

East Ridge High School
Classroom Additions

LAKE COUNTY, FLORIDA

**ENVIRONMENTAL
RESOURCE PERMIT (ERP) APPLICATION**

Prepared For:
Lake County Schools
518 West Alfred Street
Tavares, Florida 32778
(352) 253-6715

Submitted To:
St. John's River Water Management District
975 Keller Road
Altamonte Springs, Florida 32714
(407) 659-4800

Prepared By:
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February 2006

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ST. JOHN'S RIVER WATER CENTER

Jay A. Klein
2/27/06
#49945

**East Ridge High School Classroom Addition
SJRWMD Environmental Resource Permit Application**

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**East Ridge High School Classroom Addition
SJRWMD Environmental Resource Permit Application**

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ATTACHMENTS

1. SJRWMD Permit Application #4-069-68272-3

SECTION 1

EXECUTIVE SUMMARY

1.1 PROJECT INFORMATION

1.1.1 Project Applicant

Name: Mr. Gary Parker, Director of Facilities and Construction
Company Name: Lake County Schools
Address: 518 West Alfred Street, Tavares, and Florida 32778
Telephone: (352) 253-6715
Fax: (352) 343-1601

1.1.2 Project Information

Project Name: East Ridge High School Classroom Addition

Project Location (See Figure 2):

City: Clermont County: Lake
Section 28, Township 22 South, Range 26 East
Project Area: 1.09 Acres
Total Drainage Area: 88.70 Acres

Location Description: This site is located in the vicinity of the City of Clermont at the southeast corner of the intersection of Excalibur Road and Hooks Street.

1.2 GENERAL PROJECT DESCRIPTION

The proposed project includes the on-site construction of a two-story classroom building and associated concrete walks on an existing school campus. This is a site that was permitted in 2001 for the construction of a high school and it included the construction of a "Future Expansion" in the location of the proposed classroom addition. This portion of the site drains to an existing stormwater pond located at the northern extreme of the school site. No additional stormwater management provisions are required since the proposed development was contemplated in the original permit.

The project site is located in Section 28, Township 22 South and Range 26 East in south Lake County, Florida. More specifically, the site is located at the southeast corner of the intersection of Excalibur Road and Hooks Street. The existing SJRWMD permit for the school site is Permit Number 4-069-68272-3. The Technical Staff Report and portions of the design plans from the original permit application package are included as an attachment to this report (refer to **Attachment 1**). The new impervious areas proposed are part of the "MAIN BASIN" on the High School AAA

Site. According to the TSR for the school permit the maximum impervious coverage for the high school site was identified "As Designed" which would include the "Future Expansion" area.

1.3 DRAINAGE AND DESIGN CRITERIA

1.3.1 As mentioned above, the northern portion of the High School AAA site is part of a drainage basin referred to as "Main Basin". Please see the attached Figure 8 in Attachment 1, which identifies that various basins which make up the high school site and the surrounding areas that drain to the existing depression that provides the treatment and attenuation for this area. The "Future Expansion" area depicted on the original permitted drawings includes an area of 24,000 sf. The proposed improvements include 16,988 sf of area which is well within the permitted limitations. For this reason, no additional stormwater management improvements are required.

1.3.2 Drainage Design Criteria

Agency

St. Johns River Water Management District (SJRWMD)

Criteria

SJRWMD: A Standard General Environmental Resource Permit is required for this project since this is a subsequent phase of a permitted system under SJRWMD Permit Number 4-069-68272-3. The requirement is to show that the proposed site development for the classroom addition does not exceed what was originally permitted.

1.4 SUMMARY OF AGENCY DESIGN CRITERIA

1.4.1 Design Methodology

This project simply requires the classroom addition to contain no more than 24,000 sf of impervious coverage in order to meet the conditions of the existing stormwater management permit. As evidenced in **Section 1.3.1** above, the proposed impervious coverage is only 16,988 sf, which is well within the allowable coverage. The allowable coverage is depicted in the construction plans from the original permit, which shows a "Future Expansion" area that is 24,000 sf in size. The construction plans can be found in **Attachment 1**.

1.4.2 Water Quality Treatment/Retention Volumes

The existing stormwater facilities were constructed to retain the required water quality volume based on the SJRWMD criteria. In addition, the existing facilities are land-

locked and therefore retain all of the runoff from the design storm event. Based on this fact, the treatment volume requirements are met in the existing depressional area used as the stormwater pond facility.

1.4.3 Stormwater Management Recovery Analysis

The stormwater management facility that was constructed is a dry retention pond system that depends on natural percolation for pond volume recovery. Since the school site was previously permitted to include a future expansion area of 24,000 sf, the proposed school site development of 16,988 sf is well within the limitations of the existing permit conditions. Based on our review of the site, the pond area was dry at the time of inspection and appears to operating as designed.

1.4.4 Peak Discharge Analysis

The existing dry retention pond area is designed with no discharge since it is the low point of a land-locked drainage basin.

1.5 SURFACE AND GROUNDWATER ELEVATIONS

1.5.1 Surface Water Elevation

The on-site project area has a building pad area of 165.0'. The closest surface water body to the classroom addition is the on-site dry retention pond system into which the classroom building will drain. Please see **Figure 8** in **Attachment 1** for more specifics on the location of the surface water.

1.5.2 Groundwater Elevation

Since this is a previously developed site with a building pad for this future expansion, no additional geotechnical data was obtained for this project.

1.6 100 YEAR FLOOD PLAIN ANALYSIS

This project does not lie within the 100 year flood plain as determined from the FEMA Flood Insurance Rate Map - Community Panel Number: 12069 C0565 D, Lake County, Unincorporated Areas (refer to **Figure 5**).

