SUBLETTE COUNTY
ROAD STANDARDS

Adopted:

December 6, 1977

Amended:

May 19, 1980

May 12, 1992

&

May 19, 2021

PART 1 – CLASS 1 COUNTY ROAD REQUIREMENTS AND PROCEDURES

A GENERAL

a) All Class 1 County road design and maintenance shall be approved by the Sublette County Road and Bridge Superintendent with input from the County Engineer.
b) Prior to realignment and/or movement of any existing County road, road plans and drawings designed and stamped by a Wyoming Registered Professional Engineer shall be submitted and approved by the Sublette County Road and Bridge Superintendent and the Sublette County Board of Commissioners.
c) The County may only maintain those roadways that are lawfully designated as Class 1 County Roads or in the case of roads upon public lands of the United States of America, with a current agreement.

1) RIGHT-OF-WAY

a) Right-of-way shall be sixty (60) feet minimum through private lands and 100 feet minimum through Public Lands.
b) Easement shall be perpetual and dedicated to the public or title shall be transferred to the County.
c) Additional right-of-way may be required in areas of extensive cut or fill, deep snow or areas of blowing snow, and/or paved roads with high daily usage.

2) DESIGN

a) Alignment shall be to as high a standard as is commensurate with the topography, terrain, the design traffic, and the reasonably attainable right-of-way. Sudden changes between curves or widely different radii or between long tangents and sharp curves should be avoided. Where crest vertical curves and horizontal curves occur at the same location, there should be increased minimum sight distance design to assure that the horizontal curve is visible to the traveling public.
b) Centerline of the roadway shall be centerline of the right-of-way, unless otherwise denoted.
c) Typical roadway design sections are included in Appendix 1-A.
d) Traveled-way or roadway shall be twenty-four (24) feet minimum width for gravel roads.
e) Crown shall be two (2) percent minimum with three (3) percent preferable for gravel roads.
f) Road shoulders shall be twelve (12) inches above the natural terrain.
g) Asphalt roads shall have a traveled way of twenty-six (26) feet unless reduced by the Sublette County Road and Bridge Superintendent. Asphalt traveled way shall not be less than twenty-four (24) feet.

h) Roadway shoulders or safety shoulders shall be a minimum of twenty-four inches wide with a slope of six (6) feet horizontal to one (1) foot vertical for all roadway fills over three (3) feet. Design consideration shall be given to provide eight (8) foot safety shoulders with a slope of six (6) feet horizontal to one (1) foot vertical for fills over six (6) feet. Final decision on safety shoulder width to be made by the Sublette County Road and Bridge Superintendent.

i) Drainage slopes and ditches shall be excavated, shaped, and sloped to facilitate storm water run-off. The road-bed and ditch sections shall be shaped in conformity with the typical roadway sections included in Appendix 1-A.

j) Fill slopes shall be as follows:
   (a) Fill 0 to 3 feet Slope 6:1
   (b) Fill 3 to 6 feet Slope 4:1
   (c) Fill over 6 feet Slope 2:1
   (d) Slopes shall stop one (1) foot from the right-of-way/property line.

k) Cut slopes shall be as follows:
   (a) Cut 0 to 3 feet Slope 4:1
   (b) Cut 3 to 6 feet Slope 3:1
   (c) Cut over 6 feet Slope 2:1
   (d) Slopes shall stop one (1) foot from the right-of-way/property line.
   (e) Slopes shall stop a minimum of stop one (1) foot from the road shoulder to allow for ditch construction.

l) Where possible, roadway alignment (layout) shall be consistent with topography in order to provide natural drainage for storm water.

m) All road design shall incorporate best practice erosion control measures. Erosion prevention plans shall be approved by the Sublette County Road and Bridge Superintendent.

n) Design speed shall be determined by the road location, topography, terrain, and design traffic. Final determination shall be made by the Sublette County Road and Bridge Superintendent.

o) Maximum road superelevation shall be four (4) percent.

p) The maximum permissible grade is eight (8) percent except for short distances necessitated by terrain, not to exceed thirteen hundred (1,300) feet.

3) CULVERTS

a) All corrugated metal pipes shall be annular with a minimum thickness of sixteen (16) gauge. Corrugated metal pipes above fifty-two (52) inches may be spiral if approved by the Sublette County Road and Bridge Superintendent. Other pipe materials may be used if approved by the Sublette County Road and Bridge Superintendent.

b) Minimum pipe size shall be eighteen (18) inches. All connecting collars shall be twenty-four (24) inches in length.

c) Culverts less than thirty-six (36) inches in diameter shall be sized for run-off from a minimum twenty-five (25) year storm event. All pipes larger than thirty-six (36) inches in diameter shall be sized for run-off from a minimum

fifty (50) year storm event. Consideration should be given to keep storm run-off from over topping roadway.

d) Culvert lengths shall be determined by the road cross-section and extend beyond the toe of the shoulder fill at least one (1) foot.
e) Culverts shall be placed in channels of natural flow unless otherwise changed by designed grading and drainage.
f) Culverts in irrigation ditches that cross County roads shall be sized to handle three (3) times the water right.
g) Drainage plans shall be approved by the Sublette County Road and Bridge Superintendent.

4) **BRIDGES**

a) Bridges shall be designed for HS20-44 loading.
b) Bridges shall be sized to handle run-off from a one hundred (100) year storm event. Design shall ensure that the roadway is not over topped.
c) Bridge design plans shall be approved by the Sublette County Road and Bridge Superintendent.
d) Scour control shall use the best practice scour control measures.
e) Bridge designs shall be approved by Wyoming Department of Transportation.

5) **UTILITIES**

a) All utilities shall be placed within the outer ten (10) feet of right-of-way. Locations of all utilities shall be approved by the Sublette County Road and Bridge Superintendent.
b) Permit forms for installation of utilities within the County right-of-way are available in the Sublette County Planning and Zoning Office. Separate permits are required for crossing the right-of-way or for installing utilities parallel to right-of-way.

