

Return recorded copy to:
Broward County Traffic Engineering Division
2300 W Commercial Boulevard
Fort Lauderdale, FL 33309

Document prepared by:
Maya A. Moore
Assistant County Attorney
115 S. Andrews Avenue, Room 423
Fort Lauderdale, FL 33301

NOTICE: COUNTY'S HEIRS, SUCCESSORS, AND ASSIGNS OF ANY INTEREST IN THE LAND SET FORTH IN EXHIBIT "A" ARE HEREBY PUT ON NOTICE OF THE OBLIGATIONS SET FORTH WITHIN THIS AGREEMENT WHICH SHALL RUN WITH THE LAND.

REVOCABLE LICENSE AGREEMENT

This Revocable License Agreement ("Agreement") between Broward County ("County"), a political subdivision of the State of Florida, and City of Oakland Park ("Municipality"), a municipal corporation organized and existing under the laws of the State of Florida (collectively, the "Parties"), is entered into and effective as of the date this Agreement is fully executed by the Parties (the "Effective Date").

RECITALS

A. County owns and controls the right-of-way on Andrews Avenue between Oakland Park Boulevard and East Prospect Road (the "Roadway") within the municipal limits of Municipality depicted in red on the attached Exhibit A.

B. Municipality desires and County agrees to permit nonexclusive access and use of the area depicted in green on Exhibit A (the "Revocable License Area") for the installation and maintenance of green-colored bicycle lanes.

C. Municipality, through formal action by its governing body taken on the 20 day of September, 2018, has accepted responsibility for the ongoing maintenance and repair of the Revocable License Area under the terms of this Agreement.

D. Municipality has authorized the appropriate municipal officers to execute this Agreement.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

1. TERM. The term of this Agreement will commence upon the Effective Date and will continue until this Agreement is terminated as provided for in paragraph 10 below.

2. USE OF REVOCABLE LICENSE AREA. County hereby grants to Municipality a revocable license for nonexclusive access and use of the Revocable License Area only for the purpose designated below (the "Improvements"), and shown in the attached Exhibit A (the "Licensed Use"), including ongoing maintenance and repair of the Improvements. The Improvements must meet County's Minimum Standards Applicable to Public Rights-of-Ways Under Broward County Jurisdiction, the Special Technical Provisions attached as Exhibit B-1, and the Manufacturer's Specification attached as Exhibit B-2. The Improvements are subject to the conditions of the Interim Approval Memorandum IA-14 in the attached Exhibit D. Other than the purposes identified in this Agreement, Municipality must not use the Revocable License Area for any other purpose whatsoever without written amendment of this Agreement executed with the same formalities as this Agreement. Municipality must also not permit the Revocable License Area to be used in any manner that will violate the terms of this Agreement or any laws, administrative rules, or regulations of any applicable governmental entity or agency.

PLEASE CHECK THE APPROPRIATE BOX BELOW

- Overflow parking in excess of the minimum of off-street parking required by Chapter 39, Broward County Code of Ordinances, or the applicable municipal minimum of off-street parking requirements.
- A sign that is permitted under applicable municipal/unincorporated sign ordinances and laws.
- Additional landscaping and irrigation in excess of that required by Chapter 39, Broward County Code of Ordinances, or applicable municipal minimum landscaping requirements or as a condition of any special exception or variance.
- Other (explain): Installation, maintenance, repair, and replacement of green colored pavement in bicycle lanes and within other specified and agreed upon traffic conflict areas

2.1 Municipality shall submit plans for the installation together with specifications and a schedule for the ongoing maintenance of the Improvements to the Director of Broward County Traffic Engineering Division (the "TED") at least thirty (30) days before installation, and must not install the Improvements until written approval is obtained from the Director of the TED (the "Director"). Municipality shall ensure that the plans provide for the ongoing maintenance of the Improvements in accordance with the schedule provided, and in compliance with the guidance contained in Exhibits B-1 and B-2.

2.2 Within five (5) days after installation of the Improvements, Municipality shall notify the Director that the Improvements are installed. The Director may, in his or her sole discretion, require Municipality to reinstall or remove any or all of the

Improvements if the Improvements fail to comply with this Agreement or the approved plans.

2.3 Director may also terminate the Licensed Use and require Municipality to remove the Improvements if the interim approval, described in Exhibit D, is revoked or if in Director's sole discretion the Improvements pose significant safety concerns. If at any time Municipality is required by Director to reinstall any or all of the Improvements, Municipality shall reinstall the Improvements in accordance with the Standard Detail Sheets attached as Exhibit C.

2.4 County, its agents, or authorized employees, will continue to have unimpeded and unrestricted access to the Revocable License Area at all times for all purposes including to examine and determine if Municipality is properly using and maintaining the Revocable License Area under the terms and conditions of this Agreement.

2.6 Any replacement of the Improvements by Municipality requires the prior submittal of plans and written approval by the Director, consistent with the requirements under paragraphs 2.1, 2.2, and 2.3 above.

2.7 Municipality shall keep the Revocable License Area clean, sanitary, and free from trash and debris. Municipality specifically agrees to install, maintain, and repair the Improvements in strict accordance with the approved plans and in a manner that will not pose a hazard to persons or vehicles on any adjacent property.

2.8 If Municipality fails to perform or comply with any terms or conditions of this Agreement, and upon written notice from the Director of the failure, this Agreement may be terminated in accordance with the provisions in paragraph 10.

2.9 The obligations of Municipality as set forth in this Agreement may be performed through its employees, or Municipality may enter into a contract with a third party to perform the services. If Municipality contracts with a third party, Municipality will remain fully responsible hereunder and shall ensure that the third party complies at all times with each and every term, condition, duty, and obligation set forth in this Agreement.

3. COMPENSATION. No payment to County shall be made by Municipality for the Licensed Use granted in this Agreement.

4. ASSIGNMENT. Neither this Agreement nor any right or interest shall be assigned, transferred, or encumbered, without the written consent of County. If Municipality attempts to do so, then this Agreement will terminate immediately, without prior notice to Municipality.

5. DAMAGE TO REVOCABLE LICENSE AREA. Municipality must not by its access or use cause damage to the Revocable License Area. All Improvements and personal

property placed by Municipality upon the Revocable License Area will remain the property of Municipality, and will be placed upon the Revocable License Area at the sole risk of Municipality. Municipality shall give County prompt written notice by of any occurrence, incident, or accident occurring on the Revocable License Area.

6. INDEMNIFICATION OF COUNTY. Municipality shall at all times indemnify, hold harmless, and defend County and all of County's current and former officers, agents, servants, and employees (collectively, "Indemnified Party") from and against any and all causes of action, demands, claims, losses, liabilities, and expenditures of any kind, including attorneys' fees, court costs, and expenses (collectively, a "Claim"), raised or asserted by any person or entity not a party to this Agreement, which Claim is caused or alleged to be caused in whole or in part, by any intentional, reckless, or negligent act or omission of Municipality, its current or former officers, employees, agents, servants or assigns, arising from relating to, or in connection with this Agreement. If any claim is brought against Indemnified Party, Municipality shall upon written notice from County, defend each Indemnified Party against each such Claim by counsel satisfactory to County, or, at County Attorney's option, pay for an attorney selected by County Attorney to defend Indemnified Party. The obligations of this section shall survive the termination of this Agreement.

6.1 In the event that Municipality contracts with a third party to perform any of Municipality's obligations under this Agreement, any contract with such third party must include the following provisions:

6.1.1 Indemnification. Municipality's third party shall indemnify and hold harmless County, and all of County's current and former officers, agents, servants, and employees (collectively, "Indemnified Party") from and against any and all causes of action, demands, claims, losses, liabilities, and expenditures of any kind, including attorneys' fees, court costs, and expenses (collectively, a "Claim"), raised or asserted by any person or entity not a party to this Agreement, which Claim is caused or alleged to be caused in whole or in part, by any intentional, reckless, or negligent act or omission of Municipality's third party, its current or former officers, employees, agents, servants or assigns, arising from relating to, or in connection with this Agreement. If any claim is brought against Indemnified Party, Municipality's third party shall upon written notice from County, at its own expense, defend each Indemnified Party against each such Claim by counsel satisfactory to County, or, at County Attorney's option, pay for an attorney selected by County Attorney to defend Indemnified Party.

6.2 County and Municipality are entities subject to Section 768.28, Florida Statutes, as may be amended from time to time, and agree to be fully responsible for the acts and omissions of their respective agents or employees to the extent permitted by law. Nothing herein is intended to serve as a waiver of sovereign immunity by any party to which sovereign immunity may be applicable. Nothing in

this Agreement shall be construed as consent by Municipality to be sued by third parties in any matter arising out of this Agreement or any other contract.

6.3 The provisions of paragraph 6 shall survive the expiration or earlier termination of this Agreement.

7. INSURANCE. Municipality must provide County with written verification of liability protection that meets or exceeds any requirements of Florida law. If Municipality holds any excess liability coverage, Municipality must ensure that "Broward County" is named as an additional insured and certificate holder under such excess liability policy and provide evidence of same to County.

7.1 If Municipality maintains broader coverage or higher limits than the minimum coverage required under Florida law, County will be entitled to such broader coverage and higher limits on a primary and non-contributory basis. County's insurance requirements apply to Municipality's self-insurance.

7.2 If Municipality contracts with a third party to provide any of the services set forth herein, Municipality shall require that each contractor procure and maintain insurance coverage, at contractor's sole cost and expense, of the types and minimum amounts set forth in Exhibit E. Municipality must ensure that all such contractors name "Broward County" as an additional insured and certificate holder under the applicable insurance policies. Municipality must not permit any contractor to provide services until the insurance requirements under this section are met. Municipality shall furnish evidence of insurance for all such contractors.

7.3 County reserves the right, but not the responsibility, to periodically review any and all insurance policies and to reasonably adjust the limits and/or types of coverage required, from time to time throughout the term of this Agreement.

7.4 Coverage is not to cease and is to remain in full force and effect until all performance required of Municipality's contractor is completed.

8. MAINTENANCE, REPAIRS, AND OTHER OBLIGATIONS. Municipality is solely responsible for all costs associated with the Licensed Use, including maintenance and repair, utility relocations, and costs for repairing any damage to the Revocable License Area or its adjacent right-of-way.

9. SECURITY. There is no obligation for security as part of this Revocable License Agreement.

10. TERMINATION. This Agreement is merely a right to access and use, and grants no estate in the Revocable License Area. This Agreement may be terminated by County, through the Broward County Board of County Commissioners (the "Board"), with or without cause and at any time during the term hereof, upon thirty (30) days written notice to Municipality.

11. SURRENDER UPON TERMINATION. Municipality must peaceably surrender its use of and deliver the Revocable License Area to County, or its agents, immediately upon termination of this Agreement.

Upon surrender, Municipality must remove from the Revocable License Area, at Municipality's own expense, the Improvements unless County, in writing, authorizes Municipality to leave the Improvements on the Revocable License Area. County will have no obligation to move, reinstall, replace, or in any way compensate Municipality for any loss resulting from or arising out of the termination of this Agreement, the requirement to remove the Improvements, or the removal of the same by County upon failure of Municipality to restore the Revocable License Area. Following removal of the Improvements, Municipality agrees to restore the Revocable License Area to its original condition, or a condition that complies with the MUTCD, and that is acceptable to the County as determined in the sole discretion of the Director. Municipality shall repair or pay for any damage to County property resulting from the removal of the Improvements.

12. WAIVER. Failure of County to insist upon strict performance of any covenant or condition of this Agreement, or to exercise any right contained in this Agreement, will not be construed as a waiver or relinquishment for the future of any such covenant, condition, or right; but the same will remain in full force and effect. None of the conditions, covenants, or provisions of this Agreement will be waived or modified by the Parties unless done so in writing as provided for in paragraph 19 below.

13. NOTICES. In order for a notice to a party to be effective under this Agreement, notice must be sent via U.S. first-class mail with a contemporaneous copy via e-mail to the addresses listed below and will be effective upon mailing. The addresses for notice will remain as set forth herein unless and until changed by providing notice of such change in accordance with the provisions of this Section.