1.7 WETLANDS/ SURFACE WATER BODY

The proposed site for the classroom addition contains no wetlands or surface water bodies, therefore, no mitigation will be required.

SECTION 2

POST-DEVELOPMENT CONDITIONS

2.1 OUTFALL FOR POINT DISCHARGES

There is no outfall point for the northern portion of the school site into which the proposed development drains. The on-site depression is a land-locked basin area. As shown on the construction plans, the conveyance piping for the classroom addition connects to existing stormwater piping systems which convey the new building area to the existing stormwater pond system.

2.2 ON-SITE AND OFFSITE STORMWATER MANAGEMENT SYSTEMS

The proposed classroom addition will collect the runoff from the proposed improvements and direct the runoff to the existing stormwater conveyance system and eventually to the existing pond area.

2.3 TAILWATER CONDITIONS

The on-site conveyance system tailwater conditions were established as part of the original permitted system and there is no tailwater for the existing pond system since this is a land-locked system.

SECTION 3

DESIGN ANALYSIS

3.1 HYDRAULIC PARAMETERS

All of the necessary parameters used in the design of the on-site dry retention pond into which the classroom addition discharges can be found in the original permit under Permit # 4-069-68272-3. For this reason, on-site hydraulic parameters were not required and therefore are not part of this report.

3.2 WATER QUALITY TREATMENT/RETENTION VOLUME

As discussed in **Section 1.4.2** above, water quality is provided in the existing dry retention pond that was designed as part of the High School AAA drainage system. No additional treatment volume is required.

3.3 STAGE VS. STORAGE

Not applicable since the school site discharges to an existing dry retention pond.

3.4 RECOVERY ANALYSIS

Not applicable since the school site discharges to an existing dry retention pond.

3.5 WET DETENTION CALCULATIONS

Not applicable since the school site discharges to an existing dry retention pond.

3.6 PEAK DISCHARGE AND CONVEYANCE CALCULATIONS

Not applicable since the school site has no discharge and is land-locked.

SECTION 4

OPERATION AND MAINTENANCE

The on-site improvements will be, owned and operated by Lake County Public Schools, the Applicant, who will perform the routine maintenance, as required, to keep the stormwater pond and conveyance system free of debris and the site mowed.

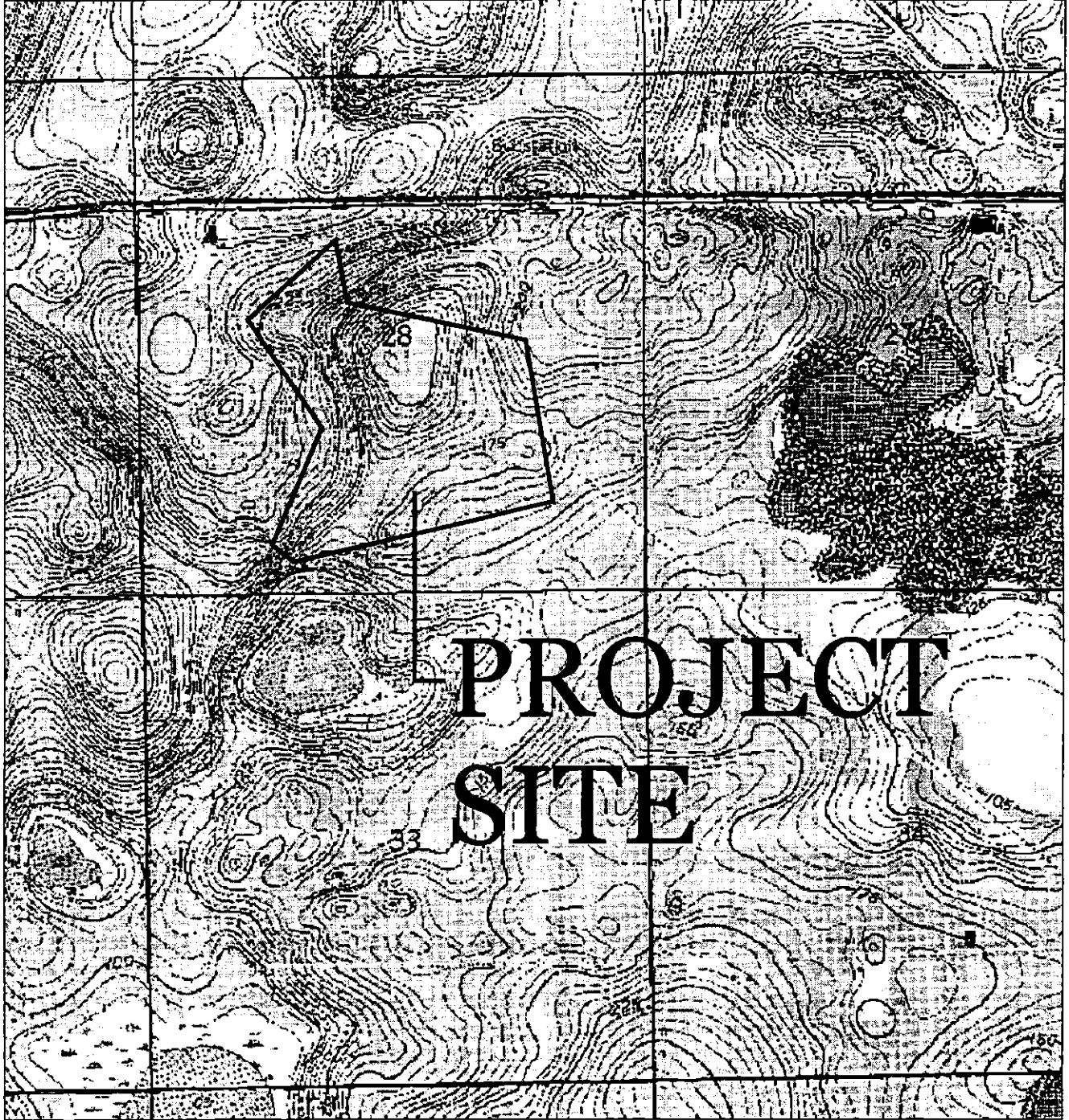
SECTION 5

ALTERNATIVE STORMWATER TREATMENT

This project does not propose to use any alternative stormwater treatment methods.

