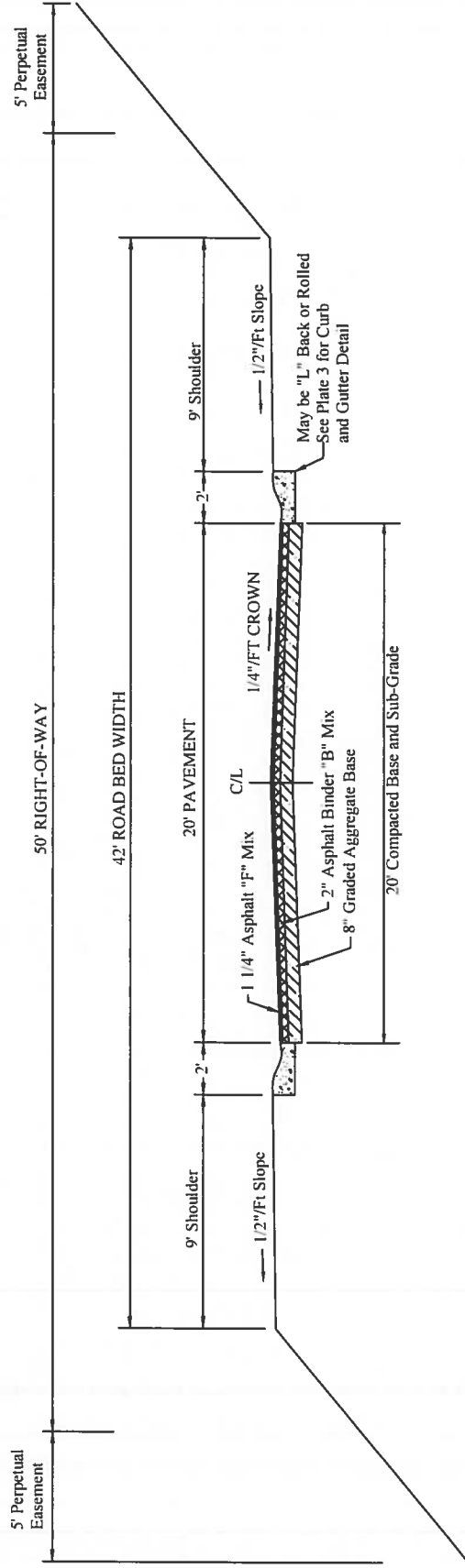


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PLATE 1: CONSTRUCTION REQUIREMENT CURB AND GUTTER TYPICAL SECTION FOR RESIDENTIAL CONSTRUCTION



NOTES:

1. Maximum Cut or Fill Slope is 2H:1V
2. Subgrade Compaction Minimum 98%
3. Clearing Required to Top or Toe of Slope
Trees within one foot of fill or less may remain. See Section 16.70.170 for details
4. Prime Between GAB and Asphalt Binder
5. Tack Between Asphalt Binder and "F" Mix

NOT TO SCALE

RESIDENTIAL TYPICAL SECTION W/ CURB & GUTTER & NO SIDEWALK

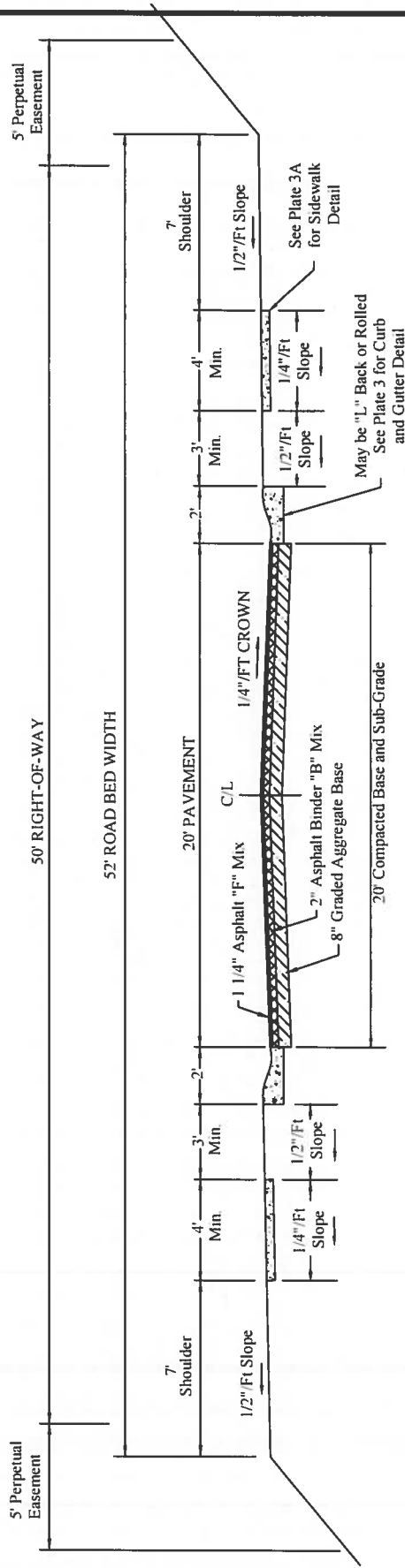
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TRAFFIC ENGINEERING DIVISION

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PLATE 1A: CONSTRUCTION REQUIREMENT CURB AND GUTTER WITH SIDEWALKS ON BOTH SIDES OF THE STREET TYPICAL SECTION FOR RESIDENTIAL CONSTRUCTION



NOTES:

1. Maximum Cut or Fill Slope is 2H:1V
2. Subgrade Compaction Minimum 98%
3. Clearing Required to Top or Toe of Slope
Trees within one foot of fill or less may remain. See Section 16.70.170 for details
4. Prime Between GAB and Asphalt Binder
5. Tack Between Asphalt Binder and "F" Mix

NOT TO SCALE

RESIDENTIAL TYPICAL SECTION WITH SIDEWALKS

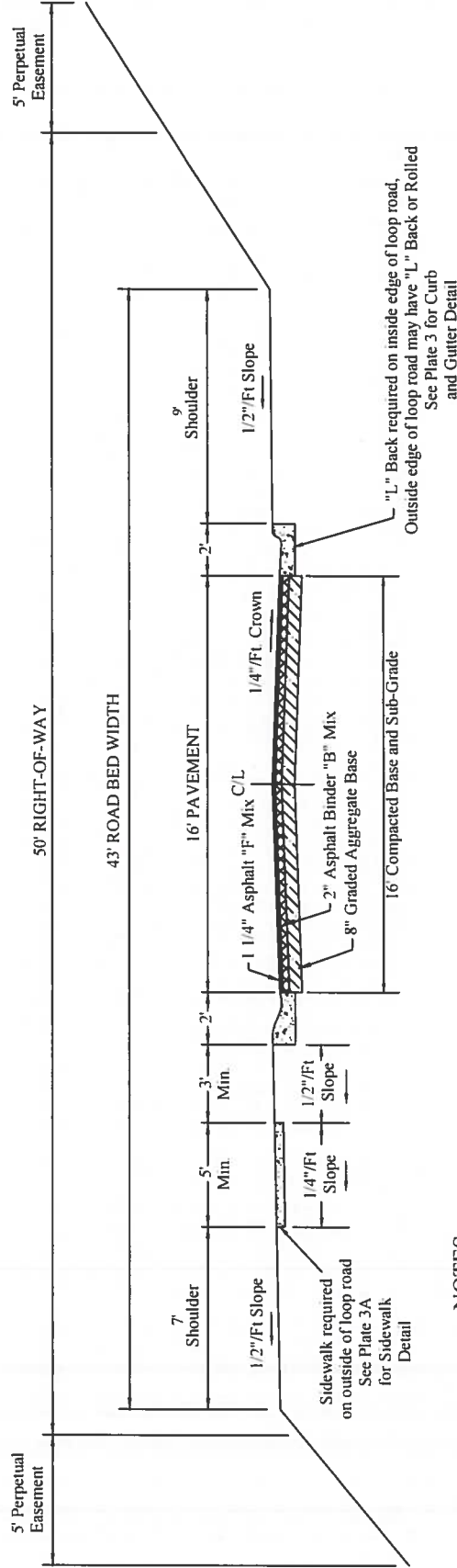
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PLATE 1B: CONSTRUCTION REQUIREMENT ONE-WAY LOOP ROAD TYPICAL SECTION FOR RESIDENTIAL CONSTRUCTION



NOTES:

1. Maximum Cut or Fill Slope is 2H:1V
2. Subgrade Compaction Minimum 98%
3. Clearing Required to Top or Toe of Slope (trees within one foot of fill or less may remain, see Section 16.70.170 for details)
4. Prime Between GAB and Asphalt Binder
5. Tack Between Asphalt Binder and "F" Mix
6. Maximum Length of Loop Road is 400' Around Centerline

NOT TO SCALE

RESIDENTIAL TYPICAL SECTION ONE-WAY LOOP ROAD

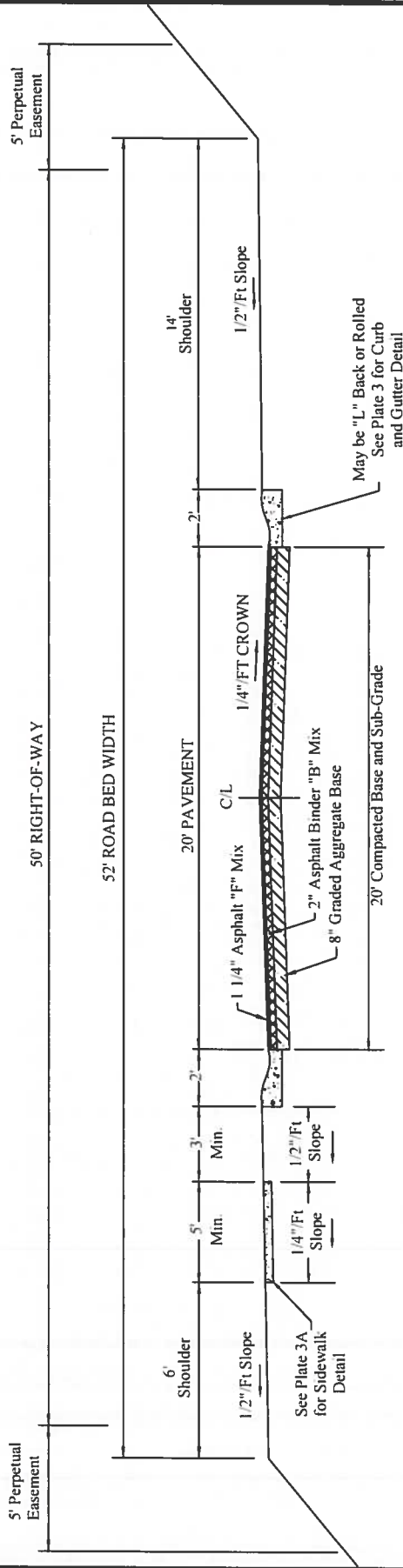
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PLATE 1C: CONSTRUCTION REQUIREMENT CURB AND GUTTER WITH SIDEWALK ON ONE SIDE OF THE ROAD TYPICAL SECTION FOR RESIDENTIAL CONSTRUCTION