For County:

Director, Broward County Highway Construction & Engineering Division
1 North University Drive, Suite 300B
Plantation, FL 33324-2038
Email: rtornese@broward.org

with a copy to:

Director, Traffic Engineering Division
2300 W. Commercial Boulevard
Fort Lauderdale, Florida 33309
Email: asebo@broward.org

For Municipality:
David Hebert, City Manager
City of Oakland Park
City Hall
3650 NE 12th Avenue
Oakland Park, FL 33334
Email: davidh@oaklandparkfl.org

14. ENTIRE AGREEMENT. This Agreement embodies the entire agreement between the Parties. It may not be modified or terminated except as provided in this Agreement. If any provision is invalid, it will be considered deleted from this Agreement, and such deletion will not invalidate the remaining provisions.

15. COMPLIANCE WITH LAWS. Municipality shall comply with all applicable federal, state, and local laws, codes, ordinances, rules, and regulations related to the use of the Revocable License Area.

16. LAW, JURISDICTION, VENUE, WAIVER OF JURY TRIAL. This Agreement must be interpreted and construed in accordance with and governed by the laws of the State of Florida. The exclusive venue for any lawsuit arising from, related to, or in connection with this Agreement will be in the state courts of the Seventeenth Judicial Circuit in and for Broward County, Florida. If any claim arising from, related to, or in connection with this Agreement must be litigated in federal court, the exclusive venue for any such lawsuit will be in the United States District Court or United States Bankruptcy Court for the Southern District of Florida. **BY ENTERING INTO THIS AGREEMENT, THE PARTIES HEREBY EXPRESSLY WAIVE ANY RIGHTS EITHER PARTY MAY HAVE TO A TRIAL BY JURY OF ANY CIVIL LITIGATION RELATED TO THIS AGREEMENT.**

17. COVENANTS RUNNING WITH THE LAND AND RECORDATION OF AGREEMENT. Municipality's obligations under this Agreement are a covenant upon the Roadway and shall run with the Roadway to all succeeding owners. This covenant shall be subject to specific performance in addition to any and all other remedies available to County. This Agreement shall be recorded in the Public Records of Broward County, Florida, at Municipality's expense within ten (10) days of the Effective Date. Upon termination of this Agreement, a document of equal dignity to this document acknowledging such termination shall be executed and recorded by County.

18. FURTHER ASSURANCES. The Parties hereby agree to execute, acknowledge, and deliver and cause to be done, executed, acknowledged, and delivered all further assurances and to perform such acts as shall reasonably be requested of them in order to carry out this Agreement.

19. AMENDMENTS. No modification, amendment, or alteration in the terms or conditions contained herein shall be effective unless contained in a written document prepared with the same or similar formality as this Agreement and executed by the Board

and the Parties or others delegated authority or otherwise authorized to execute same on their behalf.

(THE REMAINDER OF THIS PAGE IS INTENTIONALLY LEFT BLANK)

IN WITNESS WHEREOF, the Parties have made and executed this Revocable License Agreement: Broward County, through its Board of County Commissioners, signing by and through its Mayor or Vice-Mayor, authorized to execute same by Board action on the ____ day of _____, 20____, and City of Oakland Park, signing by and through its Mayor, duly authorized to execute same.

COUNTY

ATTEST:

BROWARD COUNTY, by and through its Board of County Commissioners

Broward County Administrator, as
Ex officio Clerk of the Broward County
Board of County Commissioners

By _____
Mayor
____ day of _____, 20__

Insurance requirements
approved by Broward County
Risk Management Division

Approved as to form by
Andrew J. Meyers
Broward County Attorney
Governmental Center, Suite 423
115 South Andrews Avenue
Fort Lauderdale, Florida 33301
Telephone: (954) 357-7600
Telecopier: (954) 357-7641

By Tim Craby 10/18/18
Signature (Date)

By Maya A. Moore 10/18/18
Maya A. Moore (Date)
Assistant County Attorney

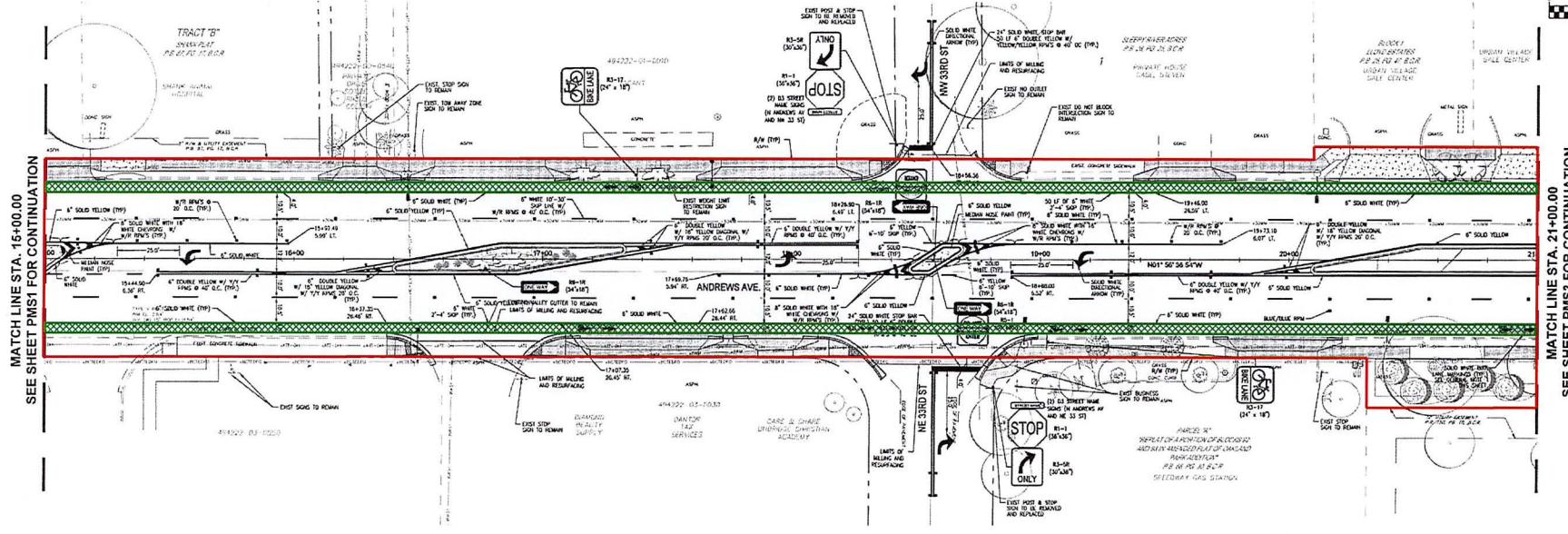
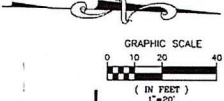
Tim Craby Property Specialist
Print Name and Title above

Michael J. Kerr 10/18/18
Michael J. Kerr (Date)
Deputy County Attorney

BCHCED REF #170504001

Exhibit A

Limits of County Right-of-Way =
 Limits of Revocable License Area =



MATCH LINE STA. 15+00.00
SEE SHEET PMS1 FOR CONTINUATION

MATCH LINE STA. 24+00.00
SEE SHEET PMS3 FOR CONTINUATION

- GENERAL NOTE:**
1. LINE MARKINGS SHALL BE PER FOOT INDEX THAT GREEN COLOR MARKING SHALL BE NON-REFLECTIVE AND SHALL MEET THE REQUIREMENTS FOR FOOT SPECIFICATION 533. PAVEMENT TREATMENT AND PAVEMENT PREPARATION MARKING SHALL BE DONE & A SIGNATURE COLOR NOTICE SHALL BE SET IN PLACES PROVIDED ON PLAN FOR WORK BY CONTRACTOR.
- LEGEND:**
- CONCRETE RECONSTRUCTION BY COUNTY
- THE FOLLOWING ITEMS ARE NOT REVIEWED OR ACCEPTED BY BROWARD COUNTY:**
1. BROWARD COUNTY TRAFFIC ENGINEERING DIVISION REVIEW DOES NOT INCLUDE A REVIEW AND ACCEPTANCE OF THE PROJECT'S DESIGN OR OPERATION. THESE ITEMS ARE TO BE REVIEWED AND APPROVED BY THE CITY ENGINEER.
 2. BROWARD COUNTY TRAFFIC ENGINEERING DIVISION DOES NOT REVIEW AND APPROVE, OR PROJECT AND ACCEPT THE FOLLOWING ITEMS FOR MARKINGS: PAVENT MARKINGS OR ON ADJACENT TO PAVEMENT MARKINGS. THESE ITEMS SHALL BE REVIEWED AND APPROVED BY THE CITY ENGINEER. THESE ITEMS INCLUDE: UN-PAVEMENTED DRIVEWAYS, UN-PAVEMENTED SIDEWALKS AND RELATED MARKINGS AND SIGNS, UN-PAVEMENTED BIKEWAYS, UN-PAVEMENTED BIKEWAYS AND RELATED MARKINGS AND SIGNS, UN-PAVEMENTED BIKEWAYS AND RELATED MARKINGS AND SIGNS, UN-PAVEMENTED BIKEWAYS AND RELATED MARKINGS AND SIGNS, UN-PAVEMENTED BIKEWAYS AND RELATED MARKINGS AND SIGNS, UN-PAVEMENTED BIKEWAYS AND RELATED MARKINGS AND SIGNS, UN-PAVEMENTED BIKEWAYS AND RELATED MARKINGS AND SIGNS.
 3. THE CITY ENGINEER IS RESPONSIBLE FOR THE REVIEW AND APPROVAL OF THE DESIGN AND OPERATION OF THE PROJECT, AND FOR THE REVIEW AND ACCEPTANCE OF THE FOLLOWING ITEMS: THE CITY ENGINEER SHALL REVIEW AND APPROVE THE FOLLOWING ITEMS: UN-PAVEMENTED DRIVEWAYS, UN-PAVEMENTED SIDEWALKS AND RELATED MARKINGS AND SIGNS, UN-PAVEMENTED BIKEWAYS, UN-PAVEMENTED BIKEWAYS AND RELATED MARKINGS AND SIGNS, UN-PAVEMENTED BIKEWAYS AND RELATED MARKINGS AND SIGNS, UN-PAVEMENTED BIKEWAYS AND RELATED MARKINGS AND SIGNS, UN-PAVEMENTED BIKEWAYS AND RELATED MARKINGS AND SIGNS, UN-PAVEMENTED BIKEWAYS AND RELATED MARKINGS AND SIGNS, UN-PAVEMENTED BIKEWAYS AND RELATED MARKINGS AND SIGNS, UN-PAVEMENTED BIKEWAYS AND RELATED MARKINGS AND SIGNS.

PERMIT SET

MUST BE ON SITE AT ALL TIMES DURING CONSTRUCTION

ALL MATERIALS USED AND INSTALLATIONS WITHIN THE PUBLIC RIGHT-OF-WAY OR EASEMENTS SHALL BE IN ACCORDANCE WITH BROWARD COUNTY HIGHWAY CONSTRUCTION AND LIGHTING STANDARD SPECIFICATIONS.

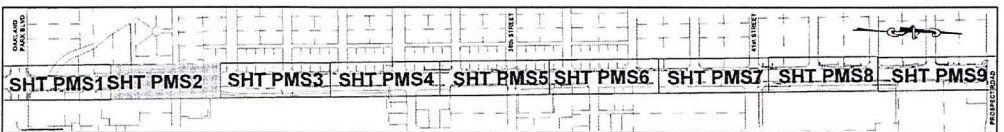
NOTICE: APPROVAL OF THIS PLAN DOES NOT CONSTITUTE A PERMIT FOR CONSTRUCTION. A PERMIT FOR CONSTRUCTION MUST BE OBTAINED FROM THE BROWARD COUNTY HIGHWAY CONSTRUCTION AND ENGINEERING DIVISION PRIOR TO COMMENCING CONSTRUCTION IN THE PUBLIC RIGHT OF WAY.

