

CITY OF HALLANDALE BEACH, FLORIDA

S.R. A1A BUS STOP IMPROVEMENTS

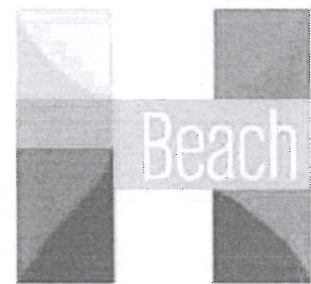
PROJECT
LOCATION



LOCATION MAP
N.T.S.

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DIRECTOR OF DPW, UTILITIES & ENGINEERING
STEVEN F. PARKINSON, P.E., PWLF

CONSTRUCTION PLANS

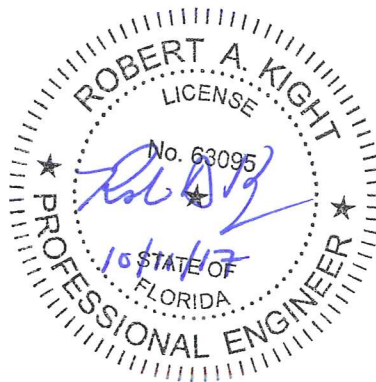
GOVERNING SPECIFICATIONS: STATE OF FLORIDA,
DEPARTMENT OF TRANSPORTATION, STANDARD
SPECIFICATIONS FOR ROAD AND BRIDGE
CONSTRUCTION (LATEST EDITION)

**Eisman
& Russo**
CONSULTING ENGINEERS

PREPARED BY
6455 POWERS AVENUE
JACKSONVILLE, FL 32217-2821
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CERTIFICATE OF AUTHORIZATION 4281

ENGINEER OF RECORD:
ROBERT A. KIGHT, P.E.
P.E. NO: 63095

October 11, 2017
FORMER ENG. PROJECT NUMBER 2033
NEW ENG PROJECT NUMBER 2168



I.

A. APPLICABLE CODES

1. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
2. CONSTRUCTION SAFETY – ALL CONSTRUCTION SHALL BE DONE IN A SAFE MANNER, SPECIFICALLY, THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL BE STRICTLY OBSERVED.
3. THE CONTRACTOR SHALL BE REQUIRED TO COMPLY WITH CHAPTER 90–96 OF THE LAWS OF FLORIDA (THE TRENCH SAFETY ACT) AND OSHA STANDARD 29 C.F.R. SECTION 1926.650 SUBPART P. THE CONTRACTOR SHALL SUBMIT WITH HIS CONTRACT A COMPLETED, SIGNED, AND NOTARIZED COPY OF THE TRENCH SAFETY ACT COMPLIANCE STATEMENT. THE CONTRACTOR SHALL ALSO SUBMIT A SEPARATE COST ITEM IDENTIFYING THE COST OF COMPLIANCE WITH THE APPLICABLE TRENCH SAFETY CODES.
4. NO CONSTRUCTION MAY COMMENCE UNTIL THE APPROPRIATE PERMITS HAVE BEEN OBTAINED FROM ALL LOCAL, STATE AND FEDERAL AGENCIES.

B. PRECONSTRUCTION RESPONSIBILITIES

1. UPON RECEIPT OF NOTICE OF AWARD, THE CONTRACTOR SHALL ARRANGE A PRECONSTRUCTION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES, ALL AFFECTED UTILITY OWNERS, THE CITY ENGINEER AND HIMSELF.
2. THE CONTRACTOR SHALL OBTAIN A SUNSHINE STATE ONE CALL OF FLORIDA CERTIFICATION NUMBER AT LEAST 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION.
3. PRIOR TO BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION AND MATERIAL OF ALL EXISTING UTILITIES WITHIN THE AREA OF CONSTRUCTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING UTILITIES FOR WHICH HE FAILS TO REQUEST LOCATIONS FROM THE UTILITY OWNER. HE IS RESPONSIBLE AS WELL FOR DAMAGE TO ANY EXISTING UTILITIES WHICH ARE PROPERLY LOCATED.

C. INSPECTIONS

1. THE OWNER, CITY ENGINEER, AND LOCAL PERMITTING AGENCIES MAY MAKE INSPECTIONS OF THE WORK AT ANY TIME. THE CONTRACTOR SHALL COOPERATE FULLY WITH ALL INSPECTIONS.

D. GENERAL UTILITY NOTES:

1. THE LOCATION AND SIZE OF ALL EXISTING UTILITIES AND TOPOGRAPHY HAS BEEN PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE TO THE CITY ENGINEER. THIS INFORMATION IS NOT GUARANTEED AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION (VERTICAL & HORIZONTAL) OF ANY EXISTING UTILITIES AND TOPOGRAPHY PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL VERIFY ALL UTILITIES, BY ELECTRONIC METHODS AND BY HAND EXCAVATION IN COORDINATION WITH ALL UTILITY COMPANIES, PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS. ANY AND ALL CONFLICTS OR DISCREPANCIES OF EXISTING UTILITIES WITH PROPOSED IMPROVEMENTS OF CONSTRUCTION DRAWINGS SHALL BE RESOLVED BY THE CITY ENGINEER PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS. THIS WORK BY THE CONTRACTOR SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED. THE CITY ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING UTILITIES SHOWN OR FOR ANY EXISTING UTILITIES NOT SHOWN.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND RESTORATION OF EXISTING PAVEMENT, PIPES, CONDUITS, CABLES, ETC. AND LANDSCAPED AREAS DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATIONS AND/OR THOSE OF HIS SUBCONTRACTOR'S, AND SHALL RESTORE THEM PROMPTLY. THIS REPAIR SHALL BE DONE AT NO EXPENSE TO THE CITY OF THE DAMAGED UTILITY OR PROPERTY.
3. COORDINATE CONSTRUCTION SCHEDULING FOR CONNECTION TO THE EXISTING UTILITY LINES WITH THE CITY UTILITY DEPARTMENT.
4. ALL PAVEMENT RESTORATION TO BE MADE IN ACCORDANCE WITH THE CITY, COUNTY OR STATE OF FLORIDA D.O.T. STANDARD SPECIFICATIONS, WHERE APPLICABLE.
5. PRIOR TO FINAL ACCEPTANCE, THE CONTRACTOR SHALL SUPPLY THE CITY WITH THE CERTIFICATION THAT ALL CONSTRUCTION AND MATERIALS MEET OR EXCEED THE DESIGN AND HAS BEEN INSTALLED PER THE DRAWINGS AND/OR AS–BUILT DRAWINGS.
6. THE CONTRACTOR SHALL COORDINATE THE WORK WITH OTHER CONTRACTORS IN THE AREA ANY OTHER UNDERGROUND CONDUIT REQUIRED FOR FP&L, SOUTHERN BELL, IRRIGATION SYSTEM, ETC. PRIOR TO BEGINNING SUBGRADE. THE CONTRACTOR SHALL COORDINATE RELOCATION OF ALL EXISTING UTILITIES WITH APPLICABLE UTILITY COMPANIES.
7. NO TRENCHES OR HOLES NEAR WALKWAYS, IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN OVERNIGHT WITHOUT WRITTEN PERMISSION OF THE CITY OR OWNER.
8. THE CONTRACTOR MUST NOTIFY THE CITY ENGINEER PRIOR TO STARTING EACH PHASE OF ANY UNDERGROUND UTILITY WORK OR PAVING AND GRADING OPERATIONS SO THAT THE PROPER INSPECTION MAY BE SCHEDULED.

E. TEMPORARY FACILITIES:

1. TEMPORARY UTILITIES – IT SHALL BE THE CONTRACTOR'S RESPONSIBILITIES TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY TO HIS EMPLOYEES AND SUBCONTRACTORS FOR THEIR USE DURING CONSTRUCTION.
2. TRAFFIC REGULATION – MAINTENANCE OF TRAFFIC IN THE PUBLIC RIGHT–OF–WAY SHALL BE IN ACCORDANCE WITH THE MUTCD AND FDOT STANDARD SPECIFICATIONS.
3. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAYS OR WALKWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC. NO HOLES SHALL BE LEFT OPEN OVERNIGHT.

G. PROJECT SITE:

1. DURING CONSTRUCTION THE PROJECT SITE AND ALL ADJACENT AREAS SHALL BE MAINTAINED IN A NEAT AND CLEAN MANNER. UPON FINAL CLEAN UP, THE PROJECT SITE SHALL BE LEFT CLEAR OF ALL SURPLUS MATERIAL OR TRASH. THE PAVED AREAS SHALL BE SWEEP BROOM CLEAN.
2. THE CONTRACTOR SHALL RESTORE OR REPLACE, WHEN AND AS DIRECTED BY THE CITY ENGINEER ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY HIS WORK, EQUIPMENT, EMPLOYEES OR THOSE OF HIS SUBCONTRACTORS TO A CONDITION AT LEAST EQUAL TO THAT EXISTING IMMEDIATELY PRIOR TO BEGINNING OF OPERATIONS. TO THIS END, THE CONTRACTOR SHALL DO AS REQUIRED ALL NECESSARY HIGHWAY OR DRIVEWAY, WALK, AND LANDSCAPING WORK. SUITABLE MATERIALS AND METHODS SHALL BE USED FOR SUCH RESTORATION.
3. WHERE MATERIALS OR DEBRI HAS WASHED OR FLOWED INTO OR BEEN PLACED IN WATER COURSES, DITCHES, DRAINS, CATCH BASINS, OR ELSEWHERE AS A RESULT OF THE CONTRACTOR'S OPERATIONS, SUCH MATERIAL OR DEBRI SHALL BE REMOVED AND SATISFACTORILY DISPOSED OF DURING PROGRESS OF THE WORK, AND THE AREA KEPT IN A CLEAN AND NEAT CONDITION.

H. PROJECT RECORD DOCUMENTS:

1. ALL "AS BUILT" INFORMATION SUBMITTED TO THE CITY ENGINEER SHALL BE SUFFICIENTLY ACCURATE, CLEAR AND LEGIBLE TO SATISFY THE CITY ENGINEER AND ANY APPLICABLE REVIEWING AGENCY THAT THE INFORMATION PROVIDES A TRUE REPRESENTATION OF THE IMPROVEMENTS CONSTRUCTED.

I. STANDARD NOTES

1. ALL ELEVATIONS DEPICTED ON THESE PLANS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD) 88.
2. ALL MATERIALS AND CONSTRUCTION WITHIN THE FDOT RIGHT–OF–WAY SHALL CONFORM WITH FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS AND STANDARD SPECIFICATIONS (LATEST EDITION) AND THE SUPPLEMENTS THERETO.
3. CONTRACTOR SHALL ENSURE THAT THE MAINTENANCE OF TRAFFIC PLAN (MOT) FOR THE PROJECT IS IN ACCORDANCE WITH THE APPLICABLE FDOT INDEX NUMBERS SERIES & THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (US DEPARTMENT OF TRANSPORTATION).
4. ANY DROP–OFF IN THE AREA ADJACENT TO THE TRAVEL WAY OF THE ROAD SHALL BE BACKFILLED IN ACCORDANCE WITH STANDARD INDEX 600 OR SHALL BE OTHERWISE PROTECTED WITH TEMPORARY WALL AT THE CONTRACTOR'S EXPENSE.
5. THE LOCATION OF THE EXISTING UTILITIES SHOWN IS APPROXIMATE ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION DURING CONSTRUCTION. RELOCATING SHALL BE COORDINATED WITH UTILITY COMPANIES AFTER IDENTIFICATION OF CONFLICT BY CONTRACTOR. CONTRACTOR WILL NOTIFY CITY IN ADVANCE BEFORE ANY RELOCATION.
6. THE CONTRACTOR AT THE EARLIEST CONVENIENT TIME SHALL NOTIFY IN WRITING ALL RIGHT–OF–WAY USERS AFFECTED BY THE CONSTRUCTION OF THIS PROJECT.
7. ALL MOT LANE CLOSURE SIGNS SHALL BE COVERED WHEN LANES ARE NOT CLOSED. NO LANES ARE TO BE CLOSED BEFORE 9:00 AM AND ALL LANES ARE TO BE OPENED BY 4:00 PM.
8. FLAGGERS MUST BE PRESENT DURING THE INGRESS AND EGRESS OF CONSTRUCTION VEHICLES TO AND FROM THE PROJECT SITE. WARNING SIGNS MUST BE ERECTED ADVISING MOTORIST OF TRUCKS ENTERING THE CONSTRUCTION SITE.

