TANEY COUNTY, MISSOURI

ROAD STANDARDS

This document contains the Road Standards Adopted by the Taney County Commission.

These Standards have been developed to provide criteria for constructing roads in Taney County.

Adopted by:

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Date: December 21, 2020

The County Highway Administrator reserves the right to amend the Road Standards on a case-by-case basis as needed.

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SECTION 1

DEFINITIONS

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DEFINITIONS

1. Arterial Street (Primary). A street or highway primarily intended to provide for high volume, moderate speed, and extended trip length traffic movement between major activity centers, with some access to abutting property subordinate to major traffic movement. Corridor movement with trip length and density suitable for substantial statewide travel.

2. Arterial Street (Secondary). A street which interconnects with and augments the major arterial system. The secondary arterial is primarily intended to provide for moderate volume, moderate speed, and short to moderate trip length while providing partially controlled access to abutting property. Linkage of cities, larger towns, and other traffic generators (such as major resort areas) that are capable of attracting travel over similarly long distances. Internal spacing consistent with population density, so that all developed areas of the County are within reasonable distances of arterial highways.

3. Benchmark. A permanent object of known elevation and location that is in an area where disturbance is unlikely.

4. Bridge. A structure having a clear span greater than twenty (20) feet or a multiple span structure where the total length of the span is in excess of twenty (20) feet.

5. Collector Street. A street which collects and distributes traffic to and from local and arterial street systems. The collector is primarily intended to provide for low to moderate volume, low speed, and short trip length trips while providing access to abutting property. These routes serve larger towns not directly served by the higher systems, and other traffic generators such as schools, shipping points and agricultural areas. These routes link these places with nearby towns or cities, or with routes of higher classifications.

6. Consultant. An individual, firm, association, partnership, corporation or other legal entity registered in the State of Missouri and engaged in the practice of engineering or architecture.

7. Corner. A point of intersection of lines of two street curb faces extended into street intersection.

8. Cul-de-sac or Dead-end Street. A minor street with only one outlet, which has a circular turn around at the end.

9. Culvert. A structure not classified as a bridge, which provides a conduit for drainage.

10. Curb Return. The portion of a curb at the beginning of a driveway approach, which serves as a transition from the height of the curb to the level of the approach.

11. Driveway. An area intended for the operation of automobiles and other vehicles from the street right-of-way to a garage, parking area, building entrance, structure, or approved use located on the property. Any dimensions relating to the width of a driveway surface shall be measured at the right-of-way line.

12. Driveway Approach. An area intended for the operation of automobiles and other vehicles giving access between a roadway and abutting property. The driveway approach includes the sum of the curb returns on each side of the driving surface, plus the driving surface.

13. Easement. A grant by the owner to the public, a corporation, or persons of the use of land for a specific purpose.

14. Expressway. A street or highway with limited and partially controlled points of

access at arterial system intersections. The expressway is primarily intended to provide for high volume, moderate to high speed extended traffic between major activity centers with minimal impairment to movement.

15. Gutter. That portion of the driving surface of a street, driveway, approach, or other public way, which abuts the curb and provides for the runoff of surface drainage.

16. Intersection. The general area where two or more roadways meet, join, or cross at a common point establishing an area within which vehicles traveling different roadways may come in conflict.

17. High Density - Residential. Any two-family dwelling on a parcel of less than three (3) acres, or any three family or larger multi-family structure or subdivision with lots smaller than 0.5 acres.

18. Joint Driveway. A driveway which provides access to a public street for more than one parcel of land.

19. Local Street. A street primarily providing direct access to abutting property and designed to accommodate low-volume, low-speed traffic.

20. Lot. An undivided tract or parcel of land under one ownership having access to a street, whether occupied or to be occupied by a building or building group together with accessory buildings, which parcel of land is designated as a separate and distinct tract, and is identified by a tract or lot number or symbol in a duly approved subdivision plat filed of record.

21. Owner. Any individual, firm, association, syndicate, partnership, corporation, trust, or any other legal entity having sufficient proprietary interest in the land sought to be subdivided to commerce and maintain proceedings to subdivide the same.

22. Parkway. That portion of the street right-of-way between the edges of the roadway and the adjacent property line, or lines, on the same side of the street except any portion used for sidewalks.

23. Preliminary Plat. The preliminary map, drawing, or chart indicating the proposed layout of the subdivision initially required in the subdivision process.

24. Property Description. Description of a lot, tract, or parcel by metes and bounds, by reference to a plat or by reference to government survey.

25. Property Line. The boundary between two or more parcels of land.

26. Public Improvements. Those things that are constructed, installed, or performed on public land, or on land that is to become public in the subdivision process, including but not limited to street and alley pavement, curbs, storm drainage facilities, sidewalks, and sanitary sewers, and including the grading of such land.

27. Reference Points. Points of reference located by a survey of the project. The points are to be tied or referenced to at least three identifiable features.

28. Right-of-Way. A general term denoting public ownership or interest in land, usually in a strip, which has been acquired for or devoted to the use of a street.

29. Right-of-Way Line. The boundary between any public street and one or more parcels of private property.

30. Roadway. That area of a street intended and used for vehicular travel.

31. Service Road. A minor street which is parallel and adjacent to an arterial street and which provides access to abutting properties and protection from through traffic.

32. Shall, May. The word “Shall” shall be deemed as mandatory. The word “May” shall be deemed as permissive.

33. Sidewalk. That paved portion of a parkway intended for the use of pedestrians.

34. Sight Distance Triangle. A triangular-shaped area of street right-of-way, generally acquired at intersections to ensure adequate sight distances.

35. Streets. A way for vehicular traffic, whether designated with the suffix as a street, highway, thoroughfare, parkway, throughway, road, avenue, boulevard, lane, place, or however otherwise designated.

36. Subgrade. The underlying soil beneath a roadway on which a base course is to be placed.

37. Subdivision. The division of land into two (2) or more lots, tracts, or parcels for the purpose of transfer of ownership or building development, or, if a new street or easement of access is involved, and division of a parcel of land. The term includes resub division and, when appropriate to the context, shall relate to the process of subdividing or to the land subdivided.

38. Surveying. The act of determining the positions of points on the earth’s surface by means of measurement of distance, direction, and elevation.

39. Vehicle. Every device in, upon, or by which any person or property is, or may be transported, or drawn upon a street, except devices used exclusively upon stationary rails or tracks.

SECTION 2

STREET REQUIREMENTS

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STREET REQUIREMENTS SECTION

Street plans and specifications shall be approved by Taney County prior to starting any construction.

Section 1. Submission of Engineering Plans:

1. All plans and reports submitted shall be prepared by, or under the direction of a professional engineer, licensed in the State of Missouri, and shall be reviewed for compliance with the minimum design requirements.

2. The original submission of engineering construction plans for streets and storm sewer shall be submitted the first time in one (1) set of prints to the Taney County Road and Bridge Department.

3. After the first submission of engineering construction plans, all future submissions for review shall consist of one (1) set of prints to the Taney County Road and Bridge Department. Projects involving state highways will require the approval of the Missouri Department of Transportation. It is the developer's responsibility to obtain such approvals from MoDOT and provide copies of the comments and approvals to the Taney County Road and Bridge Department.

4. After approval of the engineering drawings, one (1) set of signed plans shall be retained by the contractor on the job site and one (1) set shall be provided to Taney County.

Section 2. Streets:

1. New streets shall be considered in their relation to existing, platted or planned streets, to topographical conditions, public convenience and safety, and to the proposed land uses served by them.

2. Provision must be made for the extension and continuation of streets into and from adjoining areas.

3. Subdivisions abutting or containing an existing or proposed arterial street, marginal access streets or reverse frontage lots, shall provide access to abutting properties as required.

Section 3. Road Surfacing:

Allowable Road Type				
Lot Size	**Gravel**	**Chip Seal**	**Asphalt**	**Concrete**
Less than 2 Acres	**no**	**no**	**yes**	**yes**
2–5 Acres	**no**	**yes**	**yes**	**yes**
Greater than 5 Acres	**yes**	**yes**	**yes**	**yes**

TABLE 2.3

ROAD SURFACING

1. Concrete: Roads constructed of Portland Cement Concrete – All concrete shall meet the Missouri Standard Specifications for Highway Construction, Division 500, Rigid Pavements – Sub-base shall meet 95% and over compaction. Standard mix designs for machine placed (PCC-MF) and hand finished (PCC-HF) concrete pavements shall be adhered to. Concrete shall be 6-inches thick on 5-inches of compacted subgrade.

2. Hot Mix Asphalt: Local Roads constructed of Hot Mix Asphalt shall be a two-inch (2") asphalt wearing surface on 3-inches (3") of bituminous plant mix base course over 5-inches of properly compacted base rock (95% and over compaction). All bituminous asphalt mix shall meet all requirements of the Missouri Standard Specifications for Highway Construction, Division 400, Flexible Pavements.

On commercial or industrial streets, and Arterial and collector roads, a minimum of two-inches (2") asphalt wearing surface on five-inches (5") of bituminous plant mix base over eight inches (8") of properly compacted base rock (95% and over compaction).

3. Chip Seal: For double seal coat wearing surface roads, a minimum of eight inches (8") of properly compacted base rock (95% and over compaction) will be required.

4. Gravel: Roads constructed of gravel shall be constructed with 4-inches (4") of rock having an open gradation of 1½" and the top 2-inches (2") of rock having a dense gradation of ¾" for the wearing surfacing.

Section 4. Curbs:

1. Curb and gutters shall be required in all subdivisions on streets which serve lots smaller than 0.5 acres/lot.

Section 5. Driveways:

1. Type 1 Driveway shall be a residential / field entrance 15'-20' wide, measured at the right-of-way line. Residential private driveways may be constructed of asphalt pavement, concrete pavement, chip seal or crushed rock or gravel.

2. Type 2 Driveway shall be a Commercial / Industrial entrance 24' – 60' wide, measured at the right-of-way line. Driveway radius shall be determined by the type and number of vehicles projected to be using the driveway. A turning analysis may be required.

Section 6. Mailboxes:

1. Construction of mailboxes of brick or other non-breakaway material will not be allowed on any County roads or right-of-way. Mailbox shall meet the requirements of the United States Postal Service.

Section 7. Traffic Control:

1. Signs to be placed by the developer shall meet the requirements established in the "Manual on Uniform Traffic Control Devices" and shall include:

   (a) Stop Signs. Stop signs should be placed at all intersections with arterials and may be required at intersections with collectors.

   (b) Yield Signs. Yield signs may be required at the intersections of all local streets with collectors.

   (c) Other Signs. Other signs may be required by design.

Section 8. Subdivision Entry Signs:

1. Entry signs shall be located outside of right-of-way, or placed in such a manner where it will not block the sight at an intersection.

Section 9. Median:

1. Medians will only be allowed on streets with curb and gutter. All medians require approval by the Taney County Commission and will be considered on a case by case basis.

Section 10. Sidewalks:

1. If constructed, the outside edges of sidewalks shall be placed one foot (1') inside the street right-of-way line. Sidewalks shall have a minimum width of five feet (5') and must comply with the "Americans with Disabilities Act".

2. Curb side sidewalks may be provided when the separation between the edge of the sidewalk and the back of curb is equal to or less than 2 feet. When curb side sidewalks are used, the width of the sidewalk shall be increased to 6 feet.

3. If constructed, sidewalks shall be constructed of Class B AE (air entrained) concrete over four inches (4") of compacted base rock. Sidewalks shall be

four inches (4”) thick. When placing new driveways, existing sidewalk which was approved as a part of the subdivision improvements may be left in place provided it has not been broken or cracked. One-half inch (1/2”) thick expansion material shall be provided between existing concrete and new concrete. Where sidewalk is constructed with the driveway the sidewalk and driveway apron shall have a minimum thickness as follows: Residential drive – 6” concrete and Commercial and Industrial drive – 8” concrete.

4. The surface of the walk shall have a broom finish and a cross-slope of 2% toward the street. Sidewalk plans should show the walk-in plan, profile and typical cross sections. The profile may be omitted where street curbs are existing. If street plans are also being submitted the sidewalk shall be shown on the paving plans indicating the location of the walk.

5. Control joints shall be hand tooled on an interval of no more than 5-feet to a depth of ¼ the concrete thickness. Expansion joints one- half inch (1/2”) in thickness shall be indicated on the plan at each side of the drives, at intersecting walks or curbs and other locations as needed. If sidewalks are placed adjoining curb and gutter, transverse expansion joints should be placed wherever there are expansion joints in the curb or gutter.

6. Curb ramps are required at all street intersections and mid-block crossings. No drainage structure shall be permitted at ramps. Curb ramps shall meet all ADA Standards.

Section 11. Easements:

1. All temporary easements required for construction, which are not included on the plat, shall be recorded and filed with Taney County prior to final approval of the engineering drawings, and ultimately recorded with the Taney County Recorder by the Developer with a recorded copy sent to the Taney County Road and Bridge Department. The temporary construction easement shall be shown on the plat or separate document for all areas outside of the right-of-way or utility easement necessary to accommodate the construction activities (such as cut slopes, fill slopes, trenches, etc.) Upon final approval of roadway construction, all temporary easements shall cease and no longer be in effect.

Section 12. Other Requirements:

1. Half streets are prohibited except where required in order to complete an existing half street.

2. Where the subdivision adjoins undeveloped land, streets shall be extended to the boundary lines of the subdivision as necessary to provide adequate access for the development of adjacent land. Temporary turnarounds shall be installed at the boundary lines or end of the proposed street by constructing a circular turn around or hammerhead turn around.

3. Streets shall be named under the direction of Taney County 911 office.

4. For minor subdivisions a private driveway, exempt from any construction standards, will be allowed to serve no more than two (2) tracts which have no public road frontage.

Section 13. Private Improvements:

1. Private improvements, if any, shown on the public improvement plans shall be clearly defined and marked as such. These improvements will not be maintained by Taney County and, as such, an appropriate note shall be included on the drawings.

Section 14. Gated Communities:

1. Private streets in gated communities shall be constructed to adhere to the same design requirements and

specifications as public improvements. Any petition to establish a private road as a public road shall be subject to the requirements of Chapter 228, RSMo., the administrative policies of Taney County Road and Bridge and shall be subject to approval in the discretion of the County Commission.

Section 15. Public Infrastructure Improvements by the Developer:

1. Subdivisions 50 homes or more may be required to make public infrastructure improvements such as turn lanes or turn pockets.
2. These improvements may be required due to the impact of additional traffic on high traffic roads. The Taney County Commission has the right to enforce any or all of these improvements.

SECTION 3

DESIGN CRITERIA AND STANDARDS

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DESIGN CRITERIA & STANDARDS SECTION

Section 1. Plan Review:

1. Taney County must review all plans for public roads. This review is for conceptual approval only and does not give detailed approval to any particular design item or data shown on the plans, nor does it give approval for any deviation from the County specifications unless approved in writing by Taney County. The Engineer who sealed the plans is responsible for all lines and grades, field data, constructability of the design, and all other items affecting the project including compliance with the County specifications.

   The expense for Taney County's Review Engineer fees will be at the expense of the developer.

Section 2. Variance from Minimum Standards:

1. All design requirements will be strictly adhered to unless written justification for a design variance is presented to and approved by Taney County prior to plat approval.

2. Should a request for design variance occur after plat approval, and this causes nonconformance with the plat, the Planning and Zoning Commission will have to consider approval of an amendment to the plat.

Section 3. Drawing Standards:

1. All engineering drawings shall be of uniform size 24 x 36 inches and shall have a standard title block on the lower right-hand corner of the sheet. Consultants shall place their own title block above or to the left. The registration seal of the responsible engineer shall be placed on a convenient place in the lower right-hand corner of each sheet of plans. The Title Sheet shall show a Location Map for the project.

2. Whenever possible, engineering plans and profiles shall be drawn to a standard scale of one inch (1") equals fifty feet (50') horizontal and one inch (1") equals five feet (5') vertical. Drainage area maps, construction details and cross section or contour maps shall be drawn to a suitable scale.

3. Elevations on profiles and sections or as indicated on plans shall be NAVD88 U.S.G.S. datum. At least two (2) permanent bench marks in the vicinity of each project shall be noted on the first drawing of each project and their location and elevation shall be clearly defined.

4. The top of each plan shall be either north or east, and the standard north arrow should be used. The stationing on street plans and profiles may be either from the left to right or from right to left, but on drainage plans the stationing shall always begin at the low point.

5. When more than one drawing is involved in one project, an overlap of not less than one hundred feet (100') should be provided. Each project shall show at least fifty feet (50') of topography on each side. All existing topography and any proposed changes, including utilities, telephone installations and so forth shall be shown on the plans and profile.

6. Revisions to drawings shall be indicated above the title block and shall show the nature of the revision and the date made.

7. Sheets showing typical symbols to be used in the preparation of engineering drawings shall be included. Topography for which symbols are not standardized shall be indicated and named on plans and profiles. In utilizing the standard symbols for engineering plans, all existing utilities, telephone installations, sanitary and storm sewers, pavements, curbs, inlets and culverts and so forth shall be shown with a broken line;

proposed facilities with a solid line; land, lot and property lines to be shown with a slightly lighter solid line. Easements shall be shown and, if known, the book and page number of the recording.

8. It shall be understood that the requirements outlined in these standards are only minimum requirements. When unusual subsoil or drainage conditions are suspected an investigation should be made and a special design prepared in line with good engineering practice. FEMA floodplains and sinkhole or caves shall be shown.

