

EXHIBIT "A"

Proposal – Civil Engineering Professional Design & Permitting Services:

Temporary Fire Station 113, City of Coconut Creek, Florida



FINAL DATED October 26, 2020

City of Coconut Creek
Public Works Department
4900 West Copans Road
Coconut Creek, FL 33063

Prepared by:



CRJ & Associates, Inc.
Consulting Engineers and Planners



Proposed Scope of Services

PROJECT UNDERSTANDING

The City of Coconut Creek (City) has requested CRJ & Associates (CRJ) to provide a fee proposal to prepare construction plans and permitting assistance for the subject property. The City will provide the AUTOCAD files for the Site Plan to CRJ. My firm understands that the City is in pursuit of a temporary fire station (Temporary Fire Station No. 113) and the Site Plan Layout has been approved by the City of Coconut Creek (See Attachment A).

Property Information / Initial Project Due-Diligence:

Prior to preparing this Proposed Scope of Services, CRJ made field visits and met the City of Coconut Creek official(s) to review the site and the project parameters required. CRJ was able to determine that the project will take place on Parcel ID # 4842-18-04-0040, owned by the City per Warranty Deed executed on May 19th 2004 (See Attachment B). In addition to the parcel research, CRJ was able to identify that the project parcel is located immediately adjacent to FEMA Flood Zone X as shown within the August 14th 2014 FEMA mapping (See Attachment C). CRJ also conducted a parcel search on the City's GIS System for known underground utilities; as example: water mains, sewer lines and drainage systems. Based on our initial review, which will need to be better defined in design, CRJ has created a preliminary 'stick diagram' of a potential water and sewer connection (See Attachment D).

Task1: Engineering Plans & Construction Documents Preparation

A. Civil-Site Construction Drawings:

CRJ has anticipated the following Civil-Site Plans for this Project; our typical sheet size is 22"X34" (ANSI-D) such that sheets can be reproduced at 11"X17" half-sized for ease of scaled hard copies.

- A. Cover Sheet
- B. General Notes & Summary of Quantities Sheet
- C. Existing Survey Sheet
- D. Geotechnical Data Sheet (Boring Log and Hydraulic Conductivity)
- E. Site Plan Sheet: size: 22"x34" (ANSI-D Size), Scale 1" = 20'
 - Water & Sanitary Sewer Plan Sheet
 - Paving Grading and Drainage (PG&D) Plan Sheet
 - Pavement Marking and Signing Plan Sheet
- F. Profile and Cross Section Sheet
- G. Details Sheets:
 - Water, Sanitary Sewer, and PGD details sheet
 - Pedestrian Sidewalk and Ramps (ADA Compliant 12H:1V)
 - Paving Marking and Signs Detail sheet
 - Erosion Control Sheet
 - NOTE: CRJ understands that the Plan Sheets for the Temporary Trailer shall be provided by the Trailer Fabricator and include:
 - Trailer Dimensions and Interior Design
 - Prefabricated Metal Ramp per ADA Standards
 - Prefabricated Metal Stairs
 - Plumbing and Electrical Connections
 - CRJ understands that Coconut Creek shall be responsible for electrical service and meter from Florida Power & Light (FPL)

Proposed Scope of Services

- CRJ understands that existing water and sewer services are owned by Coconut Creek and design standards will need to adhere to City's Engineering Department.

CRJ envisions that there will submit: 90%, 100% and BID SET. CRJ shall hire sub-consultants as needed for:

- Boundary & Parcel Survey, Public Right-of-Way identified, Topographic Conditions, Spot Elevations in NAV88 Vertical Datum, Horizontal Control per NAD83, Underground Utility Survey, Tree Survey, Existing Pavement Markings and all other relevant information for CRJ to conduct our design (See Consultant Fees Table).
- Geotechnical Tests and Reporting; Borings & Percolation Rates for Swales (See Consultant Fees Table). NOTE: the initial reporting conducted by Quest Engineering & Testing, Inc. dated November 18, 2019 was reported as *Preliminary* and conducted for Abaco Engineering, Inc. CRJ shall need the work Finalized and issued to our firm such that we may be able to use the information for design purposes and ultimately as part of the Bid Documents.

B. Civil-Site Construction Specifications: (MasterSpec Format)

CRJ envisions the following, at a minimum, the following Technical Specifications:

- I. 31 10 00 Site Clearing
- II. 31 11 00 Clearing and Grubbing
- III. 31 20 00 Earthwork
- IV. 31 22 00 Site Grading
- V. 31 23 00 Excavation and Backfill
- VI. 31 25 00 Erosion and Sediment Controls
- VII. 31 32 00 Soil Stabilization
- VIII. 32 10 00 Bases and Paving
- IX. 32 11 00 Base Course (Limerock)
- X. 32 12 00 Flexible Pavement
- XI. 32 16 00 Curbs, Gutters, Sidewalks and Driveways (i.e., ADA truncated domes)
- XII. 32 17 00 Paving Specialties (i.e., Pavement Markings, Car Stops, Signage, ADA signage)
- XIII. 33 11 13 Public Water Utility Distribution Piping
- XIV. 33 12 13 Water Service Connections
- XV. 33 12 13.13 Water Supply Backflow Preventer Assemblies
- XVI. 33 12 33 Water Utility Metering
- XVII. 33 13 00 Disinfecting of Water Utility Distribution
- XVIII. 33 31 11 Public Sanitary Sewerage Gravity Piping
- XIX. 33 46 11.23 Stormwater Retention Ponds – Dry Swales

C. Engineer's Cost Estimating for Construction

At the 90%, 100% and BID SET submittals, CRJ shall preform an Engineer's Construction Cost Estimate in a spreadsheet format to be submitted to the Client for review.