J. FDOT DESIGN STANDARDS MOT

1. REFERENCE F.Y. 2017–18 FDOT STANDARD INDEX 611, 612, 613 AND 660.

K. UTILITY OWNERS 2017–2018

COMPANY	CONTACTS	PHONE
ADELPHIA CABLE COMMUNICATIONS	ANTHONY KOWALESKI	954–217–6773
BELLSOUTH	AMZI POSTE	954–723–2540
BROWARD COUNTY OES – WATER	EVA FLORIAN	954–831–0925
COMCAST CABLE	THOMAS CARROLL	954–532–7417
CITY OF HALLANDALE	RIASA ZELDIS	954–457–1617
FDN COMMUNICATIONS	MIKE PICKLE	407–835–0341
FLORIDA POWER & LIGHT COMPANY	WYLI KYNARD	954–321–2052
FPL FIBERNET	NOEL REESE	305–552–3249
PEOPLES GAS – FT. LAUD	JANICE DEANGELIS	305–940–0139
SUNSHINE STATE ONE CALL OF FLORIDA		800–432–4770

II. CONSTRUCTION SPECIFICATIONS:

A. GENERAL

1. IT IS THE INTENT OF THESE SPECIFICATIONS TO DESCRIBE THE MINIMUM ACCEPTABLE TECHNICAL REQUIREMENT FOR THE MATERIALS AND WORKMANSHIP FOR CONSTRUCTION OF SITE IMPROVEMENTS FOR THIS PROJECT. SUCH IMPROVEMENTS SHALL GENERALLY INCLUDE BUT NOT TO BE LIMITED TO, CLEARING, GRADING, REMOVAL OF EXISTING BUS STOP PADS AND FURNISHINGS, AND INSTALLATION OF NEW BUS STOP PADS, SHELTERS AND FURNISHINGS.
2. IT IS THE INTENT THAT THE FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" (LATEST EDITION) BE USED WHERE APPLICABLE FOR THE VARIOUS WORK, AND THAT WHERE SUCH WORDING THEREIN REFERS TO THE STATE OF FLORIDA AND ITS DEPARTMENT OF TRANSPORTATION AND PERSONNEL, SUCH WORDING IS INTENDED TO BE REPLACED WITH THE WORDING WHICH WOULD PROVIDE PROPER TERMINOLOGY, THEREBY MAKING SUCH "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AS THE "STANDARD SPECIFICATIONS" FOR THIS PROJECT. IF WITHIN A PARTICULAR SECTION, ANOTHER SECTION, ARTICLE OR PARAGRAPH IS REFERRED TO, IT SHALL BE PART OF THE STANDARD SPECIFICATION ALSO. THE CONTRACTOR SHALL ABIDE BY ALL LOCAL AND STATE LAWS, REGULATIONS AND BUILDING CODES WHICH HAVE JURISDICTION IN THE AREA.

3. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT AND PERFORM ALL OPERATIONS REQUIRED TO COMPLETE THE CONSTRUCTION. IT IS THE INTENT TO PROVIDE A COMPLETE AND OPERATING FACILITY IN ACCORDANCE WITH THESE SPECIFICATIONS AND THE CONSTRUCTION DRAWINGS. THE MATERIAL AND EQUIPMENT SHOWN OR SPECIFIED SHALL NOT BE TAKEN TO EXCLUDE ANY OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK.

4. ALL LABOR, MATERIALS, AND METHODS OF CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE PLANS AND CONSTRUCTION SPECIFICATIONS AND MINIMUM ENGINEERING AND CONSTRUCTION STANDARDS ADOPTED BY THE UNIT OF GOVERNMENT WHICH HAS JURISDICTION AND RESPONSIBILITY FOR THE CONSTRUCTION. WHERE ENGINEERING DEPARTMENT'S STANDARD SHALL GOVERN, SUBSTITUTIONS AND DEVIATIONS FROM PLANS AND SPECIFICATIONS SHALL BE PERMITTED ONLY WHEN WRITTEN APPROVAL HAS BEEN ISSUED BY THE ENGINEER.

5. GUARANTEE – ALL MATERIALS AND EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR UNDER THIS CONTRACT, SHALL BE GUARANTEED FOR A PERIOD OF (1) ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE THEREOF, AGAINST DEFECTIVE MATERIALS, DESIGN AND WORKMANSHIP. UPON RECEIPT OF NOTICE FROM THE OWNER OF FAILURE OF ANY PART OF THE GUARANTEED EQUIPMENT OR MATERIALS, DURING THE GUARANTEE PERIOD, THE AFFECTED PART OF THE MATERIALS SHALL BE REPLACED PROMPTLY WITH NEW PARTS OR MATERIALS BY THE CONTRACTOR, AT NO EXPENSE TO THE OWNER. IN THE EVENT THE CONTRACTOR FAILS TO MAKE NECESSARY REPLACEMENT OR REPAIRS WITHIN (7) SEVEN DAYS AFTER NOTIFICATION BY THE OWNER, THE OWNER MY ACCOMPLISH THE WORK AT THE EXPENSE OF THE CONTRACTOR.

B. EARTHWORK:

1. ALL AREAS WITHIN THE LIMITS OF WORK SHALL BE CLEARED AND GRUBBED PRIOR TO CONSTRUCTION. THIS SHALL CONSIST OF THE COMPLETE REMOVAL AND DISPOSAL OF ALL TREES, BRUSH, STUMPS, ROOTS, GRASS, WEEDS, RUBBISH AND ALL OTHER OBSTRUCTIONS RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE EXISTING GROUND TO A DEPTH OF 1'. ITEMS DESIGNATED TO REMAIN OR TO BE RELOCATED OR TO BE ADJUSTED SHALL BE SO DESIGNATED ON THE DRAWINGS. ALL WORK SHALL BE IN ACCORDANCE WITH SECTION 110 OF THE STANDARD SPECIFICATIONS.
2. FILL MATERIALS SHALL BE CLASSIFIED AS A–1, A–3, OR A–2–4 IN ACCORDANCE WITH AASHTO M–145 AND SHALL BE FREE FROM VEGETATION AND ORGANIC MATERIAL, NOT MORE THAN 10% BY WEIGHT OF FILL MATERIAL SHALL PASS THE NO. 200 SIEVE.
3. ALL MATERIAL OF CONSTRUCTION SHALL BE SUBJECT TO INSPECTION AND TESTING TO ESTABLISH CONFORMANCE WITH THE SPECIFICATIONS AND SUITABLY FOR THE USES INTENDED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 24 HOURS PRIOR TO THE TIME HE WILL BE READY FOR AN INSPECTION OR TEST. THE CONTRACTOR SHALL FOLLOW CITY AND COUNTY INSPECTION PROCEDURES.

C. CONSTRUCTION:

1. ALL BUS SHELTERS AND PADS CONSTRUCTED SHALL MEET THE REQUIREMENTS OF THE FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION, LATEST EDITION, AND SECTION 522 OF THE FDOT–SSR&BC, LATEST EDITION FOR CONCRETE SIDEWALK, EXCEPT 2,500 p.s.i. CONCRETE (28 DAYS) SHALL BE USED.
2. ALL SIDEWALKS SHALL BE PLACED ON THE PROPERTY LINE OTHERWISE AS DIRECTED BY THE CITY ENGINEER OR HIS DESIGNEE
3. ALL SIDEWALKS SHALL BE PLACED WITHIN THE CITY RIGHT–OF–WAY.
4. ALL BUS SHELTERS AND PADS SHALL BE CONSTRUCTED WITHIN EXISTING EASEMENTS OUTSIDE AND ADJACENT TO THE FDOT ROW OR WITHIN CITY OWNED PROPERTY AS INDICATED ON THE PLANS. ALL EASEMENTS HAVE BEEN OBTAINED BY THE CITY OF HALLANDALE BEACH.
5. DURING CONSTRUCTION, ANY EXISTING PEDESTRIAN PATHS ARE TO REMAIN USABLE AND ACCESSIBLE, OR ALTERNATE ACCESSIBLE PATHS MUST BE PROVIDED PER STANDARD INDEX 660.
6. CONTRACTOR TO BE RESPONSIBLE TO PROTECT ALL EXISTING DRAINAGE STRUCTURES USING APPROVED METHOD (SILT FENCES, BALES, ETC.)

NOTES:

1. PERMIT REQUIREMENTS: THE CONTRACTOR IS REQUIRED TO OBTAIN A BUILDING PERMIT FROM CITY OF HALLANDALE BEACH. THE CITY SHALL REIMBURSE DIRECT PERMIT COST FOR THE PERMIT UPON RECEIVING A RECEIPT FROM THE BUILDING DEPARTMENT.
2. EXISTING SHELTERS SHALL BE REMOVED BY THE CITY'S VENDOR MARTIN GOLD COAST. AT LEAST 30 DAYS NOTIFICATION SHALL BE GIVEN BY THE CONTRACTOR TO MARTIN GOLD COAST.
3. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE EXISTING SHELTER PADS AND SIDEWALK WHERE INDICATED AND THE PRICE SHALL BE INCLUDED IN SHELTER PAD AND SIDEWALK REMOVAL.
4. THE CONTRACTOR SHALL PROTECT THE NEWLY INSTALLED DECORATIVE SIDEWALK. DAMAGE TO THE EXISTING SIDEWALK SHALL BE REPLACED BY THE CONTRACTOR AS IT'S OWN COST. IT SHOULD BE NOTED THAT THE DECORATIVE SIDEWALK HAS A DESIGN PATTERN SECTION AND REPLACEMENT OF THE ENTIRE SECTION WILL BE REQUIRED.
5. PROVIDE EXPANSION JOINT BETWEEN THE EXISTING SIDEWALK AND THE PROPOSED CONCRETE PADS.
6. COORDINATION WITH BROWARD COUNTY TRANSIT REQUIRED DURING CONSTRUCTION TO LOCATE TEMPORARY BUS STOPS.
7. FULL ACCESS TO BUS STOPS MUST BE MAINTAINED DURING CONSTRUCTION.

