INDEX OF SHEETS

1. KEY SHEET
2. GENERAL NOTES
3. TURN LANE GEOMETRICS & APPROACH STRIPING
4. OTHER LANE DETAILS W/PAVED SHOULDER
5. R.P.M. PLACEMENT DETAILS
6. ROAD SPEED HUMP DETAILS
7. SINGLE TURN LANES INTERSECTION AND DROP TURN LANE DETAIL
8. EXPANDED INTERSECTION & CROSSWALK DETAIL
9. ROUNDABOUT
10. SIGN PLACEMENT
11. STREET NAME SIGN WITH STOP SIGN
12. F.D.P. PLACEMENT DETAILS & DIRECTIONAL ISLAND

NOTE: FOR LANE LAYOUT AND RIGHT-OF-WAY REQUIREMENTS, ON STANDARD SECTIONS AND EXPANDED INTERSECTIONS SEE ROADWAY PRODUCTION PALM BEACH COUNTY THOROUGHFARE ROADS TYPICAL SECTIONS

NO.T-P-18
GENERAL NOTES:

1. Thermoplastic shall conform to the requirements of the Florida Dept. of Transportation (F.D.O.T.) standard specifications for road and bridge construction. See section 708. Minimum thickness shall be 0.125 (alkyd only), extruded only, on all county maintained roadways.

2. Existing road surface shall be overlaid throughout the limits of construction if the existing pavement markings are inconsistent with those proposed unless otherwise approved by Palm Beach County Traffic Engineer.

3. Thermoplastic shall be used unless otherwise approved by Palm Beach County Traffic Engineer.

4. All pavement markings shall be installed or replaced on each approach with the same material used at the transition, constructed for a distance (X) (see chart 1, sheet 3) to conform with existing roadway design as approved by Palm Beach County Traffic Engineer.

5. Speed equals posted speed in m.p.h. or design speed, whichever is greater.

6. Dimensions and geometric layouts indicated in this document represent minimum requirements and do not supersede the need for further engineering design to meet the needs of specific projects.

7. Pavement marking installations shall be in accordance with the Florida Department of Transportation standard specifications for road and bridge construction, the M.U.T.C.D. & F.D.O.T. roadway & traffic design standards (latest edition), however, where conflicts exist, this typical shall take precedence over F.D.O.T. standard specifications.

8. All existing above ground utilities and any objects within the right-of-way or recovery area, whichever is greater (within the limits of construction), shall be shown on the pavement marking plans.

9. Design speed shall be shown on plans.

10. Transition from paved shoulder to existing pavement edge shall be 30' min.

11. If existing pavement marking material is not compatible with alkyd thermoplastic, it shall be removed prior to commencement of work.

12. Distance between stop bar and crosswalk shall be a minimum of 4 feet.

13. Any pavement widening, turnouts and street improvements within distance (X) (see chart 1, sheet 3), shall be shown on plans.

14. 2" Pavement shoulders shall be used on non-plan collector and non-thoroughfare roadways.

15. 4" Pavement shoulders shall be used on thoroughfare roadways unless otherwise shown in roadway production typical sections.

16. Thermoplastic shall not be installed on roadway until fourteen calendar days after the final lift of asphalt has been completed, unless otherwise specified by Palm Beach County Traffic Engineer.

17. All pavement markings shall have reflectivity of not less than 300 milli-candela's at installation.

18. If the proposed transition falls within distance (X) (see chart 1, page 2), of an existing turn lane transition, then the area between transitions shall be constructed as a continuous worked section, for geometric continuity.

19. Variations from this standard shall be approved by Palm Beach County Traffic Engineer.

20. Drawings shall be submitted either in 1"=20', 1"=30' or 1"=40' scale.

21. All pavement markings shall be shown on scale on the plans.

22. All reflective pavement markers shall be approved by Palm Beach County Traffic Engineer before installation.

23. All markers shall be class 'B' as per F.D.O.T. standard specifications for road and bridge section 708.

24. Shows traffic flow, not a pavement marking.

25. Reflectors shall be placed at each cross hatch, spacing varies with speed as shown on this typical (sheet 5).

26. Reflectors shall be equally spaced between points A and B but no more than 12" apart. (Sheet 5)

27. Epoxy or bituminous shall be used when installing R.P.M.'s on concrete or asphalt pavement. Thermoplastic may be used to set R.P.M.'s on asphalt pavement only.

