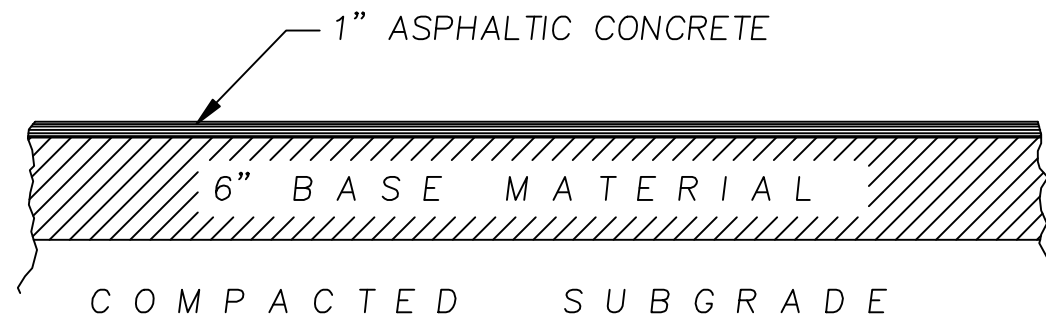
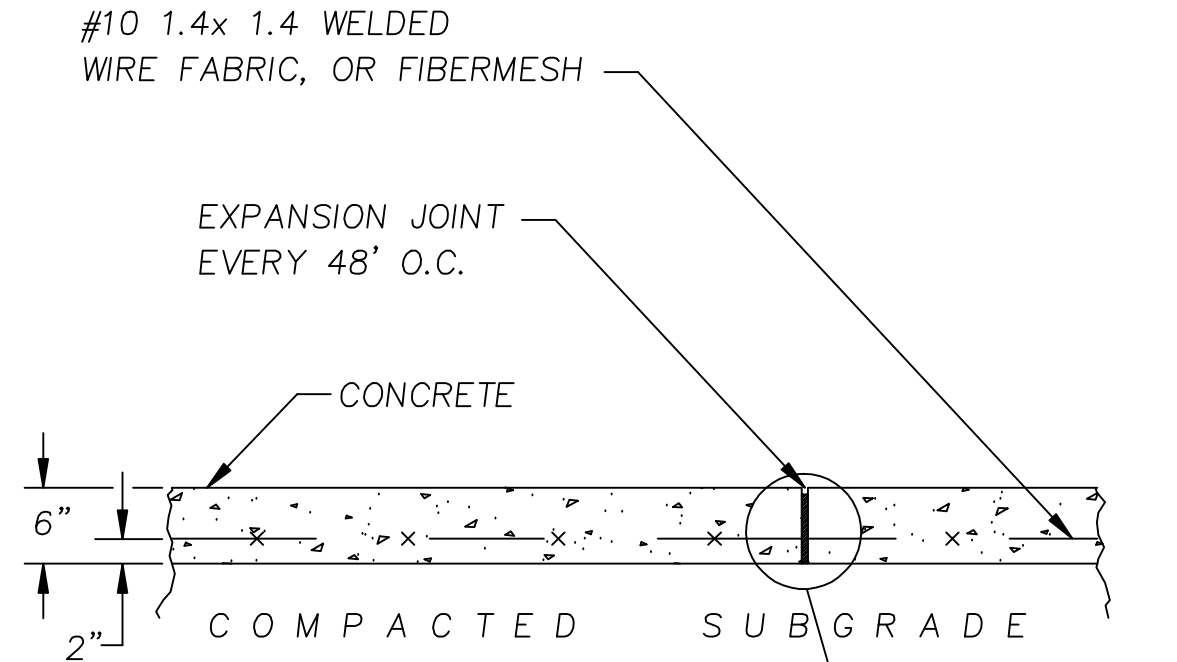


COMMERCIAL PARKING LOT



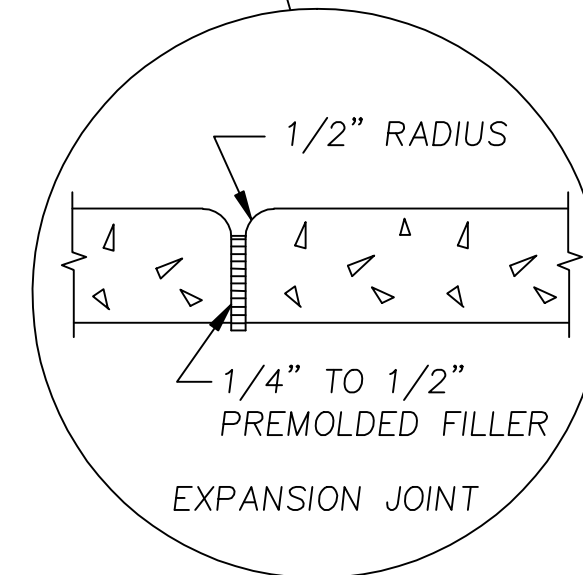
NOTES:

1. ALL THICKNESSES ARE MINIMUM.
2. BASE COMPACTION TO MEET 98% UNDER AASHTO T-180.
3. SUBGRADE COMPACTION TO 98% DENSITY PER AASHTO T-180, MEASURED AT SURFACE.
4. NO SUBGRADE DEPTH REQUIRED.



NOTES:

1. SUBGRADE COMPACTION TO 98% DENSITY PER AASHTO T-180, MEASURED AT SURFACE.
2. NO SUBGRADE DEPTH REQUIRED.

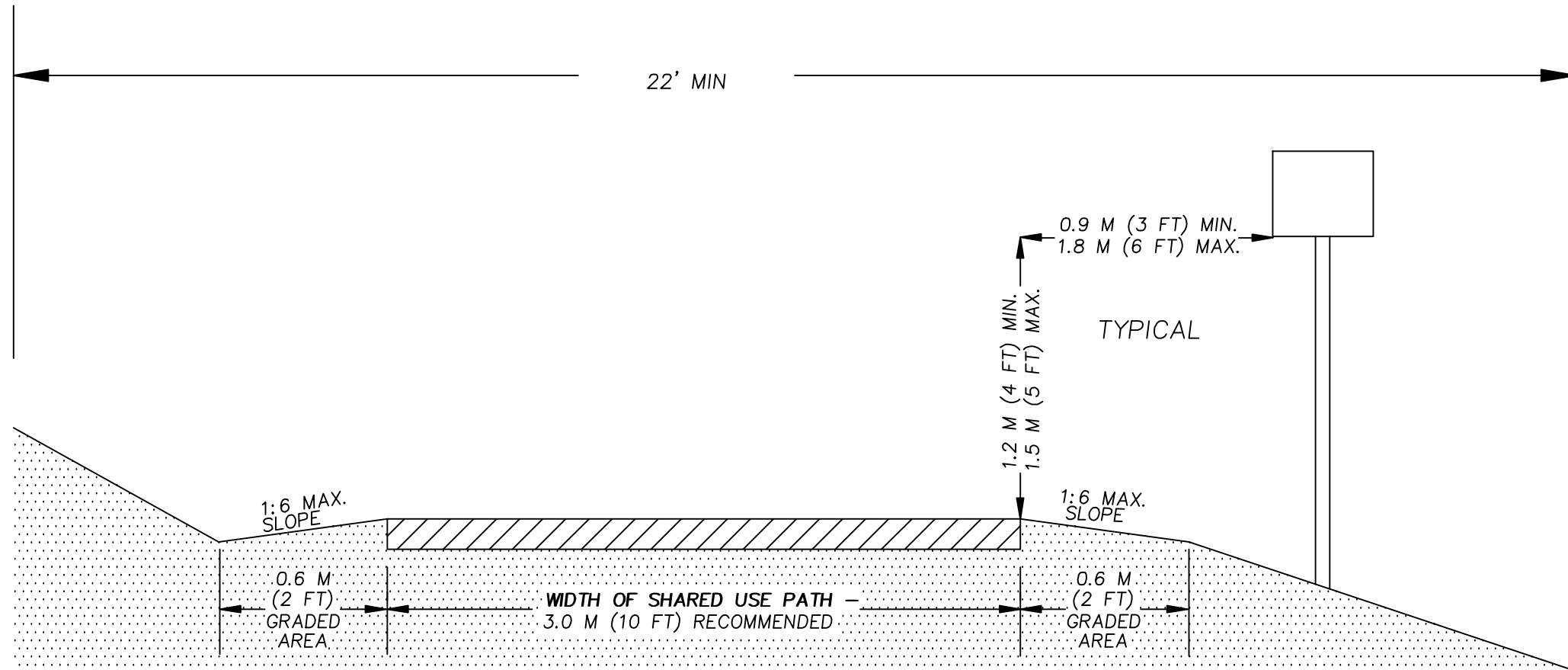


TITLE: ROADWAY STANDARD
ASPHALT / CONCRETE PARKING

APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
NO: IV-01

HERNANDO COUNTY
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TWO-WAY SHARED USE PATH ON SEPARATED RIGHT-OF-WAY
 (DESIGN SPEED = 20 M.P.H.)



TYPICAL SECTION
 NOT TO SCALE

GENERAL NOTE:

DESIGN SPEED, RIGHT-OF-WAY, AND
 ROADSIDE DIMENSIONS ARE MINIMUMS.
 SITE CONDITION MAY REQUIRE INCREASES.

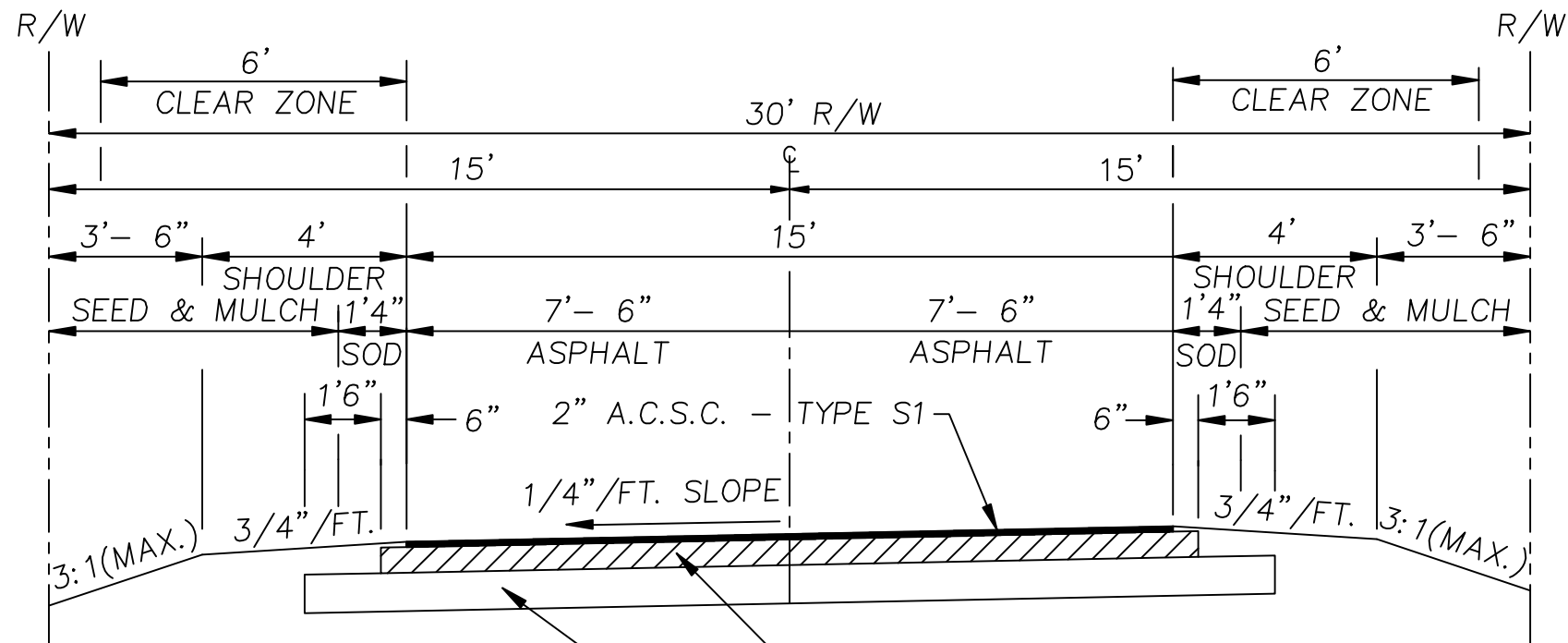
TITLE: CROSS SECTION
 TWO-WAY SHARED USE PATH

APPROVED BY: C. G. MIXSON, P. E.
 DATE: 10-01-08
 NO.: IV-02

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ALLEY — ONE WAY TRAFFIC

DESIGN SPEED = 20 M.P.H.



8" LIMEROCK BASE — COMPACTED TO 98% AASHTO T-180 METHOD
 9" TYPE "B" STABILIZED SUBGRADE — LBR 40
 (* ALTERNATE BASE SECTION — 10.5" LIMEROCK BASE, PLACED IN 2 LIFTS, COMPACTED TO 98% AASHTO T-180 METHOD)

TYPICAL SECTION

NOT TO SCALE

GENERAL NOTE:
 DESIGN SPEED, RIGHT-OF-WAY, AND
 ROADSIDE DIMENSIONS ARE MINIMUMS.
 SITE CONDITION MAY REQUIRE INCREASES.

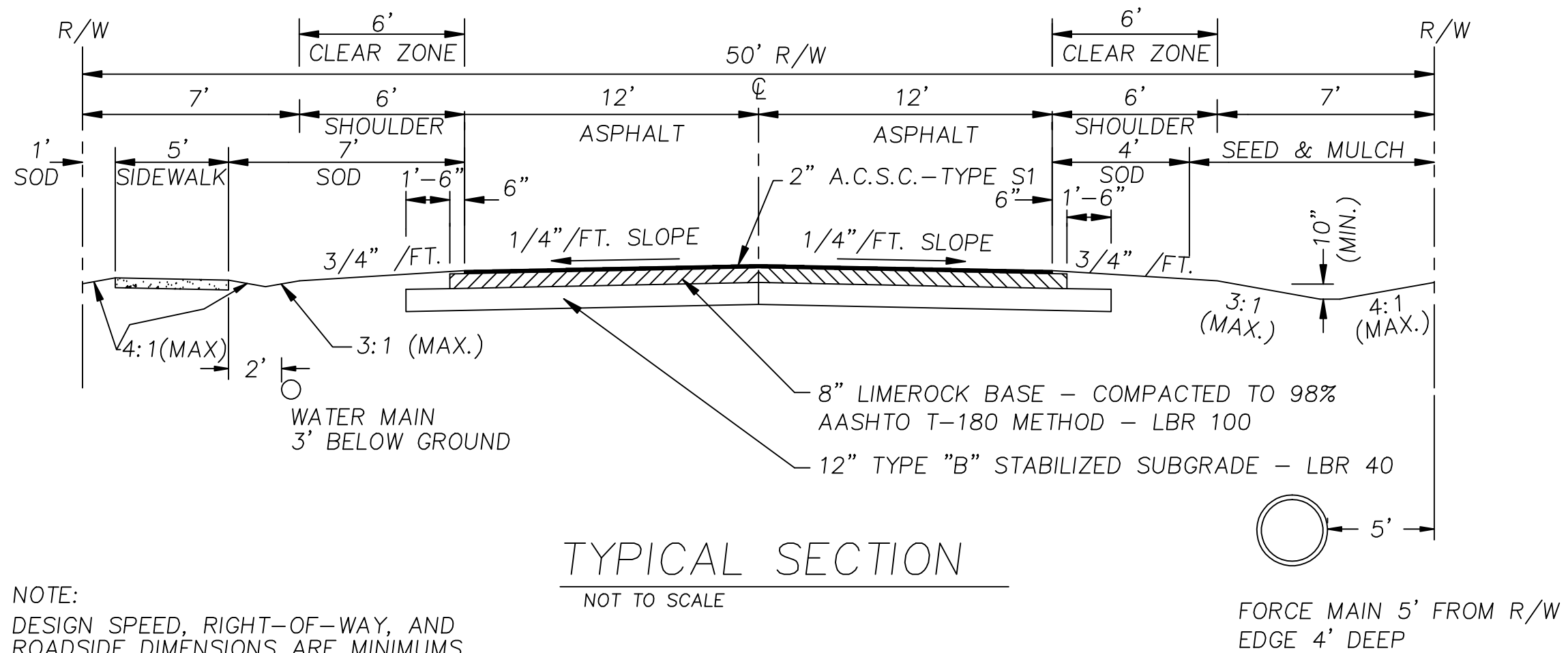
TITLE: ROADWAY STANDARD
 ALLEY

APPROVED BY: C. G. MIXSON, P.E.
 DATE: 10-01-08
 NO.: IV-03

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FRONTAGE ROAD

DESIGN SPEED = 30 M.P.H.



TYPICAL SECTION

NOT TO SCALE

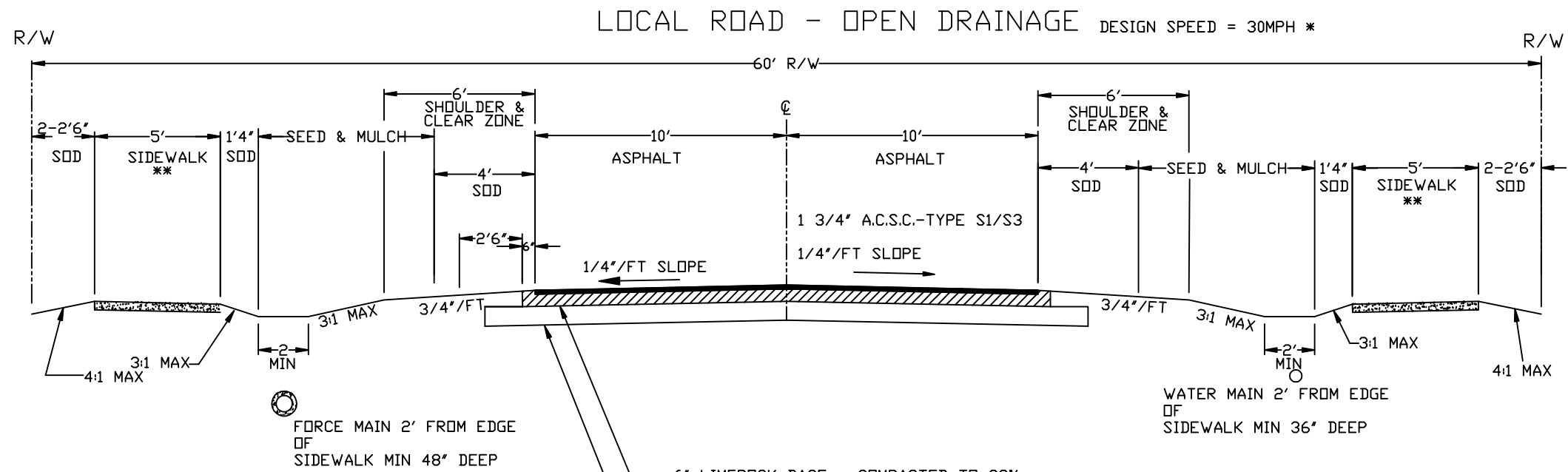
GENERAL NOTE:

DESIGN SPEED, RIGHT-OF-WAY, AND
ROADSIDE DIMENSIONS ARE MINIMUMS.
SITE CONDITION MAY REQUIRE INCREASES.

TITLE: ROADWAY STANDARD
FRONTAGE ROAD

APPROVED BY: C. G. MIXSON, P. E.
DATE: 10-01-08
NO.: IV-04

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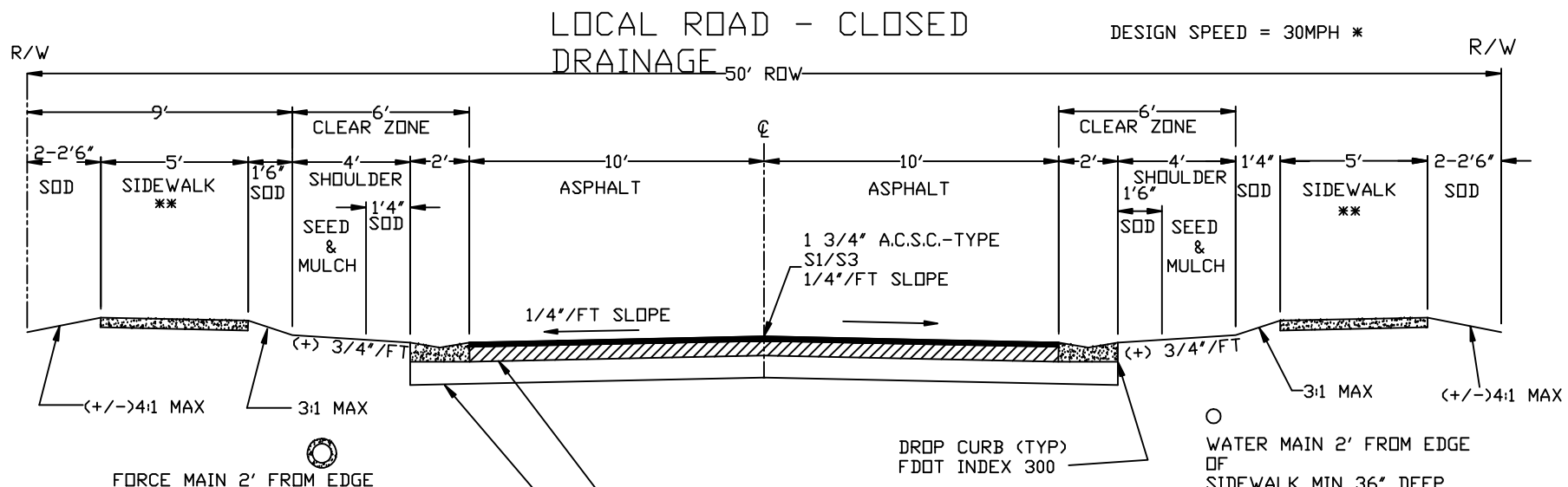


FORCE MAIN 2' FROM EDGE OF SIDEWALK MIN 48" DEEP

WATER MAIN 2' FROM EDGE OF SIDEWALK MIN 36" DEEP

6" LIMEROCK BASE - COMPACTED TO 98% AASHTO T-180 METHOD - LBR 100
 9" TYPE "B" STABILIZED SUBGRADE - LBR 40
 ALTERNATE BASE / SUB BASE SECTION -10.5' LIMEROCK BASE, PLACED IN TWO LIFTS, COMPACTED TO 98% AASHTO T-180 METHOD

TYPICAL SECTIONS
NOT TO SCALE



FORCE MAIN 2' FROM EDGE OF SIDEWALK MIN 48" DEEP

DROP CURB (TYP) FDOT INDEX 300
 WATER MAIN 2' FROM EDGE OF SIDEWALK MIN 36" DEEP

6" LIMEROCK BASE - COMPACTED TO 98% AASHTO T-180 METHOD - LBR 100
 9" TYPE "B" STABILIZED SUBGRADE - LBR 40
 ALTERNATE BASE / SUB BASE SECTION -10.5' LIMEROCK BASE, PLACED IN TWO LIFTS, COMPACTED TO 98% AASHTO T-180 METHOD

GENERAL NOTES:

- DESIGN SPEED, RIGHT-OF-WAY, AND ROADSIDE DIMENSIONS ARE MINIMUMS. SITE CONDITION MAY REQUIRE INCREASES.
- * VARIANCE IN HORIZONTAL DESIGN SPEED ALLOWED WITH JUSTIFICATION AND APPROPRIATE SIGNAGE
- ** SIDEWALKS IF APPLICABLE
- ALL DIMENSIONS & LABELS ARE TYPICAL

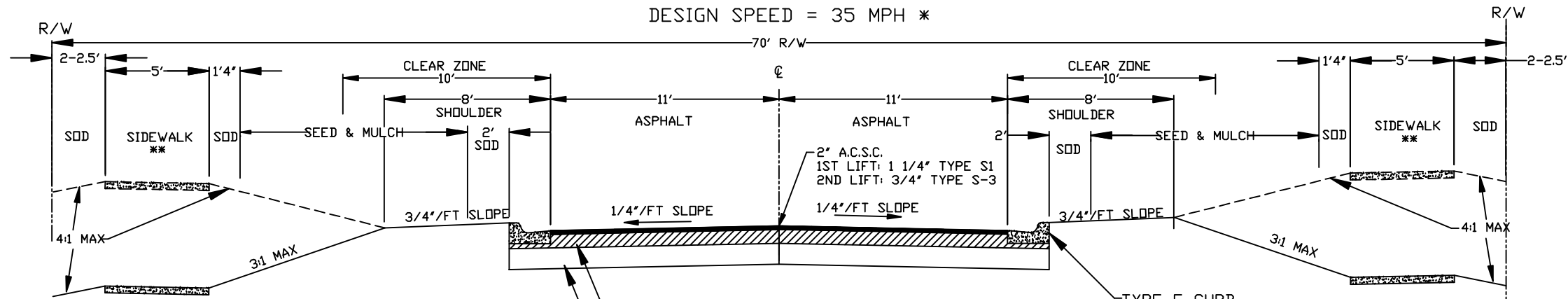
TITLE: ROADWAY STANDARD
LOCAL ROADS

APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
NO.: IV-05

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MAJOR LOCAL/COMMERCIAL 2 LANE ROAD - CLOSED DRAINAGE

DESIGN SPEED = 35 MPH *



○ FORCE MAIN 2' FROM EDGE OF SIDEWALK MIN 48" DEEP

8" LIMEROCK BASE - COMPACTED TO 98% AASHTO T-180 METHOD - LBR 100

12" TYPE "B" STABILIZED SUBGRADE - LBR 40
ALTERNATE BASE / SUB BASE SECTION - 13.5" LIMEROCK BASE, PLACED IN TWO LIFTS, COMPACTED TO 98% AASHTO T-180 METHOD

TYPICAL SECTIONS

NOT TO SCALE

○ TYPE F CURB (TYP) REFER TO FDOT INDEX 300

○ WATER MAIN 2' FROM EDGE OF SIDEWALK MIN 36" DEEP

GENERAL NOTE:

DESIGN SPEED, RIGHT-OF-WAY, AND ROADSIDE DIMENSIONS ARE MINIMUMS. SITE CONDITION MAY REQUIRE INCREASES.