Revisions

No./By/Remarks/Approved

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E&R Project No. 2033/2168

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RAK	OCT 9, 2017
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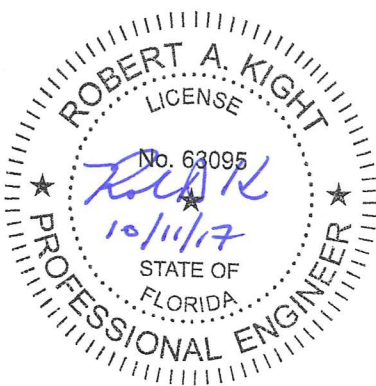


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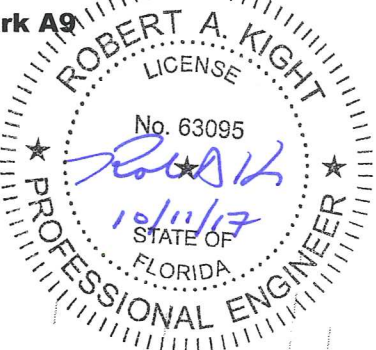
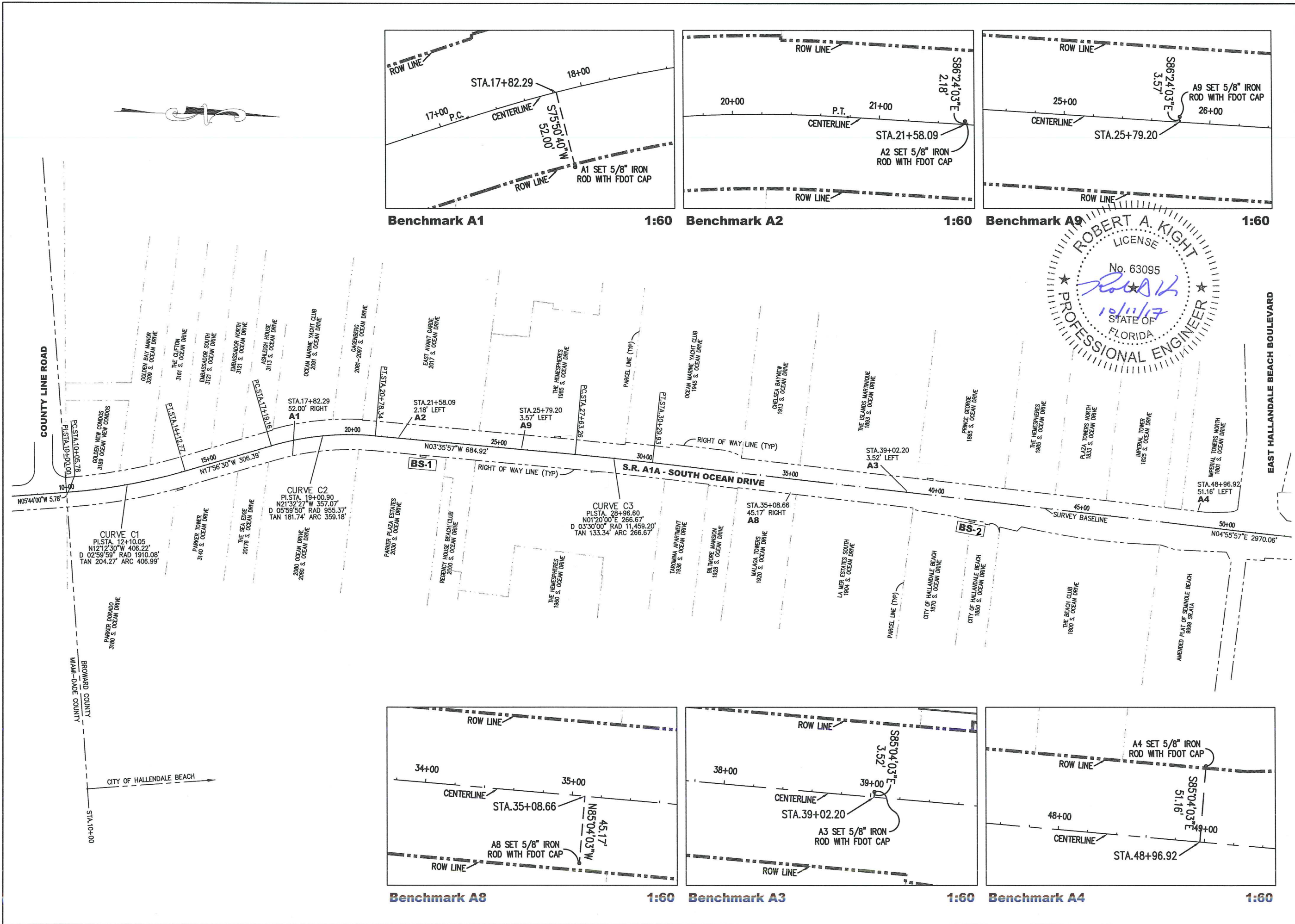
S.R.AIA BUS STOP
IMPROVEMENTS

GENERAL NOTES

SCALE: N/A

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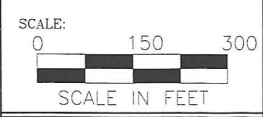


The City of
HALLANDALE BEACH
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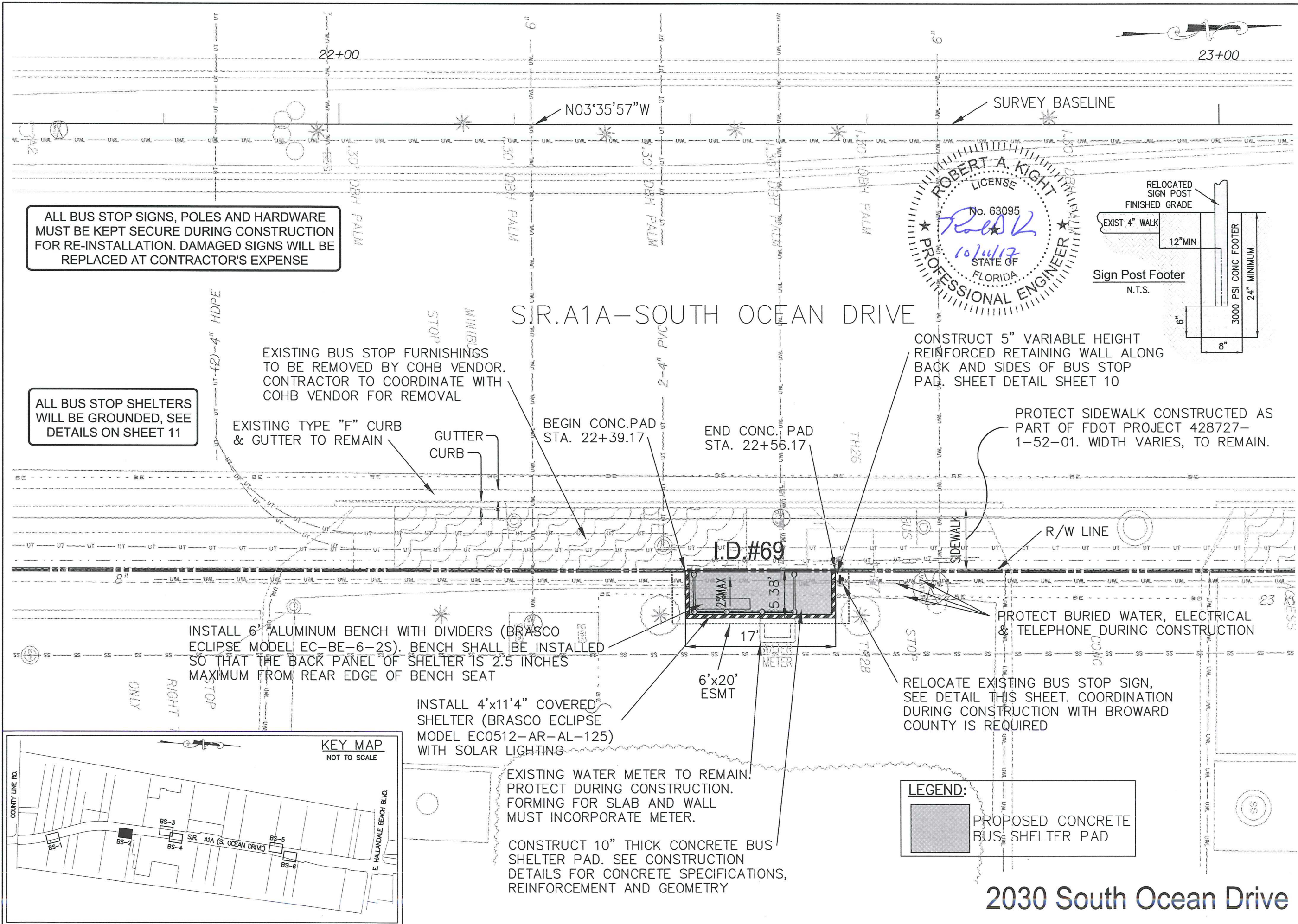
DIRECTOR OF DPW,
UTILITIES AND ENGINEERING
STEVEN PARKINSON, P.E.

S.R.A1A BUS STOP
IMPROVEMENTS

PROJECT LAYOUT



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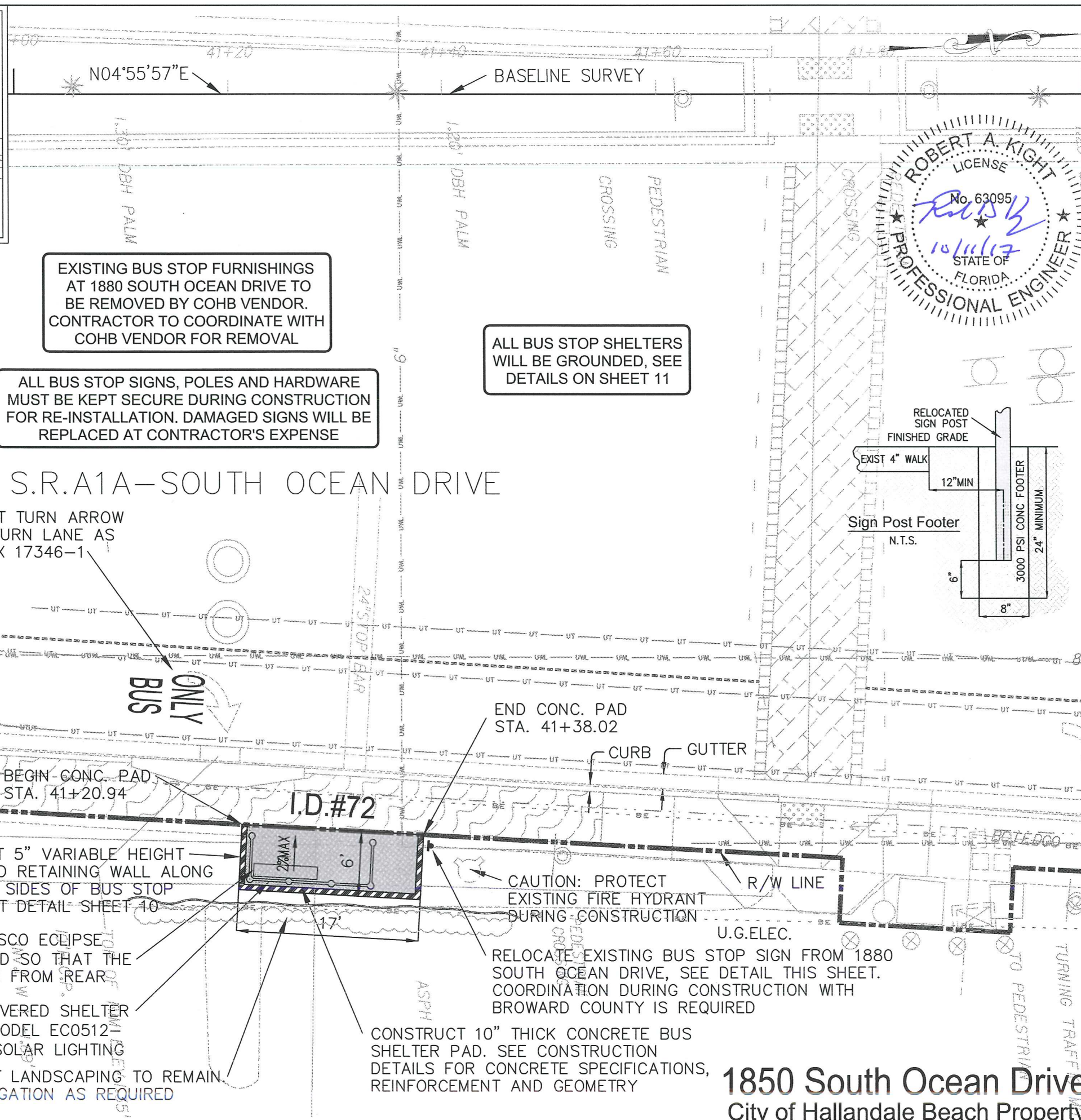
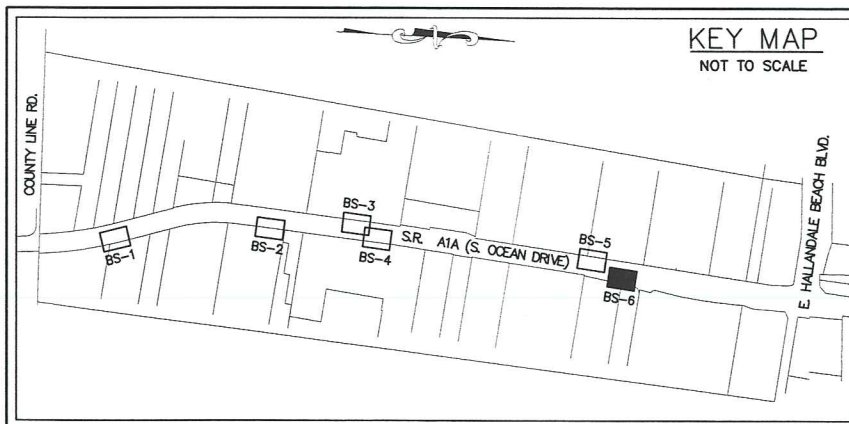
S.R. A1A BUS STOP
IMPROVEMENTS

