

BOB GRAHAM OFFICE BUILDING

TOWN OF MIAMI LAKES, FLORIDA SEC. 22, TWP. 52, RGE. 40

CIVIL PLANS

NOVEMBER, 2016

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* NOT PART OF M-DWASD APPROVAL

LEGAL DESCRIPTION: (PARENT TRACT & CUT-OUT PARCEL)

A PORTION OF TRACT "A," ACCORDING TO THE PLAT OF "MIAMI LAKES OFFICE PARK SECTION ONE," AS RECORDED IN PLAT BOOK 125 AT PAGE 56; TOGETHER WITH A PORTION OF TRACTS 22 AND 23 IN THE NORTHEAST 1/4 OF SECTION 22, TOWNSHIP 52 SOUTH, RANGE 40 EAST, "CHAMBERS LAND COMPANY SUBDIVISION," AS RECORDED IN PLAT BOOK 2 AT PAGE 68, BOTH OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA, ALL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE MOST EASTERLY CORNER OF SAID TRACT "A," AS SHOWN ON THE SAID PLAT OF "MIAMI LAKES OFFICE PARK SECTION ONE;" THENCE SOUTH 00 DEGREES 07 MINUTES 01 SECONDS WEST, ALONG THE WEST RIGHT-OF-WAY LINE OF INDUSTRIAL WAY (COMMERCE WAY), AS SHOWN ON THE PLAT OF "MIAMI LAKES INDUSTRIAL PARK SECTION NINE," AS RECORDED IN PLAT BOOK 117 AT PAGE 76, OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA, FOR 194.26 FEET TO THE POINT OF CURVATURE OF A CIRCULAR CURVE CONCAVE TO THE NORTHWEST; THENCE RUN SOUTHERLY AND WESTERLY ALONG THE ARC OF A CIRCULAR CURVE TO THE RIGHT, HAVING A RADIUS OF 15.00 FEET AND A CENTRAL ANGLE OF 89 DEGREES 52 MINUTES 59 SECONDS, FOR AN ARC DISTANCE OF 234.33 FEET TO A POINT OF TANGENCY; THENCE WEST FOR 307.37 FEET; THENCE NORTH 63 DEGREES 22 MINUTES 29 SECONDS WEST FOR 355.60 FEET; THENCE NORTH 26 DEGREES 37 MINUTES 31 SECONDS EAST, AT RIGHT ANGLES TO THE LAST AND NEXT DESCRIBED COURSES, FOR 18.00 FEET; THENCE NORTH 63 DEGREES 22 MINUTES 29 SECONDS WEST FOR 158.04 FEET; THENCE NORTH 00 DEGREES 07 MINUTES 01 SECONDS EAST FOR 147.53 FEET; THENCE SOUTH 89 DEGREES 52 MINUTES 59 SECONDS EAST FOR 228.58 FEET TO A POINT OF CURVATURE OF A CIRCULAR CURVE CONCAVE TO THE NORTHWEST; THENCE RUN EASTERLY AND NORTHEASTERLY ALONG THE ARC OF A CIRCULAR CURVE TO THE LEFT, HAVING A RADIUS OF 250.00 FEET AND A CENTRAL ANGLE OF 49 DEGREES 03 MINUTES 47 SECONDS FOR AN ARC DISTANCE OF 214.08 FEET TO A POINT OF TANGENCY; THENCE NORTH 41 DEGREES 03 MINUTES 14 SECONDS EAST FOR 233.66 FEET TO A POINT ON THE NEXT DESCRIBED CIRCULAR CURVE, SAID POINT BEARS NORTH 41 DEGREES 03 MINUTES 14 SECONDS EAST FROM THE RADIUS POINT OF THE FOLLOWING DESCRIBED CIRCULAR CURVE CONCAVE TO THE SOUTHWEST; SAID LAST THREE DESCRIBED COURSES BEING ALONG THE CENTERLINE OF A 58.00 FOOT WIDE INGRESS-EGRESS EASEMENT AS RECORDED IN OFFICIAL RECORDS BOOK 27060 AT PAGE 2827 AND OFFICIAL RECORDS BOOK 13809 AT PAGE 3459, BOTH OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA; THENCE SOUTHEASTERLY, SOUTHERLY AND SOUTHWESTERLY ALONG THE ARC OF A CIRCULAR CURVE TO THE RIGHT, HAVING A RADIUS OF 580.00 FEET AND A CENTRAL ANGLE OF 49 DEGREES 03 MINUTES 47 SECONDS FOR AN ARC DISTANCE OF 505.22 FEET TO THE POINT OF BEGINNING; SAID LAST DESCRIBED COURSE BEING ALONG THE WEST RIGHT-OF-WAY LINE OF THE AFORESAID INDUSTRIAL WAY (COMMERCE WAY), ALL LYING AND BEING IN THE NORTHEAST 1/4 OF SECTION 22, TOWNSHIP 52 SOUTH, RANGE 40 EAST, TOWN OF MIAMI LAKES, MIAMI-DADE COUNTY, FLORIDA.

NOT PART OF M-DWASD NOTES NOR APPROVAL

FLOOD CRITERIA NOTES

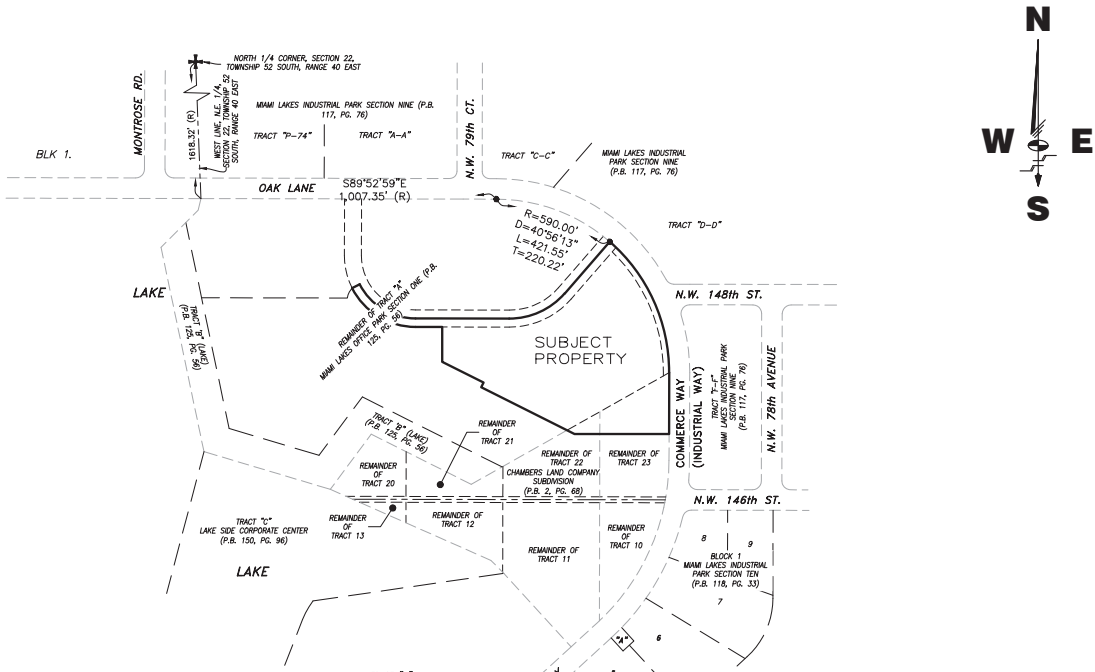
(NOT A PART OF M-DWASD NOTES NOR APPROVAL)

1. MIAMI-DADE COUNTY FLOOD CRITERIA = 6.60' N.G.V.D.

2. FEMA FLOOD ELEVATION = FLOOD ZONE AE 6.0 PER COMMUNITY PANEL NO. 1206860112L MAP DATED ON 9/11/2009.

3. MIAMI-DADE COUNTY OCT. W.T. = 3.40' N.G.V.D.

Always call 811 two full business days before you dig



LOCATION SKETCH

1" = 300'

prepared by

SCHWEBKE-SHISKIN & ASSOCIATES, INC.

3240 CORPORATE WAY, MIRAMAR, FL. 33025

LAND PLANNERS - ENGINEERS - LAND SURVEYORS (LB & CA#87)

TEL: (305)652-7010

FAX: (305)652-8284



THIS SHEET HAS BEEN ELECTRONICALLY SIGNED & SEALED ON 11/07/2016 BY HERNANDO J. NAVA, P.E. USING A DIGITAL SIGNATURE

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- ALL MATERIALS AND LABOR UNDER THIS PROJECT SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE MIAMI-DADE WATER AND SEWER DEPARTMENT AND SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS AVAILABLE AND IN USE WITH THE DEPARTMENT, USING JOINTING FOR ALL MATERIALS.
- CONCRETE WATER OR SEWER FORCE MAINS SHALL BE 4'-0" DIA.
- ALL MAIN LINE VALVES SHALL BE INSTALLED COMPLETE WITH 10" RIGID PIPES AND NO. 3 OR 52 VALVE BOXES FIRE HYDRANTS AND SERVICE VALVES SHALL BE INSTALLED COMPLETE WITH 6" RIGID PIPES AND NO. 2 VALVE BOXES.
- ALL FORCE MAIN SERVICE CONNECTIONS INTO PRESSURE TRANSMISSION MAINS SHALL HAVE A SHUT OFF VALVE AND CHECK VALVE AT THE POINT OF ENTRY.
- ALL GRADY SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DEPARTMENT STANDARDS.
- ALL WATER METERS WILL BE INSTALLED BY THE MIAMI-DADE WATER AND SEWER DEPARTMENT, PROVIDING THE APPROPRIATE CHARGES HAVE BEEN PREPAID.
- FIRE HYDRANT REQUIREMENTS (NUMBER AND LOCATION) SHALL BE AS REQUIRED BY MIAMI-DADE COUNTY FIRE DEPARTMENT FOR THE APPROPRIATE FIRE ACTIVITY WITH INSTALLATION IN ACCORDANCE WITH DEPARTMENT STANDARDS.
- CONTRACTOR MUST CALL MIMASD INSPECTION DIVISION TO ARRANGE FOR A PRECONSTRUCTION MEETING 2 FULL BUSINESS DAYS PRIOR TO PROPOSED START OF CONSTRUCTION. CONTACT ONE CALL CENTER 48 HRS PRIOR TO EXCAVATION.
- CONTRACT INSPECTOR WILL INSPECT ANY FACILITIES APPROVED BY THE DEPARTMENT. ALL OTHER REQUIREMENTS OF THE PERMITTING AGENCY SHALL BE IN ACCORDANCE WITH THEIR STANDARDS AND REQUIREMENTS.
- WORK PERFORMED UNDER THIS PROJECT WILL NOT BE CONSIDERED AS COMPLETE UNTIL FINAL ACCEPTANCE OF THE PROJECT BY THE DEPARTMENT AND ONLY THE FOLLOWING DOCUMENTS SHALL BE REVIEWED AND APPROVED BY THE DEPARTMENT:
 - EXHIBITS, IF REQUIRED;
 - CONTRACTOR'S WAIVER AND RELEASE OF LIEN;
 - IMMEDIATE BILL OF SALE;
 - CONTRACTOR'S LETTER OF WARRANTY (S.E. LETTER AGREEMENT);
 - DEVELOPER'S CONTRACT BOND (S.E. CONTRACT AGREEMENT);
 - "RECORD DRAWING" PRINTS (S.E. JOINTING SYSTEMS, LOCATION, DETAIL, ETC. OF ALL WATER AND SEWER FACILITIES AS LOCATED BY A LICENSED SURVEYOR & WATER, ALONG WITH PRINTS OF "RECORD DRAWING" WHICH HAVE BEEN ISSUED AND SEALED BY A LICENSED SURVEYOR & WATER, (S.E. OF PRINTS) 1-1/2" WATER & 1-1/2" GRADY CENTER AND 1-1/2" FOR FORCE MAIN OR PLANT STATION PROJECTS) (Submit all final CAD files required)
 - ALL LETTERS OF REQUEST REQUIRED FOR ALL WATER PROJECTS;
 - BILL OF SALE (S.E. 10% 1/2) FOR WATER AND SEWER, SEPARATELY.
- ALL NEW CONSTRUCTION (S.E. CONTRACT AGREEMENT) SHALL BE AS SHOWN ON RECORDED PLANS THAT THE CONTRACTOR TO EXCAVATE AS REQUIRED (LOCATION, PROFILE AND INITIAL MATERIAL WITH FINISHES PRIOR TO ALL APPROVALS OF WATER AND SEWER PERMIT PLANS, UPON REQUEST.
- UNLESS OTHERWISE SPECIFIED, ALL TAPS 20 INCHES AND SMALLER FOR CONNECTIONS TO EXISTING MAINS WILL BE DONE BY BENDMASTER CURVES. OTHER AS CONSIDERED WILL BE THE CONTRACTOR'S BE RESPONSIBLE TO THE EXISTING MAINS IN THE SIZE RANGE SPECIFIED ABOVE. THE TAPPING, SLEEVING AND BENDING SHALL BE APPROVED AND INSPECTED BY THE CONTRACTOR UNDER THE SUPERVISION OF THE INSPECTOR.

ITEM	CROSS SECTION	SHEET
STANDARD REQUIREMENTS	GS	1 OF 2
WATER AND SEWER CONSTRUCTION	0.5	2

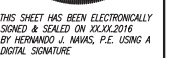
- AT THE COMPLETION OF ANY WATER AND SEWER JOB EITHER DONATION OR CONTRACT, THE CONTRACTOR SHALL SUBMIT:
 - RECORD DRAWING PRINTS WHICH HAVE BEEN SIGNED AND SEALED BY A FLORIDA LICENSED PROFESSIONAL SURVEYOR AND MAPPER (S.E. OF PRINTS AS REQUIRED BY THE DEPARTMENT).
- "RECORD DRAWING" FORMAT:
 - 24" x 36" PRINTS
 - FOR ALL
 - CAD FILE (DWG OR DWT) ROTATED AND TRANSLATED TO STATE PLANE COORDINATES AND AS FLORIDA EAST ZONE
 - THE WORDS "RECORD DRAWING" IN LARGE LETTERS
 - TITLE BLOCK WITH DEPARTMENT LOGO OR EX NUMBER AND PERMIT INFORMATION
 - PREFERRED SCALE TO BE 1" = 40' HORIZONTALLY AND 1" = 4' VERTICALLY
 - STREET NAME/ADDRESS
 - SEPARATE RECORD DRAWINGS FOR WATER AND SEWER
 - SEPARATE WATER AND SEWER PROFILE
 - DRAWING SHOWN WITH GRID OR PERMANENT REFERENCE POINT (S.E. 6, 6, ETC.) OR AS SHOWN ON DESIGN PERMIT PLANS, AND TO RUN CONTINUOUSLY TO END OF MAIN
 - EXHIBITS, IF ANY, TO BE PERMANENT REFERENCE POINT
 - IDENTIFY ALL CONTROL LINES (I.E. BLUE LINE, PROPERTY LINE, R/W, ETC.)
 - ALL "PROPOSED" INFORMATION TO BE REMOVED FROM PRINTS, LEAVING ONLY RECORD DRAWING INFORMATION REFLECTED IN DRAWINGS
- WATER "RECORD DRAWINGS" MUST INCLUDE:
 - PLAN SHOWING PIPE SIZE, MATERIAL AND OFFSET OF MAIN, DEFLECTIONS OF ANY, SLOPE OF SERVICES, HYDRANTS, VALVES, FITTINGS, IF ANY, ALL IN STATE PLANE COORDINATES. UTILITY CROSSINGS SHALL BE CLEARLY IDENTIFIED AND LOCATED
 - PROFILE SHOWING TOP OF GROUND AND TOP OF PIPE ELEVATIONS AT EVERY 100' STATION AND AT ANY CHANGE IN GRADE (WITH CORRESPONDING STATIONS), PIPE SIZE AND PIPE MATERIALS REFERENCED TO PLAN
- SEWER "RECORD DRAWINGS" MUST INCLUDE:
 - PLAN SHOWING MANHOLE NUMBER, PIPE SIZE AND PIPE MATERIAL, OF PIPE, DEFLECTION, SLOPE OF GRAVITY, SEWER, LOCATION OF LATERALS WITH REFERENCE TO MANHOLE AND CLEANOUTS
 - THE NORTHERLY AND EASTERLY COORDINATES ON ALL FIELD OBTAINED MEASUREMENTS AND PROVIDED ON ALL RECORD DRAWING SUBMITTALS
 - PROFILE SHOWING MANHOLE NUMBER (AS PER PLAN, R/W AND INVERT ELEVATIONS (IF MORE THAN ONE INVERT, LABEL NORTH, SOUTH, ETC.), AND STATION STARTING AT 0+00 AT DOWNSTREAM MANHOLE
- FORCE MAIN "RECORD DRAWING" SAME AS WATER MAIN
- EACH RECORD DRAWING SHALL SHOW THE FLORIDA STATE PLANE COORDINATES (CURRENT REALIGNMENT) OF ALL THE MANHOLES AND VALVES AND OF AT LEAST TWO HORIZONTAL CONTROL POINTS PROPERLY IDENTIFIED AND LOCATED WITHIN THE PROJECT.

* OTHER SCALE MAY BE PERMITTED, BUT MUST BE APPROVED BY THE DEPARTMENT PRIOR TO PREPARATION OF DRAWINGS.