NOT TO SCALE

- NOTES:**
1. Maximum Cut or Fill Slope is 2H:1V
 2. Subgrade Compaction Minimum 98%
 3. Clearing Required to Top or Toe of Slope
Trees within one foot of fill or less may remain. See Section 16.70.170 for details
 4. Prime Between GAB and Asphalt Binder
 5. Tack Between Asphalt Binder and "F" Mix

RESIDENTIAL TYPICAL SECTION WITH SIDEWALK ON ONE SIDES

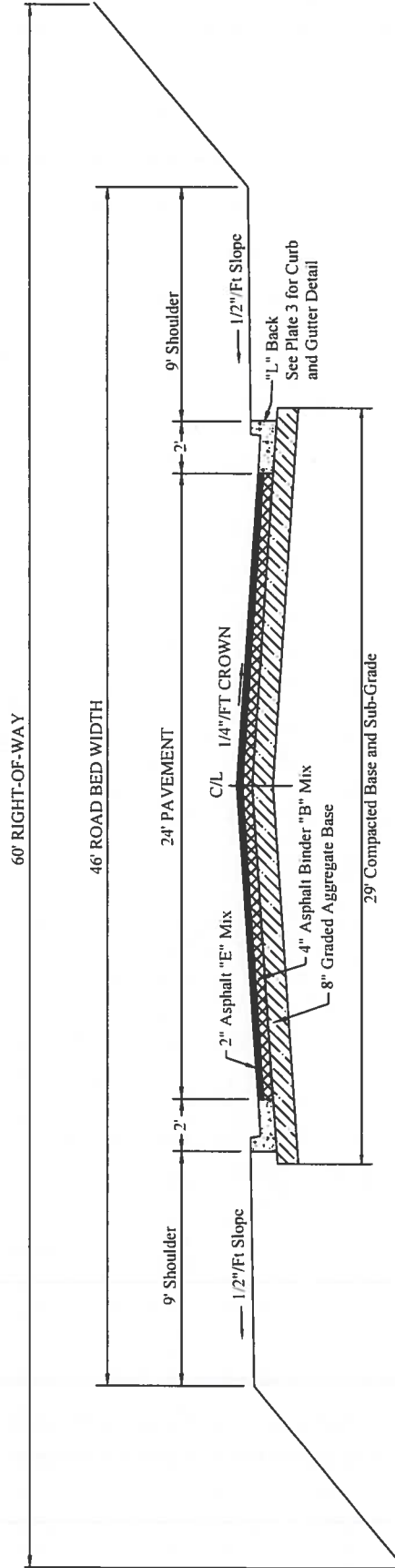


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PLATE 2: CONSTRUCTION REQUIREMENT "L" BACK CURB AND GUTTER TYPICAL SECTION FOR COMMERCIAL/INDUSTRIAL CONSTRUCTION



NOTES:

1. Maximum Cut or Fill Slope is 2H:1V
2. Subgrade Compaction Minimum 98%
3. Clearing Required to Top or Toe of Slope
Trees within one foot of fill or less may remain. See Section 16.70.170 for details
4. Prime Between GAB and Asphalt Binder
5. Tack Between Asphalt Binder and "E" Mix

NOT TO SCALE

COMMERCIAL TYPICAL SECTION WITH "L" BACK CURB

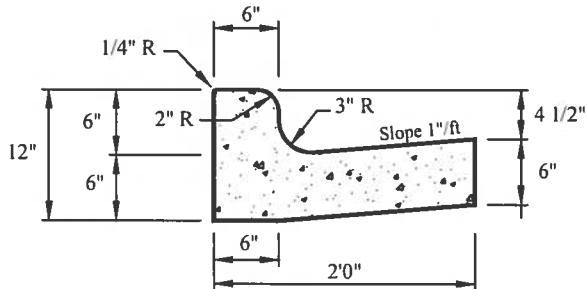


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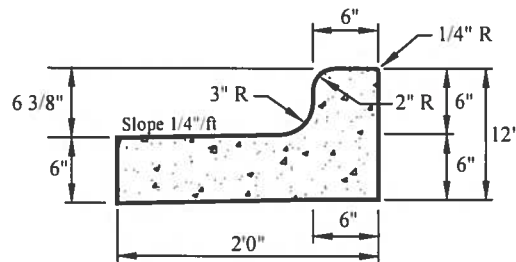
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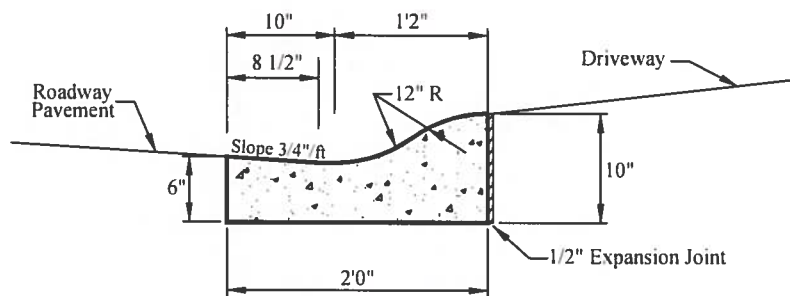
PLATE 3: CURB AND GUTTER



NORMAL GUTTER



PITCHED GUTTER



ROLLED CURB AND GUTTER

NOTES:

1. Curb and Gutter to be constructed of 2200 PSI concrete.
2. One-half (1/2) inch expansion joints shall be provided at intervals not to exceed fifty (50) feet, at the ends and midpoint of returns, and at any point where the new curb and gutter abuts other concrete structures. Preshaped joints every ten (10) feet.
3. Five (5) foot long transitions shall be provided between normal gutter and pitched gutter unless otherwise noted.

CONCRETE CURB AND GUTTER

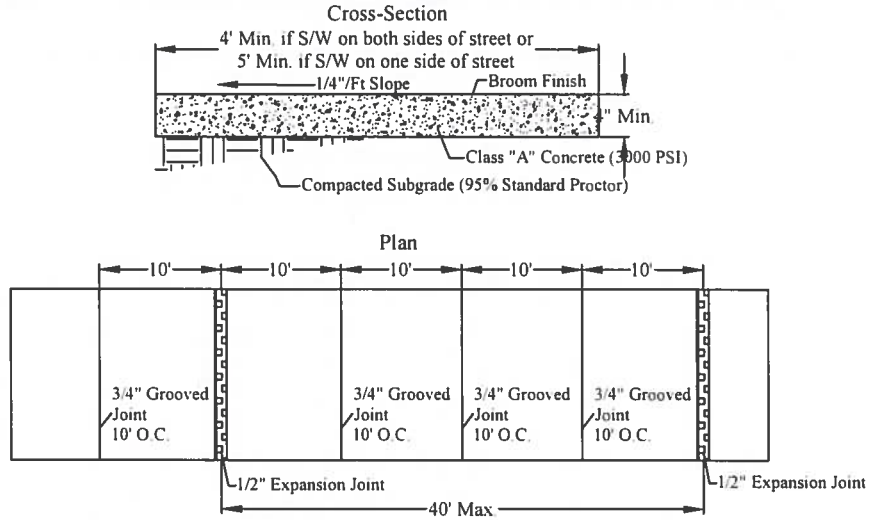
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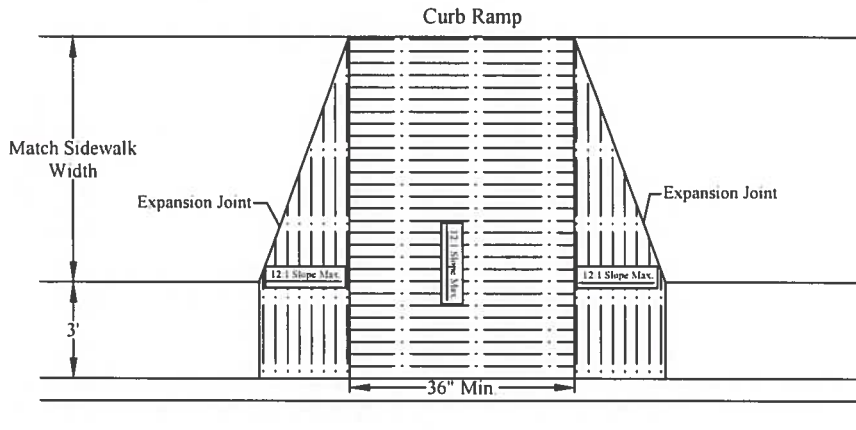
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PLATE 3A: CONSTRUCTION DETAILS FOR SIDEWALKS



NOTES:

1. 4" Thick Concrete
2. Class "A" Concrete (3000 PSI)
3. 3/4" Grooved Joint 10' O.C.
4. 1/2" Expansion Joint 40' Max. and at Catch Basins, Driveways, Roads, Etc.
5. Broom Finish
6. 1/4"/Ft Cross Slope



NOTES:

1. Curb ramps shall comply with ADA and the Georgia Accessibility Code.
2. Ramps will be located where sidewalks cross a curb.
3. Max slope of Ramp is 12:1.
4. Ramps will be flared and max slope of flares is 12:1.
5. Detectable warnings shall be installed on ramps and flares.