Proposed Scope of Services

Task 2: Regulatory Agency Permitting / Comment Responses

A. Permitting and Meetings

Building and Engineering permits are required for this project. Also, with Broward County the wastewater permit (FDEP Construction Permit for Constructing a Domestic Wastewater Collection/Transmission System), the water service (FDEP Public Water Systems) and drainage permit are required. Pre-application meetings will be conducted with the City, County, and drainage District to review the project requirements.

B. Permits understood to be pursued at the time of Writing Scope

1. FDEP/Broward Co. Health Dept. General Permit for Const. of Water Main Extensions for PWSs (Form 62-555.900(7) Alt. Updated 09/08/2015), *water main permitting*
2. FDEP/Broward Co. Health Dept. Cert. of Const. Completion and Request for Clearance PWS into Operation (Form 62-555.900(9) 08/28/2003); *water main placed into service*
3. FDEP/Broward Health Dept Sewer 62-604.300(8)(a); *sanitary sewer permitting*
4. FDEP/Broward Health Dept Sewer Form 62-604.300(8)(b); *sanitary sewer placed into service*
5. FDEP NPDES Notice of Intent (NOI) Generic Permit Stormwater Discharge Large and Small Const. Activities (Form 62-621.300(4)(b) 02/2015) *Stormwater Pollution Prevention Plan*
6. FDEP NPDES Notice of Termination (NOT) Stormwater Discharge Large and Small Const. Activities (Form 62-621.300(6) 02/2015) *Stormwater Pollution Prevention Plan closure*
7. Broward County Environmental Protection and Growth Management Department (BCEPGMD) Surface Water Management License Application (Form 212-0006 Rev 07/2017) *Stormwater*
8. City of Coconut Creek Engineering Permit Application (Revised 11/29/18) *Site Work*
9. ERP General Permit for Small Projects: Self-Certification for "10-2" Permit per FS 403.814(12); conducted on-line for *Stormwater* through:
https://prodenv.dep.state.fl.us/DepEssa/coreenginestart.action?name=dwrm_10_2&Create=new

Task 3: Contract Documents (CDs) and Bid Process

- A. CRJ & Associates, Inc. will assist with the Bid Process (Prepare Final Bid Package CDs)
- B. Provide Professional Assistance with General Contractor's Questions / Bid Addendums
- C. Review of Contractor's Bids and Qualifications
- D. Recommendation to Client of Contractor's Bids

Task 4: Construction Management Services (3 Month Period - 90 calendar days)

CRJ envisions the following, at a minimum, the following effort for Construction Management Services for a potential ninety calendar day effort (i.e., 3 Month Period for roughly 90 Calendar Days)

- A. Pre-Construction Meeting
- B. Shop Drawing Review(s)
- C. Limited Construction Management / Oversight (i.e., not full-time services)
- D. RFI's and Potential Change Orders
- E. Substantial Completion Punch-List
- F. As-Built Review(s)
 1. Limerock and Drainage As-Built
 2. Final Pavement Surface As-Built
 3. Final Project As-Built for Stormwater License Permit close-out
 4. Final Project As-Built for Water and Sewer Close-Out

Proposed Scope of Services

Project Schedule

CRJ & Associates, Inc. shall commence this project in accordance with the project schedule provided by the Client. Once the official Notice-to-Proceed (NTP) is issued, CRJ will commence with our professional services for the Civil-Site components of the Project. Services **not** included in the scope of work are as follows:

- **Permitting Fees. Said fees shall be paid by the Client.**
- **CRJ shall not design the electrical system nor be working with Florida Power & Light (FPL); our firm understands that such efforts will be handled directly by the City**
- **Permitting Efforts with Broward County Traffic Engineering Division (BCTED) whereas the facility has been deemed temporary and the Site Plan does not demonstrate modifications to Wiles Road nor the Existing Paved Driveway associated with The Home Depot.**
- **Design of the Temporary Fire Station Trailer, 35' X 40' Canopy, and 20' X 20' Shed; CRJ understands that such facilities shall be designed by third party vendors working directly for the City and providing said facilities. CRJ will allow for placement of such facilities within our plans as *Designed & Permitted by Others*.**

Project Fees

Task	Description	FEES (Lump Sum)
1	Engineering Plans & Construction Documents Preparation	\$37,800.00
2	Regulatory Agency Permitting / Comment Responses	\$11,200.00
3	Contract Documents (CDs) and Bid Process	\$4,400.00
4	Construction Management Services	\$7,500.00
	Professional Survey (Sub-Consultant)	\$5,000.00
	Professional Geotechnical Engineering (Sub-Consultant)	\$3,500.00
	Printing Reproduction	\$750.00
	TOTAL Civil-Site Lump Sum Fees	\$70,150.00

Attachment A – Sheet SP-1; Site Plan; Temporary Fire Station
Attachment B – Broward County Property Appraiser’s Mapping
Attachment C – FEMA Mapping 12011C0165H
Attachment D – Preliminary ‘Stick Diagram’ of Water & Sewer
Attachment E – Negotiated Fee Schedule (Exhibit A) as provided by COCONUT CREEK

Proposed Scope of Services

ACCEPTANCE OF PROPOSAL

ACCEPTED BY:

Legal Name of Client: _____.

