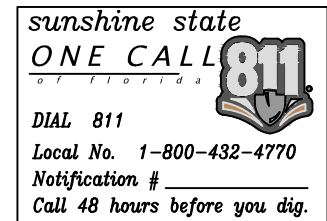


# HIGHLANDS COUNTY BOARD OF COUNTY COMMISSIONERS CONSTRUCTION PLANS FOR BRADFORD DRIVE ROADWAY IMPROVEMENTS HIGHLANDS COUNTY PROJECT NO. 17045

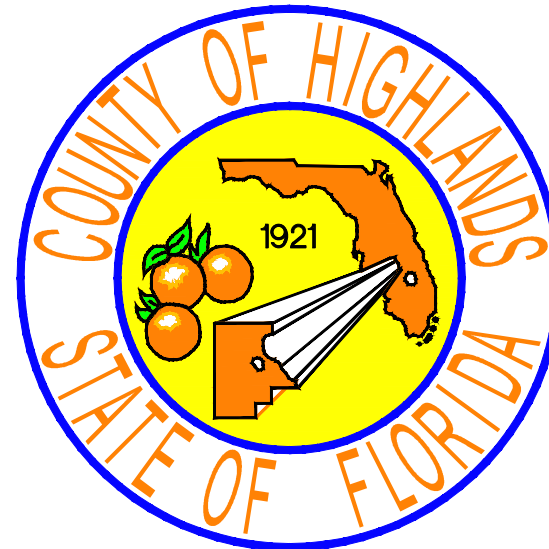


STATE LAW REQUIRES EXCAVATORS TO CALL 811 BEFORE DIGGING PER THE "UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT" CHAPTER 556, FLORIDA STATUTES. FAILURE TO CALL CAN RESULT IN FINES FROM \$250 TO \$5,000.

- SHEET DESCRIPTION**
- 1 COVER SHEET
  - 2-3 GENERAL NOTES & SPECIFICATIONS
  - 4 TYPICAL SECTIONS
  - 5 ROADWAY PLAN
  - 6 SIGNING & PAVEMENT MARKING PLAN



**PROJECT LOCATION MAP**  
SCALE: 1" = 1000'



COUNTY ENGINEER  
**CLINTON HOWERTON, JR., P.E.**

ENGINEER OF RECORD  
**JAMES D. LANGFORD, JR., P.E.**

PROJECT MANAGER  
**STANLEY MERANTUS**

RIGHT-OF-WAY WIDTH = 60' WIDE  
APPROXIMATE PROJECT LENGTH = 170 LF (0.03 MILES)

BRADFORD DRIVE ROADWAY IMPROVEMENTS HIGHLANDS COUNTY PROJECT NO. 17045			
TASK NO.	ITEM DESCRIPTION	QUANTITY	UNIT
1	MOBILIZATION	1	LS
2	BONDS & INSURANCE	1	LS
3	CONSTRUCTION SURVEY STAKING & AS-BUILT	1	LS
4	TESTING	1	LS
5	MAINTENANCE OF TRAFFIC	1	LS
6	TEMPORARY SEDIMENT BARRIER	380	LF
7	CLEARING & GRUBBING	0.270	AC
8	REGULAR EXCAVATION	165	CY
9	TYPE B STABILIZATION (12" DEPTH)	450	SY
10	OPTIONAL BASE, BASE GROUP 06	450	SY
11	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	38	TN
12	PERFORMANCE TURF, SOD	1,360	SY
13	SINGLE POST SIGN, F&I, STOP (R1-1) AND TWO STREET NAME (D3-1)	1	AS
14	THERMOPLASTIC, REMOVE (YELLOW 6")	170	SF
15	THERMOPLASTIC, REMOVE (WHITE 6")	110	SF
16	THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"	120	LF
17	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24"	24	LF
18	THERMOPLASTIC, STANDARD, YELLOW, SOLID, 6"	430	LF
19	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	6	EA

**UTILITY COMPANIES**

<b>CENTURY LINK</b> 924 MEMORIAL DRIVE AVON PARK, FL 33825 RONALD SMITH 941-637-5145	<b>DUKE ENERGY</b> 452 E CROWN POINT RD. WINTER GARDEN, FL 34787 STEPHAQNE OLMO 407-905-3376	<b>CITY OF AVON PARK</b> 110 E. MAIN ST. AVON PARK, FL 33825 JOSH TURNER 863-452-4429
<b>SEBRING RIDGE UTILITIES</b> 3625 VALERIE BLVD. SEBRING, FL 33870 CHRIS MILLER 863-385-8542	<b>TECO PEROPLE GAS-HIGHLANDS</b> 8261 VICO CT. SARASOTO, FL 34240 JOAN DOMNING 813-275-3783	

**GOVERNING STANDARDS AND SPECIFICATIONS:**  
GOVERNING STANDARDS AND SPECIFICATIONS: FLORIDA DEPARTMENT OF TRANSPORTATION, FY 2018-2019 STANDARD PLANS AND REVISED INDEX DRAWINGS AS APPENDED HEREIN, AND 2019 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS AMENDED BY CONTRACT DOCUMENTS.

