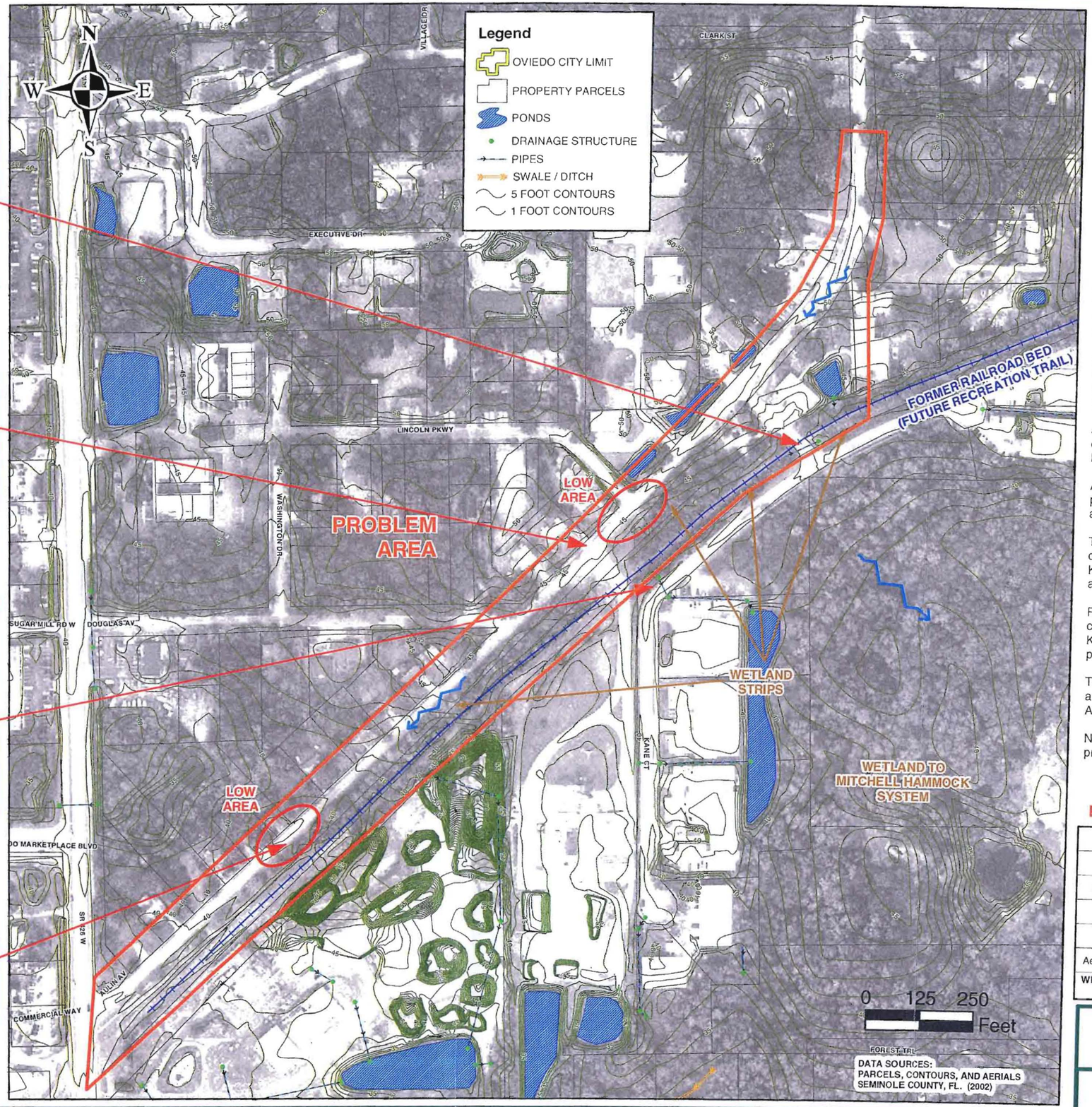
STORMWATER MASTER PLAN

PHOTO 1: VIEW TO NORTHEAST AT FORMER RAILROAD BED THAT SEGMENTS THE WETLAND AREA.