28. R.P.M.'s shall be placed 1' (one inch) to the left or right of line.

29. "C" or "F.P." denotes flexible delineator post.

30. All pavement marking material shall be on the approved Florida Department of Transportation "quality products list" (GPL) and approved by P.B.C. Traffic Engineer, before installation on county roadways.

31. All removal of pavement messages and arrows shall be in block style such that the message is no longer discernible, method of removal shall be approved by Palm Beach County Traffic Engineer.

32. When traffic exceeds 75 vehicles per hour for right turns or 30 vehicles per hour for left turns, the turn lanes shall be constructed as per sheet 3 of 12.

33. For sign sizes refer to tables 2B-1 and 2C-2 of the manual on uniform traffic control devices.

34. Paver stone shall conform with Palm Beach County Land Development Design standards with the following exceptions:

   a. When header curb is used on a crosswalk the curb shall be of white concrete with glass spheres or white wheel tape.

   b. The paver stone shall be pre-approved by Palm Beach County Traffic Engineer prior to installation.

   c. No Paver stone shall be constructed within Palm Beach County right of way unless permitted by the County Engineer and the owners enter into a written agreement with the County (Land development division). Paver stone shall not be permitted for sidewalk construction.

35. For paver stone installation on county thoroughfare road right of way refer to PPM CD-0-015 (Land development division).

36. All signs shall be diamond grade reflective sheeting.

37. Transition rates at the intersection approaches shall be: 30'1 for 40 MPH

45'1 for 45 MPH

P.A.M. DRAWN BY T.R.T. SCALE 1/CONTRACT DRAWN BY F. A. SCALE 1/CONTRACT

STRIPING KEY

A = 6" Solid White

B = 8" Solid White

C = 12" Solid White

D = 18" Solid White

E = 24" Solid White

F = 6" Skip White Type (10'-30')

G = 6" Skip Yellow Type (6'-10')

H = 6" Skip White Type (2'-4')

I = 6" Solid Yellow

J = 18" Solid Yellow

K = 6" Double Yellow

L = 6" Skip Yellow Type (10'-30')

M = 6" Skip Yellow Type (6'-10')

N = 6" Skip Yellow Type (2'-4')

P = RPM Bi-Directional Amber/Amp

R = FDP White

S = FDP Yellow

T = RPM Bi-Directional White/Red

U = RPM Bi-Directional Red/White

P.M.T.E.工程图例1347

35.45.45.
### Chart #1: Lengths of Approach Striping (ft.)

<table>
<thead>
<tr>
<th>Speed (MPH)</th>
<th>Distance (XFT)</th>
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<tbody>
<tr>
<td>20</td>
<td>50</td>
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<tr>
<td>30</td>
<td>100</td>
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<td>40</td>
<td>150</td>
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<td>50</td>
<td>200</td>
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</table>

All pavement marking & RPM's shall be in accordance with the Code or Brought up to Present Standards.

### Chart #3: Single Turn Lane Storage (Min. - FT)

<table>
<thead>
<tr>
<th>Turning Vehicles per Hour</th>
<th>MPI</th>
<th>20-25</th>
<th>25-30</th>
<th>30-35</th>
<th>35-40</th>
<th>40-45</th>
<th>45-50</th>
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<td>390</td>
<td>410</td>
<td>440</td>
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</table>

### Notes:
1. Storage shown are minimums in feet, excluding 50' shadow.
2. Applies to right or left turn lanes, shoulder or unused.
3. Every speed assumed to be 5 MPH less than speed limit.
4. Storage lengths calculated using foot only in 30.
5. Assumes uniform arrivals with total queue dispersion.
6. Use of single left turn lane for volumes in excess of 250 vehicles per hour from the direction of traffic engineering.

### Chart #1: Distances Between Cross Hatched Lines

<table>
<thead>
<tr>
<th>Distance Between Cross Hatched Lines</th>
<th>Single Turn Lane Storage (Min.-FT) Per Hour</th>
<th>MPI</th>
<th>20-25</th>
<th>25-30</th>
<th>30-35</th>
<th>35-40</th>
<th>40-45</th>
<th>45-50</th>
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</tr>
</tbody>
</table>

### Notes:
1. Storage shown are minimums in feet, excluding 50' shadow.
2. Applies to right or left turn lanes, shoulder or unused.
3. Every speed assumed to be 5 MPH less than speed limit.
4. Storage lengths calculated using foot only in 30.
5. Assumes uniform arrivals with total queue dispersion.
6. Use of single left turn lane for volumes in excess of 250 vehicles per hour from the direction of traffic engineering.
#1 RIGHT TURN LANE

- Storage length (see chart 3 \\
  shee1 2) 100'-0" MAX 18'-0"
- Shoulder length 100'-0"
- 6' Win Shoulder
- 3' Paved Shoulder

FOR DISTANCE 'Z' - SEE CHART 2 ON SHEET 2.