9. Each plan should indicate owner for whom improvements are to be constructed.

10. Lot lines and dimensions shall be shown where applicable.

Section 4. Standard Symbols for Engineer's Plans

1. The Title Sheet of the plans shall provide a symbols legend that corresponds with the plans.

Section 5. Roadway Classification:

1. The Developer shall meet with the Taney County Road and Bridge Department to determine the appropriate roadway classification for the internal streets and the adjoining roadways. This information will be used to establish the design criteria for each roadway within the development.

Section 6. Roadway Alignment:

1. Arterial and collector streets shall be designed so as to facilitate the flow of traffic. The minimum radii of curves shall be:

Street Types	Minimum Curve Radius
Local	175 feet
Collector	400 feet
Arterials	600 feet

TABLE 3.6
MINIMUM CURVE RADIUS

2. All streets shall have curves designed for any change of direction in excess of one degree (1°).

3. Super elevation of the horizontal curves shall comply with the American Association of State Highway and Transportation Officials "A Policy on Geometric Design of Highways and Streets" current edition.

4. The distance between the center lines of streets opening onto the opposite side of an existing or proposed street shall be not less than 150 feet. The center line of streets opening on the same side of an existing or proposed street shall be not less than 150 feet.

Section 7. Sight Distance:

1. Proper sight distance shall be provided with respect to horizontal and vertical alignment. Measured along the center line, four feet (4') above grade, this shall be six hundred sixty feet (660') for a primary arterial, three hundred feet (300') for secondary arterials, three hundred feet (300') for collectors, and one hundred twenty five feet (125') for local streets. Where two (2) streets of different classification intersect, the sight distance for the higher classification shall prevail.

Section 8. Grade and Curves:

1. The minimum grade on curb and gutter streets shall be one-half percent (1/2%). The maximum grade shall be eight percent (8%) on arterials, twelve percent (12%) on collectors and fifteen percent (15%) on local streets.

2. Vertical curves shall be used in changes of grade exceeding two percent (2%) for local roads, all other classifications shall have vertical curves. The length of vertical curve shall be no less than that determined by the formula:

L equals K*A, where: 'L' equals length of vertical curve and 'A' equals the algebraic difference in grades. 'K' shall be determined by the following table:

	Crest	Sag
Local	28	35
Collector	50	50
Arterial	80	60

TABLE 3.8
K-VALUES

3. Intersections shall be approached on all sides by leveling areas where the grade exceeds seven percent (7%). Such leveling areas shall have a minimum length of 75 feet measured from the intersection of the center lines within which no grade shall exceed a maximum four percent (4%).

Section 9. Minimum Right-of-Way and Roadway Widths:

1. Minimum right-of-way widths and width of roadway shall be as follows:

	Type of Street	Right-of-Way *	Roadway Width
Local	Residential	50’	24’
	High Density Residential	50’	31’
	Industrial/ Commercial	60’	36’ – 49’
	(Provides access to industrial/commercial properties.)		
Collector	Residential	60’	31’ – 49’
	Industrial/ Commercial	60’	39’ – 49’
	(Typical residential collector is 31 feet. Could go up to 49 feet depending on conditions; i.e., three (3) lanes or four (4) lanes.		
Minor Arterial		70’ – 80’+	To be determined individually
Primary Arterial		100’+	To be determined individually
Expressway		100’+	To be determined individually

** Note: Site specific grading conditions may require additional Right-of-Way.*

TABLE 3.9
RIGHT-OF-WAY AND WIDTH

2. Provisions for additional street right-of-way width may be required by Taney County in specific cases for the reasons of public safety and convenience. Additional off-street parking in industrial, commercial, and residential areas may also be required by Taney County.

3. Additional street right-of-way is required when:

   (a) Subdivision fronts on a street which is presently below the minimum street width standards established herein.

   (b) When Taney County has made plans public to improve a street.

   (c) The ultimate right-of-way line shall be one-half of the ultimate right-of-way, measured from the planned street center line.

Section 10. Street Intersections:

1. Intersections, involving the junction of more than two (2) streets shall be reviewed and approved on a case-by-case basis.

2. The angle of the intersection of the street center line shall not be less than 85 degrees when a collector or arterial street is involved, and 80 degrees for intersection of local streets. Right angle intersection shall be used whenever practical.

3. Street intersections shall be rounded by a tangential arc with a minimum radius of 25 feet for intersections involving two residential land access streets, 30 feet for intersections involving collector or arterial streets; except where substantial use is anticipated by large trucks and semi-trailers where curb radii shall be increased to accommodate the anticipated use.

4. Clear sight triangles shall be indicated on the plat and shall be provided as shown in the Standard Details.

Section 11. Roundabouts:

1. All roundabouts shall fully conform to all design standards and requirements of the Missouri Department of Transportation (MoDOT). These design requirements and standards can be found in the MoDOT's Engineering Policy Guide (EPG).

2. The minimum radius from the center of the roundabout to the face of curb at the outside edge of the truck apron shall be 52 feet and the minimum radius from the center of the roundabout to the face of curb on the outside of the roundabout shall be 72 feet.

Section 12. Cul-de-sacs:

1. Shall be permitted only on local streets; shall not be longer than 800 feet without approval by Planning & Zoning, and shall be provided at the closed end with a turnaround having a diameter of 100 feet right-of-way and 80 feet of paving for residential and a diameter of 120 feet right-of-way and 100 feet of paving for commercial. Maximum slope in any direction shall not exceed 4% on the turnaround.

Section 13. Driveways:

1. Minimum culvert sizes at intersecting roads and driveways shall be fifteen (15) inches. Larger sizes may be required as determined by design. Minimum length shall be 20 feet. Any culvert over 40 feet will require a clean out box provided by the property owner.

2. Driveways shall not be steeper than 8% within the right-of-way. Uphill drives shall have a minimum of 5 feet with a negative 2% grade from the roadway pavement edge.

3. Minimum sight distance on driveways shall be measured 12' from edge of pavement as follows: (distance on intersecting roadway)

   375' @ 50 mph
   325' @ 45 mph
   275' @ 40 mph
   225' @ 35 mph
   200' @ 30 mph

4. Spacing. Access drives shall be spaced according to the following table:

Street Type	Minimum	From Intersections
Local	35 feet apart	50 feet
Collector	50 feet apart	75 feet
Arterials	75 feet apart	115 feet

TABLE 3.13
DRIVE SPACING

Section 14. Retaining Walls

1. The design of any walls built adjacent to any roadway shall meet AASHTO requirements. Guardrail and handrail will be required in accordance with AASHTO requirements.

Section 15. Bridges and Culverts

1. Bridges and Culverts shall be designed in accordance with the design standards contained in the current "Standard Specifications for Highway Bridges" published by AASHTO.

2. The structure shall be designed using an AASHTO HL-93 design vehicle.

3. The width of the structure shall match the approach roadway width, surface plus shoulder width.

4. Where required by the AASHTO publication, "Roadside Design Guide", a crash worthy railing system shall be installed, along with approach railing, including transition section, approach section and end terminal section. All of these elements shall meet the TL-2 requirements. For culverts when the headwalls are located outside the clear zone (as defined by the AASHTO publication "Roadside Design Guide"), no bridge railing is required. Object markers shall be required when no railing is required. When pedestrian sidewalks are incorporated with the structure, the railing system on the structure shall be located between the traffic lane and the sidewalk, with additional protection provided outside the sidewalk.

5. Existing bridges and culverts shall be inspected and upgraded to comply with the requirements for a new structure.

6. The design engineer shall submit a Hydraulic Report for the proposed structure showing the design frequency of the structure and roadway overtopping. The Hydraulic Report shall show the existing conditions of the channel and the backwater effects of the proposed structure.

Street Types	Design Storm Frequency
Local	10 year
Collector	25 year
Secondary Arterial	25 year
Primary Arterial	50 year

7. Because of the County's responsibility to enforce their Floodplain Management Regulations and to ensure that the proposed structure will satisfy those regulations, the design engineer shall include a certification with the Hydraulic Report regarding investigations into FEMA NFIP requirements that may apply. Provision of this certification will be taken as indication that federally regulated hydraulic design criteria potentially in excess of those hydraulic design criteria listed have been investigated and addressed by the design engineer.

SECTION 4

CONSTRUCTION AND APPROVAL

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CONSTRUCTION & APPROVAL SECTION

Section 1. Construction Requirements:

1. General

(a) The latest edition of the "Missouri Standard Specifications for Highway Construction" as published by the Missouri Department of Transportation shall govern for construction activities and material except as modified herein. All signage shall comply with the latest edition of the "Manual on Uniform Traffic Control Devices".

(b) Prior to the beginning of excavation and embankment operations in any area, all necessary clearing, grubbing and stripping in that area shall have been performed and sediment and erosion control measures are in place. The excavation and embankment for roadways, intersections and entrances shall be made to the designated alignment, grade and cross section. Side slopes shall be cut or filled and finished to a reasonable smooth and uniform surface that will merge with the adjacent terrain without variation readily discernible from the road.

2. Rock and Boulder Removal

(a) All rock and boulders within the limits of the right-of-way shall be removed before commencing the operation of finish grading. Four inch and larger diameter rock and boulders resulting from the preparation of the subgrade shall be removed from the roadway and shall be disposed of outside the limits of the road right-of-way.

3. Shoulders

(a) Earth shoulders shall be constructed of suitable material to the grade of the cross section shown on the plan and shall be compacted by the use of a steel wheel roller weighing not less than five (5) tons. The construction of shoulders shall start when sufficient surfacing has been completed and satisfactory strength has been obtained to permit shoulder operation. Equipment that will damage the surfacing will be prohibited from operating on the surface during shoulder operations. Surfacing and curbs shall be protected where equipment is crossing or turning.

Section 2. Construction Sequence:

1. Clearing and Grubbing

(a) A grading permit may be required (Contact Planning and Zoning office at 417-546-7225).

(b) This work shall consist of clearing, grubbing, removing and disposing of vegetation within the limits of the right-of-way and easement area. The developer's engineer will establish right-of-way and construction lines and will designate all trees, shrubs and plants that are to remain. The contractor shall preserve without damage the vegetation designated to remain. All trees, stumps, brush and hedges not designated to remain shall be cleared, grubbed or cleared as required and shall be disposed of in an acceptable manner. Stumps and roots in cut areas shall be grubbed to a depth of not less than twelve inches (12") below the finished earth grade. In embankment areas undisturbed stumps and roots extending not more than six inches (6") above the ground line may remain provided they are a minimum of twelve inches (12") below the finished earth grade or the slope of the embankment except in areas to be excavated. Stump holes shall be backfilled with suitable material and compacted to the approximate density of the adjacent area. In lieu of grubbing stumps outside the slope limits stumps may be cut off not more than three inches (3") above the ground. Grubbing of borrow areas, channel changes and inlet and outlet easements will be required only to the

extent necessitated by the proposed construction.

Section 3. Roadway, Drainage, Excavation, Embankment and Compaction:

1. This work consists of excavation, disposal or compaction of all materials encountered in the limits of the work. This work shall be performed in accordance with the specification and in conformance with the lines, grades, thickness, and typical cross sections as shown on the plans or established by the design engineer.

2. Blasting shall be done in accordance with federal, state and local regulations.

Section 4. Subgrade Preparation:

1. Construction Requirements

(a) Subgrade preparation and placement shall meet the requirements of Missouri Standard Specifications for Highway Construction, Division 200, Grading and Removals.

(b) The subgrade shall be substantially uniform in density throughout its entire width. It shall conform to the lines, grades, and typical cross sections shown on the plans, or as established by the engineer. The subgrade shall be constructed to drain surface water to the side ditches or curbs. All ditches and curb areas shall be kept open by the contractor.

(c) In areas of unsuitable material with the subgrade, the subgrade shall be stabilized. These areas of unsuitable material shall be removed to suitable material and replaced with rock with a uniform gradation of 0-6 inches.

2. Subgrade Compaction

(a) Shall consist of compacting earth subgrade that is yielding or not substantially uniform in density. This item of work shall be performed when the subgrade density, following the use of the roller, is less than required in the Missouri Standard Specifications for Highway Construction. The moisture content of the subgrade shall be monitored and adequate to achieve the required compaction.

Section 5. Sub-Base:

1. Sub-base preparation and placement must meet the Missouri Standard Specifications for Highway Construction, Division 300, Bases and Aggregate Surfaces.

Section 6. Curbs:

1. Concrete Curb and Gutter Requirements

(a) The curb and gutter shall be constructed in accordance with the Taney County Standard Details.

(b) Prior to setting curb forms, the subgrade shall conform to the density requirements for compaction as set forth in the Missouri Standard Specifications for Highway Construction, latest edition. A minimum of four inches (4”) of properly compacted base stone shall be used for fill under all curb and gutter.

(c) All concrete curb and gutter shall meet the construction tolerances and standards as set forth in the Missouri Standard Specifications for Highway Construction, Division 600.

(d) Concrete curb and gutter shall be constructed of Class B Concrete Air Entrained, as per MoDOT concrete specifications.

(e) Concrete curb and gutter shall be sprayed with curing compound as soon as the finishing operation has been completed. The method of curing and application of curing compound shall be to the standards set forth in the Missouri

Standard Specifications for Highway Construction.

2. Curb Backfilling

(a) Backfill material shall be of an acceptable quality and shall be free from large rock.

Section 7. Rollers and Compacting Bituminous Mix:

1. Shall meet all requirements of the Missouri Standard Specifications for Highway Construction, Division 400, Flexible Pavements.

Section 8. Utilities Under Roadway:

1. All utilities and improvements which are to be installed in street right-of-ways shall be completed prior to the installation of the curb and gutter and pavement construction.

Section 9. Inspections:

1. All work shall be done under the guidelines set forth in the Missouri Standard Specifications for Highway Construction, covering the types of work being performed.

2. The required inspections are hereby listed:

(a) When construction is started (clearing and grubbing);

(b) After subgrade has been prepared;

(c) When curb construction is started:

(d) After curbs are finished;

(e) After curb backfill is completed;

(f) Before any base is placed;

(g) During any seal coating operations;

(h) During black base placement;

(i) When asphalt hot mix wearing surface is being placed;

(j) After completion of all streets and utility construction, but not later than two (2) years after the recording date of the final plat, all right-of-way pins must be set defining public right-of- way;

(k) Final inspection for approval.

The developer is responsible for all cost associated with the inspection, whether these inspections are performed by Taney County Road and Bridge personnel or Consulting Engineer.

3. Core tests may be required by Taney County. If core tests are taken, they will be at the Developer's expense (to check for thickness).

4. Slump tests may be required during concrete pours. Slump shall be in conformance with Missouri Standard Specifications for Highway Construction, Division 500, Section 501.5.

5. Air tests may be required during concrete pours.

6. Concrete that fails to meet design specifications for slump and/or entrained air shall be rejected at time of test.

Section 10. Driveways:

1. Asphalt drives shall be constructed within the right-of-way of 4 inches (4") of compacted base rock, 3 inches (3") of bituminous mix. Concrete driveways shall be constructed of 4 inches (4") of compacted base rock, Class B "AE" (air entrained) concrete six inches (6") thick.

2. Gravel drives shall be constructed with a 6" minimum thickness of compacted crushed rock within the right-of-way. There shall be a minimum of one foot (1') of cover over pipe culverts. The depth of the ditch must be deep enough to maintain positive flow for drainage. No sags in the ditch will be allowed for culvert installations.

3. Commercial/Industrial driveways shall be constructed within the right- of-way of

eight inches (8”) of wet compacted base rock, 5 inches (5”) of bituminous base mix, and two inches (2”) of hot mix surface course; or plain class B “AE” (air entrained) concrete (6”) thick over five inches (5”) of wet compacted base rock.

4. When curbs are present, they shall extend to the drainage pipe within the right-of-way. Commercial / Industrial entrances with corrugated metal pipe (CMP) or reinforced concrete pipe (RCP), shall have a minimum 2’ shoulder, and 3:1 slope to ditch line. Taney County may require reinforced concrete pipe (RCP) if dictated by depth of fill or structural considerations. Flared End Sections will be required on all pipe with a thirty-inch (30”) diameter or larger.

Section 11. Acceptance of Roadway Improvements:

1. All roads in subdivisions approved by the Taney County Planning Commission after the adoption of the Design Standards shall be constructed in accordance with these standards.

2. Developers shall complete all public improvements within their proposed development before acceptance of their Final Plat. Developers may submit a bond to the County covering any improvements that are not complete at the time their Final Plat is submitted. The amount covering any road improvements shall be approved by the Taney County Highway Administrator. If the work is not completed within two years of accepting the Final Plat, or any extended deadline allowed by the County, Taney County may complete or have said work completed as called for by the approved plans, or modified plans and cover any cost incurred by the County with said bond provided by the Developer.

3. No streets or other public improvements will be accepted or approved by either the Taney County Highway Administrator or the County Commission, unless the improvements were constructed in accordance with the Plans and County specifications. Any petition to establish a public road shall be subject to the requirements of Chapter 228, RSMo., the administrative policies of Taney County Road and Bridge and shall be subject to approval in the discretion of the County Commission.

SECTION 5

POLICY FOR ISSUANCE of UTILITY PERMITS

Taney County
Road Standards

Section 1. Utility Permits

1. Utility permits are required by Taney County for any work to be done on the County right-of-way. (i.e. setting of poles, burying underground cable, installation of sewer or water lines, construction of junction boxes, etc.).

2. Public utilities must provide notice to the County by submitting plans for anticipated construction projects.

3. The County will furnish permit applications and require a fee and/or bond, depending upon the type of work to be done.