ITEM	CROSS SECTION	SHEET
STANDARD REQUIREMENTS	GS	2 OF 2
"RECORD DRAWING" REQUIREMENTS	0.5	2

FILE No. ML-1154

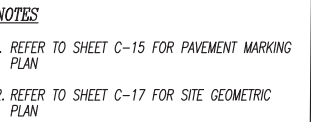
C-1
SHEET 1 OF C-21










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PLAN
TOWN OF MIAMI LAKES, Florida SEC. 22, Twp. 52, Rge. 40

OF: C-21



 DENOTES STALL COUNT
 DENOTES BICYCLE SPACES
 DENOTES RAMP UP DIRECTION
 DENOTES PROPOSED SIGN
 DENOTES PROPOSED CENTERLINE
 DENOTES PROPOSED CONC. SIDEWALK
 DENOTES PROPOSED DETECTABLE WARNING

ZONED	IU-C
NET LAND AREA IN SQUARE FEET	317,727 SQ. FT.
NET LAND AREA IN ACRES	7.29 ACRES
EXIST INGRESS-EGRESS EASEMENT	0.69 ACRES
AREA FOR SITE PLAN CALCULATIONS	287,671 SQ. FT.
	6.60 ACRES
SQUARE FEET OF BLDGS. AT GROUND LEVEL	20,429 SQ. FT.
PERCENTAGE OF LOT COVERED BY BUILDING	7.10 %
TOTAL SQUARE FEET OF BUILDINGS :	
1ST. FLOOR	20,429 SQ. FT.
2ND. FLOOR	20,618 SQ. FT.
3RD. FLOOR	20,618 SQ. FT.
4TH. FLOOR	20,606 SQ. FT.
TOTAL GROSS AREA	82,271 SQ. FT.
SQUARE FEET OF PAVED PARKING/ SWK. AREA	204,941 SQ. FT.
PERCENTAGE OF LOT COVERED BY PAVING	71.24 %
SQUARE FEET OF LANDSCAPED AREA	62,301 SQ.FT.
PERCENTAGE OF LOT COVERED BY LANDSCAPING	SEE TABLE 1
HEIGHT OF BUILDING	SEE TABLE 1
NUMBER OF STORIES	4 STORIES
NUMBER OF PARKING SPACES REQUIRED	
82,271 SQ. FT./300	274 CARS
NUMBER OF PARKING SPACES PROVIDED	516 SPACES
HANDICAP SPACES	<u>11</u> SPACES
TOTAL	527 SPACES

BUILDING SETBACK FRONT	50'	88.15'
BUILDING SETBACK SIDE STREET	25'	107.04'
BUILDING SETBACK INTERIOR SIDE	10'	270.50'
BUILDING SETBACK REAR	0'	471.04'
BUILDING HEIGHT	63'-0"	58'-5"
% OF LOT COVERED BY LANDSCAPING	20%	21.66%

Date	Remarks	By



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BOB GRAHAM OFFICE BUILDING
OVERALL WATER AND SEWER
PLAN
TOWN OF MIAMI LAKES, Florida SEC. 22, Twp. 52, Rge. 40

Drawn By: BH Date: 07/05/16

Checked By: HJN Date: 11/07/16

Order No. 205748 FB 00000 Pg. 00

Drawing Status: PERMIT

By: **Hernando J. Navas**
P.E., Principal
Registered Engineer No. 50635
State of Florida

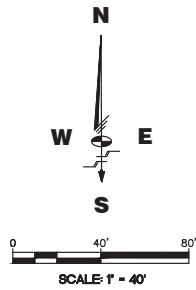
Scale: As Noted

File No. **ML-1154**

Dwg. No:

C-2

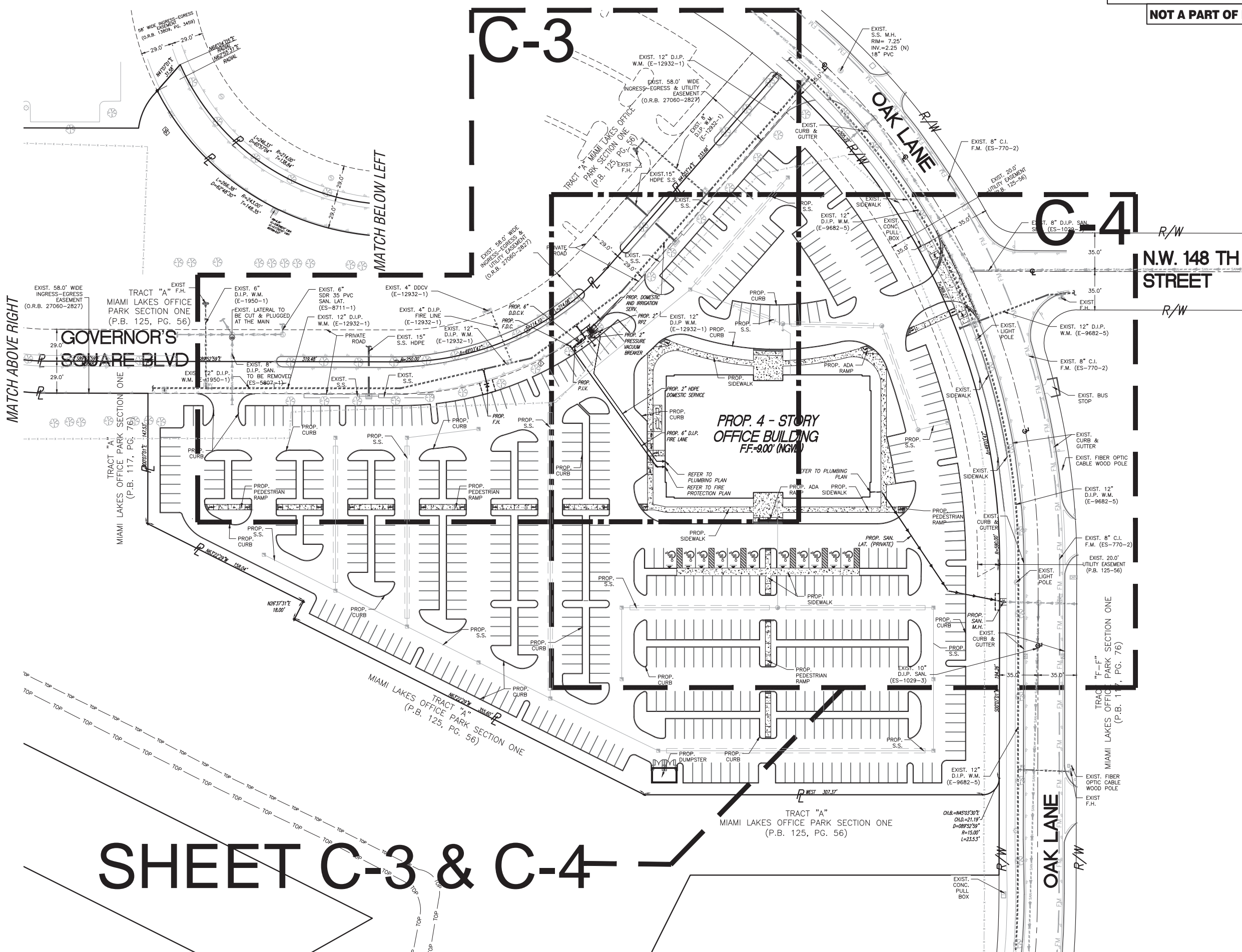
OF: C-21



NOT PART OF M-DWASD NOTES NOR APPROVAL

LEGEND

- DENOTES EXISTING TREE
- DENOTES PROPERTY LINE
- DENOTES RIGHT OF WAY LINE
- DENOTES CENTER LINE
- DENOTES EXISTING FENCE
- DENOTES EXISTING POWER POLE
- DENOTES EXISTING ASPHALT
- DENOTES EXISTING WATER VALVE
- DENOTES EXISTING DRAINAGE MANHOLE
- DENOTES EXISTING SANITARY MAN HOLE
- DENOTES EXISTING INLET
- DENOTES EXISTING SIGN
- DENOTES PROPOSED STORM INLET/M.H.
- DENOTES PROPOSED FRENCH DRAIN
- DENOTES PROPOSED BOLLARD
- DENOTES PROPOSED VACUUM BREAKER IRRIGATION
- DENOTES PROPOSED BACK FLOW PREVENTER
- DENOTES PROPOSED DOUBLE DETECTOR CHECK VALVE
- DENOTES PROPOSED FIRE HYDRANT
- DENOTES PROPOSED WATER VALVE
- DENOTES PROPOSED WATER TEE
- DENOTES PROPOSED 90° BEND
- DENOTES PROPOSED 45° BEND
- DENOTES PROPOSED 11.25° BEND



SHEET C-3 & C-4

Date	Remarks	By



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BOB GRAHAM OFFICE BUILDING
DOMESTIC, IRRIGATION AND FIRE
PLAN
TOWN OF MIAMI LAKES, Florida SEC. 22, Twp. 52, Rge. 40

Drawn By: BJ Date: 07/05/16

Checked By: HJN Date: 11/07/16

Order No. 205748 FB Sketches & 00000 Pg. 00

Drawing Status: PERMIT

By: **Hernando J. Navas**
P.E., Principal
Registered Engineer No. 50635
State of Florida

Scale: As Noted

File No. **ML-1154**

Dwg. No:

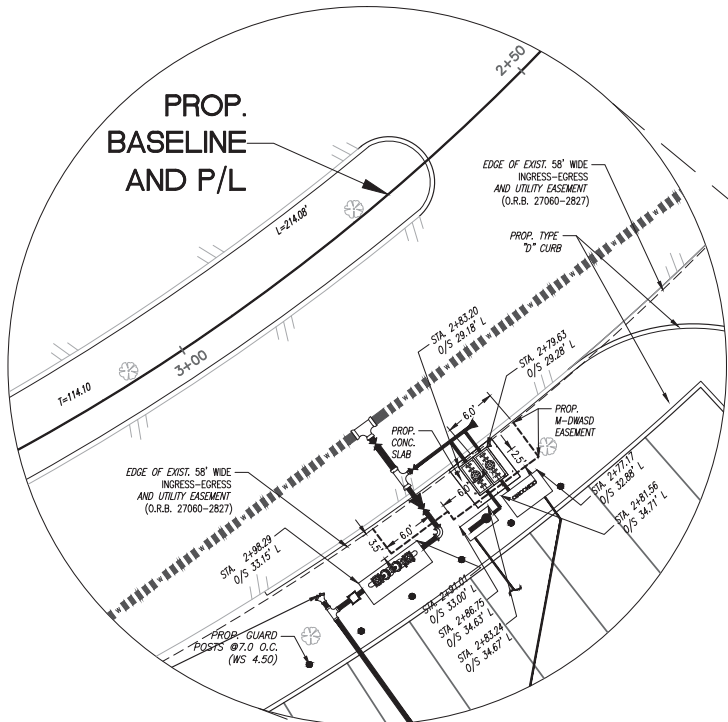
C-3

OF: C-21

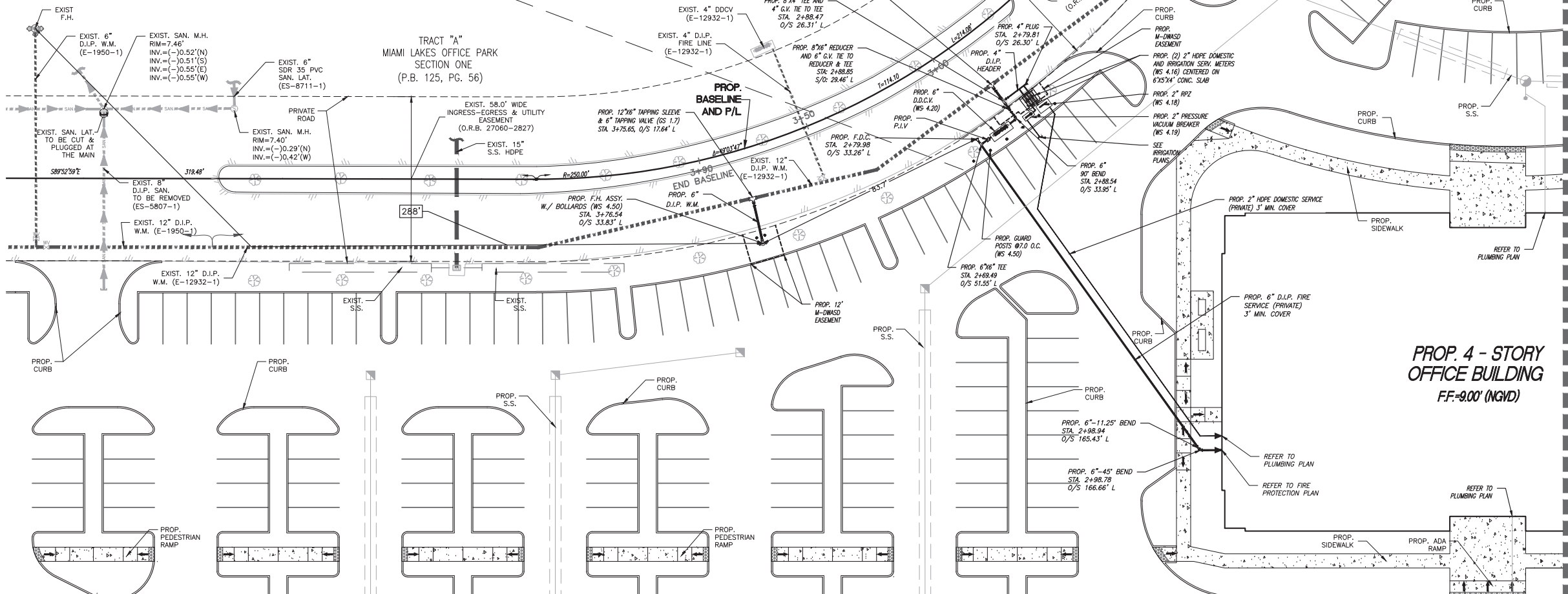
**DISCLOSURE RELATED TO CRITICAL HABITAT FOR
ENDANGERED SPECIES**

PLEASE BE ADVISED THAT THE FEDERAL GOVERNMENT HAS DESIGNATED ALL OR A PART OF THE SUBJECT PROPERTY AS CRITICAL HABITAT FOR ONE OR MORE ENDANGERED SPECIES. YOU ARE NOT AUTHORIZED TO COMMENCE ANY WORK OR ACTIVITIES PURSUANT TO THIS PERMIT UNTIL YOU OBTAIN ANY AND ALL APPROVALS OR PERMITS, IF NECESSARY, FROM THE FEDERAL GOVERNMENT PURSUANT TO THE ENDANGERED SPECIES ACT AND FROM THE STATE OF FLORIDA PURSUANT TO FLORIDA LAW ON ENDANGERED SPECIES. PLEASE BE ADVISED THAT, EVEN AFTER WORK COMMENCES, IF MIAMI-DADE COUNTY IS ADVISED BY THE FEDERAL GOVERNMENT, THE STATE OF FLORIDA, OR A COURT THAT AN ACTIVITY ON THE SUBJECT PROPERTY IS IN VIOLATION OF THE ENDANGERED SPECIES ACT, IN VIOLATION OF FLORIDA LAW ON ENDANGERED SPECIES, OR IN VIOLATION OF A PERMIT OR APPROVAL GRANTED BY THE FEDERAL GOVERNMENT PURSUANT TO THE ENDANGERED SPECIES ACT, SUCH VIOLATION MAY RESULT IN AN IMMEDIATE STOP WORK ORDER. YOU ARE STRONGLY ADVISED TO CONSULT WITH THE UNITED STATES FISH AND WILDLIFE SERVICE AND ANY OTHER NECESSARY FEDERAL OR STATE AGENCIES BEFORE CONDUCTING ANY WORK OR ACTIVITIES ON THE PROPERTY. THE VERO BEACH OFFICE OF THE UNITED STATES FISH AND WILDLIFE SERVICE MAY BE REACHED AT (772) 562-3909. PLEASE BE AWARE THAT THE FEDERAL GOVERNMENT MAY REQUIRE CERTAIN ACTIONS OR PROTECTIONS ON THE PROPERTY, AND THIS MAY RESULT IN THE NEED TO MODIFY THE PLANS FOR THE PROPERTY. THEREFORE, IT IS RECOMMENDED THAT YOU CONSULT WITH THE UNITED STATES FISH AND WILDLIFE SERVICE AT AN EARLY STAGE IN THE PROCESS. IN THE EVENT THAT THE UNITED STATES FISH AND WILDLIFE SERVICE ADVISES THAT YOUR PLANS FOR THE SUBJECT PROPERTY MAY RESULT IN A TAKE OF ENDANGERED OR THREATENED SPECIES, YOU ARE STRONGLY RECOMMENDED TO INFORM MIAMI-DADE COUNTY IN WRITING AT THE EARLIEST STAGE POSSIBLE.

**PROP.
BASELINE
AND P/L**



GEOMETRIC DETAIL
SCALE: 1" = 10'



SEE SHEET C-4

LEGEND

- DENOTES EXISTING TREE
- DENOTES PROPERTY LINE
- DENOTES RIGHT OF WAY LINE
- DENOTES CENTER LINE
- DENOTES EXISTING FENCE
- DENOTES EXISTING POWER POLE
- DENOTES EXISTING ASPHALT
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- DENOTES PROPOSED WATER TEE
- DENOTES PROPOSED 90° BEND
- DENOTES PROPOSED 45° BEND
- DENOTES PROPOSED 11.25° BEND

NOTE

- ALL EXISTING MAINS BEING IMPACTED BY THIS PROJECT AND ALL PROP WATER AND SEWER FORCE MAINS AND FITTINGS TO BE RESTRAINED PER GS 2.0
- ALL WATER AND SEWER CROSSINGS PER GS 1.5

**PROP. 4 - STORY
OFFICE BUILDING**
FF=9.00' (NGVD)

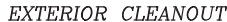
1. A HORIZONTAL DISTANCE OF AT LEAST 6 FEET AND PREFERABLY 10 FEET (OUTSIDE TO OUTSIDE), SHALL BE MAINTAINED BETWEEN GRAVITY OR PRESSURE SEWER PIPES AND WATER PIPES. THE MINIMUM HORIZONTAL SEPARATION CAN BE REDUCED TO 3 FEET FOR VACUUM-TYPE SEWERS OR FOR GRAVITY SEWERS WHERE THE BOTTOM OF THE SEWER PIPE IS AT LEAST 6 INCHES BELOW THE BOTTOM OF THE WATER PIPE. WHEN THE ABOVE SPECIFIED HORIZONTAL DISTANCE CRITERIA CANNOT BE MET DUE TO AN EXISTING UNDERGROUND FACILITY CONFLICT, SMALLER SEPARATIONS ARE ALLOWED IF:
 - a. THE SEWER PIPES ARE DESIGNED AND CONSTRUCTED EQUAL TO THE WATER PIPE AND PRESSURE TESTED AT 150 PSI.
 - b. THE SEWER IS ENCASED IN A WATERTIGHT CARRIER PIPE OR CONCRETE.
 - c. THE TOP OF THE SEWER IS AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER PIPE.
2. A VERTICAL DISTANCE OF AT LEAST 12 INCHES (OUTSIDE TO OUTSIDE) SHALL BE MAINTAINED BETWEEN ANY WATER AND SEWER MAINS WITH SEWER PIPES PREFERABLY CROSSING UNDER WATER MAINS. THE MINIMUM VERTICAL SEPARATION CAN BE REDUCED TO 6 INCHES FOR VACUUM-TYPE SEWERS OR FOR GRAVITY SEWERS WHERE THE SEWER PIPE IS BELOW THE WATER MAIN. THE CROSSING SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST 6 FEET FROM ALL JOINTS IN GRAVITY AND PRESSURE SEWER PIPES. THIS DISTANCE CAN BE REDUCED TO 3 FEET FOR VACUUM-TYPE SEWERS. WHEN THE ABOVE SPECIFIED VERTICAL DISTANCE CRITERIA CANNOT BE MET DUE TO AN EXISTING UNDERGROUND FACILITY CONFLICT, SMALLER SEPARATIONS ARE ALLOWED IF:
 - a. THE SEWER PIPES ARE DESIGNED AND CONSTRUCTED EQUAL TO THE WATER PIPE AND PRESSURE TESTED AT 150 PSI.
 - b. THE SEWER IS ENCASED IN A WATERTIGHT CARRIER PIPE OR CONCRETE.
3. AIR RELEASE VALVES SHALL BE PROVIDED AT HIGH POINTS OF NEW FORCE MAIN SANITARY SEWERS.
4. GRAVITY SANITARY SEWERS CONSTRUCTED WITHIN A PUBLIC WELLFIELD PROTECTION AREA SHALL BE C-900 PVC OR DUCTILE IRON PIPE. THE MAXIMUM ALLOWABLE EXFILTRATION RATE OF GRAVITY SANITARY SEWERS IS 1 GPM PER INCH DIAMETER PER 100 FEET OF PIPE IN A PUBLIC WELLFIELD PROTECTION AREA.
 - a. RESIDENTIAL LAND USES. FIFTY (50) GALLONS PER INCH PIPE DIAMETER PER DAY, BASED ON A MINIMUM TWO (2) HOUR TEST HAVING A MINIMUM OF TWO (2) FEET OF POSITIVE HEAD ABOVE THE CROWN OF THE PIPE.
 - b. NON-RESIDENTIAL LAND USES. TWENTY (20) GALLONS PER INCH PIPE DIAMETER PER MILE PER DAY, BASED ON A MINIMUM TWO (2) HOUR TEST HAVING A MINIMUM OF TWO (2) FEET OF POSITIVE HEAD ABOVE THE CROWN OF THE PIPE.
 - c. ANY OBSERVED LEAKS OR ANY OBVIOUSLY DEFECTIVE JOINTS OR PIPES SHALL BE REPLACED EVEN WHEN THE TOTAL LEAKAGE IS BELOW THAT ALLOWED.

