00	$6,000.00
	4	Fire Hydrant Assembly	2	EACH	$3,000.00	$6,000.00
		SUBTOTAL V. WATER DISTRIBUTION				**$37,500.00**
2226	**VII.**	**SANITARY SEWER**				
	1	Furnish and Install 8" PVC SDR 26 Sanitary Line	750	L.F.	$40.00	$30,000.00
	2	Sanitary Manhole with Ring and Cover	3	EACH	$3,500.00	$10,500.00
		Trench safety is included in the unit prices.				
		SUBTOTAL VI. SANITARY SEWER				**$40,500.00**
2228	**IX.**	**STRIPING AND SIGNAGE**				
	1	Stop/Street Sign	2	EACH	$200.00	$400.00
	2	24" White Stop Bar	2	EACH	$400.00	$800.00
	3	6" Double Yellow	2,000	L.F.	$10.00	$20,000.00
	4	Temporary Striping	2,000	L.F.	$3.00	$6,000.00
		SUBTOTAL VIII. STRIPING AND SIGNAGE				**$27,200.00**
		TOTAL:				**$1,572,298.00**
		20% CONTINGENCY:				**$314,459.60**
		Total Probable Construction Cost=				**$1,886,757.60**
		ENGINEERING:				
		Design (60%, 90%, 100%)				**$175,000.00**
		Permitting				**$20,000.00**
		Construction Administration				**$105,000.00**
		Part-time Inspection (3 days per week)				**$60,000.00**
		ENGINEERING TOTAL:				**$360,000.00**
		Total Probable PROJECT Cost=				**$2,246,757.60**

CAPITAL PROJECT DETAIL

PROJECT TITLE

Wildlife Hazard Assessment

PROJECT#

108067

CATEGORY

Airport Improvements

FUND

108-Airport

PROJECT LOCATION

Airport

MANAGEMENT

Airport Manager

PROJECT SCOPE

The FAA issued a certification alert to airport operators on June 11, 2009, reminding them of their obligation under regulations to conduct Wildlife Hazard Assessments if they experience a triggering event such as wildlife being ingested into an aircraft engine. The FAA later initiated rulemaking to make assessments mandatory whether or not an airport has had a triggering event.

JUSTIFICATION

The FAA now requires that General Aviation airports that have over 100 based jets or over 75,000 annual operations must accomplish a wildlife hazard assessment. The FAA will support this project by making Airport Improvement Program (AIP) grants available to conduct the assessment. The assessment will help airport personnel understand the nature of wildlife in the vicinity, and can lead to the preparation of a Wildlife Hazard Management Plan to implement measures to mitigate the risk of wildlife strikes.

PROJECT COST METHODOLOGY

Cost estimate provided by Hoyle, Tanner & Associates.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Assessment	110,000	0	0	0	0	110,000
Total	110,000	0	0	0	0	110,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
FAA	99,000	0	0	0	0	99,000
FDOT	8,800	0	0	0	0	8,800
General Fund Reserves	2,200	0	0	0	0	2,200
Total	110,000	0	0	0	0	110,000

CAPITAL PROJECT DETAIL

PROJECT TITLE

Airport Access Roads

PROJECT#

108066

CATEGORY

Airport Improvements

FUND

108-Airport

PROJECT LOCATION

Airport

MANAGEMENT

Engineering

PROJECT SCOPE

This project consists of design, engineering and construction work required to extend Tower Circle East and Signal Avenue from the Airport Business Park into the southwest quadrant of the airport.

JUSTIFICATION

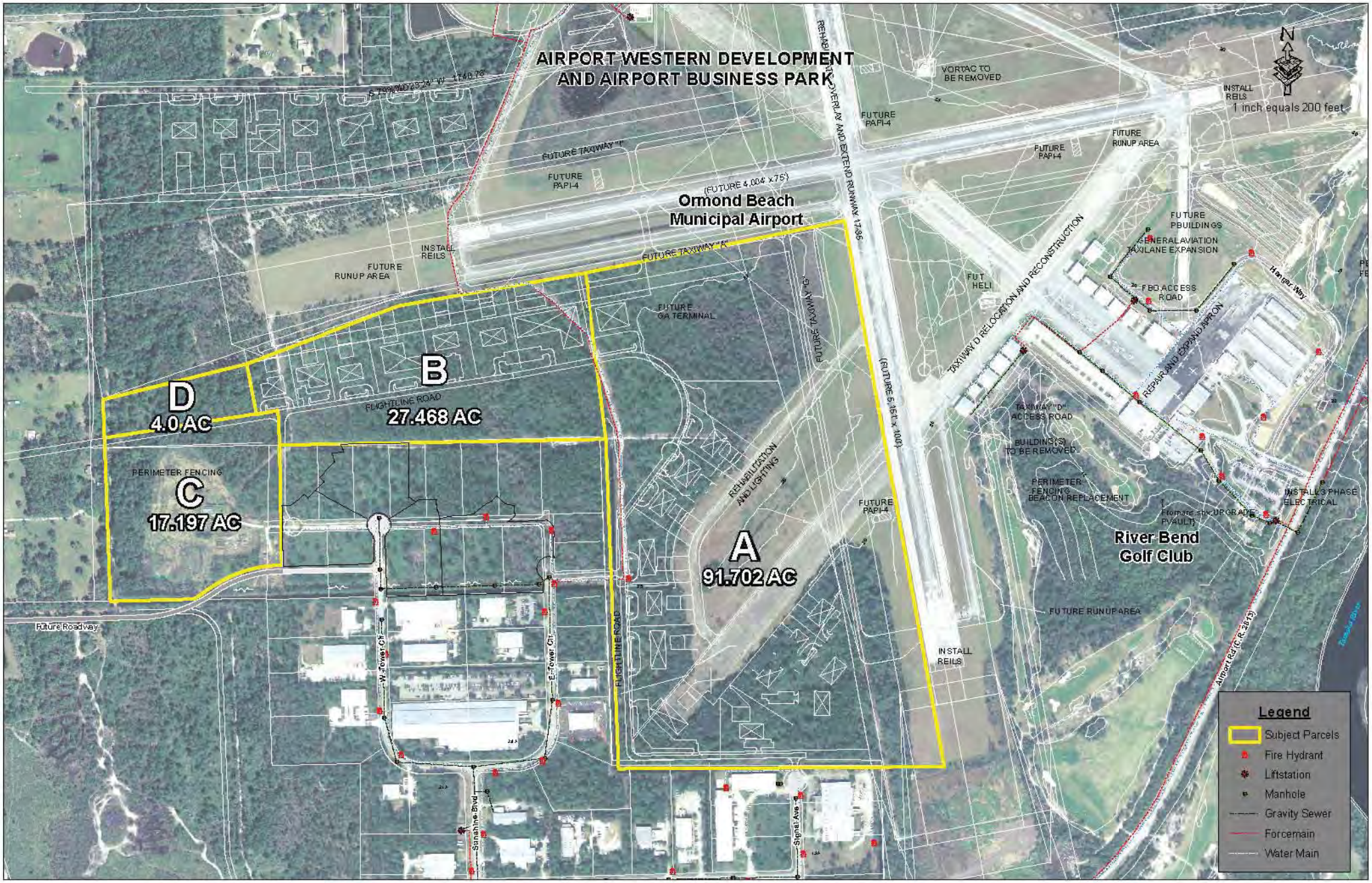
The southwest quadrant of the airport is currently inaccessible by ground vehicles via existing ingress and egress routes at the airport or the Airport Business Park. Successful development of the southwest quadrant will require such access, and will benefit both the airport and the business park by affording co-location of airside and non-airside business parcels. This project will also extend utilities from the business park into the southwest quadrant. Acquisition by the airport of approximately 0.6 acres of business park property will be required in order to accommodate these access roads.

PROJECT COST METHODOLOGY

The City Engineering Department has provided initial cost estimates for this project.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Design & Engineering	44,000	0	0	0	0	44,000
Permitting, Relocation	20,000	0	0	0	0	20,000
Construction	0	295,000	0	0	0	295,000
Land Acquisition	0	30,000	0	0	0	30,000
CEI	0	15,000	0	0	0	15,000
Total	64,000	340,000	0	0	0	404,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
FDOT	35,200	272,000	0	0	0	307,200
General Fund Reserves	28,800	68,000	0	0	0	96,800
Total	64,000	340,000	0	0	0	404,000


AIRPORT WESTERN DEVELOPMENT
AND AIRPORT BUSINESS PARK
Ormond Beach
Municipal Airport
(FUTURE 4,004' x 75')
REHABILITATION AND OVERLAY AND EXTEND RUNWAY 17-35
(FUTURE 5,165' x 100')
VORTAC TO
BE REMOVED
INSTALL
REILS
1 inch equals 200 feet
N
FUTURE
PAPI-4
FUTURE TAXIWAY "B"
FUTURE TAXIWAY "A"
FUTURE TAXIWAY "C"
FUTURE
RUNUP AREA
FUTURE
PBUILDINGS
GENERAL AVIATION
TAXILANE EXPANSION
FBO ACCESS
ROAD
Hangar Way
FUT
HELI
TAXIWAY D RELOCATION AND RECONSTRUCTION
REPAIR AND EXPAND APRON
FUTURE
GA TERMINAL
FLIGHTLINE ROAD
B
27.468 AC
D
4.0 AC
C
17.197 AC
PERIMETER FENCING
REHABILITATION
AND LIGHTING
A
91.702 AC
TAXIWAY "D"
ACCESS ROAD
BUILDING(S)
TO BE REMOVED
PERIMETER
FENCING
BEACON REPLACEMENT
INSTALL 3 PHASE
ELECTRICAL
Fiomare sh. UPGRADE
(VAULT)
River Bend
Golf Club
FUTURE RUNUP AREA
Future Roadway
W. Tower Cir.
E. Tower Cir.
Sunshine Blvd
Signal Ave
Airport Rd (C.R. 2013)
Legend
Subject Parcels
Fire Hydrant
Liftstation
Manhole
Gravity Sewer
Forcemain
Water Main

Airport Access Roads
Extension of East Tower Circle and
Signal Avenue Drive to the perimeter of the Southwest Airport Quad
(Section A)
Cost Estimate

Note: No design plans have been developed at the time of this estimate. Development of these extensions will likely require stormwater management facilities and wetlands delineation (including gopher tortoise relocation). A similar project for the extension of Tower Circle construction was awarded in 2006 for $683,421. This estimate is based on a proportion of that project cost and adjusted to out year value per Construction Cost Index.

Construction Cost Index

Year	Points	Ave. Increase	17.0%
2011	9070	Ave. Increase/ year	2.8%
2006	7751	Projected to 2013	22.7%

2006 Tower Circle Extension Project Cost: $ 683,421.00

Adjusted to 2013 $ 838,486.12 Estimated Construction Cost

Approximate Scope Ratio (Proposed vs. 0.35 Constructed)

Est. Construction	**$293,470.14**
Permitting	$ 10,000.00
Gopher Tortoise Relocation	$ 10,000.00
Engineering Design and Permitting (15%)	$ 44,020.52
Construction Engineering Inspection (5%)	$ 14,673.51
TOTAL ESTIMATE=	**$ 372,164.17**

CAPITAL PROJECT DETAIL

PROJECT TITLE

Rehabilitate and Extend Runway 8/26

PROJECT#

108075

CATEGORY

Airport Improvements

FUND

108-Airport

PROJECT LOCATION

Airport

MANAGEMENT

Airport Manager

PROJECT SCOPE

This project consists of first conducting the required environmental assessment (NEPA study) and runway length analysis to support the planned extension of Runway 8/26 by 1,000 feet in accordance with the approved airport master plan and airport layout plan. The project will next produce the required pavement and electrical design documents to facilitate a project to mill, overlay, mark, and light the existing Runway 8/26 pavement, and extend Runway 8 and Taxiway Alpha by 1,000 feet to the west. Finally, the project will conduct pavement and electrical construction to complete the project as designed.

JUSTIFICATION

Public meetings held during the recent airport master plan update (AMPU) process revealed the need to improve and extend the primary runway to better accommodate current and future users of the airport. According to the facility requirements data developed for the airport master plan, even moderately loaded heavier aircraft require runway lengths exceeding those currently available. This is based on the approved aircraft forecast found in the master plan. To meet the needs of 75% of the fleet at 60% of useful load, 4,673 feet is required for takeoff and 5,290 feet is required for landing when adjusted for runway grade and turbojet-powered airplanes with a maximum take-off weight (MTOW) of more than 12,500 lbs. There is a clear need for a longer runway to meet the landing and takeoff needs of the fleet mix at the airport. A runway length of at least 5,000 feet would accommodate the turbine aircraft that use the airport and the types of aircraft that are anticipated to use the airport in the future. This length is commonly accepted as a minimum length for all-weather turbine aircraft operations among aircraft owners. Safety is also a primary consideration, and will be enhanced by the increased accelerate/stop distances and balanced field length that will be available to all the operators including Netjets and others who have expressed a need for a longer runway at the airport. The current runway pavement is beneath the condition FDOT considers acceptable, and due to the criticality of this surface as the primary runway, this rehabilitation is a high priority.

PROJECT COST METHODOLOGY

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Environmental Assessment	275,000	0	0	0	0	275,000
Design	0	300,000	0	0	0	300,000
Construction	0	0	6,700,000	0	0	6,700,000
Total	275,000	300,000	6,700,000	0	0	7,275,000

CAPITAL PROJECT DETAIL

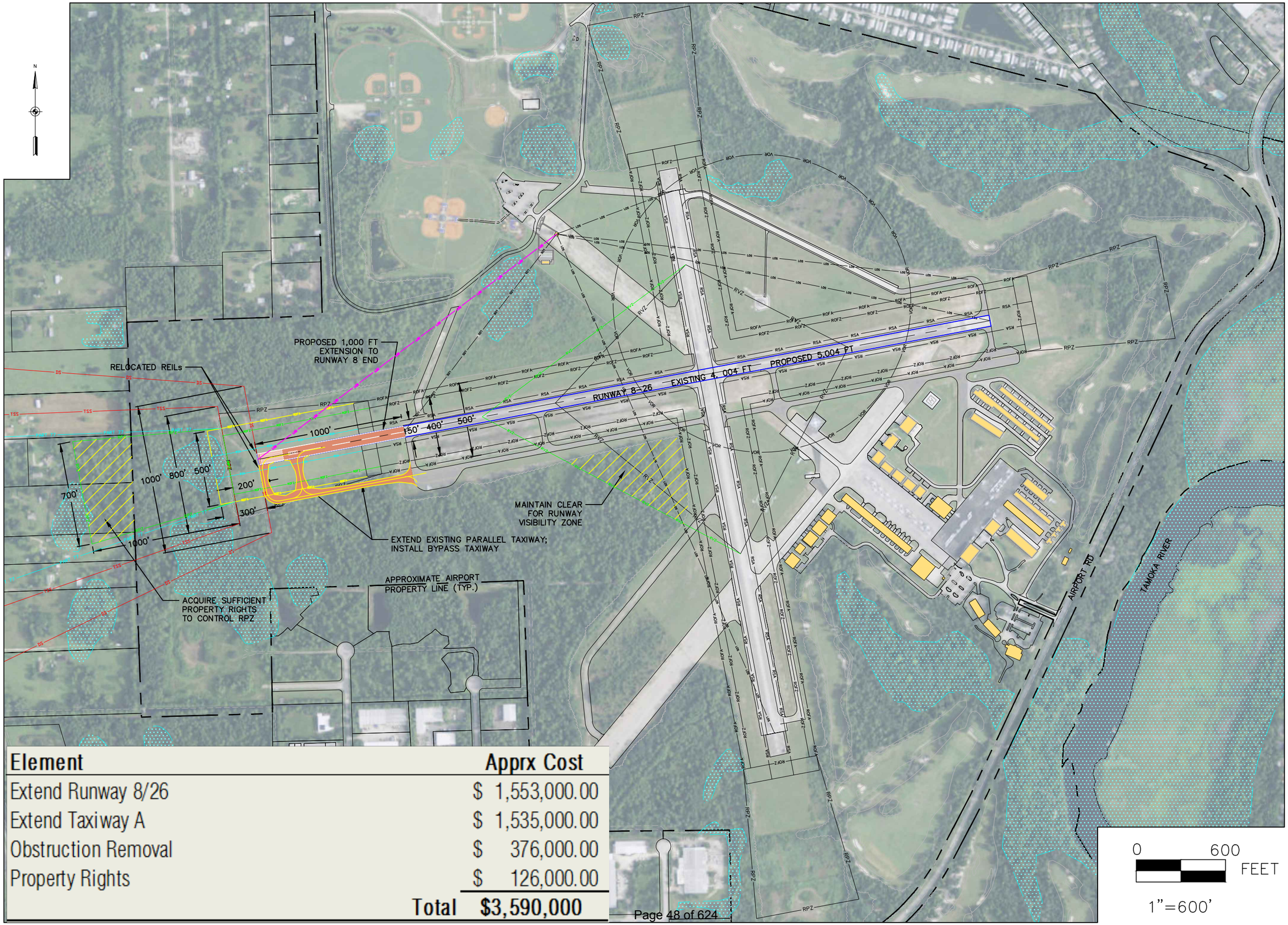
PROJECT TITLE

Rehabilitate and Extend Runway 8/26

PROJECT#

108075

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
FAA	247,500	270,000	6,030,000	0	0	6,547,500
FDOT	22,000	24,000	536,000	0	0	582,000
Airport Fund	5,500	6,000	134,000	0	0	145,500
Total	275,000	300,000	6,700,000	0	0	7,275,000



Element	Apprx Cost
Extend Runway 8/26	$ 1,553,000.00
Extend Taxiway A	$ 1,535,000.00
Obstruction Removal	$ 376,000.00
Property Rights	$ 126,000.00
Total	$3,590,000

ORMOND BEACH MUNICIPAL AIRPORT
RUNWAY 8–26 EXTENSION
ALTERNATIVE #2

EXHIBIT
7-2

Drawing name: H:\307101\dwg\Exhibit\Exhibit-Future RW-Alt #2.dwg Jul 24, 2015 - 3:51pm

CAPITAL PROJECT DETAIL

PROJECT TITLE

Replace AWOS

PROJECT#

108068

CATEGORY

Airport Improvements

FUND

108-Airport

PROJECT LOCATION

Airport

MANAGEMENT

Airport Manager

PROJECT SCOPE

Install a new automated airport weather station at a point in the northeast quadrant of the airport, in closer proximity to the ATC tower. New system to provide 24/7 automated aviation weather information.

JUSTIFICATION

The AWOS is currently located to the east of the intersection of Taxiways Bravo and Delta, in an area of high rotary-wing activity. The current location creates a hazard to rotary-wing operations. The AWOS system as it exists does not provide 24/7 weather information, as it is not coordinated with ATC tower systems. AWOS services are thus disabled during those hours when the ATC tower is in operation. AWOS systems are among the oldest automated weather stations. They generally report at 20-minute intervals and do not report special observations for rapidly changing weather conditions.

PROJECT COST METHODOLOGY

Cost estimate provided by Hoyle, Tanner & Associates.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Replace AWOS	0	0	175,000	0	0	175,000
Total	0	0	175,000	0	0	175,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
FAA	0	0	157,500	0	0	157,500
FDOT	0	0	14,000	0	0	14,000
General Fund Reserves	0	0	3,500	0	0	3,500
Total	0	0	175,000	0	0	175,000

CAPITAL PROJECT DETAIL

PROJECT TITLE

Rehabilitate, Mark and Light Taxiway "E"

PROJECT#

108069

CATEGORY

Airport Improvements

FUND

108-Airport

PROJECT LOCATION

Airport

MANAGEMENT

Airport Manager

PROJECT SCOPE

This project will involve milling and overlaying the surface of Taxiway "E" with new asphalt, and will also afford new edge lighting and signage for the taxiway.

JUSTIFICATION

The FDOT Statewide Airfield Pavement Management Program Report has established a Pavement Condition Index (PCI) of 43 for Taxiway Echo. This PCI value equates to a condition rating of “poor” and indicates that action is required to improve the taxiway surface.

PROJECT COST METHODOLOGY

Project cost estimates have been provided by Hoyle, Tanner & Associates.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Design	0	0	0	150,000	0	150,000
Total	0	0	0	150,000	0	150,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
FAA	0	0	0	135,000	0	135,000
FDOT	0	0	0	12,000	0	12,000
General Fund Reserves	0	0	0	3,000	0	3,000
Total	0	0	0	150,000	0	150,000

BEAUTIFICATION

CAPITAL PROJECT DETAIL

PROJECT TITLE

Bridge Sideslope Landscape Improvements

PROJECT#

301196

CATEGORY

Beautification

FUND

301-General Improvement Fund

PROJECT LOCATION

Granada and I-95

MANAGEMENT

Engineering

PROJECT SCOPE

Hydro seed with Bahia and install Asiatic Jasmine with ornamental grasses plantings

JUSTIFICATION

One of the City Commission goals generated from the 2014 workshop, is to improve the appearance of the (4) grass sideslopes that are brown and thin during the Winter months.

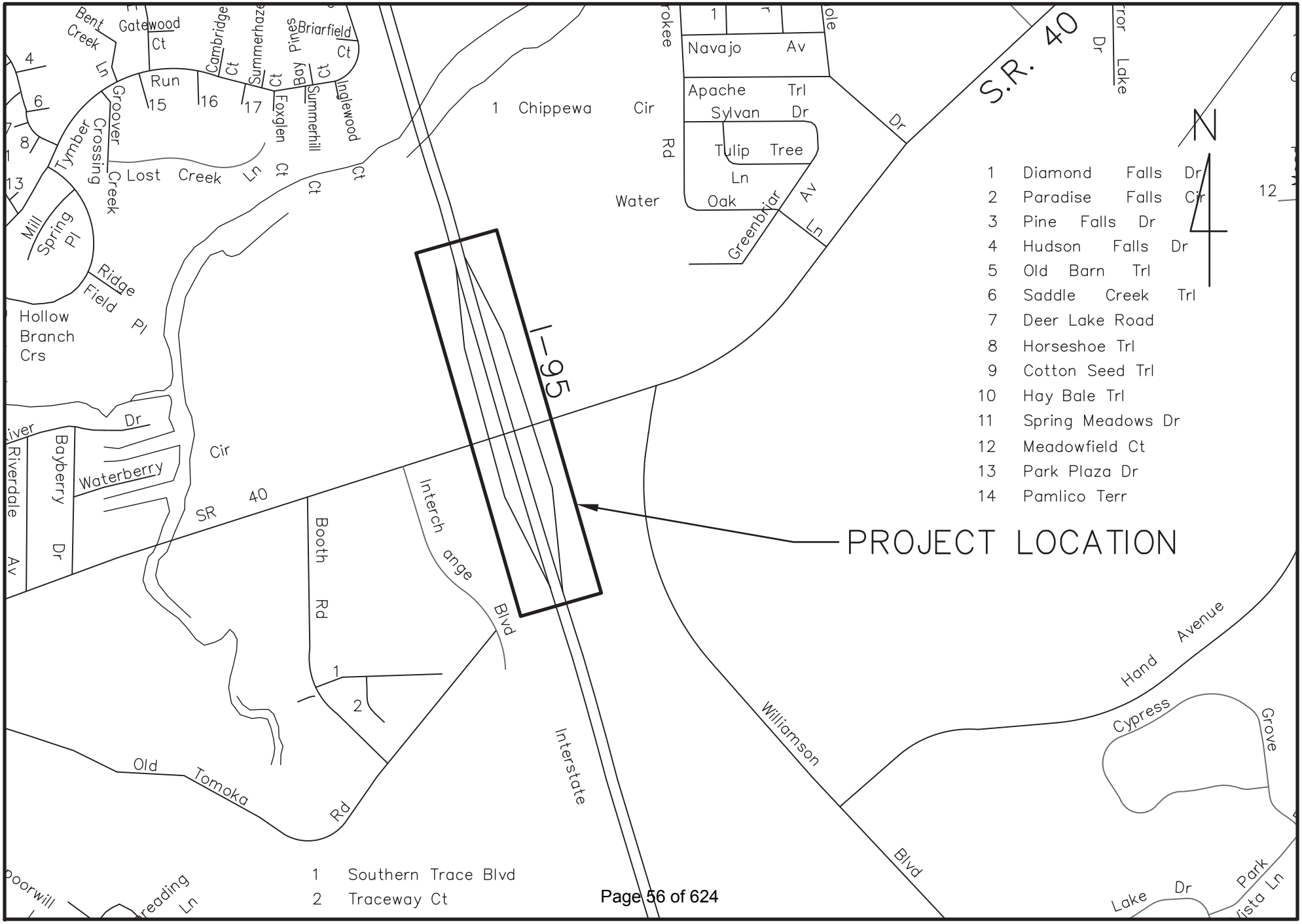
PROJECT COST METHODOLOGY

The cost estimate is based on recent landscape bid line items from N.US1 and Downtown Beautification projects

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Landscape all (4) Slopes	80,000	0	0	0	0	80,000
Total	80,000	0	0	0	0	80,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-General CIP	80,000	0	0	0	0	80,000
Total	80,000	0	0	0	0	80,000

GRANADA & I95 SIDE SLOPE IMPROVEMENTS



St Georges Rd
9
95
40
©2013 Google
Google earth
Imagery Date: 1/19/2012 29°15'34.55" N 81°07'01.99" W elev 23 ft eye alt 1621 ft

9
40
© 2013 Google
Google earth
Imagery Date: 1/19/2012 29°15'18.07" N 81°06'54.74" W elev 39 ft eye alt 1256 ft

CAPITAL PROJECT DETAIL

PROJECT TITLE

Granada Boulevard Landscape Beautification

PROJECT#

116066

CATEGORY

Beautification

FUND

116-Grants Fund

PROJECT LOCATION

Orchard St to I-95

MANAGEMENT

Engineering

PROJECT SCOPE

Renovate the existing irrigation system and install trees, shrubs and groundcover in the medians and along the entrance and exit ramps of I-95.

JUSTIFICATION

The existing landscape and irrigation requires renovation to correct the loss of the East Palatka Holly trees and get the irrigation system on central timers. The project will also seek to enhance the Interstate I-95 entrance and exit ramps.

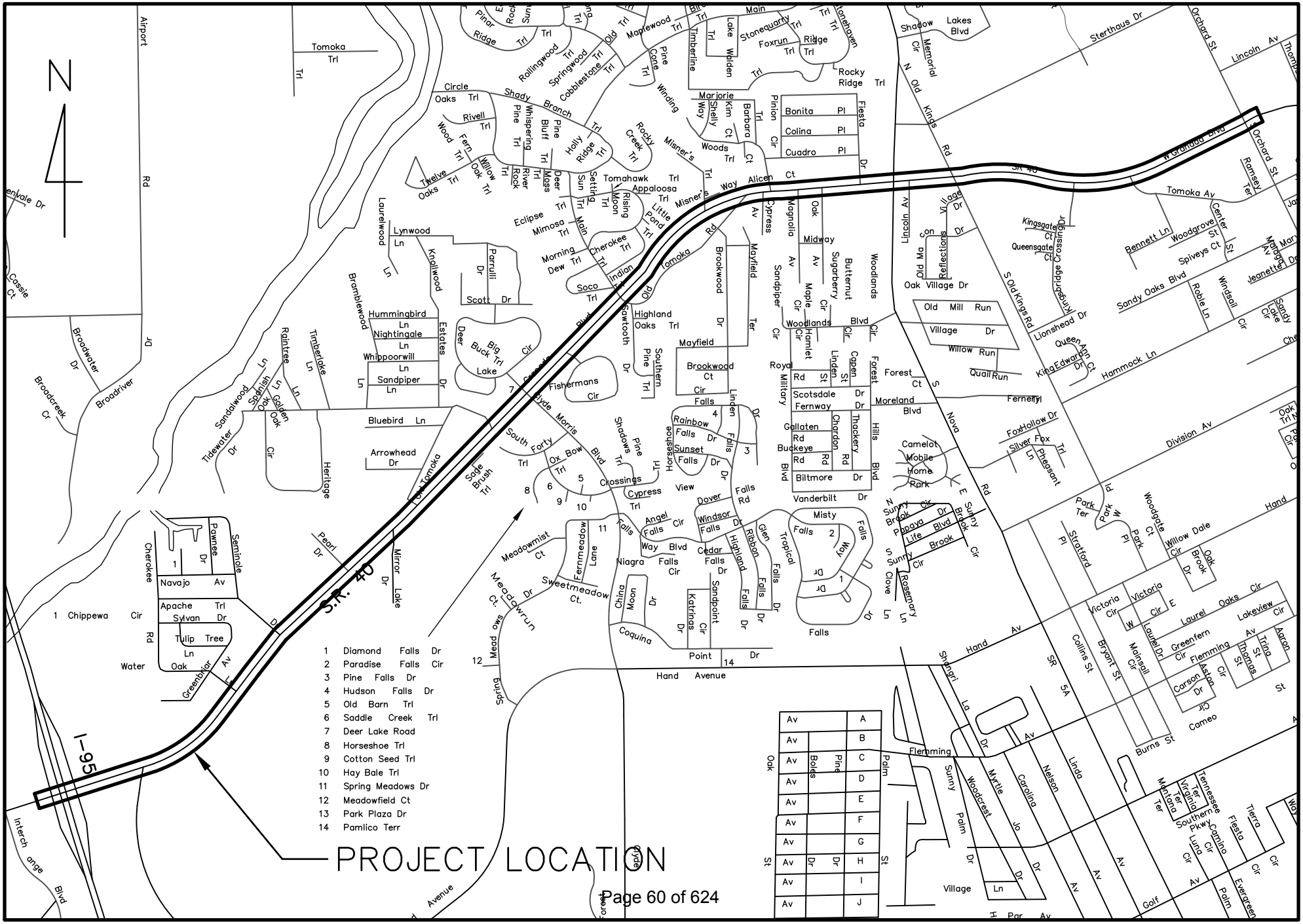
PROJECT COST METHODOLOGY

The cost estimate is based on recent landscape bid line items from N.US1 and Downtown Beautification projects

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Irrigation Renovation and Landscaping	0	1,000,000	0	0	0	1,000,000
Total	0	1,000,000	0	0	0	1,000,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
FDOT JPA	0	900,000	0	0	0	900,000
General Fund Reserves	0	100,000	0	0	0	100,000
Total	0	1,000,000	0	0	0	1,000,000

GRANADA BLVD LANDSCAPE BEAUTIFICATION



1 Diamond Falls Dr
2 Paradise Falls Cir
3 Pine Falls Dr
4 Hudson Falls Dr
5 Old Barn Trl
6 Saddle Creek Trl
7 Deer Lake Road
8 Horseshoe Trl
9 Cotton Seed Trl
10 Hay Bale Trl
11 Spring Meadows Dr
12 Meadowfield Ct
13 Park Plaza Dr
14 Pamlico Terr

PROJECT LOCATION

CAPITAL PROJECT DETAIL

PROJECT TITLE

North US1 Landscape Beautification

PROJECT#

116067

CATEGORY

Beautification

FUND

116-Grants Fund

PROJECT LOCATION

Airport Rd to Lincoln Ave.

MANAGEMENT

Engineering

PROJECT SCOPE

Install irrigation, trees, shrubs and groundcover in the medians.

JUSTIFICATION

This would be the final phase to landscape and irrigate the US1 Corridor from complete beautification from the Southern to Northern City Limits.

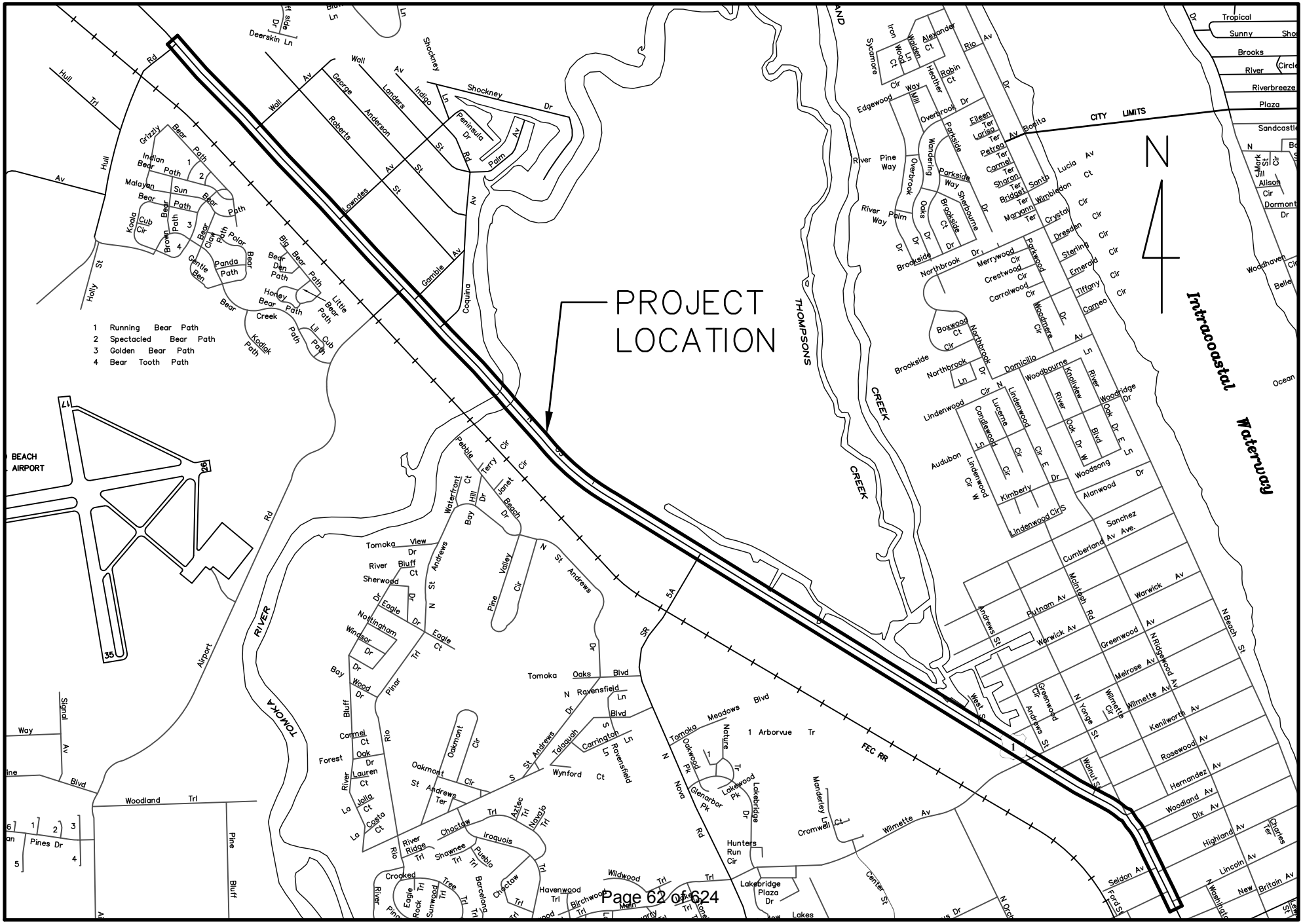
PROJECT COST METHODOLOGY

Cost estimated were based on the North US1 and I-95 Landscape and Irrigation bid items

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Irrigation and Landscaping	1,000,000	0	0	0	0	1,000,000
Total	1,000,000	0	0	0	0	1,000,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
FDOT JPA	800,000	0	0	0	0	800,000
General Fund Reserves	200,000	0	0	0	0	200,000
Total	1,000,000	0	0	0	0	1,000,000

NORTH US-1 LANDSCAPE BEAUTIFICATION



COMMUNITY DEVELOPMENT

CAPITAL PROJECT DETAIL

PROJECT TITLE

Downtown: Cassen Park Public Dock

PROJECT#

104051

CATEGORY

Community Redevelopment

FUND

104-TIF

PROJECT LOCATION

Cassen Park

MANAGEMENT

Engineering

PROJECT SCOPE

Construction of a public dock adjacent to the fishing pier at Cassen Park.

PROJECT JUSTIFICATION

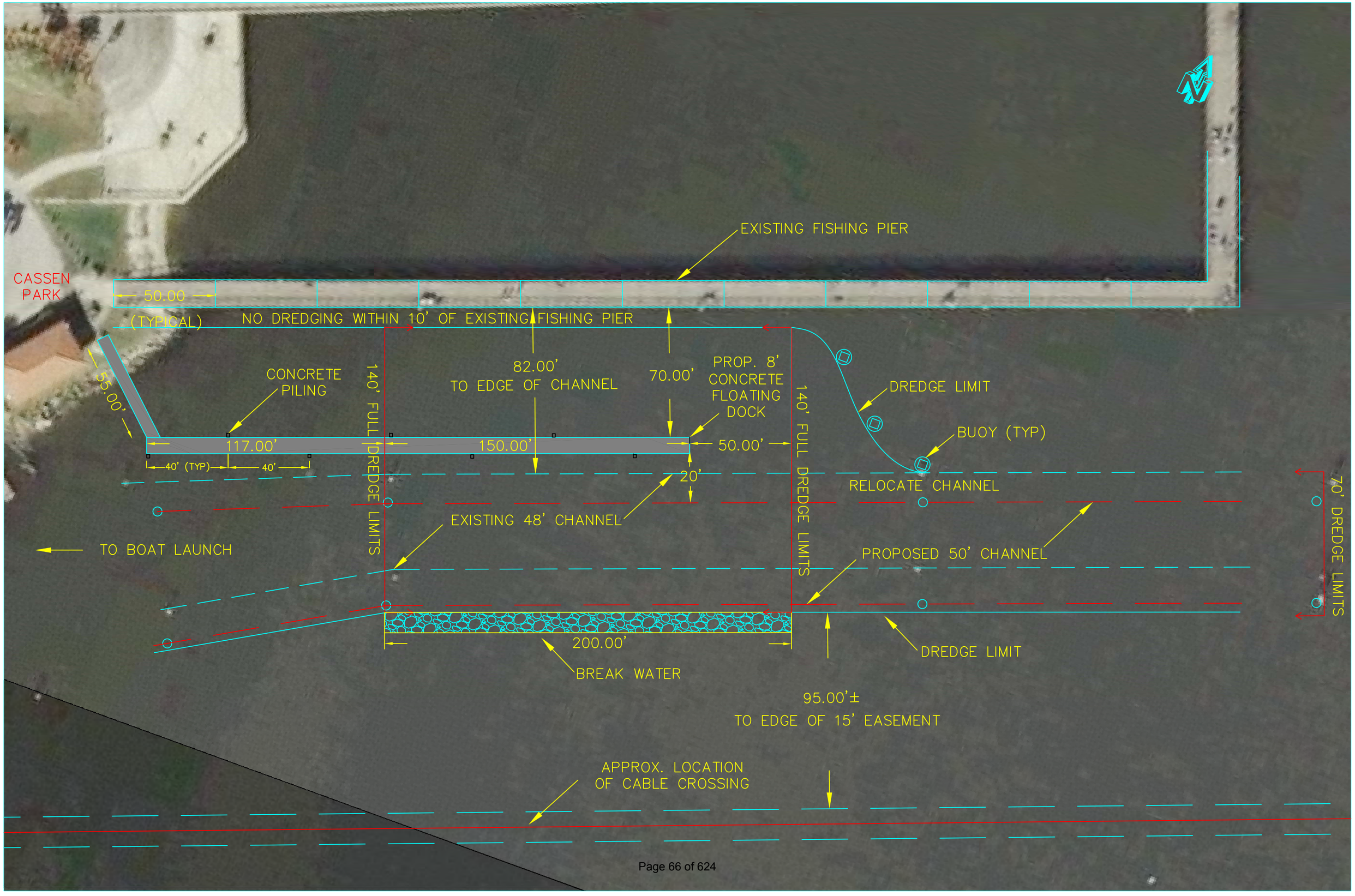
Currently there are no public docks in the downtown area that would enable large boats to dock. Mainstreet has requested the City consider constructing a docking area adjacent to the south edge of the existing fishing pier. Boats that dock there would then be able to visit the downtown area restaurants and stores and visit the historical sites as well.

PROJECT COST METHODOLOGY

Costs were developed from contractor estimates from conceptual design plans.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Construction	722,100	0	0	0	0	722,100
Construction Admin	50,000	0	0	0	0	50,000
Design	0	0	0	0	0	0
Total	772,100	0	0	0	0	772,100

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
FBIG(pending approval)	400,000	0	0	0	0	400,000
FIND Grant (pending approval)	372,100	0	0	0	0	372,100
Property Taxes - TIF	0	0	0	0	0	0
Total	772,100	0	0	0	0	772,100


EXISTING FISHING PIER
CASSEN PARK
50.00
(TYPICAL)
NO DREDGING WITHIN 10' OF EXISTING FISHING PIER
55.00'
CONCRETE PILING
140' FULL DREDGE LIMITS
82.00'
TO EDGE OF CHANNEL
70.00'
PROP. 8' CONCRETE FLOATING DOCK
140' FULL DREDGE LIMITS
DREDGE LIMIT
BUOY (TYP)
117.00'
150.00'
50.00'
40' (TYP)
40'
20'
RELOCATE CHANNEL
70' DREDGE LIMITS
EXISTING 48' CHANNEL
TO BOAT LAUNCH
PROPOSED 50' CHANNEL
200.00'
DREDGE LIMIT
BREAK WATER
95.00'±
TO EDGE OF 15' EASEMENT
APPROX. LOCATION
OF CABLE CROSSING

ORMOND BEACH, CASSEN PARK BOAT DOCK
PROBABLE PROJECT COST

Concept- Construct an 8 ft wide, approximately 320 ft long, floating concrete dock, 70 feet south from the existing pier, shift existing channel to the south by 16 feet and widen existing channel from 40 feet to 50 feet. Maintain 10 ft buffer from existing pier as no dredge zone. Dredge area is approximately 140 ft wide x 350 ft long. Useable dock length is 150 ft. Dredging begins approximately 150 ft out from landfall. **This concept allows boats to dock on either side of the proposed dock.** Concrete pilings can be installed alternating sides of the dock every 40 feet. Construct 200 ft break water.

DREDGING-

Item No.	Description	Qty	Unit	Unit Price	Item Price
1	Payment and Performance Bond	1	LS	$ 5,000.00	$ 5,000.00
2	Mobilization & Demobilization	1	LS	$15,000.00	$ 15,000.00
3	As-Built & Survey	1	LS	$ 5,000.00	$ 5,000.00
4	Environmental Compliance	1	LS	$ 2,000.00	$ 2,000.00
5	Dredging (**Dredge to 6ft below low tide)	4,100	CY	$ 38.00	$ 155,800.00
6	Dredged material disposal	4,100	CY	$ 3.00	$ 12,300.00
				Sub-Total (1-6)	$ 195,100.00

DOCK CONSTRUCTION-

Item No.	Description	Qty	Unit	Unit Price	Item Price
7	8ft wide floating concrete dock	2,560	SF	$ 100.00	$ 256,000.00
8	Gangway	1	EA	$ 4,000.00	$ 4,000.00
9	Concrete Piling	8	EA	$ 3,500.00	$ 28,000.00
10	Channel Marker Poles	8	EA	$ 500.00	$ 4,000.00
				Sub-Total (7-10)	$ 292,000.00
11	Construct Break Water	200	LF	$ 500.00	$ 100,000.00
12	Engineering & Permitting				$ 70,000.00

a	PROJECT TOTAL	$ 657,100.00	
b	Tier 1 BIG Grant	$ 200,000.00	
c	Sub-Total	$ 457,100.00	(a-b)
d	CONSTRUCTION COST	$ 587,100.00	
e	50% FIND COST SHARE	$ 293,550.00	
	CITY TOTAL COST	$ 163,550.00	(c-e)

CAPITAL PROJECT DETAIL

PROJECT TITLE

Downtown: Cassen Park Improvements

PROJECT#

104056

CATEGORY

Community Redevelopment

FUND

104-TIF

PROJECT LOCATION

1 South Beach Street

MANAGEMENT

Engineering

PROJECT SCOPE

Remove and replace existing restroom with a larger facility with more toilets to meet the need. Pave entrance road and parking areas.

JUSTIFICATION

The current restrooms at Cassen Park are not adequate for the number of people who use the park since there is only one toilet in the men's restroom and two in the women's restroom. The restrooms are used by boaters, walkers, bicyclists, fishermen and other visitors to the park on a consistent basis. The restroom renovation will include three toilets in both the men's and women's restrooms. The park is currently unpaved. The entrance road and parking areas need to be paved which would reduce the continual maintenance that the current shell road requires. It will also increase the level of finish to the park and would define parking spaces enabling the parking lot to be more user friendly and safer for residents.

PROJECT COST METHODOLOGY

Parking area costs were from bid received in 2007 that were rejected at the time. Costs for the bathroom facility provided by City's construction management firm in 2013 and increased for inflation.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Bathroom Facility-Design & Construction	210,000	0	0	0	0	210,000
Parking Area Paving-Design	15,000	0	0	0	0	15,000
Parking Area Paving-Construction	0	335,000	0	0	0	335,000
Total	225,000	335,000	0	0	0	560,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-TIF	225,000	335,000	0	0	0	560,000
Total	225,000	335,000	0	0	0	560,000

APPLICATION FOR PAYMENT

CAP702
Page: 1 of 2

To:
County of Volusia
123 W. Indiana Avenue
Room 302
Deland, FL 32720

PROJECT:
39-13
Toronita Ave Off-Beach Parking/Rest
4200 South Atlantiac
Port Orange, FL 32127

From Contractor:
A.G. Pifer Construction Co. Inc
3629 Old Deland Rd.
Daytona Beach, Fl 32124

VIA ARCHITECT:
Bellomo Herbert and Company, Inc.
618 East South Street, Suite 600
Orlando, FL 32801

CONTRACT FOR: Park Construction

Application No.:	Application Date:	Period To:	Contract Date:
4	MAY 28,2014	MAY 27,2014	SEP 4,2013

Project Nos:

Distribution List: ☐ Owner ☐ Architect ☐ Contractor ☐ Construction Mgr ☐ Field ☐ Other

Contractor's Application for Payment

Application is made for payment as shown below, with attached Continuation Sheet.

1. Original Contract Amount: $ 373,427.30
2. Net of Change Orders: $ 0.00
3. Net Amount of Contract: $ 373,427.30
4. Total Completed & Stored to Date: $ 373,427.30
5. Retainage Summary:
   a. 10.00 % of Completed Work $ 37,342.75
   b. 0.00 % of Stored Material $ 0.00
   Total Retainage: $ 37,342.75
6. Total Completed Less Retainage: $ 336,084.55
7. Less Previous Applications: $ 283,466.95
8. Current Payment Due, This Application: $ 52,617.60
9. Contract Balance (Including Retainage): $ 37,342.75

CHANGE ORDER Activity	Additions	Subtractions
Total previously approved:	0.00	0.00
Total approved this Month:	0.00	0.00
Sub Totals:	0.00	0.00
NET of Change Orders:	0.00	

CONTRACTOR'S CERTIFICATION:

The Contractor's signature here certifies that, to the best of their knowledge, this document accurately reflects the work completed in this Application for Payment. The Contractor also certifies that all payments have been made for work on previous Applications for Payment and also that the Current Payment is Due.

(Authorizing Signature) A.G. Pifer Construction Co. Inc

Date: MAY 28,2014

State Authorized: Florida

County of: Volusia

Subscribed and sworn to before me this 28th day of May, 2014

Notary Public: Adrienne Glitniak

My Commission expires: Jan 31, 2015

ADRIENNE GLITNIAK
Notary Public - State of Florida
My Comm. Expires Jan 31, 2015
Commission # EE 60199

ARCHITECT'S CERTIFICATION:

The Architect's signature here certifies that, based on their own observations, the Contract Documents and the information contained herein, this document accurately reflects the work completed in this Application for Payment. The Architect also certifies the Contractor is entitled to the amount certified for payment.

AMOUNT CERTIFIED:

(Architects Signature) Date:

E-MAILED
gmorton@volusia.org
5/30/14

APPLICATION FOR PAYMENT - CONTINUATION SHEET

CAP703

From:
A.G. Pifer Construction Co. Inc
3629 Old Deland Rd.
Daytona Beach, Fl 32124

To:
County of Volusia
123 W. Indiana Avenue
Room 302
Deland, FL 32720

Project:
39-13
Toronita Ave Off-Beach Parking/Rest
4200 South Atlantiac
Port Orange, FL 32127

Application No: 4
Application Date: 5/28/2014
Period To: 5/27/2014
Contract Date: 9/04/2013
Architects Project#:

A Item No	B Description of Work	C Contract Value	D Work Completed From Previous Application (D + E)	E Work Completed This Period	F Materials Presently Stored (Not In D or E)	G Total Completed and Stored To Date (D+E+F)	% (G / C)	H Balance To Finish (C - G)	I Retainage (If Variable Rate)
1	GENERAL CONDITIONS	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
2	General Conditions	34,810.75	33,070.21	1,740.54	0.00	34,810.75	100	0.00	3,481.07
3	Permits	1,840.00	1,840.00	0.00	0.00	1,840.00	100	0.00	184.00
4	Builders Risk Insurance	1,500.00	1,500.00	0.00	0.00	1,500.00	100	0.00	150.00
5	MOT	2,500.00	2,500.00	0.00	0.00	2,500.00	100	0.00	250.00
6	Testing	960.00	960.00	0.00	0.00	960.00	100	0.00	96.00
7	Surveying	2,900.00	2,900.00	0.00	0.00	2,900.00	100	0.00	290.00
8	As Builts	700.00	0.00	700.00	0.00	700.00	100	0.00	70.00
9		0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
10	BOND	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
11	Bond	4,539.25	4,539.25	0.00	0.00	4,539.25	100	0.00	453.93
12		0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
13	MOBILIZATION	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
14	Mobilization	2,500.00	2,500.00	0.00	0.00	2,500.00	100	0.00	250.00
15	Dumpsters	1,050.00	1,050.00	0.00	0.00	1,050.00	100	0.00	105.00
16	Storage	700.00	700.00	0.00	0.00	700.00	100	0.00	70.00
17	Temp Water and Electric	1,500.00	1,500.00	0.00	0.00	1,500.00	100	0.00	150.00
19		0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
20	BATHROOM	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
21	Concrete	6,007.00	6,007.00	0.00	0.00	6,007.00	100	0.00	600.70
22	Masonry and Stucco	6,897.00	6,897.00	0.00	0.00	6,897.00	100	0.00	689.70
23	Painting	4,000.00	4,000.00	0.00	0.00	4,000.00	100	0.00	400.00
24	Framing	9,541.00	9,541.00	0.00	0.00	9,541.00	100	0.00	954.10
25	Roofing	16,420.00	16,420.00	0.00	0.00	16,420.00	100	0.00	1,642.00
26	Siding	8,537.00	8,537.00	0.00	0.00	8,537.00	100	0.00	853.70
		106,902.00	104,461.46	2,440.54	0.00	106,902.00	100	0.00	10,690.20

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APPLICATION FOR PAYMENT - CONTINUATION SHEET

CAP703 Page 3 of 4 Pages

From:
A.G. Pifer Construction Co. Inc
3629 Old Deland Rd.
Daytona Beach, Fl 32124

To:
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Room 302
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Project:
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27	Flooring	2,395.00	2,395.00	0.00	0.00	2,395.00	100	0.00	239.50
28	Doors, Hardware and Vents	19,093.00	19,093.00	0.00	0.00	19,093.00	100	0.00	1,909.31
29	Tiolet Accessories	3,753.00	3,753.00	0.00	0.00	3,753.00	100	0.00	375.30
30	Electrical	7,100.00	6,745.00	355.00	0.00	7,100.00	100	0.00	710.00
31	Plumbing	15,600.00	15,600.00	0.00	0.00	15,600.00	100	0.00	1,560.00
32		0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
33	SITE	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
34	Demolition	4,750.00	4,750.00	0.00	0.00	4,750.00	100	0.00	475.00
35	Sitework	3,250.00	3,250.00	0.00	0.00	3,250.00	100	0.00	325.00
36	Storm Drainage	7,735.00	7,735.00	0.00	0.00	7,735.00	100	0.00	773.50
37	Sewer	9,398.00	9,398.00	0.00	0.00	9,398.00	100	0.00	939.80
38	Lift Station	16,333.00	15,516.35	816.65	0.00	16,333.00	100	0.00	1,633.31
39	Water	7,847.00	7,847.00	0.00	0.00	7,847.00	100	0.00	784.70
40	Sub Base	12,750.00	12,750.00	0.00	0.00	12,750.00	100	0.00	1,275.00
41	Curbs	9,625.00	9,625.00	0.00	0.00	9,625.00	100	0.00	962.50
42	Asphalt	8,875.00	8,875.00	0.00	0.00	8,875.00	100	0.00	887.50
43	Shower Towers	5,378.00	5,378.00	0.00	0.00	5,378.00	100	0.00	537.80
44	Paint	3,600.00	3,600.00	0.00	0.00	3,600.00	100	0.00	360.00
45	Wood Benches	1,635.00	1,635.00	0.00	0.00	1,635.00	100	0.00	163.50
46	Bike Racks	6,904.00	0.00	6,904.00	0.00	6,904.00	100	0.00	690.40
47	Trash Cans	526.00	526.00	0.00	0.00	526.00	100	0.00	52.60
48	Site Amenity Labor and Fasteners	1,100.00	1,045.00	55.00	0.00	1,100.00	100	0.00	110.00
49	Landscape	42,892.00	8,578.40	34,313.60	0.00	42,892.00	100	0.00	4,289.20
50	Sidewalks	10,320.00	10,320.00	0.00	0.00	10,320.00	100	0.00	1,032.00
		307,761.00	262,876.21	44,884.79	0.00	307,761.00	100	0.00	30,776.12

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Per discussion with County on 6/16, County recommends a budget of $175,000 for Construction and $25,000 for design for similar bathroom facility at Cassen Park, need to include demolition of existing bathroom & Portable toilet Rentals during Construction - Add $10,000: Total Budget $185,000 Construction $25,000 Design

APPLICATION FOR PAYMENT - CONTINUATION SHEET

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51	Screen Wall	9,200.00	9,200.00	0.00	0.00	9,200.00	100	0.00	920.00
52	Trellis	8,982.00	8,982.00	0.00	0.00	8,982.00	100	0.00	898.20
53	Striping, Signage and Wheel Stops	11,900.00	0.00	11,900.00	0.00	11,900.00	100	0.00	1,190.00
54		0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
55	Park Sign Allowance	2,000.00	2,000.00	0.00	0.00	2,000.00	100	0.00	200.00
56		0.00	0.00	0.00	0.00	0.00	0	0.00	0.00
57	Contingency 10%	33,584.30	31,905.09	1,679.21	0.00	33,584.30	100	0.00	3,358.43
		373,427.30	314,963.30	58,464.00	0.00	373,427.30	100	0.00	37,342.75

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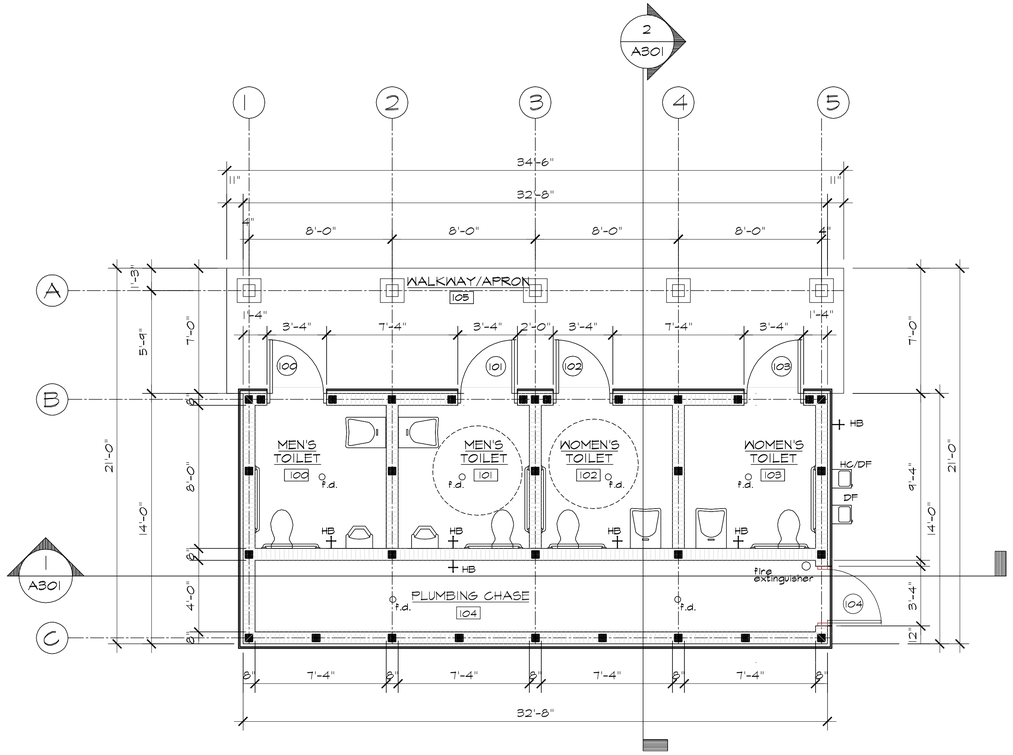
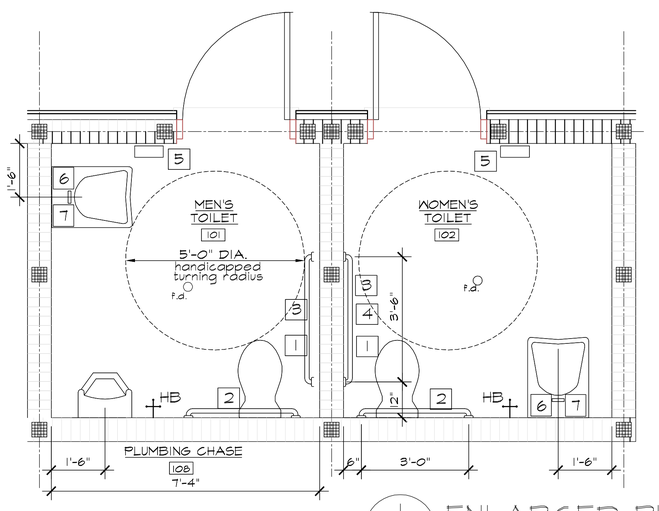


FLOOR PLAN

SCALE: 1/4"=1'-0"

NOTE:

1. PROVIDE SOIL TREATMENT FOR TERMITE CONTROL AFTER GRADING OPERATIONS ARE COMPLETED AND PRIOR TO CONCRETE WORK. APPLY AS REQUIRED PER CURRENT BUILDING CODES AND SOIL TREATMENT MANUFACTURER'S INSTRUCTIONS. SEE SECTION 02361-TERMITE CONTROL IN SPECIFICATIONS



1 / A101 ENLARGED PLAN

SCALE: 1/2"=1'-0"

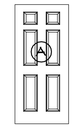
DOOR SCHEDULE

DOOR NO.	DOOR SIZE	DOOR TYPE	FRAME TYPE	FRAME MATERIAL	DETAIL HEAD	DETAIL JAMB	DETAIL SILL	FIRE RATING	HARDWARE SET	REMARKS
100	3'-0"x7'-0"x1 3/4"	A	FIBER.	FIBER.	4/A303	4/A303 SIMILAR	4/A302	----	SEE SPECS	SEE SPECS
101	3'-0"x7'-0"x1 3/4"	A	FIBER.	FIBER.	4/A303	4/A303 SIMILAR	4/A302	----	SEE SPECS	SEE SPECS
102	3'-0"x7'-0"x1 3/4"	A	FIBER.	FIBER.	4/A303	4/A303 SIMILAR	4/A302	----	SEE SPECS	SEE SPECS
103	3'-0"x7'-0"x1 3/4"	A	FIBER.	FIBER.	4/A303	4/A303 SIMILAR	4/A302	----	SEE SPECS	SEE SPECS
104	3'-0"x7'-0"x1 3/4"	A	FIBER.	FIBER.	4/A303	4/A303 SIMILAR	4/A302	----	SEE SPECS	SEE SPECS

DOOR HARDWARE

DOORS 100-103 TO RECEIVE AUTO CLOSER & LOCKSET
DOOR 104 TO RECEIVE LOCKSET ONLY
CLOSER TO BE LOCATED ON INSIDE OF DOOR
LOCKSET: DEADLATCH
INTERIOR: THUMBLATCH
EXTERIOR: KEY OPERATED
SCHLAGE: DORMATORY
LOCK MODEL, #ND73PD RAD 626

DOOR TYPE



FIBERGLASS

FINISH SCHEDULE

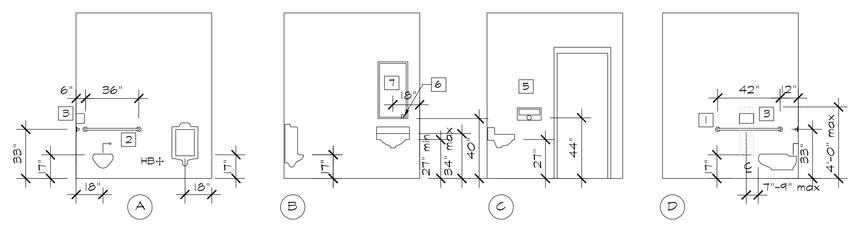
ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS	CEILING	REMARKS
100	MENS TOILET	F1	F1	W1	C1	
101	MENS TOILET	F1	F1	W1	C1	
102	WOMENS TOILET	F1	F1	W1	C1	
103	WOMENS TOILET	F1	F1	W1	C1	
104	PLUMBING CHASE	F3	----	W1	----	
105	WALKWAY/APRON	F2	----	W2	C2	

NOTES:

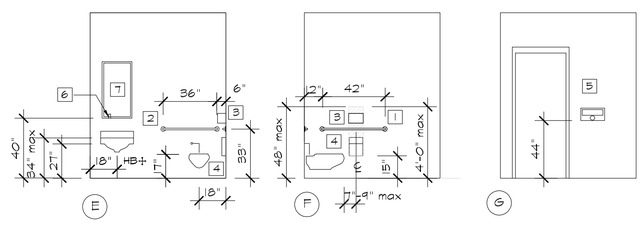
1. WALLS TO BE PAINTED PRIOR TO INSTALLATION OF ANY FIXTURES PAINT TO BE BY SHERWIN WILLIAMS.
2. PAINT BY SHERWIN WILLIAMS: INTERIOR AND EXTERIOR - DOVER WHITE # 6385, TRIM AND ACCENT - EVERGREENS # 6447 (FINISH COLORS).
3. DOORS TO BE PAINTED DOVER WHITE - # 6385 BY SHERWIN WILLIAMS.
4. WALL BASE TO BE SAME AS THE FLOOR MATERIAL, ONE FULL TILE IN HEIGHT.

FINISH LEGEND

F1	MATERIAL: QUARRY TILE W/ ABRASIVE GRAIN COLOR: SHADOW FLASH W/ MUSHROOM GROUT, BY AMERICAN CLEAN
F2	MATERIAL: EXPOSED BROOM FINISH CONC
F3	MATERIAL: EXPOSED SMOOTH FINISH CONCRETE
W1	PAINT: (2) COAT EPOXY PAINT SEMI-GLOSS (1) COAT PRIMER (BLOCK SEALER)
W2	PAINT: (2) COAT ACRYLIC PAINT (1) COAT PRIMER
C1	MATERIAL: VINYL (VENTED) PBS80V BY ALCOA
C2	MATERIAL: PINE PLYWOOD SIDING BY GEORGIA PACIFIC (PLY-BEAD CLASSIC)



MEN'S TOILET ELEVATIONS RM 101



WOMEN'S TOILET ELEVATIONS RM 102

NO.	ACCESSORY	MANUFACTURER	MODEL NO.
1	42" GRAB BAR	BOBRICK	B-5806.98
2	36" GRAB BAR	BOBRICK	B-5806.99
3	TOILET PAPER DISPENSER	BOBRICK	B-2892
4	SAN. NAP. DISP.	BOBRICK	B-254
5	HAND DRYER	XLERATOR	HO-1W
6	SOAP DISPENSER	SEE NOTE 1	-
7	18"x36" MIRROR	BRADLEY	748

NOTES:

1. SOAP DISPENSER TO BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR.
2. HOSE BIBS TO BE TAMPER RESISTANT TYP.

TOILET ELEVATIONS

SCALE: 1/4"=1'-0"

LANDSCAPE ARCHITECTS
BELLOMO HERBERT
A GAI COMPANY
618 East South Street, Suite 600
Orlando, Florida 32801
tel 407 422 4845
fax 407 422 0699

TORONITA OFF-BEACH PARKING & RESTROOM

PROJECT NO. 5546

WILBUR-BY-THE-SEA, FL

*FBC 2010
*OCCUPANCY: ASSEMBLY
*BUILDING AREA: 457 S.F.
*CONSTRUCTION TYPE: III B

CONSULTANT:
S ◆C◆ A
SID CORHERN ARCHITECT, INC.
P.O. BOX 829
NEW SMYRNA BEACH, FLORIDA
PHONE 386.428.0056

REVISIONS:

08/29/12 DRC COMMENTS
10/05/12 DRC COMMENTS

SCALE	AS NOTED
DATE	05/24/13
PROJECT #	07.195.01
DESIGNED	SDC
CHECKED	SDC
SEAL	

A/R 0011098

SHEET

A-A101

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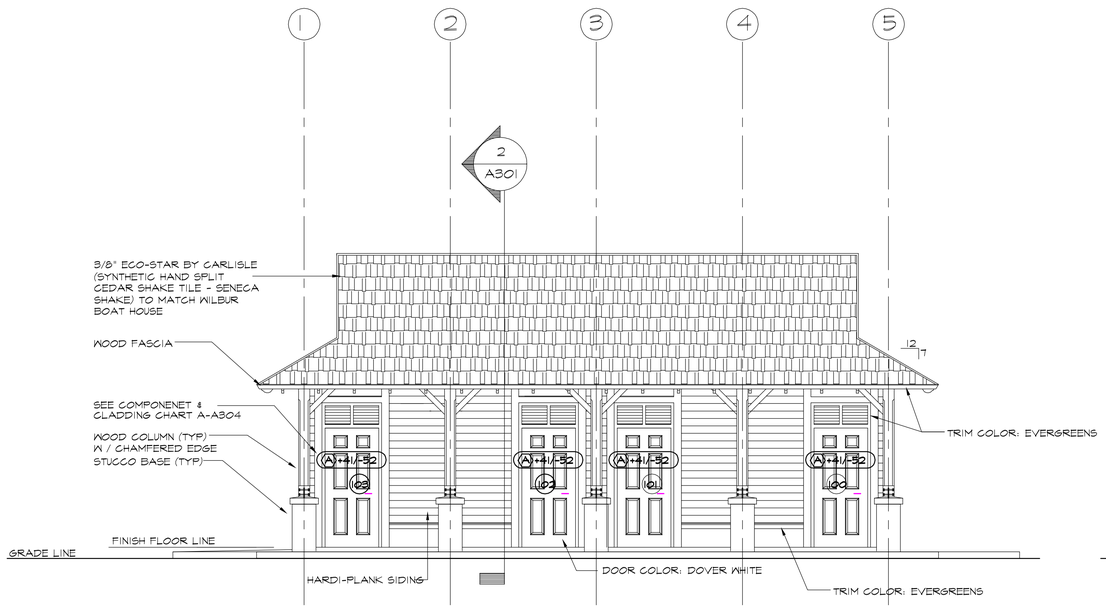
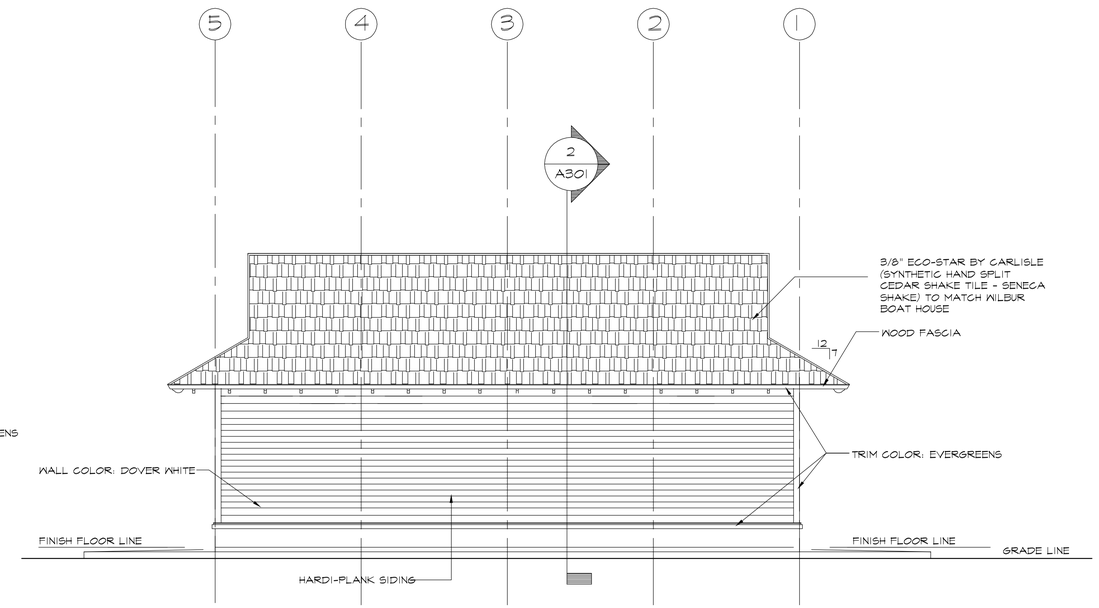


ELEVATION A

SCALE: 1/4"=1'-0"

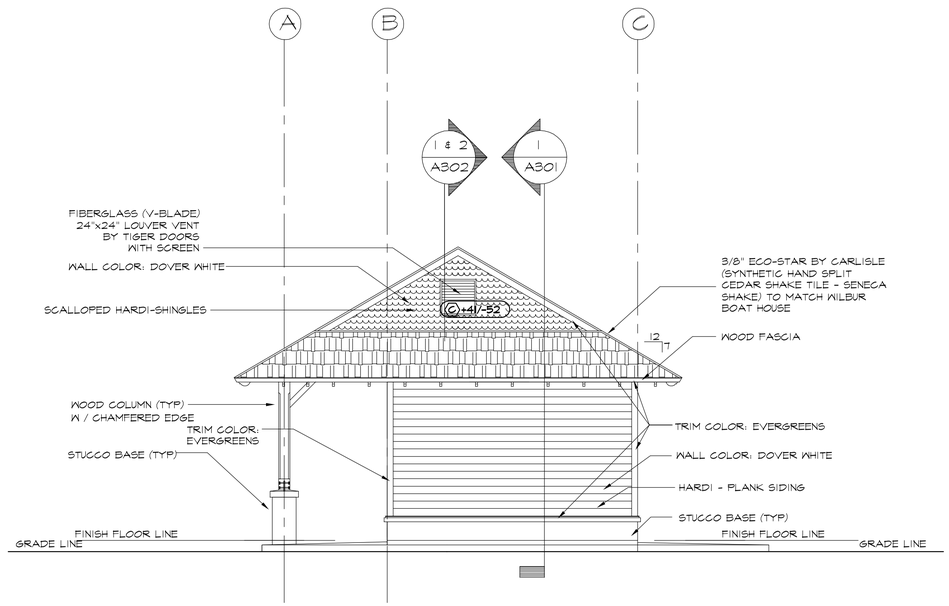


ELEVATION B

SCALE: 1/4"=1'-0"

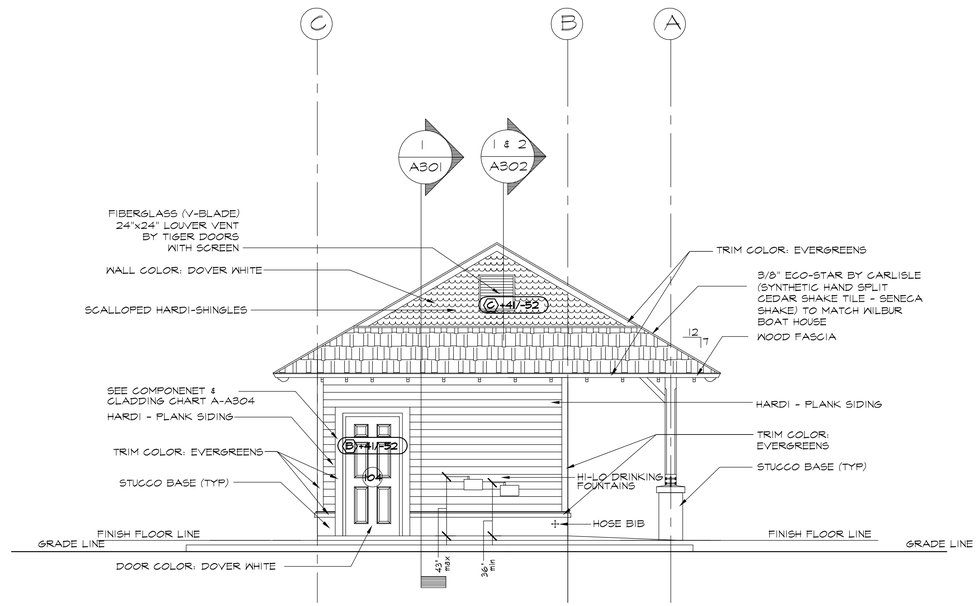
PAINT COLORS:

1. PAINT BY SHERWIN WILLIAMS: INTERIOR AND EXTERIOR - DOVER WHITE # 6385
2. EXTERIOR TRIM AND ACCENT - EVERGREENS # 6447 (FINISH COLORS).
3. DOORS TO BE PAINTED DOVER WHITE - # 6385 BY SHERWIN WILLIAMS.



ELEVATION C

SCALE: 1/4"=1'-0"



ELEVATION D

SCALE: 1/4"=1'-0"

LANDSCAPE ARCHITECTS

BELLOMO HERBERT
A GAI COMPANY

618 East South Street, Suite 600
Orlando, Florida 32801
tel 407 422 4845
fax 407 422 0699

TORONITA OFF-BEACH PARKING & RESTROOM

PROJECT NO. 5546

WILBUR-BY-THE-SEA, FL

*FBC 2010
*OCCUPANCY: ASSEMBLY
*BUILDING AREA: 457 S.F.
*CONSTRUCTION TYPE: III B

CONSULTANT:

S ◆C◆ A

SID CORHERN ARCHITECT, INC.
P.O. BOX 829
NEW SMYRNA BEACH, FLORIDA
PHONE 386.428.0056

REVISIONS:

08/29/12 DRC COMMENTS
10/05/12 DRC COMMENTS
12/21/12 ISSUED FOR BID

SCALE	AS NOTED
DATE	05/24/13
PROJECT #	07.195.01
DESIGNED	SDC
CHECKED	SDC
SEAL	

A/R 0011098

SHEET

A-A201

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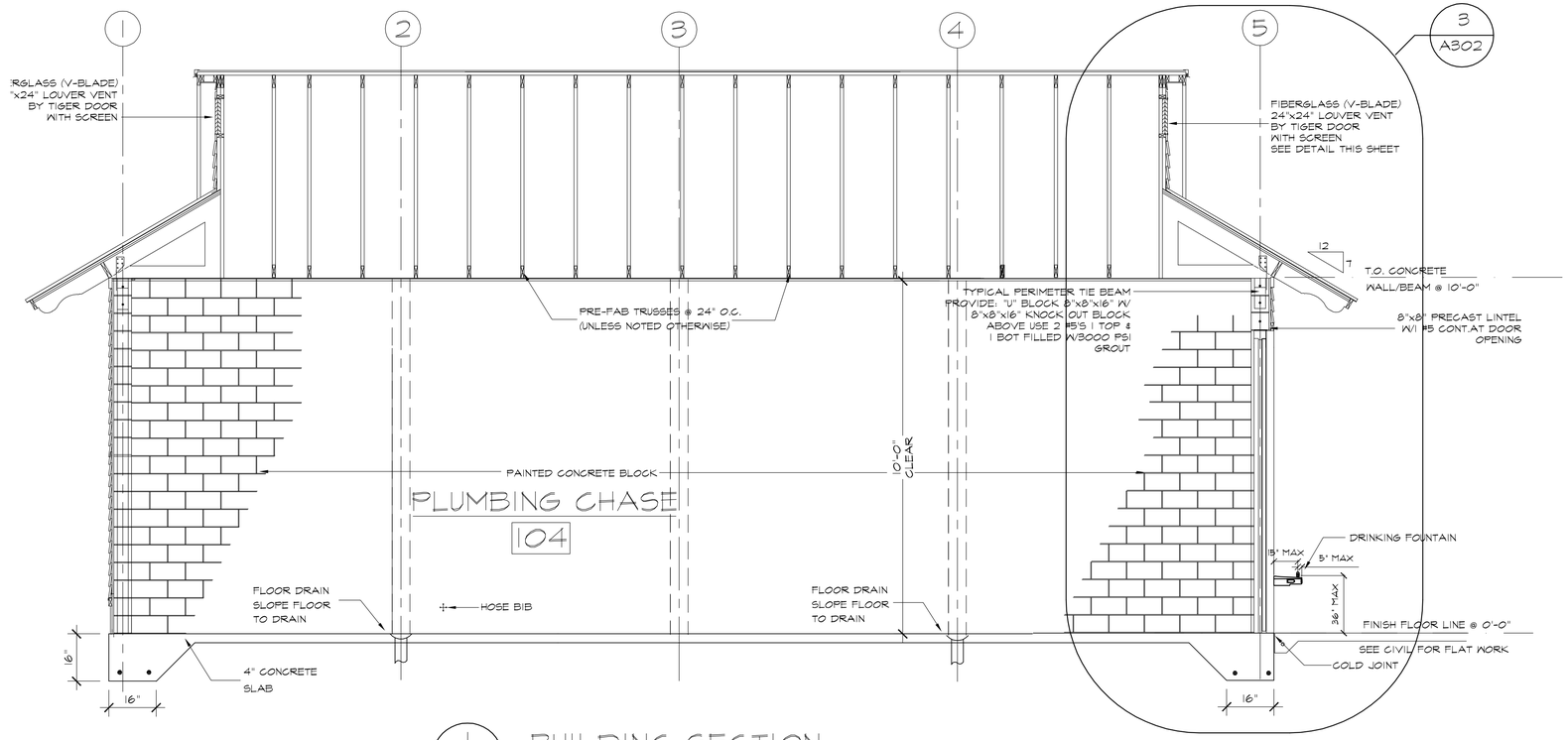
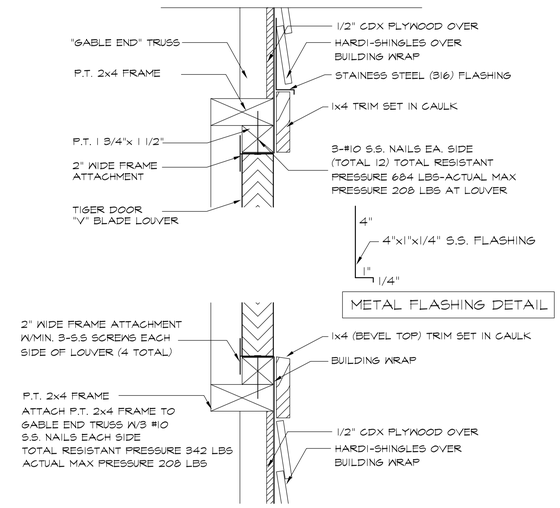
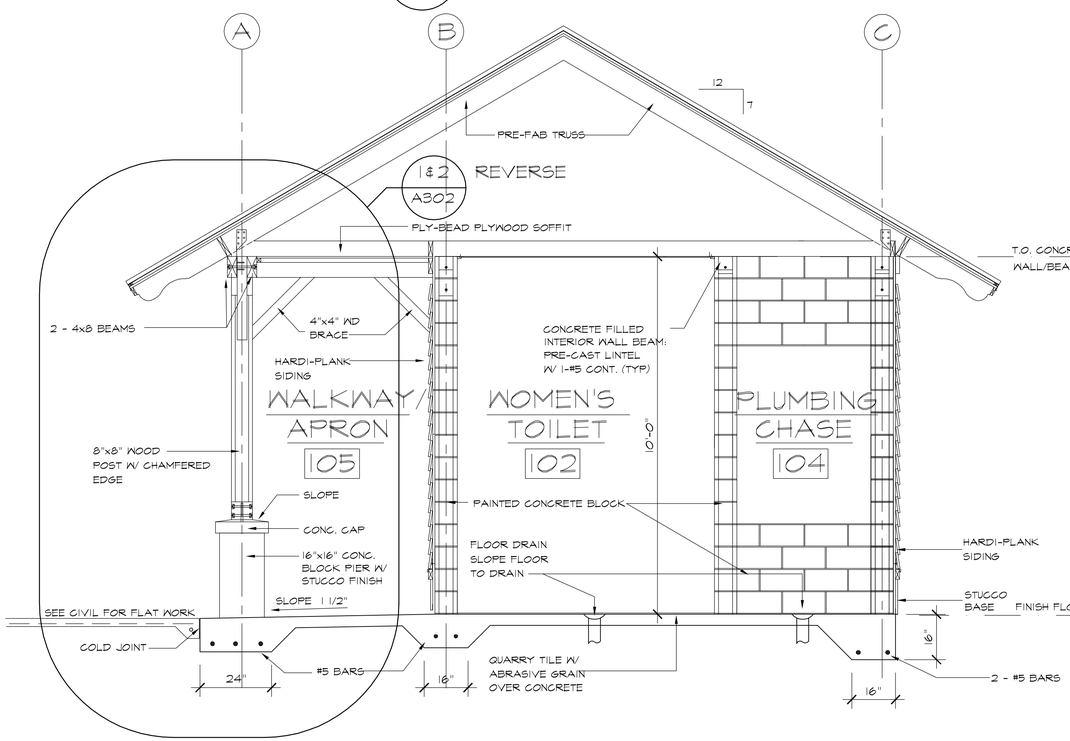


1 / A301 BUILDING SECTION
SCALE: 1/2"=1'-0"



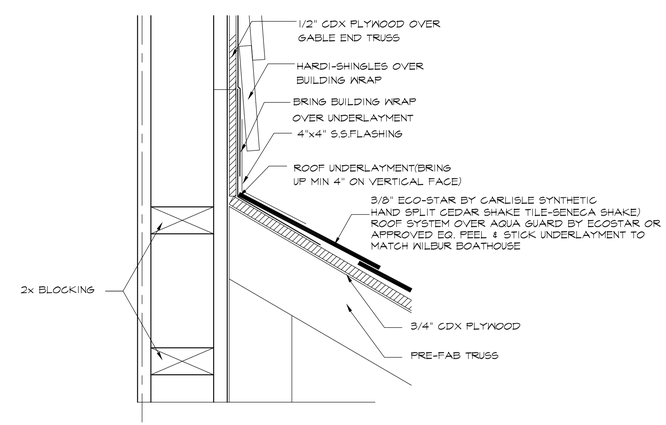
1 / A301 LOUVER DETAIL
SCALE: 3"=1'-0"

FOOTING NOTE:
ALL FOOTINGS TO BE 16" DEEP
UNLESS OTHERWISE NOTED



2 / A301 BUILDING SECTION
SCALE: 1/2"=1'-0"

NOTES:
1. SEE SHEET A - 302 FOR FLOOR COMPOSITION
2. SEE SHEET A - 304 FOR FLOOR SLOPES



2 / A301 RAKE DETAIL
SCALE: 3"=1'-0"

LANDSCAPE ARCHITECTS
BELLOMO HERBERT
A GAI COMPANY
618 East South Street, Suite 600
Orlando, Florida 32801
tel 407 422 4845
fax 407 422 0699

TORONITA OFF-BEACH PARKING & RESTROOM

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WILBUR-BY-THE-SEA, FL

*FBC 2010
*OCCUPANCY: ASSEMBLY
*BUILDING AREA: 457 S.F.
*CONSTRUCTION TYPE: III B

CONSULTANT:

S ◆C◆ A

SID CORHERN ARCHITECT, INC.
P.O. BOX 829
NEW SMYRNA BEACH, FLORIDA
PHONE 386.428.0056

REVISIONS:

12/21/12 ISSUED FOR BID

SCALE	AS NOTED
DATE	05/24/13
PROJECT #	07.195.01
DESIGNED	SDC
CHECKED	SDC
SEAL	

A/R 0011098

SHEET

A-A301

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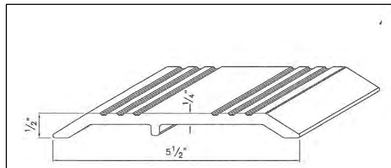
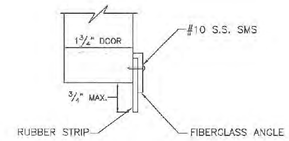


FRP THRESHOLD SECTION

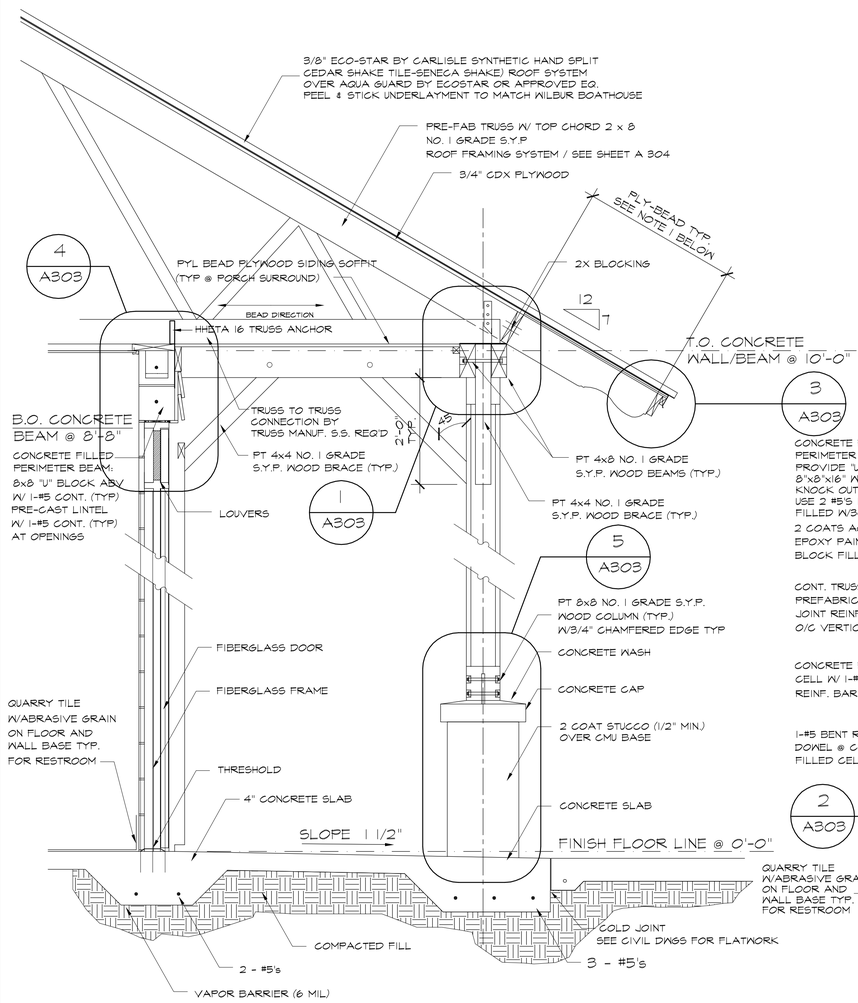
MAXIMUM LENGTH IS 20'-0"
GRIT SURFACE IS AVAILABLE
GRAY IS THE STANDARD COLOR

4 / A302 FRP THRESHOLD SECTION
BY TIGER DOOR

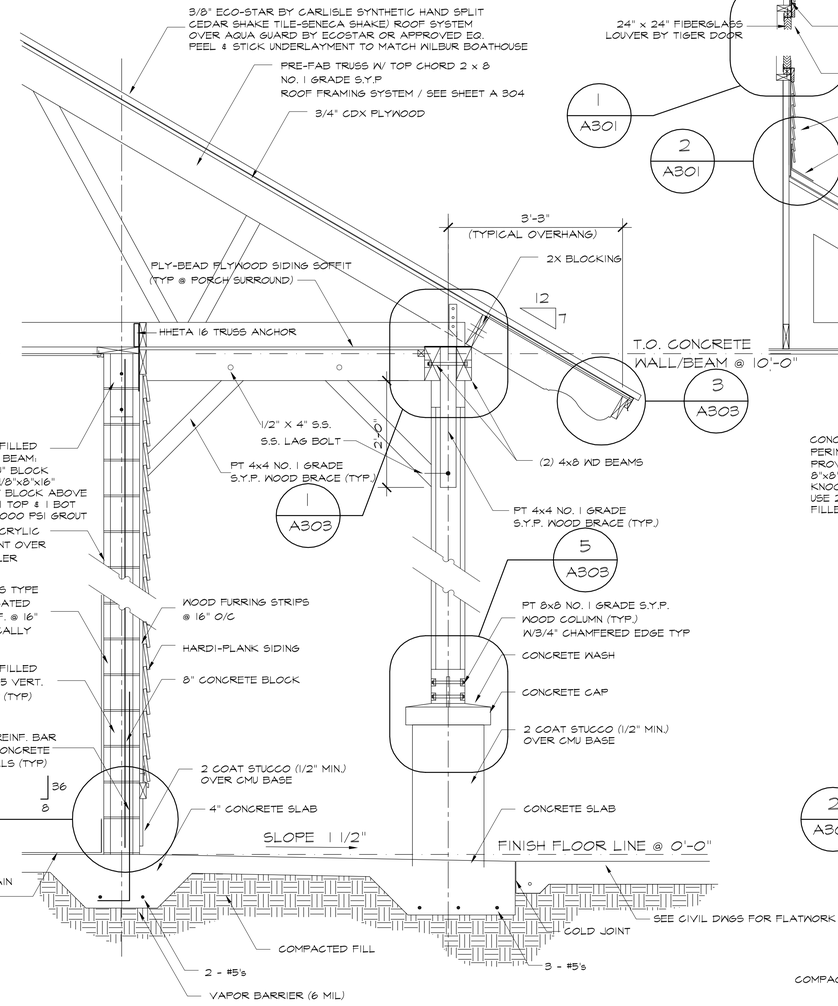


FRP SWEEP SECTION

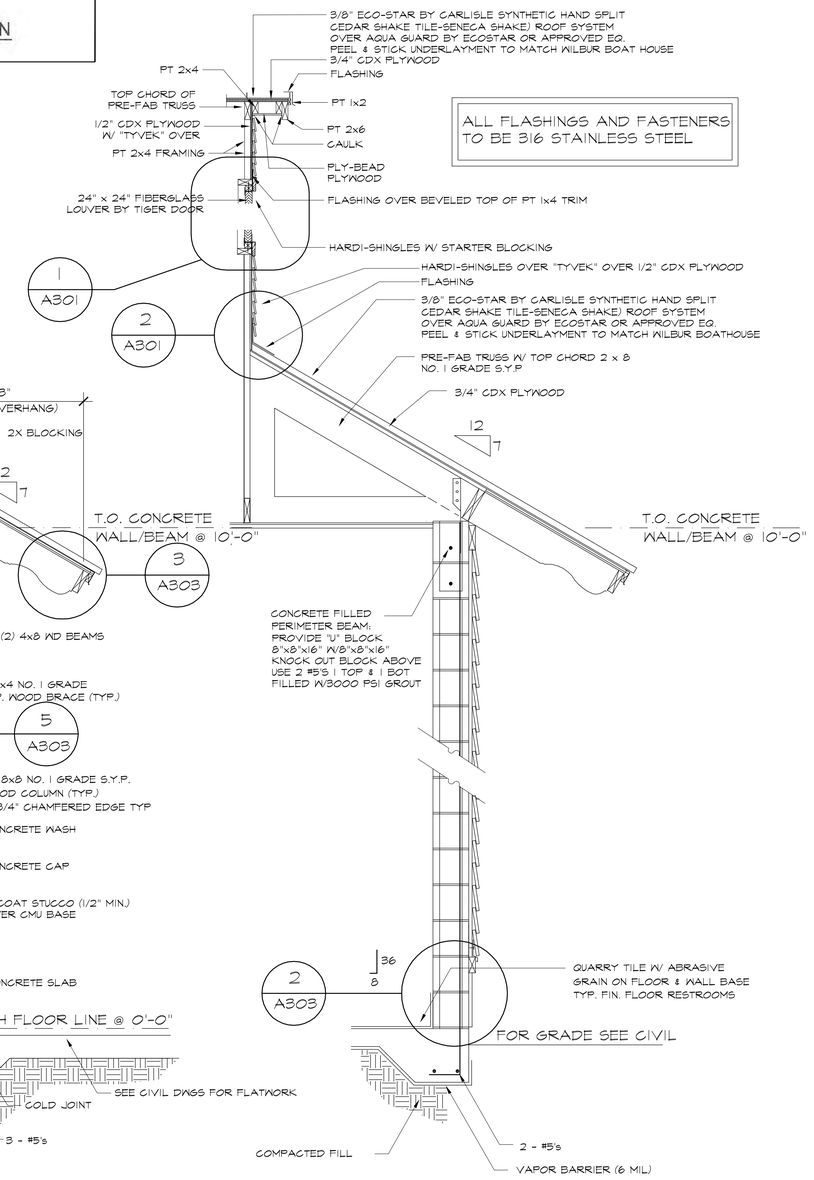
5 / A302 FRP SWEEP SECTION
BY TIGER DOOR



1 / A302 SECTION
SCALE: 3/4"=1'-0"



2 / A302 SECTION
SCALE: 3/4"=1'-0"



ALL FLASHINGS AND FASTENERS TO BE 316 STAINLESS STEEL

3 / A302 SECTION
SCALE: 3/4"=1'-0"

1. PLY BEAD SOFFIT AREA TO HAVE 3/8" PLY BEAD EXPOSED W/ 3/8" CDX PLYWOOD GLUED AND NAILED OVER PLY BEAD PLYWOOD AT SLOPED SOFFIT AREA.

FOOTING NOTE:
ALL FOOTINGS TO BE 16" DEEP UNLESS NOTED OTHERWISE

LANDSCAPE ARCHITECTS
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618 East South Street, Suite 600
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TORONITA OFF-BEACH PARKING & RESTROOM

PROJECT NO. 5546

WILBUR-BY-THE-SEA, FL

*FBC 2010
*OCCUPANCY: ASSEMBLY
*BUILDING AREA: 457 S.F.
*CONSTRUCTION TYPE: III B

CONSULTANT:

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A-A302

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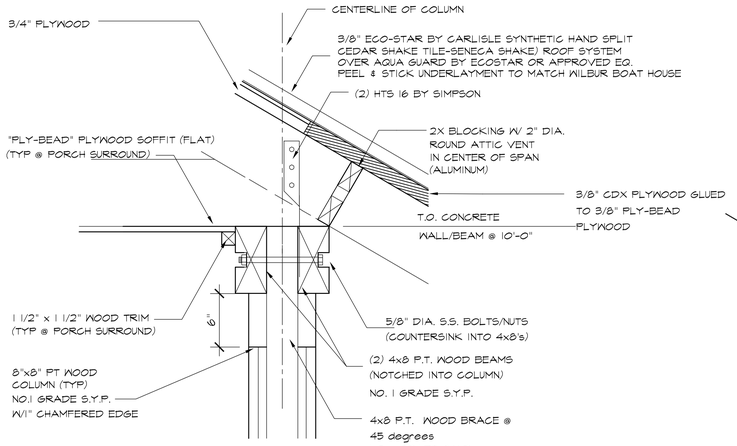
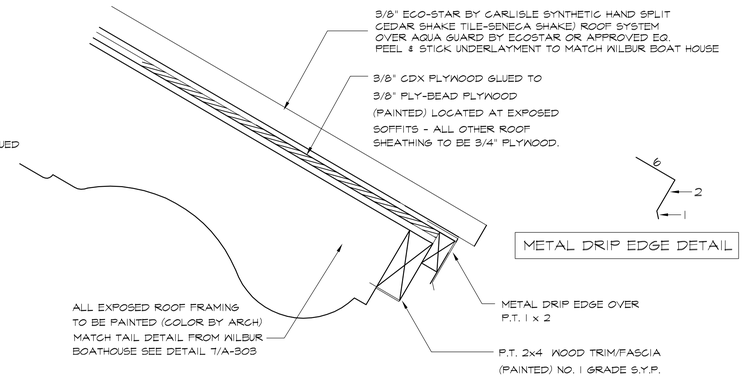
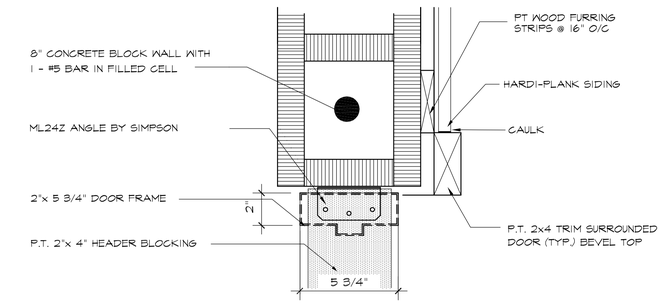


1 / A303 DETAIL
SCALE: 1 1/2"=1'-0"

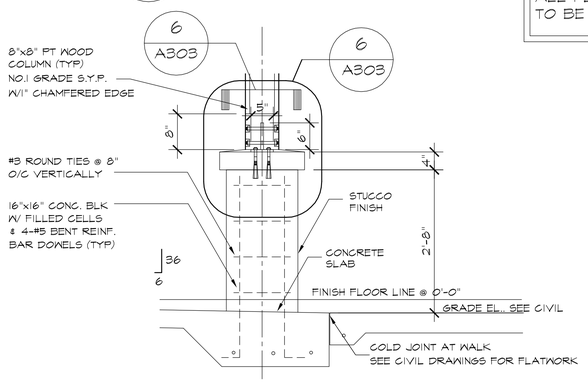


3 / A303 DETAIL
SCALE: 3"=1'-0"

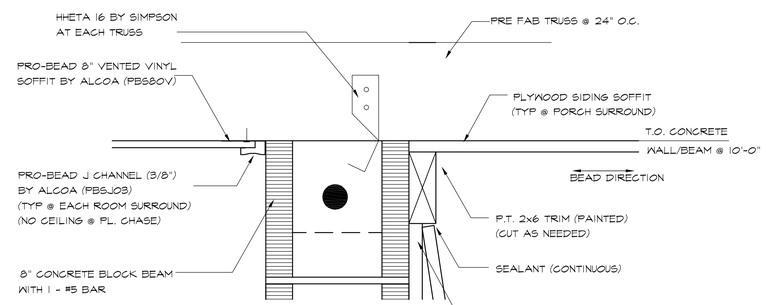


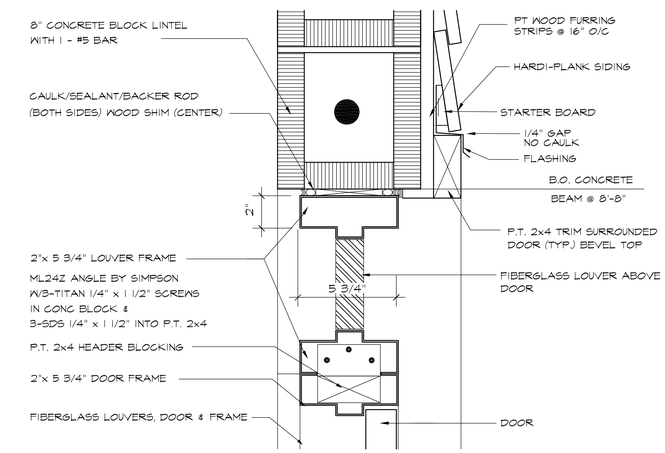
JAMB
SCALE: 3"=1'-0"

ALL FLASHINGS AND FASTENERS TO BE 316 STAINLESS STEEL



5 / A303 SECTION
SCALE: 3/4"=1'-0"

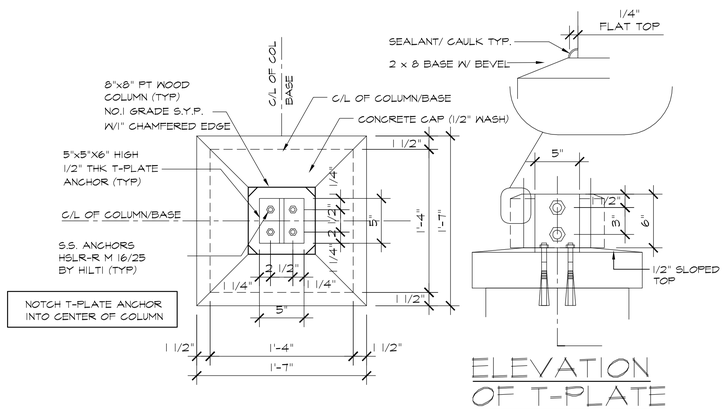




HEAD
SCALE: 3"=1'-0"

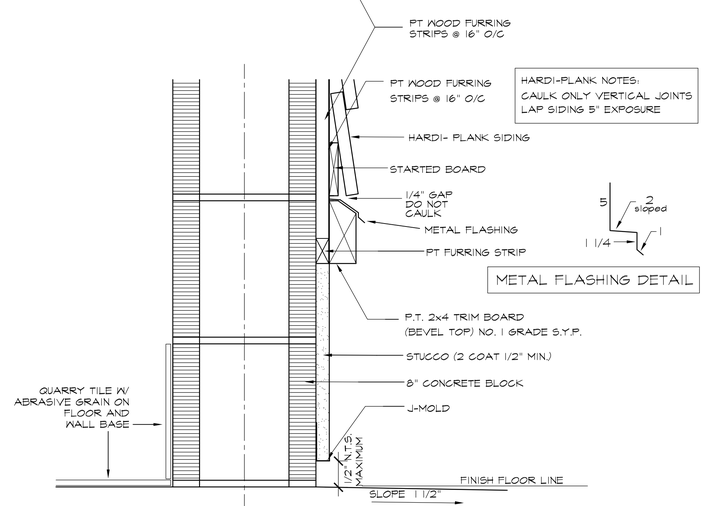
CONNECTION NOTES: MEETS FBC 2010
ULTIMATE WIND SPEED 140 MPH
RISK CATEGORY II
WIND EXPOSURE CATEGORY D
DOOR PRESSURE +41/-52
SEE COMPONENTS & CLADDING CHART A-A304

4 / A303 DETAIL
SCALE: 3"=1'-0"
INSTALL PER FLORIDA PRODUCT APPROVAL

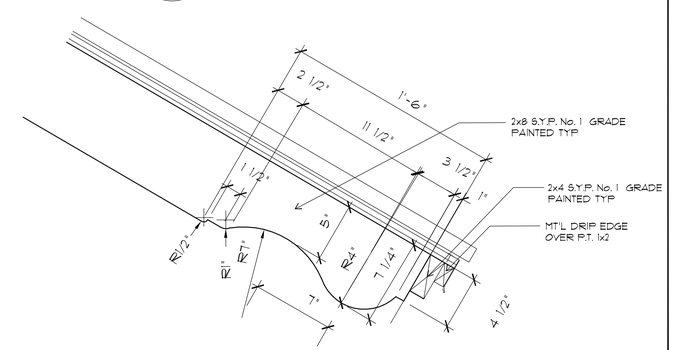


ELEVATION OF T-PLATE
SCALE: 1 1/2"=1'-0"
NOTE: CONCRETE CAP TO BE CAST IN PLACE.

6 / A303 PLAN
SCALE: 1 1/2"=1'-0"



2 / A303 DETAIL
SCALE: 3"=1'-0"



7 / A303 DETAIL
SCALE: 1 1/2"=1'-0"

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TORONITA OFF-BEACH PARKING & RESTROOM

PROJECT NO. 5546

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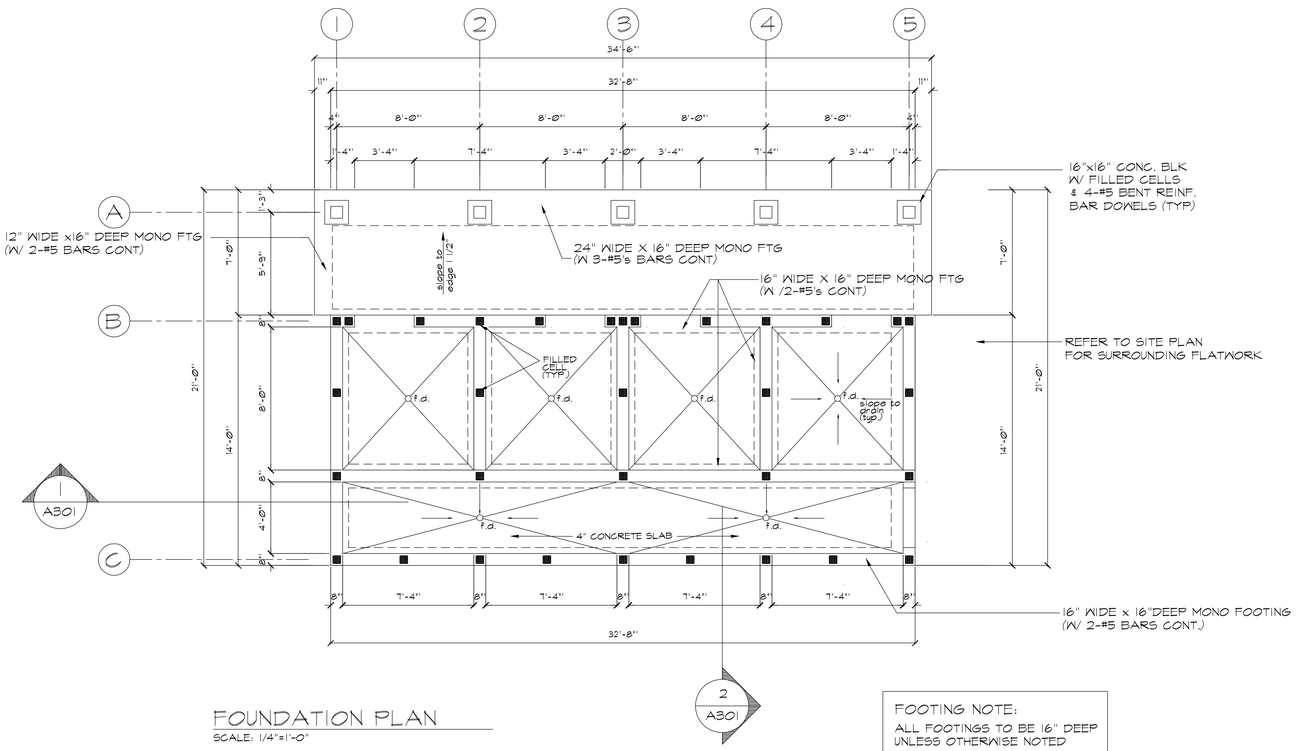


FOUNDATION PLAN

SCALE: 1/4"=1'-0"

FOOTING NOTE:

ALL FOOTINGS TO BE 16" DEEP UNLESS OTHERWISE NOTED

NOTE: THESE PLANS HAVE BEEN DESIGNED TO MEET STANDARDS SET BY THE FLORIDA BUILDING CODE, 2010 EDITION CHAPTERS, 16 & 17 FOR ALL ROOFS, COMPONENTS AND EXTERIOR CLADDING FOR 140 MPH ULTIMATE WIND VELOCITY, CATEGORY D EXPOSURE. AND ASCE-7 STANDARDS.

DESIGN CRITERIA:PARTIAL ENCLOSED STRUCTURE
- ULTIMATE WIND SPEED = 140 MPH
- NOMINAL WIND SPEED = 109 MPH
- RISK CATEGORY = II
- BUILDING CATAGORY = ASSEMBLY
- WIND EXPOSURE CATEGORY = D
- APPLICABLE INTERNAL PRESSURE COEFFICIENT = +/- 55
- COMPONENTS AND CLADDING = SEE CHART
- WIND BORNE DEBRIS ZONE

FLORIDA BUILDING CODE 2010

DESIGN PRESSURE FOR COMPONENTS AND CLADDING

1 +29 / -31 3 +29 / -73 5 +41 / -52
2 +29 / -50 4 +41 / -42

SEE ELEVATIONS & CHART BELOW

WIND LOADS ON EXTERIOR OPENINGS

No.	OPENING SIZE	TOTAL AREA	TOTAL LOAD	WIND LOAD 140 (PSF) D	LENGTH OF BUCK ATTACHMENT	LB LOAD PER LIN FT OR BU
A	DOOR OPENING 8'-8" x 3'-0"	26 sq/ft	1263 LB	+41 / -52	244"/203'	62 LB PER FT
B	DOOR OPENING 7'-0" x 3'-0"	21 sq/ft	1092 LB	+41 / -52	204"/17'	64 LB PER FT
C	LOUVER OPENING 2'-0" x 2'-0"	4 sq/ft	208 LB	+41 / -52	72"/6'	35 LB PER FT

Notes:

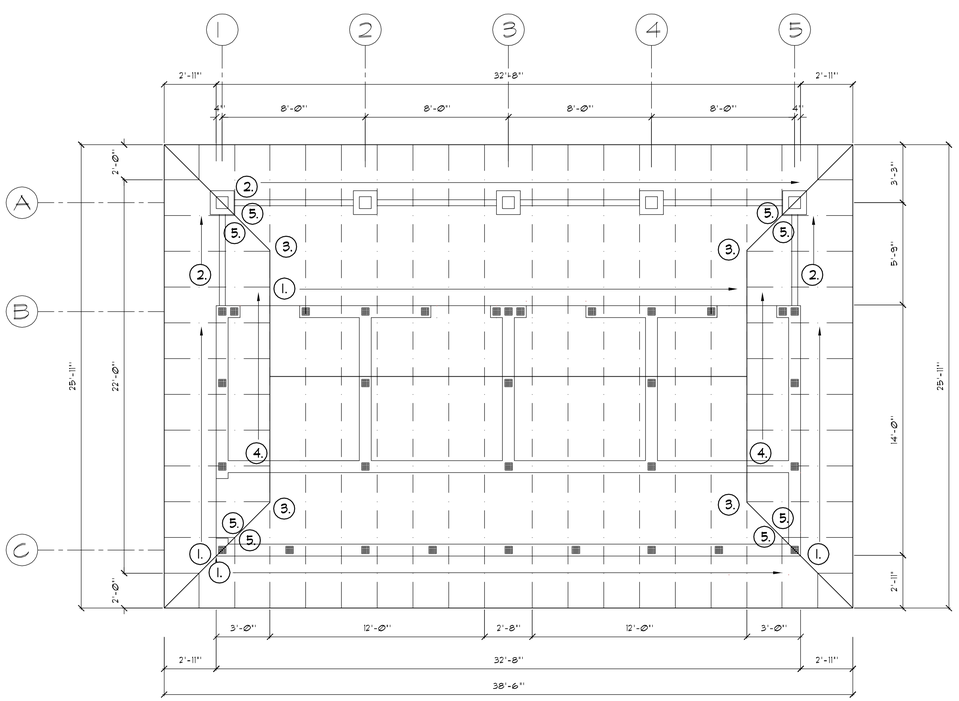
1.) PRESSURES ARE FOR WORKING STRESS DESIGN.

2.) FOR EXTERIOR WINDOWS AND DOORS USE BUCK SIZE REQUIRED BY PRODUCT APPROVAL CERTIFICATIONS.

3.) PROVIDE ENOUGH FASTENERS OF TYPE USED to EQUAL OR EXCEED STATED LOADS ON THE WIND LOAD TABLE. FASTENERS ARE REQUIRED NO CLOSER THAN 2" OR MORE THAN 4" FROM ENDS AND SPACED EQUAL IN DISTANCE ALONG BALANCE OF BUCK.

* MINIMUM WINDOW FASTENERS FOR TOP BUCK IS TWO.
* MINIMUM WINDOW FASTENERS FOR SIDE BUCK IS TWO

APPROVED FASTENERS: 3/16" TAPCON W/1 3/4" PENETRATION =230 LB OF HOLDING POWER.
1/4" TAPCON W/2" PENETRATION = 380 LB OF HOLDING POWER.



ROOF FRAMING PLAN

SCALE: 1/4"=1'-0"

CONNECTION SCHEDULE

NUMBER	MODEL	133% UPLIFT	REMARKS
1	HHETA 16	2235 LBS	TRUSS TO CONC. BLOCK
2	(2) HTS 16	2170 LBS	TRUSS TO WD. BEAM
3	TRUSS TO TRUSS CONNECTION BY TRUSS MANUF. STAINLESS STEEL REQ'D		TRUSS TO HIP/JACK
4	TRUSS TO TRUSS CONNECTION BY TRUSS MANUF. STAINLESS STEEL REQ'D		TRUSS TO END TRUSS
5	TRUSS TO TRUSS CONNECTION BY TRUSS MANUF. STAINLESS STEEL REQ'D		TRUSS TO JACK TRUSS

1. ALL CONNECTIONS TO BE STAINLESS STEEL FINISH.
2. PROVIDE TRUSS BRACING (MODEL NO. TSB2-24) FOR MID SPAN FROM RIDGE TO WALL ON MAIN TRUSSES.
3. MODEL NUMBERS USED ARE FROM SIMPSON STRONG TIE CONNECTIONS.
4. CONNECTORS ARE EQUAL TO/OR GREATER THAN HIGHEST UPLIFT LOADS.

ROOF NOTES:

1. ALL EXPOSED WOOD IS TO BE PRESSURE TREATED NO. 1 GRADE S.Y.P.
2. TRUSS TOP CHORD TO BE 2x8 TYPICAL.
3. ROOF SHEATHING NAIL PATTERN:
   EDGES: 10d @ 4" O/C
   FIELD: 10d @ 6" O/C
4. ROOF SLOPE TYPICAL AT 7/12

WALL/COLUMN MAX LOADS

COLUMNS: 3,200 LBS / COL MAX
WALLS: 400 PLF

BASED ON:
DEAD LOAD: 20 PSF
LIVE LOAD: 20 PSF

TRUSS NOTES:

1. PRE-FABRICATED PRE-ENGINEERED ROOF TRUSSES TO HAVE STAINLESS CONNECTORS AND BE PRESSURE TREATED WOOD.

2. CONTRACTOR TO VERIFY ALL CONNECTORS WITH FINAL TRUSS PACKAGE ENGINEERING, CONTACT ARCHITECT FOR ANY DISCREPANCIES.

ROOF SHEATHING FASTENERS

1. ROOF SHAETHING FASTENERS TO BE STAINLESS STEEL (TYPE 316)

NOTE: ALL PLATES, CONNECTORS & FASTENERS TO BE STAINLESS STEEL

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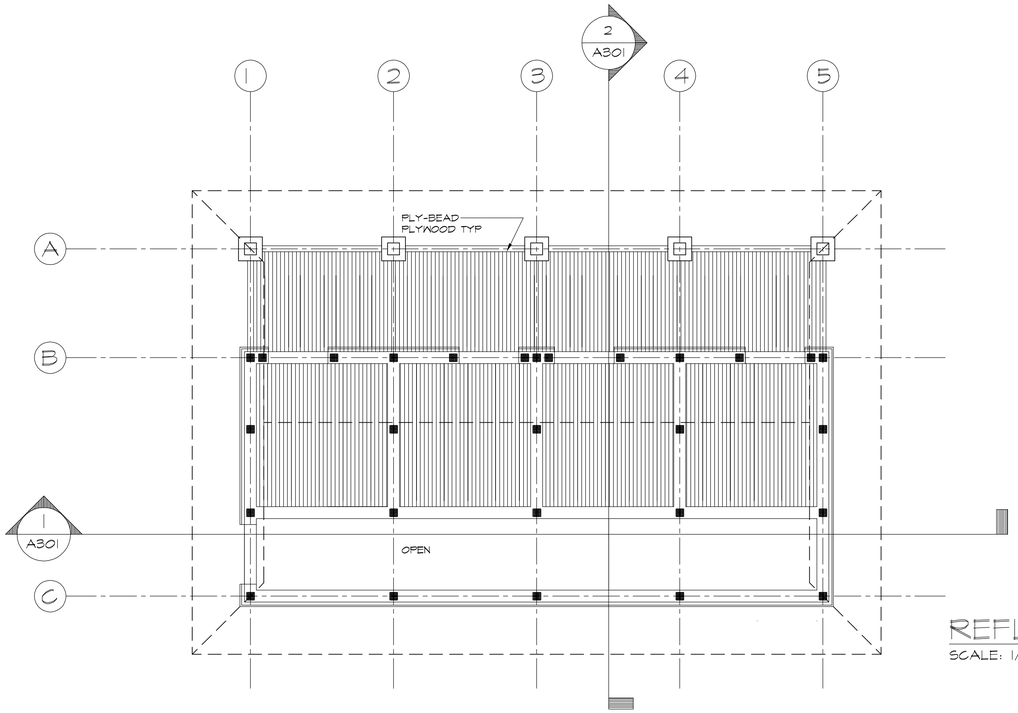
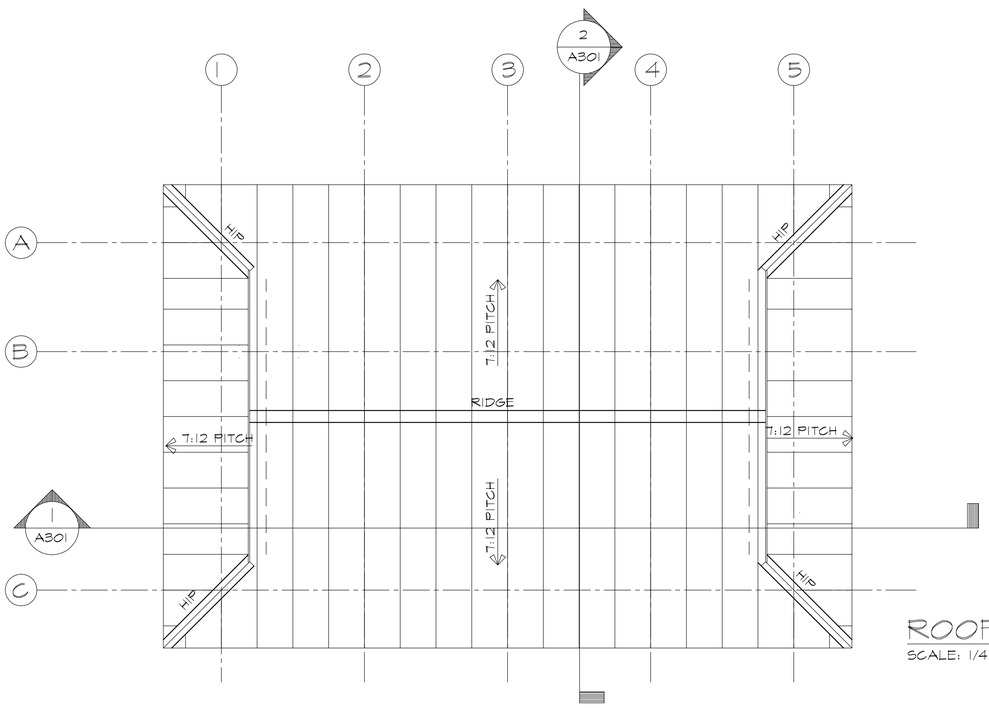


REFLECTED CEILING PLAN

SCALE: 1/4"=1'-0"



ROOF PLAN

SCALE: 1/4"=1'-0"

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City of Ormond Beach, Florida
4/11/2013

Cassen Park Paving
Probable Cost for 2018

Cassen Park Paving was a project that was designed and permitted and bid in 2007. The project was required to include a stromwater management system to comply with the SJRWMD criteria. Four bids were received with the low bid being $224,224.00 and the median bid being, $248,127.25. The project was canceled per City Commission in 2007 and not constructed. The average construction cost trending index increase from 2007 to 2011 is approximately 13.85% and 3.04% between 2011 and 2010. Assuming 3.0%/year from 2012 to 2018 (7 year span) yields 21% + 13.85%, for a total increase of 34.85%.

Median Cost of project bid 2007	$	248,127.25
Estimated Construction Total Index Increase (2007 to 2013)		34.85%
Adjusted Project Construction Cost	$	334,599.60
Repermitting fees	$	2,000.00
Construction Admin/ permit compliance (2%)	$	6,691.99
Geotechnical Services (1.5%)	$	5,018.99
Sub-total	$	348,310.58
PROJECTED PROJECT ESTIMATE FOR 2018	**$**	**349,000.00**

CAPITAL PROJECT DETAIL

PROJECT TITLE

Downtown: Rockefeller Garden Stage Shade Cover

PROJECT#

104051

CATEGORY

Community Redevelopment

FUND

104-TIF

PROJECT LOCATION

Cassen Park

MANAGEMENT

Engineering

PROJECT SCOPE

Construction of a fabric shade cover at the main stage area at Rockefeller Gardens.

JUSTIFICATION

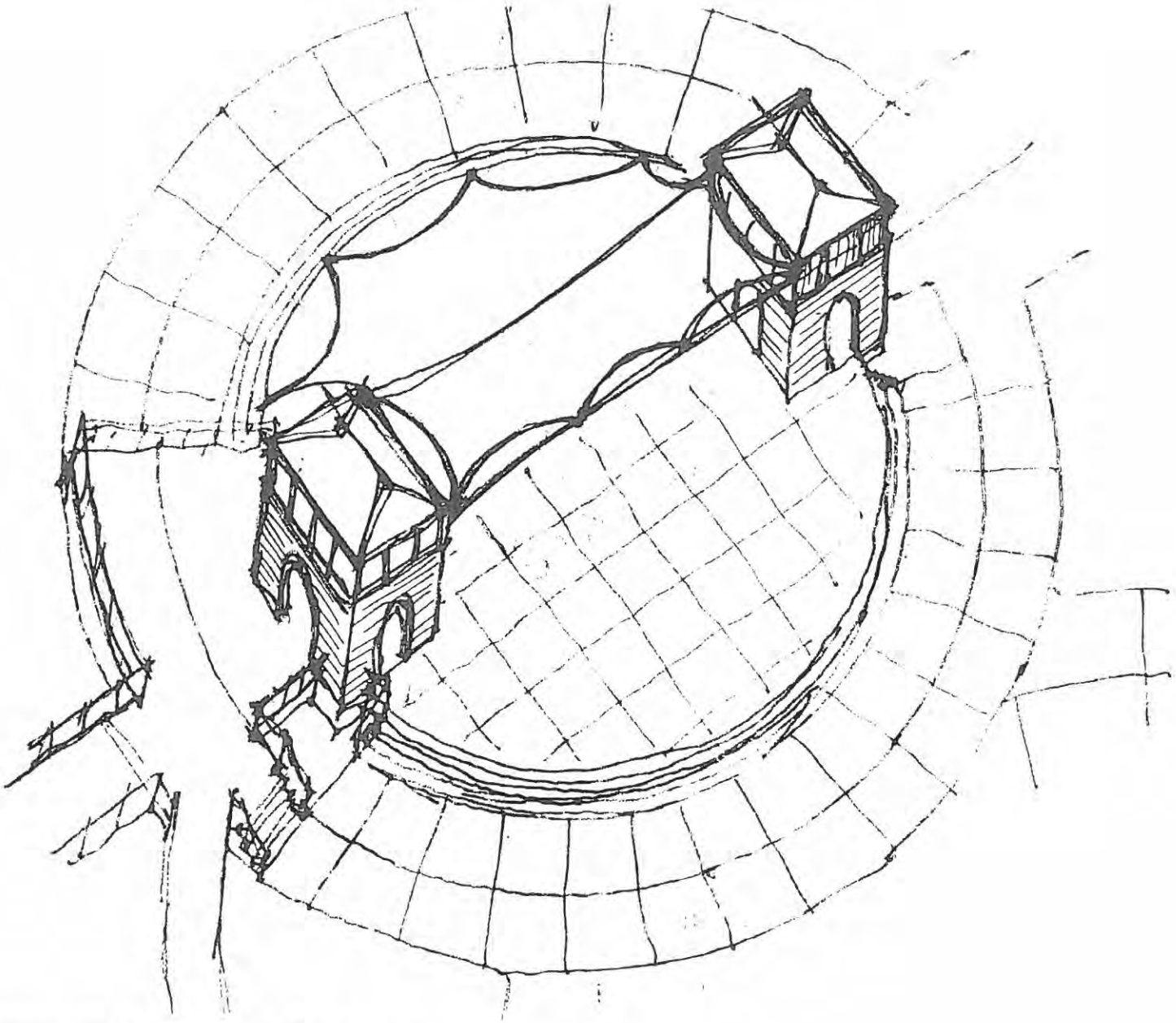
The stage area at Rockefeller Gardens hosts numerous events throughout the year and protection from the sun would provide relief to those on the stage especially during the hot summer months.

PROJECT COST METHODOLOGY

Based on ARBFP shade structure design and installation costs

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Construction	41,000	0	0	0	0	41,000
Design	8,000	0	0	0	0	8,000
Total	49,000	0	0	0	0	49,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-TIF	49,000	0	0	0	0	49,000
Total	49,000	0	0	0	0	49,000



Aerial View of Proposed Fabric Bandshell at Rockefeller Gardens Stage

Not To Scale

Kenneth Smith Architects Inc.

September 25, 2009

CAPITAL PROJECT DETAIL

PROJECT TITLE

Downtown: Thompson Creek, Phase II

PROJECT#

104046

CATEGORY

Community Redevelopment

FUND

104-TIF

PROJECT LOCATION

Thompson Creek

MANAGEMENT

Planning & Engineering

PROJECT SCOPE

10 foot wide multi-use path from Division to Wilmette.

JUSTIFICATION

The Thompson Creek Multi-Use path is contained in the adopted Downtown Plan and Multi-Modal Plan, and the proposed 2016 Bike Plan. The path is 6000 linear feet more or less of pavement and decking with a crossing at Granada Boulevard. The estimated cost using FDOT Long Range Estimates (LRE) is $666,500. The City approved Resolution 2016-43 requesting a feasibility study from the River to Sea Transportation Planning Organization (R2CTPO). Estimated feasibility study cost is $25,000. This project was submitted to the R2CTPO in 2012 but it has not been funded due to higher rated projects. At the suggestion of TPO staff, the project application was revised and resubmitted in order to get a higher ranking for the grant. The City will provide a match of at least 10% ($2,500) but not to exceed 25% ($6,250) of the estimated study costs.

PROJECT COST METHODOLOGY

This project is partly funded from TIF for the portion of the trail that runs from Wilmette Avenue to Division Avenue and remainder is funded from the River to Sea Transportation Planning Organization (R2CTPO). The proposed trail is 6,000 linear feet. The portion of the trail in the Downtown CRA is from Lincoln Avenue to Tomoka Avenue. Costs estimates were obtained by using FDOT LRE for bike facilities and comparing said costs to similar trail projects including SR 40 sidewalk project (Phase 1 and 3) and the Tomoka State Park Trail.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Feasibility Study (2017-18)	0	25,000	0	0	666,500	691,500
Total	0	25,000	0	0	666,500	691,500

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
TPO Grant (pending)	0	18,750	0	0	499,875	518,625
Property Taxes-TIF	0	6,250	0	0	166,625	172,875
Total	0	25,000	0	0	666,500	691,500

SECOND FIVE YEAR IMPLEMENTATION PROGRAM

PROJECT TITLE	CITIZEN ISSUE	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10
Granada Streetscape Improvements	SPA, TC	2				
Place Overhead Utilities Underground	SPA	3				
Targeted land Purchase	EBD	$400,000	$400,000	$400,000	$400,000	$400,000
Park Improvements	SPA,ROS,AC	2				
Relocate Portions of Tennis Center	EBD, ROS	TBD				
Thompson Creek Improvements	SPA, ROS	4				
Art-In-Public Places	AC	$10,000	$10,000	$10,000	$10,000	$10,000
Property Improvement Program Grants	EBD	$400,000	$400,000	$400,000	$400,000	$400,000
Side Street Improvement Construction	TC	$100,000	$100,000			
Area-wide Storm Water Improvements	EBD, TC	2				

1. The column on citizen issues links the capital project activity to the citizen issues and themes generated by the visioning process. EBD is economic and business development, TC is transportation and circulation, SPA is sense of place and appearance, ROS is recreation and open space, and AC is arts and culture.
2. The timing and cost for streetscape, park and drainage improvements will be based on studies done during the initial five year work program.
3. Current cost estimates for placing overhead utilities underground is approximately $1,500 per linear foot including underground construction, restoration and private service conversion. Project can be done independently or in combination with streetscape improvement projects.

Table-1: Cost Estimates

Volusia County, Tomoka Trail
From Inglesa Avenue to Tomoka Park Entrance
Estimate of Approximate Cost (Dated 03-09-07)

ITEM NO.	ITEM DESCRIPTION	UNIT	BASE QTY.	BASE UNIT COST	TOTAL COST
104-14	PREVENTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION	LS	1	16,000.00	16,000.00
110-1-1	CLEARING AND GRUBBING	AC	2.47	14,000.00	34,602.43
120-1	REGULAR EXCAVATION	CY	4,761	8.25	39,279.17
160-4	STABILIZATION, TYPE "B" (12") (MIN LBR 40)	SY	9,522	4.50	42,850.00
285-704	BASE, OPTIONAL GROUP 4	SY	7,287	11.00	80,154.56
285-706	BASE, OPTIONAL GROUP 6	SY	243	13.00	3,159.00
334-1-23	SUPERPAVE ASPHALTIC CONCRETE (TRAFFIC C) (1 ¼")	TN	446	115.00	51,341.91
515-1-2	PIPE HANDRAIL- GUIDERAIL	LF	36	105.00	3,780.00
522-1	CONCRETE SIDEWALK (4" THICK)	SY	150	45.00	6,735.00
575-1-3	SODDING (ARGENTIA BAHIA)	SY	4,712	3.00	14,137.00
700-40-1	SIGN, SINGLE POST (LESS THAN 12 SF)	AS	20	325.00	6,500.00
710-6	DIRECTIONAL ARROW, (PAINTED)	EA	12	90.00	1,080.00
710-7	PAVEMENT MESSAGES (PAINTED)	EA	4	70.00	280.00
710-25-241	SOLID TRAFFIC STRIPE (WHITE) (24")	LF	28	5.00	140.00
710-26-41	SOLID TRAFFIC STRIPE (YELLOW) (4")	LF	300	0.50	150.00
711-3	PAVEMENT MESSAGES (THERMOPLASTIC)	EA	1	250.00	250.00
711-4	DIRECTIONAL ARROW, (THERMOPLASTIC)	EA	5	300.00	1,500.00
711-35-121	SOLID TRAFFIC STRIPE (THERMOPLASTIC) (12" WHITE)	LF	252	8.00	2,016.00
711-35-241	SOLID TRAFFIC STRIPE (THERMOPLASTIC) (24" WHITE)	LF	36	10.00	360.00
711-36-61	SOLID TRAFFIC STRIPE (THERMOPLASTIC) (6" YELLOW)	LF	200	2.25	450.00
721-74-1	WASTE RECEPTACLE	EA	3	500.00	1,500.00
721-75-1	BENCH	EA	3	2,600.00	7,800.00
N/A	KIOSK (WOODEN)	EA	2	4,000.00	8,000.00
	SUBTOTALS				**$322,065.07**
101-1	MOBILIZATION	LS	1	10%	32,206.51
102-1	MAINTENANCE OF TRAFFIC	LS	1	10%	32,206.51
N/A	ENGINEERING & DESIGN	LS	1	10%	32,206.51
N/A	SURVEY	LS	1	50,000.00	50,000.00
N/A	CONTINGENCY	LS	1	20%	64,413.01
	SUBTOTALS				**$211,032.53**
	GRAND TOTAL				**$533,097.60**

SR 40 Multiuse Trail Phase 3 Old Tomoka Road to Airport Road Extension

FDOT Pay Item Number	Pay Item Description	Estimated Quantity	Unit Type	Unit Cost	Total Labor Cost
BASE BID ITEMS					
101-1	Mobilization	1	LS	$ 15,000.00	$ 15,000.00
102-1	Maintenance of Traffic	1	LS	$ 7,500.00	$ 7,500.00
110-4	Removal of existing concrete pavement	145	SY	$ 12.63	$ 1,831.35
104-10-2	Synthetic Bales	24	EA	$ 7.00	$ 168.00
104-13-1	Silt Fence (Type III)	5,086	LF	$ 1.50	$ 7,629.00
110-1-1	Clear and Grub	1	AC	$ 8,000.00	$ 8,000.00
120-1	Regular Excavation	1,278	CY	$ 6.00	$ 7,668.00
120-6	Embankment	3,263	CY	$ 8.00	$ 26,104.00
425-1541	INLETS, DT BOT, TYPE D, <10'	2	EA	$ 2,336.01	$ 4,672.02
430-174-102	Pipe Culv. Round 36", SD	436.00	LF	$ 50.00	$ 21,800.00
430-984-138	Mitered End Section Round 36", SD	4	EA	$ 1,200.00	$ 4,800.00
515-1-2	Pipe Rail (Aluminum)	156	LF	$ 35.00	$ 5,460.00
522-1	8-ft. Wide Concrete Sidewalk, 4"	4,204	SY	$ 32.00	$ 134,528.00
522-2	8-ft. Wide Concrete Sidewalk, 6"	72	SY	$ 35.00	$ 2,520.00
538-1	Guardrail reset	10	LF	$ 6.50	$ 65.00
570-1-2	Performance Turf	15,210	SY	$ 3.33	$ 50,649.30
700-40-1	Sign (F&I) Single Post (12'-0")	1	AS	$ 1,000.00	$ 1,000.00
711-17	Thermoplastic, Remove	120	SF	$ 2.50	$ 300.00
711-11125	Stop Bar - 24" Thermo White	60	LF	$ 5.00	$ 300.00
711-11221	Traffic Stripe (Thermo) (Yellow) 6"	80	LF	$ 1.00	$ 80.00
2-OB	8 ft wide - 125 LF pedestrian bridge (F&I)	1	LS	$ 210,000.00	$ 210,000.00
1-OB	8-ft. Wood Boardwalk (F&I)	2,208	SF	$ 35.00	$ 77,280.00
				TOTAL BASE BID	**$ 587,354.67**

FDOT Pay Item Number	Pay Item Description	Unit Quantity	Unit Type	Unit Cost	Total Labor Cost
101-1	Mobilization	1.00	LS	$ 5,000.00	$ 5,000.00
102-1	Maintenance of Traffic	1.00	LS	$ 5,000.00	$ 5,000.00
					$ -
104-10-2	Synthetic Bales	24.00	EA	$ 12.77	$ 306.48
104-13-1	Silt Fence (Type III)	4875.00	LF	$ 1.12	$ 5,460.00
110-1-1	Clear and Grub	1.46	AC	$ 8,975.00	$ 13,103.50
120-1	Regular Excavation	1278.00	CY	$ 6.26	$ 8,000.28
120-6	Embankment	3063	CY	$ 10.21	$ 31,273.23
					$ -
					$ -
					$ -
	8 ft Boardwalk	1536.00	SF	$ 35.00	$ 53,760.00
522-1	8 Feet Concrete Sidewalk, 4”	4163.00	SY	$ 42.78	$ 178,093.14
575-1-1	Sodding (Bahia)	15610.00	SY	$ 2.32	$ 36,215.20
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -
711-11123	Traffic Stripe Solid (Thermo) (White) 12"	320.00	LF	$ 2.26	$ 723.20
711-11-125	Stop Bar 24" Thermo White	80.00	LF	$ 3.93	$ 314.40
					$ -
700-40-1	Sign (F&I)(Single Post)(12'-0")	2.00	AS	$ 278.31	$ 556.62
					$ -
					$ -
HULL ROAD TURN LANE City of Ormond Beach, FL (Hull Rd and N. US1)			Subtotal		**$ 337,806.05**
			Design/Survey Costs		
			CEI Cost		
			Contingency		**$ 33,780.61**
			Total Project Cost		**$ 371,586.66**

CAPITAL PROJECT DETAIL

PROJECT TITLE

Downtown: Land Acquisitions/Redevelopment

PROJECT#

104048

CATEGORY

Community Redevelopment

FUND

104-TIF

PROJECT LOCATION

Downtown CRA

MANAGEMENT

Planning

PROJECT SCOPE

Acquisition of land for public improvements such as parking, stormwater, utilities.

PROJECT JUSTIFICATION

The 2007 adopted Downtown Master Plan (Pages 13, 23, 31, 32) identified the need for parking and stormwater improvements. These funds will be utilized for public parking, stormwater or to assist in the redevelopment of blighted parcels.