SIDEWALK DETAILS

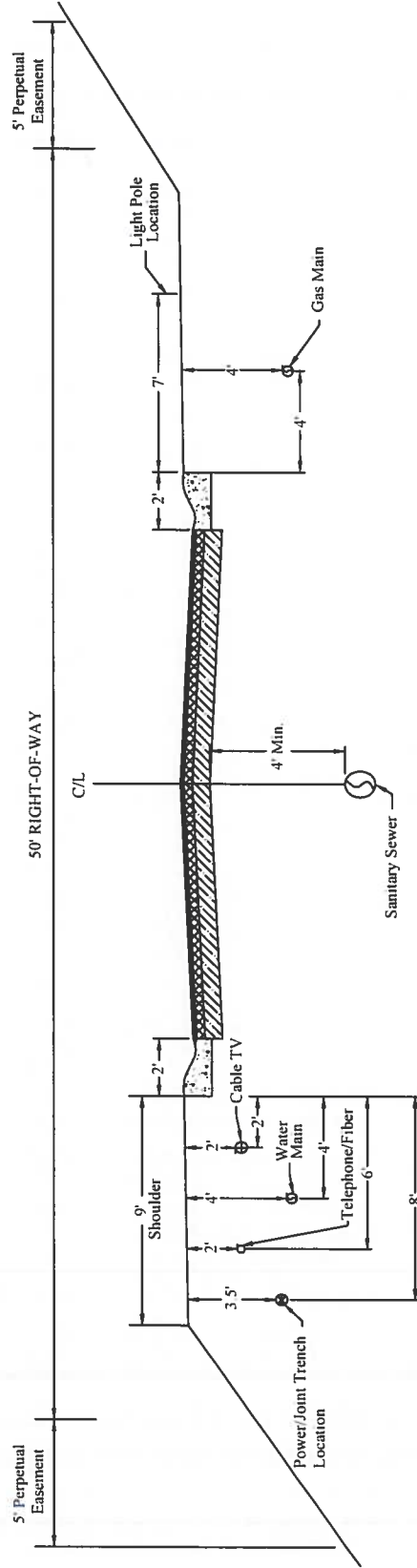
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PLATE 4: UTILITY LOCATION FOR RESIDENTIAL SUBDIVISION STREETS WITHOUT SIDEWALKS



NOTES:

- 1) Standard detail for utility location within right-of-way of residential subdivisions.
- 2) Before any utility is installed, the entire width of the right-of-way shall be final graded, and all concrete curbing set at final grades.
- 3) In general, the deepest utilities should be installed first to minimize any possible interference with laterals or service lines.
- 4) Hall County strongly encourages the use of a joint trench for power, phone, fiber optic, and cable lines.

SUBDIVISION UTILITY LOCATION WITHOUT SIDEWALKS

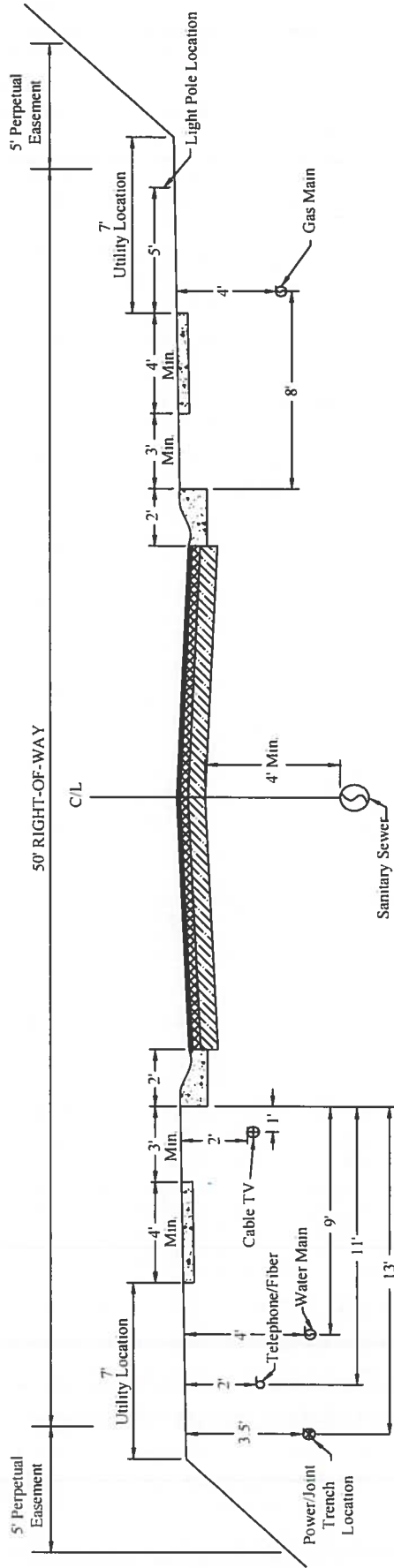
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**STANDARD
TE-8**

PLATE 4A: UTILITY LOCATION FOR RESIDENTIAL SUBDIVISION STREETS WITH SIDEWALKS ON BOTH SIDES OF THE STREET



NOT TO SCALE

NOTES:

- 1) Standard detail for utility location within right-of-way of residential subdivisions.
- 2) Before any utility is installed, the entire width of the right-of-way shall be final graded, and all concrete curbing set at final grades.
- 3) In general, the deepest utilities should be installed first to minimize any possible interference with laterals or service lines.
- 4) Hall County strongly encourages the use of a joint trench for power, phone, fiber optic, and cable lines.

SUBDIVISION UTILITY LOCATIONS WITH SIDEWALKS

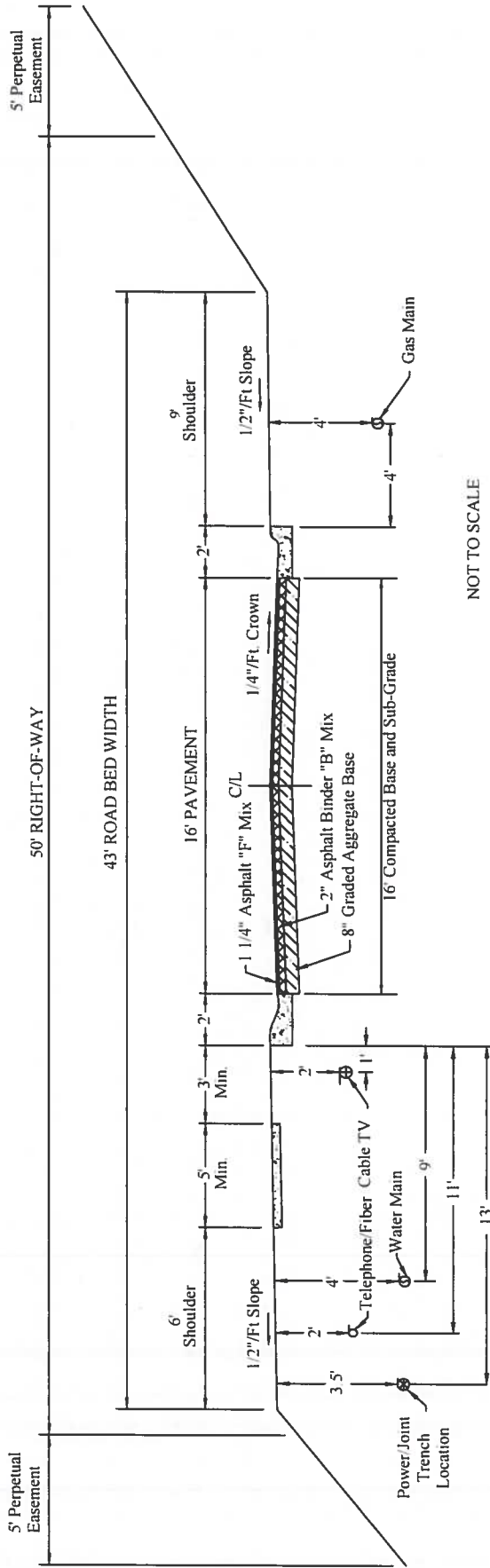
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PLATE 4B: UTILITY LOCATION FOR ONE-WAY LOOP ROADS



NOT TO SCALE

NOTES:

- 1) Standard detail for utility location within right-of-way of residential loop-road.
- 2) Before any utility is installed, the entire width of the right-of-way shall be final graded, and all concrete curbing set at final grades.
- 3) In general, the deepest utilities should be installed first to minimize any possible interference with laterals or service lines.
- 4) Hall County strongly encourages the use of a joint trench for power, phone, fiber optic, and cable lines.

SUBDIVISON UTILITY LOCATIONS WITH ONE-WAY LOOP ROAD

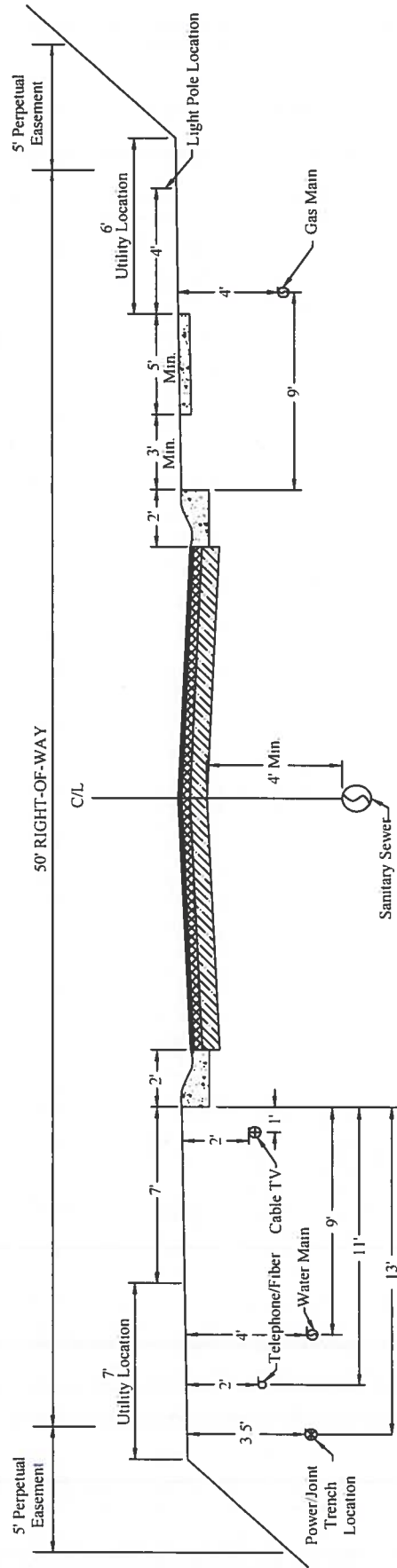
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PLATE 4C: UTILITY LOCATION FOR RESIDENTIAL SUBDIVISION STREETS WITH SIDEWALK ON ONE SIDE OF THE ROAD



NOT TO SCALE

NOTES:

- 1) Standard detail for utility location within right-of-way of residential subdivisions.
- 2) Before any utility is installed, the entire width of the right-of-way shall be final graded, and all concrete curbing set at final grades.
- 3) In general, the deepest utilities should be installed first to minimize any possible interference with laterals or service lines.
- 4) Hall County strongly encourages the use of a joint trench for power, phone, fiber optic, and cable lines.