PLAN SHEET
BS-1

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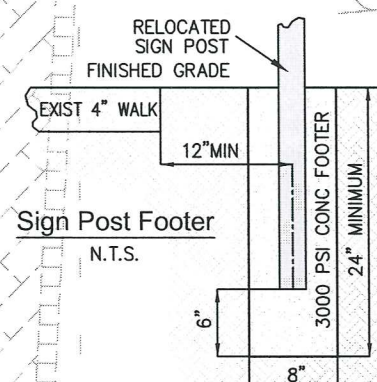
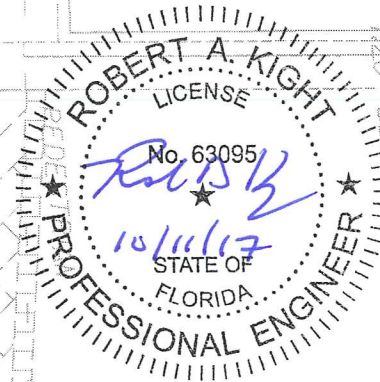
LEGEND:

PROPOSED CONCRETE BUS SHELTER PAD

EXISTING BUS STOP FURNISHINGS AT 1880 SOUTH OCEAN DRIVE TO BE REMOVED BY COHB VENDOR. CONTRACTOR TO COORDINATE WITH COHB VENDOR FOR REMOVAL

ALL BUS STOP SIGNS, POLES AND HARDWARE MUST BE KEPT SECURE DURING CONSTRUCTION FOR RE-INSTALLATION. DAMAGED SIGNS WILL BE REPLACED AT CONTRACTOR'S EXPENSE

ALL BUS STOP SHELTERS WILL BE GROUNDED, SEE DETAILS ON SHEET 11



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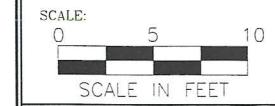


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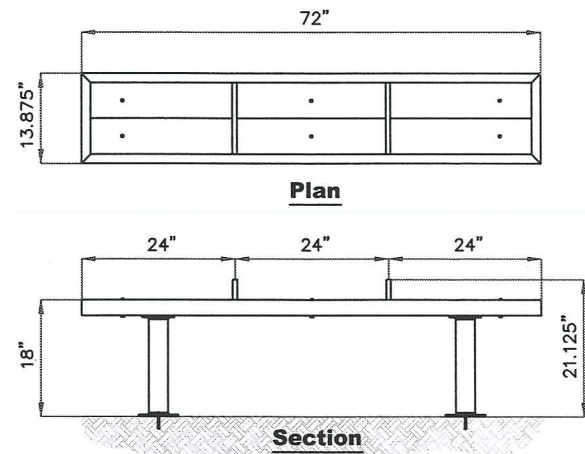
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PLAN SHEET
BS-2

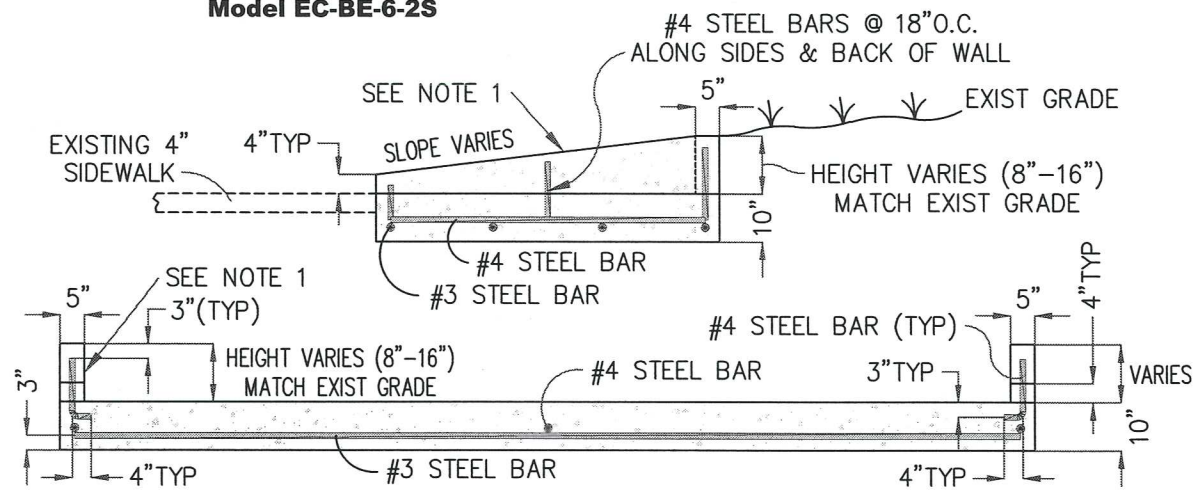


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1850 South Ocean Drive
City of Hallandale Beach Property



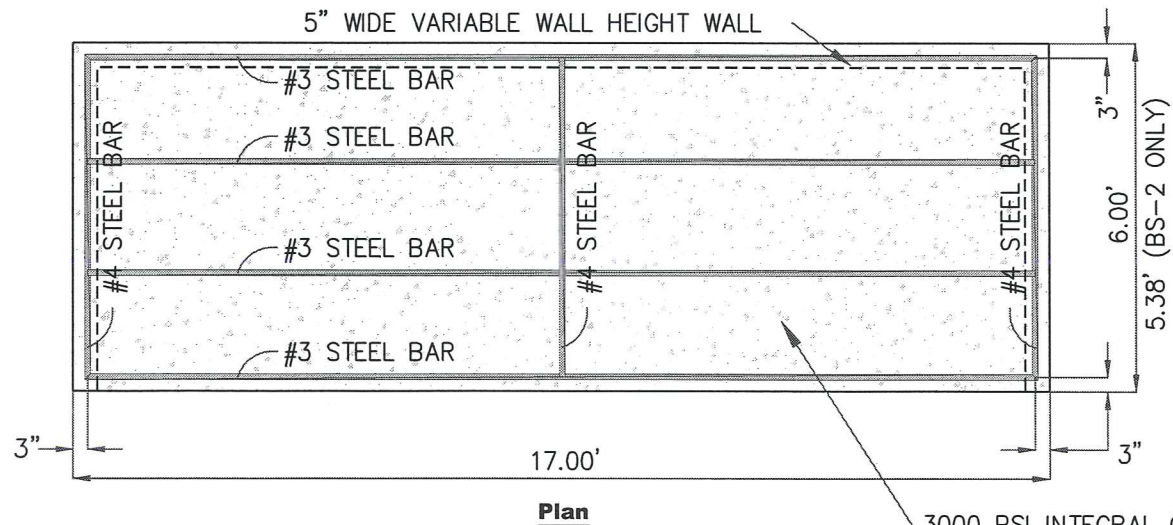
Eclipse Bench
Model EC-BE-6-2S



Sections

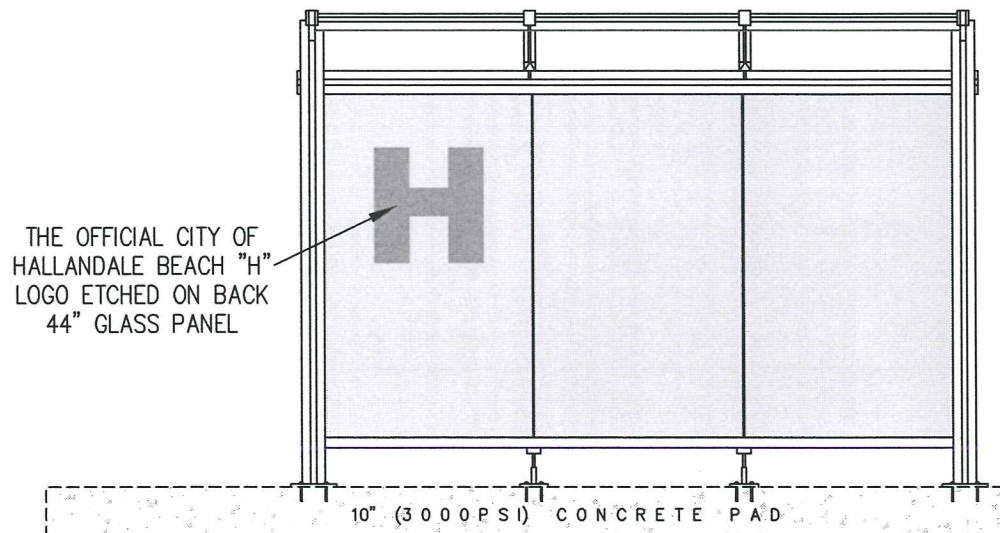
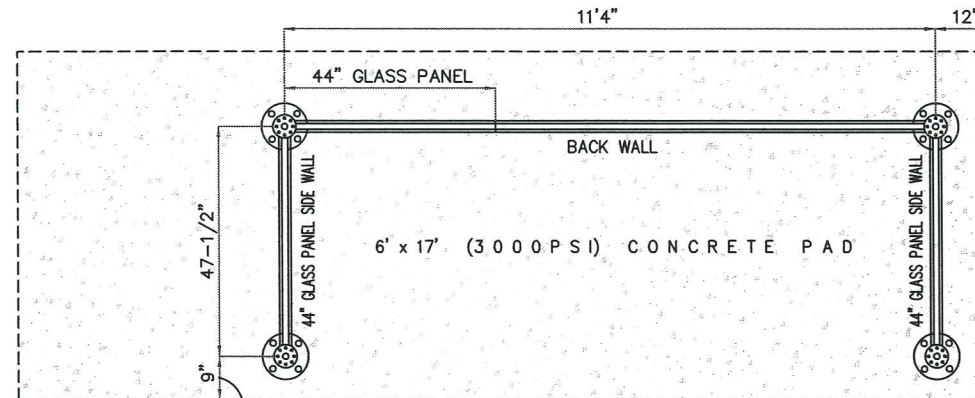
NOTE 1: CONSTRUCT 5" WIDE VARIABLE HEIGHT REINFORCED RETAINING WALL AT BS-1, BS-2, BS-4, BS-5 & BS-6. COLORED CONCRETE TO MATCH SLAB