NOTICE: INSPECTION REQUIRED 24 HRS PRIOR TO COMMENCING ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE BROWARD COUNTY HIGHWAY CONSTRUCTION AND ENGINEERING DIVISION AT 5645-7144 FOR INSPECTION.

APPROVED: [Signature] DATE: 5/16/2018

APPROVAL FOR THE PROJECT MARKING AND SIGNAGE WILL BE GIVEN BY THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION PRIOR TO COMMENCING CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY AND SIGNAGE CONNECTIONS.

DATE: MAY 4, 2018



File Name: P:\Projects\1011114293_City of Oakland Park\Asst Firm\Drawings\14293-32_PMS1_Thru PMS9.dwg | Plotted By: Kathleen Kupany on Friday, May 4, 2018 2:32:41 PM

NO	DATE	REVISION	BY	NO	DATE	REVISION	BY

Calvin, Giordano & Associates, Inc.
 EXCEPTIOAL SOLUTIONS
 3001 SW 7th Avenue Fort Lauderdale, Florida 33309
 Phone: 954-271-7731 Fax: 954-271-9807
 Certificate of Authorization 514

ANDREWS AVENUE ROADWAY IMPROVEMENTS
 (FROM OAKLAND PARK BLVD. TO PROSPECT ROAD)
 OAKLAND PARK, FLORIDA

PAVEMENT MARKING AND SIGNAGE PLAN

CONSTRUCTION DOCUMENTS ELEVATIONS

SCALE: AS SHOWN
 PROJECT NO: 14293-32
 PURPOSE OF THIS SET: CONSTRUCTION

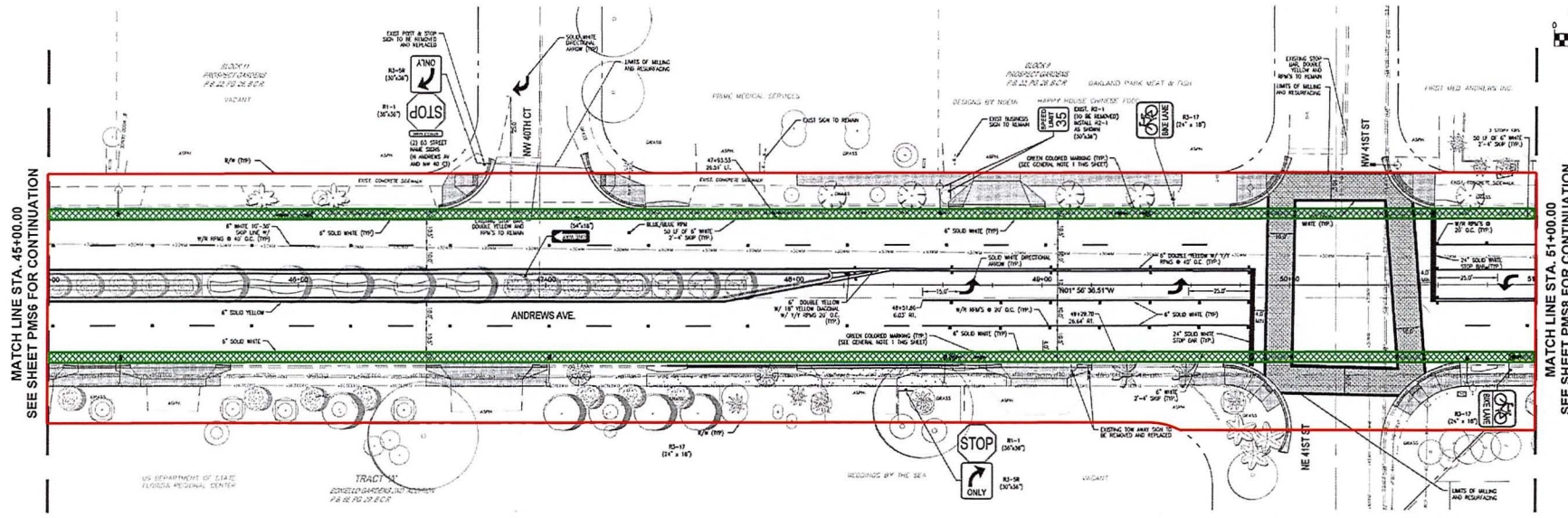
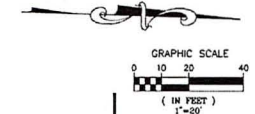
SHEET: PMS2

DATE: MAY 4, 2018

Exhibit A

BCHCED REF #170504001

Limits of County Right-of-Way =
Limits of Revocable License Area =



MATCH LINE STA. 45+00.00
SEE SHEET PMS6 FOR CONTINUATION

MATCH LINE STA. 51+00.00
SEE SHEET PMS8 FOR CONTINUATION

GENERAL NOTE:

1. WHITE LINE MARKINGS SHALL BE PER STATE REQUIREMENTS. OTHER COLOR MARKINGS SHALL BE HIGH-VISIBILITY AND SHALL MEET THE REQUIREMENTS FOR COLOR SPECIFICATION, DURABILITY, AND PLACEMENT. MATERIALS SHALL BE APPROVED BY THE COUNTY ENGINEERING DIVISION. REFER TO DETAILS PROVIDED ON PLAN FOR MORE INFORMATION.

LEGEND:

- CONCRETE RECONSTRUCTION BY COUNTY

THE FOLLOWING ITEMS ARE NOT REVIEWED OR ACCEPTED BY BROWARD COUNTY:

1. BROWARD COUNTY TRAFFIC ENGINEERING DIVISION'S REVIEW DOES NOT INCLUDE A REVIEW AND ACCEPTANCE OF THE PROJECT'S DESIGN OR OPERATION. THESE ITEMS ARE TO BE REVIEWED AND APPROVED BY THE CITY ENGINEER.
2. BROWARD COUNTY TRAFFIC ENGINEERING DIVISION DOES NOT REVIEW OR APPROVE, OR IMPROVE AND ACCEPT THE FOLLOWING ITEMS FOR MAINTENANCE: PAVEMENT WORKING ON OR ADJACENT TO PAVED AREAS, PAVED ASPHALT, CHANGES TO EXISTING PAVEMENT MARKINGS, SIGNAGE, OR OTHER TRAFFIC CONTROL DEVICES. THIS INCLUDES, BUT IS NOT LIMITED TO, CHANGES TO EXISTING PAVEMENT MARKINGS, SIGNAGE, OR OTHER TRAFFIC CONTROL DEVICES. THIS INCLUDES, BUT IS NOT LIMITED TO, CHANGES TO EXISTING PAVEMENT MARKINGS, SIGNAGE, OR OTHER TRAFFIC CONTROL DEVICES. THIS INCLUDES, BUT IS NOT LIMITED TO, CHANGES TO EXISTING PAVEMENT MARKINGS, SIGNAGE, OR OTHER TRAFFIC CONTROL DEVICES.
3. THE CITY ENGINEER IS RESPONSIBLE FOR THE REVIEW AND APPROVAL OF THE DESIGN AND OPERATION OF THE PROJECT, AND FOR THE PROTECTION AND ACCEPTANCE OF THE EXISTING TRAFFIC. THIS SHALL BE MAINTAINED BY THE CITY. PAVEMENT WORKING ON OR ADJACENT TO PAVED AREAS, PAVED ASPHALT, CHANGES TO EXISTING PAVEMENT MARKINGS, SIGNAGE, OR OTHER TRAFFIC CONTROL DEVICES. THIS INCLUDES, BUT IS NOT LIMITED TO, CHANGES TO EXISTING PAVEMENT MARKINGS, SIGNAGE, OR OTHER TRAFFIC CONTROL DEVICES.

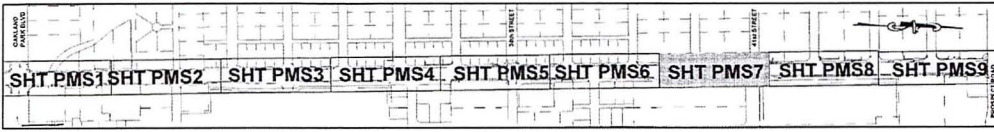
PERMIT SET

MUST BE ON JOB SITE AT ALL TIMES DURING CONSTRUCTION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSTALLATIONS WITHIN THE PUBLIC RIGHT-OF-WAY FROM THE BROWARD COUNTY HIGHWAY CONSTRUCTION AND ENGINEERING DIVISION PRIOR TO COMMENCING CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY.

NOTE: APPROVAL OF THIS PLAN DOES NOT CONSTITUTE A PERMIT FOR CONSTRUCTION. A PERMIT FOR CONSTRUCTION MUST BE OBTAINED FROM THE BROWARD COUNTY HIGHWAY CONSTRUCTION AND ENGINEERING DIVISION PRIOR TO COMMENCING CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY.

NOTICE: PROJECTS REQUIRING THIS PERMIT TO CONSTRUCT ANY WORK IN THE PUBLIC RIGHT-OF-WAY CONTACT THE BROWARD COUNTY HIGHWAY CONSTRUCTION AND ENGINEERING DIVISION AT 954-877-4800 FOR INFORMATION.



KEY MAP
N.T.S.

NO.	DATE	REVISION	BY	NO.	DATE	REVISION	BY

DESIGNED: NSM
DATE: 05/18
CHECKED: QAC
DATE: 05/18
ISSUED FOR: PHASE
DATE: 06/18

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS®
1800 Deer Creek, Suite 600, Fort Lauderdale, Florida 33326
Phone: 954-521-7750 Fax: 954-521-8857
Certificate of Authorization 514

ANDREWS AVENUE ROADWAY IMPROVEMENTS
(FROM OAKLAND PARK BLVD. TO PROSPECT ROAD)
OAKLAND PARK, FLORIDA

PAVEMENT MARKING AND SIGNAGE PLAN

BROWARD COUNTY
TRAFFIC ENGINEERING DIVISION
APPROVED
BY: *[Signature]*
DATE: 5/18/18
REMARKS:

BROWARD COUNTY HIGHWAY CONSTRUCTION AND ENGINEERING DIVISION
APPROVED
BY: *[Signature]*
DATE: 5/18/18
REMARKS:

CONSTRUCTION DOCUMENTS
ELEVATIONS & DETAILS 1088
NICHOLAS B. WANDERER
STATE OF FLORIDA REGISTERED PROFESSIONAL ENGINEER
LICENSE NO. 75881
DATE: MAY 4, 2018

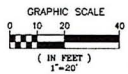
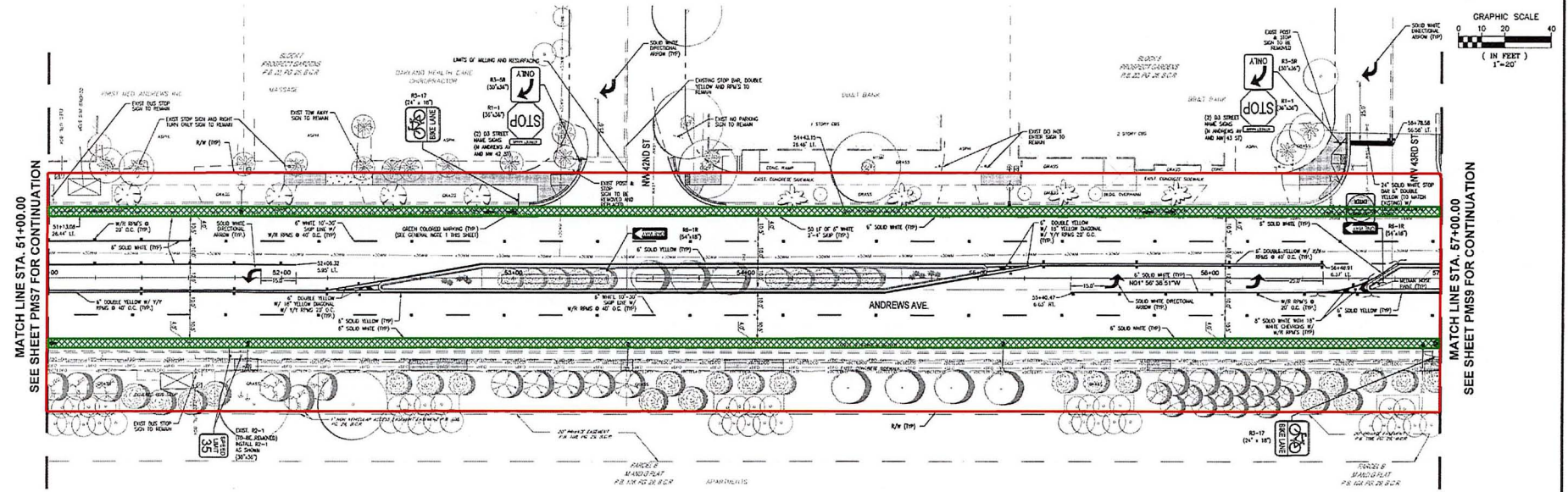
SCALE: AS SHOWN
PROJECT NO: 170504001
SHEET: PMS7
PURPOSE OF THIS SET: CONSTRUCTION