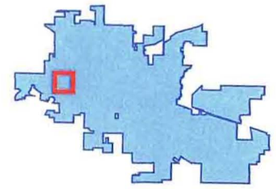
PHOTO 2: VIEW TO SOUTHEAST OF WETLAND AREA BETWEEN AULIN AVENUE AND FORMER RAILROAD CORRIDOR.

PHOTO 3: VIEW OF SEEPAGE ALONG CURBLINE ALONG KANE COURT NEAR WETLAND.

PHOTO 4: VIEW TO SOUTHEAST AT WETLAND AREA AT LOW SPOT ON AULIN AVENUE - WATER LEVEL ~1-2 FEET BELOW ROAD.



PROBLEM AREA LOCATION



CITY OF OVIEDO

PROBLEM DESCRIPTION

Aulin Avenue has runoff accumulating on the side of the roadway with no defined conveyance system. The resulting effect is localized roadway flooding, standing water, and shoulder & pavement deterioration.

Sediments eroded from the roadside collect in the roadway or are transported to the wetland areas. The wetland areas are bisected by a former railroad bed that inhibits downstream drainage. The wetland areas have no positive discharge other than overtopping onto Aulin Avenue and possibly Kane Court under high stage conditions.

Aulin Avenue has low areas that presently drain to small wetland areas along the southeast side of the road.

There are no defined swales or other drainage infrastructure along Aulin Avenue. Kane Court has some inlets draining to a stormwater pond.

Prolonged wet conditions in the wetland causes seepage over curb along Kane Court, which may accelerate pavement deterioration.

The resulting effect is flooding of roadside areas and the natural low area between Aulin Avenue and Kane Court.

No water quality treatment is being provided for the roadway runoff.

PRIORITY RANK: 4 OUT OF 42

PRIORITIZATION CRITERIA	WEIGHTING	SCORE (Out of 5)
Flood Reduction / Abatement	40%	4
Community Benefit	25%	4
Water Quality Improvement	20%	3
City Maintenance Reduction	10%	3
Aesthetic Improvement	5%	4
WEIGHTED AVERAGE RANK	100%	3.7

FIGURE 5-3A
AULIN AVENUE SOUTH PROBLEM AREA

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CITY OF OVIEDO
STORMWATER
MASTER PLAN

N
W E
S

0 125 250
Feet

Legend

- OVIEDO CITY LIMIT
- PROPERTY PARCELS
- PONDS
- DRAINAGE STRUCTURE
- PIPES
- SWALE / DITCH
- 5 FOOT CONTOURS
- 1 FOOT CONTOURS

INSTALL CURB AND GUTTER, REPLACE SIDEWALKS AS NECESSARY.

INSTALL CURB AND GUTTER

INSTALL CURB INLET

18" RCP

ACQUIRE PROPERTY AND EXPAND EXISTING POND FOR ADDITIONAL WATER QUALITY TREATMENT - AULIN & CLARK STREET DITCH

INSTALL 36" RCP OUTFALL TO POND WITH MES

CLARK STREET DITCH

INSTALL 24" STORM SEWER PIPING WITH CURB INLETS

INSTALL JUNCTION MANHOLE

RESURFACE ROADWAY IN CONSTRUCTION AREA - MATCH CURB GRADES (COORDINATE WITH CITY PAVING PROGRAM)

24" RCP

OBTAIN 20' EASEMENT

FORMER RAILROAD / FUTURE TRAIL

INSTALL DITCH BOTTOM INLETS AND 18" RCP TO DRAIN TRAIL RIGHT-OF-WAY TO POND - GRADE TRAIL TO INLETS - PROVIDE MES AT POND. (COORDINATE WITH TRAIL)

INSTALL 24" STORM SEWER PIPING WITH CURB INLETS

INSTALL CURB AND GUTTER AND SIDEWALKS.

REPLACE EXISTING 18" CROSS-DRAIN WITH 24" RCP - MES PIPE FINISH
INSTALL 24" RCP CROSS-DRAIN ON NORTH SIDE OF TRAIL GRADE INVERTS FOR POSITIVE FLOW TO NORTH EAST - SET INVERT ELEVATIONS TO MAINTAIN WETLAND HYDROPERIOD

REPLACE EXISTING 18" CROSS-DRAIN WITH 36" RCP FROM WETLAND TO ROADSIDE DITCH OUTFALL SYSTEM TO WEST OF S.R. 426 DRAINING TO BEAR CREEK (COORDINATE WITH STATE FOR PERMIT).