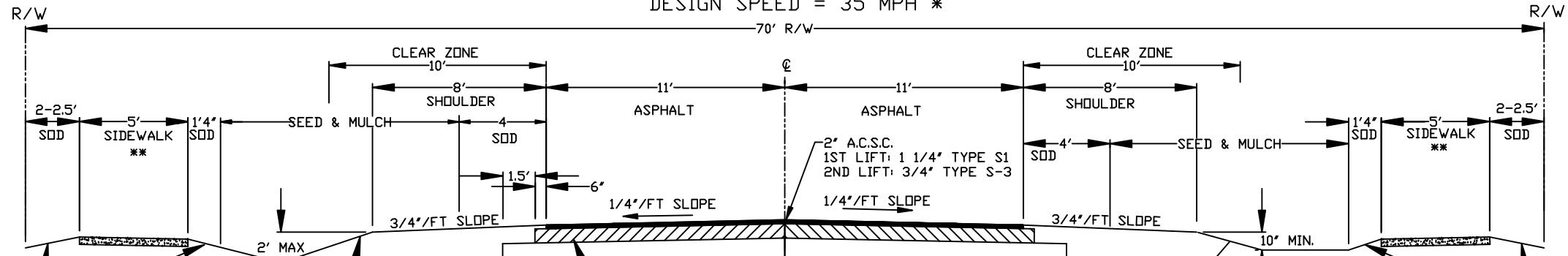
* VARIANCE IN HORIZONTAL DESIGN SPEED ALLOWED WITH JUSTIFICATION AND APPROPRIATE SIGNAGE

** SIDEWALKS IF APPLICABLE

ALL DIMENSIONS AND LABELS ARE TYPICAL AND SHOWN IN FEET UNLESS LABELED OTHERWISE

MAJOR LOCAL/COMMERCIAL 2 LANE ROAD - OPEN DRAINAGE

DESIGN SPEED = 35 MPH *



○ FORCE MAIN 2' FROM EDGE OF SIDEWALK MIN 48" DEEP

8" LIMEROCK BASE - COMPACTED TO 98% AASHTO T-180 METHOD - LBR 100

12" TYPE "B" STABILIZED SUBGRADE - LBR 40
ALTERNATE BASE / SUB BASE SECTION - 13.5" LIMEROCK BASE, PLACED IN TWO LIFTS, COMPACTED TO 98% AASHTO T-180 METHOD

○ WATER MAIN 2' FROM EDGE OF SIDEWALK MIN 36" DEEP

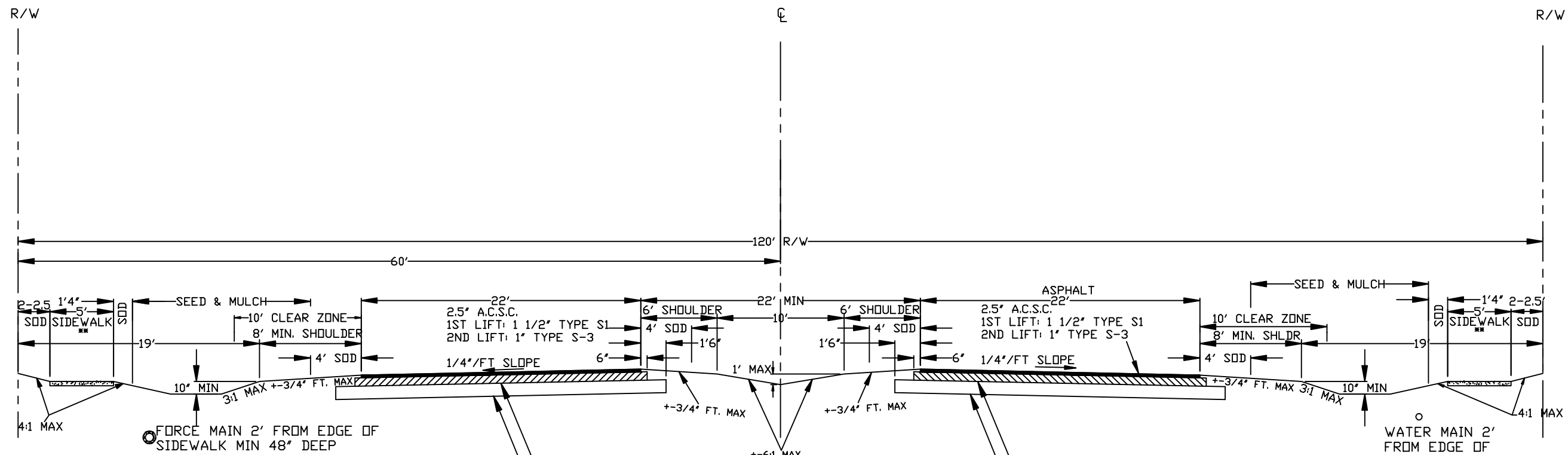
TITLE: ROADWAY STANDARD
MAJOR LOCAL/COMMERCIAL

APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
NO.: IV-06

HERNANDO COUNTY
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MAJOR LOCAL/COMMERCIAL 4 LANE ROAD - OPEN DRAINAGE

DESIGN SPEED = 35 MPH *



GENERAL NOTE:

DESIGN SPEED, RIGHT-OF-WAY, AND
ROADSIDE DIMENSIONS ARE MINIMUMS.
SITE CONDITION MAY REQUIRE INCREASES.

* VARIANCE IN HORIZONTAL DESIGN SPEED ALLOWED
WITH JUSTIFICATION AND APPROPRIATE SIGNAGE

** SIDEWALKS IF APPLICABLE

ALL DIMENSIONS AND LABELS ARE TYPICAL AND SHOWN IN FEET
UNLESS OTHERWISE LABELED

8" LIMEROCK BASE - COMPACTED
TO 98%
AASHTO T-180 METHOD - LBR 100

12" TYPE "B" STABILIZED
SUBGRADE - LBR 40
ALTERNATE BASE / SUB BASE
SECTION -13.5" LIMEROCK BASE,
PLACED IN
TWO LIFTS, COMPACTED TO 98%
AASHTO T-180 METHOD

8" LIMEROCK BASE - COMPACTED
TO 98%
AASHTO T-180 METHOD - LBR 100

12" TYPE "B" STABILIZED
SUBGRADE - LBR 40
ALTERNATE BASE / SUB BASE
SECTION -13.5" LIMEROCK BASE,
PLACED IN
TWO LIFTS, COMPACTED TO 98%
AASHTO T-180 METHOD

TYPICAL SECTION
NOT TO SCALE

TITLE: ROADWAY STANDARD
MAJOR LOCAL 4 LANE - OPEN DRAINAGE

APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
ND: IV-07

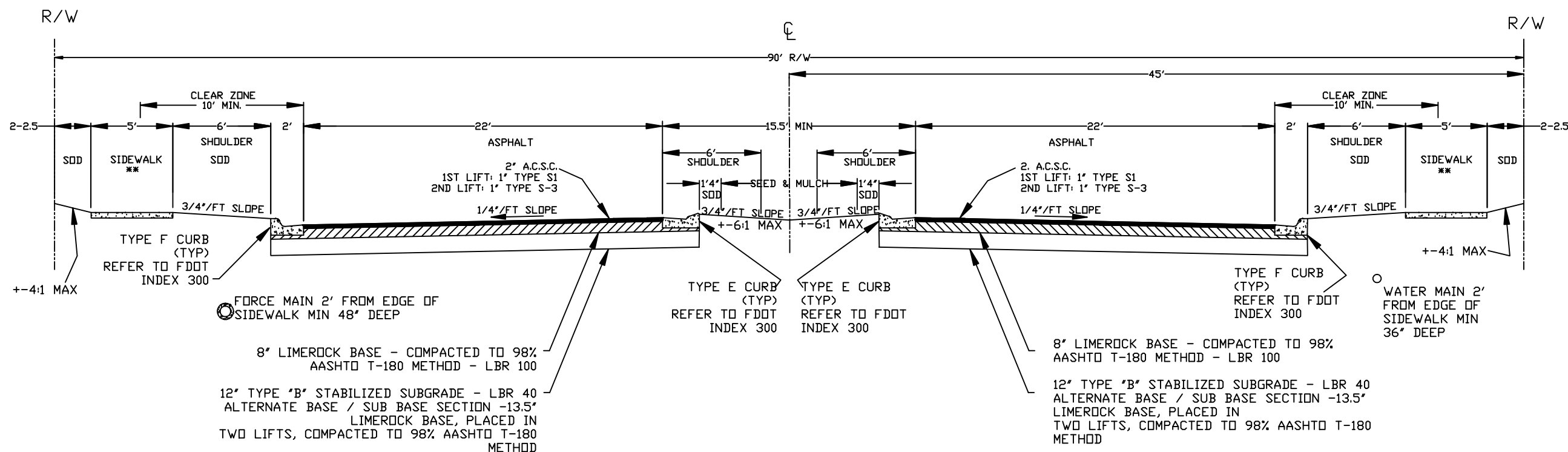
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ENGINEERING DIVISION

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MAJOR LOCAL/COMMERCIAL 4 LANE ROAD - CLOSED DRAINAGE

DESIGN SPEED = 35 MPH *

TYPICAL SECTION NOT TO SCALE



GENERAL NOTE:

DESIGN SPEED, RIGHT-OF-WAY, AND ROADSIDE DIMENSIONS ARE MINIMUMS. SITE CONDITION MAY REQUIRE INCREASES.

* VARIANCE IN HORIZONTAL DESIGN SPEED ALLOWED WITH JUSTIFICATION AND APPROPRIATE SIGNAGE

** SIDEWALKS IF APPLICABLE

ALL DIMENSIONS AND LABELS ARE TYPICAL AND SHOWN IN FEET UNLESS OTHERWISE LABELED

TITLE: ROADWAY STANDARD
MAJOR LOCAL 4LANE- CLOSED DRAINAGE

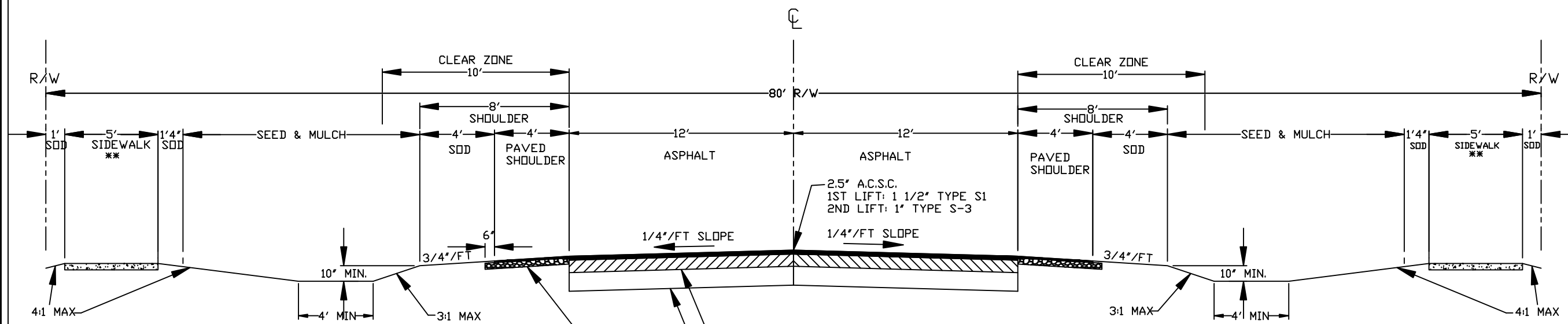
APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
ND: IV-08

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COLLECTOR 2 LANE ROAD - OPEN DRAINAGE

DESIGN SPEED = 40 MPH *

TYPICAL SECTION NOT TO SCALE



○ FORCE MAIN 2' FROM EDGE OF SIDEWALK MIN 48" DEEP

○ WATER MAIN 2' FROM EDGE OF SIDEWALK MIN 48" DEEP

GENERAL NOTE:

DESIGN SPEED, RIGHT-OF-WAY, AND ROADSIDE DIMENSIONS ARE MINIMUMS. SITE CONDITION MAY REQUIRE INCREASES.

* VARIANCE IN HORIZONTAL DESIGN SPEED ALLOWED WITH JUSTIFICATION AND APPROPRIATE SIGNAGE

** SIDEWALKS IF APPLICABLE

ALL DIMENSIONS ARE TYPICAL AND SHOWN IN FEET, UNLESS NOTED OTHERWISE

8" LIMEROCK BASE - COMPACTED TO 98% AASHTO T-180 METHOD - LBR 100

12" TYPE "B" STABILIZED SUBGRADE - LBR 40 ALTERNATE BASE / SUB BASE SECTION -13.5" LIMEROCK BASE, PLACED IN TWO LIFTS, COMPACTED TO 98% AASHTO T-180 METHOD

4' PAVED SHOULDER (TYP)
1" A.C.S.C. - TYPE S1
4" LIMEROCK BASE - COMPACTED TO 98% AASHTO T-180 METHOD - LBR 100

TITLE: ROADWAY STANDARD
COLLECTOR ROAD / 2 LANE - OPEN DRAINAGE
APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
ND: IV-09

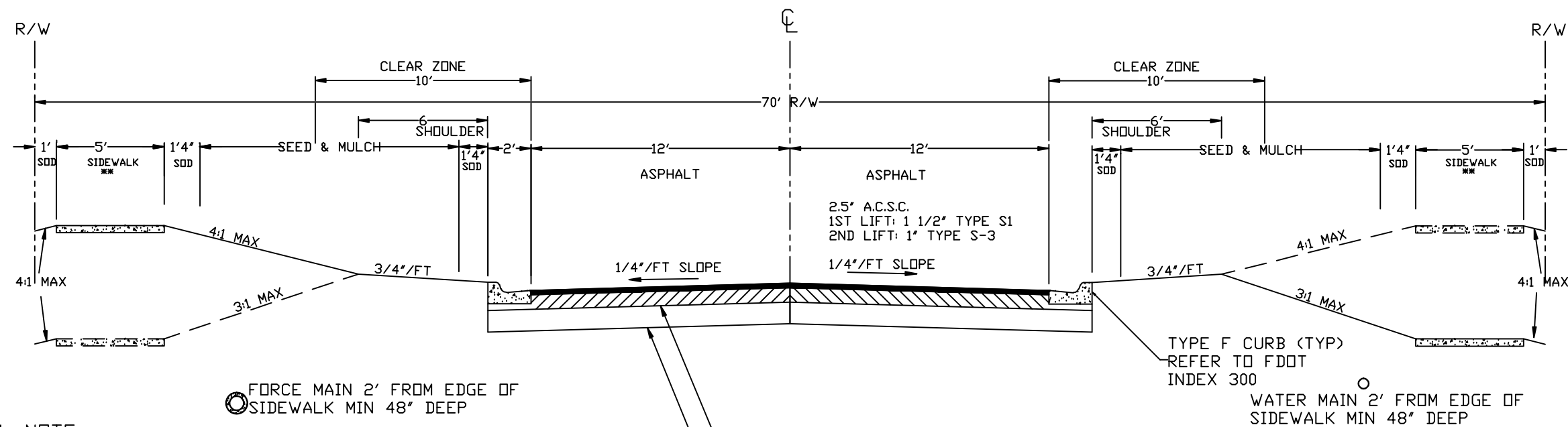
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COLLECTOR / 2 LANE ROAD - CLOSED DRAINAGE

DESIGN SPEED = 40 MPH *

TYPICAL SECTION

NOT TO SCALE



GENERAL NOTE:

DESIGN SPEED, RIGHT-OF-WAY, AND ROADSIDE DIMENSIONS ARE MINIMUMS. SITE CONDITION MAY REQUIRE INCREASES.

* VARIANCE IN HORIZONTAL DESIGN SPEED ALLOWED WITH JUSTIFICATION AND APPROPRIATE SIGNAGE

** SIDEWALKS IF APPLICABLE

ALL DIMENSIONS ARE TYPICAL AND SHOWN IN FEET, UNLESS NOTED OTHERWISE

○ FORCE MAIN 2' FROM EDGE OF SIDEWALK MIN 48" DEEP

8" LIMEROCK BASE - COMPACTED TO 98% AASHTO T-180 METHOD - LBR 100

12" TYPE "B" STABILIZED SUBGRADE - LBR 40 ALTERNATE BASE / SUB BASE SECTION -13.5" LIMEROCK BASE, PLACED IN TWO LIFTS, COMPACTED TO 98% AASHTO T-180 METHOD

TYPE F CURB (TYP) REFER TO FDOT INDEX 300

○ WATER MAIN 2' FROM EDGE OF SIDEWALK MIN 48" DEEP

TITLE: ROADWAY STANDARD
COLLECTOR ROAD/2 LANE-CLOSED DRAINAGE

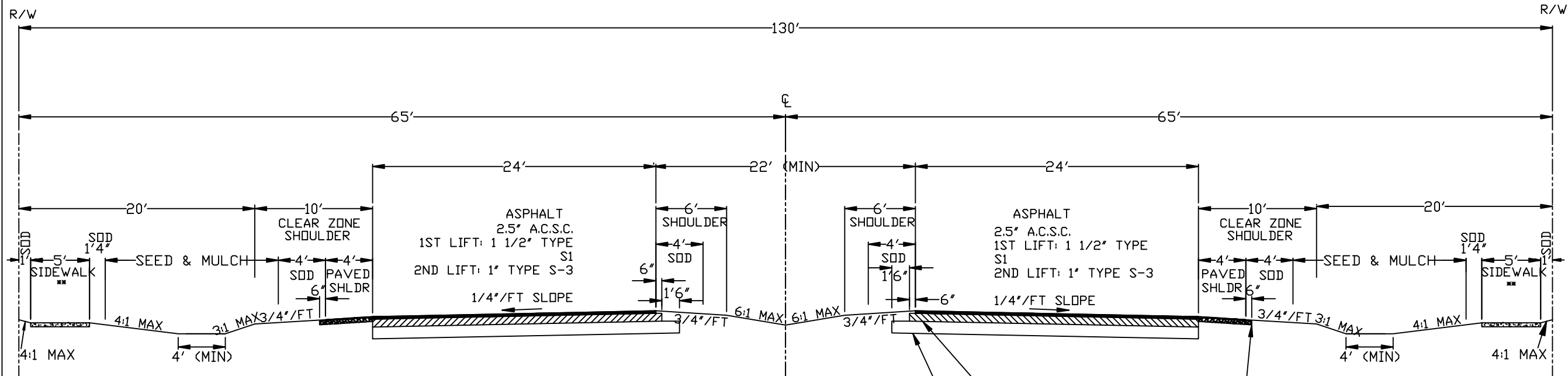
APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
NO: IV-10

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COLLECTOR / 4 LANE ROAD - OPEN DRAINAGE

DESIGN SPEED = 40 MPH *

TYPICAL SECTION
NOT TO SCALE



○ FORCE MAIN 2' FROM
EDGE OF
SIDEWALK MIN 48"
DEEP

○ WATER MAIN 2' FROM
EDGE OF SIDEWALK
MIN 48" DEEP

8" LIMEROCK BASE -
COMPACTED TO 98%
AASHTO T-180 METHOD
- LBR 100

12" TYPE "B"
STABILIZED SUBGRADE
- LBR 40
ALTERNATE BASE / SUB
BASE SECTION -13.5"
LIMEROCK BASE, PLACED
IN
TWO LIFTS, COMPACTED
TO 98% AASHTO T-180
METHOD

4' PAVED SHOULDER
(TYP)
1" A.C.S.C. - TYPE S3
4" LIMEROCK BASE -
COMPACTED TO 98%
AASHTO T-180 METHOD
- LBR 100

GENERAL NOTE:

DESIGN SPEED, RIGHT-OF-WAY, AND
ROADSIDE DIMENSIONS ARE MINIMUMS.
SITE CONDITION MAY REQUIRE INCREASES.