For Standard Plans click on the "Standard Plans" link at the following website: <http://www.fdot.gov/design/StandardPlans/2019/default.shtm#Bridges> For the Standard Specifications for Road and Bridge Construction click on the "Specifications" link at the following website: <http://www.fdot.gov/design/standardplans/current/default.shtm>

PLANS PREPARED BY HIGHLANDS COUNTY ENGINEERING DEPARTMENT

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN ALTERED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	REVISIONS		DATE	DESCRIPTION							<p><b>STATUS</b></p> <p style="font-size: 24px; color: red; font-weight: bold;">FOR BIDDING</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: 8px;">DESIGNED BY: J.D. LANGFORD, JR., P.E.</td> <td rowspan="5" style="text-align: center; vertical-align: middle;"> <p><b>HIGHLANDS COUNTY ENGINEERING DEPARTMENT</b> 505 S. COMMERCE AVENUE SEBRING, FLORIDA 33870</p> </td> </tr> <tr> <td style="font-size: 8px;">DRAWN BY: STACEY MAHONEY</td> </tr> <tr> <td style="font-size: 8px;">CHECKED BY: J.D. LANGFORD, JR., P.E.</td> </tr> <tr> <td style="font-size: 8px;">IN CHARGE: CLINTON HOWERTON, P.E.</td> </tr> <tr> <td style="font-size: 8px;">DATE: 04/03/2018</td> </tr> <tr> <td style="font-size: 8px;">APPROVED BY: JAMES D. LANGFORD, JR., P.E. FLORIDA REGISTRATION NO.: 78402</td> <td style="font-size: 8px;">DATE:</td> </tr> </table>	DESIGNED BY: J.D. LANGFORD, JR., P.E.	<p><b>HIGHLANDS COUNTY ENGINEERING DEPARTMENT</b> 505 S. COMMERCE AVENUE SEBRING, FLORIDA 33870</p>	DRAWN BY: STACEY MAHONEY	CHECKED BY: J.D. LANGFORD, JR., P.E.	IN CHARGE: CLINTON HOWERTON, P.E.	DATE: 04/03/2018	APPROVED BY: JAMES D. LANGFORD, JR., P.E. FLORIDA REGISTRATION NO.: 78402	DATE:		<p><b>BRADFORD DRIVE ROADWAY IMPROVEMENTS</b></p> <p><b>COVER SHEET</b></p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: 8px;">SCALE: HORIZ. N/A VERT. N/A</td> </tr> <tr> <td style="font-size: 8px;">PROJECT NO. 17045</td> </tr> <tr> <td style="font-size: 8px;">REV. 0</td> </tr> <tr> <td style="font-size: 8px;">SHEET 1 OF 6</td> </tr> </table>	SCALE: HORIZ. N/A VERT. N/A	PROJECT NO. 17045	REV. 0	SHEET 1 OF 6
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SHEET 1 OF 6																											

# GENERAL NOTES AND SPECIFICATIONS

## GENERAL CONSTRUCTION NOTES

- The Contractor shall be responsible for furnishing all material and labor to construct the facility as shown and described in the construction documents.
- The Contractor shall be responsible for obtaining all required construction bonds prior to construction.
- The Contractor shall have available at the job site at all times one copy of the construction documents including plans, specifications, and special conditions and copies of any required construction permits.
- Any discrepancies on the drawings shall be immediately brought to the attention of the Highlands County Project Manager before commencing work. No field changes or deviations from design are to be made without prior approval of the Highlands County Project Manager.
- Contractor shall submit a construction schedule to the Highlands County Project Manager prior to commencement of construction.
- Contractor shall coordinate proposed driveway construction with affected property owners.
- Contractor shall repair and/or replace all disturbed irrigation. Contractor shall coordinate this activity with affected property owners.

## EROSION CONTROL

- The Contractor shall grade the site to the elevations indicated and shall regrade washouts where they occur after every rainfall event until sod is well established or adequate stabilization occurs.
- Contractor shall denote on plan the temporary parking and storage area which shall also be used as the equipment maintenance and cleaning area, employee parking area, and area for locating toilet facilities
- All wash water (concrete trucks, vehicle cleaning, equipment cleaning, etc.) shall be detained and properly treated and disposed.
- The Contractor shall be responsible for the control of dust and dirt rising and scattering in the air during construction and shall provide water sprinkling or other suitable methods of control. The Contractor shall comply with all governing regulations pertaining to environmental protection.
- The use of motor oils and other petroleum based or toxic liquids for dust suppression operations is prohibited.
- Sod must be installed and maintained on exposed slopes within 48 hours of completing final grading, and at any other time as necessary, to prevent erosion, sedimentation or turbid discharges.
- Stabilization practices should be initiated as soon as practical, but in no case more than 7 days where construction has temporarily ceased.
- All materials spilled, dropped, washed or tracked from vehicles onto roadways or into storm drains must be removed as soon as possible.
- On-site & off-site soil stockpile and borrow areas shall be protected from erosion and sedimentation through implementation of best management practices.
- Slopes shall be left in a roughened condition during the grading phase to reduce runoff velocities and erosion.
- Due to grade changes during the development of the project, the Contractor shall be responsible for adjusting the erosion control measures (silt fence, etc.) to prevent erosion.
- All construction shall be stabilized at the end of each working day, this includes back filling of trenches for utility construction and placement of gravel or bituminous paving for road construction.
- The contractor shall install sediment barrier as shown on plans within the perimeter of the project site.

## SURVEY AND STAKEOUT

- Existing section corners and 1/4 Section corners, and other land markers or monuments located within proposed construction are to be referenced prior to construction and reset after construction. The Contractor shall have this work done by a registered Professional Land Surveyor at the Contractor's expense (Florida Registration). Any public land corner within the limits of construction is to be protected. If a corner monument is in danger of being destroyed and has not been properly referenced, the Contractor should notify the County Surveyor, without delay, by telephone (863-402-6877).
- Benchmark data is North American Vertical Datum of 1988 (NAVD 88).
- Any NGVD-29 monument within the limits of construction is to be protected. If in danger of damage, the Contractor should notify: Geodetic Information Center, Attn: Mark Maintenance Section N/CG-162, 6001 Executive Boulevard, Rockville, Maryland 20852. Telephone (301) 43-8319.
- Grades shown are the finished grades, unless otherwise indicated.
- The Contractor shall remove survey stakes and erosion control items prior to the completion of the contract.
- The Contractor shall be responsible for submitting to the Highlands County Project Manager a certified record survey signed and sealed by a Professional Land Surveyor registered in the state of Florida depicting the actual field location of all constructed improvements that are required by the jurisdictional agencies for the certification process. All survey costs will be the Contractor's responsibility.

