

**THIRD SUB-MASTER ENGINEER'S REPORT  
FOR  
THE MAPLE RIDGE DEVELOPMENT  
CONTAINED WITHIN THE  
AVE MARIA STEWARDSHIP COMMUNITY DISTRICT**

***PREPARED FOR:***

**BOARD OF SUPERVISORS  
AVE MARIA STEWARDSHIP COMMUNITY DISTRICT**

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**DECEMBER 2, 2014**

## **I. OVERVIEW**

This is a Supplemental Engineer's Report (the "Report") prepared by Agnoli, Barber & Brundage, Inc. (ABB), the District Engineer for the Ave Maria Stewardship Community District (AMSCD) relating to the proposed Maple Ridge Subdivision Phases 3-8, and Estate Lots Phases 1-5 (Maple Ridge), and Coquina at Maple Ridge, Phases 1A & B and 2-3 (collectively referred to as the Maple Ridge Development), master roadway, irrigation, stormwater/drainage, and landscaping improvements expected to be constructed and/or acquired within the boundaries of the 5,027 acre Ave Maria Stewardship Community District (the "District"). All or a portion of the said improvements are planned to be funded through the issuance of a combination of one or more series of short and long term bonds (the "Bonds") and by contributions effectuated by the Ave Maria Development, LLLP (the "Developer"). The Districts anticipated total infrastructure improvements are more fully described in the District Engineer's Report entitled "Master Capital Improvement Program for Ave Maria Stewardship Community District", dated May 2, 2006. This report has been prepared to identify the total Maple Ridge scope of work to be covered by the Bonds, and to present estimated costs and permit status.

### **A. AUTHORIZATION**

This Report was prepared at the direction of the District Board of Supervisors.

### **B. PURPOSE**

The purpose of this Supplemental Engineer's Report is to present the nature, extent and costs of the proposed master roadway, irrigation, water management lakes and interconnecting culverts, stormwater/drainage, and landscaping improvements associated with the Maple Ridge Development, including portions of the project's land acquisition costs for the road rights-of-way and water management; and related portions of the professional services and fees, all of which improvements are located within the boundaries of the District, collectively referred to as the "Ave Maria DRI Master Improvements". This Report is intended to be used as a representation of

estimated costs of the improvements for financing purposes. Detailed construction plans and/or specifications have been or will be prepared for the improvements described in this Supplemental Engineer's Report. The Engineer has considered and in certain instances, relied upon, opinions, information and documentation prepared or supplied by others, which may have included public officials, public entities, and engineering professionals.

#### **C. DEVELOPMENT DESCRIPTION**

The Maple Ridge Development is wholly contained within the boundary of the District. The District is located within part of Sections 21, 22, 27, 28, 29, 30, and 33, and all of Sections 31 and 32, Township 47 South, Range 29 East; and part of Sections 4, 9, 16, 17, and 18, and all of Sections 5, 6, 7, and 8, Township 48 South, Range 29 East; and part of Sections 1, 12, and 13, Township 48 South, Range 28 East; and all of Section 36, Township 47 South, Range 28 East, Collier County, Florida. The District is currently bounded by Immokalee Road (CR-846) on the north, Camp Keais Road on the east, Oil Well Road (CR-858) on the south, and Camp Keais Strand on the west.

#### **D. LAND USE**

The Maple Ridge Development consists of approximately 752.37 acres. The table below illustrates the anticipated Maple Ridge land use plan.

Land Use Descriptions	Measurements Units	Total
Residential:		
Maple Ridge Phases 3-8 Single Family Residential	Dwelling Units	1452
Estate Lots Single Family Residential	Dwelling Units	282
Coquina at Maple Ridge Single Family Residential	Dwelling Units	277
TOTAL		2011

## **II. INFRASTRUCTURE BENEFIT**

The District will provide funding, maintenance and operation of Maple Ridge public infrastructure that is provided through its limited, single and specialized purpose. These master public infrastructure improvements include public roadways, stormwater management, irrigation water transmission facilities and landscaping improvements to serve the entire District.