Authorizing Associate: _____ date: _____
Print Name

Authorizing Associate: _____ date: _____
Signature

BY:

CRJ & ASSOCIATES, INC.



Marc A. Fermanian, MSCE, P.E. – President
Florida Professional Lic. Eng. (FL Lic. No. 52626)

****It is CRJ's policy that, to initiate work, we must have a signed and dated authorization by an Associate of CLIENT on the ACCEPTANCE portion of this Proposal returned to our office. Work will begin once the Proposal is reviewed and the ACCEPTANCE portion of this Proposal is signed and dated by CLIENT, and forwarded to CRJ via overnight-mail, PDF e-mail, and/ or fax. The date of execution of the ACCEPTANCE will service as the Notice-To-Proceed (NTP) with Work. Work shall not commence on a verbal basis.*

CONSULTANT FEES

Prepared for: **COCONUT CREEK**
Scope and Budget Proposal for Temporary Fire Station No. 113

CITY OF COCONUT CREEK

PROJECT LOCATION:
PROJECT NUMBER:
CRJ Consulting Fee Estimate for Civil Engineering Services
10/26/2020 12:30
CRJ & Associates, Inc.

Broward County / Coconut Creek	
CRJ Proj. No. CNK-3001 (RFQ No. 03-25-20-02)	
\$	70,150.00

LABOR ESTIMATE								
Description	Principal \$215.00	Proj. Manager \$160.00	Project Engineer \$135.00	Technician \$95.00	Field Inspector \$100.00	Clerical \$75.00	Total Hours	Total Cost
Task1: Engineering Plans & Construction Documents Preparation								\$ 37,800.00
Task 1. A. Civil-Site Construction Drawings w/ Geotechnical and Survey (Items A thru G) 90%	0	10	40	40	0	0	90	\$ 10,800.00
Task 1. A. Civil-Site Construction Drawings w/ Geotechnical and Survey (Items A thru G) 100%	0	10	20	40	0	0	70	\$ 8,100.00
Task 1. A. Civil-Site Construction Drawings w/ Geotechnical and Survey (Items A thru G) BID SET	0	10	10	20	0	0	40	\$ 4,850.00
Task 1. B. Civil-Site Construction Specifications: (MasterSpec Format) 100%	0	10	10	20	0	0	40	\$ 4,850.00
Task 1. B. Civil-Site Construction Specifications: (MasterSpec Format) BID SET	0	10	10	20	0	0	40	\$ 4,850.00
Task 1. C. Engineer's Cost Estimating for Construction 90%	0	0	16	0	0	0	16	\$ 2,160.00
Task 1. C. Engineer's Cost Estimating for Construction 100%	0	0	8	0	0	0	8	\$ 1,080.00
Task 1. C. Engineer's Cost Estimating for Construction BID SET	0	0	8	0	0	0	8	\$ 1,080.00
sub-total	0	50	122	140	0	0	312	\$ 37,770.00
Task 2: Regulatory Agency Permitting / Comment Responses								\$ 11,200.00
Task 2.A. Permitting and Meetings	0	0	8	2	0	0	10	\$ 1,270.00
Task 2.B.1 Water Main Permitting FDEP / Broward Co. Health Dept. Form 62-555.900(7)	0	0	8	2	0	0	10	\$ 1,270.00
Task 2.B.2 Water Main Placed into Service FDEP / Broward Co. Health Dept. Form 62-555.900(9)	0	0	8	2	0	0	10	\$ 1,270.00
Task 2.B.3 Sanitary Sewer Permitting FDEP/Broward Health Dept Sewer 62-604.300(8)(a)	0	0	8	2	0	0	10	\$ 1,270.00
Task 2.B.4 Sanitary Sewer Placed into Service FDEP/Broward Health Dept Sewer 62-604.300(8)(b)	0	0	8	2	0	0	10	\$ 1,270.00
Task 2.B.5 FDEP NPDES Notice of Intent (NOI) Form 62-621.300(4)(b)	0	0	4	0	0	0	4	\$ 540.00
Task 2.B.6 FDEP Notice of Termination (NOT) Form 62-621.300(4)(6)	0	0	4	0	0	0	4	\$ 540.00
Task 2.B.7 BCEPT Surface Water Management License Application (Form 212-0006 Rev 07/2017)	0	0	8	2	0	0	10	\$ 1,270.00
Task 2.B.8 City of Coconut Creek Engineering Permit Application (Revised 11/29/18)	0	0	8	2	0	0	10	\$ 1,270.00
Task 2.B.9 FDEP ERP General Permit for Small Projects: Self-Certification for "10-2" Permit per FS 403.814(12);	0	0	8	2	0	0	10	\$ 1,270.00
sub-total	0	0	72	16	0	0	88	\$ 11,240.00
Task 3: Contract Documents (CDs) and Bid Process								\$ 4,400.00
Task 3.A Bid Process (Prepare Final Bid Package CDs)	0	2	4	8	0	0	14	\$ 1,620.00
Task 3.B General Contractor's Questions / Bid Addendums	0	2	2	4	0	0	8	\$ 970.00
Task 3.C Review of Contractor's Bids and Qualifications	0	2	2	4	0	0	8	\$ 970.00
Task 3.D Recommendation to Client of Contractor's Bids	0	2	4	0	0	0	6	\$ 860.00
sub-total	0	8	12	16	0	0	36	\$ 4,420.00
Task 4: Construction Management Services (3 Month Period - 90 calendar days)								\$ 7,500.00
Task 4.A. Pre-Construction Meeting	0	0	2	0	0	0	2	\$ 270.00
Task 4.B Shop Drawing Review	0	0	12	0	0	0	12	\$ 1,620.00
Task 4.C Limited Construction Management / Oversight	0	0	0	0	40	0	0	\$ 4,000.00
Task 4.D RFI's and Potential Change Orders	0	0	4	0	0	0	4	\$ 540.00
Task 4.E Substantial Completion Punch-List	0	0	4	0	0	0	4	\$ 540.00
Task 4.F As-Built Review(s)	0	0	4	0	0	0	4	\$ 540.00
sub-total	0	0	26	0	40	0	26	\$ 7,510.00
TOTAL HOURS	0	58	232	172	40	0	462	
TOTAL LABOR COST	\$0.00	\$9,280.00	\$31,320.00	\$16,340.00	\$4,000.00	\$0.00		\$ 60,900.00