FIG. 2.

FIGURES

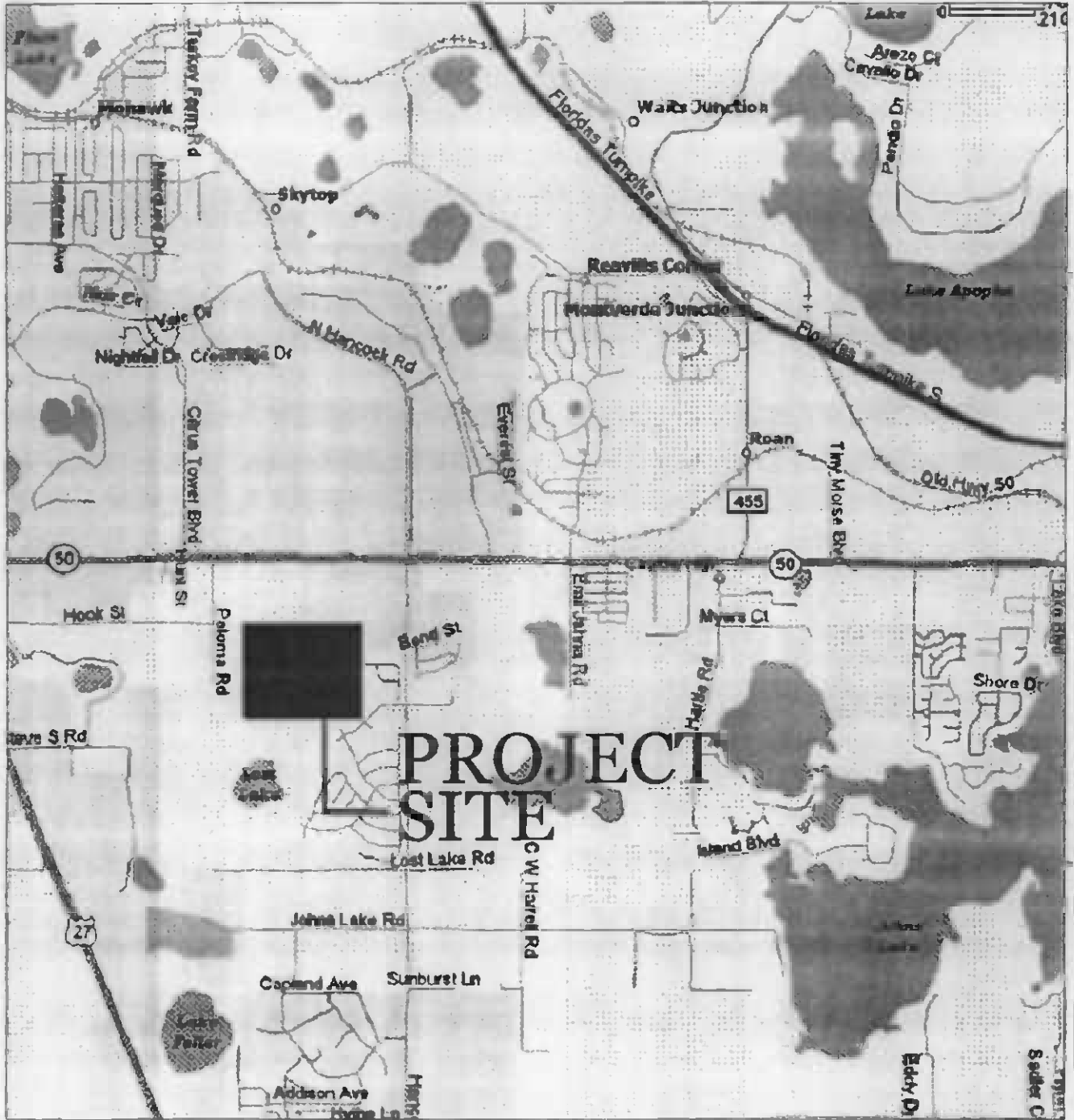


USGS MAP
E. RIDGE HIGH SCHOOL

drawn by:	MAQ	plot scale:	NTS
checked by:	JAK	project number:	o6SCMH001
date:	02/28/06	file name:	FIGURE 1

401 W COLONIAL DR. STE 2
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WWW.KLIMAWEEKS.COM

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**LOCATION MAP
E. RIDGE HIGH SCHOOL**

drawn by:	MAQ	plot scale:	NTS
checked by:	JAK	project number:	06SCMH001
date:	02/28/06	file name:	FIGURE 2