The proposed infrastructure improvements identified in this supplemental report are intended to provide specific comprehensive public services to the Maple Ridge Development within the boundaries of the Ave Maria DRI. The construction and maintenance of the proposed infrastructure improvements are necessary and will benefit the property for the intended use as a master planned community. The District may construct, acquire, own, and operate all or any portion of the proposed infrastructure. The Developer may construct the infrastructure not constructed by the District subject to determination by the District's engineer that such infrastructure meets or exceeds the construction standards of the District and is therefore worthy of acquisition.

## **III. INFRASTRUCTURE IMPROVEMENTS**

The proposed infrastructure improvements addressed by this supplemental report are master infrastructure elements that will extend basic services to various land uses located within the Maple Ridge Development which is contained within the boundaries of the District. Exhibit A shows the location of the subject improvements. The infrastructure elements include the cost of stormwater management, public roadways, reclaimed water storage, supplemental wells, pumps and transmission facilities, and landscaping improvements. The costs for engineering/architectural design, inspection and verification of these elements as well as the anticipated cost for professional service fees and permitting fees have been included.

Detailed descriptions of the proposed infrastructure improvements are provided as follows:

**A. Drainage/Stormwater Management System**

The Maple Ridge Development stormwater management system improvements consist of a system of lakes, interconnecting pipes, and control structures that provide both stormwater retention and water quality improvements. These improvements will be designed to meet the permit criteria of the South Florida Water Management District (SFWMD) and Collier County Development Services. Approximately 137.3 acres of water management lakes are expected to be constructed. Refer to Exhibit A for the location of the Maple Ridge water management facilities.

**B. Roadways**

Exhibit A contains a map that shows the location of the Maple Ridge roadway improvements to be acquired or constructed. It is anticipated by this report that the roadways to be acquired or constructed could vary from time to time as continued development takes place within Maple Ridge. The subject roadway drainage systems, fill material, stabilized subgrade, lime rock base, asphalt surfaces, sidewalks, signing, marking, lighting, irrigation and landscaping will be maintained by the District. The District roadways will be constructed within platted rights-of-way. It is currently estimated that approximately 105.9 acres of roadway rights-of-way will be platted and dedicated to the District for maintenance and operation.

**1. Landscaping**

Landscaping will be provided for the roadways, perimeter berms, lake littoral areas, and community entrances. The landscaping will consist of sod, annual flowers, shrubs, groundcover, littoral plantings, trees, fencing, walls, fountains, lighting and irrigation systems. These costs have been included in the roadway costs.

**C. Master Irrigation System**

A Master Irrigation System will be constructed comprised of a reclaimed water lined storage pond, supplemental wells, pumps and transmission/distribution system which will send reclaimed water to several service areas. The District receives reclaimed water from the Ave Maria Utility Company. The District will distribute the reclaimed water along with supplemental water from ground water wells at a minimum pressure of 45 psi to Maple Ridge. Refer to Exhibit A for the Maple Ridge master irrigation system facilities location.

**D. Professional Services and Permitting Fees**

Permit review fees may be required by Collier County, SFWMD, COE, and any other state or local agencies that impose fees for impact and plan reviews. These fees vary with the magnitude of the impact and size of the Maple Ridge Development phases. Additionally, engineering, surveying, and landscape architecture, and facilities and management services are required for the design permitting, construction inspection, monitoring and verification of constructed quality, certifications, and management and operation of the District improvements. These costs have been included in the various cost categories as shown in Exhibit B.

**E. Summary of Construction Costs**

Exhibit B reflects the Project Costs.

## **V. PERMITS**

All conditions of the zoning ordinance and the DRI Development Order are currently being complied with. In addition to the Permits received for development of the Ave Maria DRI referenced in the Supplemental Sub-Master Engineer's Report for Ave Maria Stewardship Community District dated November 30, 2006. Appendix C lists the permits that have been obtained or will be required for development of Maple Ridge.