TOTAL LABOR COST	\$ 60,900.00
Professional Survey: Boundary, Topographical, Underground Utility Survey (Sub-Consultant)	\$ 5,000.00
Professional Geotechnical Engineering Field Testing: Borings and Percolation Rates for Swales (Sub-Consultant)	\$ 3,500.00
PRINTING / REPRODUCTION	\$ 750.00
LABOR COST + PRINTING / REPRODUCTION	\$ 70,150.00
PROJECT TOTAL LUMP-SUM NOT-TO-EXCEED FEES:	\$70,150.00



Attachment A – Sheet SP-1; Site Plan; Temporary Fire Station

**TEMPORARY FIRE STATION
THE CITY OF COCONUT CREEK
WILES ROAD
COCONUT CREEK, FLORIDA 33333**

DRAWN BY: KE/BH
CHECKED BY: JJ
DATE: 06/08/2020
REVISIONS:

- ▲
- ▲
- ▲
- ▲
- ▲

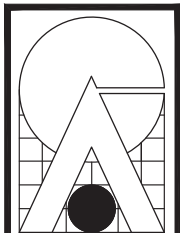
1924

SHEET

SP-1

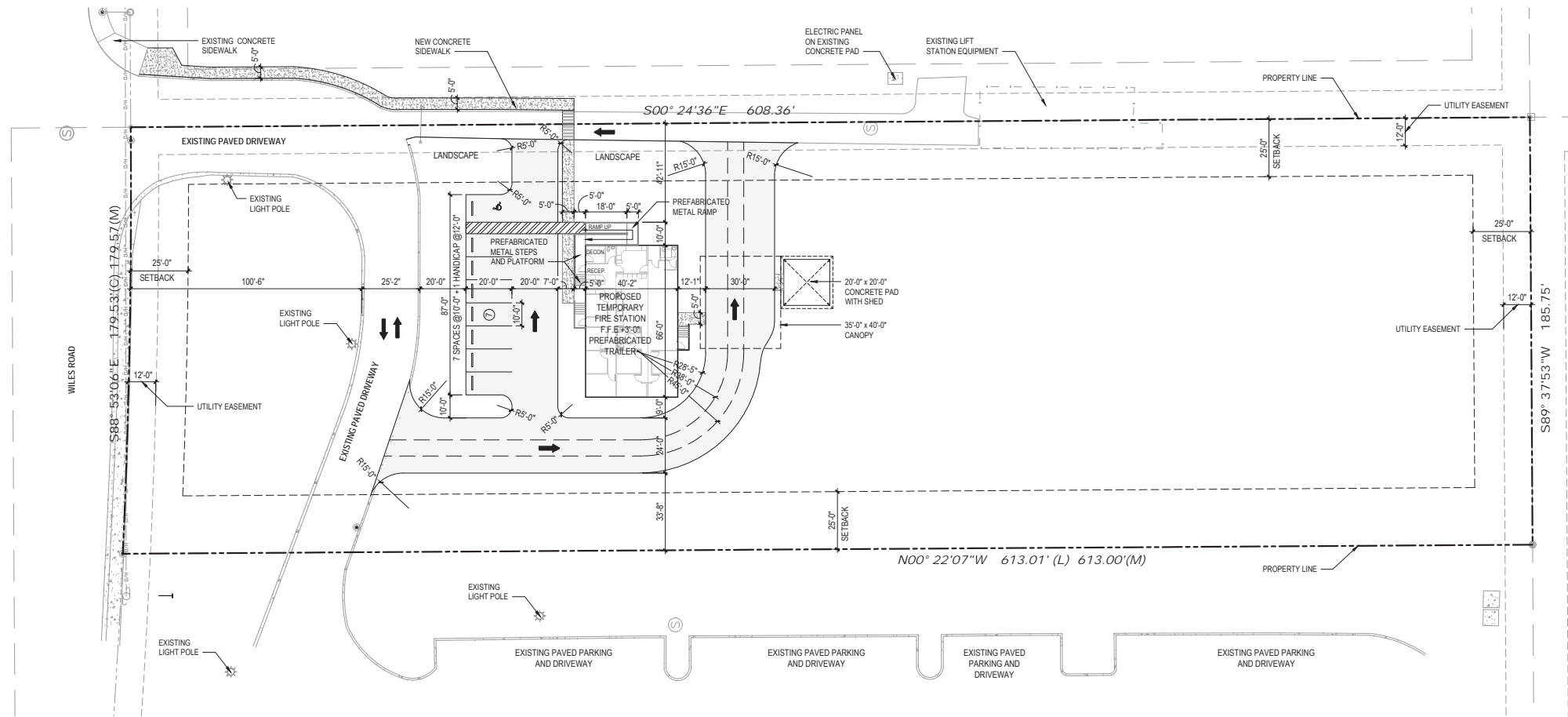
SHEET TITLE
SITE PLAN

SITE PLAN REVISION - 06/03/2020



**CARTAYA &
ASSOCIATES
ARCHITECTS P.A.**

2400 E. COMMERCIAL BLVD. SUITE 415
FT. LAUDERDALE, FLORIDA 33308
771-2724 FAX 776-4280



SITE PLAN
SCALE: 1" = 30'-0"

SITE DATA

LEGAL DESCRIPTION:

A PORTION OF PARCEL "A" MCJAMES PLAT NO. 1, ACCORDING TO THE PLAT THEREOF, RECORDED IN PLAT BOOK 147, PAGE 18, OF THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA, DESCRIBED AS FOLLOWS.