INSTALL HEADWALL WITH RIP-RAP

INSTALL MES FINISH WITH RIP-RAP

INSTALL 36" OUTFALL PIPE TO EXISTING WETLAND

OBTAIN 20' EASEMENT

30" RCP

INSTALL CURB INLET

INSTALL 24" RCP - MES FINISH (NORTH AND SOUTH OF TRAIL) GRADE INVERTS FOR POSITIVE FLOW TO NORTHEAST - SET INVERT ELEVATIONS TO MAINTAIN WETLAND HYDROPERIOD

CONSTRUCT POND OUTFALL STRUCTURE - SET CONTROL ELEVATION TO MEET TREATMENT / ATTENUATION VOLUME REQUIREMENTS OF PROJECT CONNECT TO 48" CROSS-DRAIN. INSTALL HEADWALL ON SOUTH END OF CROSS-DRAIN - PROVIDE EROSION CONTROL.

WETLAND

WETLAND TO MITCHELL HAMMOCK SYSTEM

INSTALL CURB AND GUTTER

INSTALL DBI - SET INLET ELEVATION TO MAINTAIN WETLAND HYDROPERIOD

INSTALL 24" CROSS-DRAIN TIE INTO OUTFALL PIPE

PROPOSED EXTENSION TO MALL ACCESS ROAD TO AULIN AVENUE (S.R. 426 DESIGN PLANS)

PROPOSED STORM SEWER TIE-IN FOR MALL ENTRANCE EXTENSION AND CUL-DE-SAC TO S.R. 426 STORM SEWER SYSTEM

PROPOSED CUL-DE-SAC (S.R. 426 DESIGN PLANS)

NOTE:
WORK OPTIONALLY PERFORMED IN CONJUNCTION WITH "AULIN AVENUE NORTH" AND/OR "LAKE JESUP AVE.-CLARK STREET-MURCOTT AVE." AND/OR "WASHINGTON-DOUGLAS AVENUE" CORECTIVE ACTION PLANS.

NOTE:
ALL PIPE SIZES, INVERTS, GRADING, STRUCTURE CALL-OUTS SHOWN IN CONCEPT ONLY BASED ON PRELIMINARY CALCULATIONS. DESIGN LEVEL ENGINEERING IS REQUIRED PRIOR TO CONSTRUCTION.

MAP DATA SOURCES:
PARCELS, CONTOURS, AND AERIALS SEMINOLE COUNTY, FL. (2002)

VILLAGE DR
EXECUTIVE DR
PINE AVE
AULIN AV
CLARK ST
LINCOLN PKWY
WASHINGTON DR
DOUGLAS AV
SUGAR MILL RD W
OVIEDO MARKETPLACE BLVD
SR 426 W
KANE CT
FOREST TRL

CORRECTIVE ACTION CONCEPT

Install curb and gutter as shown, and resurface roadway. Replace driveway aprons to match curb grading. Where curbing and sidewalk currently exists, match type and grade where possible, replace as necessary.

Install storm sewer system with curb inlets as shown. Acquire easements for discharge to pond (east) and wetland (west).

Acquire land to expand pond (~0.75 acres total) to provide additional water quality treatment for both Aulin South project and existing flow from Clark Street Ditch. Replace outfall pipe with control structure. Stabilize ditch inflow to pond.

Retrofit existing outfall pipe with headwall at the south end to wetland area - provide erosion control measures.

Retrofit south Trail right-of-way with DBIs draining to pond via 18" RCP and MES. Grade Trail to inlets.

Add cross-drains along Trail at Kane Court and industrial property to promote positive outfall of wetland strips. Work will require coordination with County/ State Trail agencies.

Work to be performed within existing right-of-way (except as noted), temporary construction easements may be necessary in state R-O-W.

Permitting required due to small increase in impervious area and potential increase in peak flow to outfall, and for the pond site.

DESIGN SERVICES

ENGINEERING
Hydraulic design of grading, inlet and piping system, and pond site. Develop construction plans. Prepare permit documents.

SURVEY
Required to verify topo along roadway for grading design and inlet placement and pond for expansion and outfall. Locate utilities. Prepare permanent and temporary construction easements.