## UTILITIES

- It is the Contractor's responsibility to contact the various utility companies which may have buried or aerial utilities within or near the construction area before commencing work. The Contractor shall provide 48 hours minimum notice to all utility companies in advance of any excavation involving their utilities so that a company representative can be present. A list of the utility companies which the Contractor MUST call before commencing work is provided in these construction plans. This list serves as a guide only and is not intended to limit the utility companies which the contractor may wish to notify.
- Existing utilities shown are located according to the information available to the Engineer at the time of the topographic survey and have not been independently verified by the Owner or the Engineer. Guarantee is not made that all existing underground utilities are shown or that the location of those shown are entirely accurate. Finding the actual location of any existing utilities is the Contractor's responsibility and shall be done before he/she commences any work in the vicinity. Furthermore, the Contractor shall be fully responsible for any and all damages due to the Contractor's failure to exactly locate and preserve any and all underground utilities. The Owner or Engineer will assume no liability for any damages sustained or cost incurred because of the operations in the vicinity of existing utilities or structures, nor for temporary bracing and shoring of same. If it is necessary to shore, brace, swing or relocate a utility, the utility company or department affected shall be contacted and their permission obtained regarding the method to use for such work. In addition, the Contractor shall be responsible to verify if "other" utilities (Not shown in the plans) exist within the area of construction. Should there be utility conflicts, The Contractor shall inform the Engineer and notify the respective utility owners to resolve utility conflicts and utility adjustments as required.
- The Contractor is to use caution when working in or around areas of overhead transmission lines or underground utilities.
- The Contractor is responsible for the protection of all utilities to remain in place.
- The Contractor shall call 811 for field locations no less than 48 hours in advance of digging near underground utilities.
- Prior to commencement of any excavation, the contractor shall comply with Florida Statute 553.851 for the protection of underground gas pipelines.
- All valves within area of construction or disturbed by construction to be adjusted to finished grade. Replace valve collars and boxes as necessary.

## CLEARING AND GRUBBING

- Contractor shall clear and grub all areas unless otherwise indicated, removing trees, stumps, roots, muck, existing pavement, existing concrete and all other deleterious material.

## PAVING, GRADING AND DRAINAGE

- Where new pavements meets the existing pavement, the Contractor shall saw cut the existing pavement a minimum 2" deep for a smooth and straight joint and match the existing pavement elevation with the proposed pavement unless otherwise indicated.
- All cut or fill slopes shall be 4 (horizontal): 1 (vertical) or flatter unless otherwise shown.
- Existing drainage structures within construction limits shall remain unless noted otherwise.
- Contractor is responsible for repairing any existing concrete or asphalt areas that are disturbed during construction.

- All millings of asphalt shall be returned to the Road and Bridge Department.

## STORAGE LOCATION

•12700 Arbuckle Creek Rd., Sebring, FL. 33870

## PAVEMENT MARKING AND SIGNAGE

- Stop bars shall be 24" white stripes.
- Temporary pavement markings shall be provided by the end of each day's operation.
- All pavement markings and signage shall be installed in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), 2009 Edition.
- Temporary pavement markings and thermoplastic pavement markings shall be installed via truck mounted spray truck.
- Retro-reflective material shall be 3M brand Diamond Grade material.
- Sign substrate shall be aluminum.
- Traffic signs shall be mounted on 3" diameter post with "Z" bar brackets.
- Sign post underground support shall be 6" aluminum "Z" bar brackets (no concrete).

## LANDSCAPING

- All disturbed areas within the project limits shall be sodded with "like kind" sod. The areas on which sod is to be placed shall be thoroughly wetted prior to and after placement is complete. No addition of top soil material is required prior to placement.
- All sod materials shall be subject to inspection by the Highlands County Project Manager prior to placement. Any sod with noxious weeds and grasses including tropical soda apple, shall be rejected for use on the spot.
- All areas within the project site shall be sodded unless indicated in these construction plans.
- Contractor shall protect all landscaping and coordinate the removal/replacement of any landscaping with the Town of Lake Placid Staff.

## TESTING

- Contractor shall perform, at his own expense, any and all tests required by the specifications and/or any agency having jurisdiction. A copy of the test results shall be provided to the Highlands County Project Manager.
- The Highlands County Project Manager shall inspect all construction and is authorized to call to the attention of the Contractor any failure of work or materials to conform with the plans and specifications.
- All copies of compaction, concrete and other required test results are to be sent to the Highlands County Project Manager directly from the testing agency.
- Contractor shall perform Pavement Smoothness Testing: The Contractor shall furnish a 15 foot manual and a 15 foot rolling straightedge and construct a smooth pavement meeting the requirements of the Florida Method of Test for Measurement of Pavement Smoothness with the 15-Foot Rolling and Manual Straightedges (Designation: FM 5-509, May 16, 2002, Revised: March 17, 2008).