BEGIN AT THE NORTHEAST CORNER OF SAID PARCEL "A"; THENCE ALONG THE BOUNDARY OF PARCEL "A" FOR THE FOLLOWING (2) COURSES: (1) SOUTH 00°24'36" EAST, 698.36 FEET; (2) SOUTH 89°37'53" WEST, 185.75 FEET; THENCE NORTH 00°22'07" WEST, 613.01 FEET TO THE NORTH BOUNDARY OF SAID PARCEL "A" AND A POINT ON A 3487.00 FOOT RADIUS NOW TANGENT CURVE TO THE NORTH WHOSE RADIUS POINT BEARS NORTH 02°35'55" EAST; THENCE EASTERLY ALONG SAID BOUNDARY AND SAID CURVE THROUGH A CENTRAL ANGLE OF 02°58'02" AN ARC DISTANCE OF 179.54 FEET TO A POINT OF TANGENCY; THENCE CONTINUE ALONG SAID NORTH BOUNDARY, NORTH 89°37'53" EAST 5.85 FEET TO THE POINT OF BEGINNING.

<u>CURRENT ZONING:</u>	PLANNED COMMERCE DISTRICT (PCD)
<u>CURRENT LAND USE:</u>	REGIONAL ACTIVITY CENTER (RAC)
<u>PROPOSED USE:</u>	TEMPORARY FIRE STATION

<u>SITE AREAS:</u>	
GROSS SITE AREA	= 113,290 SQ. FT. (100% OF SITE AREA)
TOTAL BUILDING AREA @ GROUND	= 2,651 SQ. FT.
TOTAL SIDEWALK AREA	= 513 SQ. FT.
TOTAL PAVEMENT AREA	= 14,513 SQ. FT. (12.81% OF SITE AREA)
TOTAL GREEN AREA	= 98,777 SQ. FT. (87.19% OF SITE AREA)

<u>BUILDING DATA:</u>	
TOTAL BUILDING AREA	= 2,651 SQ. FT.
1 - STORY TYPE () CONSTRUCTION OCCUPANCY:	GROUP "B" CLASSIFICATION
PROPOSED BUILDING HEIGHT: (TOP OF ROOF)	14'-0"
SETBACKS	SHOWN:
FRONT	25'-0"
SIDE	25'-0"
REAR	25'-0"