- THE MAXIMUM ALLOWABLE EXFILTRATION RATE OF GRAVITY SANITARY SEWERS CONSTRUCTED OUTSIDE A PUBLIC WELLFIELD PROTECTION AREA SHALL BE ONE HUNDRED (100) GALLONS PER INCH PIPE DIAMETER PER MILE PER DAY, BASED ON A MINIMUM TWO (2) HOUR TEST HAVING A MINIMUM OF TWO (2) FEET OF POSITIVE HEAD ABOVE THE CROWN OF THE PIPE. ANY OBSERVED LEAKS OR ANY OBVIOUSLY DEFECTIVE JOINTS OR PIPES SHALL BE REPLACED EVEN WHEN THE TOTAL LEAKAGE IS BELOW THAT ALLOWED.
6. FORCE MAIN SANITARY SEWERS CONSTRUCTED WITHIN A PUBLIC WELLFIELD PROTECTION AREA SHALL BE DUCTILE IRON, C-900 PVC, HDPE OR REINFORCED CONCRETE PRESSURE SEWER PIPES.
7. THE MAXIMUM ALLOWABLE EXFILTRATION/LEAKAGE RATE OF FORCE MAIN SANITARY SEWERS SHALL BE:
- a. DUCTILE IRON, C-900 PVC, HDPE AND PVC PIPE. THE ALLOWABLE LEAKAGE RATE SPECIFIED IN AMERICAN WATER WORKS ASSOCIATION STANDARD (AWWAS) C600-82 AT A TEST PRESSURE OF 100 PSI FOR A DURATION OF NOT LESS THAN TWO (2) HOURS.
 - b. REINFORCED CONCRETE PRESSURE PIPE. HALF (1/2) THE ALLOWABLE LEAKAGE RATE SPECIFIED IN AWWA C600-82 AT A TEST PRESSURE OF 100 PSI FOR A DURATION OF NOT LESS THAN TWO (2) HOURS.
 - c. ANY OBSERVED LEAKS OR ANY OBVIOUSLY DEFECTIVE JOINTS OR PIPES SHALL BE REPLACED EVEN WHEN THE TOTAL LEAKAGE IS BELOW THAT ALLOWED.
8. THE CONTRACTOR SHALL VERIFY NATURE, DEPTH, AND CHARACTER OF EXISTING UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
9. IN NO CASE SHALL A CONTRACTOR INSTALL UTILITY PIPES, CONDUITS, CABLES, ETC. IN THE SAME TRENCH ABOVE AN EXISTING WATER OR SEWER PIPE EXCEPT WHERE THEY CROSS.
10. IF ANY AREA OF THE WORK SITE IS FOUND TO CONTAIN BURIED SOLID WASTE AND/OR GROUND OR GROUND WATER CONTAMINATION, THE FOLLOWING SHALL APPLY:
- a. ALL WORK IN THE AREA SHALL FOLLOW ALL APPLICABLE SAFETY REQUIREMENTS (E.G., OSHA, ETC.) AND NOTIFICATION MUST BE PROVIDED TO THE APPROPRIATE AGENCIES.
 - b. IMMEDIATELY NOTIFY THE ENVIRONMENTAL MONITORING AND RESTORATION DIVISION (EMRD). THE EMRD CAN BE CONTACTED AT (305) 372-6700.
 - c. IF CONTAMINATED SOILS AND/OR BURIED SOLID WASTE MATERIAL IS EXCAVATED DURING CONSTRUCTION, THEN THEY REQUIRE PROPER HANDLING AND DISPOSAL IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS. BE ADVISED THAT THE LANDFILL OWNER/OPERATOR IS THE FINAL AUTHORITY ON DISPOSAL AND MAY HAVE REQUIREMENTS BEYOND THOSE PROVIDED BY HEREIN. IF DISPOSAL WITHIN A MAAMI-DADE COUNTY OWNED LANDFILL (CLASS I LANDFILL) IS APPROPRIATE AND SELECTED, PLEASE CONTACT THE MAAMI-DADE COUNTY DEPARTMENT OF SOLID WASTE MANAGEMENT AT (305) 594-6666 FOR INFORMATION.
 - d. THE REUSE OF CONTAMINATED SOILS THAT ARE NOT RETURNED TO THE ORIGINAL EXCAVATION REQUIRES PRIOR APPROVAL OF A SOIL MANAGEMENT PLAN FROM THE ENVIRONMENTAL MONITORING AND RESTORATION DIVISION. THE EMRD CAN BE CONTACTED AT (305) 372-6700.

(NOT PART OF M-DWASD NOTES NOR APPROVAL)

1. ALL MATERIALS AND LABOR UNDER THIS PROJECT SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE MIAMI-DADE WATER AND SEWER DEPARTMENT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS AVAILABLE AND ON FILE WITH MIAMI-DADE WATER AND SEWER DEPARTMENT (AUTHORITY).
2. THE LOCATIONS OF THE EXISTING UTILITIES, SHOWN ON THE DRAWINGS, ARE BASED UPON THE MOST RELIABLE INFORMATION AVAILABLE TO THE ENGINEER AND ARE APPROXIMATIONS ONLY. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF THE UTILITIES LOCATED IN THE AREA OF THE PROPOSED WORK, PRIOR TO COMMENCING CONSTRUCTION (I.E., UNDERGROUND ELECTRIC, TELEPHONE, WATER, ETC.). THE ENGINEER TAKES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF ALL EXISTING UTILITIES OR FOR THOSE NOT SHOWN ON THE DRAWINGS.
3. COVER OVER WATER MAINS SHALL BE A MINIMUM OF 4'-0" UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
4. ALL WATER MAIN LINE VALVES SHALL BE INSTALLED COMPLETE WITH 10" RISER PIPES AND NO. 3 VALVE BOXES. FIRE HYDRANTS AND SERVICE VALVES SHALL BE INSTALLED COMPLETE WITH 6" RISER PIPES AND NO.2 VALVE BOXES.
5. ALL WATER METERS WILL BE INSTALLED BY THE MIAMI-DADE WATER AND SEWER AUTHORITY, PROVIDING THE APPROPRIATE CHARGES HAVE BEEN PREPAID. THE METER BOX AND SERVICE PIPING SHALL BE INSTALLED BY THE CONTRACTOR.
6. FIRE HYDRANT REQUIREMENTS (NUMBER AND LOCATION) SHALL BE AS REQUIRED BY DADE COUNTY FIRE DEPARTMENT OR THE APPROPRIATE FIRE AGENCY WITH INSTALLATION IN ACCORDANCE WITH AUTHORITY STANDARDS.
7. THE MIAMI-DADE WATER AND SEWER AUTHORITY AND THE ENGINEER MUST BE NOTIFIED 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
8. ALL WATER MAINS SHALL BE CHLORINATED IN ACCORDANCE WITH AWWA STANDARD C-651, LATEST REVISION. THE CONTRACTOR SHALL CONTACT THE LOCAL HEALTH DEPARTMENT AND REQUEST BACTERIOLOGICAL SAMPLES BE OBTAINED WITH COPIES BEING FORWARDED TO THE ENGINEER.
9. AUTHORITY PERSONNEL WILL INSPECT ALL FACILITIES APPROVED BY THE AUTHORITY. THE OTHER PERMITTING AGENCIES SHALL INSPECT ALL FACILITIES APPROVED BY THEM AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THEIR STANDARDS AND REQUIREMENTS.
10. WORK PERFORMED UNDER THIS PROJECT WILL NOT BE CONSIDERED AS COMPLETE UNTIL FINAL ACCEPTANCE OF THE SYSTEM BY MIAMI-DADE WATER AND SEWER AUTHORITY AND UNTIL THE FOLLOWING DOCUMENTS ARE RECEIVED AND APPROVED BY THE AUTHORITY:
 - 1) EASEMENTS, IF REQUIRED BY THE OWNER
 - 2) CONTRACTOR'S WAIVER AND RELEASE OF LIEN
 - 3) ABSOLUTE BILL OF SALE
 - 4) CONTRACTOR'S MAINTENANCE BOND
 - 5) "AS-BUILT" MYLAR, 24"x36"; SHOWING T.O.P. ELEVATIONS AT 100' STATIONS; FINISH GRADE ELEVATIONS AT 200' STATIONS; OFFSET FROM R/W OR PL; STATION AND LENGTH OF SERVICES; THE POINT OF CONNECTION TO EXIST. MAINS TIED TO CENTER LINE OF EXIST. ROADS; ETC. FOR ALL WATER FACILITIES; RIM AND INVERT ELEVATIONS FOR ALL MANHOLES; DISTANCE AND SLOPE BETWEEN MANHOLES; SERVICE LOCATION AND LENGTHS; OFFSETS FOR MANHOLES FROM R/W OR PL FOR THE SEWER FACILITIES; AS LOCATED BY A LICENSED SURVEYOR; ALONG WITH THREE (3) PRINTS OF THE "AS-BUILT" WHICH HAS BEEN SEALED BY THE SURVEYOR.
11. ALL CONNECTIONS FROM EXISTING AUTHORITY MAINS TO BE MADE BY AUTHORITY FORCES ONLY. THE CONTRACTOR TO EXCAVATE AT REQUIRED LOCATIONS AND PROVIDE MATERIAL WITH FITTINGS.
12. IF A VERTICAL DISTANCE BETWEEN THE WATER AND SEWER MAINS IS LESS THAN 18 INCHES WHEN A WATER MAIN CROSSES OVER A SEWER MAIN, OR ANY TIME A WATER MAIN CROSSES UNDER A SEWER MAIN, THE SEWER SHALL BE D.I.P. FOR A DISTANCE OF 20 FEET CENTERLINE ON THE CROSSING.
13. MAINTAIN 10 FEET HORIZONTAL DISTANCE BETWEEN THE WATER AND SEWER MAINS, AS A MINIMUM.
14. CONTRACTOR WILL BE REQUIRED TO OBTAIN THE LATEST PAVING AND DRAINAGE PLAN PREPARED BY SCHWEBKE-SHISKIN AND ASSOCIATES, INC. AND HAVE IT AVAILABLE AT THE JOB SITE FOR THE USE OF MIAMI-DADE WATER AND SEWER AUTHORITY PERSONNEL.
15. ALL WATER MAINS SHALL BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH AWWA STANDARD C-600, LATEST REVISION, AND APPLYING THE FOLLOWING FORMULA:
$$L = \frac{[50 * (P^{1/2})]}{133,200}$$

L = LEAKAGE IN GALLONS
P = LENGTH OF PIPE IN FEET
D = DIAMETER OF PIPE IN INCHES
S = AVERAGE TEST PRESSURE IN LBS. PER SQ. IN.
16. ALL WATER METERS AND SERVICE LINES THAT WILL BE CONNECTED TO EXISTING WATER MAINS WILL BE INSTALLED BY AUTHORITY PERSONNEL.
17. IN THE EVENT UNSUITABLE MATERIAL IS ENCOUNTERED AT THE DEPTH OF THE PROPOSED WATER AND SEWER FACILITIES, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD FOR PROPER DIRECTION PRIOR TO CONTINUANCE OF CONSTRUCTION.
18. ALL VALVE BOXES AND MANHOLE RIMS SHALL BE SET TO MATCH THE PROPOSED GRADES AS PER THE PAVING AND DRAINAGE PLAN PREPARED BY SCHWEBKE-SHISKIN & ASSOCIATES, INC.
19. ALL WATER AND SEWER SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MIAMI-DADE WATER AND SEWER AUTHORITY STANDARDS.
20. ALL SEWERS INSTALLED WITHIN THE CONE OF INFLUENCE SHALL NOT EXFILTRATE AT THE RATE IN EXCESS OF 100 GALLONS PER DAY PER INCH OF MAIN PER MILE AND ALL CONSTRUCTION SHALL BE IN CONFORMITY WITH ALL REQUIREMENTS OF SECTION 24-12.1 OF THE DADE COUNTY CODE.
21. ALL CONSTRUCTION SHALL BE DONE IN A SAFE MANNER, SPECIFICALLY, THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AND CHAPTER 90-86 (CS/BS 2626) THE FLORIDA TRENCH SAFETY ACT SHALL BE STRICTLY OBSERVED.
22. ALL ELEVATIONS ON THE PLANS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM (NGVD).
23. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY TO HIS EMPLOYEES AND SUBCONTRACTORS FOR THEIR USE DURING CONSTRUCTION.
24. MAINTENANCE OF TRAFFIC IN THE PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE DADE COUNTY PUBLIC WORKS DEPARTMENT STANDARDS.



(NOT PART OF M-DWASD NOTES OR APPROVAL



1. BEDDING MATERIAL, WHEN NECESSARY, SHALL BE CLEAN SANDY SOIL WHENEVER AVAILABLE WITHIN THE LIMITS OF CONSTRUCTION. IMPORTED BEDDING SHALL BE WELL GRADED 3/4" MAX. SIZED CRUSHED LIMESTONE. ALL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY BEFORE ANY PIPE IS LAID.
2. DENSITY TESTING SHALL BE IN ACCORDANCE WITH AASHTO T-180 AND ASTM D-3017

NOT PART OF WASD APPROVAL

DEPARTMENT OF HEALTH
NOT PART OF M-DWASD NOTES NOR APPROVAL

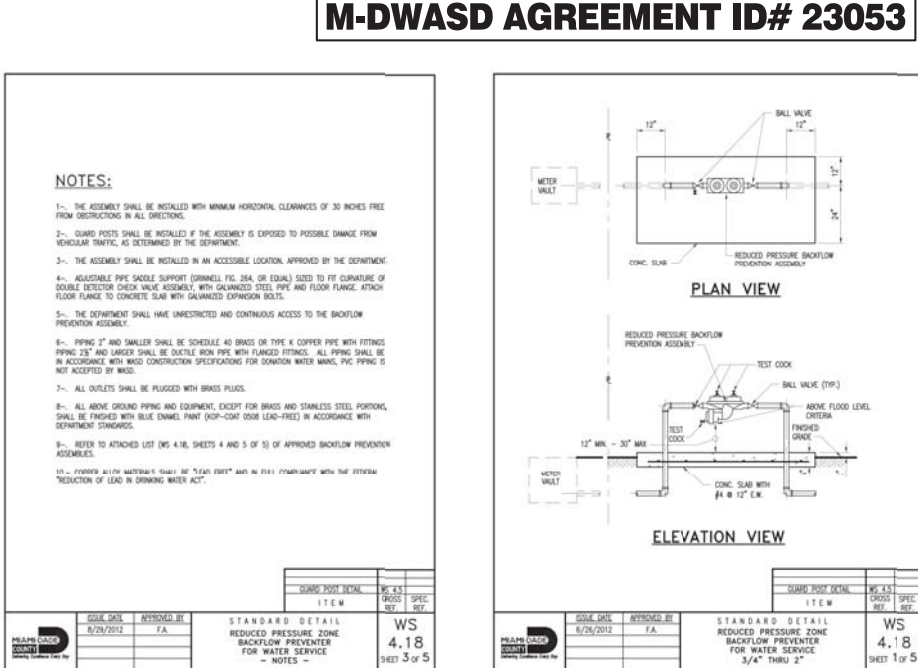
1. SEPARATIONS SHALL BE MEASURED OUTSIDE EDGE TO OUTSIDE EDGE

1. SEPARATIONS SHALL BE MEASURED OUTSIDE EDGE TO OUTSIDE EDGE.
2. BETWEEN WATER MAINS AND STORM SEWERS, STORMWATER FORCE MAINS, OR RECLAIMED WATER LINES, SHALL BE 3 FT. MINIMUM.
3. BETWEEN WATER MAINS AND VACUUM TYPE SEWER PREFERABLY 10 FT. AND AT LEAST 3 FT. MINIMUM.
4. GRAVITY OR PRESSURE SANITARY SEWERS, WASTEWATER FORCE MAINS OR RECLAIMED WATER PREFERABLY 10 FT. AND AT LEAST 6 FT. DISTANCE BETWEEN WATER MAIN AND GRAVITY SEWER. MAY BE REDUCED TO 3 FT. WHERE BOTTOM OF WATER MAIN IS AT LEAST 6 INCHES ABOVE TOP OF SEWER.
5. 10 FT. MINIMUM TO ANY PART OF ON-SITE SEWER TREATMENT OR DISPOSAL SYSTEM.

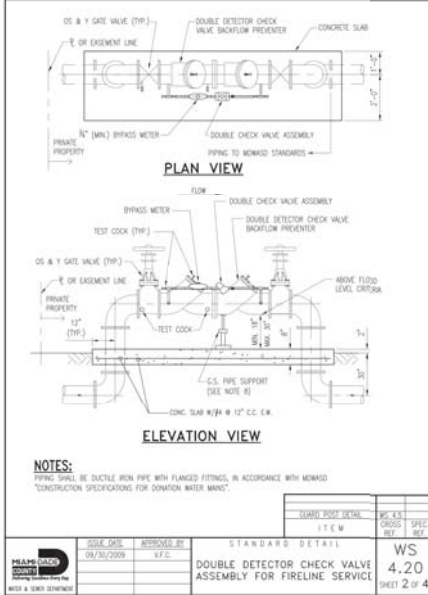
1. SEPARATIONS BETWEEN WATER MAINS AND VACUUM TYPE SEWER, OR STORM SEWERS TO BE PREFERABLY 12 INCHES, OR AT LEAST 6 INCHES ABOVE, OR AT LEAST 12 INCHES IF BELOW.*
2. PRESSURE SANITARY SEWER, WASTEWATER, OR STORMWATER FORCE MAIN, OR RECLAIMED WATER, AT LEAST 12 INCHES ABOVE OR BELOW.*

*NOTE: CENTER ONE FULL LENGTH OF WATER MAIN PIPE AT CROSSINGS; ALTERNATIVELY ARRANGE PIPES SO JOINTS ARE AT LEAST 3 FEET FROM JOINTS IN VACUUM, STORMWATER, OR STORMWATER FORCE MAINS. AT LEAST 6 FEET FROM JOINTS IN GRAVITY OR PRESSURE SEWERS, WASTEWATER FORCE MAINS, OR RECLAIMED WATER MAINS.