Straightedge Testing: The Contractor shall test the final (top) layer of all pavement where the width is constant using a rolling straightedge either behind the final roller of the paving train or as a separate operation. The Contractor shall correct all deficiencies in excess of 3/16 inch by removing and replacing the full depth of the layer, extending a minimum of 50 feet on both sides of the defective area for the full width of the paving lane, at no additional cost, unless waived by the County Engineer. The Contractor shall retest all corrected areas. The Contractor shall test all pavement lanes and document all deficiencies on a form approved by the Highlands County Project Manager. The Contractor shall notify the Highlands County Project Manager of the location and time of all straightedge testing a minimum of 48 hours before beginning testing.

Straightedge Exceptions: Straightedge testing will not be required in the following areas: shoulders, intersections, tapers, crossovers, sidewalks, bicycle/shared use paths, parking lots and similar areas, or in the following areas when they are less than 250 feet in length: turn lanes, acceleration/deceleration lanes and side streets. In the event the Highlands County Project Manager identifies a surface irregularity in the above areas that is determined to be objectionable, the Contractor shall straightedge and address all deficiencies in excess of 3/8 inch in accordance by removing and replacing the full depth of the layer, extending a minimum of 50 feet on both sides of the defective area for the full width of the paving lane, at no additional cost.

BRADFORD DRIVE ROADWAY IMPROVEMENTS PROJECT NO. 17045		
CONTRACTOR REQUIRED QUALITY CONTROL MATERIALS TESTING		
Roadway Full Depth Construction: TYPE B STABILIZATION (LBR 40) TESTING REQUIREMENTS (12" COMPACTED THICKNESS)		
TEST NAME	QUALITY CONTROL	ACCEPTANCE
DENSITY	TWO (2) PER LIFT, TWO (2) TOTAL	Minimum density of 98% of the Modified Proctor maximum density as determined by FM 1-T 180, Method D
THICKNESS	TWO (2) PER LIFT, TWO (2) TOTAL	No undertolerance of mixing depth is allowed. Do not exceed individual plan depth thickness by more than 2"
LBR	ONE (1) PER LIFT, ONE (1) TOTAL	Undertolerance = 5.0
Stabilization Construction Method: For mixing exist. Sub-base and base material provide heavy-duty rotary tiller or other equipment approved by the Engineer as equally effective for this work.		
Roadway Full Depth Construction: OPTIONAL BASE GROUP 6 TESTING REQUIREMENTS (8" COMPACTED THICKNESS)		
TEST NAME	QUALITY CONTROL	ACCEPTANCE
DENSITY	TWO (2) PER LIFT, TWO (2) TOTAL	Minimum density of 98% of the Modified Proctor maximum density as determined by FM 1-T 180, Method D
THICKNESS	TWO (2) PER LIFT, TWO (2) TOTAL	No undertolerance of mixing depth is allowed. Do not exceed individual plan depth thickness by more than 2"
LBR	ONE (1) PER LIFT, ONE (1) TOTAL	No Tolerance Allowed.
Optional Base Group 6 Construction Method: Construct the base in one (1) lifts with a compacted lift thickness of 8.0".		
Roadway Full Depth Construction: ASPHALT TESTING REQUIREMENTS (1.5" COMPACTED THICKNESS)		
TEST NAME	QUALITY CONTROL	ACCEPTANCE
THICKNESS	ONE (1) PER LIFT, ONE (1) TOTAL	Compacted lift thickness = 1.5", Tolerance = 0.3"
Asphalt Construction Method: Asphalt shall be placed in one (1) lifts with a compacted lift thickness of 1.5".		

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# ALTERNATE (DEDUCTIVE) ASPHALT (SUPERPAVE ASPHALT CONCRTE, TYPE SP-9.5)

- 1.1 CONTRACTOR shall be responsible for retrieving the asphalt from the Highlands County's (OWNER'S) asphalt plant and for placing the asphalt at CONTRACTOR's cost. CONTRACTOR shall not be charged for the asphalt. OWNER's asphalt plant is located at 12700 Arbutle Creek Road, Sebring FL 33870.
- 1.2 The amount of reclaimed asphalt pavement (RAP) material shall not exceed 30% by weight of total aggregate for the asphalt.
- 1.3 The thickness of the compacted asphalt for roadway shall be 2" thick and the asphalt shall be placed by the CONTRACTOR in two equal layers.
- 1.4 The OWNER shall maintain the following quality control system by performing the following activities:
1. Stockpiles:
    - a. Assure materials are placed in the correct stockpile.
    - b. Inspect stockpiles for separation, contamination, segregation, and other similar items.
    - c. Properly identify and label each stockpile.
  2. Incoming Aggregate from Outside Supplier:
    - a. Obtain gradations and bulk specific gravity values from aggregate supplier.
  3. Cold Bins:
    - a. Calibrate the cold gate/feeder belt for each material.
    - b. Observe operation of cold feeder for uniformity.
    - c. Verify that the correct components are being used, and that all modifiers or additives or both are being incorporated in the mix.
  4. Batch Plants:
    - a. Determine the percent used and weight to be pulled from each bin to assure compliance with the mix design.
    - b. Check mixing time.
    - c. Check operations of weigh bucket and scales.
  5. Drum Mixer Plants:
    - a. Determine aggregate moisture content.
  6. Control Charts: Maintain data and make available upon demand.
    - a. Gradation of incoming aggregate from outside supplier.
  7. A copy of the certified mix design should be provided by the OWNER upon demand.
- 1.5 OWNER shall perform the following testing to be conducted by an FDOT Construction Training Qualification Program Certified Asphalt Plant Technician.