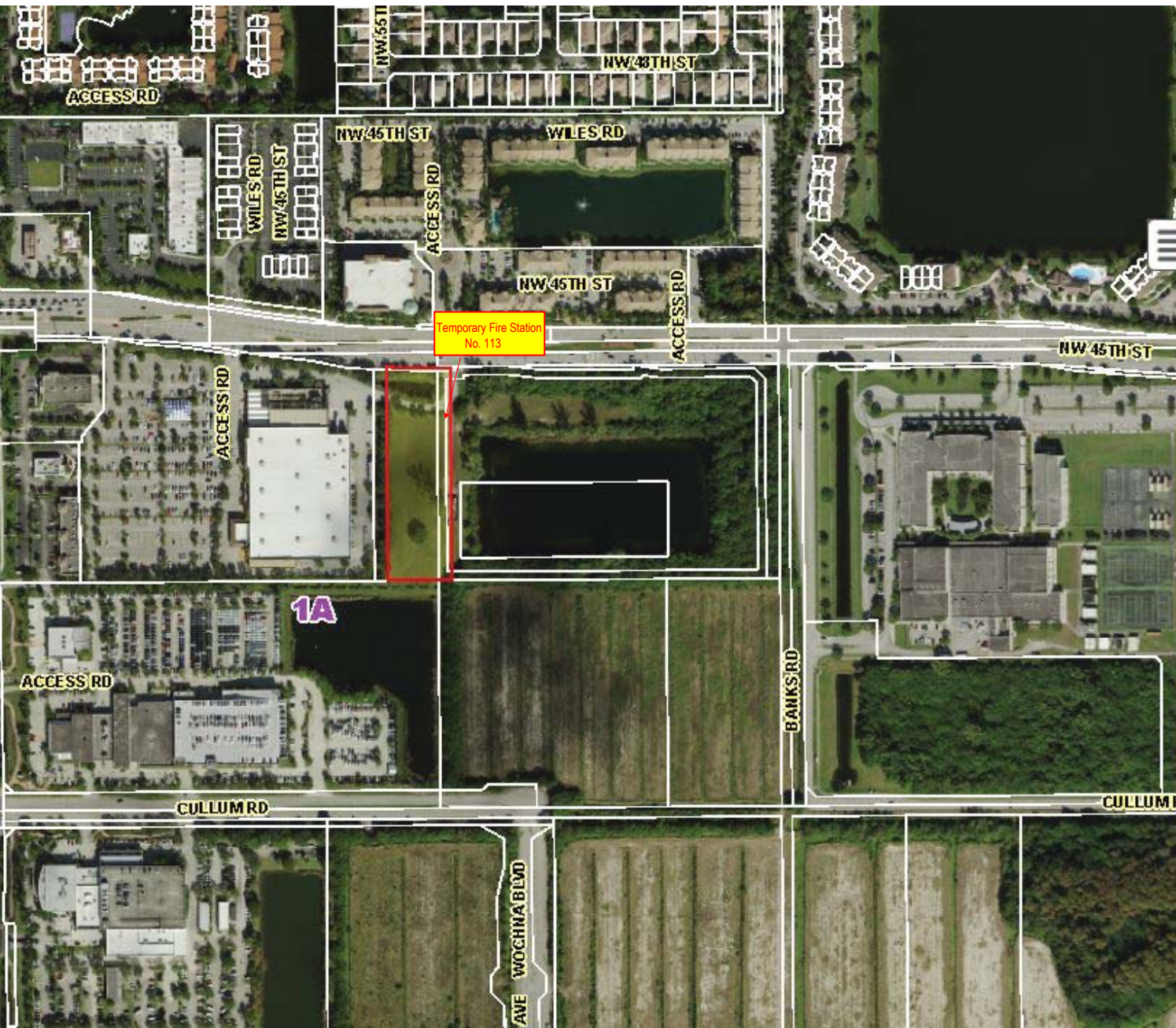
<u>AREA / PARKING CALCULATIONS</u>	
TEMPORARY FIRE STATION	= 1,797 SQ. FT. = 6 SPACES REQUIRED
1 CAR / 300 SQ. FT.	
	<u>REQUIRED SPACES</u> <u>PROPOSED SPACES</u>
TYPICAL SPACES	6 7
HANDICAP SPACES	1 FOR 1-25 1
TOTAL SPACES	7 8

LEGEND

	NUMBER OF PARKING SPACES
	DISABLED PARKING
	VEHICULAR TRAFFIC
	STRIPPED CONCRETE
	CONCRETE PAVING
	NEW ASPHALT



Attachment B – Broward County Property Appraiser’s Mapping



Parcel Information

Folio Number: [484218040040](#)

Owner: CITY OF COCONUT CREEK

Situs Address: WILES RD COCONUT CREEK FL 33073

Legal: MC JAMES PLAT NO.1 147-18 B PART OF PARCEL A DESC'D AS,BEG AT NE COR OF PARCEL A,S 608.36, W 185.75,N 613.01 TO N/L PARCEL A,ELY 179.54,ELY 5.85 TO POB AKA:

Millage Code: 3212

Use Code: 80

Land Value: \$ 1,159,760

Building Value: 0

Other Value: 0

Total Value: \$ 1,159,760

SOH Capped Value: \$ 1,091,830

Homestead Exempt. Amt: \$ 0

WVD Exempt. Amt: \$ 0

Other Exempt. Amt: \$ 1,091,830

Taxable Value: \$ 0

Sale Date 1: 05/19/2005

Sale Price 1: \$ 4,788,300

Deed Type 1: WD*

Sale Date 2: 02/09/2000



Attachment C – FEMA Mapping 12011C0165H

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **Floodway Data** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded tenth-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations (CBFEs) shown on this map apply only landward of 0.0 North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were compiled at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in preparation of this map was Transverse Mercator State Plane Florida East FIPS 0901. The **horizontal datum** was NAD83 HARN, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, NNGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242 or visit its website at <http://www.ngs.noaa.gov/>.

Base map information shown on this FIRM was provided in digital format by Broward County. The original orthophotographic base imagery was provided in color with a one-foot pixel resolution at a scale of 1" = 300' from photography flown in 2008.

This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Accredited Levee Notes to Users: Check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection for areas on this panel. To mitigate flood risk in residential risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance interested parties should visit the FEMA website at <http://www.fema.gov/national-flood-insurance-program>.