ALL WATER MAINS 24 INCHES IN DIAMETER OR LESS, SHALL BE BLUE IN COLOR OR HAVE A 2 INCH WIDE BLUE STRIPE PAINTED ALONG THE CENTERLINE OF THE PIPE.



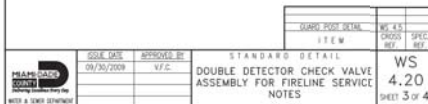
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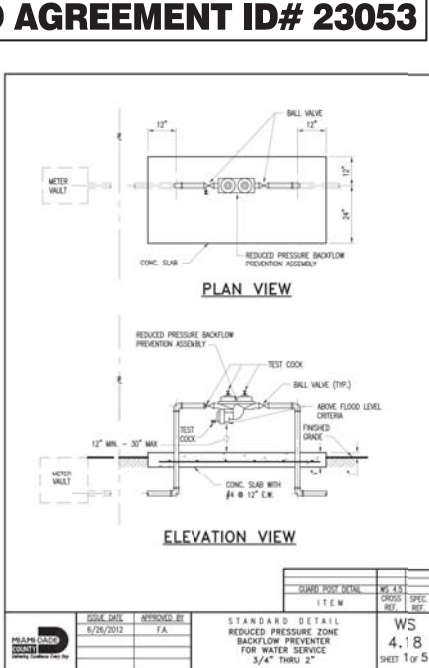
(NOT PART OF M-DWASD NOTES OR APPROVAL)

NOTES:


9. THE ASSEMBLY SHALL BE INSTALLED WITH MINIMUM HORIZONTAL CLEARANCES OF 30 INCHES FREE FROM OBSTRUCTIONS IN ALL DIRECTIONS.
10. GARD POST SHALL BE INSTALLED IF THE ASSEMBLY IS EXPOSED TO POSSIBLE DAMAGE FROM VEHICULAR TRAFFIC OR EXTERMINATED BY THE JURISDICTION.
11. THE ASSEMBLY SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION, APPROVED BY THE DEPARTMENT.
12. ALL SLOTS SHALL BE FLANGED OR RESTRAINED IN ACCORDANCE WITH DEPARTMENT STANDARDS.
13. ALL WARE, CORDING PAPER, TAPE, JOINTS FOR BRIMS AND STANDSTILL STEEL PORTINGS, SHALL BE MADE OF RED ENAMEL PAINT, EXCEPT FOR SLOD-PILE IN ACCORDANCE WITH DEPARTMENT STANDARDS.
14. THE DEPARTMENT WILL PROVIDE CHARGE AND LOGS FOR GATE VALVES.
15. FOR RETENTION PURPOSES, REPLACE THE EXISTING CHECK VALVE DEVICE WITH A 3000 PSI, PEEAL AND INSTALL A NEW DOUBBLE DETECTOR CHECK VALVE INSTALLED WITH PRIVATE PROPERTY.
16. ADJUSTABLE PIPE SADDLE SUPPORT (SINKING) IPE 2x4, OR (EQU) SIZED TO FIT CURVATURE OF HOURLY DETECTOR CHECK VALVE ASSEMBLY. WITH GALVANIZED STEEL PIPE AND FLOOR FLANGE, ATTACH FLOOR FLANGE TO THE DETECTOR CHECK VALVE ASSEMBLY WITH TWO 1/2" DIA. BOLTS.
17. THE DEPARTMENT SHALL HAVE UNRESTRICTED AND CONTINUOUS ACCESS TO THE DOUBBLE DETECTOR CHECK VALVE ASSEMBLY.
18. ALL OUTLET SHALL BE ALLOWED WITH BRACKET FLANGE.



(NOT PART OF M-DWASD NOTES OR APPROVAL)



(NOT PART OF M-DWASD NOTES OR APPROVAL)

ITEM		CROSS REF.	SPEC. REF.
<div>  <div> <div>STANDARD DETAIL</div> <div>APPROVED BACKFLOW PREVENTION ASSEMBLIES</div> </div> </div>			
<div> <div>DATE: 6/29/2012</div> <div>APPROVAL BY: F.A.</div> </div>		<div> <div>WS 4.18</div> <div>SHEET 4 OF 4</div> </div>	

(NOT PART OF M-DWASD NOTES OR APPROVAL)

240 CORPORATE WAY
MIRAMAR, FL 33025
TEL: (305)652-7010
FAX: (305)652-8284

Date	Remarks	By



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BOB GRAHAM OFFICE BUILDING

WATER AND SEWER
DETAILS

TOWN OF MIAMI LAKES, Florida SEC. 22, Twp. 52, Rge. 40

Drawn By: RBC Date: 07/05/10

Checked By: HJN Date: 11/07/1

Order No. 205748 FB. Sketches &
00000 Pg.0

Drawing Status: PERMIT

Hernando J. Navas
P.E., Principal

Registered Engineer No. 50635
State of Florida

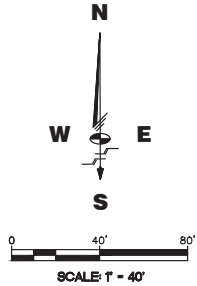
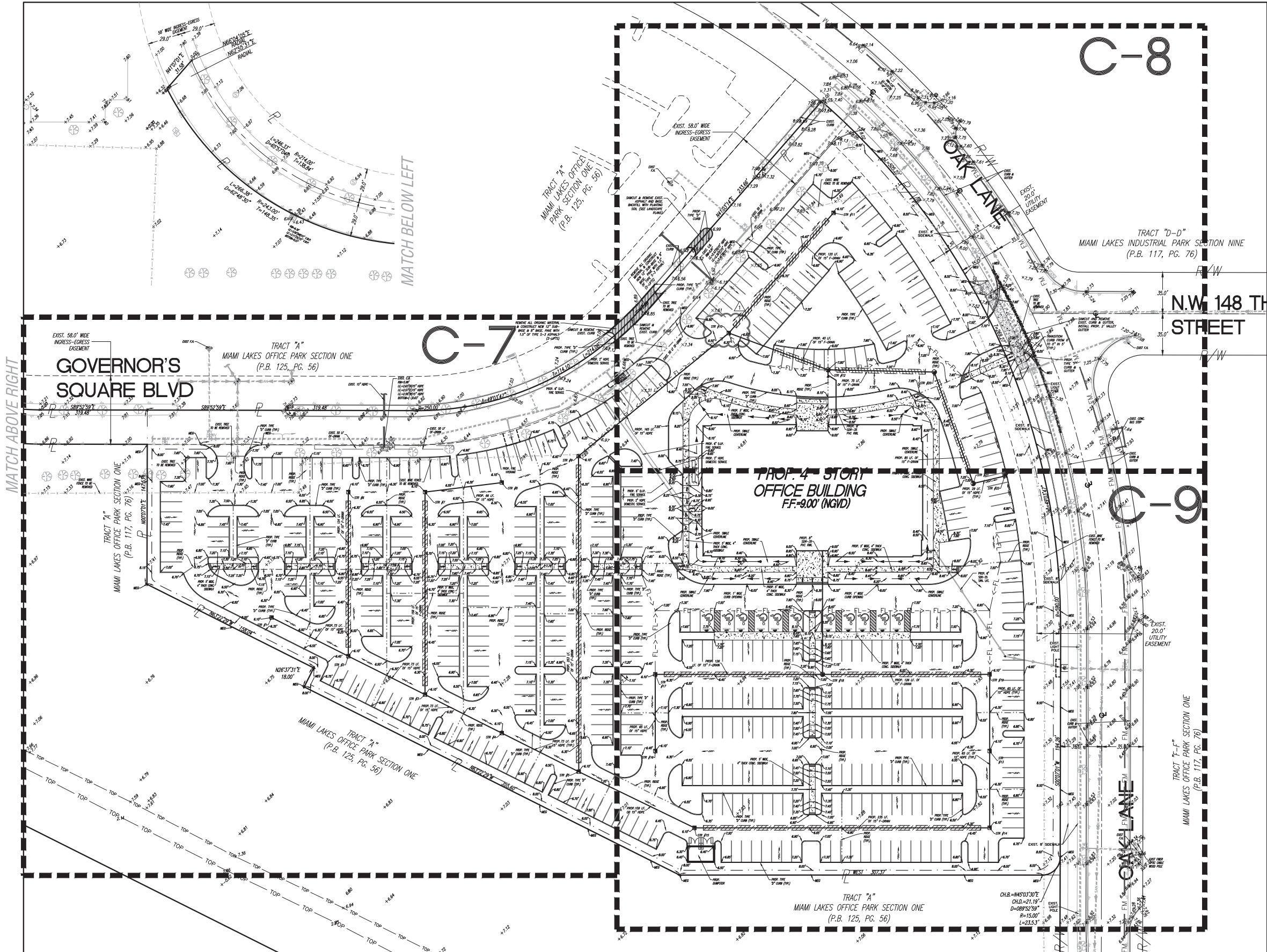
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File No. **ML-1154**

Dwg. No:

C-5

OF: C-21



EXISTING FEATURES LEGEND:

- ⊙ DENOTES EXISTING FIRE HYDRANT
- ⊙ DENOTES EXISTING ELEVATIONS
- ⊙ DENOTES WATER VALVE
- ⊙ DENOTES WOOD LIGHT POLE
- ⊙ DENOTES WOOD POWER POLE
- ⊙ DENOTES PROPERTY LINE
- ⊙ DENOTES RIGHT OF WAY LINE
- ⊙ DENOTES RIGHT OF WAY LINE
- ⊙ DENOTES SANITARY SEWER CLEANOUT
- ⊙ DENOTES SANITARY SEWER MANHOLE
- ⊙ DENOTES FORCE MAIN MANHOLE
- ⊙ DENOTES FORCE MAIN VALVE
- ⊙ DENOTES F.P.L. ELECTRIC MANHOLE
- ⊙ DENOTES F.P.L. TRANSFORMER PAD
- ⊙ DENOTES CATCH BASIN
- ⊙ DENOTES EXISTING TREE
- ⊙ DENOTES EXISTING PAVING
- ⊙ DENOTES IRRIGATION VALVE
- ⊙ DENOTES GUARD POST
- ⊙ DENOTES STORM SEWER MANHOLE
- ⊙ DENOTES SIGN POST
- ⊙ DENOTES ALUMINUM POST
- ⊙ DENOTES EXIST FENCE

PROPOSED FEATURES LEGEND:

- 6.30' DENOTES PROPOSED ELEVATION
- ⊙ DENOTES PROPOSED FRENCH DRAIN W/ INLET
- ⊙ DENOTES PROPOSED INVERT W/ BAFFLE
- ⊙ DENOTES PROPOSED INVERT ELEVATION
- ⊙ DENOTES PROPOSED SLOPE TIPS
- ⊙ DENOTES FLOW DIRECTION
- ⊙ DENOTES PROPOSED RIDGE LINE
- ⊙ DENOTES PROPOSED FLOW LINE
- ⊙ DENOTES RAMP UP DIRECTION
- ⊙ DENOTES PROPOSED SIGN
- ⊙ DENOTES PROPOSED WHEEL STOP
- ⊙ DENOTES PROPOSED CENTERLINE
- ⊙ DENOTES MATCH EXISTING GRADE
- ⊙ DENOTES PROPOSED DRAINAGE MANHOLE
- ⊙ DENOTES PROPOSED SAWCUT LINE
- ⊙ DENOTES PROPOSED CONC. SIDEWALK
- ⊙ DENOTES PROPOSED DETECTABLE WARNING
- ⊙ DENOTES PROPOSED PAVING
- ⊙ DENOTES CROSS-SECTION NAME
- ⊙ DENOTES PROPOSED CROSS-SECTION
- ⊙ DENOTES SHEET NUMBER

Schwebke Shiskin & Associates, Inc.
LAND SURVEYORS
CIVIL ENGINEERS
LAND PLANNERS
LB#87 CA#87
3240 CORPORATE WAY
MIRAMAR, FL 33025
TEL: (305)652-7010
FAX: (305)652-8284

REVISIONS		
Date	Remarks	By
11/07/16	REVISE PER SP COMMENTS	B.I.



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BOB GRAHAM OFFICE BUILDING
PAVING, GRADING AND DRAINAGE
PLAN
TOWN OF MIAMI LAKES, Florida SEC. 22, Twp. 52, Rge. 40

Drawn By: BI Date: 07/05/16

Checked By: HJN Date: 11/07/16

Order No. 205748 PB Sketches & 00000 Pg. 00

Drawing Status: PERMIT

By:
Hernando J. Navas
P.E., Principal
Registered Engineer No. 50635
State of Florida

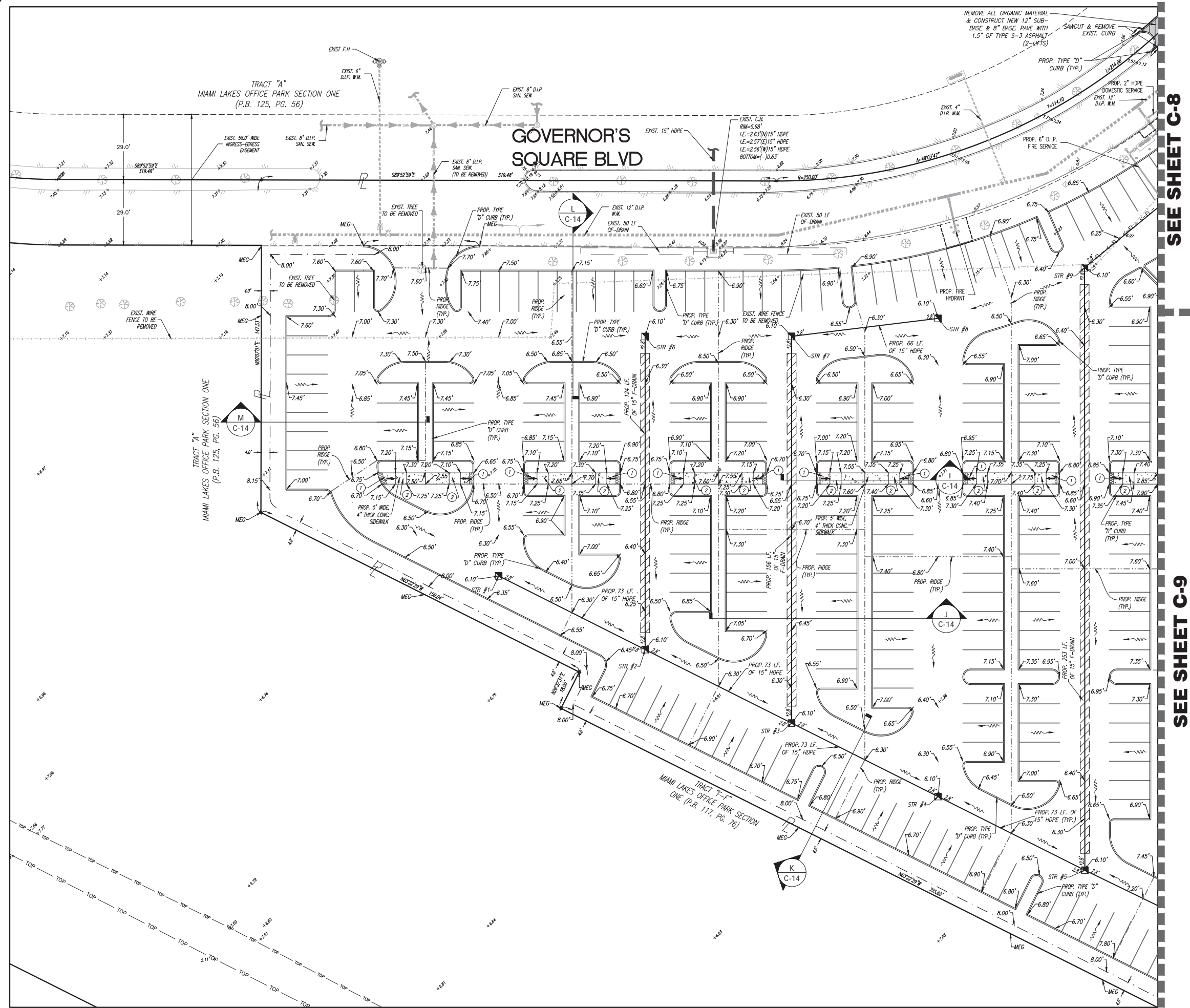
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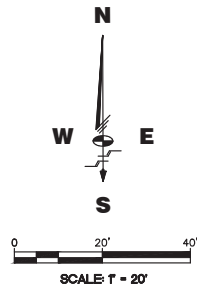
C-6

OF: C-21



SEE SHEET C-8

SEE SHEET C-9



EXISTING FEATURES LEGEND:

- ⊙ DENOTES EXISTING FIRE HYDRANT
- ⊙ DENOTES EXISTING ELEVATIONS
- ⊙ DENOTES WATER VALVE
- ⊙ DENOTES WOOD LIGHT POLE
- ⊙ DENOTES WOOD POWER POLE
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- ⊙ DENOTES ALUMINUM POST
- ⊙ DENOTES EXIST FENCE

PROPOSED FEATURES LEGEND:

- 6.30' DENOTES PROPOSED ELEVATION
- ⊙ DENOTES PROPOSED FRENCH DRAIN W/ INLET
- 1.0' DENOTES PROPOSED INVERT W/ BAFFLE
- 3.0' DENOTES PROPOSED INVERT ELEVATION
- ⊙ DENOTES PROPOSED SLOPE TIPS
- ⊙ DENOTES FLOW DIRECTION
- ⊙ DENOTES PROPOSED RIDGE LINE
- ⊙ DENOTES PROPOSED FLOW LINE
- ⊙ DENOTES RAMP UP DIRECTION
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- ⊙ DENOTES PROPOSED PAVING
- ⊙ DENOTES CROSS-SECTION NAME
- ⊙ DENOTES PROPOSED CROSS-SECTION
- ⊙ DENOTES SHEET NUMBER

NOTES:

- 1 DENOTES PROPOSED ADA RAMP WITH 2' WIDE TACTILE SURFACE AT 8.3% SLOPE MAX.-LONG. SLOPE 2% MAX. (SEE SHEET C-13, SECTION I)
- 2 DENOTES PROPOSED 5'X5' LANDING @ 2% SLOPE MAX. ALL DIRECTIONS
- 3 DENOTES PEDESTRIAN RAMP AT 8.3% SLOPE MAX.