PROJECT COST METHODOLOGY

NA

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Land Acquisition & Redevelopment	0	50,000	0	0	0	50,000
Total	0	50,000	0	0	0	50,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-TIF	0	50,000	0	0	0	50,000
Total	0	50,000	0	0	0	50,000

PHYSICAL ENVIRONMENT RECOMMENDATIONS

	District Applicability			Implementation Responsibility		
	Beach	River	Creek	City/CRA	MainStreet	Chamber
Encourage infill housing at medium and high density (12-32 units per acre) either as stand alone projects or incorporated into mixed use projects.	X	X	X	X		
Establish a land assembly program that gives the City the ability to purchase strategically located parcels that can then be used to encourage desired development projects.	X	X	X	X		
Acquire land and construct a surface parking lot along New Britain Avenue between North Beach Street and North Ridgewood Avenue.		X		P	S	S
Identify opportunities to provide additional parking either on-street or off-street	X	X	X	P	S	S
Design and install public wayfinding signage that identifies parking locations, public facilities and other key sites.	X	X	X	P	S	S
Re-evaluate the Granada Boulevard streetscape design to improve the pedestrian environment; increase the number of on-street parking spaces; and provide modified landscaping for shade and form. Prepare a comprehensive plan and proposal for review with FDOT.	X	X	X	P	S	S
Design and install a regional gateway feature for the US 1 and Granada Boulevard intersection to create a sense of arrival in the downtown.		X	X	P	S	S

P = Primary Role
S = Secondary Role

District Redevelopment Concepts (con't)

River District

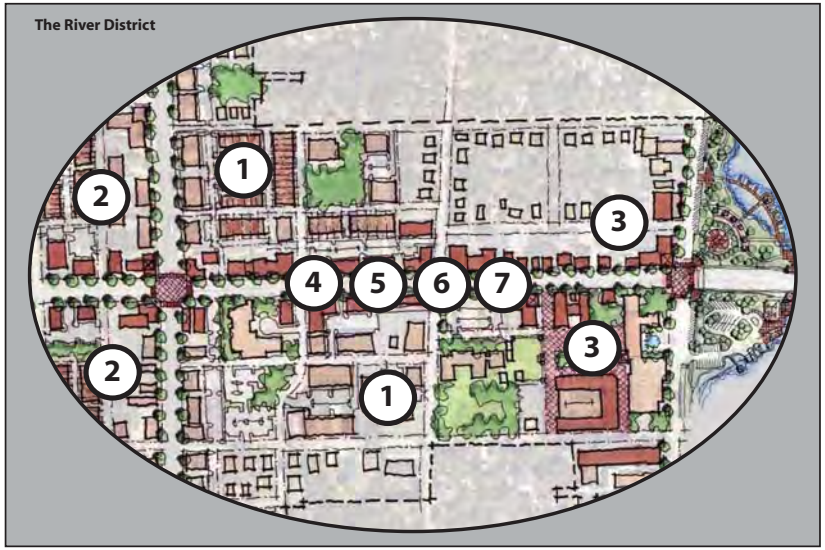
The River District already has a collection of traditional downtown structures that needs to be supported by similar design characteristics as new buildings are added and exiting buildings renovated. An immediate need is to improve parking on the north side of Granada Boulevard, especially east of Ridgewood Avenue. This can be done first by lengthening the parking time allowed to on-street parking and secondly by acquiring land and developing surface parking along New Britain Avenue. Once the parking lot at Ormond Elementary School is complete, a comprehensive parking study needs to be done for the entire sub-district including the potential for structured parking behind City Hall. The parking program needs to be supported by a clear way-finding signage system that identifies parking areas and key downtown destinations.

Under-utilized and redeveloping properties north and south of Granada Boulevard should be developed with housing at medium and high densities as defined by the City's comprehensive plan. Redevelopment of parcels along Granada should include housing as part of a mixed use program. When future needs dictate more space is required for police operations, consideration should be given to relocating the police station and converting the site to mixed use private development. The City/CRA should consider purchasing key parcels that can be offered to private development to stimulate redevelopment projects.

On-street parking on Granada Boulevard needs to be maintained as an element of a traffic calming program that supports an improved pedestrian and shopping environment. Pedestrian elements along the street need to be improved and trees added that will provide shade and define the urban form. The proposed street design needs to be coordinated with FDOT. Regulations that will encourage outdoor dining and outdoor display of merchandise where space allows need to be considered. Side streets throughout the district need to be upgraded to include sidewalks, street trees and other urban design elements.

Land development regulations need to be modified to require new and redeveloping sites to move building mass to the street and include desired design elements. Because of the predominance of older structures in the building inventory, the continuation of the property improvement grant program is particularly important in this area, but the program should stress compliance with the overall design objectives and address all visible sides of a building. Projects with desired land uses and densities should be approved at staff level if they comply with well defined standards. Consideration needs to be given to expanding the downtown overlay district to include most of the CRA to encourage more intensive housing and mixed use development.

1. Identify and acquire key parcels that can will stimulate desired private sector projects.
2. Encourage infill housing at medium and high densities.
3. Address parking needs including surface parking on New Britain and other key locations; maximize on-street parking; reorganize parking and access to City Hall lot including assessment of parking garage.
4. Develop and implement a revised streetscape plan for Granada Blvd. including improved pedestrian service and trees that add shade and define form.
5. Add public wayfinding signage.
6. Continue façade improvement program.
7. Adopt design rules that place buildings close to street and require design elements that are consistent with historical building design.



CAPITAL PROJECT DETAIL

PROJECT TITLE

Downtown: Stormwater Improvements

PROJECT#

104044

CATEGORY

Community Redevelopment

FUND

104-TIF

PROJECT LOCATION

Downtown CRA

MANAGEMENT

Engineering

PROJECT SCOPE

Implement recommendations of study for stormwater improvements

JUSTIFICATION

The 2007 adopted Downtown Master Plan (pages 15, 27, 31, 32) stated a need to evaluate storm water needs and implement a program of off-line retention where practical to support intensive redevelopment of existing sites. With the assistance of consultant, a Stormwater Master Plan for the Downtown CRA was developed. A conceptual permit for work in the CRA was granted by the St. Johns River Water Management Project. Recent activity in redevelopment of the CRA indicates that the area that may receive the most and earliest impact from a construction project would be the River District, north of Granada and lying between North Beach Street and Ridgewood Avenue. A recently awarded project will construct the first Phase of improvements in this area; this project calls for an exfiltration system to be constructed on a proposed park site that can serve a portion of the aforementioned subbasin, specifically those lots north of New Britain (between North Beach Street and North Ridgewood Avenue). A second project involves the construction of an exfiltration system within the New Britain Right of way which provides treatment for the redevelopment of New Britain, as well as properties south of New Britain, and if capacity is created, properties west of North Ridgewood. Costs do not include the acquisition of property and/or easements however it is anticipated that providing credit in the form of stormwater capacity from the regional stormwater facility will offset a large portion of obtaining land rights.
Completion of the projects on New Britain Avenue will allow for the continued execution of the Stormwater master plan with the planning and construction of a project to promote redevelopment within the Creek District of the Downtown CRA. This project is projected to begin planning and design following the completion of the New Britain Phase 2 Improvements, and will involve the construction of a wet detention pond that provides treatment for properties on the north side of Granada Blvd. with an out fall to Thompson Creek. It is anticipated that construction will occur in two phases with excavation of the pond occurring in the first year of construction (2018/19) and infrastructure improvements occurring the following year.

PROJECT COST METHODOLOGY

Historic Cost Data (Andy Romano Park / John Anderson Drive Improvements).

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Design	50,000	0	100,000	0	0	150,000
Construction	0	550,000	0	500,000	400,000	1,450,000
Total	50,000	550,000	100,000	500,000	400,000	1,600,000

CAPITAL PROJECT DETAIL

PROJECT TITLE

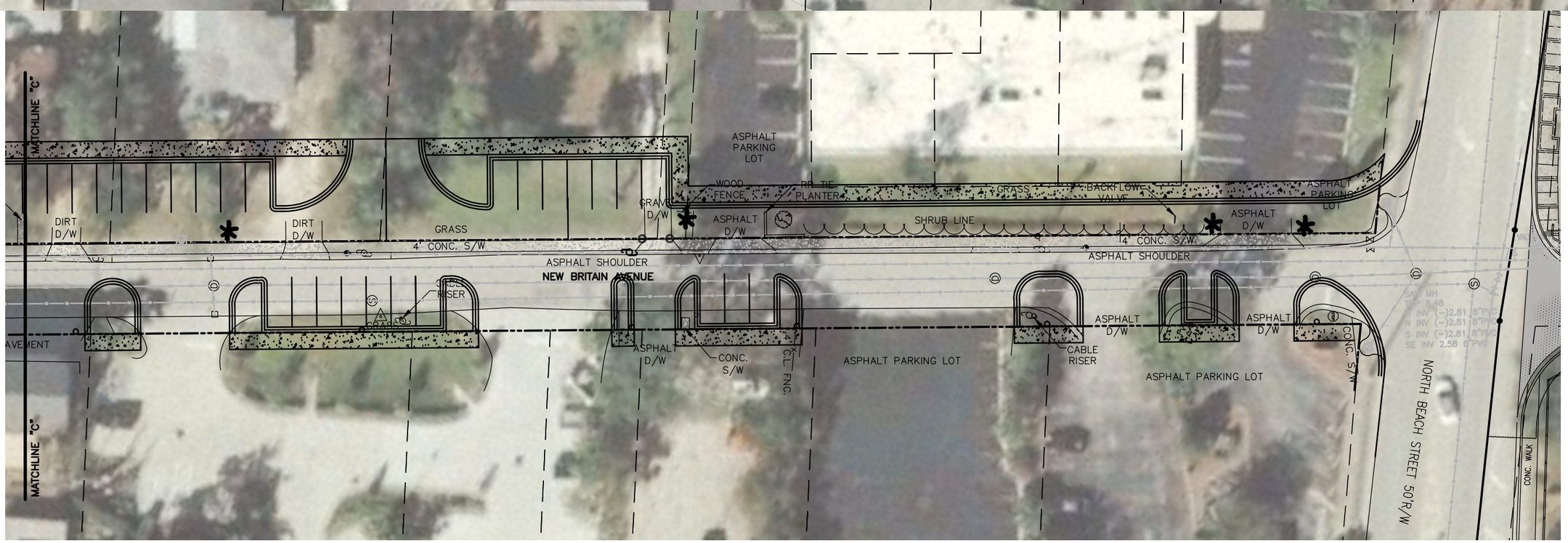
Downtown: Stormwater Improvements

PROJECT#

104044

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-TIF	50,000	550,000	100,000	500,000	400,000	1,600,000
Total	50,000	550,000	100,000	500,000	400,000	1,600,000

Project 2 - New Britain Exfiltration System Conceptual Roadway Plan View



DRAWING STATUS	
	DRAFT
	PERMIT
	BID
	ADDENDA
	CONSTRUCTION
	RECORD

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

ED KELLEY, MAYOR
JOYCE SHANAHAN, CITY MANAGER

JOHN NOBLE, P.E. CITY ENGINEER

NEW BRITAIN
ROADWAY / PARKING IMPROVEMENTS

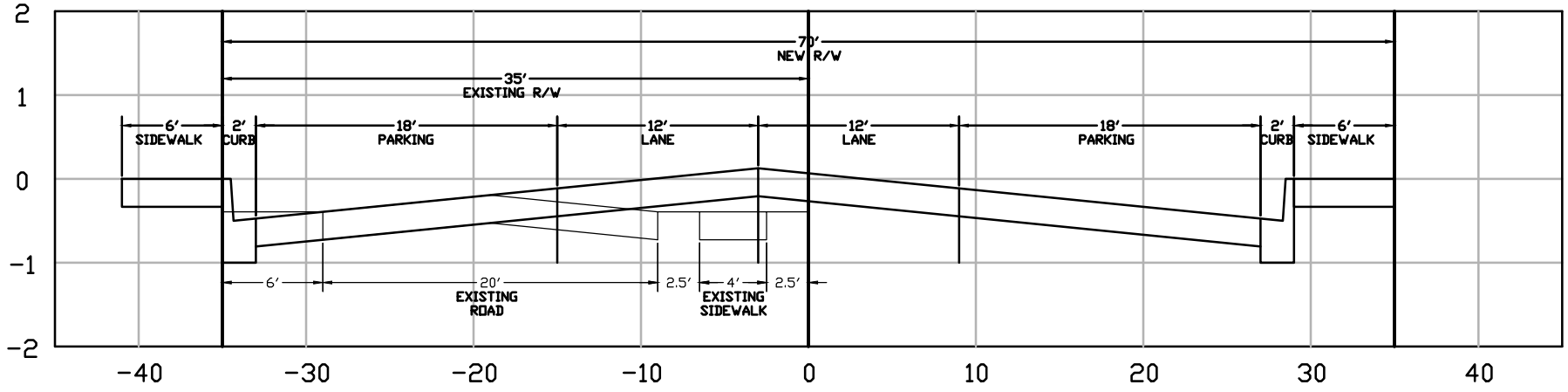
CONCEPT PLAN

DATE:	3/26/14	PROJECT NO.: N/A	
SCALE:	1"=40'	FILE NAME:	
DRAWN BY:	MC	SHEET:	1 of 1

Project 2 - New Britain Exfiltration System Conceptual Roadway Section View

TYPICAL SECTION

SCALE: H=1"=10' V=1"=2'



NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

ED KELLEY, MAYOR
JOYCE SHANAHAN, CITY MANAGER

JOHN NOBLE, P.E., CITY ENGINEER

NEW BRITAIN ROADWAY
/ PARKING IMPROVEMENTS

TYPICAL SECTION

DATE:	4/3/14	PROJECT NO.:	
SCALE:	1" = 10'	FILE NAME:	
DRAWN BY:	MC	SHEET:	1 of 1

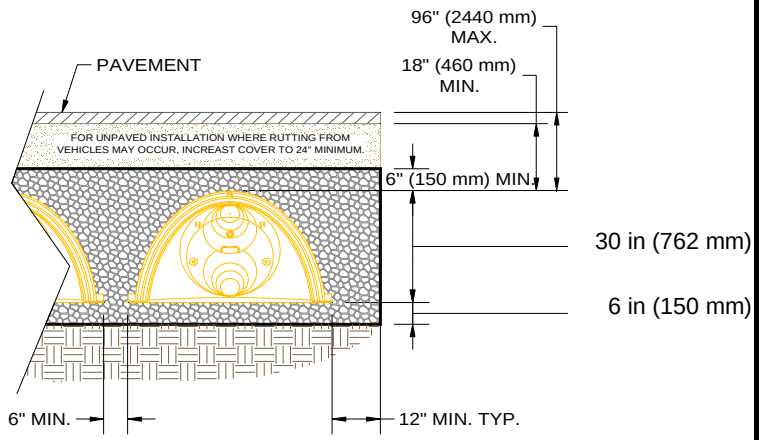
StormTech
Detention • Retention • Recharge
Subsurface Stormwater Management

Units: **Imperial**

Project: Project 2: New Britain Exfiltation
By: SPF
Point of Contact
Date: 4/3/2014

System Requirements

Required Storage Volume	**38,150**	CF
Select Stormtech Chamber System	SC-740	
Stone Porosity (Industry Standard = 40%)	**40%**	
Stone Foundation Depth	6	Inches
Storage Volume Per Chamber	74.90	CF
Avg Cover over Chambers (18 in min. & 96 in max.)	18	Inches
Number of Chambers Required	510	Each
Required Bed Size	18,264	SF
Tons of Stone Required	2,101	Tons
Volume of Excavation	3,044	CY
Area of Filter Fabric	5,239	SY
# of End Caps Required	**12**	Each
Length of ISOLATOR ROW	**605.2**	FT
ISOLATOR FABRIC	**336**	SY



Is the limiting dimension for the bed the width or length? **width**

Controlled by Width (Rows)			Controlled by Length		
Width	**32**	FT	Length	**600**	FT
# of Chambers Long	85	EA	# of Chambers Long	-	EA
# of Rows	6	EA	# of Rows	-	EA
Actual Length	608.80	FT	Actual Length	-	FT
Actual Width	30.00	FT	Actual Width	-	FT

Material Estimate

To use this sheet: Please enter data into the blue and green cells. If switching between Imperial and Metric units please check the correct units and data is input in the green cells.

Please call StormTech @ 888-892-2694 for conceptual cost estimates.

Stormwater Project #2: New Britain Exfiltration System							
1	Stormwater management system						
	with StormTech Chambers	510	Cham	$	520.00	$	265,200.00
2	Pavement Removal	2567	SY	$	6.50	$	16,685.50
3	Remove Existing Curb & Gutter	1150	LF	$	2.00	$	2,300.00
4	Remove Existing Sidewalk	633	SY	$	7.50	$	4,747.50
5	Stabilized Subgrade	6111	SY	$	4.00	$	24,444.00
6	Road Base (8")	5556	SY	$	12.00	$	66,672.00
7	Install Curb & Gutter	1100	LF	$	15.00	$	16,500.00
8	Asphalt	345	TON	$	95.00	$	32,775.00
9	Driveway	556	SY	$	40.00	$	22,240.00
10	Thermoplastic Striping	1500	LF	$	2.25	$	3,375.00
11	Manhole Adjustment	12	EA	$	180.00	$	2,160.00
12	Valve Adjustment	4	EA	$	65.00	$	260.00
13	Grading	1	LS	$	12,000.00	$	12,000.00
14	Sidewalk	1222	SY	$	30.00	$	36,660.00
15	Relocate / Add Firehydrant	3	EA	$	1,500.00	$	4,500.00
16	Draiange Structures	4	EA	$	1,200.00	$	4,800.00
17	Adjust Utilities	1	LS	$	25,000.00	$	25,000.00
18	Mobilization/As-built/Video	1	LS	$	30,000.00	$	20,000.00
	TOTAL - PHASE 2 Construction					**$**	**560,319.00**
	ENGINEERING & PERMITTING (8%)=					$	40,000.00
	Geotechnical Services (2.5%)=					$	14,257.98
	Sub-Total=					$	641,608.88
	PROBABLE COST TOTAL=						

Unit Price based upon price estiamte by Zev Cohen and Associates for the Andy Romano Beach Front Park and a similar "StormTech" System.
Estimate = $320,000.00 for a system containing 617 Chambers.
Price Based upon an installed cost (with associated support structures) of $ 520.00

Additional Prices Base upon FDOT Current Unit Average Prices

Lincoln Avenue Pond

267 ft

GIS data is provided on an "as is" basis. The accuracy or reliability of the data is not guaranteed or warranted in any way. The City of Ormond Beach specifically disclaims any warranty either expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular use. The entire risk as to quality and performance of the data is with the end user. In no event will the City, its staff or it's representatives be liable for any direct, indirect, incidental, special, consequential, or other damages, including loss of profit, arising out of the use of this data even if the City has been advised of the possibility of such damages.

Powered by VANTAGEPOINTS

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

ED KELLEY, MAYOR
JOYCE SHANAHAN, CITY MANAGER

JOHN NOBLE, P.E., CITY ENGINEER

DOWNTOWN STORMWATER MASTER PLAN

PHASE 3 IMPROVEMENTS CREEK DISTRICT

DATE: APRIL, 2016	PROJECT NO.: PROJECT
SCALE: 1" = 200'	FILE NAME: FILE
DRAWN BY: SPF	SHEET:

Engineer's Estimate
Downtown Drainage Master Plan Improvements
Phase 3
Creek District Improvements

item	Description	Estimate Qty	Unit	Unit Price	Total Estimated Price
1	Mobilization	1	LS	$ 78,801.80	$ 78,801.80
2	Maintenance of Traffic	1	LS	$ 15,000.00	$ 15,000.00
3	Clearing and Grubbing	8	Ac	$ 3,000.00	$ 24,000.00
4	Excavation	84000	CY	$ 6.00	$ 504,000.00
5	18" RCP	464	LF	$ 42.00	$ 19,488.00
6	24" RCP	212	LF	$ 45.00	$ 9,540.00
7	30" RCP	802	LF	$ 60.00	$ 48,120.00
8	36" RCP	936	LF	$ 70.00	$ 65,520.00
9	42" RCP	75	LF	$ 80.00	$ 6,000.00
10	Type C Inlet	12	EA	$ 1,900.00	$ 22,800.00
11	Type E Inlet	11	EA	$ 2,200.00	$ 24,200.00
12	Drainage Control Structure	1	EA	$ 4,400.00	$ 4,400.00
13	Concrete Apron at Inlet	23	EA	$ 450.00	$ 10,350.00
14	Junction Box	1	EA	$ 2,500.00	$ 2,500.00
15	Headwall	3	EA	$ 2,700.00	$ 8,100.00
16	Asphalt Repair	600	SY	$ 40.00	$ 24,000.00
	TOTAL CONSTRUCTION				$ 788,018.00
	DESIGN (10%)				$ 78,801.80
	TOTAL				$ 866,819.80

Excavation of the Pond will be constructed as Phase 3A in FY 2018-2019
The remainder of the improvments will be completed as Phase 3B in FY 2019-2020

CAPITAL PROJECT DETAIL

PROJECT TITLE

Downtown: Sidewalk Renovations

PROJECT#

104050

CATEGORY

Community Redevelopment

FUND

104-TIF

PROJECT LOCATION

Downtown CRA

MANAGEMENT

Engineering

PROJECT SCOPE

Remove and replace the faded concrete paver banding in the sidewalk with new clay brick pavers. Phase I is within the River District, Phase I - US1 to Beach Street

JUSTIFICATION

The existing concrete sidewalks and decorative paver banding was installed in 1991 and needs to be upgraded to match recent improvements as requested by the Downtown Mainstreet Committee.

PROJECT COST METHODOLOGY

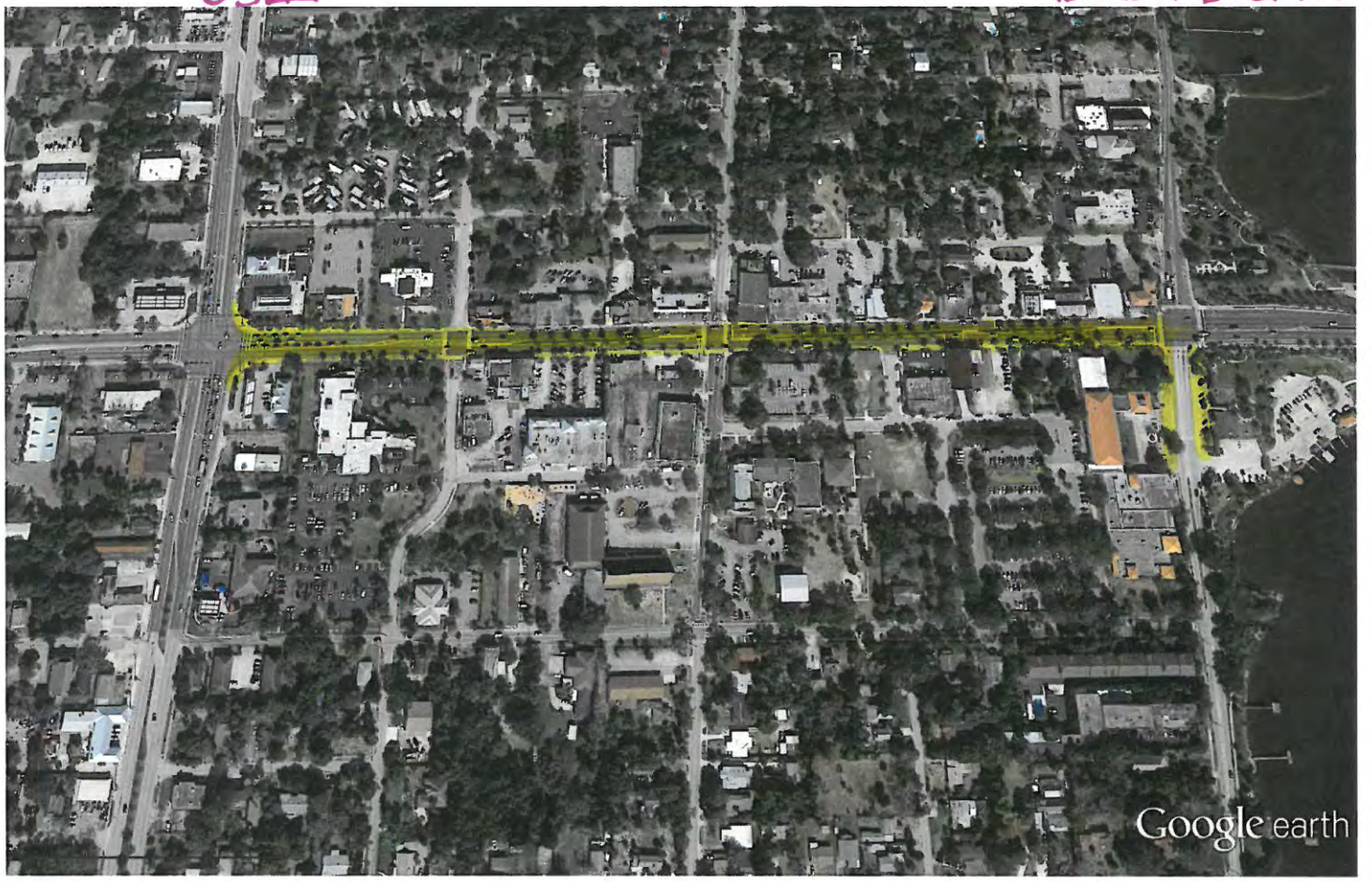
Cost is based on proposals received to repair the existing pavers during the Downtown Landscape Renovation project.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Construction - Phase I	0	0	350,000	0	0	350,000
Total	0	0	350,000	0	0	350,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-TIF	0	0	350,000	0	0	350,000
Total	0	0	350,000	0	0	350,000

US1

BEACH STREET



Google earth

feet 1000

meters 400

DOWNTOWN - PHASE I

OPEN
The POCKET JEWELER
ESTATE JEWELRY
20 YEAR OLD PAVERS
REPLACE ALL CONCRETE
PAVERS W/ CLAY BRICK
PAVERS + WASH SIDEWALK

1326	13	16	=	13 55
12	13	16	=	41
20	13	15	=	48
23	12	15	=	50
15	12	15	=	42
23	12	15	=	50
20	13	15	=	48
12	13	15	=	40
13	13	15	=	41
14	13	11	=	38
16	13	10	=	39
14	8	10	=	32
13	12	10	=	35
13	14	10	=	37
13	16	11	=	40
11	11	11	=	33
11	11	15	=	37
15	15	15	=	45
15	11	16	=	36
15	14	12	=	41
12	25		=	37
				2165

$$\frac{2165}{637} = \boxed{3.4 \text{ LF Pavers per LF Sidewalk}}$$

LEWIS TO BEALL

$$2165 \times 3 = \frac{6495}{637} = \boxed{10.2 \text{ Pavers per LF Sidewalk}}$$

CAPITAL PROJECT DETAIL

PROJECT TITLE

Downtown: Upgrades and Improvements

PROJECT#

104057

CATEGORY

Community Redevelopment

FUND

104-TIF

PROJECT LOCATION

Downtown CRA District

MANAGEMENT

Engineering

PROJECT SCOPE

This category provides the necessary enhancements of existing or proposed improvements within the redevelopment area. This would include, but not be limited to, mast arm and decorative light pole upgrades, decorative light pole and fixture purchase, installation and upgrade of, wood decking and handrails, landscape, irrigation and other public improvements. Landscaping locations include: FY 2016-17 Rockefeller Gardens and The Casements, FY 2017-18 Fortunato Park and Bailey Riverbridge. Replace decorative light poles on beachside that have deteriorated due to the corrosive salt air.

JUSTIFICATION

The 2007 adopted Downtown Master Plan (pages 26 and 30) identified the need to retain, replace and/ or upgrade the public infrastructure and hardscape improvements that have been invested in the Downtown. This project provides funding to make improvements to the existing infrastructure with the CRA District.

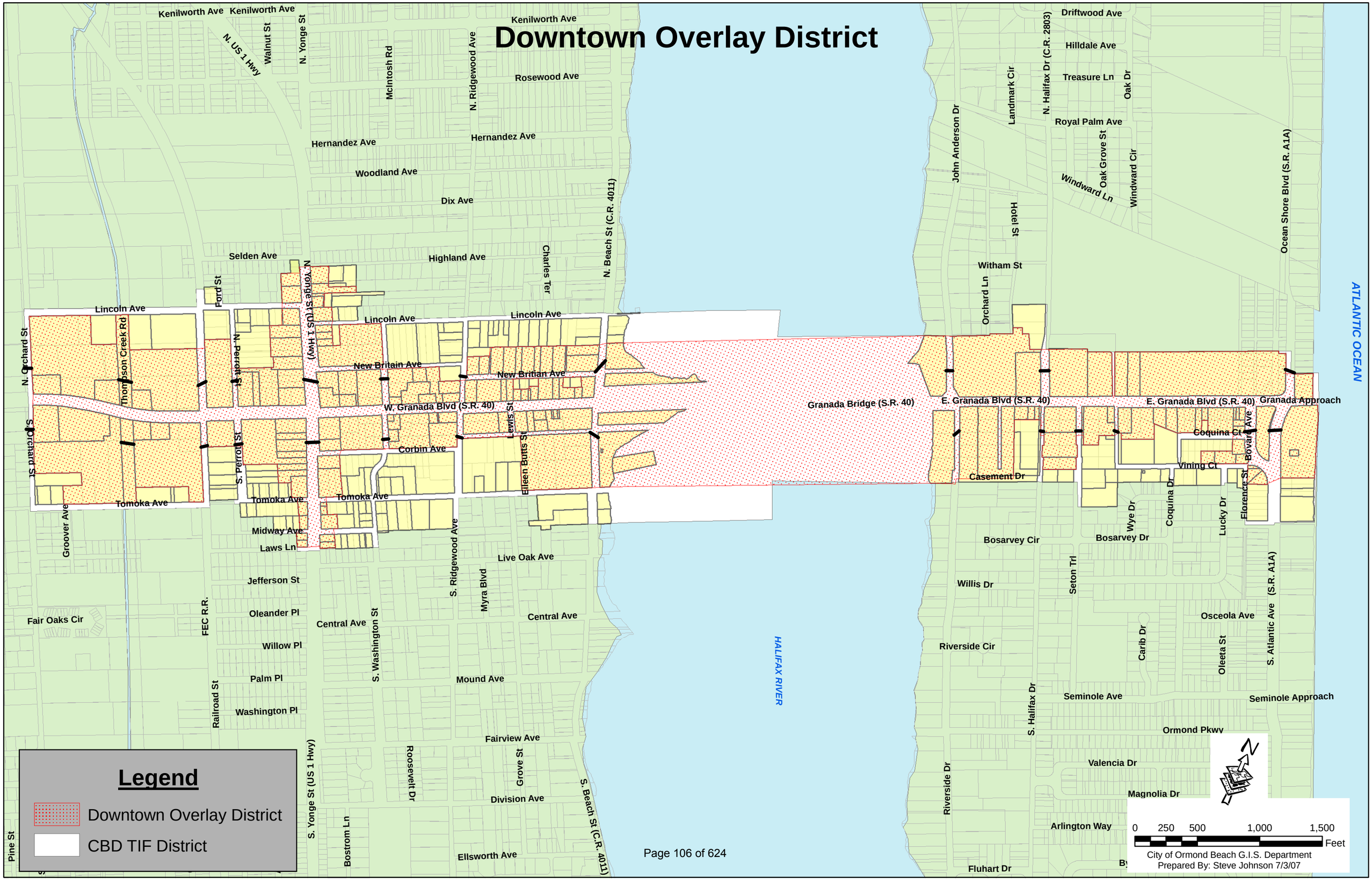
PROJECT COST METHODOLOGY

Projects allocations and estimates are based on actual bids or quotations from past projects of similar scope of work.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Landscape Upgrades (All Downtown Parks)	20,000	0	0	0	0	20,000
Electrical Upgrades (D.T. and Rockgardens	15,000	0	0	0	0	15,000
New District Banners	15,000	0	0	0	0	15,000
Decorative Lighting Ornaments	15,000	0	0	0	0	15,000
Total	65,000	0	0	0	0	65,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-TIF	65,000	0	0	0	0	65,000
Total	65,000	0	0	0	0	65,000

Downtown Overlay District



FACILITY CONSTRUCTION AND RENOVATION

CAPITAL PROJECT DETAIL

PROJECT TITLE

Police Department Roof and Sally Port

PROJECT#

301173

CATEGORY

Facility Construction and Renovation

FUND

301-General Improvement Fund

PROJECT LOCATION

Granada Boulevard

MANAGEMENT

Engineering

PROJECT SCOPE

Remove and replace roof on entire facility. Repair the sally port bullet proof entry door, demolition portion of stucco ceiling to access HVAC ductwork. Replace leaking ductwork and wrap with insulation, replace lighting, Replace and paint ceiling, and replace sprinkler heads.

JUSTIFICATION

The current Police Department building was constructed in 2001 Over the years, the roof has developed several significant leaks. As part of the fy 11/12 Facility Renewal & Replacement budget, the entire roof had roofcoat applied on it to prevent the leaks. The vendor who performed the roofcoat application gave a 5-year warranty against leaks. After this 5 year period, roof will have met useful life and will need to be removed and replaced. The sally port part of the police station has corrosion around the door and entry way, has deteriorated lighting fixtures and has condensation problems from the air conditioning venting. Replacement of the HVAC duct and wrapping it with new condensate insulation will prevent future damage after the repairs to the door have been made.

PROJECT COST METHODOLOGY

Verbal estimate for roof received 3/26/12 updated for inflation - Price is in line with similar work completed in Oct. 2011 (PAC roof). Sally port repair quote from Continuing Contract Construction Management firm.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Sally Port Repairs	56,000	0	0	0	0	56,000
Remove & replace roof on entire facility	0	225,000	0	0	0	225,000
Total	56,000	225,000	0	0	0	281,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-General CIP	56,000	225,000	0	0	0	281,000
Total	56,000	225,000	0	0	0	281,000

Stucco Ceiling:

- Demolition of the existing ceiling above the Sally Port. Completely remove the stucco and lath from three (3) each 8' X 8' panels. Remove framing only as required for HVAC access. After HVAC work is complete: reframe ceiling as required, install new metal lath and trim, apply cement stucco with texture to match existing. Includes one (1) 24' X 24" lockable access panel.

Paining:

- Painting new stucco ceiling and adjacent existing Sally Port ceiling. Touch up/paint existing Sally Port walls for a complete job. No interior painting or exterior beyond Ally Port area.

Fire Sprinkler Heads:

- Remove ten (10) existing sprinkler heads and replace with new. We assume the existing are dry head type.

HVAC:

- Remove and replace approximately 40' of 60 X 20 fire damper, approximately 40' of duct wrap insulation. Seal with fab and mastic.

Electrical:

- Remove twelve (12) existing fluorescent fixtures and replace with new fixtures same style in LED 4' ____ vapor tight self-contained fixtures. Four (4) fixtures with battery backup and eight (8) fixtures standard with no battery backup. Fixtures to be wired and controlled by same circuit as they are now with no changes.

Excluded:

- Low voltage security hardware locks/etc. by Owner.

The above for a Guaranteed Maximum Price of Fifty-four Thousand Five Hundred Eighty-six Dollars.

Alternate1:

- If the existing duct can be reused, then deduct the replacement of approximately 40' of 60 X 20 oval spiral duct for a credit savings of $13,145.

Continued

Normal construction hours are included in this proposal and night work and/or weekends is not included.

We propose time of construction to be forty-five (45) days.

We thank you for the opportunity to present our proposal. If you have any questions, please do not hesitate to call.

Sincerely,
Hall Construction Co., Inc.

Dennis N. Hall
Vice President

Cc: Emailed: alex.blake@ormondbeach.org

NO FIREARMS
BEYOND THIS POINT

CAPITAL PROJECT DETAIL

PROJECT TITLE

Seawall Repairs

PROJECT#

301170

CATEGORY

Facility Construction and Renovation

FUND

301-General Improvement Fund

PROJECT LOCATION

Ames House and Riviera park

MANAGEMENT

Engineering

PROJECT SCOPE

Seawall repairs to include grout filling to eliminate areas where undermining has occurred.

JUSTIFICATION

Years of wave action on the Ames seawall can cause erosion that can cause undermining of the seawall; subsequently the erosion can result in the weakening of the wall support and failure of the wall. When erosion occurs behind the seawall a safety hazard to residents using the park results. Previous work has addressed major concerns to the seawall and remedied the undermining that the seawall was experiencing. Recent inspections have found the wall be generally in good condition, however, cracks have been found that could develop into potential safety concerns in the future. Staff has identified locations that should be addressed to repair developing structural issues as well as maintenance that can minimize future risks to the wall. Included in this project are cosmetic improvements to clean and dress the face of the seawall as well as the seawall cap.

PROJECT COST METHODOLOGY

Historic Cost Data.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Repair seawall	94,000	0	0	0	0	94,000
Total	94,000	0	0	0	0	94,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-General CIP	94,000	0	0	0	0	94,000
Total	94,000	0	0	0	0	94,000

Seawall Repair at Ames Parks

Pay Item Number	Pay Item Description	Estimated Quantity	Unit Type	Unit Cost	Total Labor Cost
1. STRUCTURAL REPAIRES - STABLE SOILS OF FLORIDA					
1A	Mobilization	1	LS	$ 2,500.00	$ 2,500.00
1B	Seal Repair - Polyutherane Grout Injection (crack injection) Estimated 5 Major and 18 Minor locations	60	GAL	$ 63.45	$ 3,807.00
1C	Soil Stabilization - Water activated rigid polyurethane soil stabilization resin Injection Estimated 19 locations. Void Fill Repair with 4 injection pipes per locations 5 feet in depth	180	GAL	$ 91.20	$ 16,416.00
1D	Soil Stabilization - grout injection piping. Estimated 19 locations. Void Fill Repair with 4 injection pipes per locations 5 feet in depth	210	LF	$ 2.00	$ 420.00
1E	Epoxy Prime Gel Fast bond tube (Estimated 5 Structural Repair Locations)	4	EA	$ 100.00	$ 400.00
1F	Structural Repair/Seal - Major Crack Repairs needing reinforced bars Greater than 1/4" wide (includes labor, injection,ports, oakum and rebar typical 5' wall	4	EA	$ 550.00	$ 2,200.00
1G	Minor Crack repair not needing reinforced bars less than 1/4" wide (includes labor, injection,ports, oakum and rebar typical 5' wall	8	EA	$ 300.00	$ 2,400.00
1H	Restoration	1	LS	$ 3,000.00	$ 3,000.00
2. COSMETIC REPAIRS - KATHY HARPER PAINTING					
2A	Pressure wash and regrout face of seawall, resurface seawall cap	1	LS	$ 3,000.00	$ 3,000.00
CONTINGENCY				10%	$ 3,414.30
			TOTAL		**$ 37,557.30**

Ames Seawall Repairs

GIS data is provided on an "as is" basis. The accuracy or reliability of the data is not guaranteed or warranted in any way. The City of Ormond Beach specifically disclaims any warranty either expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular use. The entire risk as to quality and performance of the data is with the end user. In no event will the City, its staff or it's representatives be liable for any direct, indirect, incidental, special, consequential, or other damages, including loss of profit, arising out of the use of this data even if the City has been advised of the possibility of such damages.

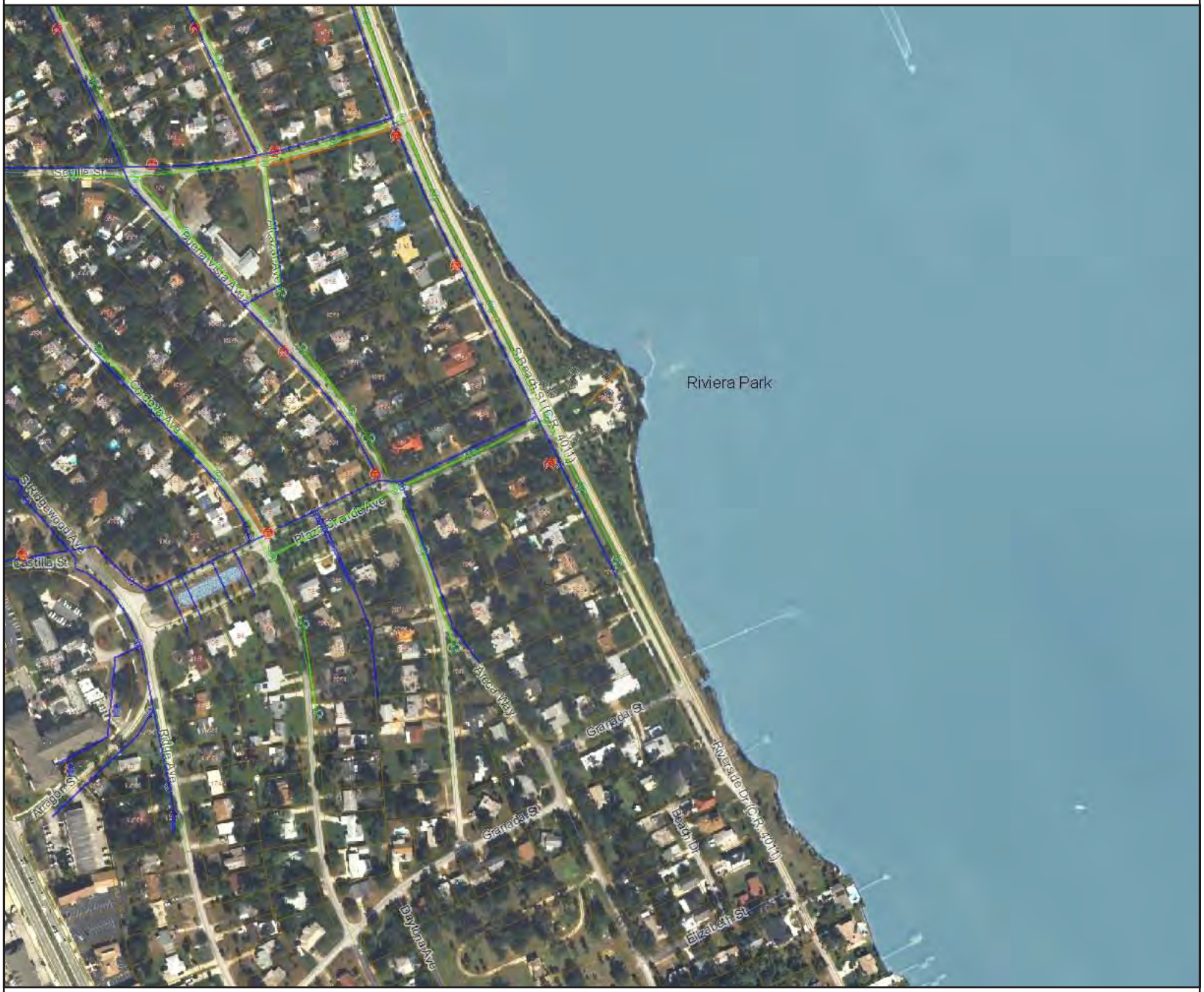
03/11/2012

03/11/2012

Seawall Repair at Riviera Park

Pay Item Number	Pay Item Description	Estimated Quantity	Unit Type	Unit Cost	Total Labor Cost
1. STRUCTURAL REPAIRES - STABLE SOILS OF FLORIDA					
1A	Mobilization	1	LS	$ 2,500.00	$ 2,500.00
1B	Seal Repair - Polyutherane Grout Injection (crack injection) Estimated 5 Major and 18 Minor locations	100	GAL	$ 63.45	$ 6,345.00
1C	Soil Stabilization - Water activated rigid polyurethane soil stabilization resin Injection Estimated 19 locations. Void Fill Repair with 4 injection pipes per locations 5 feet in depth	300	GAL	$ 91.20	$ 27,360.00
1D	Soil Stabilization - grout injection piping. Estimated 19 locations. Void Fill Repair with 4 injection pipes per locations 5 feet in depth	350	LF	$ 2.00	$ 700.00
1E	Epoxy Prime Gel Fast bond tube (Estimated 5 Structural Repair Locations)	4	EA	$ 100.00	$ 400.00
1F	Structural Repair/Seal - Major Crack Repairs needing reinforced bars Greater than 1/4" wide (includes labor, injection,ports, oakum and rebar typical 5' wall	4	EA	$ 550.00	$ 2,200.00
1G	Minor Crack repair not needing reinforced bars less than 1/4" wide (includes labor, injection,ports, oakum and rebar typical 5' wall	16	EA	$ 300.00	$ 4,800.00
1H	Restoration	1	LS	$ 3,000.00	$ 3,000.00
2. COSMETIC REPAIRS - KATHY HARPER PAINTING					
2A	Pressure wash and regrout face of seawall, resurface seawall cap	1	LS	$ 3,000.00	$ 3,000.00
CONTINGENCY				10%	$ 5,030.50
			TOTAL		**$ 55,335.50**

Riviera Park



Emergency Generators
Fiber Optic Structures
Electrical Structures
Out of Service Hydrants
Fire Hydrants
Owner
Private
Public
Hydrant Valves
Water Valves (Maintained)
Water Valves (Permanent)
Raw Water Valves
Blowoff Valves
Manholes
Flowmeter Valves
Valve Type
High Pressure Valve
Low Pressure Valve
Air Release Valve/Pig Launch
Valve Type
High Pressure Valve
Pig Launch
Fiber Optic Conduits
Edge of Pavement
abandoned_pipe
Raw Water Mains
Stormwater Pipes
Water Mains (Maintained)
Water Mains (Permanent)
Reuse Water Mains
Sewer Gravity Mains
Public Pipe
Private Pipe
Effluent Outlet Pipe
Sewer Forcemains
High Pressure Public Pipe
Low Pressure Public Pipe
High Pressure Private Pipe
Low Pressure Private Pipe
Swales
Stormwater Ponds
Andrews Ponds
Airport and Railroad
AIRPORT
RAILROAD
City Streets
DIRT
MAJOR
PAVED
Water Features
Property Lines

400 ft

GIS data is provided on an "as is" basis. The accuracy or reliability of the data is not guaranteed or warranted in any way. The City of Ormond Beach specifically disclaims any warranty either expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular use. The entire risk as to quality and performance of the data is with the end user. In no event will the City, its staff or it's representatives be liable for any direct, indirect, incidental, special, consequential, or other damages, including loss of profit, arising out of the use of this data even if the City has been advised of the possibility of such damages.

CAPITAL PROJECT DETAIL

PROJECT TITLE

CDBG Projects

PROJECT#

CDBG17

CATEGORY

Facility Construction and Renovation

FUND

116-Grant Fund

PROJECT LOCATION

CDBG District

MANAGEMENT

Engineering

PROJECT SCOPE

Construction of 5' wide concrete sidewalks and a 8' wide concrete multi-use trail.

JUSTIFICATION

The NIAB approved FY16/17 funding to construct ADA compliant sidewalks on Ramsey Terrace and Flormond Avenue, and the construction of a loop trail in Central Park around the pond off Fleming Avenue.

PROJECT COST METHODOLOGY

Based on actual proposal/ bids to install sidewalks and trails.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Central Park Trail	100,000	0	0	0	0	100,000
HUD Sidewalks (2 locations)	50,000	0	0	0	0	50,000
Street Tree Planting	0	100,000	0	0	0	100,000
Ridgewood Avenue Replacement	0	0	50,000	0	0	50,000
Washington Street Replacement	0	0	40,000	0	0	40,000
Total	150,000	100,000	90,000	0	0	340,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
CDBG Grant	150,000	100,000	90,000	0	0	340,000
Total	150,000	100,000	90,000	0	0	340,000

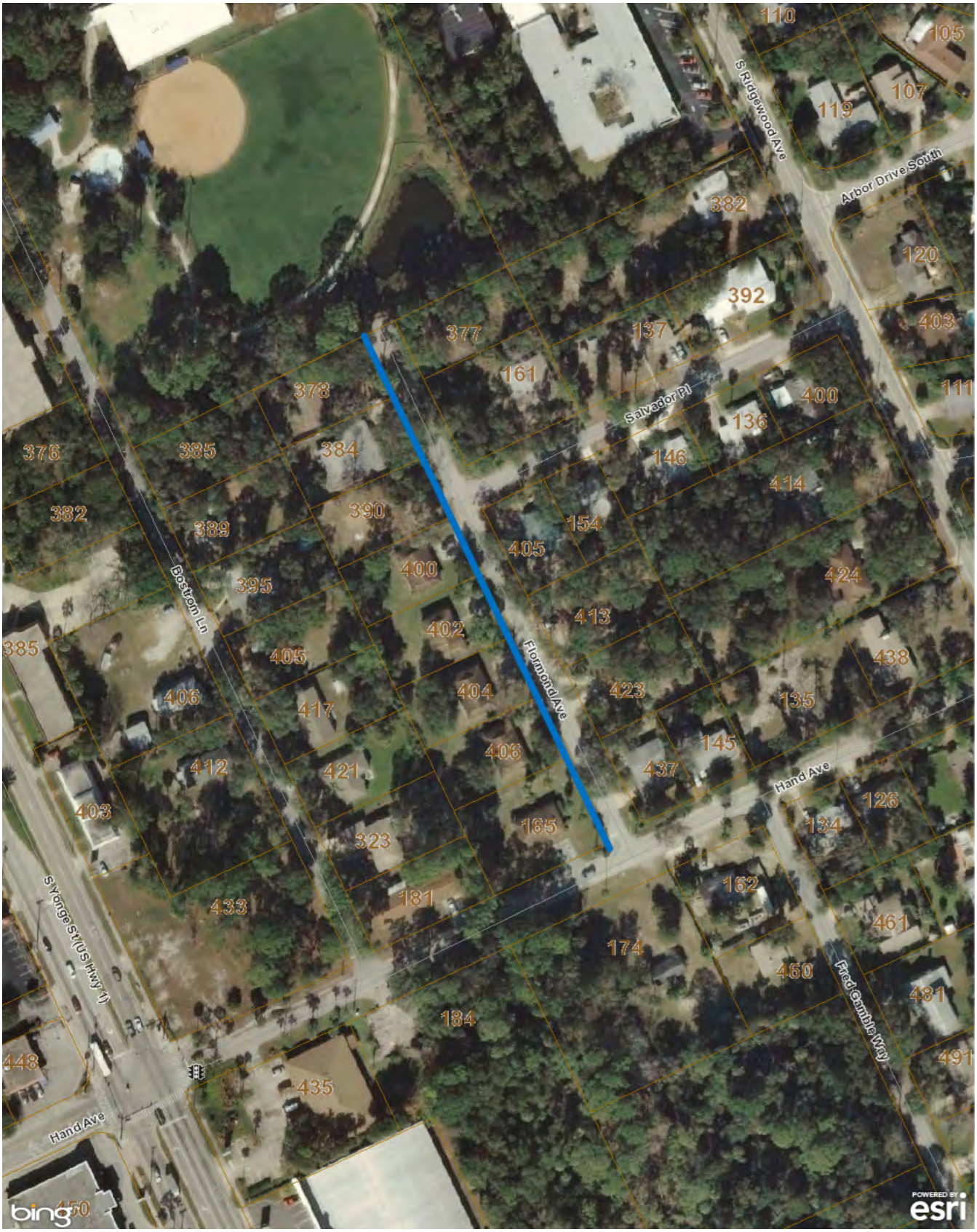
ORMOND BEACH CENTRAL PARK

Existing Shell Trail
CENTRAL
PARK

City of Ormond Beach
ADOPT-A-PARK
The Marstons
TRAIL
3000 ft
Existing Shell Trail

Existing Shell Trail

Existing Shell Trail



LOCATION MAP

Flormond Ave. Proposed Sidewalk

3/18/15

City of Ormond Beach, Florida
4/14/2016

Flormond Avenue Sidewalk
Probable Cost

(Approximately 630 ft of sidewalk)

Estimated Construction Cost

Item Num	Item Description	QTY	Unit	Unit Cost	Item Cost
1	Mobilization	1	LS	$ 1,500.00	$ 1,500.00
2	Clear and Grub Ext Vegetation	440	SY	$ 20.00	$ 8,800.00
3	Install 4in x 5ft Sidewalk	350	SY	$ 30.00	$ 10,500.00
4	Construct ADA sidewalk ramps	2	EA	$ 500.00	$ 1,000.00
5	Sidewalk Ped Mats	2	EA	$ 300.00	$ 600.00
6	Cross walk ThermoStriping	1	EA	$ 500.00	$ 500.00
7	Sod	200	SY	$ 3.00	$ 600.00
8	Siurvey	1	LS	$ 3,000.00	$ 3,000.00
9	As-Builts & Survey	1	LS	$ 1,500.00	$ 1,500.00
10	Maintenance of Traffic	1	LS	$ 2,000.00	$ 2,000.00

TOTAL= $ 30,000.00

O.B.H.A.
RAMSEY
TERRACE
APARTMENTS
PRIVATE PROPERTY
NO
SOLICITING
LOITERING
TRESPASSING
SPEED
LIMIT
25

SPEED
LIMIT
25

LOCATION MAP

Ramsey Ter. Proposed Sidewalk

3/18/15

N W E S

City of Ormond Beach, Florida
4/14/2016

Ramsey Terrace Sidewalk
Probable Cost

(Approximately 160 ft of sidewalk)

Estimated Construction Cost

Item Num	Item Description	QTY	Unit	Unit Cost	Item Cost
1	Mobilization	1	LS	$ 1,500.00	$ 1,500.00
2	Clear and Grub Ext Vegetation	252	SY	$ 20.00	$ 5,040.00
3	Install 4in x 5ft Sidewalk	200	SY	$ 30.00	$ 6,000.00
4	Construct ADA sidewalk ramps	2	EA	$ 500.00	$ 1,000.00
5	Sidewalk Ped Mats	2	EA	$ 300.00	$ 600.00
6	Cross walk ThermoStriping	1	EA	$ 500.00	$ 500.00
7	Sod	120	SY	$ 3.00	$ 360.00
8	Survey	1	LS	$ 2,000.00	$ 2,000.00
9	As-Builts	1	LS	$ 1,000.00	$ 1,000.00
10	Maintenance of Traffic	1	LS	$ 2,000.00	$ 2,000.00

TOTAL= $ 20,000.00

City of Ormond Beach
22 South Beach Street
Ormond Beach, Florida 32174
Telephone (386) 676-3223
Fax (386) 676-3330

INVITATION TO BID

BIDDER ACKNOWLEDGEMENT FORM

THIS FORM MUST BE COMPLETED AND RETURNED WITH YOUR BID

BID TITLE: **Ormond Beach Sports Complex – ADA Parking & Sidewalks (CDBG)**

BID NUMBER: **BID NO. 2015-23**

BID OPENING DATE & TIME: **February 11, 2015, at 2:00 p.m.**

BID OPENING LOCATION: **Upstairs Conference Room at Ormond Beach City Hall**

PRE-BID MEETING DATE & TIME: **January 28, 2015 at 2:00 p.m.**

PRE-BID MEETING LOCATION: **HR Training Room at Ormond Beach City Hall**

Bids Received After the Above Date and Time Will Not Be Accepted.

BIDDER'S NAME: MCG SERVICES LLC

BIDDER'S MAILING ADDRESS: 2915 LANGLEY PARK CT.

CITY-STATE-ZIP: ORLANDO FL 32835

F.E.I.N. 38-3931198

PHONE NUMBER: 407 476 4476 FAX NUMBER: 407 442 0485

If returning as a "No Bid", please state reason (s): _____

I certify that this Bid is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a Bid for the same materials, supplies, or equipment, and is in all respects fair and made without collusion or fraud. I agree to abide by all conditions of this Bid and certify that I am authorized to sign this Bid for the Bidder. In submitting a Bid to the City of Ormond Beach, the Bidder offers and agrees that if the Bid is accepted, the Bidder will convey, assign or transfer to the City of Ormond Beach all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the Antitrust laws of the United States and the State of Florida for price fixing relating to the particular commodities or services purchased or acquired by the City of Ormond Beach. At the City's discretion, such assignment shall be made and become effective at the time the City tenders final payment to the Bidder.

X _____
AUTHORIZED SIGNATURE

JONATHAN D KEPHART
NAME (Printed)

MANAGING MEMBER
TITLE

2-11-15
DATED

(e) BIDDER will complete the Work for the following price(s):

Part 1 - Base Bid Schedule
The BIDDER will complete the Work for the following price(s):

BASE BID SCHEDULE

Item	Description	Quantity	Unit	Price	Bid Price
1.	Soccer Field – ADA Parking & Sidewalk (Includes Excavation, Compacted Base 4" & 6" - 3,000 Psi Concrete, Signage, Markings, Wheel Stops, Restoration, etc.)	1	LS	$ 40,425.00	$ 40,425.00
2.	Baseball Field – ADA Parking & Sidewalk (Includes Excavation, Compacted Base 4" & 6" - 3,000 Psi Concrete, Signage, Markings, Wheel Stops, Restoration, etc.)	1	LS	$ 34,310.00	$ 34,310.00

TOTAL BASE BID $ 74,735.00
(Figures)

_____
(Words)

Part 2 – Additive Alternate – Amount to be added to the total Base Bid.

Item	Description	Quantity	Unit	Price	Bid Price
1A.	Baseball Field - ADA Sidewalk Expansion (Includes Excavation, Compacted Base 6" - 3,000 Psi Concrete, Restoration, etc.)	LS		$ 22,750.00	$ 22,750.00 Additional cost above base bid only

"The City of Ormond Beach uses funds for projects including federal dollars provided by the U.S. Department of Housing and Urban Development (HUD) through the Community Development Block Grant (CDBG). These projects include real estate acquisition, reconstruction, rehabilitation, and demolition. When engaged in such projects, the City requires the use of qualified personnel. The requirements included in the CDBG Supplemental Conditions attached to this bid may apply to the services procured through this solicitation."

City of Ormond Beach
22 South Beach Street
Ormond Beach, Florida 32174
Telephone (386) 676-3223
Fax (386) 676-3330

INVITATION TO BID

BIDDER ACKNOWLEDGEMENT FORM

THIS FORM MUST BE COMPLETED AND RETURNED WITH YOUR BID

BID TITLE: **Nova Community Park Loop Trail**

BID NUMBER: **BID NO. 2015-41**

BID OPENING DATE & TIME: **September 17, 2015, at 11:00 AM**

BID OPENING LOCATION: **Upstairs Conference Room at Ormond Beach City Hall**

PRE-BID MEETING DATE & TIME: **September 3, 2015 at 2:00 PM**

PRE-BID MEETING LOCATION: **HR Training Room at Ormond Beach City Hall**

Bids Received After the Above Date and Time Will Not Be Accepted.

BIDDER'S NAME: MCG Services

BIDDER'S MAILING ADDRESS: 2915 Langley Park Ct.
Orlando, Fl

CITY-STATE-ZIP: Orlando, Fl 32835

F.E.I.N. 38 3931198

PHONE NUMBER: 407-476-4476 FAX NUMBER: 407-442 0485

If returning as a "No Bid", please state reason (s): _____

I certify that this Bid is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a Bid for the same materials, supplies, or equipment, and is in all respects fair and made without collusion or fraud. I agree to abide by all conditions of this Bid and certify that I am authorized to sign this Bid for the Bidder. In submitting a Bid to the City of Ormond Beach, the Bidder offers and agrees that if the Bid is accepted, the Bidder will convey, assign or transfer to the City of Ormond Beach all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the Antitrust laws of the United States and the State of Florida for price fixing relating to the particular commodities or services purchased or acquired by the City of Ormond Beach. At the City's discretion, such assignment shall be made and become effective at the time the City tenders final payment to the Bidder.

X _____
AUTHORIZED SIGNATURE

Jonathan Kephart
NAME (Printed)

Managing Partner
TITLE

9-17-15
DATED

(e) BIDDER will complete the Work for the following price(s):

Part 1 - Base Bid Schedule
The BIDDER will complete the Work for the following price(s):

Item	Description	Quantity	Unit	Price	Bid Price
1.	Sidewalks (10' & 5' wide) * Approximately 30,000 SF * Includes - Layout, Excavation, Compacted Base, 4" - 3,000 PSI Concrete, Fence Relocation, Clearing/ Disposal Complete Restoration (including sod and irrigation repairs) (6) Surface Mount Delineator Posts & SS/ Hardware Thermoplastic Striping - (6 Proposed Locations) - High Visibility Crosswalk	1	LS		$ 120,200.00

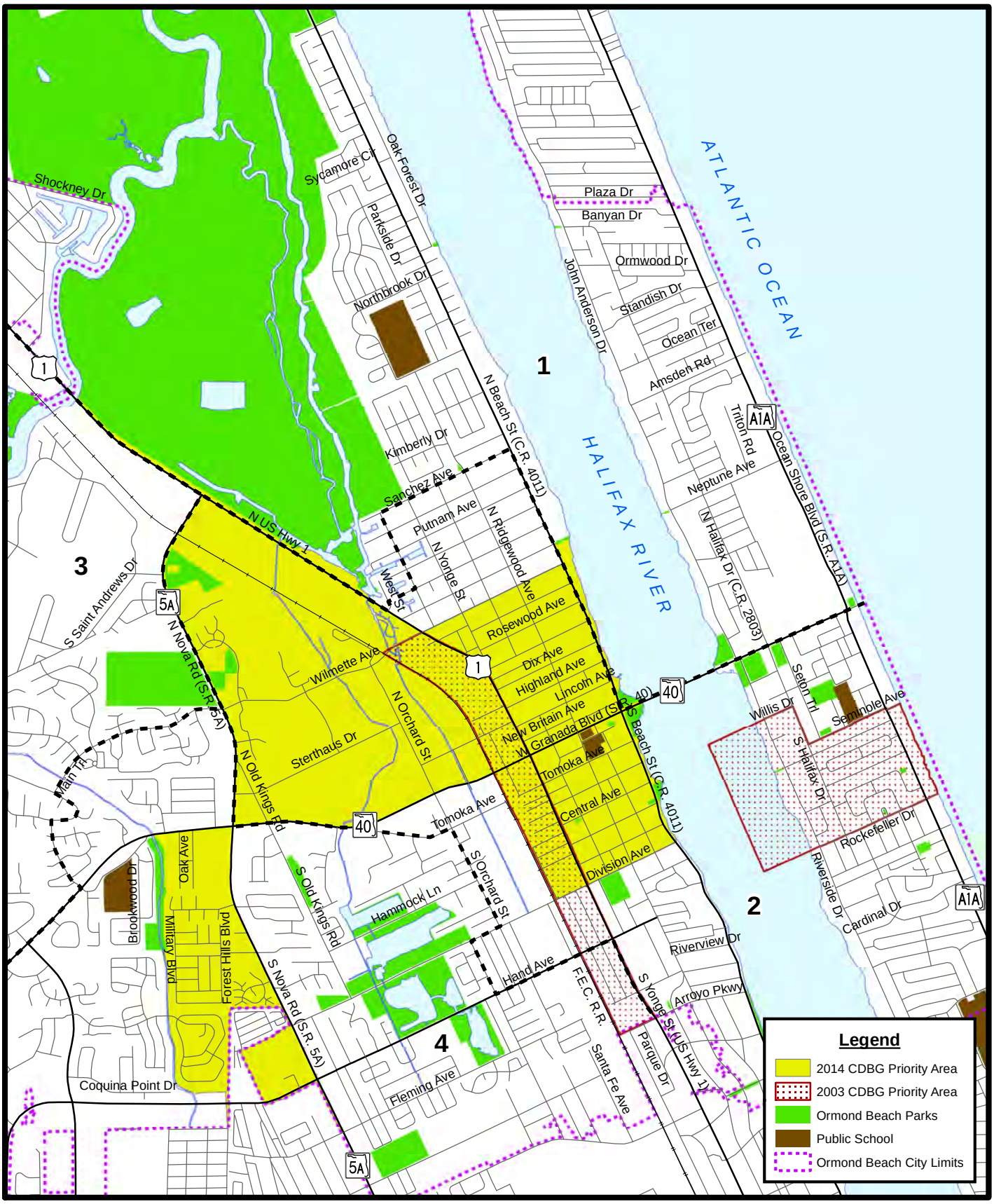
TOTAL BASE BID $ 120,200.00
(Figures)

_____
(Words)

Part 2 – Additive Alternate – Amount to be added to the total Base Bid

Item	Description	Quantity	Unit	Price	Bid Price
1A.	Sidewalks (10' & 5' wide) * Approximately 4,500 SF * Includes - (Layout, Excavation, Compacted Base, 4" - 3,000 PSI Concrete, Demolition, Disposal Complete Restoration (including sod and irrigation repairs)	1	LS		$ 20,000.00 Additional cost above base bid only
2A.	In – Road Pedestrian Signage (5 Proposed Locations) Surface Mount/ flexible Post & SS/ Hardware	1	LS		$ 4750.00 Additional cost above base bid only

*** Bidder is responsible to verify all takeoffs as this is a lump sum bid. Bid in accordance with the plans, scope and specifications.**



CDBG PRIORITY AREA MAP

Prepared By: The City of Ormond Beach
G.I.S. Department - November 11, 2014

CAPITAL PROJECT DETAIL

PROJECT TITLE

HVAC - Chiller Replacement

PROJECT#

301186

CATEGORY

Facility Construction and Renovation

FUND

301-General Improvement Fund

PROJECT LOCATION

City Hall

MANAGEMENT

Engineering

PROJECT SCOPE

Replace the existing chiller unit and associated AHU's and pumps over a 5 year period

JUSTIFICATION

Staff had an assessment study done on the City Hall Chiller system and the report has recommended that replacement of the chiller and associated components be scheduled over the next 5 years. To date, two phases of a three phase approach to replace the components has been completed. The first phase replaced the main Chiller unit. The second Phase replaced the pumps and control panel. Third phase includes replacement of the three air handling units. These systems use an outdated refrigerant (R-22) and will be replaced with modern refrigerant system components.

PROJECT COST METHODOLOGY

Costs were obtained from the Ormond Beach City Hall HVAC Assessment Report completed in January 2013.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Replace AHU's	0	103,000	0	0	0	103,000
Replace Pumps and controls	0	0	0	0	0	0
Total	0	103,000	0	0	0	103,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-General CIP	0	103,000	0	0	0	103,000
Total	0	103,000	0	0	0	103,000

Ormond Beach City Hall
HVAC Assessment Report

FOR

THE CITY OF ORMOND BEACH

22 SOUTH BEACH STREET

ORMOND BEACH, FL 32174

PERFORMED BY:

ENGINEERING
FOR ARCHITECTURE

AND

architecture|studio, inc.
great design shapes the future
www.rispolisosa.com (352) 620-0944 f: (352) 620-0996

FINAL DRAFT: MARCH 18, 2013

ORMOND BEACH CITY HALL - HVAC ASSESSMENT REORT

TABLE OF CONTENTS

1.0 Executive Summary

1.1 HVAC Assessment Process

1.2 Systems to be Assessed

1.3 General Building Description

1.4 Commissioning Findings
   A. General HVAC Notes
      1. Air Handling Units
      2. Chiller
      3. Pumps
      4. Building Management System

1.5 Recommendations

Appendix A, Pictures

Appendix B, Phasing, Schedule and Costs

1.0 EXECUTIVE SUMMARY:

The Ormond Beach City Hall is a two story, approximately 30,000 square foot building built in 1990. The majority of the City Hall's HVAC equipment was installed in 1990 making the equipment approximately 22 years old.

The City Hall is cooled by a (1) 100 ton air cooled dual compressor chiller with (2) pumps providing chilled water to (3) air handling units (AHU's). There are (3) split system air conditioning systems that serve the main entrance area. The building has (4) exhaust fans.

The existing (3) AHU's are in fair condition. With continued good maintenance, the existing AHU's have an expected 5-10 year of life expectancy. Replacing the AHU's as part of an overall project would save construction costs and City costs associated with multiple construction projects.

The existing condensing units for the split systems have been replaced with new ones over the last 3-10 years. The systems use R-22 which has been discontinued. The split systems should be replaced with new modern refrigerant systems when each of the outdoor condensing units requires replacement in the future as part of a repair and replacement budget.

The building is served by one 100 ton dual compressor air cooled chiller. The chiller is 22 years old and has noticeable deterioration. The chiller has been repaired multiple times and will likely require repair of more components in the next 1-3 years. It is estimated that refurbishing the chiller would cost 70-80% of cost to replace with a new one. It is recommended that the chiller be scheduled to be replaced within the next year to avoid costs for temporary cooling or repair of a chiller beyond its life expectancy. Losing the chiller will leave the building without cooling.

The chiller has 70 tons of connected cooling capacity. The 100 ton chiller is oversized for the current building's existing HVAC systems as it was sized for a future second floor expansion. A new chiller can be sized for 75 tons, saving the City the cost of the additional 25 tons of cooling. At an estimated installed cost of around $1000/ton, the reduced chiller size would save the City an estimated $25,000, in addition to the energy savings that a new chiller would provide.

The pumps are old but appear to be in good operating condition. The frames are deteriorating and will eventually require replacement. There is full redundancy in the pumps (one full back-up). If one pump goes bad, a new pump can be purchased and replaced without completely losing the cooling system. The pumps can be replaced at the time of the next failure or be combined with the chiller replacement to minimize additional costs associated with multiple projects.

The controls appear to be operating as scheduled with the chiller, pumps and AHU's starting on an occupied schedule. The control system components are obsolete. Replacing the controls with modern direct digital controls (DDC) will be cost effective in the long run and this should be considered within the next 5 years or if any of the system components start to fail.

See appendix B for anticipated one year and five year plans with associated costs.

1.1 HVAC ASSESSMENT PROCESS:

The HVAC assessment is a systematic process that includes; documenting the existing HVAC equipment conditions, interviewing facility personnel associated with system operations, reviewing the maintenance procedures, identifying equipments life expectancy and replacement versus keeping existing through maintenance and repair. Energy conservation measures will be identified when comparing replacement of existing with new.

1.2 SYSTEMS TO BE ASSESSED:

A. The following systems were reviewed as part of the assessment process:

List of Systems Assessed	
System	**Components**
Air Distribution System	(3) Chilled Water AHU's, (3) Dx Split Systems
	(4) Exhaust Fans
Central Plant	(2) Building CHW Pumps, (1)Air cooled chiller

1.3 GENERAL BUILDING DESCRIPTION:

The Ormond Beach City Hall is a two story, approximately 30,000 square foot building built in 1990. The building houses various city government support services. The majority of the City Hall's HVAC equipment was installed in 1990 making the equipment approximately 22 years old. The building's HVAC systems are controlled to a run during an occupied schedule and shut off during an unoccupied schedule as follows:

Mon.; Occupied from 4:00 am - 8:30 pm
Tues.-Fri; Occupied from 7:00 am – 8:30 pm
Sat-Sun; Occupied from 11:00 am-1:00 pm

1.4 COMMISSIONING FINDINGS:

A. HVAC General Notes:

The City Hall is cooled by a (1) 100 ton air cooled dual compressor chiller with (2) pumps providing chilled water to (3) air handling units (AHU's). There are (3) split system air conditioning systems that serve the main entrance area. The building has (4) exhaust fans.

Air handling unit's AHU-1 & AHU-2 serve the first floor and have a combined (29) zones with individual thermostat control. Each zone has variable air volume (VAV) damper boxes with electric heaters. The variable damper reduces the airflow to control the zone temperature. The heater is activated if the zone temperatures drop 3°F below the thermostat setpoint while

the VAV damper is at the minimum airflow position. AHU-3 serves the second floor and has 23 VAV zones with similar controls.

The (3) split systems serve the main entrance area with the existing indoor unit's age estimated at 22 years. The existing condensing units for the split systems have been replaced with new ones over the last 3-10 years.

The 100 ton chiller is oversized for the current building's existing HVAC systems. The original design called for a future expansion of the second floor. The chilled water system has future valves for an additional future AHU that was never installed. The connected building load associated with the (3) AHU's is approximately 70 tons. Any recommendations on replacing the existing chiller should also consider reducing the chiller size from 100 tons to 75 tons for both a cost and energy savings. Any future additions can be provided with a future chiller.

The HVAC systems are controlled by the original 1990 control system. The controls use pneumatic valves with electronic transducers to convert pneumatic signals to electric for computer monitoring. The HVAC systems are being monitored off site by a dial up modem connection to the main controller.

1. Air Handling Unit Assessment Notes:
   The air handling units with regular maintenance can have a life expectancy of 30 years. The existing (3) AHU's are in good condition with clean coils, minimal rust and little vibration or noise observed from the moving components (see appendix A, pictures 1 and 2) With continued good maintenance, the existing AHU's likely have an expected additional 5-10 year life expectancy. Replacing the air handling units as part of the chiller replacement project would save construction costs and City costs associated with multiple construction projects.

   The (3) split system indoor air conditioning systems are of a similar age as the (3) AHU's. These systems use an outdated refrigerant (R-22). These systems should be replaced with new modern refrigerant systems when each of the outdoor condensing units requires replacement in the future (estimated between 5-10 years). The indoor unit's should be replaced at the same time as the outdoor units. The refrigerant lines should be replaced as well.

2. Chiller Assessment Notes:
   The building is served by one 100 ton dual compressor air cooled chiller. The chiller is 22 years old. The frame has exceeded its life expectancy with noticeable rust on the frame and the condenser fans (Appendix A, pictures 3 and 4). The chiller condenser coils have noticeable rust and are clogged beyond cleaning without possible damage to coils (Appendix A, picture 5). The controls are obsolete with the control parts very hard to obtain (see Appendix A, picture 6). The chiller has had several modifications over the years. A condenser coil replacement was installed in 2002 (10 years old). One compressor was replaced in 1999 (13 years old) and one compressor was replaced in 2009 (3 years old). The chiller controls are the original 22 year old control board that is integral to the chiller. The

chiller frame has noticeable rust and the coils appear to be dirty with noticeable corrosion (see appendix A picture). Coil replacements for exterior chillers located near a salt water environment typically are typically required every 11-13 years. With the coil at 10 years old, they will require replacement within the next 1-3 years. The chiller controls appears to run one compressor in lead all the time while the second compressor runs only when the building load requires additional cooling beyond the first stage. This explains the need to replace the lead compressor after the first 9 years with the second compressor lasting 19 years. The older 1999 lead compressor is still running the majority of the time with the newer 2009 compressor used for the higher demand, hotter weather days. The 1999 compressor will likely require replacement in 1-3 years (similar to coils).

It is recommended that the chiller be replaced in the next 1-2 years. It is not recommended to replace coils, one compressor and maintain the control system for the existing chiller. It is estimated that re-furbishing the existing chiller would cost 70-80% of the cost of a new chiller.

If the exiting chiller requires immediate replacement due to a failure; without a design, approved contractor and permits, temporary cooling would be required while a new chiller is obtained and installed. Lead times for obtaining a new chiller is estimated at 6-10 weeks. Temporary cooling can cost an estimated $10,000-$15,000 per month. This further compels the City to proceed with plans to replace the existing chiller within the next year.

Providing a reduced size higher efficiency chiller would reduce replacement cost and provide additional energy savings. Properly sized new chillers are much more efficient than 20+ year old chillers.

3. Pump Assessment:
   There are two chilled water pumps that are located in the first floor mechanical room. The pumps are original existing frames (22 years old) and the frames have noticeable deterioration (see Appendix A, picture 7). The pumps were provided with new motors in 2002 (10 years old). Each pump is sized for full flow of the chiller with one pump as a 100% redundant back-up. The pumps are controlled in a lead, lag sequence allowing for equal run time. Typically, well maintained pumps have a life expectancy of 20-25 years leaving the life expectancy for the existing pumps at approximately 3 years. The pumps should be considered for replacement in the next 1-3 years.

4. Building Management System Assessment:
   The controls are a combination of pneumatic VAV actuators, pneumatically controlled chilled water valves, pneumatic outside air dampers and electronic transducers (utilized to convert control signals from pneumatic to electronic) and electronic controllers with off-site computer monitoring of the control schedules and setpoints. The systems appear to be operating as scheduled with the chiller, pumps and AHU's starting according to an occupied schedule (see HVAC General Notes) and shutting off during unoccupied time periods. The controls are old (22 years) and replacement part costs are at a premium.

The chiller controls are internal to the chiller and the chiller only receives a start and stop signal from the main controller. Replacement of the chiller will include replacement of chiller controls and reconnection of the existing start/stop control signal.

Replacing the controls with modern direct digital controls (DDC) will be cost effective in the long run and this should be considered within the next 1-3 years. Proper control of equipment is the leading energy savings opportunities for building operations.

1.5 RECOMMENDATIONS:

It is recommended that the chiller be scheduled to be replaced within the next year to avoid costs for temporary cooling or repair of a chiller beyond its life expectancy. The pumps should be considered for replacement in the next 1-3 years. It is recommended that the pumps be replaced with the chillers. Replacing the pumps as part of one construction project will save in contractor mobilization costs and City costs associated with multiple projects.

Replacing the controls with modern direct digital controls (DDC) will be cost effective in the long run and this should be considered within the next 5 years or if any of the system components start to fail.

Replacing the air handling units as part of the chiller replacement project would save construction costs and City costs associated with multiple construction projects.

See Appendix B for itemized replacement costs utilizing 2 plans; a one year plan with three options for replacing some or options presented, and a 5 year plan to replace each system independently over a five year period. Replacing all equipment on a one year plan (1 year – option 3) would provide an approximate $33,500 savings due to escalating equipment and labor costs over the 5 years.

Appendix A, Picture 1 – AHU-3

Appendix A, Picture 2 – AHU-1

Appendix A, Picture 3 – Chiller

Appendix B

PHASING, SCHEDULE & COSTS FOR FIVE YEAR PLAN			
MONTH/YEAR	PHASE	COST	
	YEAR 1: REPLACE CHILLER	**$115,000**	
4/13	DESIGN		
5/13	BID		
6/13	CONSTRUCTION START		Complete
9/13	CONSTRUCTION COMPLETE		
4/13-10/13	ENGINEER DESIGN AND C/A/ COSTS	**$10,000**	
TOTAL COST - YEAR 1		**$125,000**	
	YEAR 3: REPLACE PUMPS & CONTROLS	**$44,000**	
4/15	DESIGN		
5/15	BID		Complete
6/15	CONSTRUCTION START		
9/15	CONSTRUCTION COMPLETE		
4/15-10/15	ENGINEER DESIGN AND C/A/ COSTS	**$14,500**	
TOTAL COST - YEAR 3		**$58,500**	
	YEAR 5: REPLACE AHU'S	**$95,000**	
4/17	DESIGN		
5/17	BID		Proposed
6/17	CONSTRUCTION START		
10/17	CONSTRUCTION COMPLETE		
4/17-10/17	ENGINEER DESIGN AND C/A/ COSTS	**$8,000**	
TOTAL COST - YEAR 5		**$103,000**	
TOTAL - ALL 3 PROJECTS OVER 5 YEARS		**$286,500**	

Different section of coil frame rusted through

fins falling off coils so dirty, can not be cleaned

Undercarriage of Chiller rusted from age

Vertical 'lines' are the fins
Horizontal lines are the coils
You should not be able to see the coils this exposed

Other sections of the coil framework rusted through
The new copper to the left of the text box is part of the TXV replaced

This is a set of brackets on the chiller barrell. Purpose of these are unknown to me, but they are rusted so bad, they almost do not exist

even the electrical conduit is rudting away
05/15/2013 09:08

02/25/2009

Compressor #1 new in 2009 now leaking oil at gaskets and seals due to high pressures on system (bad coils)

Top shot of same compressor, black substance is oil

fins of coils corroded and falling off

Frame of unit holding coils in place rusted holes.
Alowing air to pass through condenser fans without
passing through coils. Air has to pass through coils for
the system to cool properly
05/15/2013 09:00

FACILITIES RENEWAL AND REPLACEMENT

CAPITAL PROJECT DETAIL

PROJECT TITLE

Dock Walkway Replacement CP I

PROJECT#

117020

CATEGORY

Facilities Renewal and Replacement

FUND

117-Facilities Renewal and Replacement

PROJECT LOCATION

Central Park 1

MANAGEMENT

Leisure Services

PROJECT SCOPE

Remove and replace the dock walkway 6' X 125' at Central Park 1

JUSTIFICATION

The dock walkway has outlived its life expectancy and needs to be replaced to continue to provide a safe place for our residents to enjoy the lake at Central Park 1.

PROJECT COST METHODOLOGY

Custom Built Docks, Inc

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Remove & Replace Walkway	45,250	0	0	0	0	45,250
Design Replacement Dock	5,000	0	0	0	0	5,000
Total	50,250	0	0	0	0	50,250

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-R&R	50,250	0	0	0	0	50,250
Total	50,250	0	0	0	0	50,250

Proposal

CUSTOM BUILT DOCKS, INC
Licensed Marine Contractors
22 Village Dr.
ORMOND BEACH, FLORIDA 32174
(386) 547-5340 (386) 673-9802
www.custombuiltdocks.com

2096

ATT - BILL ROSE

PROPOSAL SUBMITTED TO: CITY OF ORMOND BEACH		PHONE: 212-8685	DATE: 4/14/16
STREET: 501 N. ORCHARD ST		JOB NAME: DOCK REPLACEMENT	
CITY, STATE and ZIP CODE: ORMOND BCH, FL, 32174		JOB LOCATION: CENTRAL PARK PHASE 1	
ARCHITECT	DATE OF PLANS	JOB PHONE: Bill.Rose@ormondbeach.org	

We Propose hereby to furnish material and labor – complete in accordance with specifications below, for the sum of:

SEE BELOW dollars ($ SEE BELOW)

Payment to be made as follows:

1 TBD

All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from specifications below involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. Our workers are fully covered by Workman's Compensation Insurance.

Authorized Signature: [signature]

Note: This proposal may be withdrawn by us if not accepted within 21 days.

We hereby submit specifications and estimates for:

ALL LABOR/MATERIALS AND EQUIPMENT NECESSARY TO REMOVE EXISTING STRUCTURES AND REPLACE NEW. AS SPECIFIED BELOW

1. 6' x 125' WALKWAY CONSTRUCTED SAME AS WALKWAY BEFORE IT, 2"x12" FRAME, 2"x6" DECKING, 2"x2" GUARDRAIL

REMOVE/REPLACE $45,250.00

2. 6' x 14' x 2, 6' x 45' U SHAPED OBSERVATION WALKWAY CONSTRUCTED SAME AS EXISTING OBSERVATION WALKWAY'S, 2"x8" FRAME, 2"x6" DECKING, 2"x6" GUARDRAIL.

REMOVE/REPLACE $17,330

ALL PILINGS CCA 2.5 MARINE GRADE.
ALL LUMBER ACQ #1 GRADE DENSE
ALL HARDWARE STAINLESS STEEL

ANY NECESSARY PERMITS EXTRA.

Acceptance of Proposal – The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Signature _____

Date of Acceptance: _____ Signature _____

CAPITAL PROJECT DETAIL

PROJECT TITLE

Sports Field Improvements

PROJECT#

117015

CATEGORY

Facilities Renewal and Replacement

FUND

117-Facilities Renewal and Replacement

PROJECT LOCATION

Ormond Beach Sports Complex and Nova Communi

MANAGEMENT

Leisure Services

PROJECT SCOPE

Soil and turf renovations to athletic and sports fields.

JUSTIFICATION

Field renovations are required to make sure fields are level, and have vital nutrients to improve turf and soil profiles to ensure a safe playable surface for our little and large athletes. This project will include: Core aerify, top dressing, soil amendments and seed entire field. This will help with fix the hard surface and damaged turf due to heavy activity. This is important to maintain quality fields and safe playable surfaces.

PROJECT COST METHODOLOGY

Proposal from Yellowstone March 29, 2016

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Field Renovations	35,000	0	0	0	0	35,000
Total	35,000	0	0	0	0	35,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-R&R	35,000	0	0	0	0	35,000
Total	35,000	0	0	0	0	35,000

YELLOWSTONE
LANDSCAPE

PROPOSAL

Date: March 29th, 2016

Proposal Submitted To: Mike Demchak
Contract Manager
City of Ormond Beach

Project: City of Ormond Beach
OBSC
Soccer field #8 Renovation

We hereby submit a proposal for: Core aerify, top dress, and add soil amendments. Objective is to enhance soil profile with organic material and fix damage to the playing surface. Seed entire playing surface and fertilize with proper starter fert.

Scope of Work:	*Qty*	*Unit Price*	*Total*
Top dressing materal	140	$77.96	$10,914.40
Sunsport Bermuda Seed	10	$456.52	$4,565.20
10-20-20 Starter Fert	12	$48.91	$586.92
CAT 262 Loader	16	$71.37	$1,141.95
Labor	72	$41.38	$2,979.67
		Proposal total	$20,188.14

Note: ***Price includes all associated costs of procurement and installation of materials.***

Payment due 30 days after receipt of pay application.

All material is guaranteed to be as specified. All work to be completed in a workman-like manner according to standard practices. Any alteration or deviation from the above specifications involving extra cost will be executed only upon written orders, and will become an extra charge over and above the estimates. Any verbal authorizations given by the customer will be treated the same as a written order even if authorization is not written. Yellowstone Landscape workers are fully covered by workman's compensation insurance. The attached Terms and Conditions of Sale are part of this proposal.

Authorized Signatures

Chris Rodriguez

District Manager

ACCEPTANCE OF PROPOSAL

The above prices, specifications and conditions are satisfactory and are hereby accepted.
You are authorized to proceed with the work specified. Payment will be made as outlined above.

Date of Acceptance: _____ Signature: _____

YELLOWSTONE
LANDSCAPE

PROPOSAL

Date: March 29th, 2016

Proposal Submitted To: Mike Demchak
Grounds Contract Manager
Ormond Beach, Fl. 32174

Project: City of Ormond Beach
O.B. Sports Complex
Soccer Field #12

We hereby submit a proposal for: Core aerify, top dress, and soil amendments. Objective is to replace poor soil profile with more organic soil in order to fix present damage and enhance the playing surface. This area will be addressed on three separate occasions due to the severity of current conditions.

Scope of Work:	*Qty*		*Unit Price*	*Total*
Top dress material. Natural Spent Top Dressing	*120*	*$*	*77.96*	*$ 9,355.20*
Labor	*72*	*$*	*41.38*	*$ 2,979.67*
CAT 262 Loader	*24 hrs*	*$*	*71.37*	*$ 1,712.88*
			PROPOSAL TOTAL	*$ 14,047.75*

Note: ***Price includes all associated costs of procurement and installation of materials.***

Payment due 30 days after receipt of pay application.

All material is guaranteed to be as specified. All work to be completed in a workman-like manner according to standard practices. Any alteration or deviation from the above specifications involving extra cost will be executed only upon written orders, and will become an extra charge over and above the estimates. Any verbal authorizations given by the customer will be treated the same as a written order even if authorization is not written. Yellowstone Landscape workers are fully covered by workman's compensation insurance. The attached Terms and Conditions of Sale are part of this proposal.

Authorized Signatures

Chris Rodriguez

District Manager

ACCEPTANCE OF PROPOSAL

The above prices, specifications and conditions are satisfactory and are hereby accepted.
You are authorized to proceed with the work specified. Payment will be made as outlined above.

Date of Acceptance: _____ Signature: _____

CAPITAL PROJECT DETAIL

PROJECT TITLE

South Ormond Neighborhood Center

PROJECT#

117037

CATEGORY

Facilities Renewal and Replacement

FUND

117-Facilities Renewal and Replacement

PROJECT LOCATION

Gymnasium - 176 Division Avenue

MANAGEMENT

Engineering/Leisure Services

PROJECT SCOPE

Replace HVAC system in gymnasium.

JUSTIFICATION

System is in excess of 20 years old. Unit has met its life expectancy and is to be replaced in FY 2017/18. Compressor has been replaced twice and accumulator has also been replaced.

PROJECT COST METHODOLOGY

Similar City projects.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Replace Gymnasium	0	30,000	0	0	0	30,000
Total	0	30,000	0	0	0	30,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-R&R	0	30,000	0	0	0	30,000
Total	0	30,000	0	0	0	30,000

CAPITAL PROJECT DETAIL

PROJECT TITLE

Ames Park

PROJECT#

117016

CATEGORY

Facilities Renewal and Replacement

FUND

117-Facilities Renewal and Replacement

PROJECT LOCATION

Ames House

MANAGEMENT

Engineering/Leisure Services

PROJECT SCOPE

Replace roofing shingles.

JUSTIFICATION

Existing roof is 14 years old and will meet life expectancy.

PROJECT COST METHODOLOGY

Similar City projects.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Replace Roofing Shingles	0	0	25,000	0	0	25,000
Total	0	0	25,000	0	0	25,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-R&R	0	0	25,000	0	0	25,000
Total	0	0	25,000	0	0	25,000

RECREATION AND CULTURAL IMPROVEMENTS

CAPITAL PROJECT DETAIL

PROJECT TITLE

Ormond Beach Sports Complex Field 9 / 10 Lighting

PROJECT#

301193

CATEGORY

Recreation and Cultural Facility Improvements

FUND

301-General Improvement Fund

PROJECT LOCATION

Soccer Fields 9 & 10

MANAGEMENT

Engineering / Leisure Services

PROJECT SCOPE

Installation of new poles, field lighting, and controls at Ormond Beach Sports Complex fields 9 & 10

JUSTIFICATION

The lighting of soccer fields 9 & 10 would enable better utilization of the soccer fields for nighttime play, and has long been identified as a much needed improvement to the Sports Complex. Required approvals through FAA due to the fields' location relative to the airport runways has now been approved permitting the completion of this project. This lights included in this project utilize LED technology for a more energy efficient lighting of the fields.

PROJECT COST METHODOLOGY

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Construction	450,000	0	0	0	0	450,000
Total	450,000	0	0	0	0	450,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-General CIP	450,000	0	0	0	0	450,000
Total	450,000	0	0	0	0	450,000

Ormond Beach Sports Complex
Field 9/10 Lighting

Item No.	Description	Estimated Quantity	Unit	Unit Price	Total
PART A -					
1	Mobilization *I* Demobilization	1	LS	$ 10,000.00	$ 10,000.00
2	Utility Coordination	1	LS	$ 10,000.00	$ 10,000.00
General Subtotal Item Nos. 1 - 2					**$ 20,000.00**
PART B - Florida Power & Light Conduit/Structures					
3	Install PVC Conduit Supplied by				
	a. 6-inch PVC Conduit	1,200	LF	$ 22.25	$ 26,700.00
	b. 2-inch PVC Conduit	500	LF	$ 7.89	$ 3,945.00
4	Install Concrete Pad	1	EA	$ 274.00	$ 274.00
Florida Power & Light Conduit/Structures Subtotal Item No. 3-4					**$ 30,919.00**
PART C - Light Installation					
5	Furnish & Install PVC Conduit				$ -
	b. 2-inch PVC Conduit	1640	LF	$ 17.64	$ 28,929.60
6	Furnish & Install Handholds	12	EA	$ 611.00	$ 7,332.00
7	Install 4 #10 & 1# 10 G Conductors	2400	FL	$ 3.14	$ 7,536.00
8	Install 1-Pole Circuit Breaker in Panel	10	EA	$ 28.00	$ 280.00
9	Furnish and Install Panel	1	EA	$ 5,000.00	$ 5,000.00
AT&T Conduit/Structure Subtotal Item 5 -98					**$ 49,077.60**
					$ -
PART D - MUSCO Field Lighting					$ -
10	Furnish and Install Lighting	1	LS	$ 350,000.00	$ 350,000.00
TOTAL BID (Items No. 1thru 10)					**$ 449,996.60**

April 21, 2016

City of Ormond Beach
RE: Ormond Beach Sports Complex

To Shawn Finley:

Thank you for the opportunity to discuss Musco's Light-Structure Green™ & LED system, and the benefits it will bring to Ormond Beach Sports Complex. We are excited to offer this innovative system, and are confident you will see the value for many years to come.

This estimate includes Musco's Light-Structure Green™ (SportsCluster Green on Retrofit) & LED System materials pricing.

Estimated Project Cost:

Baseball Field:
Light-Structure Green (Metal Halide)…….. **$210,000 - $230,000**
LED Technology……..**$275,000 - $300,000**
- **Materials Only**

Soccer Fields 9 & 10:
Light-Structure Green (Metal Halide)……..**$245,000 - $270,000**
LED Technology……**$320,000 - $350,000**
- **Materials Only**

Softball Field Retrofit:
SportsCluster Green (Metal Halide)……....**$75,000 - $85,000**
LED Technology……**$105,000 - $115,000**
- **Materials Only- To be installed on existing poles**

Pricing is based on April 2016 pricing and is subject to change

Benefits of Light-Structure Green™ System
- Reduction of spill light and glare by 50%
- Guaranteed constant light levels
- 25 Year Parts and Labor warranty (10 Year Parts and Labor warranty on SportCluster Green System)
- Includes our Control-Link® System for flexible control and performance monitoring: Flexible on/off capabilities via phone call, e-mail, website, or smartphone.

Benefits of LED™ System
- Market leading spill light and glare control
- Guaranteed constant light levels for 10 years
- 10 Year Parts and Labor warranty
- Includes our Control-Link® System for flexible control and performance monitoring: Flexible on/off capabilities via phone call, e-mail, website, or smartphone.
- Instant on / off ability
- Dimming ability

This **estimate** includes anticipated equipment and installation costs. It does not include the cost of sales tax, permitting fees, bonding or installation. Thank you for the trust you've placed in Musco Lighting. Please feel free to contact me with any questions you may have.

Danny Sheldon

Field Sales Representative
Musco Sports Lighting, LLC
Phone: 352.665.0578
E-mail: danny.sheldon@musco.com

ORMOND BEACH SPORTS COMPLEX SOOCER FIELDS 9 - 10

1,000 ft

GIS data is provided on an "as is" basis. The accuracy or reliability of the data is not guaranteed or warranted in any way. The City of Ormond Beach specifically disclaims any warranty either expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular use. The entire risk as to quality and performance of the data is with the end user. In no event will the City, its staff or it's representatives be liable for any direct, indirect, incidental, special, consequential, or other damages, including loss of profit, arising out of the use of this data even if the City has been advised of the possibility of such damages.

CAPITAL PROJECT DETAIL

PROJECT TITLE

OBSC Improvements

PROJECT#

116065

CATEGORY

Recreation and Cultural Facility Improvements

FUND

116-Grant Fund

PROJECT LOCATION

Ormond Beach Sports Complex

MANAGEMENT

Engineering

PROJECT SCOPE

Construct a girls softball field and lighting of Field 3. Projects are dependent upon receipt of FRDAP funding.

JUSTIFICATION

Baseball field #3 is the only remaining unlit Wendelstedt premiere playing field. Lighting this field would be invaluable to nighttime play, especially by the fall competitive baseball league. The Field #7 project includes softball field, lighting, bleachers and concession/restrooms and will be beneficial to all girls' softball programming, including recreational league, high school league, competitive league and girls softball tournaments. The current softball quad is not suitable for girls' championship softball tournaments as it is designed more for men's recreational softball. Design of the projects is required in advance of applying for the grants.

PROJECT COST METHODOLOGY

Projected costs per Engineering Dept. & are based upon similar City projects. Lighting costs per MUSCO lighting estimates

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Design - Field 7	65,000	0	0	0	0	65,000
Design - Field 3 lighting	23,000	0	0	0	0	23,000
Field 7 Girls' Softball	0	0	810,000	0	0	810,000
Lighting-Baseball Field 3	0	0	230,000	0	0	230,000
Total	88,000	0	1,040,000	0	0	1,128,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-General CIP	88,000	0	225,000	0	0	313,000
Echo	0	0	400,000	0	0	400,000
General Fund Reserves	0	0	300,000	0	0	300,000
FRDAP (pending approval)	0	0	115,000	0	0	115,000
Total	88,000	0	1,040,000	0	0	1,128,000

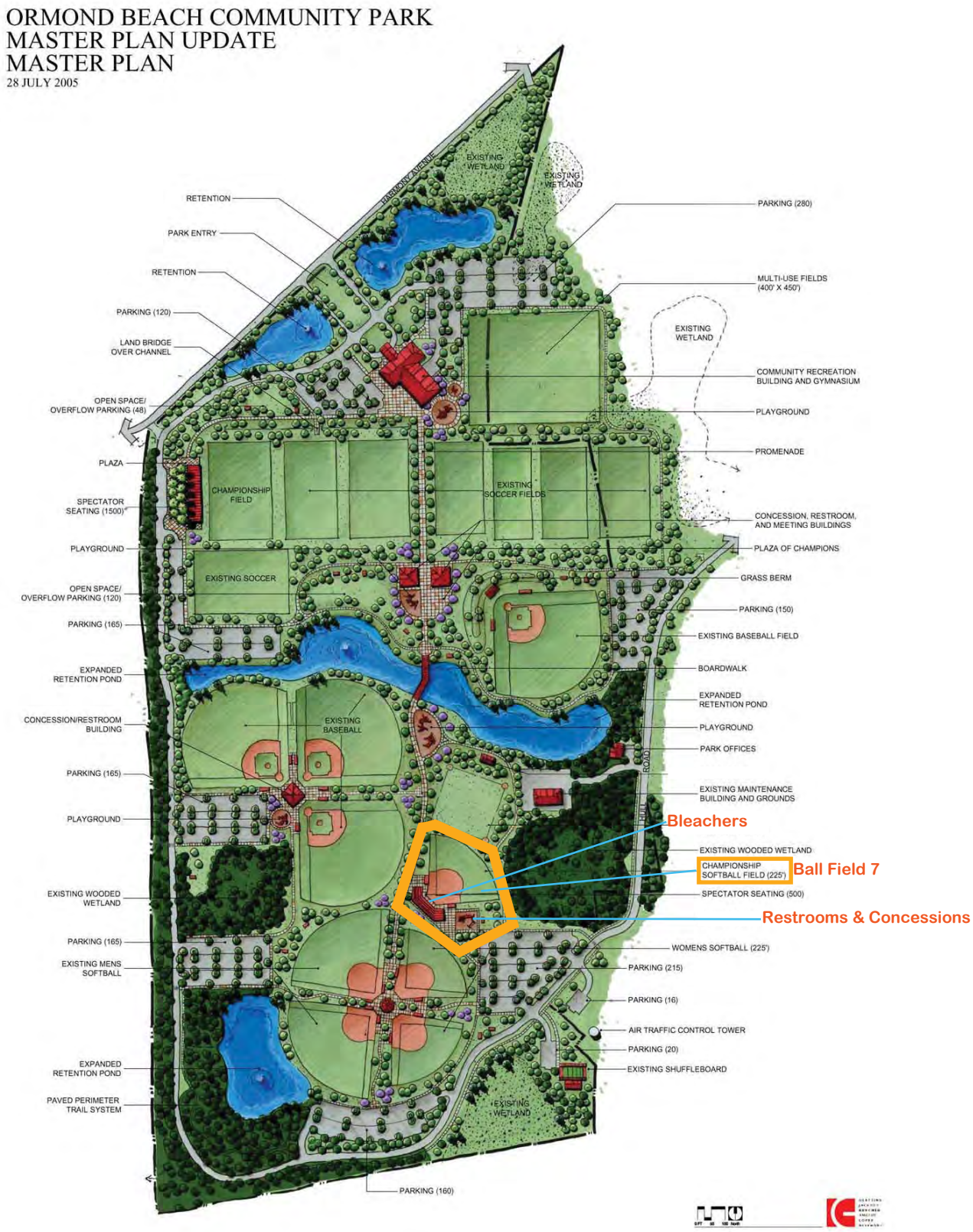


Figure 15: Master Plan

Proposed Ballfield 7 with Lighting, Bathroom & Concession Facilities and Bleachers					
April 12, 2016					
BATHROOMS					
Item		**Estimated**		**Unit**	
No.	**Description**	**Quantity**	**Unit**	**Price**	**Item Price**
1	Building Site Grading	1	LS	$5,000.00	$5,000
2	Building Construction	1	LS	$180,000.00	$180,000
3	12"x8" Wet-tap w/tapping valve	1	EA	$6,500.00	$6,500
4	Furnish and install 8-inch DR18 Watermain	280	LF	$30.00	$8,400
5	Furnish & Install Compact Ductile Iron Fittings	200	Lb	$6.00	$1,200
6	Furnish & Install Fire Hydrant & Valve assembly	1	EA	$3,500.00	$3,500
7	1-inch water service	50	LF	$15.00	$750
8	1"x8" water service tap, corp & curb stops	1	EA	$500.00	$500
9	Furnish and Install Backflow preventer	1	EA	$500.00	$500
10	BACTs	1	LS	$400.00	$400
11	Furnish and install 2-inch PVC forcemain	350	LF	$15.00	$5,250
12	2-inch Forcemain valves and fittings	1	LS	$1,000.00	$1,000
13	Furnish and Install Pep-tank system	1	LS	$10,000.00	$10,000
14	Furnish and Install Electrical service	1	LS	$10,000.00	$10,000
15	Misc. Restoration	1	LS	$1,000.00	$1,000
16	Furnish & Install Bahia Sod	500	SY	$3.50	$1,750
17	Sidewalk	110	SY	$30.00	$3,300
18	As-Builts	1	LS	$1,000.00	$1,000
				Sub-Total	**$240,050**
BALLFIELD					
1	Demo Existing Ballfield	1	LS	$25,000.00	$25,000
2	Ballfield Site Fill and Laser Grading	1	LS	$50,000.00	$50,000
3	Furnish & Install Dugouts	2	EA	$15,000.00	$30,000
4	Concrete Dugout Pads	2	EA	$1,500.00	$3,000
5	Bleacher Shade Structures	2	EA	$10,000.00	$20,000
6	Aluminum Players Benches	4	EA	$500.00	$2,000
7	Gravel along fence	1	LS	$4,000.00	$4,000
8	Electrical Enclosure	1	EA	$1,000.00	$1,000
9	6ft fencing and gates	1	LS	$25,000.00	$25,000
10	10ft fencing	1	LS	$20,000.00	$20,000
11	Hooded Backstop	1	LS	$18,000.00	$18,000
12	Bermuda Sod	1	LS	$30,000.00	$30,000
13	Install Field Clay	1	LS	$8,000.00	$8,000
14	Irrigation	1	LS	$15,000.00	$15,000
15	Bleachers	1	LS	$80,000.00	$80,000
16	Field Lighting	1	LS	$230,000.00	$230,000
17	Concrete flatwork	150	SY	$30.00	$4,500
				Sub-Total	**$565,500**
		Engineering Design and Permitting			$65,000
				TOTAL	$870,550
				Total Project Budget	**$871,000**

25-Year Life-Cycle Cost

Ormond Beach Sports Complex BB/SO
Ormond Beach, FL

Prepared for: Mr. Shawn Finley, City of Ormond Beach

04/11/13

	Typical Floodlighting Equipment	Musco Green	Your Savings
Hours	12,500	12,500	
Average kW	123.1	71.9	
Energy	**$138,510**	**$80,937**	**$57,573**
Group Relamp	$39,583	$0	$39,583
Lamp Maintenance	$3,750	$0	$3,750
Controls - Energy	$6,926	$0	$6,926
25-Year Life-Cycle Cost	**$188,769**	**$80,937**	**$107,832**

Assumptions

Field Name	Annual Operating Hours	Energy Cost per kWh	Typical Floodlighting Equipment		Musco Green		Controls Energy Savings
			Fixtures	Avg kW	Fixtures	Avg kW	
Baseball Field 3	500	$0.09	76	123.1	46	71.9	5.0%

NOTE:
Life-cycle costs are based upon the assumptions given by the customer above. Any variation in this data will change the life-cycle cost proportionately. Group Relamp calculates using a per lamp replacement cost of $125, including parts, equipment, and labor. Useful lamp life of typical floodlighting equipment is 3000 hours. Musco guarantees the average Green Generation Lighting system kW and 5000 hours useful life of the lamp.

© 2005, 2009 Musco Lighting SD-7156-5 - Patent Pending
163389 PV1 Mandy Hafner

We Make It Happen.

Ormond Beach Sports Complex
Ormond Beach, FL
Date: April 12, 2013
To: Shawn Finley

Equipment Description

Light-Structure Green™ System delivered to your site in Five Easy Pieces™

- Pre-cast concrete bases
- Galvanized steel poles
- UL Listed remote electrical component enclosure
- Pole length wire harness
- Factory-aimed and assembled luminaires

Also Includes:

- Energy savings of more than 50% over a standard lighting system
- 50% less spill and glare light than Musco's prior industry leading technology
- Musco Constant 25™ warranty and maintenance program that eliminates 100% of your maintenance costs for 25 years, including labor and materials
- Guaranteed constant light levels for 25 years
- 2 Group re-lamps at the end of the lamps' rated life, 5000 hours
- Control Link® Control & Monitoring System for flexible control and solid management of your lighting system.
- Lighting Contactors sized for sited voltage and phase.

Baseball Field (325'/400'/325') - 50 fc infield, 30 fc outfield – 6 pole design - $215,000 - $230,000

2 Soccer Fields (2 @ 370'x230') - 50 fc – 6 pole design - $410,000 – $435,000
2 Soccer Fields (2 @ 370'x230') - 30 fc – 6 pole design - $315,000 – $330,000

Estimates are for turnkey installations to include equipment and installation. Does not include electrical engineering if needed.

Payment Terms:

Musco will attempt to coordinate shipment so that delivery corresponds with the customer's payment schedule. It will be the responsibility of the wholesaler to ensure that Musco is aware of this delivery timeframe. We will expect payment within the terms described above unless there is a written statement from Musco's corporate headquarters stating the acceptance of different terms. Financing solutions provided by Musco Finance are available to minimize any funding challenges you have, subject to credit approval.

- **Delivery to the job site from the time of order, submittal approval, and confirmation of order details including voltage and phase, pole locations is approximately 30-45 days. Due to the built-in custom light control per luminaire, pole locations need to be confirmed prior to production. Changes to pole locations after the product is sent to production could result in additional charges.**

Notes

Estimate is based on:

- System will be manufactured to existing voltage and phasing at site
- Confirmation of pole locations prior to production
- Included structural engineering to FBC 2010, 130mph
- Assumes primary electrical feed is within reasonable distance from MDP location to be installed.

Thank you for considering Musco for your sports-lighting needs. Please contact me with any questions.

Danny Sheldon
Sales Representative
Musco Sports Lighting, LLC
Phone: 352/665-0578
E-mail: Danny.Sheldon@musco.com
Fax: 800/374-6402

ORMOND BEACH SPORTS COMPLEX - BASEBALL FIELD 3

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CAPITAL PROJECT DETAIL

PROJECT TITLE

West Ormond Community Center

PROJECT#

310017

CATEGORY

Recreation and Cultural Facility Improvements

FUND

310-Impact Fees

PROJECT LOCATION

West Ormond

MANAGEMENT

Engineering

PROJECT SCOPE

Feasibility Study for a West Ormond Community Center.

JUSTIFICATION

West Ormond has been the predominate location for growth over the last 10 years. The Recreation Master Plan clearly identifies the need for a West Ormond Community Center and park. A preliminary conceptual design was performed to determine site design constraints, conceptual site development and conceptual cost estimates. A feasibility study will assist the City in evaluating the need for a Community Center to serve the citizens of the West Ormond Beach area. The need for a Community Center to serve the residents that reside in west Ormond has been on the LSAB's priority list for the last several years. This will prevent families who live in west Ormond from having to drive long distances to use Nova Community Center. It will help alleviate traffic, parking and crowding which we are currently facing at the Nova Community Center.The feasibility Study will include public meetings and determine design, and projected costs for construction and operation and maintenance, along with determining a funding source and the viability for a funded project in a future CIP.

PROJECT COST METHODOLOGY

Cost for the Feasibility Study provided by consultant that prepared the preliminary conceptual design

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Feasibility Study	50,000	0	0	0	0	50,000
Total	50,000	0	0	0	0	50,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Impact Fees	50,000	0	0	0	0	50,000
Total	50,000	0	0	0	0	50,000

CAPITAL PROJECT DETAIL

PROJECT TITLE

Nova Community Park Renovations

PROJECT#

116064

CATEGORY

Recreation and Cultural Facility Improvements

FUND

116-Grant Fund

PROJECT LOCATION

Nova Community Park

MANAGEMENT

Engineering

PROJECT SCOPE

Upgrades to the tennis court lighting.

JUSTIFICATION

The existing tennis court lighting has met its life expectancy. Upgrading to LED will reduce electrical consumption and provide more adequate lighting for night play on the existing 6 hard courts at Nova Community Park.

PROJECT COST METHODOLOGY

Estimated cost based on similar lighting projects.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Upgrade Tennis Court Lighting to LED	0	150,000	0	0	0	150,000
Total	0	150,000	0	0	0	150,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
FRDAP (pending approval)	0	112,500	0	0	0	112,500
Property Taxes-General CIP	0	37,500	0	0	0	37,500
Total	0	150,000	0	0	0	150,000

CAPITAL PROJECT DETAIL

PROJECT TITLE

Underground Electric Utilities

PROJECT#

301226

CATEGORY

Recreation and Cultural Facility Improvements

FUND

301-General Improvement Fund

PROJECT LOCATION

Nova Community Center

MANAGEMENT

Leisure Services

PROJECT SCOPE

Install underground electric utilities to the Nova Community Center where they currently are hanging overhead between field 2 and field 3

JUSTIFICATION

This overhead line is in a very populated area when the baseball fields are in use. It is the last overhead electric line left in the interior of the park. When the baseball field 5 was redone the first phase of undergrounding the utilities line was done and provisions were put into place to allow for a transformer to be placed near the Nova Community Center and underground the main utility line from Nova Road. This would be more reliable and safer than it currently is overhead.

PROJECT COST METHODOLOGY

Quote from Economy Electric Company on March 30, 2016

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Design and Construction	0	0	0	55,000	0	55,000
Total	0	0	0	55,000	0	55,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-General CIP	0	0	0	55,000	0	55,000
Total	0	0	0	55,000	0	55,000

Economy Electric Company

538 West Street
Daytona Beach, Florida 32114
Telephone (386) 252-0573
Fax no. (386) 239-0721
Email: JoeWiggins@economyelectricco.com

Engineers	Electrical	Contractors
PE0043445	EC0000709	EC0001197
EB0000287	EC0002188	EC0002189

March 30, 2016

City of Ormond Beach
Attention: Stefan Sibley
Stefan.Sibley@ormondbeach.org

Re: Nova Recreation – Underground Electric Utilities

Job:
- Install a pad mount transformer and concrete pad adjacent to Recreation Bldg.
- Extend conduit and primary wire from existing ground box to new transformer.
- Terminate (6) primary splices in ground box and (6) primary elbows in transformer.
- Ground transformer.
- Remove overhead primary including pole mounted transformers and pole as requested.
- Rebuild primary on existing pole to become the new dead end pole.
- Install new main disconnects on exterior of Recreation Bldg.
- Feed new main disconnects from new transformer.
- Refeed interior panels from new main disconnects.
- Bore conduit from transformer to Maintenance Bldg.
- Install new underground service from transformer to Maintenance Bldg.
- Provide permit.
- Provide engineered drawings as needed for permitting.

Dear Stefan :

As per your request, I am forwarding you a proposal in reference to the above job. The total cost shall be $47,200.00.
If I can be of any further assistance, please do not hesitate to call.

Sincerely,

Joseph Wiggins
Project Manager

CAPITAL PROJECT DETAIL

PROJECT TITLE

Nova Community Park Master Plan Phase I

PROJECT#

301213

CATEGORY

Recreation and Cultural Facility Improvements

FUND

301-General Improvement Fund

PROJECT LOCATION

Nova Community Park

MANAGEMENT

Engineering

PROJECT SCOPE

Phase I includes the construction of parking for (240) vehicles, and (12) fitness stations.

JUSTIFICATION

The Nova Community Park Master Plan was created by HHI Design and approved as a long range conceptual plan by the City Commission. Phase I will include 130 parking spaces, and a circuit training cluster of fitness stations. Parking is the #1 need at the Nova Community complex. As the location of the proposed parking is located in the Class 1 section of the Nova Landfill, costs to construct a standard asphalt parking lot would require construction of a lined retention pond. As the cost for such a pond (which requires removal and disposal of the buried trash) is extremely costly ($1.6 million), staff is recommending a modified parking lot construction consisting of stabilized grass parking with main drive aisles of reclaimed asphalt to reduce impervious surface and eliminate the need for a retention pond.

PROJECT COST METHODOLOGY

Preliminary cost estimate prepared by HHI Design and modified by staff based on OBSC overflow parking upgrades completed last year

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Phase I Engineering & Construction	0	0	0	0	500,000	500,000
Total	0	0	0	0	500,000	500,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-General CIP	0	0	0	0	500,000	500,000
Total	0	0	0	0	500,000	500,000

FITNESS AREA

120 SPACES (RAP + GRASS PARKING)

- EVALUATE ENTRY SIGNAGE/ACCESS
- UPGRADE SITE FURNISHINGS
- EVALUATE AND UPGRADE PARK DRIVEWAYS AND PARKING

Existing Amenities:
4 Ball Fields =
(50 spaces each + 5 handicap) = 200 spaces, 20 handicap
Playground = 20 spaces + 2 handicap
Basketball Court = 15 spaces + 1 handicap
4 Racquetball Courts = 16 spaces + 1 handicap
Skate Park with Expansion = 20 spaces + 2 handicap
6 Tennis Courts =
(2 spaces per court + 1 handicap) = 12 spaces + 6 handicap

Total = 283 spaces + 32 handicap

Existing Parking = 53 spaces + 7 handicap (excluding parking for Center/Gym)
Total spaces needed = 230 + 25 handicap

New Amenities:
4 Multi-Purpose Fields =
(50 spaces each + 5 handicap) = 200 spaces, 20 handicap
Dog Park = 10 spaces + 1 handicap
Exercise Stations = 4 spaces + 1 handicap
Pickleball Courts = (2 spaces per court) = 16 spaces + 2 handicap
Multi-Purpose Trail = 20 spaces + 2 handicap

Total spaces needed = 250 spaces + 26 handicap

Required: (existing and new amenities) 533 spaces + 58 handicap
Existing: 53 spaces + 7 handicap
Proposed: 480 spaces + 51 handicap

NEW PALM TREES, TYP.
ADA RAMP ALONG TRAIL
VEHICULAR DRIVE
12' WIDE MULTI-PURPOSE TRAIL WITH FITNESS STATIONS/SOLAR LIGHTING (APPROX. 1.2 MILES LENGTH AROUND PERIMETER OF PARK)
12' WIDE MULTI-PURPOSE TRAIL WITH FITNESS STATIONS/SOLAR LIGHTING (APPROX. 1.2 MILES LENGTH AROUND PERIMETER OF PARK)
2 ACRE DOG PARK MULTI-PURPOSE FIELD
TERRACED GRASS STEPS
NEW PARKING (100 spaces + 10 handicap)
LOOP TRAIL AROUND EXISTING PARK APPROXIMATELY 3/4 MILE
EQUIPMENT SHED
12 CIRCUIT TRAINING FITNESS STATIONS TO COMBAT YOUTH OBESITY
ADA RAMP
MULTI-PURPOSE FIELD 360'X160'
PICKLEBALL COURTS
PRE-FAB RESTROOM
CLUSTER OF SINGLE PICNIC SHELTERS
BALLFIELD MAINTENANCE AREA
PARKING 11 + 1HC
NOVA ROAD
NEW PARKING (330 spaces + 36 handicap)
MULTI-PURPOSE FIELD 360'X160'
NEW PARKING (50 spaces + 5 handicap)
CENTER/ GYM PARKING
CENTER/ GYM
CLUSTER OF SINGLE PICNIC SHELTERS
CLUSTER OF SINGLE PICNIC SHELTERS
MULTI-PURPOSE FIELD 360'X160'
SKATE PARK EXPANSION
SKATE PARK
INTERNAL TRAILS EQUAL APPROXIMATELY 1/3 MILE
ADDED LITTORAL VEGETATION AROUND POND
EXISTING STORMWATER POND
MULTI-PURPOSE FIELD 360'X160'
CLUSTER OF SINGLE PICNIC SHELTERS
PLAYGROUND
FULL SIZE BASKETBALL COURT
PARKING 12 + 2HC
PARKING 20 + 4HC
PARKING 10 SPACES
NEIGHBORHOOD ACCESS POINT
ADA RAMP ALONG TRAIL
MULTI-PURPOSE BASKETBALL COURT
RACQUETBALL COURTS (20' W x 40' L x 20' H)
12' WIDE MULTI-PURPOSE TRAIL WITH FITNESS STATIONS/SOLAR LIGHTING (APPROX. 1.2 MILES LENGTH AROUND PERIMETER OF PARK)

1 inch = 100 Ft
This plan may have been reduced in size. Verify before scaling dimensions.

120 SPACES RAP + GRASS PARKING

TranSystems

Conceptual Long Range Master Plan

hhi DESIGN

ISSUE DATE: January 30, 2013

Nova Community Park

Ormond Beach, FL

hhi DESIGN planning landscape architecture environmental graphics

Better Living by Design!

Name of Project **Nova Community Park - Ormond Beach, FL**
New Amenities at Abandoned Landfill site

Project #
Date
Prepared By CJ/GC

	ITEM	QTY	Units	Unit Cost	Subtotal Cost	Notes
Future Park Amenities						
1. Hardscape						
	New Parking @ Field 5 (110 spaces - 10 HC)	40,000	SF	$3.50	$140,000.00	
	Access Road along Northern Property	10,000	SF	$3.50	$35,000.00	
	New Parking @ Gym/ Skate (110 spaces - 10 HC)	42,000	SF	$3.50	$147,000.00	
	330 x 132					
				Subtotal	**$322,000.00**	
2. Site Furnishings						
	Circuit Training Cluster of Fitness Stations (12 stations)	1	LS	$75,000.00	$75,000.00	
	Fencing, Groundcover and Edging					
				Subtotal	**$75,000.00**	
3. Landscape						
	Palms	20	EA	$200.00	$4,000.00	
	Trees	15	EA	$450.00	$6,750.00	
	Irrigation	1	LS	$10,000.00	$10,000.00	
				Subtotal	**$20,750.00**	
				Grand Subtotal:	**$417,750.00**	
				20% Contingency:	**$83,550.00**	
				Engineering	**In-house**	
				Grand Total:	**$501,300.00**	

Notes
1.) All estimates based on HHI Design's Preliminary Conceptual Long Range Plan
2.) Estimate does not include site grading or stormwater.

STORMWATER IMPROVEMENTS

CAPITAL PROJECT DETAIL

PROJECT TITLE

Wilmette Avenue Pump Station

PROJECT#

107151

CATEGORY

Stormwater Improvements

FUND

107-Stormwater

PROJECT LOCATION

Laurel Creek at Wilmette Avenue

MANAGEMENT

Engineering

PROJECT SCOPE

Installation of two permanent pumps at Laurel Creek to provide pumping capability in preparation for storm events.

JUSTIFICATION

The Phase II FEMA Stormwater Improvements installed sluice gates at the four Laurel Creek culvert crossings of Wilmette Avenue along with intake and discharge piping and structures for the use of temporary rental pumps. This project expands upon the recommendations made by Camp Dreser and McKee (CDM) in their Stormwater Flooding Investigation Study following the May, 2009 storm. This project will install permanent pumps and eliminate the need for high cost rental pumps; this improvement will eliminate the need for a lead order time, delivery coordination, and setup that otherwise diverts staff time and resources that can be better utilized in the event of an impending storm.

PROJECT COST METHODOLOGY

Price Quotation from Xylem Technologies / Historic Bid Data

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Construction	171,600	0	0	0	0	171,600
Total	171,600	0	0	0	0	171,600

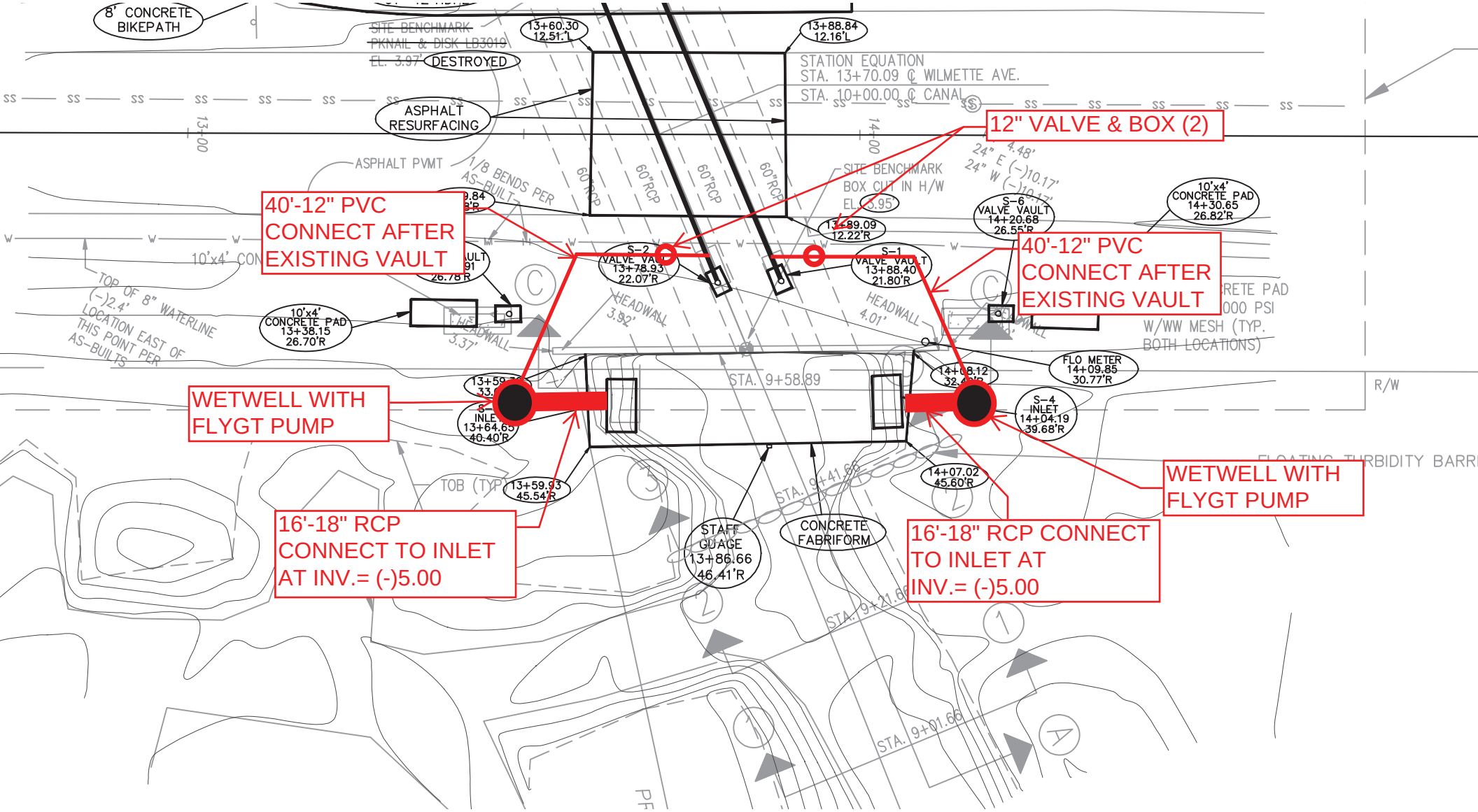
REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Stormwater Charges	171,600	0	0	0	0	171,600
Total	171,600	0	0	0	0	171,600

WILMETTE AVENUE PUMP STATION IMPROVEMENTS

			Qty	Unit Cost	
Site Preparation and Mlscallaneous					
101	Mobilization/Demobilization	LS	1		$ 14,180.16
102	Survev and Lavout	LS	1	$ 2,500.00	$ 2,500.00
103	Erosion and Sedimentation Control	LS	1	$ 3,000.00	$ 5,000.00
104	Sod and Surface Restoration	LS	1	$ 2,500.00	$ 2,500.00
105	Maintenance of Traffice / Temo. Traffic Controf)	LS	1	$ 3,500.00	$ 3,500.00
106	Submit Certified "As·Built" Drawings	LS	1	$ 2,500.00	$ 2,500.00
108	Site Grading	LS	1	$ 5,000.00	$ 5,000.00
Drainage Improvements					
201	Connect to Exlsting Inlet	EA	2	$ 3,894.81	$ 7,789.61
202	18 " RCP	LF	36	$ 82.00	$ 2,952.00
203	Furnish and Install FLYGT pup station with wetwell	EA	2	$ 45,000.00	$ 90,000.00
204	Install 12" PVC Discharge Line	LF	80	$ 155.00	$ 12,400.00
205	12" Gate Valve	EA	2	$ 2,830.00	$ 5,660.00
206	Connect to Existing 12" Discharge Line	EA	2	$ 1,000.00	$ 2,000.00
	TOTAL				**$ 155,981.77**
Engineering					
	Design (15%)				$ 23,397.27
	Construction Administration (10%)				$ 15,598.18
	Total Engineering				**$ 38,995.44**
	Total Costs				**$ 194,977.22**

Design	FY 2015/16	$ 23,400.00
Construction	FY 2016 / 17	$ 171,600.00

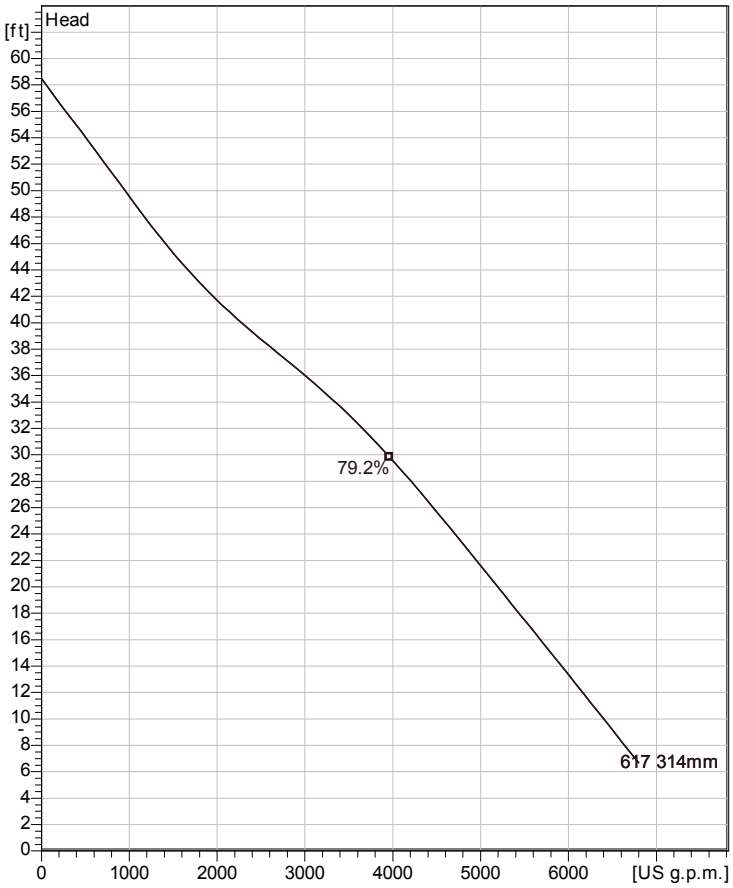
Wilmette Pump Station Modification



April, 2015
City of Ormond Beach Engineering Division

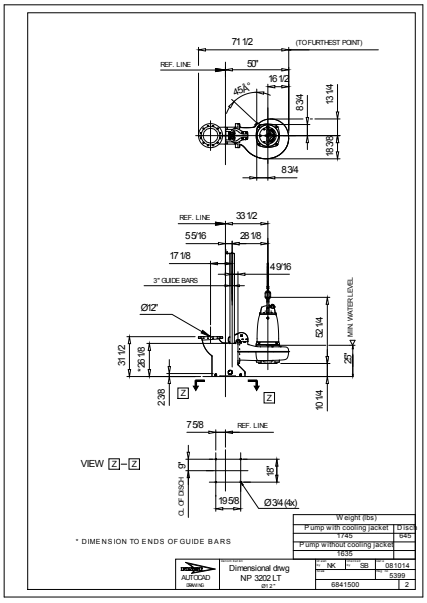
NP 3202 LT 3~ 617

Technical specification



Water, pure *Curve according to: ISO 9906 grade 2 annex 1 or 2*

Installation: P - Semi permanent, Wet



Note: Picture might not correspond to the current configuration.

General

Patented self cleaning semi-open channel impeller, ideal for pumping in waste water applications. Possible to be upgraded with Guide-pin® for even better clogging resistance. Modular based design with high adaptation grade.

Impeller

Impeller material	Grey cast iron
Discharge Flange Diameter	11 13/16 inch
Suction Flange Diameter	300 mm
Impeller diameter	314 mm
Number of blades	2

Motor

Motor #	N3202.180 30-23-6AA-W 45hp
Stator variant	1
Frequency	60 Hz
Rated voltage	460 V
Number of poles	6
Phases	3~
Rated power	45 hp
Rated current	55 A
Starting current	330 A
Rated speed	1170 rpm
Power factor	
1/1 Load	0.85
3/4 Load	0.82
1/2 Load	0.73
Efficiency	
1/1 Load	89.5 %
3/4 Load	90.0 %
1/2 Load	89.5 %

Configuration

Project	Project ID	Created by	Created on	Last update
			2015-02-10	

NP 3202 LT 3~ 617

Performance curve

Pump

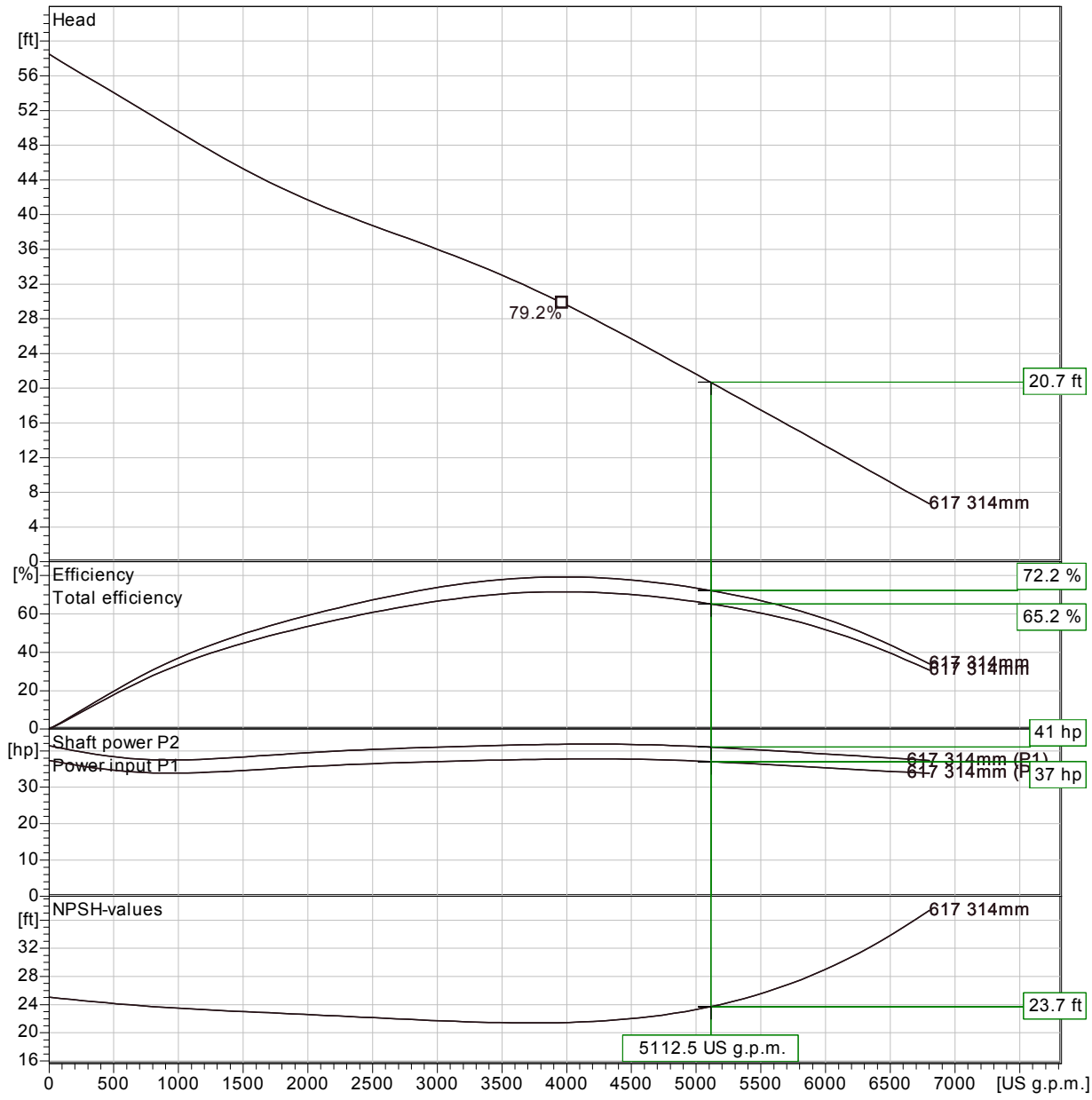
Discharge Flange Diameter	11 13/16 inch
Suction Flange Diameter	300 mm
Impeller diameter	12 3/8"
Number of blades	2

Motor

Motor #	N3202.180 30-23-6AA-W 45hp
Stator variant	1
Frequency	60 Hz
Rated voltage	460 V
Number of poles	6
Phases	3~
Rated power	45 hp
Rated current	55 A
Starting current	330 A
Rated speed	1170 rpm

Power factor	
1/1 Load	0.85
3/4 Load	0.82
1/2 Load	0.73

Efficiency	
1/1 Load	89.5 %
3/4 Load	90.0 %
1/2 Load	89.5 %



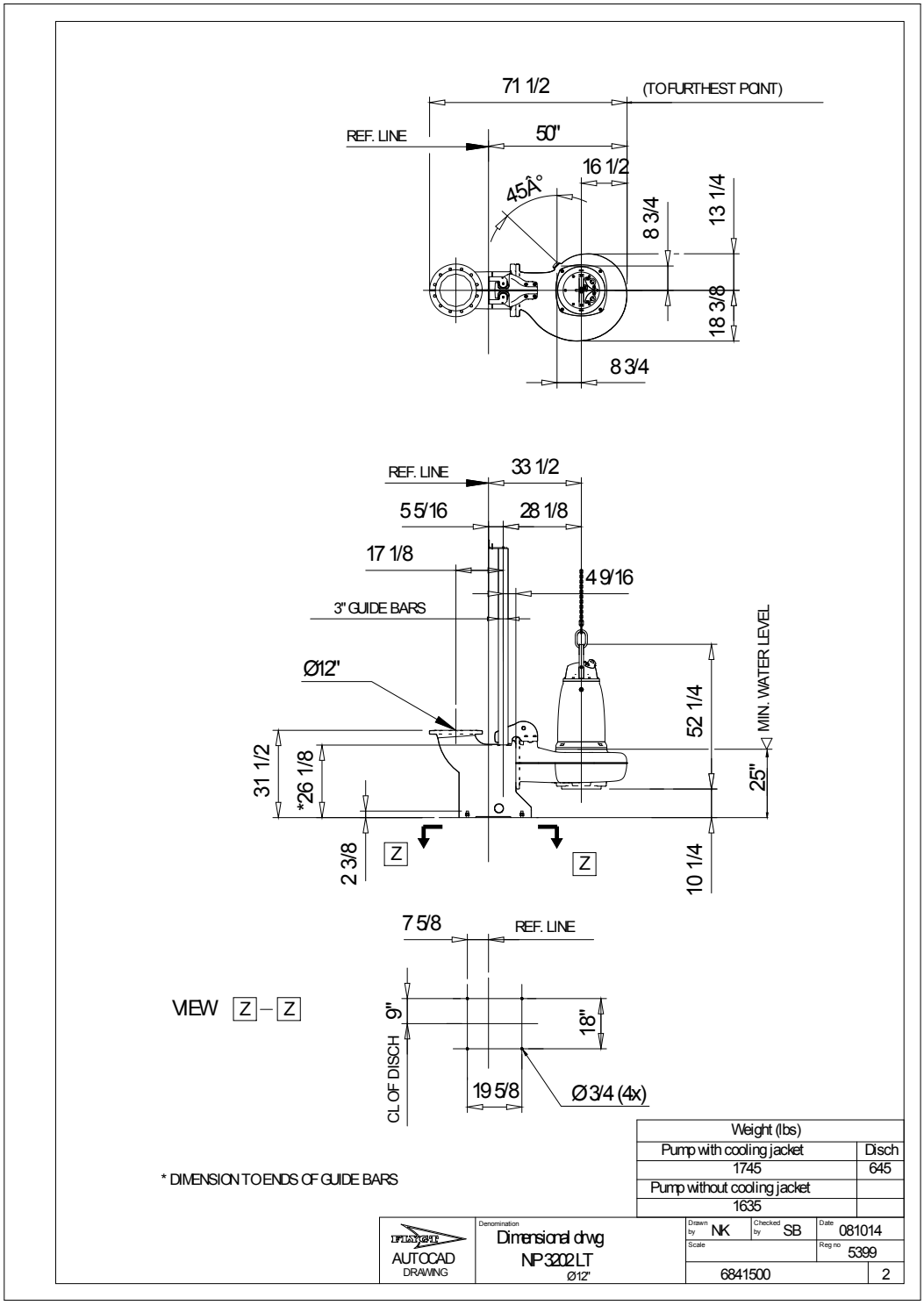
Water, pure

Curve according to: ISO 9906 grade 2 annex 1 or 2

Project	Project ID	Created by	Created on	Last update
			2015-02-10	

NP 3202 LT 3~ 617

Dimensional drawing



Project	Project ID	Created by	Created on	Last update
			2015-02-10	

XYLEM, INC (H-20 GP)

w/ BATTERY BACK-UP FOR AUDIO AND VISUAL ALARMS

SCOPE: Supply one complete H-20 LP Pre-Fab Lift Station, per design.