* VARIANCE IN HORIZONTAL DESIGN SPEED ALLOWED
WITH JUSTIFICATION AND APPROPRIATE SIGNAGE

** SIDEWALKS IF APPLICABLE

ALL DIMENSIONS & LABELS ARE TYPICAL AND SHOWN IN FEET UNLESS NOTED OTHERWISE

TITLE: ROADWAY STANDARD
COLLECTOR ROAD/4 LANE-OPEN DRAINAGE

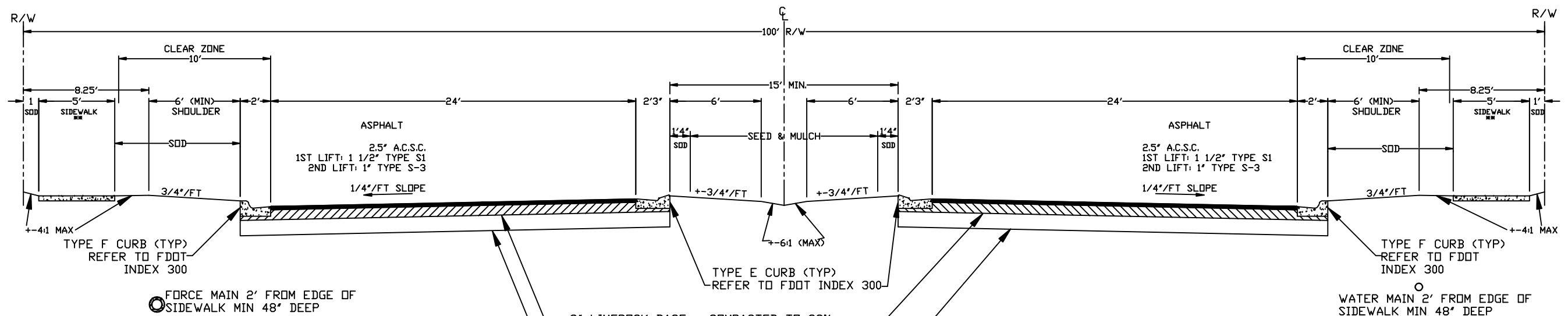
APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
NO.: IV-11

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COLLECTOR / 4 LANE ROAD - CLOSED DRAINAGE

DESIGN SPEED = 40 MPH *

TYPICAL SECTION NOT TO SCALE



GENERAL NOTE:

DESIGN SPEED, RIGHT-OF-WAY, AND
ROADSIDE DIMENSIONS ARE MINIMUMS.
SITE CONDITION MAY REQUIRE INCREASES.

* VARIANCE IN HORIZONTAL DESIGN SPEED
ALLOWED
WITH JUSTIFICATION AND APPROPRIATE
SIGNAGE

** SIDEWALKS IF APPLICABLE

ALL DIMENSIONS & LABELS ARE TYPICAL (TYP.)

8" LIMEROCK BASE - COMPACTED TO 98%
AASHTO T-180 METHOD - LBR 100

12" TYPE "B" STABILIZED SUBGRADE - LBR 40
ALTERNATE BASE / SUB BASE SECTION -13.5"
LIMEROCK BASE, PLACED IN
TWO LIFTS, COMPACTED TO 98% AASHTO T-180
METHOD

TITLE: ROADWAY STANDARD
COLLECTOR ROAD/4 LANE-CLOSED DRAINAGE

APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
NO.: IV-12

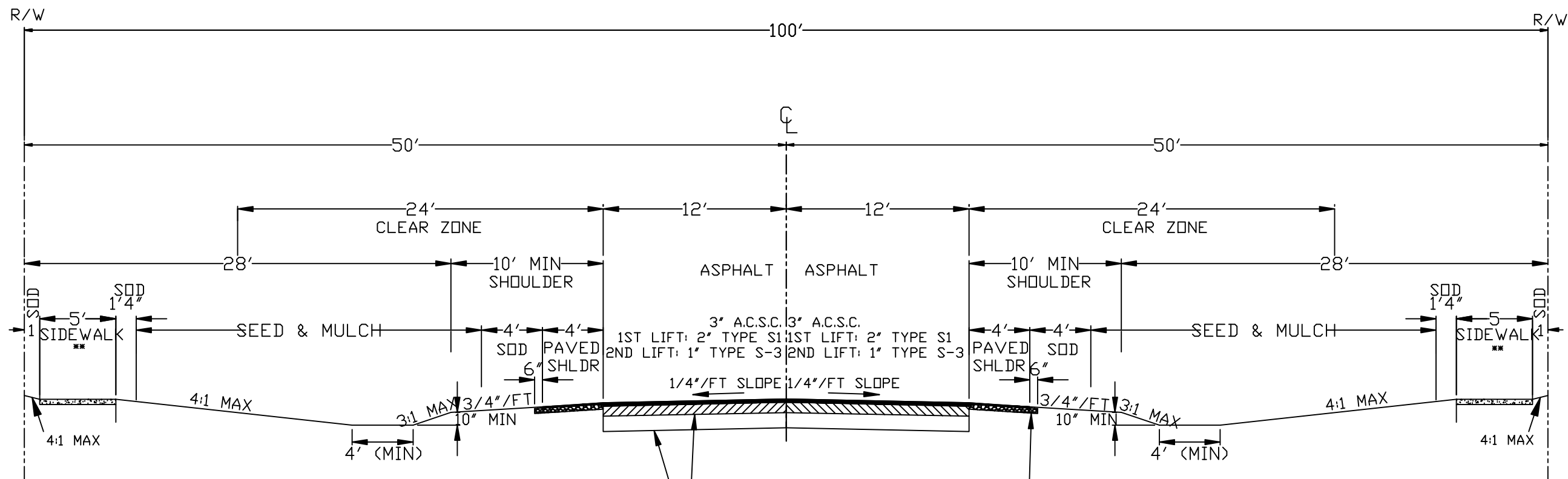
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MAJOR COLLECTOR / 2 LANE ROAD - OPEN DRAINAGE

DESIGN SPEED = 60 MPH *

TYPICAL SECTION

NOT TO SCALE



○ FORCE MAIN 2' FROM EDGE OF SIDEWALK MIN 48" DEEP

○ WATER MAIN 2' FROM EDGE OF SIDEWALK MIN 48" DEEP

GENERAL NOTE:

DESIGN SPEED, RIGHT-OF-WAY, AND ROADSIDE DIMENSIONS ARE MINIMUMS. SITE CONDITION MAY REQUIRE INCREASES.

* VARIANCE IN HORIZONTAL DESIGN SPEED ALLOWED WITH JUSTIFICATION AND APPROPRIATE SIGNAGE

** SIDEWALKS IF APPLICABLE

ALL DIMENSIONS & LABELS ARE TYPICAL AND SHOWN IN FEET UNLESS OTHERWISE NOTED

8" LIMEROCK BASE - COMPACTED TO 98% AASHTO T-180 METHOD - LBR 100

12" TYPE "B" STABILIZED SUBGRADE - LBR 40
ALTERNATE BASE / SUB BASE SECTION - 13.5" LIMEROCK BASE, PLACED IN TWO LIFTS, COMPACTED TO 98% AASHTO T-180 METHOD

4' PAVED SHOULDER (TYP)
1" A.C.S.C. - TYPE S1
4" LIMEROCK BASE - COMPACTED TO 98% AASHTO T-180 METHOD - LBR 100

TITLE: ROADWAY STANDARD
MAJ COLLECTOR ROAD/2 LANE-OPEN DRAINAGE
APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
ND: IV-13

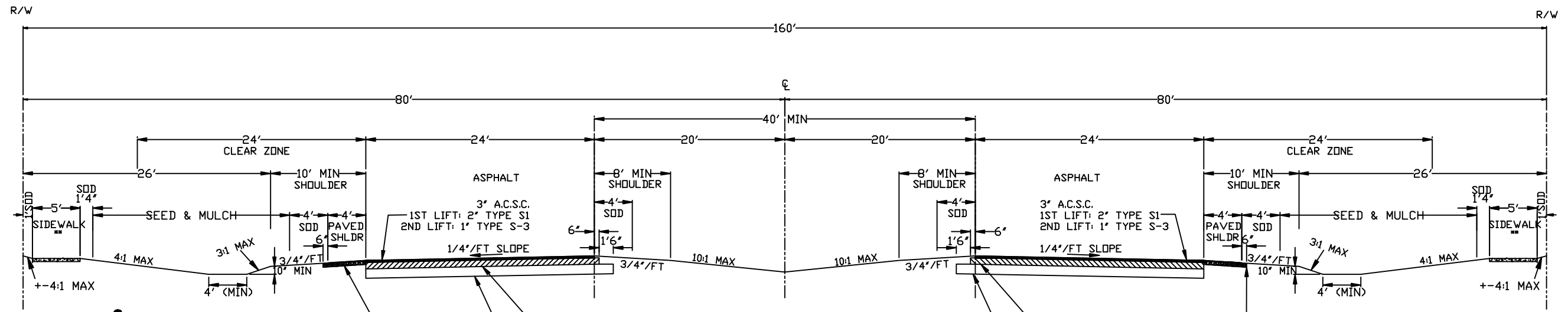
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MAJOR COLLECTOR / 4 LANE ROAD - OPEN DRAINAGE

DESIGN SPEED = 60 MPH *

TYPICAL SECTION

NOT TO SCALE



FORCE MAIN 2' FROM EDGE OF SIDEWALK MIN 48" DEEP

8" LIMEROCK BASE - COMPACTED TO 98% AASHTO T-180 METHOD - LBR 100

12" TYPE "B" STABILIZED SUBGRADE - LBR 40
ALTERNATE BASE / SUB BASE SECTION -13.5" LIMEROCK BASE, PLACED IN TWO LIFTS, COMPACTED TO 98% AASHTO T-180 METHOD

4' PAVED SHOULDER (TYP)
1" A.C.S.C. - TYPE S1
4" LIMEROCK BASE - COMPACTED TO 98% AASHTO T-180 METHOD - LBR 100

8" LIMEROCK BASE - COMPACTED TO 98% AASHTO T-180 METHOD - LBR 100

12" TYPE "B" STABILIZED SUBGRADE - LBR 40
ALTERNATE BASE / SUB BASE SECTION -13.5" LIMEROCK BASE, PLACED IN TWO LIFTS, COMPACTED TO 98% AASHTO T-180 METHOD

4' PAVED SHOULDER (TYP)
1" A.C.S.C. - TYPE S1
4" LIMEROCK BASE - COMPACTED TO 98% AASHTO T-180 METHOD - LBR 100

WATER MAIN 2' FROM EDGE OF SIDEWALK MIN 48" DEEP

GENERAL NOTE:

DESIGN SPEED, RIGHT-OF-WAY, AND ROADSIDE DIMENSIONS ARE MINIMUMS. SITE CONDITION MAY REQUIRE INCREASES.

* VARIANCE IN HORIZONTAL DESIGN SPEED ALLOWED WITH JUSTIFICATION AND APPROPRIATE SIGNAGE

** SIDEWALKS IF APPLICABLE

ALL DIMENSIONS & LABELS ARE TYPICAL AND SHOWN IN FEET UNLESS OTHERWISE NOTED

TITLE: ROADWAY STANDARD
MAJ COLLECTOR ROAD/4 LANE-OPEN DRAINAGE

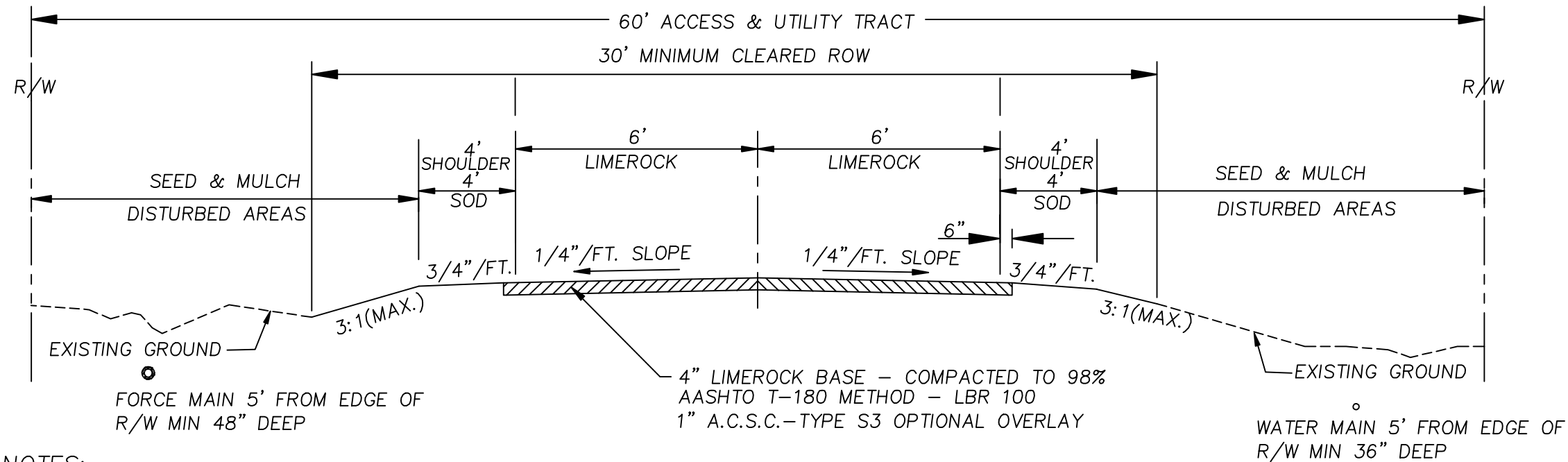
APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
ND: IV-14

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CLASS C SUBDIVISION ROAD 10 LOTS AND UNDER – OPEN DRAINAGE

DESIGN SPEED = 30 M.P.H. MIN.



GENERAL NOTES:
DESIGN SPEE, RIGHT-OF-WAY, AND ROADSIDE DIMENSIONS ARE
MINIMUMS. SITE CONDITIONS MAY REQUIRE INCREASES.

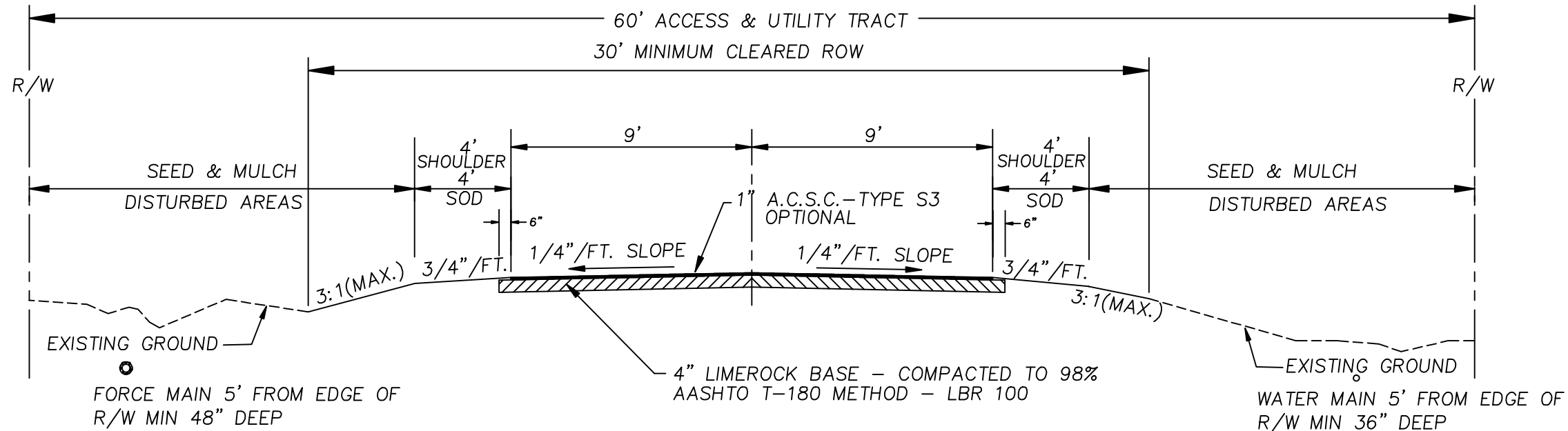
ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED

TYPICAL SECTIONS

NOT TO SCALE

CLASS B SUBDIVISION ROAD OVER 10 BUT LESS THAN 50 LOTS – OPEN DRAINAGE

DESIGN SPEED = 30 M.P.H. MIN.

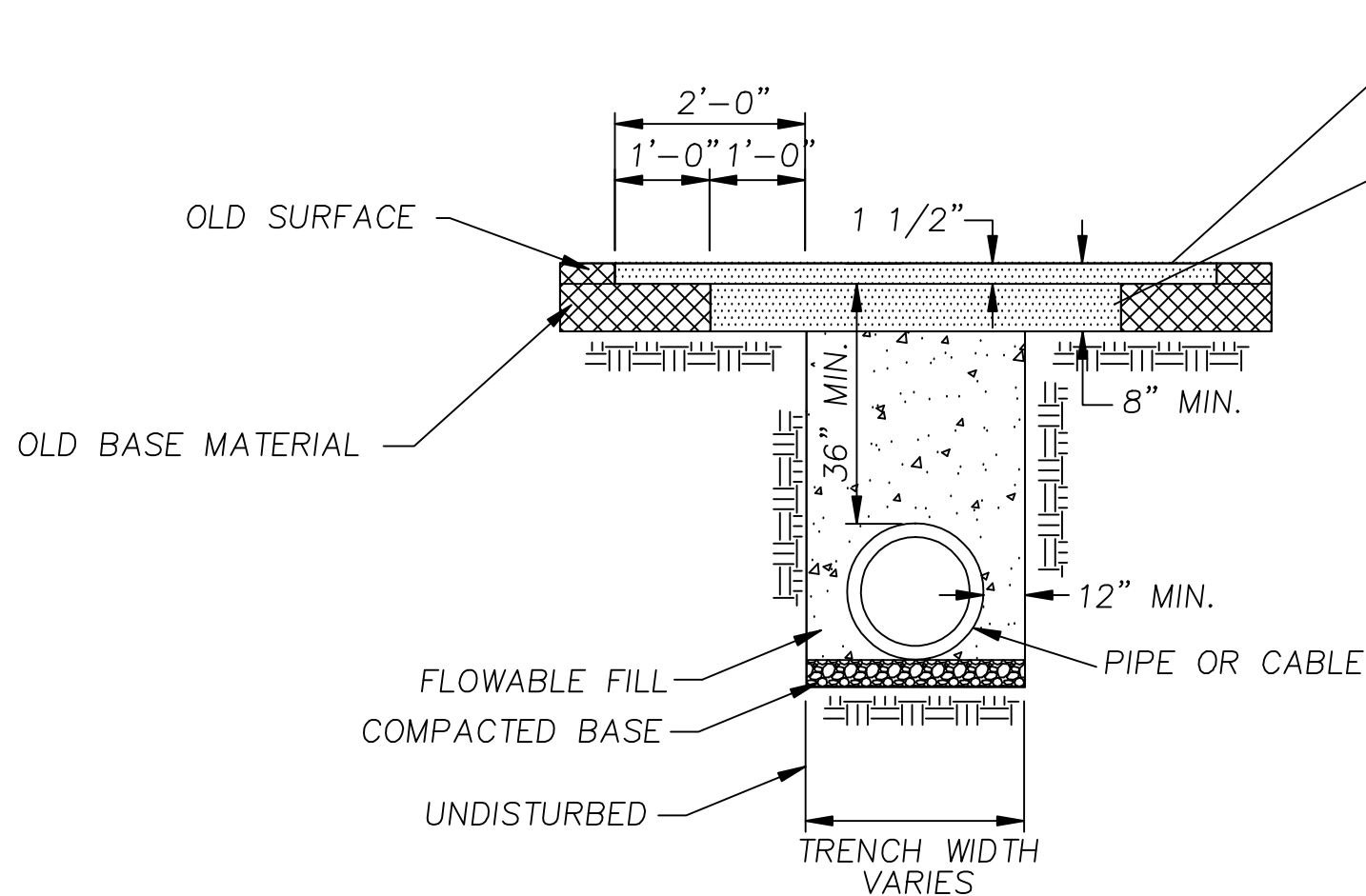


TITLE: ROADWAY STANDARD
CLASS B/C SUB DIV. ROADS

APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
NO.: IV-15

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TYPICAL ROAD CUT
ASPHALT CONCRETE SURFACE



NEW SURFACE, TYPE S-1
ASPHALT CONCRETE

NEW BASE MATERIAL

GENERAL NOTES:

1. Place 3' of flowable fill, min 500 PSI at 48 hours, above the pipe, for compaction reasons. If the pipe is less than 3' from top of pavement, fill the Flowable Fill to the bottom of pavement, then pave over after it settles. If the pipe is deeper, place the 3' of flowable fill and then lime rock to the bottom of asphalt, with compaction every 6". The Flowable Fill shall extend 1' on the sides of the pipe. It shall extend 1' beyond the pavement, (not the length of the pipe).
2. Base replacement shall be flowable fill, min 800 PSI at 28 days, non-excavatable, as approved by the County Engineer.
3. Minimum Asphaltic Concrete surface thickness is 1 1/2" of type S-1 over the cut area in one layer.
4. All surface joints shall be mechanically saw cut.
5. RC-70 or equivalent liquid asphalt shall be added to all surface joints to form seal.
6. Pavement restoration is typical for large diameter pipes.
7. Variances to these pavement restorations may be requested from the County Engineer.

SPECIAL NOTE:

REFER TO ROADWAY AND TRAFFIC DESIGN STANDARDS, TRAFFIC CONTROL THROUGH WORK ZONES SECTION FOR PLACEMENT AND TYPE OF TRAFFIC CONTROL DEVICES THAT MUST BE UTILIZED DURING CONSTRUCTION.

TITLE: ROADWAY STANDARD
PAVEMENT RESTORATION

APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
NO.: IV-16

HERNANDO COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
1625 E. JEFFERSON ST.
BROOKSVILLE, FLORIDA 34601
PH. (352)754-4062 FAX. (352)754-4423

GENERAL ALIGNMENT

In the design of roadway curves, it is necessary to establish a proper relationship between curvature of the roadway and its design speed.

Sharp horizontal or vertical curvature should not be used in the following locations:

- At or near a crest in grade;
- At or near a low point or sag in grade;
- At the end of long tangents;
- At or near intersections.

Note that good roadway alignment shall include proper roadside design including: shoulders, front and back slopes, clear zone, and the treatment of all other features located within the right-of-way.

HORIZONTAL ALIGNMENT

Table 1, provides the centerline radius for various design speeds for roadways designed using a "normal" crown (+2% / -2%).

The use of superelevation may be employed to counteract centrifugal force and allow drivers to comfortably and safely travel through curves of a sharper design.