SUBDIVISION UTILITY LOCATIONS WITH SIDEWALK ON ONE SIDE

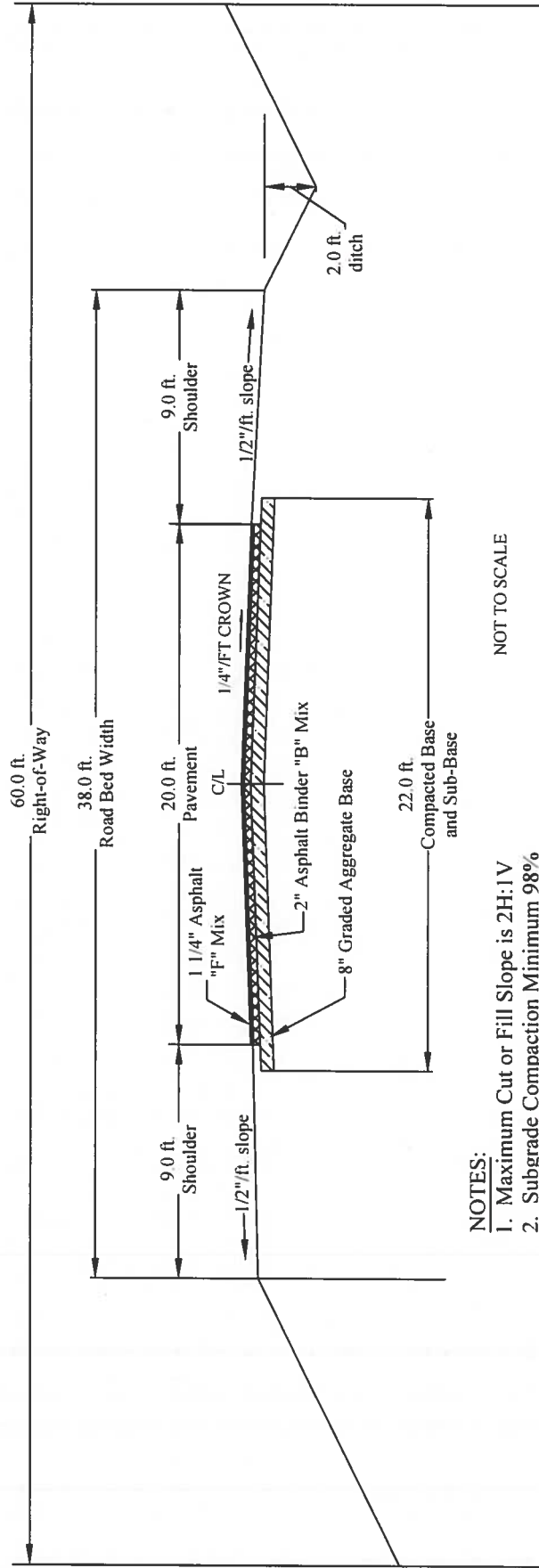
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PLATE 5: CONSTRUCTION REQUIREMENT FOR NON-CURBED STREETS
TYPICAL SECTION FOR RESIDENTIAL CONSTRUCTION



- NOTES:**
1. Maximum Cut or Fill Slope is 2H:1V
 2. Subgrade Compaction Minimum 98%
 3. Clearing Required to Top or Toe of Slope
Trees within one foot of fill or less may remain. See Section 16.70.170 for details
 4. Prime Between GAB and Asphalt Binder
 5. Tack Between Asphalt Binder and "F" Mix
- NOT TO SCALE

RESIDENTIAL TYPICAL SECTION WITHOUT CURB & GUTTER

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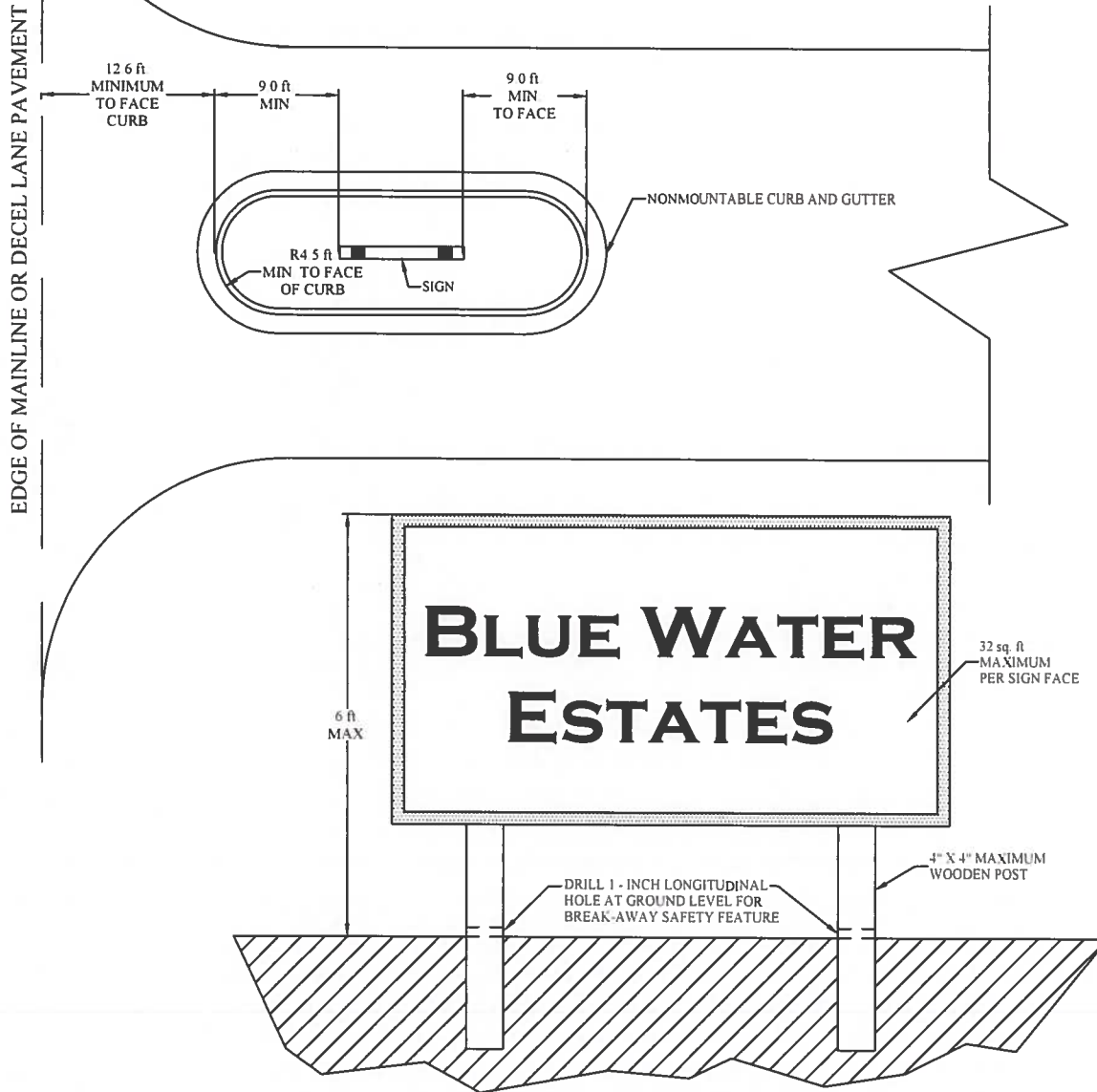
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PLATE 6: CONSTRUCTION AND LOCATION REQUIREMENTS FOR SUBDIVISION SIGN LOCATED IN MEDIAN

NOTES:

- 1) The sign shall be located at least three (3) feet from the back of the curb.
- 2) The sign shall have no more than two (2) faces.
- 3) The sign shall state only the name of the subdivision, with no additional wording or message.



SUBDIVISION SIGN LOCATION IN MEDIAN

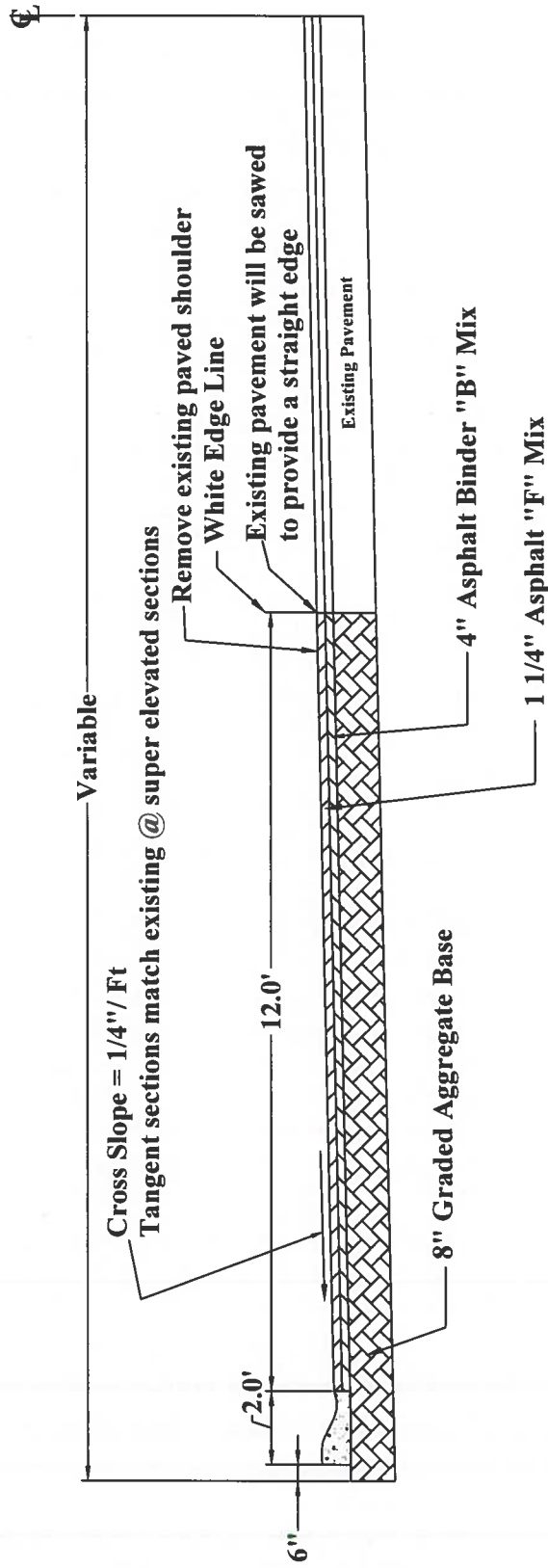
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**PLATE 7: TYPICAL SECTION FOR RESIDENTIAL
DECELERATION/TURN/ACCELERATION LANE**



NOTE: Graded aggregate base will extend 6" beyond the back of curb when concrete curb and gutter is used.