NOTE 2: LOCATE STEEL BARS 3" FROM EDGE OF CONCRETE SLAB
5" WIDE VARIABLE WALL HEIGHT WALL

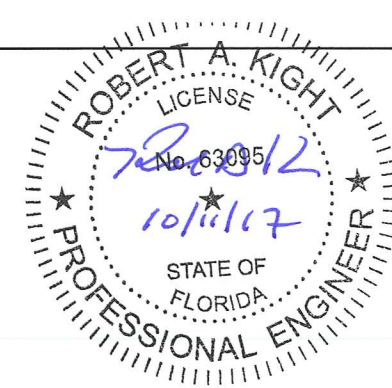
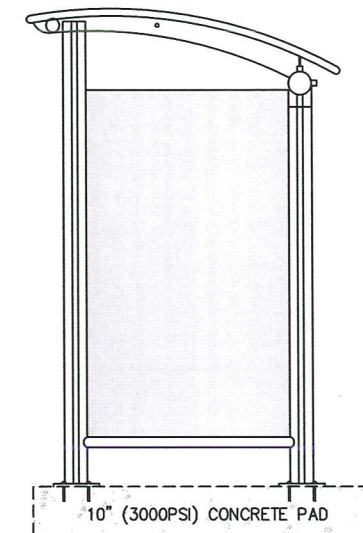
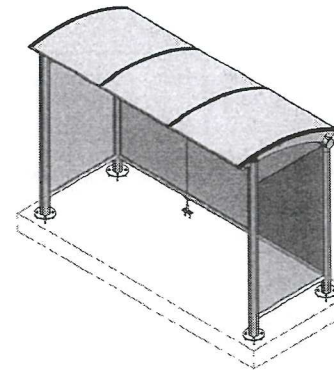


Concrete Bus Stop Pad

3000 PSI INTEGRAL COLORED CONCRETE
SCOFIELD CHROMIX #5130 (SPRING BEIGE)



Eclipse Transit Shelter
Model EC05212-AR-AL-125



Revisions
No./By/Remarks/Approved

CADD File:
Field Bk. No. Pg.
E&R Project No. 2033/2168

Eisman & Russo
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TS	OCT 11, 2017
Drawn by	Date
RAK	OCT 9, 2017
Chk'd by	Date
RAK	OCT 11, 2017
Apr'd by	Date



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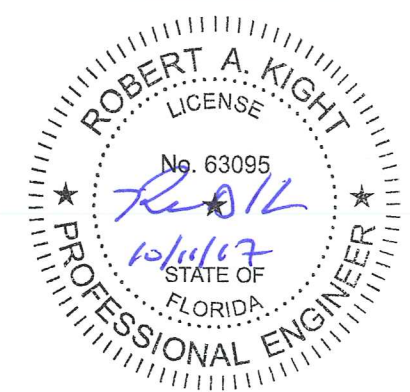
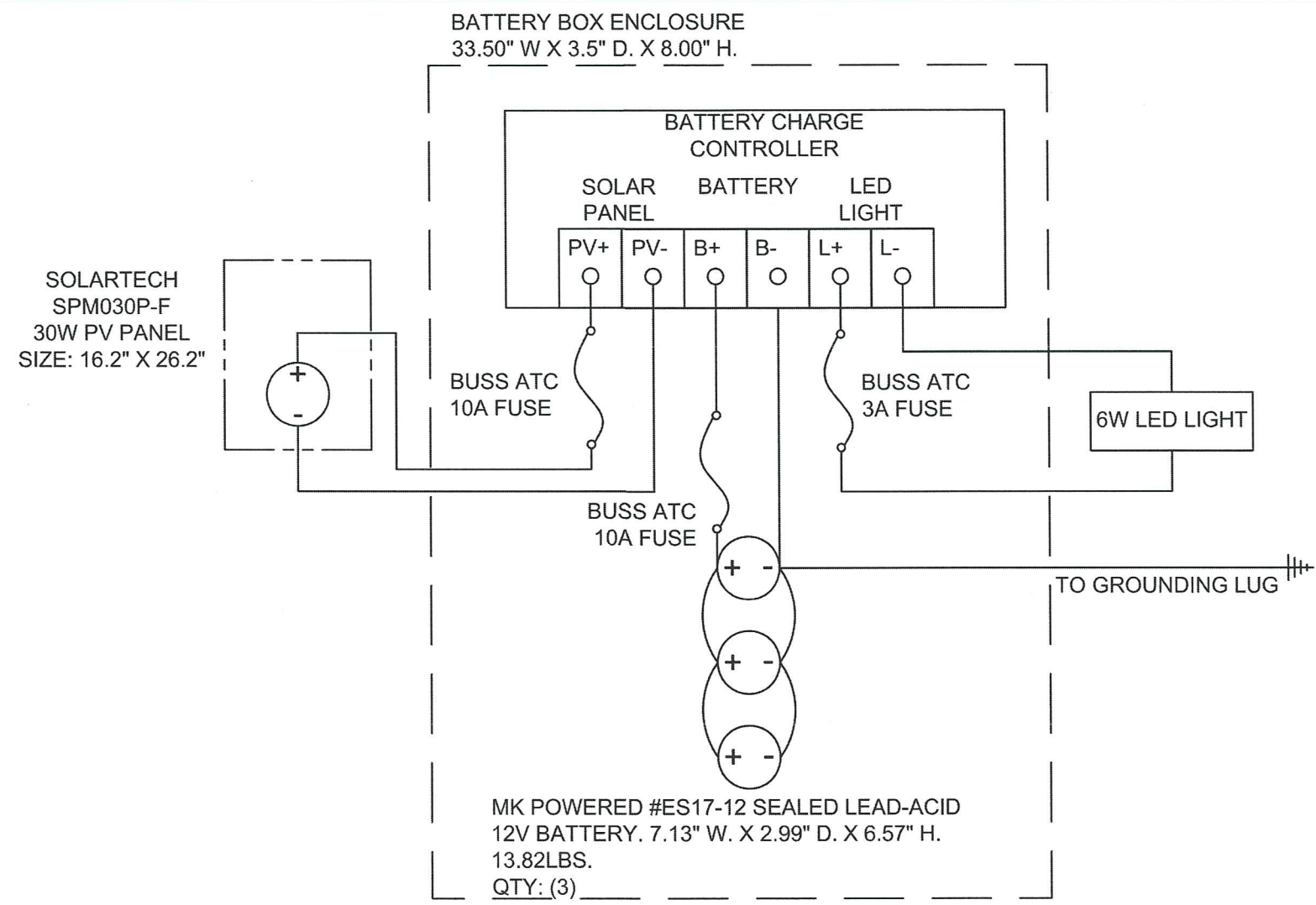
S.R.AIA BUS STOP
IMPROVEMENTS

CONSTRUCTION
DETAILS

SCALE:
N.T.S.

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File No.

Sheet No. 6 of 13



Revisions
No./By/Remarks/Approved

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E&R Project No. 2033/2168

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STEVEN PARKINSON, P.E.

S.R.AIA BUS STOP
IMPROVEMENTS

SOLAR WIRING
SCHEMATIC

SCALE:
N.T.S.

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BRASCO INTERNATIONAL, INC.
32400 INDUSTRIAL DRIVE
MADISON HEIGHTS, MICHIGAN 48071
1-800-893-3665 WWW.BRASCO.COM

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OUR CUSTOMERS AND MAY NOT BE REPRODUCED OR COPIED
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LEAD TIME BEGINS UPON RECEIPT OF SIGNED APPROVAL.

SIGNED: _____ DATE: _____

CUSTOMER:	BRASCO INTERNATIONAL			ENGINEER:	SJT
				DATE:	5-9-17
PROJECT:	STANDARD SOLAR LIGHTING			CHECKER:	SJT
				DATE:	5-9-17
MODEL:	1P3B1L	JOB #	-	SHEET #:	1

ECLIPSE LED LIGHT

UL Listed LED Light Strip

The Eclipse light fixture provides optimal LED performance, a tamper proof design and low cost operation. Its features include over 50,000 hours of operating life, adaptive mounting options and AC or solar-powered performance. The Eclipse light fixture is made from aluminum so it will never rust and is powder coated to match any shelter color. Brasco proudly makes this fixture in the USA with a UL listed light strip, offering lasting safety and performance.



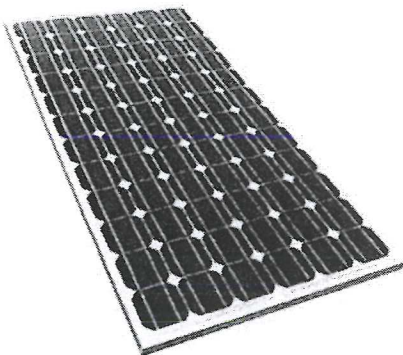
(313) 393-0393 | www.brasco.com

PV PANELS

Photovoltaic (PV) Panel Specifications

Brasco's PLS includes UL Listed PV panels ranging in size from 10W-140W, and available in flexible or rigid forms. Custom panel sizing is possible upon request. Appropriate panel sizes are assigned per each project's geographic location and performance requirements. Each panel is sized for worst-case annual sun exposure during winter days to ensure reliable performance.

Each PV panel is constructed with high efficient polycrystalline solar cells and are industrial grade modules for long lasting high performance systems. All PV system panels are industry standards and safety certified.

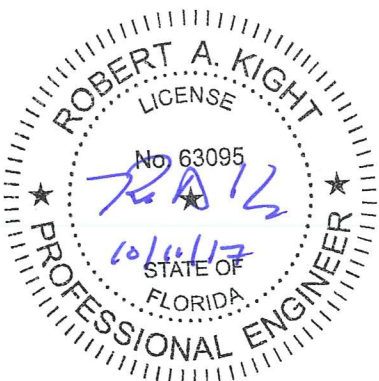


(313) 393-0393 | www.brasco.com

SPECIFICATIONS

Model No.	EC-12, EC-24
Length	12", 24"
Power Consumption	6W, 12W
Fixture	2.5" Round Aluminum Extrusion
Input Voltage	12 Volts DC
Operating Temperature	-40 - 74°C
Finish	Standard Powder Coat, Anti-Graffiti Powder Coat
Power Supply	A/C, Solar Powered
Hardware	Tamper Resistant
Mounting	Roof Mounted or Retrofitted to Frame

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Revisions

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CADD File: Pg.
Field Bk. No. Pg.
E&R Project No. 2033/2168

Eisman & Russo
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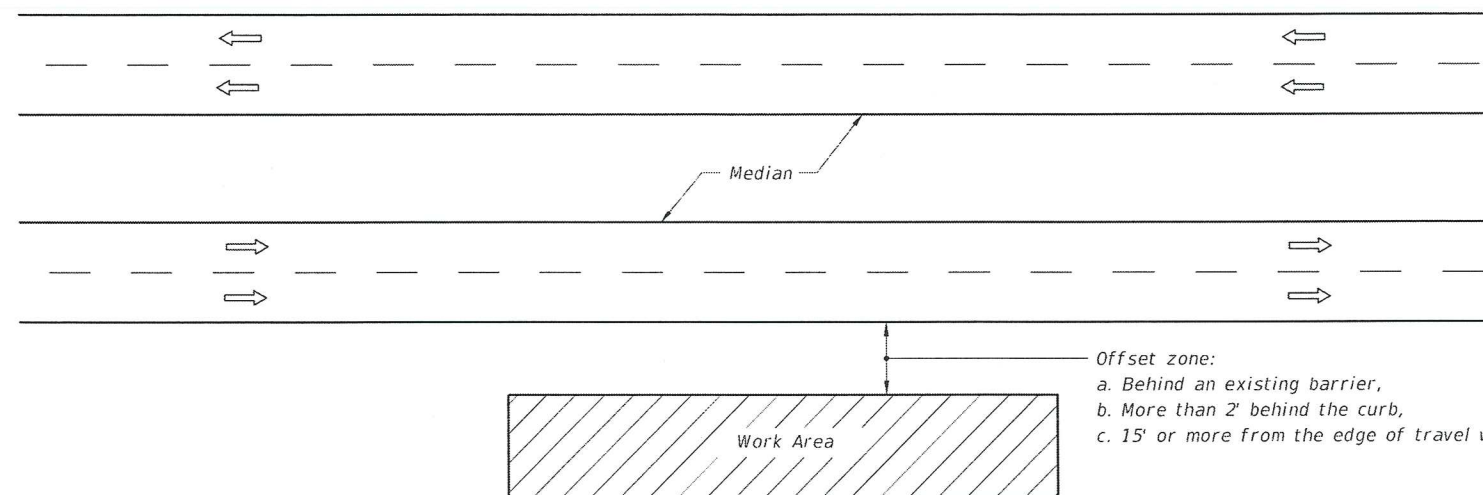
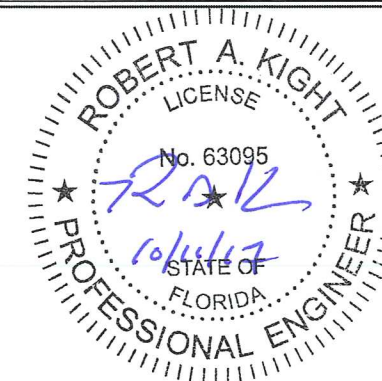
S.R.AIA BUS STOP
IMPROVEMENTS

ECLIPSE LED LIGHT
AND PV PANEL
SPECIFICATION

SCALE:
N.T.S.