Superelevation design shall be accomplished per the FDOT Greenbook & Design Standards (Index), latest editions.

VERTICAL ALIGNMENT

Changes in grade shall be connected by a parabolic curve. Vertical curves are required when the algebraic difference of intersecting grades exceed the values given in Table 2.

The minimum length of a vertical curve is obtained from calculations using the "K" values in Table 3.

Vertical curve length shall not be less than three (3) times the design speed of the roadway.

RESIDENTIAL ACCESS LOOPS

The use of one or two way access loops, partial cul-de-sacs, (also referred to as "eyebrows", "bulb-outs", "bulges") or other means to provide additional pavement on horizontal or vertical curves is not allowed.

SEE GUIDELINES IV-04 THROUGH IV-12 FOR DETAILS OF SPECIFIC ROADWAY SECTION INFORMATION.

Table 1
HORIZONTAL CURVATURE w/ NORMAL CROWN (+2%/-2%)

V (MPH)	COLLECTOR		RESIDENTIAL	
	f	RADIUS	f	RADIUS
15	[Hatched Area]		0.380	50'
20			0.300	95'
25			0.260	180'
30			0.220	300'
35	0.200	450'	[Hatched Area]	
40	0.175	690'		
45	0.145	1080'		
50	0.140	1390'		
55	0.135	1750'		
60	0.130	2180'		

f = Coefficient of Friction

HORIZONTAL CURVE FORMULA

$$R = \frac{V^2}{15(e+f)}$$

- R = Radius (in feet)
- V = Velocity (MPH)
- e = Superelevation Rate (%)
- f = Coefficient of Friction

Table 2
MAX CHANGE IN GRADE w/o USING VERTICAL CURVE

Design Speed (MPH)	20	25	30	35	40	45	50	55	60
Max Change in % Grade	1.2	1.1	1.00	0.90	0.80	0.70	0.60	0.50	0.40

Table 3
MINIMUM LENGTHS FOR VERTICAL CURVES

Design Speed (MPH)	L = KA									
	L=Length of Vertical Curve					A=Algebraic Difference of Grades in Percent				
K Value - Crest Curves	20	25	30	35	40	45	50	55	60	
K Value - Sag Curves	10	19	31	47	70	98	136	185	245	
	17	26	37	49	64	79	96	115	136	

TITLE: ROADWAY STANDARD
HORIZONTAL AND VERTICAL ALIGNMENT
APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
NO.: IV-17

HERNANDO COUNTY
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Projects generating 50 or more PM Peak Hour, or Peak Hour of the generator trips, are required to submit two (2) copies of a traffic access analysis, signed and sealed by a Florida Professional Engineer. The traffic analysis is utilized to review operational issues by the Engineering Division, and concurrency issues by the Planning Department. The methodology outlined below can be utilized for both purposes; however, be advised a separate application and copy of the study must be submitted to the Planning Department for purposes of concurrency review.

METHODOLOGY DEVELOPMENT:

-Project information:

- a. site location, & roads to access (e.g. NW corner of US41 & CR574 with access on each).
- b. proposed land use & size (e.g. Medical Office, 30,000 S.F.).
- c. proposed phasing, if any;
- d. build-out date (e.g. 2010).
- e. developer and consulting engineer's names and numbers

-Identify access types and locations (e.g. full access driveway at median opening on Broad Street)

-Identify roadways, frontage roads, intersections, immediate impacted intersections, and adjacent roadway segments defined as roadways impacted by the project at 4.5% of the LOS 'D' Peak Hour service volume (County roads) or LOS 'C' Peak Hour for State roads.

-Define time frames of analysis (i.e. AM Peak, PM Peak, Peak Hour of Generator for Church, School, Theater).

-Define trip generation rates (i.e. ITE Trip Generation Manual, 7th ed., land use and code for daily, AM, and PM Peak Hours).

-Identify trip distribution methodology and percentages (e.g. gravity model with 40% via west, 60% viz east).

-Identify data sources (e.g. consultant Peak Hour turning movement counts).

NOTE: All traffic data used for analysis shall be within 12 months of age.

NOTE: Consultant may submit, at his/her own risk, completed Traffic Access Analysis without methodology approval.

ANALYSIS SUBMITTAL:

-ANALYSIS TO BE A NARRATIVE REPORT WITH SUPPORTING DATA IN APPENDICES (with computer analysis on CD).

- Cover sheet, Table of Contents, and List of Figures, Tables, and Exhibits.
- Introduction / project description including location map and preliminary site plan.
- Trip generation for Daily, AM, and PM, per land uses and sizes, per ITE, with table when multiple land uses on site.
- Pass-by trip reduction, if justified, is not to exceed 10% of adjacent street. Internal capture per ITE worksheets.
- Provide listing and map of facilities to be studied (using 4.5% of LOS 'C' or 'D' Peak Hour service volume).
- Identify method and percentages of distribution of project trips, and assign on schematic map.
- Acquire traffic signal timings from Engineering Division. Timings cannot be altered without written approval.
- Provide LOS analysis of existing facilities in study area using FDOT Tables & HCS+, then Synchro, if desired.
- Identify growth traffic and vested traffic volumes, and add to existing volumes to provide background traffic.
- Provide LOS analysis of future conditions in study area using FDOT Tables & HCS+, then Synchro, if desired. (provide schematic map that shows background traffic, project trips, and total traffic for each facility movement)
- Identify movements of deficient capacity, and if any, mitigating measures.
- Provide analysis of justification (or non-justification) for left and right turn lanes for all project access points and deficient intersection movements, using Harmelink warrants or AASHTO Exhibit 9-75.
- Provide turn lane calculations per Hernando County Guidelines for all justified turn lanes.
- Provide LOS analysis of proposed improvements, if any, using FDOT Tables & HCS+, then Synchro, if desired.
- Provide LOS comparison table of existing, future, and improved traffic conditions for all facilities.
- Provide study conclusion that summarizes the project, its impacts on capacity, and mitigating improvements.
- Appendixes include: conceptual site plan, traffic volumes and turning movements including adjustments, roadway, intersection, and driveway capacity analysis worksheets, turn lane justification worksheets, and traffic signal warrant analysis, where applicable.

Note: Traffic Access Analysis needs to address truck and pedestrian access, where applicable.

APPROVAL STATEMENT:

-Confirms Staff approval of submitted Traffic Access Analysis.

DEFICIENCY STATEMENT:

-Provides Staff questions, concerns, or disputes for submitted Traffic Access Analysis.

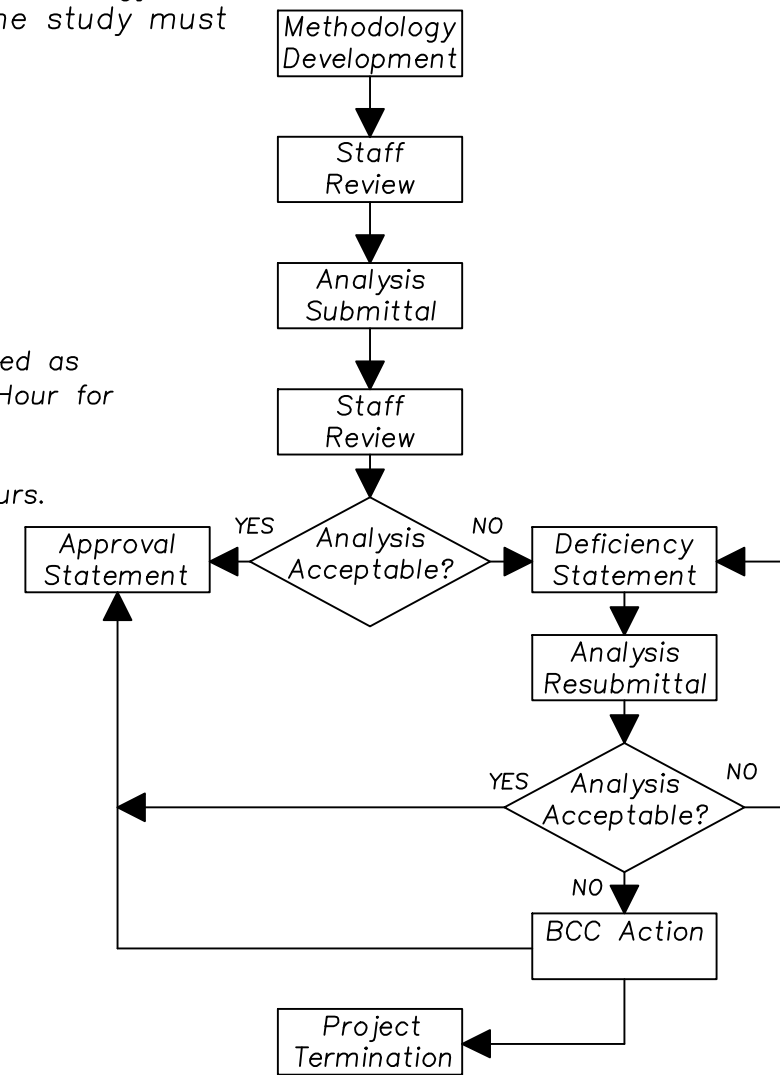
ANALYSIS RESUBMITTAL:

-The re-submittal of the Traffic Access Analysis with alterations / additions resultant from the Deficiency Statement.

BOCC ACTION:

-Provides developer a forum to appeal staff final denial.

Hernando County may require specific access, capacity, operational, and/or safety improvements or analysis in association with a proposed project, irrespective of the conclusions derived from the submitted Traffic Access Analysis.



NOTE 1: Traffic Access Analysis may be for ultimate project or immediate planned phases. HOWEVER, if phased, subsequent phases will require a new analysis, and may necessitate reconstruction of originally constructed improvements.

NOTE 2: Project design may be concurrent with review of the Traffic Access Analysis, HOWEVER, strictly at the Developer's risk. Site layout, access types and locations, roadway improvements, and drainage MAY ALL require major revisions.

TITLE: ROADWAY STANDARD
TRAFFIC ACCESS ANALYSIS

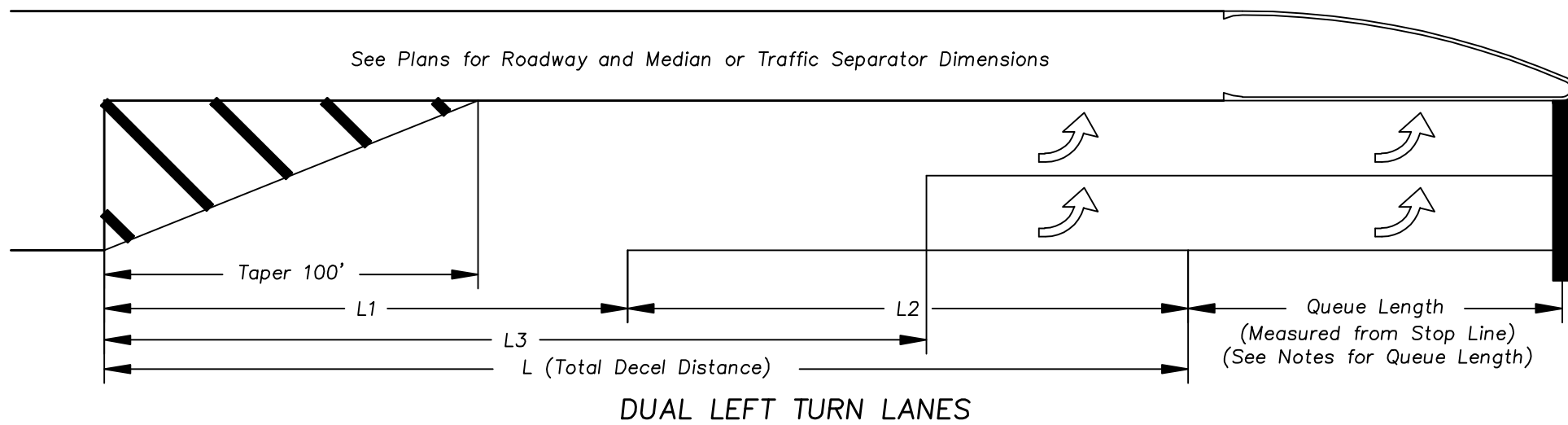
NO.: IV-18

DATE: 10-01-08

APPROVED BY:
C. G. MIXSON, P.E.

**HERNANDO COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION**

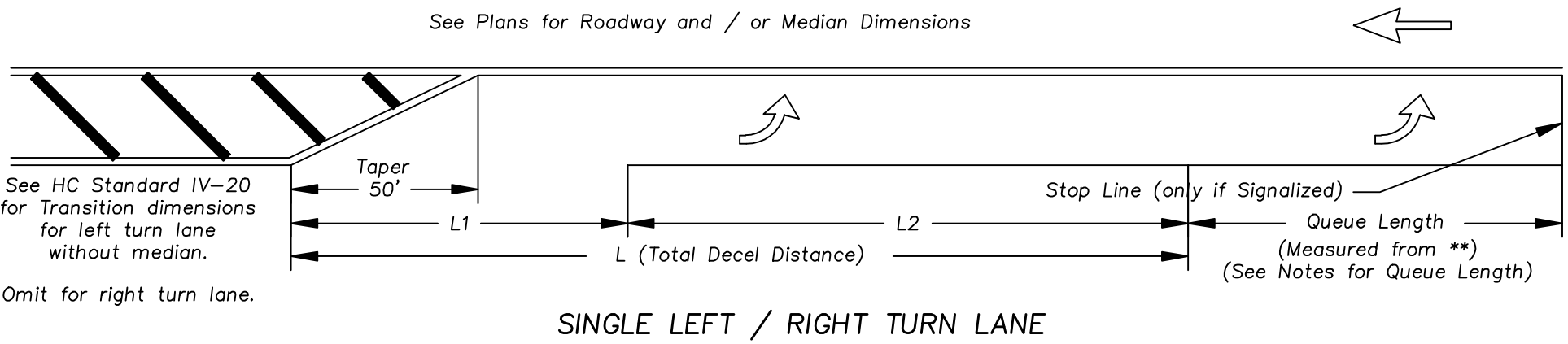
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QUEUE LENGTH NOTES:

1. Minimum Queue Length required for left turn lane is 100' and right turn lane is 25', dependent on analysis (See note 2).
2. Queue Length shall be determined from generated volumes from Traffic Impact analysis, and shall be approved by the County Engineer.
3. Peak 15 minute volumes of peak hour will be calculated for generators with scheduled times.
4. Queue Length Formulas:
 Non-signalized $QL = V(0.8332)$
 Signalized $QL = [2.0 * 25 * V] / 40$
 V = volume: per note 2 & 3 above
 2.0 = 90th %tile randomness factor
 25 = length of queued vehicle
 40 = default cycles per hour (@ 90 second signal cycle)

** Queue Length is measured from control radius, median nose, or stop line (if signalized).



Omit for right turn lane.

GENERAL NOTES:

- The dimensions listed are minimums, and greater dimensions may be required by the County Engineer.
- See plans for roadway construction dimensions.
- See FDOT Index No. 17346 for pavement marking information.
- Milling and / or an overlay course of asphalt may be required for the project's limits associated with pavement widening.
- Existing paved shoulders shall be retained in any turn lane construction.
- All disturbed areas of the public right of way shall require sodding.

Design Speed (MPH)	Clearance Distance	Brake to Stop Distance	Total Decel Distance	Clearance Distance 2	Conditions
	L1	L2	L	L3	
30	70'	75'	145'	110'	URBAN
35	70'	75'	145'	110'	
40	80'	75'	155'	120'	
45	85'	100'	185'	135'	
50	105'	135'	240'	160'	RURAL
55	125'	225'	350'	195'	
60	145'	260'	405'	230'	

This standard is based on FDOT Index No. 301, 2004 edition.

DESIGN NOTES:

- Basis for turn lane distances:
- * informed driver
 - * stop condition (with or without stop control)
 - * wet pavement
 - * reaction preceding entry
 - * maximum safe deceleration rates for urban condition
 - * comfortable deceleration rates for rural condition

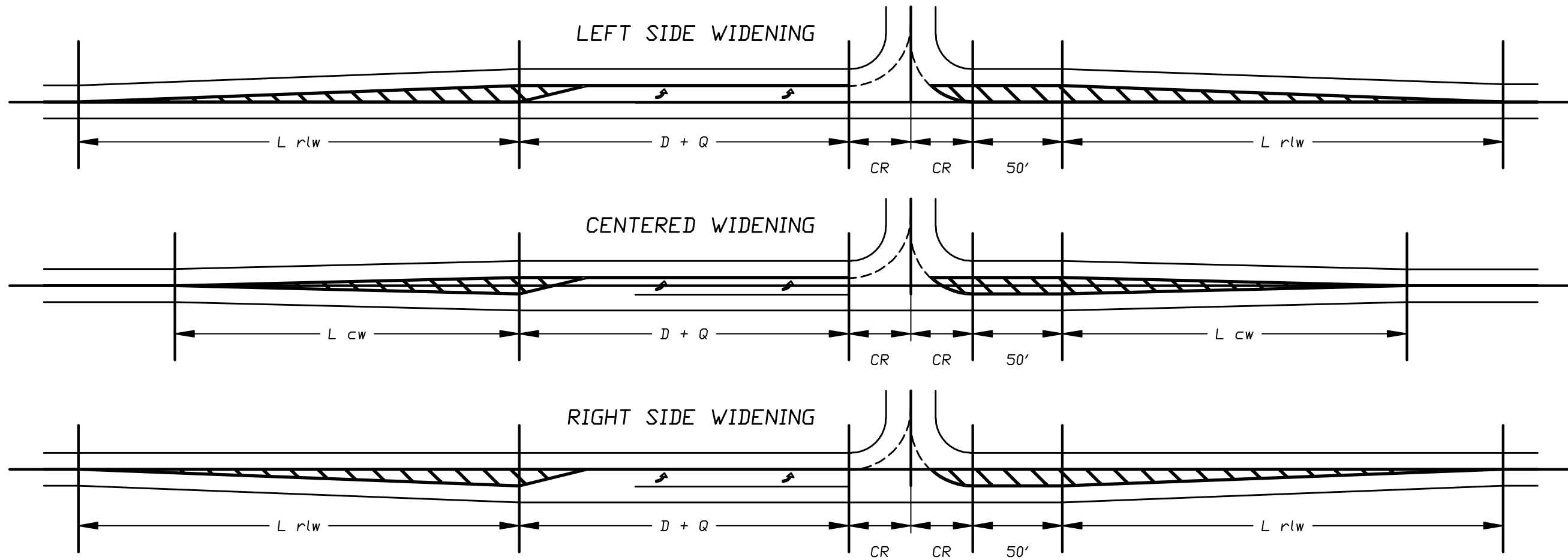
TITLE: ROADWAY STANDARD
TURN LANES

APPROVED BY: C. G. MIXSON, P. E.

DATE: 10-01-08

NO.: IV-19

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GENERAL NOTES:

- Mirror design for cross or opposing side street intersections.
- See County Standard IV-19 for deceleration and queue lengths.
- The dimensions listed are minimums, and greater dimensions may be required by the County Engineer.
- See plans for roadway construction dimensions.
- See FDOT Index No. 17346 for pavement marking information.
- Milling and / or an overlay course of asphalt may be required for the project's limits associated with pavement widening.
- Roadways with paved shoulders existing will require their replacement.
- Truck (WB-40 or greater) turning volumes exceeding 25 per day will require review for accel tapers and increased inside corner radii.
- All disturbed areas of the public right of way will require sodding.
- See FDOT Index No. 526 for other transition information.

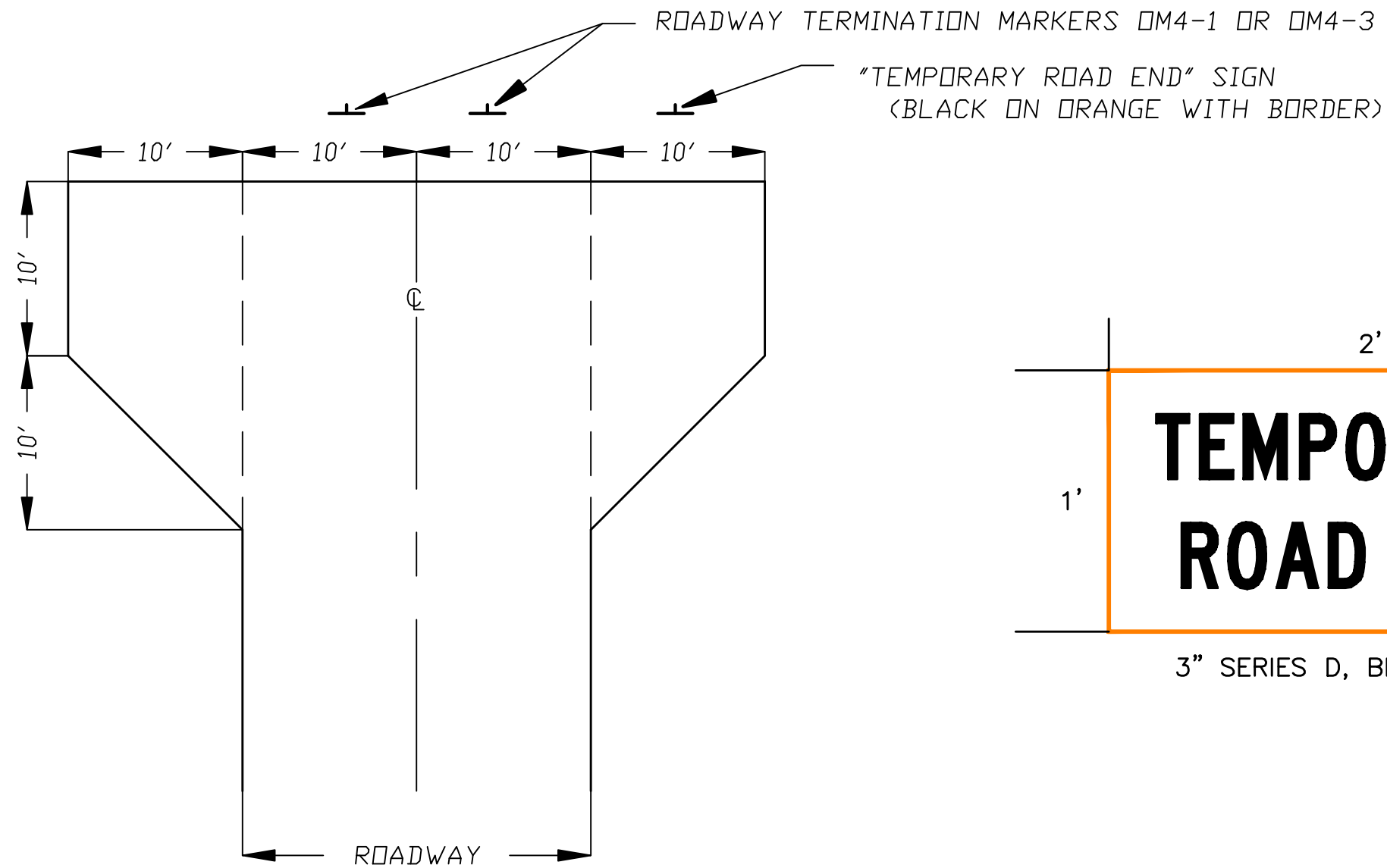
Design Speed (MPH)	Centered Widening	Right & Left Side Widening	Decel & Queue Length	(Minimum) Control Radius
	L_{cw}	L_{rlw}	$D+Q$	CR
30	180'	180'	IV-21	40'
35	210'	250'	IV-21	40'
40	240'	320'	IV-21	40'
45	290'	410'	IV-21	50'
50	360'	500'	IV-21	50'
55	420'	610'	IV-21	60'
60	480'	720'	IV-21	60'

This standard modifies FDOT Index No. 526, 2000 edition.