RESIDENTIAL TYP. SECT. DECEL/TURN LANE PAVING DETAIL

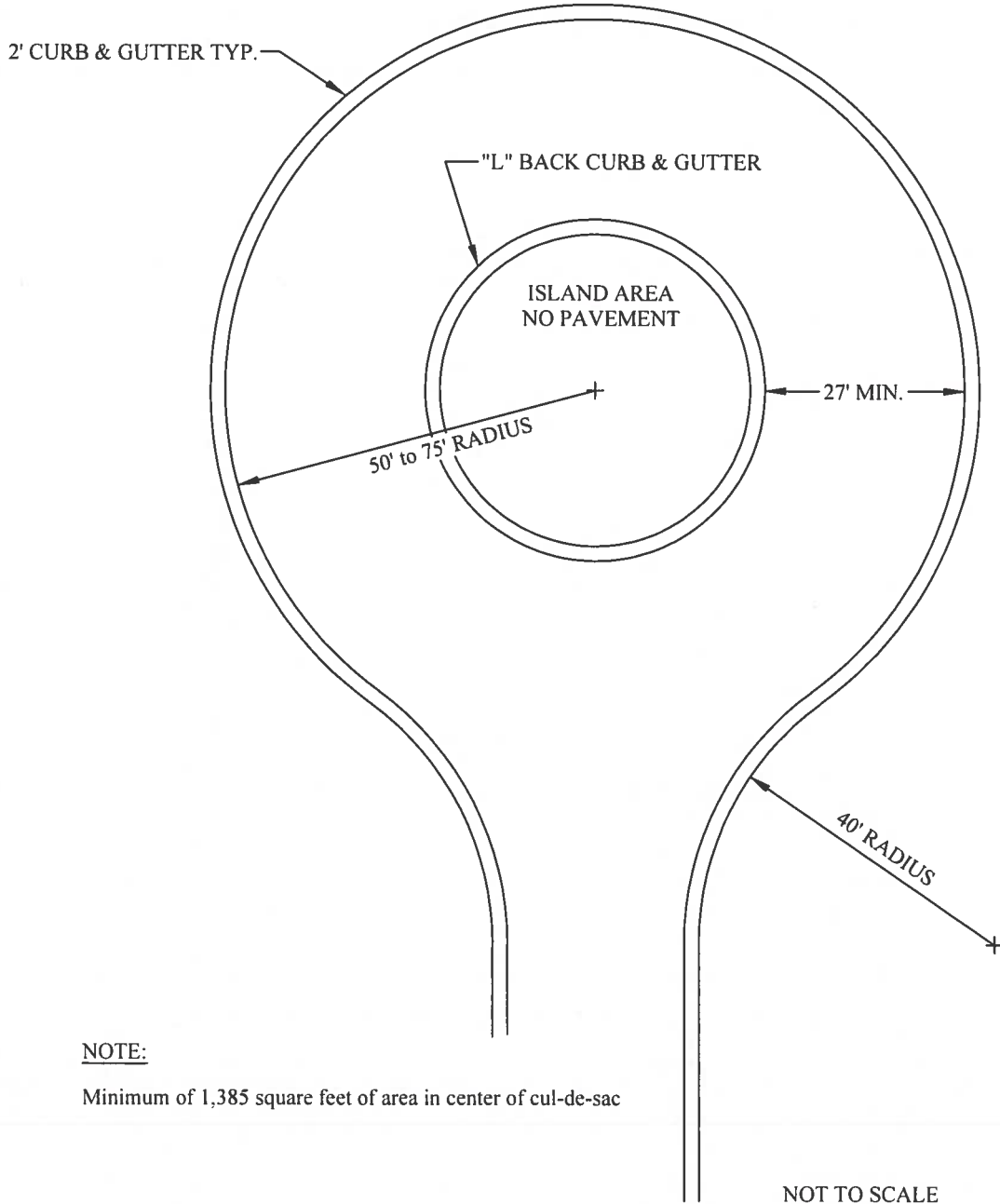
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**PLATE 8:
ISLAND CUL-DE-SAC #1**



NOTE:

Minimum of 1,385 square feet of area in center of cul-de-sac

NOT TO SCALE

CUL-DE-SAC #1 WITH ISLAND

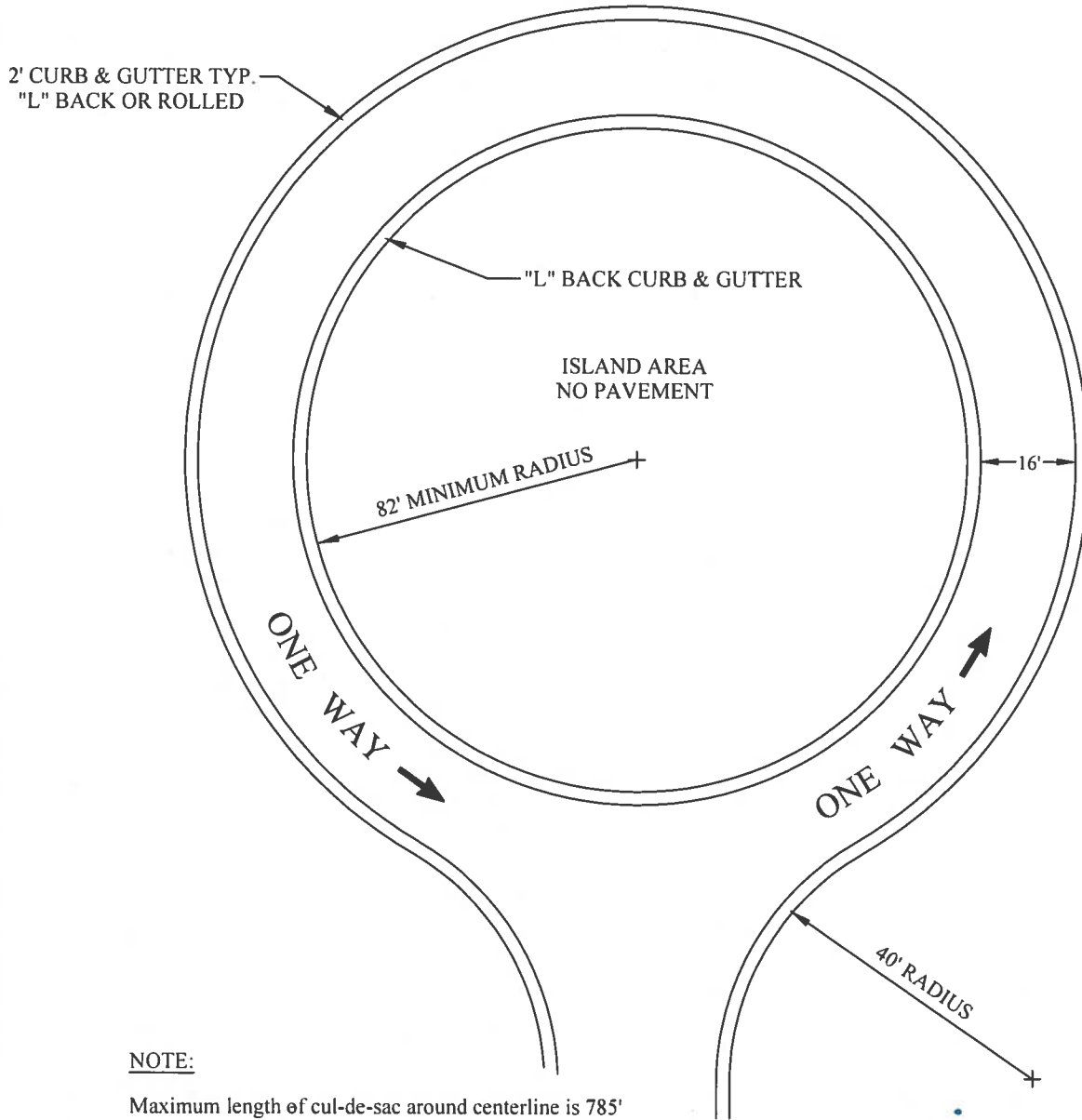
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**PLATE 9:
ISLAND CUL-DE-SAC #2**



NOT TO SCALE

CUL-DE-SAC 32 WITH ISLAND ONE-WAY

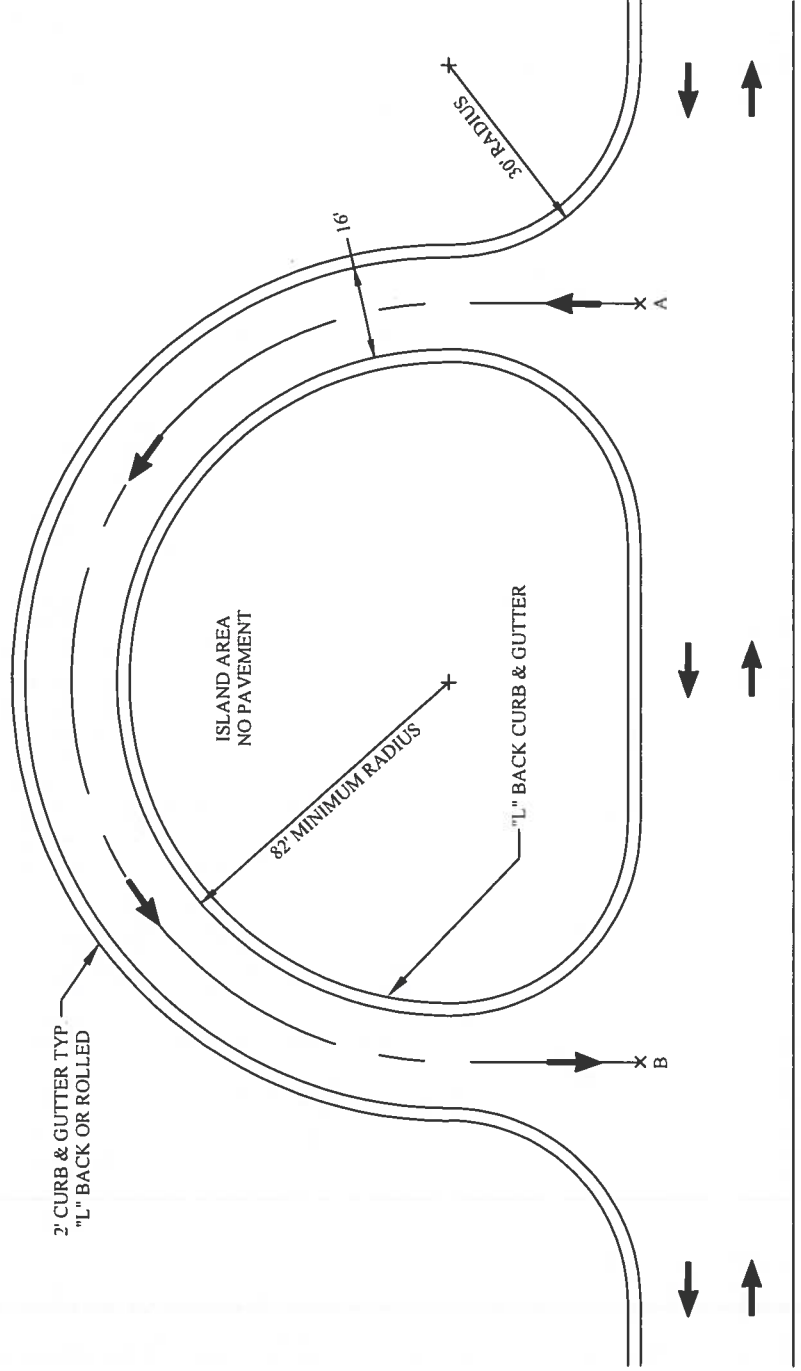
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PLATE 10: ONE-WAY LOOP STREET