Pumps shall be capable of pumping domestic & commercial sewage.

Complete system shall be supplied by:

XYLEM, INC

NO SUBSTITUTIONS - NO ALTERNATES

The H-20 Load Rated Fiberglass Wetwell Must Be Manufactured By L.F. Manufacturing, Giddings, Texas, Which Includes A Written 20 Yr. Warranty

Certification of the wetwell H-20 load rating must be supplied with submittals. H-20 certification must be signed and sealed by an engineer registered in the State of Florida.

After the H-20 load rated wetwell has been installed, the ASTM Certification Number and Serial Tracking Number must be visible.

PUMPS: The submersible pumps shall be manufactured by Flygt Corporation. "The pumps shall be installed in the H-20 GP FRP wetwell utilizing a dual slide rail system. The pumps shall be capable of handling solids, fibrous materials, heavy sludge, and other matter typically found in wastewater. Major pump components shall be grey cast iron, ASTM A-48, Class 35B. The pump motor shall be NEMA B design and housed in an air-filled watertight chamber. The stator windings shall be insulated with moisture resistant Class H insulation by use of the trickle impregnation method. The motor shall be heat-shrink fit into the stator housing. The use of bolts, pins, or other fastening devices is not acceptable. The cable entry seal shall consist of a cylindrical elastomer grommet flanked by washers. Epoxies, silicones, or other sealing systems are not acceptable. Thermal switches set to open at 125 degrees C shall be embedded in the stator end coils to monitor the temperature of each phase winding. The motor horsepower shall be adequate so that the pump is non-overloading throughout the entire pump performance curve from shut-off through run-out.

The pump shall be provided with a dual mechanical seal. Both upper and lower seal assemblies shall consist of a stationary tungsten-carbide ring and a rotating tungsten-carbide ring. Other seal materials are not considered acceptable."

DUPLEX CONTROL PANEL:

Control panel shall be assembled and built by a TUV (UL508A CERTIFIED) manufacturing facility.

The Enclosure shall be NEMA 4X, minimum 30" high x 30" wide x 10" deep Fiberglass with padlockable draw latches.

The enclosure shall have external mounting feet to allow for wall mounting. All hardware shall be stainless steel.

The following components shall be mounted through the enclosure:
1- ea. Red Alarm Beacon (Light)
1- ea. Alarm Horn
1- ea. Generator Receptacle w/ weatherproof cover
1- ea. Alarm Silence Pushbutton

The backpanel shall be fabricated from .125, 5052-H32 marine alloy aluminum. All components shall be mounted by machined stainless steel screws.

The following components shall be mounted to backpanel:
2- ea. Motor Contactors
1- ea. Volt Monitor (Single Phase) Phase Monitor (Three Phase)
1- ea. Control Transformer (480 Volt Only)
1- ea. Silence Relay
1- ea. Duplex Alternator
1- ea. Model BOAC5AH Battery Back-Up w/ Smart Charger (Per DEP)
20- ea. Terminals For Field Connections
6- ea. Terminals For Motor Connections (Single Phase Only)
3- ea. Grounding Lugs

The innerdoor shall be fabricated from .080, 5052-H32 marine alloy aluminum. The innerdoor shall have a continuous aluminum piano hinge.

The following components shall be mounted through the innerdoor:
1- ea. Main Circuit Breaker
1- ea. Emergency Circuit Breaker
1- ea. Mechanical Interlock For Emergency And Main Breakers
2- ea. Short Circuit Protectors
1- ea. Control Circuit Breaker
1- ea. Hand-Off-Auto Selector Switches
2- ea. Pump Run Pilot Lights
1- ea. Power On Pilot Light
2- ea. Elapse Time Meters (Non-Resetable)
1- ea. GFI Duplex Convenience Outlet

COMPONENT SPECIFICATIONS:
All circuit breakers shall be molded thermal magnetic.
The mechanical interlock shall prevent the normal and emergency main breakers being energized at the same time.
An emergency generator receptacle shall be supplied in accordance with DEP standards. The generator receptacle shall be adequately sized to meet the equipment operating conditions.

NEUTRAL TO BE SUPPLIED FOR BOTH 230V 3PHASE OR 230V SINGLE PHASE POWER

All motor short circuit protection devices must provide for undervoltage release and class 10 overload protection on all three phases. Visable trip indication, test, and reset capability must be provided without opening inner door.
Open frame, across the line, contactors shall be rated per IEC standards and properly sized per the motor requirements.
Contactors shall provide for safe touch power and control terminals.
Lightning Arrestor shall meet or exceed the requirements of ANSI/IEEE Std. C62.21-1984 section 8.6.1. and 8.7.3 shall be supplied by electrician and mounted on the bottom side of the switch disconnect ahead of the pump control panel.
A voltage monitor shall be supplied for single phase service.
A phase monitor shall be supplied for (3) phase service.
A green pilot light shall be supplied for each motor. The pilot light shall illuminate each time the motor is called to run.
Each pump shall have an Elapse Time Meter to record the accumulated run time. The ETM shall be 2" diameter, non-resettable, six digit, totally encapsulated unit.
A Red pilot light shall be supplied for control power. The pilot light shall illuminate when the control power is available inside the control panel.
Relays shall be ice-cube plug in type. Relay contacts shall be rated 10 amp minimum, DPDT.
Twenty (20) terminals shall be supplied for field connections.
The terminals shall be rated 25 amps minimum.
Each motors over-temperature contact shall be connected to the terminal strip and shall open a contact to de-energize the appropriate motor upon a high temperature within the motor.
A 15 Amp GFI duplex receptacle shall be supplied and mounted on the innerdoor.
Ground lugs shall be supplied and appropriately sized for each motor and for service entrance.

Nameplates for the innerdoor and back panel shall be of a graphic design, specifically depicting the intent for each device.

MISCELLANEOUS: All wiring on the backpanel shall be containted within the wiring duct. All wiring between the innerdoor and the backpanel shall be contained with in a plastic spiral wrap.
Each wire shall have a wire number at each end to correspond to the as built drawing for field troubleshooting.
The control panel shall be assembled by a TUV (UL508A Certified) manufacturing facility.

PUMP DATA		ELEVATIONS	
PRIMARY PUMP CAPACITY	GPM	TOP OF WETWELL	
PRIMARY TDH	'TDH	INLET INVERT	
PUMP MANUFACTURER	FLYGT	HIGH LEVEL ALARM (HLA)	
PUMP MODEL #		2nd PUMP ON (LAG)	
R.P.M.		1st PUMP ON (LEAD)	
HORSEPOWER		PUMPS OFF (OFF)	
ELECTRICAL/ VOLTS / PHASE		BOTTOM OF WETWELL	
PUMP DISCHARGE SIZE		WETWELL DIAMETER	48"
IMPELLER CODE			

FASTNERS & APPURTANCES: All fasternes, lifting cables, float cable bracket, hinges, and appurtances shall be made of AISI 304SS.
A 304SS slide/latch assembly shall be provided for holding the doors open on the wetwell and valve box.
Slide rails shall be made of SCH.40 AISI 304SS pipe.
Pump lifting cables shall be made of AISI 304 SS.

H-20 LOAD RATED WETWELL WITH LIFTING LUGS:
The fiberglass wetwell must be H-20 load rated with integral lifting lugs, fiberglass slope in bottom of wetwell and valve box.
Certification of the H-20 load rating must be supplied at the time of submittals to Engineer.
The wetwell shall be manufactured of fiberglass reinforced polyester (FRP) of depth and diameter as shown on the lift station elevation detail. The wall thickness shall be adequate for the depth of the wetwell to maintain the H-20 LOAD RATING.

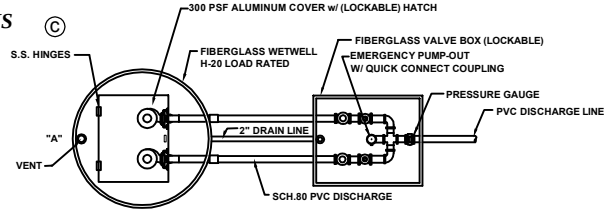
EXECUTION:
Installation shall be in strict accordance with the manufacturer's recommendations in the locations shown on the drawing.

INSPECTION & TESTING: A factory representative shall be provide for a one (1) time start-up and shall have complete knowledge of the proper operation and maintenance of complete system.
Megger the motors. The pump motors shall be megged out prior to the start-up to ensure that the insulation of the pump motor/cable is intact.
The pump controls and pumps shall be checked for mechanical reliability and proper operation.

*** ELECTRICIAN NOTES:**

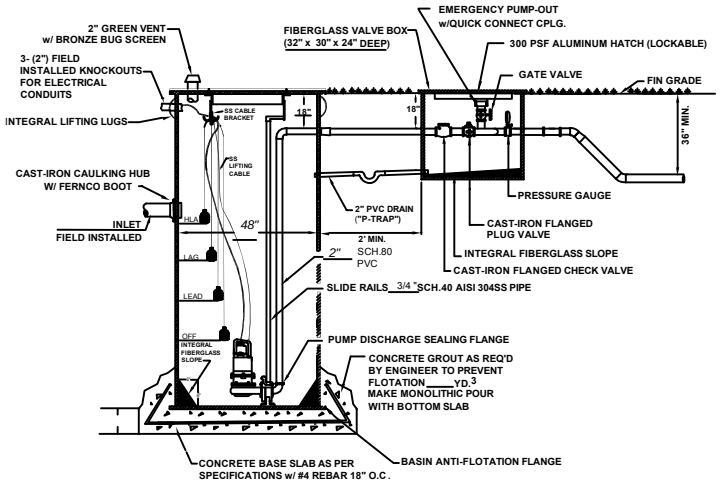
1. DRAWING NOT TO SCALE
* 2. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES
* 3. ELECTRICIAN SHALL SEAL OFF CONDUIT RUNS
* 4. ELECTRICIAN TO MOUNT LIGHTNING ARRESTOR AT SWITCH DISCONNECT
* 5. CONTRACTOR SHALL VERIFY POWER SOURCE PRIOR TO ORDERING EQUIPMENT
* 6. NEUTRAL TO BE SUPPLIED FOR 23OV-3 PHASE OR 230V-SINGLE PHASE POWER.

ITT FLYGT, LLC / H-20 LP 01-21-13

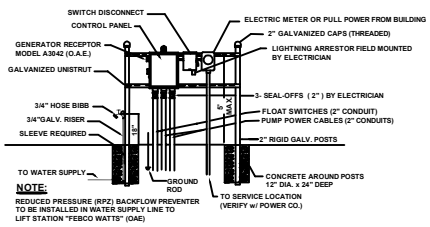


NOTE: PUMP CONTROL PANEL SHALL BE LOCATED 3 FEET MINIMUM FROM WETWELL PERIMETER AT POINT "A"

LIFT STATION PLAN



LIFT STATION SECTION



NOTE:
REDUCED PRESSURE (RPZ) BACKFLOW PREVENTER TO BE INSTALLED IN WATER SUPPLY LINE TO LIFT STATION "FEBCO WATTS" (OAE)

ELECTRICAL RISER

REVISIONS	BY

XYLEM, INC
Orlando.....407-880-2900
West Palm.....561-848-1200
Ft. Myers.....239-693-5228
Jacksonville.....239-825-8384
Miami.....305-621-0375

JOB NAME

DRAWN	
CHECKED	
DATE	
SCALE	
JOB NO.	

CAPITAL PROJECT DETAIL

PROJECT TITLE

Sandpiper Lane Drainage Improvement

PROJECT#

107155

CATEGORY

Stormwater Improvements

FUND

107-Stormwater

PROJECT LOCATION

Sandpiper Lane

MANAGEMENT

Engineering

PROJECT SCOPE

Drainage improvements

JUSTIFICATION

Perform improvements to eliminate drainage from accumulated between properties located on Sandpiper Lane.

PROJECT COST METHODOLOGY

Previous similar project costs

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Drainage Improvements	50,600	0	0	0	0	50,600
Total	50,600	0	0	0	0	50,600

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Stormwater Charges	50,600	0	0	0	0	50,600
Total	50,600	0	0	0	0	50,600

50 Sandpiper Lane Proposed Stormdrain Improvements
Probable Cost
7/12/2016

Item #	Item Description	QTY	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	$ 20,000.00	$3,000.00
2	Maintenance of Traffic	1	LS	$ 2,500.00	$2,500.00
3	Remove Existing Stormdrain	1	LS	$ 1,500.00	$1,500.00
4	Clearing	1	LS	$ 3,000.00	$3,000.00
5	Dewatering	1	LS	$ 10,000.00	$10,000.00
6	Silt Fence & Erosion Control	1	LS	$ 1,500.00	$1,500.00
7	Stormdrain Manhole	1	EA	$ 4,500.00	$4,500.00
8	Type "C" catch basin	2	EA	$ 2,500.00	$5,000.00
9	15-inch RCP stormdrain	110	LF	$ 40.00	$4,400.00
10	15-inch under-drain	145	LF	$ 60.00	$8,700.00
11	Connect to Existing Stormdrain	2	EA	$ 1,500.00	$3,000.00
12	Restoration	1	LS	$ 2,000.00	$2,000.00
13	Survey & As-Builts	1	LS	$ 1,500.00	$1,500.00

TOTAL= $50,600.00

50 Sandpiper Lane Proposed Stormdrain Improvements

CAPITAL PROJECT DETAIL

PROJECT TITLE

Fleming Ave Stormdrain Improvements

PROJECT#

107153

CATEGORY

Stormwater Improvements

FUND

107-Stormwater

PROJECT LOCATION

Fleming Ave-Bryant St to Fairview Ln

MANAGEMENT

Engineering

PROJECT SCOPE

Perform detailed stormwater drainage analysis including hydraulic modeling and preliminary design for project recommendations for future construction improvements to the stormdrain system.

JUSTIFICATION

Frequent flooding occurs along Fleming Avenue and water ponds in areas of the street for prolonged time after heavy rainfall events due to constraints with the Hickory Village Subdivision stormwater pond. Interconnection of this drainage system to the Laurel Oaks pond and the recently interconnected Central Park Lakes is a consideration but will need to be modeled to ensure adverse impacts do not occur.

PROJECT COST METHODOLOGY

Previous similar project costs

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Construction	220,000	0	0	0	0	220,000
Total	220,000	0	0	0	0	220,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Stormwater Charges	220,000	0	0	0	0	220,000
Total	220,000	0	0	0	0	220,000

FLEMING AVE
STORMWATER
DRAINAGE STUDY
AREA- BRYANT ST
to FAIRVIEW LN
Pinehurst Cir
Broadmoor Cir
Hickory Hills Cir
Brooke Station Dr
Tara Pl
Charleston Sq
Stratford Pl
Holly St
Woodgate Cir
Victoria Circle Ln
Laurel Oaks Cir
Lakeview Cir
Fleming Ave
Greenfern Cir
Laurel Dr
Bryant St
Collins St
Carson Dr
Aaron Cir
Thomas St
Ina St
Parkview Dr
Santa Ana St
Johnson Dr
Arroyo Pkwy
Calle Grande St
Dunks St
bing
esri

CAPITAL PROJECT DETAIL

PROJECT TITLE

Corrugated Metal Pipe Rehabilitation

PROJECT#

107154

CATEGORY

Stormwater Improvements

FUND

107-Stormwater

PROJECT LOCATION

Stormwater Service Areas

MANAGEMENT

Engineering

PROJECT SCOPE

Rehabilitation of existing corrugated metal storm piping throughout the City that has been identified as failing due to corrosion and age.

JUSTIFICATION

Much of the City's older stormwater piping, which was installed in excess of 20 years ago, was constructed with corrugated metal piping. This piping has surpassed its design life expectancy and in many areas of the City has significantly corroded, especially along the river outfalls. Rainfall runoff from previous hurricanes resulted in increased flows and debris being conveyed through these pipes which also significantly contributed to the pipe's deterioration. In order to reduce impacts to roads and the public, this project intends to rehabilitate the storm pipes utilizing no-dig slip lining technology where applicable. In cases where the corrosion is extensive, slip lining may not be feasible and the piping will need to be replaced utilizing standard open-cut construction. The majority of these pipe sections are along the Halifax River outfall pipes on both the mainland and the peninsula.

PROJECT COST METHODOLOGY

Estimate has been based on unit pricing for cured in place PVC lining as obtained from Miller Pipe Lining and other recent quotations for lining projects.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
FY 2016-17 Construction	250,000	0	0	0	0	250,000
FY 2017-18 Construction	0	250,000	0	0	0	250,000
FY 2018-19 Construction	0	0	250,000	0	0	250,000
FY 2019-20 Construction	0	0	0	250,000	0	250,000
FY 2020-21	0	0	0	0	250,000	250,000
Total	250,000	250,000	250,000	250,000	250,000	1,250,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Stormwater Charges	250,000	250,000	250,000	250,000	250,000	1,250,000
Total	250,000	250,000	250,000	250,000	250,000	1,250,000

NOTE: List subject to change based upon revised urgency.

FY 16-17

LOCATION	Size (in)	Length (ft)	Replaced With	Unit Price	Probable Construction Cost
Ormond Parkway	36	30	PVC liner	$ 160.00	$ 4,800.00
Ormond Parkway	36	205	PVC liner	$ 160.00	$ 32,800.00
Ormond Parkway	24	20	PVC liner	*	$ 3,000.00
Ormond Parkway	24	15	PVC liner	*	$ 3,000.00
Ormond Parkway	18	15	PVC liner	*	$ 3,000.00
Ormond Parkway	18	20	PVC liner	*	$ 3,000.00
Tomoka Ave	30	135	PVC liner	$ 135.00	$ 18,225.00
Tomoka Ave	30	85	PVC liner	$ 135.00	$ 11,475.00
Tomoka Ave	30	350	PVC liner	$ 135.00	$ 47,250.00
Tomoka Ave	30	200	PVC liner	$ 135.00	$ 27,000.00
Tomoka Ave	30	445	PVC liner	$ 135.00	$ 60,075.00
Tomoka Ave	15	27	PVC liner	*	$ 3,000.00
Tomoka Ave	24	54	PVC liner	$ 100.00	$ 5,400.00
Tomoka Ave	12	14	PVC liner	*	$ 3,000.00
Tomoka Ave	12	13	PVC liner	*	$ 3,000.00
Tomoka Ave	12	37	PVC liner	*	$ 3,000.00
Tomoka Ave	12	17	PVC liner	*	$ 3,000.00

**Short Pipe Run Minimum Cost*

TOTAL= 1,682

TOTAL= $ 234,025.00

FY 17-18

LOCATION	Size (in)	Length (ft)	Replaced With	Unit Price	Probable Construction Cost
Ormond Parkway	38x48	380	PVC liner	$ 240.00	$ 91,200.00
Ormond Parkway (outfall)	38x48	340	PVC liner	$ 240.00	$ 81,600.00
Oak Forest Drive North	18	350	PVC liner	$ 70.00	$ 24,500.00
Oak Forest Drive North	24	75	PVC liner	$ 100.00	$ 7,500.00
Oak Forest Drive North Outfall (1537)	30	165	PVC Liner	$ 135.00	$ 22,275.00
	TOTAL=	1,310			
				TOTAL=	**$ 227,075.00**

FY 18-19

LOCATION	Size (in)	Length (ft)	Replaced With	Unit Price	Probable Construction Cost
Avenue La Vista, N. Beach St Crossing (+)	30	185	PVC liner	$ 135.00	$ 24,975.00
Santa Lucia Ave., N. Beach to Oak Forest Dr	30	368	PVC liner	$ 135.00	$ 49,680.00
Wimbledon Ct	12	98	PVC liner	$ 36.00	$ 3,528.00
Sanchez Ave Outfall/ N. Beach St	24	520	PVC liner	$ 100.00	$ 52,000.00
Ormond Shores Dr Outfall	36	340	PVC liner	$ 160.00	$ 54,400.00
Ormond Shores Dr at Riverside Dr	30	80	PVC liner	$ 135.00	$ 10,800.00
Riverside Drive Outfall (886)	36	330	PVC liner	$ 160.00	$ 52,800.00
	TOTAL=	1,921			
				TOTAL=	**$ 248,183.00**

FY 19-20

LOCATION	Size (in)	Length (ft)	Replaced With	Unit Price	Probable Construction Cost
Riverside Drive Outfall (776)	30	315	PVC liner	$ 135.00	$ 42,525.00
Riverside-Loyola Dr	30	310	PVC liner	$ 135.00	$ 41,850.00
Riverside Drive Outfall (676)	24	300	PVC liner	$ 100.00	$ 30,000.00
Riverside Drive Outfall (602)	12	420	PVC liner	$ 36.00	$ 15,120.00
Riverside Dr-Pleasant Dr	12	80	PVC liner	$ 36.00	$ 2,880.00
Harvard Dr	24	410	PVC liner	$ 100.00	$ 41,000.00
Harvard Dr (Marvin Rd)	18	47	PVC liner	$ 70.00	$ 3,290.00
Harvard Dr (Marvin Rd)	24	41	PVC liner	$ 100.00	$ 4,100.00
Harvard Dr (Marvin Rd)	15	40	PVC liner	*	$ 3,000.00
Harvard Dr (Marvin Rd)	15	43	PVC liner	*	$ 3,000.00
Harvard Dr (Marvin Rd)	15	39	PVC liner	*	$ 3,000.00
Harvard Dr (Marvin Rd)	15	43	PVC liner	*	$ 3,000.00
Harvard Dr	36	272	PVC liner	$ 160.00	$ 43,520.00
Harvard Dr (Loyola Dr)	15	40	PVC liner	*	$ 3,000.00
Harvard Dr (Loyola Dr)	15	37	PVC liner	*	$ 3,000.00
Harvard Dr (Loyola Dr)	15	41	PVC liner	*	$ 3,000.00
Harvard Dr (Loyola Dr)	15	39	PVC liner	*	$ 3,000.00

**Short Pipe Run Minimum Cost*

TOTAL= 2,517

TOTAL= $ 248,285.00

FY 20-21

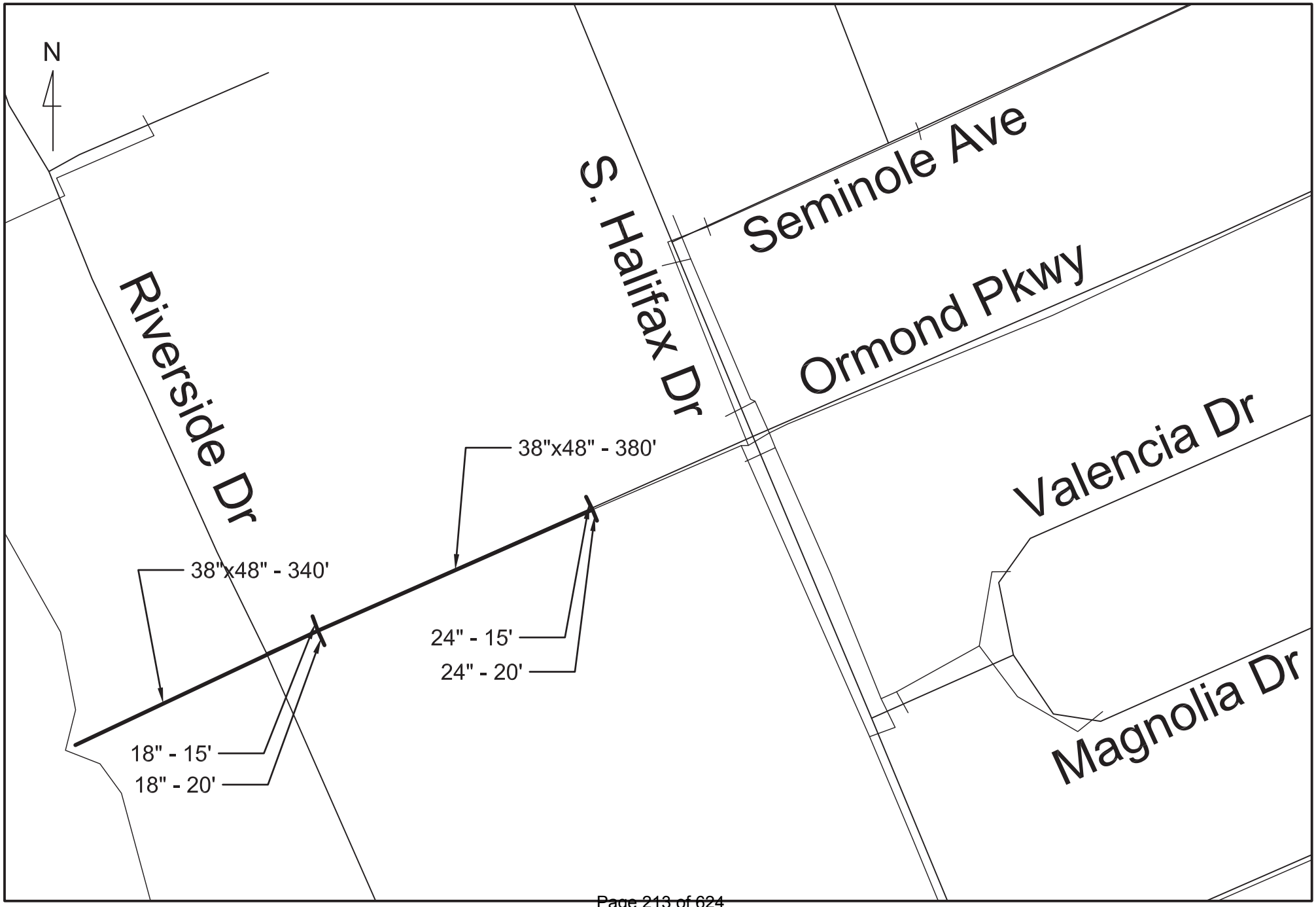
LOCATION	Size (in)	Length (ft)	Replaced With	Unit Price	Probable Construction Cost
Harvard Dr	36	255	PVC liner	$ 160.00	$ 40,800.00
Harvard Dr (Ivanhoe Dr)	15	54	PVC liner	*	$ 3,000.00
Harvard Dr (Ivanhoe Dr)	15	30	PVC liner	*	$ 3,000.00
Harvard Dr (Oleander Ave)	15	29	PVC liner	*	$ 3,000.00
Harvard Dr (Oleander Ave)	15	56	PVC liner	*	$ 3,000.00
Harvard Dr	36	320	PVC liner	$ 160.00	$ 51,200.00
Harvard Dr	36	538	PVC liner	$ 160.00	$ 86,080.00
Harvard Dr (Princeton Ave)	15	35	PVC liner	*	$ 3,000.00
Harvard Dr (Princeton Ave)	15	26	PVC liner	*	$ 3,000.00
Harvard Dr (Princeton Ave)	15	29	PVC liner	*	$ 3,000.00
Harvard Dr (Stanford Ave)	15	19	PVC liner	*	$ 3,000.00
Harvard Dr (Stanford Ave)	15	40	PVC liner	*	$ 3,000.00
Harvard Dr (Stanford Ave)	15	35	PVC liner	*	$ 3,000.00
Harvard Dr	36	275	PVC liner	$ 160.00	$ 44,000.00

**Short Pipe Run Minimum Cost*

TOTAL= 1,741

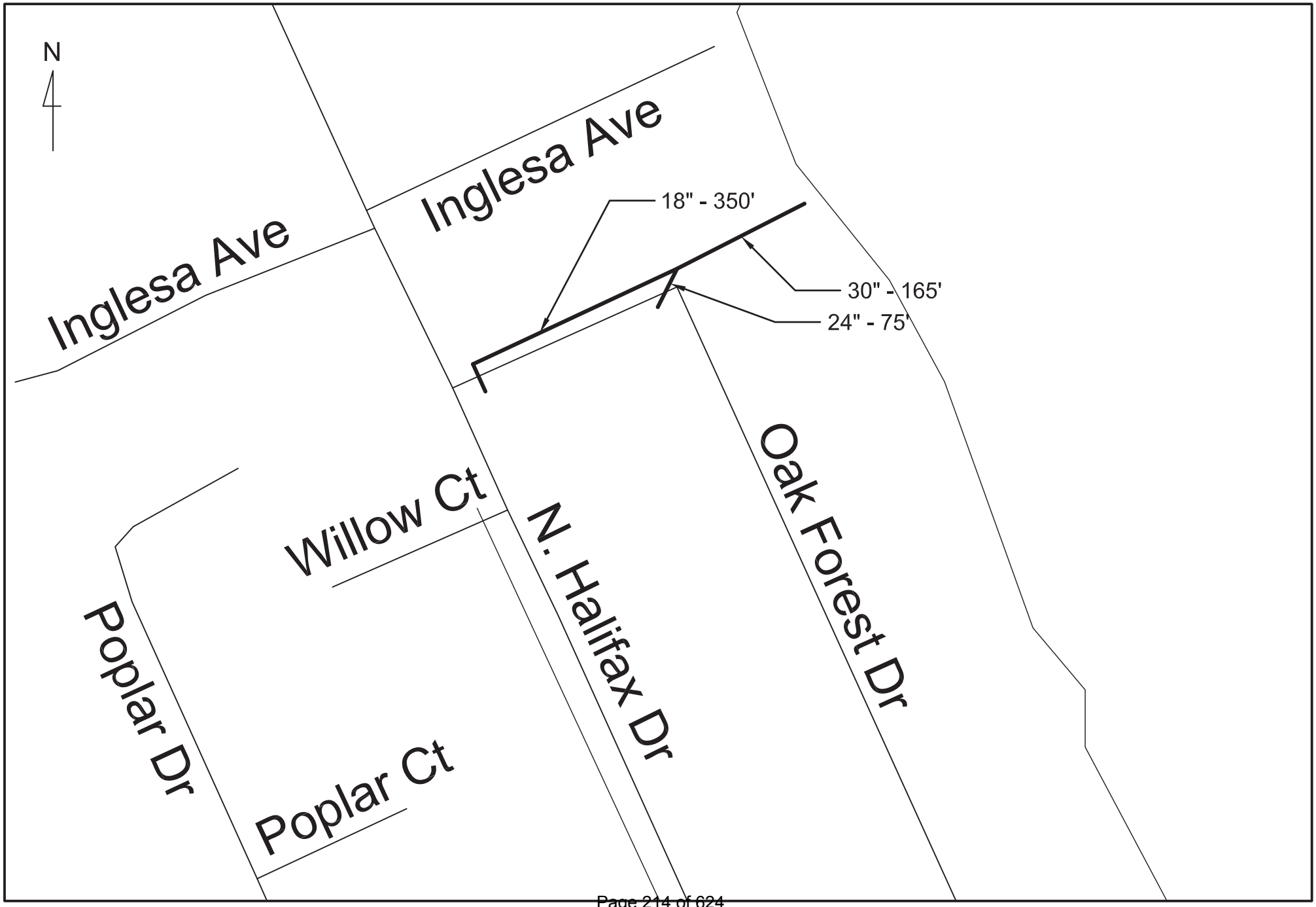
TOTAL= $ 252,080.00

STORM WATER PIPE REHABILITATION: FY 16-17



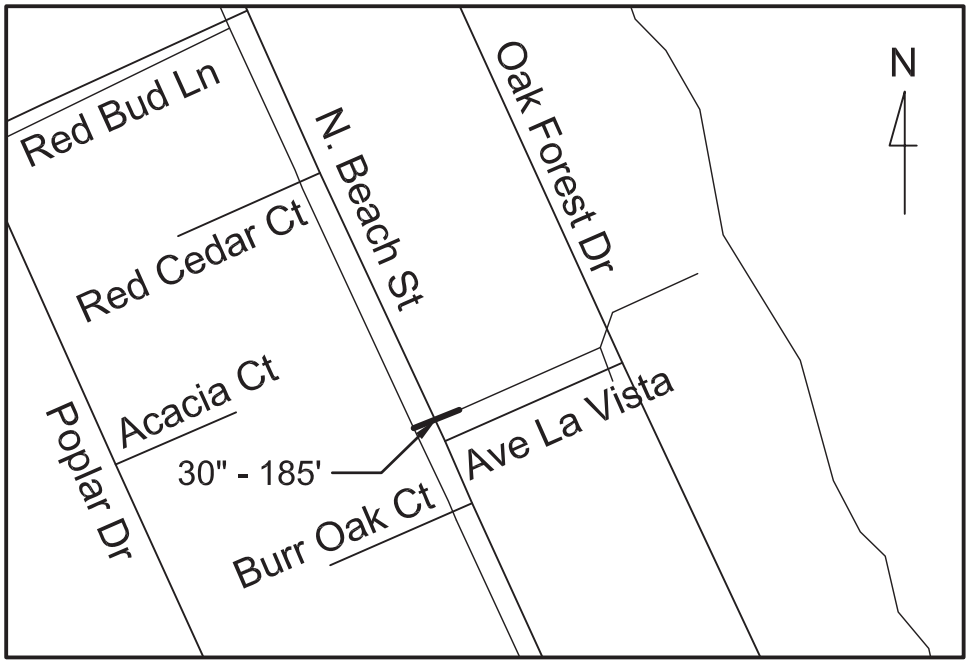
SHEET 1 OF 2

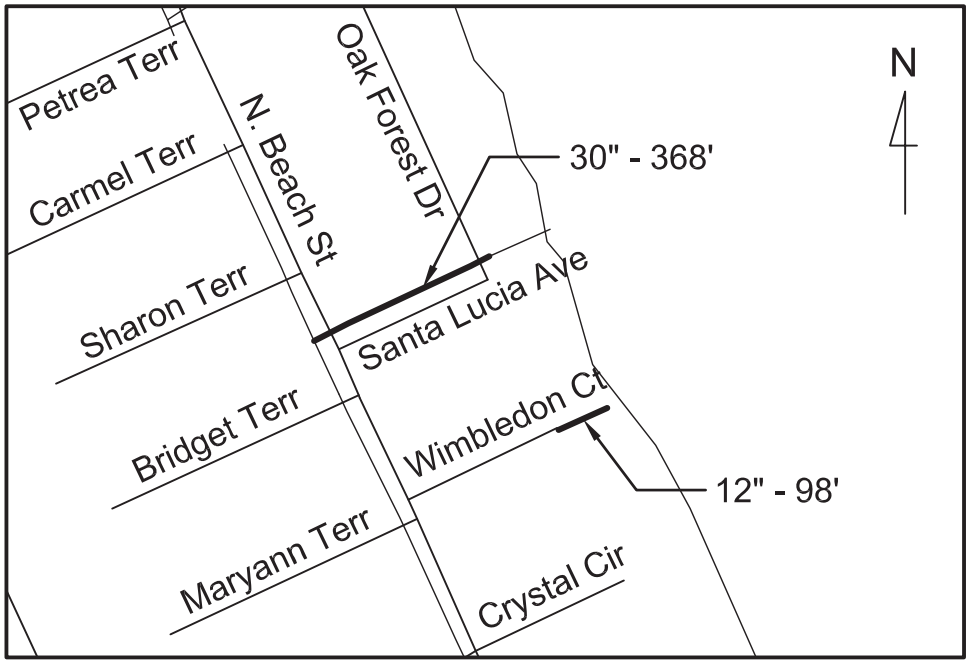
STORM WATER PIPE REHABILITATION: FY 16-17

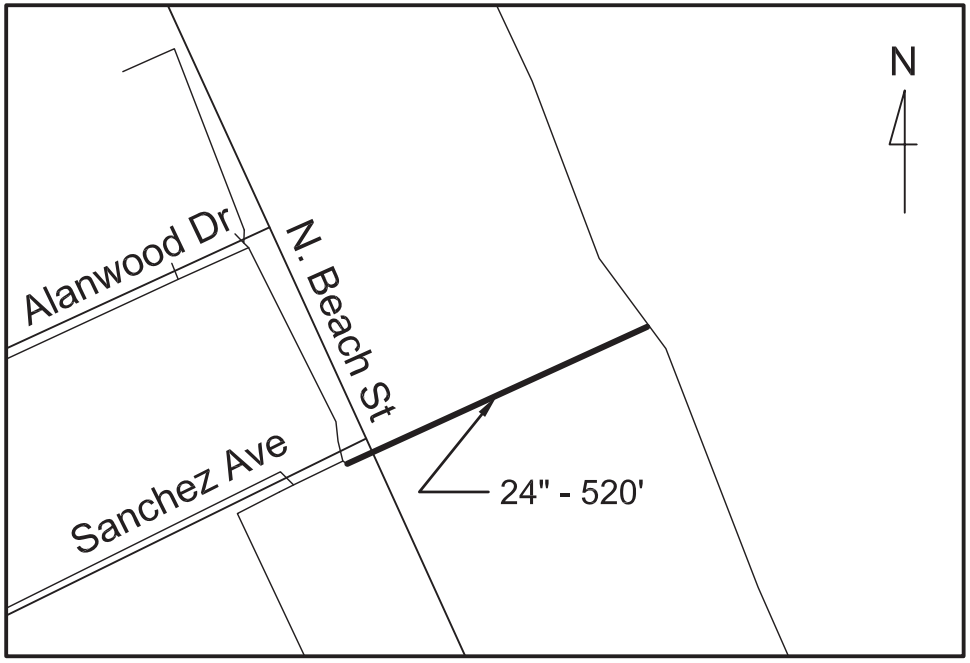


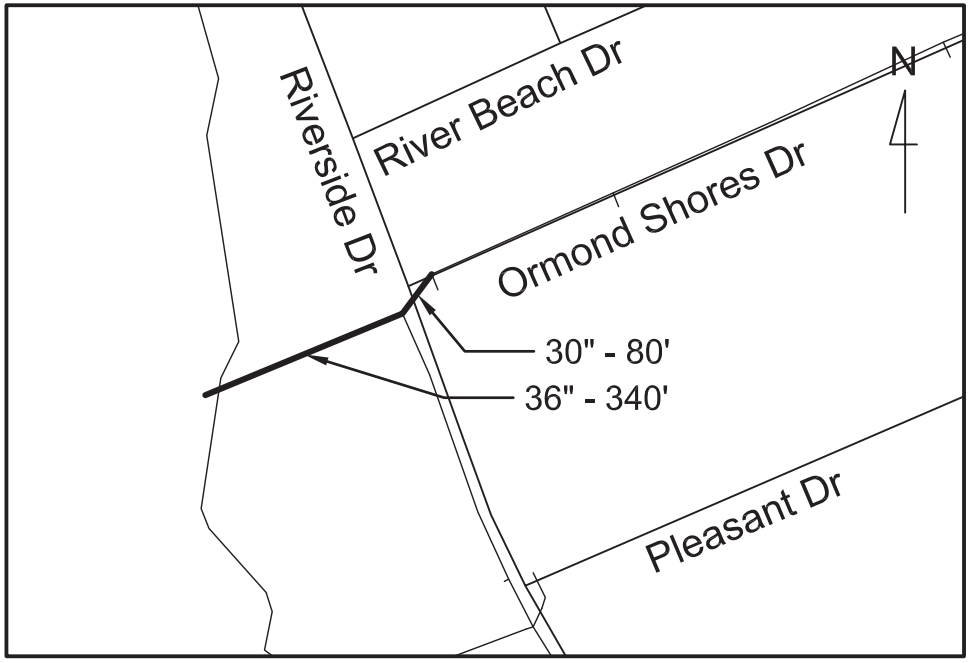
SHEET 2 OF 2

STORM WATER PIPE REHABILITATION: FY 17-18



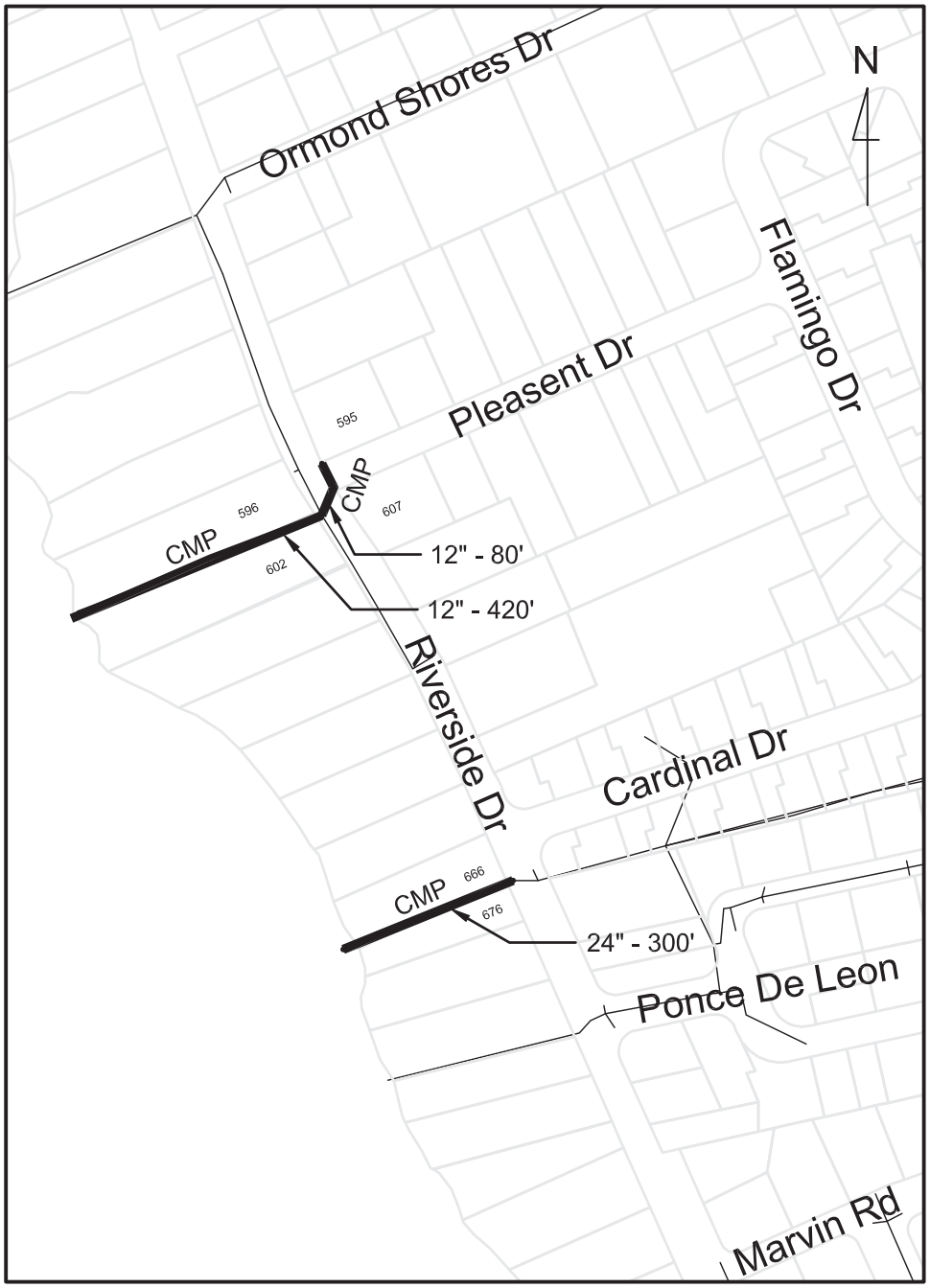


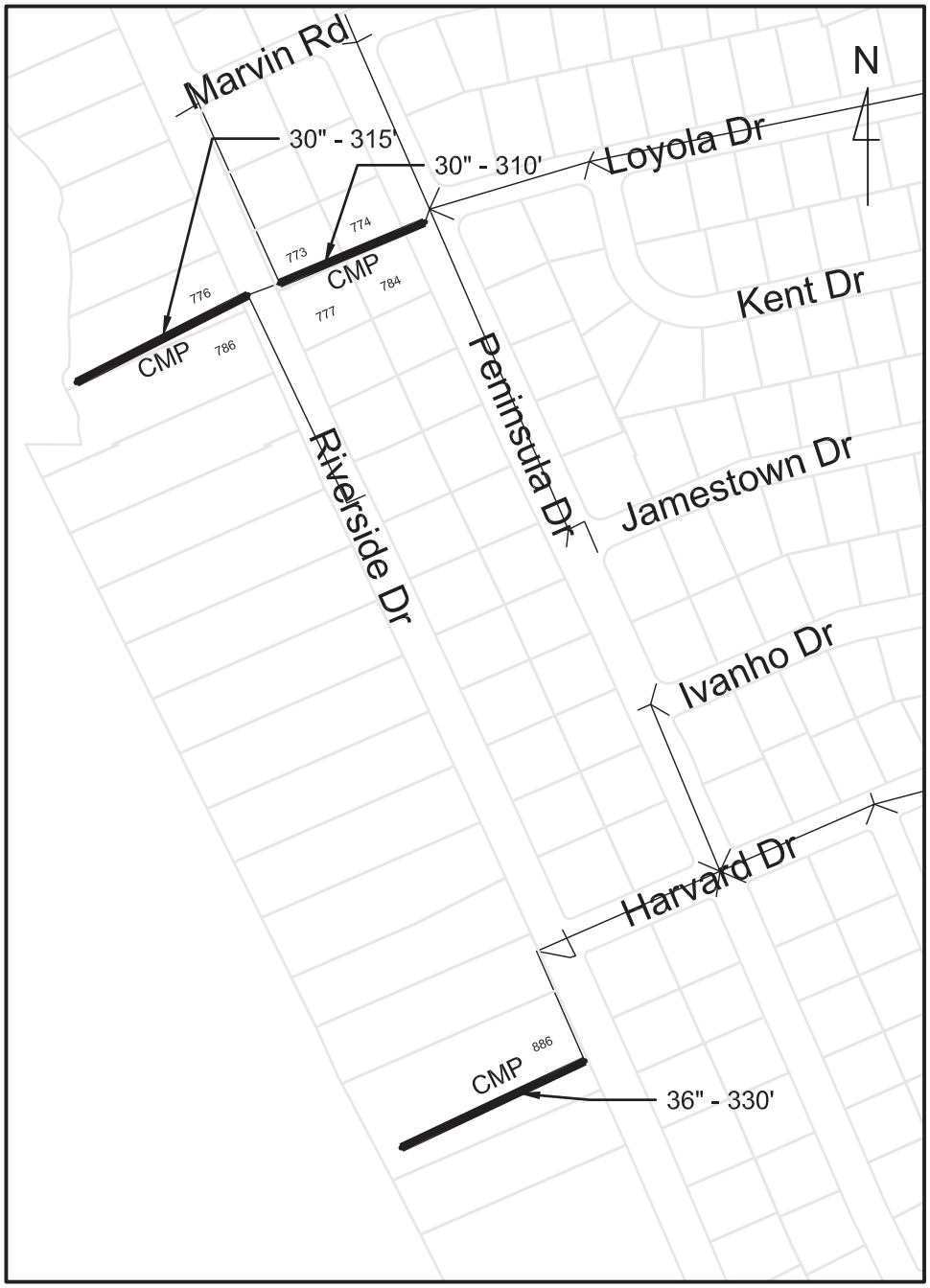




SHEET 1 OF 1

STORM WATER PIPE REHABILITATION: FY 18-19





SHEET 1 OF 1

TECHNOLOGY IMPROVEMENTS

CAPITAL PROJECT DETAIL

PROJECT TITLE

P25 Compliant Radios

PROJECT#

301215

CATEGORY

Technology

FUND

301-General Improvement Fund

PROJECT LOCATION

Various

MANAGEMENT

Police

PROJECT SCOPE

Purchase 232 radios: M7300 radios (106), XG-75 radios (120), XG-25P radios (6).

JUSTIFICATION

The FCC initially mandated that all public safety and first responders upgrade their radio systems to become P25 compliant by December 2012. Due to budget constraints of local governments, the deadline has been extended to December 2018. P25 was mandated by the FCC to decrease radio bandwidth voice channels from 15 kHz to 12.5 kHz thereby increasing the availability of public channels for all municipal government and public safety systems to use.

PROJECT COST METHODOLOGY

Quotes from current vendor.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
M7300	0	451,430	0	0	0	451,430
XG-25P Radios	0	366,650	0	0	0	366,650
XG-75 Radios	0	12,854	0	0	0	12,854
Total	0	830,934	0	0	0	830,934

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Equipment Financing	0	830,934	0	0	0	830,934
Total	0	830,934	0	0	0	830,934

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QUOTATION

Page	1/2
Date	4/8/2015
Quote Number	QTE1500807

Bill To	City of Ormond Beach Accounts Payable P.O. Box 277 Ormond Beach, FL, 32175-0277 USA
Site	Ormond Beach, City of - Public Works Accounts Payable P.O. Box 277 Ormond Beach, FL, 32175-0277 USA
Contact	Voice: Fax:

Site Number	Description	Salesperson	Reference
ORM100PW	XG25P Scan Portable Radios	Grayson, Garin L.	Capital Improvement Quote

Description	Qty	Unit	Sale Price	Total
XG25P Portable Radio Package For Public Works - Pricing per Harris MBP-15923 and is valid through December 31, 2018.				
DPXGPB78B - Portable,XG-25P,764-870MHz,Scan The below zero dollar features and accessories are included with the package purchase.	6	Each	2,142.40	12,854.40
DPPL3R - Feature,Maximum (1024+) System/Groups	6	Each	0.00	0.00
DPPL4F - Feature,P25 Phase 2, TDMA	6	Each	0.00	0.00
DPPRO - Feature, Provoice	6	Each	0.00	0.00
DPP25ED - Feature Package, P25 Trunking & EDACS	6	Each	0.00	0.00
DPPA3R - Battery, Li-Ion, 2400 mAh	6	Each	0.00	0.00
DPPA3R - Battery, Li-Ion, 2400 mAh - One batter is included with the package. Customer requested extra battery quoted.	6	Each	57.60	345.60
DPNC5X - Antenna,764-870MHz,1/4 Wave Whip	6	Each	0.00	0.00
DPHC7P - Belt Clip,Metal	6	Each	0.00	0.00
DPCH4G - Charger,Single Bay,Tri-Chemestry,XG-25P	6	Each	0.00	0.00
FM014712 - Cover, UDC Weather Proof, P5300/P5400	6	Each	0.00	0.00
DPPL7G - FEATURE, ESK/P25 PERSONALITY LOCK	6	Each	0.00	0.00
DPPL5K - Feature,ProFile OTAP	6	Each	0.00	0.00

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Description	Qty	Unit	Sale Price	Total
Terminal Trade-in Program - Trade in program is one for one on the purchase of a new radio. Traded radio can either be a portable or mobile and must be funcitional on the 800 MHz system.	(6)	EA	(195.00)	(1,170.00)
8 Year Extended Warranty Purchase of an optional 8 year extended warranty for a total of 10 years of coverage per portable radio. **Please see extended warranty flyer or contact a Ci representative for details.	6	Each	864.00	5,184.00
Program, Portable Scan	6	Each	42.00	252.00
Shipping and Handling - Shipping and handling is based upon quantity ordered and subject to change. - Allow 8 -10 weeks delivery ARO.	1	Each	50.00	50.00
			Subtotal:	17,516.00

Prices quoted are valid for (30) Days from Document Date.
Orders may be subject to shipping & handling charges.
All warranties are manufacture's warranties.

Plus Tax	0.00
Total Due (USD)	17,516.00

By signing this Quotation and/or submitting a purchase order pursuant to this Quotation you acknowledge that you have read and agree to be bound by Communications Int'l. Inc.'s Terms and Conditions of Sale Service and Technical Support.

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QUOTATION

Page	1/2
Date	4/8/2015
Quote Number	QTE1500815

Bill To	City of Ormond Beach Accounts Payable P.O. Box 277 Ormond Beach, FL, 32175-0277 USA

Site	City of Ormond Beach - Police Department Accounts Payable P.O. Box 277 Ormond Beach, FL, 32175-0277 USA
Contact	Voice: Fax:

Site Number	Description	Salesperson	Reference
ORM100PD	XG75P Scan Portable	Grayson, Garin L.	Capital Improvement Quote

Description	Qty	Unit	Sale Price	Total
XG75P Scan Portable Package for Police Dept. - Pricing Per Harris MBP-15923 and is valid through December 31. 2018.				
EVXGPB78B - Portable XG-75, 764-870 MHz, Scan, Black - The below zero dollar software and accessories are provided with the package purchase.	87	Each	3,330.41	289,745.67
MAEVNPL3R - Feature, Maximum (1024+) Systems/Groups	87	Each	0.00	0.00
EVXGNPL4F - Feature Package, P25 PHASE 2 TDMA	87	Each	0.00	0.00
EVPRO - Feature, Provoice	87	Each	0.00	0.00
EVP25ED - FEATURE PACKAGE,P25 TRUNKING & EDACS	87	Each	0.00	0.00
EVPA3R - Battery,Li-Ion,2400mAH	87	Each	0.00	0.00
EVPA3R - Battery,Li-Ion,2400mAH - One battery is included with the package. Customer requested extra battery quoted.	87	Each	57.60	5,011.20
MAEVNNC5X - Antenna, 764-870 MHz, 1/4 Wave Whip (KRE10115062)	87	Each	0.00	0.00
MAEVNHC2G - Belt Clip, Standard (CC23894)	87	Each	0.00	0.00
MAEVNCH9T - `Charger, Single, Tri-Chemistry (CH104560007)	87	Each	0.00	0.00
FM014712 - Cover, UDC Weather Proof, P5300/P5400	87	Each	0.00	0.00
MAEVNPL7G - Feature,ESK/P25 Personality Lock	87	Each	0.00	0.00

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QUOTATION

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Date	4/8/2015
Quote Number	QTE1500815

Description	Qty	Unit	Sale Price	Total
MAEVPKG8F - Feature, Encryption (includes 256-B AES Encryption for P25 T	87	Each	0.00	0.00
MAEVNPL5K - Feature, Profile OTAP Over the Air Programming	87	Each	0.00	0.00
V2S2ER12111 - Storm Speaker Mic, P5300/P5400	87	Each	108.12	9,406.44
Terminal Trade-in Program - Trade in is one for one on the purchase of a new radio. Traded radio can be either mobile or portable, but must be a functioning radio on the 800MHz system.	(87)	EA	(195.00)	(16,965.00)
8 Year Extended Warranty Purchase of an optional 8 year extended warranty for a total of 10 years of coverage per portable radio. **Please see extended warranty flyer or contact a Ci representative for details.	87	Each	864.00	75,168.00
Program, Portable Scan	87	Each	42.00	3,654.00
Shipping and Handling - Shipping and handling is based upon quantity ordered and is subject to change. - Please allow 8 - 10 weeks delivery ARO.	1	Each	250.00	250.00
			Subtotal:	366,270.31

Prices quoted are valid for (30) Days from Document Date.
Orders may be subject to shipping & handling charges.
All warranties are manufacture's warranties.

Plus Tax	0.00
Total Due (USD)	366,270.31

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QUOTATION

Page	1/2
Date	4/8/2015
Quote Number	QTE1500818

Bill To	City of Ormond Beach Accounts Payable P.O. Box 277 Ormond Beach, FL, 32175-0277 USA
Site	City of Ormond Beach - Police Department Accounts Payable P.O. Box 277 Ormond Beach, FL, 32175-0277 USA
Contact	Voice: Fax:

Site Number	Description	Salesperson	Reference
ORM100PD	XG75M/M7300 Scan Mobile Packag	Grayson, Garin L.	Capital Improvement Quote

Description	Qty	Unit	Sale Price	Total
XG75M/M7300 Scan Mobile Package for Police Vehicles				
- Pricing Per Harris MBP-15923 and is valid through December 31, 2018.				
MAMWSDMXX - Mobile,M7300, 764-870 MHz, Half Duplex, Unencrypted software and standard accessories are included in the package purchase as indicated by zero dollar items.	81	Each	4,254.81	344,639.61
MWP25ED - FEATURE PACKAGE,P25 TRUNKING & EDACS	81	Each	0.00	0.00
MWPRO - Feature, Provoice	81	Each	0.00	0.00
MWPL4F - Feature, P25 Phase 2, TDMA	81	Each	0.00	0.00
MAMWNPL3R - Feature, Max(1024+) Sys/Grp Option	81	Each	0.00	0.00
MAMWNCP9E - Control Unit, CH-721, Scan, Remote Mount	81	Each	0.00	0.00
MAMWNZN7R - M7300 Remote Mount Accessory Kit	81	Each	0.00	0.00
MAMWNMC7Z - Microphone,Standard,CH721 Control Unit	81	Each	0.00	0.00
AN225001001 - Antenna Element, 700/800 3dB	81	Each	0.00	0.00
AN125001002 - Antenna, Base, Standard Roof Mnt Low Loss	81	Each	0.00	0.00
MAMWPKG8F - Feature,256-AES,64-DES ECP Encryption	81	Each	0.00	0.00
MAMWNPL7G - Feature, ESK/P25 Personality Lock	81	Each	0.00	0.00

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QUOTATION

Page	2/2
Date	4/8/2015
Quote Number	QTE1500818

Description	Qty	Unit	Sale Price	Total
MAMWNPL5K - Feature,ProFile Over-the-Air-Programming	81	Each	0.00	0.00
Terminal Trade-in Program - Trade in program is one for one on the purchase of a new radio. Traded radio can either be a portable or mobile and must be functional on the 800 MHz system.	(81)	EA	(195.00)	(15,795.00)
8 Year Extended Warranty Purchase of an optional 8 year extended warranty for a total of 10 years of coverage per portable radio. **Please see extended warranty flyer or contact a Ci representative for details.	81	Each	1,056.00	85,536.00
Program, Rear Mount Radio - Installation was not quoted per customer request.	81	Each	42.00	3,402.00
Estiimated Shipping and Handling - Shipping and handling is estimated and subject to change based on quantity ordered. - Allow 8 - 10 weeks delivery ARO	1	Each	300.00	300.00
			Subtotal:	418,082.61

Prices quoted are valid for (30) Days from Document Date.
Orders may be subject to shipping & handling charges.
All warranties are manufacture's warranties.

Plus Tax	0.00
Total Due (USD)	418,082.61

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QUOTATION

Page	1/2
Date	4/8/2015
Quote Number	QTE1500816

Bill To	City of Ormond Beach Accounts Payable P.O. Box 277 Ormond Beach, FL, 32175-0277 USA
Site	City of Ormond Beach - Police Department Accounts Payable P.O. Box 277 Ormond Beach, FL, 32175-0277 USA
Contact	Voice: Fax:

Site Number	Description	Salesperson	Reference
ORM100PD	XG75M Base Units	Grayson, Garin L.	Capital Improvement Quote

Description	Qty	Unit	Sale Price	Total
XG75 Front Mount Base Units Police EOC				
- Package Pricing per Harris MBP-15923 and is valid through December 31, 2018.				
MAMWSDMXX - Mobile,M7300, 764-870 MHz, Half Duplex, Unencrypted	4	Each	4,301.43	17,205.72
- The below zero dollar software and accessories are included in with the package purchase.				
MWP25ED - FEATURE PACKAGE,P25 TRUNKING & EDACS	4	Each	0.00	0.00
MWPRO - Feature, Provoice	4	Each	0.00	0.00
MWPL4F - Feature, P25 Phase 2, TDMA	4	Each	0.00	0.00
MAMWNMC7Z - Microphone,Standard,CH721 Control Unit	4	Each	0.00	0.00
MAMWNCP9G - Control Unit, CH-721, Scan, Front Mount	4	Each	0.00	0.00
SEC1223 - 23 Amp Power Supply	4	Each	0.00	0.00
MAMWNPL5K - Feature,ProFile Over-the-Air-Programming	4	Each	0.00	0.00
MAMWNPL7G - Feature, EDACS Security Key	4	Each	0.00	0.00
MAMWNPL3R - Feature, Max(1024+) Sys/Grp Option	4	Each	0.00	0.00
- Will utilize customer's existing antenna and coax unless otherwise specified.				
MAMWNZN6W - Accessory Kit, M7300 Front Mount	4	Each	0.00	0.00
Terminal Trade-in Program	(4)	Ea	(195.00)	(780.00)

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QUOTATION

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Date	4/8/2015
Quote Number	QTE1500808

Bill To	City of Ormond Beach Accounts Payable P.O. Box 277 Ormond Beach, FL, 32175-0277 USA

Site	City of Ormond Beach - Fire Department Accounts Payable P.O. Box 277 Ormond Beach, FL, 32175-0277
Contact	Voice: Fax:

Site Number	Description	Salesperson	Reference
ORM100FD	XG75M Base Units	Grayson, Garin L.	Capital Improvement Quote

Description	Qty	Unit	Sale Price	Total
XG75 Front Mount Base Units for Fire Dept. - Package Pricing per Harris MBP-15923 and is valid through December 31, 2018.				
MAMWSDMXX - Mobile,M7300, 764-870 MHz, Half Duplex, Unencrypted - The below zero dollar software and accessories are included in with the package purchase.	5	Each	4,301.43	21,507.15
MWP25ED - FEATURE PACKAGE,P25 TRUNKING & EDACS	5	Each	0.00	0.00
MWPRO - Feature, Provoice	5	Each	0.00	0.00
MWPL4F - Feature, P25 Phase 2, TDMA	5	Each	0.00	0.00
MAMWNMC7Z - Microphone,Standard,CH721 Control Unit	5	Each	0.00	0.00
MAMWNCP9G - Control Unit, CH-721, Scan, Front Mount	5	Each	0.00	0.00
SEC1223 - 23 Amp Power Supply	5	Each	0.00	0.00
MAMWNPL5K - Feature,ProFile Over-the-Air-Programming	5	Each	0.00	0.00
MAMWNPL7G - Feature, EDACS Security Key	5	Each	0.00	0.00
MAMWNPL3R - Feature, Max(1024+) Sys/Grp Option - Will utilize customer's existing antenna and coax unless otherwise specified.	5	Each	0.00	0.00
MAMWNZN6W - Accessory Kit, M7300 Front Mount	5	Each	0.00	0.00
Terminal Trade-in Program	(5)	EA	(195.00)	(975.00)

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QUOTATION

Page	2/2
Date	4/8/2015
Quote Number	QTE1500808

Description	Qty	Unit	Sale Price	Total
- Trade in program is one fore one on the purchase of a new radio. Traded radio can either be a portable or mobile must be functional on the 800 MHz system.				
8 Year Extended Warranty Purchase of an optional 8 year extended warranty for a total of 10 years of coverage per portable radio. **Please see extended warranty flyer or contact a Ci representative for details.	5	Each	1,056.00	5,280.00
Program, Front Mount Radio	5	Each	42.00	210.00
Install, Front Mount Radio - Labor to swap out base unit radios at Fire Stations.	5	Each	165.00	825.00
Shipping and Handling - Shipping and handling is estitmated and subject to change based upon quantity ordered. - Please allow 8 - 10 weeks delivery ARO.	1	Each	50.00	50.00
			Subtotal:	26,897.15

Prices quoted are valid for (30) Days from Document Date.
Orders may be subject to shipping & handling charges.
All warranties are manufacture's warranties.

Plus Tax	0.00
Total Due (USD)	26,897.15

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QUOTATION

Page	1/2
Date	4/8/2015
Quote Number	QTE1500809

Bill To	City of Ormond Beach Accounts Payable P.O. Box 277 Ormond Beach, FL, 32175-0277 USA

Site	City of Ormond Beach - Fire Department Accounts Payable P.O. Box 277 Ormond Beach, FL, 32175-0277
Contact	Voice: Fax:

Site Number	Description	Salesperson	Reference
ORM100FD	XG75M/M7300 Scan Mobile Packag	Grayson, Garin L.	Capital Improvement Quote

Description	Qty	Unit	Sale Price	Total
XG75M/M7300 Scan Mobile Package for Fire Vehicles - Pricing Per Harris MBP-15923 and is valid through December 31, 2018.				
MAMWSDMXX - Mobile,M7300, 764-870 MHz, Half Duplex, Unencrypted software and standard accessories are included in the package purchase as indicated by zero dollar items.	16	Each	4,254.81	68,076.96
MWP25ED - FEATURE PACKAGE,P25 TRUNKING & EDACS	16	Each	0.00	0.00
MWPRO - Feature, Provoice	16	Each	0.00	0.00
MWPL4F - Feature, P25 Phase 2, TDMA	16	Each	0.00	0.00
MAMWNPL3R - Feature, Max(1024+) Sys/Grp Option	16	Each	0.00	0.00
MAMWNCP9E - Control Unit, CH-721, Scan, Remote Mount	16	Each	0.00	0.00
MAMWNZN7R - M7300 Remote Mount Accessory Kit	16	Each	0.00	0.00
MAMWNMC7Z - Microphone,Standard,CH721 Control Unit	16	Each	0.00	0.00
AN225001001 - Antenna Element, 700/800 3dB	16	Each	0.00	0.00
AN125001002 - Antenna, Base, Standard Roof Mnt Low Loss	16	Each	0.00	0.00
MAMWPKG8F - Feature,256-AES,64-DES ECP Encryption	16	Each	0.00	0.00
MAMWNPL7G - Feature, ESK/P25 Personality Lock	16	Each	0.00	0.00

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QUOTATION

Page	2/2
Date	4/8/2015
Quote Number	QTE1500809

Description	Qty	Unit	Sale Price	Total
MAMWNPL5K - Feature,ProFile Over-the-Air-Programming	16	Each	0.00	0.00
Terminal Trade-in Program - Trade in program is one for one on the purchase of a new radio. Traded radio can either be a portable or mobile and must be functional on the 800 MHz system.	(16)	EA	(195.00)	(3,120.00)
8 Year Extended Warranty Purchase of an optional 8 year extended warranty for a total of 10 years of coverage per portable radio. **Please see extended warranty flyer or contact a Ci representative for details.	16	Each	1,056.00	16,896.00
Program, Rear Mount Radio - Installation was not quoted per customer request.	16	Each	42.00	672.00
Estiimated Shipping and Handling - Shipping and handling is estimated and subject to change based on quantity ordered. - Allow 8 - 10 weeks delivery ARO	1	Each	150.00	150.00
			Subtotal:	82,674.96

Prices quoted are valid for (30) Days from Document Date.
Orders may be subject to shipping & handling charges.
All warranties are manufacture's warranties.

Plus Tax	0.00
Total Due (USD)	82,674.96

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QUOTATION

Page	1/2
Date	4/8/2015
Quote Number	QTE1500811

Bill To	City of Ormond Beach Accounts Payable P.O. Box 277 Ormond Beach, FL, 32175-0277 USA

Site	City of Ormond Beach - Fire Department Accounts Payable P.O. Box 277 Ormond Beach, FL, 32175-0277
Contact	Voice: Fax:

Site Number	Description	Salesperson	Reference
ORM100FD	XG75P Scan Portable	Grayson, Garin L.	Capital Improvement Quote

Description	Qty	Unit	Sale Price	Total
XG75P Scan Portable Package for Fire Dept. - Pricing Per Harris MBP-15923 and is valid through December 31. 2018.				
EVXGPB78B - Portable XG-75, 764-870 MHz, Scan, Black - The below zero dollar software and accessories are provided with the package purchase.	33	Each	3,330.41	109,903.53
MAEVNPL3R - Feature, Maximum (1024+) Systems/Groups	33	Each	0.00	0.00
EVXGNPL4F - Feature Package, P25 PHASE 2 TDMA	33	Each	0.00	0.00
EVPRO - Feature, Provoice	33	Each	0.00	0.00
EVP25ED - FEATURE PACKAGE,P25 TRUNKING & EDACS	33	Each	0.00	0.00
EVPA3R - Battery,Li-Ion,2400mAH	33	Each	0.00	0.00
EVPA3R - Battery,Li-Ion,2400mAH - One battery is included with the package. Customer requested extra battery quoted.	33	Each	57.60	1,900.80
MAEVNNC5X - Antenna, 764-870 MHz, 1/4 Wave Whip (KRE10115062)	33	Each	0.00	0.00
MAEVNHC2G - Belt Clip, Standard (CC23894)	33	Each	0.00	0.00
MAEVNCH9T - `Charger, Single, Tri-Chemistry (CH104560007)	33	Each	0.00	0.00
FM014712 - Cover, UDC Weather Proof, P5300/P5400	33	Each	0.00	0.00
MAEVNPL7G - Feature,ESK/P25 Personality Lock	33	Each	0.00	0.00

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QUOTATION

Page	2/2
Date	4/8/2015
Quote Number	QTE1500811

Description	Qty	Unit	Sale Price	Total
MAEVPKG8F - Feature, Encryption (includes 256-B AES Encryption for P25 T	33	Each	0.00	0.00
MAEVNPL5K - Feature, Profile OTAP Over the Air Programming	33	Each	0.00	0.00
V2S2ER12111 - Storm Speaker Mic, P5300/P5400	33	Each	108.12	3,567.96
Terminal Trade-in Program - Trade in is one for one on the purchase of a new radio. Traded radio can be either mobile or portable, but must be a functioning radio on the 800MHz system.	(33)	EA	(195.00)	(6,435.00)
8 Year Extended Warranty Purchase of an optional 8 year extended warranty for a total of 10 years of coverage per portable radio. **Please see extended warranty flyer or contact a Ci representative for details.	33	Each	864.00	28,512.00
Program, Portable Scan	33	Each	42.00	1,386.00
Shipping and Handling - Shipping and handling is based upon quantity ordered and is subject to change. - Please allow 8 - 10 weeks delivery ARO.	1	Each	150.00	150.00
			Subtotal:	138,985.29

Prices quoted are valid for (30) Days from Document Date.
Orders may be subject to shipping & handling charges.
All warranties are manufacture's warranties.

Plus Tax	0.00
Total Due (USD)	138,985.29

By signing this Quotation and/or submitting a purchase order pursuant to this Quotation you acknowledge that you have read and agree to be bound by Communications Int'l. Inc.'s Terms and Conditions of Sale Service and Technical Support.

CAPITAL PROJECT DETAIL

PROJECT TITLE

Backup Server Upgrade

PROJECT#

301216

CATEGORY

Technology

FUND

301-General Capital Improvement

PROJECT LOCATION

Hardened Data Center

MANAGEMENT

Information Technology

PROJECT SCOPE

Upgrade the existing backup server storage capacity to accommodate data growth and data retention requirements. Replace the existing backup server with a current model that has nearly double the storage capacity and performance.

JUSTIFICATION

The current disk-to-disk backup Appliance was purchased in 2013 to modernize the backup process utilizing an appliance rather than resource intensive server/agent based solution. Since then data has grown at a steady rate. As additional backup capacity was needed staff has reduced backup retentions to make space for the data growth. The new backup appliance has 2 times the storage capacity of the current model and should have sufficient storage to outlast the expected lifespan of 3 years with included maintenance and support.

Staff has included a current quote which includes current trade-in credits. Due to the likely implementation timing of this project in early 2016, these credits will be significantly less.

PROJECT COST METHODOLOGY

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Backup Server	0	105,000	0	0	0	105,000
Total	0	105,000	0	0	0	105,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Water & Sewer Charges	0	52,500	0	0	0	52,500
General Fund Reserves	0	52,500	0	0	0	52,500
Total	0	105,000	0	0	0	105,000

4/13/2015

Statement of Work

Unitrends Appliance Trade-Up

Presented to:

City of Ormond Beach

6810 New Tampa Hwy
Suite 600
Lakeland, FL 33815
Phone: 863-802-8888
Fax:

Scope of Work Pricing

To: Ken White
City of Ormond Beach
22 S Beach St.
Ormond Beach, 32174-6386

Quote #: DSMQ1773
Quote Date: Apr 13, 2015
Quote Prepared by: Jack Trantham

Item	Description	Loc	Qty	Per Unit	MRC	NRC
	Data Protection					
1	933S 3 year 24/7 Support Appliance	Site	1			$104,473.00
2	Trade-Up Credit 823	Site	1			-$14,662.00
3	Prorated Support Credit	Site	1			-$13,438.33

CONTRACT EXPIRES ON 12/15/17

Total	*$0.00*	*$76,372.67*

Total MRC	*$0.00*
Total NRC	*$76,372.67*

- Optional remote install service up to twenty-five clients for 933 solution $4,799.00

IT Disaster Recovery Services 991-268-11-1
Trade-in Asset:
Asset # 823-101-50272
Contract # SRN-000127571
Item # R-RC822
- Please note that the trade-in and support discounts above are contingent upon the return of the appliance being traded. This unit
must be returned within 60 days of the receipt of your new Unitrends appliance or you will be invoiced the discounted cost.
- 3 Years Solution entitles you to a Next Gen, same model, appliance upgrade with your first renewal.
-Tax is additional and not part of the totals listed above.
- Freight Charges incurred to DSM will be passed on to customer.
- Equipment procured for this engagement will be invoiced upon receipt by DSM.

TERMS: Any invoice not paid by the due date, as specified in such Invoice, shall be subject to a late charge at eighteen percent (18%) per annum or the highest rate allowed by Florida law. Applicant hereby waives all privileges and rights available under Chapter 47, Florida Statutes relating to venue, as it now exists or may hereafter be amended including any right to forum non conveneons, and further agrees that venue of any action brought on any account of Applicant shall be in the Courts of Polk County, Florida, exclusively. Applicant waives any right to jury trial in any action brought in connection with any account of Applicant. Applicant agrees to provide written notice to DSM Technology Consultants, LLC (DSM) of any changes in the form of ownership of Applicant's business within five (5) days of such change. In the event of default of any description, Applicant agrees to pay all costs of collection, including reasonable attorney's fees incurred by DSM, whether involving litigation or not, whether incurred prior to or after entry of judgment or other relief for DSM.

Quote Valid for Sixty (60) days.

Acceptance

By signature, this Scope or Work is accepted and DSM is authorized to proceed at the direction of the City of Ormond Beach representative in accordance with the Scope of services.

Project: Unitrends Appliance Trade-Up
MRC Totals: $0.00
NRC Totals: $76,372.67

DSM Technology Consultants, LLC	City of Ormond Beach
By: _____ *Signature*	By: _____ *Signature*
Name: Karl Muehlberger *Print Name*	Name: _____ *Print Name*
Title: CFO	Title: _____
Date: _____	Date: _____

Purchase Order #_____

Recovery-Series Purpose-Built Backup Appliances

Today's modern backup and recovery solutions must be as agile and elastic as the IT environment they protect. Organizations face unrelenting data growth, increased server virtualization, and new silos of high performance physical server applications. Meanwhile, the pace of business demands aggressive Recovery Point Objectives (RPO), Recovery Time Objectives (RTO) and Service Level Agreements (SLAs). Unitrends Recovery-Series appliances are purpose-built to meet these challenges.

Unitrends Recovery-Series Appliance Family

RECOVERY-SERIES APPLIANCE FAMILY

Unitrends Recovery-Series Appliances ease the pain of managing data protection, backup, and restoration.

In particular, Unitrends helps companies deal with growing data volumes and tight backup windows by providing a unified appliance with storage that simplifies backup and recovery operations.

- **Next-generation hardware** with tiered flash storage (starting in model 713S and up) provides improved backup performance, faster restore and recovery process, and greater scalability and flexibility.
- **Best-in-class unification** across physical and virtual servers as well as many operating systems and applications. Simplified administration enables seamless integration with physical and virtual applications.
- **All-in-one appliance** hardware includes CPU, disk, and networking as well as comprehensive data protection. Features include deduplication, instant recovery (Windows, VMware, Hyper-V), bare metal recovery, archive, and WAN optimized replication.
- **Centralized management** of data protection for remote and branch offices, while lowering capital and operational costs and improving disaster recovery preparedness.

Available in 11 All-In-One Integrated Appliance Models

From the remote office to the enterprise, Recovery-Series appliances offer from 1 TB to 97 TB of raw storage, 8 GB to 256 GB memory, and 2 to 16 CPU cores, all managed by a single pane of glass.

COMPREHENSIVE DATA PROTECTION & RECOVERY

- **Designed to fit any infrastructure**—Physical, virtual, 100's of versions of servers, storage, operating systems, hypervisors and applications.
- **Provides flexible data protection**—Customizable backup strategies, multi-server scheduling, group management and application aware.
- **Protects large scale deployments**—Enhanced storage integration with NDMP NAS protection.
- **Includes local archiving**—D2D2X for long term retention, cloud seeding and recovery.
- **Incorporates WAN optimized replication**—Combining deduplication, compression, and encryption for secure byte-level data transmission.

UNMATCHED PERFORMANCE

- **Enterprise class**—Faster CPU clock speeds, AES-NI hardware encryption, increased I/O bandwidth and tiered SSD storage yield dramatic performance improvements.
- **Solid State Drive (SSD)**—Yields 300% improvement in backup RPO allowing more data to be protected per day, while recovery times (RTO) are improved by 125%.
- **Near continuous data protection**—Enable backups as often as every 60 seconds for world class RPO.
- **Global adaptive byte-level deduplication**—Speeds up backups and optimizes storage capacity and WAN data transfer.

UNPARALLELED CUSTOMER SUPPORT

- **Free hardware for life**—Pledge free hardware forever with 3 and 5 year support agreements.
- **Award winning customer support**—98% customer satisfaction rating.

RECOVERY ASSURANCE

- **Cloud-empowered disaster recovery and business continuity**—Through 3rd party clouds via CloudHook, Unitrends No Limits Cloud™, and Disaster Recovery as a Service (DRaaS).
- **Recovery Assurance for vSphere**—Orchestrated testing and instant recovery of applications via Unitrends ReliableDR™.
- **Unitrends Bridge**—Local instant recovery of physical (P2V) or virtual (V2V) in one click.
- **Unified Bare Metal**—One pass dissimilar bare metal restore.

Videos, screenshots, and more features at **www.unitrends.com**

Recovery-Series Appliance Family Specifications											
	201	602	603	713S	714S	814S	823S	824S	933S	936S	943S
Raw Storage (TB)	1	2	3	6	8	12	19	25	37	73	97
Maximum Backup (TB)	600 GB	1.2	1.6	3.2	5	8	13	16	20	40	50
Form Factor	Desk-top	1U short	1U Short	1U	1U	1U	2U	2U	3U	3U	4U
Processor Cores/Threads	2/2	4/4	4/4	8/8	4/8	4/8	4/8	12/24	12/24	12/24	16/32
RAM (GB)	8	8	8	16	16	16	32	64	64	256	256
AES-NI	Ø	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IPMI	Ø	Ø	Ø	Ø	✓	✓	✓	✓	✓	✓	✓
Hot Swap Drives	Ø	Ø	Ø	OS/ Backup	OS/ Backup	OS/ Backup	OS/ Backup	OS/ Backup	OS/ Backup	OS/ Backup	OS/ Backup
PCI Slots	Ø	Ø	Ø	2	2	2	5	5	5	5	5
Storage	**201**	**602**	**603**	**713S**	**714S**	**814S**	**823S**	**824S**	**933S**	**936S**	**943S**
SSD Flash	Ø	Ø	Ø	128GB	128GB	256GB	256GB	256GB	480GB	480GB	480GB
OS Disk	Ø	Ø	Ø	Ø	Ø	Ø	2x1TB	2x1TB	2x1TB	2x1TB	2x1TB
Backup Disk	1x1TB	2x2TB	2x3TB	4x3TB	4x4TB	4x4TB	8x3TB	8x4TB	14x3TB	16x6TB	36x3TB
RAID	Ø	1	1	10	10	5	1/6	1/6	1/6	1/60	1/60
NDMP (EMC, NetApp)	Ø	Ø	Ø	O	O	O	O	O	O	O	O
Archiving Controller	**201**	**602**	**603**	**713S**	**714S**	**814S**	**823S**	**824S**	**933S**	**936S**	**943S**
USB 3.0	✓	✓	✓	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø
eSATA- 4 Port	Ø	Ø	Ø	✓	✓	✓	✓	✓	✓	✓	✓
SAS Controller (Disk, Tape)	Ø	Ø	Ø	O	O	O	O	O	O	O	O
Major Features	**201**	**602**	**603**	**713S**	**714S**	**814S**	**823S**	**824S**	**933S**	**936S**	**943S**
Adaptive Deduplication™	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Heterogeneous – Physical, Virtual, Unified	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cloud Enabled	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Replication Target & Cross Replicate	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hot/Cold & Dissimilar Bare Metal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AES-256 Bit Encryption	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Instant Recovery (P2V); (V2V); (V2P)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Recovery Assurance for VMware	O	O	O	O	O	O	O	O	O	O	O

Legend		
✓ = Included	O = Optional	Ø = Not available

Recovery-Series Appliance Family Specifications

	201	602	603	713S	714S	814S	823S	824S	933S	936S	943S
1GB Ethernet Ports	1	1	1	1	2	2	2	2	2	2	2
4x1 GB Ethernet Ports	Ø	Ø	Ø	Ø	O	O	O	O	O	O	O
2x10 GB Ethernet	Ø	Ø	Ø	Ø	O	O	O	O	O	O	O
1x8 GB Fibre Channel	Ø	Ø	Ø	Ø	O	O	O	O	O	O	O
Monitoring/Management	**201**	**602**	**603**	**713S**	**714S**	**814S**	**823S**	**824S**	**933S**	**936S**	**943S**
Single Pane of Glass	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Backup Scheduling	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Inclusion/Exclusion Backup	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bandwidth Throttling	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Comprehensive Reporting	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Alert-Based Monitoring	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Platform Characteristics	**201**	**602**	**603**	**713S**	**714S**	**814S**	**823S**	**824S**	**933S**	**936S**	**943S**
Width (Inches)	8.66	16.80	16.80	17.20	17.20	17.20	17.20	17.20	17.20	17.20	17.20
Height (Inches)	5.12	1.75	1.75	1.75	1.75	1.75	3.50	3.50	5.20	5.20	7.00
Depth (Inches)	13.00	14.00	14.00	19.80	25.60	25.60	25.50	25.50	25.50	25.50	27.50
Unit Weight (Pounds)	14	14	14	29	38	38	65	69	90	93	160
Shipping Weight (Pounds)	16	18	18	35	44	44	72	76	97	100	171
AC Inputs (VAC)	100/ 240	100/ 240	100/ 240	100/ 240	100/ 240	100/ 240	100/ 240	100/ 240	100/ 240	100/ 240	100/ 240
AC Power Consumption (W)	220	200	200	350	563	563	740	740	920	920	1400
Redundant Power Supplies	Ø	Ø	Ø	Ø	Ø	✓	✓	✓	✓	✓	✓
Heat Generated while Operating (BTUs)	90	140	140	172	177	177	529	644	871	880	1380
Non-Operating Vibration	350	350	350	350	350	350	350	350	350	350	350
Operating Shock (2ms(Gs))	65	65	65	65	65	65	65	65	65	65	65
Non-Operating Shock (1ms(Gs))	350	350	350	350	350	350	350	350	350	350	350

Legend		
✓ = Included	O = Optional	Ø = Not available

About Unitrends

Unitrends delivers award-winning business recovery solutions for any IT environment. The company's portfolio of virtual, physical and cloud solutions provides adaptive protection for organizations globally. To address the complexities facing today's modern data center, Unitrends delivers end-to-end protection and instant recovery of all virtual and physical assets as well as automated disaster recovery testing built for virtualization. With the industry's lowest total cost of ownership, Unitrends' offerings are backed by a customer support team that consistently achieves a 98 percent satisfaction rating. Visit **www.unitrends.com.**

Ready to see Unitrends in action? Watch us crash a server and restore it:
www.unitrends.com/product-demo

UNITRENDS 200 Wheeler Road, Burlington, MA 01803

Computer Inventory Summary 2016

	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Desktops	11	25	46	59	73	214
Notebook - Office	0	12	0	0	4	16
Notebooks - Mobile	36	26	6	15	15	98
iPads	19	1	6	1	0	27
Servers - Physical	1	0	3	3	0	7
Total by Age	67	64	61	78	92	362

Type	Unit Cost
Desktops 6Yr	700
Notebooks - Office 5Yr	950
Notebooks - Mobile 5Yr	1600
iPads 4Yr	650
Servers - Physical 6Yr	6000

	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Desktops	$7,700	$17,500	$32,200	$41,300	$51,100	$149,800
Notebook - Office	$0	$11,400	$0	$0	$3,800	$15,200
Notebooks - Mobile	$57,600	$41,600	$9,600	$24,000	$24,000	$156,800
iPads	$12,350	$650	$3,900	$650	$0	$17,550
Servers - Physical	$6,000	$0	$18,000	$18,000	$0	$42,000
Total $ by Year	$83,650	$71,150	$63,700	$83,950	$78,900	$381,350

Department	Type	System Name	Purchase D	Age	2016-17	2017-18	2018-19	2019-20	2020-21
City Administration	Desktop	CM-ADMIN2	06/27/2012	**4.3**			$700		
City Administration	Desktop	CM-ADMIN1	03/11/2013	**3.6**				$700	
City Administration	Desktop	CM-MGR1	08/01/2013	**3.2**				$700	
City Administration	Desktop	CM-MGR2	08/01/2013	**3.2**				$700	
City Administration	iPad	CM-iPad-PIO	09/16/2011	**5.1**	$650				
City Administration	iPad	CM-iPad-Manager	06/20/2014	**2.3**			$650		
City Administration	iPad	CM-iPad-AsstMgr	12/02/2014	**1.8**				$650	
City Administration Total					**$650**	**$0**	**$1,350**	**$2,750**	**$0**
City Commission	Desktop	CC-COMM	09/12/2011	**5.1**		$700			
City Commission	Desktop	CC-MAYOR	08/01/2013	**3.2**				$700	
City Commission	Desktop	CC-MEDIA	05/08/2015	**1.4**					$700
City Commission	Desktop	CC-STREAM	05/08/2015	**1.4**					$700
City Commission	iPad	CC-iPad-Mayor	08/05/2014	**2.2**			$650		
City Commission	iPad	CC-iPad-Zone1	08/05/2014	**2.2**			$650		
City Commission	iPad	CC-iPad-Zone2	08/05/2014	**2.2**			$650		
City Commission	iPad	CC-iPad-Zone3	08/05/2014	**2.2**			$650		
City Commission	iPad	CC-iPad-Zone4	08/05/2014	**2.2**			$650		
City Commission	Notebook	CC-TRAIN	08/31/2012	**4.2**		$950			
City Commission Total					**$0**	**$1,650**	**$3,250**	**$700**	**$1,400**
Community Development	Desktop	CD-POS0	03/11/2013	**3.6**				$700	
Community Development	Desktop	CD-ADMIN1	08/01/2013	**3.2**				$700	
Community Development	Desktop	CD-EXAM	08/01/2013	**3.2**				$700	
Community Development	Desktop	CD-PLAN2	08/01/2013	**3.2**				$700	
Community Development	Desktop	CD-ADMIN2	03/27/2014	**2.6**					$700
Community Development	Desktop	CD-CBO	03/27/2014	**2.6**					$700
Community Development	Desktop	CD-ENG	03/27/2014	**2.6**					$700
Community Development	Desktop	CD-PLAN1	03/27/2014	**2.6**					$700
Community Development	Desktop	CD-PLAN3	03/27/2014	**2.6**					$700
Community Development	Desktop	CD-PLAN4	03/27/2014	**2.6**					$700
Community Development	Desktop	CD-POS1	03/27/2014	**2.6**					$700
Community Development	Desktop	CD-POS2	03/27/2014	**2.6**					$700
Community Development	Desktop	CD-POS3	03/27/2014	**2.6**					$700
Community Development	Desktop	CD-POS4	03/27/2014	**2.6**					$700
Community Development	iPad	CD-iPad-Dir	06/21/2013	**3.3**		$650			
Community Development	Notebook	CD-INSP1	08/28/2012	**4.2**		$1,600			
Community Development	Notebook	CD-INSP2	08/28/2012	**4.2**		$1,600			
Community Development	Notebook	CD-INSP3	08/28/2012	**4.2**		$1,600			
Community Development	Notebook	CD-INSP4	08/28/2012	**4.2**		$1,600			
Community Development Total					**$0**	**$7,050**	**$0**	**$2,800**	**$7,000**
Economic Development	Desktop	ED-DIRECTOR	03/11/2013	**3.6**				$700	
Economic Development	Desktop	ED-AIRPORTMGR	08/01/2013	**3.2**				$700	
Economic Development	Desktop	ED-TOWER	08/01/2013	**3.2**				$700	
Economic Development	iPad	ED-iPad-Dir	09/16/2011	**5.1**	$650				
Economic Development	iPad	ED-iPad-AirMgr	05/21/2012	**4.4**	$650				
Economic Development Total					**$1,300**	**$0**	**$0**	**$2,100**	**$0**
Engineering	Desktop	EN-TECH4	08/01/2013	**3.2**				$700	
Engineering	Desktop	EN-TECH2	01/27/2014	**2.8**					$700
Engineering	Desktop	EN-CONST	03/27/2014	**2.6**					$700
Engineering	Desktop	EN-DIR	03/27/2014	**2.6**					$700
Engineering	Desktop	EN-PROJECT	03/27/2014	**2.6**					$700
Engineering	Desktop	EN-TECH1	03/27/2014	**2.6**					$700
Engineering	Desktop	EN-TECH3	03/27/2014	**2.6**					$700
Engineering	iPad	EN-iPad-Engineer	09/16/2011	**5.1**	$650				
Engineering	Notebook	EN-NB01	08/19/2008	**8.2**	$1,600				
Engineering	Notebook	EN-NB02	08/19/2008	**8.2**	$1,600				
Engineering	Notebook	EN-NB03	08/19/2008	**8.2**	$1,600				
Engineering Total					**$5,450**	**$0**	**$0**	**$700**	**$4,200**
Finance	Desktop	FN-DIR2	03/11/2013	**3.6**				$700	
Finance	Desktop	FN-POS1	03/11/2013	**3.6**				$700	
Finance	Desktop	FN-AP2	08/01/2013	**3.2**				$700	
Finance	Desktop	FN-METER1	08/01/2013	**3.2**				$700	
Finance	Desktop	FN-POS2	08/01/2013	**3.2**				$700	
Finance	Desktop	FN-TECH3	08/01/2013	**3.2**				$700	
Finance	Desktop	FN-TECH5	08/01/2013	**3.2**				$700	
Finance	Desktop	FN-ACCT2	03/27/2014	**2.6**					$700

Department	Type	System Name	Purchase D	Age	2016-17	2017-18	2018-19	2019-20	2020-21
Finance	Desktop	FN-AP	03/27/2014	**2.6**					$700
Finance	Desktop	FN-DIR1	03/27/2014	**2.6**					$700
Finance	Desktop	FN-METER2	03/27/2014	**2.6**					$700
Finance	Desktop	FN-PURCH	03/27/2014	**2.6**					$700
Finance	Desktop	FN-SUPER	03/27/2014	**2.6**					$700
Finance	Desktop	FN-TECH1	03/27/2014	**2.6**					$700
Finance	Desktop	FN-TECH2	03/27/2014	**2.6**					$700
Finance	Desktop	FN-TECH4	03/27/2014	**2.6**					$700
Finance	iPad	FN-iPad-AsstDir	03/19/2012	**4.6**	$650				
Finance	iPad	FN-iPad-Dir	03/19/2012	**4.6**	$650				
Finance	Notebook	FN-NB5	08/28/2008	**8.2**	$1,600				
Finance	Notebook	FN-NB2	02/26/2009	**7.7**	$1,600				
Finance	Notebook	FN-NB3	08/31/2012	**4.2**		$950			
Finance	Notebook	FN-NB06	07/01/2015	**1.3**					$1,600
Finance	Notebook	FN-NB4	07/01/2015	**1.3**					$1,600
Finance Total					**$4,500**	**$950**	**$0**	**$4,900**	**$9,500**
Fire Department	Desktop	FD-93B	05/04/2012	**4.4**			$700		
Fire Department	Desktop	FD-93C	05/04/2012	**4.4**			$700		
Fire Department	Desktop	FD-94A	05/04/2012	**4.4**			$700		
Fire Department	Desktop	FD-94B	05/04/2012	**4.4**			$700		
Fire Department	Desktop	FD-94C	05/04/2012	**4.4**			$700		
Fire Department	Desktop	FD-91A	06/27/2012	**4.3**			$700		
Fire Department	Desktop	FD-91B	06/27/2012	**4.3**			$700		
Fire Department	Desktop	FD-91C	06/27/2012	**4.3**			$700		
Fire Department	Desktop	FD-92A	06/27/2012	**4.3**			$700		
Fire Department	Desktop	FD-92B	06/27/2012	**4.3**			$700		
Fire Department	Desktop	FD-92C	06/27/2012	**4.3**			$700		
Fire Department	Desktop	FD-93A	06/27/2012	**4.3**			$700		
Fire Department	Desktop	FD-CHIEF	03/11/2013	**3.6**				$700	
Fire Department	Desktop	FD-92BC	08/01/2013	**3.2**				$700	
Fire Department	Desktop	FD-ADMIN1	08/01/2013	**3.2**				$700	
Fire Department	Desktop	FD-ADMIN2	08/01/2013	**3.2**				$700	
Fire Department	iPad	FD-iPad-Chief	09/16/2011	**5.1**	$650				
Fire Department	Notebook	FD-OBT15	09/20/2010	**6.1**	$1,600				
Fire Department	Notebook	FD-OBT04	12/02/2014	**1.8**					$1,600
Fire Department	Notebook	FD-OBT05	12/02/2014	**1.8**					$1,600
Fire Department	Notebook	FD-OBT06	12/02/2014	**1.8**					$1,600
Fire Department	Notebook	FD-OBT10	12/02/2014	**1.8**					$1,600
Fire Department	Notebook	FD-OBT11	12/02/2014	**1.8**					$1,600
Fire Department	Notebook	FD-OBT14	12/02/2014	**1.8**					$1,600
Fire Department	Notebook	FD-OBT20	12/02/2014	**1.8**					$1,600
Fire Department Total					**$2,250**	**$0**	**$8,400**	**$2,800**	**$11,200**
Fleet	Desktop	FL-BAY2	07/20/2011	**5.3**		$700			
Fleet	Desktop	FL-BAY1	09/12/2011	**5.1**		$700			
Fleet	Desktop	FL-BAY3	09/12/2011	**5.1**		$700			
Fleet	Desktop	FL-FUEL	05/04/2012	**4.4**			$700		
Fleet	Desktop	FL-PARTS	06/27/2012	**4.3**			$700		
Fleet	Desktop	FL-ADMIN1	03/11/2013	**3.6**				$700	
Fleet	Desktop	FL-MGR	03/11/2013	**3.6**				$700	
Fleet	Notebook	FL-NB2	10/01/2009	**7.0**	$1,600				
Fleet Total					**$1,600**	**$2,100**	**$1,400**	**$1,400**	**$0**
Human Resources	Desktop	HR-TEMP	09/11/2009	**7.1**	$700				
Human Resources	Desktop	HR-ADMIN2old	03/11/2013	**3.6**				$700	
Human Resources	Desktop	HR-DIR	03/11/2013	**3.6**				$700	
Human Resources	Desktop	HR-ADMIN1	08/01/2013	**3.2**				$700	
Human Resources	Desktop	HR-ADMIN3	08/01/2013	**3.2**				$700	
Human Resources	Desktop	HR-ADMIN2	05/08/2015	**1.4**					$700
Human Resources	iPad	HR-iPad-Dir	09/16/2011	**5.1**	$650				
Human Resources	Notebook	HR-TRAIN	08/31/2012	**4.2**		$950			
Human Resources Total					**$1,350**	**$950**	**$0**	**$2,800**	**$700**
Information Tech	Desktop	amanda	06/13/2002	**14.3**	$700				
Information Tech	Desktop	GIS-TECH3X	10/01/2008	**8.0**	$700				
Information Tech	Desktop	GIS-TECH1	03/11/2013	**3.6**				$700	
Information Tech	Desktop	IT-TECH1B	03/11/2013	**3.6**				$700	
Information Tech	Desktop	GIS-TECH2	08/01/2013	**3.2**				$700	

Department	Type	System Name	Purchase D	Age	2016-17	2017-18	2018-19	2019-20	2020-21
Information Tech	Desktop	GIS-TECH3	01/26/2015	**1.8**					$700
Information Tech	Desktop	IT-HDC1	01/26/2015	**1.8**					$700
Information Tech	Desktop	IT-TECH0A32	01/26/2015	**1.8**					$700
Information Tech	Desktop	IT-TECH0B64	01/26/2015	**1.8**					$700
Information Tech	Desktop	IT-TECH1A	01/26/2015	**1.8**					$700
Information Tech	Desktop	IT-TECH2A32	01/26/2015	**1.8**					$700
Information Tech	Desktop	IT-TECH2B64	01/26/2015	**1.8**					$700
Information Tech	Desktop	IT-TECH3A32	01/26/2015	**1.8**					$700
Information Tech	Desktop	IT-TECH3B64	01/26/2015	**1.8**					$700
Information Tech	Desktop	OBOPSCON	01/26/2015	**1.8**					$700
Information Tech	iPad	IT-iPad-Mgr	07/06/2011	**5.3**	$650				
Information Tech	iPad	IT-iPad-Tech	08/24/2011	**5.2**	$650				
Information Tech	Notebook	IT-LOANER2	08/28/2008	**8.2**	$1,600				
Information Tech	Notebook	IT-GIS01	08/31/2012	**4.2**		$950			
Information Tech	Notebook	IT-TRAIN01	08/31/2012	**4.2**		$950			
Information Tech	Notebook	IT-TRAIN02	08/31/2012	**4.2**		$950			
Information Tech	Notebook	IT-TRAIN03	08/31/2012	**4.2**		$950			
Information Tech	Notebook	IT-TRAIN04	08/31/2012	**4.2**		$950			
Information Tech	Notebook	IT-TRAIN05	08/31/2012	**4.2**		$950			
Information Tech	Notebook	IT-TRAIN06	08/31/2012	**4.2**		$950			
Information Tech	Notebook	IT-TRAIN07	08/31/2012	**4.2**		$950			
Information Tech	Notebook	IT-TRAIN08	08/31/2012	**4.2**		$950			
Information Tech	Notebook	IT-TRAIN11	11/14/2014	**1.9**					$950
Information Tech	Notebook	IT-TRAIN12	11/14/2014	**1.9**					$950
Information Tech	Notebook	IT-TRAIN13	11/14/2014	**1.9**					$950
Information Tech	Notebook	IT-TRAIN14	11/14/2014	**1.9**					$950
Information Tech	Server	obfdts2	6/24/2010	**6.3**	$6,000				
Information Tech	Server	OBDC2	08/01/2013	**3.2**			$6,000		
Information Tech	Server	OBDC3	08/01/2013	**3.2**			$6,000		
Information Tech	Server	OBVCENTER	08/01/2013	**3.2**			$6,000		
Information Tech	Server	OBESX1	8/1/2014	**2.2**				$6,000	
Information Tech	Server	OBESX2	8/1/2014	**2.2**				$6,000	
Information Tech	Server	OBESX3	8/1/2014	**2.2**				$6,000	
Information Tech Total					**$10,300**	**$8,550**	**$18,000**	**$20,100**	**$10,800**
Legal Department	Desktop	LG-ADMIN1	03/11/2013	**3.6**				$700	
Legal Department	Desktop	LG-ATTY1	03/11/2013	**3.6**				$700	
Legal Department	Desktop	LG-ADMIN2	03/27/2014	**2.6**					$700
Legal Department	Desktop	LG-ADMIN3	03/27/2014	**2.6**					$700
Legal Department	Desktop	LG-ATTY2	03/27/2014	**2.6**					$700
Legal Department	iPad	LG-iPad-DepAtty	02/01/2011	**5.7**	$650				
Legal Department	iPad	LG-iPad-Attorney	03/19/2012	**4.6**	$650				
Legal Department Total					**$1,300**	**$0**	**$0**	**$1,400**	**$2,100**
Leisure Services	Desktop	NR-NOVA2	07/08/2010	**6.3**	$700				
Leisure Services	Desktop	SE-3	07/08/2010	**6.3**	$700				
Leisure Services	Desktop	SO-ADMIN2	07/08/2010	**6.3**	$700				
Leisure Services	Desktop	PA-BOXO	07/20/2011	**5.3**		$700			
Leisure Services	Desktop	PA-BOXT	07/20/2011	**5.3**		$700			
Leisure Services	Desktop	SO-ADMIN1	09/12/2011	**5.1**		$700			
Leisure Services	Desktop	BF-MW1	05/04/2012	**4.4**			$700		
Leisure Services	Desktop	BF-SUP	05/04/2012	**4.4**			$700		
Leisure Services	Desktop	LA-PROG	05/04/2012	**4.4**			$700		
Leisure Services	Desktop	LA-REG1	05/04/2012	**4.4**			$700		
Leisure Services	Desktop	LA-REG2	05/04/2012	**4.4**			$700		
Leisure Services	Desktop	SE-2	05/04/2012	**4.4**			$700		
Leisure Services	Desktop	TC-ADMIN3	05/04/2012	**4.4**			$700		
Leisure Services	Desktop	TC-EVENTS	05/04/2012	**4.4**			$700		
Leisure Services	Desktop	TC-MGR	05/01/2012	**4.4**			$700		
Leisure Services	Desktop	LA-ADMIN2	06/27/2012	**4.3**			$700		
Leisure Services	Desktop	LA-CONTR	06/27/2012	**4.3**			$700		
Leisure Services	Desktop	NR-COACH	06/27/2012	**4.3**			$700		
Leisure Services	Desktop	NR-FD	06/27/2012	**4.3**			$700		
Leisure Services	Desktop	NR-NOVA1	06/27/2012	**4.3**			$700		
Leisure Services	Desktop	PA-SUP	06/27/2012	**4.3**			$700		
Leisure Services	Desktop	SE-1	06/27/2012	**4.3**			$700		
Leisure Services	Desktop	LA-DIR1	03/11/2013	**3.6**				$700	
Leisure Services	Desktop	LA-ADMIN1	08/01/2013	**3.2**				$700	

Department	Type	System Name	Purchase D	Age	2016-17	2017-18	2018-19	2019-20	2020-21
Leisure Services	Desktop	LA-DIR2	08/01/2013	**3.2**				$700	
Leisure Services	iPad	LS-iPad-Dir	09/16/2011	**5.1**	$650				
Leisure Services Total					**$2,750**	**$2,100**	**$11,200**	**$2,100**	**$0**
Police Department	Desktop	PD-DOORLOCK	08/29/2005	**11.2**	$700				
Police Department	Desktop	PD-JAIL	07/08/2010	**6.3**	$700				
Police Department	Desktop	NI-VOL	07/20/2011	**5.3**		$700			
Police Department	Desktop	PD-REC04	07/20/2011	**5.3**		$700			
Police Department	Desktop	PD-REC05	07/20/2011	**5.3**		$700			
Police Department	Desktop	PD-VOLUNTEER2	07/20/2011	**5.3**		$700			
Police Department	Desktop	PD-VOLUNTEER	09/16/2011	**5.1**		$700			
Police Department	Desktop	PD-ADVOCATE	05/04/2012	**4.4**			$700		
Police Department	Desktop	NI-ADMIN	06/27/2012	**4.3**			$700		
Police Department	Desktop	NI-MGR	06/27/2012	**4.3**			$700		
Police Department	Desktop	PD-CIDVIDEO	06/27/2012	**4.3**			$700		
Police Department	Desktop	PD-OR1	06/27/2012	**4.3**			$700		
Police Department	Desktop	PD-OR2	06/27/2012	**4.3**			$700		
Police Department	Desktop	PP-PAL1	06/27/2012	**4.3**			$700		
Police Department	Desktop	PP-PAL2	06/27/2012	**4.3**			$700		
Police Department	Desktop	PP-PAL3	06/27/2012	**4.3**			$700		
Police Department	Desktop	PD-CHIEF	03/11/2013	**3.6**				$700	
Police Department	Desktop	PD-CID03	03/11/2013	**3.6**				$700	
Police Department	Desktop	PD-CORPB	03/11/2013	**3.6**				$700	
Police Department	Desktop	PD-MOTOR1	03/11/2013	**3.6**				$700	
Police Department	Desktop	PD-ADMIN2	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-ADMIN3	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-ATC	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-BRIEFA	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-BRIEFB	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-CID01	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-CID02	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-CID04	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-CID05	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-CID06	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-CID07	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-CID08	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-CIDMGR	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-CORPA	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-CSO1	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-CSO2	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-CSO3	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-EVTECH1	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-EVTECH2	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-LT1	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-LT2	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-MOTOR2	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-REC01	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-REC02	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-REC03	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-REC06	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-SGT1	01/27/2014	**2.8**					$700
Police Department	Desktop	PD-SGT2	01/27/2014	**2.8**					$700
Police Department	Desktop	LG-ATTY3	03/27/2014	**2.6**					$700
Police Department	iPad	PD-iPad-Chief	09/16/2011	**5.1**	$650				
Police Department	iPad	PD-iPad-NID	03/19/2012	**4.6**	$650				
Police Department	Notebook	PD-MDT-20	08/28/2008	**8.2**	$1,600				
Police Department	Notebook	PD-EV1	10/01/2009	**7.0**	$1,600				
Police Department	Notebook	PD-MDT-14	10/01/2009	**7.0**	$1,600				
Police Department	Notebook	PD-MDT-17	10/01/2009	**7.0**	$1,600				
Police Department	Notebook	PD-MDT-30	10/01/2009	**7.0**	$1,600				
Police Department	Notebook	PD-MDT-40	10/01/2009	**7.0**	$1,600				
Police Department	Notebook	PD-MDT-41	10/01/2009	**7.0**	$1,600				
Police Department	Notebook	PD-MDT-45	10/01/2009	**7.0**	$1,600				
Police Department	Notebook	PD-MDT-51	10/01/2009	**7.0**	$1,600				
Police Department	Notebook	PD-MDT-03	09/20/2010	**6.1**	$1,600				
Police Department	Notebook	PD-MDT-18	09/20/2010	**6.1**	$1,600				
Police Department	Notebook	PD-MDT-29	09/20/2010	**6.1**	$1,600				

Department	Type	System Name	Purchase D	Age	2016-17	2017-18	2018-19	2019-20	2020-21
Police Department	Notebook	PD-MDT-31	09/20/2010	**6.1**	$1,600				
Police Department	Notebook	PD-MDT-36	09/20/2010	**6.1**	$1,600				
Police Department	Notebook	PD-MDT-11	05/31/2011	**5.4**	$1,600				
Police Department	Notebook	PD-MDT-24	05/31/2011	**5.4**	$1,600				
Police Department	Notebook	PD-MDT-25	05/31/2011	**5.4**	$1,600				
Police Department	Notebook	PD-MDT-32	05/31/2011	**5.4**	$1,600				
Police Department	Notebook	PD-MDT-34	05/31/2011	**5.4**	$1,600				
Police Department	Notebook	PD-MDT-43	05/31/2011	**5.4**	$1,600				
Police Department	Notebook	PD-MDT-46	05/31/2011	**5.4**	$1,600				
Police Department	Notebook	PD-MDT-47	05/31/2011	**5.4**	$1,600				
Police Department	Notebook	PD-MDT-49	05/31/2011	**5.4**	$1,600				
Police Department	Notebook	PD-MDT-53	05/31/2011	**5.4**	$1,600				
Police Department	Notebook	PD-MDT-55	05/31/2011	**5.4**	$1,600				
Police Department	Notebook	PD-MDT-58	05/31/2011	**5.4**	$1,600				
Police Department	Notebook	PD-NID01	10/04/2011	**5.0**		$1,600			
Police Department	Notebook	PD-NID02	10/04/2011	**5.0**		$1,600			
Police Department	Notebook	PD-NID03	10/04/2011	**5.0**		$1,600			
Police Department	Notebook	PD-NID04	10/04/2011	**5.0**		$1,600			
Police Department	Notebook	PD-MDT-01	08/28/2012	**4.2**		$1,600			
Police Department	Notebook	PD-MDT-04	08/28/2012	**4.2**		$1,600			
Police Department	Notebook	PD-MDT-09	08/28/2012	**4.2**		$1,600			
Police Department	Notebook	PD-MDT-48	08/28/2012	**4.2**		$1,600			
Police Department	Notebook	PD-MDT-70	08/28/2012	**4.2**		$1,600			
Police Department	Notebook	PD-MDT-71	08/28/2012	**4.2**		$1,600			
Police Department	Notebook	PD-MDT-72	08/28/2012	**4.2**		$1,600			
Police Department	Notebook	PD-MDT-73	08/28/2012	**4.2**		$1,600			
Police Department	Notebook	PD-MDT-74	08/28/2012	**4.2**		$1,600			
Police Department	Notebook	PD-MDT-07	09/21/2012	**4.1**		$1,600			
Police Department	Notebook	PD-MDT-13	09/21/2012	**4.1**		$1,600			
Police Department	Notebook	PD-MDT-16	09/21/2012	**4.1**		$1,600			
Police Department	Notebook	PD-MDT-22	09/21/2012	**4.1**		$1,600			
Police Department	Notebook	PD-MDT-26	09/21/2012	**4.1**		$1,600			
Police Department	Notebook	PD-MDT-52	09/21/2012	**4.1**		$1,600			
Police Department	Notebook	PD-MDT-57	09/21/2012	**4.1**		$1,600			
Police Department	Notebook	PD-MDT-61	09/21/2012	**4.1**		$1,600			
Police Department	Notebook	PD-MDT-75	09/21/2012	**4.1**		$1,600			
Police Department	Notebook	PD-MDT-64	07/29/2013	**3.3**			$1,600		
Police Department	Notebook	PD-MDT-65	07/29/2013	**3.3**			$1,600		
Police Department	Notebook	PD-MDT-66	07/29/2013	**3.3**			$1,600		
Police Department	Notebook	PD-MDT-67	07/29/2013	**3.3**			$1,600		
Police Department	Notebook	PD-MDT-68	07/29/2013	**3.3**			$1,600		
Police Department	Notebook	PD-MDT-69	07/29/2013	**3.3**			$1,600		
Police Department	Notebook	PD-MDT-05	05/14/2014	**2.4**				$1,600	
Police Department	Notebook	PD-MDT-06	05/14/2014	**2.4**				$1,600	
Police Department	Notebook	PD-MDT-08	05/14/2014	**2.4**				$1,600	
Police Department	Notebook	PD-MDT-10	05/14/2014	**2.4**				$1,600	
Police Department	Notebook	PD-MDT-15	05/14/2014	**2.4**				$1,600	
Police Department	Notebook	PD-MDT-19	05/14/2014	**2.4**				$1,600	
Police Department	Notebook	PD-MDT-21	05/14/2014	**2.4**				$1,600	
Police Department	Notebook	PD-MDT-23	05/14/2014	**2.4**				$1,600	
Police Department	Notebook	PD-MDT-27	05/14/2014	**2.4**				$1,600	
Police Department	Notebook	PD-MDT-33	05/14/2014	**2.4**				$1,600	
Police Department	Notebook	PD-MDT-02	08/22/2014	**2.2**				$1,600	
Police Department	Notebook	PD-MDT-12	08/22/2014	**2.2**				$1,600	
Police Department	Notebook	PD-MDT-28	08/22/2014	**2.2**				$1,600	
Police Department	Notebook	PD-MDT-50	08/22/2014	**2.2**				$1,600	
Police Department	Notebook	PD-MDT-60	08/22/2014	**2.2**				$1,600	
Police Department	Notebook	PD-MDT-35	07/01/2015	**1.3**					$1,600
Police Department	Notebook	PD-MDT-37	07/01/2015	**1.3**					$1,600
Police Department	Notebook	PD-MDT-44	07/01/2015	**1.3**					$1,600
Police Department	Notebook	PD-MDT-54	07/01/2015	**1.3**					$1,600
Police Department	Notebook	PD-MDT-56	07/01/2015	**1.3**					$1,600
Police Department	Notebook	PD-MDT-59	07/01/2015	**1.3**					$1,600
Police Department Total					**$44,300**	**$38,700**	**$15,900**	**$26,800**	**$29,900**
Public Works	Desktop	PW-STORM3	07/08/2010	**6.3**	$700				
Public Works	Desktop	WP-LAB	07/08/2010	**6.3**	$700				

Department	Type	System Name	Purchase D	Age	2016-17	2017-18	2018-19	2019-20	2020-21
Public Works	Desktop	WW-LAB	07/08/2010	**6.3**	$700				
Public Works	Desktop	PW-PARKS2	07/20/2011	**5.3**		$700			
Public Works	Desktop	PW-PARKS3	07/20/2011	**5.3**		$700			
Public Works	Desktop	PW-STORM	07/20/2011	**5.3**		$700			
Public Works	Desktop	PW-STREETS2	07/20/2011	**5.3**		$700			
Public Works	Desktop	PW-STREETS3	07/20/2011	**5.3**		$700			
Public Works	Desktop	PW-BMAINT2	09/12/2011	**5.1**		$700			
Public Works	Desktop	PW-BMAINT3	09/12/2011	**5.1**		$700			
Public Works	Desktop	PW-LOCATE1	09/12/2011	**5.1**		$700			
Public Works	Desktop	PW-STORM2	09/12/2011	**5.1**		$700			
Public Works	Desktop	PW-STORM4	09/12/2011	**5.1**		$700			
Public Works	Desktop	PW-STREETS	09/12/2011	**5.1**		$700			
Public Works	Desktop	PW-WATER3	09/12/2011	**5.1**		$700			
Public Works	Desktop	WP-MAINT5	09/12/2011	**5.1**		$700			
Public Works	Desktop	WW-STAFF	05/04/2012	**4.4**			$700		
Public Works	Desktop	PW-BMAINT1	06/27/2012	**4.3**			$700		
Public Works	Desktop	WP-MAINT1	06/27/2012	**4.3**			$700		
Public Works	Desktop	WP-MAINT2	06/27/2012	**4.3**			$700		
Public Works	Desktop	WP-MAINT4	06/27/2012	**4.3**			$700		
Public Works	Desktop	WW-FOREMAN	06/27/2012	**4.3**			$700		
Public Works	Desktop	PW-OPMGR	03/11/2013	**3.6**				$700	
Public Works	Desktop	PW-PARKS1	03/11/2013	**3.6**				$700	
Public Works	Desktop	PW-SIGNS	03/11/2013	**3.6**				$700	
Public Works	Desktop	PW-UTILENGR	03/11/2013	**3.6**				$700	
Public Works	Desktop	PW-WATER1	03/11/2013	**3.6**				$700	
Public Works	Desktop	WP-MAINT3	03/11/2013	**3.6**				$700	
Public Works	Desktop	WP-SUP	03/11/2013	**3.6**				$700	
Public Works	Desktop	WW-LEADOP	03/11/2013	**3.6**				$700	
Public Works	Desktop	PW-ADMIN1	08/01/2013	**3.2**				$700	
Public Works	Desktop	PW-ADMIN2	08/01/2013	**3.2**				$700	
Public Works	Desktop	PW-WWSUP	08/01/2013	**3.2**				$700	
Public Works	Desktop	WP-CHIEF	08/01/2013	**3.2**				$700	
Public Works	Desktop	WP-LEAD	08/01/2013	**3.2**				$700	
Public Works	Desktop	PW-UTILMGR	01/27/2014	**2.8**					$700
Public Works	Desktop	PW-ADMIN3	03/27/2014	**2.6**					$700
Public Works	Desktop	WW-CHIEF	03/27/2014	**2.6**					$700
Public Works	iPad	PW-iPad-UtilMgr	09/16/2011	**5.1**	$650				
Public Works	iPad	PW-iPad-Util-Mgr	01/03/2012	**4.8**	$650				
Public Works	Notebook	WP-NB1	10/01/2009	**7.0**	$1,600				
Public Works	Notebook	PW-NB1	09/20/2010	**6.1**	$1,600				
Public Works Total					**$6,600**	**$9,100**	**$4,200**	**$9,100**	**$2,100**
Support Services	Desktop	SS-CLERK1	03/11/2013	**3.6**				$700	
Support Services	Desktop	SS-GRANTS	03/11/2013	**3.6**				$700	
Support Services	Desktop	SS-CLERK2	08/01/2013	**3.2**				$700	
Support Services	Desktop	SS-CLERK3	08/01/2013	**3.2**				$700	
Support Services	Desktop	SS-RECEPT	08/01/2013	**3.2**				$700	
Support Services	iPad	SS-iPad-Staff	02/01/2011	**5.7**	$650				
Support Services	iPad	SS-iPad-Clerk	08/22/2012	**4.2**	$650				
Support Services Total					**$1,300**	**$0**	**$0**	**$3,500**	**$0**
Grand Total					**$83,650**	**$71,150**	**$63,700**	**$83,950**	**$78,900**

2016-17	2017-18	2018-19	2019-20	2020-21
$83,650	$71,150	$63,700	$83,950	$78,900

TRANSPORTATION IMPROVEMENTS

CAPITAL PROJECT DETAIL

PROJECT TITLE

Amsden Rd Rehabilitation

PROJECT#

308120

CATEGORY

Transportation

FUND

308-Transportation

PROJECT LOCATION

Amsden Rd-N Halifax to A1A

MANAGEMENT

Engineering

PROJECT SCOPE

Rehabilitate road which includes the removal and replacement of asphalt, road base and subgrade.

JUSTIFICATION

This section of roadway is approximately 1,750 ft long and has had many patch repairs and pavement settlement due to stormdrain pipe joint leaks, which has undermined the soils beneath the pavement. The stormdrain pipes were repaired in 2016 with cured in place lining and now the road subgrade, base and asphalt need to be restored.

PROJECT COST METHODOLOGY

Unit pricing

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Road Rehabilitation	223,000	0	0	0	0	223,000
Total	223,000	0	0	0	0	223,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-Transportation	223,000	0	0	0	0	223,000
Total	223,000	0	0	0	0	223,000

Amsden Road Pavement Rehabilitation

(N. Halifax Drive to A1A)

Probable Cost

PROJECT DESCRIPTION: This section of roadway is approximately 1,750 ft long and has had many patch repairs and pavement settlement due to stormdrain pipe joint leaks, which has undermined the soils beneath the pavement. The stormdrain pipes were repaired in 2016 with cured in place lining and now the road subgrade, base and ashalt need to be

CONSTRUCTION

Item No.	Description	Estimated Quantity	Unit	Unit Price	Item Price
1	Mobilization/ Demobilization (5% maximum of TOTAL BASE BID)	1	LS	$9,638.00	$9,638
2	Remove existing asphalt	4280	SY	$2.50	$10,700
3	Remove and stockpile existing base	1,100	CY	$6.00	$6,600
4	Stabilize Subgrade (2')	4,280	SY	$12.00	$51,360
5	Compacted Road Base 8"	4,280	SY	$10.00	$42,800
6	Furnish & Install Compacted Subgrade Import Fill	300	CY	$20.00	$6,000
7	Furnish & Install Asphaltic Pavement (S.P. 9.5)	480	Tons	$110.00	$52,800
8	Thermoplastic Striping	1	LS	$5,000.00	$5,000
9	Dewatering	1	LS	$10,000.00	$10,000
10	Maintenance of Traffic	1	LS	$5,000.00	$5,000
11	Survey layout and As-Builts	1	LS	$2,500.00	$2,500

Construction Total	$202,398
Engineering, Geotechnical Testing (10%)	$20,240
TOTAL	$222,638

CAPITAL PROJECT DETAIL

PROJECT TITLE

Forest Hill Trail

PROJECT#

308101

CATEGORY

Transportation

FUND

308-Transportation

PROJECT LOCATION

MANAGEMENT

Engineering

PROJECT SCOPE

Trail connecting the Forest Hills neighborhood to Mayfield Terrace. Before this project commences, a neighborhood meeting will be conducted to solicit input on this project.

JUSTIFICATION

Volusia Transportation Planning Organization conducted a study titled “Bicycle and Pedestrian School Safety Review" in November 2008 for Tomoka Elementary. Due to budget reductions, students living in the Forest Hills neighborhood are no longer provided courtesy bus transportation since the 2008/2009 school year. If they walk or ride bicycles to and from school, they currently would need to travel along Nova Road and S.R. 40 to reach Old Tomoka Road and the school. These roads are busy and the distance exceeds one mile. The study recommended this project to be a Priority Project. It recommended considering pursuing the construction of a trail to connect the Forest Hills neighborhood to Mayfield Terrace to provide students with an alternative to Nova Road. This would require a pedestrian bridge over a canal would provide a shortcut for students living in the Forest Hills neighborhood.

PROJECT COST METHODOLOGY

Trail connecting the Forest Hills neighborhood to Mayfield Terrace.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Construction	589,288	0	0	0	0	589,288
Design	0	0	0	0	0	0
Total	589,288	0	0	0	0	589,288

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
FDOT JPA	530,359	0	0	0	0	530,359
Property Taxes-Transportation	58,929	0	0	0	0	58,929
Total	589,288	0	0	0	0	589,288

Amsden Rd Rehabilitation- A1A to N. Halifax Dr
Ray Mar Dr
Hall Dr
Alden Dr
Ocean Ter
Royal Dunes Blvd
Ocean Terrace West
N Halifax Dr (C.R. 2803)
Royal Dunes Cir
Alden Dr
Ocean Shore Blvd (S.R. A1A)
Amsden Rd
Fairway Dr
Golfview Ln
Country Club Dr
John Anderson Dr
Nicholas Ct
Nicholas Dr
Triton Rd
bing
POWERED BY esri

Forest Hill Trail Engineer's Estimate

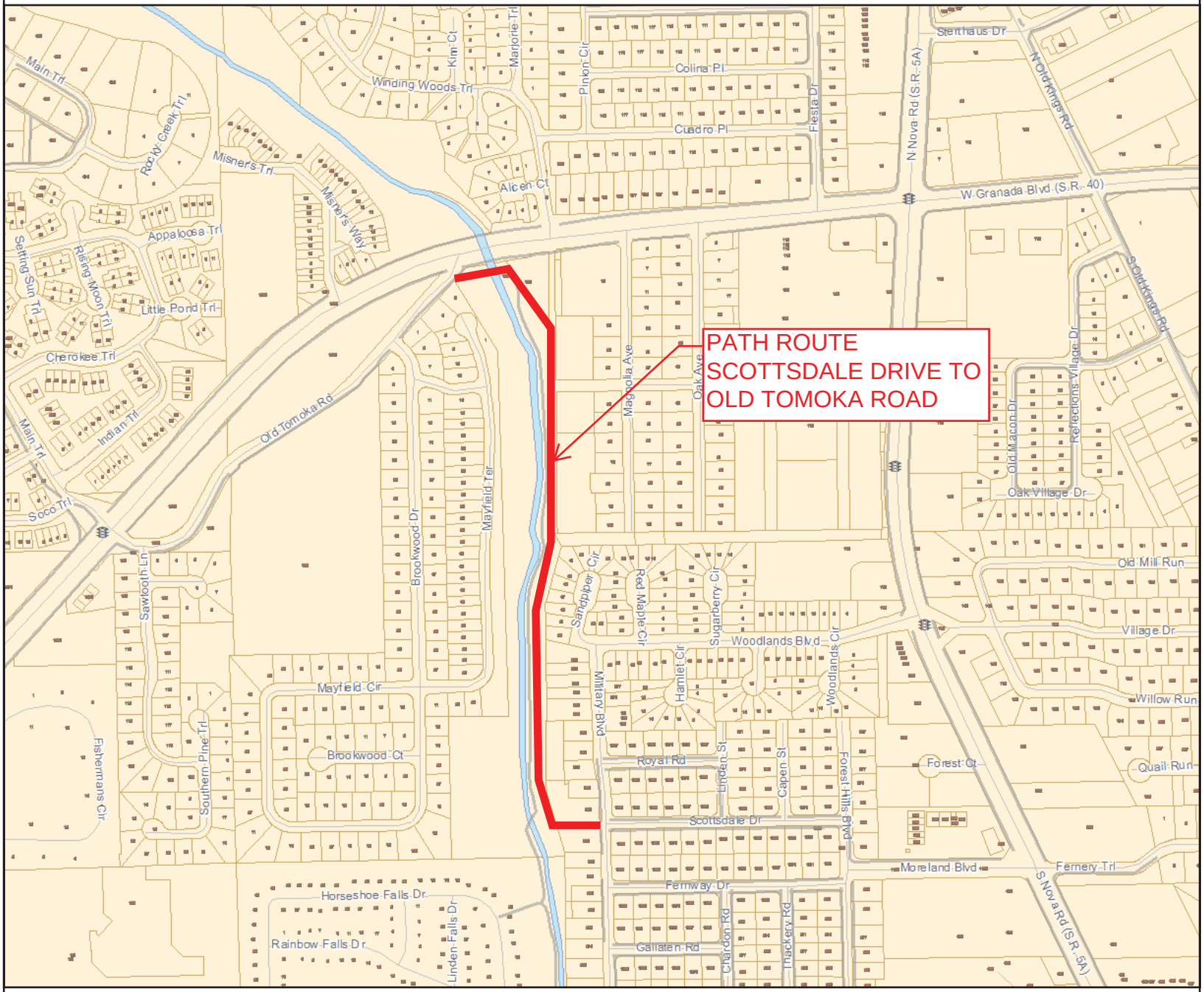
FDOT Pay Item Number	Pay Item Description	Estimated Quantity	Unit Type	Unit Cost	Total Labor Cost
BASE BID ITEMS					
101-1	Mobilization	1	LS	$ 18,891.00	$ 18,891.00
102-1	Maintenance of Traffic	1	LS	$ 7,500.00	$ 7,500.00
104-10-2	Synthetic Bales	24	EA	$ 7.00	$ 168.00
104-13-1	Silt Fence (Type III)	3,700	LF	$ 1.50	$ 5,550.00
110-1-1	Clear and Grub	1.0	AC	$ 8,400.00	$ 8,400.00
120-1	Regular Excavation	100	CY	$ 6.00	$ 600.00
120-6	Embankment	524	CY	$ 8.00	$ 4,192.00
515-2302	Ped./Bicycle Railing, Aluminum, 54" Picket Rail	434	LF	$ 45.00	$ 19,530.00
522-2	10-ft. Wide Concrete Sidewalk, 6"	3,150	SY	$ 36.75	$ 115,762.50
1-ob	10 ft wood boardwalk w handrails	5,250	SF	$ 36.75	$ 192,937.50
570-1-2	Performance Turf	1,340	SY	$ 3.50	$ 4,685.31
2-OB	Street light w/system controller	30	AS	$ 5,250.00	$ 157,500.00
			TOTAL BASE BID		**$ 535,716.31**
			CEI		**$ 53,571.63**
			TOTAL CONSTRUCTION COST		**$ 589,287.94**
				FDOT	**$ 530,359.15**
				10% Match	**$ 58,928.79**

			FDOT Fund	10% Match
2015/2016	Design Costs	$57,404.00	$ 51,663.60	$ 5,740.40
2016/2017	Construction Subtotal	$535,716.31	$ 482,144.68	$ 53,571.63
2016/2017	CEI Cost	$53,571.63	$ 48,214.47	$ 5,357.16
	Total Project Cost	$646,691.94	$ 582,022.75	$ 64,669.19

Total by Year

	Cost	FDOT Fund	10% Match
2015/2016	**$57,404.00**	**$ 51,663.60**	**$ 5,740.40**
2016/2017	**$589,287.94**	**$530,359.15**	**$58,928.79**
All years	**$646,691.94**	**$582,022.75**	**$64,669.19**

Forest Hills Connector Path to Tomoka Elementary



CITY OF ORMOND BEACH FLORIDA

- Sidewalks
- Golf Courses
- Traffic Signals
- Airport and Railroad
  - AIRPORT
  - RAILROAD
- City Streets
  - DIRT
  - MAJOR
  - PAVED
- Water Features
- Property Lines
- City Limits
  - ORMOND BEACH
  - HOLLY HILL
  - DAYTONA BEACH

600 ft

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DRAWING STATUS	
	DRAFT
	PERMIT
	BID
	ADDENDA
	CONSTRUCTION
	RECORD

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

FRED COSTELLO, MAYOR
JOYCE SHANAHAN, CITY MANAGER

JOHN NOBLE, P.E. CITY ENGINEER

FOREST HILL TRAIL

PLAN VIEW

DATE: 5/20/15	PROJECT NO.: 00–
SCALE: 1"=20'	FILE NAME: NRDGWDSW.DWG
DRAWN BY: MC	SHEET: 2 OF 9

DRAWING STATUS	
	DRAFT
	PERMIT
	BID
	ADDENDA
	CONSTRUCTION
	RECORD

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

FRED COSTELLO, MAYOR
JOYCE SHANAHAN, CITY MANAGER

JOHN NOBLE, P.E. CITY ENGINEER

FOREST HILL TRAIL

PLAN VIEW

DATE: 5/20/15	PROJECT NO.: 00–
SCALE: 1"=20'	FILE NAME: NRDGWDSW.DWG
DRAWN BY: MC	SHEET: 3 OF 9

CAPITAL PROJECT DETAIL

PROJECT TITLE

Railroad Crossing

PROJECT#

308123

CATEGORY

Transportation

FUND

308-Transportation

PROJECT LOCATION

Various

MANAGEMENT

Engineering

PROJECT SCOPE

Reconstruction of the railroad crossings by the Florida East Coast Railroad

JUSTIFICATION

The City through an agreement with the Florida East Coast Railroad (FEC) for roadway crossings of the railway is required to fund the railroad crossing improvements as identified by the FEC. Average costs for repairs average around $50,000. FEC does not have a planned improvement program that they are able to provide.

PROJECT COST METHODOLOGY

Estimated amount from previous years. Cost varies depending of number of lanes and work to be done

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Railroad Crossing	50,000	50,000	50,000	50,000	0	200,000
Total	50,000	50,000	50,000	50,000	0	200,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-Transportation	50,000	50,000	50,000	50,000	0	200,000
Total	50,000	50,000	50,000	50,000	0	200,000

Railroad Crossings

Emergency Generators

Stormwater Ponds

Airport and Railroad

AIRPORT

RAILROAD

Major Roads

I-95

MAJOR

Water Features

1.200 miles

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CAPITAL PROJECT DETAIL

PROJECT TITLE

Road Resurfacing

PROJECT#

308124

CATEGORY

Transportation

FUND

308-Transportation

PROJECT LOCATION

Various

MANAGEMENT

Engineering

PROJECT SCOPE

Resurfacing of City streets as part of an on-going maintenance policy in order to prevent street deterioration and excessive reconstruction costs.

JUSTIFICATION

The results of a 1995 survey of City residents regarding their relative satisfaction with City services indicated that street repair was the lowest rated City service. In addition, based on the level of funding that existed prior to 1997, the backlog of resurfacing would continue to increase and the condition of local roads would deteriorate further to the point where reconstruction would be necessary at an average cost of $1,367,000 per mile rather than $183,000 per mile for resurfacing.

Consequently, a comprehensive road improvement plan with a dedicated funding source was developed and approved by the City Commission. The road improvement program is intended to reduce the projected road improvement backlog to a manageable level and protect the City's 161-mile road network that is valued at $44 million.

PROJECT COST METHODOLOGY

Estimates are base upon unit pricing from recent bids of similar roadway resurfacing project within the City.