TITLE: ROADWAY STANDARD
ROADWAY TRANSITIONS

APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
NO.: IV-20

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NOTES:

- Turn arounds shall be constructed per the same section dimensions as the roadway on which they are constructed.
- Drainage around the wings shall be addressed on a site specific basis.
- Roadway termination markers and "NO OUTLET" signage may be required.
- "TEMPORARY ROAD END" sign shall be required if turn around is temporary and located in a subdivision.

TITLE: ROADWAY STANDARD
HAMMER HEAD TURN AROUND

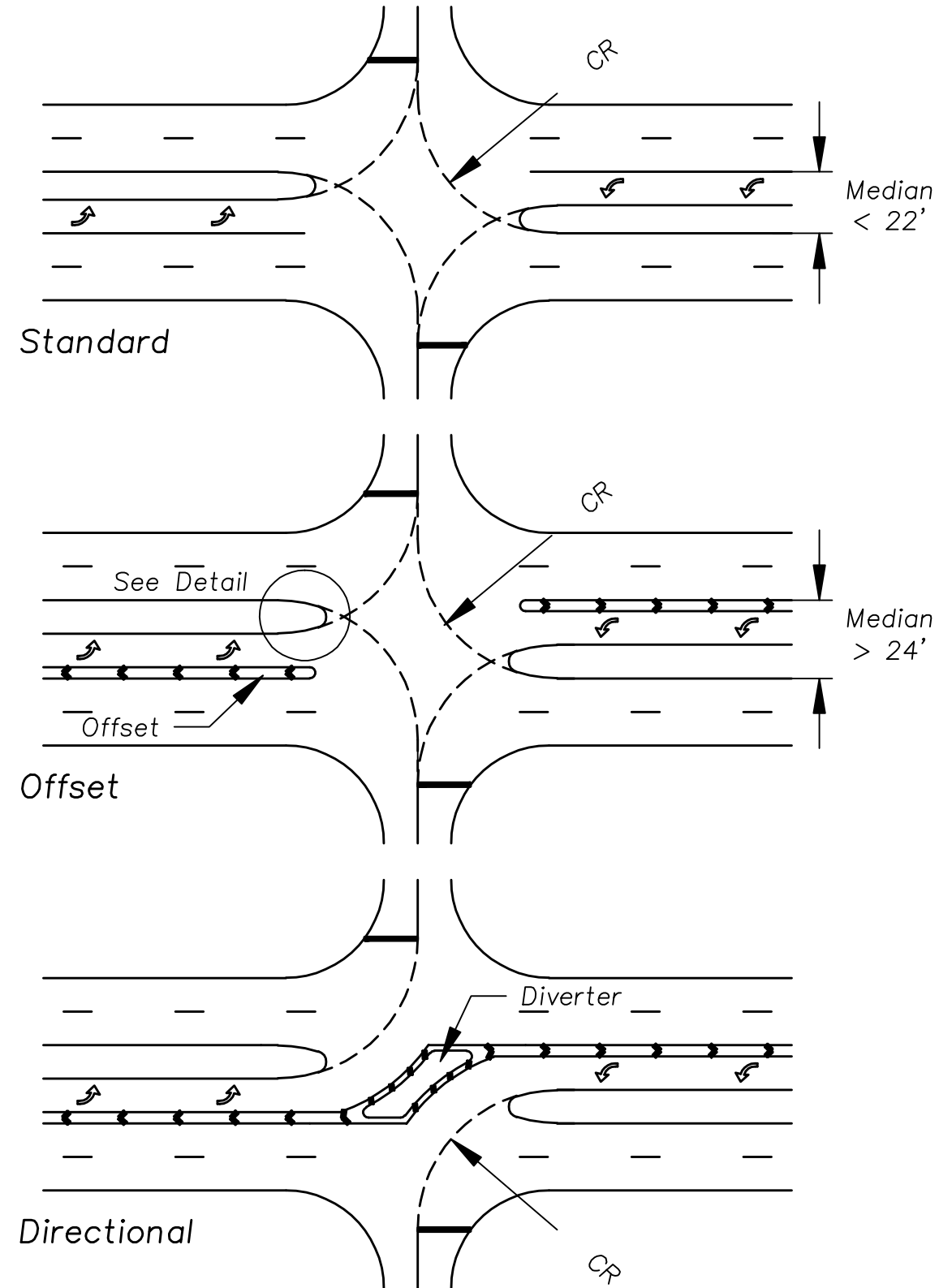
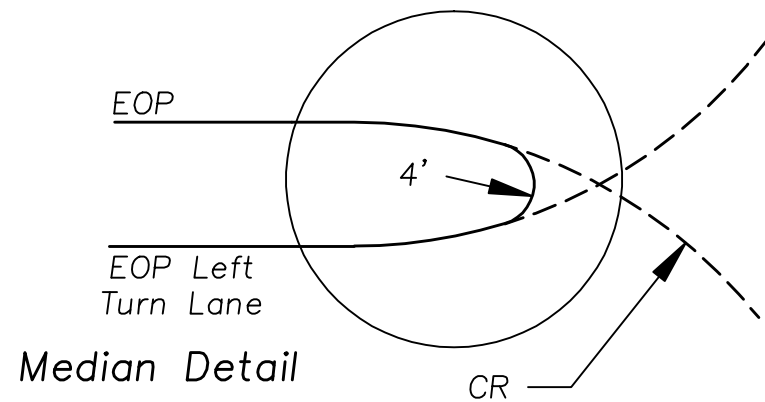
APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
NO.: IV-21

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General Notes . . .

1. All new median opening locations shall be approved by the County Engineer.
2. Left turn lanes are required with all new median openings.
3. Directional median openings (left-in only) may be required for safety / access management.
4. Left turn lanes may be required to be offset to provide for appropriate sight distance.
5. Truck (WB-40 or greater) turning volumes of five (5) or more per day requires review for accel tapers and larger sized radius returns.
6. The dimensions shown herein are minimums, and greater dimensions may be required by the County Engineer.
7. The installation of curbing or curb and gutter shall be located within the stated control radius and / or radius return.
8. Designs of greater than 45 MPH requires Type E curb and gutter. Non-mountable curbs are not allowed.
9. Concrete divider should be located 2 ft outside of a travel way.
10. The travel way width within a turning radius shall be 16 feet.
11. See FDOT Index No. 302 for concrete separators.
12. See Guideline IV-19 for left turn lanes.

Design Speed (MPH)	(Minimum) Control Radius
	CR
30	40'
35	40'
40	40'
45	50'
50	50'
55	60'
60	60'

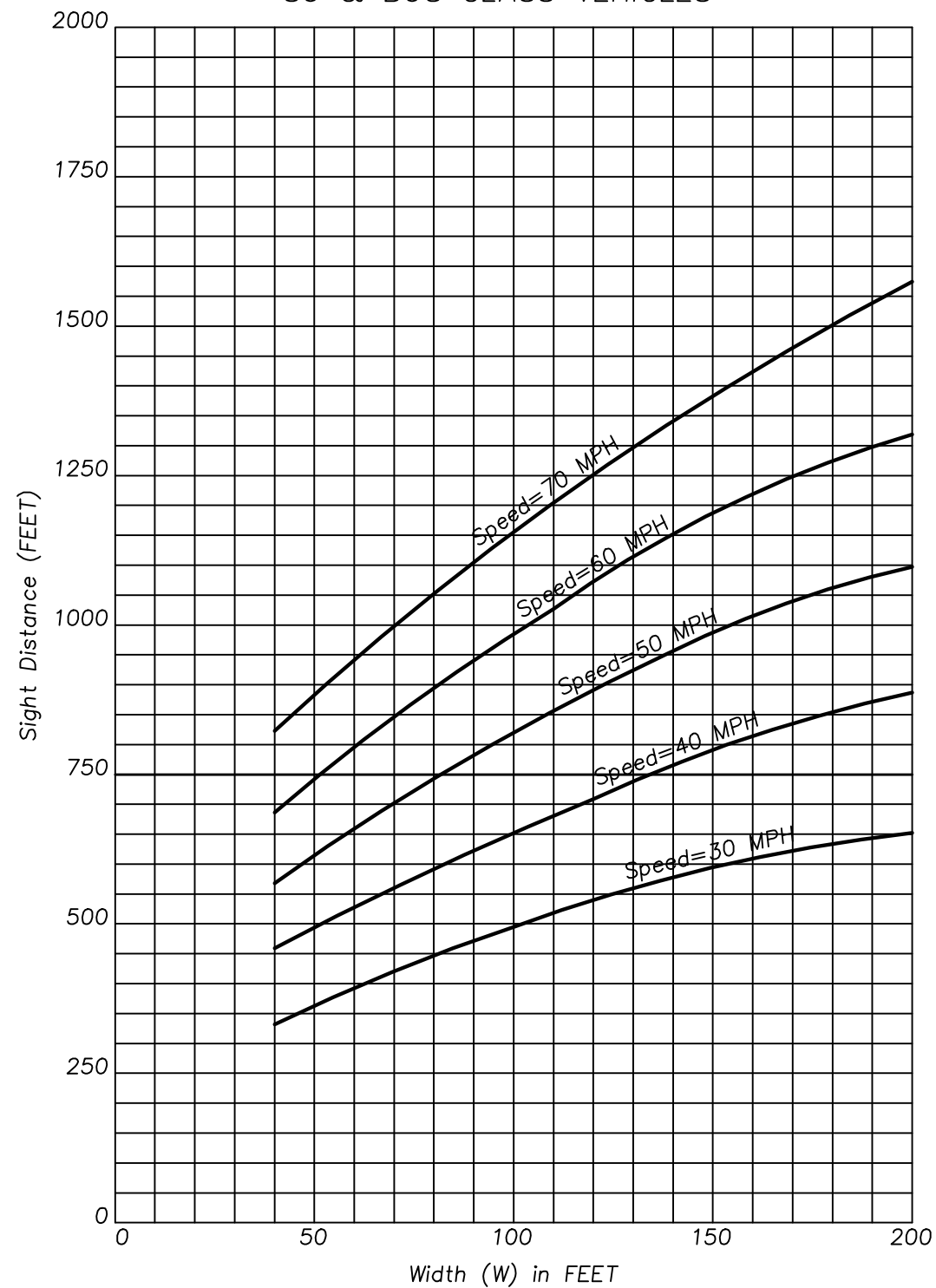


TITLE: ROADWAY STANDARD
MEDIAN OPENINGS

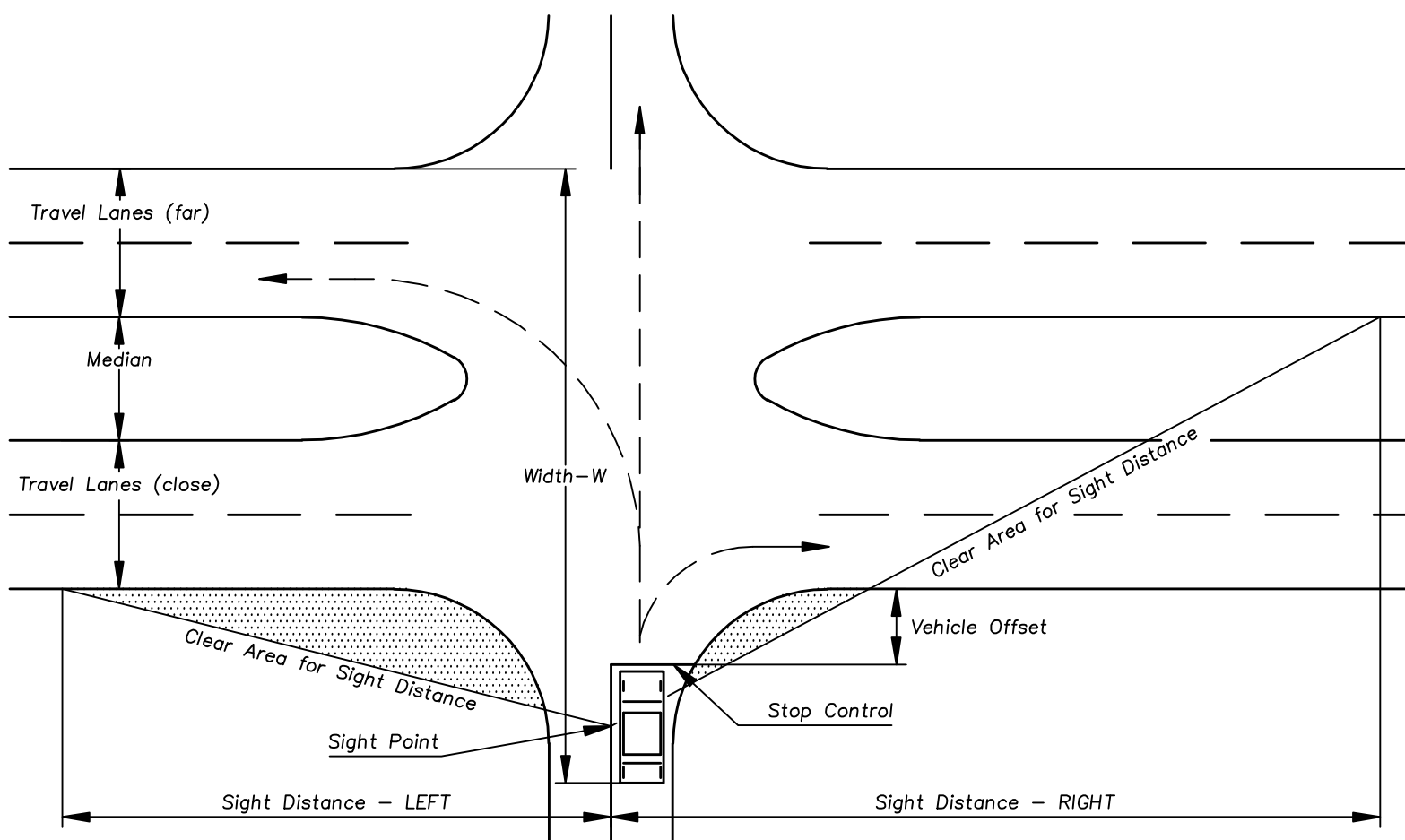
APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
NO.: IV-22

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SIGHT DISTANCE FOR CROSSING MANEUVER
(Effect of grade not included)
SU & BUS CLASS VEHICLES



INTERSECTION CONFIGURATION



PROCESS:

- * Determine crossing width by formula: $W = TLF + M + TLC + VO + V$
- * Locate design speed curve on graph (left) and width (W) from formula then plot sight distance.
If design speed unknown, round posted speed up 5 MPH. Round odd numbered speed limits up 5 MPH.
- * TLF=Travel Lanes (far); M=Median; TLC=Travel Lanes (close); VO=Vehicle Offset; V=Vehicle Length.
- * Default Values: Vehicle Length=40'; Vehicle Offset=15'; Sight Point=20'.

GENERAL NOTES:

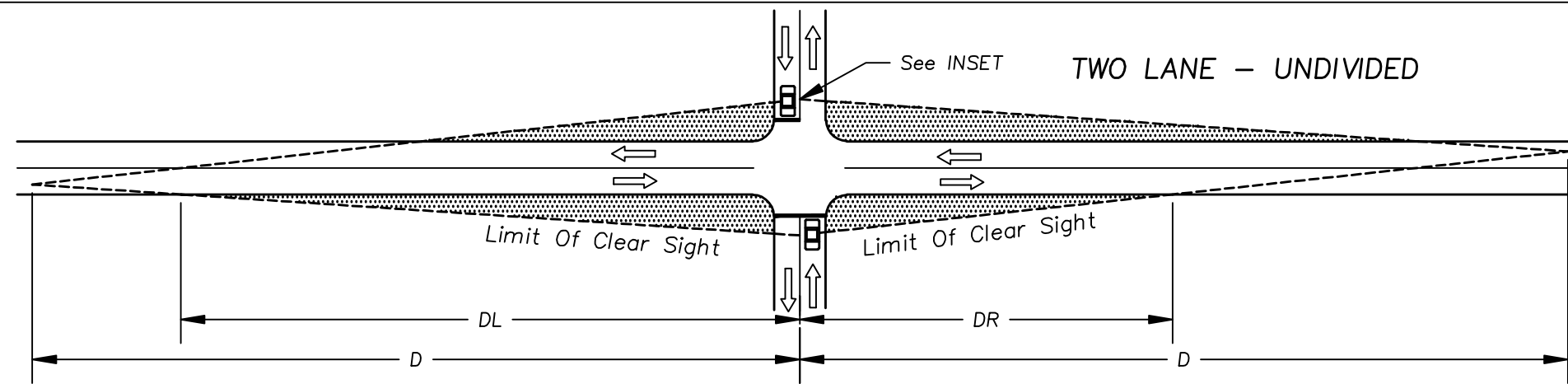
- Criteria from FDOT Greenbook, 2000 edition; Chapter 3.9.b, and Figures III-9, III-10, & III-11.
- Minimum Country design standard based on crossing maneuver, SU & BUS class vehicles.
WB class vehicle chart (figure III-10) to be used where volume exceeds 25 crossings per day.
- The dimensions listed are minimums, and greater dimensions may be required by the County Engineer.
- This standard does not account for the effects of grade or horizontal curvature.
- See plans for roadway construction dimensions.
- See FDOT Index No. 17346 for pavement marking information.
- Truck (WB-40 or greater) turning volumes exceeding 25 per day will require review for accel tapers and increased inside corner radii.
- Sight Distance - LEFT or RIGHT is the same, and is designated for site reference purposes only.

TITLE: ROADWAY STANDARD
INTERSECTION SIGHT DISTANCE

APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
NO.: IV-23

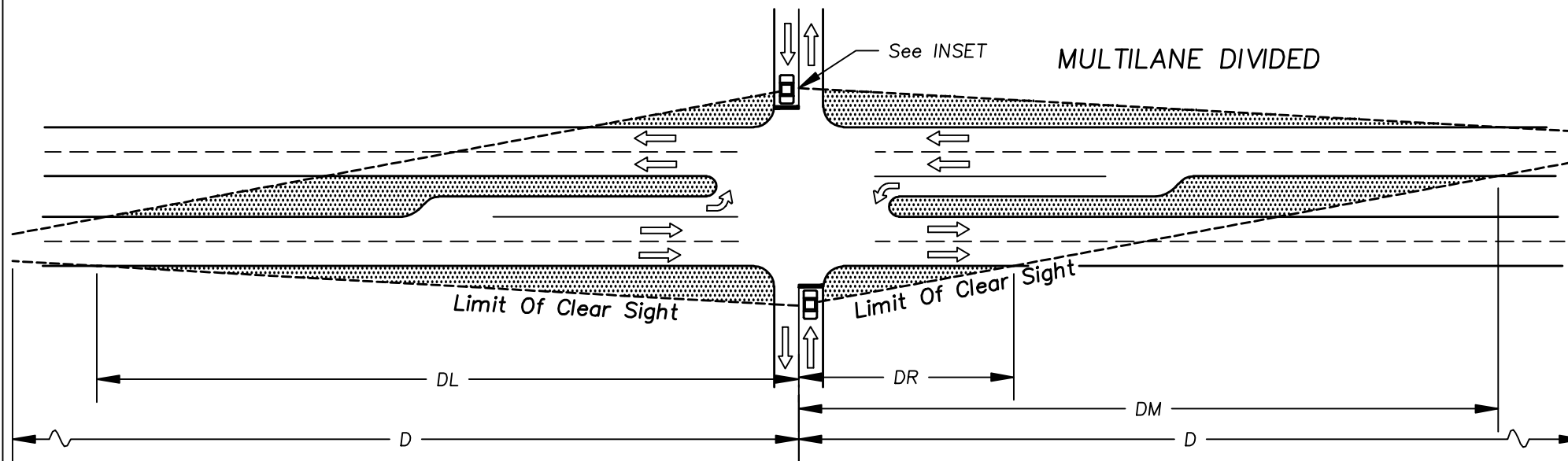
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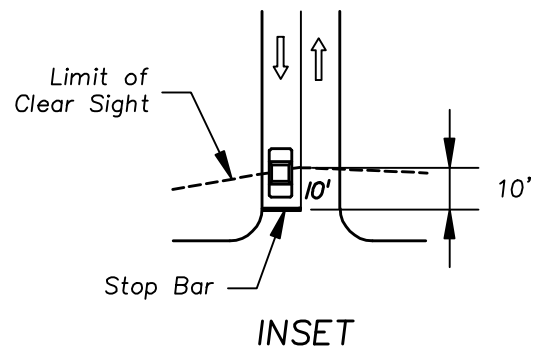
Design Speed (MPH)	D	DL	DR
30	380'	290'	200'
35	470'	370'	250'
40	580'	450'	310'
45	710'	550'	380'
50	840'	650'	450'
55	990'	760'	520'
60	1150'	890'	610'

This standard is based on FDOT Index No. 546.



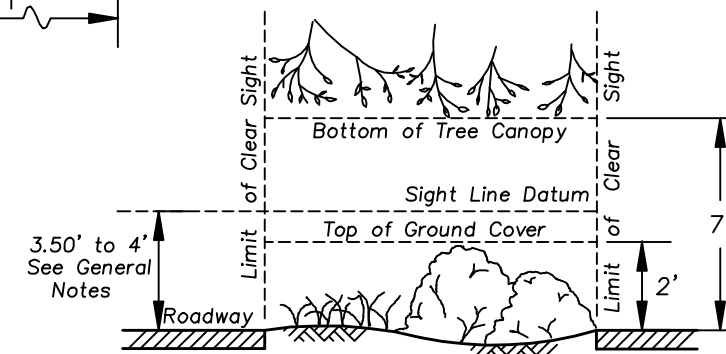
Design Speed (MPH)	D	DL	DR	DM
30	380'	290'	120'	300'
35	470'	370'	150'	370'
40	580'	450'	180'	460'
45	710'	550'	220'	560'
50	840'	650'	260'	670'
55	990'	760'	300'	780'
60	1150'	890'	360'	910'

This standard is based on FDOT Index No. 546.