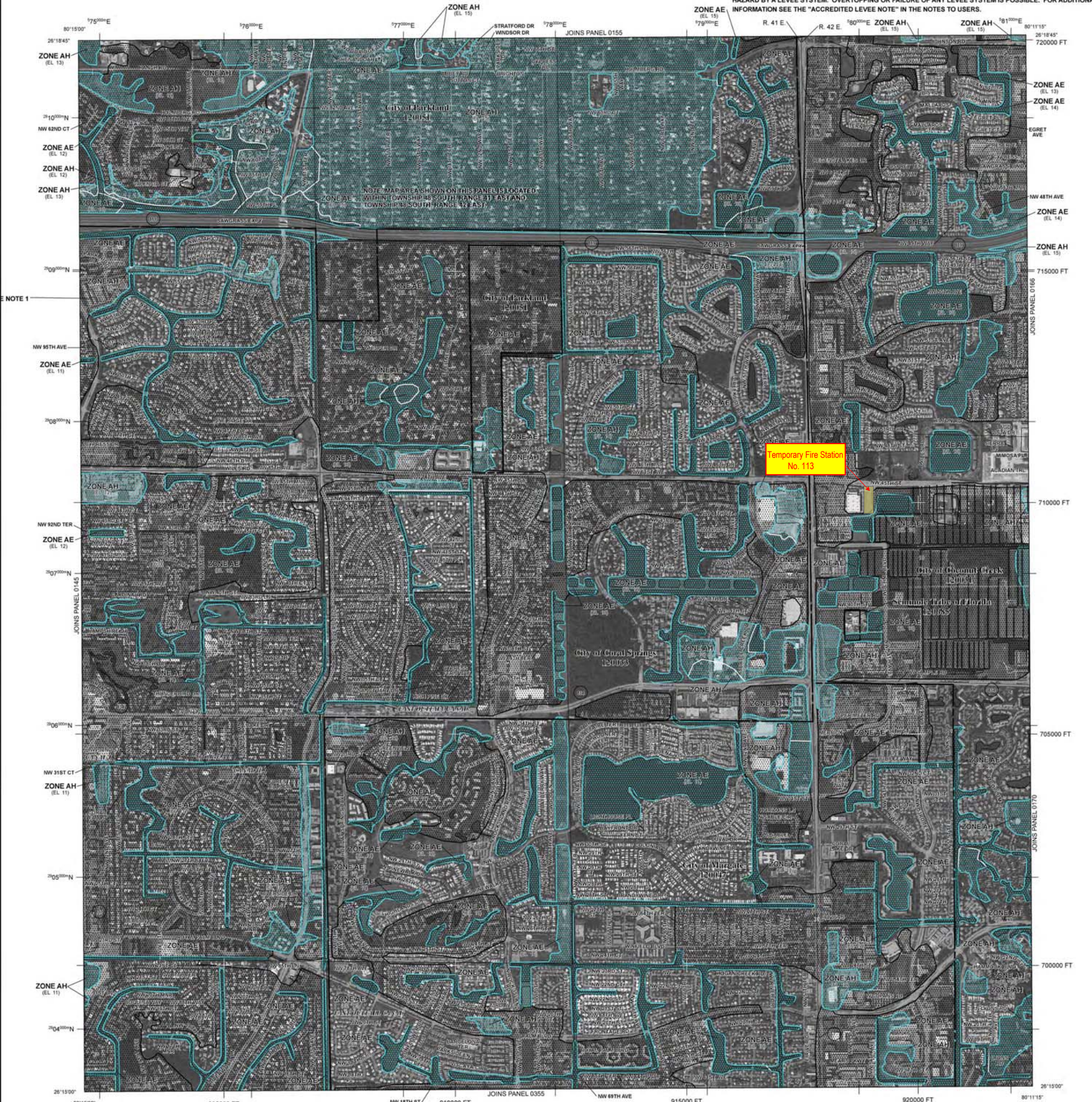
Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products, or the National Flood Insurance Program in general, please call the **FEMA Map Information eXchange** at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Map Service Center website at <http://msc.fema.gov/>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the FEMA Map Service Center website or by calling the FEMA Map Information eXchange.

The "profile base lines" depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the profile base line, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

NOTE 1: THIS AREA IS SHOWN AS BEING PROTECTED FROM THE 1-PERCENT-ANNUAL-CHANCE OR GREATER FLOOD HAZARD BY A LEVEE SYSTEM. OVERTOPPING OR FAILURE OF ANY LEVEE SYSTEM IS POSSIBLE. FOR ADDITIONAL INFORMATION SEE THE "ACCREDITED LEVEE NOTE" IN THE NOTES TO USERS.



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Areas to be protected from 1% annual chance flood event by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities
- Base Flood Elevation line and value; elevation in feet*
- Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (EL 987)

- Cross section line
- Transsect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 1000-meter Universal Transverse Mercator grid ticks, zone 17
- 5000-foot grid values: Florida State Plane coordinate system, East Zone (FPSZONE = 0901), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIS panel)
- M1.5 River Mile

MAP REPOSITORIES
Refer to Map Repositories List on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
August 18, 2014

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0165H

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

PANEL 165 OF 751
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
COCONUT CREEK, CITY OF	130031	0165	H
CORAL SPRINGS, CITY OF	130033	0165	H
MARGATE, CITY OF	130047	0165	H
HAWLANDE, CITY OF	130051	0165	H
SEMIWOLE TRIBE OF FLORIDA	130085	0165	H