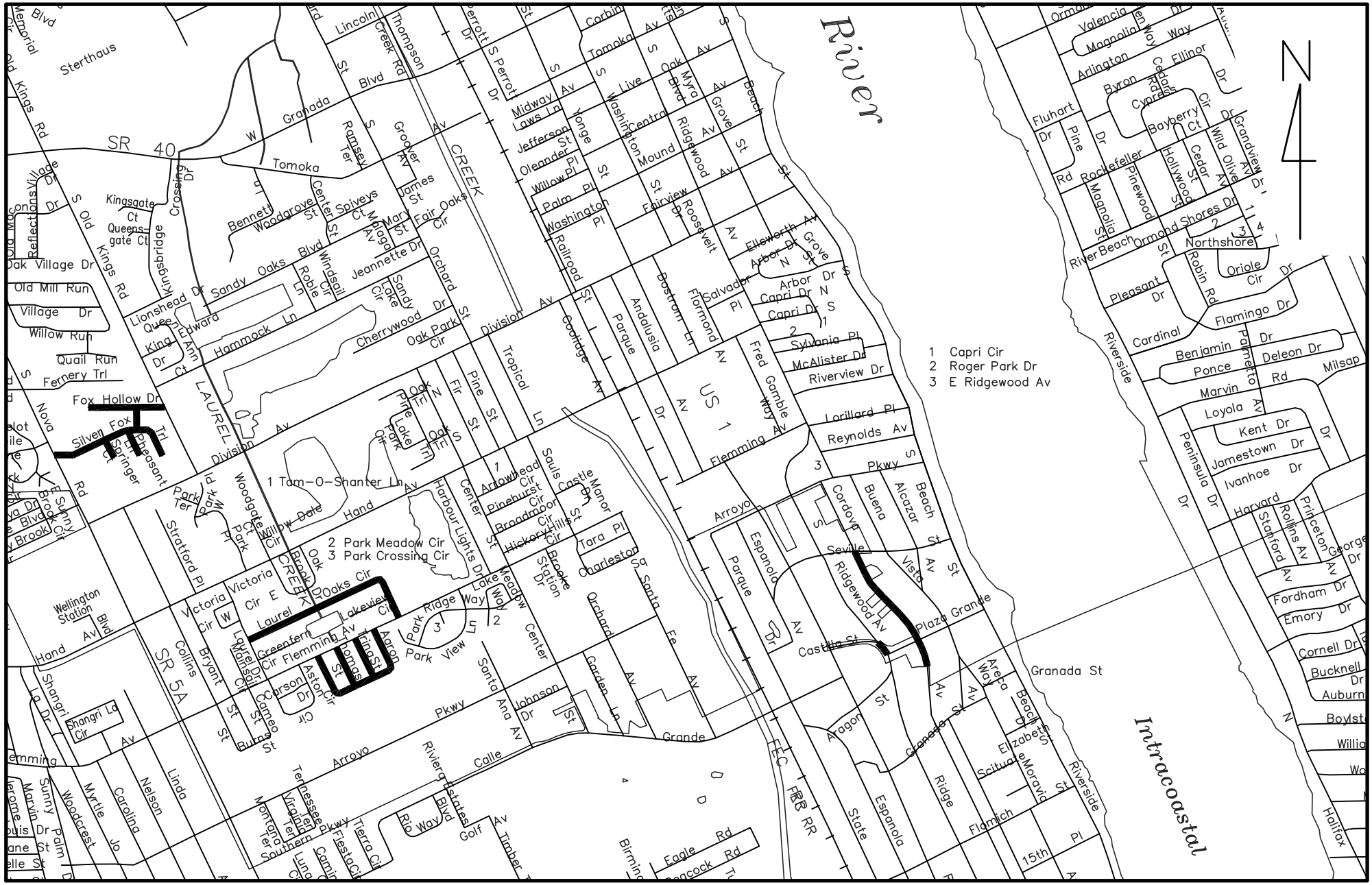
EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
2017 Roadway Resurfacing	500,000	0	0	0	0	500,000
2018 Roadway Resurfacing	0	460,000	0	0	0	460,000
2019 Roadway resurfacing	0	0	470,000	0	0	470,000
2020 Roadway resurfacing	0	0	0	453,000	0	453,000
2021 Roadway resurfacing	0	0	0	0	450,000	450,000
Total	500,000	460,000	470,000	453,000	450,000	2,333,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Local Option Gas Tax	500,000	460,000	470,000	453,000	450,000	2,333,000
Total	500,000	460,000	470,000	453,000	450,000	2,333,000

ROADWAY RESURFACING 5-YEAR SCHEDULE (2017-2021)

2017				
LAUREL OAKS CIR	FLEMING AVE	LAUREL DR	2,800	$ 65,586
WOODLAND TR	AIRPORT RD	PINE BLUFF TR	2,446	$ 65,332
S. RIDGEWOOD AVE	CASTILLA ST	PLAZA GRANDE	203	$ 4,993
WARWICK AVE	MACINTOSH RD	N. YOUNGE ST	800	$ 18,739
SILVER FOX TRL	NOVA RD	CUL-DE-SAC	1,569	$ 52,012
FOX HOLLOW DR	SILVER FOX TRL	FOX HOLLOW DR	953	$ 31,592
SPRINGER CT	SILVER FOX TRL	CUL-DE-SAC	200	$ 6,630
PHEASANT LN	SILVER FOX TRL	CUL-DE-SAC	265	$ 8,785
AARON CIR	FLEMING AVE	FLEMING AVE	1,725	$ 40,365
THOMAS ST	FLEMING AVE	AARON CIR	500	$ 11,700
TRINA ST	FLEMING AVE	AARON CIR	500	$ 11,700
ASHTON LOOK	HUNTERS RIDGE BLVD	CAMBRIDGE TRACE	360	$ 22,318
BANYAN DR	N. HALIFAX DR	CUL-DE-SAC	1,093	$ 30,940
BOSARVEY DR	COQUINA DR	S. HALIFAX DR	1,400	$ 32,793
SALVADOR PL	FLORMOND AVE	S. RIDGEWOOD AVE	400	$ 9,369
FLORMOND AVE	HAND AVE	END	675	$ 16,490
COQUINA CT	BOVARD AVE	VINING CT	1,200	$ 28,108
CORDOVA AVE	SEVILLE ST	S. CITY LIMITS	1,665	$ 39,008
		TOTAL	**18,754**	**$ 496,461**
2018				
DAWN DR	N. HALIFAX DR	LUNA DR	1,000	$ 23,424
E VICTORIA CIR	LAUREL DR	LAUREL DR	960	$ 22,487
EDGEWOOD WAY	NORTHSIDE DR	PARKSIDE DR	400	$ 9,369
HALL DR	RAY MAR DR	OCEAN TE	300	$ 7,027
HERNANDEZ AVE	N.BEACH ST	N. RIDGEWOOD AVE	1,200	$ 28,108
WILDWOOD TRAIL	MAIN TRAIL	CUL-DE-SAC	1,117	$ 42,223
HIGHLAND AVE	N. BEACH ST	N.YOUNGE ST	2,800	$ 65,586
IVANHOE DR	HARVARD DR	PENINSULA DR	1,210	$ 31,177
LAUREL DR	HAND AVE	FLEMING AVE	1,290	$ 31,727
LUNA DR	DAWN DR	RAY MAR DR	300	$ 7,027
MARJORIE TRL	WINDING WOODS TRL	CUL-DE-SAC	1,600	$ 37,478
MOUND AVE	S.BEACH ST	S. RIDGEWOOD AVE	1,100	$ 25,766
N WEDGEWOOD CIR	OCEAN SHORE BLVD	ALDEN DR	1,200	$ 28,108
NORTHSIDE DR	OAKBROOK DR	EDGEWOOD WAY	2,800	$ 65,586
OAK BROOK DR	HAND AVE	HAND AVE	1,315	$ 34,812
		TOTAL	**18,592**	**$ 459,907**
2019				
PINE RD	RIVERSIDE DR	FLUHART DR	1,000	$ 21,081
PLAZA GRANDE	S. BEACH ST	CORDOVA AVE	885	$ 20,730
RIVER PINE WAY	NORTHSIDE DR	OVERBROOK DR	200	$ 4,685
RIVERVIEW DR	S. RIDGEWOOD AVE	S. BEACH ST	1,234	$ 27,460
S. RIDGEWOOD AVE	LORILLARD PL	ARROYO PKWY	971	$ 22,744
S. WEDGEWOOD CIR	ALDEN DR	N WEDGWOOD CIR	600	$ 14,054
E RIDGEWOOD AVE	LORILLARD AVE	ARROYO PKWY	710	$ 16,631
SHERBOURNE WAY	WANDERING OAKS DR	OVERBROOK DR	240	$ 5,622
TARA PL	CHARLESTON SQ	CHARLESTON SQ	670	$ 15,694
W VICTORIA CIR	LAUREL DR	LAUREL DR	730	$ 17,099
WALDEN LN	SYCAMORE CIR	SYCAMORE CIR	466	$ 11,461
WANDERING OAKS DR	PARKSIDE DR	BROOKSIDE DR	2,000	$ 46,847
WARWICK AVE	N. RIDGEWOOD AVE	MCINTOSH RD	800	$ 18,739
WINDWARD LN	ROYAL PALM AVE	WINDWARD CIR	970	$ 34,081
WINDWARD CIR	ROYAL PALM AVE	END	900	$ 31,622
WOODLAND AVE	N. RIDGEWOOD AVE	N. YOUNGE ST	1,360	$ 31,856
BONITA PL	PINION CIR	FIESTA DR	1,000	$ 23,424
BRIARGATE LOOK	AIRPORT RD	AIRPORT RD	2,327	$ 54,516
COLINA PL	FIESTA DR	PINION CIR	1,000	$ 23,424
CROSSING TRL	CLYDE MORRIS BLVD	CUL-DE-SAC	835	$ 28,387
		TOTAL	**18,898**	**$ 470,158**
2020				
ANDALUSIA AVE	DIVISION AVE	HAND AVE	1,320	$ 37,500
N SAINT ANDREWS DR	TOMOKA OAKS BLVD	EAGLE DR	6,200	$ 230,655
S. BEACH ST -ACCESS RD)	PLAZA GRANDE	RIVERVIEW DR	3,200	$ 81,818
CARDINAL DR	FLAMINGO DR	FLAMINGO DR	1,273	$ 22,276
WILMETTE AVE	N. CENTER ST	FEC RR	1,993	$ 80,889
		TOTAL	**13,986**	**$ 453,138**
2021				
ORMOND LAKES BLVD	JOLYNN DR	WILD CAT LN	1,810	$ 104,807
OSCEOLA AVE	S. ATLANTIC AVE	END	570	$ 16,242
RIVERSIDE DR	FLUHART DR	S CITY LIMITS	6,400	$ 261,448
S PERROTT DR	W. GRANADA BLVD	TOMOKA AVE	700	$ 24,950
THOMPSON CREEK RD	W. GRANADA BLVD	LINCOLN AVE	820	$ 42,259
		TOTAL	**10,300**	**$ 449,706**

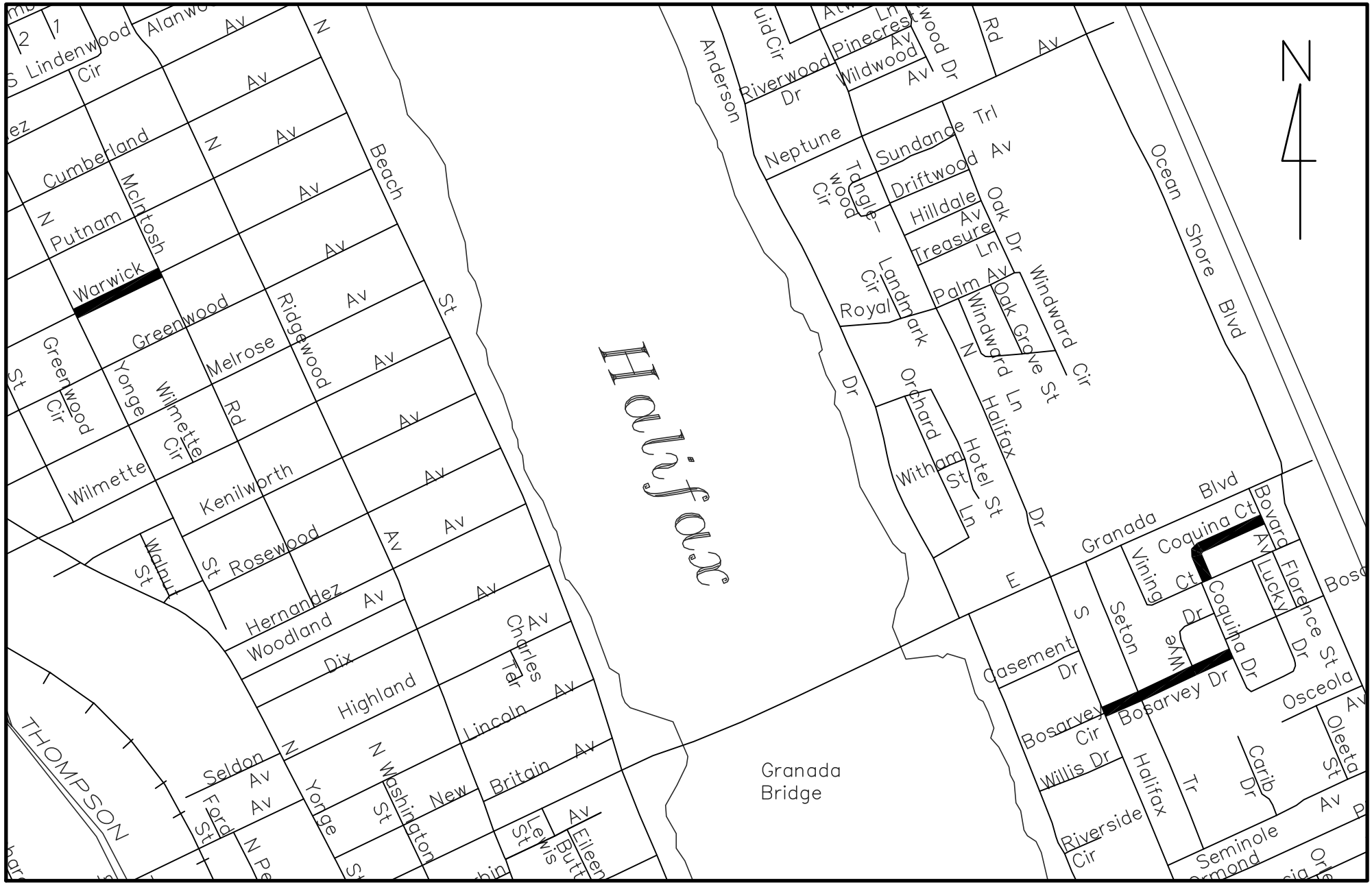
FY 2017 ROADWAY RESURFACING



LOCATION MAP

SHEET 1 OF 4

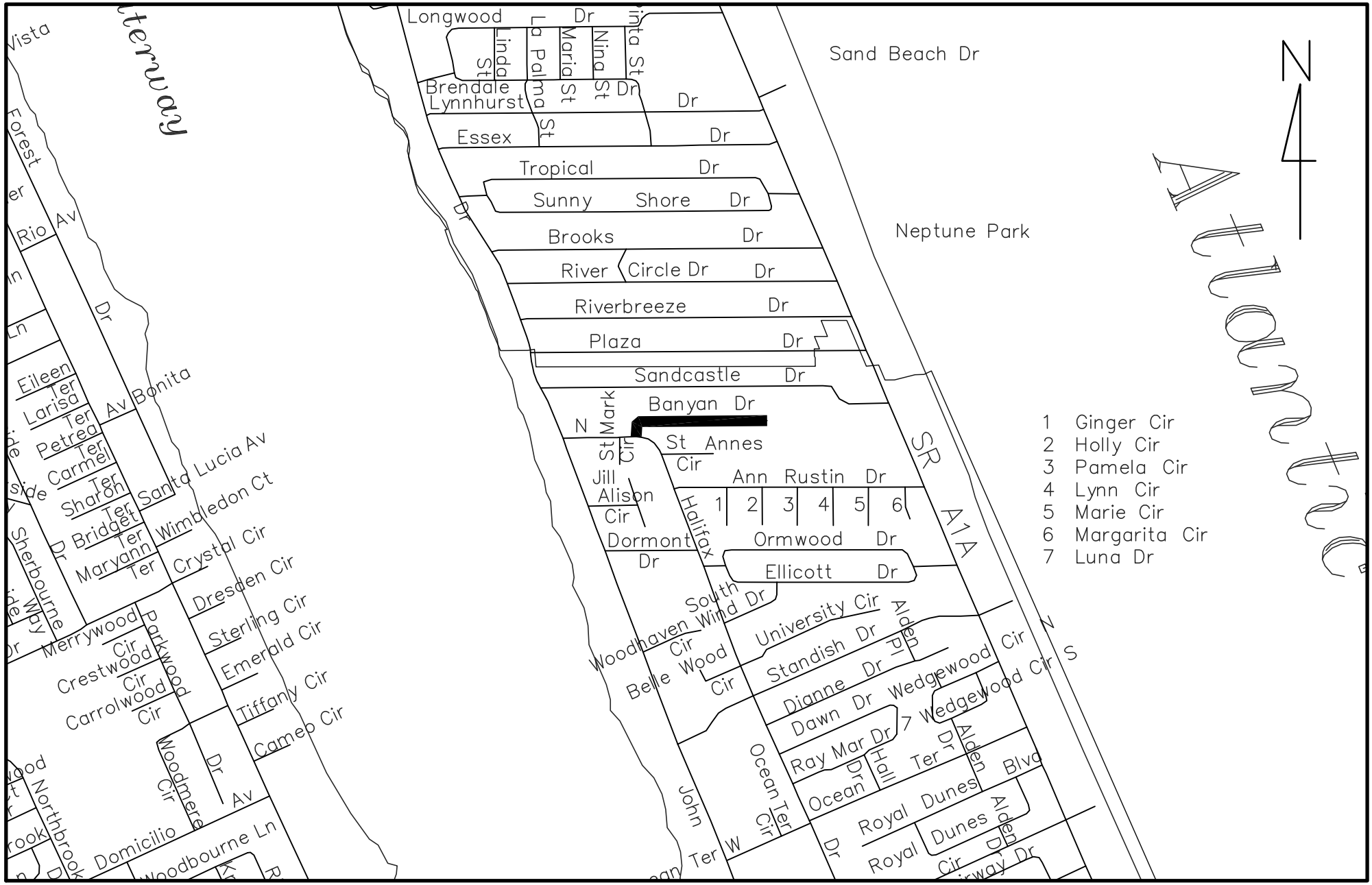
FY 2017 ROADWAY RESURFACING



LOCATION MAP

SHEET 2 OF 4

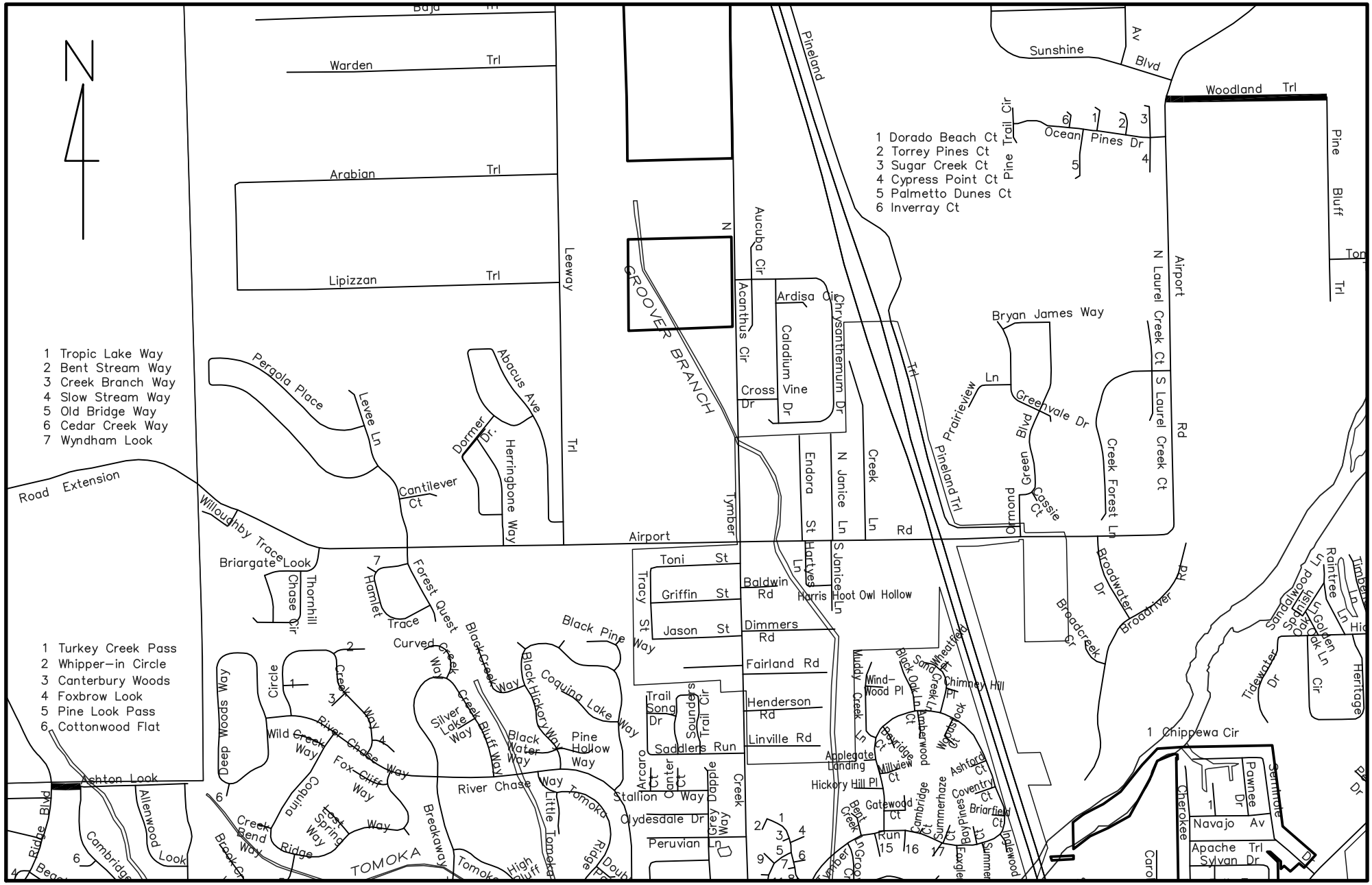
FY 2017 ROADWAY RESURFACING



LOCATION MAP

SHEET 3 OF 4

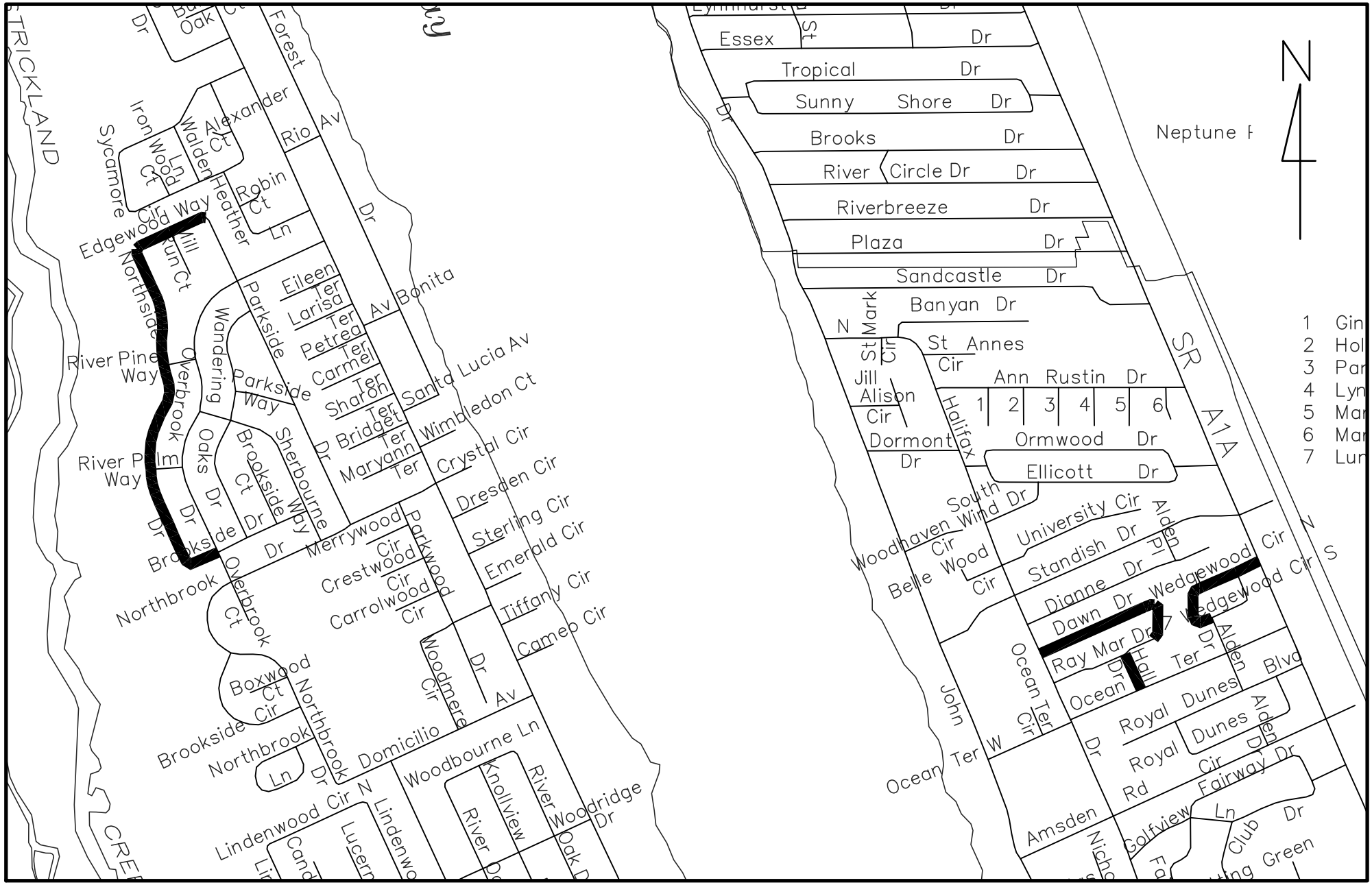
FY 2017 ROADWAY RESURFACING



LOCATION MAP

SHEET 4 OF 4

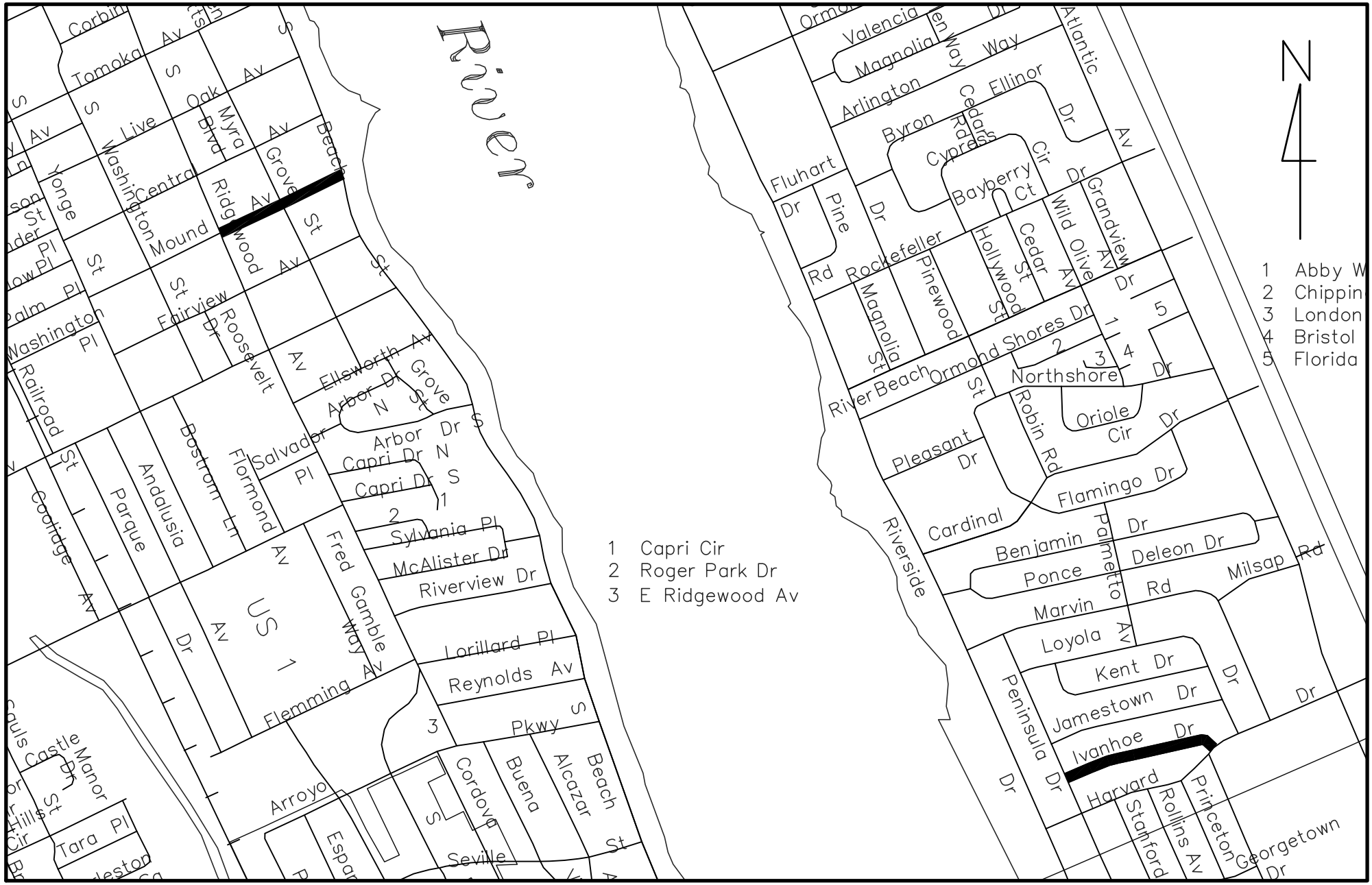
FY 2018 ROADWAY RESURFACING



LOCATION MAP

SHEET 1 OF 5

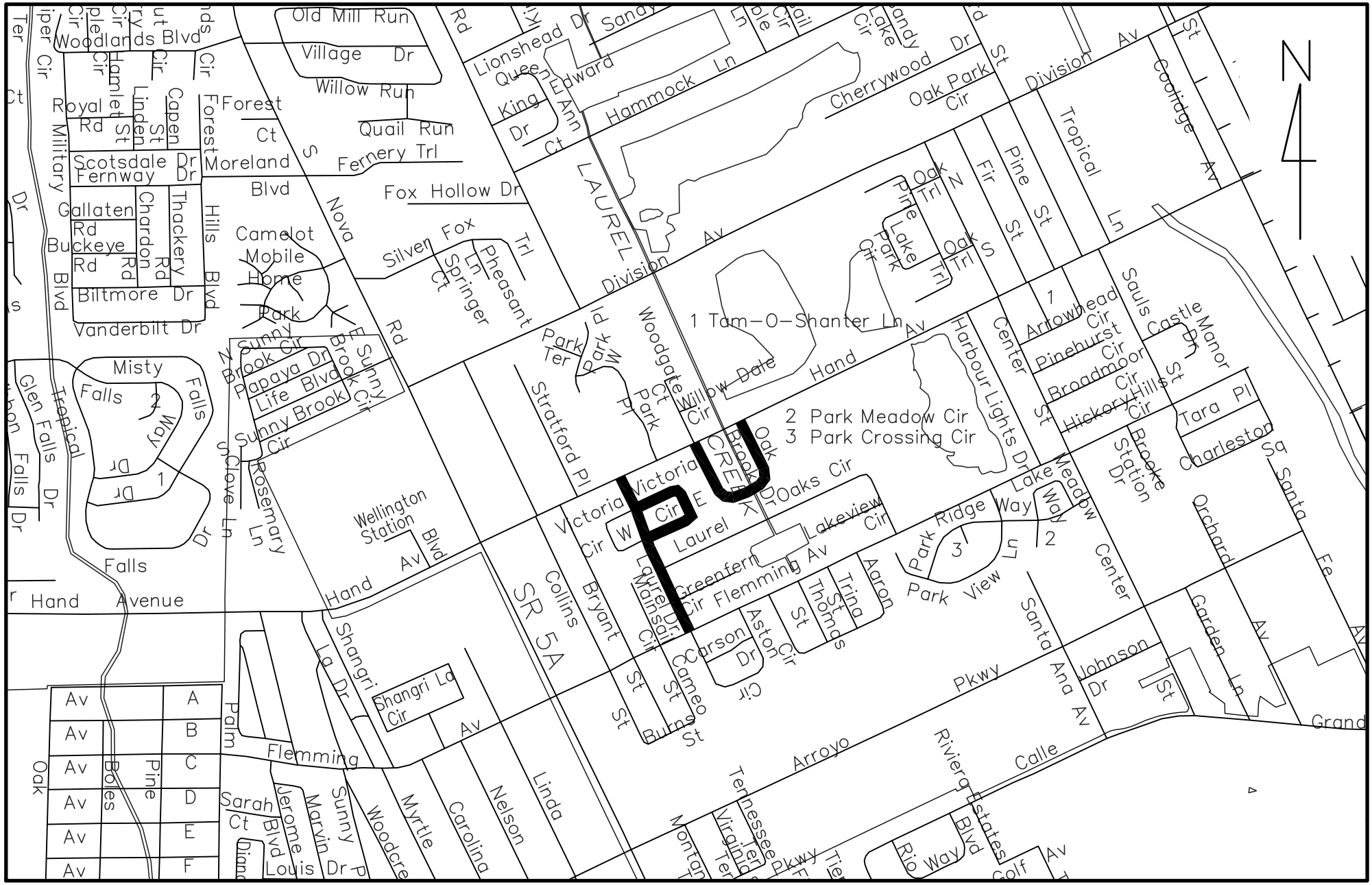
FY 2018 ROADWAY RESURFACING



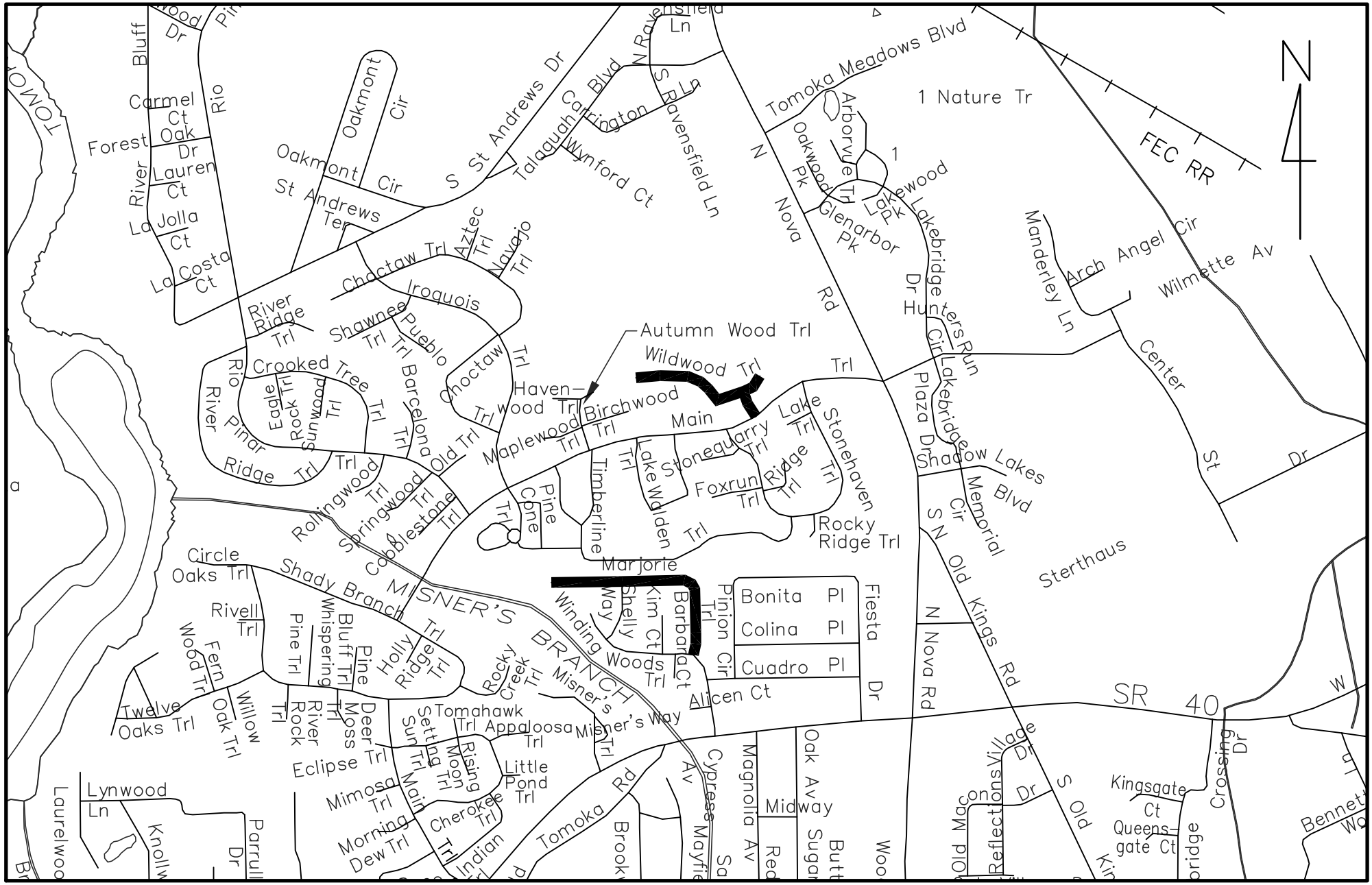
LOCATION MAP

SHEET 2 OF 5

FY 2018 ROADWAY RESURFACING



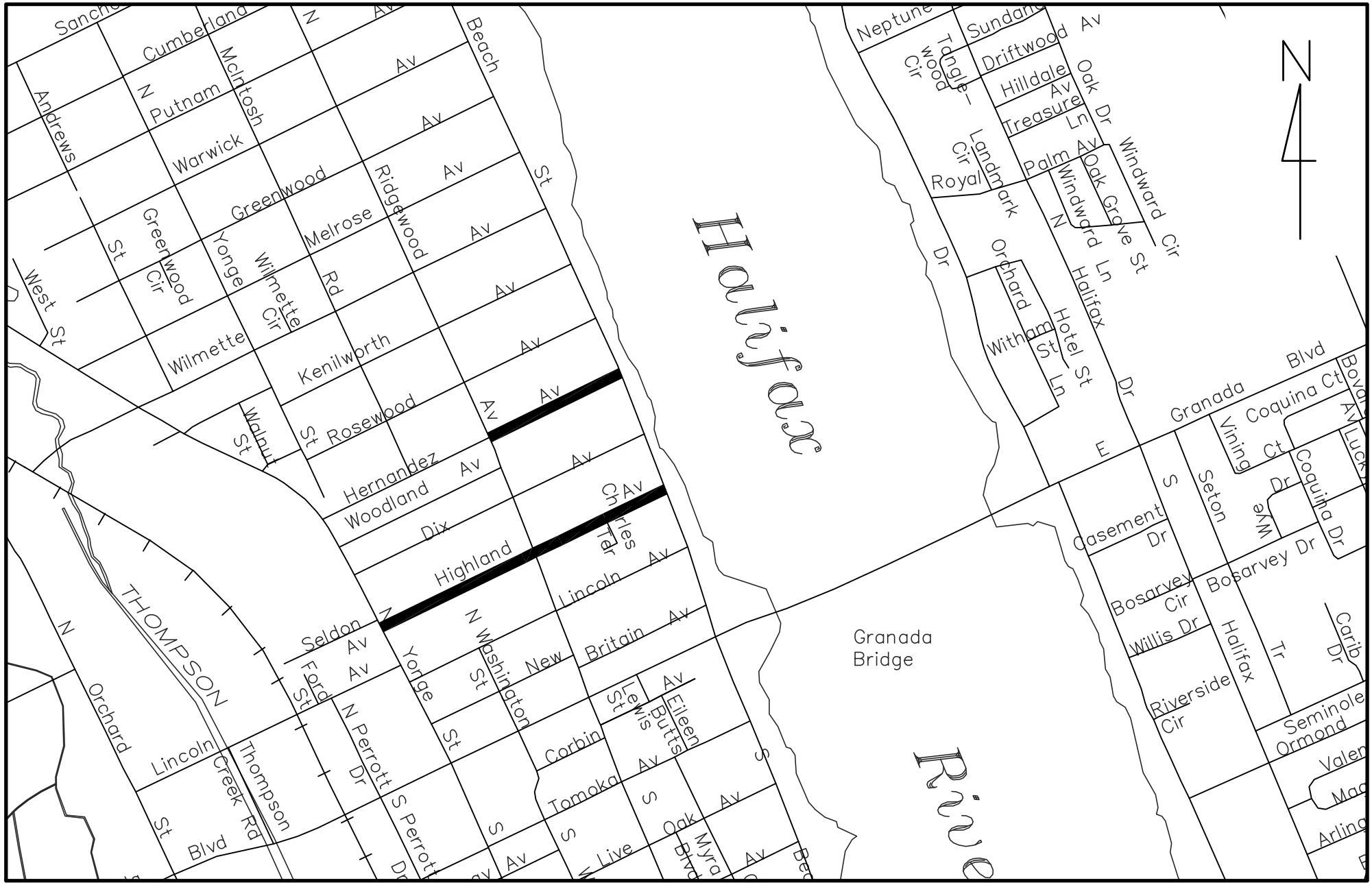
FY 2018 ROADWAY RESURFACING



LOCATION MAP

SHEET 4 OF 5

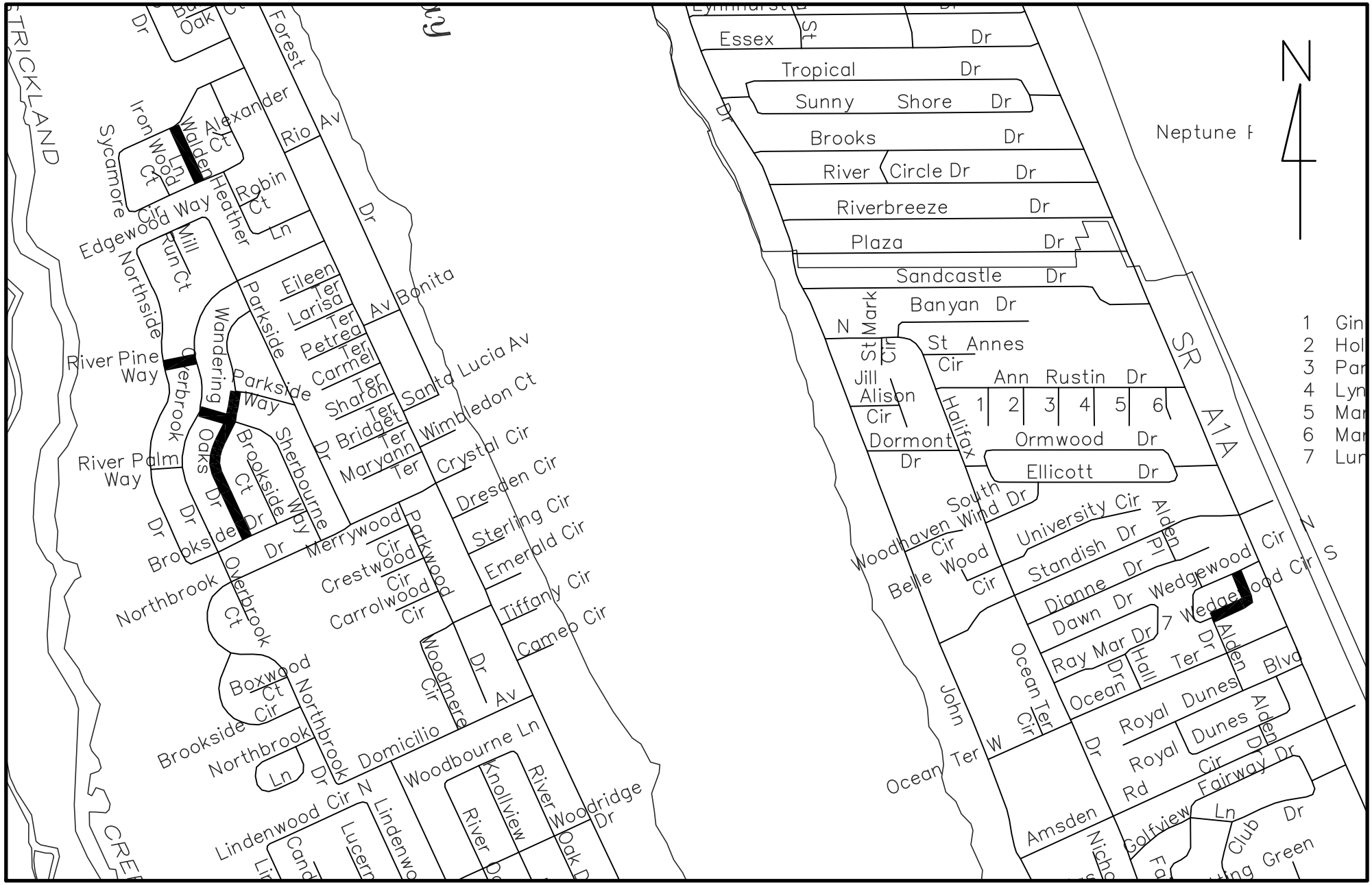
FY 2018 ROADWAY RESURFACING



LOCATION MAP

SHEET 5 OF 5

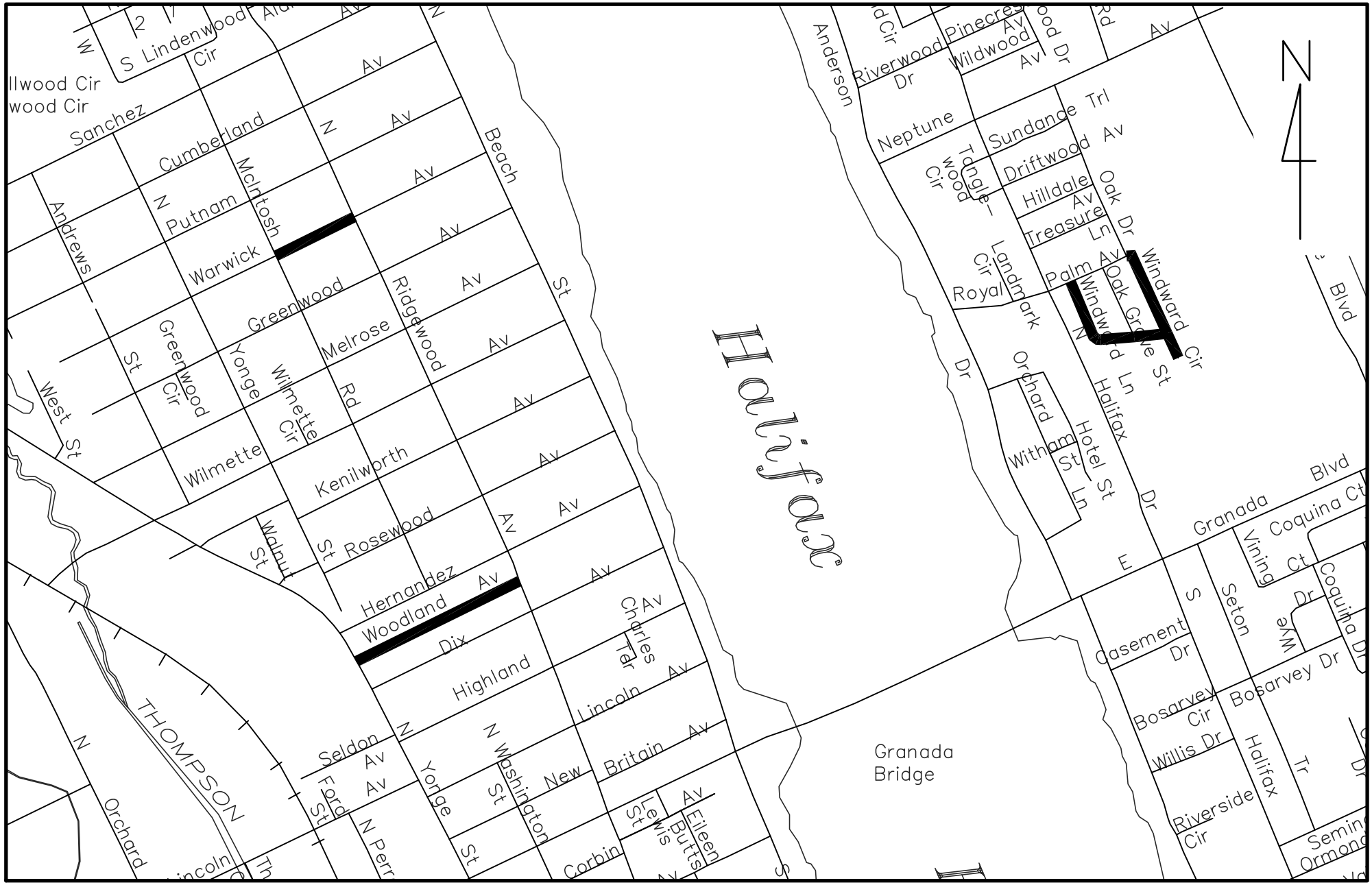
FY 2019 ROADWAY RESURFACING



LOCATION MAP

SHEET 1 OF 5

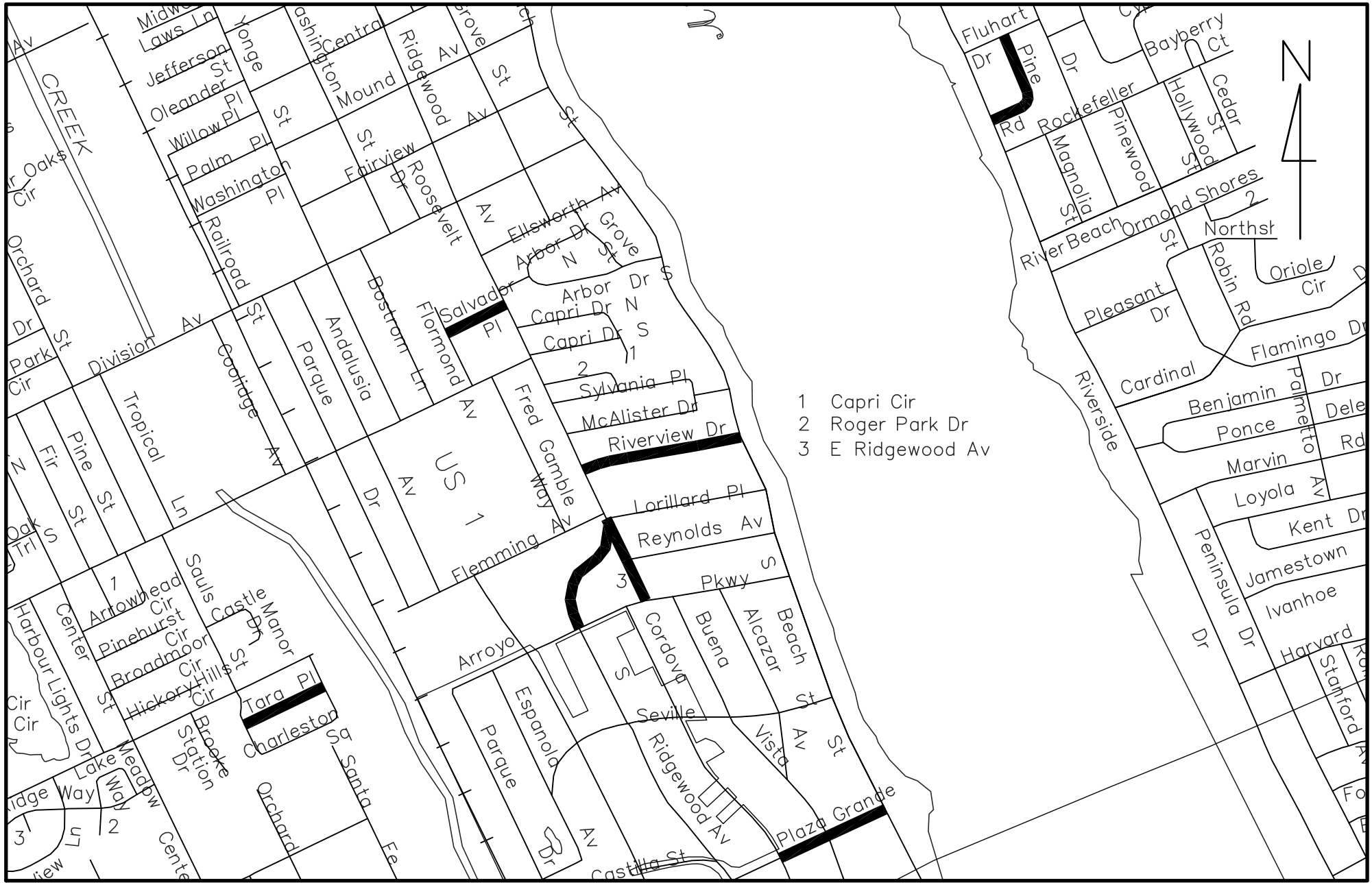
FY 2019 ROADWAY RESURFACING



LOCATION MAP

SHEET 2 OF 5

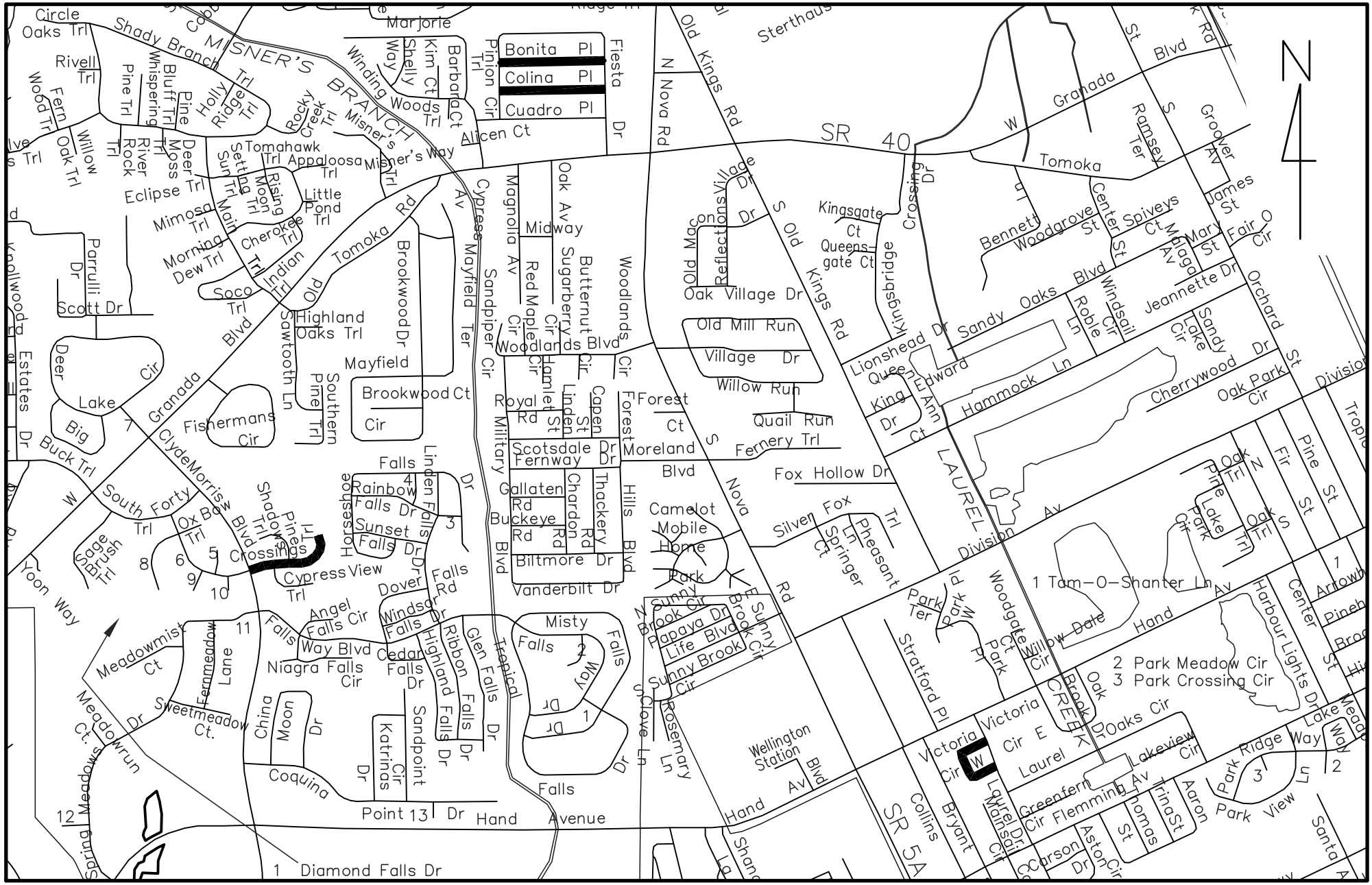
FY 2019 ROADWAY RESURFACING



LOCATION MAP

SHEET 3 OF 5

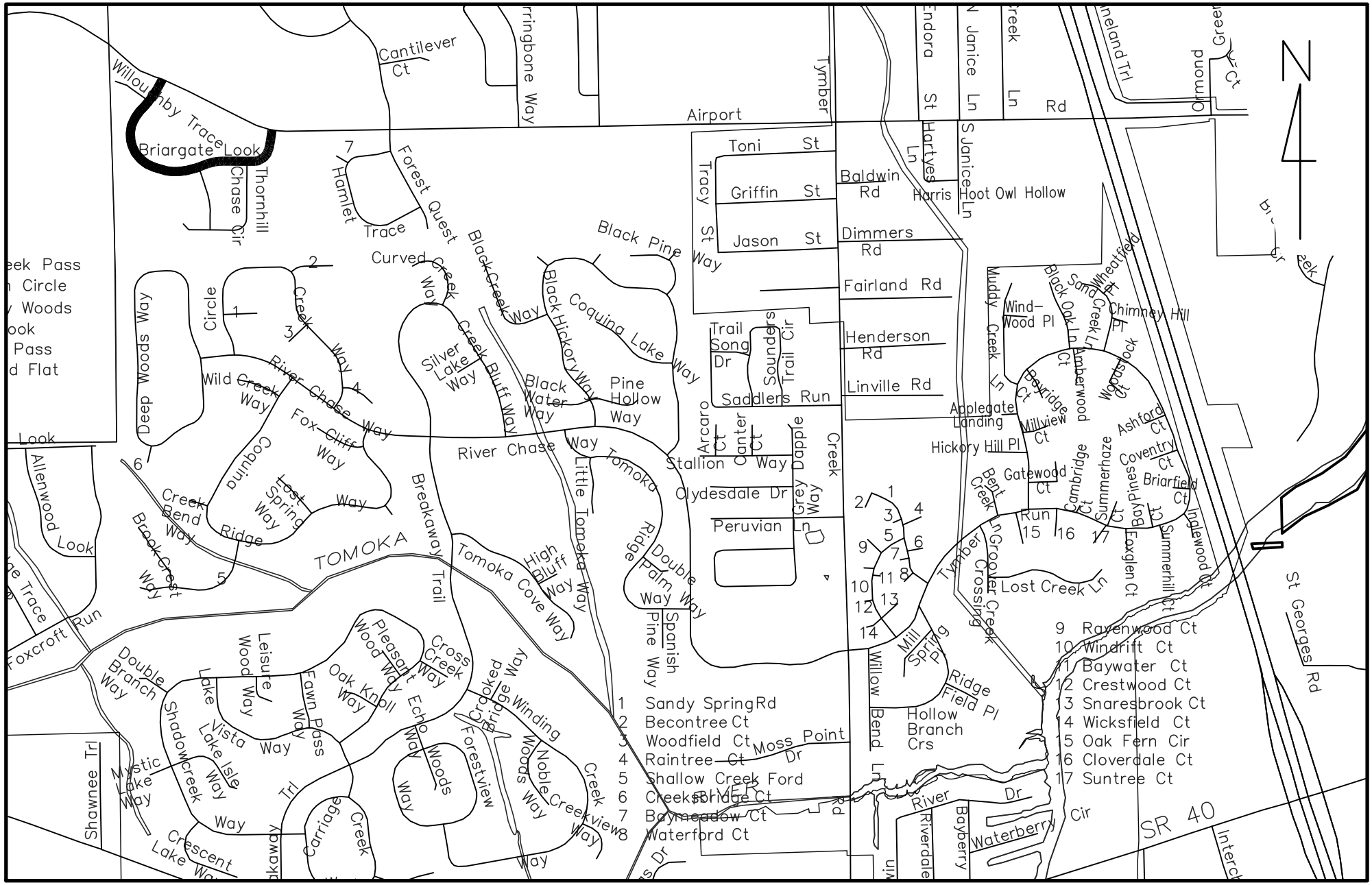
FY 2019 ROADWAY RESURFACING



LOCATION MAP

SHEET 4 OF 5

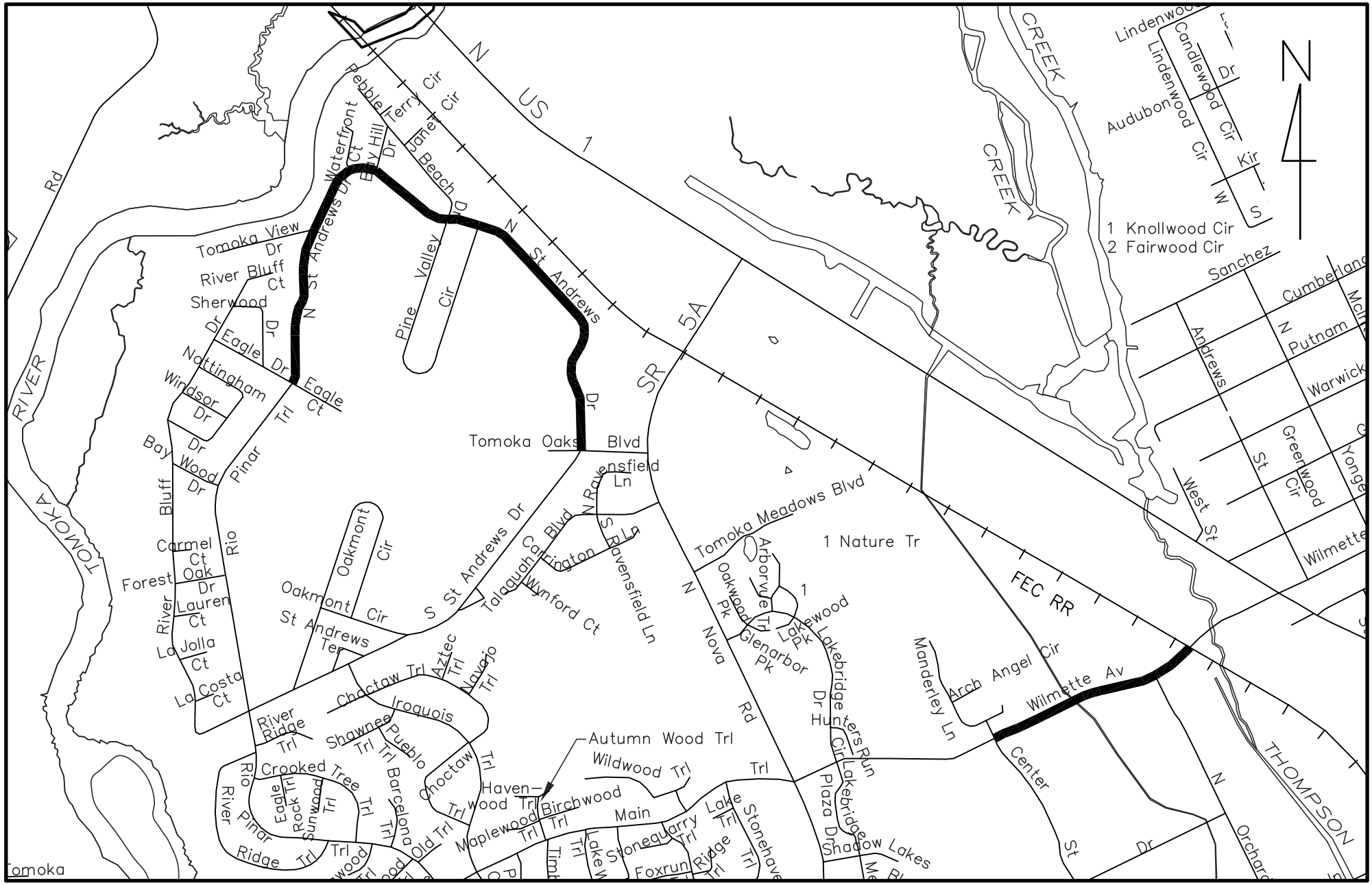
FY 2019 ROADWAY RESURFACING



LOCATION MAP

SHEET 5 OF 5

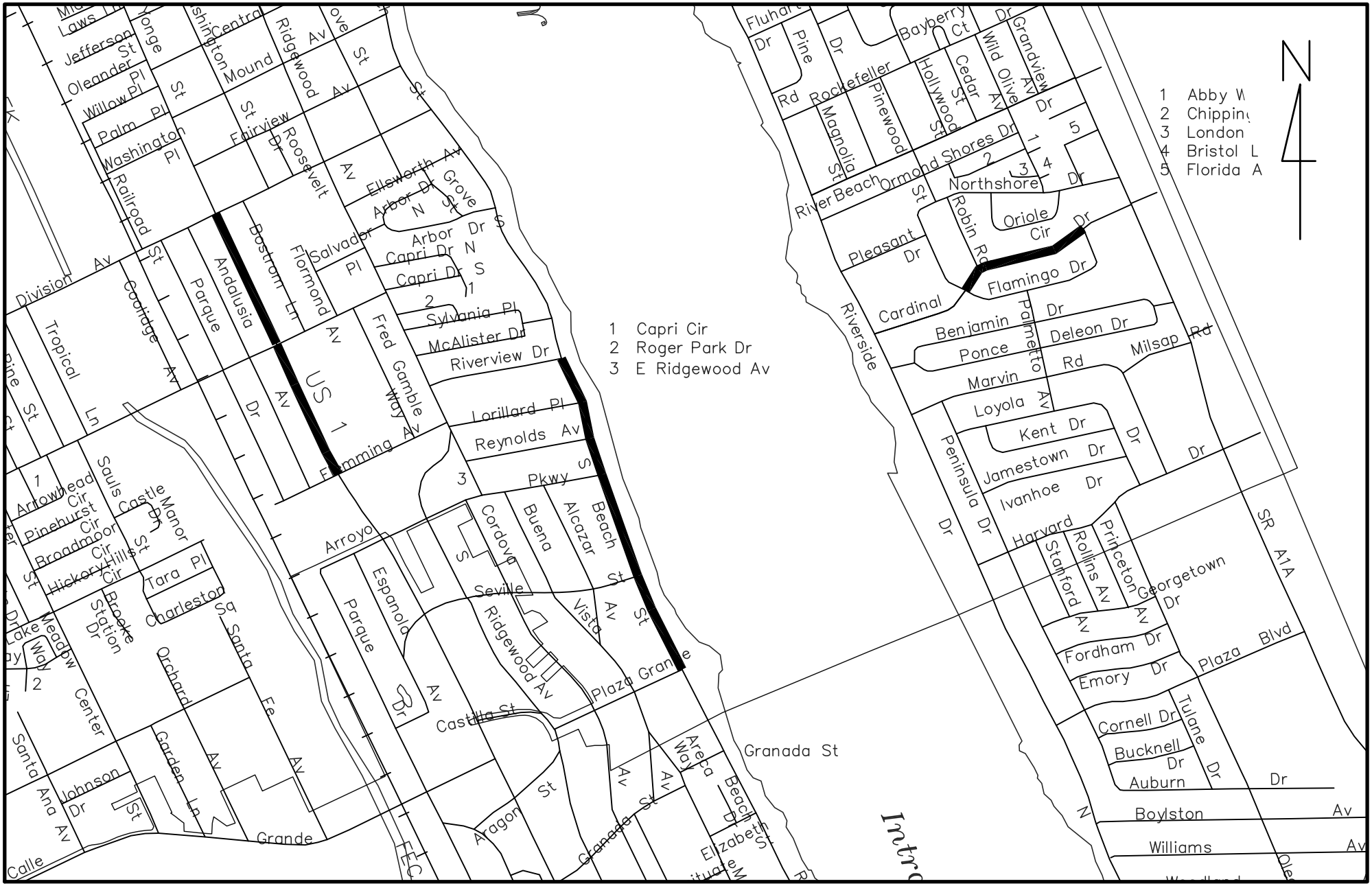
FY 2020 ROADWAY RESURFACING



LOCATION MAP

SHEET 1 OF 2

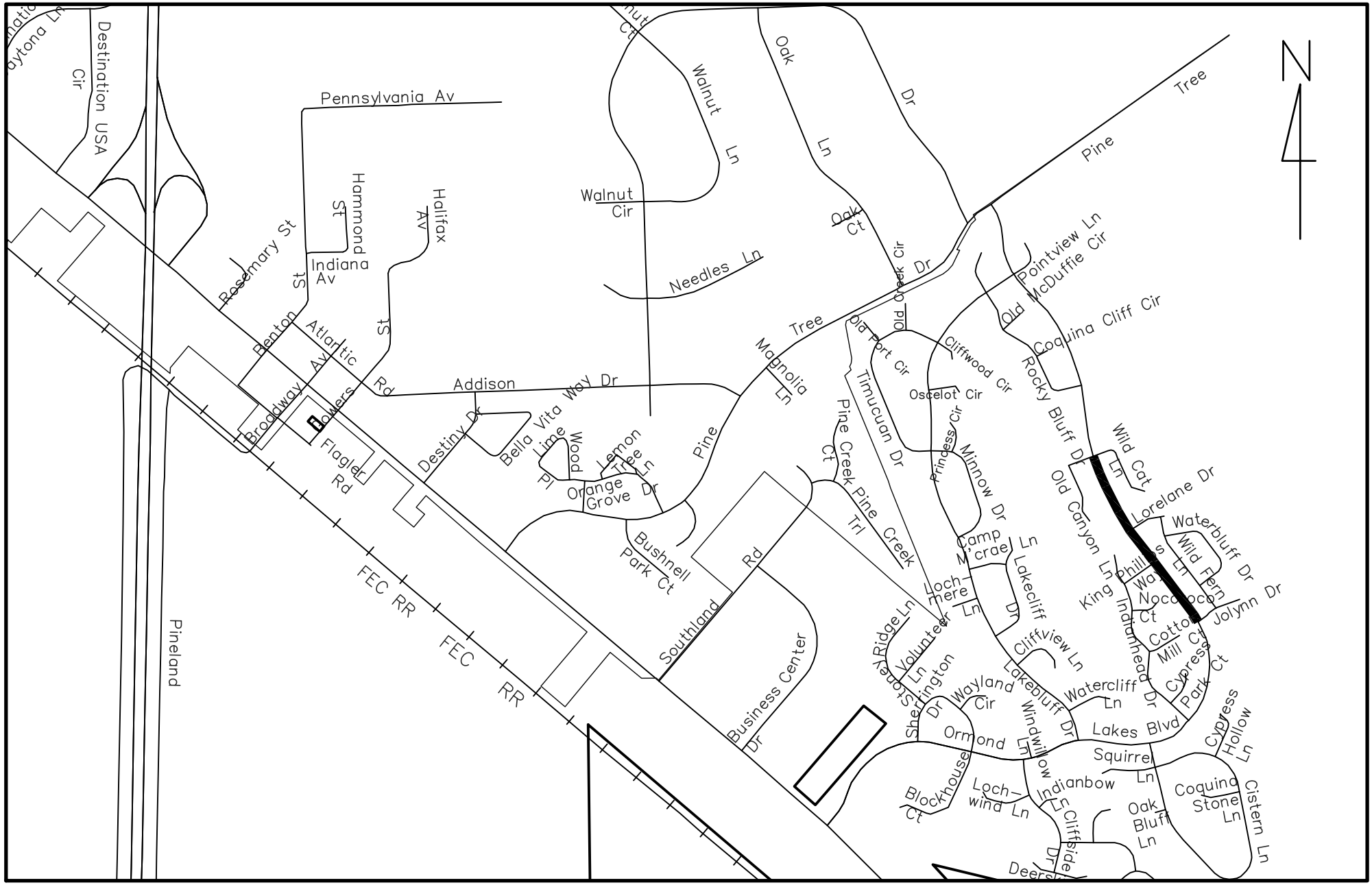
FY 2020 ROADWAY RESURFACING



LOCATION MAP

SHEET 2 OF 2

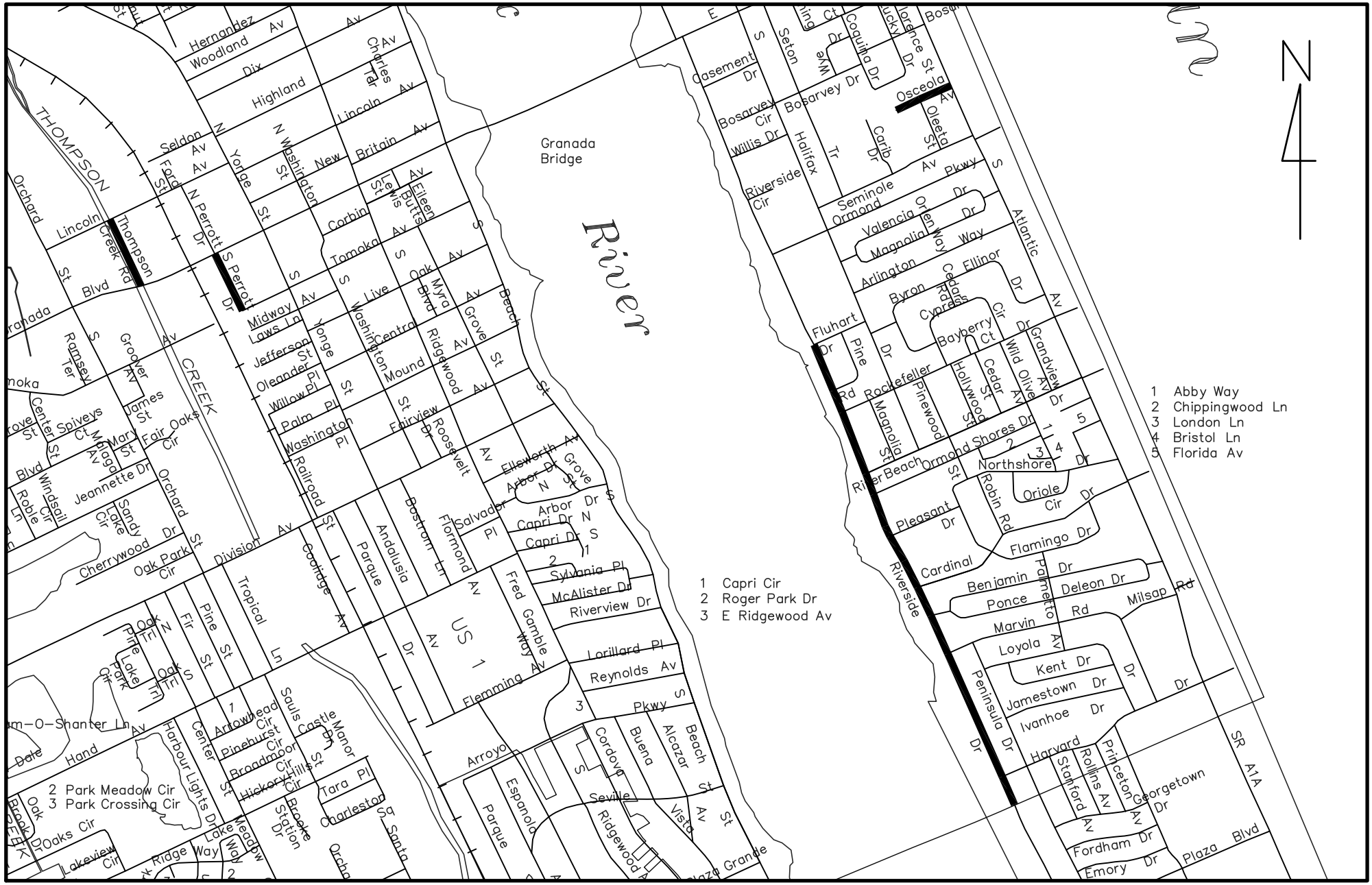
FY 2021 ROADWAY RESURFACING



LOCATION MAP

SHEET 1 OF 2

FY 2021 ROADWAY RESURFACING



LOCATION MAP

SHEET 2 OF 2

CAPITAL PROJECT DETAIL

PROJECT TITLE

Street Light Maintenance

PROJECT#

308125

CATEGORY

Transportation

FUND

308-Transportation

PROJECT LOCATION

Nova Road

MANAGEMENT

Engineering

PROJECT SCOPE

Painting of the faded or damaged city-maintained street lights on Nova Road.

JUSTIFICATION

With the reconstruction of Nova Road, green painted street light posts were included as part the project at the City's request. Maintenance of these light posts will be required to prevent against corrosion and normal wear. 120 light posts were installed along the roadway corridor. A six year maintenance cycle began in FY2011-2012 with a number of the lights being painted in December 2012 / January 2013. The current projections complete the painting from the previous termination of work to the south City Limits.

PROJECT COST METHODOLOGY

Quote of $2,100.00 per pole

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Street Light Maintenance	40,000	30,000	65,000	65,000	0	200,000
Total	40,000	30,000	65,000	65,000	0	200,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-Transportation	40,000	30,000	65,000	65,000	0	200,000
Total	40,000	30,000	65,000	65,000	0	200,000

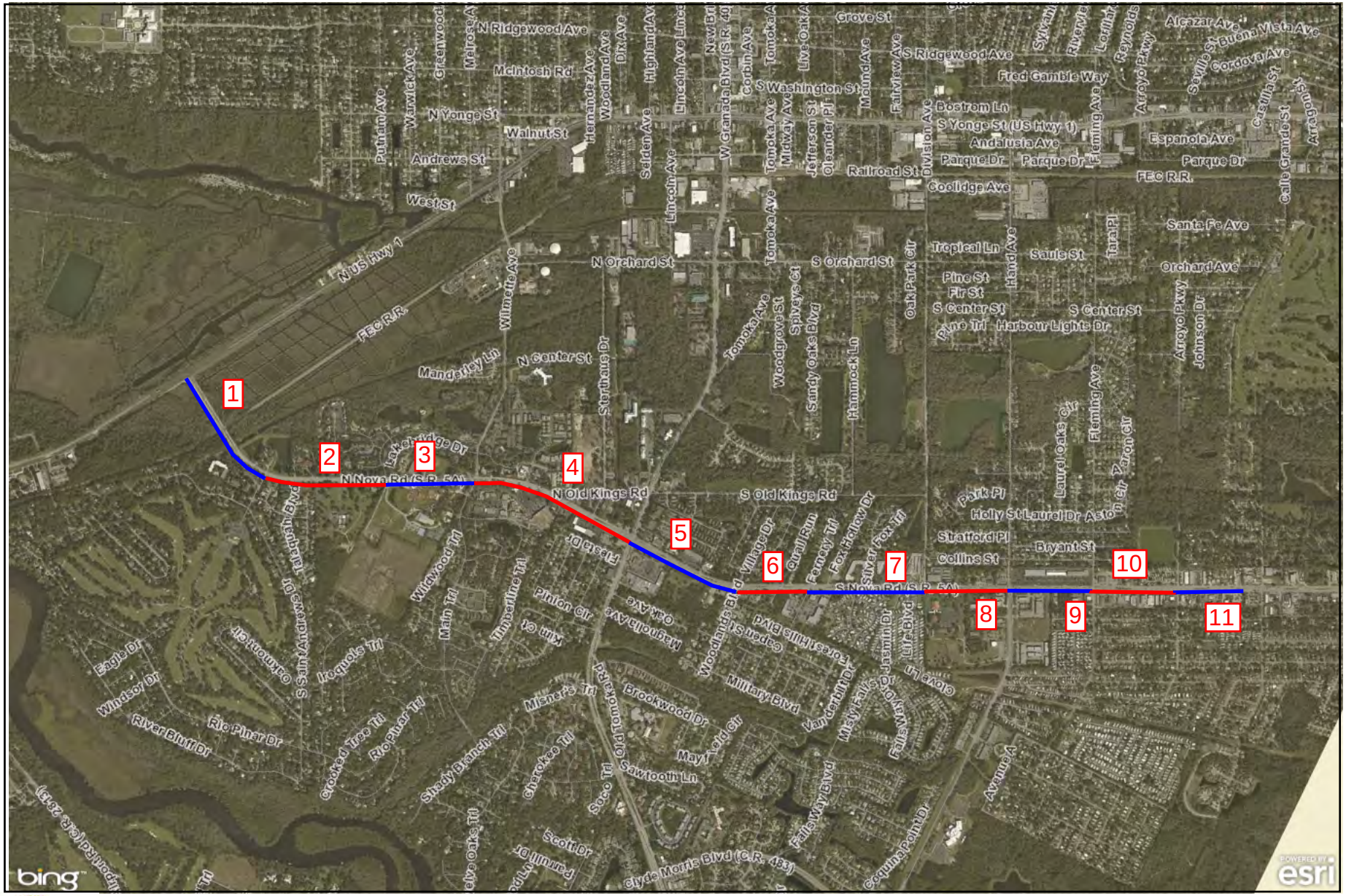
Street Light Maintenance

Nova Road

	Segment From	Segment To	Number	Cost Per Pole	Cost Per Segment
1	US 1	Tomoka Oaks	11	$ 2,100.00	$ 23,100.00
2	Tomoka Oaks	Nova Rec - N	11	$ 2,100.00	$ 23,100.00
3	Nova Rec - N	Main Trail	8	$ 2,100.00	$ 16,800.00
4	Main Trail	West Granada	17	$ 2,100.00	$ 35,700.00
5	West Granada	Woodlands	12	$ 2,100.00	$ 25,200.00
6	Woodlands	Moreland Blvd	7	$ 2,100.00	$ 14,700.00
7	Moreland Blvd	Division	12	$ 2,100.00	$ 25,200.00
8	Division	Hand	9	$ 2,100.00	$ 18,900.00
9	Hand	Flemming	9	$ 2,100.00	$ 18,900.00
10	Flemming	Arroyo Pkwy	8	$ 2,100.00	$ 16,800.00
11	Arroy Pkwy	So. City Limits	5	$ 2,100.00	$ 10,500.00

	2016/17	2017/18	2018/19	2019/2020
Segments	8 - 9	10 - 11	1 - 3	4 - 5
Cost	$ 37,800.00	$ 27,300.00	$ 63,000.00	$ 60,900.00
Permit / Engineering	$ 2,200.00	$ 2,700.00	$ 2,100.00	$ 4,100.00
Budget	$ 40,000.00	$ 30,000.00	$ 66,000.00	$ 65,000.00

Nova Road Street Light Maintenance



2,524 ft

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CAPITAL PROJECT DETAIL

PROJECT TITLE

US 1 North Sidewalk

PROJECT#

308118

CATEGORY

Transportation

FUND

308-Transportation

PROJECT LOCATION

North US 1 between Wilmette Ave. and Airport Road

MANAGEMENT

Engineering

PROJECT SCOPE

Construction of an eight foot wide sidewalk connecting Wilmette Avenue, Nova Road, and Airport Road

JUSTIFICATION

The Florida Department of Transportation working with the River to Sea TPO completed a report for the US 1 Corridor Improvement Program in April, 2014. A component in this report is the construction of a connecting sidewalk along US 1, north from Wilmette Avenue connecting northern areas to the central City core. This project proposes extending sidewalk to the northern City Limits, providing a connection from Wilmette Avenue to Nova Road, across the Tomoka River, and to Airport Road for use by pedestrians and bicyclists.

PROJECT COST METHODOLOGY

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Preliminary Engineering	61,700	0	0	0	0	61,700
Design	0	185,100	0	0	0	185,100
Construction	0	0	1,234,000	0	0	1,234,000
Total	61,700	185,100	1,234,000	0	0	1,480,800

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
TPO Grant (pending)	55,530	166,590	1,110,600	0	0	1,332,720
Property Taxes-Transportation	6,170	18,510	123,400	0	0	148,080
Total	61,700	185,100	1,234,000	0	0	1,480,800

City of Ormond Beach
4/3/2015

Proposed N. US1 Sidewalk, Wilmette Ave. to Airport Rd.

Project Notes: Total length of route, from Airport Rd to Wilmette Ave is approximately 2.2 miles. A proposed sidewalk of 12 ft was referenced per FDOT and Volusia TPO US1 corridor improvement program study, April 30, 2014; however, review of existing site condition appear that obstacles will limit width to a maximum of 8 ft, which this estimate is based upon.

Wilmmete Ave. to Nova Road, route distance 1.07 m	Proposed Sidewa	5740	ft
Nova Rd to Airport Rd, route distance 1.11 miles	Proposed Sidewa	4860	ft

Project Probable Cost

Construction

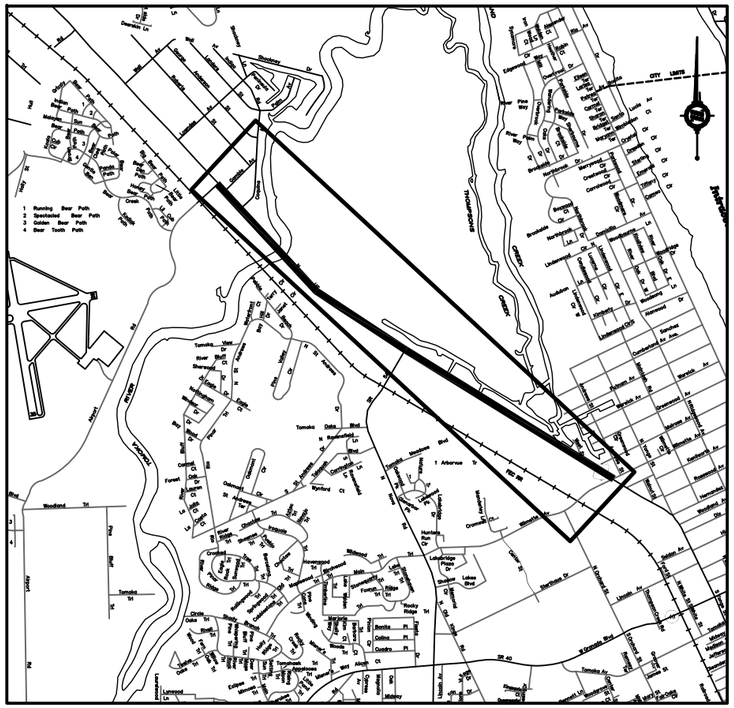
Item No.	Description	Estimated Quantity	Unit	Unit Price	Item Price
1	Mobilization/ Demobilization (~5%)	1	LS	$53,000.00	$53,000
2	Construct concrete sidewalk	9,500	SY	$30.00	$285,000
3	Furnish & Install Hand Railing along Sidewalk	490	LF	$50.00	$24,500
4	Drainage Swale Modification For Sidewalk	1,500	LF	$250.00	$375,000
5	Furnish and Install Ped-Signalization	3	EA	$70,000.00	$210,000
6	Utility Relocation and adjustments	1	LS	$50,000.00	$50,000
7	Furnish & Install ADA Ramp and Detectable Pad	30	EA	$400.00	$12,000
8	Furnish & Install Bahia Sod	7,800	SY	$2.50	$19,500
9	Thermoplastic Striping	1	LS	$10,000.00	$10,000
10	Furnish & Install Barrier Wall	120	SF	$350.00	$42,000
11	Furnish and Install Signage	1	LS	$2,000.00	$2,000
12	Getechnical Services	1	LS	$6,000.00	$6,000
13	Maintenance of Traffic	1	LS	$25,000.00	$25,000
14	As-Builts & Survey Site Layout	1	LS	$7,000.00	$7,000

		TPO Funding	City Match
Construction	**$1,121,000**		
Contingency (10%)	**$112,100**		
Construction Budget	**$1,234,000**	$ 1,110,600.00	$ 123,400.00
Engineering (15%)	**$185,100**	$ 166,590.00	$ 18,510.00
Feasibilty Study (5%)	**$61,700**	$ 55,530.00	$ 6,170.00
TOTAL PROBABLE PROJECT COST	**$1,480,800**		

CITY OF ORMOND BEACH

N US 1
SIDEWALK IMPROVMENTS

▭ = SITE LOCATION



SITE LOCATION MAP

SHEET	DESCRIPTION
1	COVER SHEET & PROJECT LOCATION MAP
2	PLAN
3	PLAN
4	PLAN
5	PLAN
6	PLAN

MAYOR

ED KELLEY

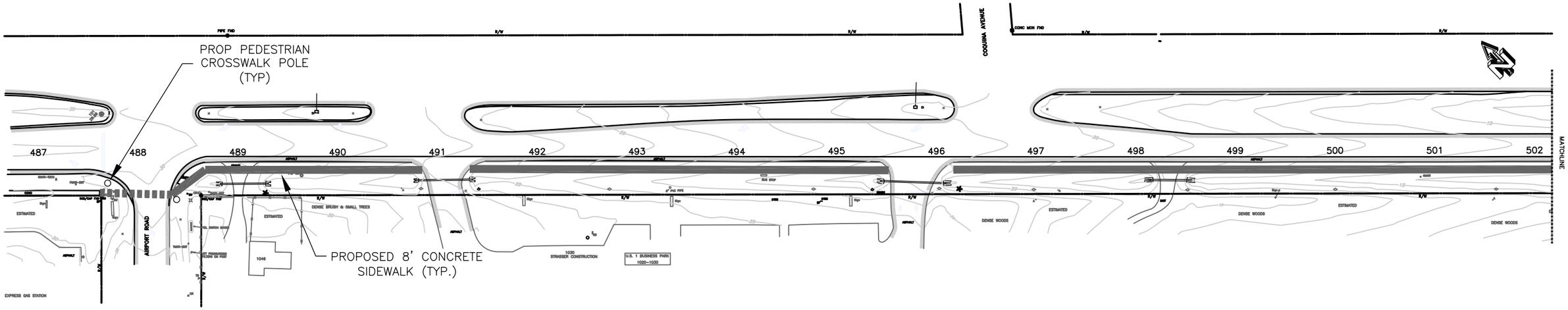
COMMISSIONERS

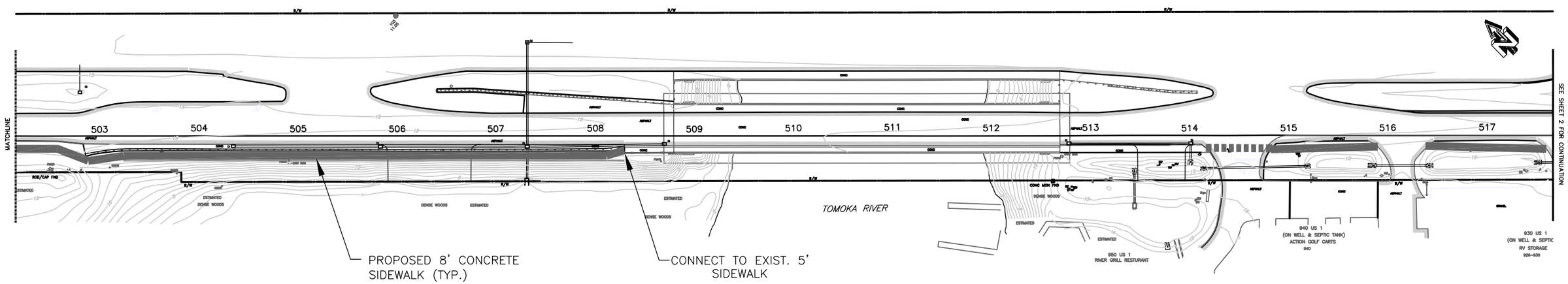
JAMES STOWERS, ZONE 1
TROY KENT, ZONE 2
RICK BOEHM, ZONE 3
BILL PARTINGTON, ZONE 4

CITY MANAGER

JOYCE SHANAHAN

PREPARED BY THE ENGINEERING DIVISION





NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

ED KELLEY, MAYOR
JOYCE A SHANAHAN, CITY MANAGER

JOHN NOBLE, P.E., CITY ENGINEER

N US HIGHWAY 1

PROPOSED SIDEWALK

DATE:	04/02/15	PROJECT NO.:	2015-XX
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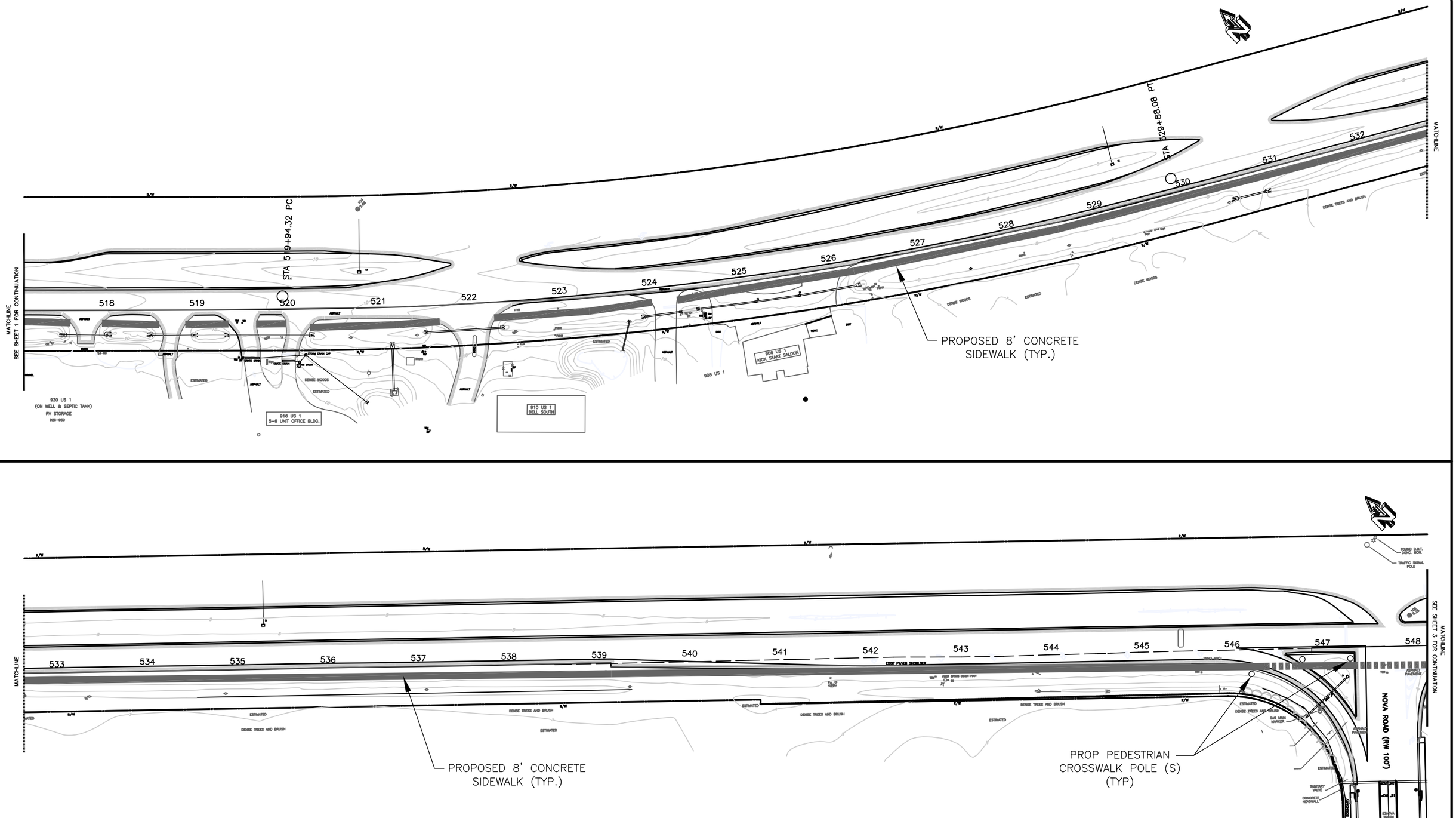
DRAWN BY:	CO	SHEET:	1 OF 5



NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

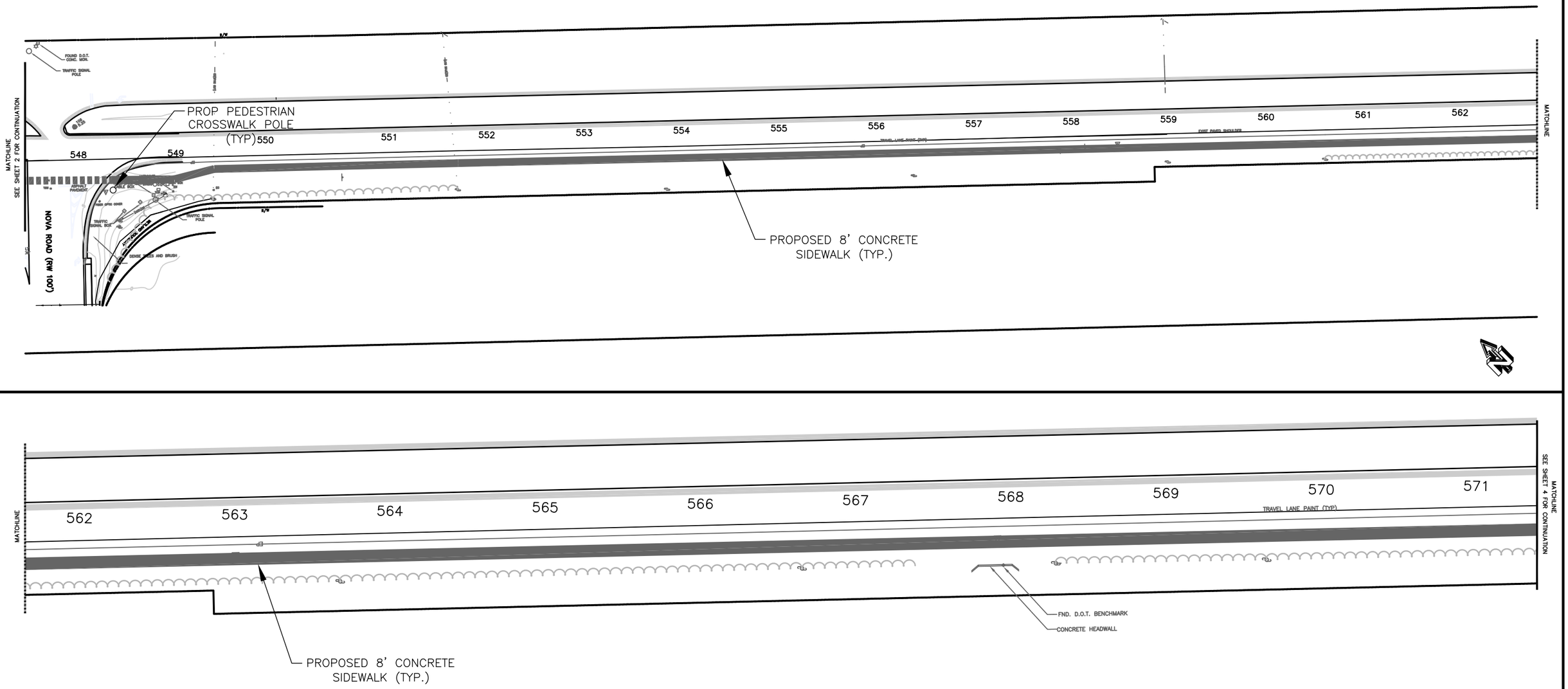
ED KELLEY, MAYOR
JOYCE A SHANAHAN, CITY MANAGER

JOHN NOBLE, P.E., CITY ENGINEER

N US HIGHWAY 1

PROPOSED SIDEWALK

DATE:	04/02/15	PROJECT NO.:	2015-XX
SCALE:	1"=100'	FILE NAME:	NUS1SDWK.DWG
DRAWN BY:	CO	SHEET:	2 OF 5



NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

ED KELLEY, MAYOR
JOYCE A SHANAHAN, CITY MANAGER

JOHN NOBLE, P.E., CITY ENGINEER

N US HIGHWAY 1

PROPOSED SIDEWALK

DATE:	04/02/15	PROJECT NO.:	2015-XX
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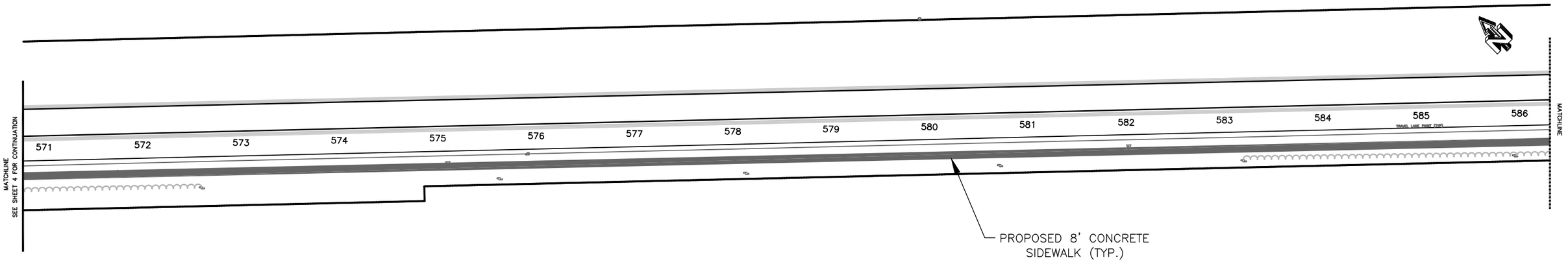
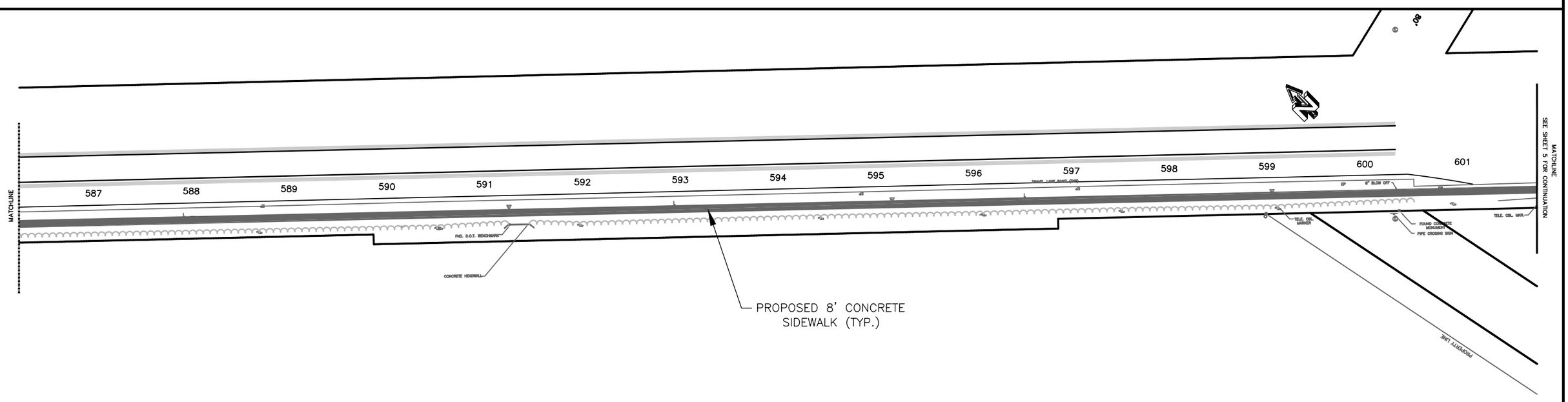
DRAWN BY:	CO	SHEET:	3 OF 5





NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

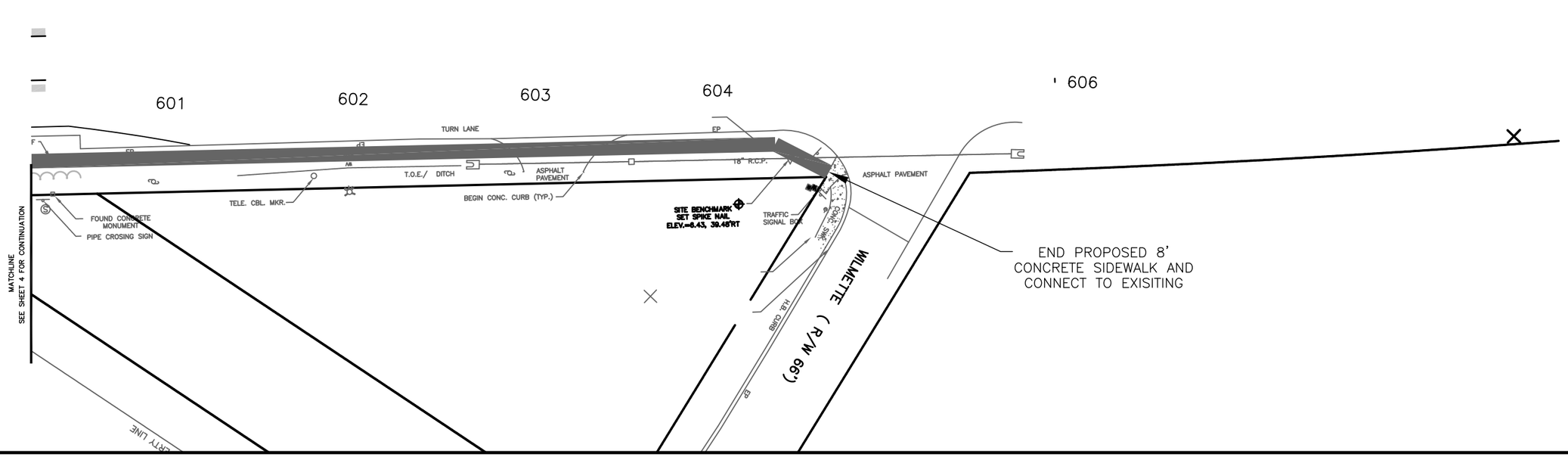
ED KELLEY, MAYOR
JOYCE A SHANAHAN, CITY MANAGER

JOHN NOBLE, P.E., CITY ENGINEER

N US HIGHWAY 1

PROPOSED SIDEWALK

DATE:	04/02/15	PROJECT NO.:	2015-XX
SCALE:	1"=100'	FILE NAME:	NUS1SDWK.DWG
DRAWN BY:	CO	SHEET:	4 OF 5



NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

ED KELLEY, MAYOR
JOYCE A SHANAHAN, CITY MANAGER

JOHN NOBLE, P.E., CITY ENGINEER

N US HIGHWAY 1

PROPOSED SIDEWALK

DATE:	04/02/15	PROJECT NO.:	2015-XX
SCALE:	1"=100'	FILE NAME:	NUS1SDWK.DWG
DRAWN BY:	CO	SHEET:	5 OF 5

US 1 Sidewalk Wilmette Ave. to Airport Road

1,957 ft

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Wilmette Avenue Intersection

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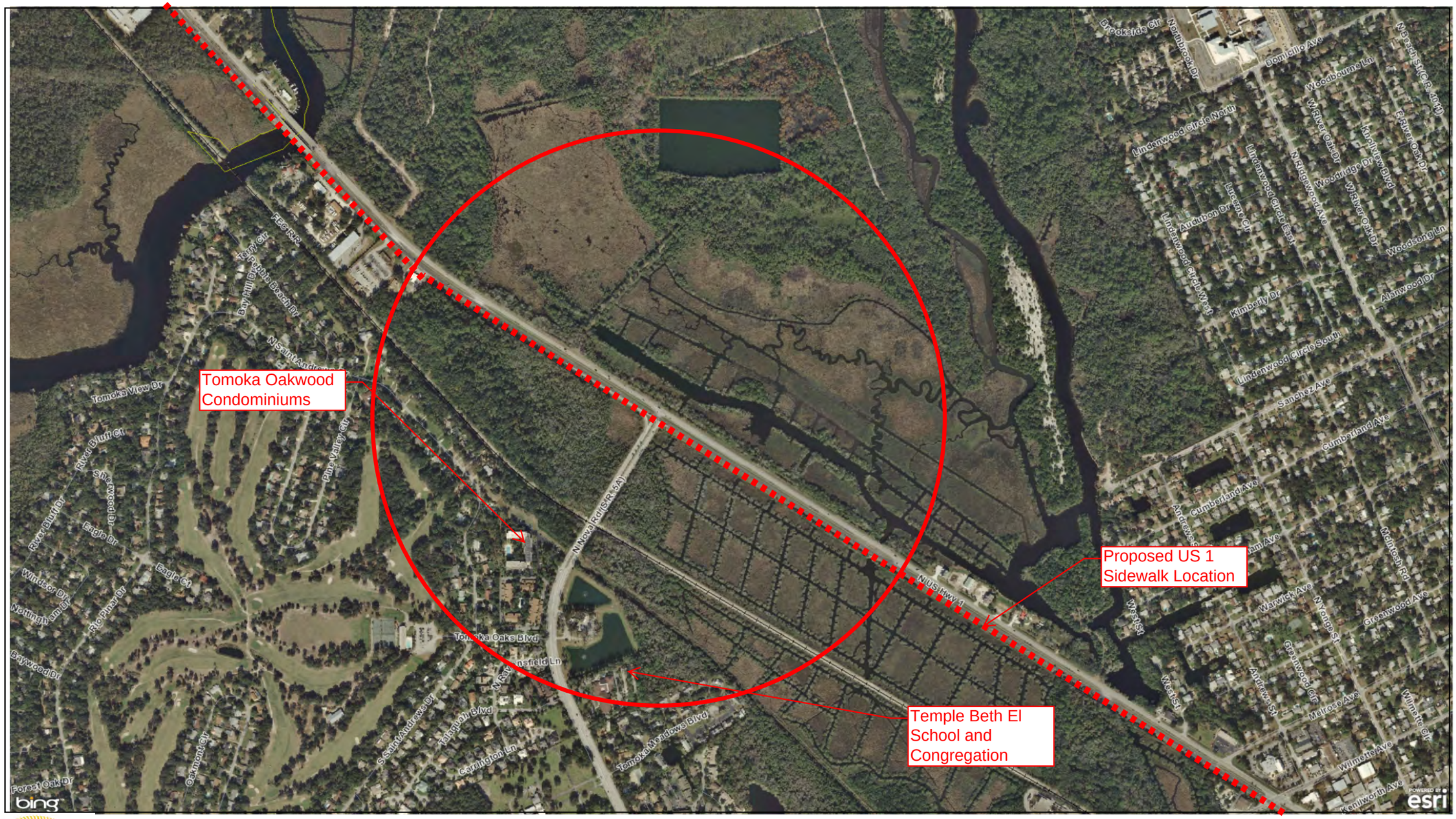
Nova Road Intersection



898 ft

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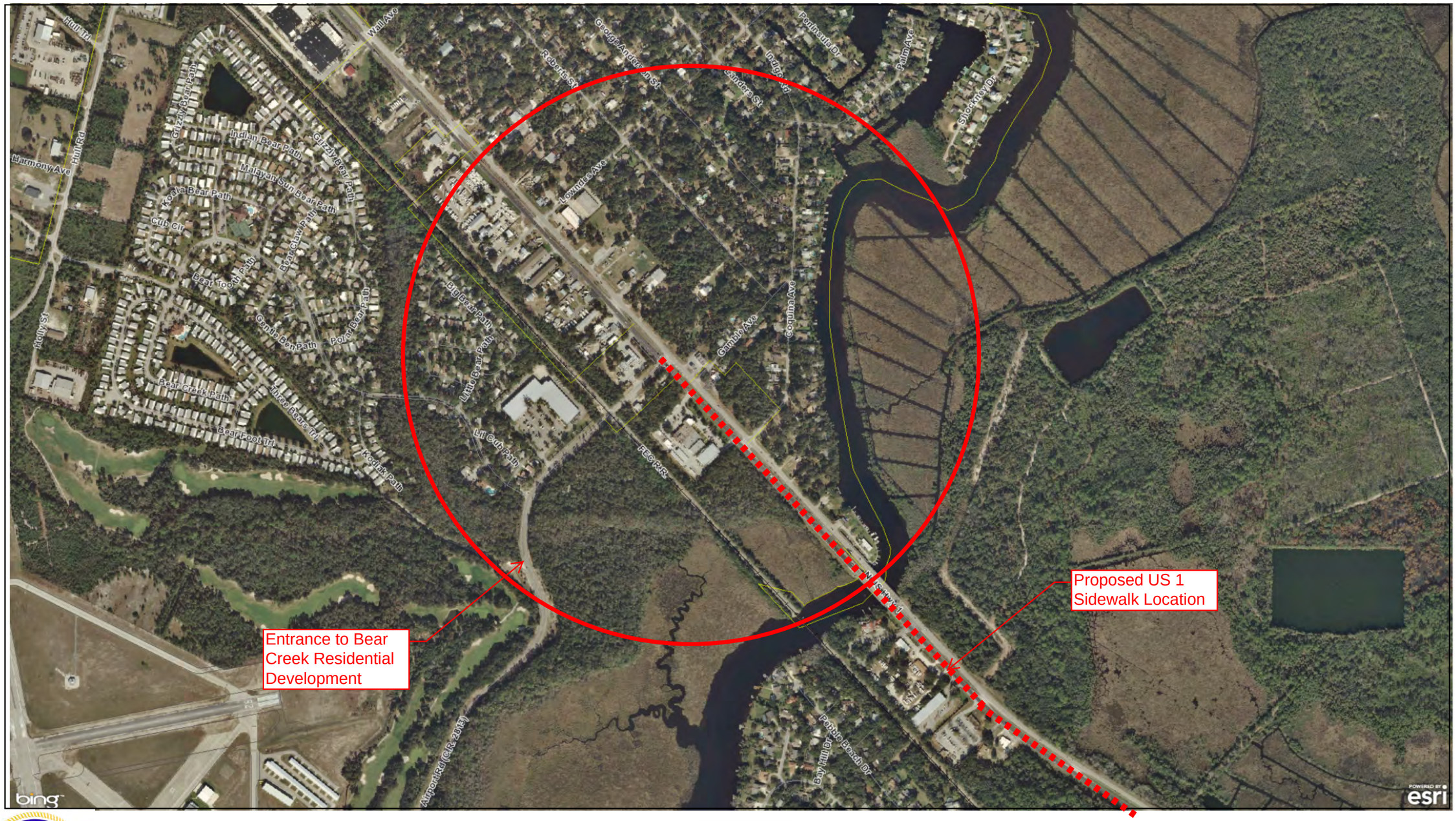
Airport Road Intersection



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CAPITAL PROJECT DETAIL

PROJECT TITLE

A1A Mast Arm Installation

PROJECT#

308107

CATEGORY

Transportation

FUND

308-Transportation

PROJECT LOCATION

A1A

MANAGEMENT

Engineering

PROJECT SCOPE

Installation of mast arm traffic signals to replace the current span wire signals at intersections of Cardinal Dr. and Harvard Dr. on A1A.

JUSTIFICATION

This project was identified as a priority in 2012; a subsequent application was made to the Volusia County MPO, authorized by resolution 2012-46, for assistance in the conversion of the current span wire traffic signals to mast arm assemblies. The signals included in this project are ones located on a designated evacuation route which is also subject to hurricane force winds and tidal surges. The increased reliability of mast arm signals under storm conditions has made it a priority of the Florida Department of Transportation to convert signals east of I95 to mast arms. Additional consideration for the replacement of these signals with mast arms being the deterioration of the signals due to age and the harsh coastal conditions encountered at these two locations. Completion of this project will result in the benefit of increased reliability of the assemblies under storm conditions, increased road efficiency, a maintenance cost reduction of mast arms compared to span wire signals, as well as the aesthetic benefit that conversion of the signals would provide.

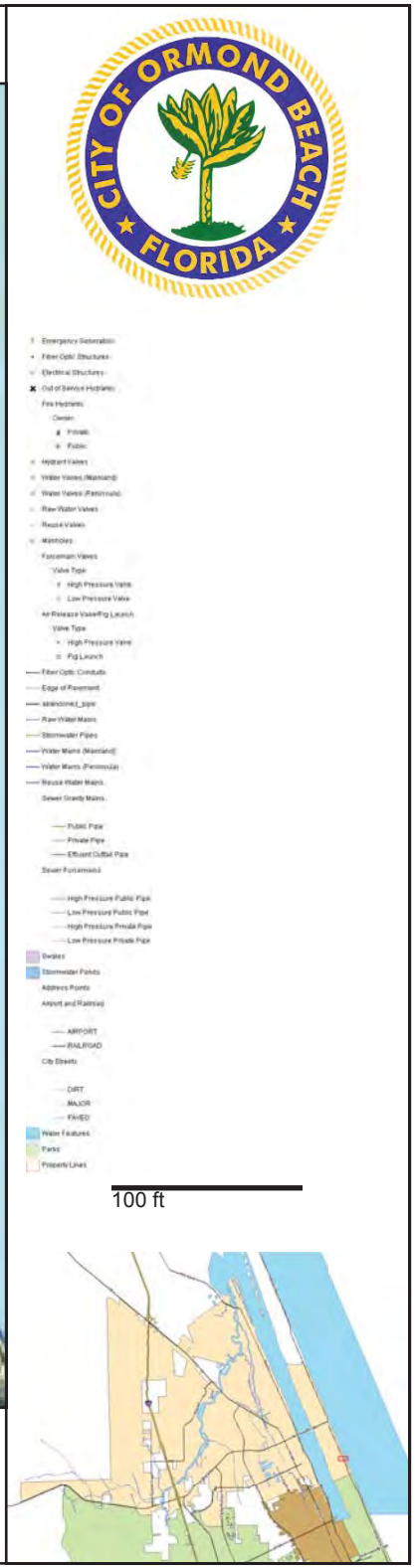
PROJECT COST METHODOLOGY

FDOT Annual Statewide Averages 2012. The budget reflects costs included in the initial application. Current estimates indicate the actual cost may be significant lower than originally projected.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Mast Arm Traffic Signal	50,000	500,205	0	0	0	550,205
Total	50,000	500,205	0	0	0	550,205

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-Transportation	50,000	5,021	0	0	0	55,021
TPO Grant (pending)	0	495,184	0	0	0	495,184
Total	50,000	500,205	0	0	0	550,205

A1A and Cardinal Dr intersection



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Estimate for Mast Arm at Cardinal Drive and A1A

Pay Item Number	Pay Item Description	Estimated Quantity	Unit Type	Unit Cost	Total Labor Cost
BASE BID ITEMS					
101-1	MOBILIZATION	1	LS	$ 7,297.41	$ 7,297.41
102-1	MAINTENANCE OF TRAFFIC	1	LS	$ 9,802.00	$ 9,802.00
102-14	TRAFFIC CONTROL OFFICER	16	HR	$ 44.28	$ 708.48
555-1-1	Directional bore less than 6"	400	LF	$ 15.00	$ 6,000.00
630-111	CONDUIT-SIGNALS, F& I, ABOVE GROUND	24	LF	$ 15.61	$ 374.64
630-112	CONDUIT-SIGNALS, F& I, UNDERGROUND	63	LF	$ 4.40	$ 277.20
630-113	CONDUIT-SIGNALS, F&I, UNDER EXIST PAVT	24	LF	$ 16.02	$ 384.48
632-7-1	CABLE, SIGNAL, FURNISH & INSTALL	1	PI	$ 3,582.24	$ 3,582.24
635-1-11	PULL & JUNCTION BOXES, F&I, PULL BOX	6	EA	$ 384.35	$ 2,306.10
639-1-22	SIGNAL,ELE SIGNAL,ELE SIGNAL,ELECT POWER SERV,UNDERGROUND	1	EA	$ 1,384.85	$ 1,384.85
639-2-1	SIGNAL,ELE SIGNAL,ELE SIGNAL,ELECTRICAL SERVICE WIRE	212	LF	$ 1.95	$ 413.40
639-3-11	SIGNAL,ELEC SERV DISCON, F&I, CABINET	1	LF	$ 705.80	$ 705.80
650-51311	TRAFFIC SIGNAL, F&I, 3 SECT, 1 WAY, STD	8	EA	$ 843.74	$ 6,749.92
650-51511	TRAFFIC SIGNAL, F&I, 5 SECT, 1 WAY, STD		EA	$ 1,352.97	$ -
663-74-14	VEH DETECTOR ASSEM, F&I, EMERGENCY PRE-E	1	EA	$ 2,830.90	$ 2,830.90
649-31201	M/ARM,F&I, WS-130,SINGLE ARM,W/0 LUM-36	2	EA	$ 15,864.09	$ 31,728.18
649-31203	M/ARM,F&I, WS-130,SINGLE ARM,W/0 LUM-60	2	EA	$ 25,124.32	$ 50,248.64
653-191	PEDESTRIAN SIGNAL, F&I, LED-COUNT DWN, 2	8	EA	$ 607.50	$ 4,860.00
670-5111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1	EA	$ 20,930.89	$ 20,930.89
690-10	SIGNAL HEAD TRAFFIC ASSEMBLY REMOVAL	8	EA	$ 43.72	$ 349.76
690-20	SIGNAL PEDESTRIAN ASSEMBLY REMOVAL	8	EA	$ 44.57	$ 356.56
690-34	COMPLETE POLE REMOVAL- DEEP,	4	EA	$ 1,858.47	$ 7,433.88
690-50	CNTRL ASSEM, REM, COMPLETE ASSEMB	1	EA	$ 521.63	$ 521.63
690-90	SPAN WIRE ASSEMBLY, REMOVE	1	PI	$ 423.15	$ 423.15
690-100	SIGNAL EQUIPMENT MISCELLANOUS REMOVE	1	PI	$ 572.86	$ 572.86
699-1-1	INTERNAL ILLUM SIGN, FURNISH & INST, NA	1	EA	$ 2,804.72	$ 2,804.72
					$ -
					$ -
					$ -
					$ -
		TOTAL CONSTRUCTION ESTIMATE			**$ 163,047.69**

Subtotal	$163,047.69
Design Costs	$24,457.15
CEI Cost	$16,304.77
Contingency	
Total Project Cost	$203,809.62

A1A and Harvard Dr

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Estimate for Mast Arm at Harvard Drive and A1A

Pay Item Number	Pay Item Description	Estimated Quantity	Unit Type	Unit Cost	Total Labor Cost
BASE BID ITEMS					
101-1	MOBILIZATION	1	LS	$ 7,251.80	$ 7,251.80
102-1	MAINTENANCE OF TRAFFIC	1	LS	$ 9,802.00	$ 9,802.00
102-14	TRAFFIC CONTROL OFFICER	16	HR	$ 44.28	$ 708.48
555-1-1	Directional bore less than 6"	388	LF	$ 15.00	$ 5,820.00
630-111	CONDUIT-SIGNALS, F& I, ABOVE GROUND	20	LF	$ 15.61	$ 312.20
630-112	CONDUIT-SIGNALS, F& I, UNDERGROUND	76	LF	$ 4.40	$ 334.40
630-113	CONDUIT-SIGNALS, F&I, UNDER EXIST PAVT	33	LF	$ 16.02	$ 528.66
632-7-1	CABLE, SIGNAL, FURNISH & INSTALL	1	PI	$ 3,582.24	$ 3,582.24
635-1-11	PULL & JUNCTION BOXES, F&I, PULL BOX	6	EA	$ 384.35	$ 2,306.10
639-1-22	SIGNAL,ELE SIGNAL,ELE SIGNAL,ELECT POWER SERV,UNDERGROUND	1	EA	$ 1,384.85	$ 1,384.85
639-2-1	SIGNAL,ELE SIGNAL,ELE SIGNAL,ELECTRICAL SERVICE WIRE	196	LF	$ 1.95	$ 382.20
639-3-11	SIGNAL,ELEC SERV DISCON, F&I, CABINET	1	LF	$ 705.80	$ 705.80
650-51311	TRAFFIC SIGNAL, F&I, 3 SECT, 1 WAY, STD	6	EA	$ 843.74	$ 5,062.44
650-51511	TRAFFIC SIGNAL, F&I, 5 SECT, 1 WAY, STD	2	EA	$ 1,352.97	$ 2,705.94
663-74-14	VEH DETECTOR ASSEM, F&I, EMERGENCY PRE-E	1	EA	$ 2,830.90	$ 2,830.90
649-31201	M/ARM,F&I, WS-130,SINGLE ARM,W/0 LUM-36	2	EA	$ 15,864.09	$ 31,728.18
649-31203	M/ARM,F&I, WS-130,SINGLE ARM,W/0 LUM-60	2	EA	$ 25,124.32	$ 50,248.64
653-191	PEDESTRIAN SIGNAL, F&I, LED-COUNT DWN, 2	8	EA	$ 607.50	$ 4,860.00
670-5111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1	EA	$ 20,930.89	$ 20,930.89
690-10	SIGNAL HEAD TRAFFIC ASSEMBLY REMOVAL	8	EA	$ 43.72	$ 349.76
690-20	SIGNAL PEDESTRIAN ASSEMBLY REMOVAL	8	EA	$ 44.57	$ 356.56
690-34	COMPLETE POLE REMOVAL- DEEP,	3	EA	$ 1,858.47	$ 5,575.41
690-50	CNTRL ASSEM, REM, COMPLETE ASSEMB	1	EA	$ 521.63	$ 521.63
690-90	SPAN WIRE ASSEMBLY, REMOVE	1	PI	$ 423.15	$ 423.15
690-100	SIGNAL EQUIPMENT MISCELLANOUS REMOVE	1	PI	$ 572.86	$ 572.86
699-1-1	INTERNAL ILLUM SIGN, FURNISH & INST, NA	1	EA	$ 2,804.72	$ 2,804.72
					$ -
					$ -
					$ -
					$ -
		TOTAL CONSTRUCTION ESTIMATE			**$ 162,089.81**

Subtotal	$162,089.81
Design Costs	$24,313.47
CEI Cost	$16,208.98
Contingency	
Total Project Cost	$202,612.26

CAPITAL PROJECT DETAIL

PROJECT TITLE

Williamson Blvd./Hand Ave. Pedestrian Improvements

PROJECT#

308121

CATEGORY

Transportation

FUND

308-Transportation

PROJECT LOCATION

Williamson Blvd.

MANAGEMENT

Engineering

PROJECT SCOPE

Construction of pedestrian crosswalk facilities at the intersection of Hand Avenue with Williamson Blvd. along with additional sidewalk along Williamson Blvd.

JUSTIFICATION

The Intersection of Williamson Blvd with Hand Avenue currently is operating without crosswalks and pedestrian crossing signals. The relocation of Florida Hospital to this area has brought an increased in development activities in recent years, which will likely continue with additional residential and commercial properties. Interested residents, including those with special needs, have been in contact with the City in an effort to address deficiencies in pedestrian facilities connecting residential communities to commercial and public properties. This project involves an upgrade to the traffic signal at Williamson Blvd. and Hand Avenue to accommodate pedestrians, as well as the connection of currently disconnected sidewalk segments.

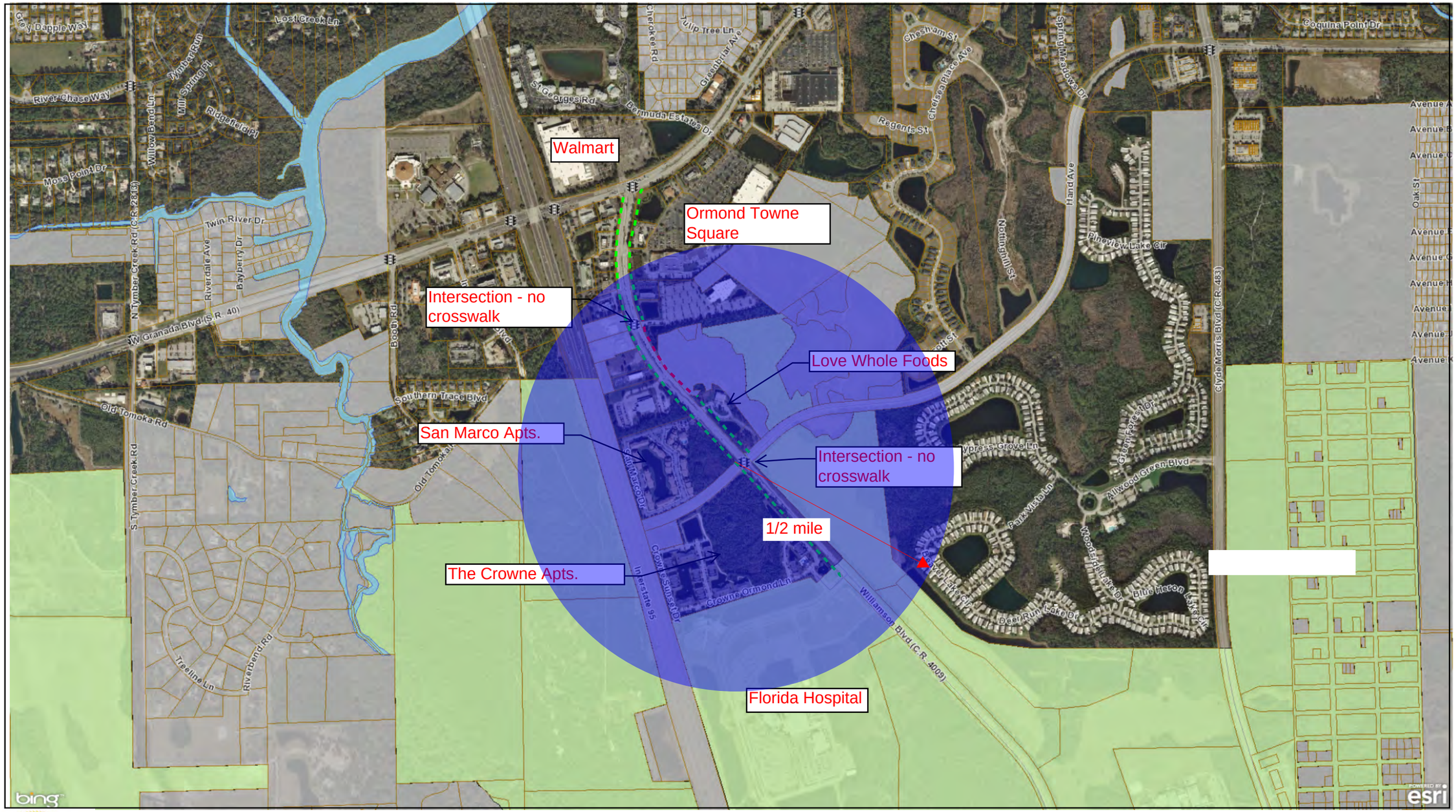
PROJECT COST METHODOLOGY

Historic Bid Data

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Design	26,400	0	0	0	0	26,400
Engineering / CA / Inspection	0	0	0	17,600	0	17,600
Construction	0	0		176,000	0	
Total	26,400	0	0	193,600	0	220,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-Transportation	26,400	0	0	0	0	26,400
TPO Grant (pending)	0	0		193,600	0	
Total	26,400	0	0	193,600	0	220,000

Pedestrian Access - South Williamson Blvd.



1,164 ft

Existing Sidewalk location

Proposed Sidewalk location

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City of Ormond Beach
4/1/2016

Williamson Blvd. / Hand Avenue Interection Pedestrian Improvements

Project Probable Cost

Construction

Item No.	Description	Estimated Quantity	Unit	Unit Price	Item Price
1	Mobilization/ Demobilization (~5%)	1	LS	$7,000.00	$7,000
2	Construct 5 foot wide concrete sidewalk	600	SY	$50.00	$30,000
3	Furnish and Install Ped-Signalization	1	EA	$75,000.00	$75,000
4	Utility Relocation and adjustments	1	LS	$5,000.00	$5,000
5	Furnish & Install ADA Ramp and Detectable Pad	8	EA	$400.00	$3,200
6	Furnish & Install Bahia Sod	6,000	SY	$2.50	$15,000
7	Thermoplastic Striping	1	LS	$10,000.00	$10,000
8	Furnish and Install Signage	1	LS	$2,000.00	$2,000
9	Geotechnical Services	1	LS	$2,000.00	$2,000
10	Maintenance of Traffic	1	LS	$5,000.00	$5,000
11	As-Builts & Survey Site Layout	1	LS	$5,000.00	$5,000

Construction	**$159,200**
Contingency (10%)	**$15,920**
Construction Budget	**$176,000**
Engineering (15%)	**$26,400**
CEI (10%)	**$17,600**
TOTAL PROBABLE PROJECT COST	**$220,000**

CAPITAL PROJECT DETAIL

PROJECT TITLE

Tomoka State Park Sidewalk

PROJECT#

308117

CATEGORY

Transportation

FUND

308-Transportation

PROJECT LOCATION

Tomoka State Park

MANAGEMENT

Engineering

PROJECT SCOPE

Construction of a Sidewalk Connecting Sanchez Park to Tomoka State Park

JUSTIFICATION

A mixed use sidewalk connecting Sanchez Park to Tomoka State Park has been identified in studies by the City of Ormond Beach, Volusia County Metropolitan Planning Organization, and State of Florida as an integral element in connecting adjacent facilities as well as a retracing of the Kings Highway Corridor. This project continues the Phase 1 project the built a sidewalk from the Tomoka State Park entrance to Inglesa Avenue with a second phase connecting Inglesa to Sanchez Park.