County Owned Asphalt Plant – Materials Testing Frequencies		
MATERIAL	PROPERTY	MINIMUM TESTING FREQUENCY
Asphalt Mix	Asphalt Binder Content	If daily production > 100 tons, once per day; If daily production > 1,000 tons, twice per day. *
Asphalt Mix	Gradation	If daily production > 100 tons, once per day; If daily production > 1,000 tons, twice per day. *
Asphalt Mix	Temperature	Each of first 5 loads, then once every 5 loads thereafter, per day per mix design.

*\* If less than 100 tons of mix is produced on each of successive days of production, resulting in a cumulative quantity of greater than 100 tons.*

- 1.6 CONTRACTOR shall notify the PROJECT MANAGER ([smerantus@hcbcc.org](mailto:smerantus@hcbcc.org)) and OWNER's Road and Bridge Superintendent ([kgreen@hcbcc.org](mailto:kgreen@hcbcc.org)) in writing via email at least 2 business days in advance prior to retrieval of the asphalt. If CONTRACTOR requests the asphalt and does not retrieve the asphalt after OWNER has produced the asphalt, CONTRACTOR shall reimburse OWNER for the asphalt mix at a unit price of \$70.00/ton or the current unit price at that time, not to exceed \$70.00/ton. CONTRACTOR shall provide an estimated quantity of asphalt to OWNER when requesting asphalt.
- 1.7 If OWNER's asphalt plant breaks down during construction of the project, there will be no change in the Contract price.
- 1.8 Once the asphalt is loaded into the truck and the asphalt plant delivery paperwork is signed or recorded, CONTRACTOR shall be responsible for the quality control of the asphalt.
- A visible truck identification number shall be posted on the passenger side door of each vehicle used to retrieve asphalt by or for CONTRACTOR for weight and project tracking information purposes. CONTRACTOR shall coordinate with OWNER's Road and Bridge Superintendent the weighing of the truck and affixing the vehicle identification number prior to any vehicle retrieving the asphalt.
- 1.9 Any load or portion of load of asphalt mix at the plant or at the roadway with a temperature reading outside the relevant master range shown in the table below shall be rejected. CONTRACTOR shall immediately notify the PROJECT MANAGER if all or any portion of a load of asphalt is rejected. If the asphalt mix is rejected at the plant, OWNER shall be responsible for the cost. If the asphalt mix is rejected at the roadway or anywhere else outside the plant, CONTRACTOR shall reimburse OWNER for the asphalt mix at a unit price of \$70.00/ton or the current unit price at that time, not to exceed \$70.00/ton.

Asphalt Mix Temperature Master Range Tolerance	
LOCATION	ACCEPTABLE TEMPERATURE TOLERANCE
Plant	Mixing Temperature: 305° F +/- 30° F
Roadway/Site	Compaction Temperature: 305° F +/- 30° F

If the survey findings, intermediate or final, are to be disputed by CONTRACTOR, written notification shall be provided to the PROJECT MANAGER within 30 calendar days of the date of receipt of the information from OWNER.

During the warranty period, CONTRACTOR may monitor the project using nondestructive methods and may participate with OWNER in the Pavement Condition Surveys upon request. CONTRACTOR shall not conduct any coring, milling or other destructive methods without prior approval by the PROJECT MANAGER.

Pavement Roadway and Site			
TYPE OF DISTRESS	MEASUREMENT	THRESHOLD VALUES	REMEDIAL WORK
Rutting	Depth of rutting to be determined by a 6 foot manual straightedge.	Depth > 0.4 inch	Remove and replace 1.5 inch the full lane width for the area plus 50 feet on each end.
Settlement / Depression	Depth of settlement / depression to be determined by a 6 foot manual straightedge.	Depth ≥ 1/2 inch	Propose the method of correction to the PROJECT MANAGER for approval prior to beginning remedial work.
Cracking	Beginning and ending of 1/8 inch cracking will be determined as the average of three measurements taken at one foot intervals.	Cumulative length of cracking > 30 feet for Cracks > 1/8 inch	Remove and replace the distressed length to the full depth of all layer, and to the full lane width.
Raveling / Surface Deterioration	Visual Inspection	Observation by PROJECT MANAGER	Remove and replace the distressed area(s) to the full distressed depth and the full lane width for the full distressed length plus 50' on each end.

- 1.10 The asphalt mix shall be transported by CONTRACTOR in truck bodies previously cleaned of all foreign material and of tight construction that prevents the loss of material and the excessive loss of heat. After cleaning, CONTRACTOR shall thinly coat the inside surface of the truck bodies with soapy water or an asphalt release agent as needed to prevent the asphalt mixture from adhering to the beds. CONTRACTOR shall not allow excess liquid to pond in the truck body. CONTRACTOR shall not use a release agent that will contaminate, degrade or alter the characteristics of the asphalt mix or is hazardous or detrimental to the environment. Petroleum derivatives (such as diesel fuel), solvents, and any product that dissolves asphalt are prohibited. CONTRACTOR shall provide each truck with a tarpaulin or other waterproof cover mounted in such a manner that it can cover the entire load when required. When in place, CONTRACTOR shall overlap the waterproof cover on all sides so that it can be tied down. CONTRACTOR shall cover each load with a tarpaulin or waterproof cover during cool and cloudy weather and at any time it appears rain is likely during transit.