4. There will be a $25.00 fee for all permit applications. A single permit can cover work on one road, not to exceed five (5) miles in length. A performance bond, either in cash or through a bonding company (bonds from bonding company shall be double the amount of a cash bond), must be posted by all individuals or companies not covered by the Missouri Revised Statutes for Utility Work on Public Right-of-Ways. Said bond is to be held by the County for a period of twelve (12) months from the date the work is completed. Inspection of the work may be done periodically and at the end of the twelve months by the County or its representative. Should the work not be progressing in accordance with the permit or not be completed satisfactorily, the permit holder shall be notified in writing and given ten (10) days to make necessary corrections. Should the permit holder fail to respond, the County will do the work necessary or have it done and use part or the entire amount of the bond to cover the cost of doing so. Should an emergency condition exist, the County will make every effort to contact the permit holder to make the necessary corrections. Should the County be unable to make contact with the permit holder, the County will proceed to have any work that may be necessary to ensure the safety of the traveling public done by any means they feel suitable for the situation that exists.

   Said work will then be charged against the bond of the permit holder. Should the emergency situation deplete the bond, future work will be halted until such time that sufficient bonding is re-instated with the County. At the end of the twelve-month period and the satisfactory completion of the work, the bond shall be returned to the permit holder.

5. Public utilities must restore Right-of-Way in accordance with the County Standards (or the County can do the restoration and charge it to the public utility). Restoration must be completed within the permit, or based upon any extension or waiver. The restoration work is subject to a statutory 4-year guarantee.

Section 2. Bond Amounts

1. There shall be a minimum of a five hundred-dollar ($500) cash bond required from all individuals or companies not covered by the Missouri Revised Statues for Utility Work on Public Right-of-Ways, or from anyone doing work that does not require any open trenches on the County right-of-way (such as directional bores that start and terminate off the right-of-way). There shall be an additional charge for any open trenches on the right-of-way as shown in the following table:

Section 3. Schedule of Additional Charges

1. Open trench along and parallel to the road surface on any improved County road.

   Additional charge of $5.00 per lineal foot of trench.

2. Open cut of a Hot Mix Asphalt surface less than 3 years old.

   Additional charge of $500.00 per square yard of trench.

3. Open cut of a Hot Mix Asphalt surface older than 3 years old but less than 10 years old.

   Additional charge of $300.00 per square yard of trench.

4. Open cut of a Hot Mix Asphalt surface older than 10 years; or any Chip Seal Surface

   Additional charge of $200.00 per square yard of trench.

5. Open cuts on aggregate surface or dirt roads.

   Additional charge of $100.00 per square yard of trench.

6. There will be no charge for poles set on the right of way at agreed locations.

7. The County shall have the option to waive any and all of the above charges should the work to be done be in conjunction with County planned improvements, be an emergency, or be considered to be for the good of the general public.

8. ***A blanket bond, in an amount determined by the County, may be submitted to cover multiple locations. The amount of the bond will be based on work planned and in what time frame.***

9. The applicant shall also agree to move any and all utilities placed on County right-of-way, at no expense to the County, should such move be necessary due to improvements planned by the County.

Section 4 . Directional Boring

1. The work specified in this section shall pertain to the methods, procedures and materials allowed for the use of Directional Boring, commonly known as Horizontal Directional Drilling (HDD).

2. In order to prevent collapse of the bore hole, introduction of a soil stabilizing agent (drilling fluid) may be required, including selection of drilling fluids for site specific soil and groundwater conditions. The contractor shall be responsible for prevention of damage or hazardous site conditions on surrounding areas.

3. The material standards shown in the table attached are to be interpreted as the minimum to be allowed.

Material Standards for HDD Installation		
Material Type	Non-Pressure	Pressure
Polyethylene (PE)	ASTM D 2447	ASTM 2513 ASTM D 2447
High Density Polyethylene (HDPE)	ASTM D 2447 ASTM D 3350 ASTM F 714	ADTM D 2447 ASTM D 3350 ASTM F 714 ASTM 2513
Polyvinyl-Chloride (PVC)	ASTM F 789	N/A
Steel	ASTM A139 Grade B (1)	AWWA C200 API 2B (2)
(1) No hydrostatic test required (2) Dimensional tolerances only		

4. The ratio of the bore hole to the product size shall be limited to minimize potential damage from soil displacement / settlement. The size of the back-reamer bit or pilot bit, if no back reaming is required, shall be limited relative to the product diameter to be installed in accordance with the table below.

Maximum Pilot or Back-Reamer Bit Diameter when Rotated 360 Degrees	
Nominal Inside Pipe Diameter (Inches)	Bit Diameter (Inches)
2	4
3	6
4	8
6	10
8	12
10	14
12 and greater	Maximum Product OD plus 6

THIS IS NOT A PERMIT

UTILITY PERMIT APPLICATION

Date: _____

Applicant: _____ (Name), _____ (Name of Company (if applicable))

Applicant Address: _____

Applicant Phone: _____ (Personal or business), _____ (Cell phone)

Applicant Email: _____

Prime Contractor: _____ (if applicable)

Property Owner Name: _____ (if different than applicant)

Location of work planned: _____ (Road name & address number, city)

Major Cross Street: _____ (Description of location if no address is available)

Description of Work: _____

_____

_____

_____

Describe work to be done in detail, include location of trenches with reference to edge of paved surface, ditches, centerline of an improved road, width of proposed trenches, length of trenches, depth of trenches, etc., use sketches for more detail

Date Work is Planned: _____

Time Required to do Work: _____

Signed: _____ (Applicant or applicant's representative)

BEFORE YOU START

Work Smart

IT IS THE RESPONSIBILITY OF THE UTILITY PERMIT APPLICANT TO FOLLOW THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES FOR PROPER SIGNAGE AT THE WORK SITE LOCATION PRIOR TO CONSTRUCTION.

I have read and will follow the MUTCD standards.

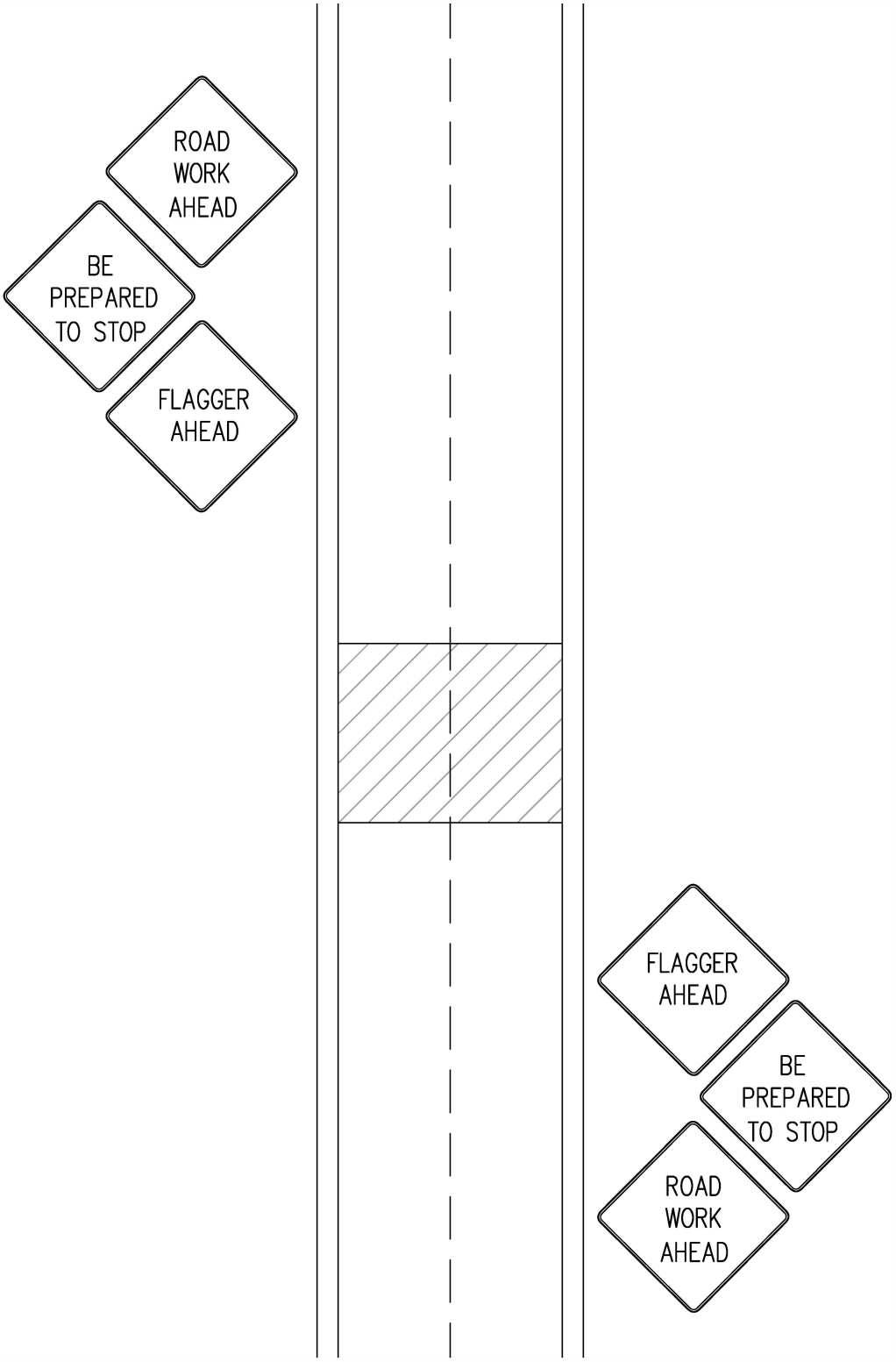
By signing this I understand that if I do not place proper signing my construction site will be shut down and I will forfeit my bond:

_____

Sign and Date

If your work site requires that the entire road be closed, it is mandatory to contact the Road and Bridge Department and get prior approval before construction can start.

EXAMPLE OF A TEMPORARY ROAD CLOSURE: CONDITIONS REPRESENTED ARE A PLANNED CLOSURE NOT EXCEEDING 20 MINUTES DURING THE DAYTIME. WHEN USED, THE ***BE PREPARED TO STOP*** *SIGN SHOULD BE LOCATED BEFORE THE FLAGGER SYMBOL SIGN.*



TANEY COUNTY–ROAD STANDARDS
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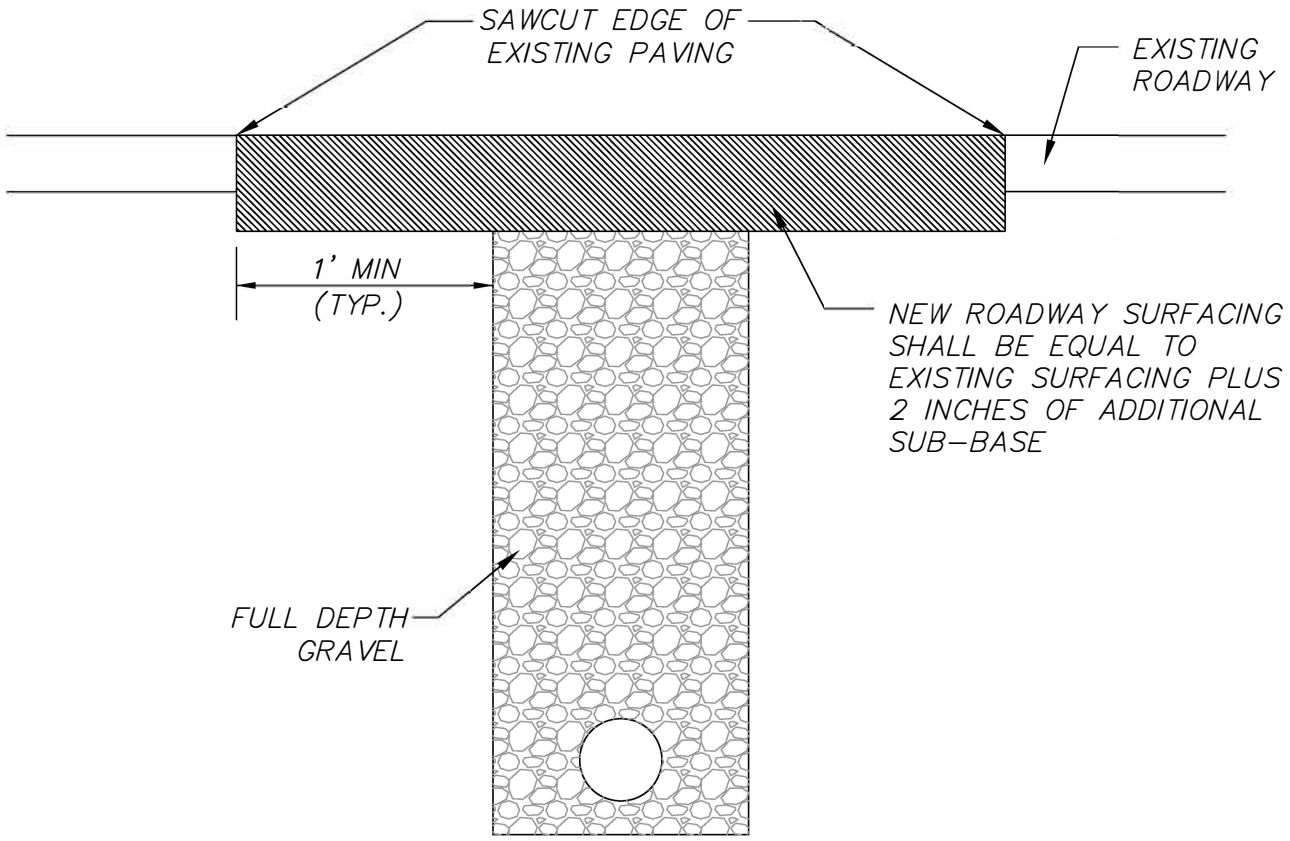


NOTE:
ALL MATERIAL AND PLACEMENT OF MATERIAL MUST MEET THE SPECIFICATIONS SET FORTH IN THE LATEST EDITION OF THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

BEDDING MATERIAL SHALL BE PLACED IN LIFTS AND COMPACTED PER COUNTY SPECIFICATIONS.

IT IS MANDATORY THAT A TANEY COUNTY INSPECTOR BE NOTIFIED BEFORE SURFACING IS PLACED AND AFTER COMPLETION OF JOB.

UTILITY CUT DETAIL

For County Use Only

Reviewed by:_____ Date: _____

Issued by:_____ Date: _____

Instructions for completion of work: _____

BOND AMOUNT: Minimum Bond $500 Additional Bond $_____ Total Bond $ _____

Bond received by:_____ Date: _____

Amount:_____ Type: _____

Signed: _____
County Representative

SECTION 6

MEMORIAL SIGNAGE

Taney County
Road Standards

Section 1. Application Requirements:

1. Memorial signs are to be for Missouri residents who were in the U.S. Armed Forces and killed in action, any victim killed on a state highway as a result of a vehicular accident caused by an intoxicated driver (David's Law) and fallen law enforcement, military soldiers, emergency personnel or state employees killed in the line of duty.

2. Application, participation fee and supporting documentation must be submitted together.

3. Falsifying information on an application will void the request and result in loss of fees and sign installation.

A. Drunk Driving Victim (David's Law)

This program is for any victim killed by an individual who was shown to have been operating a motor vehicle under the influence of alcohol or a controlled substance at the time of the accident on one of Missouri's roads allowing for memorial markers to be placed by Taney County in honor of the victim who had been killed.

Memorial Name

1. Proposed name is first, middle, and last name.

2. The date the crash occurred will be displayed next to the honoree's initials.

3. The legend displayed on the marker shall be limited to the simple message of "Drunk Driving Victim", the name of the individual being recognized, the month and year of the accident and the simple message of "Think About It".

Sign Information

4. One rectangular 30"x18" sign will be installed for a given victim of an impaired driver close to the location where the accident occurred.

5. The sign will be placed to the right side of the roadway, in the direction of travel, parallel to the roadway.

6. Taney County determines the sign location to ensure safe operation of the roadway system.

7. Each sign will have white legend on a blue background.

8. Allow 9 to 12 weeks for sign fabrication and installation.

9. Signs remain in place for 10 years and may be renewed for an additional 10 years. At 9 years, a second application and application fee are required to renew the memorial.

Participation Fee

10. **The fee for one sign will be determined by a separate fee table from the County upon request and is due with submission of application.**

11. Payment is made by private donations, from organizations or by family members.

12. Fee covers cost of constructing, installing and maintaining the sign.

Requirements

13. Copy of MO Law Enforcement's Report or other supporting documentation signifying one of the vehicle operators involved in the crash was impaired.

14. Written consent from the honoree's immediate family authorizing the designation, if designating after a victim.

B. Heroes Program

This program is for honoring fallen Missouri heroes who have been killed in action while performing active military duty with the armed forces and who was a resident of Missouri at the time the

individual was killed in action. This program is also for honoring fallen law enforcement officers killed in the line of duty, emergency personnel killed while performing duties relating to their employment, and state employees killed while serving the state.

Memorial Name

1. Proposed name is first, middle, and last name.

2. Ranks and titles will be displayed under honoree name.

3. Branch of service will be displayed under the ranks and titles name.

Sign Information

4. One rectangular 48”x30” sign will be installed for a given hero.

5. The sign will be placed to the right side of the roadway, in the direction of travel, parallel to the roadway.

6. Taney County determines the sign location to ensure safe operation of the highway system.

7. Each sign will have white legend on a blue background.

8. Allow 9 to 12 weeks for sign fabrication and installation.

9. Signs remain in place for 10 years and may be renewed for an additional 10 years. At 9 years, a second application and application fee are required to renew the memorial.

Participation Fee

10. **The fee for one sign will be determined by a separate fee table from the County upon request and is due with submission of application.**

11. Payment is made by private donations, from organizations or by family members.

12. Fee covers cost of constructing, installing and maintaining the sign.

13. At request, Taney County will provide an unveiling ceremony which is located away from the memorial for safety of those attending and traveling motorists.