B SUBGRADE AND SUB-BASE

1) Topsoil shall be excavated to a granular material or to bedrock. All roots should be removed.
2) Subgrade or sub-base shall be compacted to ninety-five (95) percent of modified proctor or to the satisfaction of the Sublette County Road and Bridge Supervisor or Engineer. All soft spots in the subgrade shall be removed and replaced.
3) Pit Run fill aggregate shall be a granular material with a maximum size of four (4) inches and compacted to a density acceptable to the Sublette County Road and Bridge Supervisor or Engineer.
4) Geotextile that combines fabric and geogrid shall be used for soft or expanding soils. Final decision on use shall be determined by the Sublette County Road and Bridge Supervisor or Engineer.

C SURFACING MATERIALS

1) Road base or crushed base depth shall be four (4) to Six (6) inches and shall be determined by the volume and weight of the traffic of the gravel road.
2) Gradation of the crushed base shall be Grading H or W with increased fines as follows:

Sieve Designation	Grading W	Grading H
1 ½"	100	-
1"	90-100	100
¾"	-	90-100
#4	45-65	45-65
#8	33-53	33-53
#200	6-12	6-12

3) Crushed base gradations other than those shown above may be approved by the Sublette County Road and Bridge Supervisor.
4) The fraction of the crushed base passing the #40 sieve shall have a liquid limit not greater than twenty-five (25) and a plasticity index not greater than six (6) except that, when the plasticity index is non-plastic, the liquid limit shall not be more than thirty (30). Variations from the above standards may be approved by the Sublette County Road and Bridge Supervisor.
5) Crushed base Grading H is preferred for the top course.
6) Moisture content shall be at or near optimum for compaction as determined by a density proctor for the specific material.
7) Asphalt oil, gradation, and thickness shall be determined by the Sublette County Road and Bridge Supervisor or Engineer.

D SNOWDRIFT CONSIDERATION

1) To minimize snow drifting on the road, the roadway shall be twelve (12) inches above the natural terrain, except where prohibited by the terrain, with backslopes no steeper than three (3) feet horizontal to one (1) foot vertical, where possible and subject to approval by the Sublette County Road and Bridge Supervisor.
2) Additional right-of-way shall be required in heavy snow drift areas to facilitate plowing, adding wind breaks, and in areas with steep or deep cuts.

F APPROACHES FOR PRIVATE DRIVES

1) Approaches shall be twenty (20) feet wide and have a minimum radius at the travel way shoulders of thirty (30) feet.
2) A culvert shall be placed in the roadway ditch to facilitate roadway drainage. The only exception is if the approach is at the high point of the ditch drainage. The minimum culvert diameter shall be eighteen (18) inches. Culvert length shall be determined by the approach fill required and extend beyond the toe of the fill by

I PERMIT REQUIRED

1) A permit is required prior to constructing an approach to any county road.
2) Applications are available at the Office of the County Planning and Zoning.

J ACCEPTANCE

1) Anyone working within the county road right-of-way shall request in writing that the work be inspected by the Sublette County Road and Bridge Supervisor or Engineer for approval.

PART II – ROADS IN SUBDIVISIONS

A GENERAL

a) The following statement shall appear on all subdivision plats, where applicable: "**Roads built to these standards do not meet the standards for a Class I county road. The roads must be brought to Class I County standards prior to consideration by the County for adoption as a Class I County Road.**"
b) All subdivision roads are required to have a crushed base road surface at a minimum. Roads may be chipped or paved with asphalt.
c) Two (2) copies of road improvement/construction plans and drawings designed and stamped by a Wyoming Registered Professional Engineer for all subdivision roads, other than private drives, shall be submitted to the Sublette County Road and Bridge Superintendent and Engineer for approval.

1) RIGHT-OF-WAY

a) Right-of-way shall be sixty (60) feet minimum.
b) Consideration should be given to dedicate subdivision roads to the public to facilitate future options.
c) Additional right-of-way may be required in areas of extensive cut or fill, deep snow, or areas of blowing snow and the plowing of snow catchers.

2) DESIGN

a) Alignment shall be to as high a standard as is commensurate with the topography, terrain, the design traffic, and the reasonably attainable right-of-way. Sudden changes between curves or widely different radii or between long tangents and sharp curves should be avoided. Where crest vertical curves and horizontal curves occur at the same location, there should be above minimum sight distance design to assure that the horizontal curve is visible to the traveling public.
b) Centerline of the roadway shall be centerline of the right-of-way, unless otherwise denoted.
c) Typical roadway design sections are included in Appendix 2-A.
d) Traveled-way or roadway width varies depending on residences served.
   i) Subdivision roads serving less than 10 residences may have a minimum travel way or roadway width of twenty (20) feet with two (2) foot shoulders on each side of the travel way.
   ii) Subdivision roads serving ten (10) to forty (40) residences may have a minimum travel way or roadway width of twenty-two (22) feet with two (2) foot shoulders on each side of the travel way.
e) Traveled-way or roadway widths for Commercial or Industrial subdivisions shall be twenty-four (24) feet with two (2) foot shoulders on each side of the travel way.