Schwabke Shiskin & Associates, Inc.
LAND SURVEYORS
CIVIL ENGINEERS
LAND PLANNERS
LB#87 CA#87
3240 CORPORATE WAY
MIRAMAR, FL 33025
TEL: (305)652-7010
FAX: (305)652-8284

REVISIONS

Date	Remarks	By



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BOB GRAHAM OFFICE BUILDING
PAVING, GRADING AND DRAINAGE PLAN
TOWN OF MIAMI LAKES, Florida SEC. 22, Twp. 52, Rge. 40

Drawn By: BI Date: 07/05/16

Checked By: HJN Date: 11/07/16

Order No. 205748 PB Sketches & 00000 Pg.00

Drawing Status: PERMIT

By: **Hernando J. Navas**
P.E., Principal
Registered Engineer No. 50635
State of Florida

Scale: As Noted

File No. **ML-1154**

Dwg. No:

C-7

OF: C-21

SEE SHEET C-7

SEE SHEET C-9

Flood Legend

Process #: Folio: 32-2022-008-0013 PB 125 PG 56
Address: 14800 OAK LANE, MIAMI LAKES, FL. Highest Crown of Road Elev.: 7.92'
Average Crown of Road Elev.: 7.34'

Highest Crown of Road Elevation above was taken from a certified survey prepared by:

MARK S. JOHNSON PLS Lic # 4775
Surveyor's Name

PAVING AND DRAINAGE PLANS MUST BE ATTACHED

DERM/WC - ENVIRONMENTAL RESOURCES PERMIT (ERP COPY ATTACHED) # XX-XXXX-P
SPWMD - SURFACE STORMWATER PERMIT (SWM PERMIT COPY ATTACHED) # N/A

Total Impervious Area: 5.17 AC.

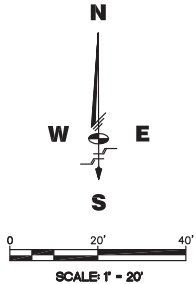
Underground Parking: YES / NO (circle one) Basement: YES / NO (circle one)

	Lowest Floor Elev.	Adjacent Grade Elev.	Lowest Catch Basin	Retention Area
PROPOSED	9.00'	8.50'/8.10'	6.10'	N/A
EXISTING	N/A	N/A	N/A	N/A

OTHER MINIMUM PROPOSED ELEVATIONS:

1. LOWEST PROP. ELEV. FOR EQUIPMENT SERVING BUILDING= 9.00'
2. LOWEST PROP. ELEV. ELEVATOR MACHINE ROOM= 9.00'

FEDERAL FLOOD HAZARD "AE" (EL. 6 FEET) PER FLOOD INSURANCE RATE MAP COMMUNITY PANEL NO. 120686 0112 L MAP DATED SEPTEMBER 11, 2009 WITH AN INDEX DATE OF SEPTEMBER 11, 2009 (MAP NO. 12086C0112L)



EXISTING FEATURES LEGEND:

- 6.30' DENOTES EXISTING FIRE HYDRANT
- 6.30' DENOTES EXISTING ELEVATIONS
- 6.30' DENOTES WATER VALVE
- 6.30' DENOTES WOOD LIGHT POLE
- 6.30' DENOTES WOOD POWER POLE
- 6.30' DENOTES PROPERTY LINE
- 6.30' DENOTES RIGHT OF WAY LINE
- 6.30' DENOTES RIGHT OF WAY LINE
- 6.30' DENOTES SANITARY SEWER CLEANDOUT
- 6.30' DENOTES SANITARY SEWER MANHOLE
- 6.30' DENOTES FORCE MAIN MANHOLE
- 6.30' DENOTES FORCE MAIN VALVE
- 6.30' DENOTES F.P.L. ELECTRIC MANHOLE
- 6.30' DENOTES F.P.L. TRANSFORMER PAD
- 6.30' DENOTES CATCH BASIN
- 6.30' DENOTES EXISTING TREE
- 6.30' DENOTES EXISTING PAVING
- 6.30' DENOTES IRRIGATION VALVE
- 6.30' DENOTES GUARD POST
- 6.30' DENOTES STORM SEWER MANHOLE
- 6.30' DENOTES SIGN POST
- 6.30' DENOTES ALUMINUM POST
- 6.30' DENOTES EXIST FENCE

PROPOSED FEATURES LEGEND:

- 6.30' DENOTES PROPOSED ELEVATION
- 6.30' DENOTES PROPOSED FRENCH DRAIN W/INLET
- 6.30' DENOTES PROPOSED INVERT W/ BAFFLE
- 6.30' DENOTES PROPOSED INVERT ELEVATION
- 6.30' DENOTES PROPOSED SLOPE TIPS
- 6.30' DENOTES FLOW DIRECTION
- 6.30' DENOTES PROPOSED RIDGE LINE
- 6.30' DENOTES PROPOSED FLOW LINE
- 6.30' DENOTES RAMP UP DIRECTION
- 6.30' DENOTES PROPOSED SIGN
- 6.30' DENOTES PROPOSED WHEEL STOP
- 6.30' DENOTES PROPOSED CENTERLINE
- 6.30' DENOTES MATCH EXISTING GRADE
- 6.30' DENOTES PROPOSED DRAINAGE MANHOLE
- 6.30' DENOTES PROPOSED SAWCUT LINE
- 6.30' DENOTES PROPOSED CONC. SIDEWALK
- 6.30' DENOTES PROPOSED DETECTABLE WARNING
- 6.30' DENOTES PROPOSED PAVING
- 6.30' DENOTES CROSS-SECTION NAME
- 6.30' DENOTES PROPOSED CROSS-SECTION
- 6.30' DENOTES SHEET NUMBER

NOTES:

1. DENOTES PROPOSED ADA RAMP WITH 2' WIDE TACTILE SURFACE AT 8.3% SLOPE MAX.-LONG. SLOPE 2% MAX (SEE SHEET C-13, SECTION I)
2. DENOTES PROPOSED 5'X5' LANDING @ 2% SLOPE MAX. ALL DIRECTIONS
3. DENOTES PEDESTRIAN RAMP AT 8.3% SLOPE MAX.

Schwebke
Shiskin &
Associates, Inc.

LAND SURVEYORS
CIVIL ENGINEERS
LAND PLANNERS
LB#87 CA#87

3240 CORPORATE WAY
MIRAMAR, FL 33025
TEL: (305)652-7010
FAX: (305)652-8284

REVISIONS

Date	Remarks	By
11/07/16	REVISE PER SP COMMENTS. B.I.	



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BOB GRAHAM OFFICE BUILDING

PAVING, GRADING AND DRAINAGE
PLAN

TOWN OF MIAMI LAKES, Florida SEC. 22, Twp. 52, Rge. 40

Drawn By: BI Date: 07/05/16

Checked By: HJN Date: 11/07/16

Order No. 205748 PB Sketches & 0000 Pg.00

Drawing Status: PERMIT

By: Hernando J. Navas
P.E., Principal

Registered Engineer No. 50635
State of Florida

Scale: As Noted

File No. ML-1154

Dwg. No:

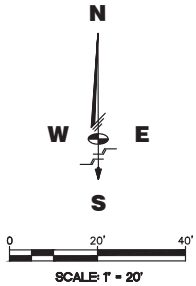
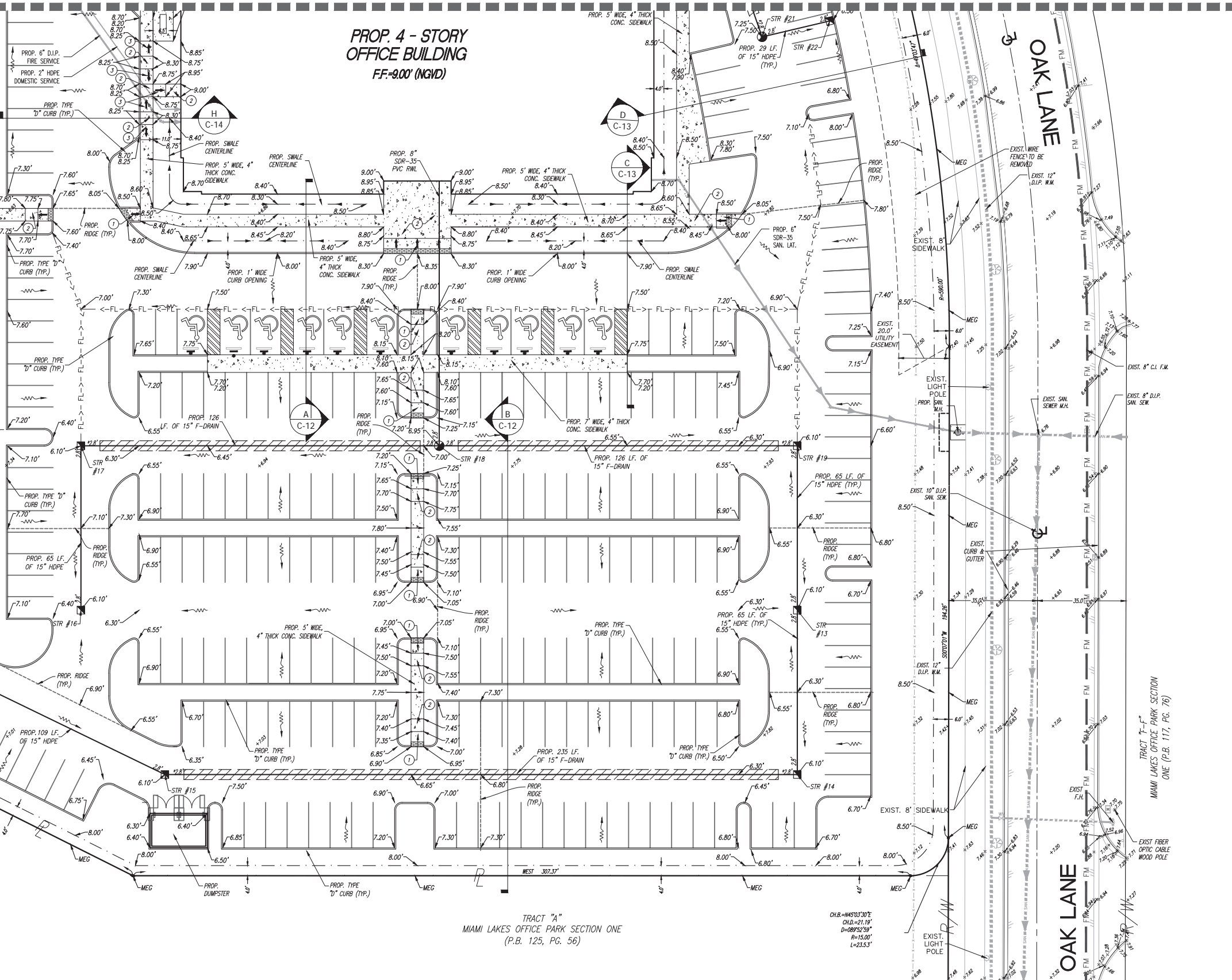
C-8

OF: C-21

SEE SHEET C-8

PROP. 4 - STORY
OFFICE BUILDING
FF-9.00' (NGVD)

SEE SHEET C-7



EXISTING FEATURES LEGEND:

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PAVING, GRADING AND DRAINAGE
PLAN
TOWN OF MIAMI LAKES, Florida SEC. 22, Twp. 52, Rge. 40

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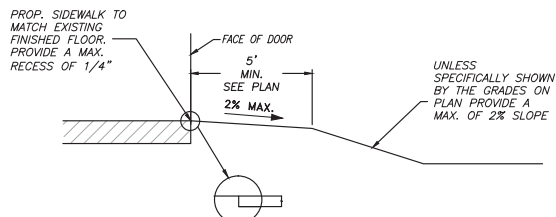
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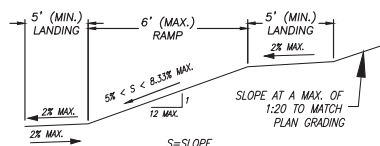
Dwg. No:

C-9

OF: C-21

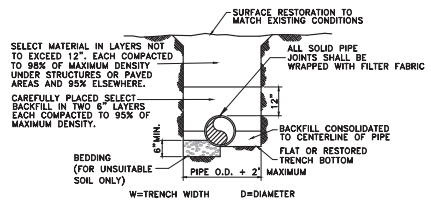


GRADING AT BUILDING EXITS/ENTRANCES



TYPICAL CURB RAMP PROFILE

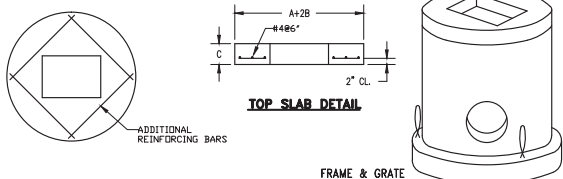
NOTE: RAMP RUN SLOPES EXCEEDING 5% SHALL BE 6' OR LESS, NO EXCEPTIONS



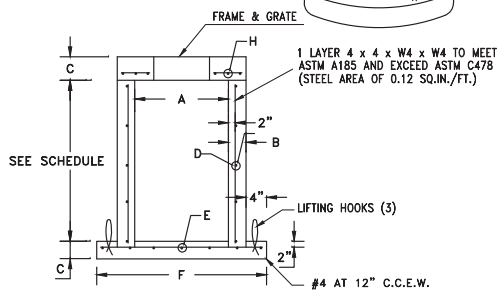
- NOTES:
1. BEDDING MATERIAL WHEN NECESSARY, SHALL BE CLEAN SANDY SOIL WHENEVER AVAILABLE WITHIN THE LIMITS OF CONSTRUCTION. IMPORTED BEDDING SHALL BE WELL GRADED 3/4\"/>
 2. DENSITY TESTING SHALL BE IN ACCORDANCE WITH AASHTO T-180 AND ASTM D-3017.
 3. IF #57 STONE IS USED, CONTRACTOR SHALL PROVIDE FILTER FABRIC OVER THE #57 STONE TO AVOID SOIL MIGRATION.

TRENCH DETAIL

N.T.S.



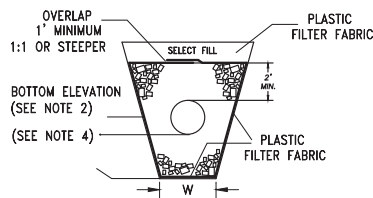
TOP SLAB DETAIL



AØ	B	C	D	E* C.C.E.W.	FØ	GØ	H* C.C.E.W.	WELDING (lb/ft)
3'-6"	6"	8"	ASTM C-478	#4 AT 12"	5'-0"	4'-6"	#4 AT 6"	72
4'-0"	6"	8"	ASTM C-478	#4 AT 12"	6'-0"	5'-0"	#4 AT 6"	94
4'-0"	8"	8"	ASTM C-478	#4 AT 12"	6'-4"	5'-4"	#4 AT 6"	94
5'-0"	8"	8"	ASTM C-478	#5 AT 12"	7'-4"	6'-4"	#5 AT 6"	147
6'-0"	6"	8"	ASTM C-478	#5 AT 6"	8'-0"	7'-0"	#5 AT 6"	211
6'-0"	8"	8"	ASTM C-478	#5 AT 6"	8'-4"	7'-4"	#5 AT 6"	211

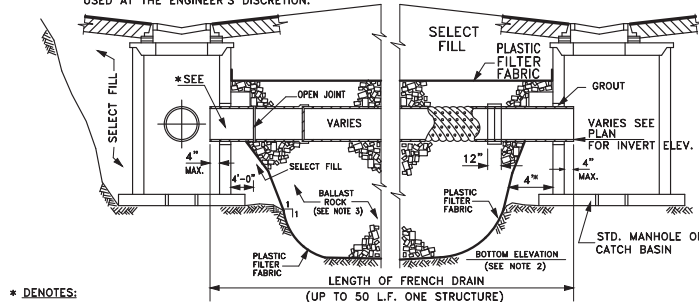
*GRADE 40, OR FOR EQUIVALENT STEEL DESIGNS.

TYPE "C" CATCH BASIN
42"-120" ROUND STRUCTURE



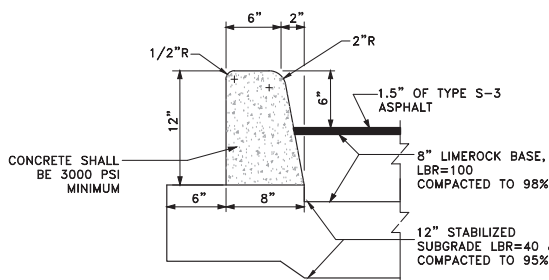
ALTERNATE TRANSVERSE SECTION

MAY BE USED IN AREAS WHERE TRENCH WALLS WILL NOT STAND VERTICAL, OR WHERE CAVE IN BELOW THE WATER TABLE IS LIKELY TO OCCUR, TO BE USED AT THE ENGINEER'S DISCRETION.



* DENOTES:
NO SLOTS OR PERFORATIONS
ON THIS LENGTH OF PIPE.

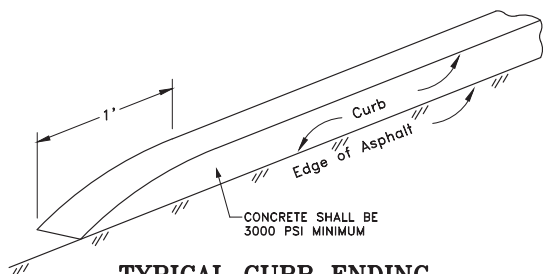
LONGITUDINAL SECTION
EXFILTRATION TRENCH



TYPE 'D' CURB

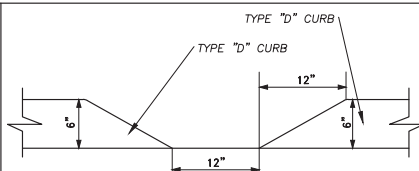
N.T.S.

NOTE: SAWCUTS REQUIRED AT 10' O.C.
WITHIN 48 HOURS OF POUR



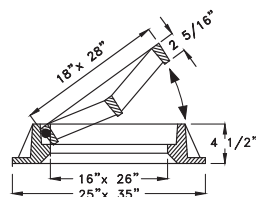
TYPICAL CURB ENDING

N.T.S.



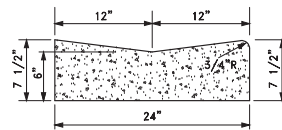
CURB OPENING

N.T.S.



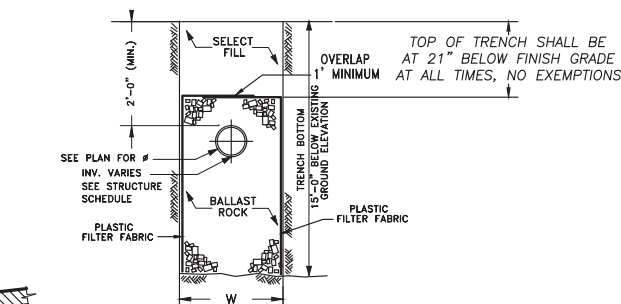
USF #4700 & 6223 GRATE
HINGED FRAME

N.T.S.