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File No.

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GENERAL NOTES

1. If the work operation (excluding establishing and terminating the work area), requires that two or more work vehicles cross the offset zone in any one hour, traffic control will be in accordance with Index No. 612.
2. No special signing is required.
3. This index also applies when work is being performed on a multilane undivided highway.
4. This index also applies to work performed in the median behind an existing barrier or more than 15' from the edge of travel way, both roadways. Work performed in the median behind curb and gutter shall be in accordance with Index No. 612.
5. When a side road intersects the highway within the work area, additional traffic control devices shall be placed in accordance with other applicable TCZ Indexes.
6. When construction activities encroach on a sidewalk, refer to Index No. 660.
7. For general TCZ requirements and additional information, refer to Index No. 600.

SYMBOLS

-  Work Area
-  Lane Identification + Direction of Traffic

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE BEHIND AN EXISTING BARRIER, MORE THAN 2' BEHIND THE CURB, OR 15' OR MORE FROM THE EDGE OF TRAVEL WAY.

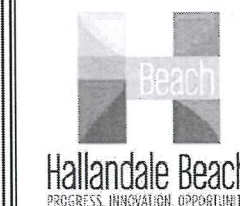
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E&R Project No. 2033/2168

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S.R.AIA BUS STOP
IMPROVEMENTS

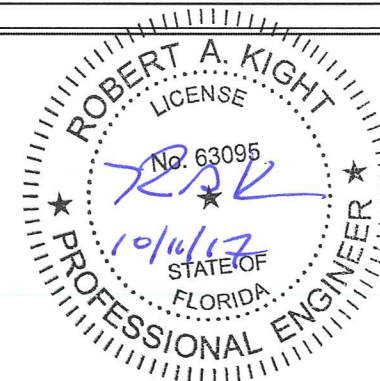
MAINTENANCE OF
TRAFFIC

SCALE:
N.T.S.

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LAST REVISION	DESCRIPTION:	FDOT	FY 2017-18 DESIGN STANDARDS	MULTILANE WORK OUTSIDE SHOULDER	INDEX NO.	SHEET NO.
07/01/05					611	1 of 1



Revisions
No./By/Remarks/Approved

CADD File:
Field Bk. No. Pg.
E&R Project No. 2033/2168

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S.R.AIA BUS STOP
IMPROVEMENTS

MAINTENANCE OF
TRAFFIC

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Table II Taper Length - Shoulder				
Speed (mph)	1/3 L (ft.)			Notes
	8' Shldr.	10' Shldr.	12' Shldr.	
25	28	35	42	$L = \frac{WS^2}{60}$
30	40	50	60	
35	55	68	82	
40	72	90	107	L=WS
45	120	150	180	
50	133	167	200	
55	147	183	220	
60	160	200	240	
65	173	217	260	
70	187	233	280	

8' minimum shoulder width.

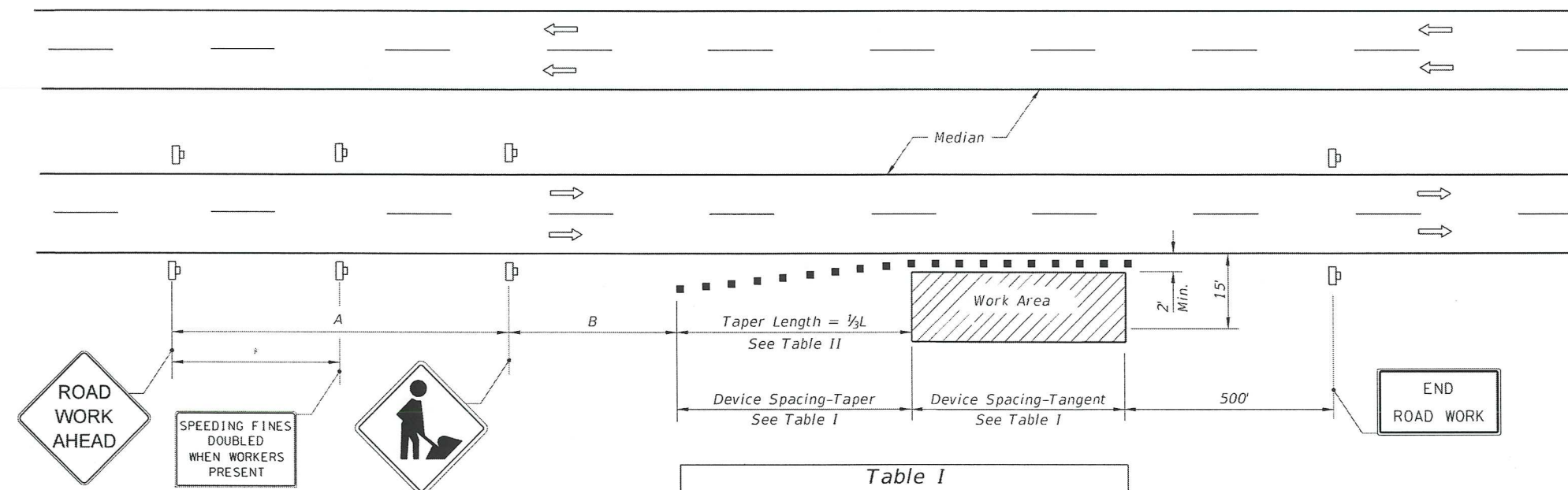
1/3 L = Length of shoulder taper in feet

W = Width of total shoulder in feet
(combined paved and unpaved width)

S = Posted speed limit (mph)

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT,
WORKERS OR THEIR ACTIVITIES
ENCROACH THE AREA CLOSER THAN
15' BUT NOT CLOSER THAN 2' TO
THE EDGE OF TRAVEL WAY.



DISTANCE BETWEEN SIGNS		
Speed	Spacing (ft.)	
	A	B
40 mph or less	200	200
45 mph	350	350
50 mph or greater	500	500

* 250' beyond the ROAD WORK AHEAD sign or
midway between signs whichever is less.

Table I Device Spacing				
Speed (mph)	Max. Distance Between Devices (ft.)			
	Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100

GENERAL NOTES

- When a high volume of work vehicles are entering and leaving the Work Area at speeds slower than 10 MPH below the posted speed, place an MOT-5-06 sign in the ROAD WORK AHEAD sign location and shift the ROAD WORK AHEAD sign upstream 500 ft.
- This TCZ plan also applies to work performed in the median more than 2' but less than 15' from the edge of travelway.
- When work is being performed on a multilane undivided roadway the signs normally mounted in the median (as shown) shall be omitted.
- WORKERS signs to be removed or fully covered when no work is being performed.
- SHOULDER WORK sign may be used as an alternate to the WORKER symbol sign.
- When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TCZ Indexes.
- For general TCZ requirements and additional information, refer to Index No. 600.

DURATION NOTES

- Signs and channelizing devices may be omitted if all of the following conditions are met:
 - Work operations are 60 minutes or less.
 - Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.

SYMBOLS

- Work Area
- Channelizing Device (See Index No. 600)
- Work Zone Sign
- Lane Identification + Direction of Traffic



FY 2017-18
DESIGN STANDARDS

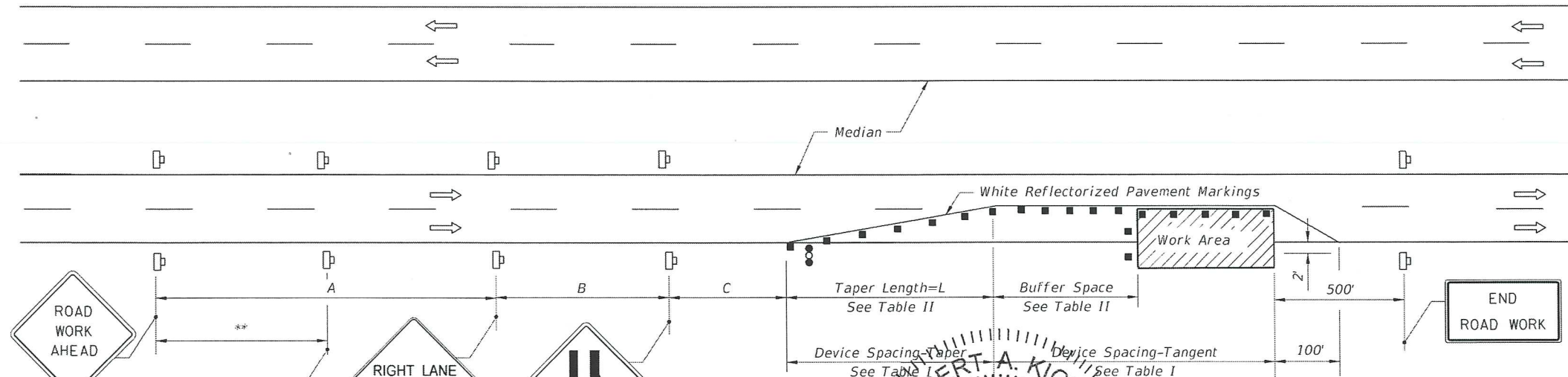
MULTILANE, WORK ON SHOULDER

INDEX
NO.
612

SHEET
NO.
1 of 1

LAST
REVISION
01/01/16

DESCRIPTION:



DISTANCE BETWEEN SIGNS			
Speed	Spacing (ft.)		
	A	B	C
40 mph or less	200	200	200
45 mph	350	350	350
50 mph	500	500	500
*55 mph or greater	2640	1640	1000

* The ROAD WORK 1 MILE sign may be used as an alternate to the ROAD WORK AHEAD sign and the RIGHT LANE CLOSED ½ MILE sign may be used as an alternate to the RIGHT LANE CLOSED AHEAD sign.

** 500' beyond the ROAD WORK AHEAD sign or midway between signs whichever is less.

SYMBOLS

- Work Area
- Channelizing Device (See Index No. 600)
- Work Zone Sign
- Advance Warning Arrow Board

GENERAL NOTES

- Work operations shall be confined to one traffic lane, leaving the adjacent lane open to traffic.
- On undivided highways the median signs as shown are to be omitted.
- When work is performed in the median lane on divided highways, the channelizing device plan is inverted and left lane closed and lane ends signs substituted for the right lane closed and lane end signs.