f) Crown shall be two (2) percent minimum with three (3) percent preferable for gravel roads.
g) Consideration should be given to designing road shoulders to be twelve (12) inches above the natural terrain to aid in snow removal.
h) Roadway shoulders or safety shoulders shall be a minimum of two (2) feet wide with a slope of six (6) feet horizontal to one (1) foot vertical for all roadway fills over three (3) feet.
i) Drainage slopes and ditches shall be excavated, shaped, and sloped to facilitate storm water run-off. The road-bed and ditch sections shall be shaped in conformity with the typical roadway sections included in Appendix 2-A.
j) Fill slopes shall be as follows:
    i) Fill 0 to 2 feet Slope 6:1
    ii) Fill 2 to 4 feet Slope 3:1
    iii) Fill over 4 feet Slope 2:1
    iv) Slopes shall stop one (1) foot from the right-of-way/property line.
k) Cut slopes shall be as follows:
    i) Cut 0 to 2 feet Slope 6:1
    ii) Cut 2 to 4 feet Slope 3:1
    iii) Cut over 4 feet Slope 2:1
    iv) Slopes shall stop one (1) foot from the right-of-way/property line.
    v) Slopes shall stop a minimum of one (1) foot from the shoulder to allow ditch construction.
l) Where possible, roadway alignment (layout) shall be consistent with topography in order to provide natural drainage for storm water.
m) Design speed shall be determined by the road location, topography, terrain, and design traffic.
n) Minimum design speed for level terrain (slopes less than ten (10) percent) – twenty-five (25) mph.
o) Minimum design speed for rolling terrain (slopes from ten (10) percent to fifteen (15) percent) – twenty (20) mph.
p) Minimum design speed for mountainous terrain (slopes in excess of fifteen (15) percent) – fifteen (15) mph.
q) Maximum road superelevation shall be four (4) percent.
r) The maximum permissible grade is eight (8) percent except for short distances necessitated by terrain, not to exceed thirteen hundred (1,300) feet.
s) Cul-de-sacs, if necessary, shall be constructed in accordance with these road standards. All cul-de-sac streets shall have a right-of-way road terminus consisting of a minimum outside radius of sixty (60) feet or a T or L layout having sixty (60) foot legs. Cul-de-sac travel ways shall have a minimum fifty (50) foot radius from center of cul-de-sac to edge of travel way.
t) Variations to the above standards may be approved by the Sublette County Road and Bridge Superintendent to accommodate terrain of right-of-way constraints.

3) **CULVERTS**

a) All corrugated metal pipes shall be annular with a minimum thickness of sixteen (16) gauge. Other pipe materials may be used. It should be noted that spiral corrugated metal pipes do not meet Sublette County's Class I road standards.
b) Minimum pipe size shall be eighteen (18) inches. All connecting collars shall be twenty-four (24) inches in length.
c) Culverts shall pass a minimum ten (10) year storm event. Culvert sizes shall be designed by a Professional Engineer licensed in the State of Wyoming. It is recommended as a minimum that culverts less than thirty-six (36) inches in diameter be designed for a twenty-five (25) year storm event and culverts greater than thirty-six (36) inches in diameter be designed for a fifty (50) year storm event. Methodology and reasoning shall be supplied with the road design for review by the Sublette County Road and Bridge Superintendent and/or Engineer. Consideration should be given to keep storm run-off from over topping roadway.
d) Culvert lengths shall be determined by the road cross-section and extend beyond the toe of the shoulder fill at least one (1) foot.
e) Culverts shall be placed in channels of natural flow unless otherwise changed by designed grading and drainage.
f) Culverts in irrigation ditches that cross subdivision roads shall be sized to convey three (3) times the water right.

4) **BRIDGES**

a) Bridges shall be designed for HS20-44 loading.
b) Bridges shall be sized to handle run-off from a one hundred (100) year storm event. Design shall ensure that the roadway is not over topped.
c) Bridge design plans shall be stamped by a Professional Engineer licensed in the State of Wyoming and submitted to the Sublette County Road and Bridge Superintendent or County Engineer for review.
d) Scour control shall use the best practice scour control measures.
e) Bridge designs may be required to be approved by the Wyoming Department of Transportation.

5) **UTILITIES**

a) All utilities shall be placed within the outer ten (10) feet of right-of-way.

B SUBGRADE AND SUB-BASE

1) Topsoil shall be excavated to a granular material or to bedrock. All roots should be removed.
2) Subgrade or sub-base shall be a minimum of eight (8) inches of pit run coarse aggregate.

3) Pit Run fill aggregate shall be a granular material with a maximum size of three (3) inches.
4) Geotextile that combines fabric and geogrid shall be used for soft or expanding soils. Final decision on use shall be determined by the Sublette County Road and Bridge Supervisor or Engineer.

C SURFACING MATERIALS

1) Road base or crushed base depth shall be four (4) to six (6) inches and shall be determined by the volume and weight of the traffic of the gravel road.
2) It is recommended that the gradation of the crushed base shall be Grading H or W with increased fines as follows:

Sieve Designation	Grading W	Grading H
1 ½"	100	-
1"	90-100	100
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3) Crushed base Grading H is preferred for the top course.
4) Moisture content shall be at or near optimum for compaction as determined by a density proctor for the specific material.
5) The fraction of the crushed base passing the #40 sieve shall have a liquid limit not greater than twenty-five (25) and a plasticity index not greater than six (6) except that, when the plasticity index is non-plastic, the liquid limit shall not be more than thirty (30). Variations from the above standards may be approved by the Sublette County Road and Bridge Supervisor.

D INTERSECTIONS

1) Right angle intersections shall have a minimum radius of thirty (30) feet at the travel way shoulder.
2) Intersections not perpendicular to the main road shall have a minimum angle of eighty-five (85) degrees. Lesser angles are not desirable from a safety standpoint.