NOTE:

1. Maximum length of one-way loop road is 400' (distance from point "A" to point "B" measured around the centerline shown above).
2. One-way loop road must begin and end with the same road.
3. No other roads may intersect with the one-way loop road.

NOT TO SCALE

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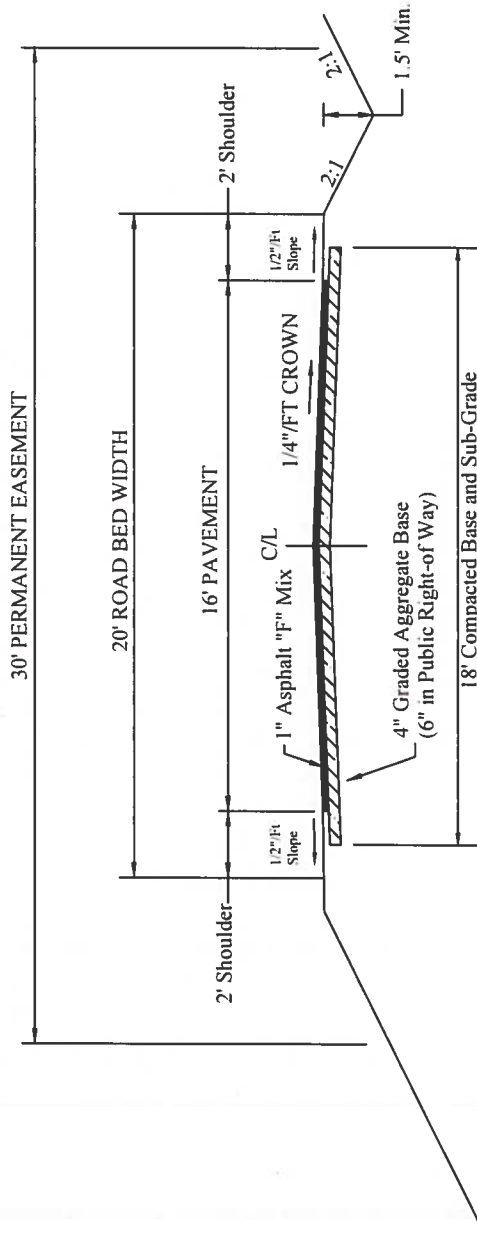


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ONE-WAY LOOP STREET

STANDARD
TE-17

PLATE 11: CONSTRUCTION REQUIREMENT COMMON ACCESS DRIVEWAY



NOTES:

1. Maximum Cut or Fill Slope is 2H:1V
2. Clearing Required to Top or Toe of Slope
Trees within one foot of fill or less may remain. See Section 16.70.170 for details
3. Alternate Pavement - 4" Concrete (In public right-of-way concrete shall be 6")

NOT TO SCALE

TYPICAL SECTION FOR COMMON ACCESS DRIVE

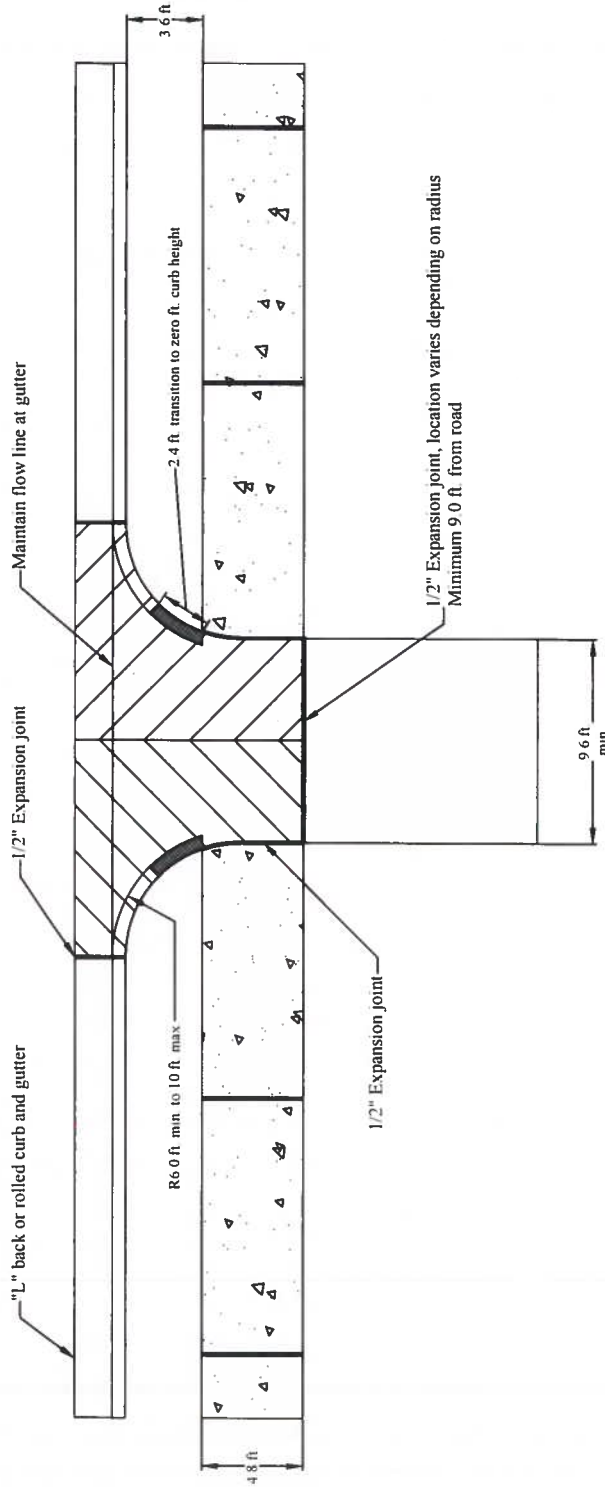
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**STANDARD
TE-18**

PLATE 12: CONSTRUCTION REQUIREMENT VALLEY GUTTER, RESIDENTIAL DRIVEWAY



NOT TO SCALE

NOTES:

1. Sidewalk to be flush with top of valley gutter
2. Concrete in valley gutter to be 6" in depth
3. Expansion joint between valley gutter and driveway may not be in the path of the sidewalk
4. Sidewalk and curbs must be cut using saw cutting techniques

RESIDENTIAL DRIVEWAY WITH VALLEY GUTTER (PLAN)

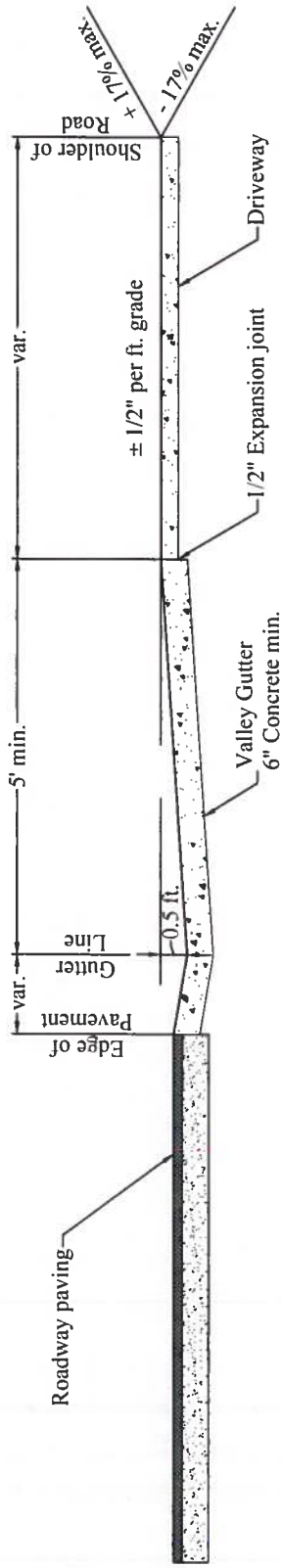
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PLATE 13: CONSTRUCTION REQUIREMENT VALLEY GUTTER, RESIDENTIAL DRIVEWAY



NOTES:

1. Sidewalk to be flush with top of valley gutter
2. Concrete in valley gutter to be 6" in depth
3. Expansion joint between valley gutter and driveway may not be in the path of the sidewalk

NOT TO SCALE

RESIDENTIAL DRIVEWAY WITH VALLEY GUTTER (PROFILE)