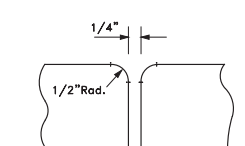
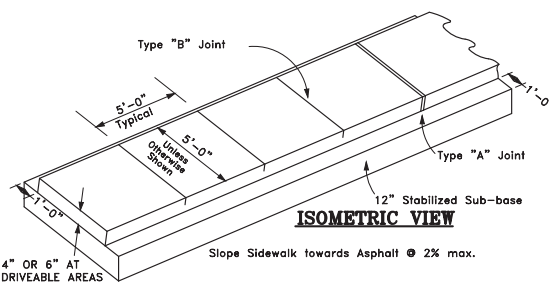
2' VALLEY GUTTER

N.T.S.



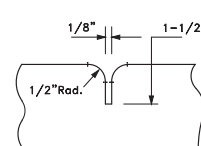
NOTES:
W=4.0' FOR 15, 18" AND 24" Ø PIPES
TRANSVERSE SECTION

- NOTES:
1. PLASTIC FILTER FABRIC (AT EACH SIDE, TOP AND BOTTOM) SHALL BE USED IN SANDY AREAS AS NOTED ON PLANS, AND/OR AS DIRECTED BY THE ENGINEER.
 2. THE BOTTOM OF THE EXFILTRATION TRENCH SHALL BE 15'-0" BELOW EXISTING GROUND ELEVATION, UNLESS FIELD CONDITIONS WARRANT OTHERWISE.
 3. AFTER THE BALLAST ROCK HAS BEEN PLACED TO THE PROPER ELEVATION, IT SHALL BE CAREFULLY WASHED DOWN WITH CLEAN WATER IN ORDER TO ALLOW FOR INITIAL SETTLEMENT THAT MAY OCCUR. IF IT DOES TAKE PLACE, ADDITIONAL BALLAST ROCK WILL BE ADDED TO RESTORE THE BALLAST ROCK TO THE PROPER ELEVATION, SO THAT THE EXFILTRATION TRENCH WILL BE COMPLETED IN ACCORDANCE WITH THE DETAILS.
 4. INVERT ELEVATION TO BE AS SHOWN IN THE STRUCTURE TABLE
AVERAGE OCTOBER GROUND WATER ELEV.= 3.50
 5. FILTER FABRIC SHALL BE MIRAFI FW404 OR EQUAL.



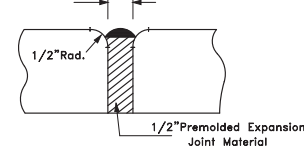
Type "A" Joint

- all P.C. & P.T.s of Sidewalk,
- Junctions with Existing Sidewalk, &
- 20 L.F. Intervals.



Type "B" Joint

- 5 L.F. Intervals

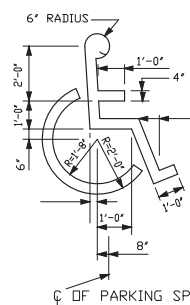


Type "C" Joint

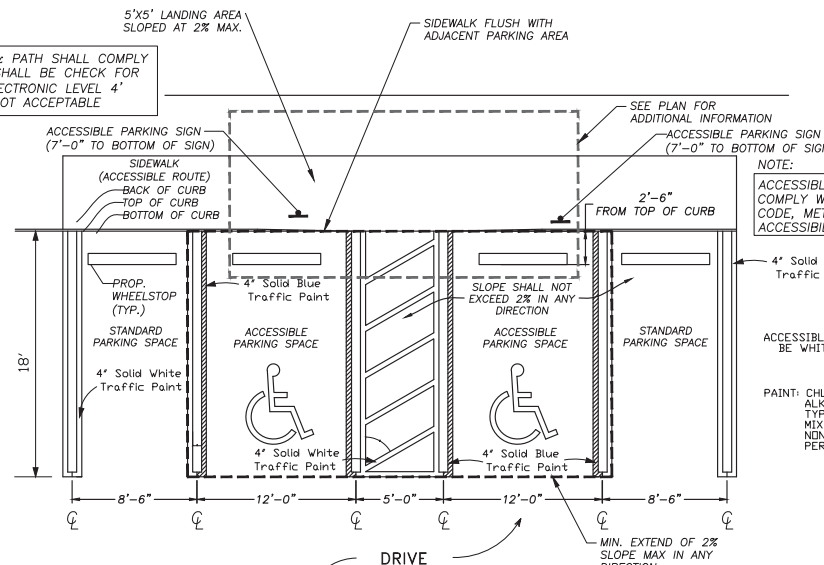
Where Sidewalk Abuts Driveways
and Concrete Curbs etc.

SIDEWALK DETAILS

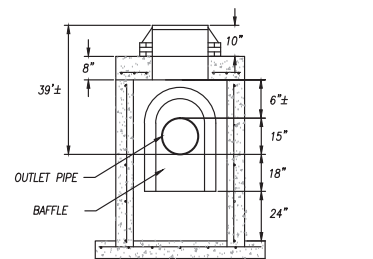
NOTE: ALL ADA STALLS, RAMPS & PATH SHALL COMPLY WITH ADA SLOPES. SAID SLOPE SHALL BE CHECK FOR COMPLIANCE WITH A 2' LONG ELECTRONIC LEVEL 4' LONG ELECTRONIC LEVELS ARE NOT ACCEPTABLE



NOTE:
ALL ADA FEATURES SHALL BE
QUALITY CONTROL WITH A 2' LONG
CALIBRATED ELECTRONIC LEVEL.

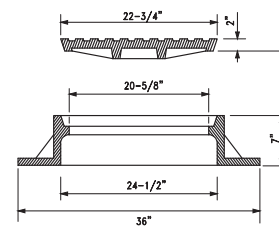


ACCESSIBLE SYMBOL & PARKING
DETAIL

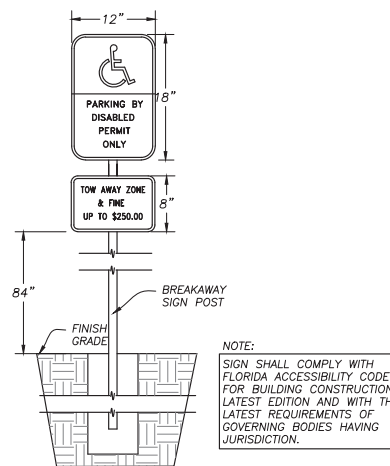


BAFFLE INSTALLATION DETAIL

N.T.S.



USF# 420 C
MANHOLE FRAME & LID



ACCESSIBLE PARKING SIGN

(N.T.S.)

SEE MIAMI-DADE COUNTY PUBLIC WORKS DETAIL R18.3
FOR ADDITIONAL SIGN SPECIFICATIONS

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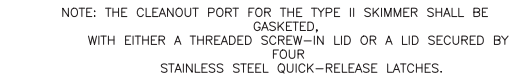
Scale: As Noted

File No. **ML-1154**

Dwg. No:

C-10

OF: C-21



1. THE FRENCHDRAIN SKIMMER IS A HOODED COVER, MOUNTED OVER AN OUTLET IN A CATCHBASIN, THAT PREVENTS OIL AND FLOATING DEBRIS FROM EXITING THE BASIN. USE THIS SKIMMER IN FRENCHDRAIN CATCHBASINS AND IN OTHER LOCATIONS WHERE THERE IS A NEED TO PREVENT OIL, DEBRIS OR OTHER FLOATING CONTAMINANTS FROM EXITING CATCHBASINS THROUGH OUTLET PIPES
2. PLACE NEOPRENE GASKET MATERIAL BETWEEN THE SKIMMER AND THE CATCHBASIN AT ALL POINTS OF CONTACT. TRIM THE GASKET NEATLY TO EXTEND $\frac{1}{2}$ INCH BEYOND THE JOINT.
3. SKIMMER BAFFLE, CLEANOUT PIPE AND ANGLES SHALL BE PRIMARILY CONSTRUCTED OF EITHER GALVANIZED STEEL, ALUMINUM, POLYVINYL CHLORIDE, POLYETHYLENE, FIBERGLASS OR ACRYLONITRILE BUTADIENE STYRENE. ALL STEEL COMPONENTS, OTHER THAN STAINLESS, SHALL BE HOT-DIP GALVANIZED.
4. MOUNTING HARDWARE, HINGES AND LATCHES SHALL ALL BE STAINLESS STEEL. LOSS PREVENTION DEVICE SHALL BE EITHER STAINLESS STEEL CHAIN OR RIVETED NYLON STRAP.
5. MATERIAL USED IN CONSTRUCTION OF SKIMMER BODIES (BAFFLES) AND CLEANOUT PIPE SHALL COMPLY WITH STANDARD SPECIFICATION 943 FOR STEEL 945 FOR ALUMINUM OR 948 FOR PLASTICS.
6. ALL COSTS FOR FURNISHING AND INSTALLING A FRENCHDRAIN SKIMMER SHALL BE INCLUDED IN THE COST OF THE BASIN IN WHICH IT IS INSTALLED. RETROFIT SKIMMERS SHALL BE PAID FOR AS 'MODIFY EXISTING STRUCTURE'.
7. PLASTIC SKIMMERS SHALL CONTAIN A MINIMUM OF 1.5% BY WEIGHT OF CARBON BLACK FOR UV PROTECTION.

NOTES:

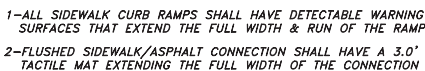
1. REPLACED BASE MATERIAL OVER TRENCH SHALL BE TWICE THE THICKNESS OF THE ORIGINAL BASE, MINIMUM 12", MAXIMUM 18".
2. BASE MATERIAL SHALL BE PLACED IN 6" MAXIMUM (LOOSE MEASUREMENT) LAYERS AND EACH LAYER THOROUGHLY ROLLED OR TAMPED TO 98% OF MAXIMUM DENSITY, PER AASHTO T-180.
3. ASPHALT CONCRETE PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED.
4. SURFACE TREATED PAVEMENT JOINTS SHALL BE LAPPED AND FEATHERED.
5. SURFACE MATERIAL SHALL BE CONSISTENT WITH THE EXISTING SURFACE.
6. BASE MATERIAL SHALL HAVE A MINIMUM LBR OF 100 AND A MINIMUM CARBONATE CONTENT OF 70%.



1. ALL STORM DRAINAGE STRUCTURES SHALL BE EQUIPPED WITH FILTER CLOTH SUPPORTED BELOW THE GRATE/INLET WITH WIRE MESH OR A SIMILAR SYSTEM UPON INSTALLATION OF THE BASIN TOPS ON SITE. THE FILTER CLOTH FABRIC IS NOT TO BE REMOVED OR PERFORATED/DISTURBED FROM THE BASINS UNTIL LANDSCAPING, SOD INSTALLATION, PAVEMENT/CURBING INSTALLATION, STRIPING, AND SWEEPING IS COMPLETED ON THE ENTIRE SITE.
2. ALL STRUCTURES SHALL BE VACUUMED CLEAN OF ALL SILT, SAND, AND DEBRIS BEFORE FINAL ACCEPTANCE BY THE ENGINEER AND THE OWNER.
3. ALL STORM DRAINAGE PIPE (PERFORATED OR NON-PERFORATED) WILL BE INSTALLED AND MAINTAINED CLEAN AND CLEAR OF DEBRIS, ROCK, SAND AND SILT.
4. CONTRACTOR(S) SHALL BE CAUTIONED THAT INTRODUCTION OF SUCH MATERIALS AS CONSTRUCTION MATERIALS, CONCRETE AND STUCCO SLURRY OR WASHOFF MATERIALS FROM THESE OPERATIONS, PAINT AND PAINTING ACTIVITY INGREDIENTS, OILS, HYDRAULIC FLUIDS, FUELS AND OR ANY OTHER SUCH DELETERIOUS MATERIALS, WHEN INTRODUCED INTO THE STORM DRAINAGE SYSTEM CAN AND WILL RENDER IT USELESS, POLLUTE THE SITE AND SURROUNDING SITES OR HARM THE SYSTEM'S PERFORMANCE LEVEL.

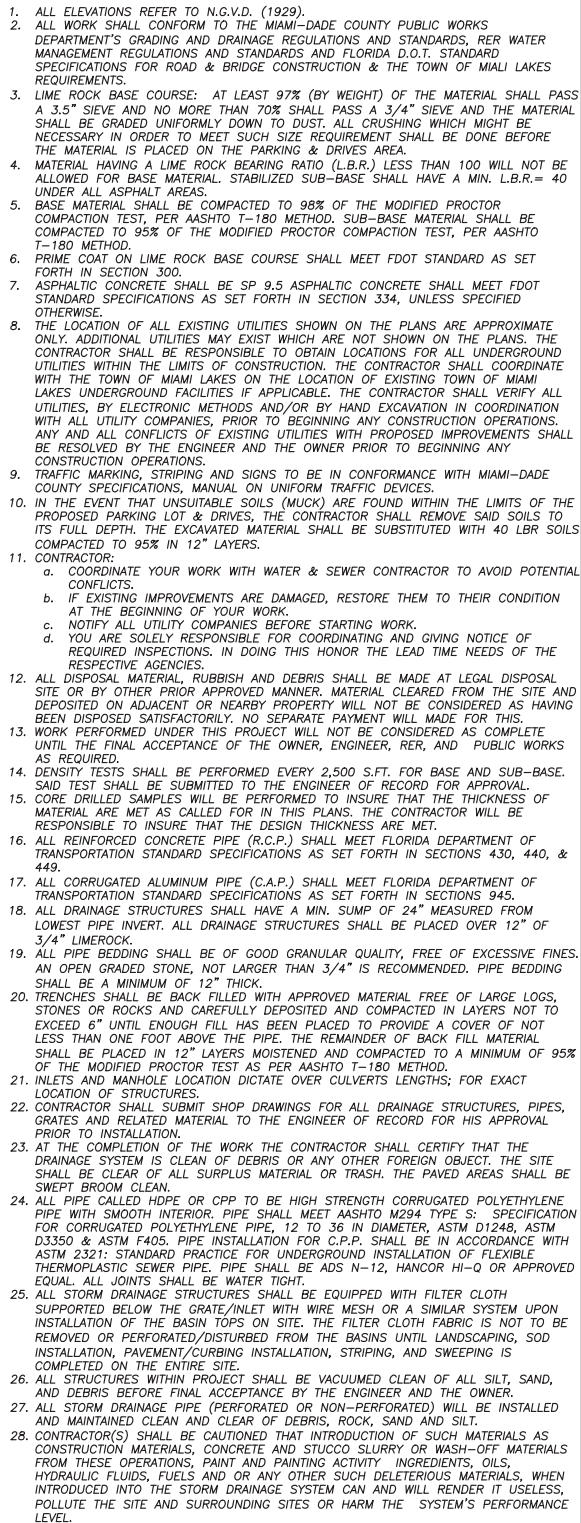
NOTES:

1. ALL ELEVATIONS REFER TO N.G.V.D..
2. ALL WORK SHALL CONFORM TO THE DEPARTMENT OF ENVIRONMENTAL RESOURCES MANAGEMENT, SOUTH FLORIDA WATER MANAGEMENT DISTRICT AND MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT REGULATIONS & STANDARDS.
3. C.A.P.= CORRUGATED ALUMINUM PIPE AND SHALL MEET FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AS SET FORTH IN SECTIONS 945.430 AND 945.435.
4. PRIOR TO EXCAVATION THE CONTRACTOR SHALL VERIFY THE LOCATION (VERTICALLY & HORIZONTALLY) OF ALL OF THE EXISTING UTILITIES IN ORDER TO AVOID CONFLICTS WITH THE PROPOSED DRAINAGE. IN CASE OF CONFLICT THE CONTRACTOR SHALL NOTIFY THE ENGINEER.
5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL DRAINAGE STRUCTURES, MANHOLE, ETC. FOR HIS APPROVAL PRIOR TO INSTALLATION.



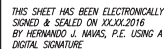
N.T.S.

NOTE: MAT SHAL BE YELLOW IN COLOR.



**LAND SURVEYORS
CIVIL ENGINEERS
LAND PLANNERS**
LB#87 CA#87
3240 CORPORATE WAY
MIRAMAR, FL 33025
TEL: (305)652-7010
FAX: (305)652-8284

Date	Remarks	By



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PAVING, GRADING AND DRAINAGE DETAILS

TOWN OF MIAMI LAKES, Florida SEC. 22, Twp. 52, Rge. 40

Drawn By: BI Date: 07/05/16

Checked By: HJN Date: 11/07/16

Order No. 205748 FB. Sketches &
00000 Pg. 00

Drawing Status: PERMIT

By: Hernando J. Navas
P.E., Principal
Registered Engineer No. 50635
State of Florida