PROJECT COST METHODOLOGY

Bid costs received for similar scope of work.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Design and Construction	0	945,989	0	0	0	945,989
Total	0	945,989	0	0	0	945,989

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
TPO Grant (pending)	0	859,990	0	0	0	859,990
Property Taxes-Transportation	0	85,999	0	0	0	85,999
Total	0	945,989	0	0	0	945,989

TOMOKA STATE PARK SIDEWALK
FROM INGLESA TO SANCHEZ PARK

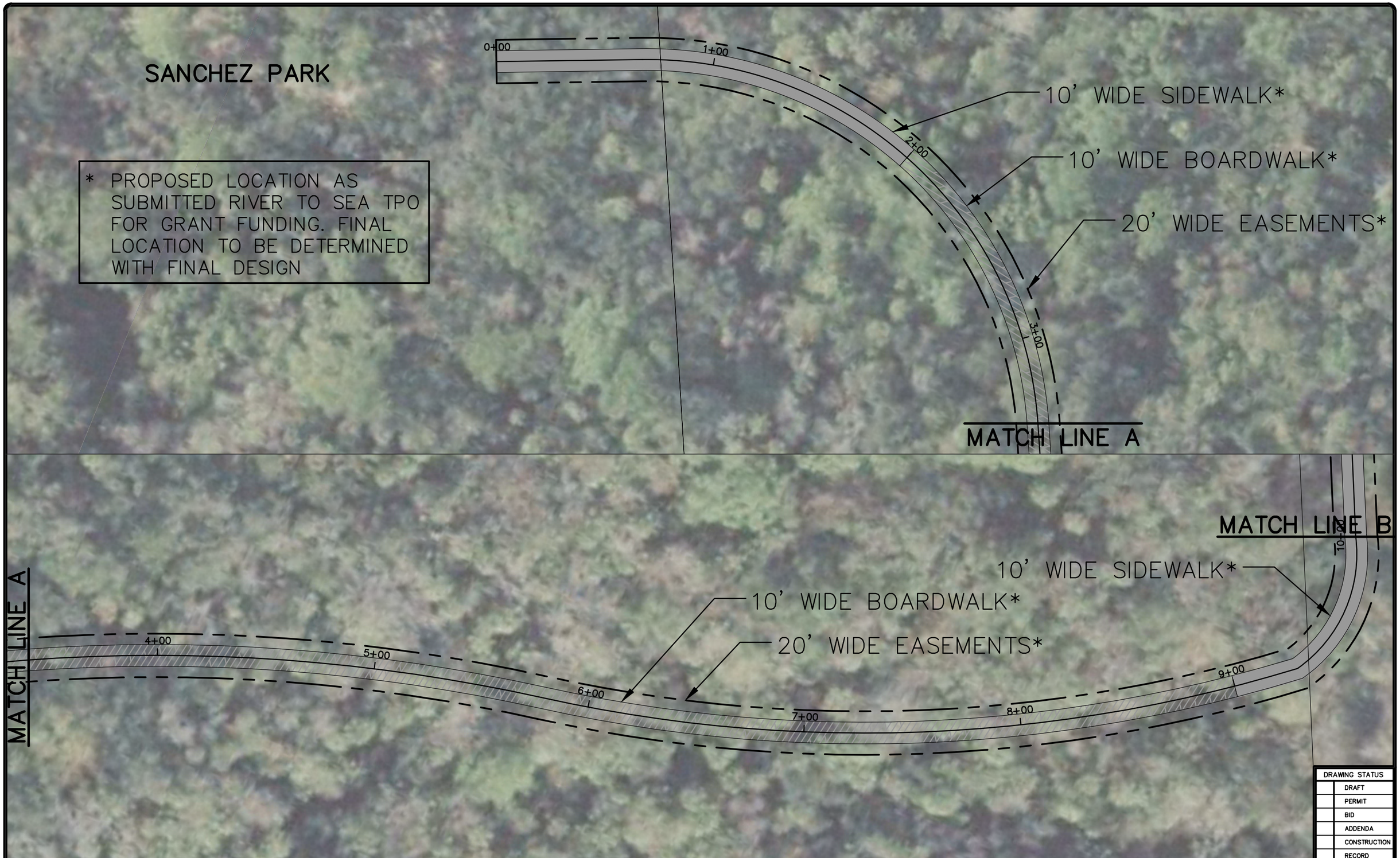
Exhibit 'A' Cost Estimate

TOMOKA STATE PARK SIDEWALK ESTIMATE

FDOT Pay Item Number	Pay Item Description	Estimated Quantity	Unit Type	Unit Cost	Total Labor Cost
BASE BID ITEMS					
101-1	Mobilization	1	LS	$ 20,000.00	$ 20,000.00
102-1	Maintenance of Traffic	1	LS	$ 4,000.00	$ 4,000.00
104-10-3	Synthetic Barrier	100	LF	$ 0.90	$ 90.00
104-13-1	Silt Fence (Type III)	24,200	LF	$ 0.54	$ 13,068.00
110-1-1	Clear and Grub	3.8	AC	$ 7,856.00	$ 29,937.92
120-1	Regular Excavation	207	CY	$ 4.84	$ 1,003.85
120-6	Embankment	2,815	CY	$ 7.53	$ 21,195.56
522-2	10-ft. Wide Concrete Sidewalk, 6"	12,667	SY	$ 32.00	$ 405,333.33
570-1-2	Performance Turf	12,667	SY	$ 3.33	$ 42,180.00
700-40-1	Sign (F&I) Single Post (12'-0")		AS	$ 1,000.00	$ -
711-11125	Stop Bar - 24" Thermo White		LF	$ 4.06	$ -
711-11224	Traffic Stripe (Thermo) (white) 18"		LF	$ 2.47	$ -
711-11111	Traffic Stripe (Thermo) (white) 6"		LF	$ 0.93	$ -
	10-ft. Wood Boardwalk	7,000	SF	$ 35.00	$ 245,000.00
			TOTAL BASE BID		**$ 781,808.67**

Subtotal	$781,808.67		
Survey / Design Costs	$85,998.95		
CEI Cost	$78,180.87	70362.78	7818.087
Contingency			
Total Project Cost	$945,988.49		

Station Begin	End	Construciton	Clear
0+00	2+00	sidewalk	brush
2+00	9+00	boardwalk	brush
9+00	18+00	sidewalk	footpath
18+00	47+00	sidewalk	service road
47+00	115+00	sidewalk	brush
115+00	121+00	sidewalk	service road



DRAWING STATUS	
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	ADDENDA
	CONSTRUCTION
	RECORD

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

ED KELLEY, MAYOR
JOYCE SHANAHAN, CITY MANAGER

JOHN NOBLE, P.E. CITY ENGINEER

TOMOKA STATE PARK SIDEWALK FROM INGLESA TO SANCHEZ PARK

SIDEWALK PLAN 0+00 TO 10+00

DATE: 5/20/15	PROJECT NO.: 00–
SCALE: 1"=40'	FILE NAME:
DRAWN BY: MC	SHEET: 3 of 18

DRAWING STATUS	
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	ADDENDA
	CONSTRUCTION
	RECORD

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

ED KELLEY, MAYOR
JOYCE SHANAHAN, CITY MANAGER

JOHN NOBLE, P.E. CITY ENGINEER

TOMOKA STATE PARK SIDEWALK FROM INGLESA TO SANCHEZ PARK

SIDEWALK PLAN 10+00 TO 22+00

DATE: 5/20/15	PROJECT NO.: 00–
SCALE: 1"=40'	FILE NAME:
DRAWN BY: MC	SHEET: 4 of 18

DRAWING STATUS	
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	ADDENDA
	CONSTRUCTION
	RECORD

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

ED KELLEY, MAYOR
JOYCE SHANAHAN, CITY MANAGER

JOHN NOBLE, P.E. CITY ENGINEER

TOMOKA STATE PARK SIDEWALK FROM INGLESA TO SANCHEZ PARK

SIDEWALK PLAN 5+00 TO 16+00

DATE: 5/6/14	PROJECT NO.: 00–
SCALE: 1"=40'	FILE NAME:
DRAWN BY: MC	SHEET: 5 of 18

DRAWING STATUS	
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	PERMIT
	BID
	ADDENDA
	CONSTRUCTION
	RECORD

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

ED KELLEY, MAYOR
JOYCE SHANAHAN, CITY MANAGER

JOHN NOBLE, P.E. CITY ENGINEER

TOMOKA STATE PARK SIDEWALK FROM INGLESA TO SANCHEZ PARK

SIDEWALK PLAN 34+00 TO 46+00

DATE: 5/30/15	PROJECT NO.: 00–
SCALE: 1"=40'	FILE NAME:
DRAWN BY: MC	SHEET: 6 of 18

DRAWING STATUS	
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	BID
	ADDENDA
	CONSTRUCTION
	RECORD

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

ED KELLEY, MAYOR
JOYCE SHANAHAN, CITY MANAGER

JOHN NOBLE, P.E. CITY ENGINEER

TOMOKA STATE PARK SIDEWALK FROM INGLESA TO SANCHEZ PARK

SIDEWALK PLAN 46+00 TO 54+00

DATE: 5/20/15	PROJECT NO.: 00–
SCALE: 1"=40'	FILE NAME:
DRAWN BY: MC	SHEET: 7 of 18

DRAWING STATUS	
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	BID
	ADDENDA
	CONSTRUCTION
	RECORD

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

ED KELLEY, MAYOR
JOYCE SHANAHAN, CITY MANAGER

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TOMOKA STATE PARK SIDEWALK FROM INGLESA TO SANCHEZ PARK

SIDEWALK PLAN 54+00 TO 66+00

DATE: 5/20/15	PROJECT NO.: 00–
SCALE: 1"=40'	FILE NAME:
DRAWN BY: MC	SHEET: 8 of 18

DRAWING STATUS	
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	BID
	ADDENDA
	CONSTRUCTION
	RECORD

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

ED KELLEY, MAYOR
JOYCE SHANAHAN, CITY MANAGER

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TOMOKA STATE PARK SIDEWALK FROM INGLESA TO SANCHEZ PARK

SIDEWALK PLAN 66+00 TO 78+00

DATE: 5/20/15	PROJECT NO.: 00–
SCALE: 1"=40'	FILE NAME:
DRAWN BY: MC	SHEET: 9 of 18

DRAWING STATUS	
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	BID
	ADDENDA
	CONSTRUCTION
	RECORD

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

ED KELLEY, MAYOR
JOYCE SHANAHAN, CITY MANAGER

JOHN NOBLE, P.E. CITY ENGINEER

TOMOKA STATE PARK SIDEWALK FROM INGLESA TO SANCHEZ PARK

SIDEWALK PLAN 78+00 TO 90+00

DATE: 5/20/15	PROJECT NO.: 00–
SCALE: 1"=40'	FILE NAME:
DRAWN BY: MC	SHEET: 10 of 18

DRAWING STATUS	
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	BID
	ADDENDA
	CONSTRUCTION
	RECORD

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

ED KELLEY, MAYOR
JOYCE SHANAHAN, CITY MANAGER

JOHN NOBLE, P.E. CITY ENGINEER

TOMOKA STATE PARK SIDEWALK FROM INGLESA TO SANCHEZ PARK

SIDEWALK PLAN 90+00 TO 102+00

DATE: 5/20/15	PROJECT NO.: 00–
SCALE: 1"=40'	FILE NAME:
DRAWN BY: MC	SHEET: 11 of 18

DRAWING STATUS	
	DRAFT
	PERMIT
	BID
	ADDENDA
	CONSTRUCTION
	RECORD

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

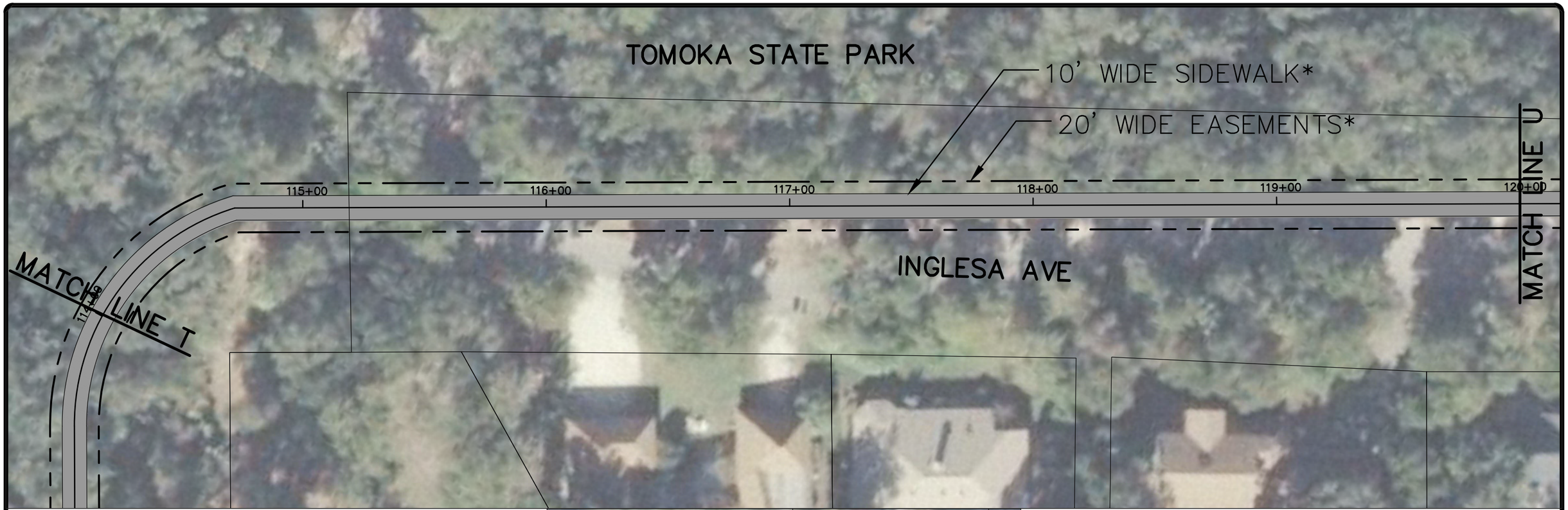
ED KELLEY, MAYOR
JOYCE SHANAHAN, CITY MANAGER

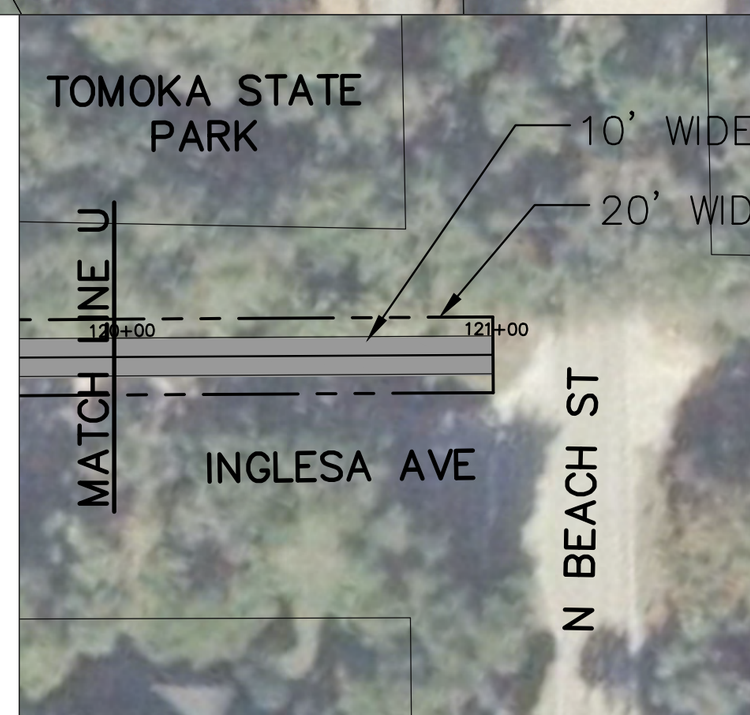
JOHN NOBLE, P.E. CITY ENGINEER

TOMOKA STATE PARK SIDEWALK FROM INGLESA TO SANCHEZ PARK

SIDEWALK PLAN 102+00 TO 114+00

DATE: 5/20/15	PROJECT NO.: 00–
SCALE: 1"=40'	FILE NAME:
DRAWN BY: MC	SHEET: 12 of 18





* PROPOSED LOCATION AS SUBMITTED RIVER TO SEA TPO FOR GRANT FUNDING. FINAL LOCATION TO BE DETERMINED WITH FINAL DESIGN

DRAWING STATUS	
	DRAFT
	PERMIT
	BID
	ADDENDA
	CONSTRUCTION
	RECORD

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

ED KELLEY, MAYOR
JOYCE SHANAHAN, CITY MANAGER

JOHN NOBLE, P.E. CITY ENGINEER

TOMOKA STATE PARK SIDEWALK FROM INGLESA TO SANCHEZ PARK

SIDEWALK PLAN 114+00 TO 121+00

DATE: 5/6/14	PROJECT NO.: 00–
SCALE: 1"=40'	FILE NAME:
DRAWN BY: MC	SHEET: 13 of 18

CAPITAL PROJECT DETAIL

PROJECT TITLE

Tomoka Elementary Connector Sidewalk

PROJECT#

308122

CATEGORY

Transportation

FUND

308-Transportation

PROJECT LOCATION

Old Tomoka Road

MANAGEMENT

Engineering

PROJECT SCOPE

Construction of a sidewalk and pedestrian crosswalk facilities at Tomoka Elementary

JUSTIFICATION

Improvements along Old Tomoka Road were originally recommended in the Tomoka Elementary School Bicycle and Pedestrian School Safety Review Study prepared for the Volusia County MPO in November, 2008. These improvements consist of 2,200 lineal feet of five foot wide sidewalk on the north side of Old Tomoka Road as well as crosswalk improvements; completion of this project will increase pedestrian safety along Old Tomoka Road, define automobile corridors, and provide continuity from the Forest Hills Connector Trail. Costs are based upon historic pricing for recent sidewalk projects within the City. With Resolution 2016-48, the City Commission approved submittal of a Bicycle / Pedestrian Grant to the River to Sea TPO for the construction of this project, the City will provide a match of at least 10% of the total project costs through in house design services.

PROJECT COST METHODOLOGY

Historic Cost Data

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Construction	0	108,000	0	0	0	108,000
Engineering, CA, Inspection	0	10,800	0	0	0	10,800
Total	0	118,800	0	0	0	118,800

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
TPO Grant (pending)	0	118,800	0	0	0	118,800
Total	0	118,800	0	0	0	118,800

Tomoka Elementary Connector Sidewalk

312 ft

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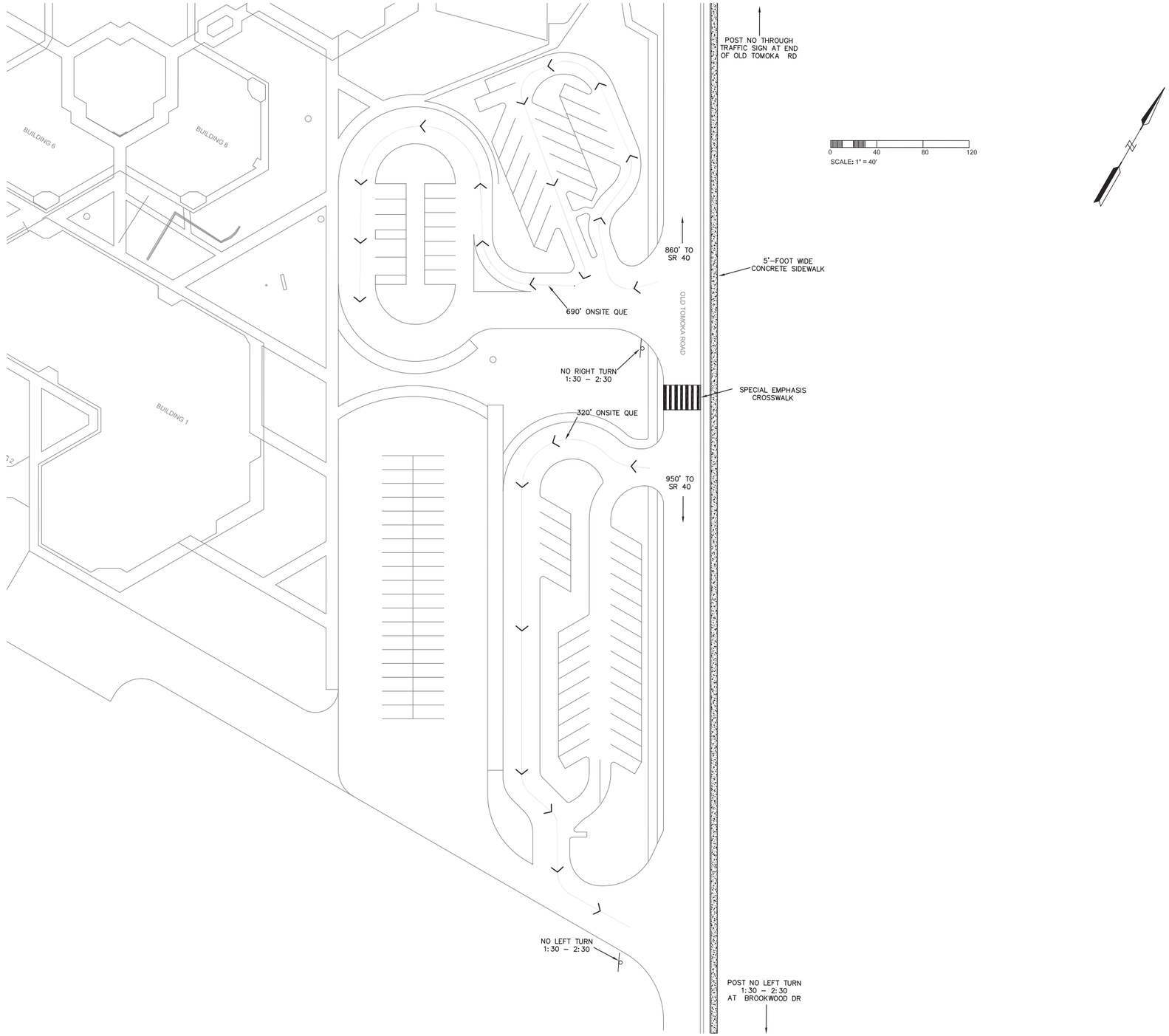


DRAWING STATUS	
X	DRAFT
	PERMIT
	BID
	ADDENDA
	CONSTRUCTION
	RECORD

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

ED KELLEY, MAYOR
JOYCE SHANAHAN, CITY MANAGER

JOHN NOBLE, P.E. CITY ENGINEER

TOMOKA ELEMENTARY

PEDESTRIAN IMPROVEMENT DETAIL

DATE: 3/1/16	PROJECT NO.: 2016-XX
SCALE: 1"=40'	FILE NAME: .DWG
DRAWN BY: CO	SHEET: 1 OF 1

City of Ormond Beach
4/1/2016

Tomoka Elementary School Connector Sidewalk

Project Probable Cost

Construction

Item No.	Description	Estimated Quantity	Unit	Unit Price	Item Price
1	Mobilization/ Demobilization (~5%)	1	LS	$4,000.00	$4,000
2	Construct 5 foot wide concrete sidewalk	1,200	SY	$50.00	$60,000
3	Utility Relocation and adjustments	1	LS	$5,000.00	$5,000
4	Furnish & Install ADA Ramp and Detectable Pad	8	EA	$400.00	$3,200
5	Furnish & Install Bahia Sod	2,667	SY	$2.50	$6,667
6	Thermoplastic Striping	1	LS	$5,000.00	$5,000
7	Furnish and Install Signage	1	LS	$2,000.00	$2,000
8	Geotechnical Services	1	LS	$2,000.00	$2,000
9	Maintenance of Traffic	1	LS	$5,000.00	$5,000
10	As-Builts & Survey Site Layout	1	LS	$5,000.00	$5,000

Construction	**$97,867**
Contingency (10%)	**$9,787**
Construction Budget	**$108,000**
Engineering (15%)	**$16,200**
CEI (10%)	**$10,800**
TOTAL PROBABLE PROJECT COST	**$135,000**

Proje Tomoka Elementary Connector Sidewalk
FM#
City of Ormond Beach
Design Manhour Estimate

Task	Description	Position: City Engineer Name: Rate / hr: $ 72.00 HOURS	TOTAL	Position: Project Manager Name: Rate / hr: $ 46.00 HOURS	TOTAL	Position: Projects Coordinator Name: Rate / hr: $ 31.25 HOURS	TOTAL	Position: Chief Engineering Tech. Name: Rate / hr: $ 34.70 HOURS	TOTAL	Position: Engineering Tech. Name: Rate / hr: $ 22.80 HOURS	TOTAL	TOTAL PER TASK
1	DESIGN											
1a	Survey	4	$ 288.00	16	$ 736.00	0	$ -	48	$ 1,665.60	88	$ 2,006.40	$ 4,696.00
1b	Sidewalk Design	4	$ 288.00	40	$ 1,840.00	0	$ -	16	$ 555.20	60	$ 1,368.00	$ 4,051.20
2	Bid Specificaitons		$ -	40	$ 1,840.00	32	$ 1,000.00		$ -	10	$ 228.00	$ 3,068.00
3	Permitting	4	$ 288.00	12	$ 552.00	8	$ 250.00		$ -	15	$ 342.00	$ 1,432.00
4	Public Involvement	12	$ 864.00	32	$ 1,472.00	5	$ 156.25	8	$ 277.60	8	$ 182.40	$ 2,952.25
	Total		$ 1,728.00		$ 6,440.00		$ 1,406.25		$ 2,498.40		$ 4,126.80	**$ 16,199.45**

CAPITAL PROJECT DETAIL

PROJECT TITLE

Traffic Signal Maintenance

PROJECT#

308115

CATEGORY

Transportation

FUND

308-Transportation

PROJECT LOCATION

City Wide

MANAGEMENT

Engineering

PROJECT SCOPE

Maintenance and upgrades to existing traffic signals to include repainting of traffic signals and other traffic control devices as needed on a City-wide basis. The attached schedule and map provides those intersections and the years for which maintenance has been assigned.

JUSTIFICATION

Normal wear and tear under extreme weather conditions requires refurbishing of these highly visible traffic signals to be required every 5-7 years. If regular maintenance including the painting of the mast arms is not performed, the mast arms are subject to corrosion and potential structural failure. The proposed schedule factors in the time since last painting and completes the current re-painting cycle.

PROJECT COST METHODOLOGY

Historic Bid Information (2013/14 contract for mast arm painting)

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Signal Rehabilitation	0	70,000	65,000	70,000	45,000	250,000
Total	0	70,000	65,000	70,000	45,000	250,000

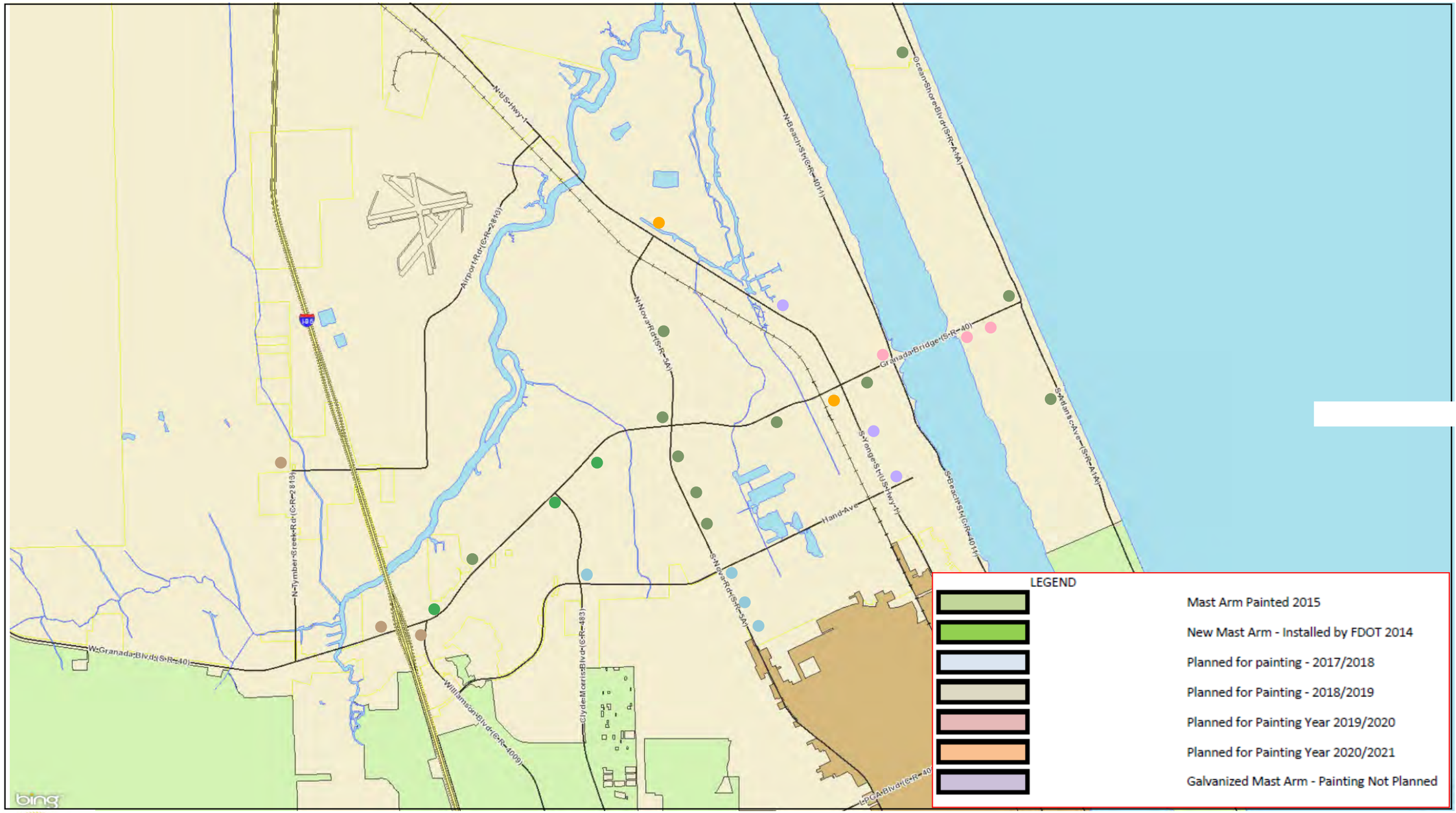
REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Property Taxes-Transportation	0	70,000	65,000	70,000	45,000	250,000
Total	0	70,000	65,000	70,000	45,000	250,000

	Mast Arm	Location		Apr-16		2014/2015	2015 / 2016	2016 / 2017	2017 / 2018	2018/2019	2019/2020	2020/2021
	Structure #	Main Facility	Intersecting Facility	Age	Rank	YR - 1	YR -2	YR-3	YR-4	YR-5	YR-6	YR-7
1	79M003	I-95 NB	SR-40(Granada Blvd)	10	9					$ 20,081.60		
2	79M004	I-95 SB	SR-40(Granada Blvd)	10	9					$ 20,081.60		
3	79M019	US-1/SR-5	Hand Ave.	8	4							
4	79M020	US-1/SR-5	Division Ave	16	1							
5	79M021	US-1/SR-5	Wilmette Ave.	16	2							
6	79M036	SR-5A/Nova Rd	Golf Ave.	14	6				$ 15,145.90			
7	79M037	SR-5A/Nova Rd	Flemming Ave.	14	6				$ 15,145.90			
8	79M038	SR-5A/Nova Rd	Hand Ave.	14	6				$ 18,528.40			
9	79M039	SR-5A/Nova Rd	Division Ave	2	23	$ 17,656.00						
10	79M040	SR-5A/Nova Rd	Woodlands Blvd.	2	23	$ 20,119.00						
11	79M041	SR-5A/Nova Rd	Fire Station 92	2	23	$ 13,769.00						
12	79M042	SR-5A/Nova Rd	SR-40(Granada Blvd)	2	19	$ 20,119.00						
13	79M043	SR-5A/Nova Rd	Wilmette Ave.	2	23	$ 18,256.00						
14	79M059	SR-600/SR-A1A	Fire Station 91	2	15	$ 9,456.00						
15	79M060	SR-600/SR-A1A	SR-40(Granada Blvd)	2	14	$ 11,550.00						
16	79M061	SR-600/SR-A1A	Neptune Ave.	2	15	$ 13,394.00						
17	79M114	SR-40(Granada Blvd)	Seminole	2	23	$ 16,844.00						
18	79M115	SR-40(Granada Blvd)	Orchard Street	2	23	$ 11,550.00						
19	79M116	SR-40(Granada Blvd)	Ridgewood Ave.	2	23	$ 10,244.00						
20	79M117	SR-40(Granada Blvd)	Beach Street	5	13						$ 22,130.90	
21	79M118	SR-40(Granada Blvd)	John Anderson Dr.	5	11						$ 22,130.90	
22	79M119	SR-40(Granada Blvd)	Halifax Dr.	5	11						$ 22,130.90	
23		SR-40(Granada Blvd)	Main Trail/Old Tomoka	2	19							
24		SR-40(Granada Blvd)	Clyde Morris Blvd.	2	19							
25		SR-40(Granada Blvd)	Williamson Blvd.	2	19							
26		SR-5A/Nova Rd	US-1/SR-5	4	17							$ 20,081.60
27		Airport Road	Tymber Creek Rd.	16	3					$ 20,081.60		
28		Clyde Morris Blvd.	Hand Avenue	16	5				$ 18,528.40			
29		SR-40(Granada Blvd)	US-1/SR-5	4	17							$ 22,130.90
						$ 162,957.00	$ -		$ 67,348.60	$ 60,244.80	$ 66,392.70	$ 42,212.50

LEGEND

- Mast Arm Painted 2015
- New Mast Arm - Installed by FDOT 2014
- Planned for painting - 2017/2018
- Planned for Painting - 2018/2019
- Planned for Painting Year 2019/2020
- Planned for Painting Year 2020/2021
- Galvanized Mast Arm - Painting Not Planned

Mast Arm Painting Schedule



4,405 ft

GIS data is provided on an "as is" basis. The accuracy or reliability of the data is not guaranteed or warranted in any way. The City of Ormond Beach specifically disclaims any warranty either expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular use. The entire risk as to quality and performance of the data is with the end user. In no event will the City, its staff or it's representatives be liable for any direct, indirect, incidental, special, consequential, or other damages, including loss of profit, arising out of the use of this data even if the City has been advised of the possibility of such damages.

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VEHICLE AND EQUIPMENT REPLACEMENT

CAPITAL PROJECT DETAIL

PROJECT TITLE

Advanced Life Support Cardiac Monitors

PROJECT#

301214

CATEGORY

Vehicle and Equipment Replacement

FUND

301-General Improvement Fund

PROJECT LOCATION

Fire

MANAGEMENT

Fire

PROJECT SCOPE

This project involves the purchase of five Cardiac Monitors to replace the existing Cardiac Monitors currently utilized in providing Advanced Life Support Emergency Medical Services. Four of the Cardiac Monitor units will be on our frontline apparatus and one will be a spare unit in the event that a monitor needs servicing or repair.

JUSTIFICATION

Our current Cardiac monitors do not meet the current National Standard of Care as outlined by the American Heart Association. The new standard of care requires that cardiac monitors have the capability to transmit 12 lead EKG's to the hospital from the field. Our current monitors would need an update to both the software and the hardware in order to meet that requirement. Our Medical Director Dr. Peter Springer has not mandated the upgrade yet to meet the national standard of care but anticipates doing so in 2016. Four of our current monitors were purchased in 2005 and three were purchased in 2006. Industry standards show that after 10 years technology has improved significantly and that manufacturers stop supporting the outdated technology.

PROJECT COST METHODOLOGY

Project Cost estimate had been provided from supplier quote.

EXPENDITURE	Year	Dept	Veh #	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Monitors				110,676	0	0	0	0	110,676
Total				110,676	0	0	0	0	110,676

REVENUE	Year	Dept	Veh #	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
General Fund Reserves				110,676	0	0	0	0	110,676
Total				110,676	0	0	0	0	110,676

PHILIPS

QUOTE DATE	QUOTE NUMBER	PAGE
04/02/2015	2300506281	1 / 7

LAST UPDATED	TIME
04/02/2015	19:33:07

EXPIRATION DATE	INCOTERMS
06/02/2015	FOB DESTINATION

PAYMENT TERMS
Net 45 Days
Subject to Credit Approval

FORMAL QUOTE

Philips Healthcare
3000 Minuteman Road,MS0400
Andover, MA 01810-1099

Email PO to: Healthcare.Orders@philips.com
or
Fax PO to: 1-800-947-3299
or
Mail PO to:
Philips Healthcare
Order Processing, MS0400
Andover, MA 01810-1099

800-934-7372

CUSTOMER:
Attention:

Ormond Fire Department
364 S Atlantic Ave
ORMOND BEACH FL 32176-8148
UNITED STATES

Customer Number : 94039174

SALES REPRESENTATIVE

Jim Wallace Ph: 315-703-1872

Fax:

QUOTE CONTACT

Lisa Fifty

Federal EIN: 13-3429115

ITEM	PRODUCT	DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT AMOUNT (USD)	TOTAL AMOUNT (USD)
		SPECIAL COMMENTS 2015-3_5 new MRx with trade in units customer to pay upfront for support				
10	M3536A 861289	HeartStart MRx ALS monitor	5	PCE	10,700.00	53,500.00
		A23 SpO2, NIBP, CO2 (Grey)	5		9,615.00	48,075.00
		B01 Noninvasive Pacing	5		2,350.00	11,750.00
		B02 12 Lead ECG acquisition	5		4,000.00	20,000.00
		B06 12-LD Trans. Bluetooth	5		2,121.99	10,609.95
		B08 Q-CPR	5		2,995.00	14,975.00
		B09 Q-CPR Data Capture	5		200.00	1,000.00
		C03 Data Card	5		98.00	490.00
		C05 Lithium Ion Battery	5		415.00	2,075.00
		C06 AC Power Module	5		425.00	2,125.00
		C21 Blk soft case-pads/paddles	5		.00	.00
		D01 Wireless Link-Generic	5		4,995.00	24,975.00
		LP1 User Instructions Guide	5		.00	.00
		M3508A Standard Pad Cable	5		.00	.00
		W22 2-yr Bench Repair Warranty	5		.00	.00
		Agreement Discount			-30.00 %	-56,872.49
		Promotion discount			-4,000.00	-20,000.00
		Special Discount			-10.00 %	-18,957.50

THIS QUOTATION CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF PHILIPS HEALTHCARE AND IS INTENDED FOR USE ONLY BY THE CUSTOMER WHOSE NAME APPEARS ON THIS QUOTATION. IT MAY NOT BE DISCLOSED TO THIRD PARTIES WITHOUT PRIOR WRITTEN CONSENT OF PHILIPS HEALTHCARE.

PHILIPS

Philips Healthcare
3000 Minuteman Road,MS0400
Andover, MA 01810-1099

QUOTE DATE	QUOTE NUMBER	PAGE
04/02/2015	2300506281	2 / 7
LAST UPDATED 04/02/2015	TIME 19:33:07	
EXPIRATION DATE 06/02/2015	INCOTERMS FOB DESTINATION	

FORMAL QUOTE

REPRINT

ITEM	PRODUCT	DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT AMOUNT (USD)	TOTAL AMOUNT (USD)
		Net price				93,744.96
		Agreement: MH537				
20	861431 861431	Event Review Pro 4.x	1	PCE		
		A01 Single-PC License	1		2,570.00	2,570.00
		Agreement Discount			-35.00 %	-899.50
		Special Discount			-5.00 %	-128.50
		Net price				1,542.00
		Agreement: MH537				
30	861451 861451	HeartStart Data Messenger	6	PCE		
		A01 - Single PC License	6		215.00	1,290.00
		Agreement Discount			-35.00 %	-451.50
		Special Discount			-5.00 %	-64.50
		Net price				774.00
		Agreement: MH537				
40	890416	Monitoring & Cardiology ServiceAgreement	1	PCE	14,615.00	14,615.00
		A08 Performace Assurance Service A11 3 Years of Service B01 Bench Repair				
		Net price				14,615.00
		Total Quotation List Price				208,049.95
		Less All Applicable Discounts				-97,373.99
		Total Quotation Net Price				**110,675.96**

Philips Healthcare is pleased to inform you that financing of its products and services is available to qualified applicants. To obtain more information
contact Philips Medical Capital @ 866-513-4PMC.
*
Contract information for:Oklahoma Naspo States Contract
*
Prices quoted are subject to and reflect applicable discounts per the terms and conditions of the following contract:

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ITEM	PRODUCT	DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT AMOUNT (USD)	TOTAL AMOUNT (USD)

Contract #MH537 Expiration:Mar. 31, 2016
*
The discount quoted herein is a combination
of the Purchase Agreement Discount and
a Special Negotiated Discount.
*
The products listed herein are part of
a Philips Promotion entitled:
Buy More-Trade More-Save More - 11981NAUS
To qualify for the special discounts
noted herein, all products within the
Promotion configuration must be ordered.
No changes and/or substitutions will be
allowed. All orders for this promotion must
be received on or before 12/31/2015
The trade-in allowance quoted herein exceeds Philips' estimate of the fair market value of the units by $1500.00 each. This amount may be considered a price reduction or discount under 42 USC 1001.952(h).
*
This quotation is issued pursuant to, and any PO for the items herein will be accepted subject to the Terms of Contract#MH537 .
If no contract is identified in the previous sentence or the products and/or services are not covered by this contract, this quotation is issued pursuant to, and any PO for the items herein will be accepted subject to the Philips Terms and Conditions of Sale posted at http://www.healthcare.philips.com/main/terms_conditions/ and the terms herein.
*
MD Buyline -- Please be aware that MD Buyline utilizes Philips current list prices as the basis of calculation for discount comparisons. If you are a customer utilizing a GPO contract with fixed pricing, it is likely that the list price on this quotation is based on an older published price list, and may be considerably less than the current list pricing that MD Buyline uses in its analysis. As such, the MD Buyline discount recommendation may be higher than the Philips offering for your particular purchase. If you have a question, please ask your Sales Representative for clarification. Should you have concerns or want additional information relative to how discount comparisons are calculated at MD Buyline, please call your analyst at MD Buyline.
*
All work is scheduled within normal working hours;
Monday through Friday, 8 a.m. to 5 p.m. excluding Philips holidays.
All pricing is based on travel zones 1-3. For travel zones beyond 1-3, consult your Philips sales rep for alternate pricing.

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ITEM	PRODUCT	DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT AMOUNT (USD)	TOTAL AMOUNT (USD)

It is the customers responsibility to provide Philips with the access necessary to complete the quoted work in a continuous start to finish manner.
Excessive delays and multiple visits will result in additional charges.
All prices are based upon 'adequate access' to work areas that are free from obstruction.
If it is determined, during the implementation that asbestos removal is required; Philips will suspend performance until the Customer remediates the asbestos.
Philips will work with the customers staff to reduce the downtime during the system transition.
*
*
Products are for USA end-use only. Taxes, if applicable, are not included unless noted but will be added to the invoice. The Purchase Order must reference the Quote Number and your Purchase Agreement. Please indicate your requested delivery date and your preference, if any, to accept and pay for partial shipments. If this quote includes Value-Added Services, they may be invoiced separately. Additional sold training must be completed within twelve months of delivery/installation. System cabling, if included, is specified at the standard grade unless noted otherwise.
*
This quote specifically excludes Licensing & Permit Fees, Prevailing Wage Compensation and Union Labor.
*
IMPORTANT NOTICE: Health care providers are reminded that if the transactions herein include or involve a loan or a discount (including a rebate or other price reduction), they must fully and accurately report such loan or discount on cost reports or other applicable reports or claims for payment submitted under any federal or state health care program, including but not limited to Medicare and Medicaid, such as may be required by state or federal law, including but not limited to 42 CFR 1001.952(h).
*
Not binding until accepted in writing by Philips in Andover or invoiced by Philips.
*
Any purchase order or resulting agreement shall be subject to the Philips Terms and Conditions and the following terms which customer accepts.
*
For certain agreements, Philips may conduct a qualification inspection to verify that customer is suitably trained, the equipment is in serviceable condition, and all like equipment is covered by a valid

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ITEM	PRODUCT	DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT AMOUNT (USD)	TOTAL AMOUNT (USD)

Philips warranty or service agreement.
*
Any resulting agreement is subject to cancellation by Philips if customer fails to satisfy these conditions during the term.
*
*
Biomed Support - a new agreement for Biomeds and clinicians that want unfettered technical and clinical support, direct connection to technical engineers and discounts on parts. This agreement is great for Biomeds that make regular use of Philips technical support and genuine Philips parts, and ensures clinicians have access to clinicians when necessary. It is designed to cover an entire facility, with affordable pricing and straightforward quoting.
*
Biomed Alliance - designed for the Philips-trained Biomed department that wants to limit parts and support costs, this agreement provides unlimited parts and technical support for all products covered. If the customer would like Philips field service engineers to back them up with their support efforts, a Second Response option is available to provide an onsite field service engineer for situations where the local biomed team is not able to resolve a problem after attempting repairs and receiving guidance remotely. This agreement also provides access to clinician support.
*
Bench Repair - provides bench repair services at a Philips repair facility. This service is great for products where software and hardware reliability and compatibility are critical and factory quality repairs ensure that repairs meet current manufacturing standards. A Performance Assurance option is available for products that require annual preventive maintenance.
*
Unit Exchange - Unit Exchange provides a fast replacement of failed or problem units. Under this agreement, customers can receive a new unit as soon as the next business day. This agreement is a good fit for products where time is critical and spare units are not available.
*
Comprehensive Onsite - With Comprehensive Onsite, Philips provides onsite support for covered equipment. This agreement is good for products and for care areas where technical expertise is critical and hands on Philips engineers will support the clinical and technical needs of the department. A Performance Assurance option is available for products that require annual preventive maintenance. This agreement also provides access to remote clinician support.
*
Software Maintenance Agreement - The software maintenance agreement

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ITEM	PRODUCT	DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT AMOUNT (USD)	TOTAL AMOUNT (USD)

includes Philips highest levels of remote support and includes software upgrades and remote clinician support. PTU Standard and PTU Basic are still key components of these agreements, with PTU Standard providing all installations and PTU Basic providing up to 2 installations over 5 years. Remote support includes new Remote Access services that enable Philips technical engineers to maximize system uptime through remote diagnostic tools and processes.

*

If the customer would like Philips field service engineers to back them up with their support efforts, a Second Response option is available to provide an onsite field service engineer for situations where the local biomed team in cooperation with Philips remote services is not able to resolve a problem in time to meet service level commitments.

*

Legacy Agreement Types

*

Gold Service - On-site maintenance and repair 8-5, M-F; Clinical Ed and upgrade discounts.

*

Silver Service - On-site repair 8-5, M-F.

*

First Response - On-site repair with biomed screening, InCenter subscription.

*

Co-op Response - Backup on-site repair only 8-5, M-F, InCenter subscription.

*

*

Remote Response - Labor, parts, phone support 8-5, M-F, InCenter subscription.

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This quotation contains confidential and proprietary information of Philips Healthcare and is intended for use only by the customer whose name appears on this quotation.It may not be disclosed to third parties without prior written consent of Philips Healthcare

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CAPITAL PROJECT DETAIL

PROJECT TITLE

Vehicle Replacement-General

PROJECT#

30217M

CATEGORY

Vehicle and Equipment Replacement

FUND

302-General Vehicle Replacement Fund

PROJECT LOCATION

Various City Departments

MANAGEMENT

Fleet

PROJECT SCOPE

The project involves the continued implementation of a comprehensive vehicle replacement schedule for the City's fleet. Vehicles beyond the first year of this program will be evaluated at the appropriate time. These vehicles are being shown for scheduling purposes only and will not necessarily be replaced in the year shown.

JUSTIFICATION

The replacement schedule has been designed to replace vehicles which have been identified as incurring the greatest maintenance expense over the life of the vehicle, reaching or exceeding the expected life in terms of age, and having relative high mileage. The benefits of the replacement program are reflected in the reduction of the City's Fleet Maintenance operating and labor costs, as well as lower vehicle downtime.

PROJECT COST METHODOLOGY

State contract pricing.

EXPENDITURE	Year	Dept	Veh #	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Lightning Loader		Streets	258	75,000	0	0	0	0	75,000
Ford Crown Vic	2009	Police	5	39,500	0	0	0	0	39,500
Ford Crown Vic K-9	2010	Police	21	42,300	0	0	0	0	42,300
Chev Colorado pu	2008	Police CSO	49	25,500	0	0	0	0	25,500
Ford Crown Vic	2008	Police	116	39,500	0	0	0	0	39,500
Ford Crown Vic	2008	Police	118	39,500	0	0	0	0	39,500
Chev 4x4 3/4 ton pickup truck	2005	Engineering	159	25,500	0	0	0	0	25,500
Ford Focus	2000	City Hall	205	16,300	0	0	0	0	16,300
GMC Sonoma	2001	Engineering	212	21,000	0	0	0	0	21,000
Ford Crown Vic	2008	Police	119	0	40,200	0	0	0	40,200
Ford Crown Vic	2008	Police	121	0	40,200	0	0	0	40,200
Ford Ranger	2005	NID	210	0	18,000	0	0	0	18,000
Chevy Uplander Van	2008	Police PAL	508	0	18,000	0	0	0	18,000
Chevy Uplander Van	2008	L Services	509	0	18,000	0	0	0	18,000
Ford Crown Vic	2011	Police	19	0	0	40,200	0	0	40,200
Ford Crown Vic	2011	Police	39	0	0	40,200	0	0	40,200
Kawasaki	2009	Police	91	0	0	26,000	0	0	26,000
Kawasaki	2009	Police	95	0	0	26,000	0	0	26,000
Ford Focus	2001	Stormwater	211	0	0	18,000	0	0	18,000

CAPITAL PROJECT DETAIL

PROJECT TITLE

Vehicle Replacement-General

PROJECT#

30217M

Ford Focus	2001	Stormwater	211	0	0	18,000	0	0	18,000
Wacker asphalt roller	2006	Streets	E278	0	0	12,000	0	0	12,000
Int'l Boom Truck	2001	Streets	284	0	0	106,000	0	0	106,000
Ford Crown Vic	2011	Police	22	0	0	0	40,200	0	40,200
Ford Explorer	2011	Fire	46	0	0	0	25,000	0	25,000
Ford Crown Vic	2011	Police	60	0	0	0	40,200	0	40,200
Ford Crown Vic	2011	Police	65	0	0	0	40,200	0	40,200
Ford Crown Vic	2011	Police	66	0	0	0	40,200	0	40,200
Chevy Equinox	2011	Police	84	0	0	0	22,000	0	22,000
Chevy Impala	2011	Police	85	0	0	0	22,000	0	22,000
Ford Crown Vic	2011	Police	77	0	0	0	40,200	0	40,200
Ford Crown Vic	2011	Police	87	0	0	0	40,200	0	40,200
Sterling 14 yd dump truck	2004	Streets	272	0	0	0	67,000	0	67,000
Ford 3/4 ton pickup truck	2003	L Services	530	0	0	0	19,000	0	19,000
Total				324,100	134,400	268,400	396,200	0	1,123,100

REVENUE	**Year**	**Dept**	**Veh #**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**Total 2016-17 to 2020-21**
Vehicle Replacement Fund				324,100	134,400	268,400	396,200	0	1,123,100
Total				324,100	134,400	268,400	396,200	0	1,123,100

FY 2016-2017 Budget
Vehicle & Motorized Equipment Serviceability Report

Department/Division: 2008 PD **Priority _____ of _____**

This request is included in: ■ **Budget Submission** ☐ **List of Adds**

Vehicle/Equipment #: 005	**Vehicle/Equipment Type (make, model, etc.): 2009 Ford Crown Vic**
Purchase Date (year & age): 06/18/2009	**Scheduled Replacement Date (per schedule): 06/18/2016**
Miles 78704	**Estimated Repair Cost: $4,800.00**

A bumper-to-bumper inspection ahs been performed on this vehicle/equipment:

Technician: McIlrath **Date: 4/25/2016**

The following parts/repairs are required for this vehicle/equipment, but have been deferred:

Part/Repair	Estimated Cost (materials & Labor)
Engine repair leaking oil main crank seal.	$1,500
Trans repair oil leaks	$500.
Steering column repair/replacement/ front end repair	$1,800.
Light repair/lenses/ paint repair	$1000.
	Total: $

Two-year maintenance history:

Year	Cost (materials & labor):	Days Out-of-Service
2014	$2285.50	4
2015	$1105.76	5

Fleet Recommendation:

■ **Remove from Fleet** ☐ **High Maintenance** ☐ **Do Not Replace**

Comments:

This is an out dated vehicle, out of warranty with major mechanical issues. It is recommended to replace rather than to repair.

Fleet Maintenance Supervisor: **Date:**

Fleet Systems Specialist: **Date:**

Operations Manager: **Date:**

City Manger Concurrence:

☐ **Approved** ☐ **Denied**

City Manager: _____ **Date:** _____

Vehicle and Equipment Repair/Replacement Evaluation		
Vehicle: # 005	**Evaluated by: Danny McIlrath**	
Dept.: 2008 PD	**Supervisor: Kevin M Gray, Operations Manager**	
	Points Assigned	**Comments**
Year of vehicle. One point assigned per year. Example: A 2000 vehicle would be assigned 9 points because it is 9 years old.	7	2009 Ford Crown Vic
Mileage or hours of use. One point is assigned for each 10,000 miles or 1,500 hours of operation. Example: A vehicle with 87,000 miles would receive 9 points as it is rounded up.	9	78704 miles
General overall condition. This category takes into consideration body condition, rust, interior condition, anticipated repairs, etc. A scale from 1-5 is used, with 5 being an extremely poor…possibly unsafe condition.	4	driver seat worn/torn, steering column worn, decals chipped and faded, light bar lenses faded, headlight lenses faded, rims rusted. Engine oil leak rear main seal. Tail shaft of transmission seal leaking, Left front door panel loose and worn, surspension worn.
Type of service. Points are assigned as either 1,3,or 5 depending on the type of use the vehicle had during most of its life. Example: A '5' would be assigned to vehicles that were utilized as patrol cars as that is considered severe service, while a staff car would be a '1'.	5	PD patrol
Reliability of vehicle. Points are assigned as 1-5 depending on the frequency that the vehicle is in the shop for repairs. A '5' should be assigned to a vehicle that is in the shop 3 or more times a month on average. A '1' would be used for once every 3 months or less.	2	in the shop very little
Total operating cost. Points are assigned as 1,3,or 5 depending on the total cost per mile factor. This figure includes maintenance and operational costs in relation to other vehicles utilized for the same purpose.	5	0.50 per mile
Have warranties expired?	Yes	☐ **Check if general overall condition can defer replacement can be defer to volunteer car**
Total Points	**32**	**(Shop Supervisor approval required)**

28 + points	**32**	**Needs immediate replacement**
23-27 points		Condition is borderline
18-22 points		Condition is fair/good
Under 18 points		Condition is good/excellent

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number	Year	Make	Model	Shop	TSet	License
005	2009	FORD	CROWN VIC	01	EQ	133140

Print

Meter	Reading
M	78702

Parent Equipment

Component

Link: None / Permanent / Removable

Status: Attached

Class: PC MARKED POLICE CAR

Department: 2005 ... POLICE OPERATIONS

Serial Number: 2FAHP71V39X138332

Location

MG: UNDEFINED

Color: WHT

Priority

Site: 01 POLICE STATION

Employee: 9318 Braun, Caleb 2005 03162009

EAC: 08 Monday-Friday 7-3:30

Depreciation: 3524.78

Last Work Order: 0000086735

Status: A

Motor Pool

Last PM

Type	Date Done
A	02/17/2016

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Date: 06/18/2009 Cost: 26674.00 Maint $ LTD: 13798.57 Inflation Rate: .03500 Salvage Rate: .07000

Fund: Major Grouping: Highest Meter: 3.9 Maintenance: 5.2 Age: 4.9

Expected Life In Meters

Type	Primary	Date	Time	Actual	Acquire	BeginFY
M	X	06/18/2009	14:04:58	78702	92	75565

	Remaining Life	Replacement	Replacement	Monthly Recovery
Original:	1	06/18/2016	34067.12	405.56
Adjusted:	5	09/14/2016	34466.31	391.66

Salvage Value	1867.18
Recovery Collected	0.00
Recovery Balance	34466.31
Life Expectancy Months	84
Current Life In Months	83
Total Points	14.0
Condition Factor	0.00

Vehicle Replacement

Upd

FY 2016-2017 Budget
Vehicle & Motorized Equipment Serviceability Report

Department/Division: 2005 PD K-9 **Priority _____ of _____**

This request is included in: ■ **Budget Submission** ☐ **List of Adds**

Vehicle/Equipment #: 021	**Vehicle/Equipment Type (make, model, etc.): 2010 Ford Crown Vic**
Purchase Date (year & age): 06/24/2010	**Scheduled Replacement Date (per schedule): 06/24/2017**
Miles 95416	**Estimated Repair Cost: $4,000**

A bumper-to-bumper inspection ahs been performed on this vehicle/equipment:

Technician: McIlrath **Date: 4/2016**

The following parts/repairs are required for this vehicle/equipment, but have been deferred:

Part/Repair	Estimated Cost (materials & Labor)
Engine repair for leaks	$750.00
Paint and decals replacement	$2,000.00
Suspension repair	$750.00
Interior repair	$500.00
	Total: $

Two-year maintenance history:

Year	Cost (materials & labor):	Days Out-of-Service
2014	$3,355.34	7
2015	$1,606.43	2

Fleet Recommendation:

■ **Remove from Fleet** ☐ **High Maintenance** ☐ **Do Not Replace**

Comments:

This is an outdated vehicle facing some major mechanical issues and it is recommended to replace rather than repair.

Fleet Maintenance Supervisor: **Date:**

Fleet Systems Specialist: **Date:**

Operations Manager: **Date:**

City Manger Concurrence:

☐ **Approved** ☐ **Denied**

City Manager: _____ **Date:** _____

Vehicle and Equipment Repair/Replacement Evaluation		
Vehicle: # 021	**Evaluated by: Danny McIlrath**	
Dept.: 2005 PD	**Supervisor: Kevin M Gray, Operations Manager**	
	Points Assigned	**Comments**
Year of vehicle. One point assigned per year. Example: A 2000 vehicle would be assigned 9 points because it is 9 years old.	6	2010 Ford Crown Vic
Mileage or hours of use. One point is assigned for each 10,000 miles or 1,500 hours of operation. Example: A vehicle with 87,000 miles would receive 9 points as it is rounded up.	10	95416 miles
General overall condition. This category takes into consideration body condition, rust, interior condition, anticipated repairs, etc. A scale from 1-5 is used, with 5 being an extremely poor…possibly unsafe condition.	4	Engine oil leaks at front and rear main shaft seals, The paint and decals or worn. Front surspension is worn, interior is worn driver seat worn, floor matting worn.
Type of service. Points are assigned as either 1,3,or 5 depending on the type of use the vehicle had during most of its life. Example: A '5' would be assigned to vehicles that were utilized as patrol cars as that is considered severe service, while a staff car would be a '1'.	5	PD
Reliability of vehicle. Points are assigned as 1-5 depending on the frequency that the vehicle is in the shop for repairs. A '5' should be assigned to a vehicle that is in the shop 3 or more times a month on average. A '1' would be used for once every 3 months or less.	2	in the shop a little
Total operating cost. Points are assigned as 1,3,or 5 depending on the total cost per mile factor. This figure includes maintenance and operational costs in relation to other vehicles utilized for the same purpose.	5	0.48 per mile
Have warranties expired?	Yes	☐ **Check if general overall condition can defer replacement can be defer to volunteer car**
Total Points	**32**	**(Shop Supervisor approval required)**

28 + points	**32**	**Needs immediate replacement**
23-27 points		Condition is borderline
18-22 points		Condition is fair/good
Under 18 points		Condition is good/excellent

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number	Year	Make	Model	Shop	TSet	License
021	2010	FORD	CROWN VIC	01	EQ	208922

Print

Meter	Reading
M	95416

Parent Equipment
Component
Link: None / Permanent / Removable
Status: Attached

Class: PC MARKED POLICE CAR
Department: 2005 ... POLICE OPERATIONS
Serial Number: 2FABP7BV4AX133049
Location
MG: UNDEFINED
Color: WHT
Priority
Site: 01 POLICE STATION
Employee: 6196 SMITH, JEREMY 2001 071700
EAC: 08 Monday-Friday 7-3:30
Depreciation: 6187.53
Last Work Order: 0000086670

Status: A
Motor Pool

Last PM

Type	Date Done
A	03/29/2016

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Reset FY | Begin Month Oct | Year 2007 | Meter Type M | Month / Year | Include Warranties? | Compute | Export

Year	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
2007	0.00	0.00	0.00	0.00	0.00	0.00
2008	0.00	0.00	0.00	0.00	0.00	0.00
2009	5461.98	0.00	5461.98	0.00	0.00	0.00
2010	638.64	152.82	485.82	0.00	0.00	0.00
2011	1333.78	264.88	1068.90	347.98	0.00	0.00

Life...	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
Fisca...	1606.43	657.77	948.66	807.05	0.00	0.00
Life ...	16068.10	2493.24	13574.86	1383.03	0.00	0.00

Loading Equipment LTD Completed : ACKNOWLEDGED

Upd

FY 2016-2017 Budget
Vehicle & Motorized Equipment Serviceability Report

Department/Division: 2009 PD Community **Priority** **of**

This request is included in: ■ **Budget Submission** ☐ **List of Adds**

Vehicle/Equipment #: 049	**Vehicle/Equipment Type (make, model, etc.): 2008 Chev Colorado**
Purchase Date (year & age): 05/05/2008	**Scheduled Replacement Date (per schedule): 05/05/2016**
Miles 94560	**Estimated Repair Cost: $6,350.00**

A bumper-to-bumper inspection ahs been performed on this vehicle/equipment:

Technician: McIlrath **Date: 4/2016**

The following parts/repairs are required for this vehicle/equipment, but have been deferred:

Part/Repair	Estimated Cost (materials & Labor)
Dash repair	$1,500
Paint and decals	$1,500.00
Engine oil leak repair	$350.00
Rusted frame major repair	$3,000+
	Total: $

Two-year maintenance history:

Year	Cost (materials & labor):	Days Out-of-Service
2014	$3302.96	7
2015	$629.84	2

Fleet Recommendation:

■ **Remove from Fleet** ☐ **High Maintenance** ☐ **Do Not Replace**

Comments:

This is an outdated vehicle, facing major mechanical and structural issues and it is recommended to replace rather than repair.

Fleet Maintenance Superintendent: **Date:**

Fleet Systems Specialist: **Date:**

Operations Manager: **Date:**

City Manger Concurrence:

☐ **Approved** ☐ **Denied**

City Manager: _____ **Date:** _____

Vehicle and Equipment Repair/Replacement Evaluation		
Vehicle: # 049	**Evaluated by: Danny McIlrath**	
Dept.: 2009 PD Community	**Supervisor: Kevin M Gray, Operations Manager**	
	Points Assigned	**Comments**
Year of vehicle. One point assigned per year. Example: A 2000 vehicle would be assigned 9 points because it is 9 years old.	8	2008 Chev Colorado
Mileage or hours of use. One point is assigned for each 10,000 miles or 1,500 hours of operation. Example: A vehicle with 87,000 miles would receive 9 points as it is rounded up.	9	94560 miles
General overall condition. This category takes into consideration body condition, rust, interior condition, anticipated repairs, etc. A scale from 1-5 is used, with 5 being an extremely poor…possibly unsafe condition.	4	Dash is faded and showing side of cracking, Exterior paint has scratches and dings. Frame and undercarriage is severly rusted, wheels are rusted and the engine rear main seal is leaking.
Type of service. Points are assigned as either 1,3,or 5 depending on the type of use the vehicle had during most of its life. Example: A '5' would be assigned to vehicles that were utilized as patrol cars as that is considered severe service, while a staff car would be a '1'.	3	PD CSO
Reliability of vehicle. Points are assigned as 1-5 depending on the frequency that the vehicle is in the shop for repairs. A '5' should be assigned to a vehicle that is in the shop 3 or more times a month on average. A '1' would be used for once every 3 months or less.	3	in the shop a little
Total operating cost. Points are assigned as 1,3,or 5 depending on the total cost per mile factor. This figure includes maintenance and operational costs in relation to other vehicles utilized for the same purpose.	1	.11 per mile
Have warranties expired?	Yes	☐ **Check if general overall condition can defer replacement can be defer to volunteer car**
Total Points	**28**	**(Shop Supervisor approval required)**

28 + points	**28**	**Needs immediate replacement**
23-27 points		Condition is borderline
18-22 points		Condition is fair/good
Under 18 points		Condition is good/excellent

Equipment Inventory - FASTER Win 6.9

Equipment Information::Company 001 Ormond Beach Active Fleet

Equipment Number	Year	Make	Model	Shop	TSet	License
049	2008	CHEV	COLORADO	01	EQ	XA1651

Print

Meter	Reading
M	94560

Parent Equipment
Component
Link: None / Permanent / Removable
Status: Attached

Class: PUG GAS PICK-UPS
Department: 2009 ... POLICE COMMUNITY
Serial Number: 1GCCS149088212447
Location
MG: UNDEFINED
Color: WHT
Priority
Site: 01 POLICE STATION
Employee: 4138 Doonan, William 2009 02062006
EAC: 08 Monday-Friday 7-3:30
Depreciation: 1567.86
Last Work Order: 0000086338

Status: A
Motor Pool

Last PM

Type	Date Done
A	01/25/2016

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Reset FY | Begin Month: Oct | Year: 2014 | Meter Type: M | Month / Year | Include Warranties? | Compute | Export

Year	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
2014	3302.96	363.60	2939.36	0.00	0.00	0.00
2015	629.84	33.32	596.52	0.00	0.00	0.00
2016	0.00	0.00	0.00	0.00	0.00	0.00

Life...	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
Fisca...	629.84	33.32	596.52	0.00	0.00	0.00
Life ...	10665.04	1924.36	8740.68	0.00	0.00	0.00

Loading Equipment LTD Completed : ACKNOWLEDGED

PIC Upd

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number: 049
Year: 2008
Make: CHEV
Model: COLORADO
Shop: 01
TSet: EQ
License: XA1651
Print

Meter	Reading
M	94560

Parent Equipment
Component
Link: None / Permanent / Removable
Status: Attached

Class: PUG GAS PICK-UPS
Department: 2009 ... POLICE COMMUNITY
Serial Number: 1GCCS149088212447
Location
MG: UNDEFINED
Color: WHT
Priority
Site: 01 POLICE STATION
Employee: 4138 Doonan, William 2009 02062006
EAC: 08 Monday-Friday 7-3:30
Depreciation: 1567.86
Last Work Order: 0000086338

Status: A
Motor Pool

Last PM

Type	Date Done
A	01/25/2016

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Date: 05/05/2008
Cost: 13203.00
Maint $ LTD: 10665.04
Inflation Rate: .03500
Salvage Rate: .07000
Fund
Major Grouping
Highest Meter: 3.8
Maintenance: 8.1
Age: 5.0

Expected Life In Meters

Type	Primary	Date	Time	Actual	Acquire	BeginFY
M	X	05/05/2008	12:23:31	94560	74	89334

	Remaining Life	Replacement	Replacement	Monthly Recovery
Original:	0	05/05/2016	17462.16	181.90
Adjusted:	0	04/14/2016	17462.16	181.90

Salvage Value: 924.21
Recovery Collected: 0.00
Recovery Balance: 17462.16
Life Expectancy Months: 96
Current Life In Months: 96
Total Points: 15.0
Condition Factor: 0.00

Vehicle Replacement
Upd

FY 2016-2017 Budget
Vehicle & Motorized Equipment Serviceability Report

Department/Division: 2008 PD **Priority _____ of _____**

This request is included in: ■ **Budget Submission** ☐ **List of Adds**

Vehicle/Equipment #: 116	**Vehicle/Equipment Type (make, model, etc.): 2008 Ford Crown Vic**
Purchase Date (year & age): 11/02/2007	**Scheduled Replacement Date (per schedule): 11/02/2014**
Miles 88704	**Estimated Repair Cost: $6,500.00**

A bumper-to-bumper inspection ahs been performed on this vehicle/equipment:

Technician: McIlrath **Date: 4/2016**

The following parts/repairs are required for this vehicle/equipment, but have been deferred:

Part/Repair	Estimated Cost (materials & Labor)
Engine repair using oil will need overhaul	$3,000
Trans repair oil leaks	$500.
Steering column repair/replacement/ front end repair	$1,500.
Light repair/lenses/ paint repair	$1500.
	Total: $

Two-year maintenance history:

Year	Cost (materials & labor):	Days Out-of-Service
2014	$1642.78	3
2015	$1634.69	4

Fleet Recommendation:

■ **Remove from Fleet** ☐ **High Maintenance** ☐ **Do Not Replace**

Comments:

This vehicle is an out dated vehicle facing major mechanical repairs and it is recommended to replace rather than repair.

Fleet Maintenance Supervisor: **Date:**

Fleet Systems Specialist: **Date:**

Operations Manager: **Date:**

City Manger Concurrence:

☐ **Approved** ☐ **Denied**

City Manager: _____ **Date:** _____

Vehicle and Equipment Repair/Replacement Evaluation		
Vehicle: # 116	**Evaluated by: Danny McIlrath**	
Dept.: 2008 PD	**Supervisor: Kevin M Gray, Operations Manager**	
	Points Assigned	**Comments**
Year of vehicle. One point assigned per year. Example: A 2000 vehicle would be assigned 9 points because it is 9 years old.	8	2008 Ford Crown Vic
Mileage or hours of use. One point is assigned for each 10,000 miles or 1,500 hours of operation. Example: A vehicle with 87,000 miles would receive 9 points as it is rounded up.	8	88704 miles
General overall condition. This category takes into consideration body condition, rust, interior condition, anticipated repairs, etc. A scale from 1-5 is used, with 5 being an extremely poor…possibly unsafe condition.	4	driver seat worn/torn, steering column worn, decals chipped and faded, light bar lenses faded, headlight lenses faded, rims rusted. Engine oil leak rear main seal. Tail shaft of transmission seal leaking, Left front door panel loose and worn, suspension worn.
Type of service. Points are assigned as either 1,3,or 5 depending on the type of use the vehicle had during most of its life. Example: A '5' would be assigned to vehicles that were utilized as patrol cars as that is considered severe service, while a staff car would be a '1'.	5	PD Patrol
Reliability of vehicle. Points are assigned as 1-5 depending on the frequency that the vehicle is in the shop for repairs. A '5' should be assigned to a vehicle that is in the shop 3 or more times a month on average. A '1' would be used for once every 3 months or less.	2	in the shop very little
Total operating cost. Points are assigned as 1,3,or 5 depending on the total cost per mile factor. This figure includes maintenance and operational costs in relation to other vehicles utilized for the same purpose.	4	0.46 per mile
Have warranties expired?	Yes	☐ **Check if general overall condition can defer replacement can be defer to volunteer car**
Total Points	**31**	**(Shop Supervisor approval required)**

28 + points	**31**	**Needs immediate replacement**
23-27 points		Condition is borderline
18-22 points		Condition is fair/good
Under 18 points		Condition is good/excellent

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number	Year	Make	Model	Shop	TSet	License
116	2008	FORD	CROWN VIC	01	EQ	XA1645

Print

Meter	Reading
M	88704

Parent Equipment
Component
Link: None / Permanent / Removable
Status: Attached

Class: PC MARKED POLICE CAR
Department: 2005 ... POLICE OPERATIONS
Serial Number: 2FSHP71VX8X124250
Location
MG: UNDEFINED
Color: WHT
Priority
Site: 01 POLICE STATION
Employee: 1043 Bowen, Keith 2005 123107
EAC: 08 Monday-Friday 7-3:30
Depreciation: 2125.50
Last Work Order: 0000086669

Status: A
Motor Pool

Last PM

Type	Date Done
A	01/28/2016

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Reset FY | Begin Month Oct | Year 2014 | Meter Type M | Month / Year | Include Warranties? | Compute | Export

Year	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
2014	1642.78	239.73	1403.05	0.00	0.00	0.00
2015	1634.69	180.49	1454.20	184.91	0.00	0.00
2016	0.00	0.00	0.00	0.00	0.00	0.00

Life...	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
Fisca...	1634.69	180.49	1454.20	184.91	0.00	0.00
Life ...	15085.56	2048.58	13036.98	5277.41	0.00	0.00

Loading Equipment LTD Completed : ACKNOWLEDGED

Upd

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number	Year	Make	Model	Shop	TSet	License
116	2008	FORD	CROWN VIC	01	EQ	XA1645

Print

Meter	Reading
M	88704

Parent Equipment
Component
Link: None / Permanent / Removable
Status: Attached

Class: PC MARKED POLICE CAR
Department: 2005 ... POLICE OPERATIONS
Serial Number: 2FSHP71VX8X124250
Location
MG: UNDEFINED
Color: WHT
Priority
Site: 01 POLICE STATION
Employee: 1043 Bowen, Keith 2005 123107
EAC: 08 Monday-Friday 7-3:30
Depreciation: 2125.50
Last Work Order: 0000086669

Status: A
Motor Pool

Last PM

Type	Date Done
A	01/28/2016

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Date 11/02/2007 Cost 21255.00 Maint $ LTD 15085.56 Inflation Rate .03500 Salvage Rate .07000
Fund Major Grouping Highest Meter 4.4 Maintenance 7.1 Age 5.0

Expected Life In Meters

Type	Primary	Date	Time	Actual	Acquire	BeginFY
M	X	11/05/2007	07:22:57	88704	113	80317

	Remaining Life	Replacement	Replacement	Monthly Recovery
Original:	-18	11/02/2014	27146.16	323.17
Adjusted:	0	04/14/2016	28607.22	280.46

Salvage Value 1487.85
Recovery Collected 0.00
Recovery Balance 28607.22
Life Expectancy Months 84
Current Life In Months 102
Total Points 15.0
Condition Factor 0.00

Vehicle Replacement Upd

FY 2016-2017 Budget
Vehicle & Motorized Equipment Serviceability Report

Department/Division: 2005 PD **Priority _____ of _____**

This request is included in: ■ **Budget Submission** ☐ **List of Adds**

Vehicle/Equipment #: 118	**Vehicle/Equipment Type (make, model, etc.): 2008 Ford Crown Vic**
Purchase Date (year & age): 11/02/2007	**Scheduled Replacement Date (per schedule): 11/02/2014**
Miles 89844	**Estimated Repair Cost: $7,500.00**

A bumper-to-bumper inspection ahs been performed on this vehicle/equipment:

Technician: McIlrath **Date: 4/2016**

The following parts/repairs are required for this vehicle/equipment, but have been deferred:

Part/Repair	Estimated Cost (materials & Labor)
Engine repair smoking doesn't meet emission of today would need a new engine	$4,000
Trans repair	$2,500
Steering column repair/replacement	$500.
Light repair/lenses	$500.
	Total: $

Two-year maintenance history:

Year	Cost (materials & labor):	Days Out-of-Service
2014	$1363.35	5
2015	$1061.61	3

Fleet Recommendation:

■ **Remove from Fleet** ☐ **High Maintenance** ☐ **Do Not Replace**

Comments:

This is an out dated vehicle, facing major mechanical repairs and it is recommended to be replaced rather than repaired.

Fleet Maintenance Supervisor: **Date:**

Fleet Systems Specialist: **Date:**

Operations Manager: **Date:**

City Manger Concurrence:

☐ **Approved** ☐ **Denied**

City Manager: _____ **Date:** _____

Vehicle and Equipment Repair/Replacement Evaluation		
Vehicle: # 118	**Evaluated by: Danny McIlrath**	
Dept.: 2005 PD	**Supervisor: Kevin M Gray, Operations Manager**	
	Points Assigned	**Comments**
Year of vehicle. One point assigned per year. Example: A 2000 vehicle would be assigned 9 points because it is 9 years old.	8	2008 Ford Crown Vic
Mileage or hours of use. One point is assigned for each 10,000 miles or 1,500 hours of operation. Example: A vehicle with 87,000 miles would receive 9 points as it is rounded up.	9	89844 miles
General overall condition. This category takes into consideration body condition, rust, interior condition, anticipated repairs, etc. A scale from 1-5 is used, with 5 being an extremely poor…possibly unsafe condition.	3	driver seat worn torn, steering column worn, decals chipped and faded, light bars lenses faded, headlight lenses faded, , rims rusted. Engine oil leak rear main seal, Tail shaft of transmission seal leaking, left frnt door hinge loose, Left front door panel loose and worn,
Type of service. Points are assigned as either 1,3,or 5 depending on the type of use the vehicle had during most of its life. Example: A '5' would be assigned to vehicles that were utilized as patrol cars as that is considered severe service, while a staff car would be a '1'.	5	PD Patrol
Reliability of vehicle. Points are assigned as 1-5 depending on the frequency that the vehicle is in the shop for repairs. A '5' should be assigned to a vehicle that is in the shop 3 or more times a month on average. A '1' would be used for once every 3 months or less.	2	in the shop very little
Total operating cost. Points are assigned as 1,3,or 5 depending on the total cost per mile factor. This figure includes maintenance and operational costs in relation to other vehicles utilized for the same purpose.	4	0.42 per mile
Have warranties expired?	Yes	☐ **Check if general overall condition can defer replacement can be defer to volunteer car**
Total Points	**31**	**(Shop Supervisor approval required)**

28 + points	**31**	**Needs immediate replacement**
23-27 points		Condition is borderline
18-22 points		Condition is fair/good
Under 18 points		Condition is good/excellent

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number	Year	Make	Model	Shop	TSet	License
118	2008	FORD	CROWN VIC	01	EQ	XA1643

Print

Meter	Reading
M	89844

Parent Equipment
Component
Link: None / Permanent / Removable
Status: Attached

Class: PC MARKED POLICE CAR
Department: 2005 ... POLICE OPERATIONS
Serial Number: 2FAHP71V38X124252
Location
MG: UNDEFINED
Color: WHT
Priority
Site: 01 POLICE STATION
Employee: 4727 Armanious, Mina 2005 080107
EAC: 08 Monday-Friday 7-3:30
Depreciation: 2125.50
Last Work Order: 0000086385

Status: A
Motor Pool

Last PM

Type	Date Done
B	02/03/2016
A	02/03/2016

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Date: 11/02/2007 Cost: 21255.00 Maint $ LTD: 13774.79 Inflation Rate: .03500 Salvage Rate: .07000
Fund: Major Grouping: Highest Meter: 4.5 Maintenance: 6.5 Age: 5.0

Expected Life In Meters

Type	Primary	Date	Time	Actual	Acquire	BeginFY
M	X	11/05/2007	07:30:34	89844	137	80934

	Remaining Life	Replacement	Replacement	Monthly Recovery
Original:	-18	11/02/2014	27146.16	323.17
Adjusted:	0	04/14/2016	28607.22	280.46

Salvage Value	1487.85
Recovery Collected	0.00
Recovery Balance	28607.22
Life Expectancy Months	84
Current Life In Months	102
Total Points	15.0
Condition Factor	0.00

Vehicle Replacement Upd

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number	Year	Make	Model	Shop	TSet	License
118	2008	FORD	CROWN VIC	01	EQ	XA1643

Print

Meter	Reading
M	89844

Parent Equipment
Component
Link: None / Permanent / Removable
Status: Attached

Class: PC MARKED POLICE CAR
Department: 2005 ... POLICE OPERATIONS
Serial Number: 2FAHP71V38X124252
Location
MG: UNDEFINED
Color: WHT
Priority
Site: 01 POLICE STATION
Employee: 4727 Armanious, Mina 2005 080107
EAC: 08 Monday-Friday 7-3:30
Depreciation: 2125.50
Last Work Order: 0000086385

Status: A
Motor Pool

Last PM

Type	Date Done
B	02/03/2016
A	02/03/2016

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Reset FY | Begin Month Oct | Year 2014 | Meter Type M | Month / Year | Include Warranties? | Compute | Export

Year	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
2014	1363.35	559.56	803.79	63.11	0.00	0.00
2015	1061.61	437.28	624.33	0.00	0.00	0.00
2016	0.00	0.00	0.00	0.00	0.00	0.00

Life...	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
Fisca...	1061.61	437.28	624.33	0.00	0.00	0.00
Life ...	13774.79	2902.74	10872.05	1381.61	0.00	0.00

Loading Equipment LTD Completed : ACKNOWLEDGED

Upd

FY 2016-2017 Budget
Vehicle & Motorized Equipment Serviceability Report

Department/Division: 3010 Engineering **Priority** **of**

This request is included in: ■ **Budget Submission** ☐ **List of Adds**

Vehicle/Equipment #: 159	**Vehicle/Equipment Type (make, model, etc.): 2005 Chev ¾ Ton 4X4 P/U**
Purchase Date (year & age): 06/29/2005	**Scheduled Replacement Date (per schedule): 06/29/2013**
Miles 100536	**Estimated Repair Cost: $3,500.00**

A bumper-to-bumper inspection ahs been performed on this vehicle/equipment:

Technician: McIlrath **Date: 4/2016**

The following parts/repairs are required for this vehicle/equipment, but have been deferred:

Part/Repair	Estimated Cost (materials & Labor)
Suspension worn,	$1,500
Need a paint and body repair	$1,500.
Engine main oil seal leak	$500.
	?.
	Total: $

Two-year maintenance history:

Year	Cost (materials & labor):	Days Out-of-Service
2014	$1038.74	3
2015	$1160.74	3

Fleet Recommendation:

■ **Remove from Fleet** ☐ **High Maintenance** ☐ **Do Not Replace**

Comments:

This is an out dated vehicle, facing major mechanical repairs and it is recommended to be replaced rather than repaired.

Fleet Maintenance Supervisor: **Date:**

Fleet Systems Specialist: **Date:**

Operations Manager: **Date:**

City Manger Concurrence:

☐ **Approved** ☐ **Denied**

City Manager: _____ **Date:** _____

Vehicle and Equipment Repair/Replacement Evaluation		
Vehicle: # 159	**Evaluated by: Danny McIlrath**	
Dept.: 2009 PD CSO	**Supervisor: Kevin M Gray, Operations Manager**	
	Points Assigned	**Comments**
Year of vehicle. One point assigned per year. Example: A 2000 vehicle would be assigned 9 points because it is 9 years old.	11	2005 Chev 3/4 ton 4X4 P/U
Mileage or hours of use. One point is assigned for each 10,000 miles or 1,500 hours of operation. Example: A vehicle with 87,000 miles would receive 9 points as it is rounded up.	10	100536 miles
General overall condition. This category takes into consideration body condition, rust, interior condition, anticipated repairs, etc. A scale from 1-5 is used, with 5 being an extremely poor…possibly unsafe condition.	3	Exterior paint has lot of scratches and small dents rear bumper has dents in it. Head lights and marker lights are faded. Front surspension is worn. Engine rear main seal leaking.
Type of service. Points are assigned as either 1,3,or 5 depending on the type of use the vehicle had during most of its life. Example: A '5' would be assigned to vehicles that were utilized as patrol cars as that is considered severe service, while a staff car would be a '1'.	3	Engineering
Reliability of vehicle. Points are assigned as 1-5 depending on the frequency that the vehicle is in the shop for repairs. A '5' should be assigned to a vehicle that is in the shop 3 or more times a month on average. A '1' would be used for once every 3 months or less.	2	in the shop a little
Total operating cost. Points are assigned as 1,3,or 5 depending on the total cost per mile factor. This figure includes maintenance and operational costs in relation to other vehicles utilized for the same purpose.	4	0.31 per mile
Have warranties expired?	Yes	☐ **Check if general overall condition can defer replacement can be defer to volunteer car**
Total Points	**33**	**(Shop Supervisor approval required)**

28 + points	Needs immediate replacement
23-27 points	Condition is borderline
18-22 points	Condition is fair/good
Under 18 points	Condition is good/excellent

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number	Year	Make	Model	Shop	TSet	License
159	2005	CHEV	3/4 TON 4X4	01	EQ	102817

Print

Meter	Reading
M	100536

Parent Equipment
Component
Link: None / Permanent / Removable
Status: Attached

Class: PUG GAS PICK-UPS
Department: 3010 ... ENGINEERING-DEV F
Serial Number: 1GCEK14V75Z322004
Location
MG: UNDEFINED
Color: WHT
Priority
Site: 02A CITY HALL - ENGINEERING
Employee: 6372 KORNATOWSKI, PHIL 3010 071700
EAC: 08 Monday-Friday 7-3:30
Depreciation: 1919.80
Last Work Order: 0000086692

Status: A
Motor Pool

Last PM

Type	Date Done
B	03/14/2016
A	03/14/2016

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Reset FY | Begin Month Oct | Year 2014 | Meter Type M | Month / Year | Include Warranties? | Compute | Export

Year	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
2014	1038.74	13.84	1024.90	0.00	0.00	0.00
2015	1160.67	152.04	1008.63	0.00	0.00	0.00
2016	0.00	0.00	0.00	0.00	0.00	0.00

Life...	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
Fisca...	1160.67	152.04	1008.63	0.00	0.00	0.00
Life ...	7411.82	2705.19	4706.63	0.00	0.00	0.00

Loading Equipment LTD Completed : ACKNOWLEDGED

Upd

FY 2016-2017 Budget
Vehicle & Motorized Equipment Serviceability Report

Department/Division: 0302 Data Processing **Priority** **of**

This request is included in: ■ **Budget Submission** ☐ **List of Adds**

Vehicle/Equipment #: 205	**Vehicle/Equipment Type (make, model, etc.): 2000 Ford Focus**
Purchase Date (year & age): 01/27/2000	**Scheduled Replacement Date (per schedule): 01/27/2008**
Miles 26344	**Estimated Repair Cost: $1,250.00**

A bumper-to-bumper inspection ahs been performed on this vehicle/equipment:

Technician: McIlrath **Date: 4/2016**

The following parts/repairs are required for this vehicle/equipment, but have been deferred:

Part/Repair	Estimated Cost (materials & Labor)
Paint and body repair	$1,000
Seat repair	$250.00
	$
	$

Total: $

Two-year maintenance history:

Year	Cost (materials & labor):	Days Out-of-Service
2014	$406.15	5
2015	$155.53	3

Fleet Recommendation:

☐ **Remove from Fleet** ☐ **High Maintenance** ☐ **Do Not Replace**

Comments:

This is an out dated vehicle and it is recommended to be replaced and repurposed to Leisure Services for limited usage.

Fleet Maintenance Supervisor: **Date:**

Fleet Systems Specialist: **Date:**

Operations Manager: **Date:**

City Manger Concurrence:

☐ **Approved** ☐ **Denied**

City Manager: _____ **Date:** _____

Vehicle and Equipment Repair/Replacement Evaluation		
Vehicle: # 205	**Evaluated by: Danny McIlrath**	
Dept.: 0302 Data Processing	**Supervisor: Kevin M Gray, Operations Manager**	
	Points Assigned	**Comments**
Year of vehicle. One point assigned per year. Example: A 2000 vehicle would be assigned 9 points because it is 9 years old.	16	2000 Ford Focus
Mileage or hours of use. One point is assigned for each 10,000 miles or 1,500 hours of operation. Example: A vehicle with 87,000 miles would receive 9 points as it is rounded up.	3	26,344
General overall condition. This category takes into consideration body condition, rust, interior condition, anticipated repairs, etc. A scale from 1-5 is used, with 5 being an extremely poor…possibly unsafe condition.	2	Paint faded and interior worn driver seat. Rust on frame of vehicle. **NOTE: this vehicle will be moved to Leasuire services as per their request for an vehicle. And the new unit put in Data proccesing.**
Type of service. Points are assigned as either 1,3,or 5 depending on the type of use the vehicle had during most of its life. Example: A '5' would be assigned to vehicles that were utilized as patrol cars as that is considered severe service, while a staff car would be a '1'.	2	Data proccesing.
Reliability of vehicle. Points are assigned as 1-5 depending on the frequency that the vehicle is in the shop for repairs. A '5' should be assigned to a vehicle that is in the shop 3 or more times a month on average. A '1' would be used for once every 3 months or less.	1	in the shop a very little
Total operating cost. Points are assigned as 1,3,or 5 depending on the total cost per mile factor. This figure includes maintenance and operational costs in relation to other vehicles utilized for the same purpose.	3	0.39 per mile
Have warranties expired?	Yes	☐ **Check if general overall condition can defer replacement can be defer to volunteer car**
Total Points	**27**	**(Shop Supervisor approval required)**

28 + points		Needs immediate replacement
23-27 points	**27**	**Condition is borderline**
18-22 points		Condition is fair/good
Under 18 points		Condition is good/excellent

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number	Year	Make	Model	Shop	TSet	License
205	2000	FORD	FOCUS	01	EQ	136030

Print

Meter	Reading
M	26344

Parent Equipment

Component

Link: None / Permanent / Removable

Status: Attached

Class: SC STAFF CARS

Department: 0302 ... DATA PROCESSING

Serial Number: 1FAFP36P2YW202428

Location

MG: UNDEFINED

Color: WHT

Priority

Site: 02C City Hall Pool

Employee: UNDEFINED

EAC: 08 Monday-Friday 7-3:30

Depreciation: 1458.30

Last Work Order: 0000086343

Status: A

Motor Pool

Last PM

Type	Date Done
A	11/20/2015

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Date: 01/27/2000 Cost: 14583.00 Maint $ LTD: 7625.90 Inflation Rate: .03500 Salvage Rate: .07000

Fund: Major Grouping: Highest Meter: 1.3 Maintenance: 5.2 Age: 5.0

Expected Life In Meters

Type	Primary	Date	Time	Actual	Acquire	BeginFY
M	X	01/25/2005	09:22:24	26344	0	25852

	Remaining Life	Replacement	Replacement	Monthly Recovery
Original:	-100	01/27/2008	19287.34	200.91
Adjusted:	22	02/14/2018	27515.91	126.22

Salvage Value	1020.81
Recovery Collected	0.00
Recovery Balance	27515.91
Life Expectancy Months	96
Current Life In Months	196
Total Points	11.5
Condition Factor	0.00

Inquire equipment Completed : ACKNOWLEDGED

Upd

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number: 205
Year: 2000
Make: FORD
Model: FOCUS
Shop: 01
TSet: EQ
License: 136030
Print

Meter	Reading
M	26344

Parent Equipment
Component
Link: None / Permanent / Removable
Status: Attached

Class: SC STAFF CARS
Department: 0302 ... DATA PROCESSING
Serial Number: 1FAFP36P2YW202428
Location
MG: UNDEFINED
Color: WHT
Priority
Site: 02C City Hall Pool
Employee: UNDEFINED
EAC: 08 Monday-Friday 7-3:30
Depreciation: 1458.30
Last Work Order: 0000086343

Status: A
Motor Pool

Last PM

Type	Date Done
A	11/20/2015

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Reset FY | Begin Month Oct | Year 2014 | Meter Type M | Month / Year | Include Warranties? | Compute | Export

Year	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
2014	406.15	116.61	289.54	0.00	0.00	0.00
2015	155.53	37.67	117.86	0.00	0.00	0.00
2016	0.00	0.00	0.00	0.00	0.00	0.00

Life...	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
Fisca...	155.53	37.67	117.86	0.00	0.00	0.00
Life ...	7625.90	1913.72	5712.18	0.00	0.00	0.00

Loading Equipment LTD Completed : ACKNOWLEDGED

Upd

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number	Year	Make	Model	Shop	TSet	License
021	2010	FORD	CROWN VIC	01	EQ	208922

Print

Meter	Reading
M	95416

Parent Equipment

Component

Link: None / Permanent / Removable

Status: Attached

Class: PC MARKED POLICE CAR

Department: 2005 ... POLICE OPERATIONS

Serial Number: 2FABP7BV4AX133049

Location

MG: UNDEFINED

Color: WHT

Priority

Site: 01 POLICE STATION

Employee: 6196 SMITH,JEREMY 2001 071700

EAC: 08 Monday-Friday 7-3:30

Depreciation: 6187.53

Last Work Order: 0000086670

Status: A

Motor Pool

Last PM

Type	Date Done
A	03/29/2016

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Date 06/24/2010 Cost 23733.00 Maint $ LTD 16068.10 Inflation Rate .03500 Salvage Rate .07000

Fund Major Grouping Highest Meter 4.8 Maintenance 6.8 Age 4.2

Expected Life In Meters

Type	Primary	Date	Time	Actual	Acquire	BeginFY
M	X	06/24/2010	14:15:27	95416	74	85774

	Remaining Life	Replacement	Replacement	Monthly Recovery
Original:	13	06/24/2017	30310.98	360.85
Adjusted:	0	04/15/2016	29184.81	411.05

Salvage Value	1661.31
Recovery Collected	0.00
Recovery Balance	29184.81
Life Expectancy Months	84
Current Life In Months	71
Total Points	15.0
Condition Factor	0.00

Vehicle Replacement Upd

CAPITAL PROJECT DETAIL

PROJECT TITLE

Vehicle Replacement-Stormwater

PROJECT#

10717M

CATEGORY

Equipment and Vehicle Replacement

FUND

302-General Vehicle Replacement Fund

PROJECT LOCATION

Various City Departments

MANAGEMENT

Fleet

PROJECT SCOPE

The project involves the continued implementation of a comprehensive vehicle replacement schedule for the City's fleet. Vehicles beyond the first year of the program will be evaluated at the appropriate time. These vehicles are being shown for scheduling purposes only and will not necessarily be replaced in the year shown.

JUSTIFICATION

The replacement schedule has been designed to replace vehicles which have been identified by the Fleet Manager as: 1) incurring the greatest maintenance expense over the life of the vehicle, 2) reaching or exceeding their expected life in terms of age, and 3) having relatively high mileage.

The benefits of the replacement program are reflected in the reduction of the City's Fleet Maintenance operating and labor costs, as well as lower vehicle downtime which in turn increases service availability to the community.

PROJECT COST METHODOLOGY

State contract pricing.

EXPENDITURE	Year	Dept	Veh #	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Ford 4x4 3/4 ton	2005	Stormwater	249	27,000	0	0	0	0	27,000
Yale Fork Lift	1991	Stormwater	313	25,000	0	0	0	0	25,000
Sterling heavy truck	2004	Stormwater	255	0	260,000	0	0	0	260,000
Chevy 4x4 3/4 ton	2006	Stormwater	265	0	30,000	0	0	0	30,000
Ford 1 ton utility	2008	Stormwater	280	0	24,000	0	0	0	24,000
Dump Truck	2006	Stormwater	263	0	0	0	110,000	0	110,000
CAT 928G	2003	Streets	277	0	0	0	235,000	0	235,000
Total				52,000	314,000	0	345,000	0	711,000

REVENUE	Year	Dept	Veh #	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Stormwater Charges				52,000	314,000	0	345,000	0	711,000
Total				52,000	314,000	0	345,000	0	711,000

FY 2016-2017 Budget
Vehicle & Motorized Equipment Serviceability Report

Department/Division: 3011 Storm water **Priority** **of**

This request is included in: ■ **Budget Submission** ☐ **List of Adds**

Vehicle/Equipment #: 249	**Vehicle/Equipment Type (make, model, etc.): 2005 Ford ¾ ton 4X4 P/U**
Purchase Date (year & age): 05/23/2005	**Scheduled Replacement Date (per schedule): 05/23/2013**
Miles 126294	**Estimated Repair Cost: $3,850.00**

A bumper-to-bumper inspection ahs been performed on this vehicle/equipment:

Technician: McIlrath **Date: 4/2016**

The following parts/repairs are required for this vehicle/equipment, but have been deferred:

Part/Repair	Estimated Cost (materials & Labor)
Paint and body repair	$1,200.00
Engine oil leaks repair	$650.00
Interior repair seats and headliner/door panels.	$2,000.00
	$

Total: $

Two-year maintenance history:

Year	Cost (materials & labor):	Days Out-of-Service
2014	$1363.35	5
2015	$1061.61	3

Fleet Recommendation:

■ **Remove from Fleet** ☐ **High Maintenance** ☐ **Do Not Replace**

Comments:

This is an out dated vehicle, facing mechanical and aesthetic repairs and it is recommended to replace rather than repair.

Fleet Maintenance Supervisor: **Date:**

Fleet Systems Specialist: **Date:**

Operations Manager: **Date:**

City Manger Concurrence:

☐ **Approved** ☐ **Denied**

City Manager: _____ **Date:** _____

Vehicle and Equipment Repair/Replacement Evaluation		
Vehicle: # 249	**Evaluated by: Danny McIlrath**	
Dept.: 3011 Stornwater	**Supervisor: Kevin M Gray, Operations Manager**	
	Points Assigned	**Comments**
Year of vehicle. One point assigned per year. Example: A 2000 vehicle would be assigned 9 points because it is 9 years old.	11	2005 Ford 3/4 Ton 4X4 P/U
Mileage or hours of use. One point is assigned for each 10,000 miles or 1,500 hours of operation. Example: A vehicle with 87,000 miles would receive 9 points as it is rounded up.	13	126294 miles
General overall condition. This category takes into consideration body condition, rust, interior condition, anticipated repairs, etc. A scale from 1-5 is used, with 5 being an extremely poor…possibly unsafe condition.	3	Truck bed body beat up some, engine oil leaks at rear and front crank seals, surspension worn - front end. Interior worn.
Type of service. Points are assigned as either 1,3,or 5 depending on the type of use the vehicle had during most of its life. Example: A '5' would be assigned to vehicles that were utilized as patrol cars as that is considered severe service, while a staff car would be a '1'.	3	Stormwater
Reliability of vehicle. Points are assigned as 1-5 depending on the frequency that the vehicle is in the shop for repairs. A '5' should be assigned to a vehicle that is in the shop 3 or more times a month on average. A '1' would be used for once every 3 months or less.	2	in the shop a little
Total operating cost. Points are assigned as 1,3,or 5 depending on the total cost per mile factor. This figure includes maintenance and operational costs in relation to other vehicles utilized for the same purpose.	5	0.40 per mile
Have warranties expired?	Yes	☐ **Check if general overall condition can defer replacement can be defer to volunteer car**
Total Points	**37**	**(Shop Supervisor approval required)**

28 + points	**37**	**Needs immediate replacement**
23-27 points		Condition is borderline
18-22 points		Condition is fair/good
Under 18 points		Condition is good/excellent

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number	Year	Make	Model	Shop	TSet	License
249	2005	FORD	3/4 TON 4X4	01	EQ	122909

Print

Meter	Reading
M	126294

Parent Equipment
Component
Link: None / Permanent / Removable
Status: Attached

Class: PUG GAS PICK-UPS
Department: 3011 ... STORMWATER MAIN
Serial Number: 1FTNF21525ED28394
Location
MG: UNDEFINED
Color: WHT
Priority
Site: 17 PUBLIC WORKS - 501 N. ORCH
Employee: UNDEFINED
EAC: 08 Monday-Friday 7-3:30
Depreciation: 1888.00
Last Work Order: 0000086273

Status: A
Motor Pool

Last PM

Type	Date Done
A	01/08/2016

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Date 05/23/2005 Cost 18880.00 Maint $ LTD 15978.77 Inflation Rate .03500 Salvage Rate .07000
Fund Major Grouping Highest Meter 5.0 Maintenance 8.5 Age 5.0

Expected Life In Meters

Type	Primary	Date	Time	Actual	Acquire	BeginFY
M	X	05/23/2005	13:49:21	126294	430	120107

	Remaining Life	Replacement	Replacement	Monthly Recovery
Original:	-36	05/23/2013	24970.51	260.11
Adjusted:	0	04/14/2016	27730.77	210.08

Salvage Value	1321.60
Recovery Collected	0.00
Recovery Balance	27730.77
Life Expectancy Months	96
Current Life In Months	132
Total Points	15.0
Condition Factor	0.00

Vehicle Replacement Upd

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number	Year	Make	Model	Shop	TSet	License
249	2005	FORD	3/4 TON 4X4	01	EQ	122909

Print

Meter	Reading
M	126294

Parent Equipment

Component

Link: None / Permanent / Removable

Status: Attached

Class: PUG GAS PICK-UPS

Department: 3011 ... STORMWATER MAIN

Serial Number: 1FTNF21525ED28394

Location

MG: UNDEFINED

Color: WHT

Priority

Site: 17 PUBLIC WORKS - 501 N. ORCH

Employee: UNDEFINED

Last PM

Type	Date Done
A	01/08/2016

EAC: 08 Monday-Friday 7-3:30

Status: A

Motor Pool

Depreciation: 1888.00

Last Work Order: 0000086273

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Reset FY | Begin Month: Oct | Year: 2014 | Meter Type: M | Month / Year | Include Warranties? | Compute | Export

Year	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
2014	2342.67	950.47	1392.20	0.00	0.00	0.00
2015	1756.40	77.67	1678.73	0.00	0.00	0.00
2016	0.00	0.00	0.00	0.00	0.00	0.00

Life...	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
Fisca...	1756.40	77.67	1678.73	0.00	0.00	0.00
Life ...	15978.77	4520.14	11458.63	122.79	0.00	0.00

Loading Equipment LTD Completed : ACKNOWLEDGED

Upd

FY 2016-2017 Budget
Vehicle & Motorized Equipment Serviceability Report

Department/Division: 3011 Storm Water **Priority** **of**

This request is included in: ■ **Budget Submission** ☐ **List of Adds**

Vehicle/Equipment #: 313	**Vehicle/Equipment Type (make, model, etc.): 1991 Yale Fork lift**
Purchase Date (year & age) 05/06/1991	**Scheduled Replacement Date (per schedule): 05/06/2006**
Hours 1689	**Estimated Repair Cost: $8,700.00**

A bumper-to-bumper inspection ahs been performed on this vehicle/equipment:

Technician: McIlrath **Date: 4/2016**

The following parts/repairs are required for this vehicle/equipment, but have been deferred:

Part/Repair	Estimated Cost (materials & Labor)
Engine seals repair leaks	$1,750.00
Hyd pump repair	$3,500.00
Hyd hose replacement	$3,500.00.
	$

Total: $

Two-year maintenance history:

Year	Cost (materials & labor):	Days Out-of-Service
2014	$511.28	3
2015	$292.14	4

Fleet Recommendation:

■ **Remove from Fleet** ☐ **High Maintenance** ☐ **Do Not Replace**

Comments:

This is an out dated vehicle, facing major mechanical repairs and it is recommended to be replaced rather than repaired.

Fleet Maintenance Supervisor: **Date:**

Fleet Systems Specialist: **Date:**

Operations Manager: **Date:**

City Manger Concurrence:

☐ **Approved** ☐ **Denied**

City Manager: _____ **Date:** _____

Equipment Repair/Replacement Evaluation		
Equipment: # 313	**Evaluated by: Danny McIlrath**	
Dept.: 3011 Storm Water	**Supervisor: Kevin M Gray, Operations Manager**	
	Points Assigned	**Comments**
Year of Equipment. One point assigned per year. Example: A 2000 equipment would be assigned 9 points because it is 9 years old.	25	1991 Yale Fork lift
Hours of use. One point is assigned for each 1,000 hours of operation. Example: A equipment with 9,800 hours would receive 9 points as it is rounded up.	2	1689 hours
General overall condition. This category takes into consideration body condition, rust, interior condition, anticipated repairs, etc. A scale from 1-5 is used, with 5 being an extremely poor…possibly unsafe condition.	5	Engine oil leaks, hydraulic system pump worn, pressure dropping off. The hydraulic hoses are worn and cracking, seat needs replacement. Used for sand bagging operations and has hard small tire and easliy get stuck. There is a need of a unit with larger pneumatic tires .
Type of service. Points are assigned as either 1,3,or 5 depending on the type of use the equipment had during most of its life. An example would be light use would be a 1, medium use would be a 3 and heavy use would be a 5.	3	Public Works fork lift
Reliability of equipment. Points are assigned as 1-5 depending on the frequency that the equipment is in the shop for repairs. A '5' should be assigned to equipment that is in the shop 3 or more times a month on average. A '1' would be used for once every 3 months or less.	3	storm water
Total operating cost. Points are assigned as 1,3,or 5 depending on the total cost per hour factor. This figure includes maintenance and operational costs in relation to other equipment utilized for the same purpose.	5	$11.49 per hour
Have warranties expired?	yes	☐ **Check if general overall condition can defer replacement**
Total Points	**43**	**(Shop Supervisor approval required)**

28 + points	**43**	Needs immediate replacement
23-27 points		Condition is borderline
18-22 points		Condition is fair/good
Under 18 points		Condition is good/excellent

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number	Year	Make	Model	Shop	TSet	License
313	1991	YALE	GDC050DEN	01	EQ	NONE

Print

Meter	Reading
H	1689

Parent Equipment

Component

Link: None / Permanent / Removable

Status: Attached

Class: FL FORK LIFT

Department: 3011 ... STORMWATER MAIN

Serial Number: N511299

Location

MG: UNDEFINED

Color: YLW

Priority

Site: 001 Conversion Added Code

Employee: UNDEFINED

Last PM

Type	Date Done
A	04/15/2016

Status: A

Motor Pool

EAC: 08 Monday-Friday 7-3:30

Depreciation: 1737.10

Last Work Order: 0000086752

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Date: 05/06/1991 Cost: 17371.00 Maint $ LTD: 18852.37 Inflation Rate: .03500 Salvage Rate: .07000

Fund: Major Grouping: Highest Meter: 0.8 Maintenance: 10.0 Age: 5.0

Expected Life In Meters

Type	Primary	Date	Time	Actual	Acquire	BeginFY
H	X	01/25/2005	09:22:24	1689	0	1658

	Remaining Life	Replacement	Replacement	Monthly Recovery
Original:	-120	05/06/2006	29342.53	163.01
Adjusted:	0	04/15/2016	41617.83	138.73

Salvage Value	1215.97
Recovery Collected	0.00
Recovery Balance	41617.83
Life Expectancy Months	180
Current Life In Months	300
Total Points	15.0
Condition Factor	0.00

Vehicle Replacement Upd

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number	Year	Make	Model	Shop	TSet	License
313	1991	YALE	GDC050DEN	01	EQ	NONE

Print

Meter	Reading
H	1689

Parent Equipment

Component

Link: None / Permanent / Removable

Status: Attached

Class: FL FORK LIFT

Department: 3011 STORMWATER MAIN

Serial Number: N511299

Location

MG: UNDEFINED

Color: YLW

Priority

Site: 001 Conversion Added Code

Employee: UNDEFINED

Last PM

Type	Date Done
A	04/15/2016

EAC: 08 Monday-Friday 7-3:30

Status: A

Motor Pool

Depreciation: 1737.10

Last Work Order: 0000086752

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Reset FY | Begin Month: Oct | Year: 2007 | Meter Type: H | Month / Year | Include Warranties? | Compute | Export

Year	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
2012	744.63	334.61	410.02	0.00	0.00	0.00
2013	497.64	207.02	290.62	0.00	0.00	0.00
2014	511.28	240.83	270.45	0.00	0.00	0.00
2015	292.14	7.94	284.20	0.00	0.00	0.00
2016	0.00	0.00	0.00	0.00	0.00	0.00

Life...	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
Fisca...	292.14	7.94	284.20	0.00	0.00	0.00
Life ...	18852.37	5714.73	13137.64	0.00	0.00	0.00

Monthly, Yearly, and Life to Date History

Upd

CAPITAL PROJECT DETAIL

PROJECT TITLE

Vehicle Replacement-Water & Wastewater

PROJECT#

40817M

CATEGORY

Equipment and Vehicle Replacement

FUND

408-Water and Wastewater Vehicle Repl.

PROJECT LOCATION

Various City Departments

MANAGEMENT

Fleet

PROJECT SCOPE

The project involves the continued implementation of a comprehensive vehicle replacement schedule for the City's fleet. Vehicles beyond the first year of the program will be evaluated at the appropriate time. These vehicles are being shown for scheduling purposes only and will not necessarily be replaced in the year shown.

JUSTIFICATION

The replacement schedule has been designed to replace vehicles which have been identified by the Fleet Manager as: 1) incurring the greatest maintenance expense over the life of the vehicle, 2) reaching or exceeding their expected life in terms of age, and 3) having relatively high mileage. The benefits of the replacement program are reflected in the reduction of the City's Fleet Maintenance operating and labor costs, as well as lower vehicle downtime which in turn increases service availability to the community.

PROJECT COST METHODOLOGY

State contract pricing.

EXPENDITURE	Year	Dept	Veh #	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
6M & 4P Generators				193,000	0	0	0	0	193,000
Chevy 2500	2009	Water	320	38,295	0	0	0	0	38,295
Ford 1 ton utility truck	2008	Water	321	38,295	0	0	0	0	38,295
Ford 1 ton utility truck	2008	Wastewater	357	0	38,295	0	0	0	38,295
Ford 1 ton utility truck	2008	Water	374	38,295	0	0	0	0	38,295
Generator 135 Kw-Tomoka	1979	Wastewater	E067	47,500	0	0	0	0	47,500
Generator 110 Kw-Seminole	1979	Wastewater	E070	47,500	0	0	0	0	47,500
TV Inspection Vehicle				220,000	0	0	0	0	220,000
Cat 303.5	2001	Water	303	0	75,000	0	0	0	75,000
Chevy Colorado	2011	Utility Billing	338	0	22,000	0	0	0	22,000
International dump	2003	Wastewater	352	0	75,000	0	0	0	75,000
Chevy 4500	2009	Water	363	0	85,000	0	0	0	85,000
Chevy 1 1/2 ton Pickup	2011	Wastewater	351	0	0	27,000	0	0	27,000
Chevy 2500	2011	Waste Water	358	0	0	29,000	0	0	29,000
Thompson Pump	2001	Wastewater	375	0	0	35,000	0	0	35,000
Chevy 2500 4x4	2011	Waste Water	361	0	0	0	22,000	0	22,000
GMC 3/4 ton utility	2002	Wastewater	362	0	0	0	24,000	0	24,000

CAPITAL PROJECT DETAIL

PROJECT TITLE

Vehicle Replacement-Water & Wastewater

PROJECT#

40817M

Total				622,885	295,295	91,000	46,000	0	1,055,180

REVENUE	**Year**	**Dept**	**Veh #**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**Total 2016-17 to 2020-21**
Water & Sewer Charges				622,885	295,295	91,000	46,000	0	1,055,180
Total				622,885	295,295	91,000	46,000	0	1,055,180

FY 2016-2017 Budget
Vehicle & Motorized Equipment Serviceability Report

Department/Division: 3023 Water Dist **Priority** **of**

This request is included in: ☐ **Budget Submission** ☐ **List of Adds**

Vehicle/Equipment #: 320	**Vehicle/Equipment Type (make, model, etc.): 2009 Chev 1 Ton utility truck**
Purchase Date (year & age) 07/13/2009	**Scheduled Replacement Date (per schedule): 07/13/2017**
Miles 94501	**Estimated Repair Cost: $6,200.00**

A bumper-to-bumper inspection ahs been performed on this vehicle/equipment:

Technician: **Date:**

The following parts/repairs are required for this vehicle/equipment, but have been deferred:

Part/Repair	Estimated Cost (materials & Labor)
Engine and trans seals repair leaks	$750.00
Exterior paint and dent repair and rust repair	$3,500.00
repair/replacement suspension	$1,500.00.
Interior repair seat head liner	$450.00
	Total: $

Two-year maintenance history:

Year	Cost (materials & labor):	Days Out-of-Service
2014	$1093.10	6
2015	$715.35	0

Fleet Recommendation:

☐ **Remove from Fleet** ☐ **High Maintenance** ☐ **Do Not Replace**
x

Comments:

With this being an out dated pice of equipment it would be wise to replaced then repair.

Fleet Maintenance Superintendent: **Date:**

Fleet Systems Specialist: **Date:**

Fleet Manager: **Date:**

City Manger Concurrence:

☐ **Approved** ☐ **Denied**

City Manager: _____ **Date:** _____

Vehicle and Equipment Repair/Replacement Evaluation		
Vehicle: # 320	**Evaluated by: Danny McIlrath**	
Dept.: 3023 Water Dist	**Supervisor: Kevin M Gray, Operations Manager**	
	Points Assigned	**Comments**
Year of vehicle. One point assigned per year. Example: A 2000 vehicle would be assigned 9 points because it is 9 years old.	7	2009 Chev 2500 Utility Truck
Mileage or hours of use. One point is assigned for each 10,000 miles or 1,500 hours of operation. Example: A vehicle with 87,000 miles would receive 9 points as it is rounded up.	9	94030 miles
General overall condition. This category takes into consideration body condition, rust, interior condition, anticipated repairs, etc. A scale from 1-5 is used, with 5 being an extremely poor…possibly unsafe condition.	3	Engine oil leaks, rear main seal remote filter housing leaking, oil pan leaking, driver seat worn/torn, suspension is worn. The utility body is severely rusted, has been refurbished once, ladder rack rusted bad,
Type of service. Points are assigned as either 1,3,or 5 depending on the type of use the vehicle had during most of its life. Example: A '5' would be assigned to vehicles that were utilized as patrol cars as that is considered severe service, while a staff car would be a '1'.	3	Water Disribution
Reliability of vehicle. Points are assigned as 1-5 depending on the frequency that the vehicle is in the shop for repairs. A '5' should be assigned to a vehicle that is in the shop 3 or more times a month on average. A '1' would be used for once every 3 months or less.	3	in the shop a little
Total operating cost. Points are assigned as 1,3,or 5 depending on the total cost per mile factor. This figure includes maintenance and operational costs in relation to other vehicles utilized for the same purpose.	4	0.41 per mile
Have warranties expired?	Yes	☐ **Check if general overall condition can defer replacement can be defer to volunteer car**
Total Points	**29**	**(Shop Supervisor approval required)**

28 + points	**29**	Needs immediate replacement
23-27 points		Condition is borderline
18-22 points		Condition is fair/good
Under 18 points		Condition is good/excellent

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number	Year	Make	Model	Shop	TSet	License
320	2009	CHEV	2500	01	EQ	136013

Print

Meter	Reading
M	94030

Parent Equipment

Component

Link: None / Permanent / Removable

Status: Attached

Class: PUG GAS PICK-UPS

Department: 3023 WATER DISTRIBUTIC

Serial Number: 1GBHC44K29E153285

Location

MG: UNDEFINED

Color: WHT

Priority

Site: 04 WATER PLANT

Employee: UNDEFINED

EAC: 08 Monday-Friday 7-3:30

Depreciation: 5211.25

Last Work Order: 0000086711

Status: A

Motor Pool

Last PM

Type	Date Done
B	03/09/2016
A	03/09/2016

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Reset FY | Begin Month Oct | Year 2007 | Meter Type M | Month / Year | Include Warranties? | Compute | Export

Year	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
2012	1584.58	391.18	1193.40	0.00	0.00	0.00
2013	2516.26	657.43	1858.83	0.00	0.00	0.00
2014	1093.10	397.44	695.66	0.00	0.00	0.00
2015	715.35	177.53	537.82	0.00	0.00	0.00
2016	0.00	0.00	0.00	0.00	0.00	0.00

Life...	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
Fisca...	715.35	177.53	537.82	0.00	0.00	0.00
Life ...	9331.29	2145.44	7185.85	0.00	0.00	0.00

Loading Equipment LTD Completed : ACKNOWLEDGED

Upd

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number	Year	Make	Model	Shop	TSet	License
320	2009	CHEV	2500	01	EQ	136013

Print

Meter	Reading
M	94030

Parent Equipment
Component
Link: None / Permanent / Removable
Status: Attached

Class: PUG GAS PICK-UPS
Department: 3023 ... WATER DISTRIBUTIC
Serial Number: 1GBHC44K29E153285
Location
MG: UNDEFINED
Color: WHT
Priority
Site: 04 WATER PLANT
Employee: UNDEFINED
EAC: 08 Monday-Friday 7-3:30
Depreciation: 5211.25
Last Work Order: 0000086711

Status: A
Motor Pool

Last PM

Type	Date Done
B	03/09/2016
A	03/09/2016

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Date 07/13/2009 Cost 20845.00 Maint $ LTD 9331.29 Inflation Rate .03500 Salvage Rate .07000
Fund Major Grouping Highest Meter 3.8 Maintenance 4.5 Age 4.3

Expected Life In Meters

Type	Primary	Date	Time	Actual	Acquire	BeginFY
M	X	09/03/2009	13:59:51	94030	250	86765

	Remaining Life	Replacement	Replacement	Monthly Recovery
Original:	14	07/13/2017	27569.40	287.18
Adjusted:	15	07/15/2017	27649.81	285.05

Salvage Value	1459.15
Recovery Collected	0.00
Recovery Balance	27649.81
Life Expectancy Months	96
Current Life In Months	82
Total Points	12.6
Condition Factor	0.00

Vehicle Replacement Upd

FY 2016-2017 Budget
Vehicle & Motorized Equipment Serviceability Report

Department/Division: 3023 Water Distribution **Priority** **of**

This request is included in: ■ **Budget Submission** ☐ **List of Adds**

Vehicle/Equipment #: 321	**Vehicle/Equipment Type (make, model, etc.): 2008 Ford 1 Ton utility truck**
Purchase Date (year & age) 07/16/2007	**Scheduled Replacement Date (per schedule): 07/16/2015**
Miles 130727	**Estimated Repair Cost: $5,100.00**

A bumper-to-bumper inspection ahs been performed on this vehicle/equipment:

Technician: McIlrath **Date: 4/2016**

The following parts/repairs are required for this vehicle/equipment, but have been deferred:

Part/Repair	Estimated Cost (materials & Labor)
Engine repair leaks	$650.00
Exterior paint and dent repair	$2,500.00
repair/replacement suspension	$1,500.00.
Interior repair seat head liner	$450.00
	Total: $

Two-year maintenance history:

Year	Cost (materials & labor):	Days Out-of-Service
2014	$6839.74	8
2015	$263.81	0

Fleet Recommendation:

■ **Remove from Fleet** ☐ **High Maintenance** ☐ **Do Not Replace**

Comments:

This is an out dated vehicle, facing major mechanical repairs and it is recommended to be replaced rather than repaired.

Fleet Maintenance Supervisor: **Date:**

Fleet Systems Specialist: **Date:**

Operations Manager: **Date:**

City Manger Concurrence:

☐ **Approved** ☐ **Denied**

City Manager: _____ **Date:** _____

Vehicle and Equipment Repair/Replacement Evaluation		
Vehicle: # 321	**Evaluated by: Danny McIlrath**	
Dept.: 3023 Water Distribution	**Supervisor: Kevin M Gray, Operations Manager**	
	Points Assigned	**Comments**
Year of vehicle. One point assigned per year. Example: A 2000 vehicle would be assigned 9 points because it is 9 years old.	8	2008 Ford 1 Ton Utility Truck
Mileage or hours of use. One point is assigned for each 10,000 miles or 1,500 hours of operation. Example: A vehicle with 87,000 miles would receive 9 points as it is rounded up.	13	130333 miles
General overall condition. This category takes into consideration body condition, rust, interior condition, anticipated repairs, etc. A scale from 1-5 is used, with 5 being an extremely poor…possibly unsafe condition.	3	Utility boyd scratched with several dents and paint is peeling. Front and rear bumbper have dents/bent, door on utility body is bent, surpension front worn. Engine has rear main seal leak, steering column worn, interior and seat worn with the head liner coming apart. Floor matting worn.
Type of service. Points are assigned as either 1,3,or 5 depending on the type of use the vehicle had during most of its life. Example: A '5' would be assigned to vehicles that were utilized as patrol cars as that is considered severe service, while a staff car would be a '1'.	3	Water Distribution
Reliability of vehicle. Points are assigned as 1-5 depending on the frequency that the vehicle is in the shop for repairs. A '5' should be assigned to a vehicle that is in the shop 3 or more times a month on average. A '1' would be used for once every 3 months or less.	4	in the shop a on regular bases.
Total operating cost. Points are assigned as 1,3,or 5 depending on the total cost per mile factor. This figure includes maintenance and operational costs in relation to other vehicles utilized for the same purpose.	4	0.42 per mile
Have warranties expired?	Yes	☐ **Check if general overall condition can defer replacement can be defer to volunteer car**
Total Points	**35**	**(Shop Supervisor approval required)**

28 + points	**35**	Needs immediate replacement
23-27 points		Condition is borderline
18-22 points		Condition is fair/good
Under 18 points		Condition is good/excellent

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number	Year	Make	Model	Shop	TSet	License
321	2008	FORD	1 TON. UTILITY	01	EQ	238651

Print

Meter	Reading
M	130333

Parent Equipment

Component

Link: None / Permanent / Removable

Status: Attached

Class: PUG GAS PICK-UPS

Department: 3023 ... WATER DISTRIBUTIC

Serial Number: 1FDSF34528EB00867

Location

MG: UNDEFINED

Color: WHT

Priority

Site: 04 WATER PLANT

Employee: UNDEFINED

EAC: 08 Monday-Friday 7-3:30

Depreciation: 2409.40

Last Work Order: 0000086704

Status: A

Motor Pool

Last PM

Type	Date Done
A	02/17/2016

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Date: 05/30/2007 Cost: 24094.00 Maint $ LTD: 12573.30 Inflation Rate: .03500 Salvage Rate: .07000

Fund: Major Grouping: Highest Meter: 5.0 Maintenance: 5.2 Age: 5.0

Expected Life In Meters

Type	Primary	Date	Time	Actual	Acquire	BeginFY
M	X	05/30/2007	12:13:20	130333	115	121124

	Remaining Life	Replacement	Replacement	Monthly Recovery
Original:	-12	05/30/2015	31866.50	331.94
Adjusted:	0	04/14/2016	32999.89	305.55

Salvage Value	1686.58
Recovery Collected	0.00
Recovery Balance	32999.89
Life Expectancy Months	96
Current Life In Months	108
Total Points	15.0
Condition Factor	0.00

Vehicle Replacement Upd

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number: 321
Year: 2008
Make: FORD
Model: 1 TON, UTILITY
Shop: 01
TSet: EQ
License: 238651
Print

Meter	Reading
M	130333

Parent Equipment
Component
Link: None / Permanent / Removable
Status: Attached

Class: PUG GAS PICK-UPS
Department: 3023 ... WATER DISTRIBUTIC
Serial Number: 1FDSF34528EB00867
Location
MG: UNDEFINED
Color: WHT
Priority
Site: 04 WATER PLANT
Employee: UNDEFINED
EAC: 08 Monday-Friday 7-3:30
Depreciation: 2409.40
Last Work Order: 0000086704

Status: A
Motor Pool

Last PM

Type	Date Done
A	02/17/2016

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Reset FY | Begin Month: Oct | Year: 2014 | Meter Type: M | Month / Year | Include Warranties? | Compute | Export

Year	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
2014	2644.13	355.19	2288.94	0.00	0.00	0.00
2015	1517.65	247.63	1270.02	0.00	0.00	0.00
2016	0.00	0.00	0.00	0.00	0.00	0.00

Life...	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
Fisca...	1517.65	247.63	1270.02	0.00	0.00	0.00
Life ...	12573.30	3469.94	9103.36	0.30	0.00	0.00

Monthly, Yearly, and Life to Date History

Upd

FY 2016-2017 Budget
Vehicle & Motorized Equipment Serviceability Report

Department/Division: 3023 Water Dist **Priority** **of**

This request is included in: ■ **Budget Submission** ☐ **List of Adds**

Vehicle/Equipment #: 374	**Vehicle/Equipment Type (make, model, etc.): 2008 Ford 1 Ton utility truck**
Purchase Date (year & age) 08/09/2007	**Scheduled Replacement Date (per schedule): 08/09/2015**
Miles 121641	**Estimated Repair Cost: $5,200.00**

A bumper-to-bumper inspection ahs been performed on this vehicle/equipment:

Technician: McIlrath **Date: 4/2016**

The following parts/repairs are required for this vehicle/equipment, but have been deferred:

Part/Repair	Estimated Cost (materials & Labor)
Engine and trans seals repair leaks	$750.00
Exterior paint and dent repair	$2,500.00
repair/replacement suspension	$1,500.00.
Interior repair seat head liner	$450.00
	Total: $

Two-year maintenance history:

Year	Cost (materials & labor):	Days Out-of-Service
2014	$3378.40	6
2015	$1282.09	0

Fleet Recommendation:

■ **Remove from Fleet** ☐ **High Maintenance** ☐ **Do Not Replace**

Comments:

This is an out dated vehicle, facing major mechanical repairs and it is recommended to be replaced rather than repaired.

Fleet Maintenance Supervisor: **Date:**

Fleet Systems Specialist: **Date:**

Operations Manager: **Date:**

City Manger Concurrence:

☐ **Approved** ☐ **Denied**

City Manager: _____ **Date:** _____

Vehicle and Equipment Repair/Replacement Evaluation		
Vehicle: # 374	**Evaluated by: Danny McIlrath**	
Dept.: 3023 Water Dist	**Supervisor: Kevin M Gray, Operations Manager**	
	Points Assigned	**Comments**
Year of vehicle. One point assigned per year. Example: A 2000 vehicle would be assigned 9 points because it is 9 years old.	8	2008 Ford 1 Ton Utility Truck
Mileage or hours of use. One point is assigned for each 10,000 miles or 1,500 hours of operation. Example: A vehicle with 87,000 miles would receive 9 points as it is rounded up.	12	121641 miles
General overall condition. This category takes into consideration body condition, rust, interior condition, anticipated repairs, etc. A scale from 1-5 is used, with 5 being an extremely poor…possibly unsafe condition.	4	Utility boyd scratched and couple of dents. Engine has rear main seal leak, suspension worn, steering column worn, interiorand seat worn with the head liner coming apart. Floor matting worn. Transmission tail shaft seal leaking.
Type of service. Points are assigned as either 1,3,or 5 depending on the type of use the vehicle had during most of its life. Example: A '5' would be assigned to vehicles that were utilized as patrol cars as that is considered severe service, while a staff car would be a '1'.	3	Water Disribution
Reliability of vehicle. Points are assigned as 1-5 depending on the frequency that the vehicle is in the shop for repairs. A '5' should be assigned to a vehicle that is in the shop 3 or more times a month on average. A '1' would be used for once every 3 months or less.	2	in the shop a little
Total operating cost. Points are assigned as 1,3,or 5 depending on the total cost per mile factor. This figure includes maintenance and operational costs in relation to other vehicles utilized for the same purpose.	5	0.47 per mile
Have warranties expired?	Yes	☐ **Check if general overall condition can defer replacement can be defer to volunteer car**
Total Points	**34**	**(Shop Supervisor approval required)**

28 + points	**34**	Needs immediate replacement
23-27 points		Condition is borderline
18-22 points		Condition is fair/good
Under 18 points		Condition is good/excellent

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number	Year	Make	Model	Shop	TSet	License
374	2008	FORD	1 TON, UTILITY	01	EQ	134046

Print

Meter	Reading
M	121641

Parent Equipment

Component

Link: None / Permanent / Removable

Status: Attached

Class: PUG GAS PICK-UPS

Department: 3023 ... WATER DISTRIBUTIC

Serial Number: 1FDSF34598EB00865

Location

MG: UNDEFINED

Color: WHT

Priority

Site: 04 WATER PLANT

Employee: UNDEFINED

EAC: 08 Monday-Friday 7-3:30

Depreciation: 2372.90

Last Work Order: 0000086662

Status: A

Motor Pool

Last PM

Type	Date Done
B	03/23/2016
A	03/23/2016

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Date: 08/09/2007 Cost: 23729.00 Maint $ LTD: 12593.09 Inflation Rate: .03500 Salvage Rate: .07000

Fund: Major Grouping: Highest Meter: 4.9 Maintenance: 5.3 Age: 5.0

Expected Life In Meters

Type	Primary	Date	Time	Actual	Acquire	BeginFY
M	X	08/09/2007	12:49:05	121641	122	114147

	Remaining Life	Replacement	Replacement	Monthly Recovery
Original:	-9	08/09/2015	31383.75	326.91
Adjusted:	0	04/15/2016	32217.26	306.83

Salvage Value	1661.03
Recovery Collected	0.00
Recovery Balance	32217.26
Life Expectancy Months	96
Current Life In Months	105
Total Points	15.0
Condition Factor	0.00

Vehicle Replacement

Upd

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number	Year	Make	Model	Shop	TSet	License
374	2008	FORD	1 TON. UTILITY	01	EQ	134046

Print

Meter	Reading
M	121641

Parent Equipment

Component

Link: None / Permanent / Removable

Status: Attached

Class: PUG GAS PICK-UPS

Department: 3023 ... WATER DISTRIBUTIC

Serial Number: 1FDSF34598EB00865

Location

MG: UNDEFINED

Color: WHT

Priority

Site: 04 WATER PLANT

Employee: UNDEFINED

EAC: 08 Monday-Friday 7-3:30

Depreciation: 2372.90

Last Work Order: 0000086662

Status: A

Motor Pool

Last PM

Type	Date Done
B	03/23/2016
A	03/23/2016

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Reset FY | Begin Month: Oct | Year: 2016 | Meter Type: M | Month / Year | Include Warranties? | Compute | Export

Year	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
2016	0.00	0.00	0.00	0.00	0.00	0.00

Life...	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
Fisca...	1282.65	426.64	856.01	0.00	0.00	0.00
Life ...	12593.09	3565.34	9027.75	0.00	0.00	0.00

Loading Equipment LTD Completed : ACKNOWLEDGED

Upd

TV Inspection Vehicle Quote

David Ponitz
Ormond Beach, City of
501 N. Orchard St
Ormond Beach, FL 32174
386-676-3305
pomitz@ormondbeach.org

First and most importantly, thank you for your time and the opportunity to provide you pricing on a CUES TV Inspection Vehicle. CUES has been in business over 50 years and prides itself on providing the highest quality products so that inspection of your utilities can be performed effectively and efficiently the first time.

You have the unique advantage of having the world's leading manufacturer of CCTV Equipment practically in your back yard. Our Corporate Headquarters, Manufacturing Facility, Technical Services, Software Development, and Customer Service groups are located in Orlando, FL. We truly are a one company solution for everything surrounding TV Inspection and Asset Management. Everything is handled in-house, which means one phone call gets you the answers you need. We have no third party service representatives which means you get direct from factory sales and support when you need it from one of our over 200 full time employees at our Orlando facility. We are the only manufacturer physically located in the state of Florida, other manufacturer's use third party dealers and service providers.

Our warehouses stock over $20 Million in Parts & Loaner Inventory to support our customers, which means quick turnaround on both new product orders and simple parts fulfillments. Our equipment is extremely rugged and dependable, but problems can be encountered with any manufacturer's equipment and it is important to know you are covered. With our loaner inventory we can provide quick replacement for items sent in for repair to maintain your critical production schedule and best of all, this service is available for the lifetime you own your equipment.

Finally, Cues offers various purchasing options through competitively bid cooperative arrangements such as the NJPA and HGAC. Whether you are the smallest entity or the largest you can benefit from these various agreements. Please review the entire document for full product descriptions and to ensure accuracy of the quote. My contact information is below should you have any questions or changes to the quote. I again, appreciate your time and the opportunity to provide pricing.

Sincerely,

Chris Parker
Regional Sales Manager – Florida
CUES, Inc.
Cell: 407.446.7445 | Office: 800.327.7791 x330
cparker@cuesinc.com

TV INSPECTION VEHICLE QUOTE

SALESPERSON	PAYMENT TERMS	DELIVERY TERMS	EXPIRATION DATE
Chris Parker	30 DAYS NET	90 – 150 DAYS ARO	120 DAYS FROM 4/28/2016

TRUCK EQUIPMENT BREAKDOWN

CHASSIS TYPE
- FORD F450 DIESEL

BOX TYPE & SIZE
- 14 FT CARGO BOX

POWER
- ONAN 7500 WATT QUIET DIESEL GENERATOR

CONTROL ROOM INTERIOR & OPTIONS
- EVO 3.0 INTERIOR GROUP
- ROOF TOP AC
- STORAGE CABINET UNDER DESKTOP
- CLOSET
- BENCH SEAT
- CURBISDE DOOR WITH FOLD DOWN STEPS

EQUIPMENT ROOM INTERIOR & OPTIONS
- EVO3.0 INTERIOR GROUP
- 20 GALLON WASH DOWN SYSTEM
- UPPER & LOWER STORAGE CABINETS

COMPUTER & SOFTWARE
- RACK MOUNT COMPUTER WITH RE-INSTATEMENT OF GRANITE XP SOFTWARE PLAN

TV REEL(S)
- STANDARD TV REEL WITH AUTO PAYOUT
- 1,000 FT GOLD MULTICONDUCTOR CABLE

TRANSPORTER(S)
- STEERABLE PIPE RANGER LITE V2

CAMERA(S)
- OZII MAINLINE CAMERA

SAFETY, SECURITY, & STORAGE OPTIONS
- SAFETY THREE STEP ENTRY/EXIT BUMPER
- HIDE A WAY STROBE KIT
- LED TRAFFIC DIRECTORS, FRONT & REAR
- FLOOR MOUNTED PEDESTAL CRANE
- TRANSPORTER LOCKABLE STORAGE DRAWER
- KICKPLATE STORAGE DRAWERS
- 2 LOCKABLE UNDER BOX STORAGE BOXES
- BACK-UP CAMERA FOR CHASSIS

MISC. ITEMS
- 3 DAYS ON-SITE TRAINING
- CUSTOMER PICK-UP OF COMPLETED UNIT FROM ORLANDO
- *PLEASE REVIEW THE EQUIPMENT LIST ON THE FOLLOWING PAGES FOR FULL DESCRIPTIONS*

GRAND TOTAL	$219,990.00[1]

[1] *This is a quotation on the components listed. The delivery terms stated are based on our current production schedule as of the quote date. An updated delivery term is available upon request. Brochures and/or photos are used for illustration purposes only. Pricing does not include any applicable taxes.*

Specifications For: Ormond Beach, FL

Ormond Beach, FL-E450 CCTV 3-5-15

1 FORD F-450 DIESEL CAB CHASSIS 189" WB 2X4 CHASSIS
1 6.7L V8 Diesel Engine
1 6-Speed Automatic Transmission
1 16,500 lb. GVWR
1 189" Wheel Base
1 12-Volt Light in Cab Area
1 Cab Air Conditioner
1 AM / FM Radio

1 14' CARGO BOX FOR CAB/CHASSIS
1 LED Light Package Includes Body Clearance and Stop / Tail / Turn
1 Full Width Barn Doors with CAM (Pipe) Locks on Each Door
2 Laminated Steel Lock
1 Kemlite Covering on Inside Rear Doors
1 Back Up Alarm

1 SAFE ENTRY/EXIT BUMPER
1 Three (3) Steps Evenly Spaced
1 Bottom Step Folds Up for Ground Clearance
1 Safety Grab Handle

1 HIDE-A-WAY STROBE KIT WITH POWER SUPPLY

2 LED TRAFFIC DIRECTOR WITH 30FT CABLE

1 FLOOR MOUNTED PEDESTAL CRANE

1 TRANSPORTER/CAMERA LOCKABLE STORAGE COMPARTMENT WITH NOTCH IN REAR DOOR THRESHOLD OF BODY FOR TV CABLE TO PASS THROUGH TO TRANSPORTER STORAGE DRAWER
1 Lockable Storage Compartment for Camera and Transporter
1 Sliding Drawer
1 Notch in rear door threshold of body for TV cable to pass through to transporter storage drawer

1 KICKPLATE 2 DRAWER ALUMINUM STORAGE

2 LOCKABLE METAL STORAGE CABINET MOUNTED UNDER CHASSIS

1 TV HIGH CUBE VAN EXTERIOR LIGHTING & CONTROL ROOM - EVO 3.0 TO INCLUDE:
2 Amber LED Strobe Warning Beacons
2 Adjustable LED Floodlights Rear of Vehicle Area Illumination
Control Room Interior:
1 Lonseal Lonplate Flooring
1 Kemlite Wall & Ceiling Covering
1 Bulkhead Wall With Passage Door From Control Room to Equipment Room
1 Tinted Viewing Window in Bulkhead Wall
1 Tinted Viewing Window in Bulkhead Door
1 Above Desk Control Console with Rack Mount for Electronic Equipment
1 Desktop / Work Area

1 12V High Intensity LED Light Fixture
2 Electrical Outlet with Dual Receptacles
1 Fire Extinguisher with Bracket, 10BC Rating
1 Operators Chair, Swivel With Casters
1 Breaker Box Storage Area with Locking Positive Latch

1 CARBON MONOXIDE DETECTOR MOUNTED IN INTERIOR OF UNIT

1 ROOF TOP AIR CONDITIONER, 13,500 BTU WITH HEAT STRIP

1 STORAGE CABINET UNDER CONTROL ROOM DESKTOP

1 CLOSET IN CONTROL ROOM

1 BENCH SEAT IN CONTROL ROOM

1 CURBSIDE DOOR WITH FOLD-DOWN STEPS FOR EVO 3.0

1 TV HI-CUBE VAN EQUIPMENT ROOM INTERIOR - EVO 3.0 TO INCLUDE:
1 Lonseal Lonplate Flooring
1 Kemlite Wall & Ceiling Covering
1 Electrical Outlet with Dual Receptacles
1 12V High Intensity LED Light Fixture
1 15 Minute Courtesy Timer Located at Rear Door Area for 12V LED Interior Lights

1 20-GALLON WASHDOWN SYSTEM TO INCLUDE:
1 20-Gallon Fresh Water Tank
1 Electric Water Pump
1 Retractable Hose Reel with 25' Water Hose and Nozzle

1 UPPER AND LOWER STORAGE CABINET IN EQUIPMENT ROOM
1 Lower Storage Cabinet / Work Top with Sink and Faucet
1 Upper Wall Mounted Storage Cabinet

1 ADDITIONAL LIGHT AND OUTLET
1 Fluorescent Light and Fixture Mounted Above Work Top
1 Dual Receptacle Outlet Above Work Top

1 5 DRAWER TOOL CHEST - BLACKHAWK

1 32" REAR FLAT SCREEN MONITOR MOUNTED IN BULKHEAD WALL
1 Flat Screen Monitor
1 Cable Assembly - Video Monitor to Monitor in Control Room
1 Electrical Outlet

1 BACK-UP CAMERA SYSTEM [CHASSIS]

1 7500 WATT QUIET DIESEL ONAN GENERATOR
1 120 Volt 60 HZ 7500 Watt (Minimum) Commercial Grade "Quiet" Generator
1 Diesel Powered
1 Electric Start

1 GENERATOR COMPARTMENT [UNDER CHASSIS MOUNT]
1 Generator Storage Compartment with Lockable External Access Door
1 Commercial Power Supply Receptacle, 25' Cord, and Plug

1 Electrical Supply Center with Circuit Breaker Box
1 Commercial power and Generator Power Connectors
1 Automatic Power Transfer Switch

1 SYSTEM ENGINEERING PANEL, FOR POWER INFORMATION AND GENERATOR FUNCTIONS, RACK MOUNTED, TO INCLUDE:
1 Four Function AC Power Meter displaying Critical Power Information including:
1 Voltage
1 Hertz
1 Amperage
1 Active Power (Watts)
1 Front panel Selector Switch for two modes of operation:
1 Fixed reading
1 Continuous Auto-cycling
1 Generator Battery Meter to Display Starting and Charging Voltage
1 Generator Hour Meter
1 Generator Remote Start/Stop Control Switch
1 On/Off Switch for Emergency Warning beacons (Switch to Illuminate When On)

1 P&T ZOOM M/C CAMERA
1 Solid State Color Sewer TV Camera
1 Pan & Rotate Camera Head, 40:1 Zoom Ratio, 10x Optical Zoom, 4x Digital Zoom
1 NTSC Color Standard with 4x Light Integration
1 Camera Lighting System for 6" through 72" lines
1 Camera Transportation and Storage Case

1 LIGHT STEERABLE CAMERA TRANSPORTER, WHEELED, v2
1 Steerable Unit Designed to Turn 360 Degrees Within Its Own Radius
1 Two (2) Speed Transmission to Maximize Torque in Large Diameter Pipe with Manual Shifter on Camera Carrier
1 Unit Shall Have Forward, Free Wheel, and Power Reverse
1 Set of Six (6) Driven Steel Wheels to Inspect 8" Pipe
1 All Six (6) Wheel Drive Transporter Assembly to Include:
1 Motor & Enclosed Drive Train
1 Tip Up Rear 12-Pin Connector
1 Transporter Control Unit

1 10" - 15" RUBBER TIRE KIT, v2

1 18"+ PNEUMATIC TIRE KIT, v2

1 8" STEEL 10/12 GRIT WHEEL KIT, v2

1 12" - 15" PNEUMATIC TIRE KIT, v2

1 1000' CABLE ASSEMBLY, M/C 12PIN METAL
1 1000' Gold Multi Conductor Kevlar Fiber Armored Combination TV Transmission / Tow Cable
1 .450 Diameter
1 Metal Splice Chamber with Pigtail
1 Cable Strain Relief

1 TV REEL ASSEMBLY, MECHANICAL FOOTAGE FOR SUMMIT .450 CABLE W/AUTO PAYOUT
1 Black Thermoplastic Powder Coated Frame
1 Power Levelwind & Multi Ratio Manual Transmission
1 Automatic Cable Payout System
1 Footage Meter with Local Counter and Remote Counter

1 Transmission Control at Viewing Station
1 Local Reel Mount Electrical and Mechanical Control
1 Sealed Continuous Contact Collector Assembly
1 Removable Drip Pan for Cleaning

2 19" (MINIMUM) FLATSCREEN COLOR INDUSTRIAL TV MONITOR NTSC / PAL COLOR STANDARDS

1 PCU ASSEMBLY [RACK MOUNT]

1 CCU ASSEMBLY [RACK MOUNT]
1 Alpha Numeric Information Display, with Multi Paging and Defect Coding
1 Remote "QWERTY" Keyboard for Data Entry
1 On Screen Footage Display
1 WRC and PACP Codes

1 TEST CABLE

1 WIRED USB CONTROLLER
1 Joystick Control for Pan and Tilt Zoom Camera to Include:
1 360 Degree Rotate
1 330 Degree Optical Pan
1 Joystick Control for All Steering Functions & Forward / Reverse Directions for Transporter
1 Camera Lift Control for Optional Electronic Camera Lift
1 All Other Controls for Camera to Include:
1 Camera Iris and Focus Override & Zoom
1 Camera Lights & Shutter Control for Light Enhancement
1 Camera Diagnostics & Auto Home
1 Cruise Control to Set Speed of the Transporter for Hands Off Operation
1 All Reel Controls to Include: Retrieve, Release, and Variable Speed [Excluding Dolly Systems]

1 WIRELESS CONTROLLER
1 Joystick Control for Pan and Tilt Zoom Camera to Include:
1 360 Degree Rotate
1 330 Degree Optical Pan
1 Joystick Control for All Steering Functions & Forward / Reverse Directions for Transporter
1 Camera Lift Control for Optional Electronic Camera Lift
1 All Other Controls for Camera to Include:
1 Camera Iris and Focus Override & Zoom
1 Camera Lights & Shutter Control for Light Enhancement
1 Camera Diagnostics & Auto Home
1 Cruise Control to Set Speed of the Transporter for Hands Off Operation
1 All Reel Controls to Include: Retrieve, Release, and Variable Speed [Excluding Dolly Systems]

1 8.7" MINI KEYBOARD

1 COMPUTER ONLY [NO Granite XP SOFTWARE] TO INLCUDE (MINIMUM):
1 Motherboard with 1155 Socket and Intel Z87 Chipset
1 Intel Core i7-4770K Haswell 3.5 GHz Quad-Core Processor
1 8GB (2x4GB) 240-pin of DDR3 1600 SDRAM
2 LAN, On Board Network Connections, 10 / 100 / 1000 Mbps
6 USB 2.0 Ports (4 on Rear, 2 on Front)
6 USB 3.0 Ports (6 on Rear)
2 RS232 Serial Comm Ports

1 Bluetooth v4.0 / v3.0 + HS
1 WiFi IEEE 802.11 a/b/g/n
1 On Board Sound
1 DVD + / - RW DVD Burner 20x / CD - RW 40x Internal
1 1 TB (7,200 RPM) SATA Hard Drive
1 120 GB Solid State Drive, SATA3
1 400 Watt 1UEPS 80 PLUS Server ATX Power Supply
1 USB Video Capture Device for MPEG 1 / 2 / 4 / WMV
1 1GB 64-bit DDR3 PCI Express Video Card
1 Industrial Hardened Case Slim 2U Design for 19" Rack
1 Windows 7 Professional 64-bit Operating System

1 WIRELESS KEYBOARD AND MOUSE SET

1 HP OFFICEJET COLOR PRINTER

1 UPS TO INCLUDE THE FOLLOWING:
1 Input 120-Volt / Output 120-Volt
1 Cord Management Straps

1 RE-ENROLLMENT FEE FOR Granite XP SOFTWARE SUPPORT

1 ENHANCED SUPPORT PLAN FOR Granite XP SOFTWARE

1 EXISTING GRANITE XP UPGRADE TO LATEST SOFTWARE VERSION

1 MANHOLE TOP ROLLER ASSEMBLY, TV ONLY

1 MANHOLE ADAPTER CLAW HOOK

6 RETRIEVAL/DOWNHOLE POLE ASSEMBLY

1 INVERT ROLLER ASSEMBLY

1 RETRIEVAL HOOK

1 MULTI CONDUCTOR TV ONLY TOOL KIT
1 Milliampmeter Tool
1 Electrical Tape
1 Needle Nose Pliers
1 Six-In-One Screwdriver
1 6" Adjustable Wrench
1 Anti Seize Grease
1 9-Piece Allen Wrench kit
1 Solder Iron Kit
1 Industrial Pliers
1 5/32 T-Handle Hex Wrench
1 Multi Conductor TV Only Operation Manual
1 Parts Catalog
1 Cable Repair Kit DVD
1 TV Only Training DVD

1 TRAINING, ON-SITE (THREE DAYS)

1 CUSTOMER PICK-UP OF COMPLETED UNIT IN ORLANDO, FL USA

CAPITAL PROJECT DETAIL

PROJECT TITLE

Vehicle Replacement-Fire 94

PROJECT#

30217M

CATEGORY

Vehicle and Equipment Replacement

FUND

302-General Vehicle Replacement Fund

PROJECT LOCATION

Fire Station 94

MANAGEMENT

Fleet

PROJECT SCOPE

Replacement of E94. This will be funded through a lease purchase. As a lease purchase was fully paid in the current fiscal year, the debt service funding will be maintained to accommodate this new lease purchase. New funding will not be required.