E SUBDIVISION ROAD APPROACHES TO COUNTY ROADS

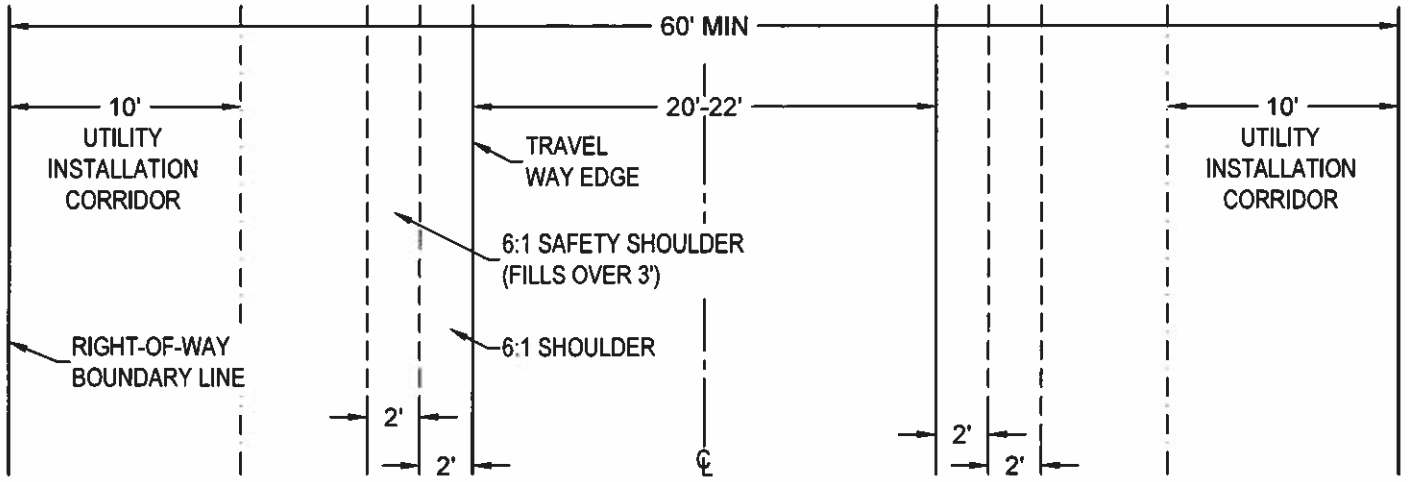
1) Approaches providing access to county roads shall conform to the following requirements:
   a) Minimum distance of road frontage between the centerline of access approaches to the centerline of a county road or to the intersection of state and federal highways shall be five hundred (500) feet unless a lesser distance is

PART III – INDUSTRIAL AND COMMERCIAL ROADS – REQUIREMENTS AND PROCEDURES

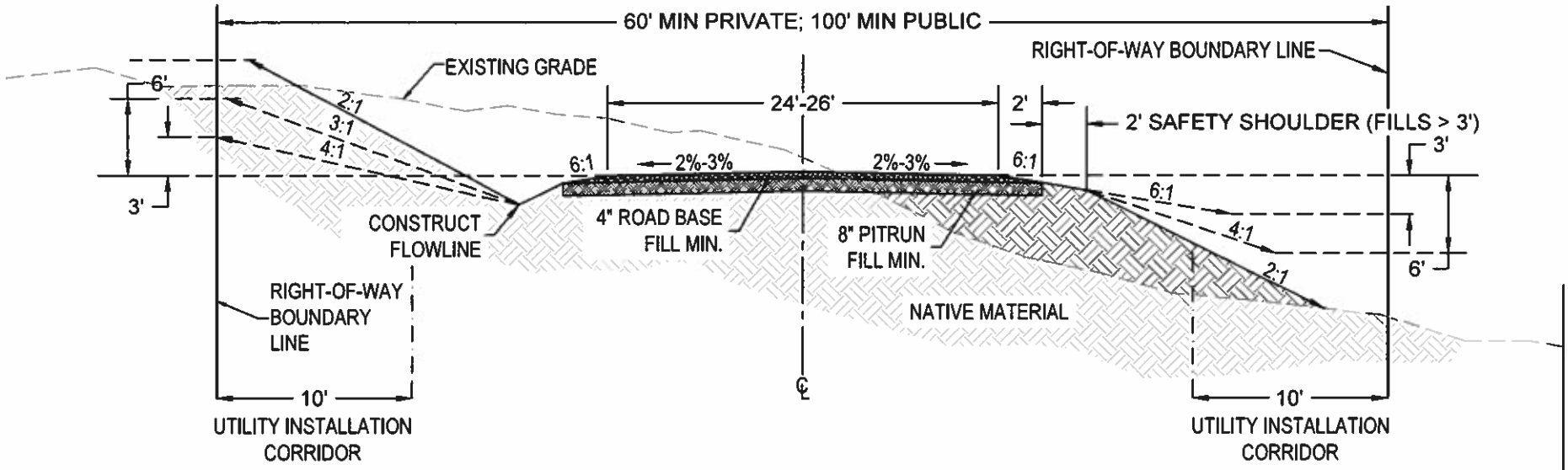
A GENERAL

a) Industrial and Commercial road standards shall follow the same standards as Class I County Road standards.
b) The one exception is that the maximum permissible grade is eight (8) percent unless a greater percent grade is approved by the Sublette County Road and Bridge Superintendent.
c) Two (2) copies of road improvement/construction plans and drawings designed and stamped by a Wyoming Registered Professional Engineer for all Industrial and Commercial roads shall be submitted to the Sublette County Road and Bridge Superintendent and Engineer for approval.