It is our opinion that there are no technical reasons existing at this time which would prohibit the implementation of the plans for the Development as presented herein and that all permits not heretofore issued and which are necessary to effect the improvements described herein will be obtained during the ordinary course of development. Therefore, there are no technical reasons that would prohibit construction of the District's infrastructure that complies with, not inconsistent with, and subject to the local government's comprehensive plan and development standards, and Federal, State, and local environmental regulations.

## **VIII. SUMMARY**

This supplemental report has been issued to update the district's estimated project costs and the permit status. The infrastructure improvements as detailed herein are necessary for the functional development of the Maple Ridge Development within the boundary of the District as required by the District and its charter. The planning and design of the infrastructure is in accordance with current governmental regulatory requirements. The infrastructure will provide the intended function so long as the construction is in substantial compliance with the design and permits and verified by inspections and monitoring reports (confirmed in the final Validation) by the District Engineer to the District Board. The District will need funding to construct or acquire a portion of the improvements included in this report. In addition to the annual non-ad valorem assessments imposed, levied and to be collected, to pay debt service on the proposed bonds, the District Engineer recommends that the District collect annual "Operating and Maintenance non-ad valorem assessments" to be determined, imposed and levied by the District's Board of

Supervisors upon the assessable real property within the District for the purpose of defraying the cost and expenses of maintaining District-owned improvements.

It is my professional opinion that the infrastructure costs provided herein for the Maple Ridge proposed infrastructure improvements are reasonable to complete the construction of the proposed infrastructure improvements described herein and that these infrastructure improvements will benefit and add value, by the Ave Maria Stewardship Community District, to the land within the District as more fully detailed in the Assessment Methodology Report. The District can fund all such proposed infrastructure and maintenance costs through the exercising of its general and special powers to provide basic public systems and facilities to the property as granted by Section 4, Subsection (8) and (9), Chapter 2004-461, Laws of Florida.

The estimate of infrastructure construction costs is only an estimate and not a guarantee maximum price. A portion of the costs are based on actual construction bids. Where necessary, historical costs, information from other professional or utility consultants and contractors have been used in preparation of this report. Consultants and contractors who have contributed in providing the cost data included in this report are reputable entities within the area. It is therefore our opinion that the construction of the proposed infrastructure can be completed at the costs as stated.

The labor market, future costs of equipment and materials, increased regulatory actions and the actual construction process are all beyond control. Due to this inherent opportunity for fluctuation in cost, the total final cost may be more or less than this estimate.

\_\_\_\_\_, December \_\_, 2014  
Daniel W. Brundage, P.E.  
District Engineer  
State of Florida Registration No. 18915