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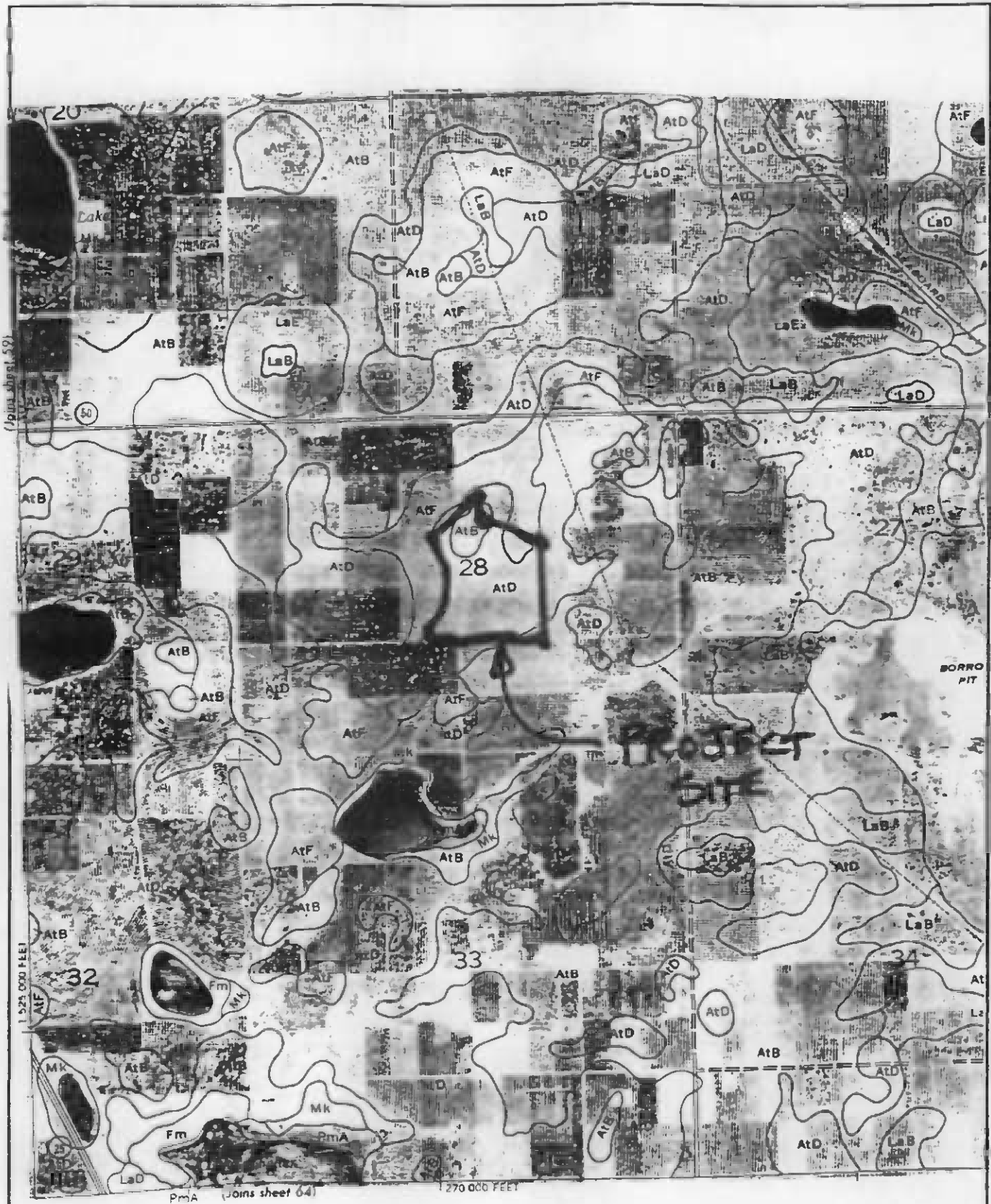
AERIAL MAP
E. RIDGE HIGH SCHOOL

drawn by: MAQ
checked by: JAK
date: 02/28/06

plot scale: NTS
project number: 06SCM001
file name: FIGURE 3

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SOILS MAP

E. RIDGE HIGH SCHOOL

drawn by:	MAQ	plot scale:	NTS
checked by:	JAK	project number:	06SCMH001
date:	02/28/06	file name:	FIGURE 4