#2 EUROPEAN CROSSWALK & STOP BAR PLACEMENT

- European School Crosswalk
- See detail on sheet 8 of 12
- Typical Crosswalk Placement
- Standard Crosswalks shall be installed at signalized intersections.

#3 YIELD SIGN PLACEMENT

- European Crosswalk
- Stop Bar Placement

#4 LEFT TURN LANE

- Shadow length's shall be 100 feet at all dual left applications, with 250' of 6'-10' slopes.

#5 TAPER ACROSS SIDE STREET OR MAJOR DRIVEWAY

- 100' maximum distance between arrows left and right turn lanes

#6 TYPICAL TURN LANE ARROW

- 100' maximum distance between arrows - U-turn lanes

#7 "U-TURN" TYPICAL DETAIL FOR U-TURN DIMENSIONS ON ULTIMATE 4 LANE DIVIDED ROADWAY

- Use curb and gutter for ultimate section
- Edge of pavement
- Shoulder
- 10'-0" MIN
- Storage length (see chart 3 on sheet 2)

#8 CONTRAST MARKINGS

- 10' white skip with black contrast
- Yellow and Amber

STRIPE MARKINGS SHALL BE USED FOR SKIP MARKING ON CONCRETE OR AS DIRECTED BY THE COUNTY ENGINEER.

#9 TYPICAL U-TURN ARROW

- 100' maximum distance between arrows - U-turn lanes

#10 TWO WAY LEFT TURN LANE (SCHEME ONE)

- 100' min
- 150 to 300' based on road type

- Palm Beach County, Florida
- Traffic Division

OTHER LANE DETAILS

WITH PAVED SHOULDER
SPEED HUMP (DUTCH DESIGN)

SPEED HUMP PROFILE

SPEED HUMP (DUTCH DESIGN)

ROAD HUMP SIGNING & MARKING

ROAD HUMP SIGNING & MARKING

SEMINOLE SPEED HUMP

ROAD HUMP PAVEMENT MARKINGS

ROAD HUMP PAVEMENT MARKINGS

LEGEND:

CONSTRUCTION PROCEDURES

IT IS RECOMMENDED THAT A TEMPLATE BE CONSTRUCTED TO VERIFY THE ACCURACY OF THE HUMP PROFILE AND TO ENSURE THAT THE DESIGNED VERTICAL DIMENSIONS ARE ATTAINED WITHIN REASONABLE TOLERANCES (NORMAL ONE-HALF INCH OR LESS). IF THE PROFILE IS INCORRECT, HUMP CHARACTERISTICS WILL BE CHANGED THAT MIGHT IMPACT TRAFFIC SAFETY OR CREATE INEFFECTIVE SPEED CONTROL.

IT IS RECOMMENDED THAT THE ROAD SURFACE BE EXCAVATED AT TAPERING EDGES TO PREVENT SPALLING. HUMPS MAY BE INSTALLED IN TWO LIFTS TO IMPROVE ACCURACY AND SHAPE.

COORDINATION WITH STREET GEOMETRY

A THOROUGH ON-SITE ANALYSIS OF ROADWAY GEOMETRIES SHALL BE PERFORMED TO ENSURE THAT SPEED HUMPS WILL NOT BE INTRODUCED AT A CRITICAL POINT IN THE ROADWAY SYSTEM. E.G., A SEVERE COMBINATION OF HORIZONTAL, VERTICAL CURVATURE AND / OR STREET GRADIENT.

COORDINATION WITH TRAFFIC OPERATIONS

SPEED HUMPS SHALL NOT BE INSTALLED WITHIN 90 FT. OF A TRAFFIC SIGNAL OR STOP SIGN OR WITHIN AN INTERSECTION OR DRIVeway. - MIN. DISTANCE BETWEEN ROAD HUMPS IS 400'. TO BE CONSTRUCTED ONLY WHEN APPROVED BY PALM BEACH COUNTY ENGINEER.