File Name: P:\Projects\2017\174259_City of Oakland Park\Roads Plan\Drawings\174259-32_PMS7.dwg, Thu 5/18/18 2:45:08 PM | Plotted by: Kolarance Kupala on Friday, May 4, 2018 2:45:08 PM

Exhibit A

BCHCD REF #170504001

Limits of County Right-of-Way = Limits of Revocable License Area =



MATCH LINE STA. 61+00.00 SEE SHEET PMS1 FOR CONTINUATION

MATCH LINE STA. 67+00.00 SEE SHEET PMS9 FOR CONTINUATION

GENERAL NOTE

1. BLUE LINE MARKINGS SHALL BE FOR FIELD BOOK 13747. GREEN COLOR MARKING SHALL BE NON-REFLECTIVE AND SHALL MEET THE REQUIREMENTS FOR STOP SPECIFICATION 524. PATTERNED FUNDAMENTS, AND PLANS PREPARATION MANUAL, VOL. 1 SECTION 4.2.2. OTHER COLOR OF WHITE LANE. REFER TO DETAILS PROVIDED ON PG#11 FOR MORE INFORMATION.

LEGEND:

CONCRETE RECONSTRUCTION BY COUNTY

THE FOLLOWING ITEMS ARE NOT REVIEWED OR ACCEPTED BY BROWARD COUNTY:

1. BROWARD COUNTY TRAFFIC ENGINEERING DIVISION DOES NOT REVIEW AND APPROVE, OR ACCEPT AND ADAPT THE FOLLOWING ITEMS FOR MAINTENANCE: PAVEMENT MARKING ON OR ADJACENT TO PARK DRIVEWAYS, PARKING SPACES, STAIRS OR RAMP MARKING MADE OF THEIR PROPOSED BATTERY-DRIVEN AND RELATED MARKINGS AND SIGNAGE, IN-MANUFACTURED AND-LOCK ORIGINALS AND RELATED MARKINGS AND SIGNAGE, IN-MANUFACTURED ORIGINALS, RAISED ORIGINALS AND RELATED MARKINGS AND SIGNAGE, BLENDED SOAK, RECTANGULAR MARKING MARKING AND RELATED MARKINGS AND SIGNAGE, ON-STREET PARKING AND RELATED MARKINGS AND SIGNAGE, IN-SHOULDER MARKINGS AND SIGNAGE, OTHER BEST PRACTICE, (TUBES) ORIGINALS, FLOODING SIGN AND ACCIDENTAL SIGN, HYDRA PLANS, ON-SET PAVEMENT MARKINGS AND SIGNAGE, ON-SET PAVEMENT MARKINGS AND SIGNAGE IN PAVEMENT MARKINGS AND SIGNAGE IN PAVEMENT MARKINGS AND SIGNAGE THAT IS NOT DESIGNATED FOR PUBLIC USE, SIDEWALK WORK AND ASPHALT WORK.

PERMIT SET

MUST BE ON JOBSITE AT ALL TIMES DURING CONSTRUCTION

ALL MATERIALS USED AND INSTALLATIONS OFFERED THE PUBLIC RIGHT OF WAY OR ADJACENT SHALL BE IN ACCORDANCE WITH BROWARD COUNTY HIGHWAY CONSTRUCTION AND ENGINEERING MANUAL STANDARDS.

NOTICE: APPROVAL OF THIS PLAN DOES NOT CONSTITUTE A PERMIT FOR CONSTRUCTION. A PERMIT FOR CONSTRUCTION MUST BE OBTAINED FROM THE BROWARD COUNTY HIGHWAY CONSTRUCTION AND ENGINEERING DIVISION AT 854-577-4000 FOR INSPECTION.

NOTICE: 24 HOURS PRIOR TO COMMENCING ANY WORK IN THE PUBLIC RIGHT OF WAY CONTACT THE BROWARD COUNTY HIGHWAY CONSTRUCTION AND ENGINEERING DIVISION AT 854-577-4000 FOR INSPECTION.

BROWARD COUNTY TRAFFIC ENGINEERING DIVISION
APPROVED
DATE: 5/1/2018
REMARKS:
APPROVAL C FOR THE PAVEMENT MARKING AND SIGNAGE ONLY AND IS LIMITED TO MAKE IN PUBLIC RIGHT-OF-WAY AND RELATED CONSTRUCTION.

BROWARD COUNTY HIGHWAY CONSTRUCTION AND ENGINEERING DIVISION
PLANNING AND DESIGN DIVISION
 PUBLIC RIGHT OF WAY APPROVAL
 ENGINEERING DIVISION APPROVAL
DATE: 5/1/2018



KEY MAP
N.T.S.

NO.	DATE	REVISION	BY	NO.	DATE	REVISION

DESIGNED: NAG
DATE: 06/16
CHECKED: GACC
DATE: 06/16
ISSUED FOR: PMS2
DATE: 06/16

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS
7800 Oak Creek Drive, Suite 100, Fort Lauderdale, Florida 33310
Phone: 844.821.7781 Fax: 844.821.8807
Certificate of Authorization 514

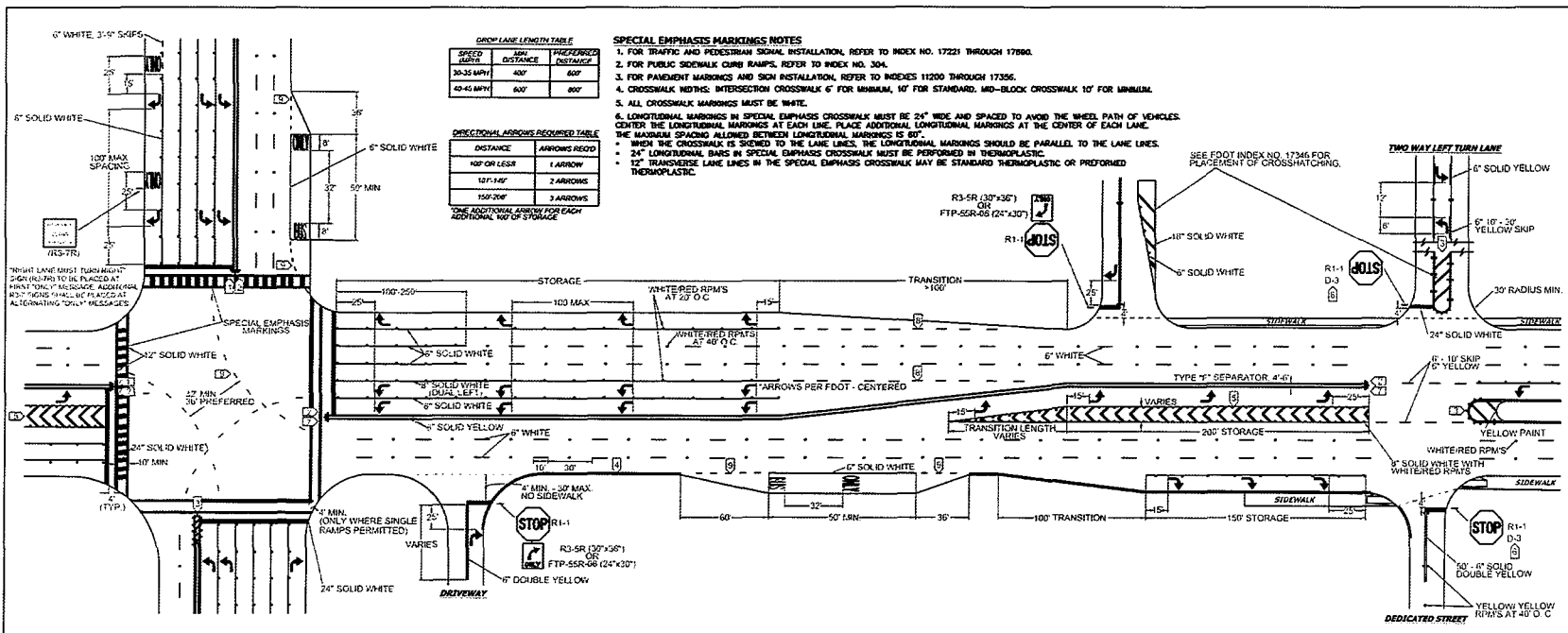
ANDREWS AVENUE ROADWAY IMPROVEMENTS
(FROM OAKLAND PARK BLVD. TO PROSPECT ROAD)
OAKLAND PARK, FLORIDA

PAVEMENT MARKING AND SIGNAGE PLAN

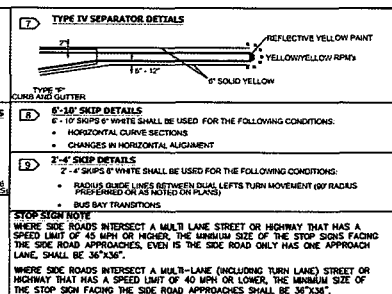
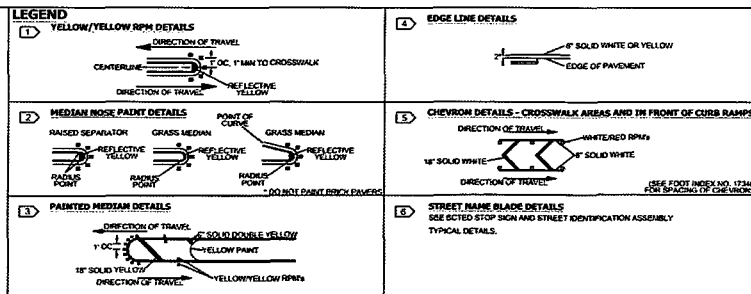


SCALE	AS SHOWN	SHEET
PROJECT NO.	114259.32	PMS8
PURPOSE OF THIS SET	CONSTRUCTION	

File Name: P:\Projects\2018\114259 - City of Oakland Park\Road File\Plan\pms114259.32.dwg Date: 5/1/2018 10:43:56 AM



- NOTES**
- ALL PAVEMENT MARKINGS SHALL BE ALLOY BASED THERMOPLASTIC AND FULLY RETROREFLECTORIZED.
 - ALL PAVEMENT MARKINGS ON PAYER SYSTEMS SHALL BE 3M 380/381 SERIES TAPE OR EQUIVALENT AND APPLIED WITH PEO ADHESIVE AS PER MANUFACTURERS SPECIFICATIONS.
 - ALL PAVEMENT MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", BCTD STANDARDS, AND FOOT DESIGN STANDARDS.
 - SEE FOOT INDEX NO 17332 FOR PLACEMENT OF RPM'S (FOR BULLDOZE RPM TREATMENT, SEE LEGEND NO. 1)
 - RPM'S SHALL BE CLASS "B" OR EQUIVALENT, APPLIED WITH EPOXY OR BITUMINOUS ADHESIVE.
 - FOOT APPROVED SEALER SHALL BE USED WHEN APPLYING MARKINGS ON CONCRETE.
 - FOR BIKE LANE DETAILS SEE FOOT INDEX NO. 17347.
 - MARKINGS IN AND ADJACENT TO BIKE LANES SHALL BE THERMOPLASTIC WITH A MIXTURE OF 50% GLASS SPHERES AND 50% SHARP SILICA SAND APPLIED AT A RATE DETERMINED BY THE MANUFACTURER'S SPECIFICATIONS.
 - EXISTING MARKINGS SHALL BE REMOVED BY WATER BLASTING OR SAND BLASTING.
 - ALL STOP LINES TO BE 4' BEHIND CROSSWALK OR SIDEWALK.
 - PAVEMENT MARKING REFLECTIVITY SHALL BE UNIFORM ACROSS THE ENTIRE STRIPE AND SHALL HAVE A MINIMUM REFLECTIVITY READING OF 250 MILICANDELAS FOR WHITE AND 175 MILICANDELAS FOR YELLOW.
 - ALL PRODUCTS MUST BE ON FOOT'S APPROVED PRODUCTS LIST (APL).