The same applies to undivided highways with the following exceptions:
a. Work shall be confined within one median lane.
b. Additional barricades, cones, or drums shall be placed along the centerline abutting the work area and across the trailing end of the work area.

When work on undivided highways occurs across the centerline so as to encroach on both median lanes, the inverted plan is applied to the approach of both roadways.
- Signs and traffic control devices are to be modified in accordance with INTERMITTENT WORK STOPPAGE details (sheet 2 of 2) when no work is being performed and the highway is open to traffic.
- The two channelizing devices directly in front of the work area may be omitted provided vehicles in the work area have high-intensity rotating, flashing, oscillating, or strobe lights operating.
- When paved shoulders having a width of 8 ft. or more are closed, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the travel way. See Index No. 612 for shoulder taper formulas.
- When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TCZ Indexes.
- This TCZ plan does not apply when work is being performed in the middle lane(s) of a six or more lane highway. See Index No. 614.
- For general TCZ requirements and additional information, refer to Index No. 600.

Table I Device Spacing				
Speed (mph)	Max. Distance Between Devices (ft.)			
	Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100

DURATION NOTES

- Temporary white edgeline may be omitted for work operations less than 3 consecutive calendar days.
- For work operations up to approximately 15 minutes, signs, channelizing devices, arrow board, and buffer space may be omitted if all of the following conditions are met:
 - Speed limit is 45 mph or less.
 - No sight obstructions to vehicles approaching the work area for a distance equal to the buffer space and the taper length combined.
 - Volume and complexity of the roadway has been considered.
 - The closed lane is occupied by a class 5 or larger, medium duty truck(s) with a minimum gross weight vehicle rating (GWVR) of 16,001 lb with high-intensity, rotating, flashing, oscillating, or strobe lights mounted above the cab height and operating.
- For work operations up to 60 minutes, arrow board and buffer space may be omitted if conditions a, b, and c in DURATION NOTE 2 are met, and vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH ON THE LANE ADJACENT TO EITHER SHOULDER AND THE AREA 2' OUTSIDE THE EDGE OF TRAVEL WAY.

Table II Buffer Space and Taper Length			
Speed (mph)	Buffer Space	Taper Length (12' Lateral Transition)	
	Dist. (ft.)	L (ft.)	Notes (Merge)
25	155	125	$L = \frac{WS^2}{60}$
30	200	180	
35	250	245	
40	305	320	
45	360	540	
50	425	600	$L = WS$
55	495	660	
60	570	720	
65	645	780	
70	730	840	

When Buffer Space cannot be attained due to geometric constraints, the greatest attainable length shall be used, but not less than 200 ft.

For lateral transitions other than 12', use formula for L shown in notes column. Where:

L = Length of taper in feet
W = Width of lateral transition in feet
S = Posted speed limit (mph)

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E&R Project No. 2033/2168

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S.R.AIA BUS STOP
IMPROVEMENTS

MAINTENANCE OF
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LAST
REVISION
01/01/16

DESCRIPTION:



FY 2017-18
DESIGN STANDARDS

MULTILANE, WORK WITHIN TRAVEL WAY
MEDIAN OR OUTSIDE LANE

INDEX
NO.
613

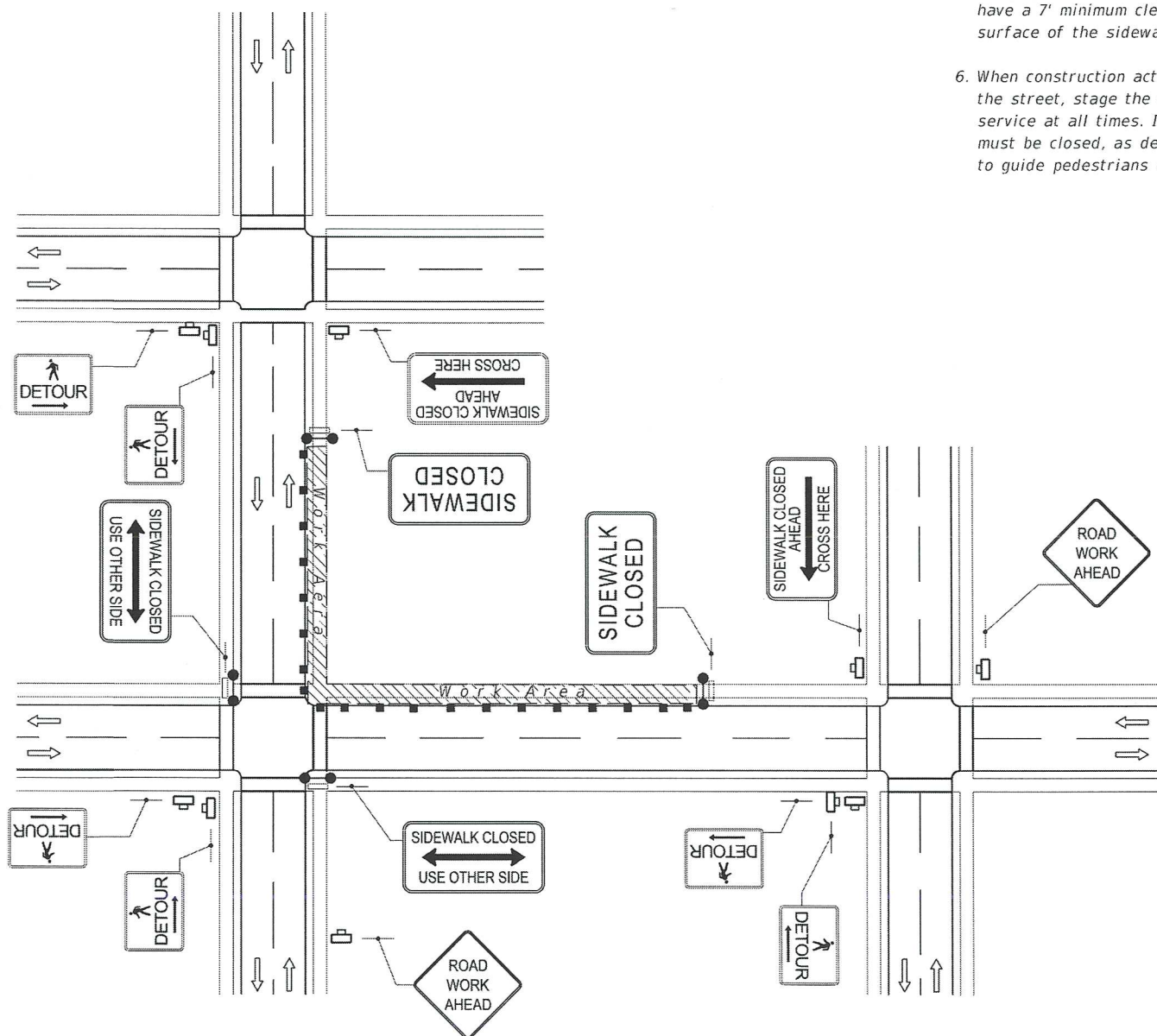
SHEET
NO.
1 of 2

SYMBOLS

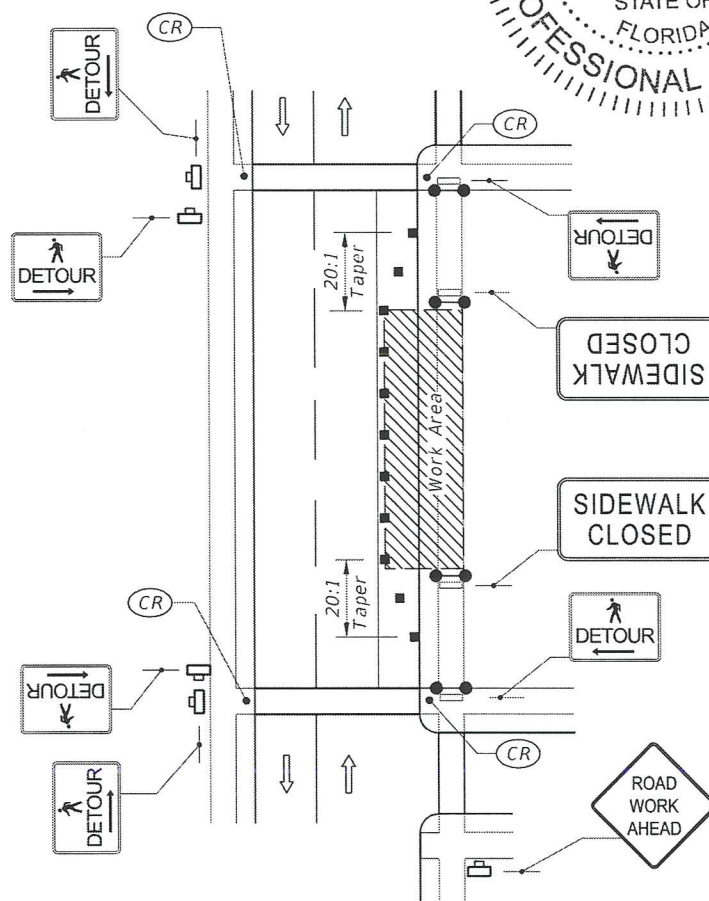
-  Work Area
-  Channelizing Device (See Index 600)
-  Work Zone Sign
-  Required Locations For Either Temporary Or Permanent Curb Ramps.
-  Lane Identification + Direction of Traffic
-  Pedestrian Longitudinal Channelizing Device (LCD) with Mounted Work Zone Sign or separate Work Zone Sign
-  Pedestrian Longitudinal Channelizing Device (LCD)

GENERAL NOTES

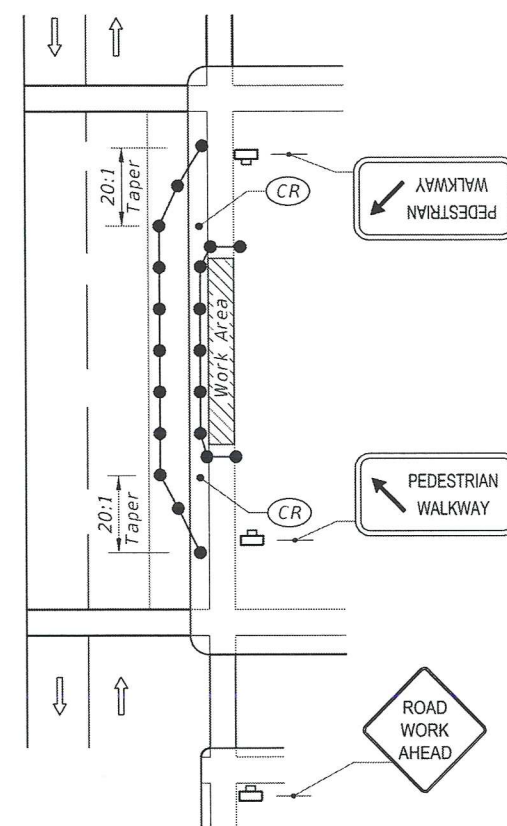
1. Route pedestrian traffic around work areas when construction activities encroach on the sidewalk for more than 60 minutes using the devices and remedies shown on this Index. Use project specific designs for scenarios not included on this Index.
2. For spacing of traffic control devices and general TCZ requirements refer to Index 600. The maximum spacing between barricades, vertical panels, drums or tubular markers is 25'.
3. Use delineators on longitudinal channelizing devices separating the work area from vehicular traffic.
4. Cover or deactivate pedestrian traffic signal display(s) controlling closed crosswalks.
5. Post mounted signs located near or adjacent to a sidewalk must have a 7' minimum clearance from the bottom of sign to the surface of the sidewalk.
6. When construction activities involve sidewalks on both sides of the street, stage the construction so that one sidewalk is in service at all times. If this is not feasible and both sidewalks must be closed, as determined by the Engineer, provide a detour to guide pedestrians around the construction zone.
7. Provide a 5' wide temporary walkway, except where space restrictions warrant a minimum width of 4'. Provide a 5' x 5' passing space for temporary walkways less than 5' in width at intervals not to exceed 200'.
8. Provide a cross-slope with a maximum value of 0.02 for all temporary walkways.
9. Temporary walkway surfaces and ramps must be stable, firm, slip resistant, and kept free of any obstructions and hazards such as holes, debris, mud, construction equipment and stored materials.
10. Remove temporary walkways immediately after reopening of the sidewalk, unless otherwise noted in the plans.
11. Meet the requirements of Index 304 for temporary curb ramps.
12. Place pedestrian longitudinal channelizing device(s) across the full width of the closed sidewalk. For temporary walkways, similar to the Sidewalk Diversion, place LCDs to delineate both sides of the temporary walkway.