I.T.E. SPEED HUMP

COORDINATION WITH STREET GEOMETRY

COORDINATION WITH STREET GEOMETRY

COORDINATION WITH STREET GEOMETRY

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COORDINATION WITH STREET GEOMETRY
R/W CORNER CLIP

CHORD OF 40' RADIUS CIRCLE

I

CHORD OF 40'

RADIUS CIRCLE

NOTES:

1. FOR EXACT CROSSWALK PLACEMENT PLEASE SEE DETAIL 2 ON SHEET 4 OF THIS TYPICAL.
EUROPEAN SCHOOL CROSSWALK (IF SPECIFIED)

ADDITIONAL BARS TO FILL SPACE TO CURB/RADIUS LINE WITH TYPICAL SPACING AS NEEDED.

CENTER ALONG PROPERTY LINE, TYP.

24" BARS TYPICAL

CENTER BETWEEN TRAFFIC LANE LINES, TYP.

24" STOP BAR

* VARIES - USE ROADWAY PRODUCTION THOROUGHFARE ROAD TYPICAL SECTION FOR DETAIL.

ADD ADDITIONAL BARS AT TYPICAL SPACING FOR WIDTHS GREATER THAN 8'.

EUROPEAN SCHOOL CROSSWALK (IF SPECIFIED)
GENERAL SPECIFICATIONS:

FLAT BLADE: ALCOA 6060-6063-T6 ALLOY, ETCHED, DECREASED WITH •1200 ALODINE FINISH WITH •3877 GREEN DIAMOND GRADE BACKGROUND AND EQUAL DIMENSIONS - 9" & 12" MIN H, 24", 30", 36" & 42" L.

LETTERS: NAME - 6" UPPERCASE WITH 4.5" LOWERCASE & 9" UPPERCASE WITH 6.75" LOWERCASE, SERIES 'B' •3870 DIAMOND GRADE (SILVER) OR EQUAL - SUFFIX •4.5".

POST: STEEL FLANGED CHANNEL POST 3 LBS. WEIGHT PER FOOT WITH BAKED GREEN ALKYD OR GALVANIZED FINISH PER A.S.T.M. - A-123 WITHOUT ANCHOR PLATES.

SQUARE POST PER FOOT INDEX 11860. BRACKETS SHALL BE ATTACHED FIRMLY ON STANDARD SQUARE TUBE OR U-CHANNEL POSTS BY MEANS OF •25/32" DIAMETER HEX HEAD BOLTS.

STOP SIGN: R1-1 MUTCD DIAMOND GRADE

LOCATION: ONE PER INTERSECTION AS INDICATED ON THE PLANS.

POLICY: 8" BLADES WITH 6" UPPERCASE WITH 4.5" LOWERCASE LETTERS FOR TWO LANE ROADS WITH A SPEED LIMIT UNDER 45 MPH.

12" BLADES WITH 9" UPPERCASE WITH 6.75" LOWERCASE LETTERS FOR:
- THROUGHFARE ROADS & WIDER
- TWO LANE ROADS WITH A POSTED SPEED LIMIT OF 45 MPH & MORE.
- ONLY ONE BLADE WILL BE INSTALLED AT INTERSECTION WITH THROUGHFARE ROAD INDICATING THE SIDE STREET NAME.

TYPICAL STOP SIGN PLACEMENT

UNCURBED SECTION

CURVED SECTION

TYPICAL STOP SIGN PLACEMENT

FRONT VIEW

24", 30", 36" or 42" long

TYPICAL STREET NAME SIGN

Palm Beach County, Florida
Traffic Division

Street Name Sign
03-1

Lagoon St.

Street Name Sign

Any St.
1. The FDP shall match the adjacent edgeline color (yellow or white only).

2. When shown on plans, FDP's shall be identified in a similar manner to that shown on this typical. Color and number of each must be shown on all summary for delineator sheets. Also, color must be specified for each FDP group on the plans.

3. On directional islands, FDP's are required to supplement the existing signing, markings, and street furniture already present. FDP's should be installed midway between the striped chevrons.

4. SHUR-FLEX high visibility flexible delineator (FDP) shall be constructed for medians less than 6' wide. For medians at least 6' wide, install R47 sign with case I yellow reflectors only.

5. Sheet type: Diamond grade series 3900 series type 3

Note: FDP's shall be spaced 3 ft apart. White shall be used.