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APPROXIMATE SCALE



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP
LAKE COUNTY,
FLORIDA
AND INCORPORATED AREAS

PANEL 566 OF 725

THIS MAP MADE FOR PANELS NOT PRINTED

CONTAINS
COMMUNITY OF
LAKE COUNTY

BARREL PANEL SIZE
1/4" x 1/4" 0
1/2" x 1/2" 0
1" x 1" 0

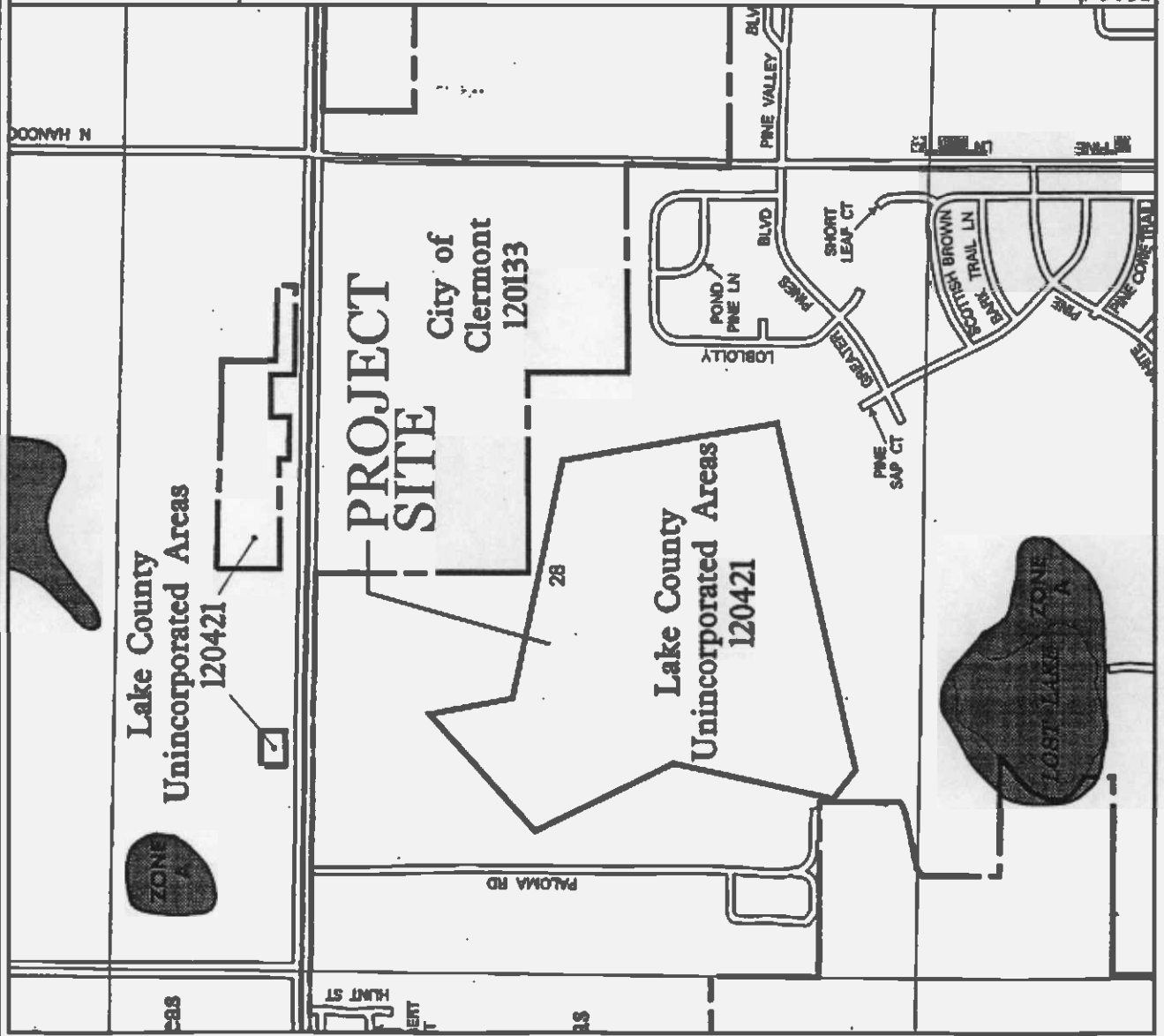
MAP NUMBER
12069C8565 0

EFFECTIVE DATE:
JULY 3, 2002



Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map may not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program Flood maps check the FEMA Flood Map Store at www.msc.fema.gov