REVISIONS

DATE	DESCRIPTION
01-15-2016	N/A

BROWARD COUNTY
PUBLIC WORKS DEPARTMENT
TRAFFIC ENGINEERING DIVISION

DESIGN BY: CARMELO CARATTOZOLLO, P.E.
DRAWN BY: STEPHON RAMOUIVAR
CHECKED BY: ANDREW SEBO, P.E., P.T.O.E.

PAVEMENT MARKINGS AND SIGNS DETAILS

SHEET NO. 1 OF 1

ISSUED COUNTY TRAFFIC ENGINEERING DIVISION
APPROVED
DATE: 01/15/2016
BY: [Signature]

REVISION # 6 FOR THE PROPOSED MARKINGS AND SIGNAGE ONLY AND IS LIMITED TO WORK IN PUBLIC RIGHT-OF-WAY AND CURB CUT CONNECTIONS.

File Name: P:\Projects\0111\112529_01 of Oakland Park\Road Plan\Drawings\112529_32_Intersection_Avenue_Roadway_Improvements\112529_32_01.dwg Plot Date: 01/15/2016 12:25:17 PM

DESIGNED BY: CALVIN GIORANO & ASSOCIATES, INC.
DATE: 01/15/2016
CHECKED BY: ANDREW SEBO, P.E., P.T.O.E.
DATE: 01/15/2016
ISSUED FOR: [Signature]
DATE: 01/15/2016

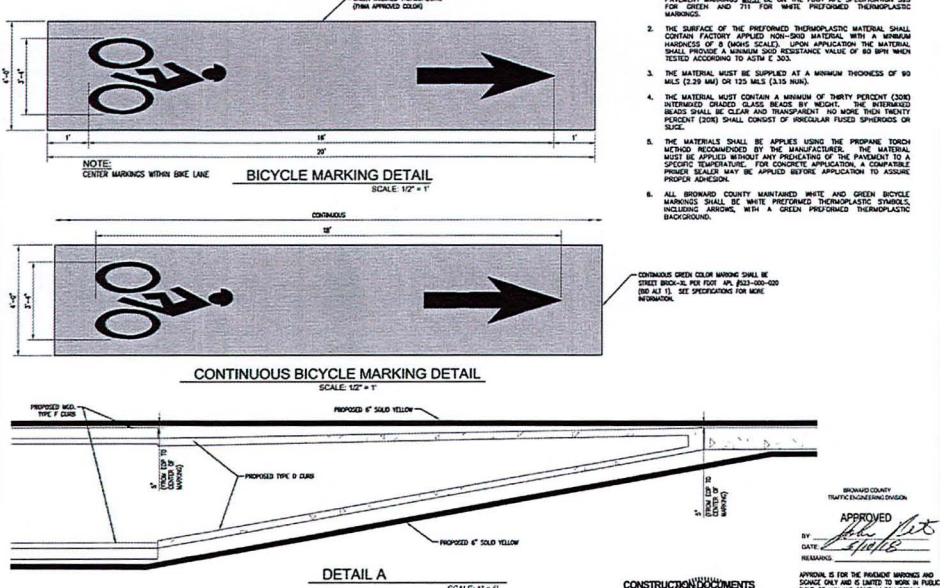
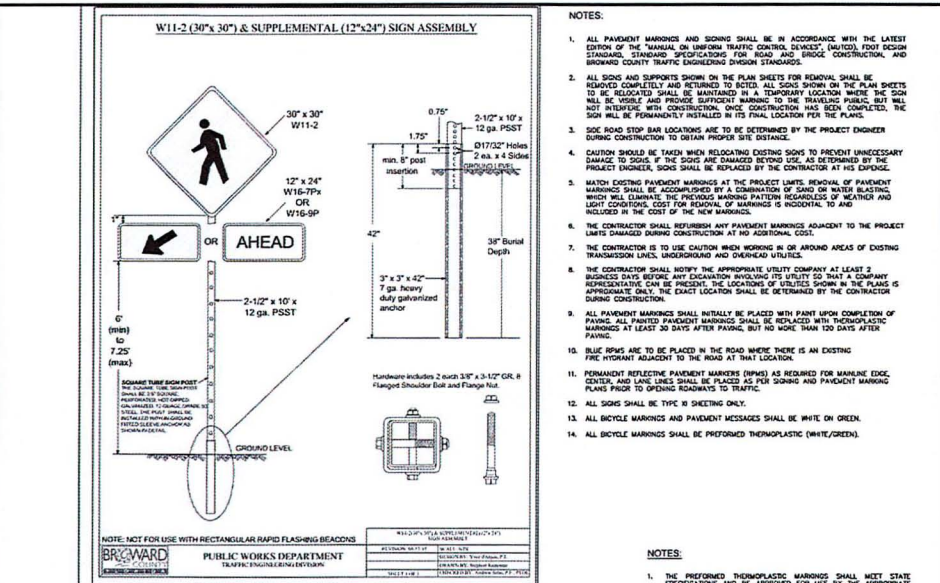
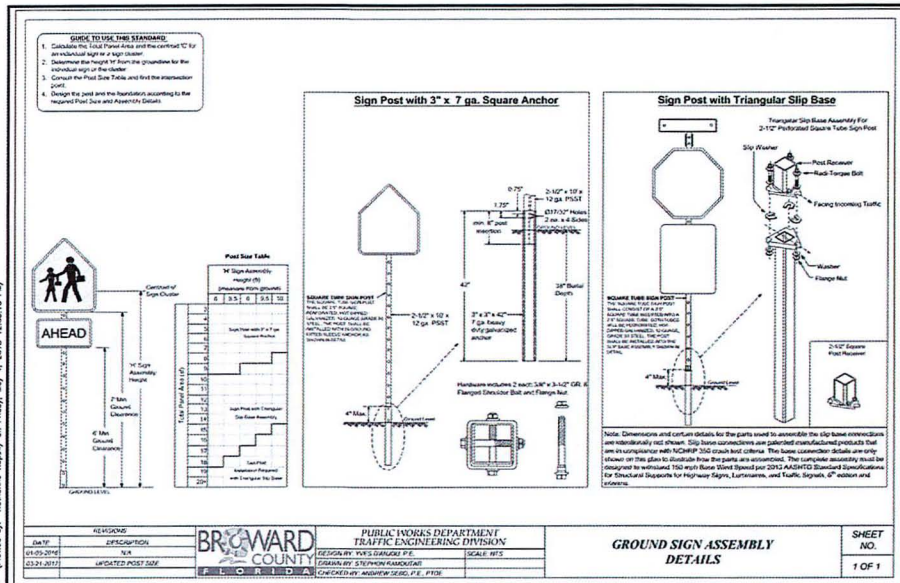
CALVIN GIORANO & ASSOCIATES, INC.
1800 N.W. 107th Ave., Suite 1000
Davie, FL 33317
Phone: 954-927-7100 Fax: 954-927-2000
Certificate of Authorization 514

ANDREWS AVENUE ROADWAY IMPROVEMENTS
(FROM OAKLAND PARK BLVD. TO PROSPECT ROAD)
OAKLAND PARK, FLORIDA

BROWARD COUNTY PAVEMENT MARKINGS AND SIGNING DETAILS

CONSTRUCTION DOCUMENTS
ELEVATION: 96.00
SCALE: AS SHOWN
PROJECT NO: 112529-32
PURPOSE OF THIS SET: CONSTRUCTION

DATE: MAY 4, 2016



ANDREWS AVENUE ROADWAY IMPROVEMENTS (FROM OAKLAND PARK BLVD. TO PROSPECT ROAD) OAKLAND PARK, FLORIDA

PAVEMENT MARKING AND SIGNAGE GENERAL NOTES AND DETAILS

STATE OF FLORIDA LICENSE NO. 15338

DATE: MAY 2016

PMS11

File Name: C:\Projects\2011\14291-32_City Of Oakland Park\Roadway Plan\Drawings\14291-32_PMS11.dwg - (Printed On: Friday, May 4, 2016, 10:33:18 AM)

EXHIBIT B-1

Green Colored Pavement in Bicycle Lanes, Extensions of Bicycle Lanes and Within Other Potential Traffic Conflict Areas

Special Technical Provisions

General

1. The following Broward County Special Technical Provisions provide requirements and guidance for the use of green colored pavement in bicycle lanes, extensions of bicycle lanes, and within other potential traffic conflict areas on County roadways.
2. The special technical provisions herein are supplemental requirements to the applicable minimum standard conditions contained within the Broward County Public Works Department, Highway Construction & Engineering Division APPLICATION FOR PERMIT FOR CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY. The special technical provisions described are intended to meet the special circumstances associated with the installation and maintenance of green colored pavement in bicycle lanes, extensions of bicycle lanes, and within other potential traffic conflict areas on County roadways.

Governing Standards

1. The governing standards and specifications related the use of green colored pavement in bicycle lanes, extensions of bicycle lanes, and within other potential traffic conflict areas is limited, however, relevant technical standards, guidance and support is provided in Chapter 9C of the USDOT/FHWA Manual on Uniform Traffic Control Devices (MUTCD). Additional guidance on the use of colored pavement is provided in Section 3G.01 of the MUTCD.
2. Additional guidance on the use of green colored pavement in bicycle lanes can be found in the Broward County Engineering Division's Technical Policy Memo #TPM-15-003 located at <http://www.broward.org/Traffic/About/Pages/Publications.aspx>.
3. The Federal Highway Administration (FHWA) has issued Interim Approval to Broward County for the use of green colored pavement in bicycle lanes, extensions of bicycle lanes, and within other potential traffic conflict areas. A copy of the approval letter is included as Exhibit D.

Installation Requirements

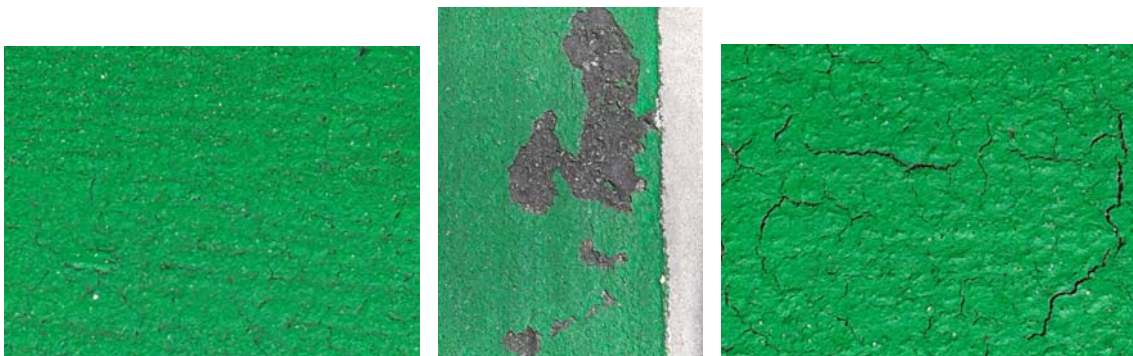
1. The green colored patterned pavement surface product used for the project shall be suitable for application to asphalt surfaces (per manufacturer's specifications) and shall have received federal or State of Florida approval for application on asphalt roadway surfaces with moderate to high levels of vehicular traffic. The product shall be listed on the Florida Department of Transportation's (FDOT) Approved Product List (APL)
2. The installation, materials and performance of the green colored pavement surface shall be in accordance with the manufacturer's specifications included in the attached Exhibit B-2.
3. The initial installation shall be inspected by County staff to ensure that the green colored pavement surface conforms with the approved plans and the manufacturer's specifications included in Exhibit B-2. The initial installation shall attain 100% coverage of the designated bike lane area, and 98% of the green surface area shall be free of defects including, but not limited to: insufficient or incorrect colorization, surface contamination, embedded foreign particles, uneven application, rippling/buildup greater than 0.25 inches vertical, cracks, chipping, flaking, scaling or inadequately textured (slick) surface.
4. The applicant shall be responsible for any permitting requirements, insurance, security, public information and maintenance of traffic regarding the installation.