JUSTIFICATION

The replacement schedule has been designed to replace vehicles which have been identified as incurring the greatest maintenance expense over the life of the vehicle, reaching or exceeding the expected life in terms of age, and having relative high mileage. The benefits of the replacement program are reflected in the reduction of the City's Fleet Maintenance operating and labor costs, as well as lower vehicle downtime. The following are the main issues with this fire truck.
The transmission has worn clutches and will need repair down the road. Cost for a rebuilt transmission is $9,000.00. The piping for the water pump is having a lot of electrolysis. The cost for this is hard to estimate as it is built to fit. The cost would be between $15,000.00 to 20,000.00. The water pump itself has electrolysis and is worn never have done any internal water pump repair. To replace the water pump would cost an estimated amount of $25,000.00. The rear suspension is worn and need reworked. The estimate for this repair is $4,000. The A/C system is weak and needs to be updated to a roof unit at a cost of $4,500.00. The cab body needs repair has some cracking in the body panels rear of cab, at a cost of $2,000.00. The lighting needs to be upgraded as it is the old strobe system and parts are getting harder to get. The cost to change the truck over to LED's is $10,000.00. Front suspension is worn and will need new springs at a cost of $3,000.00. Interior from seats to dash are worn to rework the seats and repair dash and door panels would cost an estimate amount of $1000.00
This purchase will replace front line vehicle #79 Fire Engine 94. Vehicle #79 will be moved to a reserve truck (back up) and vehicle #52 will be removed from the fleet.

PROJECT COST METHODOLOGY

Quote.

EXPENDITURE	Year	Dept	Veh #	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Engine 94	2008	Police CSO	49	343,605	0	0	0	0	343,605
Total				343,605	0	0	0	0	343,605

REVENUE	Year	Dept	Veh #	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Vehicle Lease Purchase				343,605	0	0	0	0	343,605
Total				343,605	0	0	0	0	343,605

FY 2016-2017 Budget
Vehicle & Motorized Equipment Serviceability Report

Department/Division: 2502 Fire **Priority _____ of _____**

This request is included in: ☐ **Budget Submission** ☐ **List of Adds**

Vehicle/Equipment #: 052	**Vehicle/Equipment Type (make, model, etc.): 1996 Pierce Pumper**
Purchase Date (year & age) 05/21/1996	**Scheduled Replacement Date (per schedule): 05/21/2011**
Hours 11455	**Estimated Repair Cost: $**

A bumper-to-bumper inspection ahs been performed on this vehicle/equipment:

Technician: **Date:**

The following parts/repairs are required for this vehicle/equipment, but have been deferred:

Part/Repair	Estimated Cost (materials & Labor)
Transmission repair	$9,000.00
Exterior paint and dent repair and interior	$10,000.00
repair/replacement suspension front and rear	$7000,00.
A/C and lights update	$14,000.00
	Total: $

Two-year maintenance history:

Year	Cost (materials & labor):	Days Out-of-Service
2014	$13137.12	15
2015	$1788.88	5

Fleet Recommendation:

☐ **Remove from Fleet** ☐ **High Maintenance** ☐ **Do Not Replace**
x

Comments:

With this being an out dated pice of equipment it would be wise to replaced then repair.

Fleet Maintenance Superintendent: **Danny McIlrath** **Date:05/04/2016**

Fleet Systems Specialist: **Date:**

Fleet Manager: **Date:**

City Manger Concurrence:

☐ **Approved** ☐ **Denied**

City Manager: _____ **Date:** _____

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number	Year	Make	Model	Shop	TSet	License
052	1996	PIERCE	PUMPER	01	EQ	121350

Print

Meter	Reading
H	11455

Parent Equipment
Component
Link: None / Permanent / Removable
Status: Attached

Class: FIRE — FIRE ENGINES _EQUIP
Department: 2502 ... FIRE SUPPRESSION
Serial Number: 4PICA02DXTA000362
Location
MG: UNDEFINED
Color: RED
Priority
Site: 001 Conversion Added Code
Employee: UNDEFINED
EAC: 08 Monday-Friday 7-3:30
Depreciation: 21774.50
Last Work Order: 0000086341

Status: A
Motor Pool

Last PM

Type	Date Done
A	01/26/2016

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Reset FY | Begin Month Oct | Year 2008 | Meter Type H | Month / Year | Include Warranties? | Compute | Export

Year	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
2012	8800.36	1423.93	7376.43	0.00	0.00	0.00
2013	17600.75	1234.46	16366.29	0.00	0.00	0.00
2014	13137.12	263.34	12873.78	0.00	0.00	0.00
2015	1788.88	563.95	1224.93	0.00	0.00	0.00
2016	0.00	0.00	0.00	0.00	0.00	0.00

Life...	Total M+R	Maintenance	Repair	Accident	Capital	Warranty
Fisca...	1788.88	563.95	1224.93	0.00	0.00	0.00
Life ...	195273.66	27881.17	167392.49	549.60	0.00	0.00

Loading Equipment LTD Completed : ACKNOWLEDGED

Upd

Equipment Inventory - FASTER Win 6.9

Equipment Information:: Company 001 Ormond Beach Active Fleet

Equipment Number	Year	Make	Model	Shop	TSet	License
052	1996	PIERCE	PUMPER	01	EQ	121350

Print

Meter	Reading
H	11455

Parent Equipment
Component
Link: None / Permanent / Removable
Status: Attached

Class: FIRE — FIRE ENGINES _EQUIP
Department: 2502 ... FIRE SUPPRESSION
Serial Number: 4PICA02DXTA000362
Location
MG: UNDEFINED
Color: RED
Priority
Site: 001 Conversion Added Code
Employee: UNDEFINED
EAC: 08 Monday-Friday 7-3:30
Depreciation: 21774.50
Last Work Order: 0000086341

Status: A
Motor Pool

Last PM

Type	Date Done
A	01/26/2016

Master | Billing | Notes | Acq/Disp | Vehicle Replacement | Search | Query | History | Componer

Date 05/21/1996 Cost 217745.00 Maint $ LTD 195273.66 Inflation Rate .03500 Salvage Rate .07000
Fund Major Grouping Highest Meter 5.0 Maintenance 9.0 Age 5.0

Expected Life In Meters

Type	Primary	Date	Time	Actual	Acquire	BeginFY
H	X	01/25/2005	09:22:24	11455	0	11332

	Remaining Life	Replacement	Replacement	Monthly Recovery
Original:	-61	05/21/2011	367807.80	2043.38
Adjusted:	0	05/04/2016	439315.67	1822.89

Salvage Value 15242.15
Recovery Collected 0.00
Recovery Balance 439315.67
Life Expectancy Months 180
Current Life In Months 241
Total Points 15.0
Condition Factor 0.00

Vehicle Replacement Upd

Vehicle and Equipment Repair/Replacement Evaluation		
Vehicle: #052	**Evaluated by: Danny McIlrath**	
Dept.: 2502 fire	**Supervisor:**	
	Points Assigned	**Comments**
Year of vehicle. One point assigned per year. Example: A 2000 vehicle would be assigned 9 points because it is 9 years old.	20	1996 Pierce pumper
Mileage or hours of use. One point is assigned for each 10,000 miles or 1,500 hours of operation. Example: A vehicle with 87,000 miles would receive 9 points as it is rounded up.	8	11455 hours
General overall condition. This category takes into consideration body condition, rust, interior condition, anticipated repairs, etc. A scale from 1-5 is used, with 5 being an extremely poor…possibly unsafe condition.	5	The following are the main issues eith this truck. Transmission has worn clutches and will need repair. Piping for water pump has a lot of electrolysis pump is worn. The rear surspension is worn and needs repair. The A/C system is worn and needs up dating to cool cab good. The cab and body needs a lot of rust repair and paiinting. The lighting needs to be up dated. Front surspension is worn and needs repair. The interior seats dash and paneling needsd rework or replaced.
Type of service. Points are assigned as either 1,3,or 5 depending on the type of use the vehicle had during most of its life. Example: A '5' would be assigned to vehicles that were utilized as patrol cars as that is considered severe service, while a staff car would be a '1'.	4	fire response
Reliability of vehicle. Points are assigned as 1-5 depending on the frequency that the vehicle is in the shop for repairs. A '5' should be assigned to a vehicle that is in the shop 3 or more times a month on average. A '1' would be used for once every 3 months or less.	4	in the shop a lot
Total operating cost. Points are assigned as 1,3,or 5 depending on the total cost per hour factor. This figure includes maintenance and operational costs in relation to other vehicles utilized for the same purpose.	4	$17 per hour
Have warranties expired?	Yes	☐ **Check if general overall condition can defer replacement can be defer to volunteer car**
Total Points	**45**	**(Shop Supervisor approval required)**

28 + points	Needs immediate replacement
23-27 points	Condition is borderline
18-22 points	Condition is fair/good
Under 18 points	Condition is good/excellent

PROPOSAL FOR FURNISHING FIRE APPARATUS

September 2, 2014

CITY OF ORMOND BEACH FIRE DEPARTMENT
22 SOUTH BEACH STREET
ORMOND BEACH, FL 32174

The undersigned is prepared to manufacture for you, upon an order being placed by you, for final acceptance by Pierce Manufacturing, Inc., at its home office in Appleton, Wisconsin, the apparatus and equipment herein named and for the following prices:

One Pierce Saber Custom Pumper per the City of Ormond Beach Fire Department's specifications, per the enclosed proposal. This unit is being offered by accessing the Florida Sheriff's Association contract. See Tab 6 for information.	$ 357,886.00
Prepay Discount Options:	
1. Prepay chassis amount of $202,561.00 ninety days prior to final delivery, deduct $6,076.00 from quoted amount.	
2. Prefund 100% of apparatus at time of order entry, deduct $14,281.00 from quoted amount.	
If a performance bond is requested, add $1,428.00 to the contract amount.	Total $ 357,886.00

Said apparatus and equipment are to be built and shipped in accordance with the specifications hereto attached, delays due to strikes, war, or intentional conflict, failures to obtain chassis, materials, or other causes beyond our control not preventing, within about 8 months after receipt of this order and the acceptance thereof at our office at Appleton, Wisconsin, and to be delivered to you at the City of Ormond Beach, Florida.

The specifications herein contained shall form a part of the final contract, and are subject to changes desired by the purchaser, provided such alterations are interlined prior to the acceptance by the company of the order to purchase, and provided such alterations do not materially affect the cost of the construction of the apparatus.

The proposal for fire apparatus conforms with all Federal Department of Transportation (DOT) rules and regulations in effect at the time of bid, and with all National Fire Protection Association (NFPA) Guidelines for Automotive Fire Apparatus as published at the time of bid, except as modified by customer specifications. Any increased costs incurred by first party because of future changes in or additions to said DOT or NFPA standards will be passed along to the customers as an addition to the price set forth above.

Unless accepted within 60 days from date, the right is reserved to withdraw this proposition.

Pierce Manufacturing, Inc.

By: _____
AUTHORIZED SALES REPRESENTATIVE
Robert F. Boggus

OUTPUT AREA:

Pierce Manufacturing Inc.
Prepayment Discount Calculation

	email
TO:	Robert B
	Ten-8
FROM:	Laura (Kober) Luebke
DATE:	8/25/2014
CUSTOMER:	Ormond Beach FD

QUOTATION:

Contract	$	357,886.00
Interest Discount		(8,205.62)
Chassis Discount		(6,076.00)
Aerial Discount		-
Other		-
Due With Contract	$	343,604.38

Based on 5.0% Rate.

NOTE: IF CUSTOMER WILL NOT BE PAYING WITH CONTRACT, PLEASE NOTIFY ME, AS THIS QUOTE WILL HAVE TO BE RECALCULATED.

Pierce

TEN-8

IN SERVICE TO SERVE YOU

CUSTOMER CHANGE ORDER FORM

CUSTOMER: ORMOND BEACH FIRE DEPARTMENT **JOB #:** _____

Item	Date	Description	Deduct	Add	Info	STF	Entered in Pulse
1		FSA Spec 16 Saber Pumper		$269,266.00			
2		Adjustment for 2013		$8,078.00			
3		Adjustment for 2014		$8,320.00			
4							
5		Options:					
6		Add wheel chocks and mounting brackets		$885.00			
7							
8		Increase depth of bumper extension to 19" and add two trays with hose restraints		$1,029.00			
9		Upgrade mirrors to Ramco bus style mirrors on cab front		$1,010.00			
10		Add windows to sides of crew cab		$266.00			
11		Add 12" raised roof to crew cab		$2,560.00			
12		Add upholstery and padding to engine tunnel		$1,466.00			
13		Add EMS compartment in crew cab on rear wall, with roll-up door and two adjustable shelves		$2,299.00			
14							
15		Add map pockets to both forward cab doors		$520.00			
16		Add three bin map box to cab engine tunnel		$429.00			
17		Add two 12-volt power outlets in the cab, adjacent to the officer		$273.00			
18		Add one 12-volt 20-amp terminal strip in cab, behind officer's seat		$122.00			
19		Add antenna mount centered on cab roof		$124.00			
20							
21		Add Kussmaul Autocharge 1200 with charge indicator and 20-amp Kussmaul Auto-eject on side of cab		$2,229.00			
22		Upgrade front directional lights, clearance lights, DOT lights, and rear stop tail and backup lights to LED		$1,674.00			
23		Upgrade underbody NFPA perimeter lights to LED		$112.00			
24		Install two Whelen PCP2 LED telescoping lights on the back of the cab with switching in the cab and on the pump panel for each light		$5,196.00			
25		Install one Whelen PCP2 light on the front visor of the cab with swiithing for the light in the cab		$1,818.00			
26		Delete rear halogen deck lights and replace with LED strip lighting in the hosebed and two rear body LED scene lights for NFPA required hose loading lights		$837.00			
27		Decrease water tank size from 750 to 500 gallons	($1,289.00)				
28		Increase body length from 136" to 152" and increase depth of compartments to 24" deep from top to bottom. This also allows for ladder storage in the upper part of the passenger's side compartments and an extended rear tailboard		$15,866.00			
29		Upgrade all body compartment lighting from incandescent to dual LED strip lighting		$1,312.00			
30		Add hard suction hose storage troughs one each side above the compartments		$1,303.00			
31		Move DEF tank location to below fuel fill and add three double SCBA air bottle storage compartments in body fender panels.		$3,183.00			
32		Upgrade packing on midship pump to mechanical seal		$809.00			
33		Change pressure governor on pump from Class 1 to FRC		NC			
34		Add 2.5" gated pump inlet to passenger's side pump panel		$1,154.00			
35							
36		Add front 1.5" discharge with swivle elbow at front bumper, with 2" plumbing.		$2,222.00			

37		Upgrade crosslay restraints from elastic nettting to nylon webbing with hinged aluminum diamonplate cover on top.		$559.00			
38		Add air horn control at pump operator's panel		$169.00			
39		Change electronic siren from Code 3 to Whelen	($31.00)				
40		Delete lanyard control and add push button for passenger's side air horn controls		$105.00			
41		Provide and install Federal Q2B on front bumper with control switches and brake in cab.		$3,627.00			
42		Upgrade the lightbar to a Whelen FN77QLED		$2,153.00			
43		Upgrade all front, side, and rear zone lower NFPA warning lights to Whelen M6 series lights.		$904.00			
44		Delete 6" by 15' soft suction hose from the order	($884.00)				
45		Add shelf tracking and 10 adjustable shelves to the apparatus body, location TBD		$2,696.00			
46		Add three floor mounted roll-out trays, rated at 500# each, location TBD.		$2,315.00			
47		Replace air inlet on side of cab with air inlet/outlet with shut off valve		$247.00			
48		Add stirrup steps with grip-strut surface below all four cab entry doors.		$996.00			
49		Increase quantity of hosebed dividers from one to two		$746.00			
50		Provide and install storage for two backboards above the pump compartment. Storage area will have an access door each side.		$1,465.00			
51							
52		Upgrade front and rear wheels to Alco aluminum for increased service life and maintenance reduction		$3,621.00			
53		Change upper rear NFPA rotators from Whelen RB6 to L31 LED beacons		$734.00			
54		Provide two tone paint on apparatus cab with shield on front for lettering		$3,264.00			
55		Change standard 10" stripe to a 2-4-2 reflective stripe to match customer fleet, with jog in striping.		$641.00			
56		Install diamond grade chevron striping on front bumper		$256.00			
57		Provide and install 80 3" reflective letters on apparatus cab		$791.00			
58							
59		Provide and install a pair of 10" reflective Star of Life decals		$296.00			
60		Provide and install a pair of 20" reflective maltese crosses to match fire department design		$632.00			
61		Delete 24', 14' and 10' ladders from order	($1,205.00)				
62		320 amp alternator		Included			
63		12" tailboard extension		Included			
64		Trident air primer		Included			
65		Folding steps on front of body		$596.00			
66		Move front outlet to top of bumper extension		N/C			
67		Move officer's side air horn, Q2B, and siren switches to dashboard area		Included			
68		Add two cupholders in forward cab area		$120.00			
69		Hard copy of service manuals		N/C			
70		OEM Part numbers and listing for common service items		N/C			
71		Inspection trips to the factory		N/C			
		Labor to install customer furnished equipment		$2,499.00			
			($3,409.00)	$361,295.00			

TOTAL CHANGES MADE TO ORDER	**$357,886.00**

September 11, 2014

SALES ORGANIZATION:	Ten-8 - Robert
LESSEE:	City of Ormond Beach
TYPE OF EQUIPMENT:	Pierce Saber Pumper
EQUIPMENT COST:	$357,886.00 less discounts of $14,281.00 = $343,605.00
CUSTOMER DOWNPAYMENT:	$0.00
TRADE-IN:	$0.00
DELIVERY TIME:	Std delivery
PAYMENT MODE:	Annual In Arrears
FIRST PAYMENT DUE DATE:	1 Year After Lease Commencement
LEASE COMMENCEMENT DATE:	Upon contract signing with Pierce

Term	Number of Payments	Payment Amount
5 years	5 annual	$74,702.48

The above listed payment(s) reflect all program discounts available exclusively through Oshkosh Capital. There are no closing costs or documentation fees associated with the completion of this financing.

NOTE: All lease documents must be fully executed within 14 days of the date of this proposal. Failure to receive completed documents may alter the final payment schedule due to changes in rates and/or discounts.

PERFORMANCE BOND: To utilize the prepay program, a performance bond is required. Said performance bond shall be paid for directly to Pierce manufacturing or financed by Oshkosh Capital as part of the transaction

TYPE OF FINANCING: Tax-exempt Lease Purchase Agreement with a $1.00 buy out option at end of lease term. Said agreement shall be a net lease arrangement whereby lessee is responsible for all costs of operation, maintenance, insurance, and taxes.

BANK QUALIFICATION: This proposal assumes that the lessee will not be issuing more than $10 million in tax-exempt debt this calendar year. Furthermore, it is assumed that the lessee will designate this issue as a qualified tax-exempt obligation per the tax act of 1986.

LEGAL TITLE: Legal title to the equipment during the lease term shall vest in the lessee, with Oshkosh Capital perfecting a first security interest

AUTHORIZED SIGNORS: The lessee's governing board shall provide Oshkosh Capital with its resolution or ordinance authorizing this agreement and shall designate the individual(s) to execute all necessary documents used therein.

LEGAL OPINION: The lessee's counsel shall furnish Oshkosh Capital with an opinion covering this transaction and the documents used herein. This opinion shall be in a form and substance satisfactory to Oshkosh Capital.

VOLUNTEER FIRE DEPARTMENTS: If Lessee is a Volunteer Fire Department, a public hearing under the requirements of Section 147(f) of the Internal Revenue Code of 1986 shall be conducted to authorize this transaction. It is recommended that a notice of the public hearing be published 10 to 14 days in advance of the public hearing.

This proposal will be valid for fourteen (14) days from the above date and is subject to final credit approval by Oshkosh Capital and approval of the lease documents in Oshkosh Capital's sole discretion. To render a credit decision, lessee shall provide Oshkosh Capital with their most recent two years' audited financial statements, copy of their most recent interim financial statement, and current budget.

Accepted by:

Lessee Date

Proposal submitted by:

Kim Simon

Kim Simon

Kim.Simon@oshkoshcapital.com

Oshkosh Capital | LocB3-B230-05-07 | 155 East Broad St | Columbus, OH 43215 | Ph: (800) 820-9041, ext. 1 | Fax: (800) 678-0602

WATER AND WASTEWATER IMPROVEMENTS

CAPITAL PROJECT DETAIL

PROJECT TITLE

WTP Lime Slaker Unit Replacement

PROJECT#

409207

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Utilities or Engineering

PROJECT SCOPE

Replacement of Lime Slaker Units (2 Each)

JUSTIFICATION

The original cost to furnish and install the paste lime slaker units in 2006 was $923,000. The lime slaker equipment provides the mechanical process for processing and mixing bulk lime with water to form a slurry material for injection into the claricone units to remove raw water hardness via settling. Products of the lime slurry injection process include water with decreased hardness for further processing by buffering, filtration and disinfection. Settled lime sludge is thickened and dewatered via centrifuge process, transported and disposed offsite. The units are rigorously operated 24 hours per day to provide production and feed of paste lime for primary hardness removal associated with the plants lime softening process. The existing units were overhauled in 2014 and are again showing signs of age and wear. Current period models are more cost effective and are made with corrosion resistant materials for longer life.

PROJECT COST METHODOLOGY

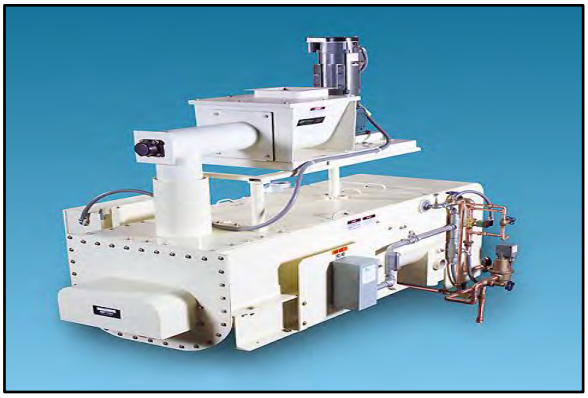
Quotations received for estimated costs and comprehensive probable cost sheet prepared

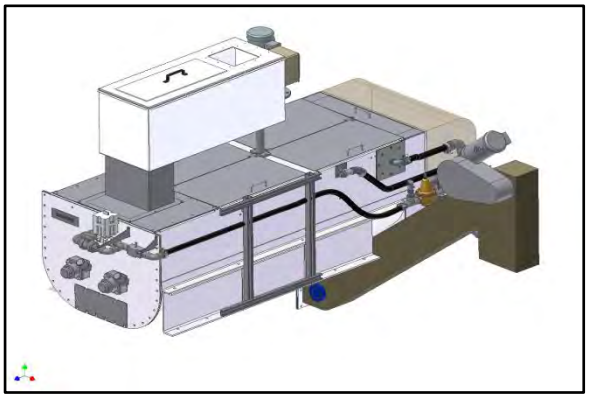
EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Design Services	35,000	0	0	0	0	35,000
Construction Services	0	350,000	0	0	0	350,000
Total	35,000	350,000	0	0	0	385,000

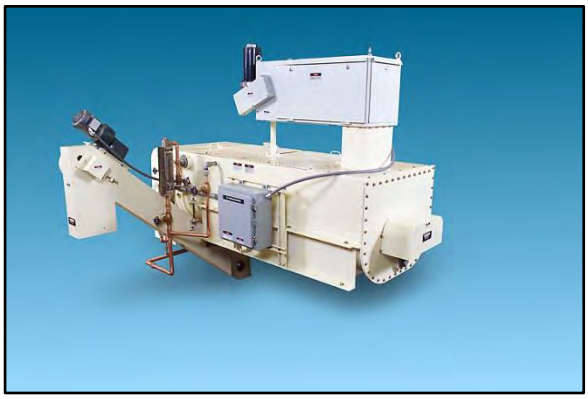
REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Water & Sewer Charges	35,000	350,000	0	0	0	385,000
Total	35,000	350,000	0	0	0	385,000

COST PROPOSAL

LIME SLAKING SYSTEMS
FOR
CITY OF ORMOND BEACH, FL







IMS File No.: D14-024

Prepared on: August 1, 2014

SALES REPRESENTATIVE

Rich Bulgrin

Water Treatment & Controls, Inc.

9900A North Palafox Street

Pensacola, FL 32534

Tel: (352) 267-3225

Email: rich.bulgrin@gmail.com

13135 DANIELSON STREET, SUITE 204 POWAY, CA 92064 PHONE: (858) 486-1620 FAX: (858) 486-1659 WWW.INTEGRITYMS.NET

TABLE OF CONTENTS

Cover Letter

Equipment Selection Sheet

Section 1: Commercial Proposal and Order

Section 2: General Arrangement Selection, Drawing, and Brochures

IMPORTANT NOTICE: All the information in this Proposal is confidential and has been prepared for Buyer's use solely in considering the purchase of the Equipment described. Transmission of all or any part of this Proposal to others or use by Buyer for other purposes is unauthorized without Seller's advance written consent.

August 1, 2014

Mr. Ron Burk
City of Ormond Beach Florida
501 N Orchard Street
Ormond Beach 32174
Phone: (386) 676-3368

RE: City of Ormond Beach, FL
Lime Slaking Systems

Dear Ron,

Thank you for your interest in Integrity Municipal Systems, LLC (IMS).

Per the request of our representative, Mr. Rich Bulgrin at Water Treatment & Controls, we have prepared this cost proposal for providing two (2) Lime Slaking Systems for the City of Ormond Beach, FL. Our proposal is based on the following design criteria:

Design Criteria

Quicklime Feed Rate, lb/hr	1,000
Slaker Maximum Capacity, lb/hr	1,000
Maximum Output Lime Slurry Concentration, %	18%

Our lime slaking system is a packaged system. It consists of a lime feeder, lime slaker, grit remover, piping, valves, instrumentation and controls to make a complete and functional system.

The IMS A-758 Lime Slaker System incorporates many features and advantages, including:

- Economical, consistent and reliable on-site slaking
- Proven track record with 40 years of experience
- Easy to install
- Tested at the factory
- Robust construction
- Superior paste slaking process (2:1 water to lime ratio)
- Faster slaking (5 minutes)
- More reactive lime slurry
- Compact size
- External heat source not required
- Saves water, heat and power
- Completely automatic system
- Flexible configurations
- Flexible controls

13135 DANIELSON STREET, SUITE 204 POWAY, CA 92064 PHONE: (858) 486-1620 FAX: (858) 486-1659 WWW.INTEGRITYMS.NET

We have attached our commercial proposal in Section 1 and equipment catalog and brochures in Section 2.

We look forward to working with you on this project. If we can be of any further assistance, please do not hesitate to contact our sales representative, Rich Bulgrin at Water Treatment & Controls, Inc. at (352) 267-3225.

Thank you.

Sincerely,

Carlos Assuncao
Director of Business Development

Cc: Khaled Roueiheb; IMS
Rich Bulgrin; WTC

13135 DANIELSON STREET, SUITE 204 POWAY, CA 92064 PHONE: (858) 486-1620 FAX: (858) 486-1659 WWW.INTEGRITYMS.NET

EQUIPMENT SELECTION SHEET

FEEDER ACCESSORIES	
Inlet Rotary Valve	☐
Inlet Flexible Connector	☒
FEEDER TYPE	
Volumetric Screw (32-300SP)	☒
Volumetric Belt (32-215)	☐
Gravimetric Belt (31-165)	☐
No Feeder	☐
SLAKER CAPACITY (MAX.)	
Slaker Capacity (500 lb/hr)	☐
Slaker Capacity (1000 lb/hr)	☒
Slaker Capacity (2000 lb/hr)	☐
Slaker Capacity (4000 lb/hr)	☐
Slaker Capacity (8000 lb/hr)	☐
SLAKER MATERIAL OF CONSTRUCTION	
Painted Steel Construction	☐
304SS Construction	☐
316SS Construction	☒
GRIT REMOVER TYPE	
Conveyor	☒
Screen	☐
Screen with High Slurry Concentration (Booster Pump)	☐
GRIT REMOVER MATERIAL OF CONSTRUCTION	
Painted Steel Construction	☐
304SS Construction	☐
316SS Construction	☒
WATER VALVE	
Mechanical	☒
Electronic	☐
POWER SUPPLY	
480V, 3ph, 60Hz	☒
230V, 3 ph, 60Hz	☐
120V, 1 ph, 60Hz	☐
230V, 1ph, 60Hz	☐
CONTROL PANEL	
Mounted on Slaker	☐
Remote-Mounted	☒
Relay Logic Based	☒
PLC Based	☐

SECTION 1

COMMERCIAL PROPOSAL

Proposal D14-024

Date: August 1, 2014

ORDER

The undersigned authorized representative of the below named purchaser ("Buyer") hereby orders the Equipment described in the accompanying Seller's Documentation on the terms and conditions specified therein.

Buyer: _____

Signed by:_____

Print Name: _____

Print Title: _____

All orders are subject to prior acceptance by Integrity Municipal Systems, LLC at its offices in Poway, CA.

SCOPE OF WORK BY INTEGRITY MUNICIPAL SYSTEMS, LLC ("SELLER")

The following equipment and services are included in Seller's scope of work. All equipment will be manufactured in accordance with Seller's standard equipment specifications and installed in a non-hazardous area. Please see attached equipment general arrangement drawing for illustration and reference.

No.	Item Description	Qty.
1.	**Inlet Flexible Connection, Canvas**	2
2.	**Series 32-300SP Volumetric Screw Feeder – 1,000 PPH Capacity** including**:** a) Painted Steel Housing Construction b) 1 HP Motor- 0-180VDC TENV, Tachometer c) SCR Drive Control Panel (In Junction Box) d) 2" Feed Screw, Feed Tube, Trough Cover, Stand & Mounting Hardware e) Feeder Support Posts and Discharge Connection	2
3.	**Series A-758 Lime Paste Slaker, 1,000 PPH Capacity**, including: a) 316SS Trough b) 1/2 HP Paddle Shaft Motor – 230/460V, 3 ph, 60 Hz c) Mechanical Torque Operated Water Valve d) Vapor & Dust Arrestor e) Water Supply Piping (IMS Standard) f) Water Pressure Reducing Valve, Water Strainer, Pressure Gauge, Water Low Pressure Switch g) Solenoid Valve for Auto Batch and Adapter h) Slaker delivers up to 18% Lime Slurry Concentration i) Unit is shipped pre-Wired/pre-Piped, Assembled and Tested at the Factory	2
4.	**Conveyor Type Grit Remover for 1,000 PPH Capacity**, including: a) 316SS Material of construction b) 1/4 HP Grit Remover Motor – 230/460V, 3 ph, 60 Hz, TENV & Gearbox c) Grit Remover Attachments, Grit Remover Rotameter, Parts and Piping for 18% Lime Slurry Concentration d) Grit Remover Support	2
5.	**Standard Control Panel for Slaker, Grit Remover & Feeder**, including: a) Nema 4X Enclosure – 316SS (Remote-Mounted) b) Feed-Rate Control & Readout Meter, Switches, Lights, Disconnect Switch c) Control Circuit Transformer for 460V, 3 ph, 60Hz Power Input d) Conduit and Parts for Grit Conveyor, Junction Box, Feeder e) Audible Alarm Mounted To Control Panel	2
6.	**Junction Box for Remote Mounting of Control Panel- 316SS**	2

7.	**Manufacturer's Services for Installation Inspection, System Start-Up and Operator Training (3 Days at the Jobsite)**	Included
8.	**Design Submittal and Operation and Maintenance Manuals**	Included
9.	**F.O.B Factory with Full Freight Allowed to Jobsite (City of Ormond Beach, FL)**	Included
	EQUIPMENT PRICE [ITEMS 1-9]	**$300,000**

SCOPE OF WORK BY BUYER

1. Equipment unloading and installation
2. All civil works and concrete pad for equipment including anchor bolts supply
3. Electrical power to slaker control panel (480V/3 ph/60Hz)
4. All overflow drain piping from slaker to plant drain
5. Remote installation of control panel and interconnecting wiring from remote-mounted control panel to junction box, etc.
6. All electrical conduit, wiring, electrical material, etc. from control panel to plant SCADA, etc.
7. Process signal and wiring from process for feeder operation
8. Quicklime supply equipment to feeder inlet
9. Vent piping from vapor & dust arrestor connection onwards (3")
10. Lime slurry discharge piping from slaker connection to process (2")
11. 1 ½" water supply piping to water connection- **18 gpm at 75 psi**
12. Room ventilation, air conditioning, or lighting
13. Any items not explicitly listed under Integrity Municipal Systems, LLC's scope of work

SHIPPING INFORMATION

Estimated Shipping Weight: 2,400 lbs. per system

FIELD SERVICES

Should additional services be required for work beyond Seller's Scope of Work, Buyer may purchase such services from Seller at a standard rate of $1,500 per eight (8) hour day, plus expenses.

WARRANTY TERM

The Warranty Period is one (1) year from Equipment acceptance or 18 months from shipment, whichever occurs first, and is subject to the Standard Terms of Sale included with this Proposal.

TAXES

Seller's Proposal does not include any sales, use, federal, state, local, excise, or other similar taxes or duties unless expressly stated in this quotation. All applicable taxes shall be paid by Buyer. Upon acceptance of an order by Seller, Buyer shall provide a resale certificate or tax exemption certificate, whichever is applicable, to Seller.

PAYMENT TERMS
Subject to prior credit approval, the terms of payment are:

20% upon submittal approval, Net 30 days
75% upon equipment shipment (or offer to ship), Net 30 days
5% upon beneficial occupancy, or 120 days after shipment, whichever occurs first

PROPOSAL VALIDITY
Seller's Cost Proposal dated August 1, 2014 is valid until October 31, 2014. The stated price is predicated on shipment no later than October 31, 2015. In the event Buyer desires to extend the delivery date or the Warranty Period beyond the time period set forth in this Proposal, Seller can offer extended terms for an additional charge which will be provided upon request.

SCHEDULE
As part of any binding Agreement that results from this proposal, Seller and Buyer shall mutually agree upon a production and delivery schedule (not to exceed the outside delivery date stated above). Our normal lead time for this type of equipment is:

Design Submittal:	4 weeks after receipt of a fully executed purchase order
Equipment Shipment:	12 weeks after seller's written receipt of submittal approval and release for fabrication.

TERMS & CONDITIONS
NOTE 1: Seller's Standard Terms of Sale, attached to this Proposal and incorporated herein by this reference, will apply to any order resulting from this Proposal and are factored into the purchase price set forth in this Proposal.

STANDARD TERMS OF SALE

1. Applicable Terms. These terms govern the purchase and sale of the equipment and related services, if any (collectively, "Equipment"), referred to in Seller's quotation, proposal or acknowledgment, as the case may be ("Seller's Documentation"). These terms together with Seller's Documentation comprise the complete and exclusive agreement between the parties (the "Agreement"). The Agreement may only be modified by a written instrument signed by authorized representatives of both parties. Any additional, different or conflicting terms contained in Buyer's request for proposal, specifications, purchase order or in any other written or oral communication from Buyer are hereby rejected by Seller and shall not be binding in any way on Seller.

2. Price and Payment. Buyer shall pay Seller the full purchase price as set forth in Seller's Documentation. Unless Seller's Documentation provides otherwise, freight, storage, insurance and all taxes, duties or other governmental charges relating to the Equipment shall be paid by Buyer. If Seller is required to pay any such charges, the amount so paid shall become immediately due and payable to Seller by Buyer. Unless otherwise stated in Seller's Documentation, all payments are due within 30 days after receipt of invoice. Buyer shall be charged 1½% interest per month on all amounts not received by the due date and shall pay all of Seller's costs (including attorneys' fees) of collecting amounts due but unpaid. If Buyer fails to make any payment when due, Seller may, without advance notice, terminate this order without liability; or condition such order on such modifications to the terms of payment as Seller, in its discretion, deems appropriate. In such case, Seller may also, in its discretion, withhold further manufacture or shipment; require immediate cash payments for past and future shipments; or require other security satisfactory to Seller before further manufacture or shipment is made.

3. Delivery. Delivery of the Equipment shall be in material compliance with the schedule in Seller's Documentation. Unless Seller's Documentation provides otherwise, delivery terms are F.O.B. Seller's facility. Risk of loss shall transfer to the Buyer upon tender of goods to Buyer, Buyer's representative, or common carrier. Claims for damage, shortage or errors in shipping must be reported within two business days following delivery to Buyer. Buyer shall have one business day from the date Seller completes start-up of the Equipment to inspect such Equipment for defects and nonconformance which are not due to damage, shortage or errors in shipping, and notify Seller, in writing, of any defects, nonconformance or rejection of such Equipment. After such one business day period, Buyer shall be deemed to have irrevocably accepted the Equipment, if not previously accepted. After such acceptance, Buyer shall have no right to reject the Equipment for any reason or to revoke acceptance.

4. Ownership of Materials. All devices, designs (including drawings, plans and specifications), estimates, prices, notes, electronic data and other documents or information prepared or disclosed by Seller, and all related intellectual property rights, shall remain Seller's property. Seller grants Buyer a non-exclusive, non-transferable license to use any such material solely in connection with Buyer's use of the Equipment. Buyer shall not disclose any such material to third parties without Seller's prior written consent.

5. Changes. Seller shall not implement any changes in the scope of work described in Seller's Documentation unless Buyer and Seller agree in writing to the details of the change and any resulting price, schedule or other contractual modifications. This includes any changes necessitated by a change in applicable law occurring after the effective date of the Agreement.

6. Warranty. Seller warrants to Buyer that during the period that ends18 months from delivery or one year from acceptance, whichever occurs first (the "Warranty Period"), the Equipment shall materially conform to the specifications set forth in Seller's Documentation and shall be free from defects in material and workmanship. If Buyer gives Seller prompt written notice of breach of this warranty within the Warranty Period, Seller shall, at its sole option and as Buyer's sole and exclusive remedy, repair or replace the Equipment or any non-conforming parts thereof. If Seller determines that any claimed breach is not, in fact, covered by this warranty, Buyer shall pay Seller's then customary charges for any repair or replacement made by Seller. The warranty on repaired or replaced Equipment or parts is limited to the remainder of the Warranty Period. The foregoing warranty shall not apply to any Equipment or part thereof (x) that is (a) not operated and maintained in accordance with Seller's instructions, (b) damaged as a result of any unauthorized repairs or alterations, (c) damaged by chemical action or abrasive material, misuse, (d) damaged by improper installation (unless installed by Seller), and (e) specified or otherwise demanded by Buyer and is not manufactured or selected by Seller, as to which Seller hereby assigns to Buyer, to the extent assignable, any warranties made to Seller; and (y) if Buyer is in default of any payment obligation to Seller under this Agreement. Seller's warranty does not cover any adsorbing media or other consumables used in the Equipment, regardless of whether such media or consumables were supplied by Seller. THE WARRANTIES SET FORTH IN THIS SECTION ARE SELLER'S SOLE AND EXCLUSIVE WARRANTIES AND ARE SUBJECT TO SECTION 9 BELOW. SELLER MAKES NO OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. The warranty set forth herein, subject to any limitations set forth elsewhere in Seller's Documentation, shall be transferable during the Warranty Period to the initial end-user of the Product.

7. Force Majeure. Neither Seller nor Buyer shall have any liability for any breach (except for breach of payment obligations) caused by extreme weather or other act of God, strike or other labor shortage or disturbance, fire, accident, war or civil disturbance, delay of carriers, failure of normal sources of supply, act of government or any other cause beyond such party's reasonable control.

8. Cancellation. If Buyer cancels or suspends its order for any reason other than Seller's breach, Buyer shall promptly pay Seller for work performed prior to cancellation or suspension and any other direct costs incurred by Seller as a result of such cancellation or suspension.

9. LIMITATION OF LIABILITY. NOTWITHSTANDING ANYTHING ELSE TO THE CONTRARY, SELLER SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, PUNITIVE OR OTHER INDIRECT DAMAGES, AND SELLER'S TOTAL LIABILITY ARISING AT ANY TIME FROM THE SALE OR USE OF THE EQUIPMENT OR PARTS SHALL NOT EXCEED TEN PERCENT (10%) OF THE PURCHASE PRICE PAID UNDER THIS AGREEMENT. THESE LIMITATIONS APPLY WHETHER THE LIABILITY IS BASED ON CONTRACT, TORT, STRICT LIABILITY, OR ANY OTHER THEORY. THE REMEDIES SET FORTH IN THIS AGREEMENT ARE INTENDED TO CONSTITUTE A COMPLETE ALLOCATION OF THE RISKS BETWEEN THE PARTIES AND LIMITS THE REMEDIES THAT MIGHT OTHERWISE BE AVAILABLE. BECAUSE THIS AGREEMENT AND THE PRICE PAID REFLECT SUCH ALLOCATION, THE REMEDIES PROVIDED TO BUYER HEREUNDER WILL NOT HAVE FAILED OF THEIR ESSENTIAL PURPOSE EVEN IF THEY OPERATE TO BAR RECOVERY FOR CERTAIN DAMAGES THAT BUYER MAY INCUR.

10. Set-off and Backcharges. Buyer will not be entitled to set-off any amounts due Buyer against any amount due Seller from Buyer. Seller will not be responsible for any backcharges unless approved in writing in advance by an authorized representative of Seller. Any request for backcharges must be submitted by Buyer to Seller at least three business days prior to the date on which Buyer desires to assess such backcharge to enable Seller to conduct a site visit or to conduct such other investigation as it deems reasonably appropriate.

11. Export Compliance: Buyer acknowledges that Seller is required to comply with applicable export laws and regulations relating to the sale, exportation, transfer, assignment, disposal and usage of the Equipment provided under this Agreement, including any export license requirements. Buyer agrees that such Equipment shall not at any time directly or indirectly be used, exported, sold, transferred, assigned or otherwise disposed of in a manner which will result in non-compliance with such applicable export laws and regulations.

12. Miscellaneous. If these terms are issued in connection with a government contract, they shall be deemed to include those federal acquisition regulations that are required by law to be included. If any provision of the Agreement is held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions thereof will not in any way be affected or impaired, and such provision will be deemed to be restated to reflect the original intentions of the parties as nearly as possible in accordance with applicable law. Buyer may not assign or permit any other transfer of the Agreement without Seller's prior written consent. The Agreement shall be governed by the laws of the State of California without regard to its conflict of law provisions. The application of the United Nations Convention on Contracts for the International Sale of Goods is specifically disclaimed and excluded.

CITY COUNCIL AGENDA ITEM

REQUESTED COUNCIL MEETING DATE- 6/26/12

Consent item: yes ☒ no ☐

SUBJECT: Award of Bid No. B12-28 Replacement of Lime Slakers at Water Treatment Plant

DEPARTMENT: Public Utilities

RECOMMENDED MOTION: To award Bid No. B012-28 Replacement of Lime Slakers to Siemens Industry Inc., Water Technologies Business Unit in an amount of $412,000 and to authorize the Mayor and City Manager to sign and execute all required contract documents, subject to City Attorney approval of the contract documents.

SUMMARY: In FY 2011-12, the Garnsey Water Treatment facility (3) lime slakers have been programmed for replacement. The stainless steel slakers are expected to have minimum useful life of 20 years. The total estimated cost of the equipment and installation is estimated to be approximately $480,000. Based on the equipment specifications in the bid, two companies have submitted formal bids as follows:

Merrick Industries, Inc.	$ 297,877
Siemens Industry Inc., Water Technologies	$ 412,000

In evaluating the (2) proposals, staff considered several key operational issues in addition to initial acquisition costs. Because the lime slaking process is such a crucial part of the overall water treatment process, producing over 2.1 billion gallons of drinking water annually to an estimated population of 70,000 people, one major concern pertained to the electronic features of the Merrick slakers which were deemed unnecessary and more vulnerable to interrupted operations resulting from potential lightning strikes or electrical surges. A second factor related to the collective knowledge and experience the maintenance staff possesses in maintaining and refurbishing the Wallace & Tiernan (W&T) slakers, manufactured by Siemens. Moreover, the existing inventory of replacement parts currently on hand can be used for the new W&T equipment.

Despite the monetary cost variance between the initial bids, the Public Utilities water treatment operations and engineering staff considers the "qualitative aspects" of operational reliability and proven performance of the Siemens Wallace and Tiernan slakers as significant factors. Staff further concludes the additional up front cost, when factored over a 20 year period (less than $2,000/unit per year), is well worth the investment for ensuring continuous lime slaking operations and uninterrupted service to our customers.

Upon review of the bid documents and slaker equipment proposals, it has been determined that Siemens Industry Inc. is the most responsive, responsible bidder. Staff therefore respectfully recommends Council award the purchase of (3) stainless steel lime slakers to Siemens Industry Inc., Water Technologies.

Project No. WWP003 (Water Plant Improvements) Funding Account No.: 403-0200-533-6397

ATTACHMENTS: ☐ **Budget Resolution** ☐ **Ordinance/Resolution**

☒ **Support Documents (contract, agreement, etc.)** ☒ **Other**

DEPARTMENT HEAD: Fred Griffith **Submitted** **Fred W. Griffith, P.E.** Fred W. Griffith **Date** 6/8/12

FINANCE DEPARTMENT: **Approved as to Budget Requirements** **Date** 6/8/12

CITY MANAGER: for John C. Shelley **Approved Agenda Item for:** 6.26.12

CITY ATTORNEY: **Approved as to Form and Legality** **Date** 6.21.12

COUNCIL ACTION: ☐ **Approved as Recommended** ☐ **Disapproved** ☐ **Tabled Indefinitely**

☐ **Continued to Date Certain** _____ **(date)** ☐ **Approved with following modification:**

Follow up letter/action to be taken by: ☐ **Department** ☐ **Clerk's office or** ☐ **N/A**

CAPITAL PROJECT DETAIL

PROJECT TITLE

WTP Sodium Hypochlorite Generator Replacement

PROJECT#

409208

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Utilities - Engineering

PROJECT SCOPE

Replace existing sodium hypochlorite generation units at water plant.

JUSTIFICATION

The original sodium hypochlorite generation units were installed in 2007 along with the LPRO plant improvements. The sodium hypochlorite equipment provides the electro/ mechanical process for converting solar salt and water brine mixture to a 1% chlorine bleach product used for finished water disinfection The units are rigorously operated and serve the disinfection process for both the lime and low pressure reverse osmosis and finished water needs. The existing units have been partially overhauled by vendors and in-house staff over the years. New generator skids along with miscellaneous equipment and minor electrical modifications are necessary.

PROJECT COST METHODOLOGY

Quotations received for estimated costs and comprehensive probable cost sheet prepared

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Design Services	18,000	0	0	0	0	18,000
Construction Services	0	180,000	0	0	0	180,000
Total	18,000	180,000	0	0	0	198,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Water & Sewer Charges	18,000	180,000	0	0	0	198,000
Total	18,000	180,000	0	0	0	198,000

SEVERN TRENT SERVICES

QUOTATION

2/4/2015

Quote #: QS00234

Att: Charles George

Company: ORMOND BEACH WTP
Address_1: 298 Tomoka Ave
Address_2:
Address_3:

City: Ormond Beach
State: FL
ZIP Code: 32174-
Country: USA

Phone: (386) 676-3249
Fax:
Email: George@ormondbeach.org

Project #:
Project Desc.: Service

System Size: CT 900 x2
Site: Ormond Beach WTP

Line #	Part #	Description	QTY	Price Each	Price Extended
1	CT6-0750E-1	CT 750 Cell Assembly includes, level switch, temp switch, cable connectors and connector boots.	2	$58,000.00	$116,000.00
2	5400-067	Lugs for cables	8	$76.98	$615.84
3		Hardware for lugs	32	$6.00	$192.00
4	5604-099	Gems flow sensors	4	$320.00	$1,280.00
5	8000-019	Rotor meter 0-10 gpm hastelloy float 3/4" npt. Water	4	$283.00	$1,132.00

Terms: Net 30 Days
Quote is valid for 30 days
This Quote does not include Shipping Tax, Mileage and Mileage surcharge, it will be billed separately
Price in US Dollars

Prepared By: Dave McWalters
Remit to:
Accepted By: _____
PO #: _____
Date: _____

Severn Trent Water Purification Inc.
1110 Industrial Blvd Sugarland Texas 77083 United States
T: +1 281 274-8443 F: +1 281 274-8492
www.severntrentservices.com

SEVERN TRENT SERVICES

QUOTATION

2/4/2015

Quote #: QS00234

Att: Charles George

Company: ORMOND BEACH WTP
Address_1: 298 Tomoka Ave
Address_2:
Address_3:

City: Ormond Beach
State: FL
ZIP Code: 32174-
Country: USA

Phone: (386) 676-3249
Fax:
Email: George@ormondbeach.org

Project #:
Project Desc.: Service

System Size: CT 900 x2
Site: Ormond Beach WTP

6	8000-010A	Roto meter 0.2-2 gpm hastelloy float 1/2" npt. Brine	2	$212.29	$424.58
7	5606-092	Solenoid valve 120vac 3/4" npt.	2	$64.83	$129.66
9		Labor for installation on provided equipment and re-commissioning system.	8	$1,200.00	$9,600.00
10		Materials for plumbing change on output header	1	$1,500.00	$1,500.00
11		Cable 929 MCM for DC power to cells	48	$29.04	$1,393.92
12		Engineering time to update P&ID drawings	6	$150.00	$900.00

Terms: Net 30 Days
Quote is valid for 30 days
This Quote does not include Shipping Tax, Mileage and Mileage surcharge, it will be billed separately
Price in US Dollars

Prepared By: Dave McWalters
Remit to:
Accepted By: _____
PO #: _____
Date: _____

Severn Trent Water Purification Inc.
1110 Industrial Blvd Sugarland Texas 77083 United States
T: +1 281 274-8443 F: +1 281 274-8492
www.severntrentservices.com

SEVERN TRENT SERVICES

QUOTATION

2/4/2015

Quote #: QS00234

Att: Charles George

Company: ORMOND BEACH WTP
Address_1: 298 Tomoka Ave
Address_2:
Address_3:

City: Ormond Beach
State: FL
ZIP Code: 32174-
Country: USA

Phone: (386) 676-3249
Fax:
Email: George@ormondbeach.org

Project #:
Project Desc.: Service

System Size: CT 900 x2
Site: Ormond Beach WTP

Total:	$133,168.00

Notes Severn Trent terms & conditions apply.
Expenses will be added at final invoice.

Terms: Net 30 Days
Quote is valid for 30 days
This Quote does not include Shipping Tax, Mileage and Mileage surcharge, it will be billed separately
Price in US Dollars

Prepared By: Dave McWalters
Remit to:
Accepted By: _____
PO #: _____
Date: _____

Severn Trent Water Purification Inc.
1110 Industrial Blvd Sugarland Texas 77083 United States
T: +1 281 274-8443 F: +1 281 274-8492
www.severntrentservices.com

CAPITAL PROJECT DETAIL

PROJECT TITLE

WWTP Influent Pump Station VFD Replacement

PROJECT#

409209

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Utilities

PROJECT SCOPE

Replace three (3) each 125 Horsepower Variable Frequency Motor Drives serving Influent Pump Station

JUSTIFICATION

Since installation of the existing Siemens motor drives along with the influent pumping station rehabilitation project in 2009, utilities staff has spent much effort during numerous periods to troubleshoot the existing drives. Most times expensive sole source vendor activities are required to trouble shoot and repair the units. Several new control units and power modules have been purchase from Siemens and the station continues to remain at less than full operational status since the rehabilitation project was completed. Staff desires to assign engineering evaluation and procure more reliable manufacturer motor control units for replacement. The influent pump facility serves the critical need of receiving all incoming sanitary sewer from the City's collection system and repumps same to elevated pre-screening and grit removal systems upstream of the biological process trains at the wastewater treatment facility.

PROJECT COST METHODOLOGY

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Engineering Services	25,000	0	0	0	0	25,000
Construction Services	0	170,000	0	0	0	170,000
Total	25,000	170,000	0	0	0	195,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Water & Sewer Charges	25,000	170,000	0	0	0	195,000
Total	25,000	170,000	0	0	0	195,000

Ponitz, David

Subject: RE: City of Ormond VFD Project

From: Bartle, Jonathan [mailto:Jonathan.Bartle@graybar.com]
Sent: Monday, December 21, 2015 8:10 AM
To: Burk, Ron
Subject: FW: City of Ormond VFD Project

Ron-
Please see below from Joe on the VFD pricing, looks like he gave you two options.
Let me know if you have any questions
Thank you

Jonathan Bartle | Outside Sales Representative
Daytona Beach, FL | Office (386) 555-4002 | jonathan.bartle@graybar.com
www.graybar.com - *Graybar Works to Your Advantage*

From: Kalahar, Joseph
Sent: Thursday, December 17, 2015 9:43 AM
To: Bartle, Jonathan
Subject: City of Ormond VFD Project

Hello Jon, this is the information I have gathered:

125HP ATV61 VFD W/ MATRIX HARMONIC FILTER that fits into existing foot print and includes options that exist on current Siemens unit as best as we could tell with schematics. This unit will dissipate less heat as compared to the 18-pulse. The watt loss for 125hp with Matrix filter is 3,208 watts. The watt loss for the 18 pulse is 5,735 watts. A reasonable budget price for this is $26K to $28k each.

Estimate for the removal of existing, installation of the new and startup/ commissioning.

Basis of the installation estimate:

1. New VFD's fits in the existing space of the removed VFD.
2. Existing Line and Load cables will be used.
3. Work will be done during regular business hours.
4. If permits are required and drawings for permitting are required, add $2,200.00 per VFD.

Estimate..... $14k to $18k per VFD

Thanks,

Joe Kalahar | Business Development Manager
2400 South Division Avenue | Orlando, FL 32805 | Office (407) 835-4518 | joe.kalahar@graybar.com
www.graybar.com - *Works to Your Advantage*

GraybaR

CAPITAL PROJECT DETAIL

PROJECT TITLE

Hydrant Replacement

PROJECT#

409181

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Utilities Division

PROJECT SCOPE

Replacement of approximately one hundred twenty (120) older fire hydrants (30 per annual period) found outdated or improperly configured or in need of repair. Replacement hydrant locations identified by water distribution staff and bid documents prepared for furnish & install by successful contractor. The first phase of this project was initiated in FY 2014-15.

JUSTIFICATION

Continued need for replacement of aged and/ or discontinued distribution system components. Additional components of project include restoration and strategic valve placement activities.

PROJECT COST METHODOLOGY

Itemized Cost Estimate (Typical Budget Format) with recent bid costs for pertinent items utilized.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Hydrant Replacement	161,000	0	0	0	0	161,000
Total	161,000	0	0	0	0	161,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Water & Sewer Charges	161,000	0	0	0	0	161,000
Total	161,000	0	0	0	0	161,000

CAPITAL PROJECT DETAIL

PROJECT TITLE

City-wide Meter Replacement

PROJECT#

409169

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Utility Billing

PROJECT SCOPE

Strategic replacement of all visual and touch read meters.

JUSTIFICATION

Over time, meters become inaccurate or stop completely resulting in inaccurate readings and billings. Meter replacement is recommended after ten years of life. Most of the City's visual and touch read meters are well in excess of their life cycle. This program provides for a comprehensive meter replacement. The first year of the program will focus on replacement of primarily visual read meters in areas which provide the greatest safety concern for meter readers who must walk to each location in order to obtain the readings. Future year programs will focus on areas with visual and touch read meters based on age.

PROJECT COST METHODOLOGY

Estimates provided by current meter supplier.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Meter Replacement	543,000	243,000	247,000	256,000	250,000	1,539,000
Total	543,000	243,000	247,000	256,000	250,000	1,539,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Water & Sewer Charges	543,000	243,000	247,000	256,000	250,000	1,539,000
Total	543,000	243,000	247,000	256,000	250,000	1,539,000

Utilities Division Meter Change Out Program

		FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
Meter Type	**Cost Methodology**	**# of Meters**	**Cost**	**# of Meters**	**Cost**	**# of Meters**	**Cost**	**# of Meters**	**Cost**	**# of Meters**	**Cost**
5/8" VR	$198.00 per meter $35.25 to change out	219	51,082	-	-	-	-	-	-	-	-
5/8" TR	$198.00 per meter $35.25 to change out	1,894	441,776	1,002	233,717	1,027	239,548	1,052	245,379	1,026	239,315
1" VR	$247.00 per meter $35.25 to change out	1	282	-	-	-	-	-	-	-	-
1" TR	$247.00 per meter $35.25 to change out	21	5,927	8	2,258	2	565	11	3,105	12	3,387
Totals		2,135	$ 499,067	1,010	$ 235,975	1,029	$ 240,112	1,063	$ 248,484	1,038	$ 242,702
Contingency 3%	For Miscellaneous Parts		14,972		7,079		7,203		7,455		7,281
Grand Totals		**2,135**	**$ 514,039**	**1,010**	**$ 243,054**	**1,029**	**$ 247,316**	**1,063**	**$ 255,938**	**1,038**	**$ 249,983**

		FY 2021-22		FY 2022-23		FY 2023-24		FY 2024-25	
Meter Type	**Cost Methodology**	**# of Meters**	**Cost**	**# of Meters**	**Cost**	**# of Meters**	**Cost**	**# of Meters**	**Cost**
5/8" VR	$198.00 per meter $35.25 to change out	-	-	-	-	-	-	-	-
5/8" TR	$198.00 per meter $35.25 to change out	996	232,317	1,062	247,712	698	162,809	744	173,538
1" VR	$247.00 per meter $35.25 to change out	-	-	-	-	-	-	-	-
1" TR	$247.00 per meter $35.25 to change out	38	10,260	7	1,890	-	-	4	1,080
Totals		1,034	$ 242,577	1,069	$ 249,602	698	$ 162,809	748	$ 174,618
Contingency 3%	For Miscellaneous Parts		7,277		7,488		9,769		10,477
Grand Totals		**1,034**	**$ 249,854**	**1,069**	**$ 257,090**	**698**	**$ 172,577**	**748**	**$ 185,095**

*Change out cost increased by $3.25 beginning in FY 2016-17
**Contingency increases to 6% in FY 2024-25 due to increase in double boxes needed.

VR = Visual Read Meters
TR = Touch Read Meters

Sunstate Meter & Supply, Inc.
14001 W. Newberry Road, Newberry, FL 32669
"Florida's Leading Distributor of Automated Meter Reading Systems"
Phone: 352.332.7106
Fax: 352.332.5604

November 3, 2015

Mr. Dave Ponitz
Utilities Manager
City of Ormond Beach
P.O. Box 277
Ormond Beach, Fl. 32175-0277
Email: ponitz@ormondbeach.org

RE: CONTRACT PRICING – NEPTUNE WATER METERS 2016

Description	Unit Price
Neptune, 5/8"x3/4" T10 Meter Complete W/R900i Enhanced Register	$198.00
Neptune, 5/8"x3/4" T10 Double Check Backflow Meter Complete W/R900i Enhanced Register	$330.00
Neptune, ¾"x3/4" T10 Meter Complete W/R900i Enhanced Register	$237.50
Neptune, 1" T10 Meter Complete W/R900i Enhanced Register	$247.00
Neptune, 1 ½" T10 Meter Complete W/R900i Enhanced Register	$401.00
Neptune, 2" T10 Meter Complete W/R900i Enhanced Register	$525.00
Neptune, 1 ½" HP Turbine Meter Complete W/R900i Enhanced Register	$601.00
Neptune, 2" HP Turbine Meter Complete W/R900i Enhanced Register	$672.00
Neptune, 3" HP Turbine Meter Complete W/R900i Enhanced Register	$794.00
Neptune, 4" HP Turbine Meter Complete W/R900i Enhanced Register	$1,448.42
Neptune, 6" HP Turbine Meter Complete W/R900i Enhanced Register	$2,606.00
Neptune, 8" HP Turbine Meter Complete W/R900i Enhanced Register	$4,109.00
Neptune, 10" HP Turbine Meter Complete W/R900i Enhanced Register	$5,501.00
Neptune, 2" Tru Flo Compound Meter Complete W/R900i Enhanced Registers	$1,561.00
Neptune, 3" Tru Flo Compound Meter Complete W/R900i Enhanced Registers	$1,793.00
Neptune, 4" Tru Flo Compound Meter Complete W/R900i Enhanced Registers	$2,303.00
Neptune, 6" Tru Flo Compound Meter Complete W/R900i Enhanced Registers	$3,650.00
Neptune, 6"x8" Tru Flo Cmpd Meter Complete W/R900i Enhanced Registers	$5,963.00

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"Florida's Leading Distributor of Automated Meter Reading Systems"
Phone: 352.332.7106
Fax: 352.332.5604

Neptune, 4"x1" HPPIIIS Stainless Steel Fire Service Compound Meter Complete W/R900i Enhanced Registers	$6,294.00
Neptune, 6" x 1 ½" HPPIIIS Stainless Steel Fire Service Compound Meter Complete W/R900i Enhanced Registers	$8,307.00
Neptune, 8" x 2" HPPIIIS Stainless Steel Fire Service Compound Meter Complete W/R900i Enhanced Registers	$10,277.00
Neptune, 10" x 2" HPPIIIS Stainless Steel Fire Service Compound Meter Complete W/R900i Enhanced Registers	$14.093.00
Neptune, 2" Coated Flanged Meter Strainer	$233.00
Neptune, 3" Coated Flanged Meter Strainer	$398.00
Neptune, 4" Coated Flanged Meter Strainer	$510.00
Neptune, 6" Coated Flanged Meter Strainer	$898.00
Neptune, 8" Coated Flanged Meter Strainer	$1,790.00
Neptune, 10" Coated Flanged Meter Strainer	$2,866.00
Neptune, R900 Wired Pit MIU Complete W/Antenna (to convert wired Proread meters to R900 RF read – any size)	$110.00
Neptune, R900 Replacement Pit Coax Antenna Only	$45.00
Neptune, R900i Wireless Enhanced Register (to convert any Neptune meter to R900i "wireless" system – any size)	$167.00
Price Adder – Optional "Reclaimed" Purple Trim & Markings (per register)	$3.00
Neptune, 3" Portable Fire Hydrant Meter Complete W/Direct Read Gallon Register, Hydrant Connections, & Gate Valve	$798.50
Neptune, Proread Register Upgrade to R900i Enhanced Register (Requires trade-in of existing Proread Register)	$127.00
Neptune, Proread Register Wired to R900 MIU Upgrade to R900i Enhanced Register (requires trade-in of existing Proread register and wired MIU)	$107.00
Neptune Trimble 900B Handheld Device	$2,950.00
Neptune Handheld Charging/Communications Cradle	$498.00
Neptune Belt Clip Transceiver	$2,250.00
Neptune MRX R900 Mobile Data Collector	$9,750.00
Neptune R900 Fixed Network Gateway Collector – AC Power	$7,900.00

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Phone: 352.332.7106
Fax: 352.332.5604

Neptune R900 Fixed Network Gateway Collector – Solar Power	$9,900.00
Neptune UPS Backup Power Supply F/AC Collector	$1,500.00
Neptune MX900 4.0 ESRI Mapping Module Upgrade	$750.00

Price Term: 1/1/2016 – 12/31/2016
Freight: Allowed – FOB: City of Ormond Beach
Payment Terms: Net 30 Days – Check or ACH only.

I hope this quotation meets with your approval. If you have any questions, please do not hesitate to contact me.

Respectfully submitted,
Al Ellenburg
Al Ellenburg - President
Sunstate Meter & Supply, Inc.

ARB® UTILITY MANAGEMENT SYSTEMS™

NEPTUNE TECHNOLOGY GROUP

ENHANCED E-CODER®)R900*i*™

INSIDE AND PIT VERSIONS

PROTECT AND EXPAND YOUR TECHNOLOGY INVESTMENTS

Neptune designed the R900® System to make it easy for your utility – installation, everyday use, and expansion for the future without stranded assets. The E-Coder®)R900*i*™ combination absolute encoder register/radio frequency meter interface unit (RF MIU) is a perfect example of all of the above. Not only does it work with past generations of meters and meter reading systems, but seamless integration is built into this single-unit endpoint itself, providing two-way communications of advanced metering data. The E-Coder)R900*i*'s interleaved mobile and high power fixed network messages allow for simple migration from walk-by to mobile to fixed network reading without site visits or reprogramming.

STREAMLINE OPERATIONS AND MANAGE RESOURCES

In addition to eliminating the need for programming, the E-Coder)R900*i* has no external wires, making installation easier, faster, and less costly; plus it reduces potential vandalism or tamper. As with the rest of the R900 System, the design of the unit is intuitive and user-friendly so that minimal training is required for operation. It's designed to help manage time, labor, and other resources. The radio frequency transmission of the E-Coder)R900*i* can save your utility significant amounts of time in terms of both meter reading and billing, and provide flexibility to reallocate personnel to different tasks or departments depending on your changing workforce needs.

DO MORE WITH DETAILED, ACTIONABLE DATA

The types of data your utility can generate through the E-Coder)R900*i* can take you far beyond a simple meter reading for a monthly bill. Hourly consumption profile information over an account's last 96 days, along with alerts for leak or backflow, help to proactively identify and resolve customer issues – heading off high bill complaints, reducing delinquent payments, and eliminating write-offs. Using N_SIGHT™ PLUS host software, your utility can leverage detailed data from the E-Coder)R900*i* to balance water produced versus water consumed, group accounts for District Metered Area analysis, and track and manage Non-Revenue Water. From increasing efficiencies to pinpointing possible tamper or water theft to aiding customer service, the data supplied by the E-Coder)R900*i* can help your utility make better, more confident decisions.

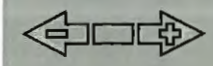
KEY BENEFITS

- Facilitates Migration to AMI
  - *NEW* 1 Watt fixed network message reduces infrastructure costs
  - Interleaved mobile and fixed network messages facilitate migration without changing the "modes" in the MIU
- Reduces Non-Revenue Water
  - Provides leak history/diagnostics
  - Enables proactive leak notification
  - Provides hourly consumption data
  - Improves meter reading accuracy
  - Eliminates estimated reads
- Identifies Potential Theft
  - Tamper detection
  - Reverse flow detection
  - Identifies significant periods of zero consumption
- Simplifies Installation Process
  - Easy to install/no programming required
  - No external wires
  - Reduces labor cost
  - Reduces potential wire vandalism and damage

TECHNICAL SPECIFICATIONS

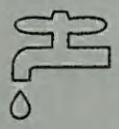
- Electrical Specifications
  - MIU power: Lithium battery with capacitor
- Transmitter Specifications
  - Two-way MIU
  - Transmit period (interleaved mobile and fixed network messages):
    - Standard mobile message every 14 seconds at 100 mW
    - Standard fixed network message every 7½ minutes at 1 Watt
  - FCC verification: Part 15.247:
    - Transmitter channels: 50; frequency-hopping, spread-spectrum
    - Channel frequency: 910 to 920 MHz
  - Encoder register reading interval:
    - Every 15 minutes
  - Data logging interval:
    - 96 days of hourly data

Internal Antenna 1
Optional Antenna Port 2
Solar Panel 3
Date of Manufacture 4
LCD Display 5
T-10® Meter 6



FLOW INDICATOR
Shows the direction of flow through the meter:

ON	Water in use.
OFF	Water not in use.
Flashing	Water is running slowly.
(-)	Reverse flow.
(+)	Forward flow.



LEAK INDICATOR
Displays a possible leak:

OFF	No leak indicated.
Flashing	Intermittent leak indicates that water has been used for at least 50 of the 96 15-minute intervals during a 24-hour period.
On Continuously	Indicates water use for all 96 15-minute intervals during a 24-hour period.

RATE

RATE OF FLOW
Average flow rate is displayed every twelve seconds on LCD display.

LCD DISPLAY
Nine-digit LCD displays the meter reading in billing units of measure: U.S. gallons, cubic feet, Imperial gallons, or cubic metres.

1. E-Coder basic reading/customary 6-digit remote reading
2. Customary sweep hand digits
3. E-CoderPLUS reading (8-digit remote reading)
4. Testing units used for diagnostics
5. Extended reading units
6. Customary billing units

TECHNICAL SPECIFICATIONS

- Environmental Conditions
  - Operating temperature: -22°F to +149°F (-30°C to +65°C)
  - Storage temperature: -40°F to +158°F (-40°C to +70°C)
  - Operating humidity:
    - Inside set - 0 to 95%, condensing
    - Pit set - 100% submersible
- Materials
  - Register housing:
    - Inside set: plastic polycarbonate
    - Pit set: roll-sealed copper shell
  - Lens:
    - Inside set: plastic
    - Pit set: glass
- Antennas
  - Standard internal antenna
  - Optional through-the-lid antenna:
    - 18" Coax
    - 6' Coax
    - 20' Coax

OPTIONS

- Compatibility
  - Available for all sizes and makes of current Neptune meters
  - Handhelds with R900® Belt Clip Transceiver - walk-by RF
  - MRX920™ - mobile RF
  - R900® Gateways - fixed network RF
- Units of Measure: U.S. Gallons, Cubic Feet, Imperial Gallons, Cubic Metres

WARRANTY

- 20 years (10/10); refer to specific Warranty Statement

Neptune Technology Group Inc.
1600 Alabama Highway 229
Tallassee, AL 36078
USA
Tel: (800) 633-8754
Fax: (334) 283-7293

Neptune Technology Group (Canada) Ltd.
7275 West Credit Avenue
Mississauga, Ontario
L5N 5M9
Canada
Tel: (905) 858-4211
Fax: (905) 858-0428

Neptune Technology Group Inc.
Avenida Ejercito Nacional No 418
Piso 12, Despacho 1203
Colonia Polanco V Sección
C.P. 11560
Delegación, Miguel Hidalgo
Mexico D.F.
Tel: (525) 5203-4032 / (525) 5203-6204
(525) 5203-5294
Fax: (525) 5203-6503

NEPTUNE TECHNOLOGY GROUP
neptunetg.com

Neptune engages in ongoing research and development to improve and enhance its products. Therefore, Neptune reserves the right to change product or system specifications without notice.

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Water Meter Replacement Project Phase 4

Legend

- Phase 4 - FY 2016-17
- Corporate Limits
- Ormond Beach
- Ormond by the Sea
- Holly Hill
- Daytona Beach
- Volusia/Flagler County

1" = 2000'

2,000 0 6,000 Feet

Prepared By: City of Ormond Beach G.I.S. Department 04/4/2016

CAPITAL PROJECT DETAIL

PROJECT TITLE

General Facility and System Upgrades

PROJECT#

409187

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Utilities Division

PROJECT SCOPE

An annual allocation to fund a regular maintenance program for the water and wastewater plants and associated systems. Projects include equipment replacement such as remote lift stations, pump station, fermentation basins, post anoxic reactors, recycle pump station, clarifiers, sludge return pump building, filters and chlorine contact tank, chlorine storage, generator and control buildings, the centrifuge structure and safety components such as hand railings, non-skid grating and stairs.

JUSTIFICATION

In order for the City to remain reliable and efficient in the operation and maintenance of its water and wastewater system, a planned schedule of improvements and a commitment to investing in regular system improvements is necessary. Although many critical components in the WWTP were replaced or upgraded with the WWTP Rehabilitation Projects, additional annual periodic maintenance and equipment replacement needs arise and are anticipated due to the aggressive nature of the product treated and the corrosive environment where the plant is located. This budget request contains funding resources for replacement or repair of both the plants and remote collection system equipment and infrastructure.

PROJECT COST METHODOLOGY

Historical expenditures.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
General Facility Upgrades	200,000	200,000	200,000	200,000	200,000	1,000,000
Total	200,000	200,000	200,000	200,000	200,000	1,000,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Water & Sewer Charges	200,000	200,000	200,000	200,000	200,000	1,000,000
Total	200,000	200,000	200,000	200,000	200,000	1,000,000

CAPITAL PROJECT DETAIL

PROJECT TITLE

Water Storage Tank Repairs

PROJECT#

409180

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Utilities Division

PROJECT SCOPE

Tank Inspection, Cleaning and Repairs.

JUSTIFICATION

Future Year Repairs and Maintenance needs to be determined during inspection period. Concrete Ground Storage Tanks (GST) include: 2.5 Million Gallon (MG) Water Treatment Plant (WTP), 1 MG Standish, 3 & 4 MG Reuse Orchard and 750K GST Hunter's Ridge; Steel tanks include 200K Elevated Storage Tank (EST) WTP, 400K EST Breakaway Trails (BAT), 1 MG EST Leeway, 300K & 900K GST BAT

PROJECT COST METHODOLOGY

Previous Contract Pricing and Vendor Quotations Utilized

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Tank Repairs WTP & BAT Elevated Tanks	690,000	0	0	0	0	690,000
Tank Repairs (Standish & Jefferson)	0	80,000	0	0	0	80,000
Design Services (Leeway EST)	0	30,000	0	0	0	30,000
Tank Repairs (Leeway EST)	0	0	400,000	0	0	400,000
Tanks Repairs (Orchard Street 3 & 4 MG)	0	0	0	106,000	0	106,000
DesignServices (BAT GST's)	0	0	0	30,000	0	30,000
Tank Repairs (BAT GST's)	0	0	0	0	200,000	200,000
Total	690,000	110,000	400,000	136,000	200,000	1,536,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Bond Proceeds	690,000	0	0	0	0	690,000
Water & Sewer Charges	0	110,000	400,000	136,000	200,000	846,000
Total	690,000	110,000	400,000	136,000	200,000	1,536,000

5 Recommendations

5.1 Cost to Rehabilitate/Repair Tanks

Total rehabilitation/repair costs for all of the storage tanks are as follows:

Storage Tank	Rehabilitation/Repair Cost
Breakaway Trails Elevated Storage Tank	$359,000
Leeway Elevated Storage Tank	$400,000
Water Treatment Plant Elevated Storage Tank	$325,000
Breakaway Trails (300,000)	$70,000
Breakaway Trails (900,000)	$127,000
Jefferson Street	$45,100
Orchard Street (3 MG)	$49,500
Orchard Street (4 MG)	$57,000
Shadow Crossing	$20,500
Standish	$29,000
Subtotal	$1,482,100
20% General Conditions	$296,420
20% Contingency	$355,704
Total	**$2,134,224**

Recommended rehabilitation and repair as phased projects grouped by severity is as follows:

Storage Tank	Rehabilitation/Repair Cost (Urgent)	Rehabilitation/Repair Cost (Moderate)	Rehabilitation/Repair Cost (Suggested)
Breakaway Trails Elevated Storage Tank	$359,000		
Water Treatment Plant Elevated Storage Tank	$325,000		
Jefferson Street		$45,100	
Leeway Elevated Storage Tank			$400,000
Breakaway Trails (300,000)			$70,000
Breakaway Trails (900,000)			$127,000
Orchard Street (3 MG)			$49,500
Orchard Street (4 MG)			$57,000
Shadow Crossing			$20,500
Standish			$29,000
Subtotal	**$684,000**	**$45,100**	**$753,000**
20% General Conditions	$136,800	$9,020	$150,600
20% Contingency	$164,160	$10,824	$180,720
Total	**$984,960**	**$64,944**	**$1,084,320**

5.2 Cost to Demolish WTP Elevated Tank and Rehabilitate/Repair Other Tanks

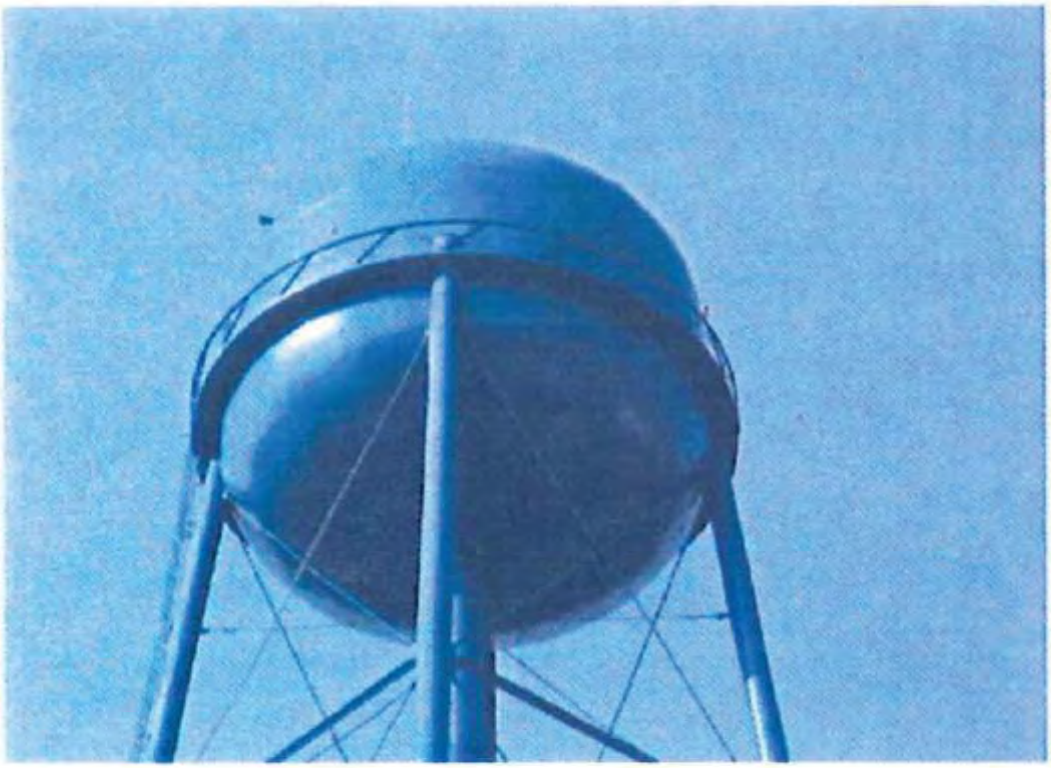
Total costs to demo WTP elevated tank, construct SCADA antenna tower and rehabilitate/repair the other tanks are as follows:

Storage Tank	Rehabilitation/Repair Cost
Breakaway Trails Elevated Storage Tank	$359,000
Leeway Elevated Storage Tank	$400,000
Demolish Water Treatment Plant Elevated Storage Tank	$55,000
Construct 160' SCADA Antenna Tower	$122,000
Breakaway Trails (300,000)	$70,000
Breakaway Trails (900,000)	$127,000
Jefferson Street	$45,100
Orchard Street (3 MG)	$49,500
Orchard Street (4 MG)	$57,000
Shadow Crossing	$20,500
Standish	$29,000
Subtotal	$1,334,100
20% General Conditions	$266,820
20% Contingency	$320,184
Total	**$1,921,104**

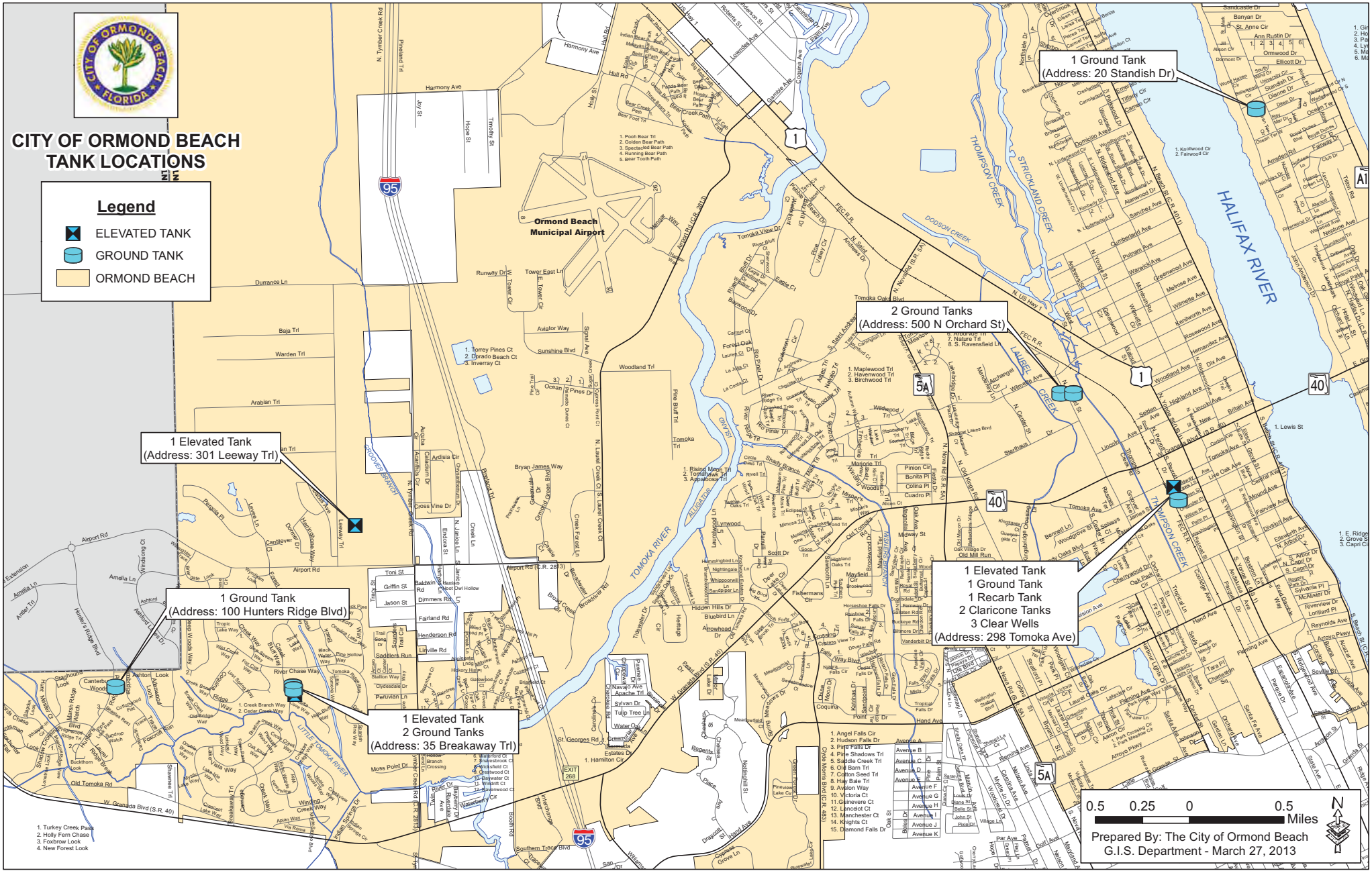
Recommended demolition, rehabilitation and repair as phased projects grouped by severity is as follows:

Storage Tank	Rehabilitation/Repair Cost (Urgent)	Rehabilitation/Repair Cost (Moderate)	Rehabilitation/Repair Cost (Suggested)
Breakaway Trails Elevated Storage Tank	$359,000		
Demolish Water Treatment Plant Elevated Storage Tank	$55,000		
Construct 150' SCADA Antenna Tower	$122,000		
Jefferson Street		$45,100	
Leeway Elevated Storage Tank			$400,000
Breakaway Trails (300,000)			$70,000
Breakaway Trails (900,000)			$127,000
Orchard Street (3 MG)			$49,500
Orchard Street (4 MG)			$57,000
Shadow Crossing			$20,500
Standish			$29,000
Subtotal	**$536,000**	**$45,100**	**$753,000**
20% General Conditions	$107,200	$9,020	$150,600
20% Contingency	$128,640	$10,824	$180,720
Total	**$771,840**	**$64,944**	**$1,084,320**

2.5 Million Gallon Water Storage Tank Located at the Water Plant



200,000 Gallon Elevated Water Storage Tank Located at the Water Plant


CITY OF ORMOND BEACH
TANK LOCATIONS
Legend
ELEVATED TANK
GROUND TANK
ORMOND BEACH
1 Ground Tank
(Address: 20 Standish Dr)
2 Ground Tanks
(Address: 500 N Orchard St)
1 Elevated Tank
(Address: 301 Leeway Trl)
1 Ground Tank
(Address: 100 Hunters Ridge Blvd)
1 Elevated Tank
2 Ground Tanks
(Address: 35 Breakaway Trl)
1 Elevated Tank
1 Ground Tank
1 Recarb Tank
2 Claricone Tanks
3 Clear Wells
(Address: 298 Tomoka Ave)
Ormond Beach
Municipal Airport
HALIFAX RIVER
TOMOKA RIVER
THOMPSON CREEK
STRICKLAND CREEK
LAUREL CREEK
0.5 0.25 0 0.5
Miles
N
Prepared By: The City of Ormond Beach
G.I.S. Department - March 27, 2013

STORAGE TANK INFORMATION

STORAGE TANK DATA

TANK NUMBER	LOCATION	TYPE	CONTENTS	CAPACITY GALLONS	INSIDE DIAMETER FEET	MATERIAL	COVERED	DRAINED
1	Water Plant	Ground Storage	Potable Water	2,500,000	120	Concrete	Yes	No
2	Water Plant	Elevated	Potable Water	250,000	50	Steel	Yes	Yes
3	Water Plant	Clear Well	Potable Water	25,000	19' 8" Long 16' 6" Wide	Concrete	Yes	No
4	Water Plant	Clear Well	Potable Water	25,000	19' 8" Long 16' 6" Wide	Concrete	Yes	No
5	Water Plant	Clear Well	Potable Water	10,000	12' Long 12' Wide	Concrete	Yes	No
6	Water Plant	Claricone	Lime Softened Water	130,000	Varies Conical 47' to 9.5'	Steel	No	Yes

STORAGE TANK INFORMATION (CONT'D)

STORAGE TANK DATA

TANK NUMBER	LOCATION	TYPE	CONTENTS	CAPACITY GALLONS	INSIDE DIAMETER FEET	MATERIAL	COVERED	DRAINED
7	Water Plant	Claricone	Lime Softened Water	130,000	Varies Conical 47' to 9.5'	Steel	No	Yes
8	Water Plant	Elevated	pH Adjusted	170,000	40	Concrete	No	Yes
9	Orchard St	Ground Storage	Reclaimed Water	4,000,000	162	Concrete	Yes	Yes
10	Orchard St	Ground Storage	Reclaimed Water	3,000,000	140	Concrete	Yes	Yes
11	Standish	Ground Storage	Potable Water	1,000,000	105	Concrete	Yes	Yes
12	Leeway	Elevated	Potable Water	1,000,000	86	Steel	Yes	Yes

STORAGE TANK INFORMATION (CONT'D)

STORAGE TANK DATA

TANK NUMBER	LOCATION	TYPE	CONTENTS	CAPACITY GALLONS	INSIDE DIAMETER FEET	MATERIAL	COVERED	DRAINED
13	Shadow Crossings	Ground Storage	Reclaimed Water	750,000	67	Concrete	Yes	Yes
14	Breakaway Trails	Elevated	Reclaimed Water	400,000	46	Steel	Yes	Yes
15	Breakaway Trails	Ground Storage	Reclaimed Water	900,000	82	Steel	No	Yes
16	Breakaway Trails	Ground Storage	Reclaimed Water	300,000	47.5	Steel	No	Yes

City of Ormond Beach

TANK INSPECTION AND CLEANING SERVICES
Bid No. 2013-11

The BIDDER will complete the Work, as described herein, for the following price(s):

BID SCHEDULE

ITEM NO.	DESCRIPTION	TOTAL ESTIMATED BID
1.	Cleaning and Inspection of Water Plant Ground Storage Tank	$ 4,420.00
2.	Cleaning and Inspection of Water Plant Elevated Tank	$ 4,420.00
3.	Cleaning and Inspection of Water Plant .025 MG Clearwell	$ 4,420.00
4.	Cleaning and Inspection of Water Plant .025 MG Clearwell	$ 4,420.00
5.	Cleaning and Inspection of Water Plant .010 MG Clearwell	$ 4,420.00
6.	Cleaning and Inspection of Water Plant Claricone	$ 4,420.00
7.	Cleaning and Inspection of Water Plant Claricone	$ 4,420.00
8.	Cleaning and Inspection of Water Plant Elevated Tank	$ 4,420.00
9.	Cleaning and Inspection of Orchard St. 4MG GST	$ 4,420.00
10.	Cleaning and Inspection of Orchard St. 3MG GST	$ 4,420.00
11.	Cleaning and Inspection of Standish Ground Storage Tank	$ 4,420.00
12.	Cleaning and Inspection of Leeway Elevated Tank	$ 4,420.00
13.	Cleaning and Inspection of Shadow Crossings GST	$ 4,420.00
14.	Cleaning and Inspection of Breakaway Trails Elevated Tank	$ 4,420.00
15.	Cleaning and Inspection of Breakaway Trails 0.9 MG GST	$ 4,420.00
16.	Cleaning and Inspection of Breakaway Trails 0.3 MG GST	$ 4,420.00

TOTAL BID $ 70,720.00
(Figures)

*To be completed during our Winter 2014 mobilization (January - April 2014)

Seventy-thousand, seven hundred twenty dollars
(Words)

The bid basis for the contract award is the sum of the unit prices for the individual items.

CAPITAL PROJECT DETAIL

PROJECT TITLE

Lift Station Rehabilitation

PROJECT#

409175

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Utilities Division

PROJECT SCOPE

Rehabilitation of wastewater lift station wetwell and valve vault structures and replacement of lift station electrical and mechanical equipment to include pumping, base and riser piping and valve systems. Electrical panel and component replacement is also to be performed.

JUSTIFICATION

In order for the City to encourage reliable and efficient operation and maintenance of its wastewater collection system, a planned schedule of improvement and a commitment to investing in regular system improvements is necessary. Many of the components in the wastewater lift station system have been in service for several years. The 2015 Water/ Wastewater Master Plan Update identified specific needs and established a priority for implementation of the City lift station system rehabilitative needs. Additionally, operations staff assesses current year facility operations and makes determination as to the level of rehabilitation necessary to effect efficient operations. The stations listed are staff's recommended lift station rehabilitative priorities based upon the recent level of preventative and emergency maintenance support reported by operational staff. The 2007 Wastewater Master plan update indicates mechanical/ structural/ electrical condition status for all lift station facilities. Periodic power service and pump upgrades are recommended based upon increased pressure conditions encountered in adjacent force main systems serving the area.

PROJECT COST METHODOLOGY

Recent Projects Bids - Similar Work Authorizations - Utility Master Plan Update 2015

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Construction Facility Rehab (ABP - 12M)	360,000	0	0	0	0	360,000
Engineering Design	40,000	40,000	60,000	40,000	0	180,000
Construction Facility Rehab (3M - TM)	0	360,000	0	0	0	360,000
Construction Facility Rehab (5M - 7M1)	0	0	540,000	0	0	540,000
Construction Facility Rehab (8M - Homac)	0	0	0	360,000	0	360,000
Construction Facility Rehab (10M - BAT - SC)	0	0	0	0	0	0
Construction Facility Rehab (8M-1)	0	0	0	0	0	0
Total	400,000	400,000	600,000	400,000	0	1,800,000

CAPITAL PROJECT DETAIL

PROJECT TITLE

Lift Station Rehabilitation

PROJECT#

409175

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Bond Proceeds	400,000	400,000	600,000	0	0	1,400,000
Water & Sewer Charges	0	0	0	400,000	0	400,000
Total	400,000	400,000	600,000	400,000	0	1,800,000

CIP Lift Station Rehabilitation R&R Project 2015/16 - 2019/20
(Updated May 2015)

Facility Rehabilitation Project Overview Tentative Schedule:

8M1	2014/2015 (Design Underway)
10M – BAT/Shadow Xings	2015/2016
Airport Business Park - 12M	2016/2017
3M – Tomoka Meadows	2017/2018
5M – 7M1	2018/2019
8M – Homac	2019/2020

8M1 (2014/15)

Electrical

- Replace Control Cabinet using New Flygt APP series controller – all Stainless Steel upright mounting poles – all Stainless Steel horizontal mounting Unistrut – all 316 Stainless Steel hardware
- Replace FPL Meter can with new Stainless Steel Disconnect can
- Reuse existing SCADA cabinet and contents– using same Stainless Steel mounting specs as Control Cabinet
- Remove existing fiberglass pole
- Install new lamp on existing concrete pole
- Install underground 2" PVC conduits (installed as per NEC code) for each pump lead and separate 2" conduit for Probe/Float leads from Wet Well to Control Cabinet

Valve Box

- Replace valve box using precast concrete structure (existing box is broken)
- Replace top slab including new aluminum Safety Hatch
- Install valve box drain to Wet Well to include check valve in Wet Well
- Replace check valves using 4" check valves-external lever & spring-bronze seat-13" lay length-cast iron-flange X flange check valves
- Replace gate valves using 4" gate valves-2" square lug stem top-EPDM seat-9" lay length-flange X flange-cast iron gate valves

Wet Well

- Replace top slab to include new aluminum Safety Hatch
- Sewper coat Wet Well or other approved
- Replace riser stack pipes through to check valves at valve box using ductile iron pipe with all 316 Stainless Steel hardware or HDPE pipe with all welded seams at joints and 90s and all 316 Stainless Steel hardware at any flange connections
- Replace guide rails using Flygt Stainless Steel guide rails
- Install Flygt Wet Well invert using Flygt base elbows
- Replace pumps upgrading from existing Flygt 3102 pumps with 435 impellers (8M2 pumps in to this station and sometimes overpowers it temporarily)

Grounds

- Relocate Camphor tree or remove and replace as per agreement with home owner
- Remove concrete structure around Wet Well and Valve Box (knee wall that has been damaged by tree roots and tree trunk – concrete slab between Wet Well and Valve Box)
- Maintain existing hedge line around lift station

10M (2015/16)

Electrical

- Replace Control Cabinet using New Flygt APP series controller – all Stainless Steel upright mounting poles – all Stainless Steel horizontal mounting Unistrut – all 316 Stainless Steel hardware
- Replace FPL Meter can with new Stainless Steel Disconnect can
- Reuse existing SCADA cabinet and contents – using same Stainless Steel mounting specs as Control Cabinet
- Remove existing fiberglass pole
- Install new lamp on existing concrete pole
- Install underground 2" PVC conduits (installed as per NEC code) for each pump lead and separate 2" conduit for Probe/Float leads from Wet Well to Control Cabinet

Valve Box

- Repair valve box as needed
- Replace top slab including new safety hatch
- Repair existing valve box drain to Wet Well to include check valve in Wet Well
- Replace check valves using 4" check valves-external lever & spring-bronze seat-13" lay length-cast iron-flange X flange check valves
- Replace gate valves using 4" gate valves-2" square lug stem top-EPDM seat-9" lay length-flange X flange-cast iron gate valves

Wet Well

- Replace top slab to include new Safety Hatch cover
- Sewper coat Wet Well
- Replace riser stack pipes through to check valves at valve box using ductile iron pipe with all 316 Stainless Steel hardware or HDPE pipe with all welded seams at joints and 90s and all 316 Stainless Steel hardware at any flange connections
- Replace guide rails using Flygt Stainless Steel guide rails
- Install Flygt Wet Well invert using Flygt base elbows
- Replace existing pumps using Flygt 3102 pumps with 435 impellers (current pumps and impellers are sufficient but need to be replaced with new units)

Grounds

- Maintain existing Coquina rock line around lift station

Breakaway Trails (2015/16)

Electrical

- Replace Control Cabinet using New MultiSmart controller – all Stainless Steel upright mounting poles – all Stainless Steel horizontal mounting Unistrut – all 316 Stainless Steel hardware
- Relocate control cabinet away from wet well and corrosive gasses
- Install local control cabinet using simple H.O.A. switches at wet well to include isolation disconnects for each individual pump (as master control cabinet with circuit breakers will no longer be local to the wet well)
- Upgrade FPL incoming power to 230 volt 3 phase
- Reuse existing SCADA cabinet
- Install new lighting around wet well
- Install intermediate stainless steel cabinet/junction box at wet well for pump power leads and level control contacts

Odor Control Unit

- Repair/Replacement/ Removal considerations of existing unit (to be engineered accordingly for elimination of odor concerns if any)

Wet Well

- Repair leaks in both Influent Drop Chutes
- Inspect and replace as needed any and all hardware damaged by corrosion at that time
- Upgrade all pumps to accommodate new FPL power of 230 volt 3 phase – current pump winding sets are 208 volt

Valve Box

- Paint valve box with epoxy paint
- Inspect and repair/replace as needed any and all components damaged by corrosion at that time

Shadow Crossings (2015/16)

Electrical

- Inspect and repair/replace as needed any and all components damaged by corrosive gasses at that time
- Install intermediate cabinet/junction box below master control cabinet for all connections directly plumbed to wet well

Odor Control Unit

- Service unit according to manufacturer's guide lines
- Replace timer device
- Change discharge plumbing to accommodate for customer complaints
- Upgrade media as needed (to be engineered) to accommodate for customer complaints

Wet Well

- Repair leaks in both Influent drop chutes
- Modify South Influent drop chute to allow for cover to be installed as per original design
- Replace both pump Riser Stack pipes with HDPE piping to include all welded seems at 90s and flanges, from the base elbows out through to the check valves in the valve box
- Install stainless steel support bracket half way up the Riser Stack pipes mounted at opposing walls of the wet well to eliminate flexibility in HDPE piping
- Inspect and repair/replace any and all hardware in wet well damaged by corrosion at that time
- Use only 316 stainless steel hardware throughout wet well and valve box

Valve Box

- Paint valve box with epoxy paint
- Inspect and repair/replace as needed any and all components damaged by corrosion at that time

Grounds

- Install higher hedge line around entire perimeter to reduce noise level caused by Odor Control unit and defuse/dissipate discharge from Odor Control unit
- Replace chain link fence with white PVC privacy fencing and gate assembly

Airport Business Park (2016/17)

Electrical

- Replace Control Cabinet using New Flygt APP series controller – all Stainless Steel upright mounting poles – all Stainless Steel horizontal mounting Unistrut – all 316 Stainless Steel hardware
- Replace FPL Meter can with new Stainless Steel Disconnect can
- Reuse existing SCADA cabinet and contents – using same Stainless Steel mounting specs as Control Cabinet
- Install new lamp on existing pole
- Install underground 2" PVC conduits (installed as per NEC code) for each pump lead and separate 2" conduit for Probe/Float leads from Wet Well to Control Cabinet

Valve Box

- Repair valve box as needed
- Repair existing valve box drain to Wet Well to include check valve in Wet Well
- Replace check valves using 4" check valves-external lever & spring-bronze seat-13" lay length-cast iron-flange X flange check valves
- Replace gate valves using 4" gate valves-2" square lug stem top-EPDM seat-9" lay length-flange X flange-cast iron gate valves
- Install Emergency Pump Out Port in valve box using 3" Cam/Lock fittings

Wet well – Collection System

- Repair upstream piping to manhole (deep piping repair)

12M (2016/17)

Electrical

- Replace Control Cabinet using New Flygt APP series controller – all Stainless Steel upright mounting poles – all Stainless Steel horizontal mounting Unistrut – all 316 Stainless Steel hardware
- Replace FPL Meter can with new Stainless Steel Disconnect can
- Reuse existing SCADA cabinet and contents – using same Stainless Steel mounting specs as Control Cabinet
- Install new lamp on existing pole
- Install underground 2" PVC conduits (installed as per NEC code) for each pump lead and separate 2" conduit for Probe/Float leads from Wet Well to Control Cabinet

Valve Box

- Install concrete valve box at current Emergency Pump Out Port

3M (2017/18)

Electrical

- Replace Control Cabinet using New Flygt APP series controller – all Stainless Steel upright mounting poles – all Stainless Steel horizontal mounting Unistrut – all 316 Stainless Steel hardware
- Replace FPL Meter can with new Stainless Steel Disconnect can
- Reuse existing SCADA cabinet and contents – using same Stainless Steel mounting specs as Control Cabinet
- Install new lamp on existing pole
- Install underground 2" PVC conduits (installed as per NEC code) for each pump lead and separate 2" conduit for Probe/Float leads from Wet Well to Control Cabinet
- Have FPL change incoming power to 230 volt 3 phase
- Eliminate transformer

Valve Box

- Repair valve box as needed
- Repair existing valve box drain to Wet Well to include check valve in Wet Well
- Replace check valves using 4" check valves-external lever & spring-bronze seat-13" lay length-cast iron-flange X flange check valves
- Replace gate valves using 4" gate valves-2" square lug stem top-EPDM seat-9" lay length-flange X flange-cast iron gate valves
- Install Emergency Pump Out Port in valve box using 3" Cam/Lock fittings

Wet Well

- Replace top slab to include new Safety Hatch cover
- Sewpercoat Wetwell
- Replace riser stack pipes through to check valves at valve box using ductile iron pipe with all 316 Stainless Steel hardware or HDPE pipe with all welded seams at joints and 90s and all 316 Stainless Steel hardware at any flange connections
- Replace guide rails using Flygt Stainless Steel guide rails
- Install Flygt Wet Well invert using Flygt base elbows
- Replace existing pumps using Flygt 3102 pumps with 435 impellers (current pumps and impellers are sufficient but need to be replaced with new units)

Tomoka Meadows (2017/18)

Wet Well

- Replace Wet Well lid with new concrete lid with correct hatch door size to properly mount guide rail hardware and allow fitment of pumps

Phasing SSES would allow staff to focus upon one (1) geographic region at a time and develop a phased construction program sooner. It is recommended that the service area be divided as follows:

Year #1- North and South Peninsula, to include all beachside areas.

Year #2- Mainland East, to include all mainland areas east of the FEC railroad.

Year #3- Mainland West, to include all areas west of the FEC railroad.

8.6 Project Descriptions and Preliminary Cost Estimates

WW-1, Lift Station Replacements (Short Term < 5 years)

Table 8.3-1 categorizes the condition of each station. Those elements categorized as 'poor' are critical and should be addressed immediately. The following lift stations have multiple elements characterized as being in poor and fair condition. The recommendations for these stations are for replacement or rehabilitation of deteriorated components. The stations include:

- BAT
- 10 M
- ABP
- 12 M
- 3 M
- 5 M
- 7 M1
- 8 M

Estimated cost for eight (8) stations at $200K per station = $1,600,000 or $400,000/yr over 4 years.

CAPITAL PROJECT DETAIL

PROJECT TITLE

Meter Installation

PROJECT#

409178

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Utilities Division

PROJECT SCOPE

Estimated new meter purchases for both residential and commercial applications. Purchase of repair and replacement equipment for meter register components. Meter testing results indicate the existing aged meters sampled were within acceptable tolerance ranges for accuracy. Future year testing will be performed from time to time to determine frequency of necessary meter replacement activities. Estimated Commercial Meter Needs: 3/4" (100 ea.), 1" (25 ea.), 1-1/2" - 2" (25 ea.), 3" (5 ea.), 4" & above (5 ea.). Estimated Residential Meter Needs to include irrigation meter requests: 3/4 - 1" (100 ea.).

JUSTIFICATION

New meters are required to be purchased, for installation by distribution system crew staff, for all new residential and commercial development project requests during the annual period. New commercial and residential meter requests fluctuate from year to year and staff has estimated the anticipated meter purchase needs for the upcoming year. Future year needs will be adjusted based upon rate of development indicators. Additionally, meter replacement needs are also currently funded from this budget allocation.

PROJECT COST METHODOLOGY

Recent purchase prices contained in current purchase agreement with Sunstate (Neptune) Meters.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Commercial Meters - Various Sized	60,000	60,000	60,000	60,000	60,000	300,000
Residential Meters - 3/4" & 1"	20,000	20,000	20,000	20,000	20,000	100,000
Electronic Register R/R	10,000	10,000	10,000	10,000	10,000	50,000
Total	90,000	90,000	90,000	90,000	90,000	450,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Water & Sewer Charges	90,000	90,000	90,000	90,000	90,000	450,000
Total	90,000	90,000	90,000	90,000	90,000	450,000

CAPITAL PROJECT DETAIL

PROJECT TITLE

Pretreatment Effluent Pump (PEP) Replacement

PROJECT#

409177

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Utilities Division

PROJECT SCOPE

Intended rehabilitation efforts include replacement of approximately 100 low-pressure effluent pump systems per year with more durable cast iron pumps in the West Ormond low pressure sewer system. Additionally, the project includes rehabilitation of approximately 25 systems to include necessary tank and riser repairs and pump replacement. The project also includes an estimated 10 new PEPSystem installation per year for developing lots.

JUSTIFICATION

The wastewater system in a portion of West Ormond (HR/ BAT areas) utilizes a low pressure pump to pump wastewater after primary treatment from each home's pretreatment effluent tank system (PEPSystem). The original and historic replacement pumps have exhibited a relatively short life cycle ranging from 3 to 5 years. Approximately 200 units remain for installation on undeveloped lots estimated at a rate of 10 per year.

Several original low-pressure pumps, Type E-3 and Type ME-40 were made of less durable materials and were replaced over the years with a more durable pump system. The expected life of the replacement pumps, Tsurumi 4-PSHA are found to add 3 plus years of useful life than previous models used. The PEP tank rehabilitation costs include removal of accumulated solids and replacement of components found deteriorated to include: electrical junction and control box, pump and chamber, float, riser and redundant check valve.

PROJECT COST METHODOLOGY

Updated PEP System Tank, Components and Pump Quotations from existing and interested vendors

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
PEP System Rehabilitation	70,000	70,000	70,000	70,000	70,000	350,000
PEP System Tank Systems	30,000	30,000	30,000	30,000	30,000	150,000
Total	100,000	100,000	100,000	100,000	100,000	500,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Water & Sewer Charges	100,000	100,000	100,000	100,000	100,000	500,000
Total	100,000	100,000	100,000	100,000	100,000	500,000

10691
CON-TEN STEEL CONTAINER
PUMP

FREQUENTLY ASKED QUESTIONS

Who Operates And Maintains the PEP System?

The City of Ormond Beach owns, operates and maintains all components of the PEP system, including the control panel, tank, pump, service line and pressure sewer. The sewer lateral from the home to the tank is actually part of the homeowner's plumbing system, and thus must be maintained by the homeowner.

What Happens If There Is A Power Failure?

If the power is off, the pump will not run. However, there is no cause for worry. The tank has a built-in safety factor that will allow continued use of the PEP system. However, it would be prudent to reduce water usage until power is restored. Please note that water usage will naturally be reduced during a power outage, since water intensive appliances such as dishwashers and washing machines will also not be operable.

Who Do I Call If There Is A Problem, Or I Need More Information?

If the red light on the control panel is lit, or if the audible alarm is sounding, please call The City of Ormond Beach at 676-3230 or 676-3220. Please also call if you would like more information. If you prefer to correspond by mail, or would like to visit our facilities, our address is 501 N. Orchard St., Ormond Beach, FL 32174.

DEPARTMENT
OF
PUBLIC WORKS

UTILITIES DIVISION

501 NORTH ORCHARD STREET
ORMOND BEACH, FLORIDA 32174
(386) 676-3230

THE PEP BOOKLET

REVIEW OF IMPORTANT INFORMATION

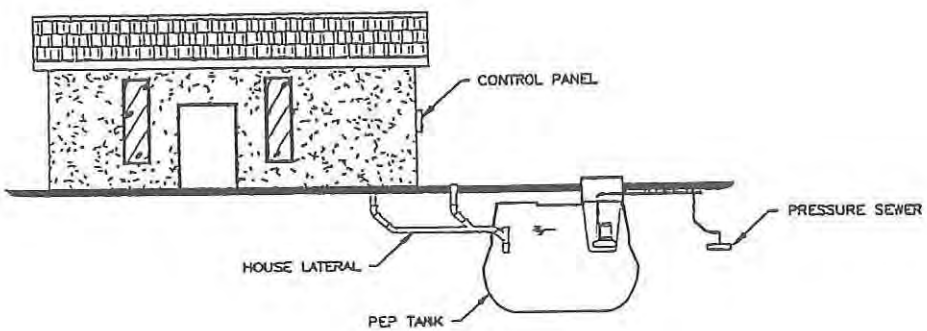
We encourage you to read the entire booklet for a sound understanding of the Pretreatment Effluent Pumping (PEP) System. However, for a quick review of important information, turn to Page 5 for a summary of "Do's and Don'ts". Also check Page 7 for answers to "Frequently Asked Questions".

Introduction

The City of Ormond Beach has prepared this information guide for homeowners who are users of the "PEP" system. PEP is an acronym for "Pretreatment Effluent Pumping." PEP is a vital part of your community's wastewater collection and treatment system. This guide will explain how the PEP system works and how it is maintained. The brochure explains how homeowners can optimize the performance of the PEP system by adhering to a few simple "Do's and Don'ts".

What Is PEP?

The Pre-treatment Effluent Pumping (PEP) system essentially consists of a sewer lateral, a tank, a pump, a service line, and a control panel (see picture below).

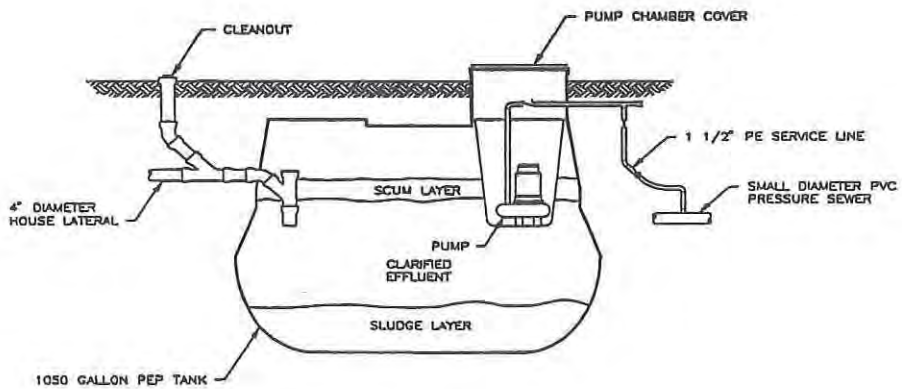


PEP SYSTEM

The system, which is located within your side yard, was installed by the developer or The City of Ormond Beach when your home was constructed. All system components are buried, with the exception of the control panel, which is mounted on the outside wall of your home. The control panel provides power to the pump and controls its operation. The system works as follows: Raw sewage flows through the sewer lateral from your home to the tank. The sewage is then treated within the tank to produce "pretreated effluent", hence giving the PEP system its name. The pretreated effluent is then pumped through the service line to a pressure sewer located alongside the street. This pressure sewer is connected to the main collection system, which consists of larger sewers and pumping stations. The main collection system conveys the pretreated effluent to a central wastewater treatment and disposal facility operated by The City of Ormond Beach.

How Does The PEP System Work?

The PEP tank is constructed of reinforced fiberglass and has a capacity of 1,050 gallons. Heavy material in the sewage falls to the bottom of the tank to form a sludge layer (see cutaway section of tank below).



DETAIL OF PEP SYSTEM

This sludge layer is constantly decomposing. Lighter material floats to the top of the tank to form a "scum layer". What is left in the middle is

the pretreated effluent that is pumped from the tank. This pretreated effluent is identical to the water that is discharged to the environment by a typical septic tank and drain field system. However, with the PEP system, the pretreated effluent is conveyed to the wastewater treatment facility for further purification.

How is the PEP System Maintained?

Your PEP system is owned, operated and maintained by The City of Ormond Beach. The City has responsibility for the control panel, tank, pump, service line and pressure sewer. In order to ensure the smooth operation of your PEP system, The City of Ormond Beach performs a visual inspection on a regularly scheduled basis. You may notice one of the service trucks at your home during the inspection process. This truck carries all of the testing equipment and spare parts necessary to make any needed repairs.

The PEP system inspection includes the following:

- Check the condition of the clean-out plug, stack, tee and 90° bend.
- Check for unusual ground settlement and sinkholes.
- Verify that the control panel is working properly, including the alarm light and alarm functions.
- Verify the isolation valve is exposed and operational.

The City maintains maintenance records for each PEP system within the City. This facilitates the long-term care of your PEP system.

Control Panel Power Supply

Although the control panel is operated and maintained by The City of Ormond Beach, the homeowner is responsible for supplying power to the panel (this is physically handled by the electrical contractor who helped build your home). The control panel must be supplied by a dedicated 115-volt, single phase, 20-amp circuit direct from the main electrical distribution panel that serves the home.

Homeowner Maintenance Responsibilities

The City of Ormond Beach operates and maintains all PEP system components except the sewer lateral (the lateral is actually part of the home plumbing system). Thus, if the sewer lateral becomes clogged, it is the homeowner's responsibility to clean the pipe. Such cleaning is normally handled by a plumber.

A "red" light is mounted on the outside of the panel (see picture). In addition, an **"audible alarm silence button"** is mounted on the front or bottom of the panel. If the red light is lit, and/or the audible alarm is sounding, then the system needs to be serviced. Please call the City of Ormond Beach at 676-3230 or 676-3220 if your notice any of the following:

Red Light Is Lit And/Or The Audible Alarm Is Sounding

This means that the water level in the tank is higher than the design level. Just press the audible alarm silence button and call The City of Ormond Beach immediately. Although the tank has some excess capacity or volume, it would be prudent to reduce water usage until the problem is corrected. Service personnel strive to be on-site within several hours; thus, there should be no undue inconvenience.

If the problem is associated with the main PEP system (panel, tank, pump, service line or pressure sewer), then the utility will correct the problem immediately. However, if the problem is caused by a clogged sewer lateral, then the homeowner will be advised to call a plumber.

Do's and Don'ts

As a homeowner served by the PEP system, there are a few things that you should not do. The PEP system, like all other public wastewater collection systems, is designed to handle normal domestic sewage. It is not a solid waste receptacle. Please do not dispose of any of the following items into your house drains:

1. Plastic of any kind
2. Sanitary napkins and other feminine hygiene materials
3. Cigarette butts (the filters will not decompose)
4. Contraceptives
5. Excessive grease
6. Coffee Grounds and other inorganic materials

Homeowners must also be aware of the location of their PEP system. Buried system components are typically located within a 7.5-foot wide easement along one side of your lot. Please do not conduct any of the following activities within the vicinity of your PEP system. These activities may result in damage to the PEP tank or piping.

Prohibited Activities Around PEP System

1. Digging.
2. Driving heavy vehicles such as cars or trucks.
3. Planting trees, shrubs, etc., that may have a deep root system

PEPSYSTEM

TSUPUMI PUMPS #405

alphageneral

City of Ormond Beach
501 North Orchard Street
Ormond Beach, FL 32174

February 28, 2012

1050 GALLON PEP TANK (TRAFFIC RATED) ASSEMBLED W/4" INLET, SIMPLEX CONTROL PANEL, HIGH WATER ALARM FLOAT, 16" PUMP CHAMBER INSERT, TWO MANWAY LIDS, ELECTRICAL JUNCTION BOX.

$2,030.50 each

ITEMIZED REPLACEMENT / REPAIR PARTS

1050 GALLON PEP TANK	$ 1,393.20
MANWAY LID	45.00
16" PUMP CHAMBER	204.00
ELECTRICAL JUNCTION BOX	50.00
1 ½" ADAPT-A-FLEX	6.50
4" ADAPT-A-FLEX	10.50
INLET TEE	25.00
SIMPLEX CONTROL PANEL	302.00
HIGH LEVEL ALARM FLOAT	35.00
6" TOWER EXTENSION (OLD STYLE)	31.00
12" TOWER EXTENSION (OLD STYLE)	62.00
18" TOWER EXTENSION (OLD STYLE)	93.00
24" TOWER EXTENSION (OLD STYLE)	124.00
6" TOWER EXTENSION (NEW STYLE FLANGED)	60.00
12" TOWER EXTENSION (NEW STYLE FLANGED)	117.00
18" TOWER EXTENSION (NEW STYLE FLANGED)	163.00
24" TOWER EXTENSION (NEW STYLE FLANGED)	210.00

Thanks and have a GREAT day.

Total 809..

Bob Rapp

P.O. BOX 3331 – SEBRING, FLORIDA 33871-3331
(863) 382-1544 – (863) 382-0567 Fax – (800) 628-3327
www.alphageneral.com – bob@alphageneral.com

PUPSYSTEM

GORMAN DAYTONA
440 3RD ST
HOLLY HILL FL 32117-4365
386-253-3633 Fax 386-238-1215

Quotation

QUOTE DATE	QUOTE NUMBER
03/30/12	S008243405

QUOTED BY:
GORMAN DAYTONA
440 3RD ST
HOLLY HILL FL 32117-4365
386-253-3633 Fax 386-238-1215

PAGE NO: 1 of 1

Printed : 11:34:47 30 MAR 2012

QUOTE TO:
CASH SALES DAYTONA/WELL
440 THIRD STREET
HOLLY HILL, FL 32117

SHIP TO:
CASH SALES DAYTONA/WELL
CITY OF ORMAND BEACH
ORMOND BEACH, FL ORMOND BEA

QUOTED FOR	CUSTOMER PURCHASE ORDER NUMBER	CUSTOMER RELEASE NUMBER	SALESPERSON
JAMES DAVIS	STEP SYSTEM		House

BUYER	SHIP VIA	TERMS	EXPIRATION DATE	FREIGHT ALLOWED
Randy Smith	OT OUR TRUCK	CASH	05/14/12	No

QUOTE QTY	OUR PART#	DESCRIPTION	NET PRC	EXT PRC
1ea	294843	INF IM1060P/2 1060GAL DBL COMP SEPTIC TANK C4 ***SINGLE COMPARTMENT TANK***	733.333	733.33
1ea	300409	POL PL-STEP49 STEP SYST CMPLT	1060.000	1060.00
1ea	269136	INF TWRIS-2406 24X6 GREEN RISER	30.554	30.55
1ea	269138	INF TWRIS-2412 24X12 GREEN RISER	52.277	52.28
1ea	269140	INF TWRIS-2418 24X18 GREEN RISER	62.954	62.95
		TAXES NOT INCLUDED		

Pumps only all 300

Prices subject to change without notice. Orders for special material accepted with the distinct understanding that they are not subject to cancellation. Not responsible for delays by reason of strikes, accidents or causes beyond our control. We do not assume responsibility for quantities or descriptions. Prices contained in this quotation are subject to price in effect at time of shipment. Prices are also subject to typographical and clerical errors. Items quoted and quantities listed are our interpretation of material needed and should be checked against the plans and specifications. After expiration of this quotation, we reserve the right to review our prices before acceptance of any orders. We thank you for this opportunity of quoting.

Subtotal	1939.11
Bid Total	1939.11

CAPITAL PROJECT DETAIL

PROJECT TITLE

Sanitary Sewer Inflow Infiltration

PROJECT#

409179

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Engineering

PROJECT SCOPE

The updated Utility Master Plan recommends that a City-wide Sanitary Sewer investigation and repair project be undertaken to address Infiltration and inflow that is occurring. The project would include a video inspection of the City Sewer system and subsequent lining of identified deficient pipe.

JUSTIFICATION

Inflow and infiltration can result in surcharging of sewer lines, hydraulic overload of the pump stations and inadequate treatment at the plant because of the increased hydraulic loading. In economic terms, the effects of inflow and infiltration result in the City incurring additional costs to collect, pump, treat and dispose of surface water and groundwater that are flowing into the system. Furthermore, I/I reductions can extend the capacity life of the facility by reducing unnecessary groundwater and surface water flows to the collection system.

A significant portion of gravity sewer pipeline consists of old clay pipe with joints every five (5) feet. Consequently, these pipelines need to be assessed periodically to determine whether infiltration is occurring as a result of needed repairs. Many of the older system sanitary manholes are constructed of brick and have a higher likelihood of leakage compared to newer precast concrete manholes meeting current standards. Re-lining the old brick manholes with corrosive resistant material has been found effective to reduce inflow and infiltration and prolong manhole life. Force mains provide the corridors for pumped sewerage received by the City's collection system.

PROJECT COST METHODOLOGY

Updated Master Plan. Actual pipeline repair costs will be determined once gravity sewer pipeline investigation work is completed.

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Investigation and Repairs	0	0	0	100,000	0	100,000
Total	0	0	0	100,000	0	100,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Water and Sewer Charges	0	0	0	100,000	0	100,000
Total	0	0	0	100,000	0	100,000

WW-2. Group 1 Gravity Sewer Rehabilitation Projects (Short Term < 5 years)

Section 4.5 detailed inflow/infiltration (I/I) challenges faced by the City. The City completed recent lining of the worst I/I areas; however, a recent system evaluation has not been completed. This project would need a condition assessment of the entire wastewater gravity collection system by televising and grading deficiencies by a certified contractor. The condition assessment will allow the City to prioritize deficiencies within the collection system that contribute to I/I. Future repair, lining, and rehabilitation work will be prioritized based on these findings. A budgetary cost estimate to perform this 'system wide' evaluation is $250,000/year over a 3 year period for a total expenditure of $750,000. This evaluation should be completed within the next 5 years. While the extent of rehabilitation work is unknown at this time, a budgetary estimate of $3,000,000 over the next five (5) years is recommended.

Estimated cost five (5) year cost = $3,750,000

WW-3. US-1 Force Main (Airport Road to Ormond Crossings and Plantation Oaks by Developers) (Short Term < 5 years)

Phase I of Ormond Crossings is under review and scheduled for construction in 2015 or 2016. A 12" force main from Ormond Crossings to Airport Road will be required to provide sewer service for the development. Plantation Oaks anticipated that the developers will bear this cost.

The route is depicted on ***Figure MB-5*** in the accompanying Map Book. It parallels an existing 8" and 10" force main. Approximate pipe length is 9,000 LF.

CAPITAL PROJECT DETAIL

PROJECT TITLE

Water Main Replacement

PROJECT#

409173

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Engineering

PROJECT SCOPE

As part of the Utility Master Plan Upgrade, the City's water system was modeled to determine improvements needed to reinforce and increase water pressures throughout the City. The report identified these areas and made recommendations on system improvements. Replacement of substandard 2-inch diameter water mains throughout the City was identified as a priority recommendation. The majority of the 2-inch mains throughout the City are in excess of 30 years old and have outlived their service life. When feasible the mains are replaced concurrently with stormwater and road improvement projects. In addition, replacement of asbestos cement pipe will also be included within streets undergoing improvements when the asbestos cement pipe will be in conflict with proposed improvements or is identified as a maintenance problem main. The total estimated cost to replace all substandard water mains was estimated to be $11,250,000 in the 2007 Master Plan Update. At the commission's request staff has accelerated the replacement schedule to address the most significant problem areas known to staff and address the replacement recommendations within the City's Utility Master Plan.

JUSTIFICATION

Hydraulic modeling of the distribution system demonstrated that under fire flow conditions residual pressures below the minimum allowed (20 psi) were observed in certain areas throughout the City. Most of the low pressures were due to commercial fire demands of 2,000 gallons per minute. Reinforcement of the City's distribution system with construction of larger mains and improved looping will increase pressures to provide adequate fire service and system pressures during peak demand periods. The utility system contains extensive areas of 2-inch diameter water main. In certain areas of the distribution system this small diameter pipe is resulting in lower than desired distribution system pressures during peak demand. In addition, metallic 2-inch diameter pipe presents corrosion, taste, odor, and “black/red water” concerns. The current standard in the City’s Land Development Code is a minimum size of an 8-inch main for new subdivisions, which is the minimum size recommended for fire suppression.

The replacement program allows for the systematic replacement of small diameter pipe with larger diameter pipe that will achieve lower pressure losses, reduce high service pumping costs, improve fire suppression capability and enhance distribution system water quality. Furthermore, the 30 to 40 year old asbestos-cement pipe is prone to failure if disturbed by local construction activities, and is difficult to repair because it is no longer manufactured.