-TYPICAL ROADWAY PLAN-
NOT TO SCALE

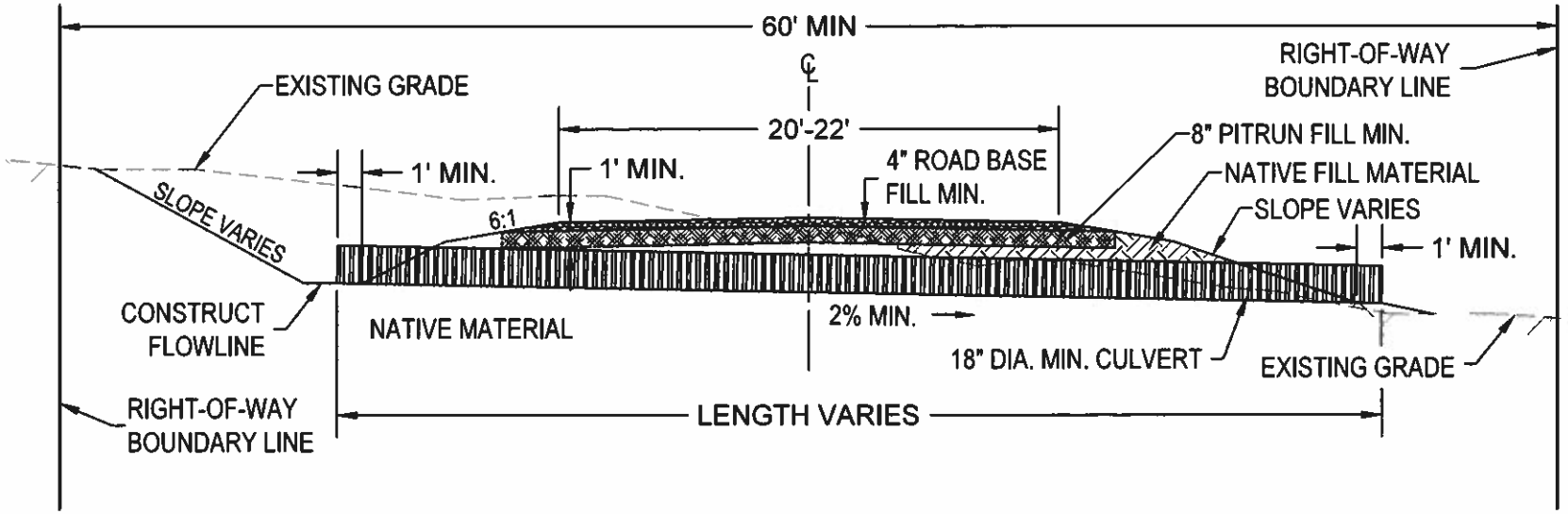


-TYPICAL ROADWAY SECTION-
NOT TO SCALE



APPENDIX 1-A

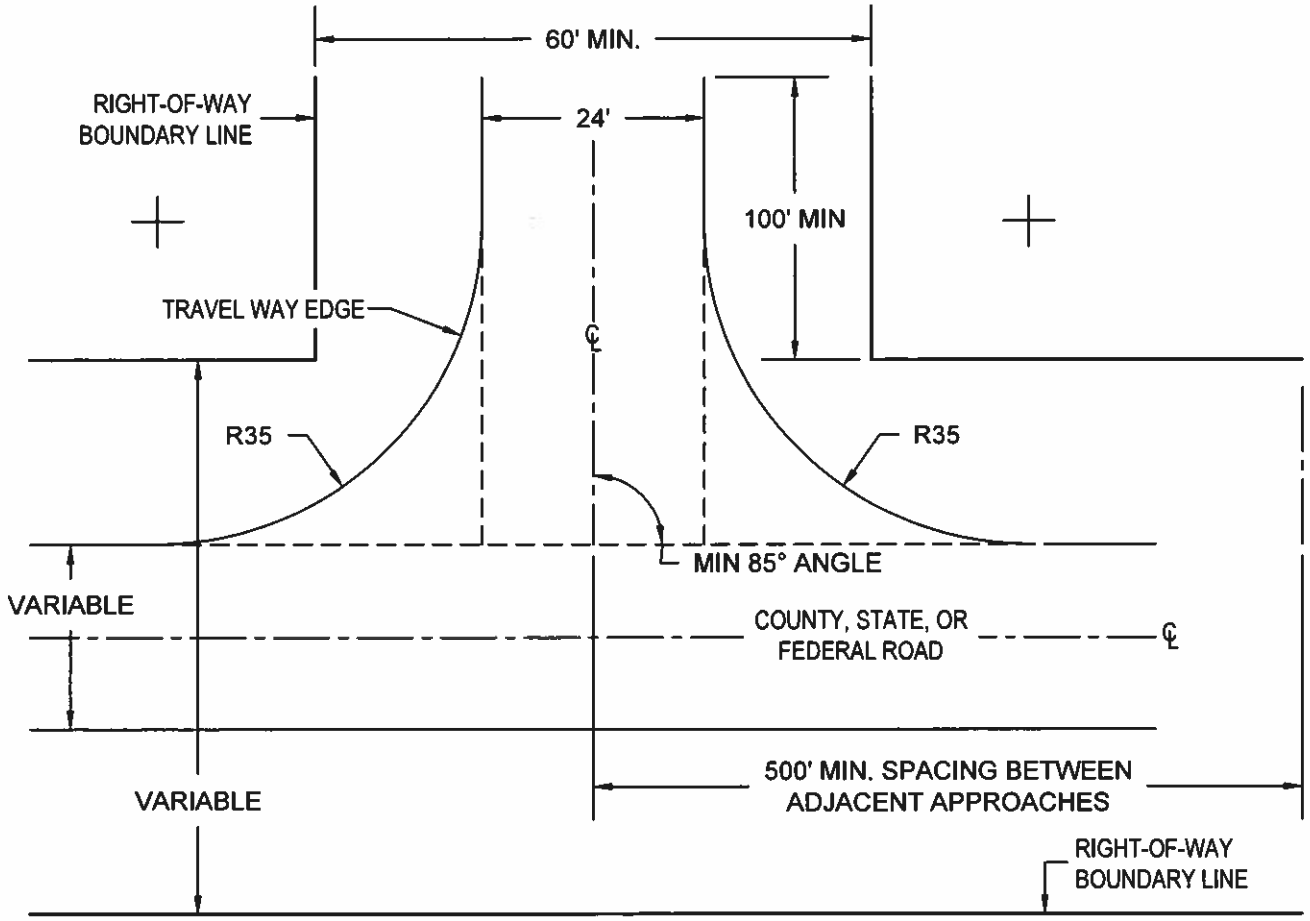
-TYPICAL CULVERT INSTALLATION SECTION-
NOT TO SCALE



*NOTES:
CULVERTS < 36" DIA. SHALL BE SIZED FOR 25-YR STORM EVENT
CULVERTS 36" OR GREATER SHALL BE SIZED FOR 50-YR STORM EVENT
MINIMUM CULVERT DIA. SHALL BE 18"
MINIMUM CULVERT COVER SHALL BE 1' OVER MOST RESTRICTIVE TRAVEL WAY EDGE
WHERE CULVERT OUTLET DITCH EXCEEDS A 3:1 SLOPE, RIP-RAP SHALL BE INSTALLED FOR EROSION CONTROL PURPOSES
CULVERTS INSTALLED FOR IRRIGATION PURPOSES SHALL BE SIZED TO CONVEY 3 TIMES THE ADJUDICATED WATER RIGHT (18" DIA. MIN.)