Maintenance Requirements

1. The applicant shall be responsible for the continued maintenance of the green colored pavement surface throughout the life of the project, and shall be fully responsible for any direct and indirect costs associated with permitting, insurance, security, public information and maintenance of traffic.
2. The applicant shall ensure that the original quality and visibility of the green colored pavement surface remains in good condition throughout the life of the installation.
3. The applicant shall be responsible for addressing graffiti removal and any other intentional or unintentional damage to the green colored pavement surface.
4. Upon the first and each subsequent bi-annual anniversary of the installation, the applicant's city engineer shall submit a signed and sealed report to the County certifying that the green colored pavement surface is still in good order, provides adequate frictional surface for the safe flow of traffic across the surface and meets minimum color differential criteria in accordance with the manufacturer's specifications included in Exhibit B-2. Any cracking, flaking, chipping, raveling, or peeling of the green colored pavement surface shall be considered a failed condition (examples of failures are shown below). To properly document the condition of the green colored pavement, the engineer's report shall include randomly selected portions of the green colored pavement surface a minimum of 200 feet in length and representing at least 25% of the entire green colored pavement area within

the project limits. The selected areas shall be photo documented and/or video documented during daylight conditions. Resurfacing or other remedial action shall be required if collectively 10% or more of the surface of any 200-foot segment exhibits a failure condition, or if there is a failure extending continuously for 10.0 feet or more. Should the applicant's city engineer identify any deficiencies at any time, regardless of whether they are included within the documented 25% surface area, the city engineer shall notify the County within five (5) business days of the deficiency, and outline the proposed course of remedial action and timetable. The city engineer shall then submit a signed and sealed letter to the County within five (5) business days of successful completion of the mitigation, certifying that the issue has been satisfactorily corrected. The above requirement does not preclude County staff from inspecting the condition of the bike lane surface at any time and reporting any identified failures or deficiencies to the city for remedial action.

Examples of Surface Failures:



5. Notwithstanding the submittal of a condition's report as specified above, the applicant shall be responsible for the recoating/resurfacing of all of the green colored pavement surfaces consistent with the original design of the project and the manufacturer's specifications every five (5) years upon the anniversary of the installation unless it is clearly apparent to both the applicant and the County that the resurfacing is not required; such resurfacing shall be extended in one year increments. The County shall make the final determination on whether recoating/resurfacing is required.

Termination Requirements

1. The green colored pavement surface installation may be terminated by either the County and/or the applicant should the surface be determined to create safety or other concerns attributable to the textured roadway surface or any other aspect of its design.
2. If the installation is terminated, the County will provide written notice to the applicant that the green colored pavement surface must be removed, and the applicant shall have fourteen calendar days from the date of the notice to submit to the County the appropriate permit application, maintenance of traffic plans, and any other required documentation.

The applicant shall have 30 calendar days from the date of notification to satisfactorily remove the textured surface from the existing asphalt pavement.

3. The green colored pavement surface shall be removed by the applicant's forces or an appropriately licensed contractor. The surface shall be removed by water-blasting, sandblasting, or other approved removal method, and shall be performed during off-peak traffic hours. Any pavement markings or asphalt damage as part of the removal process shall be fully restored. The applicant shall be responsible for all direct and indirect costs associated with the surface removal process.

Exhibit B-2 Manufacturer Specifications

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SAMPLE SPECIFICATION (High Friction Asphalt Coating)

FDOT Spec # 523-000-020 Vehicular & Non-Vehicular areas

STREETBRICK- XL "BICYCLEWAY "Epoxy Modified Coating System

1.0 GENERAL

1.1 Summary

A. STREETBRICK- XL "Epoxy Modified Traffic Coating" is a high quality water-borne acrylic finish incorporating a specialized abrasive to increase the abrasion resistance properties of the film. The product can be applied to new or existing asphalt surfaces such as bike lanes and or bus lanes under product label"

BICYCLEWAY.

B. STREETBRICK- XL can be applied to new or existing asphalt and or concrete surfaces. New concrete surfaces require 28 days cure. Existing concrete surfaces will require a field evaluation to determine if additional surface preparation is required such as pressure washing and/or etching.

C. STREETBRICK- XL shall provide a minimum skid resistance value of 35 FN 40 R when tested with a locked wheel friction tester according to ASTM: E274 "Standard Test Method for Skid Resistance of Paved Surfaces Using a full-scale Tire". Or a minimum of 40 when tested with the DFT method as approved by FDOT.

D. STREETBRICK- XL shall only be applied by ATLANTIC PAVING or an applicator who has been trained, qualified and approved by ATLANTIC PAVING to install STREETBRICK- XL high friction asphalt coating and can provide a valid certification upon request.

1.2 Advantages

- 100 % integral colored coating system
- Twin package, water-based system for ease of application and clean-up.
- Bonds tenaciously to concrete, masonry and asphalt surfaces.
- Resists ultraviolet degradation for long-term protection and color stability.
- Provides durable, non-skid texture on interior or exterior surfaces.
- Resists wear and abrasion through the incorporation of an epoxy additive in addition to an added abrasive to ensure a high friction coefficient for the life of the coating.
- Protects against asphalt degradation by sealing in the vital oils of the Asphalt mix.
- Helps prevent dusting and spalling of concrete surfaces.
- Surfaces resist penetration from general soils, motor oils and gasoline for ease in cleaning.
- No toxic fumes or objectionable odor. Meets all VOC requirements.

1.3 Related Sections

Section 1.0 General

Section 2.0 Materials and Performance

Section 3.0 Delivery Storage and Handling

Section 4.0 Surface Preparation

Section 5.0 Application

Section 6.0 Coating Thickness

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2.0 Materials and Performance

2.1 Composition, Handling and Performance Characteristics

This section covers the composition, handling and application characteristics for the **STREETBRICK- XL** Surfacing System. Coatings used with this surfacing system must meet the minimum characteristic and performance properties described in the following characteristics and performance specifications.

2.1.1 STREETBRICK- XL Concrete and Asphalt Coating (Tint Base)

Material Composition, Handling and Application Characteristics

Table:1

Characteristics Requirement

ASTM D2369 % Solids by weight > 76% ASTM D26297 % Solids by volume > 55.5%

Weight per gallon 13.9 lbs/gal

% non-reactive fillers < 40%

Boiling Range 147° - 477°F

Vapor Density..... Heavier than air

Flashpoint ASTM D 3278 >201°F

Flashpoint ASTM D 3278 >201°F

Hazardous Ingredients none

Mix Ratio (Coating: LiquidTint) gal/pints 5gal: 1pint

Performance Requirements

Table:2 Test Requirement

Dry Time (to re-coat) @ 120°F 10 min

Dry Time (to re-coat) @ 95°F 20 min

Dry Time (to re-coat) @ 70°F 30 min

Gloss: ASTM D523 (60° Gardner)..... 2.5

Hardness: ASTM D3363 3H pencil

ASTM 2486 Gasoline Scrub Resistance.....

To 50% of coating thickness (30 mils).....

>5000 cycles to

max loss of 50%

coating thickness

ASTM 2486 Motor Oil Scrub Resistance.....

To 50% of coating thickness (30 mils).....

>5000 cycles to

max loss of 50%

coating thickness

Temp. limits for service (of cured material) -35°F to 145°F

ASTM G-155 Color Stability.....

QUV 2,000 hrs (CIE units).....

Old Brick Color

$\Delta E < .5$

Water Absorption ASTM D570 7day..... <9%

VOC Content ASTM D3960..... <19 grams/liter

Taber Abrasion Dry H-10 ASTM D4060 1day cure..... .17g/1000 cycles

Taber Abrasion Wet H-10 ASTM D4060 7day cure..... .43g/1000 cycles

Adhesion to Asphalt ASTM D4541 >245 lb./sq.in..... Asphalt Cohesive

Failure

2.1.2 STREETBRICK- XL (coloring system)

ATLANTIC PAVING COMPANY | 2013

The coloring system "Brick Tint" shall consist of no less than 95% pure inorganic iron oxide pigments in a water base liquid carrier. Pigment particle size (fineness) must pass 95% minus 325 mesh. Brick Tint must be alkali resistant, water insoluble, inert, light resistant, inorganic, and lime-proof.

3.0 Delivery, Storage and Handling

3.1 Packaging and Labeling

STREETBRICK- XL surfacing products shall be packed in standard closed containers. Each container of separately packaged component shall be clearly and durably labeled to indicate the date of manufacture, manufacturer's batch number, quantity, color, component identification and designated name or formula specification number together with special instructions.

3.2 Delivery, Storage and Handling

STREETBRICK- XL surfacing products shall be delivered to the site in sealed containers that plainly show the designated name, batch number, color, date of manufacturer, and name of the manufacturer. Store the material on site in enclosures, out of direct sunlight in a warm, ventilated and dry area at room temperature; do not allow coating to freeze. Care shall be taken in handling of coating containers to prevent puncture, inappropriate opening or other action, which may lead to product contamination. No materials that are past the coating manufacturer's recommended shelf life shall be used without the approval of the coating manufacturer.

4.0 Surface Preparation

4.1 Cleaning

Power blower and/ or stiff bristle hand broom.

Scrape and blow fine sand and debris off of surface. Pressure washing may be necessary to remove bonded debris. Use a non-solvent based degreaser to remove stains. Spray degreaser on stained area and let stand for 15 minutes. Using a stiff broom or brush, agitate the stained area to remove stain and rinse with water. Repeat this procedure on severe stains. Thoroughly rinse the area and let dry for 24 hours.

4.2 Application on New Asphalt

New asphalt surfaces shall be allowed to cure for a minimum of 2- weeks after final lift is installed.

Asphalt mix design shall be specified by a qualified Pavement Engineer and shall be designed for the purpose of the application.

4.3 Concrete surface preparation

A. New concrete should be water cured for at least 28 days, well compacted and finished, preferably to a medium to light broom finish.

B. Old concrete must be structurally sound, all loose and deteriorated areas shall be replaced, spalled areas repaired and any existing coatings must be removed (by others).

C. The concrete substrate must not have any visible moisture and the surface must be clean, free from dust, oil, grease or other contaminates that may impair the adhesion of the system.

D. All surface laitance must be removed by captive shot blasting, diamond grinding, hydro blasting or other approved methods.

ATLANTIC PAVING COMPANY | 2013

E. Concrete surfaces shall be suitably pressure washed & primed in accordance with manufacturer's instructions.

5.0 Coating Application

5.1 Environmental Conditions

Surfaces should be dry for at least 24 hours prior to applying **STREETBRICK- XL** coatings. 50°F is the recommended minimum air and surface temperature. The temperature of the concrete or asphalt surface must be at least 5°F above the dew point temperature during and after applying coating. Coating application must be complete at least two hours before opening to traffic.

5.2 Masking

Mask all adjacent areas using paint-grade masking tape a minimum of 3" inches beyond the edge of coated area is required to prevent over-spray of coatings onto adjacent areas.

5.3 Application methods

Spray texture gun (Marshalltown_® Sharpshooter I™ Hopper Gun), Graco "TexSpray" and Benron "EZ-TEX DX" sprayers.

5.4 Squeegee spray bar (proprietary)

5.4 Roller Application

6.0 Coating Thickness

6.1 Standard Thickness. The applied thickness of the coating shall be determined according to the traffic rating of the specific application.

Required Film Thickness

Application Film Thickness will vary in accordance with surface texture of asphalt or concrete.