GENERAL NOTES:

- The limits of clear sight define a corridor through which a clear sight window must be preserved. See WINDOW DETAIL.
- Clear sight is provided by a sight line originating 3.5' above the pavement at drivers eye level and ending 4' above the pavement at the vehicle observed.
- The corridor defined by the limits of clear sight is a restricted planting area.
- See Hernando County Landscaping Guidelines for planting types and spacing.
- Plants shall never obscure traffic signs or signals.
- If landscaping interferes with the line of sight prescribed by these standards the County Engineer may rearrange, relocate, or eliminate plantings.
- See plans for roadway construction dimensions.
- See FDOT Index No. 17346 for pavement marking information.



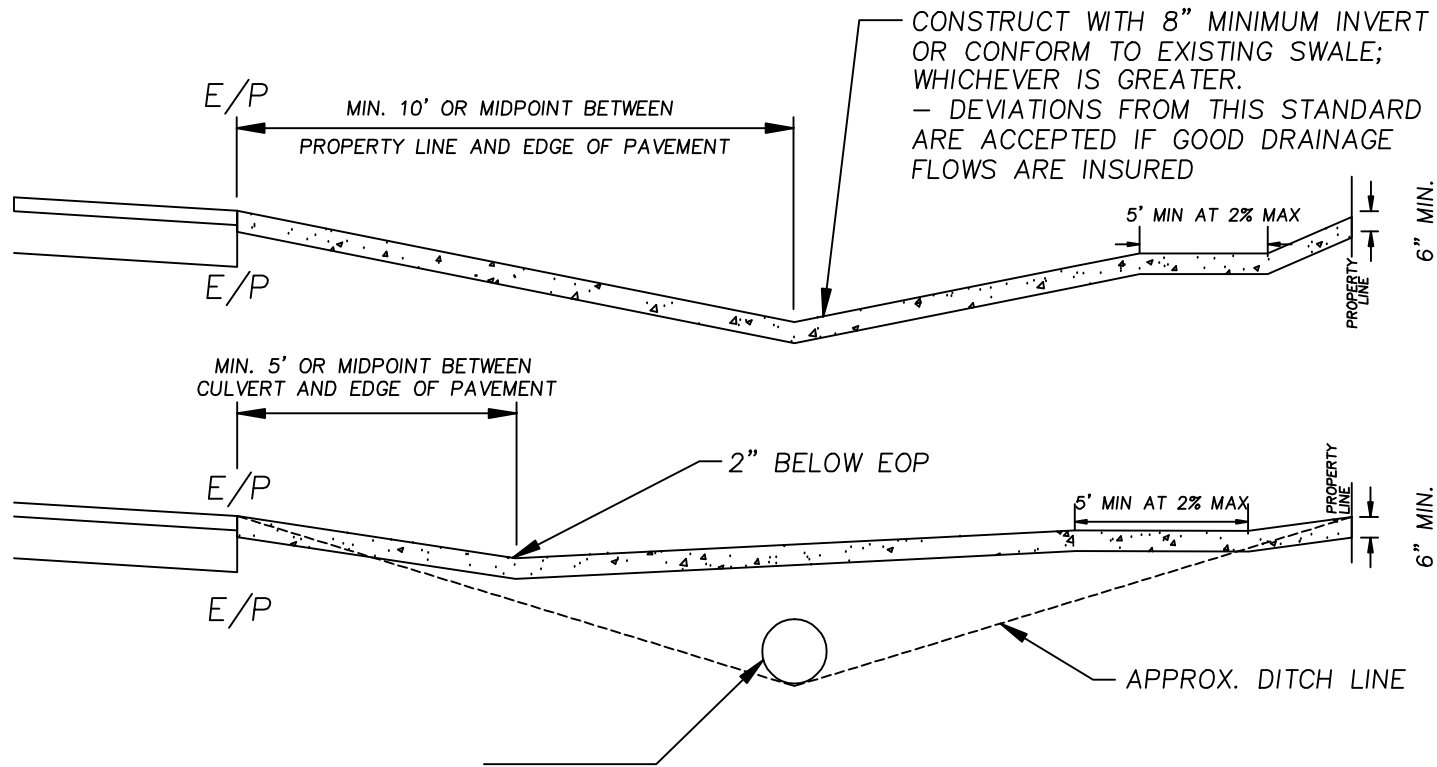
The intent of this standard is to provide a window with vertical limits 3' above and 1' below the sight line datum, and the horizontal limits defined by the limits of clear sight.

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TITLE: ROADWAY STANDARD
 INTERSECTION LANDSCAPING

APPROVED BY: C. G. MIXSON, P.E.
 DATE: 10-01-08
 ND.: IV-24

COMMERCIAL DRIVEWAY CONNECTION SECTIONS



DRIVEWAYS FOR LOTS OVER 150' DEEP WILL NOT EXCEED 5% SLOPE. DRIVEWAYS FOR LOTS UNDER 150' DEEP WILL NOT EXCEED 12%. DRIVEWAYS WITH SIDEWALKS WILL HAVE A MIN 5' SIDEWALK NOT TO EXCEED 2% CROSS SLOPE.

CULVERT SIZE & TYPE TO BE DETERMINED BY PUBLIC WORKS PERMITTING; MINIMUM CULVERT SIZE 15" OR EQUIVALENT (SEE COMPARISON CHART BELOW).

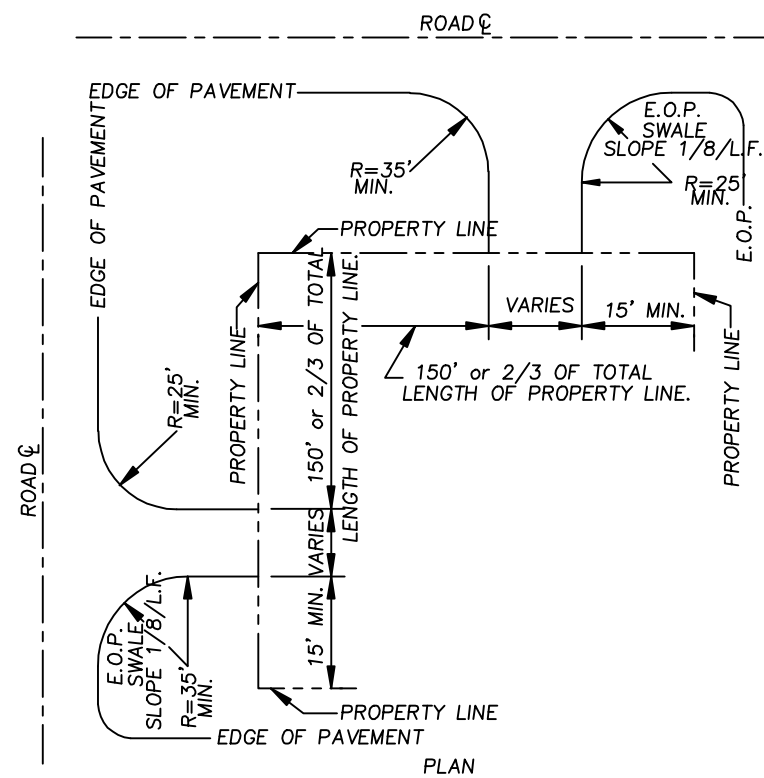
CULVERT SIZE CHART	
ROUND	OVAL
15"	12" x 18"
18"	14" x 23"
24"	19" x 30"

DRIVEWAY WIDTH OPTIONS PER ROADWAY:

- ONE VEHICULAR ACCESS ONLY, NOT TO EXCEED FORTY (40) FEET IN WIDTH FOR A TWO LANE DRIVEWAY.
- ONE VEHICULAR ACCESS POINT, NOT TO EXCEED SIXTY (60) FEET IN WIDTH FOR A FOUR LANE DRIVEWAY.
- TWO VEHICULAR ACCESS POINTS, NOT TO EXCEED TWENTY-FOUR (24) FEET IN WIDTH EACH.
- ALL DRIVEWAYS SHALL BE A MINIMUM OF 24 FEET WIDTH.

GENERAL NOTES:

- ALL RIGHT-OF-WAY FRONTING THE EDGE OF PAVEMENT SHALL BE SODDED.
- WHEN THE PERMITEE'S PROPERTY ABUTS A DRAINAGE RIGHT-OF-WAY OR A COUNTY LAKE, SUFFICIENT VEGETATION MUST BE UTILIZED TO CONTROL EROSION IF THE AFOREMENTIONED AREA IS DISTURBED BY REGRADING, SOD MUST BE UTILIZED TO CONTROL SUBSEQUENT EROSION.
- ALL WORK TO BE COMPLETED PRIOR TO ISSUING A CERTIFICATE OF OCCUPANCY, UNLESS AN EXTENSION IS GRANTED BY THE BUILDING DEPARTMENT.
- DRIVEWAYS CONSTRUCTED ON UNPAVED STREETS WILL TERMINATE 7' OFF THE GRADED WAY, AND AREA BETWEEN DRIVEWAY AND ROAD TO BE STABILIZED WITH A MINIMUM OF 6" LIMEROCK.
- DRIVEWAY PROFILES TO BE SHOWN ON PLANS.
- USE HERNANDO COUNTY STANDARD ASPHALT OR CONCRETE DETAILS FOR MATERIALS FOR DRIVEWAYS. MINIMUM THICKNESS IS 6", DETERMINED BY THE PROJECT ENGINEER.
- ALL VEHICULAR ACCESS POINTS SHALL BE LOCATED AT LEAST 150', OR 2/3rd THE DISTANCE OF THE LOT FRONTAGE, WHICHEVER IS LESS, FROM THE INTERSECTION OF ANY RIGHT-OF-WAY LINES OF STREETS OR A STREET AND A RAILROAD AND AT LEAST 15' FROM ALL SIDE OR REAR PROPERTY LINES.
- ON 24" AND LARGER PIPES, A 6' WIDE SHOULDER SHALL BE PROVIDED ON EACH SIDE OF THE DRIVEWAY PAVEMENT WITH 2:1 MITERED END SECTIONS. ON 18" AND SMALLER PIPES, A 2' FOOT WIDE SHOULDER SHALL BE PROVIDED WITH A 4:1 MITERED END SECTIONS.
- ADDITIONAL DRIVEWAYS, LOCATIONS OR WIDTHS REQUIRE A VARIANCE BY THE COUNTY ENGINEER.

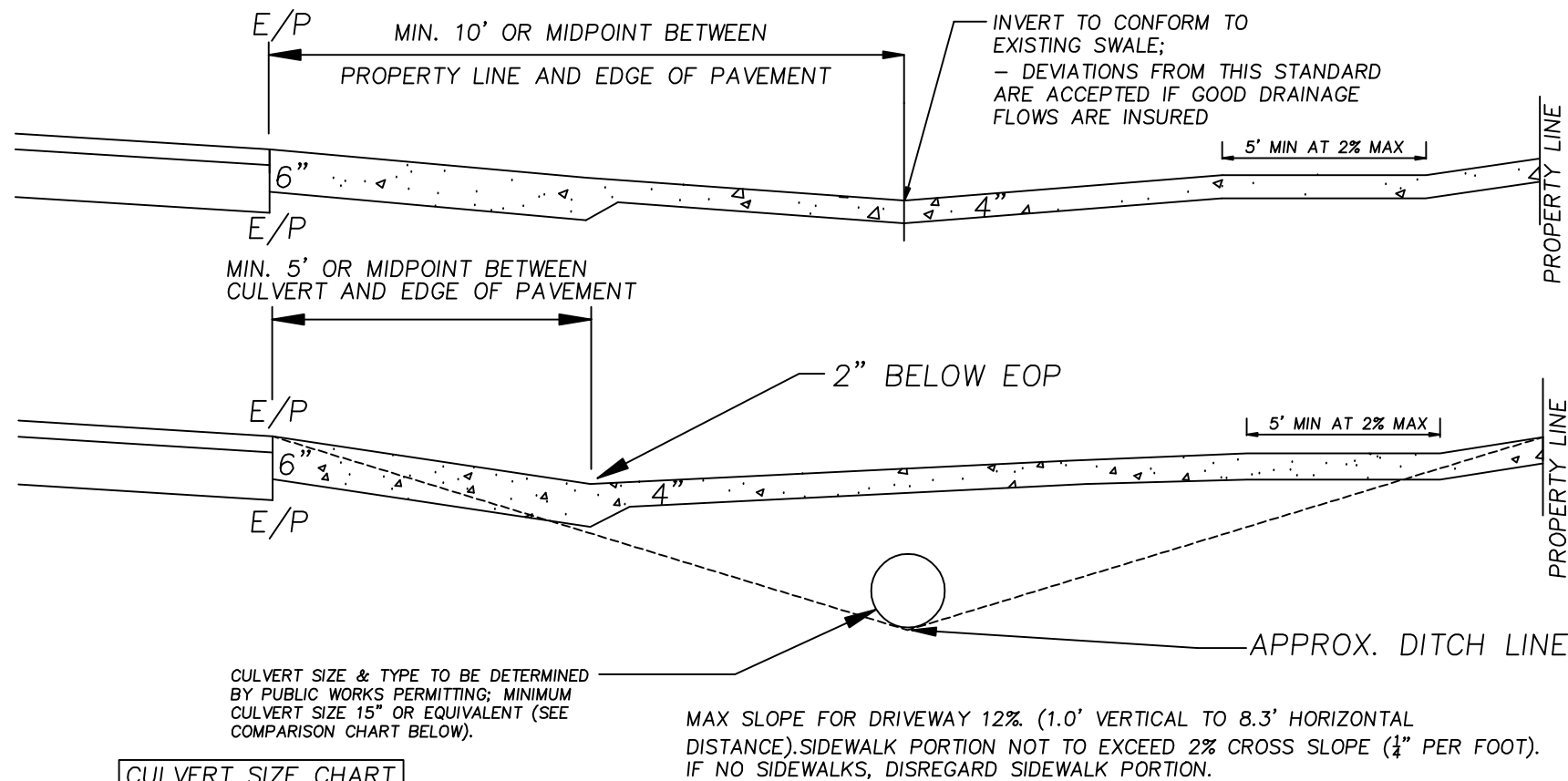


TITLE: ROADWAY STANDARD
COMMERCIAL CONNECTION

APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
NO.: IV-25

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PH. (352)754-4062 FAX. (352)754-4423

RESIDENTIAL CONNECTION



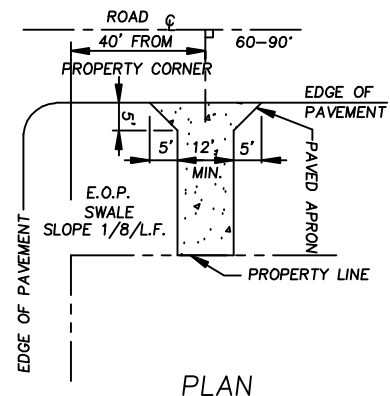
CULVERT SIZE & TYPE TO BE DETERMINED BY PUBLIC WORKS PERMITTING; MINIMUM CULVERT SIZE 15" OR EQUIVALENT (SEE COMPARISON CHART BELOW).

MAX SLOPE FOR DRIVEWAY 12%. (1.0' VERTICAL TO 8.3' HORIZONTAL DISTANCE). SIDEWALK PORTION NOT TO EXCEED 2% CROSS SLOPE (1/4" PER FOOT). IF NO SIDEWALKS, DISREGARD SIDEWALK PORTION.

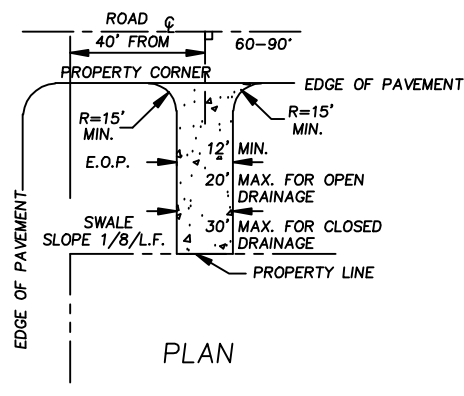
CULVERT SIZE CHART	
ROUND	OVAL
15"	12" x 18"
15"	14" x 23"
24"	19" x 30"

GENERAL NOTES:

1. PAVERS NOT ALLOWED WITHIN COUNTY RIGHT OF WAY, UNLESS APPROVED BY COUNTY ENGINEER. PAVERS FOR SIDEWALKS MUST MEET ADA GUIDELINES.
2. A PAVED APRON/DRIVEWAY WITHIN THE RIGHT OF WAY IS REQUIRED FOR DRIVEWAY CONNECTIONS TO PAVED ROADS. APRON SHALL BE 5 FEET WIDE (FROM ROAD), AND A MINIMUM OF 5 FEET LONG TAPER ON EITHER SIDE OF DRIVEWAY. DRIVEWAY WIDTH SHALL BE 12 FOOT MINIMUM, 20 FOOT MAXIMUM FOR OPEN DRAINAGE AND 30 FOOT MAX. FOR CLOSED DRAINAGE. APRON/DRIVEWAY CAN BE CONSTRUCTED WITH A MINIMUM OF SIX INCHES LIMEROCK BASE AND ONE INCH OF ASPHALT OR, MINIMUM SIX INCHES OF 3000 P.S.I. CONCRETE.
3. ALL RIGHT OF WAY FRONTING THE EDGE OF PAVEMENT AND THE PROPERTY LINE WILL BE SODDED.
4. WHEN THE PERMITEE'S PROPERTY ABUTS A DRAINAGE RIGHT OF WAY OR COUNTY LAKE, SUFFICIENT VEGETATION MUST BE UTILIZED TO CONTROL EROSION IF THE AFOREMENTIONED AREA IS DISTURBED BY REGRADING, SOD MUST BE UTILIZED TO CONTROL SUBSEQUENT EROSION.
5. DRIVEWAYS CONSTRUCTED ON UNPAVED STREETS SHALL TERMINATE 7' OFF THE GRADED WAY, AND THE AREA BETWEEN THE CONSTRUCTED DRIVEWAY AND ROAD TO BE STABILIZED WITH 6" OF LIMEROCK, CONFORMING TO EXISTING SWALE, WITH A MINIMUM 6" DEEP SWALE.
6. DRIVEWAYS OTHER THAN CONCRETE, REQUIRE ONLY A PUBLIC WORKS PERMIT.
7. ALL WORK TO BE COMPLETED PRIOR TO ISSUING A CERTIFICATE OF OCCUPANCY, UNLESS AN EXTENSION IS GRANTED BY THE BUILDING DEPARTMENT.
8. AREA WITHIN RIGHT OF WAY BETWEEN PROPERTY LINE AND EDGE OF PAVEMENT SHALL BE SODDED.
9. MAXIMUM WIDTH OF DRIVEWAY FOR CLOSED DRAINAGE SHALL BE 30', 20' FOR OPEN DRAINAGE.
10. ON 24" AND LARGER PIPES, A 6' WIDE SHOULDER SHALL BE PROVIDED ON EACH SIDE OF THE DRIVEWAY PAVEMENT WITH 2:1 MITERED END SECTIONS. ON 18" AND SMALL PIPES, A 2' WIDE SHOULDER SHALL BE PROVIDED ON EACH SIDE OF THE DRIVEWAY PAVEMENT WITH 4:1 MITERED END SECTIONS.
11. SIDEWALKS SHOULD BE FORMED FIRST TO ENSURE ADA COMPLIANCE SHALL BE MET.



PLAN
APRON DETAILS PAVED ROADS



PLAN
APRON DETAILS UNPAVED ROAD

MATERIALS TO USE:

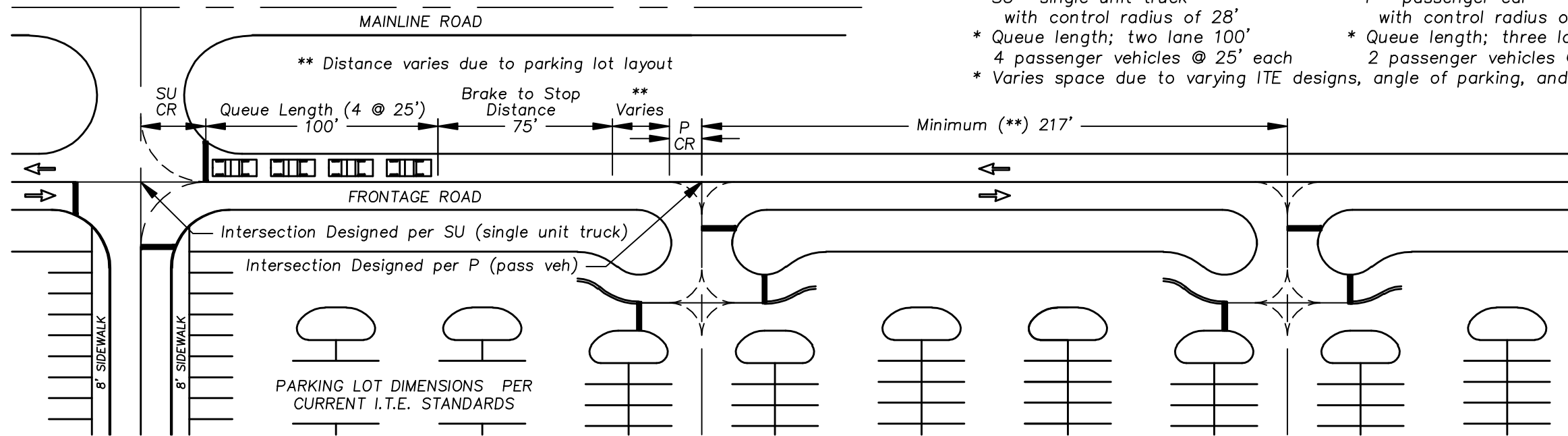
1. 4" CONC. w/6"x6" 10/10 WWM OR FIBERMESH
2. 6" CONC. w/6"x6" 10/10 WWM OR FIBERMESH FOR APRON
3. 6" LIMEROCK, COMPACTED TO 98% AASHTO T-180 METHOD, 1" ACSC
4. 6" SOIL CEMENT, 1" ACSC

TITLE: ROADWAY STANDARD
RESIDENTIAL CONNECTION

APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
NO.: IV-26

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PARKING LOT TO FRONTAGE ROAD ACCESS (2 LANE FRONTAGE ROAD)



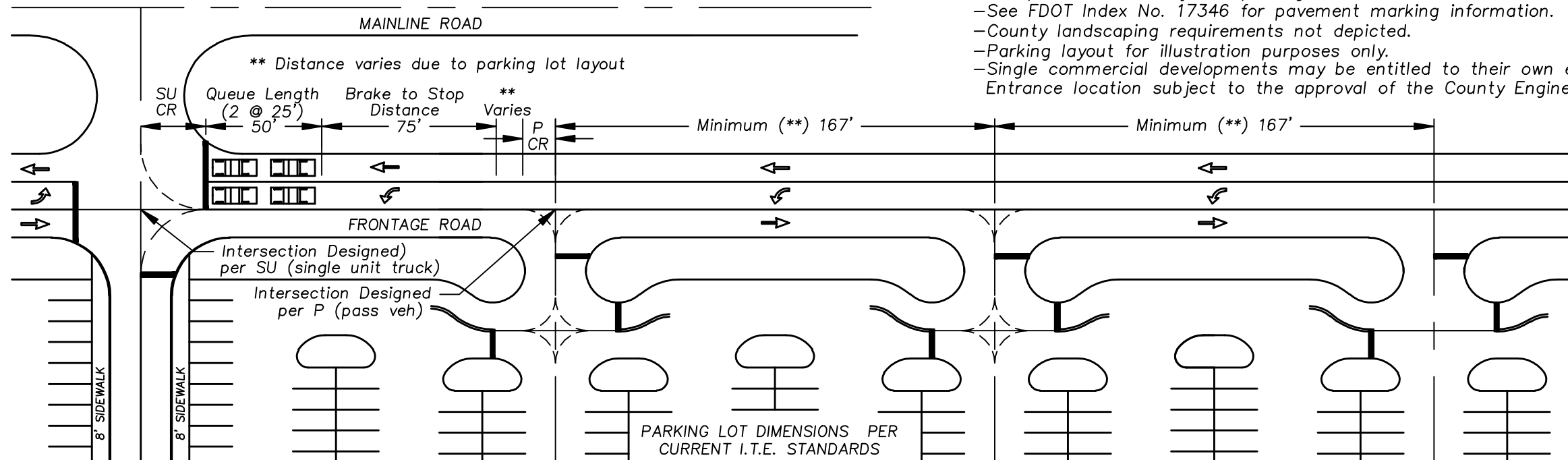
DESIGN NOTES: Basis for driveway spacing:

- * ϕ to ϕ of driveways
- * SU= single unit truck with control radius of 28'
- * Queue length; two lane 100' 4 passenger vehicles @ 25' each
- * Varies space due to varying ITE designs, angle of parking, and drive aisle width
- * Minimum distances subject to project review
- * P= passenger car with control radius of 14'
- * Queue length; three lane 50' 2 passenger vehicles @ 25' each (paired)

GENERAL NOTES:

- The dimensions listed are minimums, and greater dimensions may be required by the County Engineer.
- Due to unique circumstances, the spacing may be reduced by the County Engineer, if it is determined said variance improves traffic operations and safety.
- See plans for roadway and parking lot construction dimensions.
- See FDOT Index No. 17346 for pavement marking information.
- County landscaping requirements not depicted.
- Parking layout for illustration purposes only.
- Single commercial developments may be entitled to their own entrance. Entrance location subject to the approval of the County Engineer.