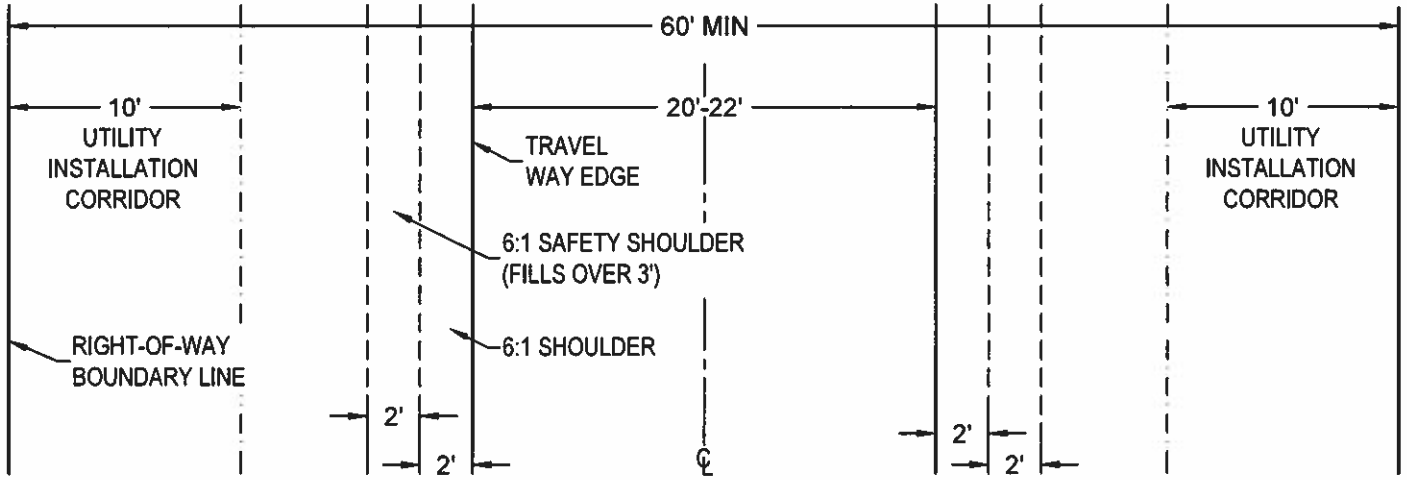
APPENDIX 1-A

-TYPICAL RESIDENTIAL SUBDIVISION INTERSECTION WITH COUNTY ROAD-
NOT TO SCALE



*NOTE:
APPROACHES ONTO STATE OR FEDERAL ROADS SHALL BE PERMITTED BY THE GOVERNING AUTHORITY AND SHALL MEET ALL DESIGN CRITERIA SET FORTH BY THE APPLICABLE JURISDICTION.