PROJECT COST METHODOLOGY

Costs based on average bid prices received with the 2013 and 2015 bids for the first 2 phases of 2-inch water main replacement project

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Construction	1,575,000	0	1,200,000	0	0	2,775,000
Engineering, CA, Inspection	0	180,000	0	0	0	180,000

CAPITAL PROJECT DETAIL

PROJECT TITLE

Water Main Replacement

PROJECT#

409173

Total	1,575,000	180,000	1,200,000	0	0	2,955,000

REVENUE	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**Total 2016-17 to 2020-21**
Bond Proceeds	1,575,000	180,000	1,200,000	0	0	2,955,000
Total	1,575,000	180,000	1,200,000	0	0	2,955,000

Utilities Division - Water Distribution 2" Water Main Replacement Priority List

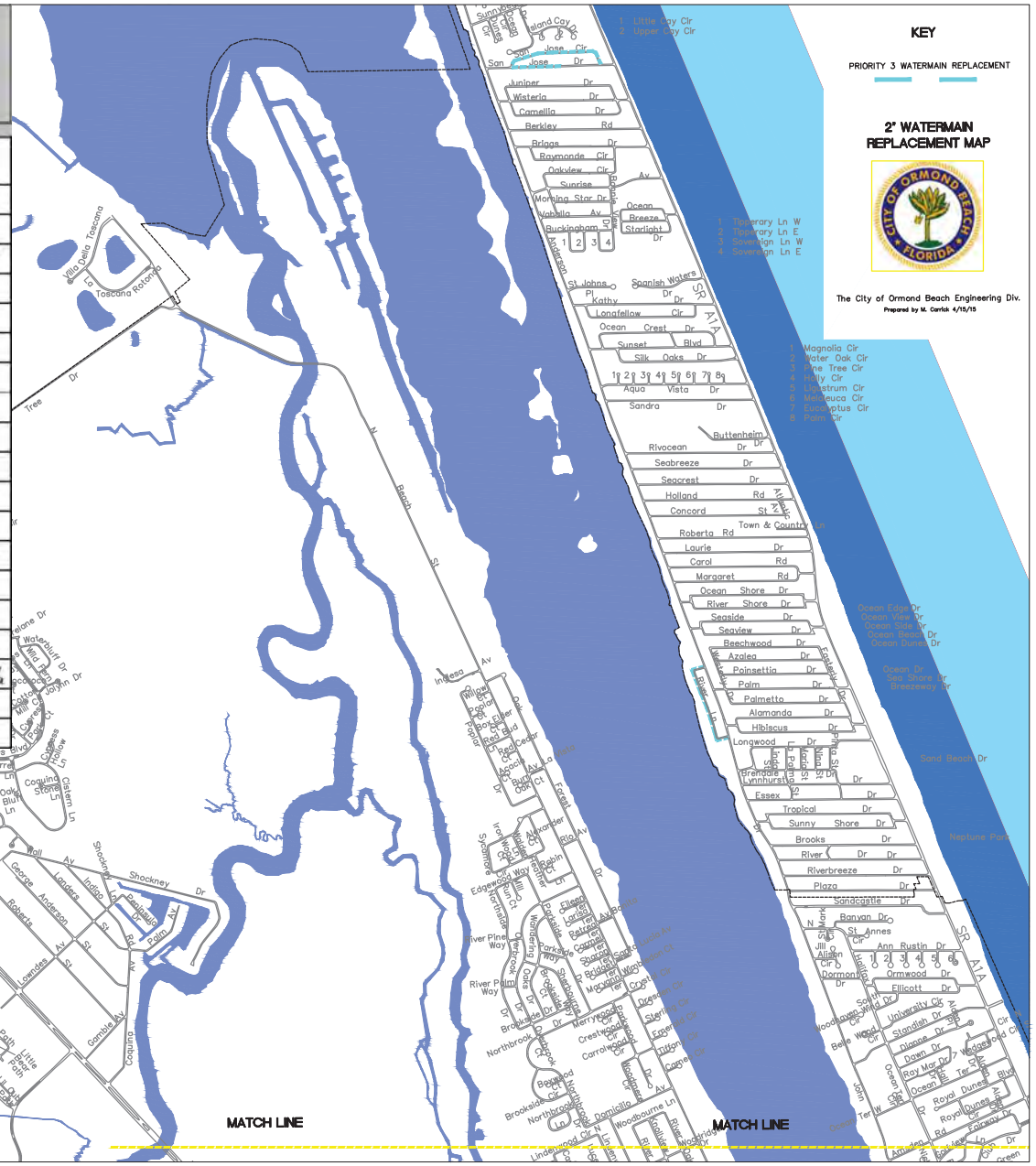
March 2015

Priority Definitions

Priority 1 — Frequent history of main breaks, flushing and water quality concerns.
Priority 2 — Moderate history of main breaks, flushing and water quality concerns.
Priority 3 — Some history of main breaks, flushing and water quality concerns.
Notes: Priorities and designated limits of work include additional considerations for fire protection related improvements
All roadways having automatic flushing devices on existing 2" mains are included in Priority 1 Listing

Complete

Priority #	Street Name	From (Street Name)	To (Street Name)	Length (Feet)	# of Services	Comments
3	Aaron Cir	Fleming Ave	#19	250	6	
3	Arlington Way	S. Halifax Dr	S. Atlantic Ave	1900	40	
3	Ashford Lakes Dr	Briargate Look	200ft west	200	0	Connect WM on Ashford Lakes to create looped system and enhance CL2 residual.
3	Bosarvey Cir	S Halifax Dr	Cul-de-sac	131	4	Connect to end of existing WM at FH
3	Ellsworth Ave	S Ridgewood Ave	Grove St	630	5	add FH's
3	Fir St	Hand Ave	Division Ave	1300	30	Remove 2" and connect w/ 6", add FH
3	Highwood Ridge Tr	Hunters Ridge Blvd	Cul-de-sac	766	12	
3	Marsh Ridge Watch	Shadow crossings Blvd	Cul-de-sac	427	4	
3	N arbor Dr	S Arbor Dr	Grove St	655	13	
3	North Shore Dr	S. Atlantic Ave	Pinewood St	600	33+	Attach WS's to existing 6", Eliminate 4" WM
3	Oriole Cir	North Shore Dr	North Shore Dr	1000	24+	Tie into existing 6" WM, N side of North Shore
3	Pine St	Hand Ave	Division Ave	1300	30	
3	River Lane	John Anderson Dr	John Anderson Dr	1400	21	Connect new services to 16" WM, diconnect 2", conect 12" to 16" at John Anderson Dr
3	S Yonge St (east side)	Castilla St	Seville	1100	5	Replace w/ 8" wm
3	S Yonge St (west side)	Seville St	Publix entrance	1050	7	
3	San Jose Cir	San Jose Dr	San Jose Dr	1700	38	
3	San Jose Dr	San Jose Cir	#22	780	20	Tie into fire hydrant at 73 S. Arbor, attach new services to existing 6" WM, Tie Into S. Beach St
3	South Arbor Dr	S. Ridgewood Ave	S. Beach St	770	20	
3	Tam-O-Shanter Ln	Hand Ave	Arrowhead cir	400	10	



Utilities Division - Water Distribution 2" Water Main Replacement Priority List

March 2015

Priority Definitions

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3	Pine St	Hand Ave	Division Ave	1300	30	
3	River Lane	John Anderson Dr	John Anderson Dr	1460	21	Connect new services to 16" WM, diconnect 2", conect 12" to 16" at John Anderson Dr
3	S Yonge St (east side)	Castilla St	Seville	1100	5	Replace w/ 8" wm
3	S Yonge St (west side)	Seville St	Publix entrance	1050	7	
3	San Jose Cir	San Jose Dr	San Jose Dr	1700	38	
3	San Jose Dr	San Jose Cir	#22	780	20	Tie into fire hydrant at 73 S. Arbor, attach new services to existing 6" WM, Tie into S. Beach St
3	South Arbor Dr	S. Ridgewood Ave	S. Beach St	770	20	
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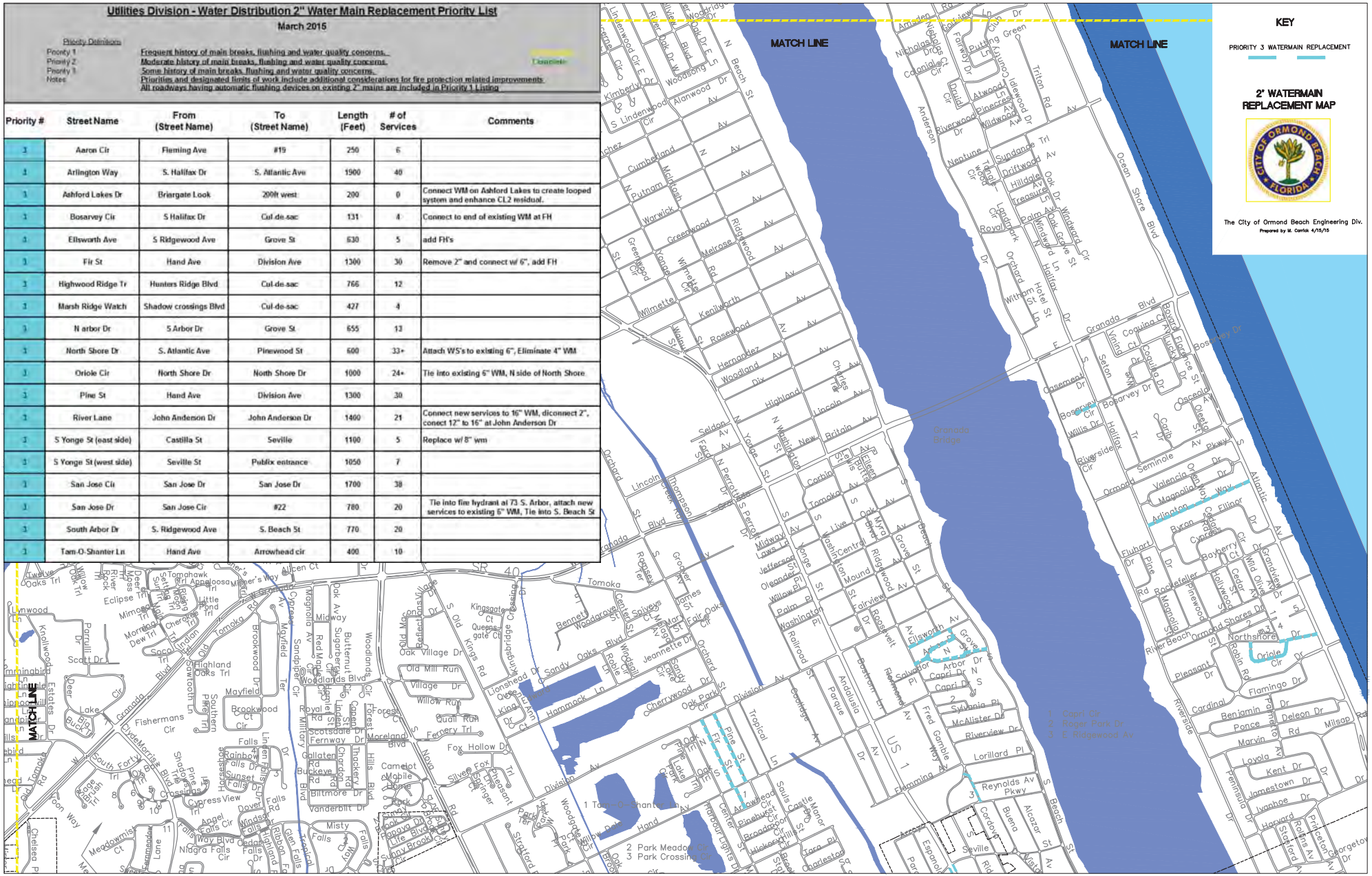

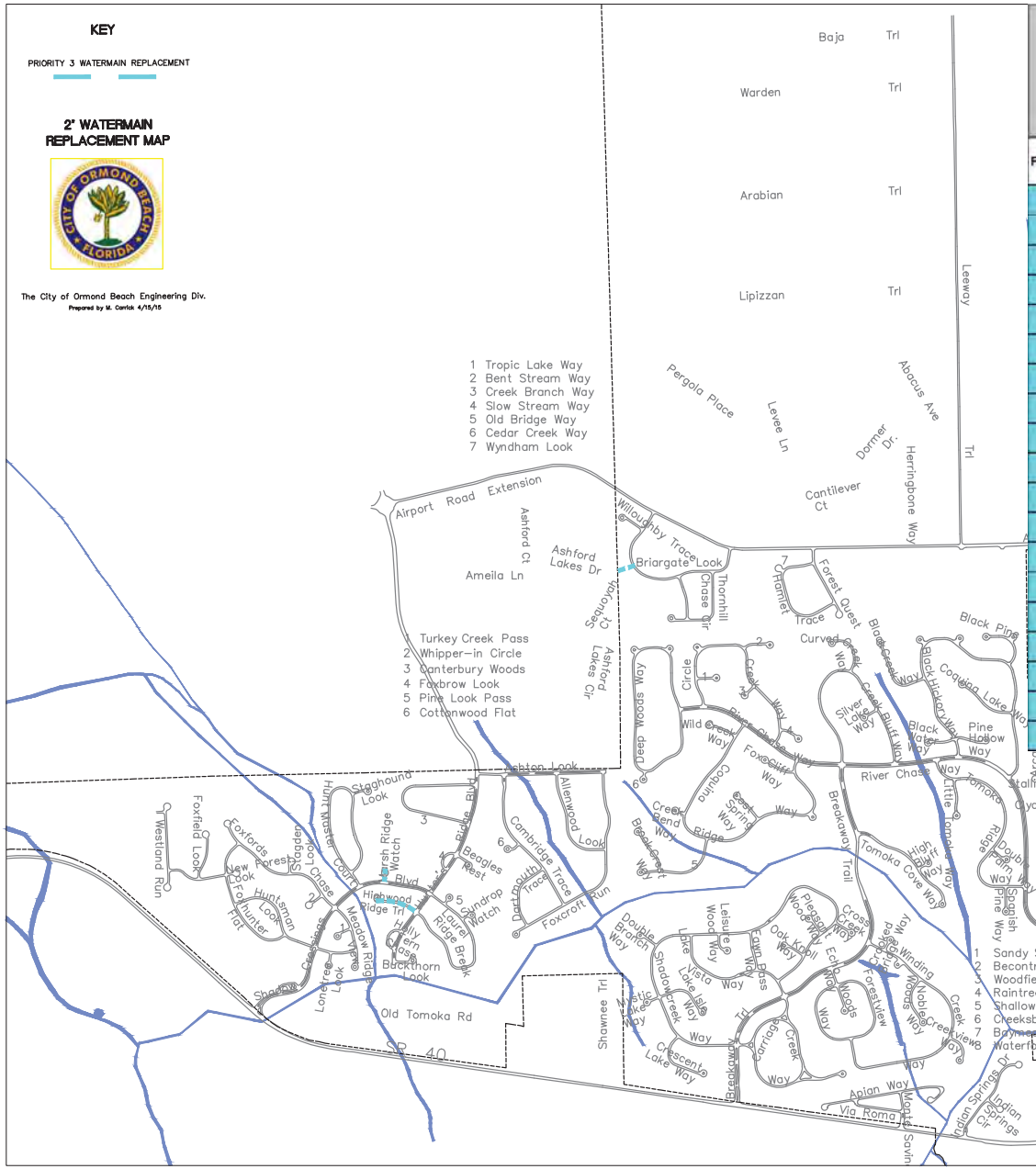

Utilities Division - Water Distribution 2" Water Main Replacement Priority List

March 2015

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1	Bosarvey Cir	S Halifax Dr	Cul-de-sac	131	4	Connect to end of existing WM at FH
1	Ellsworth Ave	S Ridgewood Ave	Grove St	630	5	add FH's
1	Fir St	Hand Ave	Division Ave	1300	30	Remove 2" and connect w/ 6", add FH
1	Highwood Ridge Tr	Hunters Ridge Blvd	Cul-de-sac	766	12	
1	Marsh Ridge Watch	Shadow crossings Blvd	Cul-de-sac	427	4	
1	N arbor Dr	S Arbor Dr	Grove St	655	13	
1	North Shore Dr	S. Atlantic Ave	Pinewood St	600	33+	Attach WS's to existing 6", Eliminate 4" WM
1	Oriole Cir	North Shore Dr	North Shore Dr	1000	24+	Tie into existing 6" WM, N side of North Shore
1	Pine St	Hand Ave	Division Ave	1300	30	
1	River Lane	John Anderson Dr	John Anderson Dr	1400	21	Connect new services to 16" WM, diconnect 2", conect 12" to 16" at John Anderson Dr
1	S Yonge St (east side)	Castilla St	Seville	1100	5	Replace w/ 8" wm
1	S Yonge St (west side)	Seville St	Publix entrance	1050	7	
1	San Jose Cir	San Jose Dr	San Jose Dr	1700	38	
1	San Jose Dr	San Jose Cir	#22	780	20	Tie into fire hydrant at 73 S. Arbor, attach new services to existing 6" WM, Tie into S. Beach St
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Utilities Division - Water Distribution 2" Water Main Replacement Priority List

March 2015

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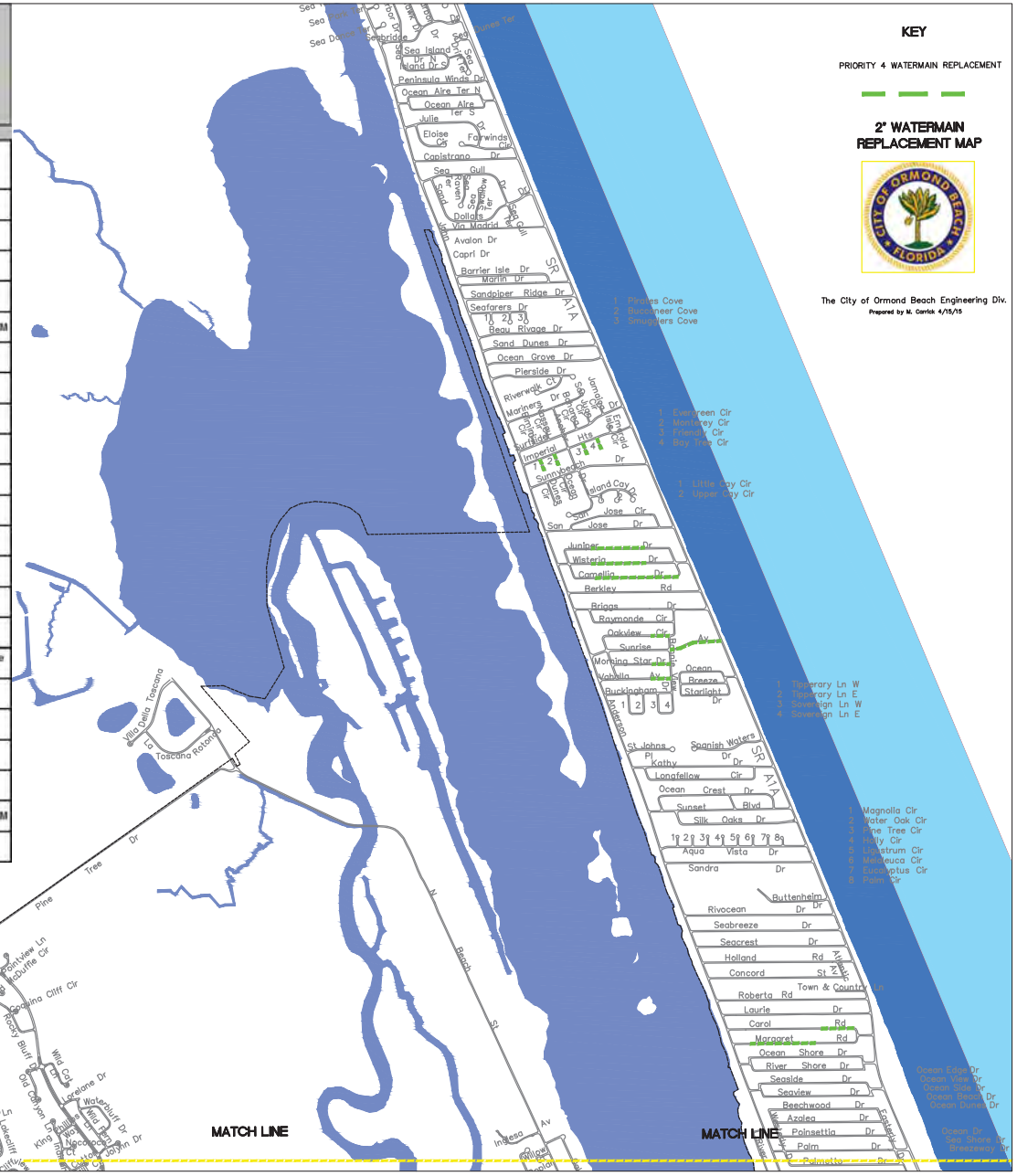
4	Acacia Ct	Poplar Dr	Cul-de-sac	250	3	Add Fire Hydrants
4	Alexander Ct	Sycamore Cir	Cul-de-sac	200	5	
4	Bellewood Cir	N Halifax Dr	Cul-de-sac	417	8	
4	Camelia Dr.	#2	#40	2200	50	
4	Carol Rd	#26	#7		73	Connect WM, connect all water services to 6" WM
4	Emerald Isle Cir	Imperial Hieghts Dr	Cul-de-sac	220	5	
4	Evergreen Cir	Imperial Hieghts Dr	Cul-de-sac	300	6	
4	Friendly Cir	Imperial Hieghts Dr	Cul-de-sac	300	6	
4	Juniper Dr	#32	#14	820	20	
4	Margaret Rd	#68	#30	950	59	Connect 6" WM, Add FH's, Tie WS to 6"
4	McIntosh Rd	Wilmette Ave	Hernandez Ave	1400	30	
4	Monterey Cir	Imperial Hieghts Dr	Cul-de-sac	300	6	
4	Morning Star Dr	#25	Bonnie View Dr	1400	30	
4	Oakview Cir	#23	Bonnie View Dr	515	12	
4	Putnam Ave	N. Beach St	Deadend, west of Andrews	3300	70	Add fire hydrants
4	S Washington St	Tomoka Ave	Central Ave	1020	20	Eliminate the 2" WM and tie new services to the 6" across the street
4	S. Washington St	Division Ave	Fairview Ave		8	Connect to existing 6" at #2 San Jose Cir
4	Sunny Shore Dr.	#55	JAD	590	68	
4	Sunrise Dr	Bonnie View Dr	Ocean Shore Blvd	865	15	add FH's
4	Valhalla Ave	#27	Bonnie View Dr	400	8	
4	Wilmette Cir	Wilmette Ave	Cul-de-sac	220	8	Connect WM, connect all water services to 6" WM
4	Wysteria Dr	#13	#31	765	18	



Utilities Division - Water Distribution 2" Water Main Replacement Priority List

March 2015

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4	Alexander Ct	Sycamore Cir	Cul-de-sac	200	5	
4	Bellewood Cir	N Halifax Dr	Cul-de-sac	417	8	
4	Camelia Dr.	#2	#40	2200	50	
4	Carol Rd	#26	#7		73	Connect WM, connect all water services to 6" WM
4	Emerald Isle Cir	Imperial Hieghts Dr	Cul-de-sac	220	5	
4	Evergreen Cir	Imperial Hieghts Dr	Cul-de-sac	300	6	
4	Friendly Cir	Imperial Hieghts Dr	Cul-de-sac	300	6	
4	Juniper Dr	#32	#14	820	20	
4	Margaret Rd	#68	#30	950	59	Connect 6" WM, Add FH's, Tie WS to 6"
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4	Valhalla Ave	#27	Bonnie View Dr	400	8	
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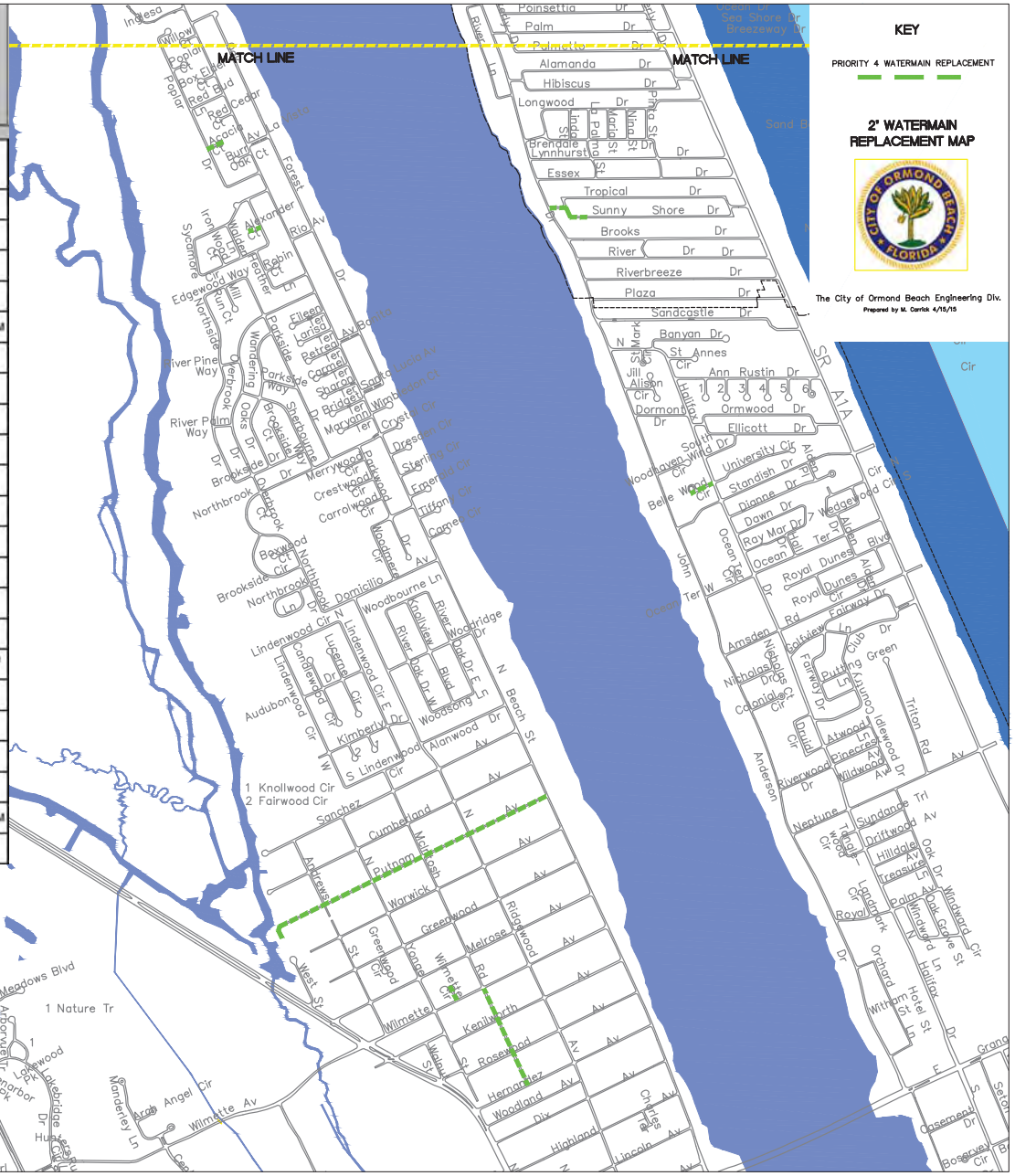
4	Wysteria Dr	#13	#31	765	18	



CAPITAL PROJECT DETAIL

PROJECT TITLE

Outfall Pipe Replacement

PROJECT#

409192

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Engineering

PROJECT SCOPE

Replacement of the failed effluent outfall pipe within the Halifax River

JUSTIFICATION

The existing effluent outfall pipe is in poor condition and broken in several locations resulting in inadequate diffusion. FDEP has observed the boils caused by the damaged outfall pipe and has requested the City repair or replace the pipe. Miscellaneous piping reconfiguration and valve replacement for nearby reuse and force main piping systems to be included with scope of outfall repairs as found necessary.

PROJECT COST METHODOLOGY

Updated Utility Master Plan

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Construction	720,000	0	0	0	0	720,000
Engineering, CA, and Inspection	0	0	0	0	0	0
Total	720,000	0	0	0	0	720,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Bond Proceeds	720,000	0	0	0	0	720,000
Total	720,000	0	0	0	0	720,000

7.3 WWTP Upgrades and Improvements

This section details treatment plant improvements that are necessary, independent of the capacity expansion alternatives, based upon a site survey. Improvements are broken down into categories on the basis of their function and relative location in the process.

WWT-1 Outfall Pipe Replacement (Short Term < 5 years)

The existing outfall is in poor condition and requires replacement of all subaqueous portions. In order to maintain treatment plant operations, the outfall must remain in service during construction; therefore, replacement is recommended in lieu of sliplining. the outfall discharge is approximately 1,000 ' from shore. Conventional sub-aqueous excavation and installation of 30" fusible PVC or HDPE is recommended.

Table 7.3-1
Project WWT-1
(Short Term < 5 years)
Outfall Pipe Replacement

Item	*Description*	*Qty*	*Unit*	*Unit Cost*	*Total Cost*
1	Install 30" HDPE Subaqueous Pipe	1000	LF	$400	$400,000
2	Construct Outfall Diffuser	1	LS	$100,000	$100,000
3	Tie-Ins, Valves and Fittings	1	LS	$100,000	$100,000
	Total Estimated Construction				*$600,000*
	Contingency @ 20%				$120,000
	Eng., C.A., & Inspection @ 15%				$90,000
	TOTAL ESTIMATED PROJECT COST				**$810,000**

CAPITAL PROJECT DETAIL

PROJECT TITLE

MLS Comminutor

PROJECT#

409190

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Engineering

PROJECT SCOPE

Study to determine the best technology for use at the influent pump station to control/remove rags from the wastewater stream.

JUSTIFICATION

The changing dynamics of wastewater has resulted in an increase in the number of "disposable" towels entering the waste stream these towels have the propensity to combine into what are termed "rags" that have the ability to clog pump impellers resulting in timely and costly maintenance of pumps. The Utility Master Plan recommended the installation of Comminutors. Comminutors is a mechanical device that shreds the rags ahead of the pumps and thus prevent the clogging that occurs. However this allows the shredded rags to enter the wastewater treatment stream and these rags tend to recombine causing problems downstream. Therefore staff is suggesting that the issue be studied to determine the most effective and economical way to handle the ragging problem and any construction recommendatinos will be placed in the next 5 year CIP

PROJECT COST METHODOLOGY

Updated Utility Master Plan

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Preliminary Engineering	30,000	0	0	0	0	30,000
Total	30,000	0	0	0	0	30,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Water & Sewer Charges	30,000	0	0	0	0	30,000
Total	30,000	0	0	0	0	30,000

WWT-2. Clarifier Weir Covers & MLS #1 Comminutor (Short Term < 5 years)

The WWTP has (4) 80' diameter clarifiers. They are conservatively sized at 398 GPD/SF for 8.0 MGD ADF conditions. It is conservative to increase the design loading rate to 498 GPD/SF for 10.0 MGD ADF conditions. Therefore, the existing clarifiers are adequate to support a capacity increase.

The only change proposed for the existing clarifiers is the installation of clarifier covers. The covers, pictured below, are installed around the perimeter of the clarifier and completely cover the weirs and baffles. The covers eliminate sunlight and therefore eliminate algae and the need to clean the weirs. Cleaning the weirs is probably one of the most maintenance intensive jobs at the WWTP and it provides absolutely no process enhancement. It is strictly a laborious task which must be performed constantly. The weir covers will completely eliminate the need to perform this task and increase the availability of staff by approximately 8 – 16 hours per week to perform other duties.

The weir covers are another fairly inexpensive project that could be constructed at any time. It is the recommendation of staff to expedite this project. A cost estimate is detailed below. The addition of two (2) comminutors assemblies at MLS #1 is also recommended at this time to reduce pump clogging issues.

Table 7.3-2
Project WWT-2
(Short Term < 5 years)
Clarifier Weir Covers & MLS #1Communitor

Item	*Description*	*Qty*	*Unit*	*Unit Cost*	*Total Cost*
1	Clarifier Weir Covers	4	EA	$60,000	$240,000
2	Comminutor Assemblies	2	EA	$60,000	$120,000
	Total Estimated Construction				*$360,000*
	Contingency @ 20%				$72,000
	Eng., C.A., & Inspection @ 15%				$54,000
	TOTAL ESTIMATED PROJECT COST				**$486,000**

WWT-3. Sludge Digester Improvements (Short Term < 5 years)

Aerated Sludge Holding (Digesters)

The existing aerated sludge holding tanks are utilized to temporarily hold waste sludge prior to dewatering and disposal. The City is not digesting to achieve Class B or other. In fact, excessive sludge holding times are detrimental to the biological nutrient removal (BNR) process. All of the phosphorous removed in the BNR process is stored in the waste sludge. Excessive sludge holding times contributes to cell destruction in the holding tanks and subsequent release of phosphorous back to the head of the plant.

It is important to maintain good aeration, and to have sufficient storage volume to allow effective control of solids inventory; however, additional volume is not necessary. The biggest problem with the current system are the blowers and diffusers. They are old and have reached the end of their useful life. New technology is available which provides better mixing and aeration, with far less horsepower. Similar to the Invent mixers proposed for installation in the Fermentation and Anoxic basins, the hyperbolic mixing/aeration system combines the mixers with a circular diffuser ring which is installed under the mixer. The air

CAPITAL PROJECT DETAIL

PROJECT TITLE

South Peninsula Reclaimed Water Main Expansion

PROJECT#

435040

CATEGORY

Water and Wastewater Improvements

FUND

435-Wastewater Impact Fees

PROJECT LOCATION

MANAGEMENT

Engineering

PROJECT SCOPE

Extend Reclaimed water mains and connect existing Dry lines installed under the previous 2-inch water main replacement project.

JUSTIFICATION

The City Commission has identified serving the South Peninsula with reclaimed water to be a high priority project. Reuse of effluent reduces the City's Discharge of effluent into the Halifax River and reduces water consumption and helps to offset saltwater intrusion along the peninsula. Staff has applied for a grant from the SJRWMD and submitted a legislative funding request for this project.

PROJECT COST METHODOLOGY

Updated Utility Master Plan

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Construction	3,208,400	0	0	0	0	3,208,400
Engineering, C.A., and Inspection	130,000	0	0	0	0	130,000
Total	3,338,400	0	0	0	0	3,338,400

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Bond Proceeds	1,200,000	0	0	0	0	1,200,000
SJRWMD Grant	1,200,000	0	0	0	0	1,200,000
Wastewater Impact Fees	938,400	0	0	0	0	938,400
Total	3,338,400	0	0	0	0	3,338,400

CAPITAL PROJECT DETAIL

PROJECT TITLE

N. Peninsula Water System Improvements

PROJECT#

409191

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Engineering

PROJECT SCOPE

Water system upgrades on the North Peninsula to address low pressures and provide adequate pressures for fire service to the area.

JUSTIFICATION

The north Peninsula water mains were installed over 50 years ago and many areas do not have adequate pressures for required fire flow service. Improvements to the system will increase pressures and provide adequate fire flow pressure throughout the system.

PROJECT COST METHODOLOGY

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Construction	562,000	0	0	0	0	562,000
Engineering, CA, Inspection	0	0	0	0	0	0
Total	562,000	0	0	0	0	562,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Bond Proceeds	562,000	0	0	0	0	562,000
Total	562,000	0	0	0	0	562,000

Project W-5, North Peninsula Water System Improvements (Mid Term 5 – 10 years)

See Section 6.6 for details of improvements. The conceptual costs are in the following table.

Table 6.8-6
Project W-5
(Mid Term 5 – 10 years)
North Peninsula Water System Improvements

Item	*Description*	*Qty*	*Unit*	*Unit Cost*	*Total*
1	Construct 8" HDPE Directional Drill Water Main	4,000	LF	$75	$300,000
2	Provide and Install Fire Hydrant Assembly	8	EA	$3,000	$24,000
3	Valves and Fittings	1	LS	$120,000	$120,000
4	Service Laterals	40	EA	$600	$24,000
	Total Estimated Construction				*$468,000*
	Contingency @ 20%				$93,600
	Eng., C.A., & Inspection @ 15%				$70,200
	TOTAL ESTIMATED PROJECT COST				**$631,800**

CAPITAL PROJECT DETAIL

PROJECT TITLE

Process and Instrumentation Control Improvements

PROJECT#

409193

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Utilities

PROJECT SCOPE

Supervisory Control and Data Acquisition (SCADA) System Upgrades and Platform Standardization

JUSTIFICATION

The City Utilities Division currently operates the water and wastewater treatment plants with a SCADA system platform comprised of different versions of Intollution (IFIX) based software for monitoring plant equipment instrumentation and controls functions. The City's remote source water wells are also monitored with the water plant IFIX System. Another SCADA platform, Open Enterprise - Emerson Process and Controls, is currently utilized for monitoring approximately eighty (80) remote lift stations throughout the City's wastewater collection system. The software platforms for each of these systems are also several revisions old with no support contracts in place with either system vendor. These systems were originally procured over several years and in conjunction with several different projects and subcontracted SCADA system integration services providers. Upon staff realization of the difficulties and costs for maintenance and periodic trouble shooting of these varying systems, the Water and Wastewater Master Plan update included performance of a needs assessment and review of the overall system for development of a standardized system for all in-plant and remote components (hardware and software) for purposes of defining a scope of work and associated costs for eventual implementation. Needs also identified include new updated server configurations compatible with current Microsoft support platforms and consistent with other City standard server devices for placement in controlled and secure environments for security and reliability considerations. The goal of this project is to develop one SCADA system platform for operating all water and wastewater in-plant and remote well, lift station and reuse storage and pumping systems configured appropriately for redundancy and reliability. The scope of work for eventual integration will be structured to include pricing proposals for onsite/ offsite integration services and software license support for a multi-year period. Also to be developed with the scope of work will be standards for in-plant and remote system controls components and programs, nomenclature and numerization for labeling and identifying facilities/ components/ locations as well as including operator defined trending and reporting standards. It is intended that eventual annual software support activities and costs for selected SCADA software will be identified in the eventual software proposal and will be included in subsequent year operations budgets.

PROJECT COST METHODOLOGY

Master Plan Update - Specialty Consultant Defined Price Estimates

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Implementation Services	300,000	200,000	0	0	0	500,000
Engineering Services (HW Arch / SW RFP-Integ)	0	0	0	0	0	0
Hardware/ Software Procurement	0	0	0	0	0	0

CAPITAL PROJECT DETAIL

PROJECT TITLE

Process and Instrumentation Control Improvements

PROJECT#

409193

Total	300,000	200,000	0	0	0	500,000

REVENUE	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**Total 2016-17 to 2020-21**
Bond Proceeds	300,000	200,000	0	0	0	500,000
Total	300,000	200,000	0	0	0	500,000

City of Ormond Beach, FL

SCADA Assessment and Plan

Prepared for Quentin L Hampton Associates

1.0) Executive Summary

The City of Ormond Beach has a modern, complex Water/Wastewater Supervisory, Control and Data Acquisition (SCADA) system, which has grown project by project, without a defined, overall direction or set of standards. The purpose of this document is to outline a series of steps to create an overall direction and set of standards for the City moving forward, enhancing security, operability, maintenance and overall value for the City.

2.0) History

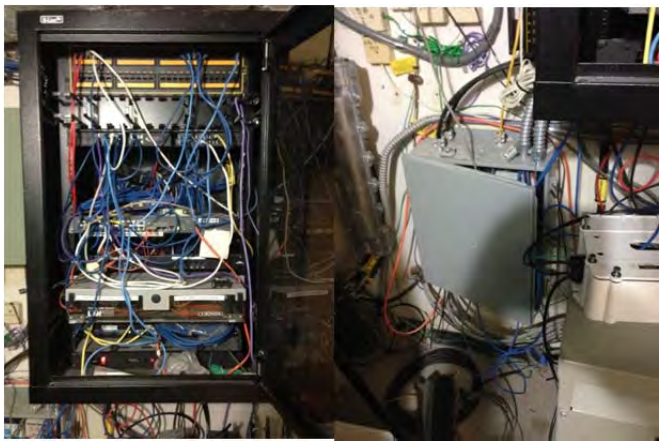
The City of Ormond Beach has performed multiple capital improvement projects over the last ten years, many of which have included a SCADA component. Each project has been performed based upon a loose hardware/software standard by the City, primarily only specifying the manufacturers of the portions of the hardware and software. Beyond that, how the systems were programmed and installed was primarily up to the individual engineering firm and individual integrators. This has created a mix of hardware and software platforms, as well as varying communications strategies. Additionally, the City has taken the first step towards a unified SCADA system by creating a Wide Area Network, connecting the Water (WTP) and Wastewater (WWTP) plants with a high speed connection.

3.0) Existing System

3.1) Wastewater Treatment Plant

3.1.a) Network

The WWTP consists of an Ethernet based Local Area Network (LAN), mixed over copper and fiber. This system connects Programmable Logic Controllers (PLC), variable speed drives (VFD), servers and workstations to form a single LAN. This LAN is not well documented in one location, and understanding it, and thus troubleshooting it, is difficult. Appendix A has the currently best available documentation of the system. The LAN Switch infrastructure consists of a combination of Hirschmann and Garrettcom switches in the panels, and a Garrettcom switch in the server rack. The current network is not well documented, and appears to be a star configuration. Remote communications to the liftstations are via licensed frequency radio, with some radio communications issues in some of the outlying stations. Wide Area Network (WAN) connection is in the Janitor's closet (shown to the left) and connects the plant to the City network, and through that network to the WTP.



This connection is important as the radio data is run over the WAN, and information from the various lift stations is transmitted back to the WTP for service area pressure monitoring. The connection to the City network does not appear to be well documented or maintained.

To the left is a typical network connection in the drives located on the treatment structure. Please note that the whole system is hanging by the power wires, the DIN rail that the equipment is mounted to is not fastened to anything.

3.1.b) Programmable Logic Controllers

The PLCs are a mix of Emerson ControlWave, Allen-Bradley SLC, and Modicon Momentum PLCs. The Allen-Bradley and Modicon PLCs are for the travelling bridge filter and the switchgear, and are not currently connected to the network. The Controlwave PLCs are located in four locations, PLC 1, 2, 3 & 4, and provide primary plant control and all data acquisition for the WWTP. All four of the primary control PLC panels have UPSs internal to the panels. Documentation for the panels seems to be acceptable, but hard to access.

3.1.c) SCADA Operator Interface

The SCADA Operator Interface Software is from two different manufacturers. The Lift Station SCADA software is Emerson Open Enterprise software. This is a standalone system, and does not connect to the Plant SCADA system. There are two computers running this software, a server and a workstation.

Software on these computers is as follows:

Computer Name: **obswwsa (Liftstation Server)**

OS –	Server 2003 R2 Standard Service Pack 2
Processor –	Intel Pentium D 3.2 GHz
Memory –	4GB RAM
Mfg –	Dell Power Edge 840, Service Tag FY8FZD1
SCADA Software –	OpenEnterprise Version 8.02.140.18
	Open BSI 5.7 SP1
	ControlWave Designer License
	Network Edition License
	Win911 Version 7.15.00.00

Computer Name: **(Liftstation View)**

OS –	Windows XP Service Pack 3
Processor –	Intel E6400, 2.13, 2M Core Duo
Memory –	1GB RAM
Mfg –	Dell Optiplex 745, Service Tag 18QQWC1
SCADA Software –	OpenEnterprise Version license lost, no further information

The current Lift Station system allows for monitoring, with no control. The operations staff has to currently reboot the computer frequently to establish communications and login. There is also no historian software, so storage and retrieval of data will be difficult.

The second SCADA system in the plant consists of GE Proficy iFIX in a client/server based structure. These SCADA Operator interfaces are broken up in to two classes, Operator Interface Terminals (OIT) that local to the process, and plant workstations in the control room. The OITs are Modicon Magelis Industrial Computers, running iFIX client software, so if connection to the server is lost, there is no view of the plant data. All four of these are experiencing problems, from complete failure to lost data connections.

The second class is the control room Operator Workstations. These are configured as follows:

Computer Name: **WWClient5, 6 (Operator Workstations)**

OS –	Windows XP Service Pack 3
Processor –	Intel Core 2 Duo 2.93 GHz
Memory –	3.25 GB RAM
Mfg –	Indeterminate
SCADA Software –	Proficy Historian 4.0.0.176 iFix Version 5.0 Build 6667 SyTech Inc XL Reporter Version 9.01 (only WWClient5) MSOffice 2007

Computer Name: **WWClient7 (Laptop)**

OS –	Windows 7 Home Premium SP1
Processor –	Intel Core i3-2350M 2.3 GHz
Memory –	2.0 GB RAM
Mfg –	Dell Latitude E5530 Service Tag BYGRGVI
SCADA Software –	Open BSI Version 5.8 Build 0630 Hardware Key for Licensing Proficy Historian 4.0.0.176 iFix Version 5.5 Build 8120 SyTech Inc XL Reporter Version 9.01

MSOffice 2007

These workstations are supported by a set of servers located in a rack in the control room. These servers are of indeterminate manufacture (no tags or markings), and are

covered in dust, which will shorten the life of these servers. They are running Server 2003, which is scheduled to become obsolete in approximately six months. Also, the domain controller has not been set up, so there is not a WWTP domain authentication process. The Historian Server has a missing password, and once that is resolved, the hard drives need to be backed up as they are currently full, and the historian needs to be configured for a data capture scenario that makes sense for the operations staff. Additionally, there are two UPS systems, one in use, one appears to be abandoned in place.

The servers are configured as follows:

Computer Name: **WWOB1, WWOB2 (Primary and Secondary Plant Data Server)**

OS –	Server 2003 R2 Standard Service Pack 2
Processor –	Intel Xeon 2.4 GHz
Memory –	4GB RAM
Mfg –	Indeterminate
SCADA Software –	Open BSI 5.7 SP1 Patch for NetView SP
	Network Edition
	OPC Server
	Proficy iFix version 5.0 (Build 6667)
	MYTSOFT version 1.78
	Proficy Historian 4.0.0.176 (same for Client Server)
	SDK13 4.0.0.0

Computer Name: **Ormond Beach WWTP (Domain Controller)**

OS –	Server 2003 R2 Standard Service Pack 2
Processor –	Intel Xeon 2.4 GHz
Memory –	4GB RAM
Mfg –	Indeterminate

SCADA Software –	Open BSI 5.7 SP1 Patch for NetView SP Network Edition – Licensed OPC Server – Licensed Proficy iFix version 5.0 (Build 6667) MYTSOFT version 1.78 Proficy Historian 4.0.0.176 (same for Client Server) SDK13 4.0.0.0

Computer Name: **??????? (Historian Server, no password, no info)**

OS –	Server 2003 R2 Standard Service Pack 2 (Likely)
Processor –	Intel Xeon 2.4 GHz (Likely)
Memory –	4GB RAM (Likely)
Mfg –	Indeterminate
SCADA Software –	Open BSI 5.7 SP1 Patch for NetView SP (Likely) Network Edition – Licensed (Likely) OPC Server – Licensed (Likely) Proficy iFix version 5.0 (Build 6667) (Likely) MYTSOFT version 1.78 (Likely) Proficy Historian 4.0.0.176 (Likely) SDK13 4.0.0.0 (Likely)

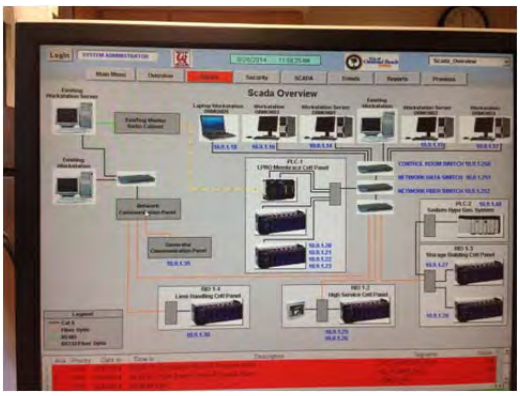
Rack Network Switch -	Garrettcom Magnum 6K32F managed switch
Rack KVM Switch -	Belkin OmniView PR03 KVM
Rack UPS -	APC Smart-UPS 3000XL Tripp-Lite Model: BP72V28RF3U (abandoned in place)

With all of the above SCADA software, there does not appear to be any support contracts in place, and the software appears to be several revisions old, and there are different revisions on different machines.

3.2) Water Treatment Plant

3.2.a) Network

The WTP consists of an Ethernet based Local Area Network (LAN), mixed over copper and fiber. This system connects Programmable Logic Controllers (PLC), variable speed drives (VFD), servers and workstations to form a single LAN. This LAN is not well documented in one location, and understanding it, and thus troubleshooting it, will be difficult. Appendix B has the currently best available documentation of the system. There is a good depiction of a network on the local SCADA system (shown to the left) but it is obsolete. There is only one workstation, located in an office not in the control room, which is functional. The operators are using the two servers as workstations, which is not good practice. Additionally, RIO 1-2 has been changed to a PLC, and there should be some indication of which PLC controls which RIO panel. The current network appears to be a laid out in a star configuration, with a switch infrastructure consisting of a combination of Ntron, Sixnet, Blackbox, Netgear and Transition switches in the panels, and additional switches in the operations room. The LAN also connects to the City network, and documentation seemed to be non-existent, and again, this connection is important, as all of the radio data for the lift stations crosses this network. Remote communications to the distribution system and wells are via licensed frequency radio, with some communications issues in some of the outlying stations. The distribution/well and collections system master radios all reside on the WTP site. Documentation appeared to be missing for the radio panel.



3.2.b) Programmable Logic Controllers

The PLCs are a mix of Emerson ControlWave (PLC-1, RIO 1-2, 3, 4), Allen-Bradley CompactLogix (PLC-2), Allen-Bradley SLC 5/05 (Lime Building Transfer Control Panel), and Amocams PLCs (Generator Building). The Allen-Bradley and Amocams PLCs are for the hypochlorite generation and generator, and are connected to the network. The ControlWave PLCs are located in four locations, PLC 1, RIO-1-2, 3, 4 and provide primary plant control and most data acquisition for the WWTP. All of the primary control PLC panels have UPSs internal to the panels. Documentation for the panels seems to be lacking.

3.2.c) SCADA Operator Interface

The SCADA system in the plant consists of GE Proficy iFIX in a client/server based structure. These SCADA Operator interfaces are broken up in to two classes, Operator Interface Terminals (OIT) that local to the process, and plant workstations in the control room. The local OITs are an Allen-Bradley Standalone OIT at the Chlorine Generator, Lime Transfer Pumping and Centrifuge system running RSViewME and Modicon Magelis Industrial Computers running iFIX Server software for the High Service Pump System and iFIX client for the Filter System. The Magelis for the filter system has failed, and the Magelis in the High Service Pump panel is kept turned off, as when left on, it locks up the PLC.

The workstations are configured as follows:

Computer Name: **Ormond3 (Office Workstation - Non-functional)**

OS –	Windows XP Service Pack 2
Processor –	Intel Pentium D 3.00 GHz
Memory –	1.0 GB RAM
Mfg –	Dell OptiPlex GX745 Service Tag 9FV9WC1
SCADA Software –	Proficy iFix Version 4 Build 6192
	MSOffice 2003

Computer Name: **Ormond4 (Office Workstation)**

OS –	Windows XP Service Pack 2
Processor –	Intel Pentium D 3.00 GHz
Memory –	1.0 GB RAM
Mfg –	Dell OptiPlex GX745 Service Tag 6FV9WC1
SCADA Software –	Proficy iFix Version 4 Build 6192
	MSOffice 2003

Computer Name: **Ormond5 (Engineering Laptop)**

OS –	Windows XP Service Pack 2
Processor –	Intel Core 2 1.66 GHz
Memory –	1.0 GB RAM
Mfg –	Dell Latitude D820 Service Tag HF98WC1
SCADA Software –	Proficy iFix Version 4 Build 6192
	Open BSI Version 5.7 SP1
	ControlWave Designer
	Network Edition
	Object Server
	OPC Server
	ACCOL Workbench

Computer Name: **Ormond6 (High Service Pump Station)**

OS –	Windows XP Service Pack 2
Processor –	
Memory –	
Mfg –	Magelis Compact PC
SCADA Software –	Proficy iFix Version 4 Build 6192
	Open BSI Version 5.7 SP1
	ControlWave Designer
	Network Edition
	OPC Server

These workstations are supported by a pair of servers located on desks in the control room. These servers are currently being used as operator workstations, which is not standard practice for servers. The servers were also set up for redundancy, however, according to operations staff, the redundancy is not functional. The remaining computers in the control room were non-functional at the time of this survey.

The servers are configured as follows:

Computer Name: **Ormond1 (Primary Plant Data Server)**

OS –	Server 2003 R2 Standard Service Pack 2
Processor –	Intel Pentium D 3.2 GHz
Memory –	2.0 GB RAM
Mfg –	Dell PowerEdge 840 Service Tag BW8HWC1
SCADA Software –	GE Industrial Gateway Server 7.51
	Open BSI Version 5.7 SP1
	CW Designer
	Network Edition
	OPC Server
	Proficy iFix Version 4 Build 6192
	Sytech XL Reporter 8.01
	Microsoft Office 2003

Computer Name: **Ormond2 (Secondary Plant Data Server)**

OS –	Server 2003 R2 Standard Service Pack 2
Processor –	Intel Pentium D 3.2 GHz
Memory –	2.0 GB RAM
Mfg –	Dell PowerEdge 840 Service Tag 8W8HWC1
SCADA Software –	GE Industrial Gateway Server 7.51
	Open BSI Version 5.7 SP1
	CW Designer

Network Edition
OPC Server
Proficy iFix Version 4 Build 6192 (no HASP Key error)
Sytech XL Reporter 8.01
Microsoft Office 2003
Win911 Version 7.05.00.00 (not being used)
AB Driver Version V5.0.1159.0-U

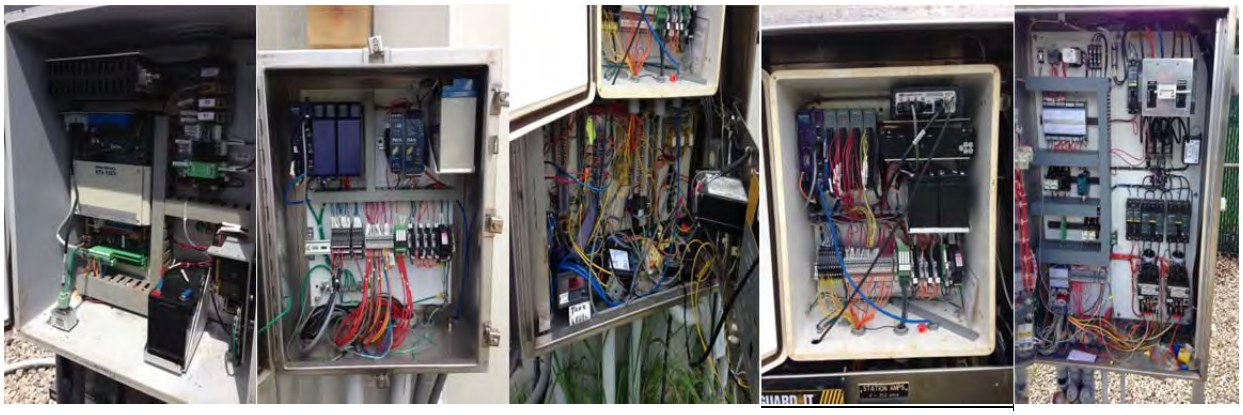
3.3) Lift Stations and Wells

3.3.a) Network

All out of plant systems are over licensed frequency radios, over MDS 9790 radios. The water system uses 958.23125 MHz, and the collection/reclaim system uses 958.50625 MHz. Master radios are located at the water plant, with the antennae mounted on top of the water tower, and radios and combiners in an enclosure at the base. The master radio system did not appear to have available documentation. These frequencies provide a relatively high volume of data transfer, but suffer in range and ability to transmit through objects such as trees and buildings. According to operations, some of the outlying stations have intermittent communications, likely due to this. The master radio for the lift stations connects over the City network to the WWTP.

3.3.b) Programmable Logic Controllers/Lift Station and Well Pump Control Panels

The current out of plant controls have Emerson ControlWave Micro RTUs, obsolete Bristol 3330 RTUs, and Flygt controllers. There is not a current standard for RTUs or pump control panels, which allows for a wide variation in assembled systems, as seen in various locations.



As we were informed that the well and lift station RTU panels are the same, only the lift station variations are shown above. The system at Breakaway Trails needs well defined plan for usage, and then a full re-design of the controls. Specifically, given the pump control panel sits right at the wet well and is being regularly destroyed by hydrogen sulfide, the panel should be relocated inside the building, and only the motor feeds run out to the wet well.

3.3.C) SCADA Operator Interface

The Lift Station SCADA software is Emerson Open Enterprise software. This is a standalone system, and does not connect to the WWTP Plant SCADA system. There are two computers running this software, a server and a workstation.

Software on these computers is as follows:

Computer Name: **obswwsa (Liftstation Server)**

OS –	Server 2003 R2 Standard Service Pack 2
Processor –	Intel Pentium D 3.2 GHz
Memory –	4GB RAM
Mfg –	Dell Power Edge 840, Service Tag FY8FZD1
SCADA Software –	OpenEnterprise Version 8.02.140.18 Open BSI 5.7 SP1 ControlWave Designer License Network Edition License Win911 Version 7.15.00.00

Computer Name: **(Liftstation View – Not used)**

OS –	Windows XP Service Pack 3
Processor –	Intel E6400, 2.13, 2M Core Duo
Memory –	1GB RAM
Mfg –	Dell Optiplex 745, Service Tag 18QQWC1
SCADA Software –	OpenEnterprise Version license lost, no further information was able to be retrieved.

The current Lift Station system allows for monitoring, with no control. The operations staff has to currently reboot the computer frequently to establish communications and login. There is also no historian software, so storage and retrieval of data will be difficult.

4.0) Planning for the Future

4.1) Wastewater Treatment Plant

4.1.a) Network

There are two critical tasks for the WWTP network.

Task #1 – Documentation for the LAN/WAN
There did not appear to be anyone that had a full and complete knowledge of the local/wide area network. Appendix A shows the network layouts available, but none of them give a true picture of the existing network. Without this documentation, troubleshooting the network becomes problematic. And, it would require re-familiarizing yourself with the network every time you have to troubleshoot or add segments.

Task #2 – Clean up the WAN location
Given the state of the network system inside the Janitor's closet, there is a real possibility that the system could be inadvertently damaged. The equipment in that room should be moved to a location suitable for IT equipment, or the room should be converted into a dedicated IT room.

Future Planning non-critical Tasks:

Task #3 – Review the network design after it is documented. Where required, redesign to remove non-standard configurations and increase compatibility, security and reliability.

Task #4 – Select a standard managed switch, and implement those switches and the management software. This will allow you to monitor the health of the network and proactively resolve any issues. It will also allow you to increase your network security, by disabling ports not in use, as well as locking a port down to a specific MAC address.

Task #5 – Migrate the network from a star configuration to a self-healing ring configuration. This will provide fault tolerance should a portion of the communications structure, fiber or copper, be destroyed.

Task #6 – Create and document an IP address standard for the plant LAN, in order to allow proper segmenting of the network, and management of traffic.

Task #7 – Deploy a proper firewall between the plant LAN and the City WAN, in order to properly secure the additional connectivity.

Task #8 – Deploy a remote access server that will allow staff to view the plant remotely. This will decrease the time and number of callouts for troubleshooting process problems.

Task #9 – Review installed network equipment for proper installation. Start with drives on treatment structure.

4.1.b) Programmable Logic Controllers

There are currently no critical tasks for the PLCs.

Future Planning non-critical Tasks:

Task #1 – Evaluate and select a standard in plant PLC platform. ControlWave is a good platform, but it has challenges. No local stocking distribution, thus requiring the City to maintain a complete spare parts stock. Package equipment suppliers will generally not furnish ControlWave with their packages, thus you will always have a mix of PLCs in your plants, requiring staff to be proficient in multiple platforms. Currently, there are three different PLCs in your plant, ControlWave, Allen-Bradley and Modicon.

Task #2 – Start to develop and deploy standard PLC code throughout your system. 80-90% of the PLC code performs the same functions on every project using different methodology. Like travelling, you can get to your destination multiple ways. Develop standard code, and require that any integrator use it. This will allow staff to be far more efficient troubleshooting and modifying the systems, if they don't have to figure out different code for every pumping system.

Task #3 – Develop a tagging standard for PLC programming. A tagging standard allows a person familiar with the system to know exactly what the tag refers to. It might look something like PLANT_PROCESS_PLCorRIO_DEVICE_NUMBER, where PLANT may be WTP or LSXX, PROCESS may be HDW or FLTR or LPRO, PLCor RIO would be the PLC or RIO number/rack/slot/point, DEVICE would be LIT or MOV, and NUMBER would be the process ID number. WWTP_HDW_P1R1S3P13_LIT_508 would be at the WWTP, headworks, PLC1/Rack1/Slot3/Point13, it's a level indicating transmitter, and the number is 508. This will allow staff to quickly look at the tag, and know exactly where they need to go to troubleshoot or modify the system.

Task #4 – Develop a preventative maintenance plan for each PLC panel. This should include at minimum a processor check for errors, UPS battery check, OIT check for

errors, network switch check, and general physical inspection. This should be performed at minimum every six months. UPS batteries should be replaced annually.

4.1.c) SCADA Operator Interface

There are six critical tasks for the WWTP SCADA Operator Interface.

Task #1 – Change passwords on all computers from the integrator password to a City developed password. Create an additional account for integrators and require they use that account to service your system so your passwords are not changed or lost. Document the passwords, and store in an area accessible to staff with the required privleges. This will provide for better security for your servers.

Task #2 – Acquire the password for the Historian. Back-up data and create room on the hard drive. Review the historian setup with the operations staff. Create a plan to revise setup to better reflect the data requirements of the plant (All the data stored as fast as possible is not a good plan, just eats hard drive space).

Task #3 – Move the server rack in to a location suitable for IT equipment, dust free and cool. This is critical to proper operation and longevity.

Task #4 – As your current MS operating systems are obsolete and out of support (Windows XP April 8, 2014) or will be in shortly (Windows Server 2003 July 14, 2015), it is critical that a planned migration be started now.

Task #5 – Should be done at the same time as task #3. It would be a good time to re-engineer your server/workstation system, to reduce your licensing costs. With the proper network connectivity, it may be possible to use only two servers, one at the WTP and one at the WWTP. This will provide the required redundancy, as well as reduce costs. Additionally, you could run only one historian system. This is only possible if the three systems (WTP, WWTP and Remotes) do not have any identical tags. This would also be the time to bring your software all up to the current revision level, and get it under contract. Be prepared to spend between 10 & 20% of the software cost per year for software support. It would also be the time to bring your lift station system in to the iFIX system, and remove that platform from your system. This will allow reduced overall software costs and reduced staff training requirements.

Task #6 – Fix the Local OITs so they are functional again, both the software configuration issues and the hardware fault issues.

Future Planning non-critical Tasks:

Task #7 – Start to develop and deploy standard HMI objects, tagging and standards throughout your system. Very similar to the PLC code and tagging standards, this will make your SCADA Operator Interface much more user friendly, easier to maintain, modify, and operate. Again, once a standard is developed, you must insist that any integrator follow it to the letter. The objects developed can also be tied directly to standard code blocks in the PLCs, so that when you add an additional piece of equipment, like a VFD or a valve, the standard PLC code is dropped in to the program, the standard graphic object is dropped on to the SCADA screen, and all of the matching tags for both are automatically created, and tied together.

Task #8 – Remote OIT terminals that are currently clients to the servers could be migrated to small standalone applications for that process area. This will allow you to continue to operate the plant if something catastrophic happens to the server based system.

Task #9 – Develop a preventative maintenance plan for each PLC panel. This should include at minimum a processor check for errors, UPS battery check, OIT check for errors, network switch check, and general physical inspection. This should be performed at minimum every six months. UPS batteries should be replaced annually.

Task #10 – Connect the travelling bridge filter and the generator PLCs to the SCADA system and display the information on dedicated screens. This will enhance the operations staff's ability to monitor, control and troubleshoot the plant equipment and process.

Task #11 – Incorporate user specific logins to track operations. This will allow supervisors to see who is struggling with operations decision making and allow additional training or mentoring to be applied.

Task #12 – Automate the monthly operations reports, deliver to the appropriate personnel via email, or hard copy. Create additional operations reports to assist staff in efficiently operating the plant. Create a daily report for plant superintendents delivered automatically.

Task #13 – Integrate a Computer Maintenance Management System in to the SCADA system, with the ability to generate work orders based upon runtimes, alarms, an operator generated event, or any other event defined.

4.2) Water Treatment Plant

4.2.a) Network

There is one critical task for the WTP network.

Task #1 – Documentation for the LAN/WAN
There did not appear to be anyone that had a full and complete knowledge of the local/wide area network. Appendix A shows the network layouts available, but none of them give a true picture of the existing network. Without this documentation, troubleshooting the network becomes problematic. And, it would require re-familiarizing yourself with the network every time you have to troubleshoot or add segments.

Future Planning non-critical Tasks:

Task #2 – Review the network design after it is documented. Where required, redesign to remove non-standard configurations and increase compatibility security and reliability.

Task #3 – Select a standard managed switch, and implement those switches and the management software. Given the quantity of different switch manufacturers in your network, there is potential for compatibility issues, especially with fiber. This will also allow you to monitor the health of the network and proactively resolve any issues. You will increase your network security, by disabling ports not in use, as well as locking a port down to a specific MAC address.

Task #4 – Migrate the network from a star configuration to a self-healing ring configuration. This will provide fault tolerance should a portion of the communications structure, fiber or copper, be destroyed.

Task #5 – Create and document an IP address standard for the plant LAN, in order to allow proper segmenting of the network, and management of traffic.

Task #6 – Deploy a proper firewall between the plant LAN and the City WAN, in order to properly secure the additional connectivity.

Task #7 – Deploy a remote access server that will allow staff to view the plant remotely. This will decrease the time and number of callouts for troubleshooting process problems.

4.2.b) Programmable Logic Controllers

There is one critical task for the WTP PLCs.

Task #1 – Evaluate and remove the Amocams PLC from the generator building. Staff is unsure if it does anything, but they are concerned about working in the area due to that unknown. Equipment should not be abandoned in place, but should be removed and all documentation changed so that staff does not have to re-investigate the equipment everything they need to perform an operation in that building.

Future Planning non-critical Tasks:

Task #2 – Evaluate and select a standard in plant PLC platform. ControlWave is a good platform, but it has challenges. No local stocking distribution, thus requiring the City to maintain a complete spare parts stock. Package equipment suppliers will generally not furnish ControlWave with their packages, thus you will always have a mix of PLCs in your plants, requiring staff to be proficient in multiple platforms. Currently you have four types of PLCs in your plant, ControlWave, Allen-Bradley (SLC and CompactLogix) and Amocams.

Task #3 – Start to develop and deploy standard PLC code throughout your system. 80-90% of the PLC code performs the same functions on every project using different methodology. Like travelling, you can get to your destination multiple ways. Develop standard code, and require that any integrator use it. This will allow staff to be far more efficient troubleshooting and modifying the systems, if they don't have to figure out different code for every pumping system.

Task #4 – Develop a tagging standard for PLC programming. A tagging standard allows a person familiar with the system to know exactly what the tag refers to. It might look something like PLANT_PROCESS_PLCorRIO_DEVICE_NUMBER, where PLANT may be WTP or LSXX, PROCESS may be HDW or FLTR or LPRO, PLCor RIO would be the PLC or RIO number/rack/slot/point, DEVICE would be LIT or MOV, and NUMBER would be the process ID number. WWTP_HDW_P1R1S3P13_LIT_508 would be at the WWTP, headworks, PLC1/Rack1/Slot3/Point13, it's a level indicating transmitter, and the number is 508. This will allow staff to quickly look at the tag, and know exactly where they need to go to troubleshoot or modify the system.

Task #5 – Develop a preventative maintenance plan for each PLC panel. This should include at minimum a processor check for errors, UPS battery check, OIT check for errors, network switch check, and general physical inspection. This should be performed at minimum every six months. UPS batteries should be replaced annually.

Task #6 – Finish the centrifuge system or remove the equipment. Abandonment in place causes problems in the future as people try to discern what is functioning and what is not. When finished, connect it to the SCADA system.

4.2.c) SCADA Operator Interface

There are six critical tasks for the WTP SCADA Operator Interface.

Task #1 – Change passwords on all computers from the integrator password to a City developed password. Create an additional account for integrators and require they use that account to service your system so your passwords are not changed or lost. Document the passwords, and store in an area accessible to staff with the required privleges. This will provide for better security for your servers.

Task #2 – Move the servers in to a location suitable for IT equipment, dust free and cool. This is critical to proper operation and longevity. The operators should not be using the servers as workstations.

Task #3 – Repair/replace the non-functional control room workstations and local OITs. There should be at least two workstations in the control room, and the unit at the High Service Pump Station should be diagnosed and repaired so that it can function without causing a failure of the High Service Pump PLC. The non-functional OIT at the filter panel should also be fixed.

Task #4 – As your current MS operating systems are obsolete and out of support (Windows XP April 8, 2014) or will be in shortly (Windows Server 2003 July 14, 2015), it is critical that a planned migration be started now.

Task #5 – Should be done at the same time as task #3. It would be a good time to re-engineer your server/workstation system, to reduce your licensing costs. With the proper network connectivity, it may be possible to use only two servers, one at the WTP and one at the WWTP. This will provide the required redundancy, as well as reduce costs. Additionally, you could run only one historian system. This is only possible if the three systems (WTP, WWTP and Remotes) do not have any identical tags. This would also be the time to bring your software all up to the current revision level, and get it under contract. Be prepared to spend between 10 & 20% of the software cost per year for software support. It would also be the time to bring your lift station system in to the iFIX system, and remove that platform from your system. This will allow reduced overall software costs and reduced staff training requirements.

Task #6 – Fix the Local OITs so they are functional again, both the software configuration issues and the hardware fault issues.

Future Planning non-critical Tasks:

Task #7 – Start to develop and deploy standard HMI objects, tagging and standards throughout your system. Very similar to the PLC code and tagging standards, this will make your SCADA Operator Interface much more user friendly, easier to maintain, modify, and operate. Again, once a standard is developed, you must insist that any integrator follow it to the letter. The objects developed can also be tied directly to standard code blocks in the PLCs, so that when you add an additional piece of equipment, like a VFD or a valve, the standard PLC code is dropped in to the program, the standard graphic object is dropped on to the SCADA screen, and all of the matching tags for both are automatically created, and tied together.

Task #8 – Remote OIT terminals that are currently clients to the servers could be migrated to small standalone applications for that process area. This will allow you to continue to operate the plant if something catastrophic happens to the server based system.

Task #9 – Develop a preventative maintenance plan for each PLC panel. This should include at minimum a processor check for errors, UPS battery check, OIT check for errors, network switch check, and general physical inspection. This should be performed at minimum every six months. UPS batteries should be replaced annually.

Task #10 – Incorporate user specific logins to track operations. This will allow supervisors to see who is struggling with operations decision making and allow additional training or mentoring to be applied.

Task #11 – Automate the monthly operations reports, deliver to the appropriate personnel via email, or hard copy. Create additional operations reports to assist staff in efficiently operating the plant. Create a daily report for plant superintendents delivered automatically.

Task #12 – Integrate a Computer Maintenance Management System in to the SCADA system, with the ability to generate work orders based upon runtimes, alarms, an operator generated event, or any other event defined.

4.3) Remote Lift Stations and Wells

4.3.a) Network

There no critical tasks for the Remote Network.

Future Planning non-critical Tasks:

Task #1 – Perform a radio survey on the outlying stations. Establish what the minimum Received Signal Strength Indication (RSSI) is, and what falls within the margins for the radio. Likely, given the history expressed by staff, some repeaters or additional master radios may be necessary. If they are, it would be best to site them around an existing City facility, so that access to the City's network is available. It is best to get your radio signals on to a hard network connection as close to the remote radios as possible. A second, more expensive option would be to evaluate a different frequency that allows a longer distance between remotes and the base station master radios.

Task #2 – Create a preventative maintenance program for the remote sites. Annually check all antenna connections, azimuths and elevations. This is important, as the RSSI will degrade significantly due to corrosion on the connections, and frequently, major storms will cause yagi antennae to rotate around their antenna pole. The RTU processor and radio should be checked for errors and RSSI, UPS should be checked, and a general physical inspection should be performed. UPS batteries should be replaced annually.

3.3.b) Programmable Logic Controllers/Lift Station and Well Pump Control Panels

There is one critical task for the Programmable Logic Controllers/Lift Station and Well Control Panels.

Task #1 – Redesign the Breakaway Trails master lift station control panel. One likely location is the building on site. This will allow for the proper environmental protection for the equipment.

Future Planning non-critical Tasks:

Task #2 – Evaluate the RTU platform in concert with your plant PLC evaluation. It is probable that the same hardware/software platform will fit both locations, reducing staff training, minimizing spare parts, and reducing troubleshooting time.

Task #3 - Develop a standard lift station control panel and RTU panel. Ensure they are designed and built to the proper UL508, and NEC standards. Publish the standard to your developers and engineers, and ensure that you review the plans prior to build for compliance. This will reduce spare parts inventory, training requirements, and maintenance time. Appendix C has a sample standard lift station package as provided by Hillsborough County for their contractors, and for retrofit of existing stations.

Task #4 – Replace obsolete and non-compliant RTU and Pump Control hardware. Specifically, the Bristol 3330 system is completely obsolete, and there still are a number of them in your system. It is better/cheaper to replace obsolete hardware in a planned event, rather than an emergency event. A planned migration of five to ten lift station or well systems per year will get the standard fully in place without creating a major budget issue.

4.3.C) SCADA Operator Interface

There is one critical task for the SCADA Operator Interface.

Task #1 – Migrate the system to your existing plant SCADA system. This will allow full integration of your system, and will easily allow operators to view not only the plant process, but have some notice as to large flow events that are going to hit the plant.

Future Planning non-critical Tasks:

Task #2 – Upgrade the signals from the lift stations to allow additional monitoring and some control at the lift stations. Monitoring of points like pump amperage draw, phase monitoring, and flow monitoring will allow some predictive maintenance prior to failure. Additionally, there is the potential to use your lift station system as an equalization basin, better regulating flow through the plant, thus improving the treatment process.

Task #3 – Incorporate the lift stations in to the historian system, giving better access to the historical data, allowing easier troubleshooting, and better decision making as to where time and money is spent to upgrade the system.

Task #4 – Incorporate user specific logins to track operations. This will allow supervisors to see who is struggling with operations decision making and allow additional training or mentoring to be applied.

Task #5 – Create automated monthly operating reports for the wells. Automatically deliver via email to the appropriate personnel.

Task #12 – Integrate a Computer Maintenance Management System in to the SCADA system, with the ability to generate work orders based upon runtimes, alarms, an operator generated event, or any other event defined.

5.0) System Wide Planning for the Future

Task #1 – Documentation for the system seems to be good in some places, not so good in others, typical of a system such as this. There should be a concentrated effort to gather all of the drawings, programs, manuals, calibration sheets and training materials, then verify that they are accurate. Items that have been confirmed accurate should be placed in a central, electronic repository that is accessible to staff based upon their permissions. All drawings should be in AutoCad, with a check out, check in procedure so that only one entity may make changes at any one time. The same holds true for PLC programs and SCADA configurations. This ensures that your documentation is current, allowing for much faster and easier retrieval by any staff authorized, and thus faster troubleshooting or system improvements. It also eliminates the repository being in single location or person, which creates a set of problems if there is an event that limits access to the location or person. This will end up being a fairly cumbersome task, if you do not already have the structure and/or the documentation in house, but it is critical to the operations and maintenance, as well as future upgrades, of your systems.

Task #2 – Mentioned through each of the plant write-ups, but it bears mentioning again, as it is a crucial step towards integrating your entire system, and that is the task of defining a standard data tag structure, standard graphics objects, and standard PLC code. This will ensure the ease of troubleshooting your existing system by anyone, as the code and objects will be standardized.

Task #3 – Verify the system provides operations with the information to make the required process decisions. The current systems were installed using a set of plans and specifications developed by differing engineering firms. These systems may or may not have the all of the information required to ensure that the operations staff has the information to operate and troubleshoot the processes, both in real time and using a historical perspective. Several operations workshops with the staff at the different plants will ensure they have the information, and if not, what additional information and features they require to efficiently perform their duties. Once it is determined what operations requires to efficiently operate the plant, then set a plan to present the existing data in the best format for operations, and add any additional data they may require for their decision making.

Task #4 – Create a continuing education training program for operations and maintenance staff. When you find personnel interested in controls, additional hardware specific maintenance training for those personnel will give you much easier path for system maintenance. There are people in every organization that like challenges and have the aptitude for the work. Find the right person, and your operations and maintenance will become much easier. The continuing education program should also include maintenance training for the equipment that feed information into, or are operated by, the SCADA system, field transmitters, analytical devices, valves, drives, etc. These require good mechanical, electrical and item specific training to efficiently maintain the support equipment. Finally, the continuing education program should include operations training to allow them to efficiently interpret the data from the SCADA system. Operations is the first line of maintenance, and with the correct training, they can interpret whether the item is a SCADA issue, or a process issue. That training will also allow them to help with predictive maintenance, as they will notice items degrading.

Task #5 – Begin the search to hire a trained, control system engineer to assist in the maintenance and modifications to the system. Continue to foster good relations with the City IT department, allowing the new control systems engineer to focus on the maintenance and improvements to the PLC and SCADA hardware and software, instead of chasing network issues.

Task #6 – Create a maintenance service contract with a quality Control Systems Integration firm that has experience with your equipment. Turn that service contract in to a partnership, and the benefits to the City will be compounded. Use them as an extension of your O&M personnel. A lot of the items in tasks #1-#4 can be handled in a stopgap measure until the City personnel come up to speed. Several samples of RFPs for this task can be found in appendix #6.

Task #7 – Review the security of the entire control system, from the switches through the LAN, WAN, Remote Access Servers, etc. Apply the City IT security standards to the control system network.

6.0) Conclusion

The City of Ormond Beach's SCADA system is currently running in a precarious fashion. On the surface, things seem to be running well, but the system is one or two critical issues from a crisis. The critical items listed herein should be addressed as soon as possible.

In moving forward, it is imperative that the City decide on which hardware and software platforms to standardize upon, reduce their current installed base to those standards, and then create a set of specifications for the consultants, requiring their use when planning capital improvement projects. The City must also create a set of software standards that any systems integrator working on the system must be required to use. Steps that should be taken immediately:

1.) Stabilize the existing system
    a. Replace all computers with current models of like IT hardware ($100,000.00) purchased by the City
    b. Replace all computer operating systems with current, supported operating systems purchased with computer by the City
    c. Update iFIX SCADA licenses to the current versions ($122,000.00 including 1 year of support) purchased by the City
        i. iFIX is available, and is an easy migration from 4.0/5.0 to 5.8 with likely some graphics clean up the only required tasks
        ii. Implement the redundancy on the updated hardware
        iii. Changing OpenBSI from 5.7 to 5.8 will likely require significant work, as they have done away with the OPC server and are now using an Object Server, keep the same.
        iv. Win911 has been totally upgraded, so there will be programming required there, but since it does not appear to be used, should not present an issue, do not upgrade.

v. SyTech XLReporter has a fairly simple upgrade procedure for versions above 7, since yours are 8 and 9, should be simple. Since you are not using them now, not sure it matters, do not upgrade.

d. Labor to perform the upgrade $36,000.00

2.) Hire a consultant to perform the following tasks:

a. Evaluate the existing communications networks, and perform a full design for the SCADA system communications system ($40,000.00), re-using the pieces that are still viable. This should include:

i. Internal and external Security
ii. Server/Workstation Hardware and Operating Systems
iii. Network Switching Hardware
iv. LAN/WAN segmentation and addressing
v. Communications media
vi. Topology (ring vs star)
vii. Equipment locations

b. Either create an RFP ($15,000.00) to evaluate SCADA software packages ($200,000.00), or stick with the an update your current SCADA software ($192,000.00 including one year support)

i. Most cost effective and shortest implementation time would be to upgrade the existing GE iFIX software to current revisions. This can be done relatively easily by updating the licenses, and programming ($48,000.00) to clean up any graphics/redundancy issues. This leverages your current system code, with very little new code and would get the stability back in to your system.

1. Two iFIX servers with redundancy
2. One 20,000 point historian with redundant collector
3. Twelve in-plant Thick Clients
4. Five Webspace Clients
5. One Win911 Enterprise
6. One Sytech XL Reporter Enterprise
7. Two OpenBSI 5.8 Licenses
8. Annual support is currently 17% of software cost or $26,706.00

ii. Longest implementation would be to completely change out your SCADA software, which would be approximately the same cost as upgrading, plus re-programming the entire system ($200,000.00)

c. Create the specifications for the following ($200,000.00):

i. System wide tagging standard for all data
ii. Standard lift station PLC program
iii. Detailed software standard for the PLC application code
iv. Detailed software standard for the SCADA software code
v. Detailed alarming standard, including classification of alarms

vi. Detailed report generation standard
vii. Any process changes required
viii. Any additional hardware that needs to be purchased
ix. Any additional work required by the City (re-wiring lift stations, etc.)

d. Create an RFP for Systems Integration firms to propose on the following work ($100,000.00):
    i. Install City procured hardware
    ii. Install City procured software
    iii. Write the standard PLC code modules
    iv. Write the standard SCADA code modules
    v. Write the standard report modules
    vi. Provide a factory demonstration test of the modules
    vii. Re-write the entire SCADA HMI code using the new modules
    viii. Re-write the PLC code using the new modules
    ix. Re-write the reports using the new modules
    x. Re-do the alarming software using the new standards
    xi. Procure any additional materials not procured by the IT department
    xii. Perform installation and documented checkout of the new system
    xiii. Perform training on the above system

3.) Hire a Systems Integration firm for the above work ($1,000,000.00-$2,000,000.00)

As the system is enhanced, staff training is going to become even more important. Maintenance of a complex system such as the City's should not be left to personnel without the appropriate training, or the results will be sub-optimal. Operations personnel cannot be left out of this equation, as in order to fully leverage your system, the staff who perform the day to day operations must technically keep up with the system, from the operations perspective.

Finally, documentation of the system is critical. As improvements and enhancements are implemented, your documentation MUST be kept current, as it is a much easier task then to go back and re-figure it out when there is a problem. Current documentation/storage appears to be inadequate for your system and the maintenance/enhance thereof. When equipment/systems are removed from service, it needs to be removed from the documentation, and physically removed from the plants.

The City of Ormond Beach has the infrastructure in place for a first class SCADA system, and is within easy migration to a showpiece for the State.

Questions about this document please contact:

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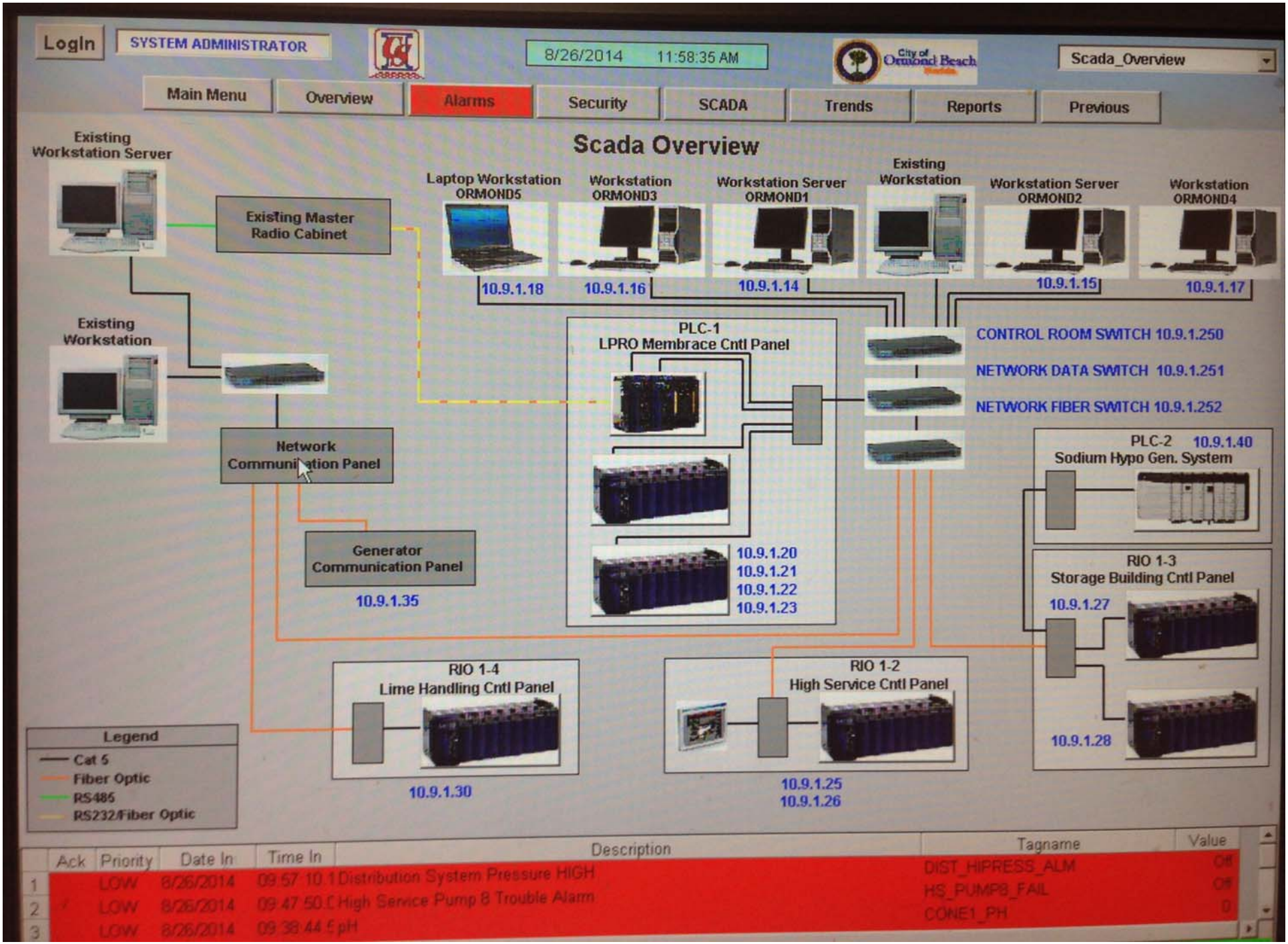
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City of Ormond Beach
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Main Menu
Overview
Alarms
Security
SCADA
Trends
Reports
Previous
Scada Overview
Existing Workstation Server
Existing Master Radio Cabinet
Laptop Workstation ORMOND5
Workstation ORMOND3
Workstation Server ORMOND1
Existing Workstation
Workstation Server ORMOND2
Workstation ORMOND4
10.9.1.18
10.9.1.16
10.9.1.14
10.9.1.15
10.9.1.17
Existing Workstation
PLC-1
LPRO Membrace Cntl Panel
CONTROL ROOM SWITCH 10.9.1.250
NETWORK DATA SWITCH 10.9.1.251
NETWORK FIBER SWITCH 10.9.1.252
Network Communication Panel
PLC-2 10.9.1.40
Sodium Hypo Gen. System
Generator Communication Panel
10.9.1.35
10.9.1.20
10.9.1.21
10.9.1.22
10.9.1.23
RIO 1-3
Storage Building Cntl Panel
10.9.1.27
10.9.1.28
RIO 1-4
Lime Handling Cntl Panel
10.9.1.30
RIO 1-2
High Service Cntl Panel
10.9.1.25
10.9.1.26
Legend
Cat 5
Fiber Optic
RS485
RS232/Fiber Optic
Ack Priority Date In Time In Description Tagname Value
1 LOW 8/26/2014 09:57:10.1 Distribution System Pressure HIGH DIST_HIPRESS_ALM Off
2 LOW 8/26/2014 09:47:50.0 High Service Pump 8 Trouble Alarm HS_PUMP8_FAIL Off
3 LOW 8/26/2014 09:38:44.5 pH CONE1_PH 0

CAPITAL PROJECT DETAIL

PROJECT TITLE

WTTP Sludge Dewatering Improvements

PROJECT#

409195

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Engineering

PROJECT SCOPE

Construction of rotary drum thickeners and a screw press and polymer feed system

JUSTIFICATION

The existing centrifuges used for dewatering sludge are high maintenance units that operate under high velocity and are routinely having to be serviced at high costs. New technology screw press devices operate at a low torque speed and produce a dryer sludge cake. The rotary drum thickeners operate ahead of the screw presses and pre-thicken the sludge to allow constant feed rates into the screw press. The polymer feed system at the sludge handling facility has reached the end of its service life and needs to be replaced

PROJECT COST METHODOLOGY

Updated Utility Master Plan

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Engineering, CA, Inspection	195,000	0	0	0	0	195,000
Construction	0	1,560,000	0	0	0	1,560,000
Total	195,000	1,560,000	0	0	0	1,755,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Bond Proceeds	195,000	1,560,000	0	0	0	1,755,000
Total	195,000	1,560,000	0	0	0	1,755,000

Table 7.3-2
Project WWT-2
(Short Term < 5 years)
Clarifier Weir Covers & MLS #1Communitor

Item	*Description*	*Qty*	*Unit*	*Unit Cost*	*Total Cost*
1	Clarifier Weir Covers	4	EA	$60,000	$240,000
2	Comminutor Assemblies	2	EA	$60,000	$120,000
	Total Estimated Construction				*$360,000*
	Contingency @ 20%				$72,000
	Eng., C.A., & Inspection @ 15%				$54,000
	TOTAL ESTIMATED PROJECT COST				**$486,000**

WWT-3, Sludge Digester Improvements (Short Term < 5 years)

Aerated Sludge Holding (Digesters)

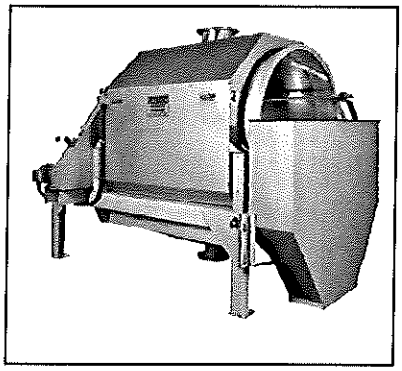
The existing aerated sludge holding tanks are utilized to temporarily hold waste sludge prior to dewatering and disposal. The City is not digesting to achieve Class B or other. In fact, excessive sludge holding times are detrimental to the biological nutrient removal (BNR) process. All of the phosphorous removed in the BNR process is stored in the waste sludge. Excessive sludge holding times contributes to cell destruction in the holding tanks and subsequent release of phosphorous back to the head of the plant.

It is important to maintain good aeration, and to have sufficient storage volume to allow effective control of solids inventory; however, additional volume is not necessary. The biggest problem with the current system are the blowers and diffusers. They are old and have reached the end of their useful life. New technology is available which provides better mixing and aeration, with far less horsepower. Similar to the Invent mixers proposed for installation in the Fermentation and Anoxic basins, the hyperbolic mixing/aeration system combines the mixers with a circular diffuser ring which is installed under the mixer. The air

bubbles are sheared by the hyperboloid mixer which increases the air transfer efficiency and satisfies the mixing requirements in the tanks.

The air flow required to mix digesters far exceeds the air requirement to sustain aerobic conditions. As such, using a mixer in combination with aeration provides the best of both worlds and reduces the energy requirement to maintain a D.O. of 2 mg/l. It is estimated that two (2) 15 hp mixers and one (1) 30 HP positive displacement blower will satisfy the mixing and aeration needs for both digesters. Two (2) blowers are proposed for Class I reliability standards.

The City may also want to consider installation of rotary drum thickeners (RDT) in order to enhance the storage capacity in the existing digesters and possibly allow the operation of a single digester in lieu of 2. The drum thickeners (shown below) utilize polymer and sludge retention screens to thicken sludge from approximately 0.8% to 3 or 4%. This increases the effective storage volume, reduces the mixing energy required to mix the extra water in the thinner sludge and provides a greater degree of redundancy and reliability. There is also an advantage to feeding thicker sludge to the subsequent dewatering process.



Sludge Dewatering

The City currently operates two (2) sludge centrifuges to dewater waste activated sludge (WAS). They were installed in 2008, and were overhauled in 2014. Both centrifuges must

be maintained on an on-going basis. It is expensive and time consuming. There can be a discussion of different types of centrifuges and which manufacturer provides the most reliable equipment; however, it is generally understood that centrifuges are high speed devices and require more maintenance and service than other dewatering equipment.

They offer the advantage of producing a drier end product than a belt filter press, 18% vs 14%, but that does come at a price. The other problem is the current configuration of the dewatering building. It is not configured to allow for belt filter presses, there is insufficient room.

Sludge dewatering technology has advanced and new equipment is available which produces a dry sludge product without the energy and maintenance associated with a centrifuge. *Screw Press* devices combine the configuration of a centrifuge along with the low horsepower and slow speed of a belt filter press. A typical screw press is depicted below. They can be easily retrofitted into the existing building and typically produce a dewatered product of 17 – 18% at a polymer feed rate of 25 gallon per dry ton.

Screw press devices run at a lower throughput than centrifuges, because they are designed to be run continuously. For example, a centrifuge operating at 120 GPM for 8 hours can dewater 5,760 gallons of sludge. A screw press operating at 40 GPM for 24 hours can dewater the same volume of sludge, using less energy. Rotary drum thickeners are also very compatible with screw press installations because they pre-thicken the WAS to provide for lower feed rates.

Currently, the digesters, blowers, diffusers and centrifuges create significant maintenance issues. The digester blowers and diffusers are especially problematic. This plan recommends installation of: hyperbolic mixer/aerators, blowers, two (2) rotary drum thickeners and two (2) screw presses. New polymer feed equipment is also recommended. Estimated costs for all proposed improvements are detailed below.

Table 7.3-3A
Project WWT-3A
(Short Term < 5 years)
Sludge Digester Improvements

Item	*Description*	*Qty*	*Unit*	*Unit Cost*	*Total Cost*
1	New Hyperbolic Mixer/Aerators	2	EA	$50,000	$100,000
2	New PD Blowers with VFDs	2	EA	$50,000	$100,000
3	Electrical and Instrumentation	1	LS	$25,000	$25,000
4	Mechanical and Structural	1	LS	$25,000	$25,000
	Total Estimated Construction				*$250,000*
	Contingency @ 20%				$50,000
	Eng., C.A., & Inspection @ 15%				$37,500
	TOTAL ESTIMATED PROJECT COST				**$337,500**

Table 7.3-3B
Project WWT-3B
(Short Term < 5 years)
Sludge Dewatering Improvements

Item	*Description*	*Qty*	*Unit*	*Unit Cost*	*Total Cost*
1	Rotary Drum Thickeners	2	EA	$300,000	$600,000
2	Screw Press & Polymer Feed	2	EA	$250,000	$500,000
3	Electrical and Instrumentation	1	LS	$50,000	$50,000
4	Mechanical and Structural	1	LS	$150,000	$150,000
	Total Estimated Construction				*$1,300,000*
	Contingency @ 20%				$260,000
	Eng., C.A., & Inspection @ 15%				$195,000
	TOTAL ESTIMATED PROJECT COST				**$1,755,000**

WWT-4, Laboratory Upgrades (Short Term < 5 years)

CAPITAL PROJECT DETAIL

PROJECT TITLE

WTP Solids Handling Facility Upgrades

PROJECT#

409197

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Engineering

PROJECT SCOPE

Replacement of the Solid Handling facility dewatering structure and existing centrifuges with a new steel building and vacuum presses.

JUSTIFICATION

The existing solid handling facilities are in need of significant repair. Specifically, the dewatering structure and existing centrifuges are in poor condition and should be replaced. The steel structure and wall panels are severely corroded and need to be replaced. Only one of the two centrifuges operates and it does not function well. Both should be replaced with newer technology screw filter presses.

PROJECT COST METHODOLOGY

Updated Utility Master Plan

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Construction	1,200,000	0	0	0	0	1,200,000
Engineering, CA, Inspection	0	0	0	0	0	0
Total	1,200,000	0	0	0	0	1,200,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Bond Proceeds	1,200,000	0	0	0	0	1,200,000
Total	1,200,000	0	0	0	0	1,200,000

WT-4, Solids Handling Facility Upgrades (Short Term < 5 years)

The existing solids handling facilities are in need of significant repair. Specifically, the dewatering structure and existing centrifuges are in poor condition and should be replaced in the near future. The steel structure and wall panels are severely corroded and should be demolished and replaced. Only one (1) of the two (2) existing centrifuges operate. It does not function well. Both should be replaced with two (2) new vacuum filter presses.

The new vacuum filter presses will fit in the upstairs area previously occupied by the centrifuges. Conceptual pricing is detailed below:

Table 5.3-4
Project WT-4
(Short Term < 5 years)
Solids Handling Facility Upgrades

Item	*Description*	*Qty*	*Unit*	*Unit Cost*	*Total Cost*
1	Demolish Existing Structure	1	LS	$20,000	$20,000
2	Construct New, Corrosion Resistant Building	1	LS	$100,000	$100,000
3	Install Vacuum Thickeners	2	EA	$400,000	$800,000
4	Electrical and Instrumentation	1	LS	$80,000	$80,000
	Total Estimated Construction				*$1,000,000*
	Contingency @ 20%				$200,000
	Eng., C.A., & Inspection @ 15%				$150,000
	TOTAL ESTIMATED PROJECT COST				**$1,350,000**

CAPITAL PROJECT DETAIL

PROJECT TITLE

Secondary Raw Water Main

PROJECT#

434027

CATEGORY

Water and Wastewater Improvements

FUND

434-Water Impact Fees

PROJECT LOCATION

MANAGEMENT

Engineering

PROJECT SCOPE

Construct a secondary 24" raw water main along SR40 from Hunters Ridge to Williamson Boulevard.

JUSTIFICATION

The City receives the majority of its raw water from the Hudson and Rima Ridge wellfields. Currently, there is a single 24" raw water main on SR40 which a significant vulnerability should the line be broken for any reason, A secondary redundant raw water main would enable the raw water flow to continue preventing a potential water shortage at the water treatment plant.

PROJECT COST METHODOLOGY

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Engineering, CA, Inspection	300,000	0	0	0	0	300,000
Construction	0	2,400,000	0	0	0	2,400,000
Total	300,000	2,400,000	0	0	0	2,700,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Water Impact Fees	300,000	2,400,000	0	0	0	2,700,000
Total	300,000	2,400,000	0	0	0	2,700,000

CAPITAL PROJECT DETAIL

PROJECT TITLE

Airport Road Reclaim Water Main PH 2

PROJECT#

409210

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Engineering

PROJECT SCOPE

Construction of a 16" Reclaimed water main along Airport Road from Ormond Green to Breakaway Trails

JUSTIFICATION

As part of the Phase 1 of the Airport Road Forcemain Extension project completed in 2013, the existing 10" diameter force main from Breakaway Trails to River Bend golf course was left in place and converted from a force main to reuse service thus enabling service to Breakaway Trails and Hunter's Ridge. The force main is undersized to meet future demands. It is recommended to upgrade the 10" force main to a 16" diameter main.

PROJECT COST METHODOLOGY

Updated Utility Master Plan

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Design	0	0	0	0	130,500	130,500
Total	0	0	0	0	130,500	130,500

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Water & Sewer Charges	0	0	0	0	130,500	130,500
Total	0	0	0	0	130,500	130,500

RW-5, Airport Road Reclaimed Water Main Phase 2 (Mid Term 5-10 years)

After completion of the Phase I Airport Road force main extension, the existing 10"diameter force main from Breakaway Trails to River Bend Golf Course was left in place and converted from a force main to reuse service thus enabling service to Breakaway Trails and Hunter's Ridge. The force main is undersized to meet future demands. It is recommended that the 'old' force main be replaced with a 16" reuse main. This work can be completed in a series of phases. The next phase would extend from Ormond Green to the existing 12" main feeding Breakaway Trails.

Table 9.6-5
Project RW-5
(Mid Term 5-10 years)
Airport Road Main Extension

Item	*Description*	*Qty*	*Unit*	*Unit Cost*	*Total Cost*
1	16" PVC or DIP Reuse Main	2,000	LF	$100	$200,000
2	16" HDPE Directional Drill	3,000	LF	$200	$600,000
3	Valves and Fittings	1	LS	$50,000	$50,000
4	Tie-Ins	2	EA	$10,000	$20,000
	Total Estimated Construction				*$870,000*
	Contingency @ 20%				$174,000
	Eng., C.A., & Inspection @ 15%				$130,500
	TOTAL ESTIMATED PROJECT COST				**$1,174,500**

RW-6, Ormond Crossings Reuse Transmission Main (Mid Term 5 – 10 years)

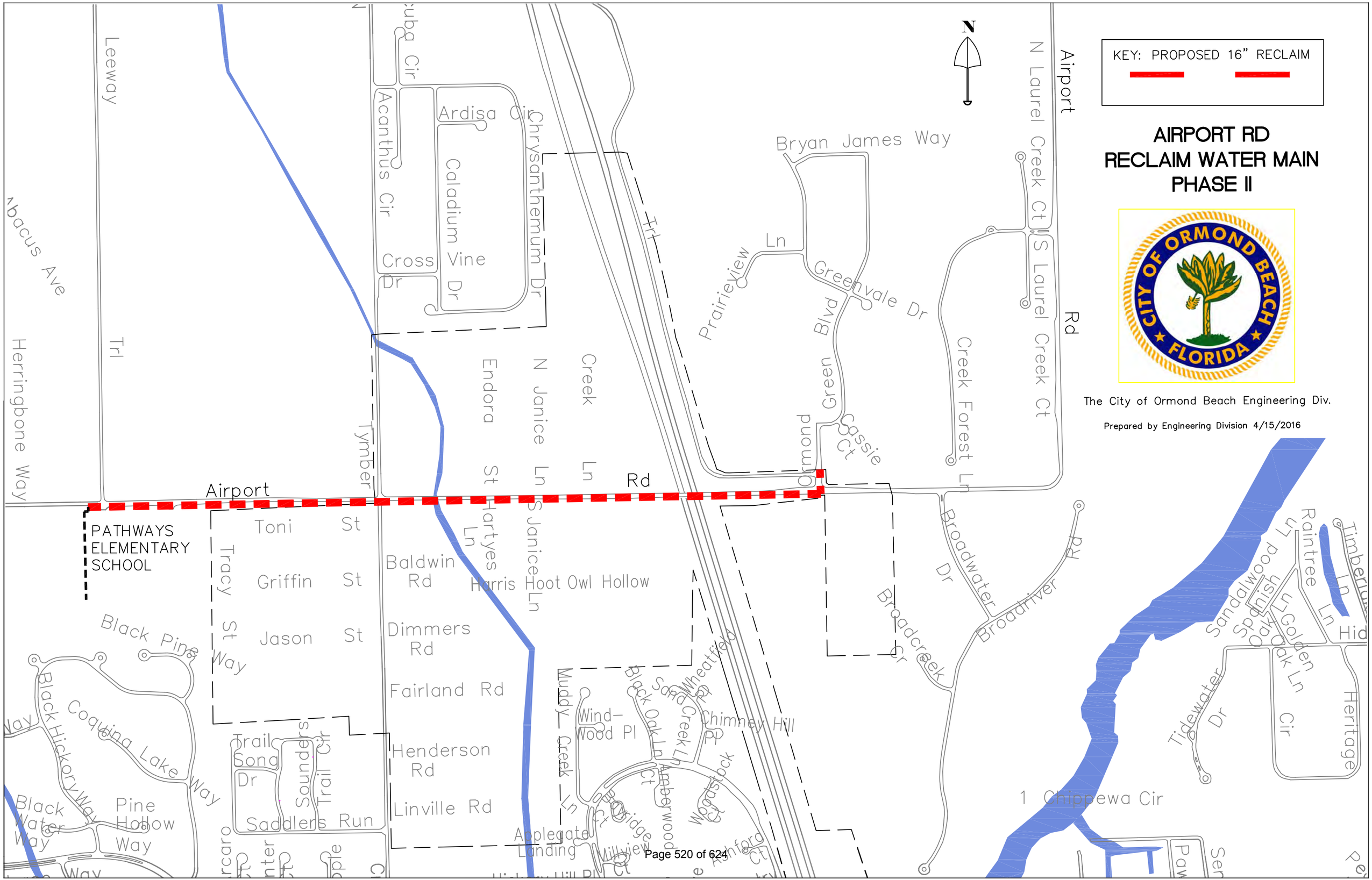
Ormond Crossings has identified a need for approximately 1.2 MGD reclaimed water for Golf Course and residential irrigation. A reuse transmission main will be required to serve non-potable demands. The route and size is depicted on ***Figure MB-10***. It is anticipated that costs for this project will be borne by the developer, schedule dependent upon the developer's schedule. It is identified as an 'intermediate' project. Estimated costs are detailed below.

KEY: PROPOSED 16" RECLAIM

AIRPORT RD RECLAIM WATER MAIN PHASE II

The City of Ormond Beach Engineering Div.

Prepared by Engineering Division 4/15/2016



CAPITAL PROJECT DETAIL

PROJECT TITLE

Filter Demolition and New Storage Building

PROJECT#

409211

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Engineering

PROJECT SCOPE

Demolish filter structure, pipe gallery and clearwell and construct a pre-engineered metal storage building.

JUSTIFICATION

The old filter structures, pipe gallery and clerwell were abandoned in 2008. These structures are in a deteriorated condition, pose a potential safety hazard, and should be demolished.

PROJECT COST METHODOLOGY

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Design	0	0	0	0	45,000	45,000
Total	0	0	0	0	45,000	45,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Water & Sewer Charges	0	0	0	0	45,000	45,000
Total	0	0	0	0	45,000	45,000

WT-5, Filter Demolition and New Storage Building (Mid Term 5 - 10 years)

The old filter structures, pipe gallery and clearwell were abandoned in 2008. It is constantly deteriorating and could become a safety hazard if ignored indefinitely. Demolition and site restoration was originally included with the design-build scope for the original filters, but was value engineered out of the final scope due to budget concerns.

The structure should be demolished and the site area could be used for covered storage and parking. Estimated costs are detailed below:

Table 5.3-5
Project WT-5
(Mid Term 5 - 10 years)
Filter Demolition and New Storage Building

Item	*Description*	*Qty*	*Unit*	*Unit Cost*	*Total Cost*
1	Demolish Filter Structure, Pipe Gallery & Clearwell	1	LS	$100,000	$100,000
2	Fill, Grade and Restore Site	1	LS	$50,000	$50,000
3	Construct Pre-Engineered Metal Building	1,600	SF	$80	$128,000
4	Paved Parking Area	1	LS	$22,000	$22,000
	Total Estimated Construction				*$300,000*
	Contingency @ 20%				$60,000
	Eng., C.A., & Inspection @ 15%				$45,000
	TOTAL ESTIMATED PROJECT COST				**$405,000**

WW-5, Southwest Service Area Old Tomoka/Booth Rd Area Long Term >10 years)

A portion of the wholesale service area is sited east of the Tomoka River and south of Old Tomoka Road. It is isolated from the remainder of the area and will require a separate lift station and force main. **It is anticipated that all or part of the estimated costs for this project would be borne by the developer**. Estimated costs are detailed below:

Table 8.6-3
Project WW-5
SW Service Area
Old Tomoka/Booth Rd.
(By Developer)

Item	*Description*	*Qty*	*Unit*	*Unit Cost*	*Total Cost*
1	6" PVC Force Main	3,000	LF	$40	$120,000
2	Wetwell and Lift Station	1	LS	$200,000	$200,000
3	Valves and Fittings	1	LS	$25,000	$25,000
	Total Estimated Construction				*$345,000*
	Contingency @ 20%				$69,000
	Eng., C.A., & Inspection @ 15%				$51,750
	TOTAL ESTIMATED PROJECT COST				**$465,750**

WW-6, Halifax River Force Main Crossing (Long Term >10 years)

The collection system includes two (2) force main river crossings, a 20" at Melrose Street constructed in 1987 and a 16" at Granada constructed in 1981. Both of these crossings are DIP and are aging. The redundancy of two (2) crossings is good; however, construction of river crossings are costly and even more so if required in an emergency situation.

The total projected flow for the Peninsula area, within the City limits, for 2035 is 694,000 with an estimated peak flow of 1,447 GPM. Section 3 of this Master Plan includes projections for the North Peninsula Service Area averaging 820,000 GPD in 2035 (peak

CAPITAL PROJECT DETAIL

PROJECT TITLE

Halifax River Force Main Crossing

PROJECT#

409212

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Engineering

PROJECT SCOPE

Construct a 24 inch force main across the Halifax River.

JUSTIFICATION

The existing collection system includes two river force main crossings. Assuming the anticipated expansion of wastewater service within the north Peninsula will occur. This will result in an increase in wastewater flows and will require addition force main capacity across the river.

PROJECT COST METHODOLOGY

Updated Utility Master Plan

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Design	0	0	0	0	117,000	117,000
Total	0	0	0	0	117,000	117,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Wastewater Impact Fees	0	0	0	0	117,000	117,000
Total	0	0	0	0	117,000	117,000

flow = 1,700 GPM). Total 2035 flow projections for the peninsula are approximately 3,200 GPM for peak force main flow. Location to be determined.

Utilizing HDPE pipe the 24" has an internal diameter of 20" which is sufficient for the flow projections. The force main river crossing is shown on Figure MB-6 and consists of approximately 3,000 LF of 24" HDPE. Estimated costs are detailed in ***Table 8.6-4***.

Table 8.6-4
Project WW-6
Halifax River Force Main Crossing

Item	*Description*	*Qty*	*Unit*	*Unit Cost*	*Total Cost*
1	24" HDPE Force Main	3,000	LF	$200	$600,000
2	Valves and Fittings	1	LS	$100,000	$100,000
3	Tie-Ins	2	EA	$40,000	$80,000
	Total Estimated Construction				*$780,000*
	Contingency @ 20%				$156,000
	Eng., C.A., & Inspection @ 15%				$117,000
	TOTAL ESTIMATED PROJECT COST				**$1,053,000**

WW-7, S.W. Service Area Force Main and Lift Station (Long Term 5-10 years)

Unincorporated areas south of SR 40 and west of Tymber Creek Road are identified herein as the S.W. Service Area. The City of Ormond Beach negotiated a Utility Service Agreement (USA), with the City of Daytona Beach, establishing boundaries and terms for wholesale water and sewer service within the area.

Based upon the County's Future Land Use Map (FLUM) for the subject area, it is largely composed of conservation and rural residential zoned property. Traffic Analysis Zone (TAZ) data for the property indicated a 2035 population of approximately 2,800 within the wholesale area. It is probable that future zoning changes in the area will increase densities.

CAPITAL PROJECT DETAIL

PROJECT TITLE

Hudson Wellfield Expansion

PROJECT#

409213

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Engineering

PROJECT SCOPE

Construction of three (3) additional wells within the Hudson Wellfield. Including one new power generator for all three wells.

JUSTIFICATION

The City's existing consumptive use permit included the contrauction of three new wells within the Hudson Wellfield. The three wells are estimated to pump 300 GPM resulting in an additional capacity of 1.29 MGD.

PROJECT COST METHODOLOGY

Updated Utility Master Plan

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Design	0	0	0	0	255,000	255,000
Total	0	0	0	0	255,000	255,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Wastewater Impact Fees	0	0	0	0	255,000	255,000
Total	0	0	0	0	255,000	255,000

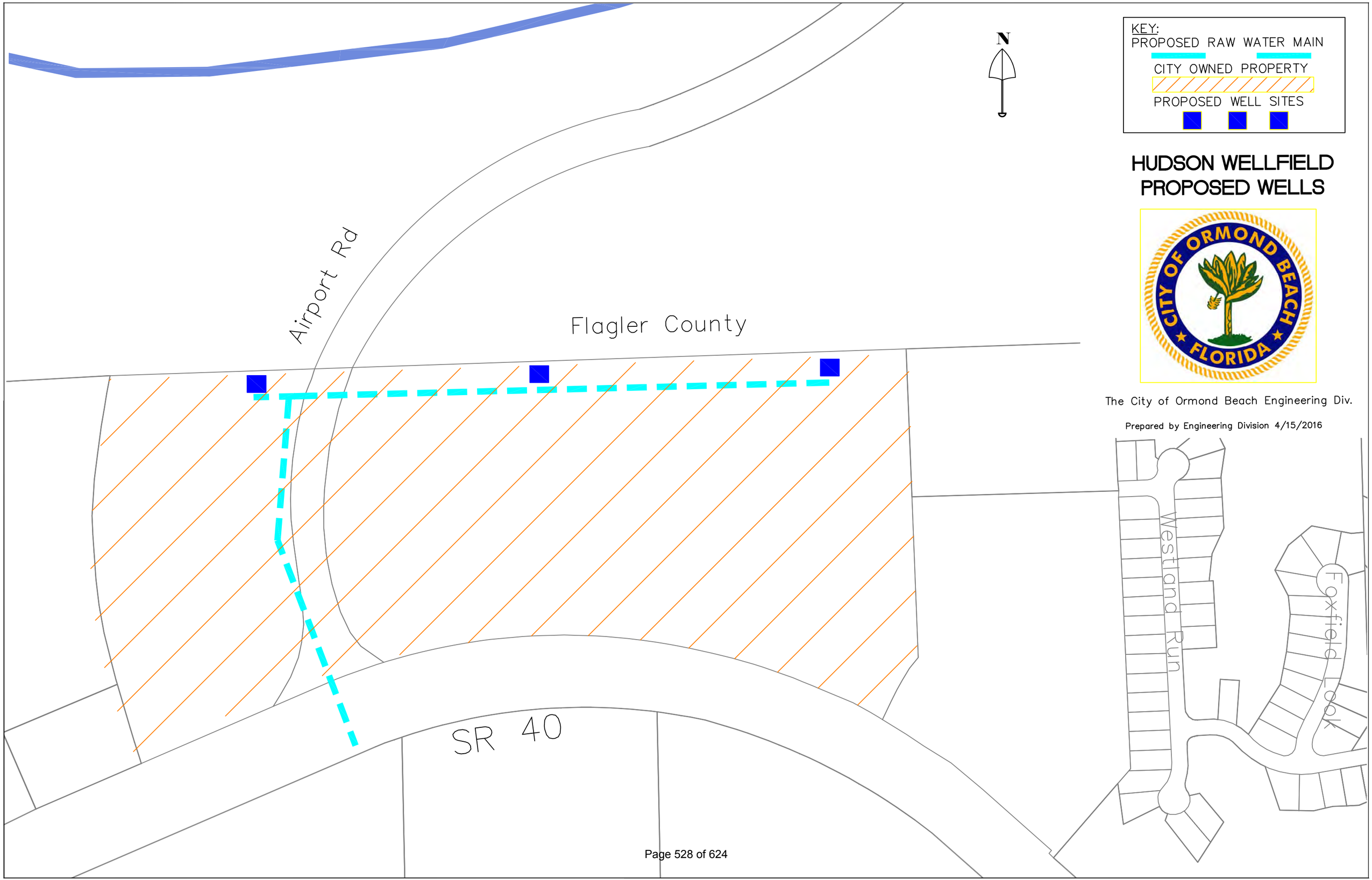
WS-3, Hudson Wellfield Expansion (Mid Term 5-10 years)

Construction of three (3) additional wells within the Hudson Wellfield. One (1) new emergency power generator for all three (3) wells. The City's existing Consumptive Use Permit provides for the new wells.

Proposed new wells #54, #55 and #56 are 12" diameter with a cased depth of 120' and total depth of 300'. Estimated withdrawal capacity from each is approximately 300 GPM (0.43 MGD). Estimated costs are detailed below:

Table 4.5-3
Project WS-3
(Mid Term 5-10 years)
Hudson Wellfield Expansion

Item	*Description*	*Qty*	*Unit*	*Unit Cost*	*Total Cost*
1	New UFA Wells, Pumps and Mechanical Equipment	3	EA	$300,000	$900,000
2	Well Access and Sitework	1	LS	$500,000	$500,000
3	Raw Water Main Piping	1	LS	$200,000	$200,000
4	Electrical and Instrumentation	1	LS	$100,000	$100,000
	Total Estimated Construction				*$1,700,000*
	Contingency @ 20%				$340,000
	Eng., C.A., & Inspection @ 15%				$255,000
	TOTAL ESTIMATED PROJECT COST				**$2,295,000**


KEY:
PROPOSED RAW WATER MAIN
CITY OWNED PROPERTY
PROPOSED WELL SITES
N
HUDSON WELLFIELD
PROPOSED WELLS
CITY OF ORMOND BEACH
FLORIDA
The City of Ormond Beach Engineering Div.
Prepared by Engineering Division 4/15/2016
Airport Rd
Flagler County
SR 40
Westland Run
Foxfield Look

CAPITAL PROJECT DETAIL

PROJECT TITLE

Replace Lime Softening Filters

PROJECT#

409214

CATEGORY

Water and Wastewater Improvements

FUND

409-Water and Wastewater R and R

PROJECT LOCATION

MANAGEMENT

Engineering

PROJECT SCOPE

Demolish and replace the two (2) old lime filters

JUSTIFICATION

The existing Lime Softening filters are over 30 years old. New sand filters were constructed in 2008 with the Reverse Osmosis WTP Expansion project. It is recommended that the lime softening filters be replaced with sand filters to match the existing filters.

PROJECT COST METHODOLOGY

EXPENDITURE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Design	0	0	0	0	270,000	270,000
Total	0	0	0	0	270,000	270,000

REVENUE	2016-17	2017-18	2018-19	2019-20	2020-21	Total 2016-17 to 2020-21
Water & Sewer Charges	0	0	0	0	270,000	270,000
Total	0	0	0	0	270,000	270,000

WT-6, Replace Lime Softening Filters #5 and #6 (Mid Term 5 - 10 years)

The existing circular, steel filters are approximately 30 years old and are in poor condition. The 'new' Leopold filters constructed in 2008 are reinforced concrete with corrosion resistant components. The pipe gallery, valves and backwash systems are fully automated and provide reliable service.

It is recommended for the old filters to be demolished and two (2) new Leopold sand filters constructed in their place. The two (2) new filters would replace the old ones and match the new equipment. Each of the two (2) new filters would have an area of 265 SF and would still be piped to the existing clearwell and backwash piping for filtered effluent and backwash supply. The estimated cost to replace filters #5 and #6 is detailed below:

Table 5.3-6
Project WT-6
(Mid Term 5 - 10 years)
Replace Lime Softening Filters #5 and #6

Item	*Description*	*Qty*	*Unit*	*Unit Cost*	*Total Cost*
1	Construct New Multi Media Filters	2	EA	$500,000	$1,000,000
2	Mechanical Piping	1	LS	$500,000	$500,000
3	Electrical and Instrumentation	1	LS	$300,000	$300,000
	Total Estimated Construction				*$1,800,000*
	Contingency @ 20%				$360,000
	Eng., C.A., & Inspection @ 15%				$270,000
	TOTAL ESTIMATED PROJECT COST				**$2,430,000**

REQUESTS AWAITING FUNDING

Projects not recommended for funding in the next five years

Community Redevelopment

Expenditures

Downtown: Ocean District Streetlight Replacement	525,000
Community Redevelopment	525,000

Facility Construction and Renovation

Expenditures

MacDonald House Improvements	457,000
PAL House	350,000
Facility Construction and Renovation	807,000

Recreation and Cultural Facility Improvements

Expenditures

Doug Thomas Way Extension	670,000
Environmental Discovery Center Encounter Area	130,000
Nova Community Park Master Plan Future Years	3,388,200
OBSC Future Improvements	632,000
Ormond Beach Sports Complex Lighting	495,000
Public Art Program Projects	250,000
Sports Complex Access and Drainage Improvements	173,000
Tennis Center Building	180,000
Three Chimneys	110,000
West Ormond Community Center Construction	8,904,000
Recreation and Cultural Facility Improvement	14,932,200

Stormwater Improvements

Expenditures

Lisa Lake Dredging	600,000
May 2009 Flood Study - Phase II Improvements	8,604,000
Stormwater Improvements	9,204,000

Technology

Expenditures

Body Cameras	442,875
Communication Infrastructure Master Plan	1,047,000
In Car Cameras	192,000
Technology	1,681,875
Grand Total	**27,150,075**

CAPITAL PROJECT DETAIL

PROJECT TITLE

Downtown: Ocean District Streetlight Replacement

PROJECT#

104049

CATEGORY

Community Redevelopment

FUND

104-TIF

PROJECT LOCATION

John Anderson to A1A

MANAGEMENT

Engineering

PROJECT SCOPE

Remove and replace the existing FPL poles and cobra head streetlights with decorative concrete poles and LED fixtures. Uplight Medjool palms in medians.

JUSTIFICATION

New decorative streetlight poles and fixtures were installed on the Westside of the Granada bridge as part of the undergrounding of the utility power lines. This project will remove and replace the existing High Pressure Sodium cobra head fixtures (orange color light) with decorative Metal Halide fixtures (white color light) and decorative concrete poles for consistency and improved lighting in the downtown.

PROJECT COST METHODOLOGY

Actual bid to underground utilities and install lighting (Carter Electric Bid # 2013-13).

	AMOUNT REQUESTED
EXPENDITURE	
Design and Permit	25,000
Construction	500,000
Total	525,000

	AMOUNT REQUESTED
REVENUE	
To Be Determined	525,000
Total	525,000

CAPITAL PROJECT DETAIL

PROJECT TITLE

MacDonald House Improvements

PROJECT#

NA

CATEGORY

Facility Construction and Renovation

FUND

301-General Improvement Fund

PROJECT LOCATION

MacDonald house

MANAGEMENT

Engineering

PROJECT SCOPE

Renovation or demolish. This project will be included for evaluation as part of the proposed historic preservation plan discussed at the City Commission's strategic planning session.

JUSTIFICATION

During renovations of the MacDonald House in 2007, significant structural deterioration was found. The City's construction management firm performed an investigation and provided costs to repair the building. The Historic Landmark Preservation Board recommended funding for this project be appropriated if available to restore the house. However, the cost has significantly increased since then based on current restoration estimates. Alternatively, the existing building could be demolished for around $15,000 and a new tennis building (approximately 1,000 square feet) could be constructed. Sale of the MacDonald House can also be considered. Relocation of the Historic Society will be required as they currently operate out of the MacDonald House.

PROJECT COST METHODOLOGY

The attached quote was received in 2012 from the City's construction management firm and reflects the price to restore the house and an optional cost to demolish the house. The cost estimate has been updated to reflect current estimated cost based on the Construction Price Index.

	AMOUNT REQUESTED
EXPENDITURE	
Architectural Services	21,000
Renovation	436,000
Total	457,000

	AMOUNT REQUESTED
REVENUE	
To be determined	457,000
Total	457,000

Below is information relative to the State's Special Category Grant Program with a deadline of June 30th. Per the guidelines, municipalities are required to submit a copy of an approved resolution of the match amount. A request can be submitted stating that if a grant award is made for the project, the required matching funds will be available.

Funding	Match Requirements	Deadline/Purpose
$50,000-$500,000 Only 1 application per entity per cycle is allowed.	The grantee is **required to provide a matching share of either $50,000 <u>or 50% of the award request, whichever is the higher amount</u>**. *For example, if the total project cost is $750,000, the grant is $500,000 (maximum), the **<u>City's match would be $250,000</u>**.* The match may be any combination of in-kind services, volunteer labor, donated materials and travel, plus **cash-on-hand which must constitute a minimum of 25% of the total match**. *"Municipalities and counties must submit a copy of the **approved resolution** or a letter signed by the duly authorized representative of the local government, **which includes the dollar amount dedicated to the project**."*	**Application Period:** **May 1-June 30, 2015** **Purpose:** To assist major site-specific archaeological excavations, the **major restoration or rehabilitation of historic buildings or structures**, and major museum exhibits involving the development and presentation of information on the history of Florida.

WEIGEL

July 18, 2012

Mr. John Noble
City Engineer
City of Ormond Beach

RE: Ormond Beach MacDonald House Restoration
Ormond Beach, Florida

Dear John:

We are pleased to our findings and analysis of the feasibility and estimated costs for the restoration of the MacDonald House

Opinion of Probable Cost

The perimeter foundation beam is severely deteriorated due to termite infestation and water infiltration and needs replacement in its entirety along with the major interior ground floor beams located beneath the first floor level and supporting the entire structure. The foundation concrete and masonry support piers are also in various levels of disintegration and differential settlement and need to be repaired, replaced or leveled. Our opinion of the probable cost to remove and replace the ground floor level support beams and piers and provide termite shields is $11,000.00

The exterior siding and exterior wall studs show significant deterioration due to termite infestation and water infiltration and needs replacement to an unknown degree. Unfortunately, the level of structural damage cannot be accurately determined until removal of the siding. Also adding to the level of difficulty of repair is the fact that this building was constructed utilizing the balloon framing technique. The exterior structural studs extend continuous three stories from foundation to roof level. Elevated floor joists are supported by pairs of studs using ledger strips framed between studs. The removal and replacement of these studs will require temporary support measures for elevated floors and roof structure. We estimate that there is in excess of 5,000 square feet of siding and load bearing wall studs that need some form of removal, repair or replacement. Our opinion of the probable cost to remove and replace the siding and exterior structural studs ranges between $50,000.00 and $100,000.00 depending on the severity of the damages found.

In the event the City chooses to pursue the path of remediating the termite and water infiltration damages and restoring the MacDonald House, we would assume that the interior walls, floors, finishes and systems would also be refurbished to bring the facility to current code compliance

and a satisfactory level of usability for future tenants. With over 5,100 sf of floor area to renovate, we would anticipate the interior renovation to range between $220,000 to $300,000.

Summary of Opinion of Probable Costs (potential maximum outlay)

Foundation		**$ 11,000**
Envelope		**$ 100,000**
Interior		**$ 300,000**
	Total	**$ 411,000**

In the event the City chooses not to pursue undertaking this repair, remediation and restoration, we estimate the cost to raze the building and remove it from site and recycle the debris, including all permit fees and utility shut offs to be no greater than **$15,000.**

Please feel free to contact me if you have any further questions regarding our proposal. Thank you for this opportunity to be a part of your team and allowing us to serve your construction needs in the future.

Sincerely,

A. M. WEIGEL CONSTRUCTION, INC.

A. Michael Weigel
President

CAPITAL PROJECT DETAIL

PROJECT TITLE

PAL House

PROJECT#

NA

CATEGORY

Facility Construction and Renovation

FUND

301-General Improvement Fund

PROJECT LOCATION

Bostrom Lane

MANAGEMENT

Engineering

PROJECT SCOPE

An 1,800 square foot facility adjacent to South Ormond Neighborhood Center.

JUSTIFICATION

The current PAL house is located at 194 Central Avenue. It was built in 1947 and is approximately 741 square feet. The layout of building consists of: three small rooms and 1 restroom. In 2008, the roof of the building was replaced due to termite damage. During installation of the roof the interior ceiling was damaged and a drop ceiling was placed in one room of the building to cover the damage. The house is tiled with 11”x11” ceramic tiles. The floor was originally installed without enough adhesive underneath the tiles resulting in many cracked tiles which are in need of replacement. The front door of the building does not completely seal which allows moisture and wind to enter under certain weather conditions. Due to older wiring, the phone lines in the O.B.P.A.L. house need frequent repair especially during humid and rainy weather.

While the exterior of the building is well maintained, there is no storage in the building. Plastic bins and file boxes are kept around the edge of the rooms reducing functional square footage of the building significantly.

The center conference room is not functional for meetings with groups larger than four. The YDC members have out grown the conference room space which is not functional for meetings larger than four. The current size of the PAL house does not allow for the expansion of programs. At this time programs are offered in partnership with area schools and organizations. While the community partnerships allow a PAL to serve the youth audience at the location of the partnership, requests for students who do not attend the partner school to join the READ, Reading, Exploration, Adventure and Discover program and Science on Patrol are not currently possible. An expanded facility which included a classrooms and a computer lab would allow a PAL to provided educational programs to a larger audience of youth. The computer lab would allow youth to have environment to practice SAT, complete online applications and other tests needed for reaching educational goals beyond high school.

PROJECT COST METHODOLOGY

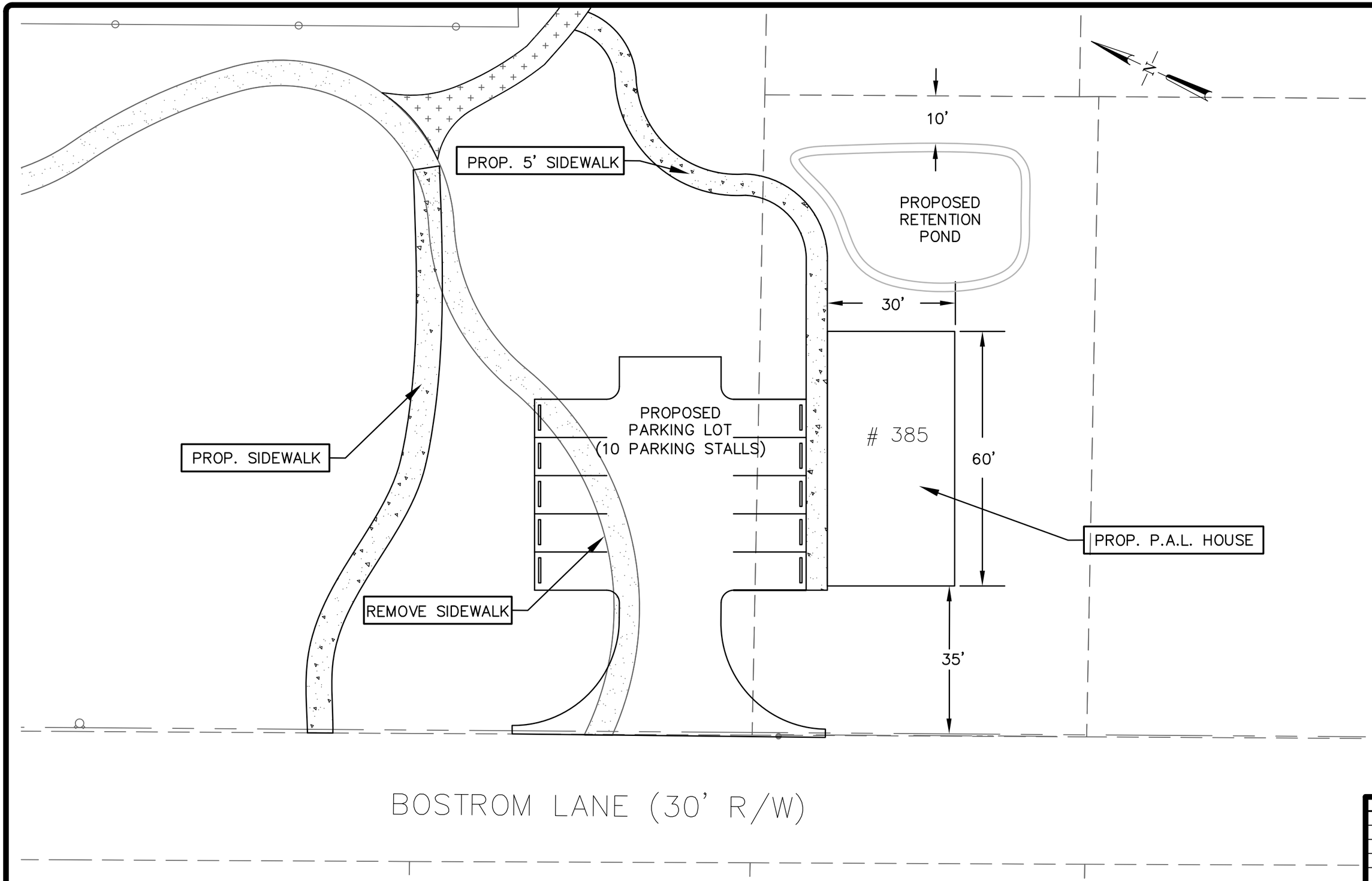
Cost estimate provided by Engineering.

	AMOUNT REQUESTED
EXPENDITURE	
Construction	350,000
Total	350,000

CAPITAL PROJECT DETAIL

PROJECT TITLE	PROJECT#
PAL House	NA

	AMOUNT REQUESTED
REVENUE	
To Be Determined	350,000
Total	350,000



DRAWING STATUS	
	DRAFT
	PERMIT
B	BID
	ADDENDA
	CONSTRUCTION
	RECORD

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

FRED COSTELLO, MAYOR
ISAAC D. TURNER, CITY MANAGER

JUDY SLOANE, P.E., PUBLIC WORKS DIRECTOR

S. ORMOND NEIGHBORHOOD CENTER

PROPOSED P.A.L. HOUSE LOCATIONS

DATE: 6/15/07	PROJECT NO.: 2007-XX
SCALE: 1"=30'	FILE NAME: SONC SPLASH
DRAWN BY: CO	SHEET: 1 OF 1

City of Ormond Beach, Florida
6/16/2016

PAL Building Construction
Probable Cost

Project Description: Development of site adjacent to SONC for use as a new office/classroom/storage building for PAL. Improvements include 1,800 sf building, asociated, parking, utilities, and stormwater to support site.

Estimated Construction Cost

Item No.	Description	Estimated Quantity	Unit	Unit Price	Item Price
General					
1	Mobilization/ Demobilization	1	LS	$5,000.00	$5,000
Site Development					
	Silt Fence	500	LF	$2.50	$1,250
2	Clear/Grub site	1,200	SY	$3.50	$4,200
	Remove Existing Concrete	100	SY	$20.00	$2,000
Parking Lot Construction					
	Furnish & Install Crushed Concrete Roadbase 8-inch	480	SY	$14.00	$6,720
	Furnish & Install S.P. 9.5 Asphalt	40	Tons	$120.00	$4,800
	Furnish & Install Wheel Stops	10	EA	$50.00	$500
	Thermoplastic Striping	1	LS	$1,000.00	$1,000
	Furnish and Install Signage	1	LS	$1,000.00	$1,000
	Furnish and install 6 ft vinyl fence	205	LF	$35.00	$7,175
	Construct concrete sidewalk	200	SY	$30.00	$6,000
	Furnish & Install Sod	1,200	SY	$2.50	$3,000
Site Utilites					
	Furnish and Install Class III Reinforced Concrete Pipe - 18"	180	LF	$55.00	$9,900
	Drainage Control Structre	1	EA	$3,500.00	$3,500
	FDOT Type 'C' Draiange Inlet	1	EA	$2,200.00	$2,200
	Mitered End Section	1	EA	$1,200.00	$1,200
	Modifiy Existing Control Structure	1	EA	$1,000.00	$1,000
	Potable Water Service	1	EA	$750.00	$750
	Sanitary Sewer Service	1	EA	$1,500.00	$1,500
Additonal Site Plan Work					
	Landscaping	1	LS	$5,000.00	$5,000
	Geotechnical Services	1	LS	$1,500.00	$1,500
	Maintenance of Traffic	1	LS	$1,500.00	$1,500
	Survey Layout & As-Builts	1	LS	$3,500.00	$3,500
Building					
	PAL Building Construction	1,800	sf	$150.00	$270,000
				SUB-TOTAL=	$344,195
				BUDGET VALUE=	**$350,000**

CAPITAL PROJECT DETAIL

PROJECT TITLE

Doug Thomas Way Extension

PROJECT#

NA

CATEGORY

Recreation and Cultural Facility Improvements

FUND

301-General Improvement Fund

PROJECT LOCATION

Ormond Beach Sports Complex

MANAGEMENT

Engineering

PROJECT SCOPE

Extend approximately 2,150 feet of two-way paved roadway from Harmony Ave to Hull Rd behind fields 9 through 12.

JUSTIFICATION

Improve park access convenience. It would also provide a continuous loop road within the facility that would allow bikers, walkers and joggers to exercise within the confines of the park. It will allow visitors to access all amenities within the park without leaving the park.

PROJECT COST METHODOLOGY

Similar projects recent bids

	AMOUNT REQUESTED
EXPENDITURE	
Design	100,000
Construction	570,000
Total	670,000

	AMOUNT REQUESTED
REVENUE	
To be determined	670,000
Total	670,000

42104

Ormond Beach Sports Complex

Doug Thomas Way Extension
Probable Cost

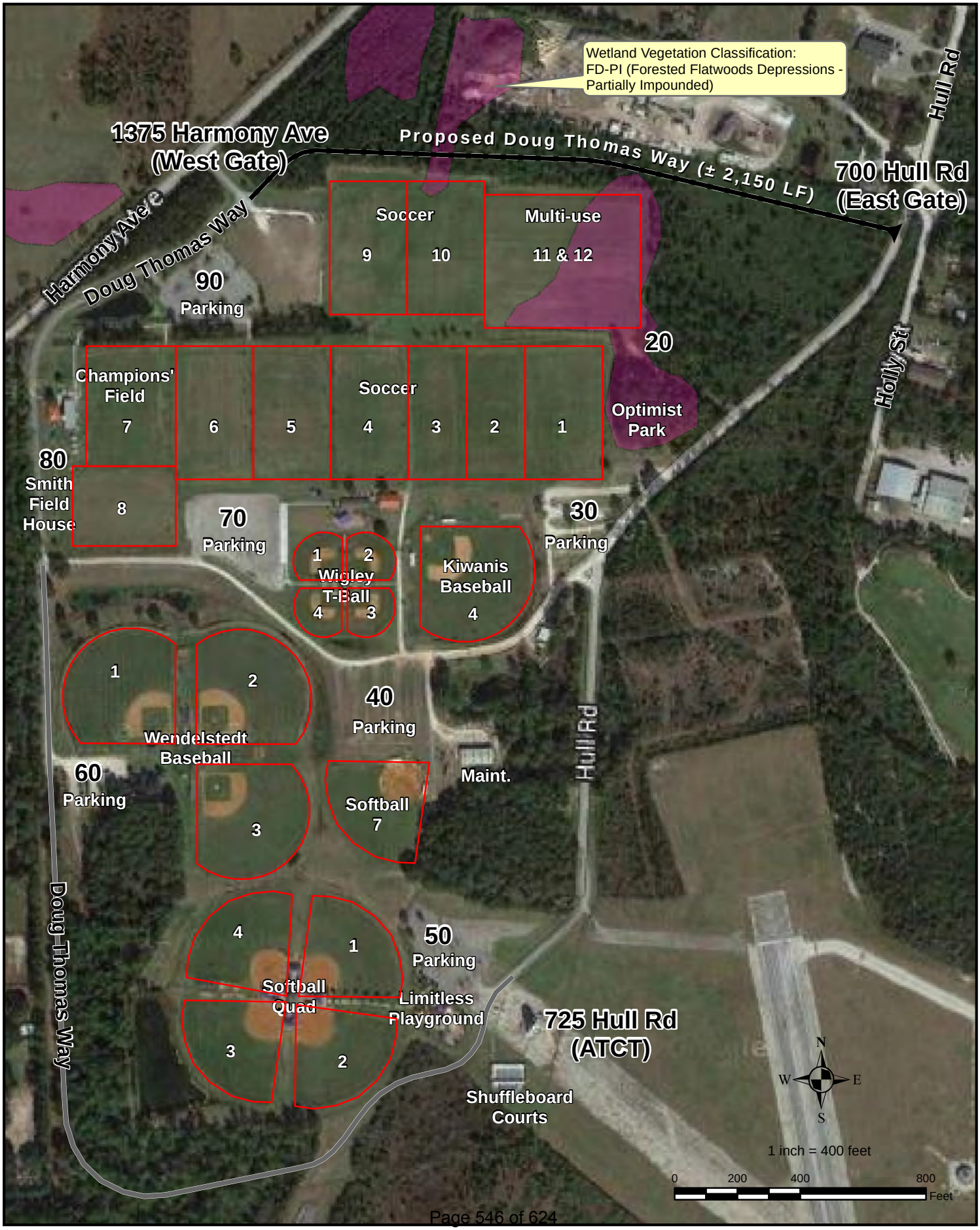
PROJECT DESCRIPTION: Construct approximately 2,150 linear feet of two-way paved road from existing Doug Thomas Way near Harmony Rd access, behind fields 9-12 and connect to hull Rd.

CONSTRUCTION

Item No.	Description	Estimated Quantity	Unit	Unit Price	Item Price
1	Mobilization/ Demobilization (5% maximum of TOTAL BASE BID)	1	LS	$24,445.00	$24,445
2	Tree Removal, Clearing and Grubbing	4	Acre	$10,000.00	$40,000
3	Stabilized Subgrade	5,800	SY	$8.00	$46,400
4	Furnish & Install Crushed Concrete Road Base 8"	5,300	SY	$10.00	$53,000
5	Furnish & Install Compacted Subgrade Import Fill	1,500	CY	$20.00	$30,000
6	Furnish & Install Asphaltic Pavement (S.P. 9.5)	950	Tons	$110.00	$104,500
7	Drainage Ditch Construction (not including sod)	2,150	LF	$30.00	$64,500
8	Thermoplastic Striping	1	LS	$5,000.00	$5,000
9	Signage	1	LS	$2,500.00	$2,500
10	Ditch Blocks	30	Ea.	$200.00	$6,000
11	Overflow weir system	1	LS	$7,000.00	$7,000
12	Bahia Sod	14,000	SY	$3.00	$42,000
13	Silt Fence	4,800	LF	$2.50	$12,000
14	Hydroseed	4,000	SY	$0.75	$3,000
15	Dewatering	1	LS	$10,000.00	$10,000
16	Stormdrain Piping and Structures	1	LS	$50,000.00	$50,000
17	Maintenance of Traffic	1	LS	$5,000.00	$5,000
18	Survey layout and As-Builts	1	LS	$8,000.00	$8,000

Construction Total	$513,345
Engineering, Land Surveying and Permitting (15%)	$77,002
Environmental Survey Reporting and Permitting	$5,000
Gopher Tortoise Relocation	$5,000
Sub-Total	$600,347
Contingency (10%)	$60,035
TOTAL	$660,381
Design Budget	**$100,000**
Construction Budget	**$570,000**

Ormond Beach Sports Complex
Proposed Roadway Alignment & Addressing



CAPITAL PROJECT DETAIL

PROJECT TITLE

Environmental Discovery Center Encounter Area

PROJECT#

NA

CATEGORY

Recreation and Cultural Facility Improvements

FUND

301-General Improvement Fund

PROJECT LOCATION

Central Park

MANAGEMENT

Engineering

PROJECT SCOPE

Construction (2) wooden land bridges, concrete sidewalk, perform selective pruning and invasive plant removal, and the installation of outdoor appropriate seating to create the first outdoor classroom site near the EDC main building. Purchase furnishing, equipment/ supplies for classroom. Install floating vegetation mats within EDC stormwater retention pond.

JUSTIFICATION

The EDC was completed in 2016. The existing island, west of the EDC building is the prime location for the first outdoor encounter area within Central Park. Connecting this island with two wooden land bridges will provide connectivity to the existing concrete trail system, allow better pedestrian access within the park and will eliminate the dead-end trail north of Division Avenue. The concrete trail/ elevated boardwalk will provide connectivity from the EDC to the existing elevated wooden walkway to the east.

PROJECT COST METHODOLOGY

Based on actual construction costs to build land bridges for the Lake Interconnect project (bid # 2012-07) and recent replacements projects within our parks.

	AMOUNT REQUESTED
EXPENDITURE	
Island Connection and Seating Area	80,000
Concrete Trail and Elevated Boardwalk	50,000
Total	130,000

	AMOUNT REQUESTED
REVENUE	
To Be Determined	130,000
Total	130,000

City of Ormond Beach
22 South Beach Street
Ormond Beach, Florida 32174
Telephone (386) 676-3223
Fax (386) 676-3330

INVITATION TO BID

BIDDER ACKNOWLEDGEMENT FORM

THIS FORM MUST BE COMPLETED AND RETURNED WITH YOUR BID

BID TITLE: **Ormond Beach Sports Complex – ADA Parking & Sidewalks (CDBG)**

BID NUMBER: **BID NO. 2015-23**

BID OPENING DATE & TIME: **February 11, 2015, at 2:00 p.m.**

BID OPENING LOCATION: **Upstairs Conference Room at Ormond Beach City Hall**

PRE-BID MEETING DATE & TIME: **January 28, 2015 at 2:00 p.m.**

PRE-BID MEETING LOCATION: **HR Training Room at Ormond Beach City Hall**

Bids Received After the Above Date and Time Will Not Be Accepted.

BIDDER'S NAME: MCG SERVICES LLC

BIDDER'S MAILING ADDRESS: 2915 LANGLEY PARK CT.

CITY-STATE-ZIP: ORLANDO FL 32835

F.E.I.N. 38-3931198

PHONE NUMBER: 407 476 4476 FAX NUMBER: 407 442 0485

If returning as a "No Bid", please state reason (s): _____

I certify that this Bid is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a Bid for the same materials, supplies, or equipment, and is in all respects fair and made without collusion or fraud. I agree to abide by all conditions of this Bid and certify that I am authorized to sign this Bid for the Bidder. In submitting a Bid to the City of Ormond Beach, the Bidder offers and agrees that if the Bid is accepted, the Bidder will convey, assign or transfer to the City of Ormond Beach all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the Antitrust laws of the United States and the State of Florida for price fixing relating to the particular commodities or services purchased or acquired by the City of Ormond Beach. At the City's discretion, such assignment shall be made and become effective at the time the City tenders final payment to the Bidder.

X _____
AUTHORIZED SIGNATURE

JONATHAN D KEPHART
NAME (Printed)

MANAGING MEMBER
TITLE

2-11-15
DATED

(e) BIDDER will complete the Work for the following price(s):

Part 1 - Base Bid Schedule
The BIDDER will complete the Work for the following price(s):

BASE BID SCHEDULE

Item	Description	Quantity	Unit	Price	Bid Price
1.	Soccer Field – ADA Parking & Sidewalk (Includes Excavation, Compacted Base 4" & 6" - 3,000 Psi Concrete, Signage, Markings, Wheel Stops, Restoration, etc.)	1	LS	$ 40,425.00	$ 40,425.00
2.	Baseball Field – ADA Parking & Sidewalk (Includes Excavation, Compacted Base 4" & 6" - 3,000 Psi Concrete, Signage, Markings, Wheel Stops, Restoration, etc.)	1	LS	$ 34,310.00	$ 34,310.00

TOTAL BASE BID $ 74,735.00
(Figures)

_____
(Words)

Part 2 – Additive Alternate – Amount to be added to the total Base Bid.

Item	Description	Quantity	Unit	Price	Bid Price
1A.	Baseball Field - ADA Sidewalk Expansion (Includes Excavation, Compacted Base 6" - 3,000 Psi Concrete, Restoration, etc.)	LS		$ 22,750.00	$ 22,750.00

Additional cost above base bid only

"The City of Ormond Beach uses funds for projects including federal dollars provided by the U.S. Department of Housing and Urban Development (HUD) through the Community Development Block Grant (CDBG). These projects include real estate acquisition, reconstruction, rehabilitation, and demolition. When engaged in such projects, the City requires the use of qualified personnel. The requirements included in the CDBG Supplemental Conditions attached to this bid may apply to the services procured through this solicitation."

CAPITAL PROJECT DETAIL

PROJECT TITLE

Nova Community Park Master Plan Future Years

PROJECT#

NA

CATEGORY

Recreation and Cultural Facility Improvements

FUND

301-General Improvement Fund

PROJECT LOCATION

Nova Community Park

MANAGEMENT

Leisure Service

PROJECT SCOPE

Phase II includes the construction of roadways, multi-purpose fields, parking, stormwater, utilities bathroom facility, landscape and irrigation.

JUSTIFICATION

The Nova Community Park Master Plan was created by HHI Design and approved as a long range conceptual plan by the City Commission. Future projects include construction of a connector roadway, multipurpose fields and additional parking. Parking is the #1 need at the Nova Community complex. The anticipated usage for the new multipurpose fields will require the additional parking.

PROJECT COST METHODOLOGY

Preliminary cost estimate prepared by HHI Design

	AMOUNT REQUESTED
EXPENDITURE	
Master Plan Implementation	3,388,200
Total	3,388,200

	AMOUNT REQUESTED
REVENUE	
To Be Determined	3,388,200
Total	3,388,200

hhi DESIGN planning landscape architecture environmental graphics

Better Living by Design!