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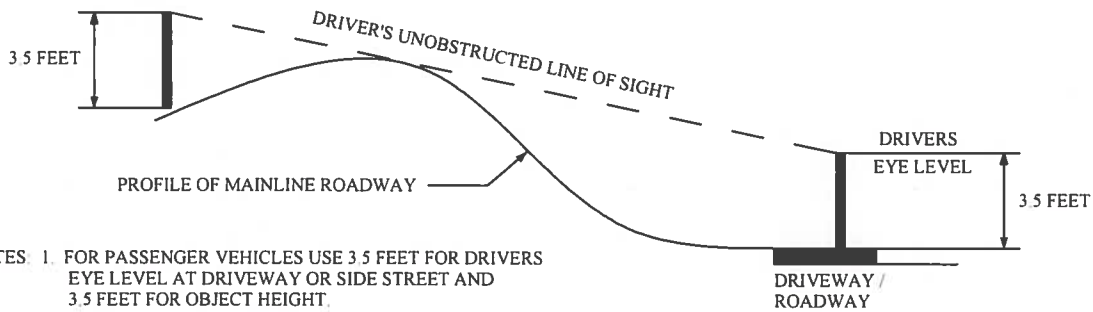


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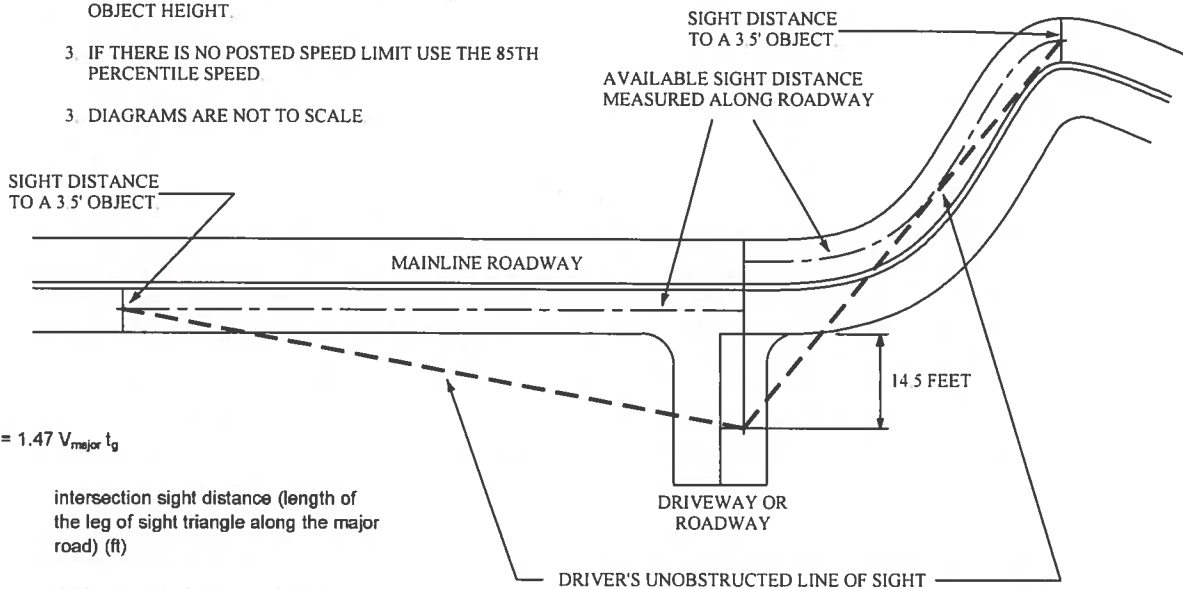
**STANDARD
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PLATE 14: HALL COUNTY TRAFFIC ENGINEERING INTERSECTION SIGHT DISTANCE REQUIREMENTS

FOR DRIVEWAYS AND SIDE STREETS



- NOTES:
1. FOR PASSENGER VEHICLES USE 3.5 FEET FOR DRIVERS EYE LEVEL AT DRIVEWAY OR SIDE STREET AND 3.5 FEET FOR OBJECT HEIGHT.
 2. FOR SINGLE-UNIT AND COMBINATION TRUCKS USE 7.6 FEET FOR DRIVERS EYE LEVEL AND 3.5 FEET FOR OBJECT HEIGHT.
 3. IF THERE IS NO POSTED SPEED LIMIT USE THE 85TH PERCENTILE SPEED.
 3. DIAGRAMS ARE NOT TO SCALE.



$$ISD = 1.47 V_{major} t_g$$

where:

- ISD = intersection sight distance (length of the leg of sight triangle along the major road) (ft)
- V_{major} = design speed of major road (mph)
- t_g = time gap for minor road vehicle to enter the major road (s)

Note: Time gaps are for a stopped vehicle to turn right or left onto a two-lane highway with no median and grades 3 percent or less. The table values require adjustment as follows.

Design Vehicle	t_g
Passenger car	7.5
Single-unit truck	9.5
Combination truck	11.5

For multilane highways:

For left turns onto two-way highways with more than two lanes, add 0.5 seconds for passenger cars or 0.7 seconds for trucks for each additional lane, from the left, in excess of one, to be crossed by the turning vehicle.

INTERSECTION SIGHT DISTANCE FOR DRIVES AND ROADWAYS

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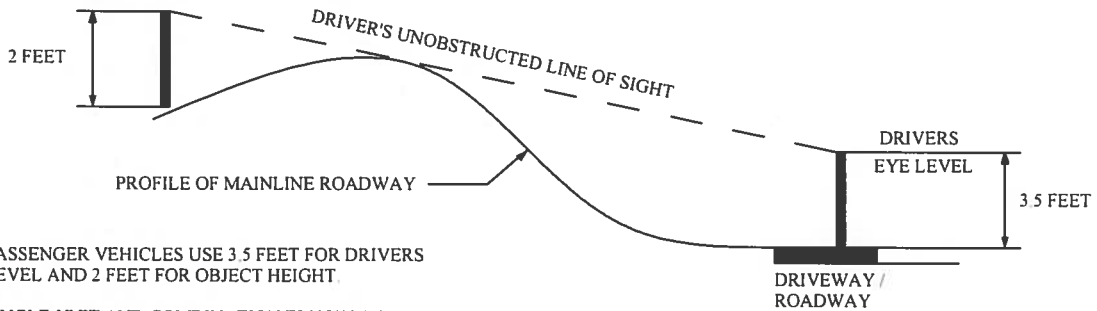


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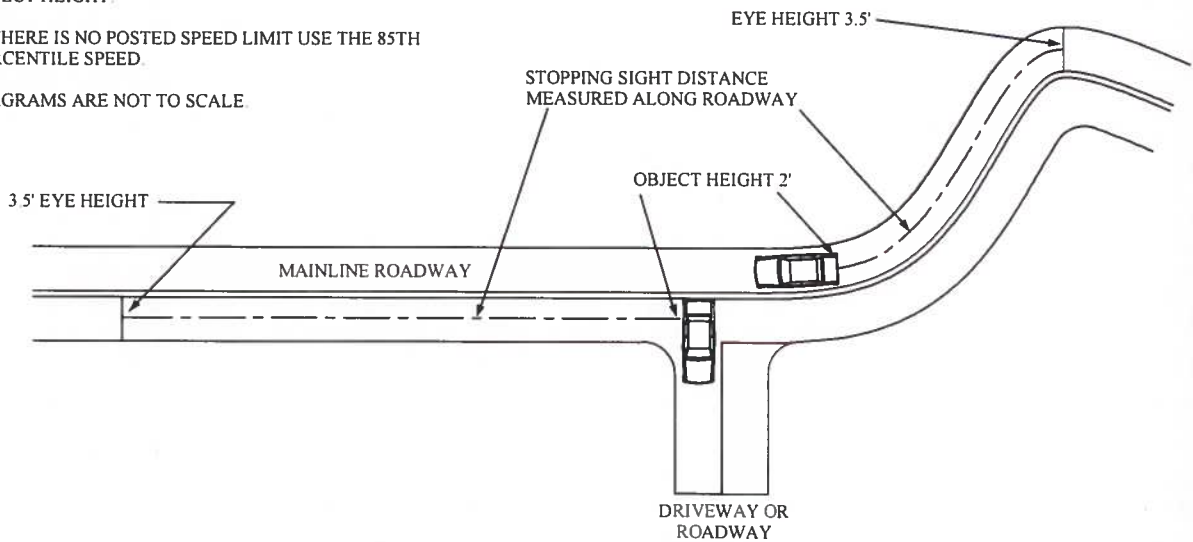
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PLATE 15: HALL COUNTY TRAFFIC ENGINEERING STOPPING SIGHT DISTANCE REQUIREMENTS

FOR DRIVEWAYS AND SIDE STREETS



- NOTES:
1. FOR PASSENGER VEHICLES USE 3.5 FEET FOR DRIVERS EYE LEVEL AND 2 FEET FOR OBJECT HEIGHT.
 2. FOR SINGLE-UNIT AND COMBINATION TRUCKS USE 8 FEET FOR DRIVERS EYE LEVEL AND 2 FEET FOR OBJECT HEIGHT.
 3. IF THERE IS NO POSTED SPEED LIMIT USE THE 85TH PERCENTILE SPEED.
 4. DIAGRAMS ARE NOT TO SCALE



Posted Speed Limit (mph)	Minimum Stopping Sight Distance (feet)
25	155
30	200
35	250
40	305
45	360
50	425
55	495