-TYPICAL ROADWAY PLAN-
NOT TO SCALE



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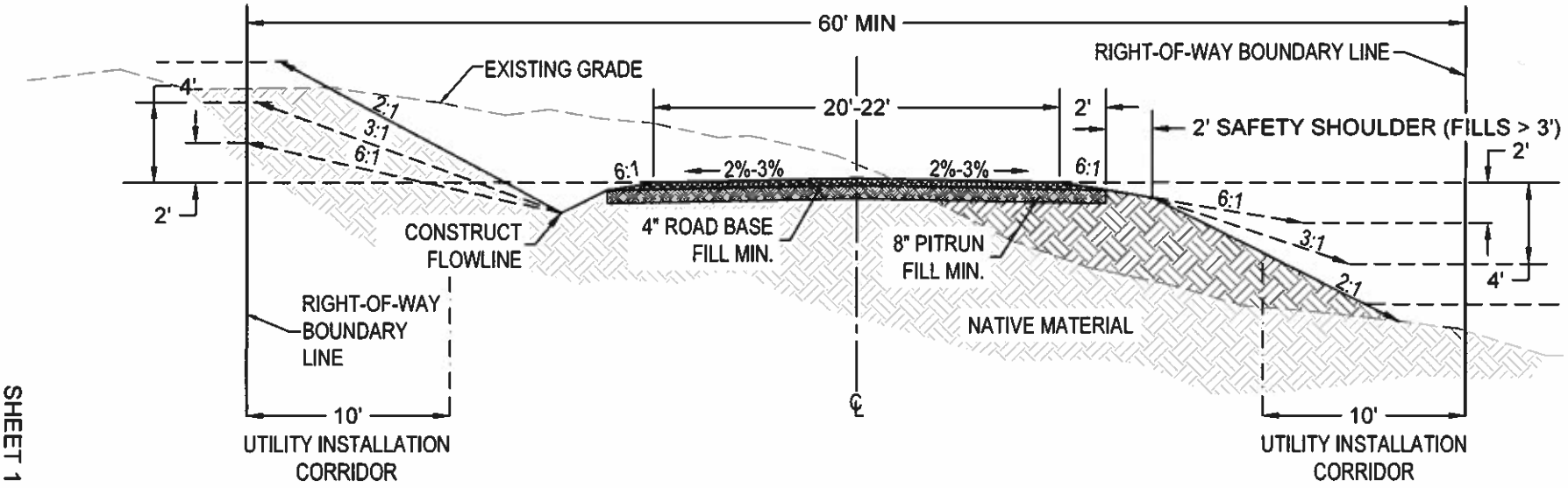
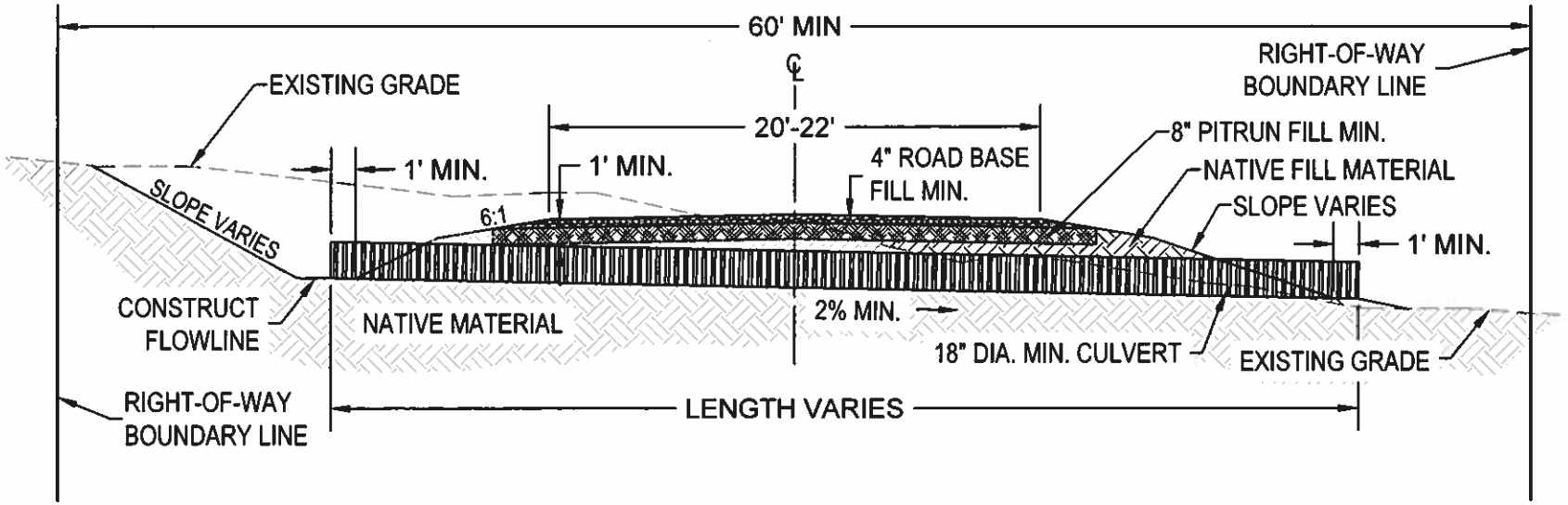