Requirements

14. Honoree must have been a Missouri resident and a member of the U.S. Armed Forces killed in action, a law enforcement officer killed in the line of duty, emergency personnel killed while performing duties relating to their employment, or state employees killed while serving the state.

15. Documentation affirming the solider was a Missouri resident and a member of the U.S. Armed Forces killed in action, a Missouri law enforcement officer killed in the line of duty, Missouri emergency personnel while performing duties relating to their employment, or state employees killed while serving the state.

16. Written consent from the honoree’s immediate family authorizing the designation, if designating after a victim.

Drunk Driving Victim (David's Law)
Memorial Naming Application Form

Taney County

The following items must be submitted with this completed form:

- Application fee payable to: Taney County Road & Bridge
- Written consent from immediate family members of the victim.
- Submission copy of Missouri Law Enforcement's report or other supporting documentation indicating one of the vehicle operators involved in the crash was impaired.
- See Taney County Road Standards Section 6 for more information.

Applicant:_____ **Organization:**_____

Address:_____ City:_____ State:_____ Zip Code:_____

Phone:_____ E-mail:_____

By signing this document as the applicant, I understand that I am certifying I am related to the victim or I have received written consent from an immediate family member of the victim (Sign the signature line certifying you are in fact related to the victim by way of marriage, adoption, or that you are the victim's spouse, child, stepchild, brother, stepbrother, sister, stepsister, mother, stepmother, father, or stepfather. If not an immediate member of the family, written consent from the immediate family is required and submitted with this application). Also, I understand and agree not to install any memorials, adornment, landscaping or make modifications to the marker or the ground around the marker per Chapter 27 of the Missouri Code of Regulations, Section 7 CSR 10-27.030. Falsifying this information will void the request and could result in loss of fees and sign installation.

Applicant Signature:_____ Date:_____

Relationship to Victim:_____

Crash Information

Date Crash Occurred:_____

Name of Victim (full name):_____
(one marker per victim) First Middle Last

Road on which the crash occurred:_____
(crash must have occurred on a road within Taney County)

Other Location Details (if available):_____
(ex. direction, nearest business, or distance from another road)

Nearest intersection:_____

County:_____ City/Town:_____

Full Name of vehicle operator involved in crash:_____
(one of the vehicle operators other than the victim)

Please call the Taney County Road & Bridge Department at 417-546-7268 to confirm availability of the memorial location.

1. Describe the location where the memorial sign wishes to be placed. List roads, intersections, or other descriptions.
   _____
   _____

Submit To:

Taney County Road & Bridge
132 David Street
Forsyth, MO 65653

Heroes Way
Memorial Naming Application Form
Taney County

The following items must be submitted with this completed form:

- Application fee payable to: Taney County Road & Bridge
- Proof the designee was in the U.S. Armed Forces, verifying the designee had been killed in action while performing military duty.
- Or, proof the designee was a Missouri law enforcement officer killed in the line of duty.
- Or, proof the designee was a Missouri emergency personnel killed while performing duties related to their employment.
- Or, proof the designee was a Missouri state employee killed while serving the state.
- See Taney County Road Standards Section 6 for more information.

Applicant:_____ **Organization:**_____

Address:_____ City:_____ State:_____ Zip Code:_____

Phone:_____ E-mail:_____

By signing this document as the applicant, I understand that I am certifying I am related to the designee by way of marriage, adoption, or that I am his/her mother, father, brother, sister or child as required by State Statue. Falsifying this information will void the request and could result in loss of fees and sign installation.

Applicant Signature:_____ Date:_____

Relationship to Designee:_____ **Was the designee a Missouri resident? Y/N**

Memorial Name Requested

The proposed name has a maximum of one line with 25 characters, including spaces. *(If name is longer than 25 characters, please contact the Road & Bridge Department)*

Line 1: Designee's first name, middle initial, last name

Line 2: Rank/Titles with maximum of 25 characters:

Line 3: Branch of Service (check one):

☐ Airforce ☐ Army ☐ Marines ☐ Navy

Please call the Taney County Road & Bridge Department at 417-546-7268 to confirm availability of the memorial location.

1. Describe the location where the memorial sign wishes to be placed. List roads, intersections, or other descriptions.

   _____

   _____

2. Information Supporting Special Designation (optional)

   _____

   _____

   _____

   _____

   _____

   _____

3. Would you like a dedication ceremony to unveil the memorial sign?

   ☐ Yes ☐ No

   Note: Organization of dedication ceremony will be the responsibility of the applicant.

Submit To:

Taney County Road & Bridge
132 David Street
Forsyth, MO 65653

TANEY COUNTY ROAD & BRIDGE
139 David Street
P.O. Box 1018
Forsyth, MO 65653
Phone: 417-546-7268 Fax: 417-546-7710

ENTRANCE PERMIT APPLICATION

Application is hereby made to:
_____ Create a new Entrance _____ Improvements on existing entrance

WHEREAS, I / (WE)_____
(Name of Applicant)

_____
(Street Address)

_____
(City) (State) (Zip)

Herein after called "Applicant", requests permission to do certain work herein described on the right-of-way of County Road _____, Location of work (Rural Reference Location, "911" Address or Brief Legal Description):

This permit is hereby accepted and its provisions agreed to this ____ day of _____, 20___

(Signed)_____
(Applicant)

FOR COUNTY REPRESENTATIVE USE ONLY:

Date of field inspection:_____

Site distance:_____

Drainage (look at):_____

Culvert needed: ____Yes ____ No

Culvert size: Length_____ Diameter _____

Other comments:_____

_____

Inspected by:_____
County Representative

Commercial Entrance_____

Residential Entrance_____

It is understood that the work authorized by this permit shall be completed within _____ days, after the date this permit is approved; otherwise the permit becomes null and void.
Approved this _____ day of _____, 20_____

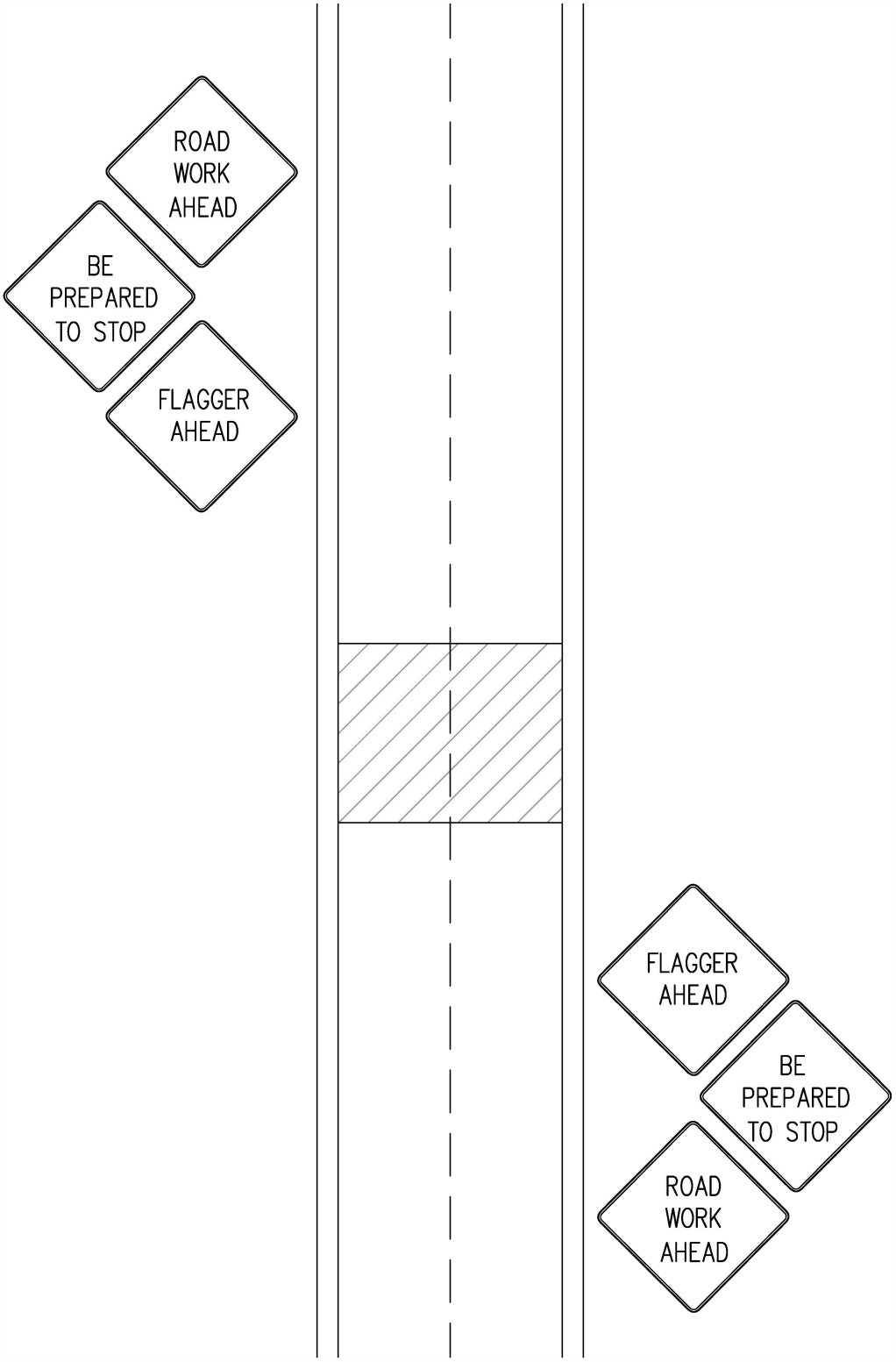
BY: _____
Devin Huff, County Highway Administrator

APPENDIX

STANDARD DETAILS

Taney County
Road Standards

EXAMPLE OF A TEMPORARY ROAD CLOSURE: CONDITIONS REPRESENTED ARE A PLANNED CLOSURE NOT EXCEEDING 20 MINUTES DURING THE DAYTIME. WHEN USED, THE ***BE PREPARED TO STOP*** *SIGN SHOULD BE LOCATED BEFORE THE FLAGGER SYMBOL SIGN.*



TANEY COUNTY–ROAD STANDARDS
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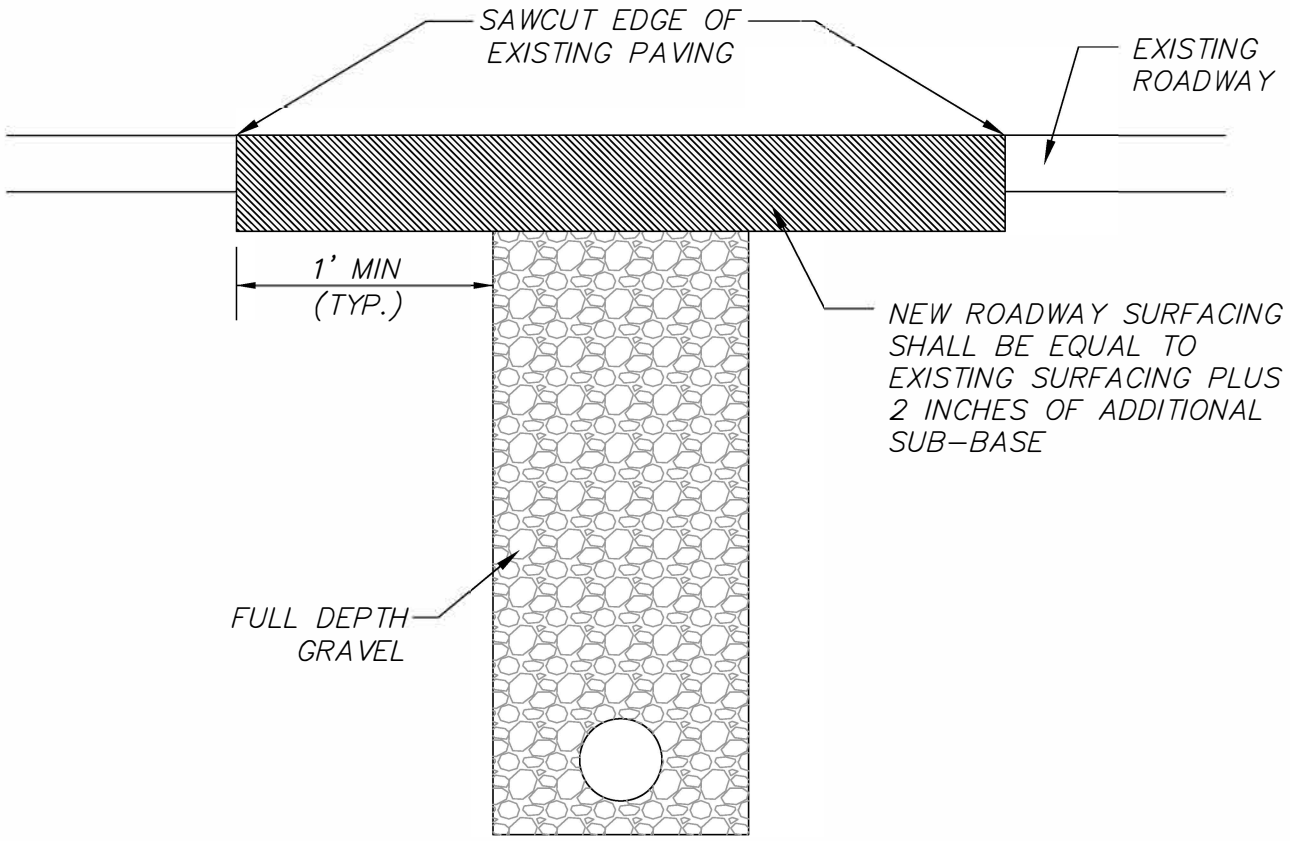

NOTE:
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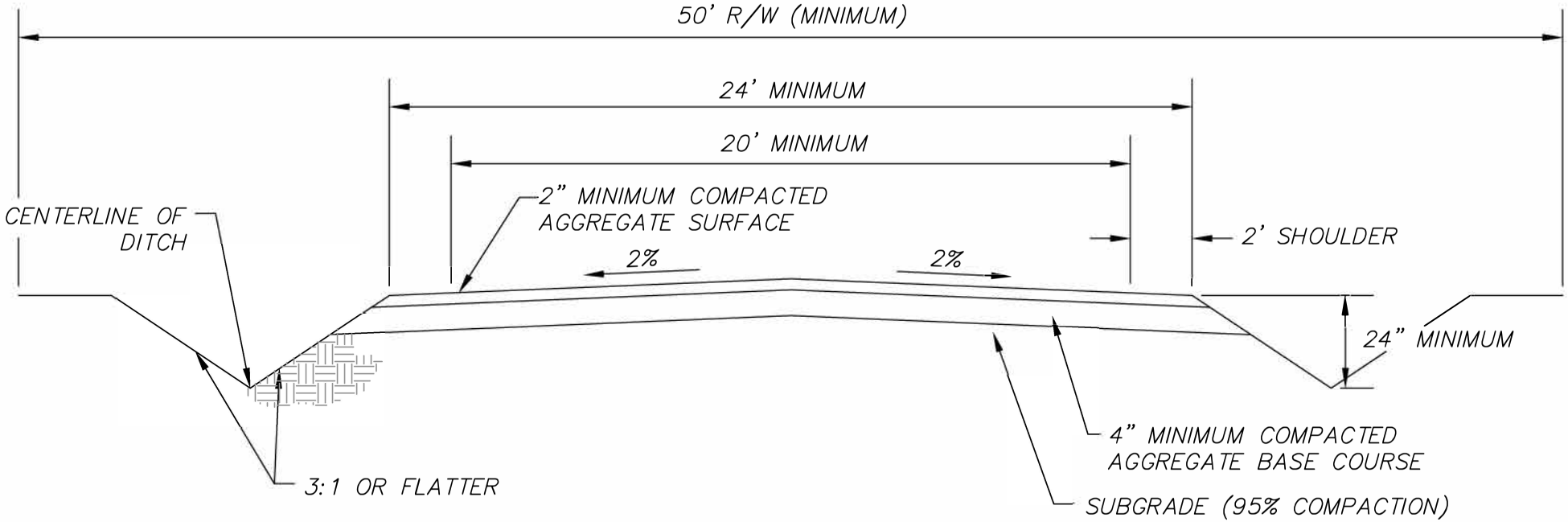
BEDDING MATERIAL SHALL BE PLACED IN LIFTS AND COMPACTED PER COUNTY SPECIFICATIONS.

IT IS MANDATORY THAT A TANEY COUNTY INSPECTOR BE NOTIFIED BEFORE SURFACING IS PLACED AND AFTER COMPLETION OF JOB.