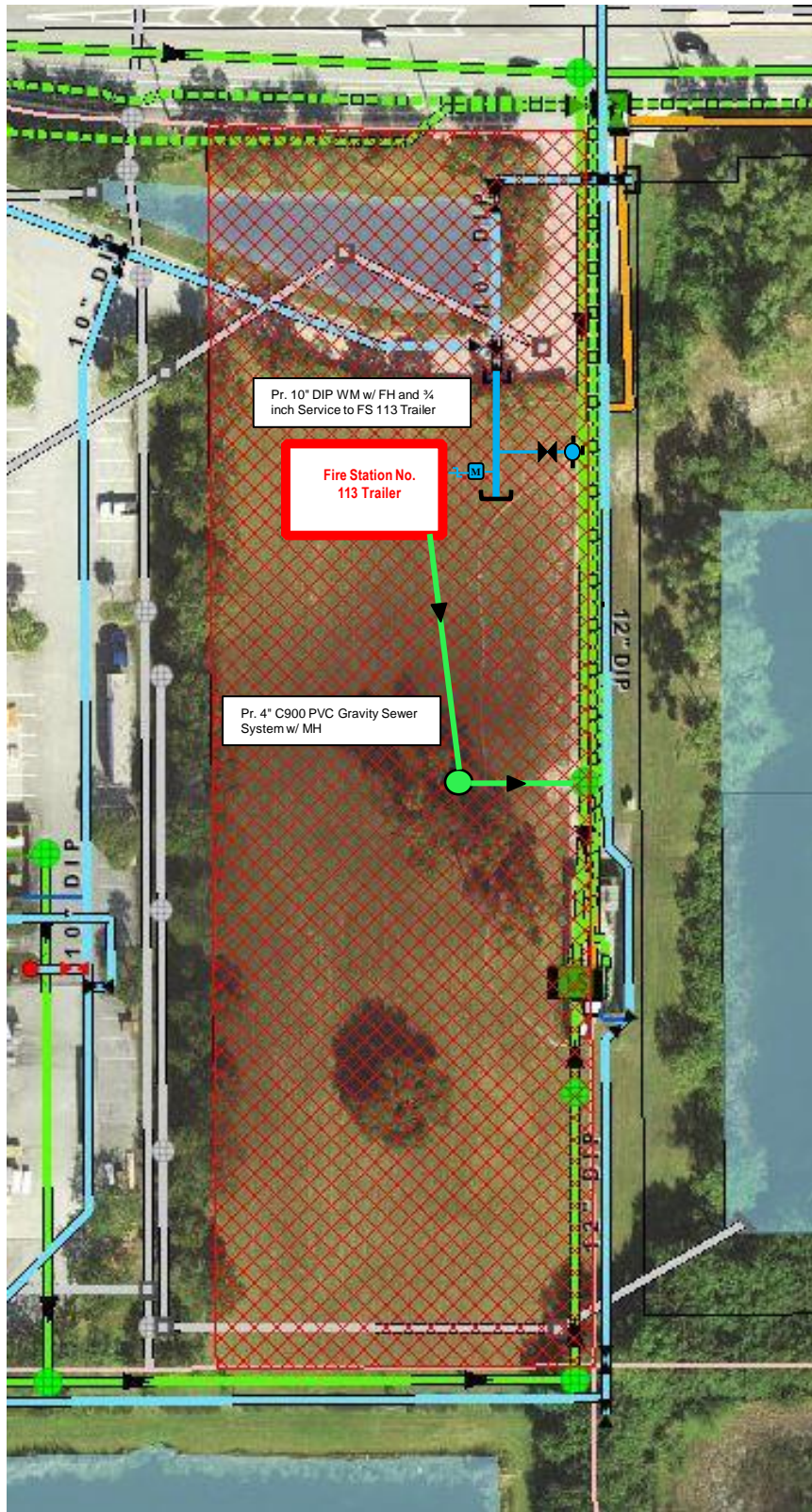
MAP NUMBER
12011C0165H

EFFECTIVE DATE
AUGUST 18, 2014










Federal Emergency Management Agency



Attachment D – Preliminary ‘Stick Diagram’ of Water & Sewer



Sheet Legend

-  FS 113 Parcel ID 4842-18-04-0040
-  Ex. Gravity Sewer Line with Flow Direction
-  Ex. Gravity Sewer MH
-  Ex. Water Line With Valve and Cap
-  Ex. Drainage System with Inlet
-  Pr. Fire Hydrant Assembly 6-in DIP
-  Pr. 3/4 inch Water Meter with RPZ
-  Pr. Gravity Sewer MH
-  Pr. 4-in Gravity Sewer with Flow Direction

2 – (08/09/2016) Coconut Creek City Fire Station No. 113 – Conceptual Layout of Proposed Utilities based on Information from City’s ARC GIS System of existing (1) Water (2) Sewer and (3) Drainage



Attachment E – Negotiated Fee Schedule (Exhibit A)
Information provided by the CITY OF COCONUTE CREEK

EXHIBIT "A"
NEGOTIATED FEE SCHEDULE

These positions / titles are common throughout the profession. Firms using a different nomenclature for the listed positions, but similar in responsibility, shall use those listed below for the purposes of providing hourly rates.

Position / Title	Hourly Rate
Principal (PE registered)	\$215.00 / per hour
Senior Engineer (PE registered)	\$180.00 / per hour
Land Surveyor (PLS registered)	\$160.00 / per hour
Landscape Architect (State Registered)	\$160.00 / per hour
Project Manager	\$160.00 / per hour
Engineer	\$135.00 / per hour
Environmental Scientist	\$140.00 / per hour
Planner	\$135.00 / per hour
Senior Planner	\$180.00 / per hour
Technician	\$ 95.00 / per hour
Drafter/GIS	\$115.00 / per hour
Field Inspector	\$100.00 / per hour
Staff Assistant	\$ 75.00 / per hour