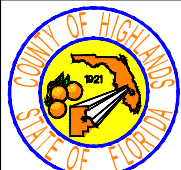
### 1.11 ASPHALT WARRANTY

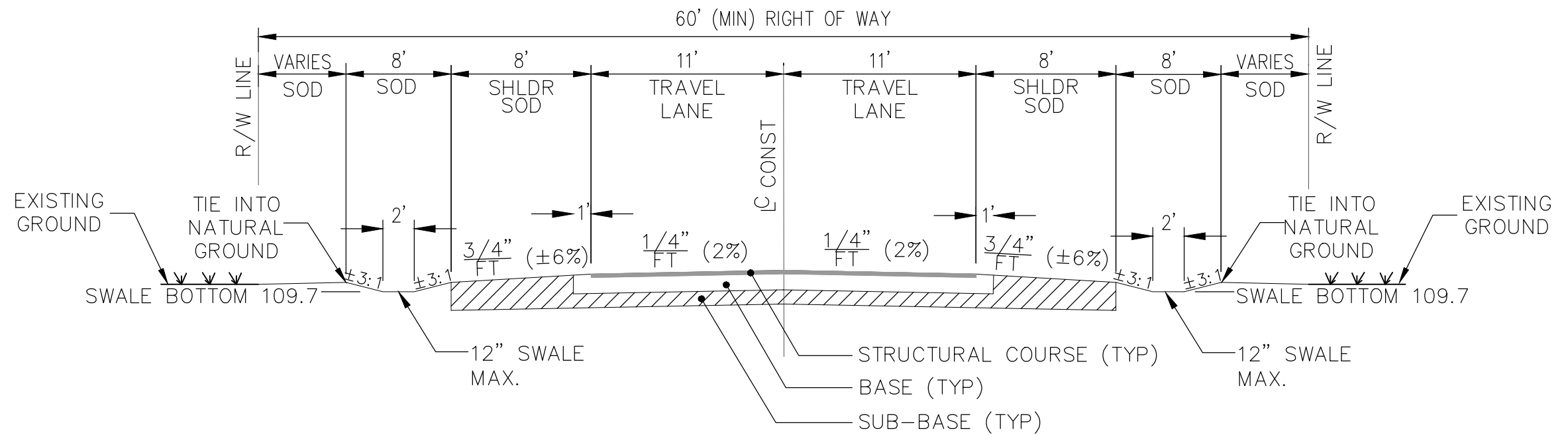
CONTRACTOR shall be responsible for performance of the asphalt pavement for a period of two (2) years after the date the final payment is made including continued responsibility for performing all remedial work associated with pavement distresses exceeding threshold values as specified in the table below.

OWNER shall monitor the pavement for distresses and may require remedial action at any time within the two years period as specified above. OWNER shall conduct a Pavement Condition Survey (survey) of the asphalt following the final acceptance of the Work and at intermediate times throughout the warranty period with findings provided when considered by OWNER to be the obligation of CONTRACTOR.

The final survey, if determined by the PROJECT MANAGER to be necessary, shall be conducted before the end of the warranty period with results provided to CONTRACTOR for those conditions exceeding contract threshold values requiring remedial action that OWNER believes to be an obligation of CONTRACTOR. OWNER shall be responsible for all costs associated with the surveys.

All remedial action shall be completed by CONTRACTOR within (30) thirty calendar days after OWNER notifies CONTRACTOR of the condition requiring remedial work, provided that OWNER notified CONTRACTOR of the condition and need for remedial action prior to the end of the warranty period.

<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	REVISIONS		DATE	DESCRIPTION									<p><b>STATUS</b></p> <p style="font-size: 24px; color: red; font-weight: bold;">FOR BIDDING</p>	<p>DESIGNED BY: J.D. LANGFORD, JR., P.E.</p> <p>DRAWN BY: STACEY MAHONEY</p> <p>CHECKED BY: J.D. LANGFORD, JR., P.E.</p> <p>IN CHARGE: CLINTON HOWERTON, P.E.</p> <p>DATE: 04/03/2018</p>	<p><b>HIGHLANDS COUNTY ENGINEERING DEPARTMENT</b></p> <p>505 S. COMMERCE AVENUE SEBRING, FLORIDA 33870</p>		<p><b>BRADFORD DRIVE ROADWAY IMPROVEMENTS</b></p> <p>GENERAL NOTES &amp; SPECIFICATIONS</p>	<p>SCALE: HORIZ. N/A VERT. N/A</p> <p>PROJECT NO. 17045</p> <p>REV. 0</p> <p style="text-align: center;">SHEET 3 OF 6</p>
REVISIONS																		
DATE	DESCRIPTION																	
<p>APPROVED BY: JAMES D. LANGFORD, JR., P.E.</p>		<p>DATE:</p>		<p>FLORIDA REGISTRATION NO.: 78402</p>														



STRUCTURAL COURSE: 1 1/2" SUPERPAVE ASPHALTIC CONCRETE, TYPE SP-9.5.

BASE COURSE: OPTIONAL BASE, BASE GROUP 6.

STABILIZATION: 12" THICK OF STABILIZATION COMPACTED TO A MINIMUM DENSITY OF 98% AS PER AASHTO T-180.

REVISIONS		
DATE	BY	DESCRIPTION

STATUS

**FOR BIDDING**

DESIGNED BY:  
J.D. LANGFORD, JR., P.E.

DRAWN BY:  
STACEY MAHONEY

CHECKED BY:  
J.D. LANGFORD, JR., P.E.

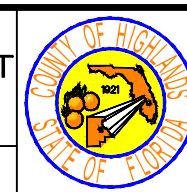
IN CHARGE:  
J.D. LANGFORD, JR., P.E.