UTILITY CUT DETAIL



CROSS SECTIONS
(GRAVEL)

MINIMUM RESIDENTIAL STREET STANDARDS

TANEY COUNTY–ROAD STANDARDS
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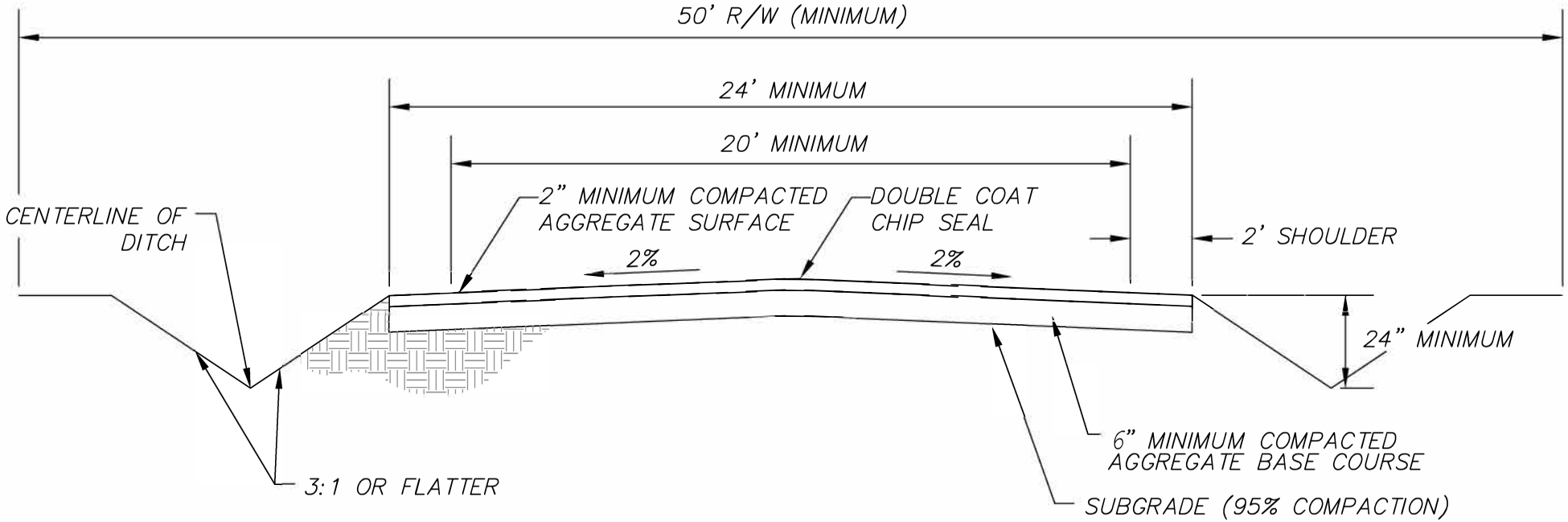

CROSS SECTIONS

(CHIP SEAL)

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TANEY COUNTY–ROAD STANDARDS

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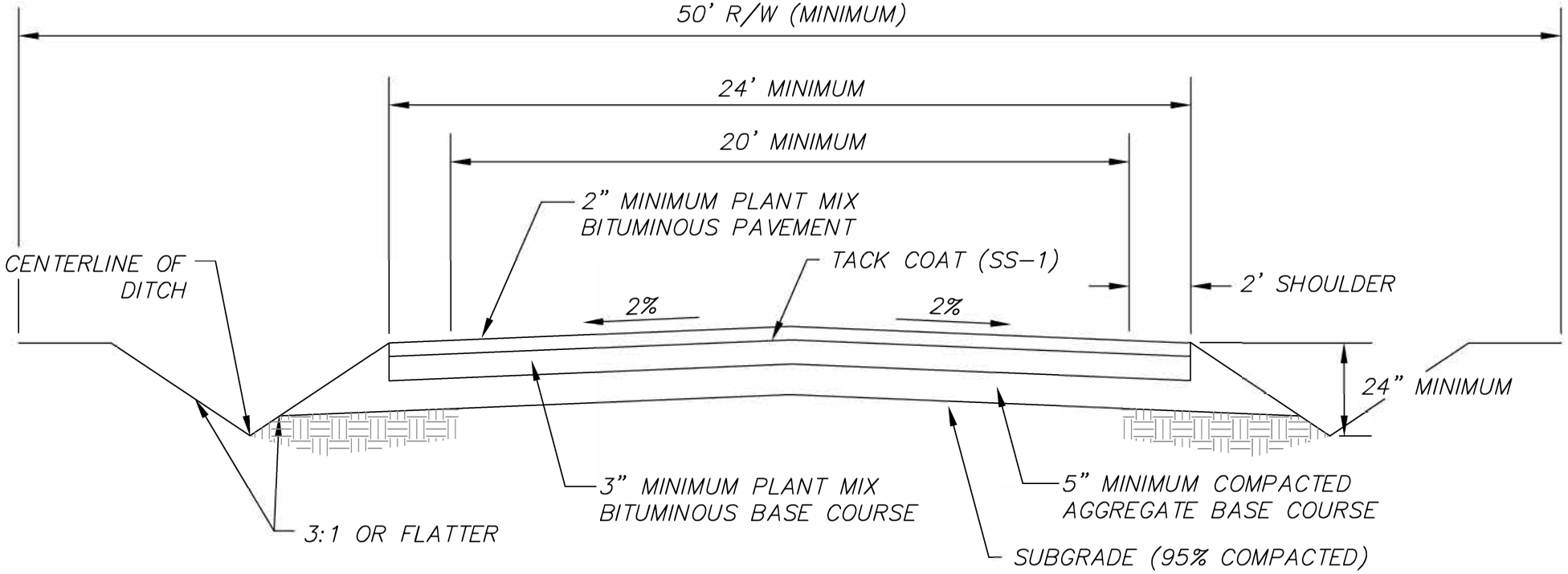

CROSS SECTIONS

(ASPHALT)

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TANEY COUNTY-ROAD STANDARDS
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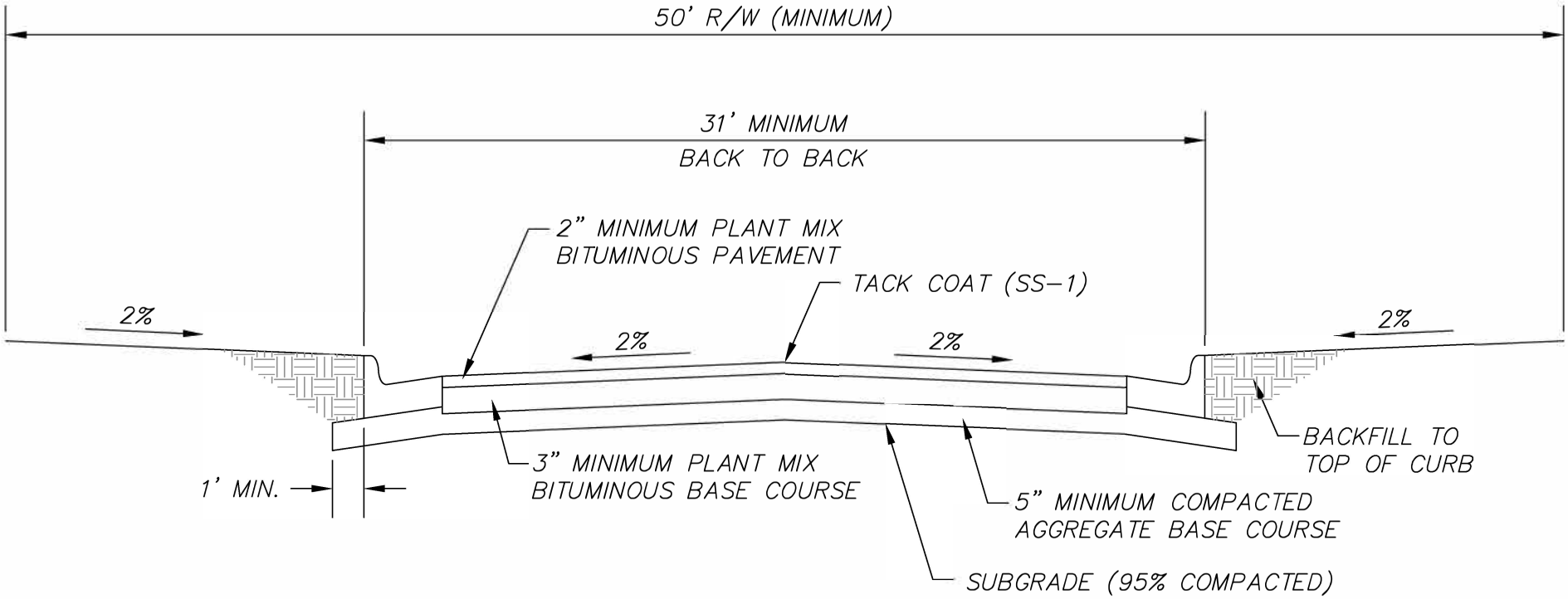

CROSS SECTIONS
(ASPHALT W/CURB)

MINIMUM RESIDENTIAL STREET STANDARDS

TANEY COUNTY-ROAD STANDARDS
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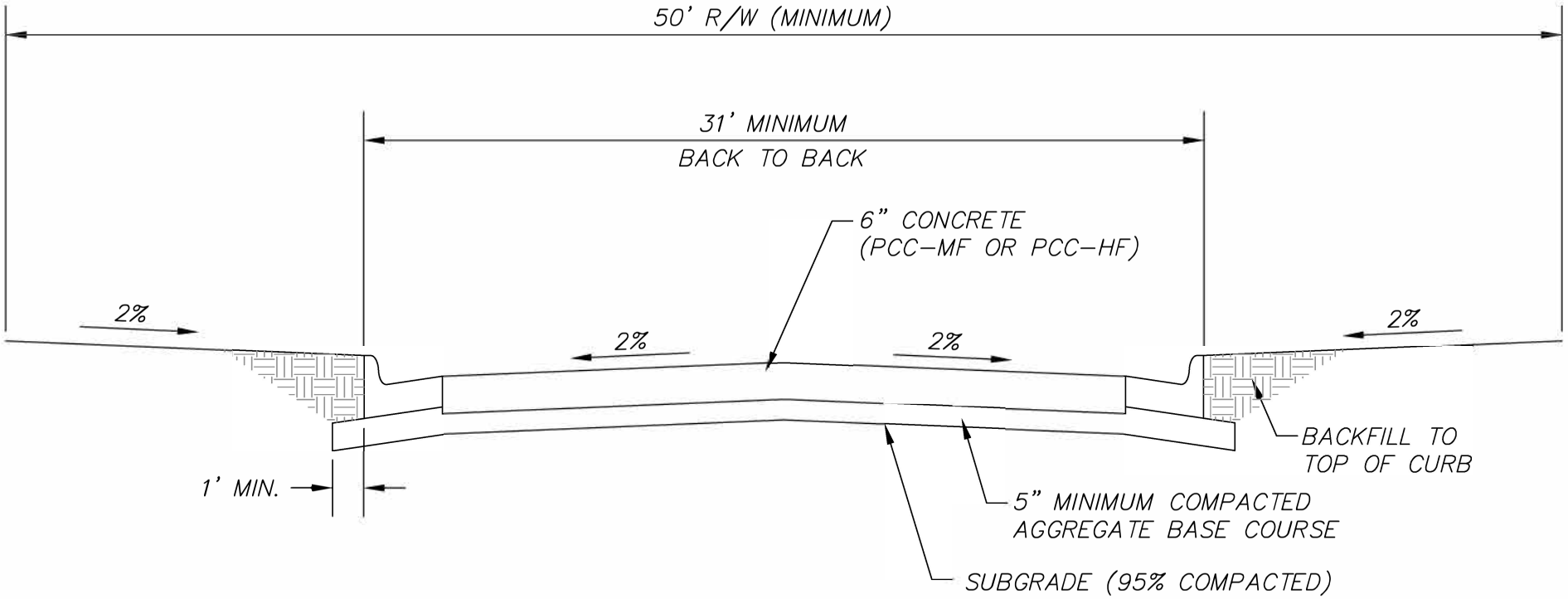
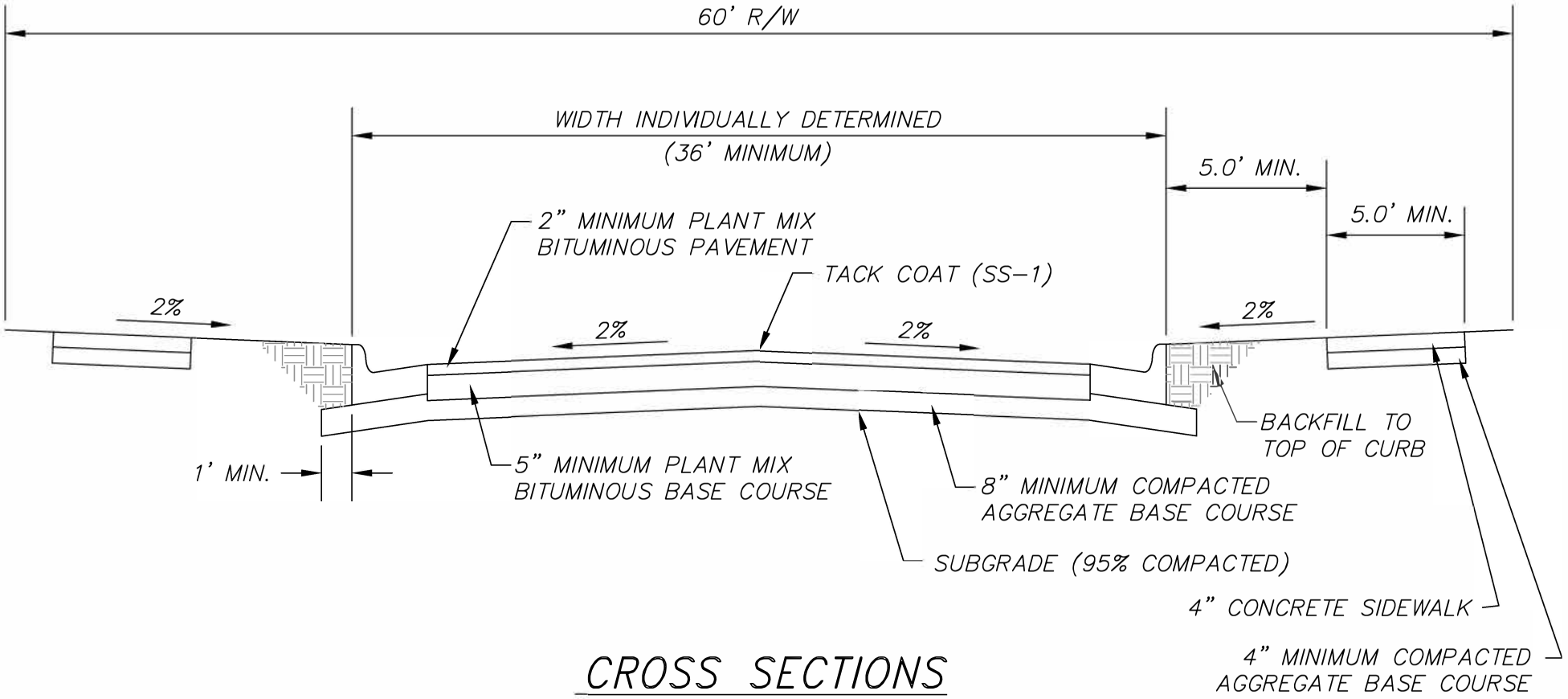


CROSS SECTIONS
(CONCRETE W/CURB)

MINIMUM RESIDENTIAL STREET STANDARDS

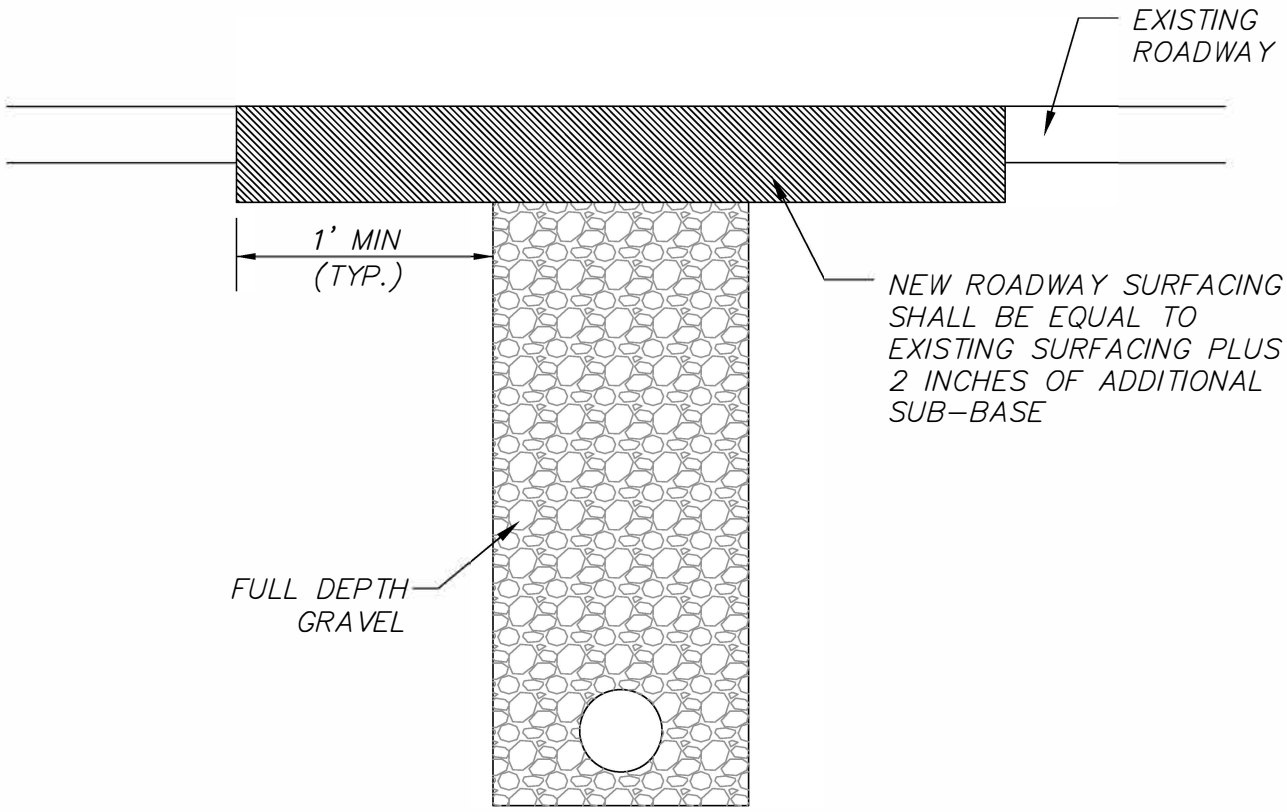
TANEY COUNTY-ROAD STANDARDS
02A_DE.dwg



CROSS SECTIONS

MINIMUM STREET STANDARDS
FOR COMMERCIAL AND INDUSTRIAL STREETS

TANEY COUNTY-ROAD STANDARDS
03_DE.dwg



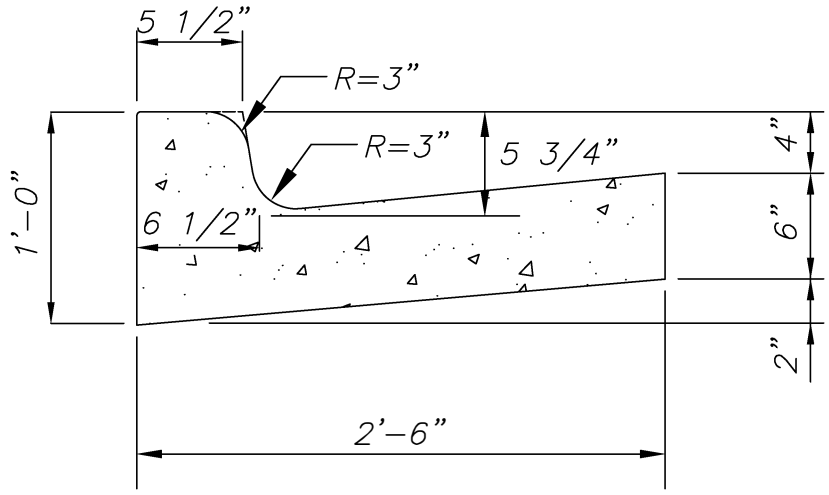
NOTE:
ALL MATERIAL AND PLACEMENT OF MATERIAL MUST MEET THE SPECIFICATIONS SET FORTH IN THE LATEST EDITION OF THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

BEDDING MATERIAL SHALL BE PLACED IN LIFTS AND COMPACTED PER COUNTY SPECIFICATIONS.