## APPENDIX

1. Exhibit A – Infrastructure Location Maps
2. Exhibit B – Opinion of Probable Costs
3. Exhibit C – Permit Status





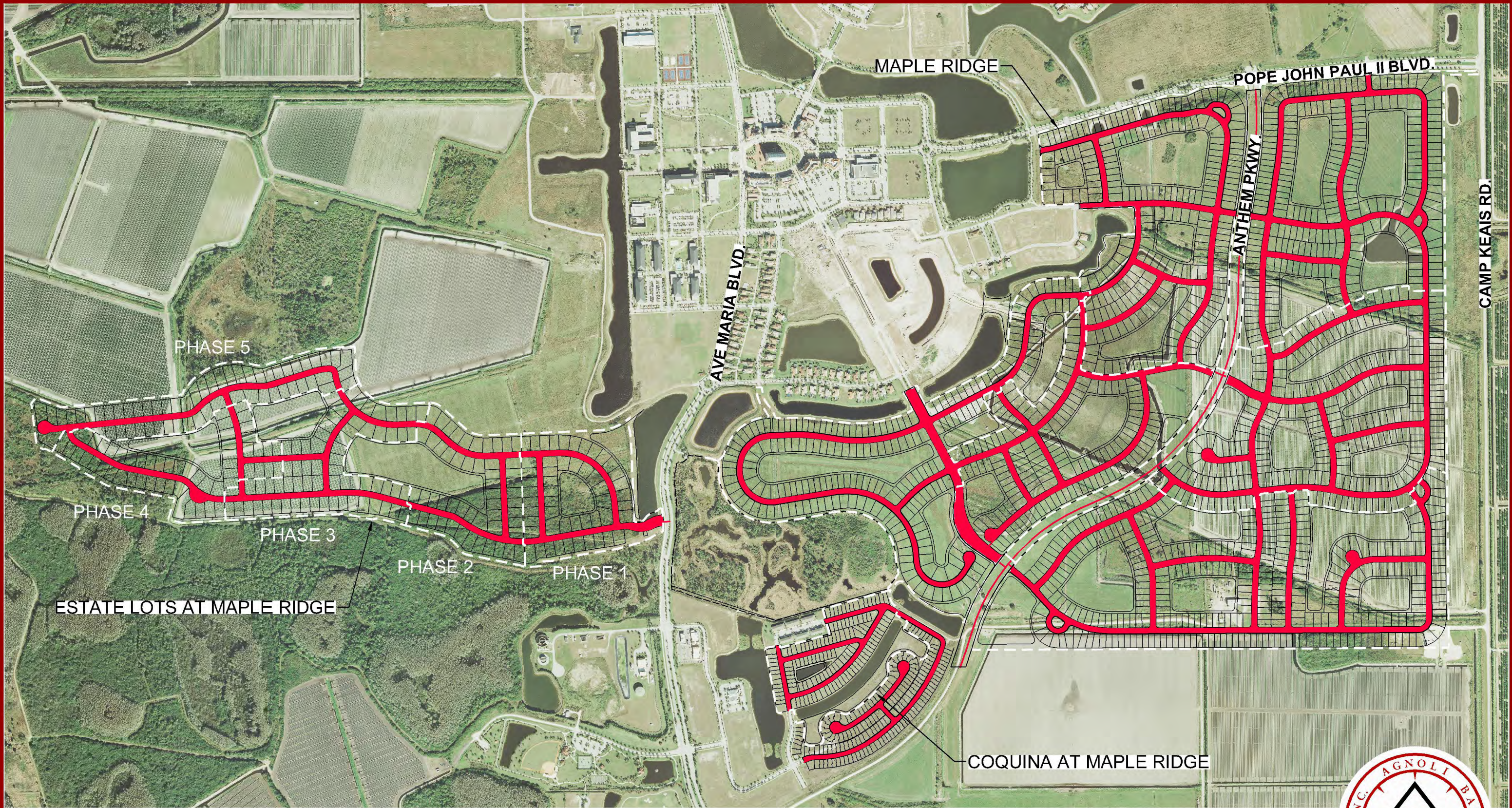
AMSCD STORMWATER MANAGEMENT		
DESCRIPTION	IDENTIFICATION	Ac. ±
LAKES		137.3

THE MAPLE RIDGE DEVELOPMENT  
EXHIBIT A-1  
STORMWATER MANAGEMENT



NOT TO SCALE





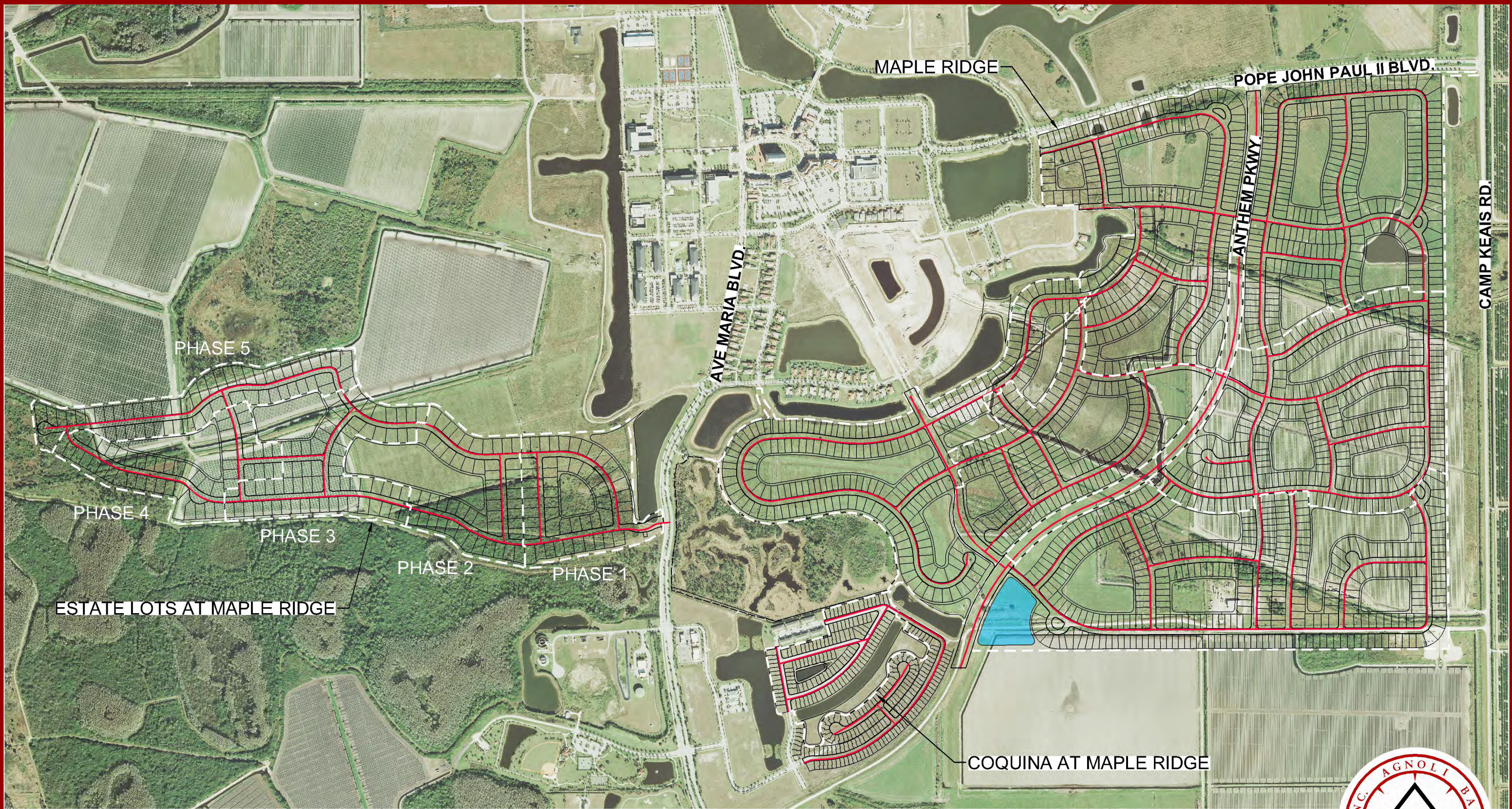
AMSCD ROADWAYS		
DESCRIPTION	IDENTIFICATION	Ac. ±
ROADWAYS		105.9

# THE MAPLE RIDGE DEVELOPMENT EXHIBIT A-2 ROADWAYS



NOT TO SCALE





AMSCD IRRIGATION		
DESCRIPTION	IDENTIFICATION	Ac. ±
IRRIGATION SYSTEM		
IRRIGATION LAKE		5.6

# THE MAPLE RIDGE DEVELOPMENT EXHIBIT A-3 IRRIGATION



NOT TO SCALE



**EXHIBIT B**  
**AVE MARIA STEWARDSHIP COMMUNITY DISTRICT**  
**THIRD SUB-MASTER ENGINEER'S REPORT**  
**MAPLE RIDGE DEVELOPMENT**  
**ESTIMATED PROFESSIONAL SERVICES, PERMITTING FEES, AND CONSTRUCTION COSTS**