DATE:  
04/03/2018

**HIGHLANDS COUNTY  
ENGINEERING DEPARTMENT**  
505 S. COMMERCE AVENUE  
SEBRING, FLORIDA 33870

APPROVED BY: JAMES D. LANGFORD, JR., P.E.  
FLORIDA REGISTRATION NO.: 78402

DATE:



**BRADFORD DRIVE  
ROADWAY IMPROVEMENTS**  
TYPICAL SECTION

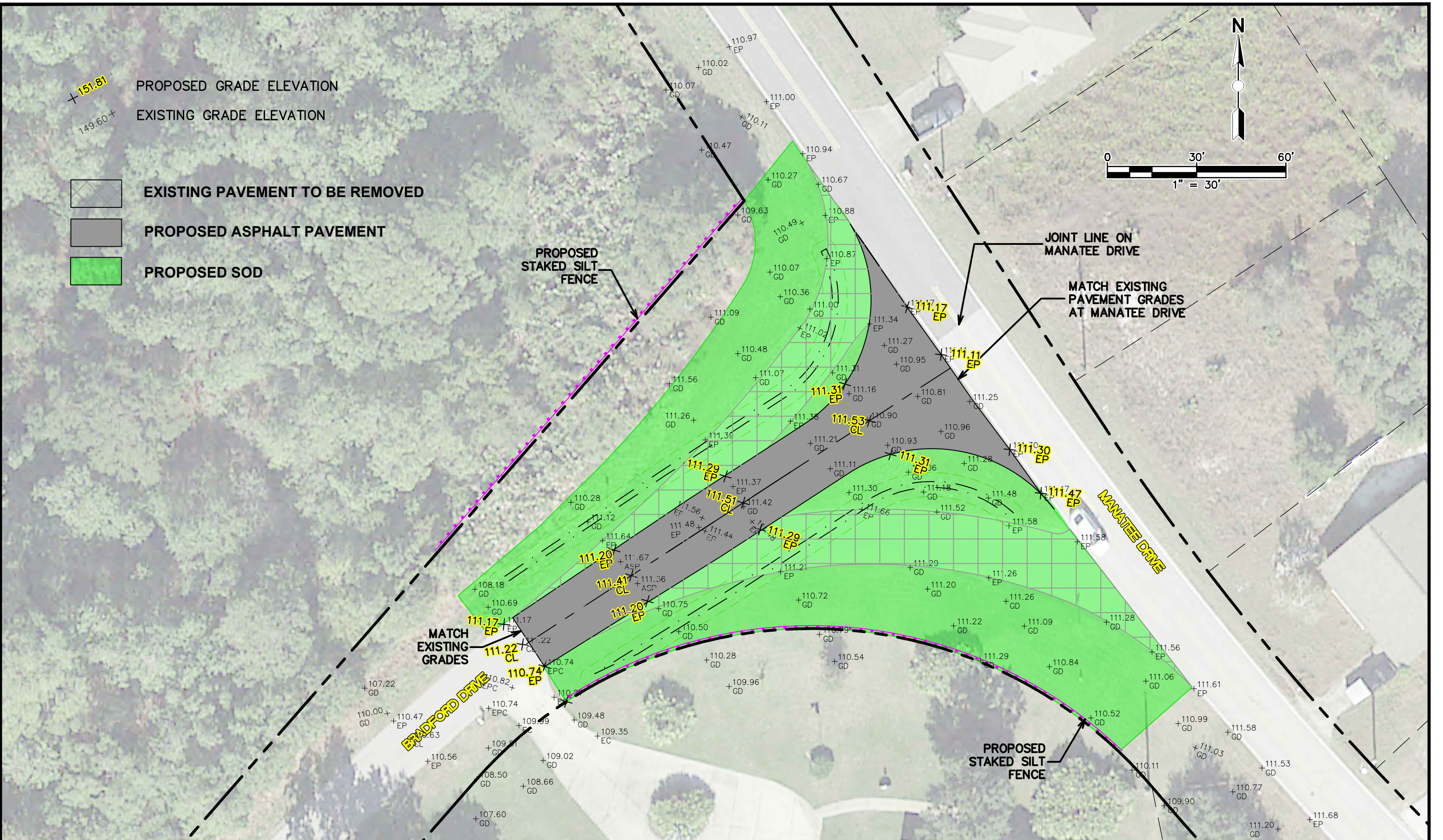
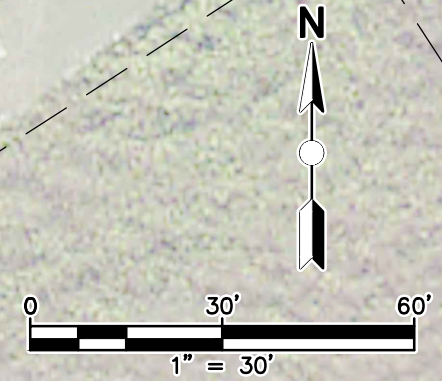
SCALE: N.T.S.  
HORIZ. N/A  
VERT. N/A

PROJECT NO. 17045    REV. 0

SHEET 4 OF 6

**+151.81**  
 149.60+  
 PROPOSED GRADE ELEVATION  
 EXISTING GRADE ELEVATION

 **EXISTING PAVEMENT TO BE REMOVED**  
 **PROPOSED ASPHALT PAVEMENT**  
 **PROPOSED SOD**



REVISIONS		
DATE	BY	DESCRIPTION

**STATUS**

**FOR BIDDING**

DESIGNED BY:  
J.D. LANGFORD, JR., P.E.

DRAWN BY:  
STACEY MAHONEY

CHECKED BY:  
J.D. LANGFORD, JR., P.E.

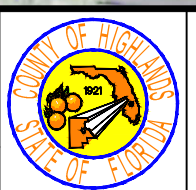
IN CHARGE:  
J.D. LANGFORD, JR., P.E.