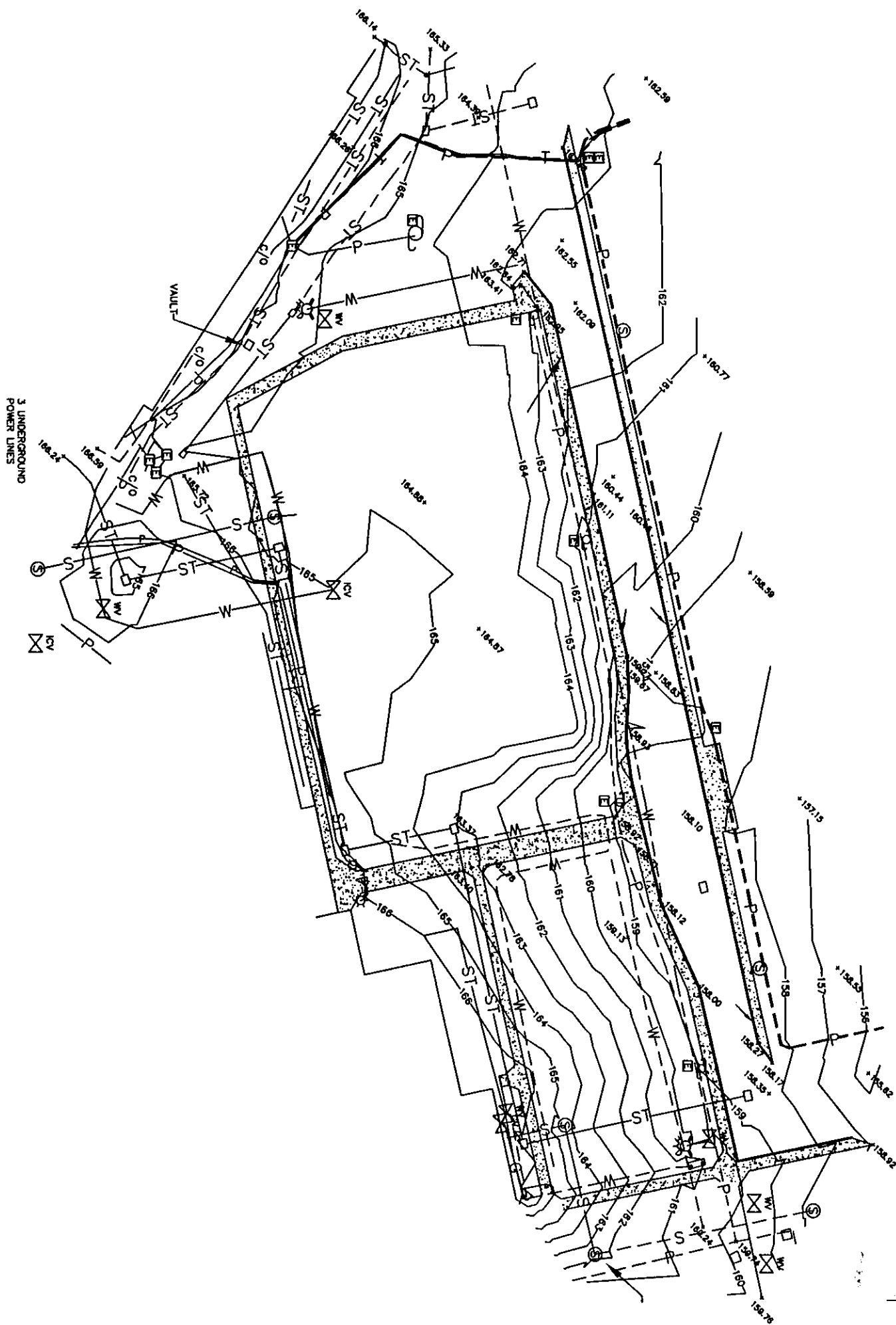
FEMA MAP
E. RIDGE HIGH SCHOOL

drawn by: MAQ
checked by: JAK
date: 02/28/06

plot scale: NTS
project number: 06SCMH001
file name: FIGURE 5

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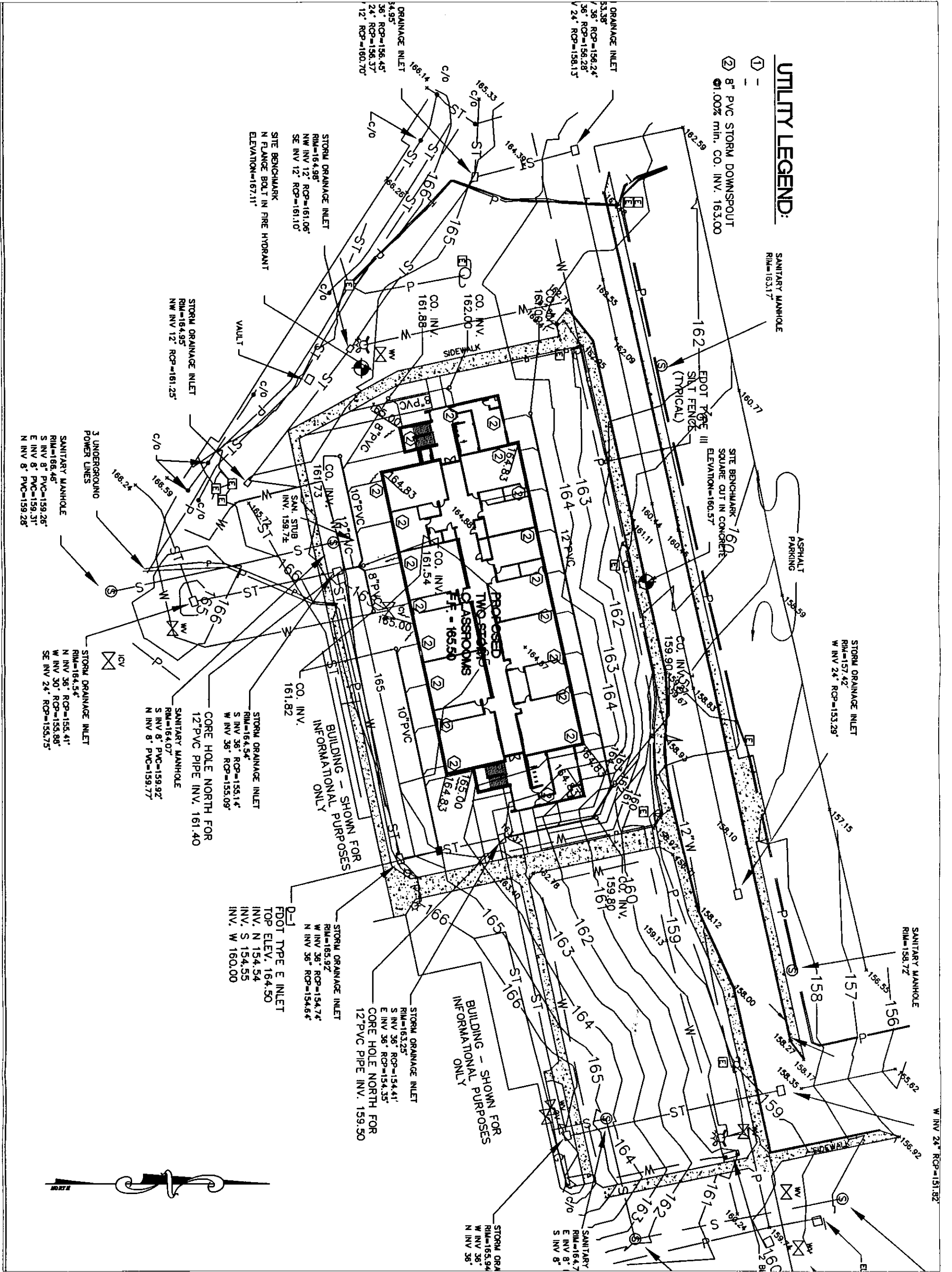
PRE DEVELOPMENT MAP E. RIDGE HIGH SCHOOL

drawn by: MAQ
 checked by: JAK
 date: 02/28/06

plot scale: NTS
 project number: 06SCMH001
 file name: PRE MAP2

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POST DEVELOPMENT MAP
E. RIDGE HIGH SCHOOL

drawn by: MAQ
 checked by: JAK
 date: 02/28/06

plot scale: NTS
 project number: 06SCMH001
 file name: POST MAP

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ATTACHMENT 1

**EXCERPTS FROM
SJRWMD PERMIT APPLICATION #4-069-68272-3
(HIGH SCHOOL AAA)**

Collector road. The project is located entirely within herbaceous uplands, with scattered citrus trees.

The site has three natural drainage basins. The Main Basin contains approximately 86 acres and sheet flows to an existing depression in the north part of the school site. The southeast and southwest corners of the school site (East and West Basins) drain south toward the Greater Pines development, Phases 8,9, and 10, and eventually to Lost Lake.

The East Basin and West Basins will discharge the same amount of runoff to the Greater Pines surface water management system in the post-development condition as in the pre-development condition. The East Pond and West Pond have been designed to account for the increase in runoff from the developed area. Furthermore, the Greater Pines surface water management system has been designed to accommodate the discharge from these basins (Permit #4-069-19339-4 Greater Pines Phases 8, 9, 10).