IT IS MANDATORY THAT A TANEY COUNTY INSPECTOR BE NOTIFIED BEFORE SURFACING IS PLACED AND AFTER COMPLETION OF JOB.

UTILITY CUT DETAIL

TANEY COUNTY-ROAD STANDARDS
05_DE.dwg



STANDARD CONCRETE CURB AND GUTTER

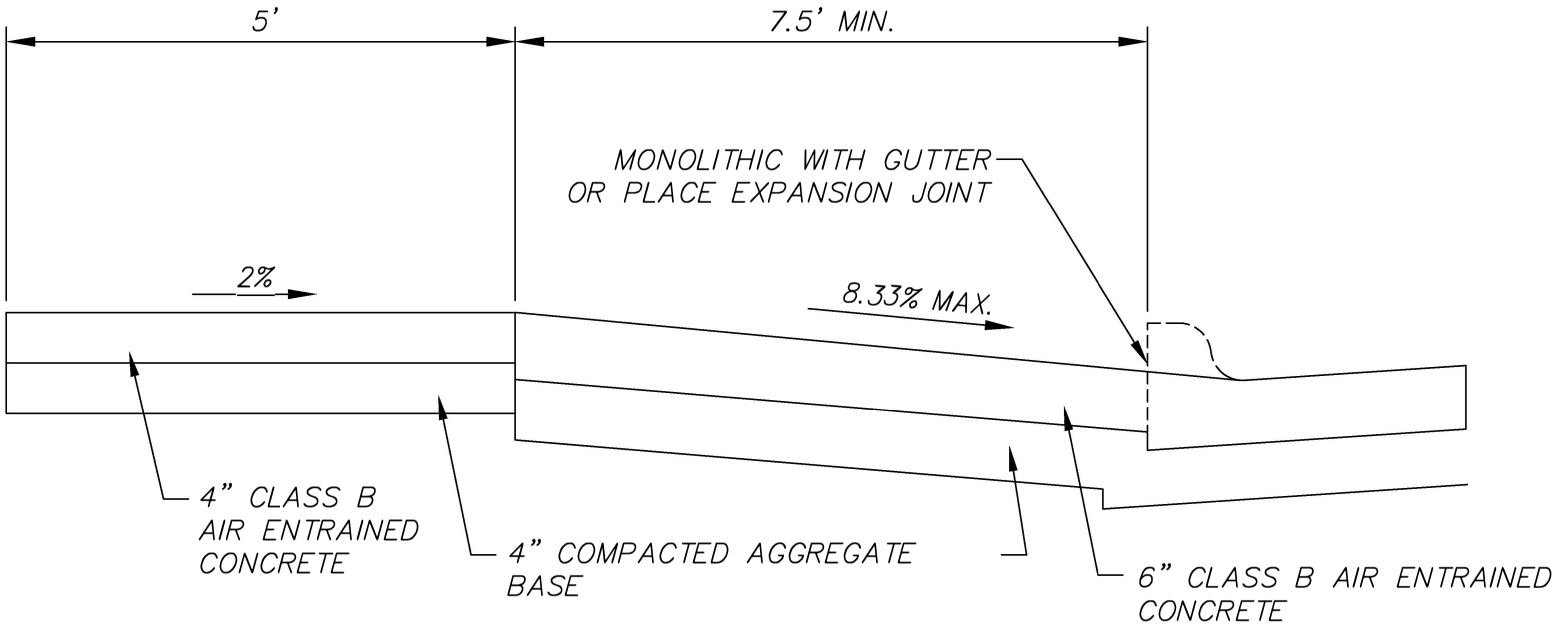
No Scale

CURB & GUTTER NOTES:

1. EXPANSION JOINTS SHALL BE FORMED BY A ONE-HALF INCH THICK PREFORMED BITUMINOUS FIBER EXPANSION JOINT FILLER. CUT TO THE CONFIGURATION OF THE FULL SIZE OF THE CURB AND GUTTER SECTION AND BEING SECURED SO THAT THEY ARE NOT MOVED BY DEPOSITING AND COMPACTING THE CONCRETE AT THESE JOINTS. THE EDGES OF THESE JOINTS SHALL BE ROUNDED WITH AN EDGING TOOL ONE-EIGHTH INCH RADIUS.

2. EXPANSION JOINTS SHALL BE PLACED WHERE CURB AND GUTTER ABUTS OTHER STRUCTURES AND AT ALL TANGENT POINTS TO CURBS. EXPANSION JOINTS SHALL NOT BE SPACED MORE THAN 50 FEET APART ON STRAIGHT RUNS FOR HAND LAID CURB AND GUTTER AND NOT MORE THAN 100 FEET APART FOR MACHINE LAID CURB AND GUTTER PROVIDED 1/2 INCH THICK BITUMINOUS FIBER EXPANSION JOINT FILLER IS USED. ALL JOINTS SHALL BE FORMED AT RIGHT ANGLES TO THE ALIGNMENT OF THE CURB AND GUTTER.

3. CONTRACTION JOINTS SHALL BE CONSTRUCTED BY SAWING THROUGH THE CURB AND GUTTER TO A DEPTH OF NOT LESS THAN ONE AND ONE-FOURTH INCH BELOW THE SURFACE AND TO A WIDTH NOT TO EXCEED THREE-EIGHTS INCH OR THEY MAY BE FORMED BY INSERTING A REMOVABLE METAL TEMPLATE IN THE FRESH CONCRETE, OR BY OTHER METHODS APPROVED BY THE ENGINEER. SEALING OF JOINTS IS NOT REQUIRED. CONTRACTION OR CONSTRUCTION JOINTS SHALL BE LOCATED APPROXIMATELY 10 FEET APART.

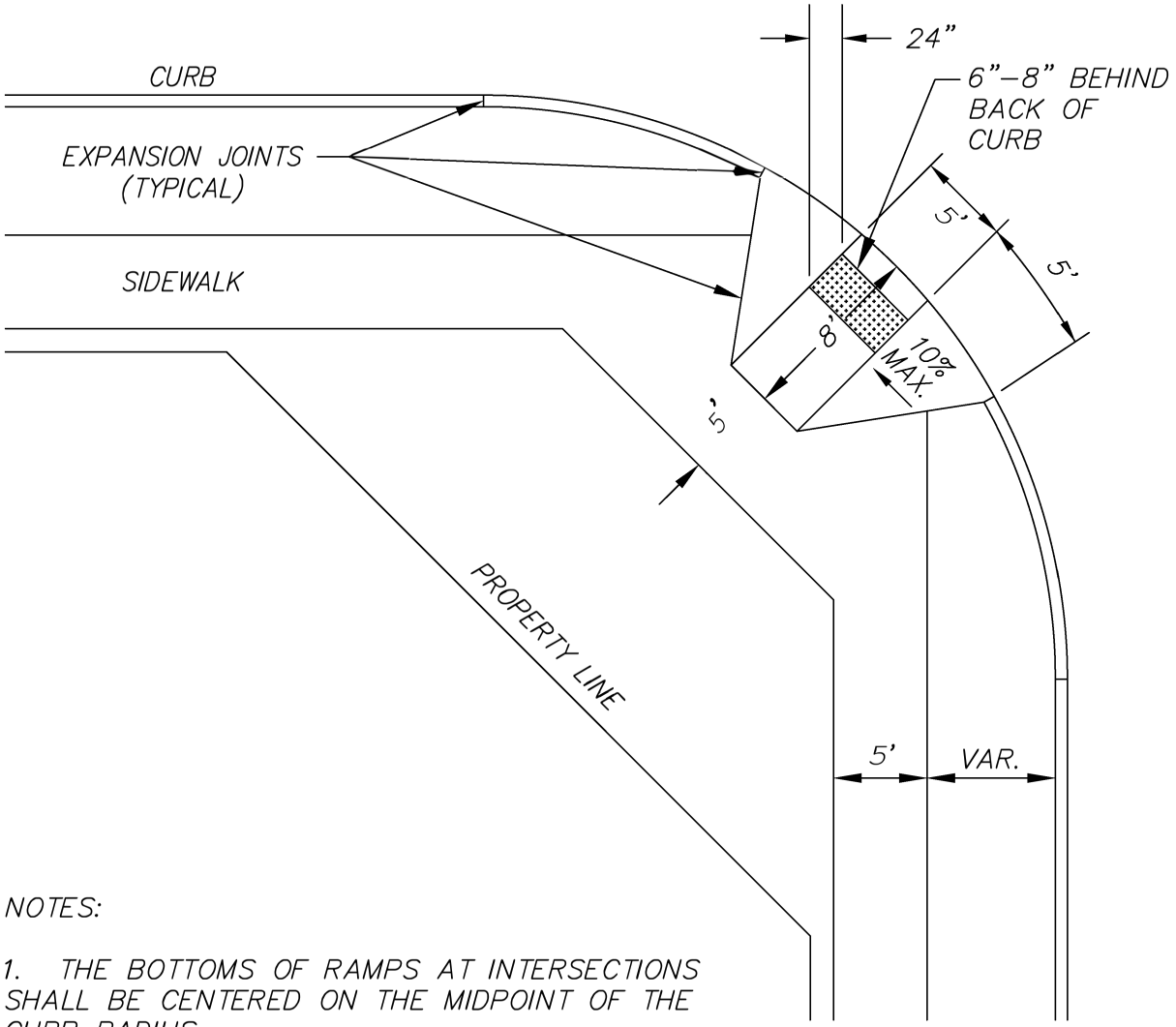


CURB RAMP (TYPICAL) CROSS SECTION

NOT TO SCALE

TANEY COUNTY–ROAD STANDARDS

07_DE.dwg



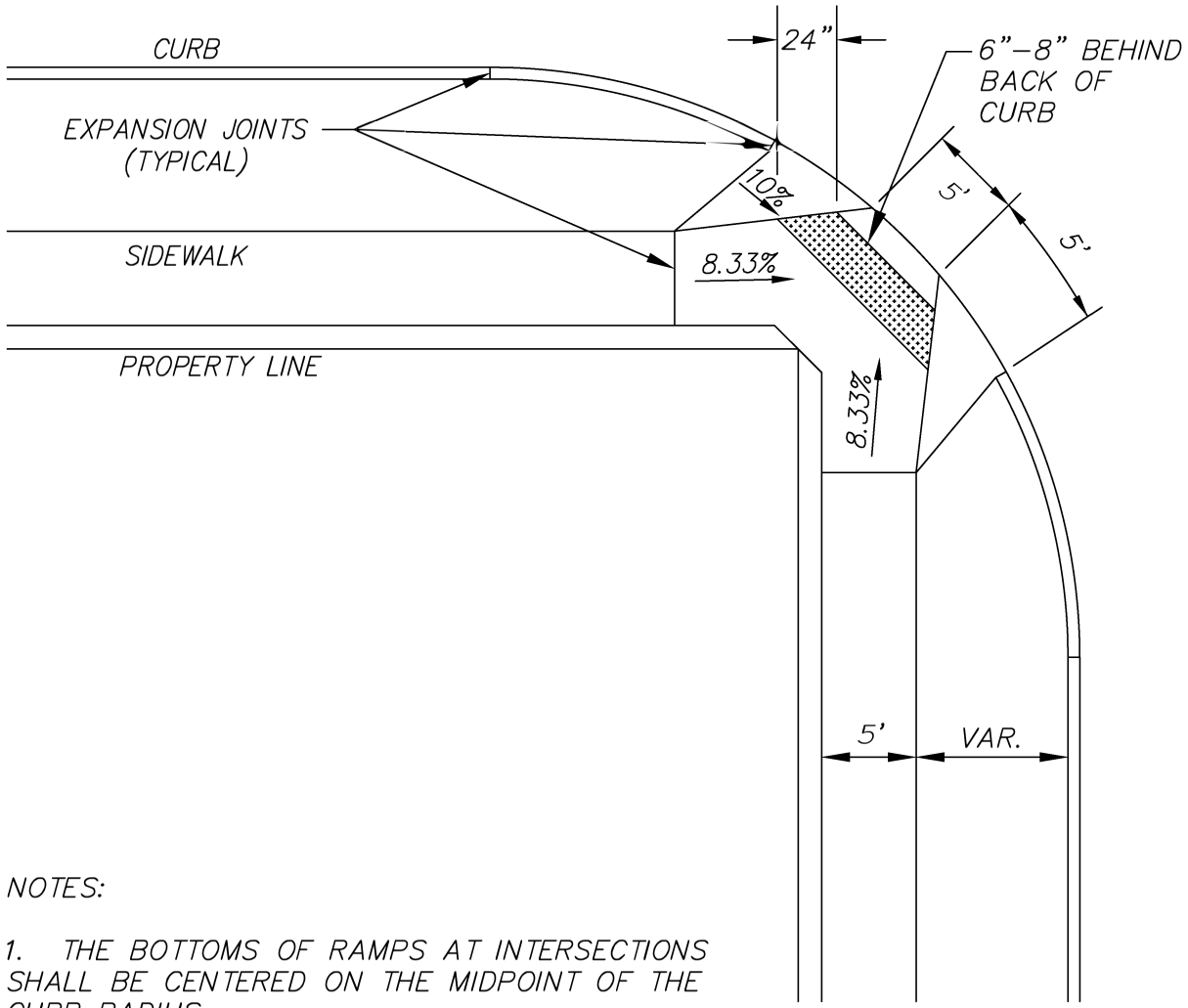
NOTES:

1. THE BOTTOMS OF RAMPS AT INTERSECTIONS SHALL BE CENTERED ON THE MIDPOINT OF THE CURB RADIUS.

TYPE 1 ADA CURB RAMP

NOT TO SCALE

TANEY COUNTY–ROAD STANDARDS
08_DE.dwg



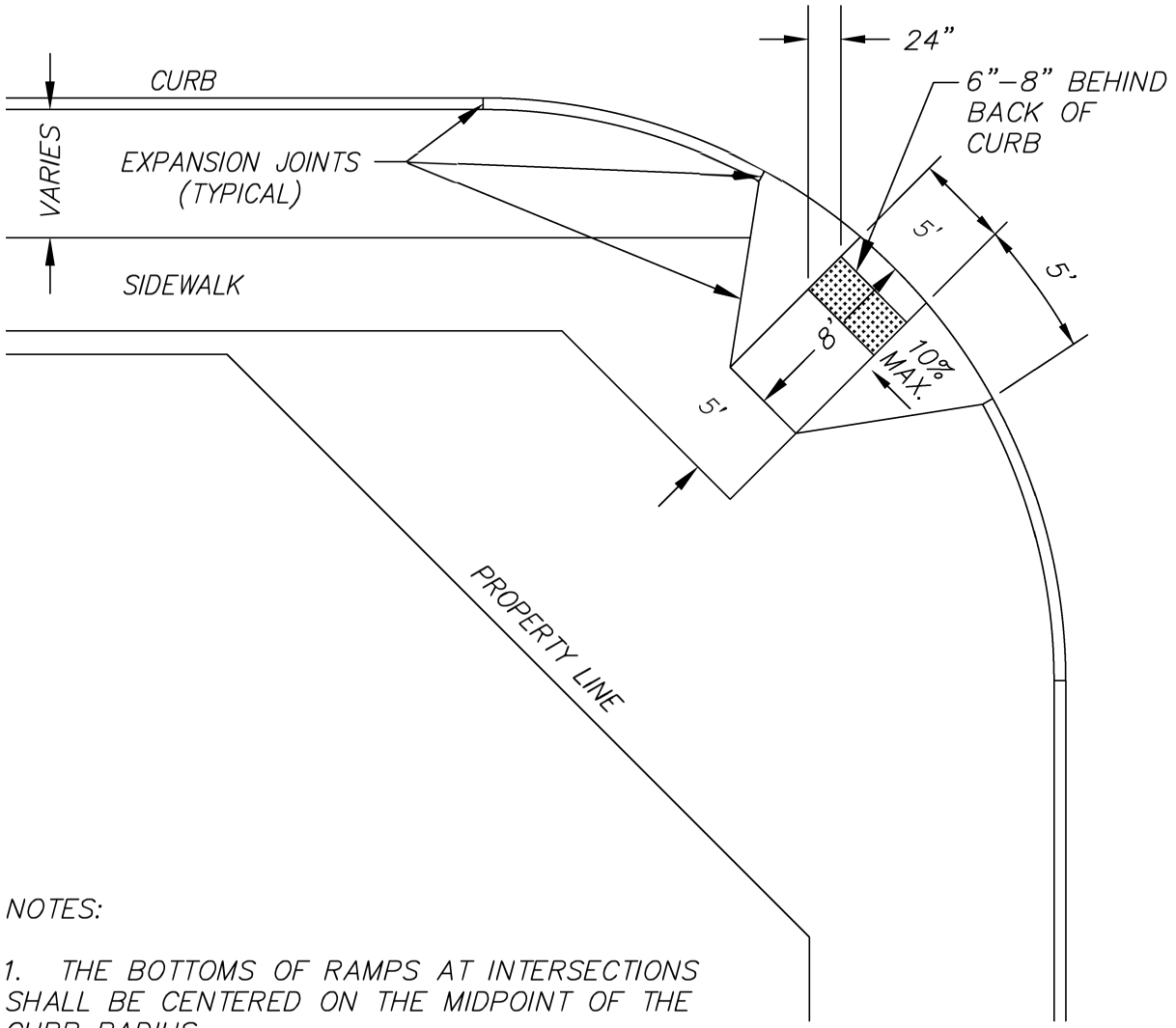
NOTES:

1. THE BOTTOMS OF RAMPS AT INTERSECTIONS SHALL BE CENTERED ON THE MIDPOINT OF THE CURB RADIUS.

TYPE 2 ADA CURB RAMP

NOT TO SCALE

TANEY COUNTY–ROAD STANDARDS
09_DE.dwg



NOTES:

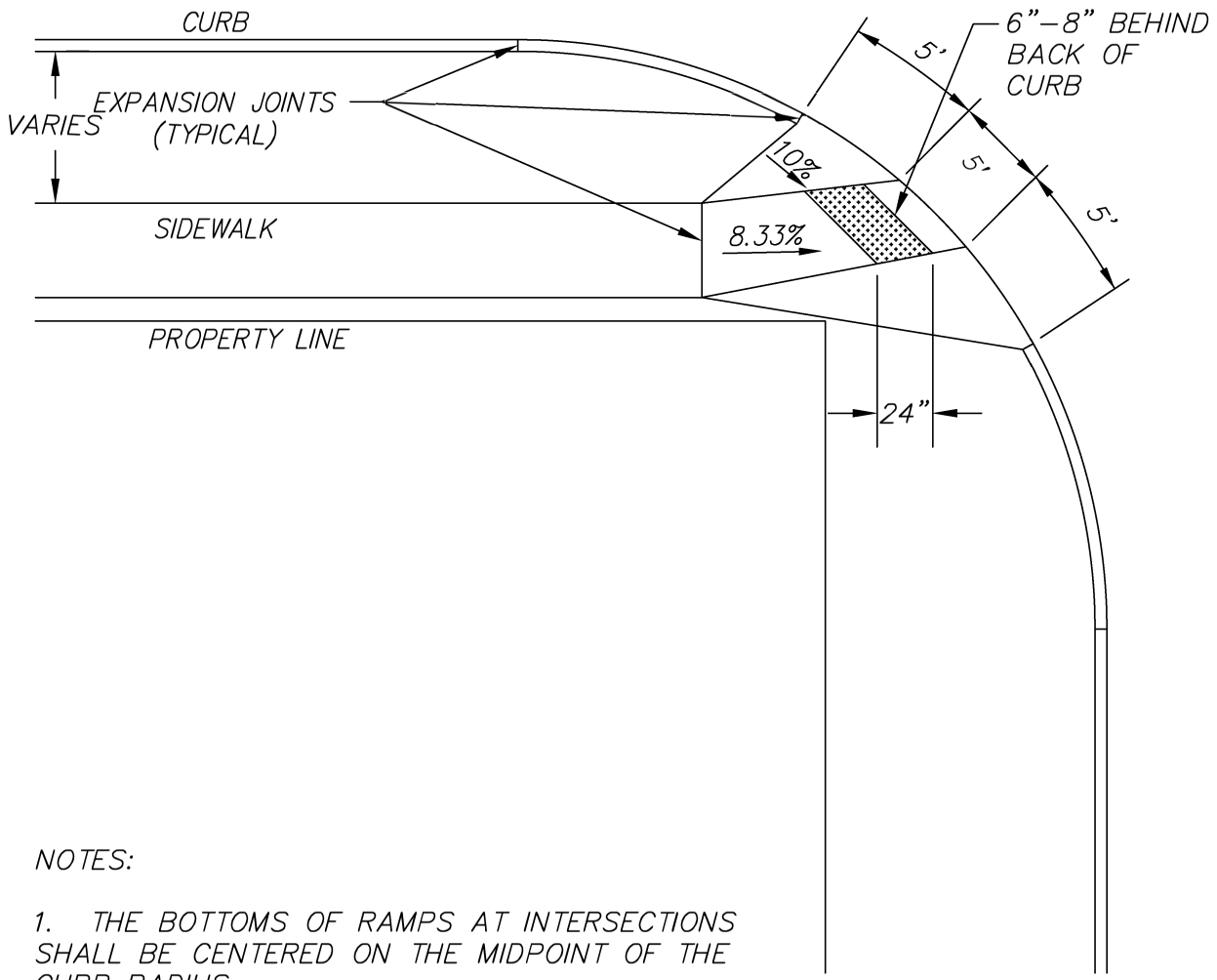
1. THE BOTTOMS OF RAMPS AT INTERSECTIONS SHALL BE CENTERED ON THE MIDPOINT OF THE CURB RADIUS.

TYPE 3 ADA CURB RAMP

NOT TO SCALE

TANEY COUNTY–ROAD STANDARDS

10_DE.dwg



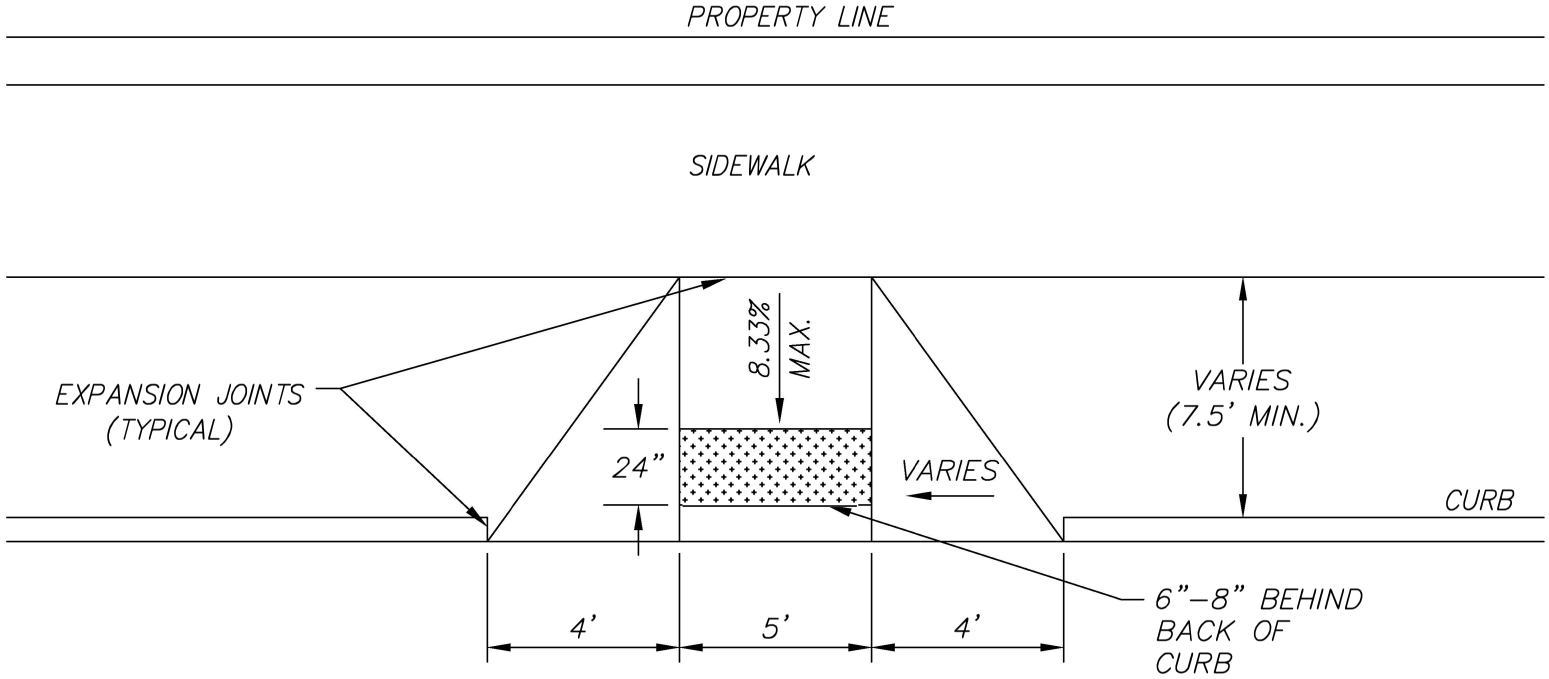
NOTES:

1. THE BOTTOMS OF RAMPS AT INTERSECTIONS SHALL BE CENTERED ON THE MIDPOINT OF THE CURB RADIUS.

TYPE 4 ADA CURB RAMP

NOT TO SCALE

TANEY COUNTY–ROAD STANDARDS
11_DE.dwg

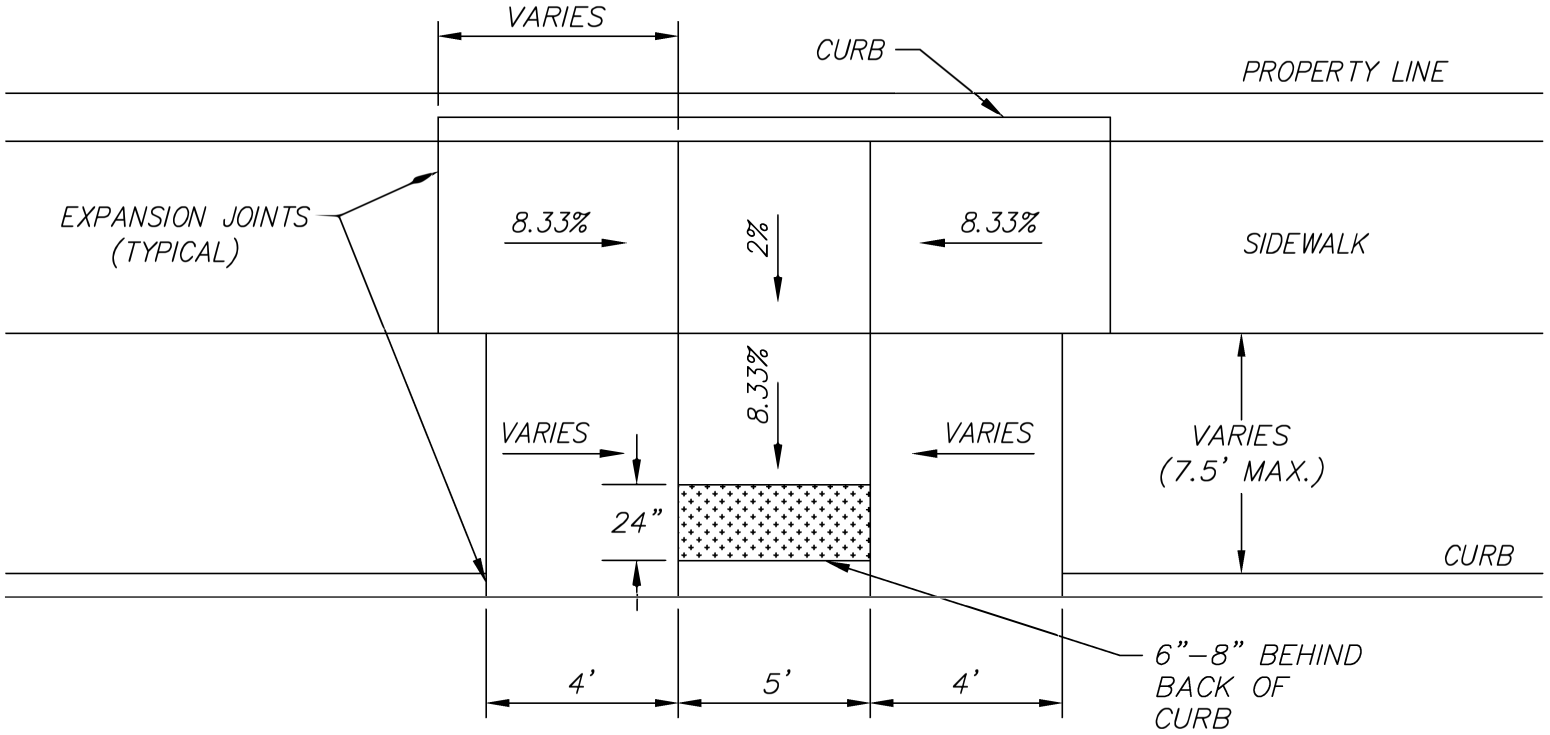


NOTES:
1. CURB RAMP (TYPE 6) SHALL BE USED FOR MID–BLOCK RAMPS WHEN THE DISTANCE BETWEEN THE SIDEWALK AND THE BACK OF CURB IS LESS THAN 7.5 FEET.

TYPE 5 ADA CURB RAMP

NOT TO SCALE

TANEY COUNTY–ROAD STANDARDS
12_DE.dwg

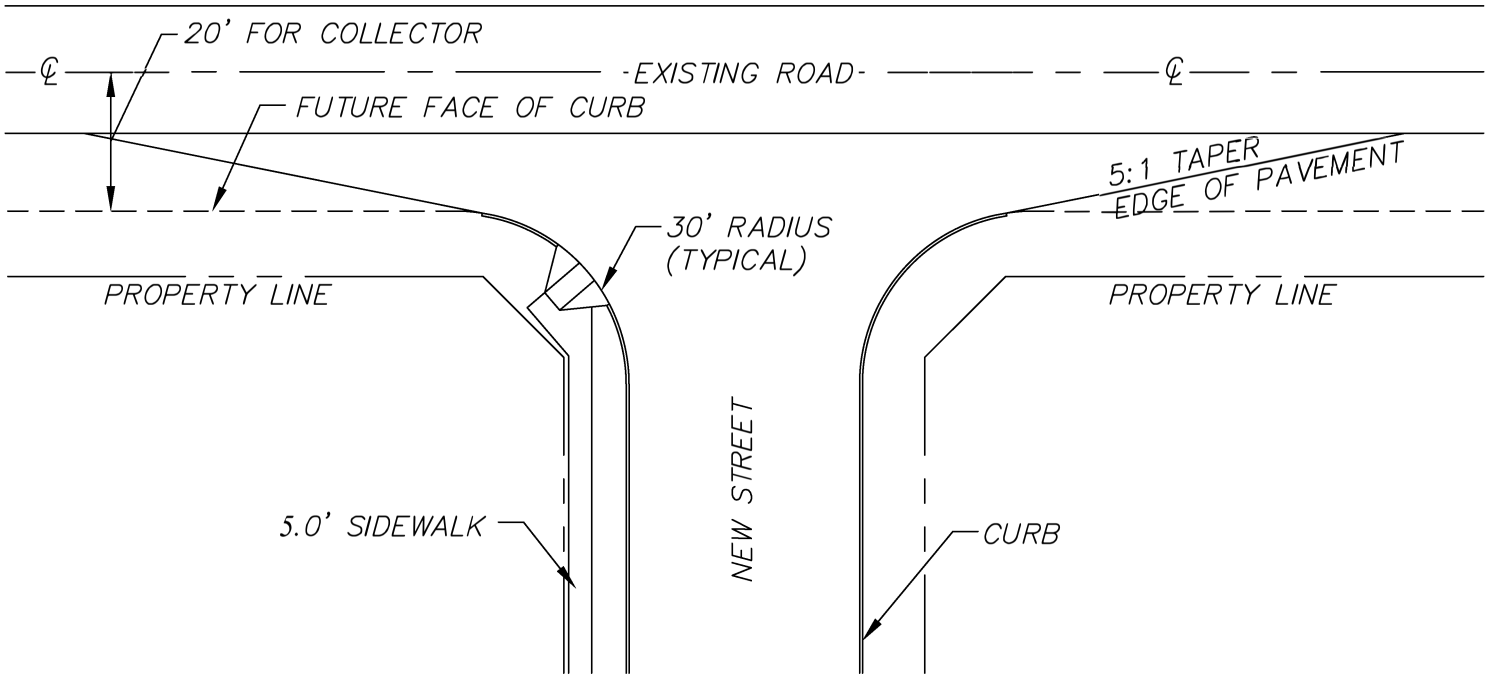


NOTES:
1. CURB RAMP (TYPE 6) SHALL BE USED FOR MID–BLOCK RAMPS WHEN THE DISTANCE BETWEEN THE SIDEWALK AND THE BACK OF CURB IS LESS THAN 7.5 FEET.