DATE:  
04/03/2018

**HIGHLANDS COUNTY  
 ENGINEERING DEPARTMENT**  
 505 S. COMMERCE AVENUE  
 SEBRING, FLORIDA 33870

APPROVED BY: JAMES D. LANGFORD, JR., P.E.  
 FLORIDA REGISTRATION NO.: 78402

DATE:



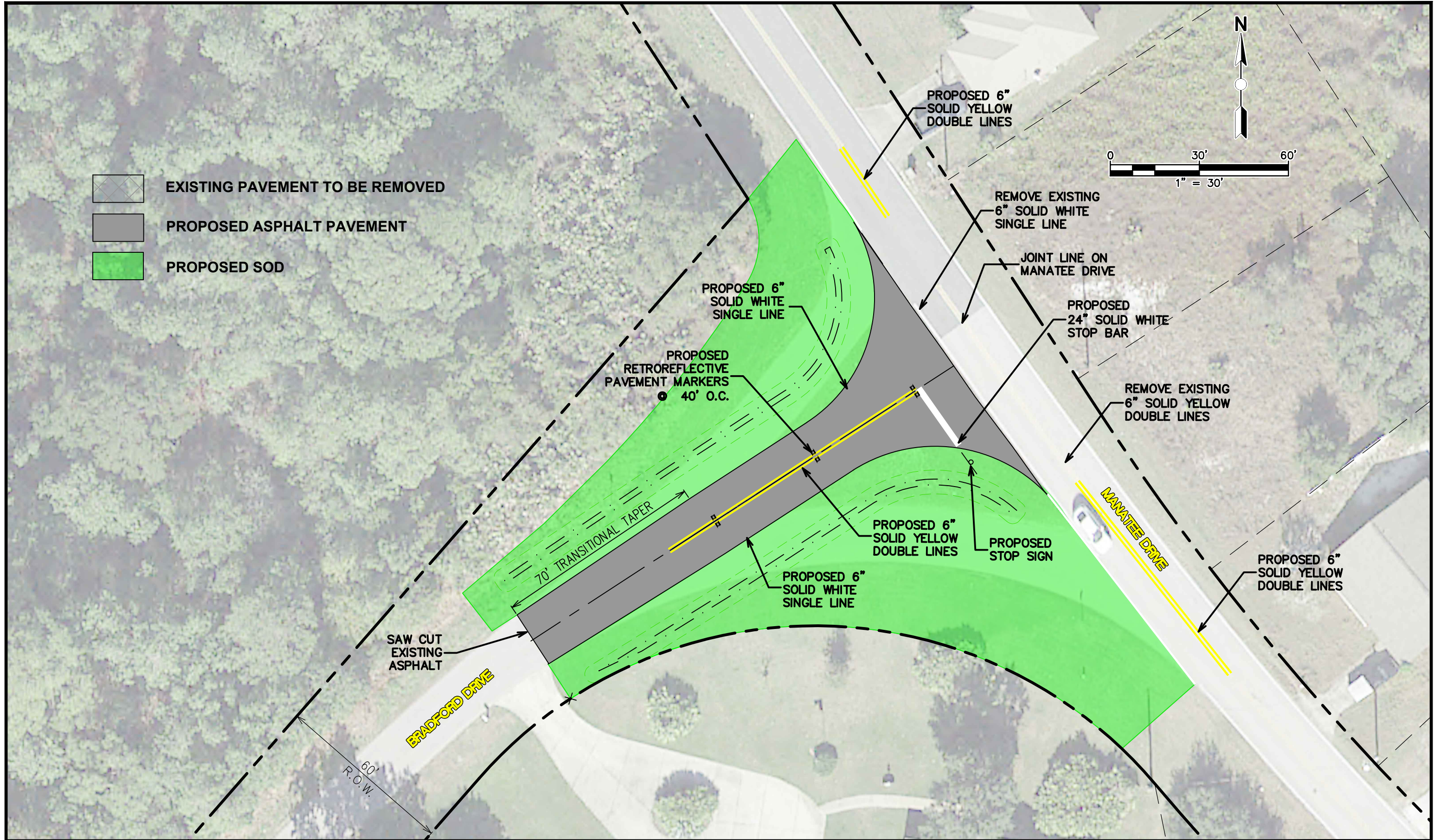
**BRADFORD DRIVE  
 ROADWAY IMPROVEMENTS  
 ROADWAY PLAN**

SCALE:  
 HORIZ. 1"=30'  
 VERT. N/A

PROJECT NO. 17045    REV. 0

SHEET 5 OF 6

G:\PROJECTS\2017\17045 Bradford Dr. Intersection Improvements\All Drawings\Bradford Drive\_For Bidding.dwg, PLAN, Merantus, Stanley Acad 1-7 Black 11 Off.ctb



REVISIONS		
DATE	BY	DESCRIPTION

STATUS

**FOR BIDDING**

DESIGNED BY: J.D. LANGFORD, JR., P.E.  
 DRAWN BY: STACEY MAHONEY  
 CHECKED BY: J.D. LANGFORD, JR., P.E.  
 IN CHARGE: J.D. LANGFORD, JR., P.E.  
 DATE: 04/03/2018

**HIGHLANDS COUNTY ENGINEERING DEPARTMENT**  
 505 S. COMMERCE AVENUE  
 SEBRING, FLORIDA 33870

APPROVED BY: JAMES D. LANGFORD, JR., P.E.  
 FLORIDA REGISTRATION NO.: 78402

DATE:



**BRADFORD DRIVE ROADWAY IMPROVEMENTS**  
**SIGNING AND MARKING PLAN**

SCALE:  
 HORIZ. 1"=30'  
 VERT. N/A

PROJECT NO. 17045    REV. 0

SHEET 6 OF 6