STOPPING SIGHT DISTANCE FOR DRIVES AND ROADWAYS

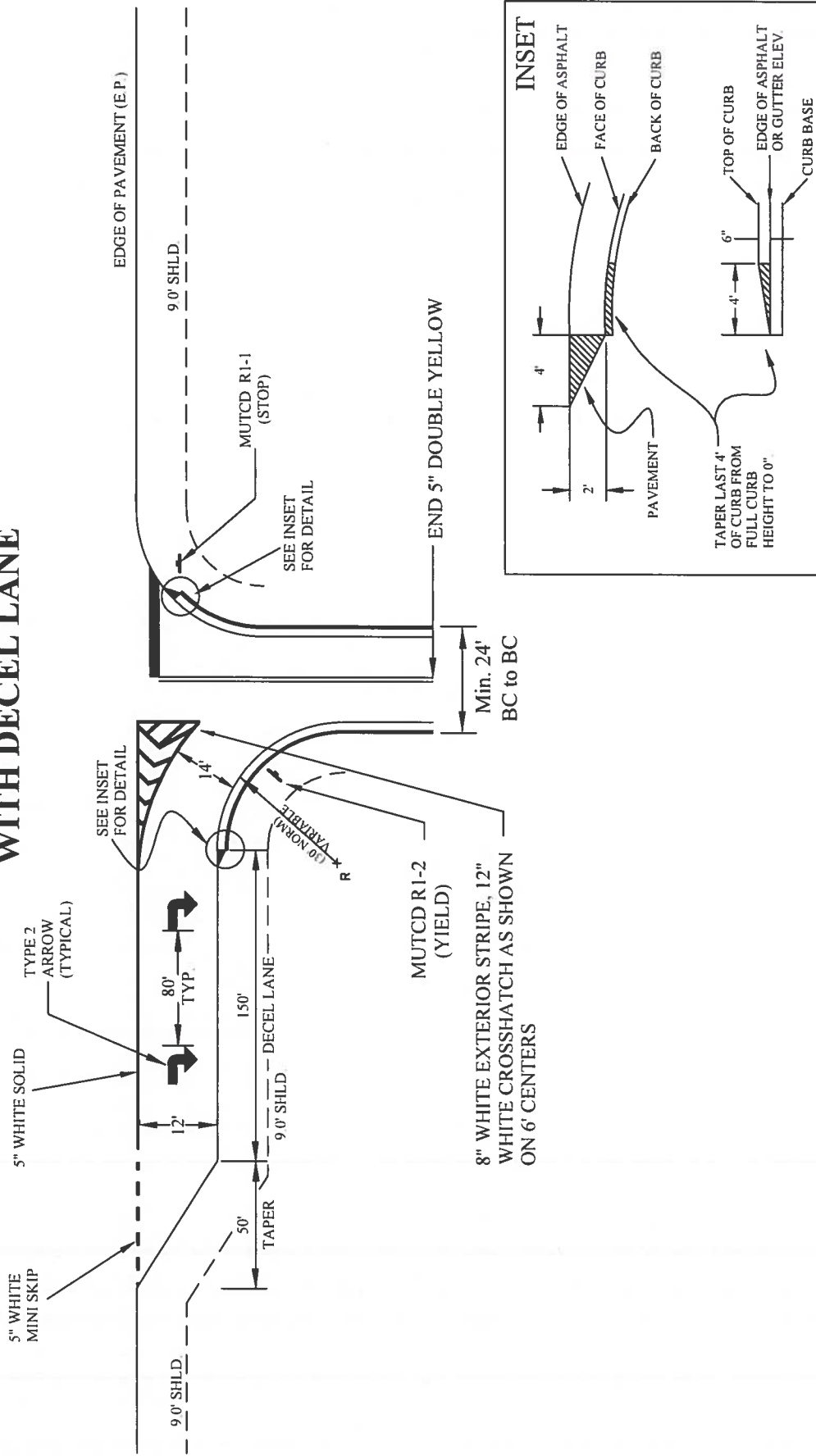
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PLATE 16: TYPICAL DRIVEWAY / ROADWAY WITH DECEL LANE



TYPICAL DRIVEWAY/ROADWAY WITH DECEL LANE

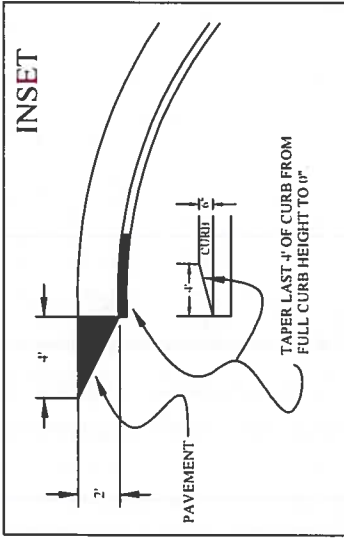
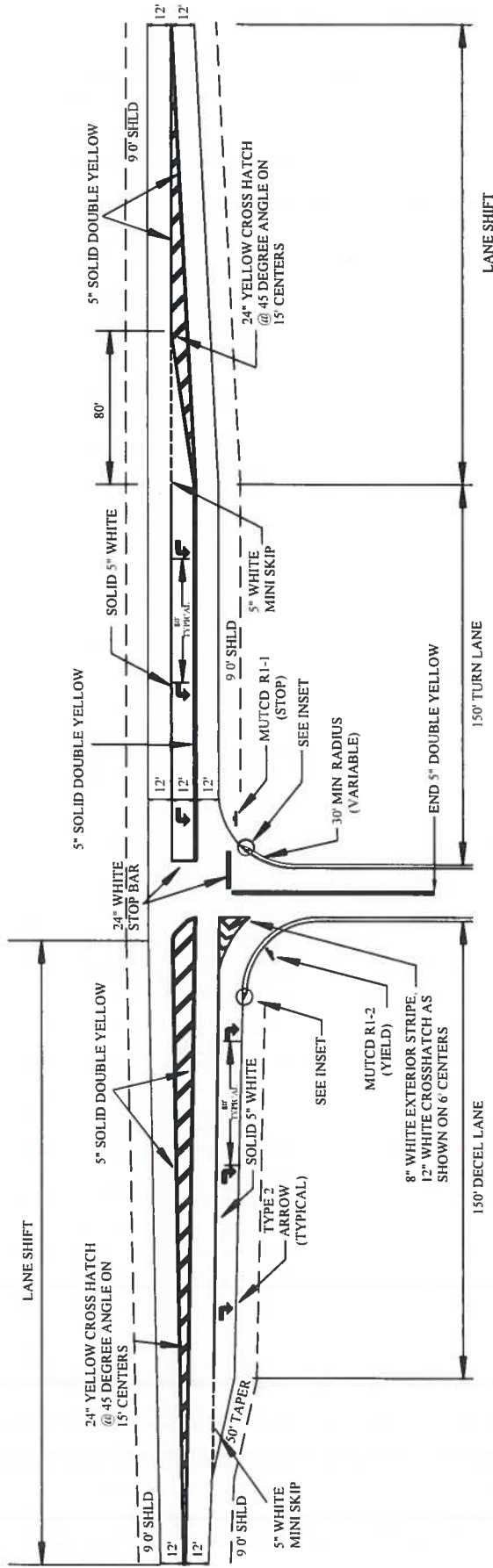
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PLATE 17: HALL COUNTY TRAFFIC ENGINEERING TYPICAL RURAL LEFT TURN LANE



LANE SHIFT:
SPEED LIMIT OF 45 MPH AND GREATER:
LENGTH = $\frac{\text{SPEED} \times \text{WIDTH (OFFSET)}}{60}$
SPEED LIMIT UNDER 45 MPH:
LENGTH = $\frac{\text{WIDTH (OFFSET)} \times \text{SPEED}^2}{60}$

NTS

TYPICAL RURAL LEFT TURN LANE

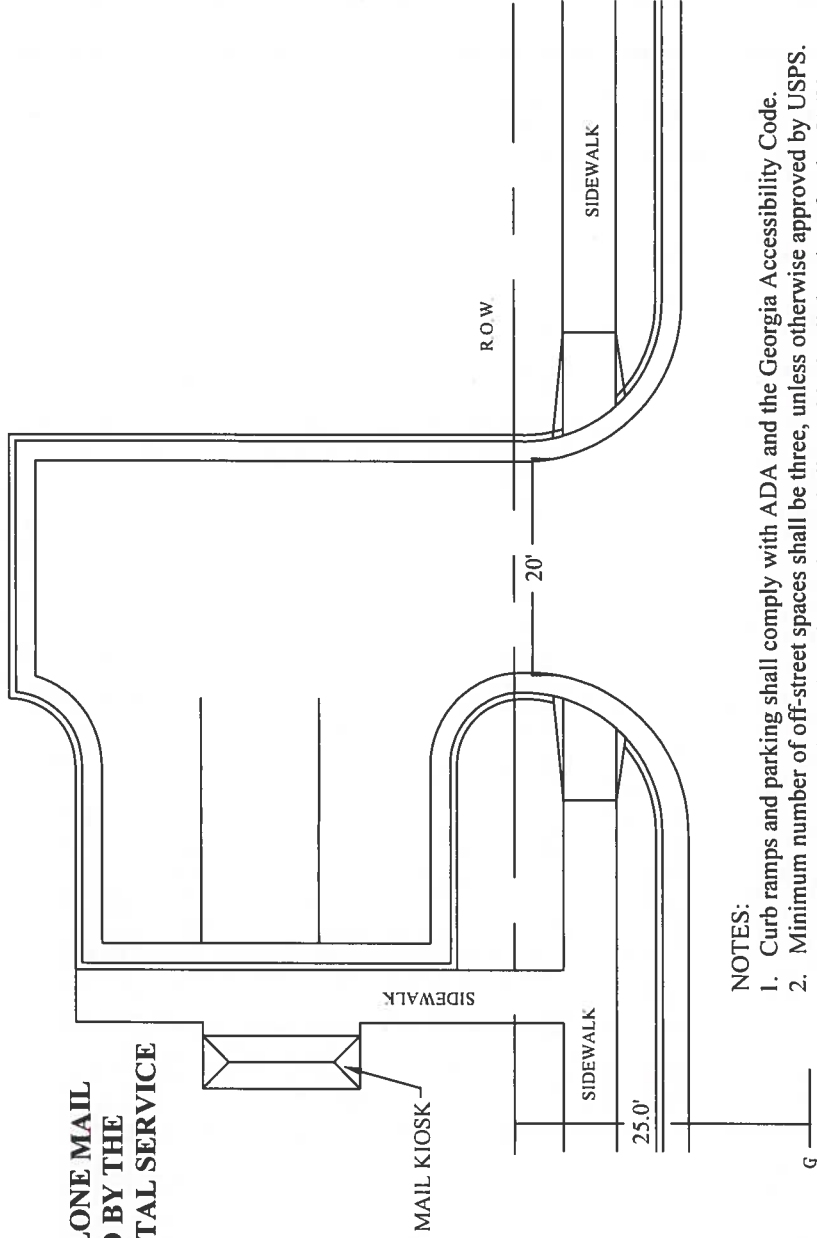
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PLATE 18: STAND ALONE MAIL KIOSK AS REQUIRED BY THE UNITED STATES POSTAL SERVICE



NOTES:

1. Curb ramps and parking shall comply with ADA and the Georgia Accessibility Code.
2. Minimum number of off-street spaces shall be three, unless otherwise approved by USPS.
3. This drawing is a guide only. The engineer shall provide detail drawings for the CMU.
4. The maintenance of the mail kiosk and parking area shall be the responsibility of the Owner/HOA.
5. Mailboxes/Kiosk and parking can be included in the Amenity Area.

Number of Mailboxes	Minimum Short-Term Parking Spaces
50 or less	3
50 - 78	4
79 - 104	5
>105	5 + 1 space for each additional 26 mailboxes

MINIMUM STANDARD FOR STAND ALONE CLUSTER MAILBOX UNITS (CMU)

**REVISED:
FEB-2019**



**HALL COUNTY PUBLIC WORKS & UTILITIES
TRAFFIC ENGINEERING DIVISION**

**STANDARD
TE-21**