Scale: As Noted

File No. **ML-1154**

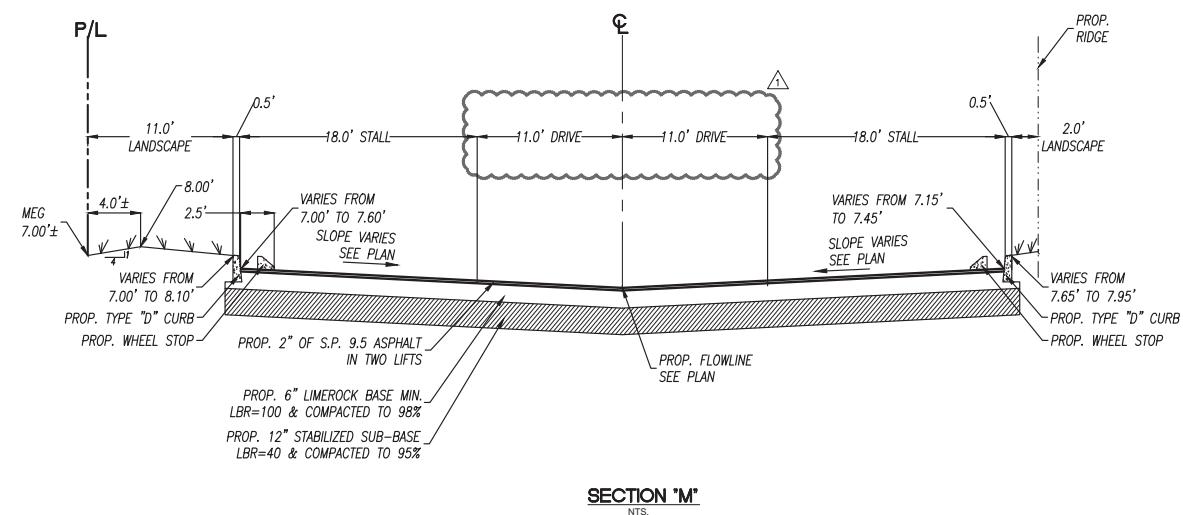
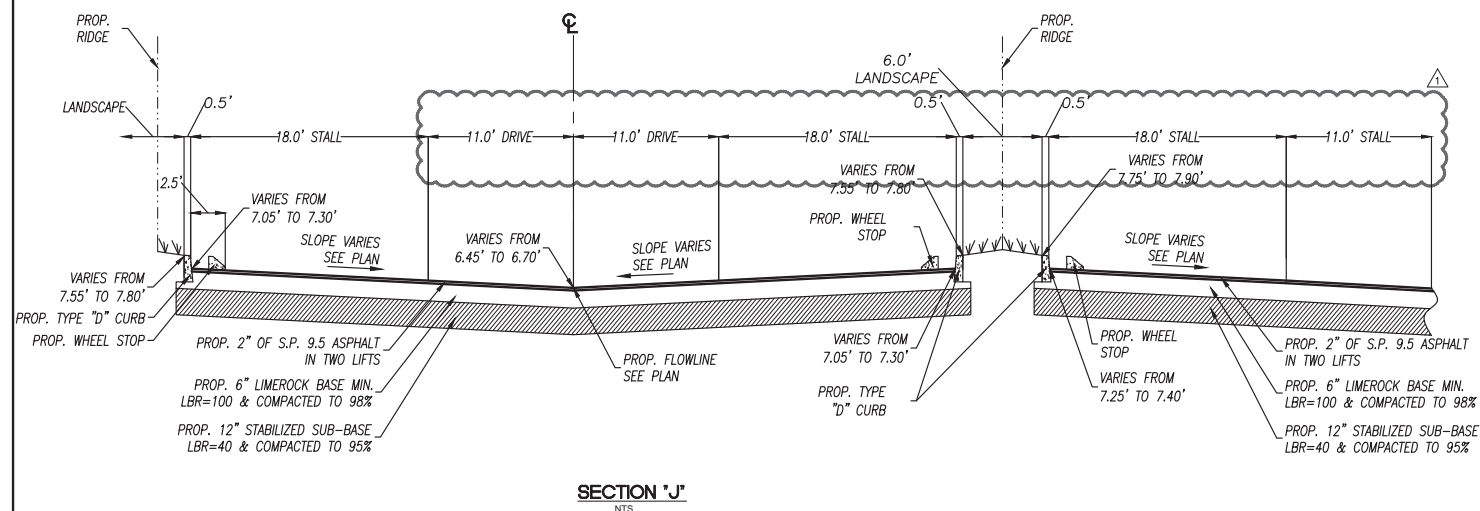
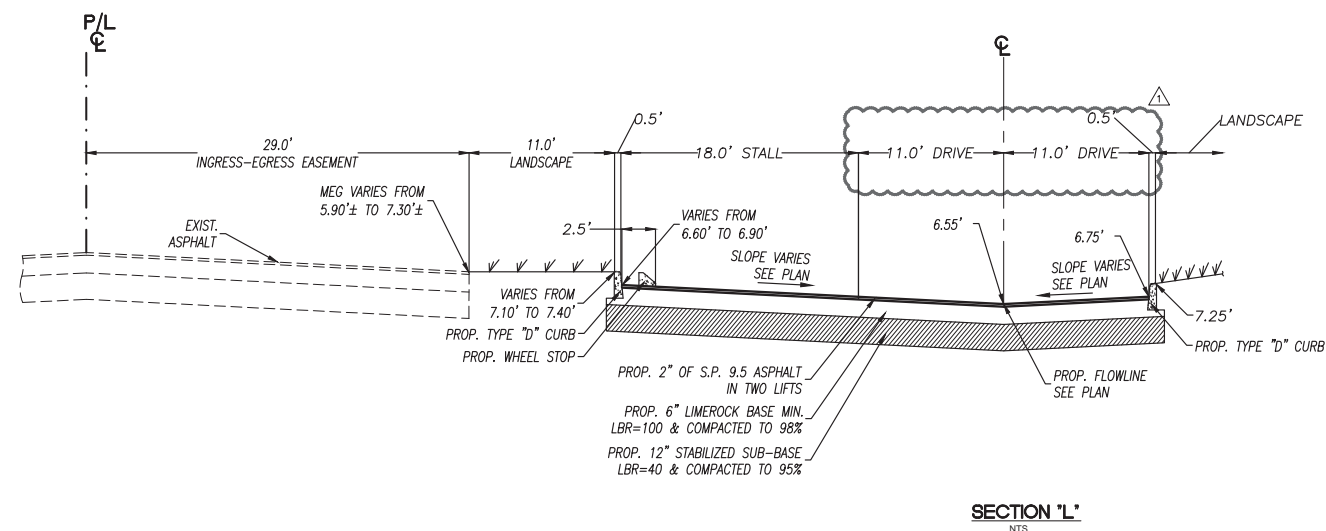
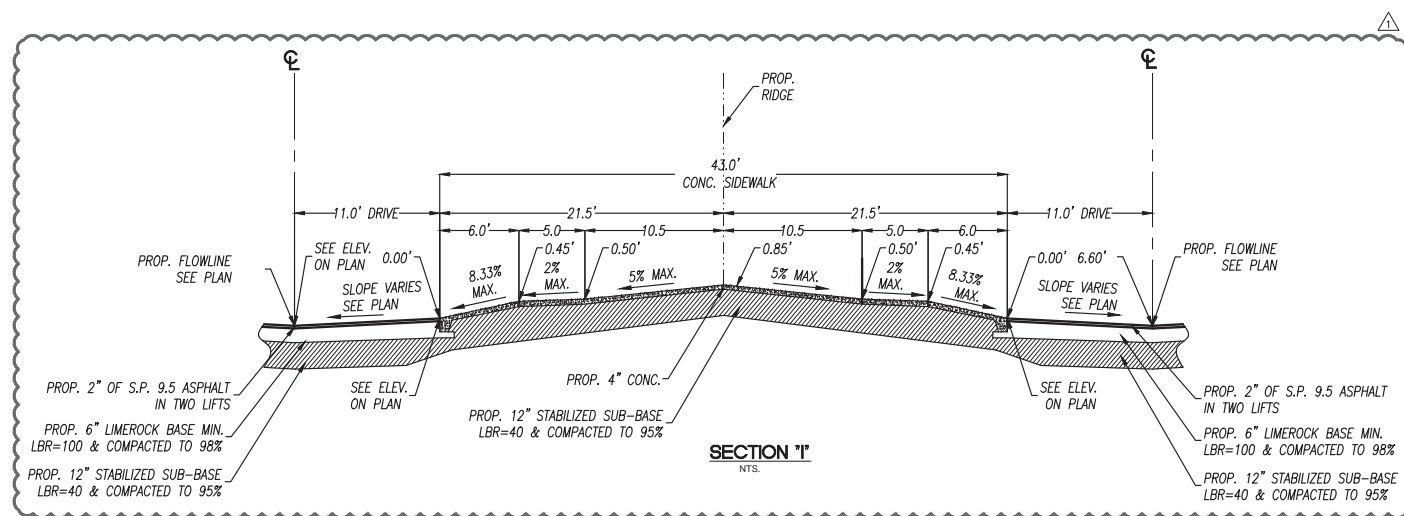
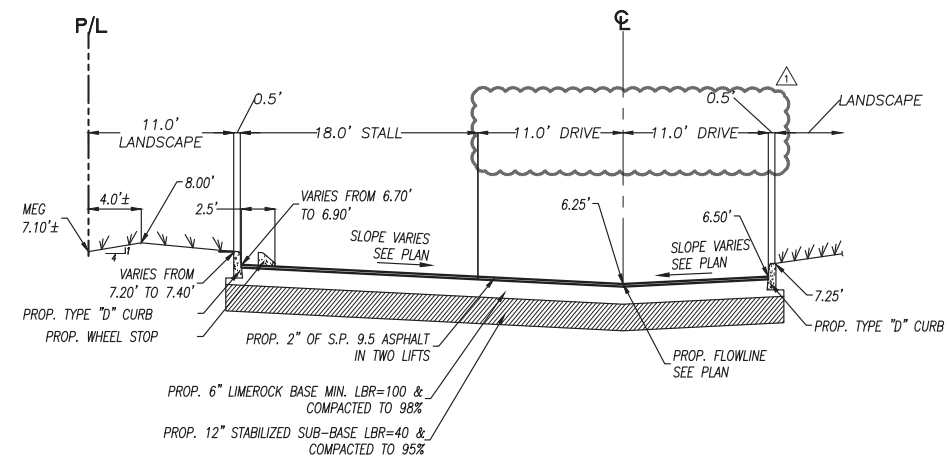
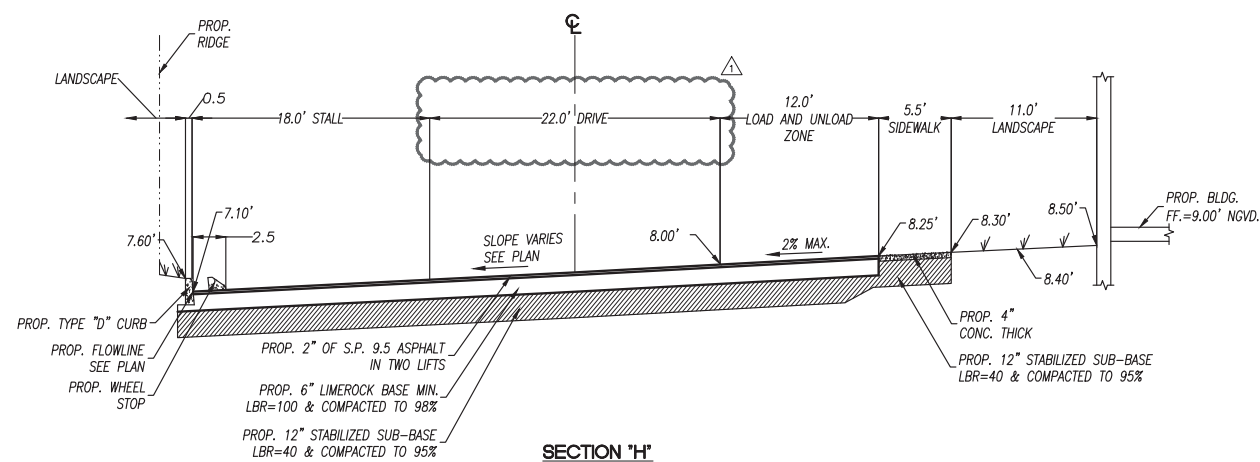
(Dwg. No:

C-11

OF: C-21



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REVISIONS		
Date	Remarks	By
11/07/16	REVISE PER SP COMMENTS.	B.I.



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BOB GRAHAM OFFICE BUILDING
PAVING, GRADING AND DRAINAGE
CROSS SECTIONS

TOWN OF MIAMI LAKES, Florida SEC. 22, Twp. 52, Rge. 40

Drawn By: BI Date: 07/05/16

Checked By: HJN Date: 11/07/16

Order No. 205748 FB. Sketches &
00000 Pg. 00

Drawing Status: PERMIT

By: Hernando J. Navas
P.E., Principal
Registered Engineer No. 50635
State of Florida

Scale: As Noted

File No. **ML-1154**

Dwg. No:

OF: C-21

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BOB GRAHAM OFFICE BUILDING
PAVEMENT MARKING AND SIGNAGE
PLAN
TOWN OF MIAMI LAKES, Florida SEC. 22, Twp. 52, Rge. 40

Drawn By: BI Date: 07/05/16

Checked By: HJN Date: 11/07/16

Order No. 205748 PB Sketches &
00000 Pg. 00

Drawing Status: PERMIT

By:
Hernando J. Navas
P.E., Principal
Registered Engineer No. 50635
State of Florida

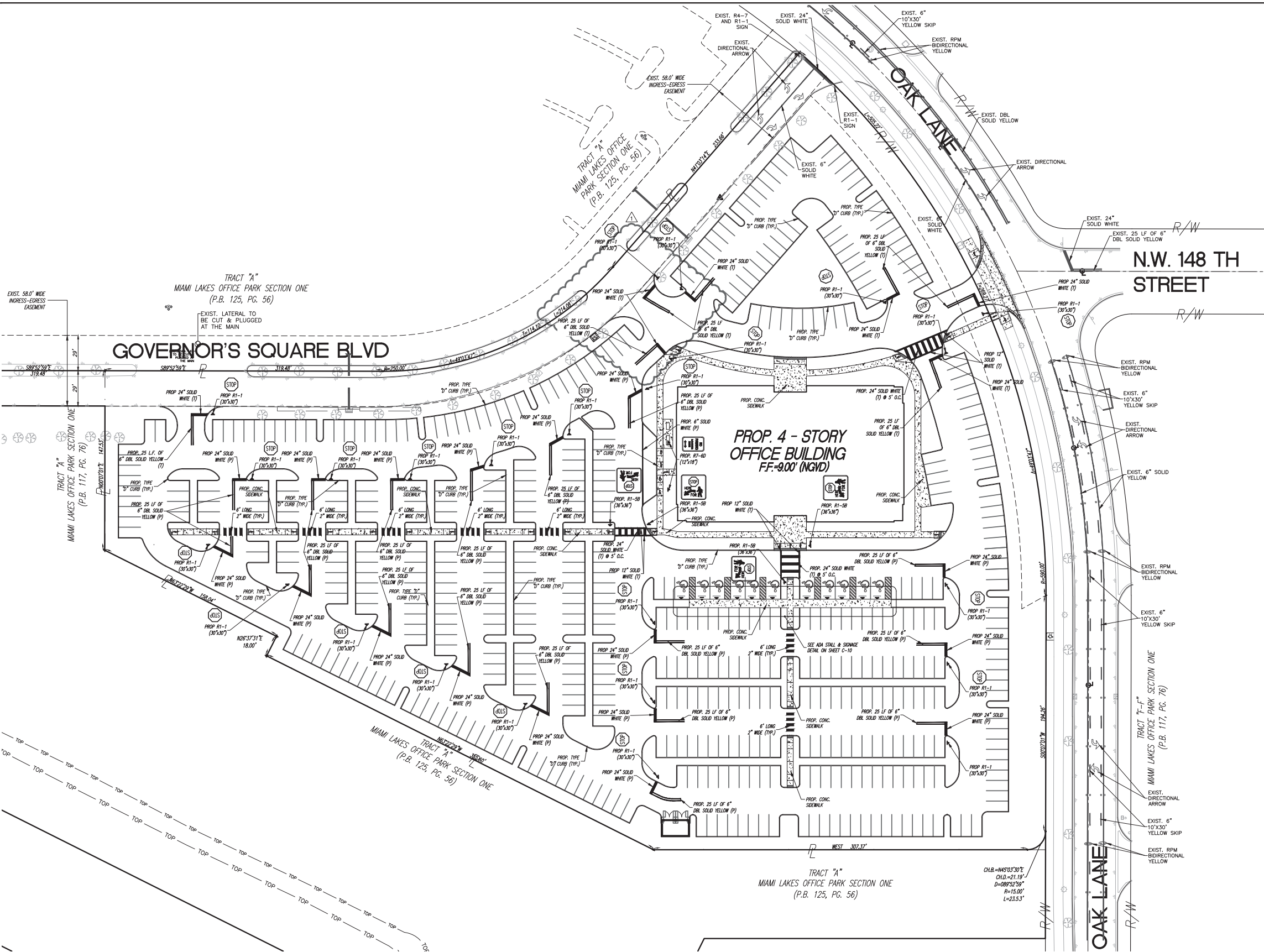
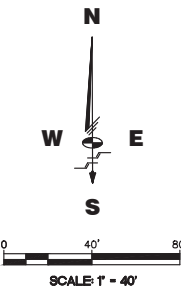
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File No. **ML-1154**

Dwg. No:

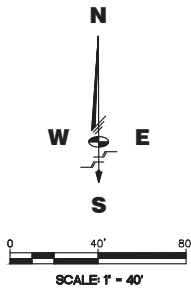
C-15

OF: C-21



TRAFFIC SIGNAGE AND MARKING NOTES:

- (T) DENOTES THERMOPLASTIC MARKING PER F-DOT SPECS.
(P) DENOTES TRAFFIC PAINT PER F-DOT SPECS.
ALL STOP SIGNS SHALL BE 30"X30" HIGH DENSITY AND REFLECTIVE.



REVISIONS

Date	Remarks	By



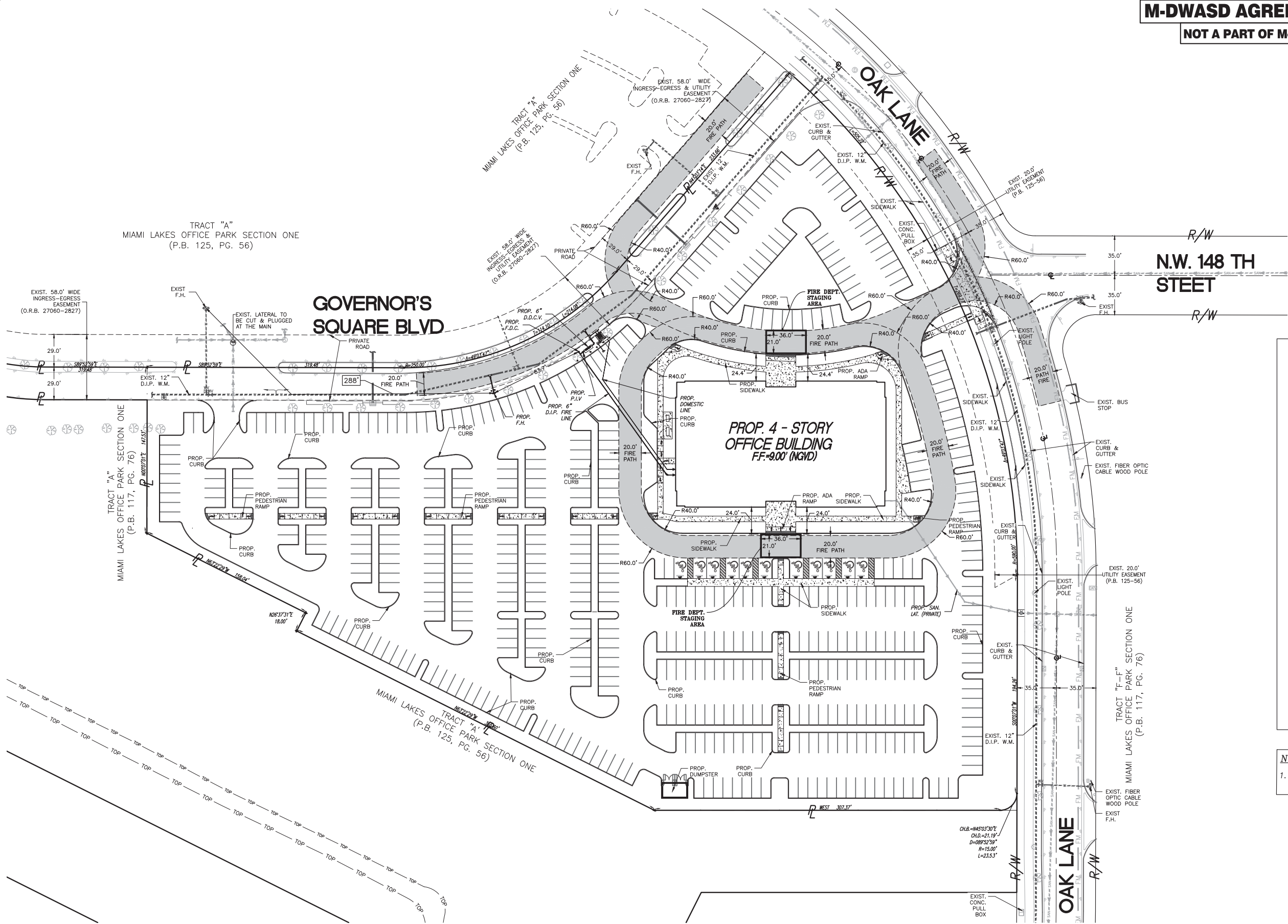
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BOB GRAHAM OFFICE BUILDING