The existing depression in the Main Basin currently receives stormwater runoff from part or all of several adjacent properties, identified as:

- High School AAA Site
- Bosserman Property C-2
- Bosserman Property R-3
- Bosserman Property R-3A
- West Area (via existing on-site retention systems)
- Greater Properties "Commercial"
- Greater Properties "Multifamilies"

At this time, none of the properties, with the exception of the West Area, have been developed. In the post-development condition, the drainage basin will serve proposed development in the above properties and will also serve a future road known as Hook Street.

At this time, three entities own a portion of the existing depressional area:

- Greater Construction Corporation
- FRA Investments (Bosserman)
- Lake County School Board

These three entities have entered into a joint agreement to utilize the depression as a Master Retention Pond for their properties. The proposed developments and maximum imperviousness allowed for in the agreement are as follows:

	As Designed
High School AAA Site	
Conservation/Retention Area	0% Impervious
Bosserman Property C-2	90% Impervious
Bosserman Property R-3	90% Impervious
Bosserman Property R-3A	80% Impervious
Greater Properties "Commercial"	90% Impervious
Greater Properties "Multifamilies"	80% Impervious
North-South Collector Road	75% Impervious
Hook Street	85% Impervious
West Area	As Exists

Future development in the West Area will require construction of on-site treatment and attenuation systems, designed for discharge to a land-locked waterbody. Prior to construction in all other areas, the applicant must obtain a Standard General Environmental Resource Permit. A modification to this permit will be required prior to construction when the proposed placement of impervious surface will exceed the amount of impervious surface allowed in the permit conditions.

The surface water management system has been designed to provide the required water quality treatment and peak rate and volume attenuation. The East and West Ponds are designed to discharge into spreader swales with ditch bottom inlets for future conveyance. Upon construction of the surface water management system to serve Phases 8 and 9 of the Greater Pines subdivision, the ditch bottom inlets will discharge into the conveyance system connected to the subdivision's treatment and attenuation ponds. The Greater Pines surface water management system has been designed to accommodate discharge from the East and West Ponds.

This application proposed no work in, on, or over wetlands or other surface waters. The proposed project will have no unacceptable adverse secondary impacts to wetlands, water quality, or upland habitats that are required by aquatic or wetland-dependent "listed" species. In addition, this project will not cause unacceptable adverse cumulative impacts to the functions of wetlands or other surface waters within the Ocklawaha River basin. The proposed project is consistent with the wetland review criteria in sections 12.2 - 12.3.8, A.H.

The applicant has provided assurances that this project, as proposed, is consistent with the design criteria and objectives of the District set forth in Chapters 40C-4 and 40C-42, F.A.C. The proposed project meets all applicable conditions for permit issuance pursuant to sections 40C-4.301, 40C-4.302, and 40C-41, F.A.C.

Wetland Summary Table	High School AAA	Governmental/Institutional
		acres
Total Wetlands or Surface Waters On-site		0.000
Impacts that Require Mitigation		0.000
Impacts that Require No Mitigation		0.000
Mitigation		0.000

Interested Parties: No
Objectors: No

Recommendation: Approval

Conditions for Application Number 4-069-68272-3:

ERP General Conditions by Rule (October 03, 1995):

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19

ERP/MSSW/Stormwater Special Conditions (November 09, 1995):

1, 10, 13, 28

Other Conditions:

1. The surface water management system must be constructed and operated in accordance with the plans signed and sealed by the engineer on January 24, 2001 and received by the District on January 25, 2001.
2. Prior to construction on the property identified as Bosserman Property C-2, Bosserman Property R-3, or Greater Properties "Commercial", a Standard General Environmental Resource Permit must be obtained.

A modification to this permit must be obtained prior to construction on any of the aforementioned properties when the placement of impervious surface will exceed 90%.

3. Prior to construction on the property identified as Bosserman Property R-3A or Greater Properties "Multifamilies", a Standard General Environmental Resource Permit must be obtained.

A modification to this permit must be obtained prior to construction on any of the aforementioned properties when the placement of impervious surface will exceed 80%.

4. Prior to construction on the property identified as Hook Street, a Standard General Environmental Resource Permit must be obtained.

A modification to this permit must be obtained prior to construction on the aforementioned property when the placement of impervious surface will exceed 85%.

5. Prior to construction on the property identified as North-South Collector Road, the applicant must obtain a Standard General Environmental Resource Permit.

A modification to this permit must be obtained prior to construction on the aforementioned property when the placement of impervious surface will exceed 75%.

6. Prior to construction, the draft Reciprocal Easement Agreement between Lake County, FRA Investments and Greater Construction Corporation, previously approved as to form by the District, must be executed and provided to the District for final review and approval.

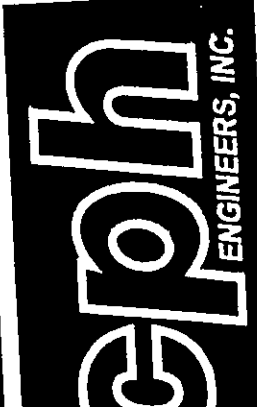
Reviewers: Kenneth Lewis
Victoria Nations