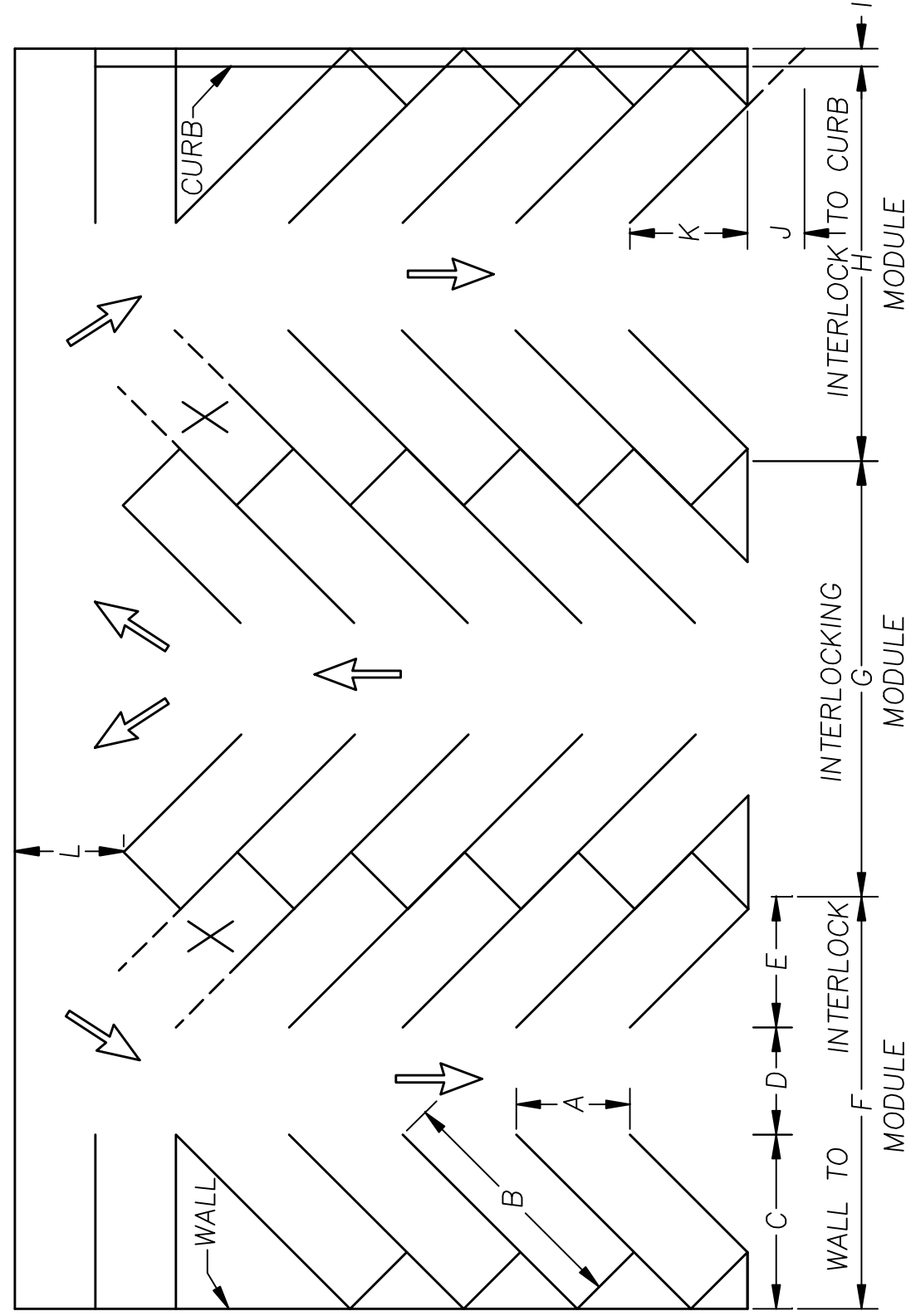
PARKING LOT TO FRONTAGE ROAD ACCESS (3 LANE FRONTAGE ROAD)



TITLE: ROADWAY STANDARD
FRONTAGE ROAD DRIVEWAY SPACING

APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
ND: IV-27

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PARKING LAYOUT DIMENSION (IN FT) FOR 9 FT X 18.5 FT STALLS AT VARIOUS ANGLES

DIMENSION	ON				ANGLE
	DIAGRAM	45°	60°	75°	
STALL WIDTH, PARALLEL TO AISLE	A	12.7	10.4	9.3	9.0
STALL LENGTH OF LINE	B	27.5	23.7	20.9	18.5
STALL DEPTH TO WALL	C	19.5	20.5	20.0	18.5
AISLE WIDTH BETWEEN STALL LINES	D	12.0	16.0	23.0	26.0
STALL DEPTH, INTERLOCK	E	16.5	18.5	19.0	18.5
MODULE, WALL TO INTERLOCK	F	48.0	55.0	62.0	63.0
MODULE, INTERLOCKING	G	45.0	53.0	61.0	63.0
MODULE, INTERLOCK TO CURB FACE	H	46.0	52.5	59.5	60.5
BUMPER OVERHANG (TYPICAL)	I	2.0	2.3	2.5	2.5
OFFSET	J	6.4	2.6	0.6	0.0
SETBACK	K	13.1	9.3	4.8	0.0
CROSS AISLE, ONE-WAY	L	14.0	14.0	14.0	14.0
CROSS AISLE, TWO-WAY	-	24.0	24.0	24.0	24.0

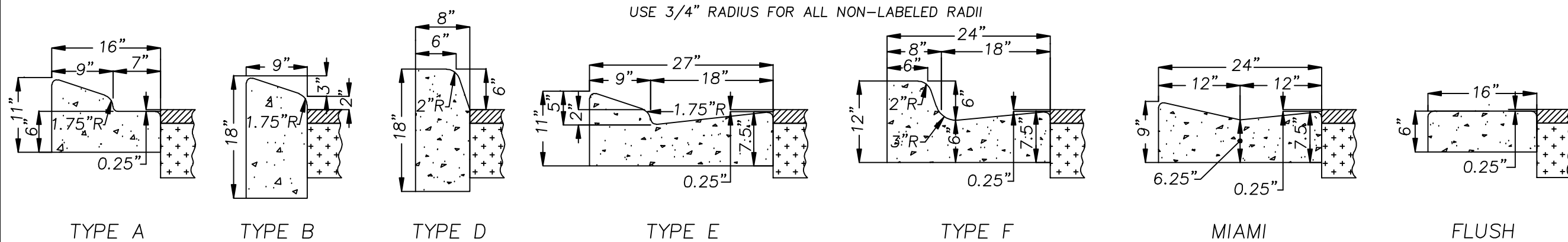
NOTE: FOR MORE DETAILED INFORMATION, REFER TO INSTITUTE OF TRANSPORTATION ENGINEERS' TRANSPORTATION AND ENGINEERING HANDBOOK.

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DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

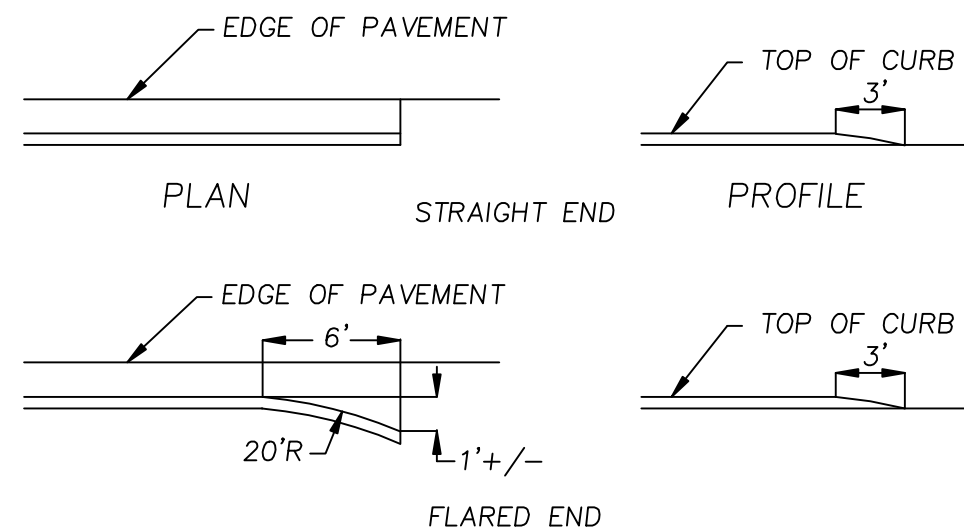
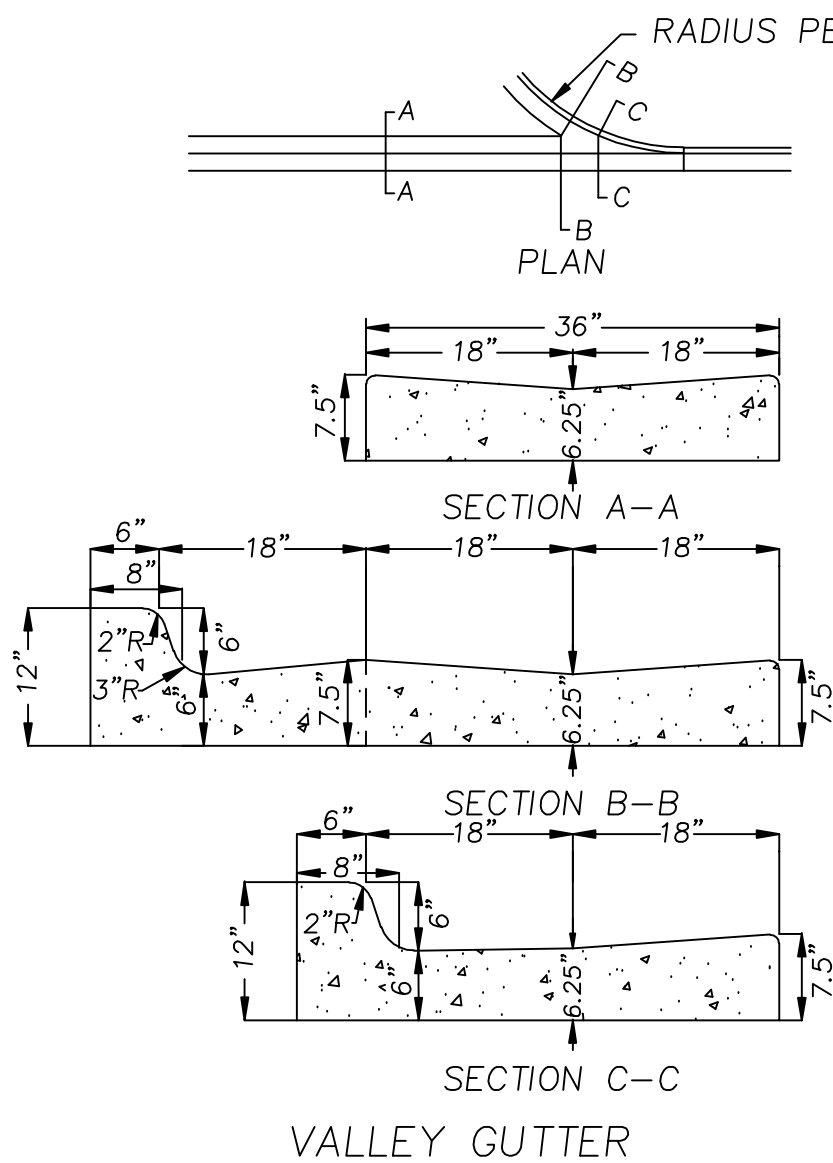
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 PH. (352)754-4062 FAX. (352)754-4423

TITLE: ROADWAY STANDARD
 PARKING LOT / STALL LAYOUT

APPROVED BY: C. G. MIXSON, P.E. DATE: 10-01-08 ND.: IV-28



CURB TYPES



CURB & GUTTER ENDINGS

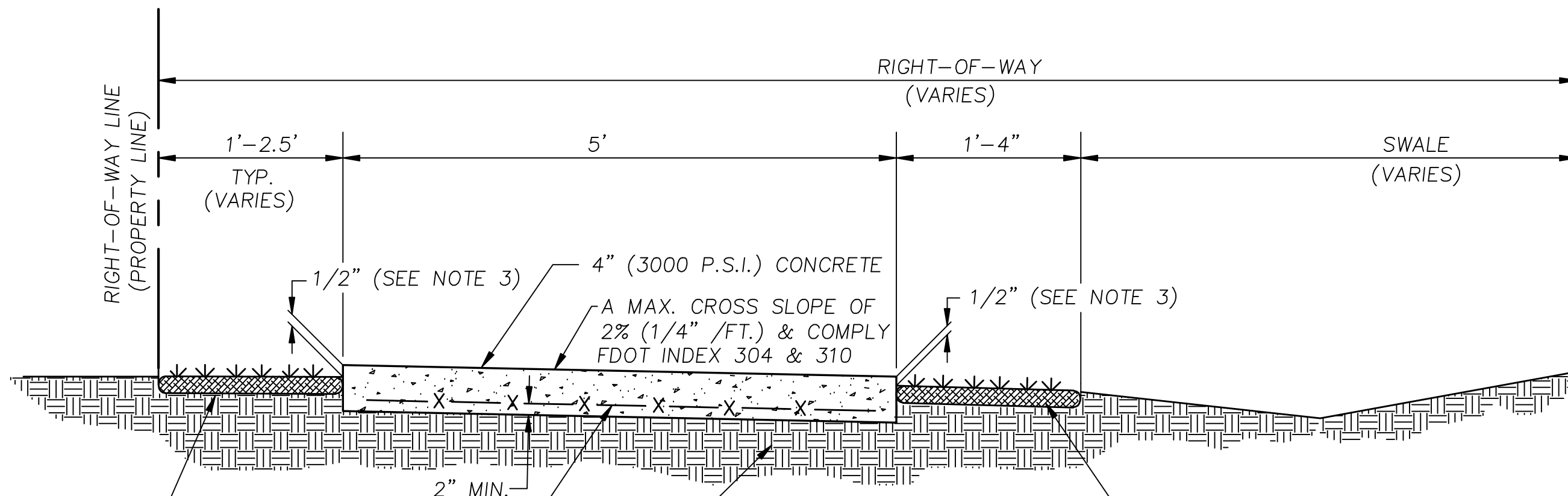
NOTES:

- See F.D.O.T. Index No. 300 for additional details.
- The pavement surface on low pavement edge is to be 1/4" above the lip of the gutter. The pavement surface on the high pavement edge is to be flush with the gutter.
- 1/8"-1/4" construction joints at 10' centers maximum are to be provided.
- A 1/2" expansion joint is required between concrete pavement and curbs and/or gutters.
- Minimum 3,000 psi. fibermesh concrete to be used for curbs and/or gutters.

TITLE: ROADWAY STANDARD
CURBS AND GUTTERS

APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
NO.: IV-29

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SOD (AVG. DEPTH 1 1/2")

6"x 6" 10/10 W.W.F. (SEE NOTE 2 FOR OPTION)

SUBGRADE COMPACTED TO 95% MAX. DENSITY PER AASHTO T-99

4" (3000 P.S.I.) CONCRETE
A MAX. CROSS SLOPE OF 2% (1/4" /FT.) & COMPLY FDOT INDEX 304 & 310

1/2" (SEE NOTE 3)

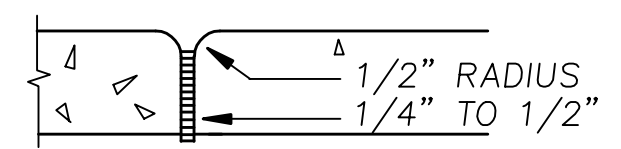
SOD (AVG. DEPTH 1 1/2")



CONSTRUCTION CONTROL JOINT SHALL BE USED AT THE END OF DAILY OPERATIONS AND BETWEEN 1 HOUR POUR TIMES.

CONSTRUCTION CONTROL JOINT DETAIL

NOT TO SCALE



EXPANSION JOINT DETAIL

NOT TO SCALE

NOTES:

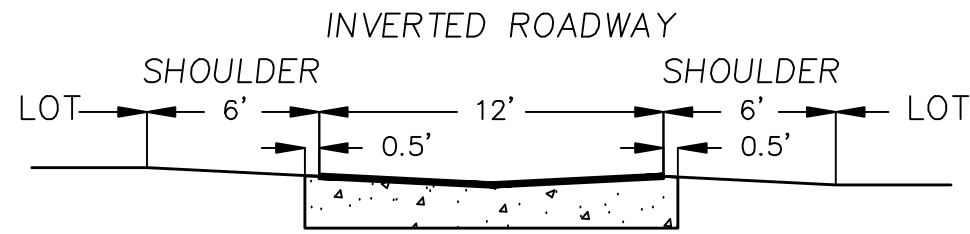
1. EXPANSION JOINT NEEDED EVERY 50'. TROWELLED CONTROL JOINT NEEDED EVERY 5'.
2. IN LIEU OF WIRE WOVEN FABRIC CONTRACTOR MAY USE CONCRETE REINFORCED WITH FIBERMESH AS AN ACCEPTABLE ALTERNATE.
3. SPECIAL ATTENTION SHALL BE GIVEN TO THE GRADED SOD PLACEMENT TRENCH. THE GRADING BY THE CONTRACTOR SHALL PROVIDE A 1/2" DROP FROM THE SIDEWALK TO THE TOP OF THE SOD.
4. SIDEWALKS ABUTTING DRAINAGE STRUCTURES SHALL BE LEVEL WITH THE TOP OF THE STRUCTURE.

TITLE: ROADWAY STANDARD
SIDEWALK

HERNANDO COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

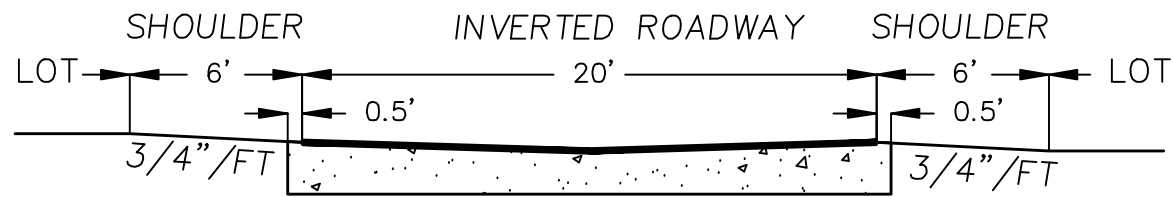
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APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
ND: IV-30



6" LIMEROCK BASE, COMPACTED TO 98% AASHTO T-180 METHOD/ 1' A.C.S.C.
ROADWAY INVERTED AT 1/4" PER FOOT
SHOULDERS SLOPED TO EXISTING GRADE

TYPICAL ONE-LANE ROADWAY

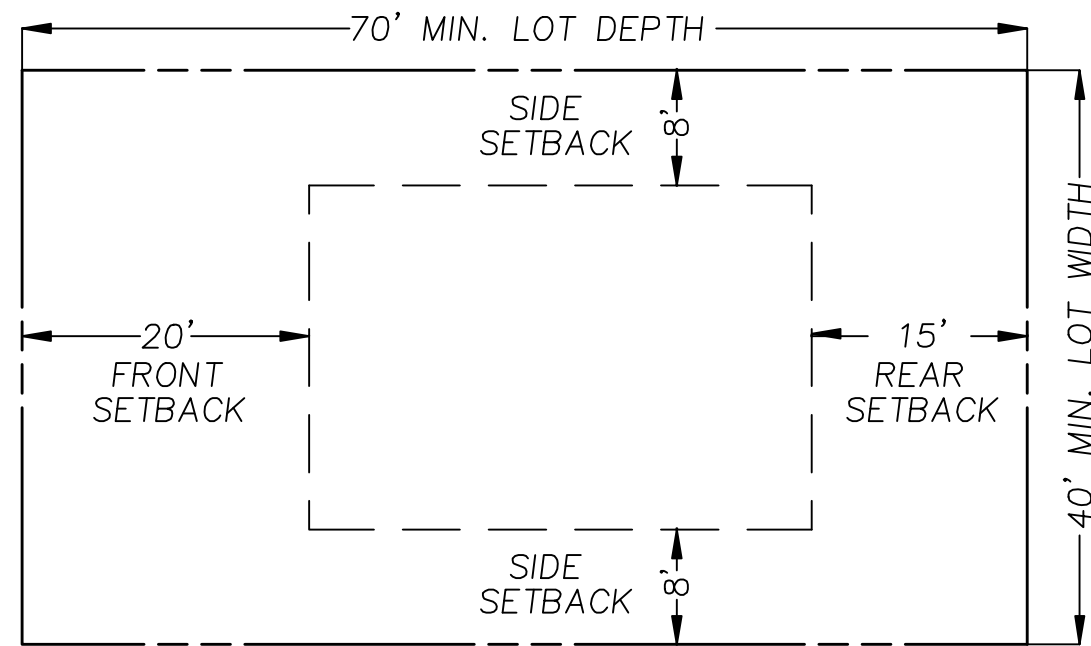


6" LIMEROCK BASE, COMPACTED TO 98% AASHTO T-180 METHOD/ 1' A.C.S.C.
ROADWAY INVERTED AT 1/4" PER FOOT
SHOULDERS SLOPED TO EXISTING GRADE

TYPICAL TWO-LANE ROADWAY

GENERAL NOTES:

- Refer to "CODE OF ORDINANCES—HERNANDO COUNTY, FLORIDA" for additional information.
- These are minimum standards with Hernando County reserving the right of plans approval on a per site basis.
- Overall drainage to comply with the requirements set forth by the SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT.
- Minimum radius of 25' for road intersections.