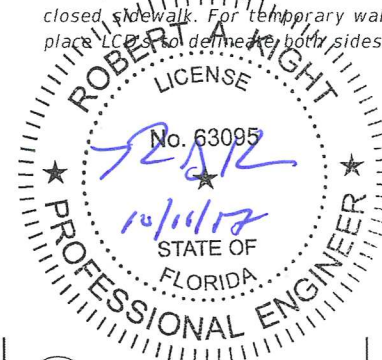
CROSSWALK CLOSURE AND PESESTRIAN DETOUR



SIDEWALK DETOUR



SIDEWALK DIVERSION



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No./By/Remarks/Approved

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Field Bk. No. Pg.
E&R Project No. 2033/2168

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S.R.AIA BUS STOP
IMPROVEMENTS

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11/01/16	



FY 2017-18
DESIGN STANDARDS

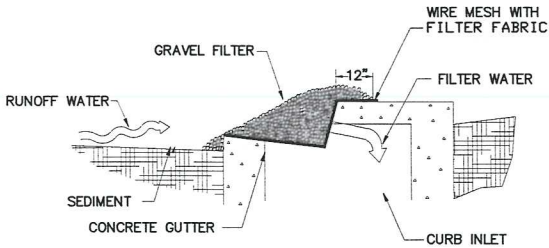
PEDESTRIAN CONTROL FOR CLOSURE OF SIDEWALKS

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660

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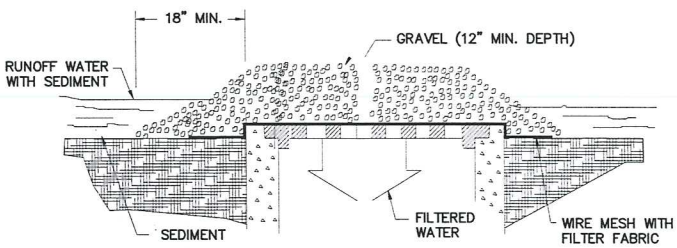
EROSION AND SEDIMENT CONTROL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AND SWALES AT COMPLETION OF CONSTRUCTION.
2. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
3. ADDITIONAL PROTECTION - ON-SITE PROTECTION IN ADDITION TO THE ABOVE MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNFORESEEN CONDITIONS OR ACCIDENTS.
4. CONTRACTOR SHALL ENSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
5. WIRE MESH SHALL BE LAID OVER THE DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM OF 1 FOOT BEYOND EACH SIDE OF THE INLET STRUCTURE. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS NECESSARY, THE STRIPS SHALL BE OVERLAPPED.
6. FDOT NO. 1 COARSE AGGREGATE SHALL BE PLACED OVER THE WIRE MESH AS INDICATED IN D-903. THE DEPTH OF STONE SHALL BE AT LEAST 12 INCHES OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 18 INCHES ON ALL SIDES.
7. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONES MUST BE PULLED AWAY FROM THE INLET, CLEANED AND REPLACED.
8. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
9. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
10. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.
11. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.
12. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
13. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/3 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
14. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS, SPECIFICATIONS AND SOUTH FLORIDA WATER MANAGEMENT DISTRICT SPECIFICATIONS AND CRITERIA.
15. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO THE "FLORIDA STORMWATER, EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL" FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP).
16. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION. SEE DETAIL SHEET FOR TYPICAL CONSTRUCTION.
17. ALL DISTURBED AREAS SHALL BE GRASSED, FERTILIZED, MULCHED AND MAINTAINED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED.
18. SOD SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.
19. ANY DISCHARGE FROM DEWATERING ACTIVITY SHALL BE FILTERED AND CONVEYED TO THE OUTFALL IN A MANNER WHICH PREVENTS EROSION AND TRANSPORTATION OF SUSPENDED SOLIDS TO THE RECEIVING OUTFALL.
20. DEWATERING PUMPS SHALL NOT EXCEED THE CAPACITY OF THAT WHICH REQUIRES A CONSUMPTIVE USE PERMIT FROM THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT.
21. ALL DISTURBED AREAS TO BE STABILIZED THROUGH COMPACTION, SILT SCREENS AND GRASSING. ALL FILL SLOPES 3:1 OR STEEPER TO RECEIVE STAKED SOLID SOD.
22. ALL DEWATERING, EROSION, AND SEDIMENT CONTROL TO REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION AND REMOVED ONLY WHEN AREAS HAVE STABILIZED.
23. THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENT MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.
24. THE CONTRACTOR SHALL BE REQUIRED TO RESPOND TO ALL WATER MANAGEMENT DISTRICT INQUIRIES, RELATIVE TO COMPLIANCE OF SFWMD FOR EROSION AND SEDIMENTATION CONTROL. THE COST OF THIS COMPLIANCE SHALL BE PART OF THE CONTRACT.



SPECIFIC APPLICATION
THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

GRAVEL CURB INLET SEDIMENT FILTER

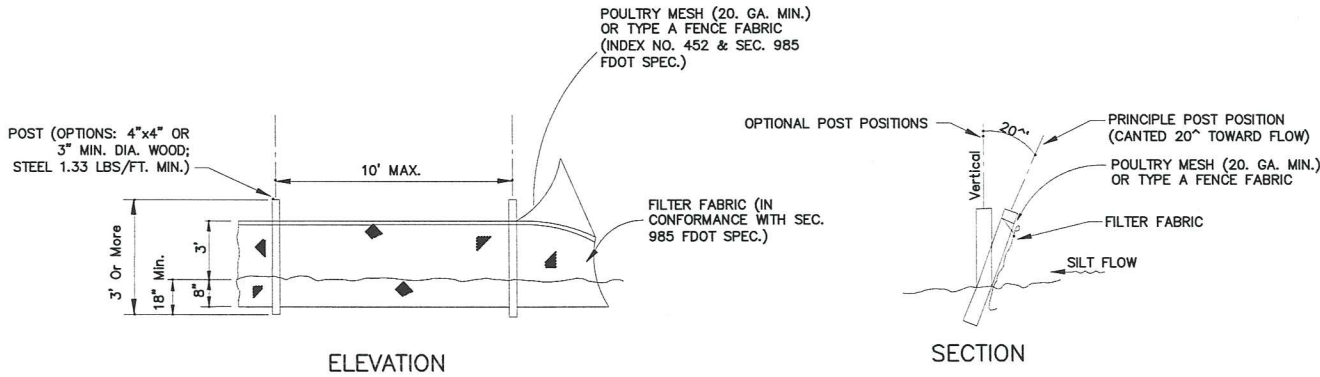


SPECIFIC APPLICATION
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER

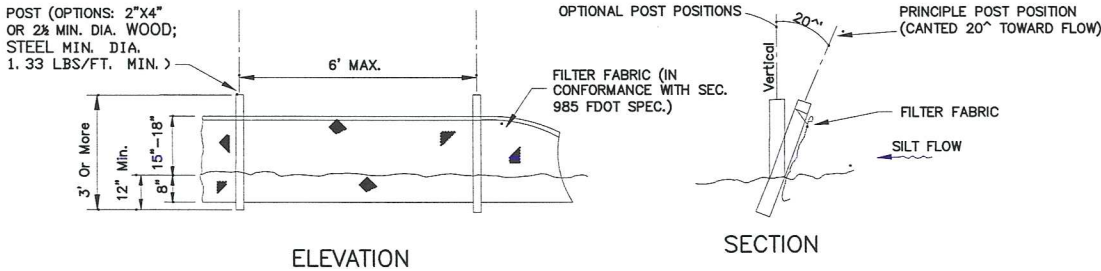
GRAVEL INLET SEDIMENT TRAP

N.T.S.



NOTE: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT LUMP SUM PRICE FOR EROSION AND SEDIMENT CONTROL.

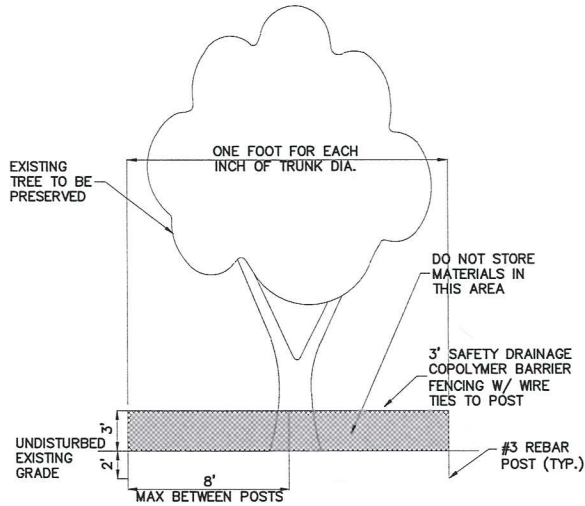
TYPE IV SILT FENCE



TYPE III SILT FENCE

SILT FENCE TYPE III & IV

N.T.S.



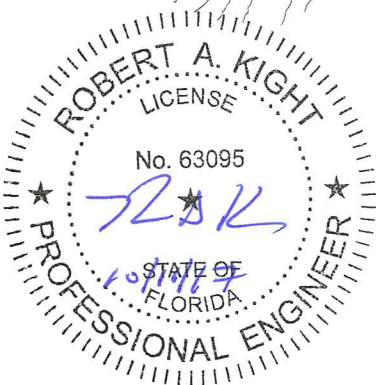
THE TREE PROTECTION BARRICADE SHALL BE AT LEAST THREE (3) FEET HIGH. THE BARRIER SHALL CONSIST OF EITHER A WOOD FENCE WITH 2x4 POSTS PLACED A MAXIMUM OF EIGHT (8) FEET APART, WITH A 2x4 MINIMUM TOP RAIL, OR A TEMPORARY WIRE MESH FENCE, OR OTHER SIMILAR BARRIER WHICH WILL LIMIT ACCESS TO THE PROTECTED AREA.

THE BARRICADE SHALL BE AT LEAST ONE FOOT IN DIAMETER FOR EACH INCH OF TRUNK DIAMETER. FOR TREES LESS THAN 12\"/>

TREE BARRICADE APPROVAL: OBTAIN CITY APPROVAL OF TREE BARRICADES BEFORE BEGINNING CLEARING OPERATIONS OR ANY SITE DEVELOPMENT.

TREE BARRICADE DETAIL

N.T.S.



Revisions
No./By/Remarks/Approved

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TS OCT 11, 2017
Drawn by Date
RAK OCT 9, 2017
Chk'd by Date
RAK OCT 11, 2017
Apr'd by Date

Hallandale Beach
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The City of
HALLANDALE BEACH
DEPARTMENTS OF PUBLIC WORKS,
UTILITIES, AND ENGINEERING

DIRECTOR OF DPW,
UTILITIES AND ENGINEERING
STEVEN PARKINSON, P.E.

S.R.AIA BUS STOP
IMPROVEMENTS

STORMWATER
POLLUTION
PREVENTION PLAN

SCALE:
N.T.S.

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