FIRE ACCESS
PLAN

TOWN OF MIAMI LAKES, Florida SEC. 22, Twp. 52, Rge. 40



LEGEND

- DENOTES EXISTING TREE
- DENOTES PROPERTY LINE
- R/W DENOTES RIGHT OF WAY LINE
- DENOTES CENTER LINE
- DENOTES EXISTING FENCE
- DENOTES EXISTING POWER POLE
- DENOTES EXISTING ASPHALT
- DENOTES EXISTING WATER VALVE
- DENOTES EXISTING DRAINAGE MANHOLE
- DENOTES EXISTING SANITARY MAN HOLE
- DENOTES EXISTING INLET
- DENOTES EXISTING SIGN
- DENOTES PROPOSED STORM INLET/M.H.
- DENOTES PROPOSED FRENCH DRAIN
- DENOTES PROPOSED BOLLARD
- DENOTES PROPOSED VACUUM BREAKER IRRIGATION
- DENOTES PROPOSED BACK FLOW PREVENTER
- DENOTES PROPOSED DOUBLE DETECTOR CHECK VALVE
- DENOTES PROPOSED FIRE HYDRANT
- DENOTES PROPOSED WATER VALVE
- DENOTES PROPOSED WATER TEE
- DENOTES PROPOSED 90° BEND
- DENOTES PROPOSED 45° BEND
- DENOTES PROPOSED 11.25° BEND

NOTES

1. REFER TO SHEET C-17 FOR SITE
GEOMETRIC PLAN

Drawn By: BJ Date: 07/05/16

Checked By: HJN Date: 11/07/16

Order No. 205748 FB Sketches & 00000 Pg. 00

Drawing Status: PERMIT

By: **Hernando J. Navas**
P.E., Principal
Registered Engineer No. 50635
State of Florida

Scale: As Noted

File No. **ML-1154**

Dwg. No:

C-16

OF: C-21

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BOB GRAHAM OFFICE BUILDING
SITE GEOMETRIC
PLAN
TOWN OF MIAMI LAKES, Florida SEC. 22, Twp. 52, Rge. 40

Drawn By: BJ Date: 07/05/16

Checked By: HJN Date: 11/07/16

Order No. 205748 FB Sketches &
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By:
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File No. **ML-1154**

Dwg. No:

C-17

OF: C-21



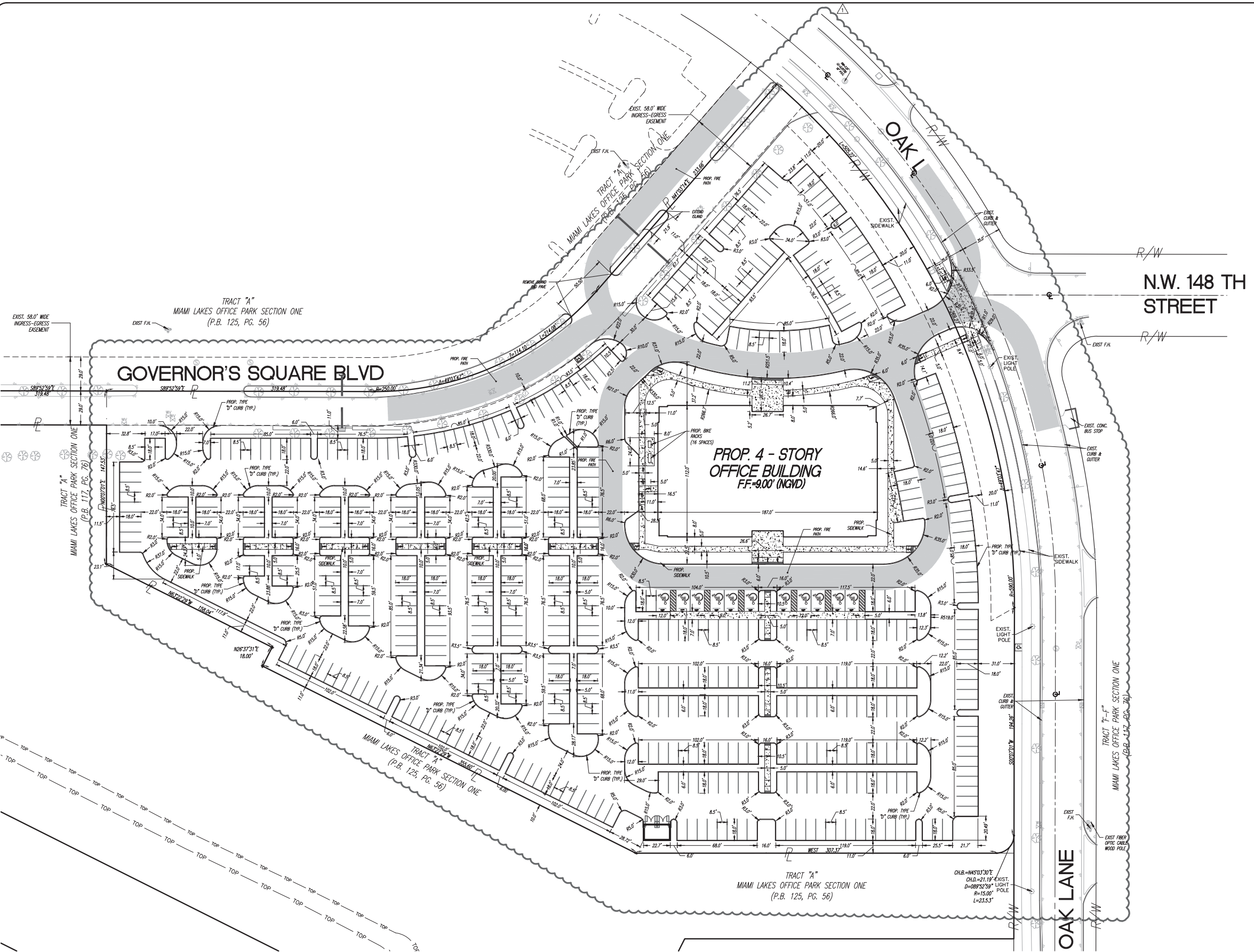
SCALE 1" = 40'

EXISTING FEATURES LEGEND:

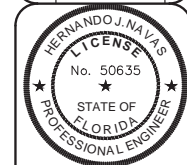
- ⊙ DENOTES EXISTING FIRE HYDRANT
- ⊙ DENOTES EXISTING ELEVATIONS
- ⊙ DENOTES WATER VALVE
- ⊙ DENOTES WOOD LIGHT POLE
- ⊙ DENOTES WOOD POWER POLE
- DENOTES PROPERTY LINE
- R/W DENOTES RIGHT OF WAY LINE
- ⊙ DENOTES RIGHT OF WAY LINE
- ⊙ DENOTES SANITARY SEWER CLEANOUT
- ⊙ DENOTES SANITARY SEWER MANHOLE
- ⊙ DENOTES FORCE MAIN MANHOLE
- ⊙ DENOTES FORCE MAIN VALVE
- ⊙ DENOTES F.P.L. ELECTRIC MANHOLE
- ⊙ DENOTES F.P.L. TRANSFORMER PAD
- ⊙ DENOTES CATCH BASIN
- ⊙ DENOTES EXISTING TREE
- ⊙ DENOTES EXISTING PAVING
- ⊙ DENOTES IRRIGATION VALVE
- ⊙ DENOTES GUARD POST
- ⊙ DENOTES STORM SEWER MANHOLE
- ⊙ DENOTES SIGN POST
- ⊙ DENOTES ALUMINUM POST
- DENOTES EXIST FENCE

PROPOSED FEATURES LEGEND:

- ⊙ DENOTES STALL COUNT
- DENOTES RAMP UP DIRECTION
- ⊙ DENOTES PROPOSED SIGN
- ⊙ DENOTES PROPOSED WHEEL STOP
- DENOTES PROPOSED CENTERLINE
- ⊙ DENOTES PROPOSED CONC. SIDEWALK
- ⊙ DENOTES PROPOSED DETECTABLE WARNING
- ⊙ DENOTES PROPOSED FIRE PATH



REVISIONS		
Date	Remarks	By



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BOB GRAHAM OFFICE BUILDING
EROSION AND SEDIMENT CONTROL
PLAN

TOWN OF MIAMI LAKES, Florida SEC. 22, Twp. 52, Rge. 40

Drawn By: BI Date: 07/05/16

Checked By: HJN Date: 11/07/16

Order No. 205748 FB. Sketches &
00000 Pg. 00

Drawing Status: PERMIT

By: _____

Hernando J. Navas
P.E., Principal

Registered Engineer No. 50635
State of Florida

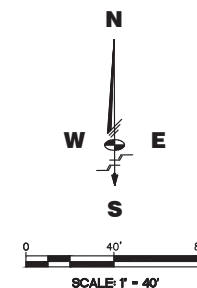
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File No. **ML-1154**























(Dwg. No:

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






OF: C-21



EXISTING FEATURES LEGEND:

- | | |
|---|---------------------------------|
|  | DENOTES EXISTING FIRE HYDRANT |
|  | DENOTES EXISTING ELEVATIONS |
|  | DENOTES WATER VALVE |
|  | DENOTES WOOD LIGHT POLE |
|  | DENOTES WOOD POWER POLE |
|  | DENOTES PROPERTY LINE |
|  | DENOTES RIGHT OF WAY LINE |
|  | DENOTES RIGHT OF WAY LINE |
|  | DENOTES SANITARY SEWER CLEANOUT |
|  | DENOTES SANITARY SEWER MANHOLE |
|  | DENOTES FORCE MAIN MANHOLE |
|  | DENOTES FORCE MAIN VALVE |
|  | DENOTES F.P.L. ELECTRIC MANHOLE |
|  | DENOTES F.P.L. TRANSFORMER PAD |
|  | DENOTES CATCH BASIN |
|  | DENOTES EXISTING TREE |
|  | DENOTES EXISTING PAVING |
|  | DENOTES IRRIGATION VALVE |
|  | • GP DENOTES GUARD POST |
|  | DENOTES STORM SEWER MANHOLE |
|  | DENOTES SIGN POST |
|  | DENOTES ALUMINUM POST |

PROPOSED FEATURES LEGEND:

- | | | |
|---|---------------------------------------|----------------------------|
| 6.30' | → | DENOTES PROPOSED ELEVATION |
|  | DENOTES PROPOSED FRENCH DRAIN W/INLET | |
| *3.0' | DENOTES PROPOSED INVERT W/ BAFFLE | |
| 3.0' | DENOTES PROPOSED INVERT ELEVATION | |
| → | DENOTES PROPOSED SLOPE TIPS | |
|  | DENOTES FLOW DIRECTION | |
| - · - · - · | DENOTES PROPOSED RIDGE LINE | |
| → | DENOTES RAMP UP DIRECTION | |
|  | DENOTES PROPOSED SIGN | |
|  | DENOTES PROPOSED WHEEL STOP | |
| - - - - - | DENOTES PROPOSED CENTERLINE | |
| MEG → | DENOTES MATCH EXISTING GRADE | |
|  | DENOTES PROPOSED DRAINAGE MANHOLE | |
| - · · · · · | DENOTES PROPOSED SAWCUT LINE | |
|  | DENOTES PROPOSED CONC. SIDEWALK | |
|  | DENOTES PROPOSED PAVING | |
| — | DENOTES CROSS-SECTION NAME | |
|  | DENOTES PROPOSED CROSS-SECTION | |
| — | DENOTES SHEET NUMBER | |

1. Remove the grate from the casting or concrete drainage structure.
2. Clean the ledge (lip) of the casting frame or drainage structure to ensure it is free of stone and dirt.
3. Drop in the FLEXSTORM Inlet Filter through the clear opening and be sure the suspension hangers rest firmly on the inside ledge (lip) of the casting.
4. Replace the grate and confirm it is elevated no more than 1/8", which is the thickness of the steel hangers.

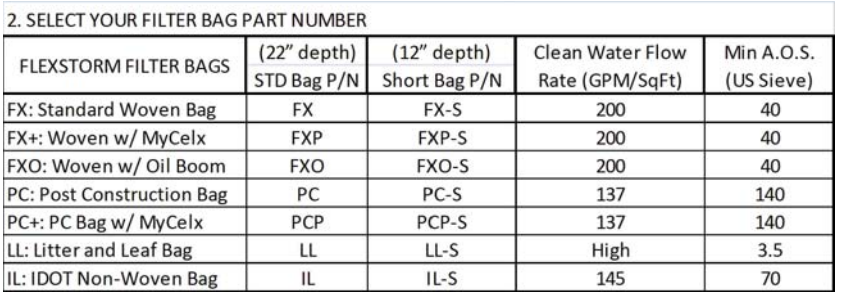
1. Construction site inspection should occur following each ½" or more rain event.
2. Post Construction inspections should occur three times per year (every four months) in areas with mid year round rain fall and four times per year (every three months Feb-Nov) in areas with summerrains before and after the winter snowfall season.
3. Industrial application site inspections (loading ramps, wash racks, maintenance facilities) should occur on a regularly scheduled basis no less than three times per year.

1. Empty the sediment bag if more than half filled with sediment and debris, or as directed by the Engineer.
2. Remove the grate, engage the lifting bars or handles with the FLEXSTORM Removal Tool, and lift from the drainage structure.
3. Dispose of the sediment or debris as directed by the Engineer or Maintenance Contract in accordance with EPA guidelines.
4. As an alternative, an industrial vacuum may be used to collect the accumulated sediment.
5. Remove any caked on silt from the sediment bag and reverse flush the bag with medium spray for optimal filtration.
6. Replace the bag if torn or punctured to ½" diameter or greater on the lower half of the bag.
7. Post Construction PC Bags maint: At 50% saturation, the average 2' x 2' Adsorb-it lined PC filter will retain approx 75 oz (4.2 lbs) of oil and should be serviced or replaced. It can be centrifuged or passed through a wringer to recover the oils, and the fabric reused with 85% to 90% efficacy. It may also be recycled for its fuel value through waste to energy incineration.
8. MyCelx Skimmer Pouches: The skimmers start yellow in color and will gradually turn brown as they become saturated, indicating time for replacement. Each MyCelx skimmer pouch will absorb approximately 89 oz (5 lbs) of oil before requiring replacement.
9. Dispose of all oil contaminated products in accordance with EPA guidelines.

1. Remove the bag by loosening or cutting off the clamping band.
2. Take the new sediment bag, which is equipped with a stainless steel worm drive clamping band, and use a screw driver to tighten the bag around the frame channel.
3. Ensure the bag is secure and that there is no slack around the perimeter of the band.

[illegible]

STYLE	FRAME STYLE AND SIZE	Frame P/N:
ROUND	Small Round (up to 20.0" dia grates (A) dim)	62SRD
	Med Round (20.1" - 26.0" dia grates (A) up to 25" dia openings (B))	62MRD
	Large Round (26.1" - 32.0" dia grates (A) up to 30" openings (B))	62LRD
	XL Round (32.1" dia - 39" dia grates (A) up to 37" dia openings (B))	62XLRD
RECT / SQUARE	Small Rect / Square (up to 16" (B) x 16" (D) openings or 64" perimeter)	62SSQ
	Med Rect / Square (up to 24" (B) x 24" (D) openings or 96" perimeter)	62MSQ
	Large Rect / Square (up to 36" (B) x 24" (D) openings or 120" perimeter)	62LSQ
	XL Rect / Square (side by side 2 pc set to fit up to 48" (B) x 36" (D) openings)	62XLSQ
COMBO INLETS	Small Rect / Square (ref Rect sizing; shipped with Magnetic Curb Flaps)	62SCB
	Med Rect / Square (ref Rect sizing; shipped with Magnetic Curb Flaps)	62MCB
	Large Rect / Square (ref Rect sizing; shipped with Magnetic Curb Flaps)	62LCB
	XL Rect / Square (ref Rect sizing; shipped with Magnetic Curb Flaps)	62XLCB
NYLOPLAST	12" diameter Nyloplast castings (Stainless Steel Framing standard)	6212NY
	15" diameter Nyloplast castings (Stainless Steel Framing standard)	6215NY
	18" diameter Nyloplast castings (Stainless Steel Framing standard)	6218NY
	24" diameter Nyloplast castings (Stainless Steel Framing standard)	6224NY
	30" diameter Nyloplast castings (Stainless Steel Framing standard)	6230NY
WALL MOUNT	Open Throat Gutters - Curb Opening Size	
	Up to 4' (1 Filter and Mounting Hardware)	62WM1
	Between 4' and 8' (2 Filters and Mounting Hardware)	62WM2
	Between 8' and 12' (3 Filters and Mounting Hardware)	62WM3
	Between 12' and 16' (4 Filters and Mounting Hardware)	62WM4
UPGRADED FRAMING MATERIAL OPTIONS (STANDARD IS ZINC PLATED)		SUFFIX
CHROME PLATED FRAMING FOR HIGH SALT EXPOSURE		- CHR
STAINLESS STEEL FRAMING FOR HIGH SALT AND/OR CHEMICAL EXPOSURE		- SS



		-	
Frame P/N from Step 1.	Filter Bag P/N from Step 2.		Framing Material

SPECIFICATIONS FOR STANDARD BAGS BY NOMINAL SIZE						
Nominal Bag Size	Solids Storage (CuFt)	Filtered Flow Rate at 50% Max			* PC Oil Retent (Oz)	**PCP Oil Retent (Oz)
		FX (Woven)	PC (Post Constr)	IL (Non Woven)		
Small	1.6	1.2	0.8	0.9	66	155
Medium	2.1	1.8	1.2	1.3	96	185
Large	3.8	2.2	1.5	1.6	120	209
XL	4.2	3.6	2.4	2.6	192	370

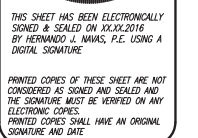
* PC filter bag at 50% max adsorption capacity

** PC filter bag at 50% capacity and MyCelx skimmer at 100% capacity

** PC filter bag at 50% capacity and MyCelx skimmer at 100% capacity

**LAND SURVEYORS
CIVIL ENGINEERS
LAND PLANNERS**
LB#87 CA#87

**3240 CORPORATE WAY
MIRAMAR, FL 33025
TEL: (305)652-7010
FAX: (305)652-8284**

[illegible]

22

BOB GRAHAM OFFICE BUILDING
EROSION AND SEDIMENT CONTROL
DETAILS
TOWN OF MIAMI LAKES, Florida SEC. 22, Trwp. 52, Rge. 40

OF: C-21