GEOTECHNICAL
Required to verify subsurface conditions for pipe support and pond drainage design.

ENVIRONMENTAL
Evaluate wetland hydrology to establish inlverts of side drains and control structures and address permit requirements.

FIGURE 5-3B
AULIN AVENUE SOUTH
CORRECTIVE ACTION PLAN

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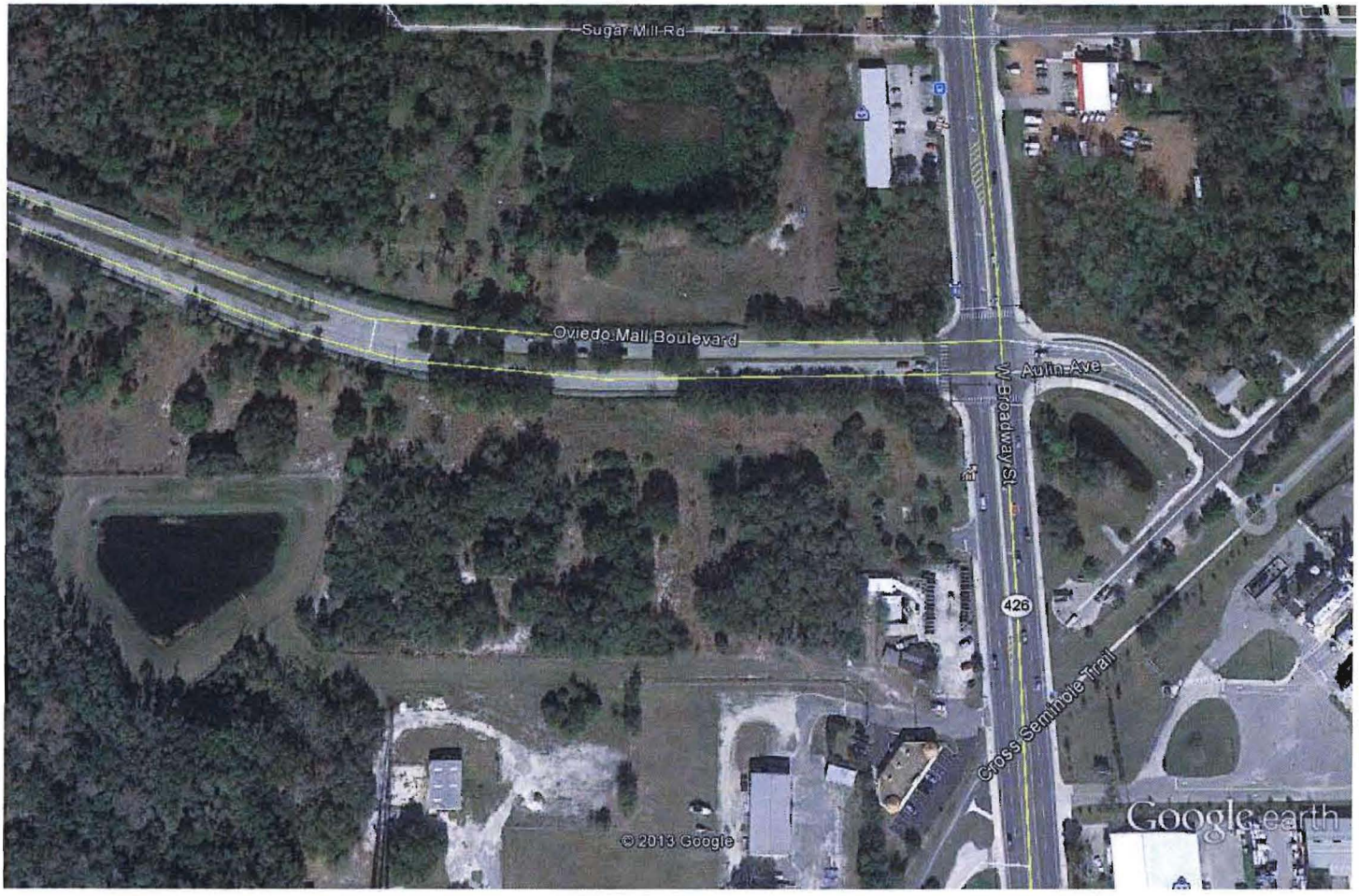

Google earth

feet 800
meters 200