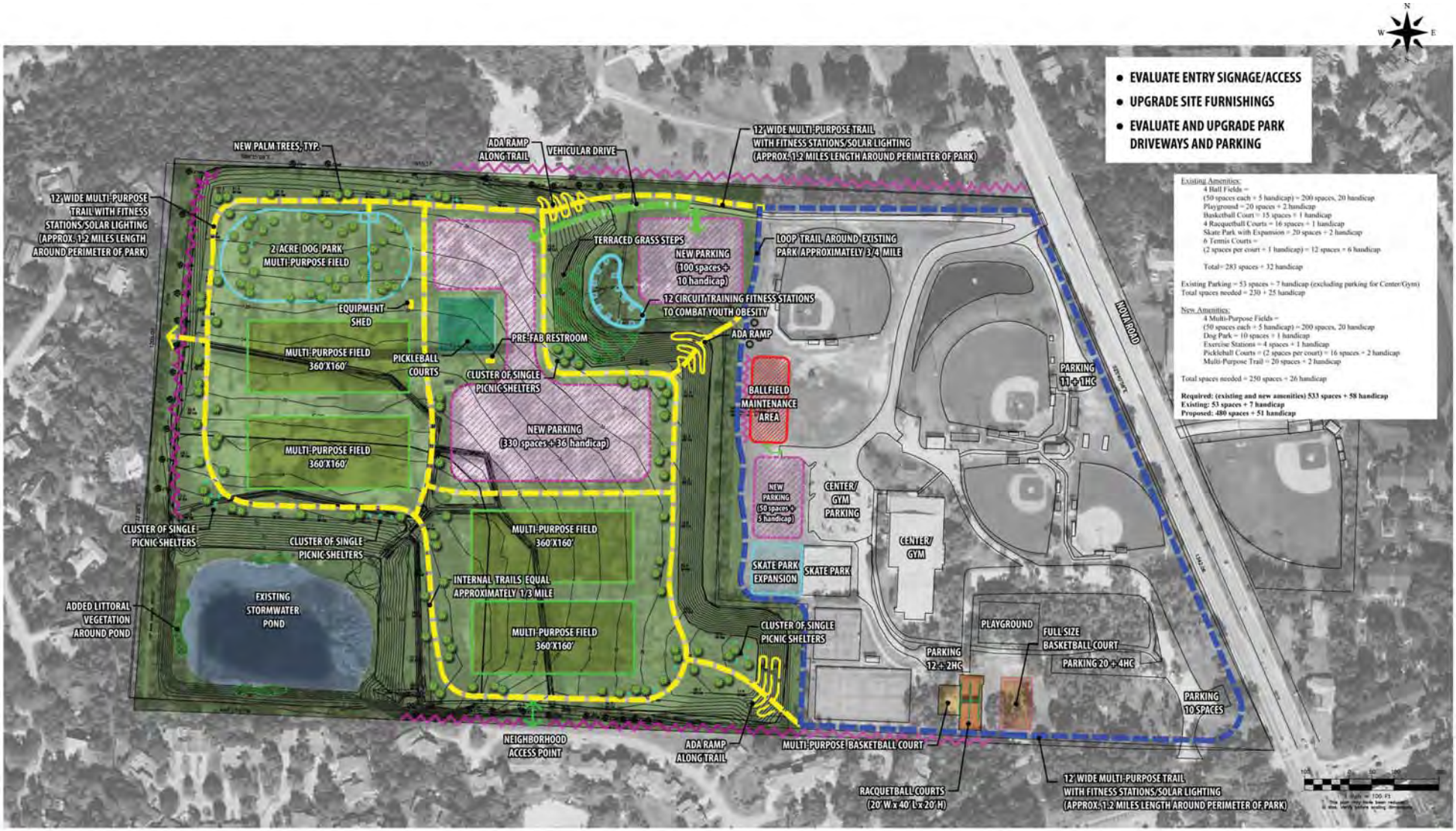
Name of Project — **Nova Community Park - Ormond Beach, FL**
New Amenities at Abandoned Landfill site

Preliminary Conceptual Long Range Plan

Project #
Date 10/12/2012
Prepared By CJ/GC

ITEM	QTY	Units	Unit Cost	Subtotal Cost	Notes		
Future Park Amenities						**Phase I**	**Future Years**
1. Hardscape							
12 ft wide Multi-Purpose Trail	7,640	SY	$25.00	$191,000.00	4" Concrete		$191,000.00
ADA ramps	18,500	SF	$20.00	$370,000.00			$370,000.00
New Parking	17,000	SY	$50.00	$850,000.00		$225,000.00	$625,000.00
New Driveways	1,000	SY	$40.00	$40,000.00		$40,000.00	$0.00
Ballfield Maintenance Area	1	LS	$25,000.00	$25,000.00			$25,000.00
			Subtotal	**$1,476,000.00**			
2. Site Furnishings							
Exercise Stations along Trail	8	EA	$3,000.00	$24,000.00	Includes Concrete Pads		$24,000.00
Circuit Training Cluster of Fitness Stations (12 stations)	1	LS	$36,000.00	$36,000.00		$36,000.00	$0.00
			Subtotal	**$60,000.00**			
3. Landscape							
Palm Trees and Small Trees	300	EA	$450.00	$135,000.00	Includes Irrigation	$45,000.00	$90,000.00
Vegetated Buffer	34,000	SF	$8.00	$272,000.00			$272,000.00
Terraced Grass Steps	3,000	LF	$10.00	$30,000.00			$30,000.00
Littoral Plants around Pond	6,000	SF	$4.00	$24,000.00			$24,000.00
			Subtotal	**$461,000.00**			
4. Sports							
Multi-purpose fields	5	EA	$120,000.00	$600,000.00			$600,000.00
Pickleball Courts	8	EA	$30,000.00	$240,000.00			$240,000.00
Top Soil (20,000 CY)	20,000	CY	$11.00	$220,000.00	Delivered and Spread		$220,000.00
			Subtotal	**$840,000.00**			
5. Architectural Elements							
Pre-Fab Restroom and Utility Extension	1	LS	$85,000.00	$85,000.00	Includes Utility Extension		$85,000.00
Equipment Shed	1	LS	$10,000.00	$10,000.00			$10,000.00
Single Picnic Pavilions	27	EA	$6,000.00	$162,000.00			$162,000.00
			Subtotal	**$257,000.00**			
6. Dog Park							
Dog Park	1	LS	$50,000.00	$50,000.00	Includes Agility Equipment	$50,000.00	$0.00
			Subtotal	**$50,000.00**			
			Grand Subtotal:	**$3,144,000.00**		$396,000.00	$2,748,000.00
			20% Contingency:	**$628,800.00**		$79,200.00	$549,600.00
			Engineering	**$150,000.00**		$59,400.00	$90,600.00
			Grand Total:	**$3,922,800.00**		$534,600.00	$3,388,200.00

Notes
1.) All estimates based on HHI Design's Preliminary Conceptual Long Range Plan
2.) Estimate does not include site grading or stormwater.



TranSystems

Conceptual Long Range Master Plan

hhi DESIGN

ISSUE DATE: January 30, 2013

Nova Community Park

Ormond Beach, FL

CAPITAL PROJECT DETAIL

PROJECT TITLE

OBSC Future Improvements

PROJECT#

NA

CATEGORY

Recreation and Cultural Facility Improvements

FUND

301-General Improvement Fund

PROJECT LOCATION

Ormond Beach Sports Complex

MANAGEMENT

Engineering

PROJECT SCOPE

Improvements will include paved parking at the softball Quad, Wendelstedt fields, and Kiwanis/soccer fields. Costs reflect recycled asphalt parking with landscaped islands. No lighting, landscaping or irrigation is included.

JUSTIFICATION

The Leisure Services Advisory Board selected these projects as high priority. Due to the high demand for parking at the complex during events it is recommended that the two new parking lots at the Quad south and Quad west be constructed initially. Kiwanis/Soccer field parking is because the project would benefit the most people if it were accomplished. Wendelstedt fields parking is considered important due to the level of finish they would provide the complex.

PROJECT COST METHODOLOGY

Cost estimates based on similar projects recent bids received

	AMOUNT REQUESTED
EXPENDITURE	
Parking west of Quad - Const	241,000
Parking south of Quad - Const	198,000
Kiwanis/Soccer field Parking	81,000
Wendelstedt parking	55,000
Parking area west of Quad - Design	31,000
Parking area south of Quad - Design	26,000
Total	632,000

	AMOUNT REQUESTED
REVENUE	
To Be Determined	632,000
Total	632,000

City of Ormond Beach
ESTIMATE of PROBABLE COST

PROJECT TITLE: **Ormond Beach Sports Complex Additional Parking West of Baseball Quad**

PROJECT DESCRIPTION: Identified in the master plan, additional parking areas for the complex are depicted. No preliminary design for these parking areas have been performed, therefore, the estimated cost for constructing these areas is based on the conceptual renderings of the master plan. The cost estimate is significantly limited and subject to change pursuant actual design of the project. In order to reduce the cost of constructing the parking are with asphalt, which would require a stormdrain system to manage the additional stormwater runoff, the parking area is being proposed to be constructed with rap and sodded around the perimeter of the parking area.

DATE: 6/27/2016

Item #	Item Description	Qty	Unit	Unit Price	Item Cost
1	Mobilization (5% to 6% of subtotal)	1	LS	$ 10,500.00	$ 10,500.00
2	Tree Removal, Clearing and grubbing	2.5	Acres	$ 15,000.00	$ 37,500.00
3	Stabilized Subgrade	10,300	SY	$ 7.00	$ 72,100.00
4	Site grading	1	LS	$ 10,000.00	$ 10,000.00
5	Rap	10,300	SY	$ 5.50	$ 56,650.00
6	Survey & As-Builts	1	LS	$ 5,000.00	$ 5,000.00
7	Silt Fence	1,500	LF	$ 2.00	$ 3,000.00
8	Sod	2,500	SY	$ 2.50	$ 6,250.00
9	Wheel Stops	165	EA	$ 50.00	$ 8,250.00
10	Geotechnical Construction Services	1	LS	$ 5,000.00	$ 5,000.00
11	Gopher Tortoise Relocation and Permitting	1	LS	$ 5,000.00	$ 5,000.00

UNITS: LS-Lump Sum, EA-Each, LF-Linear Feet, SY-Square Yards, SF-Square Feet, CY-Cubic Yard, TN-Tons, GAL-US Gallons, LBS-pounds

Page 1 of 1

Construction Estimate=	$	219,250.00
Contingency (10%)	$	21,925.00
Construction Budget	**$**	**242,000.00**
Engineering & Permitting	$	24,200.00
Geotechnical & Environmental Reports	$	6,000.00
Design Budget	**$**	**31,000.00**
TOTAL ESTIMATED PROJECT COST=	**$**	**273,000.00**

City of Ormond Beach
ESTIMATE of PROBABLE COST

PROJECT TITLE: **Ormond Beach Sports Complex Additional Parking South of Baseball Quad**

PROJECT DESCRIPTION: Identified in the master plan, additional parking areas for the complex are depicted. No preliminary design for these parking areas have been performed, therefore, the estimated cost for constructing these areas is based on the conceptual renderings of the master plan. The cost estimate is significantly limited and subject to change pursuant actual design of the project. In order to reduce the cost of constructing the parking are with asphalt, which would require a stormdrain system to manage the additional stormwater runoff, the parking area is being proposed to be constructed with rap and sodded around the perimeter of the parking area.

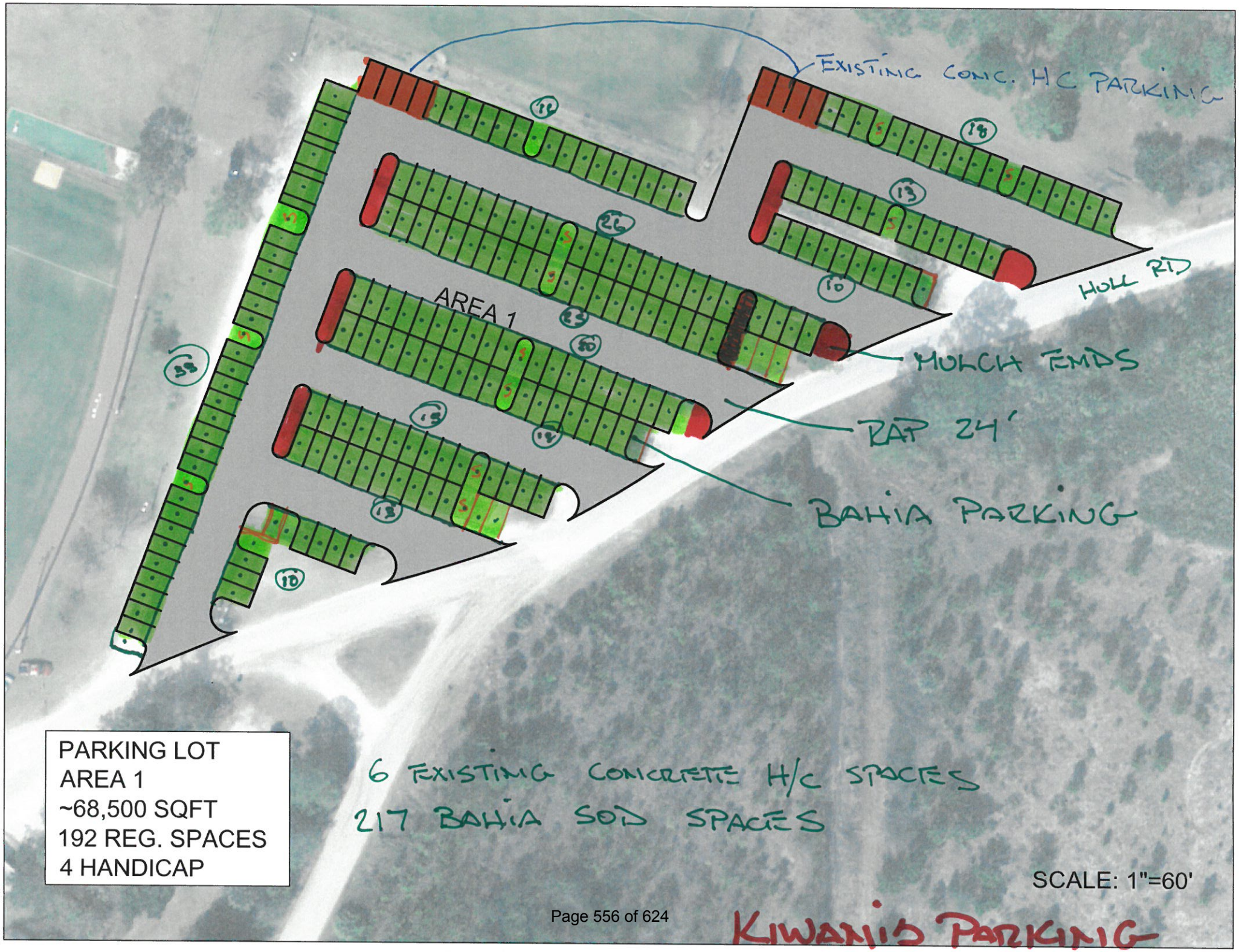
DATE: 6/27/2016

Item #	Item Description	Qty	Unit	Unit Price	Item Cost
1	Mobilization (5% to 6% of subtotal)	1	LS	$ 8,600.00	$ 8,600.00
2	Tree Removal, Clearing and grubbing	2	Acres	$ 15,000.00	$ 30,000.00
3	Stabilized Subgrade	8,300	SY	$ 7.00	$ 58,100.00
4	Site grading	1	LS	$ 8,000.00	$ 8,000.00
5	Rap	8,300	SY	$ 5.50	$ 45,650.00
6	Survey & As-Builts	1	LS	$ 5,000.00	$ 5,000.00
7	Silt Fence	1400	LF	$ 2.00	$ 2,800.00
8	Sod	1,500	SY	$ 2.50	$ 3,750.00
9	Wheel Stops	160	EA	$ 50.00	$ 8,000.00
10	Geotechnical Construction Services	1	LS	$ 5,000.00	$ 5,000.00
11	Gopher Tortoise Relocation and Permitting	1	LS	$ 5,000.00	$ 5,000.00

UNITS: LS-Lump Sum, EA-Each, LF-Linear Feet, SY-Square Yards, SF-Square Feet, CY-Cubic Yard, TN-Tons, GAL-US Gallons, LBS-pounds

Page 1 of 1

Construction Estimate=	$	179,900.00
Contingency (10%)	$	17,990.00
Construction Budget	**$**	**198,000.00**
Engineering & Permitting	$	19,800.00
Geotechnical & Environmental Reports	$	6,000.00
Design Budget	**$**	**26,000.00**
TOTAL ESTIMATED PROJECT COST=	**$**	**224,000.00**



PARKING LOT
AREA 1
~68,500 SQFT
192 REG. SPACES
4 HANDICAP

ORMOND BEACH COMMUNITY PARK
MASTER PLAN UPDATE
MASTER PLAN
28 JULY 2005

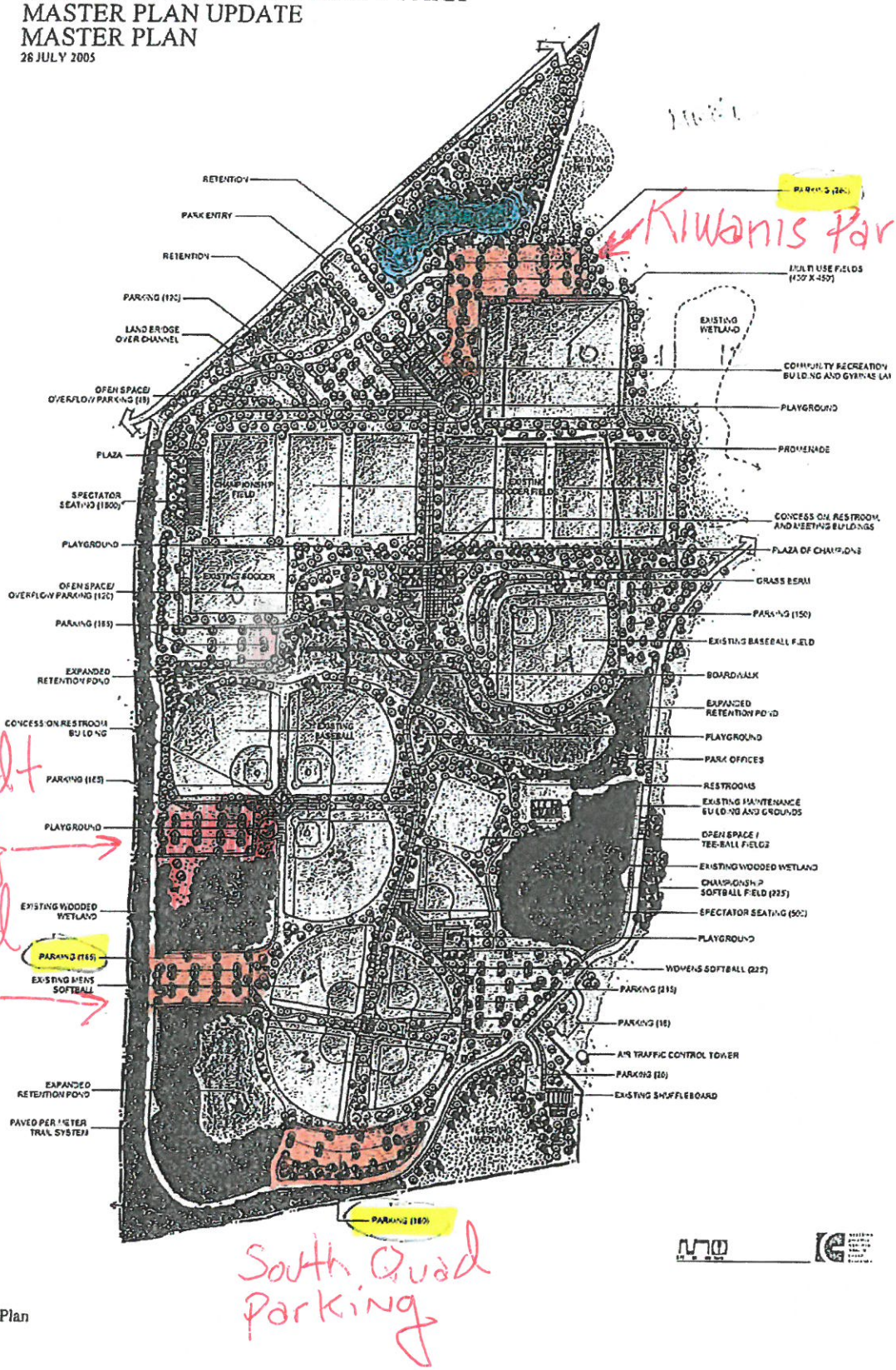


Figure 15: Master Plan

Tomoka Construction Services, Inc.

City of Ormond Beach
Attn: Paul MacDonald

June 27,2016

Job: Sports Center Parking Lot

Plans: City of Ormond Beach Dated 6/17/16

Proposal

	Quantity	Units		Total Unit		Total Bid
1. Mobilization	1	LS	$	3,000.00	$	3,000.00
2. Silt Fence	1460	LF	$	1.70	$	2,482.00
3. Clear/Strip	1	LS	$	4,300.00	$	4,300.00
4. Earthwork	1	LS	$	18,900.00	$	18,900.00
5. 4" RAP/ 24' Drive Lanes	35000	SF	$	0.65	$	22,750.00
6. Bahia Sod and Mulch	1	LS	$	18,664.00	$	18,664.00
7. Wheel Stops	217	EA	$	50.00	$	10,850.00
				Total Bid:	**$**	**80,946.00**

Not Included: Permit, Landscaping, Irrigation, and Signage.

Kim K. Babcock, Vice President

Accepted By/Date

P.O. Box 11017 ▲ Daytona Beach, Florida 32120-1017 ▲ Tel: 386.274.3120 ▲ Fax: 386.274.3170

18'
20'
20'
24'
20'
20'
24'
20'
RAP
GRASS
MULCH
PARKING LOT
60 SPACES
2 HANDICAP
~ 28,600 SQFT
SCALE: 1"=40'
WENDLESTEDT PARKING

MacDonald, Paul

To: Noble, John
Subject: FW: Message from ENMB

John,

Please see the actual estimate to construct a recycled asphalt paving (RAP), bahia sod parking area near the Kiwanis baseball field. Tomoka Construction provided a verbal estimate of $55,000 for the Wendlestedt parking area. This approach eliminates the need for engineering, permitting, storwater, lighting and landscaping.

CAPITAL PROJECT DETAIL

PROJECT TITLE

Ormond Beach Sports Complex Lighting

PROJECT#

NA

CATEGORY

Recreation and Cultural Facility Improvements

FUND

301-General Improvement Fund

PROJECT LOCATION

Soccer Fields 4, 5 & 6

MANAGEMENT

Engineering/Leisure Services

PROJECT SCOPE

Replace twisted wood lighting poles at soccer fields 4, 5, and 6 with Musco Lighting system with automated control system.

JUSTIFICATION

The wood poles were originally installed in 1991 and have become twisted over the years which resulted in the light fixtures having to be removed and relocated a few years ago. The poles have continued to twist and the lighting fixtures are recommended to be replaced using Musco Lighting with automated remote control access. The new lighting comes with a 25 year guarantee and will provide more efficient and environmentally-friendly lighting. The lighting project will be beneficial to the soccer programs and will be an added asset in obtaining future soccer field rentals.

PROJECT COST METHODOLOGY

Musco Lighting Cost Proposal for Soccer Fields 9 & 10

	AMOUNT REQUESTED
EXPENDITURE	
Sports Lighting Soccer Fields 4, 5, 6	495,000
Total	495,000

	AMOUNT REQUESTED
REVENUE	
To Be Determined	495,000
Total	495,000

CAPITAL PROJECT DETAIL

PROJECT TITLE

Public Art Program Projects

PROJECT#

NA

CATEGORY

Recreation and Cultural Facility Improvements

FUND

301-General Improvement Fund

PROJECT LOCATION

City-wide

MANAGEMENT

Leisure Services Advisory Board

PROJECT SCOPE

A comprehensive public art program that honors the heritage of the community through thematic content in varied city owned facilities and locations that are used by residents and visitors.

JUSTIFICATION

While the LSAB recognizes the value of public art placed within the community, they believe that the other needs are more pressing for the City to address at this time. It is proven that public art in public places create an attractive environment for visitors and residents alike throughout our community. In continuing with the City's desire to enhance public places through public art we will continue to pursue private funding through community partnership program.

PROJECT COST METHODOLOGY

	AMOUNT REQUESTED
EXPENDITURE	
Central Park Phase II Sculpture	50,000
OBSC Wendelstedt Fields	50,000
So. Ormond Neighborhood Sculpture	50,000
Police Station Artwork	50,000
Nova Community Ctr & Sports Complex	50,000
	0
Mound Park Sculpture	0
Total	250,000

	AMOUNT REQUESTED
REVENUE	
Private Funding	125,000
To Be Determined	125,000
Total	250,000

CAPITAL PROJECT DETAIL

PROJECT TITLE

Sports Complex Access and Drainage Improvements

PROJECT#

NA

CATEGORY

Recreation and Cultural Facility Improvements

FUND

301-General Improvement Fund

PROJECT LOCATION

Ormond Beach Sports Complex

MANAGEMENT

Engineering

PROJECT SCOPE

Construct a perimeter drainage swale south of the Kiwanis Ball Field and a paved access road to the complex main office.

JUSTIFICATION

Frequent flooding occurs around the complex office and maintenance path located south of the Kiwanis Ball Field. Construction of a paved access road to the complex office will reduce the tracking of sand and shell onto Doug Thomas Way and eliminate the public vehicular access through the center of the park and provide additional parking area near the Kiwanis field.

PROJECT COST METHODOLOGY

Unit pricing

	AMOUNT REQUESTED
EXPENDITURE	
Kiwanis area retention swale	61,000
Office access road	112,000
Total	173,000

	AMOUNT REQUESTED
REVENUE	
To Be Determined	61,000
To Be Determined	112,000
Total	173,000

Ormond Beach Sports Complex

Proposed Retension Swale near Kiwanis Field
Probable Cost

PROJECT DESCRIPTION: In order to improve flooding conditions around the OBSC main office, maintenance road and the southern end of the Kiwanis Ball field, a stormwater retension swale is proposed between the maintenance road and southern part of the ball field and will have an overflow structure and outfall stormdrain which will connect the swale to the existing pond near the office building.

CONSTRUCTION

Item No.	Description	Estimated Quantity	Unit	Unit Price	Item Price
1	Mobilization/ Demobilization (5% maximum of TOTAL BASE BID)	1	LS	$2,491.25	$2,491
2	Drainage Ditch Construction (not including sod)	480	LF	$60.00	$28,800
3	Overflow weir system	1	LS	$6,000.00	$6,000
4	Bahia Sod	1,100	SY	$3.00	$3,300
5	Silt Fence	250	LF	$2.50	$625
6	Dewatering	1	LS	$5,000.00	$5,000
7	18-in RCP Stormdrain	95	LF	$40.00	$3,800
8	Mitered End Section	1	EA	$800.00	$800
9	Survey layout and As-Builts	1	LS	$1,500.00	$1,500

Construction Total	$52,316
Engineering, Land Surveying and Permitting (15%)	$7,847
Project Total	$60,164
Design Budget	**$8,000**
Construction Budget	**$53,000**
TOTAL BUDGET	**$61,000**

Kiwanis Ball Field
Hull Rd
OBSC Field Office
700
Proposed Drainage Swale
Proposed Overflow Structure
Proposed Stormdrain
Existing Pond
Doug Thomas Way
bing
POWERED BY
esri

Ormond Beach Sports Complex

Office Building Paved Access Road and Parking Area
Probable Cost

PROJECT DESCRIPTION: Construct approximately 250 feet of paved road from Doug Thomas Way near the Kiwanis Field and pave parking area in front of building. This will allow elimination of the existing access route near the Kiwanis parking area so that the parking area may be expanded and eliminate public vehicular access to the Sports Complex maintenance roads.

CONSTRUCTION

Item No.	Description	Estimated Quantity	Unit	Unit Price	Item Price
1	Mobilization/ Demobilization (5% maximum of TOTAL BASE BID)	1	LS	$3,941.25	$3,941
2	Tree Removal, Clearing and Grubbing	0.2	Acre	$10,000.00	$2,000
3	Stabilized Subgrade	800	SY	$8.00	$6,400
4	Furnish & Install Crushed Concrete Road Base 8"	1,650	SY	$10.00	$16,500
5	Furnish & Install Compacted Subgrade Import Fill	250	CY	$20.00	$5,000
6	Furnish & Install Asphaltic Pavement (S.P. 9.5)	165	Tons	$110.00	$18,150
7	Drainage Ditch Construction (not including sod)	200	LF	$30.00	$6,000
8	Thermoplastic Striping	1	LS	$2,000.00	$2,000
9	Signage	1	LS	$2,500.00	$2,500
10	Overflow weir system	1	LS	$2,000.00	$2,000
11	Bahia Sod	550	SY	$3.00	$1,650
12	Silt Fence	450	LF	$2.50	$1,125
13	Dewatering	1	LS	$3,000.00	$3,000
14	Stormdrain Piping and Structures	1	LS	$5,000.00	$5,000
15	Entrance Gate	1	LS	$3,000.00	$3,000
16	Maintenance of Traffic	1	LS	$2,000.00	$2,000
17	Survey layout and As-Builts	1	LS	$2,500.00	$2,500

Sub Total	$82,766
Engineering, Land Surveying and Permitting (15%)	$12,415
Environmental Survey Reporting and Permitting	$2,500
Gopher Tortoise Relocation	$2,500
Sub-Total	$100,181
Contingency (10%)	$10,018
Design/Permitting/Environmental Budget	**$20,000**
Construction Budget	**$92,000**
TOTAL PROJECT BUDGET	**$112,000**

Eliminate Existing Drive Area
Office Bldg Paved Access Road and Parking Area
Hull Rd
Doug Thomas Way
700
46
bing
POWERED BY
esri

CAPITAL PROJECT DETAIL

PROJECT TITLE

Tennis Center Building

PROJECT#

NA

CATEGORY

Recreation and Cultural Facility Improvements

FUND

104-TIF

PROJECT LOCATION

Ormond Beach Tennis Center

MANAGEMENT

Engineering

PROJECT SCOPE

Construct a new 1,000 SF tennis facility at the Ormond Beach Tennis Center.

JUSTIFICATION

The operations office for the tennis center is located in the MacDonald House which has significant deterioration due to termite infestation and water infiltration along with major foundation and exterior deterioration. A study is underway to determine the feasibility of restoring the MacDonald house. Limited bathroom facilities and office space at the MacDonald house restricts the ability of scheduling events at the tennis center thus reducing the ability to provide economic stimulus to the City. If the MacDonald house is demolished or sold, a new facility will be required. The new facility will support sanctioned tennis tournaments which would occur over several days and provide economic stimulus to the local downtown area.

PROJECT COST METHODOLOGY

Cost estimate received in 2012 from the City's construction management firm. Cost adjusted for inflation. Initial estimate was for a larger structure than currently proposed.

	AMOUNT REQUESTED
EXPENDITURE	
Construct Tennis Facility	180,000
Total	180,000

	AMOUNT REQUESTED
REVENUE	
Property Taxes-TIF	180,000
Total	180,000

CAPITAL PROJECT DETAIL

PROJECT TITLE

Three Chimneys

PROJECT#

NA

CATEGORY

Recreation and Cultural Facility Improvements

FUND

301-General Improvement Fund

PROJECT LOCATION

West Granada Boulevard

MANAGEMENT

Quality of Life Board

PROJECT SCOPE

The project provides for dedicated parking for the site owned by the State of Florida and managed by the Historical Trust. This project will be included for evaluation as part of the proposed historic preservation plan discussed at the City Commission's strategic planning session.

JUSTIFICATION

Inclusion of this project was requested by the Quality of Life Board. The project is being considered in order to preserve and develop the area for public use. A conceptual plan was prepared by Planning Department and the Ormond Beach Historic Society. However current plans for development at 601 Granada Blvd. may offer some opportunity for shared parking to serve the Three Chimney's site. Staff is currently working with the Developer to reach an agreement on a parking arrangement. If such an arrangement can be made This project would not be necessary.

PROJECT COST METHODOLOGY

Costs are based upon historic costs data.

	AMOUNT REQUESTED
EXPENDITURE	
Dedicated Parking	110,000
Total	110,000

	AMOUNT REQUESTED
REVENUE	
To Be Determined	110,000
Total	110,000

CAPITAL PROJECT DETAIL

PROJECT TITLE

West Ormond Community Center Construction

PROJECT#

310017

CATEGORY

Recreation and Cultural Facility Improvements

FUND

310-Impact Fees

PROJECT LOCATION

West Ormond

MANAGEMENT

Engineering

PROJECT SCOPE

Construction of the West Ormond Community Center.

JUSTIFICATION

West Ormond has been the predominate location for growth over the last 10 years. The Recreation Master Plan clearly identifies the need for a West Ormond Community Center and park. A preliminary conceptual design was performed to determine site design constraints, conceptual site development and conceptual cost estimates. A feasibility study is planned to assist the City in evaluating the need for a Community Center to serve the citizens of the West Ormond Beach area. The need for a Community Center to serve the residents that reside in west Ormond has been on the LSAB's priority list for the last several years. This will prevent families who live in west Ormond from having to drive long distances to use Nova Community Center. It will help alleviate traffic, parking and crowding which we are currently facing at the Nova Community Center.

PROJECT COST METHODOLOGY

Estimate from Zev Cohen

	AMOUNT REQUESTED
EXPENDITURE	
Construction	8,904,000
Total	8,904,000

	AMOUNT REQUESTED
REVENUE	
To Be Determined	8,904,000
Total	8,904,000

WEST ORMOND COMMUNITY CENTER

ZC 15007

ENGINEER'S OPINION OF COST

May 23, 2016

Estimator: RMD
Project Revision:

ZEV COHEN
& ASSOCIATES, INC.

300 Interchange Blvd ● Ormond Beach, FL 32174
386.677.2482 ● Fax 386.677.2505
Engineers ● Planners ● Landscape Architecture

ZEV COHEN
& ASSOCIATES, INC.
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Phone: 386-677-2482 Fax: 386-677-2505
Engineers . Planners . Landscape Architecture

Project Name:	WEST ORMOND COMMUNITY CENTER
Project Number:	15007
Date:	May 23, 2016
Item:	Engineer's Opinion of Cost

Project Totals -Site Work

Item		Amount
Site Preparation	$	772,184.00
Sewage Collection System	$	96,256.00
Drainage System	$	295,345.00
Potable Water Distribution System	$	55,540.00
Reclaimed Water Distribution System	$	548,950.00
Roadway System	$	1,396,644.00
Landscaping & Signage	$	255,000.00
Fields	$	583,250.00
Project total	$	4,003,169.00
Contingency 10%	$	400,316.90
SITE WORK GRAND TOTAL	**$**	**4,403,485.90**

Project Totals-Building Construction		
Community Center (35,000 SF)	$	4,500,000.00
BUILDING GRAND TOTAL	**$**	**4,500,000.00**

Project Total		
Building Grand Total	$	4,500,000.00
Site Work Grand Total	$	4,403,485.90
PROJECT GRAND TOTAL	**$**	**8,903,485.90**

Opinion of cost does not include the following items:

1. Wetland Mitigation
2. Impact Fees
3. Threatened and Endangered Species
4. Removal of Unsuitable Materials

ZEV COHEN
& ASSOCIATES, INC.

300 Interchange Blvd. Ormond Beach, FL
Phone: 386-677-2482 Fax: 386-677-2505
Engineers . Planners . Landscape Architecture

Project Name: WEST ORMOND COMMUNITY CENTER
Project Number: 15,007
Date: May 23, 2016
Item: Engineers Estimate of Cost

Site Preparation

Item	Quantity	Unit	Unit Price	Amount
Mobilzation	1	LS	$25,000.00	$25,000.00
Clearing				
General	17	AC	$ 5,000.00	$ 82,800.00
Demolition of Existing Parking	1	LS	$ 50,000.00	$ 50,000.00
Excavation				
Lakes	30,000	CY	$ 2.50	$ 75,000.00
Borrow (Fill, Spread, Compact)	39,000	CY	$ 12.00	$ 468,000.00
Grading	17	AC	$ 2,000.00	$ 34,000.00
Environmental/Erosion Control				
Silt Fence	2,784	LF	$ 1.00	$ 2,784.00
Miscellaneous				
Construction Entrance	1	EA	$ 600.00	$ 600.00
SITE PREPARATION TOTAL				**$ 772,184.00**

ZEV COHEN
& ASSOCIATES, INC.
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Engineers . Planners . Landscape Architecture

Project Name: WEST ORMOND COMMUNITY CENTER
Project Number: 15007
Date: May 23, 2016
Item: Engineers Estimate of Cost

Sewage Collection System

Item	Quantity	Unit	Unit Price	Amount
Gravity Lines				
8" PVC DR 26, zero to six feet	934	LF	$ 24.00	$ 22,416.00
Clean Out				
In-line Clean Out	2	EA	$ 300.00	$ 600.00
Manholes				
6'-8' deep, 4' diameter	7	EA	$ 4,320.00	$ 30,240.00
Miscellaneous				
Relocation of10" force main	600	LF	$ 55.00	$ 33,000.00
Tie-in to Liftstation/Manhole	1.00	LS	$ 10,000.00	$ 10,000.00
SEWAGE COLLECTION TOTAL				**$ 96,256.00**

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Project Name: WEST ORMOND COMMUNITY CENTER
Project Number: 15007
Date: May 23, 2016
Item: Engineers Estimate of Cost

Drainage System

Item	Quantity	Unit	Unit Price	Amount
Reinforced Concrete Pipe				
18" RCP CLASS III	850	LF	$ 30.00	$ 25,500.00
24" RCP CLASS III	677	LF	$ 35.00	$ 23,695.00
36" RCP CLASS III	585	LF	$ 53.00	$ 31,005.00
Inlets				
TYPE "C" INLET (4' depth)	16	EA	$ 4,000.00	$ 64,000.00
Junction Box				
FDOT TYPE-J (5' dia)	3	EA	$ 4,000.00	$ 12,000.00
End Sections				
MES 36"	*1*	*EA*	*$ 1,985.00*	*$ 1,985.00*
Miscellaneous				
Secondary Drainage	1	LS	$ 20,000.00	$ 20,000.00
Field Drainage	1	LS	$ 100,000.00	$ 100,000.00
Discharge Control Structure	2	EA	$ 8,500.00	$ 17,000.00
DRAINAGE SYSTEM TOTAL				**$ 295,345.00**

ZEV COHEN
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Project Name: WEST ORMOND COMMUNITY CENTER
Project Number: 15007
Date: May 23, 2016
Item: Engineers Estimate of Cost

Potable Water Distribution System

Item	Quantity	Unit	Unit Price	Amount
Polyvinyl Chloride Pipe				
8" PVC (DR-18)	934	LF	$ 20.00	$ 18,680.00
Valves				
8" Gate Valve w/ Box	2	EA	$ 1,700.00	$ 3,400.00
Fire Hydrant w/ Valve	2	EA	$ 3,800.00	$ 7,600.00
Tapping Sleeves				
8"X8" TAPPING SLEEVE & VALVE	1	EA	$ 4,000.00	$ 4,000.00
Backflow Prevention				
2" RP BACKFLOW PREVENTOR	1	EA	$ 1,600.00	$ 1,600.00
6" RP BACKFLOW PREVENTOR	1	EA	$ 10,000.00	$ 10,000.00
Connections				
6" Fire Department Connection	1	EA	$ 2,150.00	$ 2,150.00
Miscellaneous				
Relocation of Fire Hydrant	2	EA	$ 425.00	$ 850.00
Relocation of Water Main	330	LF	$ 22.00	$ 7,260.00
POTABLE WATER DISTRIBUTION SYSTEM TOTAL				**$ 55,540.00**

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Project Name: WEST ORMOND COMMUNITY CENTER
Project Number: 15007
Date: May 23, 2016
Item: Engineers Estimate of Cost

Reclaimed Water Distribution System

Item	Quantity	Unit	Unit Price	Amount
Polyvinyl Chloride Pipe				
4" PVC (DR-18)	1,200	LF	$ 16.00	$ 19,200.00
Valves				
4" Gate Valve w/ Box	2	EA	$ 625.00	$ 1,250.00
12"X4" Tapping Sleeve and Valve	1	EA	$ 5,000.00	$ 4,500.00
Miscellaneous				
Irrigation for fields	5	EA	$ 100,000.00	$ 500,000.00
Relocation of 12" reuse main	600	LF	$ 40.00	24,000.00
RECLAIMED WATER DISTRIBUTION SYSTEM TOTAL				**$ 548,950.00**

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Project Name: WEST ORMOND COMMUNITY CENTER
Project Number: 15007
Date: May 23, 2016
Item: Engineers Estimate of Cost

Roadway System

Item	Quantity	Unit	Unit Price	Amount
Asphalt				
1-1/2" Type S-I ACSC	21,538	SY	$ 7.50	$ 161,535.00
Various Base Layers				
8" Limerock Base	22,615	SY	$ 14.60	$ 330,179.00
12" Subbase Stabilized to LBR40- 98% ,	23,750	SY	$ 5.00	$ 118,750.00
Curbs and Gutters				
Concrete Type D Curb	10,700	LF	$ 9.40	$ 100,580.00
Sidewalk/Concrete				
5'x 4" Concrete Sidewalk	3,153	LF	$ 35.00	$ 110,355.00
4" Concrete	20,415	SF	$ 3.00	$ 61,245.00
Traffic Control Devices				
Striping and Signage	1	LS	$ 5,500.00	$ 5,500.00
Railing and Ramps				
Handicap Ramps	10	EA	$ 850.00	$ 8,500.00
Miscellaneous				
Offsite Roadway Improvements	1	LS	$ 500,000.00	$ 500,000.00
ROADWAY SYSTEM TOTAL				**$ 1,396,644.00**

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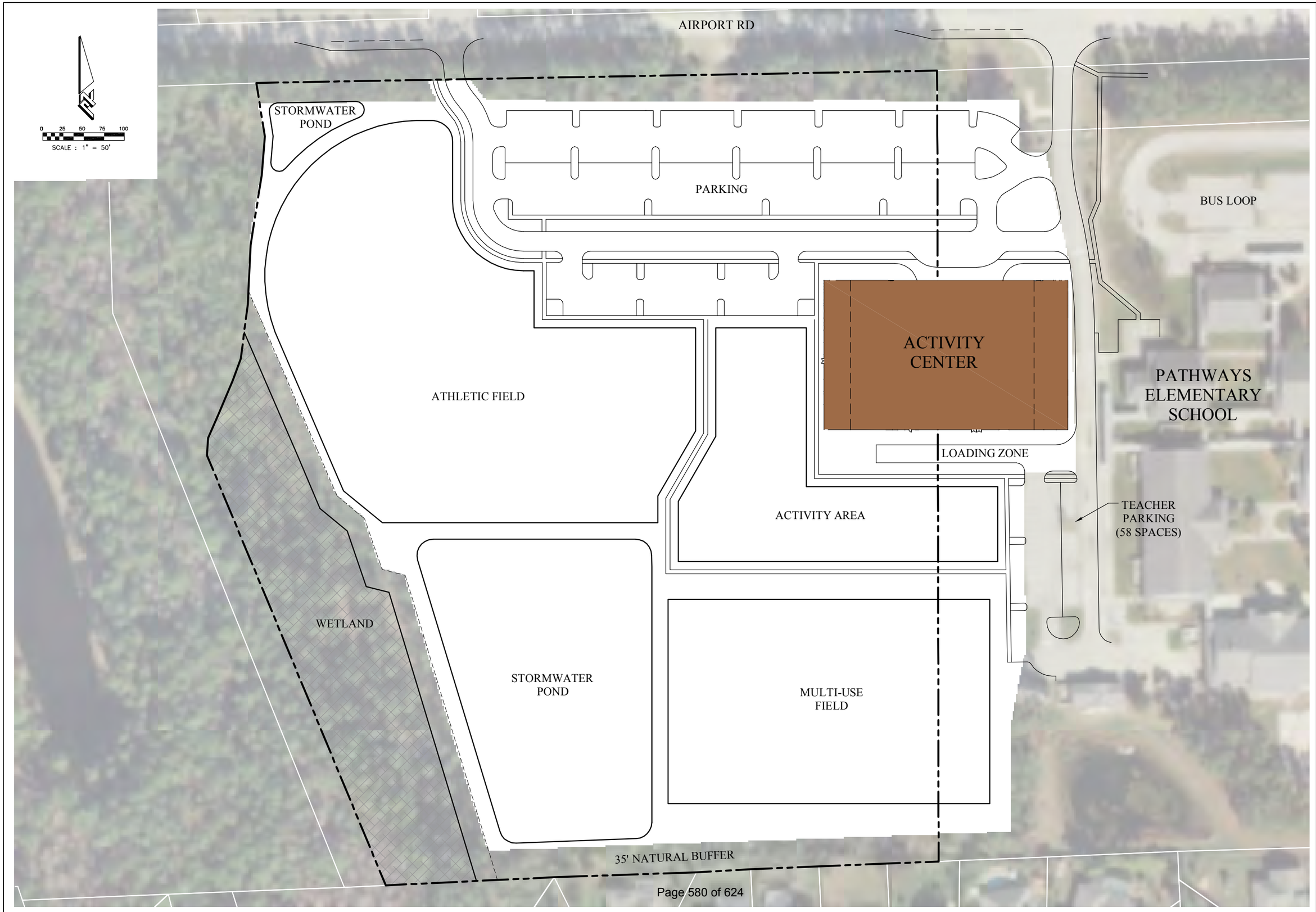
Project Name: WEST ORMOND COMMUNITY CENTER
Project Number: 15007
Date: May 23, 2016
Item: Engineers Estimate of Cost

Fields

Item	Quantity	Unit	Unit Price	Amount
Fields				
Backstops (Baseball Fields)	3	EA	$ 18,000.00	$ 54,000.00
Bleachers	1	LS	$ 100,000.00	$ 100,000.00
Restroom Facility Building	1	LS	$ 100,000.00	$ 100,000.00
Fencing	1	LS	$ 80,000.00	$ 80,000.00
Courts (Basketball, Tennis, etc)	36,500	SF	$ 4.50	$ 164,250.00
Playground	1	LS	$ 40,000.00	$ 40,000.00
8' Wide Crushed Shell Path	1	LS	$ 45,000.00	$ 45,000.00
TOTAL				**$ 583,250.00**



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PLANNERS • TRANSPORTATION • ENVIRONMENTAL
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AMELIA ISLAND
401 CENTRE ST. STE 307 FERNANDINA BCH, FL 32034

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NO.	DATE	DESCRIPTION	BY

REVISIONS:

WEST ORMOND COMMUNITY CENTER
CONCEPT PLAN

PROJECT NO: 15007
ISSUE DATE: 5-23-16
DESIGNED BY: SMG
DRAFTED BY: SMG
CHECKED BY: DD
DRAWING FILE: 15007CONCTN_NEW

FILE LOCATION

SEAL

NOT VALID WITHOUT EMBOSSED SEAL

SCALE: 1"=50'

SHEET 1 OF 1

CAPITAL PROJECT DETAIL

PROJECT TITLE

Lisa Lake Dredging

PROJECT#

107141

CATEGORY

Stormwater Improvements

FUND

107-Stormwater

PROJECT LOCATION

Canals in the area of Putnam Ave.

MANAGEMENT

Engineering

PROJECT SCOPE

The project involves the dredging of approximately two (2) feet of silt that has deposited within the canals north of Melrose Avenue and within the 5.8 acre waterway known as Lisa Lake.

JUSTIFICATION

The Lisa Lake waterway is a unique canal system within the City. Since its construction in 1959 the area has become a habitat for birthing and mating manatees. In addition, the area is utilized as habitat to a number of bird and wildlife species. Over the years, the canal system has degraded due to the accumulation of silt resulting from stormwater discharge from local stormwater collection systems that discharge into the canals. Some efforts have been made to reduce the silt deposition, namely the construction of a stormwater collection vortechnic structure at Melrose Avenue and a sediment baffle box on Sanchez Avenue. However, the canals have been impacted to the extent that there is little water depth in some of the basins. This has also affected the use of the waterways by adjacent property owners.

PROJECT COST METHODOLOGY

Cost estimate based on estimate provided by Marine Dredging Company in 2013

	AMOUNT REQUESTED
EXPENDITURE	
Dredging	530,000
Final Design	50,000
Preliminary Engineering Design/Permitting	20,000
Total	600,000

	AMOUNT REQUESTED
REVENUE	
Special Assessment	600,000
Total	600,000

Dredging & Marine Consultants

DMC

ENGINEERS • SCIENTISTS

ENGINEER'S ESTIMATE OF COSTS

City of Ormond Beach
Lisa Lake Dredging

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL AMOUNT
1	Payment and Performance Bond	1	LS	$ 10,000.00	$ 10,000.00
2	Mobilization and Demobilization	1	LS	$ 25,000.00	$ 25,000.00
3	Construction and As-Built Surveying	1	LS	$ 8,000.00	$ 8,000.00
4	Environmental Compliance	1	LS	$ 5,000.00	$ 5,000.00
5	Dredging*	15,800	CY	$ 20.00	$ 316,000.00
6	Dredge Sediment Hauling and Disposal	15,800	CY	$ 5.00	$ 79,000.00
	Contingencies (15%)				$ 66,450.00
	Engineering, Permitting & Existing Structure Asessment				$ 70,000.00
	Construction Management/Admin				$ 25,000.00
				TOTAL	$ 604,450.00
*dredging quantity assumes 2 feet of sediment over a 213,835 square foot project area		ENGINEERS ESTIMATE			$ 605,000.00

LOCATION MAP

Lisa Lake

The City of Ormond Beach
Engineering

Prepared by: 4/3/2013

N
W E
S

CAPITAL PROJECT DETAIL

PROJECT TITLE

May 2009 Flood Study - Phase II Improvements

PROJECT#

107140

CATEGORY

Stormwater Improvements

FUND

107-Stormwater

PROJECT LOCATION

Central Park Area

MANAGEMENT

Engineering

PROJECT SCOPE

This project expands on the Phase I improvements completed in 2013-14. This includes the construction of a stormwater pumping station at Central Park off Fleming Ave, and discharge piping to the Halifax River.

JUSTIFICATION

During the May 2009 Storm significant flooding occurred which impacted roads and flooded homes throughout the City. Recommendations to improve the flooding were identified in a Stormwater Investigation Study which was presented to the City Commission. The City Commission approved the study and requested staff to proceed with scheduling and budgeting of the study's recommendations. Phase 2 was also a component of the ongoing flood study underway for the EVRWA. It was anticipated that funding through FEMA would be sought by EVRWA on a regional project basis for this phase of the project; however, that is not expected to happen so City staff is prepared to apply for a FEMA HMGP grant assuming a future notice of funding availability is issued.

PROJECT COST METHODOLOGY

Costs were estimated during the grant application process.

	AMOUNT REQUESTED
EXPENDITURE	
Phase II (Construction)	8,604,000
Total	8,604,000

	AMOUNT REQUESTED
REVENUE	
To be determined	8,604,000
Total	8,604,000

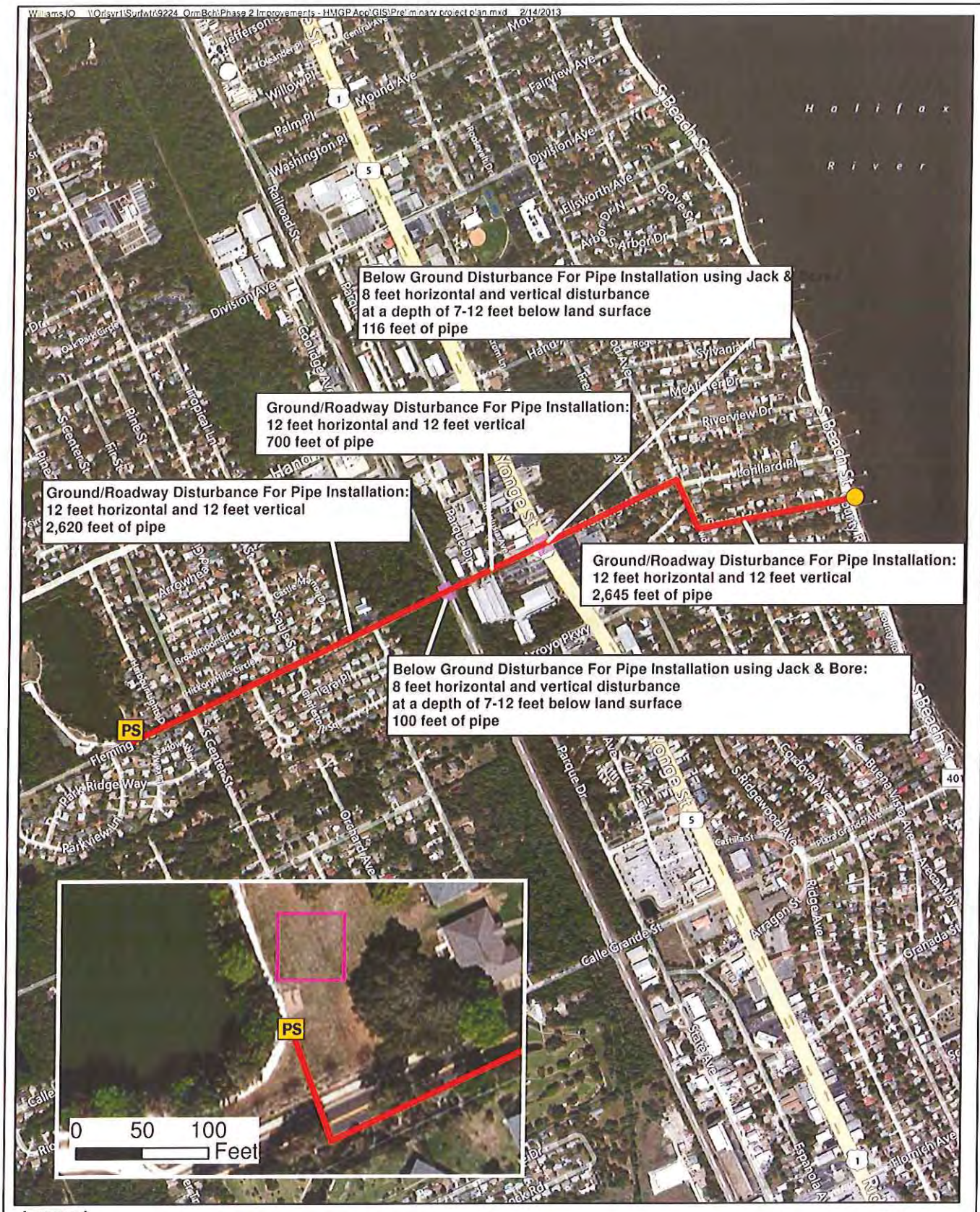
Legend

- Flooded Houses (May 2009 Storm Event)
- Additional Historic Flooding Complaints
- PS Proposed Pump Station Location
- Proposed Pipe

0 0.25 0.5 Miles

Figure 1
Flooding Complaints in Central Park Area
City of Ormond Beach, FL

CDM Smith



Legend

- PS Proposed Pump Station Location
- Outfall
- Proposed Pipe
- Jack & Bore
- Staging Area

N W E S

0 500 1,000
Feet

CDM Smith

Figure 4
Preliminary Project Plan
City of Ormond Beach, FL

Table 1
Conceptual Cost Estimate
City of Ormond Beach
Central Park Flood Mitigation Project - Phase II
Fleming Avenue Pump Station

No.	FDOT Pay Item	Item Description	Dimension/ Units	Quantity	Cost per Unit	Cost
1	101-1	Mobilization	LS	1	$223,000	$223,000
2	102-1	Maintenance of Traffic	LS	1	$330,000	$330,000
3	104-13-1	Staked Silt Fence, Type III	LF	12,500	$2.40	$30,000
4	110-1-1	Clearing and Grubbing	AC	1	$12,000	$12,000
5	353-70	Concrete D/W Replacement	CY	170	$400	$68,000
6	430-175-160	60" Reinforced Concrete Pipe	LF	6,000	$280	$1,680,000
7	430-880-04	Flapgate for 60-inch Diameter RCP	EA	1	$21,000	$21,000
8	455-13-3	Sheet Piling, Temporary-Critical	SF	150,000	$0.54	$81,420
9	556-1-9	Jack and Bore, 72" to 84" Casing	LF	220	$2,100	$462,000
10	570-1-2	Performance Turf, Sod (Bahia)	SY	3,200	$3.60	$11,520
11	9999-1	Roadway Replacement	MI	1.2	$407,500	$489,000
12	5000-2	150 cfs Pump Station	LS	1	$1,593,800	$1,593,800
13	5000-3	As-Built Drawing Certification	LS	1	$13,000	$13,000
					Sub-total	$5,014,740
					Engineering Analysis, Modeling, Full Design, and Permitting	$752,000
					*Preliminary Design and HMGP Application**	$47,250
					Sub-Applicant Management Fee (5%)	$291,000
					Total Cost	$6,104,990

Notes:
1. Pipe sizes and lengths are conceptual estimates - dimensions and lengths may change during final design.
2. Construction costs are based on data from FDOT Item Average Unit Cost Statewide and Area 6 (12/1/12-12/31/12) and similar construction projects.
3. Mobilization is approximately 5% of construction costs.
4. Design and permitting fees are approximately 15% of construction costs.
5. Due to lack of current costing data, cost estimate for 60" Flapgate was generated from FDOT Statewide Averages for 2008 (49 - 60")
6. Right-of-way, easements and/or land acquisition are not included in this estimate.

* HMGP Pre-Award Costs

Delton S. Schwalls, P.E., CFM
2/13/2013

CAPITAL PROJECT DETAIL

PROJECT TITLE

Body Cameras

PROJECT#

NA

CATEGORY

Technology

FUND

PROJECT LOCATION

Police

MANAGEMENT

PROJECT SCOPE

Body cameras (65) and associated storage.

JUSTIFICATION

In reaction to the public outcry for increased accountability and transparency in regards to how police departments operate, law enforcement has turned toward technology to satisfy these concerns. Body cameras are one such option.

Police Departments that equip their officers with body cameras are saying to their constituents that the actions of its officers are a matter of public record and that the public and the media have the right to view, with exceptions, what their public servants are doing at anytime.

Body cameras will provide the Ormond Beach Police Department with the added benefits of reducing officer complaints, identifying and correcting internal agency problems, increase officer safety and evidence documentation .The Police Department is currently authorized for sixty-eight (68) sworn positions. Three of these positions are designated as Command Staff and sixty-five (65) positions that are considered to be operational or in the field. Currently, the Police Department does not own body cameras.

PROJECT COST METHODOLOGY

Taser International Quote

	AMOUNT REQUESTED
EXPENDITURE	
Body Cameras & Licensing	442,875
Total	442,875

	AMOUNT REQUESTED
REVENUE	
To Be Determined	442,875
Total	442,875

TASER International
Protect Life. Protect Truth.

17800 N 85th St.
Scottsdale, Arizona 85255
United States
Phone: (800) 978-2737
Fax: 888-821-8703

James Crimins
(386) 676-3515
jim.crimins@ormondbeach.org

Quotation

Quote: Q-64981-2
Date: 4/12/2016 12:02 PM
Quote Expiration: 6/30/2016
Contract Start Date*: 7/1/2016
Contract Term: 5 years

AX Account Number:
114832

Bill To:
Ormond Beach Police Dept. - FL
170 West Granada Blvd.
Ormond Beach, FL 32174
US

Ship To:
James Crimins
Ormond Beach Police Dept. - FL
170 West Granada Blvd.
Ormond Beach, FL 32174
US

SALESPERSON	PHONE	EMAIL	DELIVERY METHOD	PAYMENT METHOD
David Gollobit	(480) 905-2060	dgollobit@taser.com	Fedex - Ground	Net 30

*Note this will vary based on the shipment date of the product.

Hardware + Year 1 Unlimited: Due Upfront (Net 30)

QTY	ITEM #	DESCRIPTION	UNIT PRICE	TOTAL BEFORE DISCOUNT	DISCOUNT ($)	NET TOTAL
65	85123	EVIDENCE.COM UNLIMITED LICENSE YEAR 1 PAYMENT	USD 948.00	USD 61,620.00	USD 9,750.00	USD 51,870.00
65	85100	EVIDENCE.COM INTEGRATION LICENSE: ANNUAL PAYMENT	USD 180.00	USD 11,700.00	USD 0.00	USD 11,700.00
65	85079	TASER ASSURANCE PLAN ETM/ EVIDENCE.COM DOCK ANNUAL PAYMENT	USD 36.00	USD 2,340.00	USD 0.00	USD 2,340.00
2,600	85110	EVIDENCE.COM INCLUDED STORAGE	USD 0.00	USD 0.00	USD 0.00	USD 0.00
1	85144	AXON STARTER	USD 2,500.00	USD 2,500.00	USD 0.00	USD 2,500.00
65	70113	CAMERA SYSTEM, AXON FLEX, SIGNAL	USD 688.00	USD 44,720.00	USD 0.00	USD 44,720.00
65	73036	CONTROLLER, HOLSTER, BELT CLIPS, FLEX	USD 0.00	USD 0.00	USD 0.00	USD 0.00
65	73010	LOWRIDER, HEADBAND, FLEX	USD 0.00	USD 0.00	USD 0.00	USD 0.00
65	73004	WALL CHARGER, USB SYNC CABLE, FLEX	USD 14.95	USD 971.75	USD 971.75	USD 0.00

QTY	ITEM #	DESCRIPTION	UNIT PRICE	TOTAL BEFORE DISCOUNT	DISCOUNT ($)	NET TOTAL
6	70026	EVIDENCE.COM DOCK, AXON SIX BAY	USD 1,495.00	USD 8,970.00	USD 0.00	USD 8,970.00
6	70040	EVIDENCE.COM, DOCK, DESK PLATE, 6 BAYS	USD 35.00	USD 210.00	USD 210.00	USD 0.00
6	70033	WALL MOUNT BRACKET, ASSY, EVIDENCE.COM DOCK	USD 35.00	USD 210.00	USD 210.00	USD 0.00
65	70112	AXON SIGNAL UNIT	USD 279.00	USD 18,135.00	USD 0.00	USD 18,135.00
5	70113	CAMERA SYSTEM, AXON FLEX, SIGNAL	USD 0.00	USD 0.00	USD 0.00	USD 0.00
5	73036	CONTROLLER, HOLSTER, BELT CLIPS, FLEX	USD 0.00	USD 0.00	USD 0.00	USD 0.00
5	73010	LOWRIDER, HEADBAND, FLEX	USD 0.00	USD 0.00	USD 0.00	USD 0.00
					Hardware + Year 1 Unlimited: Due Upfront (Net 30) Total Before Discounts:	USD 151,376.75
					Hardware + Year 1 Unlimited: Due Upfront (Net 30) Discount:	USD 11,141.75
					Hardware + Year 1 Unlimited: Due Upfront (Net 30) Net Amount Due:	USD 140,235.00

Year 2 Unlimited: Due 2017

QTY	ITEM #	DESCRIPTION	UNIT PRICE	TOTAL BEFORE DISCOUNT	DISCOUNT ($)	NET TOTAL
65	85124	EVIDENCE.COM UNLIMITED LICENSE YEAR 2 PAYMENT	USD 948.00	USD 61,620.00	USD 0.00	USD 61,620.00
65	85100	EVIDENCE.COM INTEGRATION LICENSE: ANNUAL PAYMENT	USD 180.00	USD 11,700.00	USD 0.00	USD 11,700.00
65	85079	TASER ASSURANCE PLAN ETM/ EVIDENCE.COM DOCK ANNUAL PAYMENT	USD 36.00	USD 2,340.00	USD 0.00	USD 2,340.00
2,600	85110	EVIDENCE.COM INCLUDED STORAGE	USD 0.00	USD 0.00	USD 0.00	USD 0.00
					Year 2 Unlimited: Due 2017 Total Before Discounts:	USD 75,660.00
					Year 2 Unlimited: Due 2017 Net Amount Due:	USD 75,660.00

Year 3 Unlimited: Due 2018

QTY	ITEM #	DESCRIPTION	UNIT PRICE	TOTAL BEFORE DISCOUNT	DISCOUNT ($)	NET TOTAL
65	85125	EVIDENCE.COM UNLIMITED LICENSE YEAR 3 PAYMENT	USD 948.00	USD 61,620.00	USD 0.00	USD 61,620.00
65	85100	EVIDENCE.COM INTEGRATION LICENSE: ANNUAL PAYMENT	USD 180.00	USD 11,700.00	USD 0.00	USD 11,700.00
65	85079	TASER ASSURANCE PLAN ETM/ EVIDENCE.COM DOCK ANNUAL PAYMENT	USD 36.00	USD 2,340.00	USD 0.00	USD 2,340.00
2,600	85110	EVIDENCE.COM INCLUDED STORAGE	USD 0.00	USD 0.00	USD 0.00	USD 0.00
					Year 3 Unlimited: Due 2018 Total Before Discounts:	USD 75,660.00
					Year 3 Unlimited: Due 2018 Net Amount Due:	USD 75,660.00

Year 4 Unlimited: Due 2019

QTY	ITEM #	DESCRIPTION	UNIT PRICE	TOTAL BEFORE DISCOUNT	DISCOUNT ($)	NET TOTAL
65	85126	EVIDENCE.COM UNLIMITED LICENSE YEAR 4 PAYMENT	USD 948.00	USD 61,620.00	USD 0.00	USD 61,620.00

QTY	ITEM #	DESCRIPTION	UNIT PRICE	TOTAL BEFORE DISCOUNT	DISCOUNT ($)	NET TOTAL
65	85100	EVIDENCE.COM INTEGRATION LICENSE: ANNUAL PAYMENT	USD 180.00	USD 11,700.00	USD 0.00	USD 11,700.00
65	85079	TASER ASSURANCE PLAN ETM/ EVIDENCE.COM DOCK ANNUAL PAYMENT	USD 36.00	USD 2,340.00	USD 0.00	USD 2,340.00
2,600	85110	EVIDENCE.COM INCLUDED STORAGE	USD 0.00	USD 0.00	USD 0.00	USD 0.00
					Year 4 Unlimited: Due 2019 Total Before Discounts:	USD 75,660.00
					Year 4 Unlimited: Due 2019 Net Amount Due:	USD 75,660.00

Year 5 Unlimited: Due 2020

QTY	ITEM #	DESCRIPTION	UNIT PRICE	TOTAL BEFORE DISCOUNT	DISCOUNT ($)	NET TOTAL
65	85127	EVIDENCE.COM UNLIMITED LICENSE YEAR 5 PAYMENT	USD 948.00	USD 61,620.00	USD 0.00	USD 61,620.00
65	85100	EVIDENCE.COM INTEGRATION LICENSE: ANNUAL PAYMENT	USD 180.00	USD 11,700.00	USD 0.00	USD 11,700.00
65	85079	TASER ASSURANCE PLAN ETM/ EVIDENCE.COM DOCK ANNUAL PAYMENT	USD 36.00	USD 2,340.00	USD 0.00	USD 2,340.00
2,600	85110	EVIDENCE.COM INCLUDED STORAGE	USD 0.00	USD 0.00	USD 0.00	USD 0.00
					Year 5 Unlimited: Due 2020 Total Before Discounts:	USD 75,660.00
					Year 5 Unlimited: Due 2020 Net Amount Due:	USD 75,660.00

Subtotal	USD 442,875.00
Estimated Shipping & Handling Cost	USD 175.22
Grand Total	USD 443,050.22

Axon Pre-order

Thank you for your interest in Axon! This pre-order is a commitment to purchase Axon Body 2 and/or Axon Fleet. Axon Body 2 is available for delivery between 8-10 weeks after purchase date. Axon Fleet is available for delivery between August 1, 2016 and August 14, 2016. You will be notified if there are any delays. TASER reserves the right to make product changes without notice.

415 Century Parkway, Allen, TX 75013
(972) 423-9777 Fax: (972) 423-9778
National Toll-Free 1-800-605-MPEG (6734)
www.watchguardvideo.com

CAMERA QUOTE

Quote #: QUO-29394-S9R6 **Rev #:** 0

Customer	
Ormond Beach Police Department	
Attn: Crimins	
, , ,	
Telephone Number	**Fax Number**
386-677-0731	(386) 676-3571
Email Address	

Quote Information		
Quote Valid From:		To: 4/27/2016
Quote Presented By:	Chris Hudson	
Presenter Contact:	CHudson@WatchGuardVideo.com	
Est. Ship Date	**Ship Via**	**Payment Terms**
30 days	UPS Ground	Net 30

#	Part Number	Description	Unit Price	Qty	Ext Price
1	VIS-VTS-DTC-001	VISTA Transfer Station Assy, for 8 Cameras, Ethernet	$1,495.00	8	$11,960.00
2	KEY-EL4-SRV-001	Evidence Library 4 Web Server Site License Key	$1,000.00	1	$1,000.00
3	VIS-CAM-EXT-002	VISTA HD, Extended Version, Wearable Camera (v2)	$895.00	70	$62,650.00
4	SVC-4RE-RMT-410	4RE Remote System Setup, Configuration, Testing and Admin Training	$750.00	1	$750.00
5	KEY-EL4-DEV-002	Evidence Library 4 Web VISTA Device License Key	$150.00	70	$10,500.00
6	SFW-EL4-CLD-BAS	Evidence Library 4 Web CLOUD-SHARE - Basic	Included	70	Included
7	SFW-MNT-EL4-001	Software Maintenance, Evidence Library, 1st Year (Months 1-12)	Included	70	Included
8	WAR-VIS-CAM-1ST	Warranty, VISTA 1st Year (Months 1-12) Included	Included	70	Included
9	VIS-CHG-BSE-KIT	VISTA Charging Base Kit, incl. Power and USB Cables	Included	70	Included
10	VIS-VTS-DTC-001	VISTA Transfer Station Kit, incl Power Supply and Cables	Included	8	Included
11	VIS-MNT-KIT-001	VISTA HD, Locking Magnetic Chest Mount, Assembly	Included	70	Included

Comments:

Subtotal	$86,860.00
Shipping	$840.00
Taxes	
Total	$87,700.00

415 Century Parkway, Allen, TX 75013
(972) 423-9777 Fax: (972) 423-9778
National Toll-Free 1-800-605-MPEG (6734)
www.watchguardvideo.com

CAMERA QUOTE

Quote #: QUO-29397-G3P1 **Rev #:** 0

Customer	
Ormond Beach Police Department	
Attn: Crimins	
, , ,	
Telephone Number	**Fax Number**
386-677-0731	(386) 676-3571
Email Address	

Quote Information		
Quote Valid From:		To: 4/27/2016
Quote Presented By:	Chris Hudson	
Presenter Contact:	CHudson@WatchGuardVideo.com	
Est. Ship Date	**Ship Via**	**Payment Terms**
30 days	UPS Ground	Net 30

#	Part Number	Description	Unit Price	Qty	Ext Price
1	HDW-4RE-SRV-102	Server, 4RE, 16 HDD, 3U, 6-15 Concurrent Cars, 5CAL	$6,940.00	1	$6,940.00
2	SVC-4RE-ONS-400	4RE System Setup, Configuration, Testing and Training (WG-TS)	$2,500.00	1	$2,500.00
3	HDW-4RE-HDD-4TB	Hard Drive, Server, 4TB, 7,200 RPM, 4RE	$490.00	13	$6,370.00
4	SFW-SQL-SRV-105	Software, SQL Server 2008 R2, w/5 CAL	Included	1	Included
5	SFW-WIN-SRV-OS8	Software, Windows Server 2008 R2, w/5 CAL	Included	1	Included

Comments:

Subtotal	$15,810.00
Shipping	$225.00
Taxes	
Total	$16,035.00

COBAN

11375 W. Sam Houston Parkway South #800
Houston, TX 77031
P. 281-925-0488 | F. 281-925-0535

Quotation Expiration: 60 Days
Terms: Net 30 Days
FOB Point: Destination

Prepared for:	**Ormond Beach Police Dept (Ormond Bch, FL)**
Address	**170 W Granada Blvd**
City, State	**Ormond Bch, FL 32174**
Contact	**James Crimins**

Quote #	Date
715604-1	4/13/2016

Prepared by:
Sheri Taynor (832-627-3196)

115	COBAN ECHO BODY WORN CAMERA		List Price	Quoted	Quantity	Total
	ECHO-01	COBAN ECHO Body Worn Camera Package (Includes: ECHO Camera, 110v Wall Adapter, USB Cable, Spring Clip, 1 year factory warranty)	$466.00	$ 405.00	70	$28,350.00
	ECHO-05	ECHO Single Bay Vehicle/Office Upload/Charging Cradle (incl.CABLE- USB 16FT EXTENSION W/ REPEATER for EDGE/M7 Integration)	$120.00	$ 99.00	10	$990.00
	ECHO-04	ECHO 6-Bay Upload/Charging Cradle	$578.00	$ 495.00	2	$990.00
	WLIC-221	DVMS BWC SOLUTION LICENSE First Year Software Maintenance and Technical Support (per device)	$99.00	$ 90.00	70	$6,300.00
170	**SHIPPING**		**List Price**	**Quoted**	**Quantity**	**Total**
	LFEE-050	Shipping - In-Car Equipment (EDGE, M7 MDC, M7 VMDC, ALPR)	$50.00			$0.00
	LFEE-053	Shipping - Fusion or 6-bay dock for bodycam	$25.00	$ 25.00	2	$50.00
	LFEE-054	Shipping - Bodycam or single/double dock for bodycam	$15.00	$ 15.00	70	$1,050.00
	LFEE-055	Shipping - Back Office Hardware (Server, Auto DVD, Interview, Jail) Each	$150.00			$0.00

Total List	$43,006.00
Line Item Discount	-$5,276.00
Subtotal	$37,730.00
Additional Discount (s)	
Taxes (if applicable)	
GRAND TOTAL	**$37,730.00**

Terms /Conditions / ***Assumptions:***

Lease Payment Options (for quotes under $200,000)

COBAN Technologies, Inc.
11375 W Sam Houston Pkwy S # 800
Houston, Texas 77031
Equipment Price $ 37,730.00

$1.00 Purchase Lease or Finance Agreement

24 month payment	$1,715.58
36 month payment	$1,166.61
48 month payment	$892.69
60 month payment	$728.19

ALL PAYMENTS ARE SUBJECT TO AN APPROVAL & APPLICABLE TAX

- Semi-annual & annual Terms available
- Unsecured lease with no blanket liens, loan covenants, or additional collateral required
- Payments are fixed for the term with no annual financial review or early call by lender

Longer term options available for $200,000 and above transactions
Please contact us for more information.

CAPITAL PROJECT DETAIL

PROJECT TITLE

Communication Infrastructure Master Plan

PROJECT#

NA

CATEGORY

Technology

FUND

301-General Improvement Fund

PROJECT LOCATION

City Wide

MANAGEMENT

Engineering

PROJECT SCOPE

Phased expansion of City fiber Optic network facilities connecting properties and utilities assets to previously connected facilities

JUSTIFICATION

Central to City operation is the transfer of data between City facilities and for the operation of City assets at remote locations. The Communication Infrastructure of the City of Ormond Beach is built upon the points of data collection and facility controls, terminals that allow for the monitoring of this data and the communication of City business, as well as the means of connecting these points allowing for the transfer of information internally and to external locations. The creation of a fiber optic network between City facilities provides increased reliability, increased data rates up to 10,000 Mbps, and immunity from both weather and power related events Previous phases have established connectivity, providing a Gigabit Ethernet (1 GigE) communication capability to additional City facilities. This strategic investment increases security, data transfer speed, and reliability to those connected facilities while reducing business recovery and disaster recovery risks.

PROJECT COST METHODOLOGY

	AMOUNT REQUESTED
EXPENDITURE	
Fiber Optics	1,047,000
Total	1,047,000

	AMOUNT REQUESTED
REVENUE	
To Be Determined	1,047,000
Total	1,047,000

Communications Infrastructure Master Plan Project 10.4.1.1

Riverside Drive Fiber Optic Expansion

Item #	Description	Qnty	Unit	Amount	Ext.
1	City Right of way permit	8200	Ft	$0.25	$2,050.00
2	Job Design per ft (3500 ft minimum to include access & maintenance loops) price will include drawings delivered & retrieved from MLGW, obtain city right of way permits, GPS Data, and asbuilt drawings submitted to city at completion	8200	Ft	$0.75	$6,150.00
3	Furnish & Install Muletape	9020	Ft	$0.25	$2,255.00
4	Furnish & Install #12 Tracer wire	9020	ft	$0.35	$3,157.00
5	Furnish & Install 24 count fiber	9020	Ft	$1.44	$12,988.80
6	Furnish & Install 48 count fiber	9020	Ft	$1.64	$14,792.80
7	Trench 2" 36" - Hand dig	0	Ft	$5.50	$0.00
8	Furnish & Directional Bore 2"	8200	Ft	$12.00	$98,400.00
9	Core Bore	6	Ea	$100.00	$600.00
10	Furnish Warning Tape	10	Roll	$50.00	$500.00
11	Furnish & Install 24"x36"x18" Handhole w/ 20k lid	15	Ea	$600.00	$9,000.00
12	Ground Wire 6 Awg (500' reel)	19	reel	$220.00	$4,180.00
13	Mid sheath Fiber Entry	8	Ea	$350.00	$2,800.00
14	Install new splice case & prep cable	8	Ea	$250.00	$2,000.00
15	Prep cable in panel	8	Ea	$150.00	$1,200.00
16	Splice 97-288 Fibers	192	Ea	$15.00	$2,880.00
17	Splice trays	10	Ea	$55.00	$550.00
18	Small Splice case (runt)	6	Ea	$169.20	$1,015.20
19	Med Splice case (6.5x22)	4	Ea	$388.92	$1,555.68
20	Furnish Wall Mount Panel	3	Ea	$235.00	$705.00
21	install wall mount panel	3	Ea	$75.00	$225.00
22	pigtails	96	Ea	$21.00	$2,016.00
23	Bulkheads	8	Ea	$80.00	$640.00
24	Furnish & Install 2" riser with LB	3	Ea	$175.00	$525.00

$170,185.48

Part 1 - Conduit	$121,012.00
Part 2 - Fiber and Connections	$49,173.48

Communications Infrastructure Master Plan Project 10.4.1.2

Fire Station 91

Item #	Description	Qnty	Unit	Amount	Ext.
1	City Right of way permit	2800	Ft	$0.25	$700.00
2	Job Design per ft (3500 ft minimum to include access & maintenance loops) price will include drawings delivered & retrieved from MLGW, obtain city right of way permits, GPS Data, and asbuilt drawings submitted to city at completion	2800	Ft	$0.75	$2,100.00
3	Furnish & Install Muletape	3080	Ft	$0.25	$770.00
4	Furnish & Install #12 Tracer wire	3080	ft	$0.35	$1,078.00
5	Furnish & Install 24 count fiber	3080	Ft	$1.44	$4,435.20
6	Furnish & Install 48 count fiber	3080	Ft	$1.64	$5,051.20
7	Trench 2" 36" - Hand dig	0	Ft	$5.50	$0.00
8	Furnish & Directional Bore 2"	2800	Ft	$12.00	$33,600.00
9	Core Bore	2	Ea	$100.00	$200.00
10	Furnish Warning Tape	5	Roll	$50.00	$250.00
11	Furnish & Install 24"x36"x18" Handhole w/ 20k lid	8	Ea	$600.00	$4,800.00
12	Ground Wire 6 Awg (500' reel)	6	reel	$220.00	$1,320.00
13	Mid sheath Fiber Entry	2	Ea	$350.00	$700.00
14	Install new splice case & prep cable	2	Ea	$250.00	$500.00
15	Prep cable in panel	2	Ea	$150.00	$300.00
16	Splice 97-288 Fibers	192	Ea	$15.00	$2,880.00
17	Splice trays	4	Ea	$55.00	$220.00
18	Small Splice case (runt)	2	Ea	$169.20	$338.40
19	Med Splice case (6.5x22)	2	Ea	$388.92	$777.84
20	Furnish Wall Mount Panel	1	Ea	$235.00	$235.00
21	install wall mount panel	1	Ea	$75.00	$75.00
22	pigtails	96	Ea	$21.00	$2,016.00
23	Bulkheads	2	Ea	$80.00	$160.00
24	Furnish & Install 2" riser with LB	1	Ea	$175.00	$175.00

$62,681.64

Part 1 - Conduit	$43,048.00
Part 2 - Fiber and Connections	$19,633.64

Communications Infrastructure Master Plan Project 10.4.1.3

Lift Station LS-1P

Item #	Description	Qnty	Unit	Amount	Ext.
1	City Right of way permit	2400	Ft	$0.25	$600.00
2	Job Design per ft (3500 ft minimum to include access & maintenance loops) price will include drawings delivered & retrieved from MLGW, obtain city right of way permits, GPS Data, and asbuilt drawings submitted to city at completion	2400	Ft	$0.75	$1,800.00
3	Furnish & Install Muletape	2640	Ft	$0.25	$660.00
4	Furnish & Install #12 Tracer wire	2640	ft	$0.35	$924.00
5	Furnish & Install 24 count fiber	2640	Ft	$1.44	$3,801.60
6	Furnish & Install 48 count fiber	2640	Ft	$1.64	$4,329.60
7	Trench 2" 36" - Hand dig	0	Ft	$5.50	$0.00
8	Furnish & Directional Bore 2"	2400	Ft	$12.00	$28,800.00
9	Core Bore	2	Ea	$100.00	$200.00
10	Furnish Warning Tape	5	Roll	$50.00	$250.00
11	Furnish & Install 24"x36"x18" Handhole w/ 20k lid	5	Ea	$600.00	$3,000.00
12	Ground Wire 6 Awg (500' reel)	5	reel	$220.00	$1,100.00
13	Mid sheath Fiber Entry	2	Ea	$350.00	$700.00
14	Install new splice case & prep cable	2	Ea	$250.00	$500.00
15	Prep cable in panel	2	Ea	$150.00	$300.00
16	Splice 97-288 Fibers	192	Ea	$15.00	$2,880.00
17	Splice trays	4	Ea	$55.00	$220.00
18	Small Splice case (runt)	2	Ea	$169.20	$338.40
19	Med Splice case (6.5x22)	2	Ea	$388.92	$777.84
20	Furnish Wall Mount Panel	1	Ea	$235.00	$235.00
21	install wall mount panel	1	Ea	$75.00	$75.00
22	pigtails	96	Ea	$21.00	$2,016.00
23	Bulkheads	2	Ea	$80.00	$160.00
24	Furnish & Install 2" riser with LB	1	Ea	$175.00	$175.00

$53,842.44

Part 1 - Conduit	$35,784.00
Part 2 - Fiber and Connections	$18,058.44

Communications Infrastructure Master Plan Project 10.4.1.4

Andy Romano Beachfront Park

Item #	Description	Qnty	Unit	Amount	Ext.
1	City Right of way permit	3200	Ft	$0.25	$800.00
2	Job Design per ft (3500 ft minimum to include access & maintenance loops) price will include drawings delivered & retrieved from MLGW, obtain city right of way permits, GPS Data, and asbuilt drawings submitted to city at completion	3200	Ft	$0.75	$2,400.00
3	Furnish & Install Muletape	3520	Ft	$0.25	$880.00
4	Furnish & Install #12 Tracer wire	3520	ft	$0.35	$1,232.00
5	Furnish & Install 24 count fiber	3520	Ft	$1.44	$5,068.80
6	Furnish & Install 48 count fiber	3520	Ft	$1.64	$5,772.80
7	Trench 2" 36" - Hand dig	0	Ft	$5.50	$0.00
8	Furnish & Directional Bore 2"	3200	Ft	$12.00	$38,400.00
9	Core Bore	2	Ea	$100.00	$200.00
10	Furnish Warning Tape	7	Roll	$50.00	$350.00
11	Furnish & Install 24"x36"x18" Handhole w/ 20k lid	8	Ea	$600.00	$4,800.00
12	Ground Wire 6 Awg (500' reel)	7	reel	$220.00	$1,540.00
13	Mid sheath Fiber Entry	2	Ea	$350.00	$700.00
14	Install new splice case & prep cable	2	Ea	$250.00	$500.00
15	Prep cable in panel	2	Ea	$150.00	$300.00
16	Splice 97-288 Fibers	192	Ea	$15.00	$2,880.00
17	Splice trays	4	Ea	$55.00	$220.00
18	Small Splice case (runt)	2	Ea	$169.20	$338.40
19	Med Splice case (6.5x22)	2	Ea	$388.92	$777.84
20	Furnish Wall Mount Panel	1	Ea	$235.00	$235.00
21	install wall mount panel	1	Ea	$75.00	$75.00
22	pigtails	96	Ea	$21.00	$2,016.00
23	Bulkheads	2	Ea	$80.00	$160.00
24	Furnish & Install 2" riser with LB	1	Ea	$175.00	$175.00

$69,820.84

Part 1 - Conduit	$48,512.00
Part 2 - Fiber and Connections	$21,308.84

Communications Infrastructure Master Plan Project 10.4.1.5

Volusia County Off-Beach Parking Lots

Item #	Description	Qnty	Unit	Amount	Ext.
1	City Right of way permit	5000	Ft	$0.25	$1,250.00
2	Job Design per ft (3500 ft minimum to include access & maintenance loops) price will include drawings delivered & retrieved from MLGW, obtain city right of way permits, GPS Data, and asbuilt drawings submitted to city at completion	5000	Ft	$0.75	$3,750.00
3	Furnish & Install Muletape	5500	Ft	$0.25	$1,375.00
4	Furnish & Install #12 Tracer wire	5500	ft	$0.35	$1,925.00
5	Furnish & Install 24 count fiber	5500	Ft	$1.44	$7,920.00
6	Furnish & Install 48 count fiber	5500	Ft	$1.64	$9,020.00
7	Trench 2" 36" - Hand dig	0	Ft	$5.50	$0.00
8	Furnish & Directional Bore 2"	5000	Ft	$12.00	$60,000.00
9	Core Bore	2	Ea	$100.00	$200.00
10	Furnish Warning Tape	11	Roll	$50.00	$550.00
11	Furnish & Install 24"x36"x18" Handhole w/ 20k lid	8	Ea	$600.00	$4,800.00
12	Ground Wire 6 Awg (500' reel)	7	reel	$220.00	$1,540.00
13	Mid sheath Fiber Entry	4	Ea	$350.00	$1,400.00
14	Install new splice case & prep cable	4	Ea	$250.00	$1,000.00
15	Prep cable in panel	2	Ea	$150.00	$300.00
16	Splice 97-288 Fibers	192	Ea	$15.00	$2,880.00
17	Splice trays	6	Ea	$55.00	$330.00
18	Small Splice case (runt)	2	Ea	$169.20	$338.40
19	Med Splice case (6.5x22)	2	Ea	$388.92	$777.84
20	Furnish Wall Mount Panel	2	Ea	$235.00	$470.00
21	install wall mount panel	2	Ea	$75.00	$150.00
22	pigtails	96	Ea	$21.00	$2,016.00
23	Bulkheads	4	Ea	$80.00	$320.00
24	Furnish & Install 2" riser with LB	2	Ea	$175.00	$350.00

$102,662.24

Part 1 - Conduit	$73,100.00
Part 2 - Fiber and Connections	$29,562.24

Communications Infrastructure Master Plan Project 10.4.1.6

Rockefeller Gardens

Item #	Description	Qnty	Unit	Amount	Ext.
1	City Right of way permit	600	Ft	$0.25	$150.00
2	Job Design per ft (3500 ft minimum to include access & maintenance loops) price will include drawings delivered & retrieved from MLGW, obtain city right of way permits, GPS Data, and asbuilt drawings submitted to city at completion	600	Ft	$0.75	$450.00
3	Furnish & Install Muletape	660	Ft	$0.25	$165.00
4	Furnish & Install #12 Tracer wire	660	ft	$0.35	$231.00
5	Furnish & Install 24 count fiber	800	Ft	$1.44	$1,152.00
6	Furnish & Install 48 count fiber	0	Ft	$1.64	$0.00
7	Trench 2" 36" - Hand dig	0	Ft	$5.50	$0.00
8	Furnish & Directional Bore 2"	600	Ft	$12.00	$7,200.00
9	Core Bore	2	Ea	$100.00	$200.00
10	Furnish Warning Tape	2	Roll	$50.00	$100.00
11	Furnish & Install 24"x36"x18" Handhole w/ 20k lid	6	Ea	$600.00	$3,600.00
12	Ground Wire 6 Awg (500' reel)	2	reel	$220.00	$440.00
13	Mid sheath Fiber Entry	2	Ea	$350.00	$700.00
14	Install new splice case & prep cable	2	Ea	$250.00	$500.00
15	Prep cable in panel	1	Ea	$150.00	$150.00
16	Splice 97-288 Fibers	192	Ea	$15.00	$2,880.00
17	Splice trays	2	Ea	$55.00	$110.00
18	Small Splice case (runt)	1	Ea	$169.20	$169.20
19	Med Splice case (6.5x22)	1	Ea	$388.92	$388.92
20	Furnish Wall Mount Panel	1	Ea	$235.00	$235.00
21	install wall mount panel	1	Ea	$75.00	$75.00
22	pigtails	96	Ea	$21.00	$2,016.00
23	Bulkheads	4	Ea	$80.00	$320.00
24	Furnish & Install 2" riser with LB	2	Ea	$175.00	$350.00

$21,582.12

Part 1 - Conduit	$11,796.00
Part 2 - Fiber and Connections	$9,786.12

Communications Infrastructure Master Plan Project 10.4.2.1

John Anderson Fiber Optic

Item #	Description	Qnty	Unit	Amount	Ext.
1	City Right of way permit	11000	Ft	$0.25	$2,750.00
2	Job Design per ft (3500 ft minimum to include access & maintenance loops) price will include drawings delivered & retrieved from MLGW, obtain city right of way permits, GPS Data, and asbuilt drawings submitted to city at completion	11000	Ft	$0.75	$8,250.00
3	Furnish & Install Muletape	12100	Ft	$0.25	$3,025.00
4	Furnish & Install #12 Tracer wire	12100	ft	$0.35	$4,235.00
5	Furnish & Install 24 count fiber	12100	Ft	$1.44	$17,424.00
6	Furnish & Install 48 count fiber	12100	Ft	$1.64	$19,844.00
7	Trench 2" 36" - Hand dig	0	Ft	$5.50	$0.00
8	Furnish & Directional Bore 2"	0	Ft	$12.00	$0.00
9	Core Bore	2	Ea	$100.00	$200.00
10	Furnish Warning Tape	2	Roll	$50.00	$100.00
11	Furnish & Install 24"x36"x18" Handhole w/ 20k lid	0	Ea	$600.00	$0.00
12	Ground Wire 6 Awg (500' reel)	2	reel	$220.00	$440.00
13	Mid sheath Fiber Entry	5	Ea	$350.00	$1,750.00
14	Install new splice case & prep cable	2	Ea	$250.00	$500.00
15	Prep cable in panel	5	Ea	$150.00	$750.00
16	Splice 97-288 Fibers	192	Ea	$15.00	$2,880.00
17	Splice trays	5	Ea	$55.00	$275.00
18	Small Splice case (runt)	2	Ea	$169.20	$338.40
19	Med Splice case (6.5x22)	2	Ea	$388.92	$777.84
20	Furnish Wall Mount Panel	5	Ea	$235.00	$1,175.00
21	install wall mount panel	5	Ea	$75.00	$375.00
22	pigtails	96	Ea	$21.00	$2,016.00
23	Bulkheads	4	Ea	$80.00	$320.00
24	Furnish & Install 2" riser with LB	5	Ea	$175.00	$875.00

$68,300.24

Communications Infrastructure Master Plan Project 10.4.2.2

Fortunato Park

Item #	Description	Qnty	Unit	Amount	Ext.
1	City Right of way permit	500	Ft	$0.25	$125.00
2	Job Design per ft (3500 ft minimum to include access & maintenance loops) price will include drawings delivered & retrieved from MLGW, obtain city right of way permits, GPS Data, and asbuilt drawings submitted to city at completion	500	Ft	$0.75	$375.00
3	Furnish & Install Muletape	550	Ft	$0.25	$137.50
4	Furnish & Install #12 Tracer wire	550	ft	$0.35	$192.50
5	Furnish & Install 24 count fiber	550	Ft	$1.44	$792.00
6	Furnish & Install 48 count fiber	0	Ft	$1.64	$0.00
7	Trench 2" 36" - Hand dig	0	Ft	$5.50	$0.00
8	Furnish & Directional Bore 2"	500	Ft	$12.00	$6,000.00
9	Core Bore	2	Ea	$100.00	$200.00
10	Furnish Warning Tape	2	Roll	$50.00	$100.00
11	Furnish & Install 24"x36"x18" Handhole w/ 20k lid	3	Ea	$600.00	$1,800.00
12	Ground Wire 6 Awg (500' reel)	2	reel	$220.00	$440.00
13	Mid sheath Fiber Entry	2	Ea	$350.00	$700.00
14	Install new splice case & prep cable	2	Ea	$250.00	$500.00
15	Prep cable in panel	5	Ea	$150.00	$750.00
16	Splice 97-288 Fibers	192	Ea	$15.00	$2,880.00
17	Splice trays	5	Ea	$55.00	$275.00
18	Small Splice case (runt)	2	Ea	$169.20	$338.40
19	Med Splice case (6.5x22)	2	Ea	$388.92	$777.84
20	Furnish Wall Mount Panel	1	Ea	$235.00	$235.00
21	install wall mount panel	1	Ea	$75.00	$75.00
22	pigtails	96	Ea	$21.00	$2,016.00
23	Bulkheads	2	Ea	$80.00	$160.00
24	Furnish & Install 2" riser with LB	1	Ea	$175.00	$175.00

$19,044.24

Part 1 - Conduit	$8,630.00
Part 2 - Fiber and Connections	$10,414.24

Communications Infrastructure Master Plan Project 10.4.2.3

North Peninsula Water Tank

Item #	Description	Qnty	Unit	Amount	Ext.
1	City Right of way permit	500	Ft	$0.25	$125.00
2	Job Design per ft (3500 ft minimum to include access & maintenance loops) price will include drawings delivered & retrieved from MLGW, obtain city right of way permits, GPS Data, and asbuilt drawings submitted to city at completion	500	Ft	$0.75	$375.00
3	Furnish & Install Muletape	550	Ft	$0.25	$137.50
4	Furnish & Install #12 Tracer wire	550	ft	$0.35	$192.50
5	Furnish & Install 24 count fiber	550	Ft	$1.44	$792.00
6	Furnish & Install 48 count fiber	0	Ft	$1.64	$0.00
7	Trench 2" 36" - Hand dig	0	Ft	$5.50	$0.00
8	Furnish & Directional Bore 2"	500	Ft	$12.00	$6,000.00
9	Core Bore	2	Ea	$100.00	$200.00
10	Furnish Warning Tape	2	Roll	$50.00	$100.00
11	Furnish & Install 24"x36"x18" Handhole w/ 20k lid	3	Ea	$600.00	$1,800.00
12	Ground Wire 6 Awg (500' reel)	2	reel	$220.00	$440.00
13	Mid sheath Fiber Entry	2	Ea	$350.00	$700.00
14	Install new splice case & prep cable	2	Ea	$250.00	$500.00
15	Prep cable in panel	5	Ea	$150.00	$750.00
16	Splice 97-288 Fibers	192	Ea	$15.00	$2,880.00
17	Splice trays	5	Ea	$55.00	$275.00
18	Small Splice case (runt)	2	Ea	$169.20	$338.40
19	Med Splice case (6.5x22)	2	Ea	$388.92	$777.84
20	Furnish Wall Mount Panel	1	Ea	$235.00	$235.00
21	install wall mount panel	1	Ea	$75.00	$75.00
22	pigtails	96	Ea	$21.00	$2,016.00
23	Bulkheads	2	Ea	$80.00	$160.00
24	Furnish & Install 2" riser with LB	1	Ea	$175.00	$175.00

$19,044.24

Part 1 - Conduit	$8,630.00
Part 2 - Fiber and Connections	$10,414.24

Communications Infrastructure Master Plan Project 10.4.3.1

Fire Station 92

Item #	Description	Qnty	Unit	Amount	Ext.
1	City Right of way permit	5050	Ft	$0.25	$1,262.50
2	Job Design per ft (3500 ft minimum to include access & maintenance loops) price will include drawings delivered & retrieved from MLGW, obtain city right of way permits, GPS Data, and asbuilt drawings submitted to city at completion	5050	Ft	$0.75	$3,787.50
3	Furnish & Install Muletape	5050	Ft	$0.25	$1,262.50
4	Furnish & Install #12 Tracer wire	5500	ft	$0.35	$1,925.00
5	Furnish & Install 24 count fiber	5500	Ft	$1.44	$7,920.00
6	Furnish & Install 48 count fiber	5500	Ft	$1.64	$9,020.00
7	Trench 2" 36" - Hand dig	0	Ft	$5.50	$0.00
8	Furnish & Directional Bore 2"	3571	Ft	$12.00	$42,852.00
9	Core Bore	3	Ea	$100.00	$300.00
10	Furnish Warning Tape	2	Roll	$50.00	$100.00
11	Furnish & Install 24"x36"x18" Handhole w/ 20k lid	7	Ea	$600.00	$4,200.00
12	Ground Wire 6 Awg (500' reel)	2	reel	$220.00	$440.00
13	Mid sheath Fiber Entry	3	Ea	$350.00	$1,050.00
14	Install new splice case & prep cable	3	Ea	$250.00	$750.00
15	Prep cable in panel	3	Ea	$150.00	$450.00
16	Splice 97-288 Fibers	192	Ea	$15.00	$2,880.00
17	Splice trays	4	Ea	$55.00	$220.00
18	Small Splice case (runt)	2	Ea	$169.20	$338.40
19	Med Splice case (6.5x22)	1	Ea	$388.92	$388.92
20	Furnish Wall Mount Panel	3	Ea	$235.00	$705.00
21	install wall mount panel	3	Ea	$75.00	$225.00
22	pigtails	96	Ea	$21.00	$2,016.00
23	Bulkheads	8	Ea	$80.00	$640.00
24	Furnish & Install 2" riser with LB	3	Ea	$175.00	$525.00

$83,257.82

Communications Infrastructure Master Plan Project 10.4.3.2

Lift Station 5M

Item #	Description	Qnty	Unit	Amount	Ext.
1	City Right of way permit	2500	Ft	$0.25	$625.00
2	Job Design per ft (3500 ft minimum to include access & maintenance loops) price will include drawings delivered & retrieved from MLGW, obtain city right of way permits, GPS Data, and asbuilt drawings submitted to city at completion	2500	Ft	$0.75	$1,875.00
3	Furnish & Install Muletape	2500	Ft	$0.25	$625.00
4	Furnish & Install #12 Tracer wire	2750	ft	$0.35	$962.50
5	Furnish & Install 24 count fiber	2750	Ft	$1.44	$3,960.00
6	Furnish & Install 48 count fiber	2750	Ft	$1.64	$4,510.00
7	Trench 2" 36" - Hand dig	0	Ft	$5.50	$0.00
8	Furnish & Directional Bore 2"	2500	Ft	$12.00	$30,000.00
9	Core Bore	3	Ea	$100.00	$300.00
10	Furnish Warning Tape	2	Roll	$50.00	$100.00
11	Furnish & Install 24"x36"x18" Handhole w/ 20k lid	4	Ea	$600.00	$2,400.00
12	Ground Wire 6 Awg (500' reel)	2	reel	$220.00	$440.00
13	Mid sheath Fiber Entry	3	Ea	$350.00	$1,050.00
14	Install new splice case & prep cable	3	Ea	$250.00	$750.00
15	Prep cable in panel	3	Ea	$150.00	$450.00
16	Splice 97-288 Fibers	192	Ea	$15.00	$2,880.00
17	Splice trays	4	Ea	$55.00	$220.00
18	Small Splice case (runt)	2	Ea	$169.20	$338.40
19	Med Splice case (6.5x22)	1	Ea	$388.92	$388.92
20	Furnish Wall Mount Panel	3	Ea	$235.00	$705.00
21	install wall mount panel	3	Ea	$75.00	$225.00
22	pigtails	96	Ea	$21.00	$2,016.00
23	Bulkheads	8	Ea	$80.00	$640.00
24	Furnish & Install 2" riser with LB	3	Ea	$175.00	$525.00

$55,985.82

Communications Infrastructure Master Plan Project 10.4.3.3

Forest Hills Connector Trail

Item #	Description	Qnty	Unit	Amount	Ext.
1	City Right of way permit	2500	Ft	$0.25	$625.00
2	Job Design per ft (3500 ft minimum to include access & maintenance loops) price will include drawings delivered & retrieved from MLGW, obtain city right of way permits, GPS Data, and asbuilt drawings submitted to city at completion	2500	Ft	$0.75	$1,875.00
3	Furnish & Install Muletape	2500	Ft	$0.25	$625.00
4	Furnish & Install #12 Tracer wire	2750	ft	$0.35	$962.50
5	Furnish & Install 24 count fiber	2750	Ft	$1.44	$3,960.00
6	Furnish & Install 48 count fiber	2750	Ft	$1.64	$4,510.00
7	Trench 2" 36" - Hand dig	2500	Ft	$5.50	$13,750.00
8	Furnish & Directional Bore 2"	0	Ft	$12.00	$0.00
9	Core Bore	3	Ea	$100.00	$300.00
10	Furnish Warning Tape	2	Roll	$50.00	$100.00
11	Furnish & Install 24"x36"x18" Handhole w/ 20k lid	4	Ea	$600.00	$2,400.00
12	Ground Wire 6 Awg (500' reel)	2	reel	$220.00	$440.00
13	Mid sheath Fiber Entry	3	Ea	$350.00	$1,050.00
14	Install new splice case & prep cable	3	Ea	$250.00	$750.00
15	Prep cable in panel	3	Ea	$150.00	$450.00
16	Splice 97-288 Fibers	192	Ea	$15.00	$2,880.00
17	Splice trays	4	Ea	$55.00	$220.00
18	Small Splice case (runt)	2	Ea	$169.20	$338.40
19	Med Splice case (6.5x22)	1	Ea	$388.92	$388.92
20	Furnish Wall Mount Panel	0	Ea	$235.00	$0.00
21	install wall mount panel	0	Ea	$75.00	$0.00
22	pigtails	96	Ea	$21.00	$2,016.00
23	Bulkheads	2	Ea	$80.00	$160.00
24	Furnish & Install 2" riser with LB	0	Ea	$175.00	$0.00

$37,800.82

Communications Infrastructure Master Plan Project 10.4.3.4

Hammock Lane Lift Station

Item #	Description	Qnty	Unit	Amount	Ext.
1	City Right of way permit	1600	Ft	$0.25	$400.00
2	Job Design per ft (3500 ft minimum to include access & maintenance loops) price will include drawings delivered & retrieved from MLGW, obtain city right of way permits, GPS Data, and asbuilt drawings submitted to city at completion	1600	Ft	$0.75	$1,200.00
3	Furnish & Install Muletape	1600	Ft	$0.25	$400.00
4	Furnish & Install #12 Tracer wire	1760	ft	$0.35	$616.00
5	Furnish & Install 24 count fiber	1760	Ft	$1.44	$2,534.40
6	Furnish & Install 48 count fiber	0	Ft	$1.64	$0.00
7	Trench 2" 36" - Hand dig	0	Ft	$5.50	$0.00
8	Furnish & Directional Bore 2"	1600	Ft	$12.00	$19,200.00
9	Core Bore	1	Ea	$100.00	$100.00
10	Furnish Warning Tape	3	Roll	$50.00	$150.00
11	Furnish & Install 24"x36"x18" Handhole w/ 20k lid	3	Ea	$600.00	$1,800.00
12	Ground Wire 6 Awg (500' reel)	3	reel	$220.00	$660.00
13	Mid sheath Fiber Entry	2	Ea	$350.00	$700.00
14	Install new splice case & prep cable	2	Ea	$250.00	$500.00
15	Prep cable in panel	3	Ea	$150.00	$450.00
16	Splice 97-288 Fibers	192	Ea	$15.00	$2,880.00
17	Splice trays	4	Ea	$55.00	$220.00
18	Small Splice case (runt)	2	Ea	$169.20	$338.40
19	Med Splice case (6.5x22)	1	Ea	$388.92	$388.92
20	Furnish Wall Mount Panel	2	Ea	$235.00	$470.00
21	install wall mount panel	2	Ea	$75.00	$150.00
22	pigtails	96	Ea	$21.00	$2,016.00
23	Bulkheads	2	Ea	$80.00	$160.00
24	Furnish & Install 2" riser with LB	2	Ea	$175.00	$350.00

$35,683.72

Communications Infrastructure Master Plan Project 10.4.3.5

Laurel Creek Pump Station

Item #	Description	Qnty	Unit	Amount	Ext.
1	City Right of way permit	1200	Ft	$0.25	$300.00
2	Job Design per ft (3500 ft minimum to include access & maintenance loops) price will include drawings delivered & retrieved from MLGW, obtain city right of way permits, GPS Data, and asbuilt drawings submitted to city at completion	1200	Ft	$0.75	$900.00
3	Furnish & Install Muletape	1200	Ft	$0.25	$300.00
4	Furnish & Install #12 Tracer wire	1200	ft	$0.35	$420.00
5	Furnish & Install 24 count fiber	1200	Ft	$1.44	$1,728.00
6	Furnish & Install 48 count fiber	1200	Ft	$1.64	$1,968.00
7	Trench 2" 36" - Hand dig	0	Ft	$5.50	$0.00
8	Furnish & Directional Bore 2"	1200	Ft	$12.00	$14,400.00
9	Core Bore	3	Ea	$100.00	$300.00
10	Furnish Warning Tape	2	Roll	$50.00	$100.00
11	Furnish & Install 24"x36"x18" Handhole w/ 20k lid	1	Ea	$600.00	$600.00
12	Ground Wire 6 Awg (500' reel)	2	reel	$220.00	$440.00
13	Mid sheath Fiber Entry	3	Ea	$350.00	$1,050.00
14	Install new splice case & prep cable	3	Ea	$250.00	$750.00
15	Prep cable in panel	3	Ea	$150.00	$450.00
16	Splice 97-288 Fibers	192	Ea	$15.00	$2,880.00
17	Splice trays	4	Ea	$55.00	$220.00
18	Small Splice case (runt)	2	Ea	$169.20	$338.40
19	Med Splice case (6.5x22)	1	Ea	$388.92	$388.92
20	Furnish Wall Mount Panel	3	Ea	$235.00	$705.00
21	install wall mount panel	3	Ea	$75.00	$225.00
22	pigtails	96	Ea	$21.00	$2,016.00
23	Bulkheads	8	Ea	$80.00	$640.00
24	Furnish & Install 2" riser with LB	3	Ea	$175.00	$525.00

$31,644.32

Communications Infrastructure Master Plan Project 10.4.4.1

Wilmette Avenue Pump Station

Item #	Description	Qnty	Unit	Amount	Ext.
1	City Right of way permit	600	Ft	$0.25	$150.00
2	Job Design per ft (3500 ft minimum to include access & maintenance loops) price will include drawings delivered & retrieved from MLGW, obtain city right of way permits, GPS Data, and asbuilt drawings submitted to city at completion	600	Ft	$0.75	$450.00
3	Furnish & Install Muletape	660	Ft	$0.25	$165.00
4	Furnish & Install #12 Tracer wire	660	ft	$0.35	$231.00
5	Furnish & Install 24 count fiber	660	Ft	$1.44	$950.40
6	Furnish & Install 48 count fiber	660	Ft	$1.64	$1,082.40
7	Trench 2" 36" - Hand dig	0	Ft	$5.50	$0.00
8	Furnish & Directional Bore 2"	600	Ft	$12.00	$7,200.00
9	Core Bore	2	Ea	$100.00	$200.00
10	Furnish Warning Tape	2	Roll	$50.00	$100.00
11	Furnish & Install 24"x36"x18" Handhole w/ 20k lid	2	Ea	$600.00	$1,200.00
12	Ground Wire 6 Awg (500' reel)	2	reel	$220.00	$440.00
13	Mid sheath Fiber Entry	1	Ea	$350.00	$350.00
14	Install new splice case & prep cable	3	Ea	$250.00	$750.00
15	Prep cable in panel	3	Ea	$150.00	$450.00
16	Splice 97-288 Fibers	192	Ea	$15.00	$2,880.00
17	Splice trays	1	Ea	$55.00	$55.00
18	Small Splice case (runt)	2	Ea	$169.20	$338.40
19	Med Splice case (6.5x22)	1	Ea	$388.92	$388.92
20	Furnish Wall Mount Panel	1	Ea	$235.00	$235.00
21	install wall mount panel	3	Ea	$75.00	$225.00
22	pigtails	96	Ea	$21.00	$2,016.00
23	Bulkheads	8	Ea	$80.00	$640.00
24	Furnish & Install 2" riser with LB	1	Ea	$175.00	$175.00

$20,672.12

Communications Infrastructure Master Plan Project 10.4.4.2

Fleet Security Improvements

Item #	Description	Qnty	Unit	Amount	Ext.
1	City Right of way permit	700	Ft	$0.25	$175.00
2	Job Design per ft (3500 ft minimum to include access & maintenance loops) price will include drawings delivered & retrieved from MLGW, obtain city right of way permits, GPS Data, and asbuilt drawings submitted to city at completion	700	Ft	$0.75	$525.00
3	Furnish & Install Muletape	700	Ft	$0.25	$175.00
4	Furnish & Install #12 Tracer wire	850	ft	$0.35	$297.50
5	Furnish & Install 24 count fiber	850	Ft	$1.44	$1,224.00
6	Furnish & Install 48 count fiber	850	Ft	$1.64	$1,394.00
7	Trench 2" 36" - Hand dig	500	Ft	$5.50	$2,750.00
8	Furnish & Directional Bore 2"	0	Ft	$12.00	$0.00
9	Core Bore	2	Ea	$100.00	$200.00
10	Furnish Warning Tape	1	Roll	$50.00	$50.00
11	Furnish & Install 24"x36"x18" Handhole w/ 20k lid	5	Ea	$600.00	$3,000.00
12	Ground Wire 6 Awg (500' reel)	1	reel	$220.00	$220.00
13	Mid sheath Fiber Entry	1	Ea	$350.00	$350.00
14	Install new splice case & prep cable	3	Ea	$250.00	$750.00
15	Prep cable in panel	3	Ea	$150.00	$450.00
16	Splice 97-288 Fibers	24	Ea	$15.00	$360.00
17	Splice trays	2	Ea	$55.00	$110.00
18	Small Splice case (runt)	2	Ea	$169.20	$338.40
19	Med Splice case (6.5x22)	1	Ea	$388.92	$388.92
20	Furnish Wall Mount Panel	3	Ea	$235.00	$705.00
21	install wall mount panel	3	Ea	$75.00	$225.00
22	pigtails	24	Ea	$21.00	$504.00
23	Bulkheads	2	Ea	$80.00	$160.00
24	Furnish & Install 2" riser with LB	2	Ea	$175.00	$350.00

$14,701.82

Communications Infrastructure Master Plan Project 10.4.4.3

Nova Community Park

Item #	Description	Qnty	Unit	Amount	Ext.
1	City Right of way permit	5000	Ft	$0.25	$1,250.00
2	Job Design per ft (3500 ft minimum to include access & maintenance loops) price will include drawings delivered & retrieved from MLGW, obtain city right of way permits, GPS Data, and asbuilt drawings submitted to city at completion	5000	Ft	$0.75	$3,750.00
3	Furnish & Install Muletape	6000	Ft	$0.25	$1,500.00
4	Furnish & Install #12 Tracer wire	6000	ft	$0.35	$2,100.00
5	Furnish & Install 24 count fiber	0	Ft	$1.44	$0.00
6	Furnish & Install 48 count fiber	6000	Ft	$1.64	$9,840.00
7	Trench 2" 36" - Hand dig	600	Ft	$5.50	$3,300.00
8	Furnish & Directional Bore 2"	3000	Ft	$12.00	$36,000.00
9	Core Bore	2	Ea	$100.00	$200.00
10	Furnish Warning Tape	10	Roll	$50.00	$500.00
11	Furnish & Install 24"x36"x18" Handhole w/ 20k lid	12	Ea	$600.00	$7,200.00
12	Ground Wire 6 Awg (500' reel)	10	reel	$220.00	$2,200.00
13	Mid sheath Fiber Entry	3	Ea	$350.00	$1,050.00
14	Install new splice case & prep cable	3	Ea	$250.00	$750.00
15	Prep cable in panel	3	Ea	$150.00	$450.00
16	Splice 97-288 Fibers	24	Ea	$15.00	$360.00
17	Splice trays	2	Ea	$55.00	$110.00
18	Small Splice case (runt)	2	Ea	$169.20	$338.40
19	Med Splice case (6.5x22)	1	Ea	$388.92	$388.92
20	Furnish Wall Mount Panel	3	Ea	$235.00	$705.00
21	install wall mount panel	4	Ea	$75.00	$300.00
22	pigtails	48	Ea	$21.00	$1,008.00
23	Bulkheads	2	Ea	$80.00	$160.00
24	Furnish & Install 2" riser with LB	3	Ea	$175.00	$525.00

$73,985.32

Communications Infrastructure Master Plan Project 10.4.4.4

Ormond Beach Sports Complex

0

Item #	Description	Qnty	Unit	Amount	Ext.
1	City Right of way permit	3000	Ft	$0.25	$750.00
2	Job Design per ft (3500 ft minimum to include access & maintenance loops) price will include drawings delivered & retrieved from MLGW, obtain city right of way permits, GPS Data, and asbuilt drawings submitted to city at completion	3000	Ft	$0.75	$2,250.00
3	Furnish & Install Muletape	3300	Ft	$0.25	$825.00
4	Furnish & Install #12 Tracer wire	3300	ft	$0.35	$1,155.00
5	Furnish & Install 24 count fiber	0	Ft	$1.44	$0.00
6	Furnish & Install 48 count fiber	3300	Ft	$1.64	$5,412.00
7	Trench 2" 36" - Hand dig	0	Ft	$5.50	$0.00
8	Furnish & Directional Bore 2"	3000	Ft	$12.00	$36,000.00
9	Core Bore	2	Ea	$100.00	$200.00
10	Furnish Warning Tape	10	Roll	$50.00	$500.00
11	Furnish & Install 24"x36"x18" Handhole w/ 20k lid	12	Ea	$600.00	$7,200.00
12	Ground Wire 6 Awg (500' reel)	10	reel	$220.00	$2,200.00
13	Mid sheath Fiber Entry	3	Ea	$350.00	$1,050.00
14	Install new splice case & prep cable	3	Ea	$250.00	$750.00
15	Prep cable in panel	3	Ea	$150.00	$450.00
16	Splice 97-288 Fibers	24	Ea	$15.00	$360.00
17	Splice trays	2	Ea	$55.00	$110.00
18	Small Splice case (runt)	2	Ea	$169.20	$338.40
19	Med Splice case (6.5x22)	1	Ea	$388.92	$388.92
20	Furnish Wall Mount Panel	3	Ea	$235.00	$705.00
21	install wall mount panel	4	Ea	$75.00	$300.00
22	pigtails	48	Ea	$21.00	$1,008.00
23	Bulkheads	2	Ea	$80.00	$160.00
24	Furnish & Install 2" riser with LB	3	Ea	$175.00	$525.00

$62,637.32

10.0 COMMUNICATION INFRASTRUCTURE

10.1 System Components

Central to City operation is the transfer of data between City facilities and for the operation of City assets at remote locations. The Communication Infrastructure of the City of Ormond Beach is built upon the points of data collection and facility controls, terminals that allow for the monitoring of this data and the communication of City business, as well as the means of connecting these points allowing for the transfer of information internally and to external locations. The central asset of this infrastructure is the hardened data center housed at the City's Regional Wastewater Treatment Plant located at 550 N. Orchard Street, this central location provides primary storage of City data and serves as a secure interface between the City network and the connected world. Equally as important as the hardened data center to the reliable, safe communication of City facilities are the means of transferring data. Currently the City network is built upon multiple components including:

- Fiber Optic Connection
- Point to Point Wireless
- Radio Transmision
- Third Party Connections

The creation of a fiber optic network between City facilities provides increased reliability, increased data rates up to 10,000 Mbps, and immunity from both weather and power related events. Prior to the installation of the first fiber network connections, all City departments relied on relatively slow 3rd party leased lines or public internet connections to communicate with the data systems at City Hall. The first phase of the network development connected core City facilities and allowed for the relocation of the City's data facilities to the hardened room at the Public Works Wastewater Facility. Subsequent projects have expanded upon this connectivity, providing a Gigabit Ethernet (1 GigE) communication capability to additional City facilities. This strategic investment increases security, data transfer speed, and reliability to those connected facilities while reducing business recovery and disaster recovery risks.

The City's communication infrastructure is depicted in map format that shows the primary connections between City facilities. For clarity purposes, the map has been broken into multiple sheets which are included as part of this masterplan.

10.2 Infrastructure Expansion

Recent activities with regards to the expansion of the City's communication infrastructure have been driven towards improving connectivity between City properties and assets, in doing so

The data transmitted can be classified into two primary categories:

Data: The transfer of information that occurs during the normal course of City business.

This includes, Enterprise Resource Planning (ERP), file sharing, e-mail, internet access and secure access. It also includes the environmental and security monitoring of City facilities by central offices.

SCADA: Supervisory Control and Data Acquisition, the primary means of monitoring and remotely controlling remote utility facilities including sanitary sewer lift stations, raw water production wells, and water pumping stations.

Expansion tasks are prioritized with consideration of a number of elements that contribute to the value each task. The following criteria are involved in prioritizing the importance of the expansion tasks.

- Contributing Value of facility to the City
- Ability to connect multiple facilities
- Ability to incorporate (conduit) installation with other projects.
- Feasibility of making connection

10.3 Current Expansion Projects

10.3.1 Fiber Optic
Division Avenue Production Wells

The City is currently in the final stages of connecting the SCADA networking via the ten production wells on Division Avenue to the City's fiber optic network eliminating the dependence of these wells on radio communication.

10.3.2 Point to Point Wireless

Point to Point wireless connections are currently being completed to the Nova Community Park and The Casements. The use of point to point antennae connections to these facilities allows them to be connected to the City network rather than by means of a third party connection and cable modem. Although less ideal than a fiber optic connection; this connection proves to be highly reliable, stable and more feasible than fiber optic under current conditions. Connection of Nova Community Park allows for service to the gymnasium as well as the skate park building. The projects involved in this connection are shown in Figures 10.3.2.a and 10.3.2.b.

By connecting the Casements, the opportunity also opens up to connect facilities on the Peninsula to the City network; this connection is shown in Figure 10.3.2.c.

Point to Point connections are also being completed to the Leeway Trail water tower and the Breakaway Trails water tower. This connection will allow for more reliable SCADA monitoring and control of utility facilities in West Ormond, most notably the Hudson and Rima Ridge production wells. These activities are shown in Figure 10.3.2.d.

10.3.3 Environmental Discovery Center

With the fiber optic connection to the Division Avenue production wells, a fiber optic connection was also made to the soon to be completed Environmental Discovery Center.

10.3.4 Connection of Lift stations

The SCADA for Lift Station 2M (Ames House) has recently been connected to the City Network; Figure 10.3.4.a.

10.4 Communication Planning Areas

The future growth of the City's Communicaitons Infrastructure includes projects that provide connection to City facilities in a manner consistent with the current in-place infrastructure. Wherever possible, fiber optic connections are planned, and when possible installation of this conduit carrying the fiber is intended to be installed alongside other underground construction projects. For planning purposes, projects are grouped by region; Table 10.4 provides a summary of the nineteen projects proposed with this master plan.

10.4.1 South Peninsula

With the completion of expansion projects elsewhere within the City, the South Peninsula has become an area where a great deal of potential benefit can be gained. The installation of the point to point wireless connection to the Casements allows facilities on the Peninsula to be connected to the City Network (Mainland). The following projects, are those planned for the south Peninsula.

10.4.1.1 Riverside Drive Fiber Optic Expansion

Currently in process is the expansion of the South Peninsula Reclaimed Water network with this project an opportunity arises to expand fiber optic southerly into the South Peninsula. This project, would allow for the installation of conduit and hand holes, in a manner similar to what was done with the previous improvements on John Anderson Drive. A later project will complete the connection by pulling fiber lines through the conduit and connecting at the connection locations. This expansion will result in the immediate ability to provide a SCADA connection Lift Stations LS-3P, LS-2P, and LS-5P, as well as serve as a backbone for the South Peninsula Fiber Optic expansion. These improvements are depicted in Figure 10.4.1.1. Conduit installation is expected to occur in FY 2016/2017, with the installation of fiber optic to occur the following year.

10.4.1.2 Fire Station 91

Expansion of the South Peninsula Reclaimed Water system includes the installation of underground mains on Fluhart Drive, Mulberry Drive, and Byron Elinor Drive. This activity will allow for a connection to Fire Station 91 from the network facilities installed on Riverside Drive. The timing of this will follow the activities on Riverside Drive with conduit expected to

be installed in 2016/2017, and Fiber optic connection to follow the following year. These improvements are depicted in Figure 10.4.1.2.

10.4.1.3 Lift Station LS – 1P

Installation of reclaimed water on Ormond Shores, Pinewood, and Northshore Drive allows for the connection of Lift Station LS-1P as shown in Figure 10.4.1.3.

10.4.1.4 Andy Romano Beachfront Park.

With the extension of fiber optic facilities along Riverside Drive, a connection to Andy Romano Beachfront Park becomes feasible. This connection will allow for staff access to the internet and e-mail without the use of a cable modem, and potentially provides the means for connecting security devices including cameras, call boxes, automated locks for doors, etc. This connection would be completed as dedicated fiber optic project included in the Phase IV Communication Infrastructure Improvements following the completion of the South Peninsula reclaimed water expansion and could be combined with the pulling of fiber optic in those conduits, likely FY 2017/2018. This project is depicted in Figure 10.4.1.4.

10.4.1.5 Volusia County Off-Beach Parking Lots

Similarly to the connection of Andy Romano Beachfront Park, connection of the existing Volusia County lot at Rockefeller Drive, and the proposed lot on the recently acquired property at Cardinal Drive could allow for remote security monitoring of these site. Connection to each of these sites would be possible through conduit installed with the South Peninsula Reclaimed Expansion Project (FY 2016/2017), and Fiber optic connection occurring at a later date. Connection to these sites are depicted on Figure 10.4.1.5.

10.4.1.6 Rockefeller Gardens

Connection of the Casement allows for additional networking of City Facilities at the north end of Riverside Drive. The most notable project that has been identified is the connection of the stage at Rockefeller Gardens.

10.4.2 North Peninsula

10.4.2.1 John Anderson Fiber Optic

The recent improvements to John Anderson Drive included the installation of conduit and hand holes for the extension of fiber optic along John Anderson Drive to the North Peninsula. This project installed conduit from the south end of John Anderson Drive to the north City limits terminating at the intersection of North Halifax Drive; a separate project also installed a conduit from the northwest corner of the Casements to the southeast corner of Fortunato Park. With the connection of the Casements to the City network, the opportunity is available to extend the City's Network to City assets on the North Peninsula. This extension would allow for the connection of the SCADA systems at lift stations LS-6P and LS-8P, as well as provide a

backbone for network expansion onto the North Peninsula. This project would be completed with Phase IV Communications infrastructure improvements in FY 2017/2018, and is depicted in Figure 10.4.2.1.

10.4.2.2 Fortunato Park

Connecting the John Anderson conduit to the City's network now becomes feasible to Fortunato Park that would allow wi-fi access, and provide a means for connecting security devices including cameras, call boxes, automated locks for doors, etc. This connection is projected as occurring with the Phase IV Communication Infrastructure Improvements during FY 2017/2018. This project is depicted in Figure 10.4.2.2.

10.4.2.3 North Peninsula Water Tank

The network expansion to the North Peninsula allows for the connection of the City's water tank at Standish Drive on the North Peninsula. This connection would likely occur with the Phase V Communication Infrastructure Improvements during FY 2018/2019. This project is depicted in Figure 10.4.2.3.

10.4.3 Mainland – South of Granada

The current activities extending fiber optic cable along Division Avenue to the production wells and Environmental Discovery Center is the first phase of work that allows for the expansion of the City's network westerly. A number of projects on the City's Mainland have been identified that will provide immediate benefit from their connection, with a good number of these located south of Granada Blvd. and westerly of the Florida East Coast R.R. tracks.

10.4.3.1 Fire Station 92

One of the most essential properties, not currently connected to the City's network, is Fire Station 92. This facility currently serves as the City's backup Emergency Operations Center (EOC); connection of this facility is highly important for operation of this building during the occurrence of incidents. From the current terminus at Division Avenue, the Fire Station can be connected through fiber proposed to run northerly along Old Kings Road. A utility easement running along the rear lot lines of The Village Subdivision connects Fire Station 92 to Old Kings Road. This project is planned for FY 2016/2017 as part of the City's Phase III Communication and is depicted in Figure 10.4.3.1.

10.4.3.2 Lift Station 5M

The second important asset on the Mainland still requiring connection to the City's network is Lift Station 5M, located on the south side of Granada Blvd. at Misner's Branch. This lift station provides pumping of sanitary sewage to a large portion of the western portion of the City. Connection of this station will provide a hardened, reliable connection for the stations SCADA allowing for remote monitoring and control of this facility. Connection of this facility will follow the connection of Fire Station 92, and continue from this point. It is proposed to include a

crossing of Nova Road with the scheduled extension to connect the Fire Station (FY 2016/2017). The extension of network facilities will continue the following year across City owner property west of Nova Road, and along Midway Street to Misner's Branch. This connection will connect to facilities installed with the Forest Hills Connector Trail. These facilities, planned for installation during FY 2017/2018 with the City's Phase IV Communicaitons Infrastructure Improvements, are depicted in Figure 10.4.3.2.

10.4.3.3 Forest Hills Connector Trail

A project is currently in design that will provide a trail connection from the Forest Hills Subdivision to Granada Blvd., Old Kings Road, and Tomoka Elementary School. This project will install a paved walkway and lighting to allow school children a safe pathway to Tomoka Elementary from neighborhoods east of the school. It is proposed that include the installation of conduit for future fiber optic installation with the construction of this facility. A portion of this conduit (between Midway Street and Granada Blvd.) will be used as the final element in connecting Lift Station 5M to the City's network. Installation of conduit the full length of the project can be used for future security features including cameras and call boxes along the trail. This project is scheduled for construction in FY 2017/2018, and is depicted in Figure 10.4.3.3.

10.4.3.4 Hammock Lane Lift Station

Connection of Fire Station 92, provides the ability to connect Lift Stations LS-CG and LS-CPK2 on Hammock Lane. This connection is proposed for FY 2017/2018 as a companion to the connection of Lift Station 5M. Details of this are depicted on Figure 10.4.3.4.

10.4.3.5 Laurel Creek Pump Station

This project creates a fiber optic connection to the SCADA control of the Laurel Creek stormwater pumping station located at the end of Bennett Lane as well as stream level monitoring at this location. Increased reliability in the monitoring and control of this station allow for the City to better prepare for event storms. Easements will need to be obtained to make the connection from this site to Old Kings Road, This project will be completed with the Phase V Communication Infrastructure Improvements on FY 2018/2019 and are depicted in Figure 10.4.3.5.

10.4.4 Mainland – North of Granada

10.4.4.1 Wilmette Avenue Pump Station

A project is currently in design that will install permanently mounted pumps at the Laurel Creek flap gates located at Wilmette Avenue. Included with this project will be a connection from the Hardened Data Center at the Wastewater Treatment plant to the pump stations. This connection will allow for SCADA monitoring and control of the pump station as well as a means for connecting stream monitoring gauges at this crossing of Laurel Creek. This project will be

constructed with the Wilmette Pump Improvements in FY 2016/2017, and is depicted in Figure 10.4.4.1.

10.4.4.2 Fleet Security Improvements

Multiple security upgrades are planned for the Public Works facility specifically in the area surrounding Fleet and the Fuel Island. A first project is proposed in the forthcoming year (Communications Infrastructure Improvements Phase III) that provides a fiber optic connection from the fuel island to the Fleet Building. A second project expands upon this and provides fiber optic connections for the future installation of security cameras at the rear of the facility. These improvements are depicted in Figure 10.4.4.2.

10.4.4.3 Nova Community Park

Previous projects have installed conduit, and to a limited degree fiber optic conductor internally to the Nova Community Park; this project installs conduit and fiber optic, building from the project that extended fiber to Laurel Creek, completes the connection of the facilities at the Nova Community Park by means of extension along Wilmette Avenue. This project allows for more reliable data connection to the campus, and allows for a greater degree of remote security monitoring. This project is scheduled to be complete as a part of the City's Phase VI Communication Infrastructure Improvements and will be complete in FY 2019/2020. See Figure 10. 4.4.3 for details.

10.4.4.4 Ormond Beach Sports Complex

Limited access to the Ormond Beach Sports Complex is currently made by means of a connection to the Ormond Beach Airport. This project fully expands the infrastructure of the facilities at the Sports Complex providing access to the facilities at OBSC including the field house, ball fields, and utilities SCADA, expansion of this project will also allow for a future security upgrade project at the complex. This project is currently under development and is expected to be completed as a portion of the Phase V Communication Infrastructure Improvements in FY 2018/2019. Improvements are depicted in Figure 10.4.4.4.

10.4.4.5 Breakaway Trails Point to Point Wireless

Additional point to point wireless connections are proposed to link the Hudson well field and Rima Ridge Well Field to the Breakaway Trails water tower. These connections will provide a more reliable connection for the SCADA control of these production wells, and are included in the Phase III Communication Infrastructure Improvements schedule for FY 2016/2017. These are depicted in Figures 10.4.4.5.a and 10.4.4.5.b.

Master Plan ID	Description	CIP Project	Expense by Year			
			2016/2017	2017/2018	2018/2019	2019/2020
10.4.1	**SOUTH PENINSULA**					
10.4.1.1	Riverside Drive Fiber Optic Expansion	So. Pen Reclaimed / Communication Infrastructure IV	$ 120,000	$ 50,000		
10.4.1.2	Fire Station 91	So. Pen Reclaimed / Communication Infrastructure IV	$ 45,000	$ 20,000		
10.4.1.3	Lift Station LS - 1P	So. Pen Reclaimed / Communication Infrastructure IV	$ 36,000	$ 20,000		
10.4.1.4	Andy Romano Beachfront Park	Communication Infrastructure IV		$ 75,000		
10.4.1.5	Volusia County Off Beach Parking Lots	So. Pen Reclaimed / Communication Infrastructure VI	$ 75,000			$ 30,000
10.4.1.6	Rockefeller Gardens	Communication Infrastructure IV		$ 22,000		
10.4.2	**NORTH PENINSULA**					
10.4.2.1	John Anderson Fiber Optic	Communication Infrastructure V			$ 70,000	
10.4.2.2	Fortunato Park	Communication Infrastructure V			$ 20,000	
10.4.2.3	North Peninsula Water Tank	Communication Infrastructure V			$ 20,000	
10.4.3	**MAINLAND - SOUTH OF GRANDA**					
10.4.3.1	Fire Station 92	Communication Infrastructure III	$ 85,000			
10.4.3.2	Lift Station 5M	Communication Infrastructure IV		$ 55,000		
10.4.3.3	Forest Hills Connector Trail	Forest Hills Trail / Communication Infrastructure IV		$ 40,000		
10.4.3.4	Hammock Lane Lift Stations	Communication Infrastructure IV		$ 36,000		
10.4.3.5	Laurel Creek Stormwater Pumping	Communication Infrastructure V			$ 32,000	
10.4.4	**MAINLAND - NORTH OF GRANADA**					
10.4.4.1	Wilmette Avenue Pump Station	Wilmette Avenue Pump Station		$ 8,000	$ 13,000	
10.4.4.2	Fleet Security Improvements	Communication Infrastructure III/IV			$ 15,000	
10.4.4.3	Nova Community Park	Communication Infrastructure VI				$ 75,000
10.4.4.4	Ormond Beach Sports Complex	Communication Infrastructure VI				$ 65,000
10.4.4.5	Breakaway Trails Point to Point Wireless	Communication Infrastructure III	$ 20,000			
Total By Year			**$ 381,000**	**$ 326,000**	**$ 170,000**	**$ 170,000**

Table 10.4 Summary of Future of Communication Projects

CAPITAL PROJECT DETAIL

PROJECT TITLE

In Car Cameras

PROJECT#

NA

CATEGORY

Technology

FUND

301-General Capital Improvement

PROJECT LOCATION

Police

MANAGEMENT

Police

PROJECT SCOPE

Purchase 37 in car cameras.

JUSTIFICATION

In 1980, Mothers Against Drunk Drivers (MADD) was formed and brought a heightened awareness to the national problem of drinking and driving. Much greater emphasis was placed on convictions and punishment, particularly among prosecutors. Police began installing cameras in police vehicles to document the infractions leading up to the initial stop and the eventual field sobriety test. These recordings came to be viewed as the most effective method of providing the necessary evidence to support a conviction. MADD recognized the value of the in-car camera and began purchasing systems for police agencies involved in detecting and apprehending driving while impaired or under the influence of alcohol and/or drugs (DWI/DUI) violators.

In the 1990's, America's war on drugs further advanced the use of the in-car cameras by documenting interdiction stops. It was difficult for jurors to believe that an individual transporting large quantities of narcotics and hundreds-of-thousands of dollars of unexplainable cash would actually give the police permission to search his/her vehicle. However, time and time again the camera documented the consented search, which was later used to gain a conviction.

By 1999, allegations of racial bias or racial profiling were being lodged against police agencies across the United States. State police agencies, by virtue of their primary traffic responsibilities, found themselves in the center of controversy with complaints of racial profiling. At the same time, assaults on officers were on the rise. Responding to these concerns, state and federal legislative bodies began enacting laws requiring all police agencies within their jurisdiction to document details of every traffic stop. These agencies recognized the value of the in-car camera in addressing officer safety issues and allegations of racial profiling while enhancing the public trust.

Today, many police agencies in the United States and worldwide are applying this technology to patrol operations by equipping their vehicles with mobile video recording equipment. Although the early attempts to place cameras in patrol vehicles were plagued with technical and safety problems, miniaturization and advances in technology have made the use of the mobile video recorder practical and affordable. As technology in the field of audio/visual recordings continues to evolve, equipping police vehicles with in-car cameras is becoming the norm and no longer the exception.

PROJECT COST METHODOLOGY

Quote

	AMOUNT REQUESTED
EXPENDITURE	
In Car Cameras (37)	192,000
Total	192,000

CAPITAL PROJECT DETAIL

PROJECT TITLE	PROJECT#
In Car Cameras	NA

REVENUE	AMOUNT REQUESTED
To Be Determined	192,000
Total	192,000

11375 W. Sam Houston Parkway South #800
Houston, TX 77031
P. 281-925-0488 | F. 281-925-0535

Quotation Expiration: 60 Days
Terms: Net 30 Days
FOB Point: Destination

			Quote #	Date
Prepared for:	Ormond Beach Police Dept (Ormond Bch, FL)		715605-1	4/13/2016
Address	170 W Granada Blvd		Prepared by:	
City, State	Ormond Bch, FL 32174		Sheri Taynor (832-627-3196)	
Contact	James Crimins			

10	COBAN IN-CAR SYSTEM - EDGE		List Price	Quoted	Quantity	Total
	SYSED-02	EDGE IN-CAR SYSTEM 5.7" touchscreen monitor GPS Smart Power Module (SPM) w/ UPS 32 GB internal SSD (Solid State Drive) 32 GB removable SSD Front facing color camera Wireless microphone Covert backseat microphone Internal 802.11 a/g/n wireless card Three year limited hardware warranty	$5,159.00	$ 4,409.00	37	$163,133.00
	MZZ-01	Adapter Plate (required for all cars, except for Ford Crown Victoria and 2012 Dodge Charger)	$110.00	$ 94.00	37	$3,478.00
	SCOPT-56	Detached Wide Angle IR Camera (includes 1 - 12ft extension)	$198.00	$ 170.00	37	$6,290.00
50	VIDEO TRANSFER		List Price	Quoted	Quantity	Total
	BMIS-13	Removable Hard Drive Upload Cradle	$286.00	$ 260.00	1	$260.00
70	DVMS - SOFTWARE MAINTENANCE AND TECHNICAL SUPPORT		List Price	Quoted	Quantity	Total
	WLIC-01	COBAN DVMS SOLUTION (Software License with First Year Technical Support)	$165.00	$ 150.00	37	$5,550.00
	WMAIN-110	COBAN DVMS SOLUTION ANNUAL RENEWAL (Software Maintenance and Technical Support)	$290.00	$ 150.00	74	$11,100.00
170	SHIPPING		List Price	Quoted	Quantity	Total
	LFEE-050	Shipping - In-Car Equipment (EDGE, M7 MDC, M7 VMDC, ALPR)	$50.00	$ 50.00	37	$1,850.00
	LFEE-053	Shipping - Fusion or 6-bay dock for bodycam	$25.00			$0.00
	LFEE-054	Shipping - Bodycam or single/double dock for bodycam	$15.00			$0.00
	LFEE-055	Shipping - Back Office Hardware (Server, Auto DVD, Interview, Jail) Each	$150.00			$0.00

Total List	$231,980.00
Line Item Discount	-$40,319.00
Subtotal	$191,661.00
Additional Discount (s)	
Taxes (if applicable)	
GRAND TOTAL	**$191,661.00**

Terms /Conditions / ***Assumptions:***

Lease Payment Options (for quotes under $200,000)

COBAN Technologies, Inc.
11375 W Sam Houston Pkwy S # 800
Houston, Texas 77031
Equipment Price $ 191,661.00

$1.00 Purchase Lease or Finance Agreement

24 month payment	$8,481.00
36 month payment	$5,744.08
48 month payment	$4,377.54
60 month payment	$3,555.31

ALL PAYMENTS ARE SUBJECT TO AN APPROVAL & APPLICABLE TAX

- Semi-annual & annual Terms available
- Unsecured lease with no blanket liens, loan covenants, or additional collateral required
- Payments are fixed for the term with no annual financial review or early call by lender

Longer term options available for $200,000 and above transactions
Please contact us for more information.