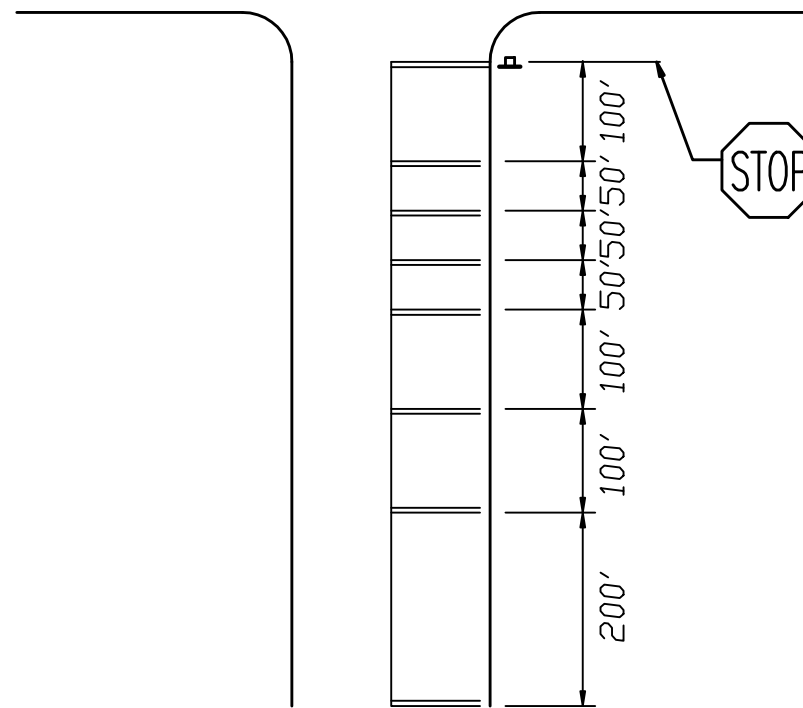
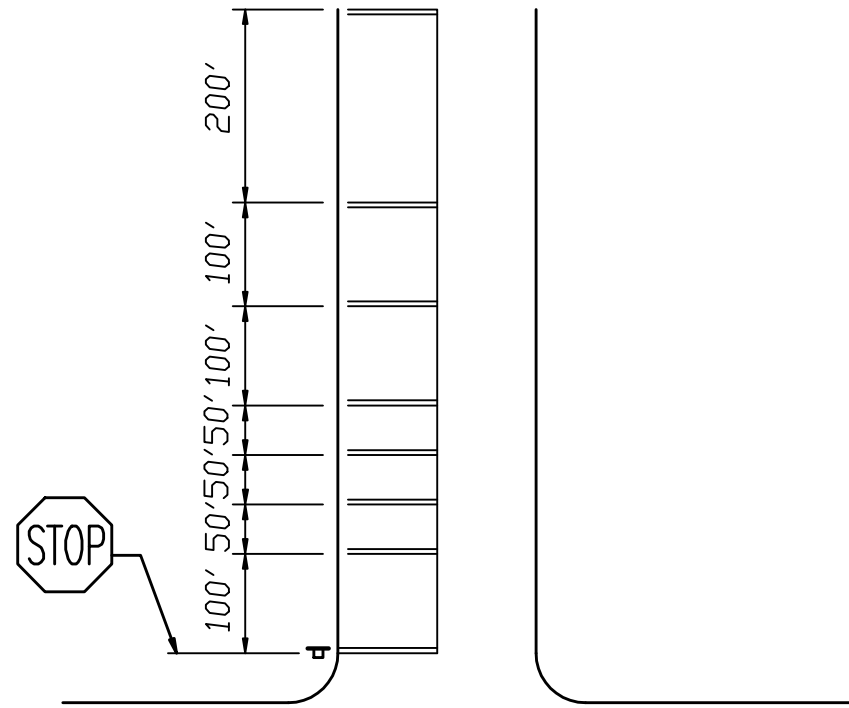


MINIMUM LOT DIMENSIONS

TITLE: ROADWAY STANDARD
R V PARKS

APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
NO.: IV-31

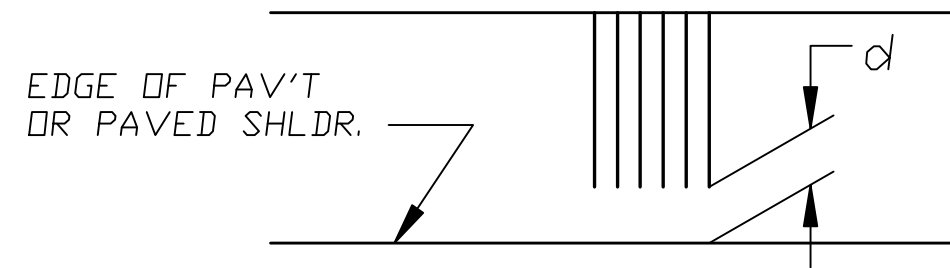
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TWO - WAY STOP

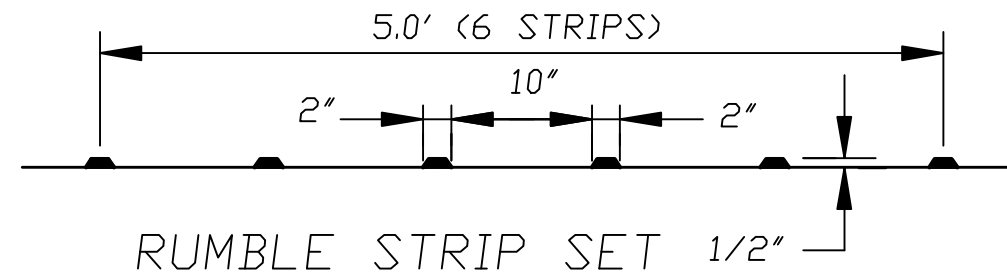
GENERAL NOTES:

1. RUMBLE STRIPS SHALL BE CONSTRUCTED AT ALL STRUCTURES WITH LESS THAN FULL WIDTH SHOULDERS. RUMBLE STRIPS AT INTERSECTIONS SHALL BE CONSTRUCTED ONLY WHEN SPECIFIED IN THE PLANS.
2. WHEN ANY PORTION OF A CURVE FALLS WITHIN THE LIMITS OF RUMBLE STRIPS SHOWN IN THESE DETAILS, AN ADDITIONAL RUMBLE STRIP SET SPACED AT 200' CENTERS SHALL BE CONSTRUCTED BEYOND THOSE DETAILED, THROUGHOUT THE APPROACHING CURVE.
3. PLACEMENT OF RUMBLE STRIPS SHALL BE APPROVED BY COUNTY ENGINEER.
4. RUMBLE STRIPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH INDEX No. 518 OF THE F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS.



$d = 1.5'$ FOR OTHER HIGHWAYS WITH SHOULDER PAVEMENT 4' OR WIDER.
 $d = 1.5'$ FOR AT GRADE INTERSECTIONS.

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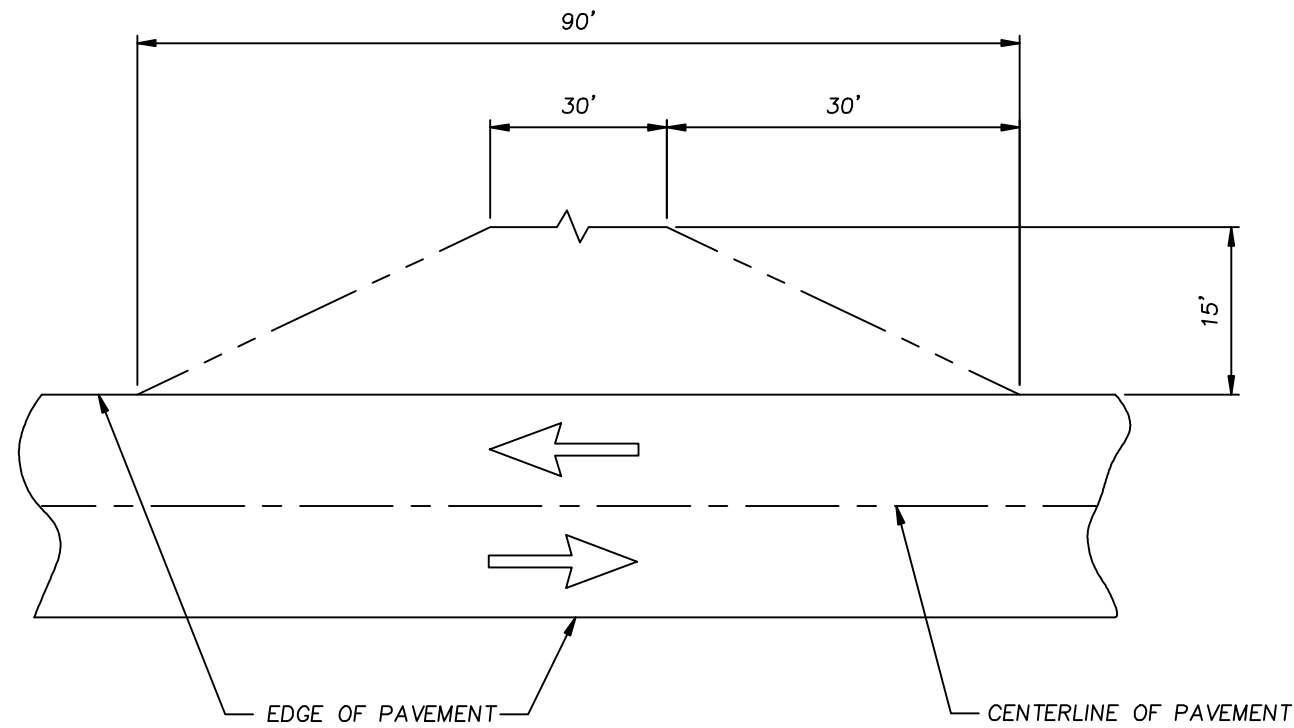


TITLE: ROADWAY STANDARD
 RUMBLE STRIPS

APPROVED BY: C. G. MIXSON, P.E.
 DATE: 10-01-08
 ND: IV-32

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SEE FDOT INDEX #532 FOR FURTHER DETAILS AND DIMENSIONS.

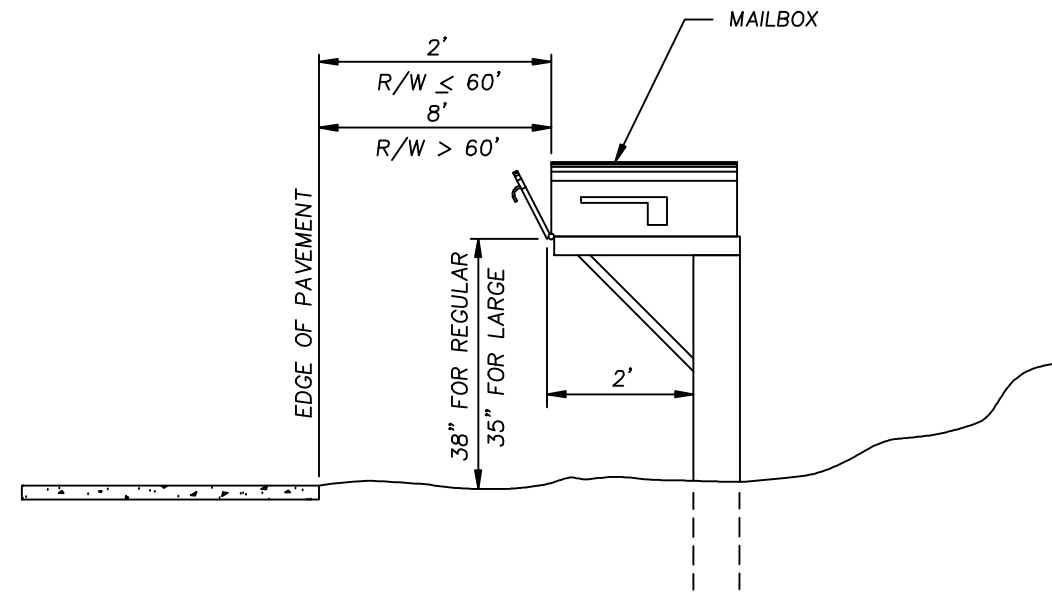


- NOTES:
1. TO BE PLACED AT LEAST 200 FEET FROM NEAREST INTERSECTION.
 2. CAN NOT BE INCLUDED AS A PART OF A DRIVEWAY.
 3. CAN NOT BE PLACED IN A RESIDENTIAL

PAVING STANDARD

1.5" ACSC
6" LIMEROCK, COMPACTED TO 98% AASHTO T-180 METHOD

CONGLOMERATE MAIL BOXES



- NOTES:
1. WOOD SUPPORTS SHOULD NOT EXCEED 5" IN DIAMETER, IF ROUND, OR SHOULD NOT HAVE NOMINAL DIMENSIONS GREATER THAN 4" X 4".
 2. METAL SUPPORTS IN SMALL DIAMETER PIPES OR LIGHT WEIGHT FENCE POSTS MAY BE USED BUT MAY NOT HAVE A NOMINAL INSIDE DIAMETER GREATER THAN 1-1/2".
 3. HEAVY METAL POSTS, CONCRETE, AND OTHER MISCELLANEOUS EQUIPMENT SHALL NOT BE USED.

MAIL BOX INSTALLATION

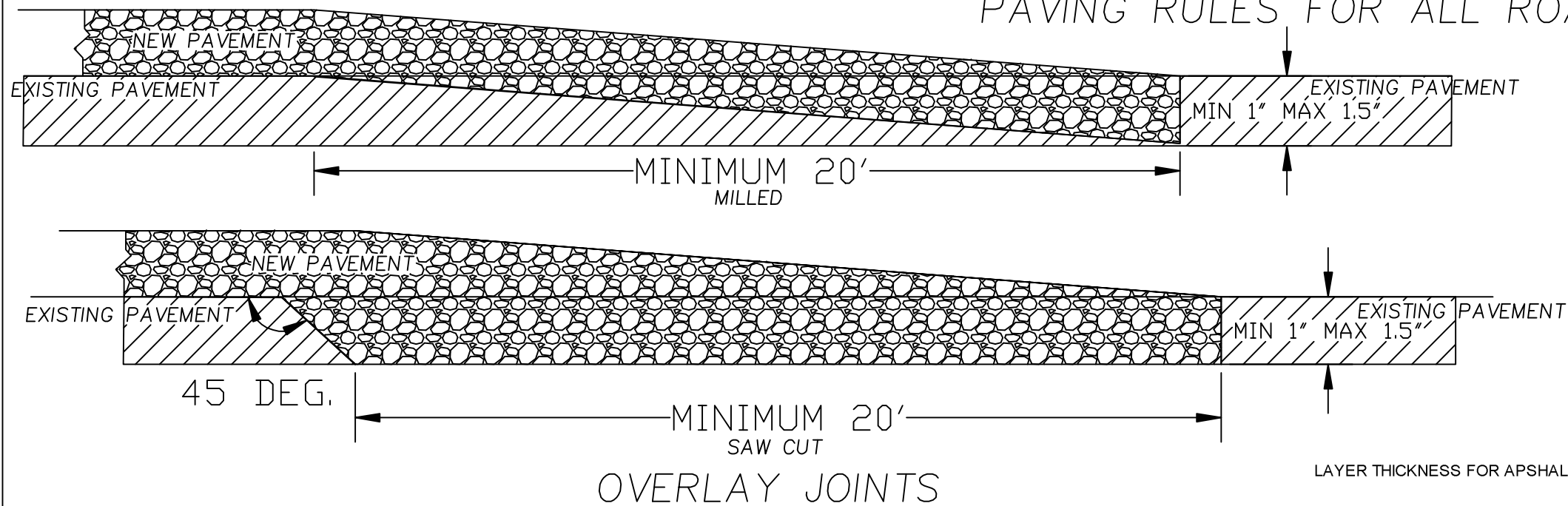
NOTE: CONSTRUCTION AND INSTALLATION SHALL CONFORM TO (OR WITH) THE REQUIREMENTS OF THE U.S. POSTAL SERVICE, THE FLORIDA DEPARTMENT OF TRANSPORTATION AND HERNANDO COUNTY.

TITLE: ROADWAY STANDARD
MAIL BOXES

APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
NO.: IV-33

HERNANDO COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
1525 E. JEFFERSON ST.
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PAVING RULES FOR ALL ROADWAY PAVEMENTS



LAYER THICKNESS FOR ASPHALTIC CONCRETE STRUCTURAL COURSES

LAYER THICKNESS (INCHES)

COURSE THICKNESS (INCHES)	TYPE S-1			TYPE S-1 W/TYPE S-3 TOP LAYER			TYPE S-3		
	1ST	2ND	3RD	1ST	2ND	3RD	1ST	2ND	3RD
1							1		
1 1/2	1 1/2								
2				1 1/4	3/4				
2 1/2	1 1/4	1 1/4		1 1/2	1				
3	1 1/2	1 1/2		2	1				
3 1/2	2	1 1/2		1 1/4	1 1/4	1			

1. Paving machines used on roadways within the county shall have a minimum 8-foot screed with extendamats, not cut off shoes.
2. Roadways within the county shall be tested with a rolling straight edge per FDOT FM 5-509, or the Measuring of Longitudinal Profile using a Laser Profiler IAW FDOT FM 5-0549 either by the paving contractor verified by the county or by a testing lab hired by the contractor/developer verified by the county.
3. New roadways (subdivisions, etc.) within the county that need patches shall be patched from curb to curb or full width.
4. If combinations other than those shown in the table (see paving rules sheet 2) are used, the thickness must be consistent with the following: S-I, 1 1/4" min., 2" max., S-III 3/4", 1 1/4" max. Multiple layers shall be used when possible. Layer combinations shall be approved by the County Engineer.
5. In addition to the Min-Max thickness requirements, the following restrictions are placed on the respective material when used as a structural course: S-I may not be used in the 1st layer of courses over 4.5" thick. S-III Limited to the final (top) structural layer, one layer only.
6. When construction includes the paving of adjacent shoulders $\leq 5'$ wide, the layer thickness for the upper pavement layer and shoulder shall be the same and paved in a single pass.
7. When overlaying existing asphalt pavement all surface joints shall be mechanically saw cut or cold milled. A minimum depth of 1", maximum 1.5", full lane width and a minimum length of 20' for the transition is required. RC-70 or equivalent liquid asphalt shall be added to all surface joints to form a seal. SEE SHEET 1V-39.

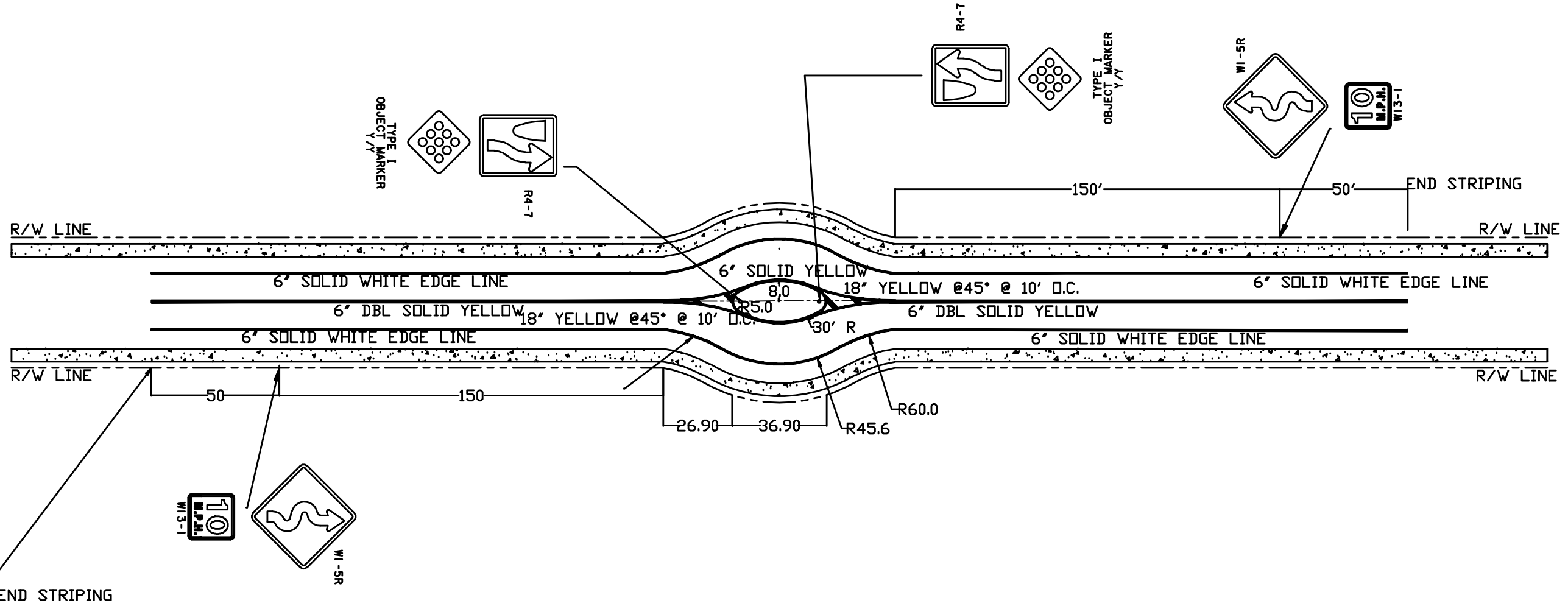
TITLE: ROADWAY STANDARD
 PAVING RULES

APPROVED BY: C. G. MIXSON, P. E.
 DATE: 10-01-08
 ND.: IV-34

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 ENGINEERING DIVISION
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 PH. (352)754-4062 FAX. (352)754-4423

NOTES:

1. ALL DIMENSIONS ARE TYPICAL.
2. SIDEWALKS ARE 5' WIDE, IF APPLICABLE.



TITLE: ROADWAY STANDARDS
TRAFFIC CALMING DEVICE

APPROVED BY: C. G. MIXSON, P.E.
DATE: 10-01-08
NO: IV-35

HERNANDO COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

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