11/12/2014

A. Maple Ridge at Ave Maria

Drainage/Stormwater Management Improvements	\$9,122,090.14
Roadway Improvements	\$12,521,369.38
Landscaping Improvements	\$5,137,913.15
Master Irrigation System Improvements	\$2,367,703.16
<b>SUBTOTAL</b>	<b>\$29,149,075.83</b>

B. Maple Ridge Estate Lots

Drainage/Stormwater Management Improvements	\$2,030,501.67
Roadway Improvements	\$3,949,284.21
Landscaping Improvements	\$554,038.61
Master Irrigation System Improvements	\$644,105.07
<b>SUBTOTAL</b>	<b>\$7,177,929.56</b>

C. Coquina at Maple Ridge

Drainage/Stormwater Management Improvements	\$192,480.75
Roadway Improvements	\$1,159,331.25
Landscaping Improvements	\$581,889.00
Master Irrigation System Improvements	\$285,862.50
<b>SUBTOTAL</b>	<b>\$2,219,563.50</b>

<b>TOTAL</b>	<b>\$38,546,568.89</b>
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# EXHIBIT C

## PERMIT STATUS

Maple Ridge Bond - Permit Summary				
Project Name	Permitting Agency	Permit Name	Permit No./ID	Issue Date
Maple Ridge - Phase 3				
	SFWMD	Environmental Resource Permit (ERP)	11-02336-P-09 (Application 140416-6)	5/23/2014
	SFWMD	Water Use Permit (Dewatering)	11-02317-W (Application 140528-20)	5/30/2014
	FDEP	Construction of Wastewater Collection System	249396-042-DWC/CM	4/30/2014
	FDEP	Construction of Water Main Extension	320052-002-DSGP	4/22/2014
	Collier County	Plat and Plans (PPL)	PL 20140000067	6/24/2014
	Collier County	Early Work Authorization (EWA)	EWA PL 20140000067	5/12/2014
	Collier County	Excavation	59.902-19, PL20140000067	5/9/2014
	Ave Maria Utility Company (AMUC)	Utility Construction Permit	AMUC No. 001-14	4/14/2014
	Ave Maria Stewardship Community District (AMSCD)	Letter of No Objection	ABB PN 05-0113	6/25/2014
Coquina at Maple Ridge - Phase 1				
	SFWMD	Environmental Resource Permit (ERP)	11-02336-P-09 (Application 140416-6)	5/23/2014
	SFWMD	Water Use Permit (Dewatering)	11-02317-W (Application 140528-20)	5/30/2014
	Collier County	Plat and Plans (PPL)	PL 20140000068	10/14/2014
	Collier County	Early Work Authorization (EWA)	EWA PL 20140000068	9/11/2014
	Collier County	Excavation	59.902-20, PL20140000068	9/10/2014
	Ave Maria Utility Company (AMUC)	Utility Construction Permit	AMUC No. 003-14	8/1/2014
Maple Ridge Estates- Phase 1				
	SFWMD	Environmental Resource Permit (ERP)	11-02336-P	TBD
	SFWMD	Water Use Permit (Dewatering)	TBD	TBD
	FDEP	Construction of Wastewater Collection System	TBD	TBD
	FDEP	Construction of Water Main Extension	TBD	TBD
	Collier County	Plat and Plans (PPL)	TBD	TBD
	Collier County	Early Work Authorization (EWA)	TBD	TBD
	Collier County	Excavation	TBD	TBD
	Ave Maria Utility Company (AMUC)	Utility Construction Permit	TBD	TBD
	Ave Maria Stewardship Community District (AMSCD)	Right-of-Way Permit	TBD	TBD