Bike Lanes along shoulders – (25- 30 dry mils)

Bike Lanes @ roadway crossings – (35- 40 dry mils)

Non-vehicular applications (15- 20 dry mils)

7.0 MEASUREMENT AND PAYMENT

7.1 MEASUREMENT

The measured area is the actual area that has received the **STREETBRICK- XL** coating No deduction will be made for the area(s) occupied by manholes, inlets, drainage structures, bollards or by any public utility appurtenances within the area.

7.2 PAYMENT

Payment will be full compensation for all work completed as per conditions set out in the contract. For unit price contracts, the payment shall be calculated using the measured area as determined above.

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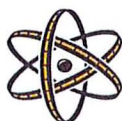
STREETBRICK- XL "BICYCLEWAY" FHWA Color # 1

ATLANTIC PAVING COMPANY | 2013



STREETBRICK- XL "BICYCLEWAY" FHWA Color # 1

ATLANTIC PAVING COMPANY | 2013



FUTURE LABS, LLC
Highway Safety Product Testing

www.FutureLabsLLC.com

124 Lone Wolf Drive • Madison, MS 39110
601.855.7407

DATE: December 4, 2013

SCOPE: The following report covers testing of the sample received for Daytime and Nighttime Color per requirements listed in ASTM E 1347.

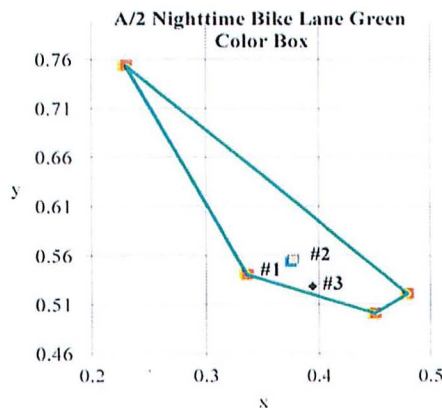
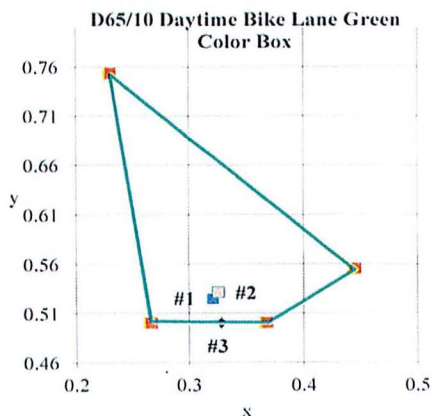
PRODUCT: Atlantic Paving StreetBrick XL #1, Atlantic Paving StreetBrick XL #2, and Atlantic Paving StreetBrick XL #3.

SAMPLE: The color samples were received on 11-21-2013.

PROCEDURE: Color testing for the products received was done using a BYK Gardner 45/0 Colorimeter in accordance with ASTM E 1347. D65/10 was used for daytime color and A/2 was used for nighttime color.

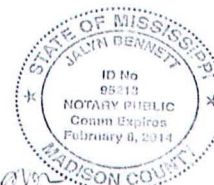
RESULTS:

	D65/10			A/2		
	x	y	Y	x	y	Y
StreetBrick XL Bike Lane Green #1	0.3212	0.5240	18.86	0.3755	0.5525	17.62
StreetBrick XL Bike Lane Green #2	0.3260	0.5310	18.84	0.3778	0.5554	17.69
StreetBrick XL Bike Lane Green #3	0.3280	0.5005	14.19	0.3940	0.5290	13.45



Respectfully Submitted,

David S. Entekin, tech.dir.
Atlantic Paving #582-587



DATE: 12-4-13

NOTARY PUBLIC:

EXHIBIT C

**Broward County Traffic Engineering Division
Bicycle Pavement Markings and Signs Details**

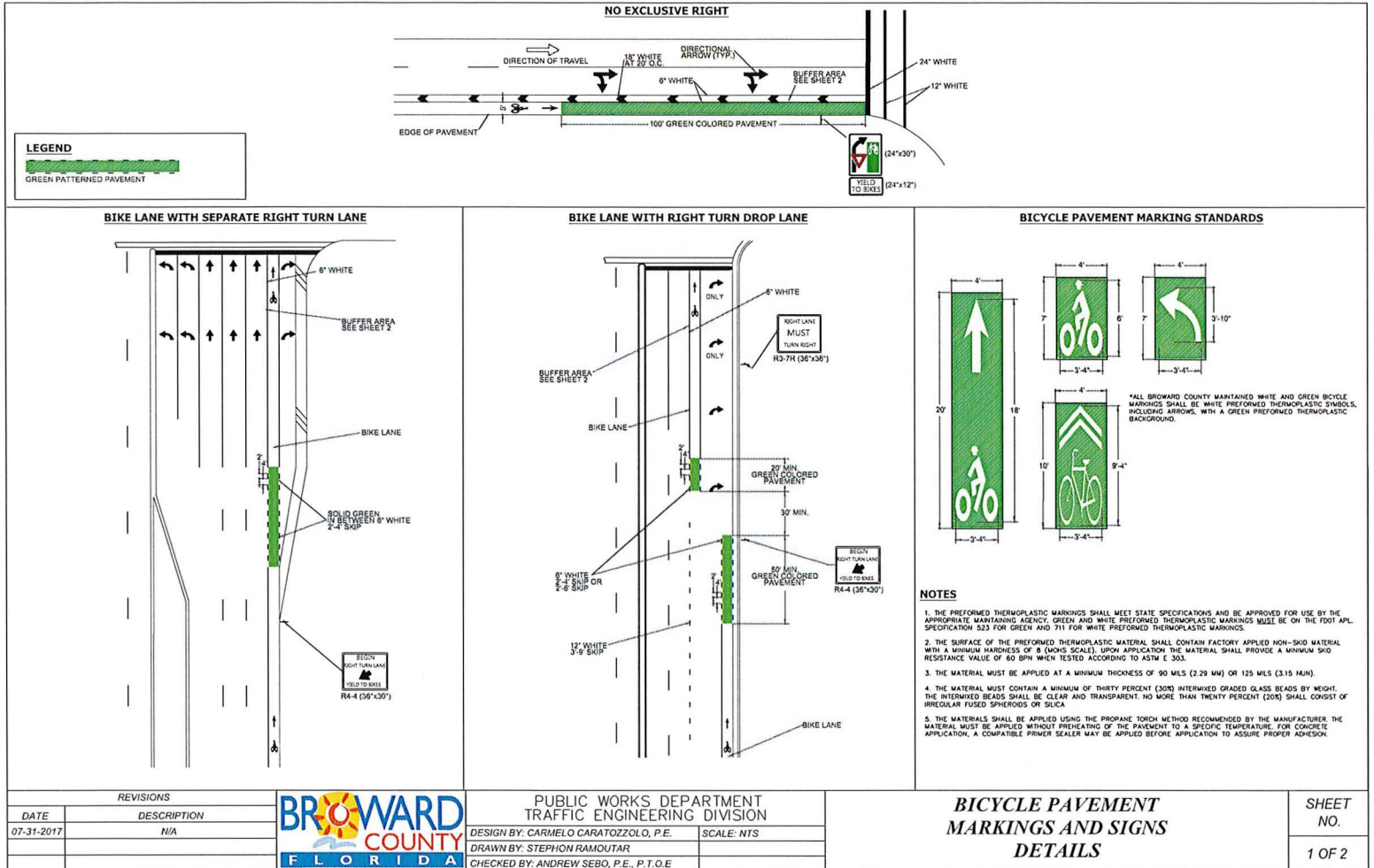


EXHIBIT D

**Broward County Traffic Engineering Division
FHWA Interim Approval Letters**



PUBLIC WORKS DEPARTMENT
TRAFFIC ENGINEERING DIVISION
2300 W. Commercial Boulevard • Fort Lauderdale, Florida 33309 • 954-847-2600

August 19, 2013

Mr. Jeffrey A. Lindley
Office of Transportation Operations
Federal Highway Administration
400 7th Street, SW
Washington, DC 20590

RE: Request for Interim Approval of Green Colored Pavement in Bike Lanes

Dear Mr. Lindley:

In accordance with your memorandum dated April 15, 2011, I am writing to request Interim Approval for the use of green colored pavement in marked bike lanes and in extensions of bicycle lanes through intersections and traffic conflict areas within our jurisdiction.

Broward County, Florida, has a significant number of bicyclists using our streets, bike routes and paths, and we wish to enhance the safety and visibility of bike lanes with the use of green pavement and/or bike lane symbols and arrows with green background. I have read your memorandum and the guidance provided on the FHWA website, and I understand the requirements of the approval are as follows:

- 1) Broward County agrees to comply with the technical conditions detailed in the memorandum.
- 2) Broward County agrees to maintain an inventory of all locations where green colored pavement is installed.
- 3) Per Section, 1A.10 of the 2009 MUTCD, Broward County agrees to restore the site of the Interim Approval to a condition that complies with the provisions of the Manual "within 3 months following the issuance of a Final Rule on this traffic control device." Also, the County agrees to terminate the use of the device at any time it determines significant safety concerns are attributable to the device.

Also, please be aware that Broward County has original traffic control jurisdiction on all County roads, and on the vast majority of municipal roadways (city and towns) through a joint-party agreement with the municipalities. This request would also extend to include those municipal roadways under our traffic control jurisdiction. However, this is not intended to preclude a municipality from undertaking its own program directly through your office, if applicable. Broward County, however, does not have such jurisdiction on State roads.

We await your response and thank you in advance for your consideration.

Sincerely,

A handwritten signature in blue ink that reads "Scott Brunner".

Scott Brunner, Director
Broward County Traffic Engineering



U.S. Department
of Transportation
Federal Highway
Administration

SEP - 4 2013

1200 New Jersey Avenue, SE
Washington, D.C. 20590

In Reply Refer to:
HOTO-1

Scott Brunner
Director
Broward County Traffic Engineering
2300 West Commercial Boulevard
Fort Lauderdale, FL 33309

Dear Mr. Brunner:

Thank you for your letter of August 19 requesting approval to use green colored pavement on a countywide basis for marked bicycle lanes in the County of Broward. Your request was made under the provisions of Section 1A.10 in the 2009 Edition of the *Manual on Uniform Traffic Control Devices for Streets and Highways* (MUTCD) and our Interim Approval Memorandum IA-14 dated April 15, 2011.

Your request is approved. It is recommended that you provide a list of locations where the device will be used to the Florida Department of Transportation in accordance with Paragraph 20 of Section 1A.10 in the MUTCD.

For recordkeeping purposes, we have assigned your Interim Approval request the following number and title: "IA-14.46 – Green Colored Pavement for Bicycle Lanes – Broward County, FL." Please reference this number in any future correspondence.

Thank you for your interest in improving highway safety for bicyclists. If we can be of further assistance on this matter, please contact Mr. Kevin Dunn at kevin.dunn@dot.gov.

Sincerely yours,

A handwritten signature in blue ink that reads "Mark R. Kehrli".

Mark R. Kehrli
Director, Office of Transportation
Operations

ATTACHMENT 2



U.S. Department
of Transportation
Federal Highway
Administration

Memorandum

Subject: **INFORMATION:** MUTCD – Interim
Approval for Optional Use of Green
Colored Pavement for Bike Lanes (IA-14)

Date: APR 15 2011

From: Jeffrey A. Lindsey
Associate Administrator for Operations

In Reply Refer To:
HOTO-1

To: Federal Lands Highway Division Engineers
Division Administrators

Purpose: The purpose of this memorandum is to issue an Interim Approval for the optional use of green colored pavement in marked bicycle lanes and in extensions of bicycle lanes through intersections and other traffic conflict areas. Interim Approval allows interim use, pending official rulemaking, of a new traffic control device, a revision to the application or manner of use of an existing traffic control device, or a provision not specifically described in the Manual on Uniform Traffic Control Devices (MUTCD).

Background: Chapter 3G of the 2009 MUTCD contains provisions regarding the use of colored pavements. Paragraph 1 of Section 3G.01 describes colored pavement as consisting of differently colored road paving materials, such as colored asphalt or concrete, or paint or other marking materials applied to the surface of a road or island to simulate a colored pavement.