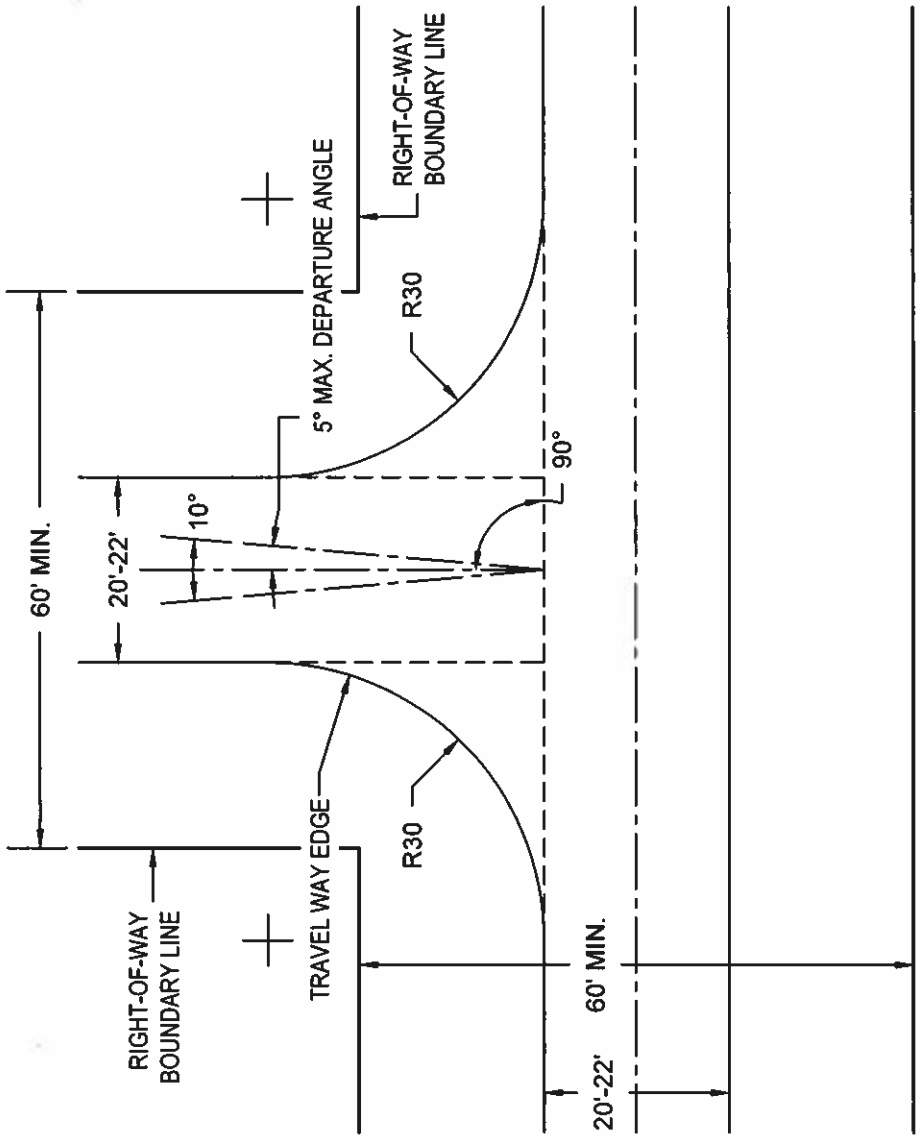
APPENDIX 2-A

-TYPICAL CULVERT INSTALLATION SECTION-
NOT TO SCALE



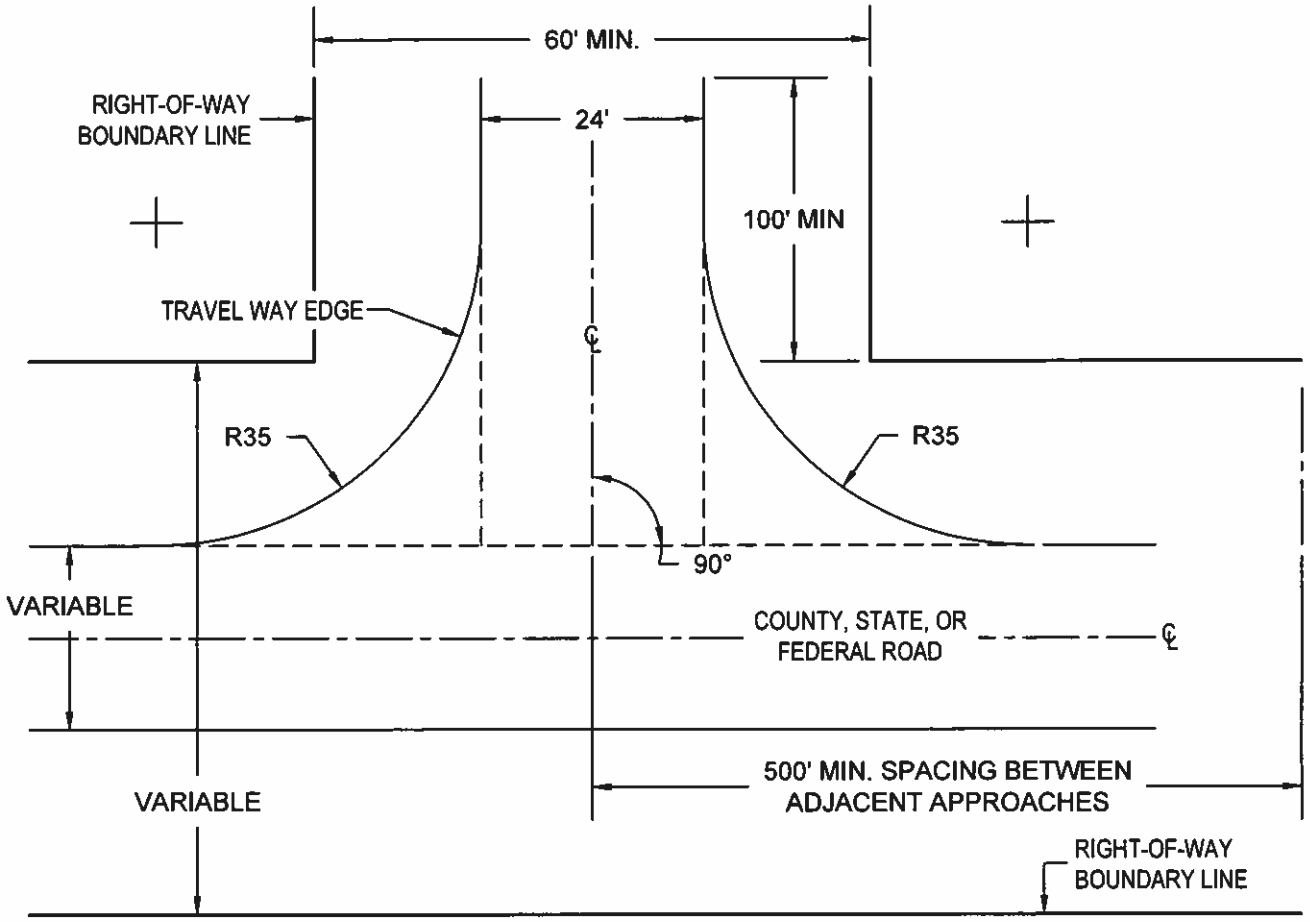
*NOTES:
CULVERTS < 36" DIA. SHALL BE SIZED FOR 10-YR STORM EVENT MIN. (25-YR RECOMMENDED)
CULVERTS 36" OR GREATER SHALL BE SIZED FOR 50-YR STORM EVENT
MINIMUM CULVERT DIA. SHALL BE 18"
MINIMUM CULVERT COVER SHALL BE 1' OVER MOST RESTRICTIVE TRAVEL WAY EDGE
WHERE CULVERT OUTLET DITCH EXCEEDS A 3:1 SLOPE, RIP-RAP SHALL BE INSTALLED FOR EROSION CONTROL PURPOSES
CULVERTS INSTALLED FOR IRRIGATION PURPOSES SHALL BE SIZED TO CONVEY 3 TIMES THE ADJUDICATED WATER RIGHT (18" DIA. MIN.)

-TYPICAL RESIDENTAIL SUBDIVISION INTERIOR INTERSECTION-
NOT TO SCALE



*NOTE:
COMMERCIAL OR INDUSTRIAL SUBDIVISION APPROACHES SHALL BE A MINIMUM OF 24' WIDE

-TYPICAL RESIDENTIAL SUBDIVISION INTERSECTION WITH COUNTY ROAD-
NOT TO SCALE



*NOTE:
APPROACHES ONTO STATE OR FEDERAL ROADS SHALL BE PERMITTED BY THE GOVERNING AUTHORITY AND SHALL MEET ALL DESIGN CRITERIA SET FORTH BY THE APPLICABLE JURISDICTION.