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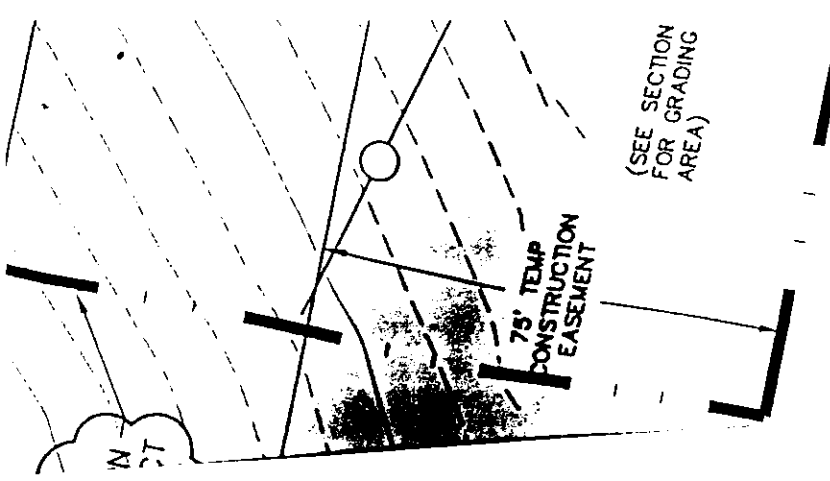
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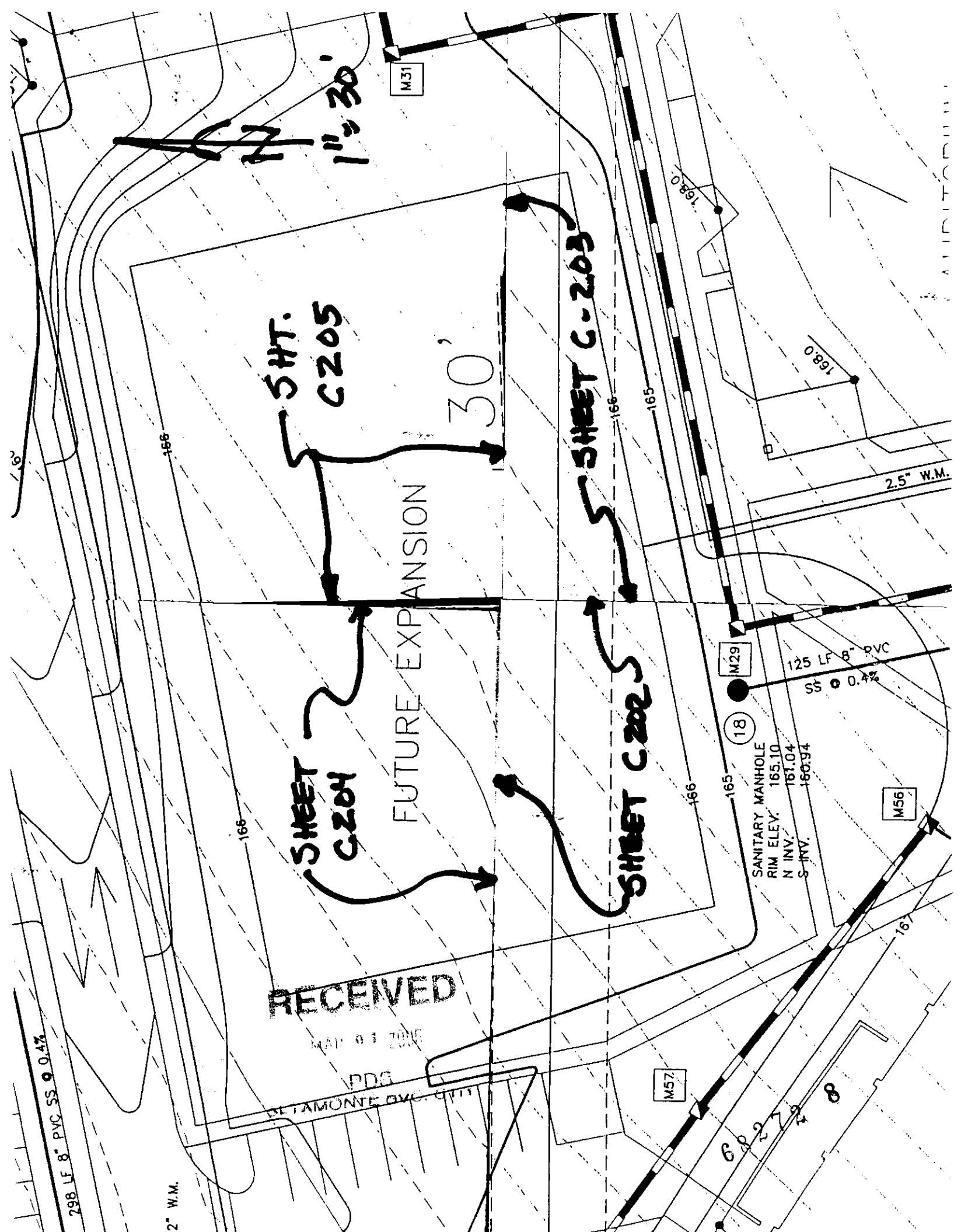
ADDENDUM 2.5-8001
 4-069-68981-1
 ORLANDO PDS
 SJR, WMD
 ADDENDUM 2.1
 JAN 4 2007



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 Orlando, Florida 32801
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 Fax: (407) 648-1036
 www.cphengineers.com
 Certificate of Authorization No. 3215

PHASE	REVISION 2	SITE PLAN
PROJECT	REVISION 1	
CONSTRUCTION	12/08/00	
APPROVAL	12/08/00	
REVIEW		
CHECKED BY		
DRAWN BY	DGH / CKJ	9/00
C202		
0010		





1" = 30'

SHT. C-205

30'

SHEET C-203

SHEET C-204

FUTURE EXPANSION

SHEET C-202

M29

18

SANITARY MANHOLE
RIM ELEV. 165.10
N INV. 161.04
S INV. 160.94

125 LF 8" PVC
SS @ 0.4%

M56

M57

RECEIVED

MAP OF ZONE

PDS

STAMONTE PVC CITY

298 LF 8" PVC SS @ 0.4%

2" W.M.

2.5" W.M.

ALPHABETIC