If colored pavement is used to regulate, warn, or guide traffic, the colored pavement is considered to be a traffic control device. Paragraph 3 of Section 3G.01 limits the use of colored pavement used as a traffic control device to the colors yellow and white. Paragraph 2 of Section 3G.01 discusses the use of colored pavement as a purely aesthetic treatment that is not intended to regulate, warn, or guide traffic and is therefore not considered to be a traffic control device. Part 9, Traffic Control for Bicycle Facilities, of the 2009 MUTCD does not mention colored pavement.

A number of experiments have been conducted in the United States and in other countries around the world to determine the value of designating a particular pavement color to communicate to road users that a portion of the roadway has been set aside for exclusive or preferential use by bicyclists and to enhance the conspicuity of a bicycle lane or a bicycle lane extension. Green, blue, and red are among the colors that have been tested for this purpose. Because these colored pavements are intended to regulate, warn, or guide traffic (motorists and bicyclists) and thus are serving as more than just an aesthetic treatment, they are considered to be traffic control devices.

For the past 10 years in the United States, green has been the only color that has received official FHWA approval for colored pavement experiments on bicycle facilities. Blue colored pavement cannot be designated for exclusive or preferential use in bicycle facilities because it is already the primary color of the international symbol of accessibility parking symbol (see Figure 3B-22 of the 2009 MUTCD) and it is also used for the lines that are adjacent to parking spaces that are reserved for use only by persons with disabilities. The use of red colored pavement has not been approved for any bicycle-related experiments in the United States because it is currently being tested for a different potential use.

Research on Green Colored Pavement for Bike Lanes: Agencies across the United States are showing an increased interest in using colored pavement specifically for bicycle facilities, and many of them have submitted requests to the FHWA to experiment with colored pavement. During the past 10 years, the FHWA has approved experiments with green colored pavement for a variety of State and local governmental agencies, including the following: the Vermont Agency of Transportation; the City of Chicago, IL; the City of New York, NY; the City of St. Petersburg, FL; the City of San Francisco, CA; the City of Portland, OR; the City of Columbia, MO; the City of Long Beach, CA; the City of Austin, TX; the City of Nashville, TN; the City of Missoula, MT; the City of Golden, CO; the Minnesota DOT (for Minneapolis); and the Pennsylvania DOT (for Philadelphia). In these experiments, green colored pavement is being used as a traffic control device to designate locations where bicyclists are expected to operate, and areas where bicyclists and other roadway traffic might have potentially conflicting weaving or crossing movements.

FHWA Evaluation of Results: The Office of Transportation Operations has reviewed the available data and considers the experimental green colored pavement to be satisfactorily successful for the bicycle applications that were tested. Positive operational effects have been noted in the experiments, such as bicyclists positioning themselves more accurately as they travel across intersections and through conflict areas, and no notable negative operational effects have been observed. The research has also shown that bicyclists and motorists both have a positive impression of the effect of the green colored pavement, with bicyclists saying that they feel safer when the green colored pavement is present, and motorists saying that the green colored pavement gives them an increased awareness that bicyclists might be present and where those bicyclists are likely to be positioned within the traveled way.

The design of the experimental green colored pavement is not proprietary and can be used by any jurisdiction that requests and obtains interim approval from the FHWA to use green colored pavement. The FHWA believes that the experimental green colored pavement has a low risk of safety or operational concerns.

This Interim Approval does not create a new mandate compelling the use of green colored pavement, but will allow agencies to install green colored pavement, pending official MUTCD rulemaking, to enhance the conspicuity of a bicycle lane or a bicycle lane extension.

Conditions of Interim Approval: The FHWA will grant Interim Approval for the optional use of green colored pavement in marked bicycle lanes and in extensions of bicycle lanes through intersections and traffic conflict areas to any jurisdiction that submits a written request to the Office of Transportation Operations. A State may request Interim

Approval for all jurisdictions in that State. Jurisdictions using green colored pavement under this Interim Approval must agree to comply with the technical conditions detailed below, to maintain an inventory list of all locations where green colored pavement is installed, and to comply with Item D in Paragraph 18 of Section 1A.10 of the 2009 MUTCD, which requires:

“An agreement to restore the site(s) of the Interim Approval to a condition that complies with the provisions in this Manual within 3 months following the issuance of a Final Rule on this traffic control device; and terminate use of the device or application installed under the interim approval at any time that it determines significant safety concerns are directly or indirectly attributable to the device or application. The FHWA’s Office of Transportation Operations has the right to terminate the interim approval at any time if there is an indication of safety concerns.”

1. General Conditions:

The use of green colored pavement is optional. However, if an agency opts to use green colored pavement under this Interim Approval, the following design and installation requirements shall apply, and shall take precedence over any conflicting provisions of the MUTCD.

2. Allowable Uses:

Green colored pavement may be used within a bicycle lane or within an extension of a bicycle lane to enhance the conspicuity of the bicycle lane or extension.

The use of green colored pavement under this Interim Approval is limited to the following applications:

- a. Green colored pavement may be installed within bicycle lanes as a supplement to the other pavement markings that are required for the designation of a bicycle lane. Green colored pavement shall not be used instead of the longitudinal line required by Paragraph 2 of Section 9C.04 of the 2009 MUTCD or instead of the word, symbol, and arrow pavement markings illustrated in Figure 9C-3 of the 2009 MUTCD and required by Item C in Paragraph 6 of Section 3D.01 of the 2009 MUTCD. The green colored pavement may be installed for the entire length of the bicycle lane or for only a portion (or portions) of the bicycle lane. Green colored pavement may be installed as a rectangular background behind the word, symbol, and arrow pavement markings in a bicycle lane as a means of enhancing the conspicuity of these word, symbol, and arrow pavement markings.
- b. If a pair of dotted lines is used to extend a bicycle lane across an intersection or driveway (see Section 3B.08 of the 2009 MUTCD) or a ramp, green colored pavement may be installed between these lines as a supplement to the lines. Green colored pavement shall not be used instead of these dotted lines to extend a bicycle lane across an intersection, driveway, or ramp. The green colored pavement may be installed for the entire length of the bicycle lane extension or for only a portion (or portions) of the bicycle lane extension. The pattern of the green colored pavement may be dotted in a manner that matches the pattern of the

dotted lines, thus filling in only the areas that are directly between a pair of dotted line segments that are on opposite sides of the bicycle lane extension.

- c. If a pair of dotted lines is used to extend a bicycle lane across the beginning of a turn bay where drivers who desire to turn must cross the bicycle lane when moving out of the through lane in order to turn (see Figures 9C-1, 9C-4, and 9C-5 of the 2009 MUTCD), green colored pavement may be installed between these lines as a supplement to the lines. Green colored pavement shall not be used instead of these dotted lines to extend a bicycle lane across the beginning of a turn bay. The green colored pavement may be installed for the entire length of the bicycle lane extension or for only a portion (or portions) of the bicycle lane extension. The pattern of the green colored pavement may be dotted in a manner that matches the pattern of the dotted lines, thus filling in only the areas that are directly between a pair of dotted line segments that are on opposite sides of the bicycle lane extension.

3. Design of Green Colored Pavement:

- a. The daytime chromaticity coordinates for the color used for green colored pavement shall be as follows:

1		2		3		4	
x	y	x	y	x	y	x	y
0.230	0.754	0.266	0.500	0.367	0.500	0.444	0.555

The daytime luminance factor (Y) shall be at least 7, but no more than 35.

- b. The nighttime chromaticity coordinates for the color used for green colored pavement shall be as follows:

1		2		3		4	
x	y	x	y	x	y	x	y
0.230	0.754	0.336	0.540	0.450	0.500	0.479	0.520

- c. Green colored pavement may be retroreflective, but there is no requirement or recommendation that it be retroreflective.
- d. If green paint or other marking materials applied to the roadway surface are used to simulate a green colored pavement, consideration should be given to selecting pavement marking materials that will minimize loss of traction for bicyclists (see Paragraph 4 of Section 3A.04 of the 2009 MUTCD).

4. Other:

Except as otherwise provided above, all other provisions of the MUTCD that are applicable to colored pavements shall apply to green colored pavement.

Any questions concerning this Interim Approval should be directed to Mr. Bruce Friedman at bruce.friedman@dot.gov.

cc:

Associate Administrators
Chief Counsel
Chief Financial Officer
Directors of Field Services
Director of Technical Services

**EXHIBIT E
INSURANCE REQUIREMENTS**

Project: Revocable License Agreement for Full Green Bike Lanes in Oakland Park
Agency: Traffic Engineering Division

TYPE OF INSURANCE	ADDL INSD	SUBR WVD	MINIMUM LIABILITY LIMITS		
				Each Occurrence	Aggregate
GENERAL LIABILITY - Broad form <input checked="" type="checkbox"/> Commercial General Liability <input checked="" type="checkbox"/> Premises-Operations <input type="checkbox"/> XCU Explosion/Collapse/Underground <input checked="" type="checkbox"/> Products/Completed Operations Hazard <input checked="" type="checkbox"/> Contractual Insurance <input checked="" type="checkbox"/> Broad Form Property Damage <input checked="" type="checkbox"/> Independent Contractors <input checked="" type="checkbox"/> Personal Injury Per Occurrence or Claims-Made: <input checked="" type="checkbox"/> Per Occurrence <input type="checkbox"/> Claims-Made Gen'l Aggregate Limit Applies per: <input type="checkbox"/> Project <input type="checkbox"/> Policy <input type="checkbox"/> Loc. <input type="checkbox"/> Other _____	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Bodily Injury		
			Property Damage		
			Combined Bodily Injury and Property Damage	\$1,000,000	\$2,000,000
			Personal Injury		
			Products & Completed Operations		
AUTO LIABILITY <input checked="" type="checkbox"/> Comprehensive Form <input checked="" type="checkbox"/> Owned <input checked="" type="checkbox"/> Hired <input checked="" type="checkbox"/> Non-owned <input checked="" type="checkbox"/> Any Auto, If applicable <i>Note: May be waived if no driving will be done in performance of services/project.</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Bodily Injury (each person)		
			Bodily Injury (each accident)		
			Property Damage		
			Combined Bodily Injury and Property Damage	\$1,000,000	
<input type="checkbox"/> EXCESS LIABILITY / UMBRELLA Per Occurrence or Claims-Made: <input type="checkbox"/> Per Occurrence <input type="checkbox"/> Claims-Made <i>Note: May be used to supplement minimum liability coverage requirements.</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/> WORKER'S COMPENSATION <i>Note: U.S. Longshoremen & Harbor Workers' Act & Jones Act is required for any activities on or about navigable water.</i>	N/A	<input checked="" type="checkbox"/>	Each Accident	STATUTORY LIMITS	
<input checked="" type="checkbox"/> EMPLOYER'S LIABILITY			Each Accident	\$500,000	
<input type="checkbox"/> POLLUTION / ENVIRONMENTAL LIABILITY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If claims-made form:		
			Extended Reporting Period of:	years	
			*Maximum Deductible:	\$10 k	
<input type="checkbox"/> Installation floater is required if Builder's Risk or Property are not carried. <i>Note: Coverage must be "All Risk", Completed Value.</i>			*Maximum Deductible (Wind and/or Flood):	Not to exceed 5% of completed value	Completed Value
			*Maximum Deductible:	\$10 k	
Description of Operations: "Broward County" shall be listed as Certificate Holder and endorsed as an additional insured for liability, except as to Professional Liability. County shall be provided 30 days written notice of cancellation, 10 days' notice of cancellation for non-payment. Contractors insurance shall provide primary coverage and shall not require contribution from the County, self-insurance or otherwise. Any self-insured retention (SIR) higher than the amount permitted in this Agreement must be declared to and approved by County and may require proof of financial ability to meet losses. Contractor is responsible for all coverage deductibles unless otherwise specified in the agreement.					

CERTIFICATE HOLDER:

 Broward County
 115 South Andrews Avenue
 Fort Lauderdale, Florida 33301



Digitally signed by COLLEEN A. POUNILL
 DN: cn=Colleen A. Pounill, o=Broward County, ou=County Administration, email=cpounill@broward.com, c=US

Risk Management Division