TYPE 6 ADA CURB RAMP

NOT TO SCALE

TANEY COUNTY–ROAD STANDARDS
13_DE.dwg

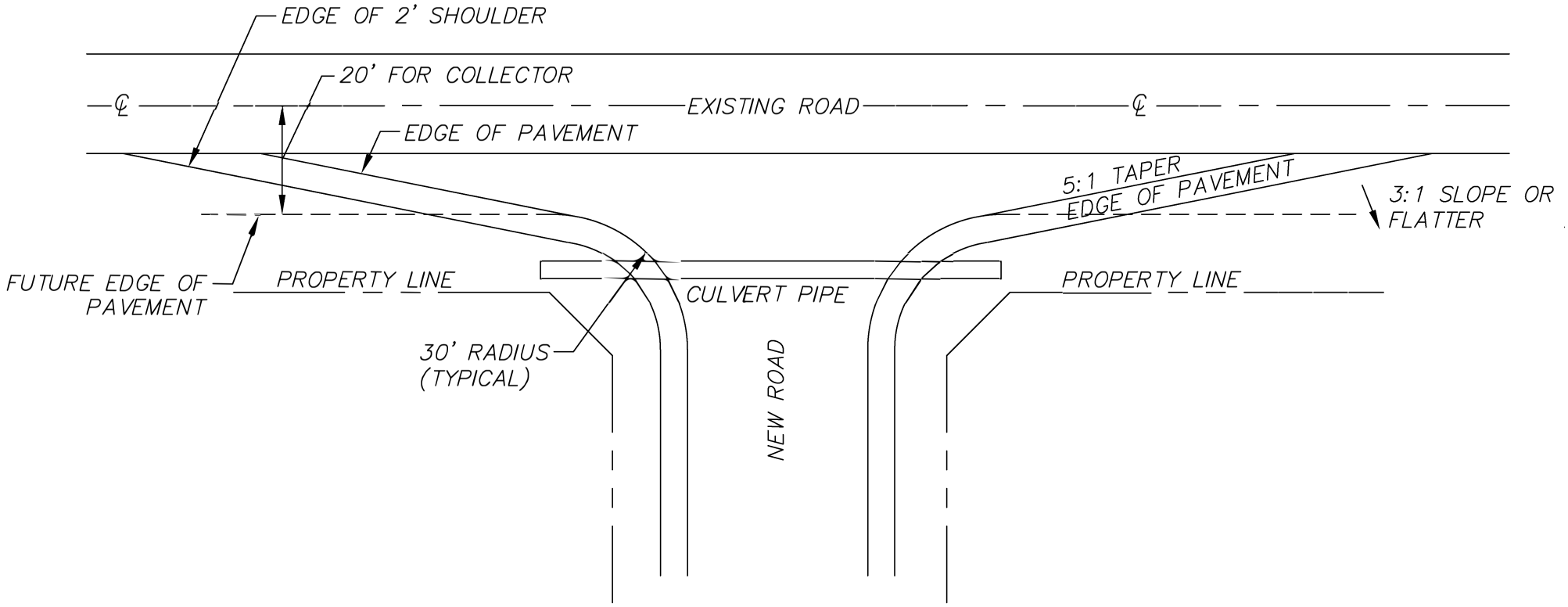


NOTE:
STORMWATER SYSTEM INCLUDING CULVERT ALONG EXISTING ROAD TO BE PROVIDED AS NECESSARY.

STANDARD NEW STREET CONNECTION WITH CURB AND GUTTER

NOT TO SCALE

TANEY COUNTY–ROAD STANDARDS
14_DE.dwg

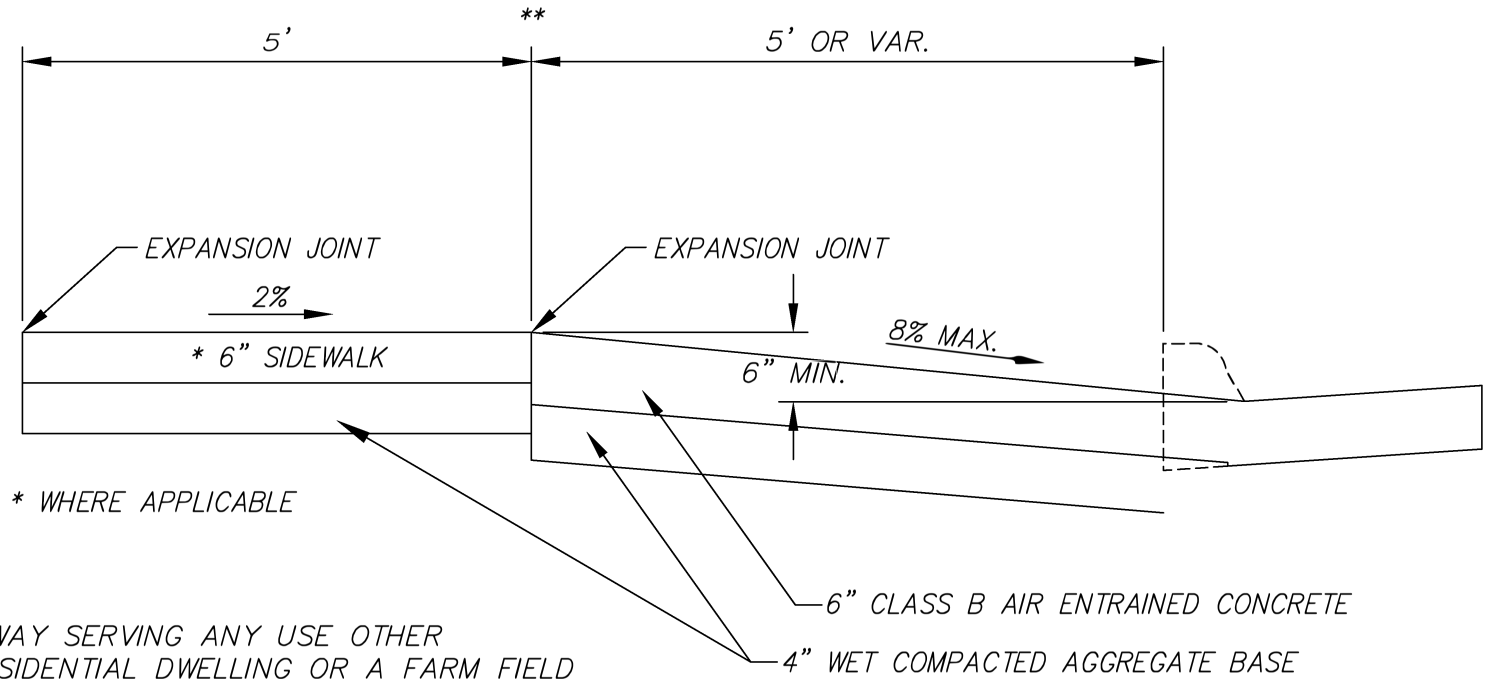


STANDARD NEW STREET CONNECTION WITH SHOULDERS

NOT TO SCALE

TANEY COUNTY–ROAD STANDARDS
15_DE.dwg

** HIGH POINT OF APRON SHALL BE ABOVE OR EQUAL TO TOP OF CURB ELEVATION



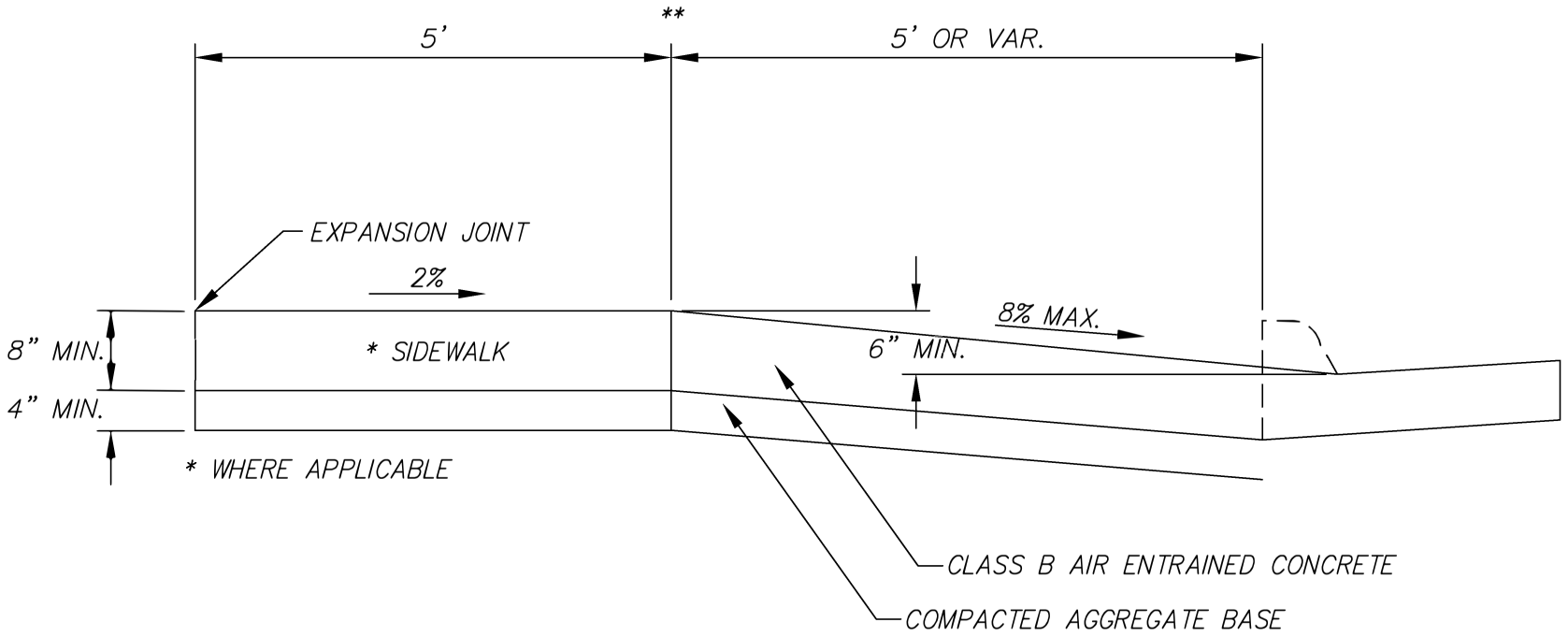
NOTE:
ANY DRIVEWAY SERVING ANY USE OTHER THAN A RESIDENTIAL DWELLING OR A FARM FIELD ENTRANCE SHALL BE CONSTRUCTED TO COMMERCIAL DRIVEWAY STANDARDS. ANY DRIVEWAY SERVING MORE THAN 4 DWELLING UNITS SHALL BE CONSTRUCTED TO COMMERCIAL DRIVEWAY STANDARDS.

RESIDENTIAL DRIVEWAY SECTION

NOT TO SCALE

TANEY COUNTY–ROAD STANDARDS
16_DE.dwg

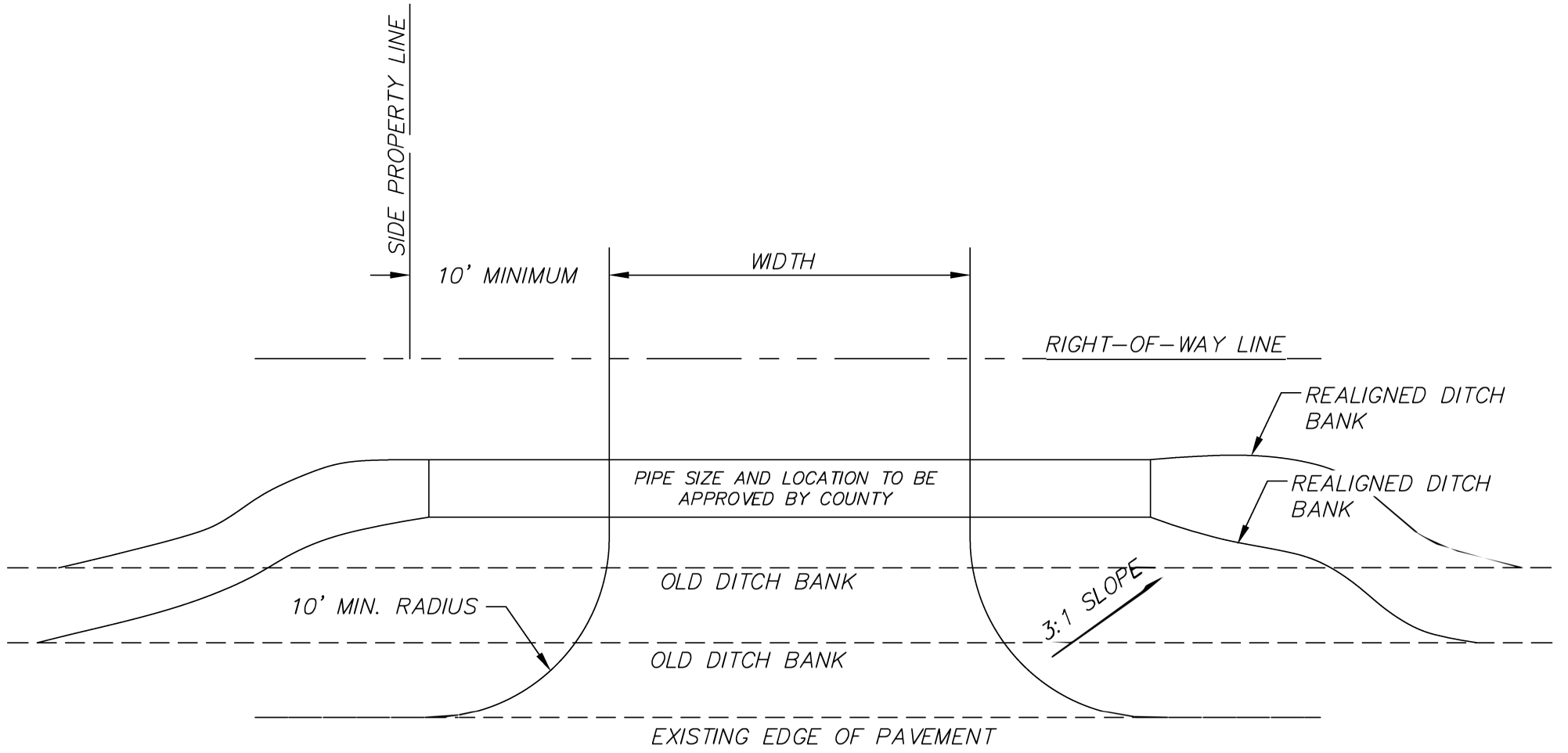
** HIGH POINT OF APRON SHALL BE ABOVE OR EQUAL TO TOP OF CURB ELEVATION



COMMERCIAL DRIVEWAY SECTION

NOT TO SCALE

TANEY COUNTY–ROAD STANDARDS
17_DE.dwg

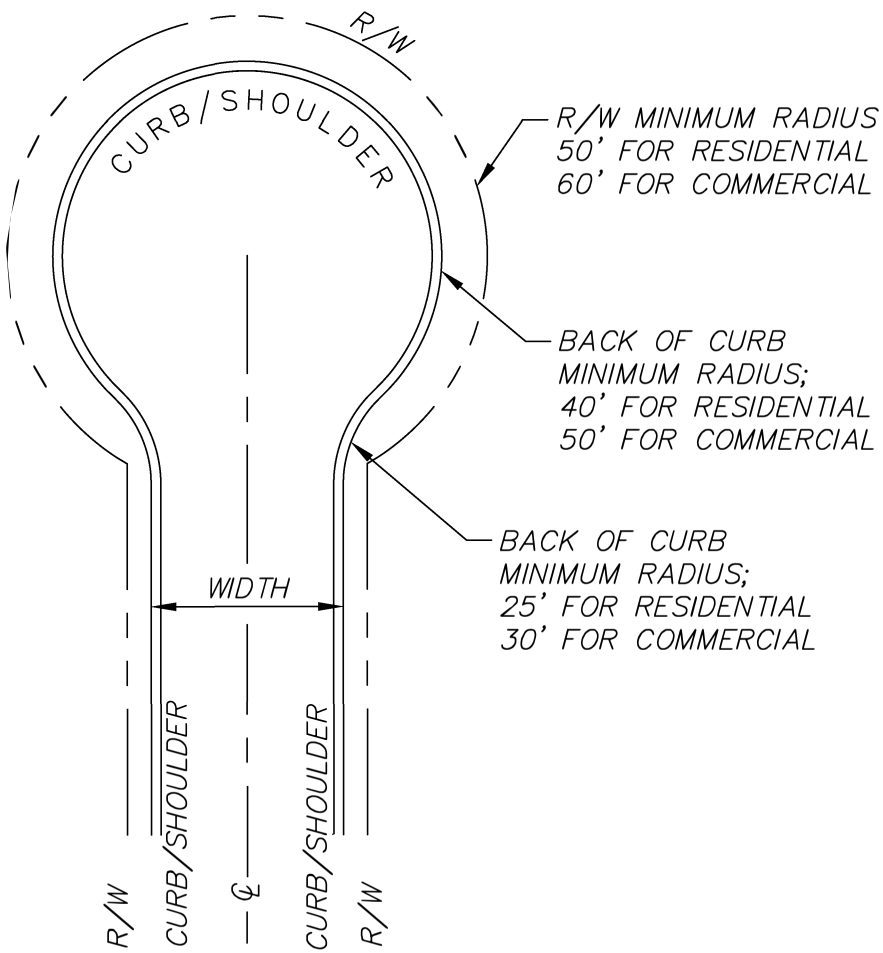


RURAL DRIVEWAY PLAN VIEW

NOT TO SCALE

TANEY COUNTY-ROAD STANDARDS

18_DE.dwg

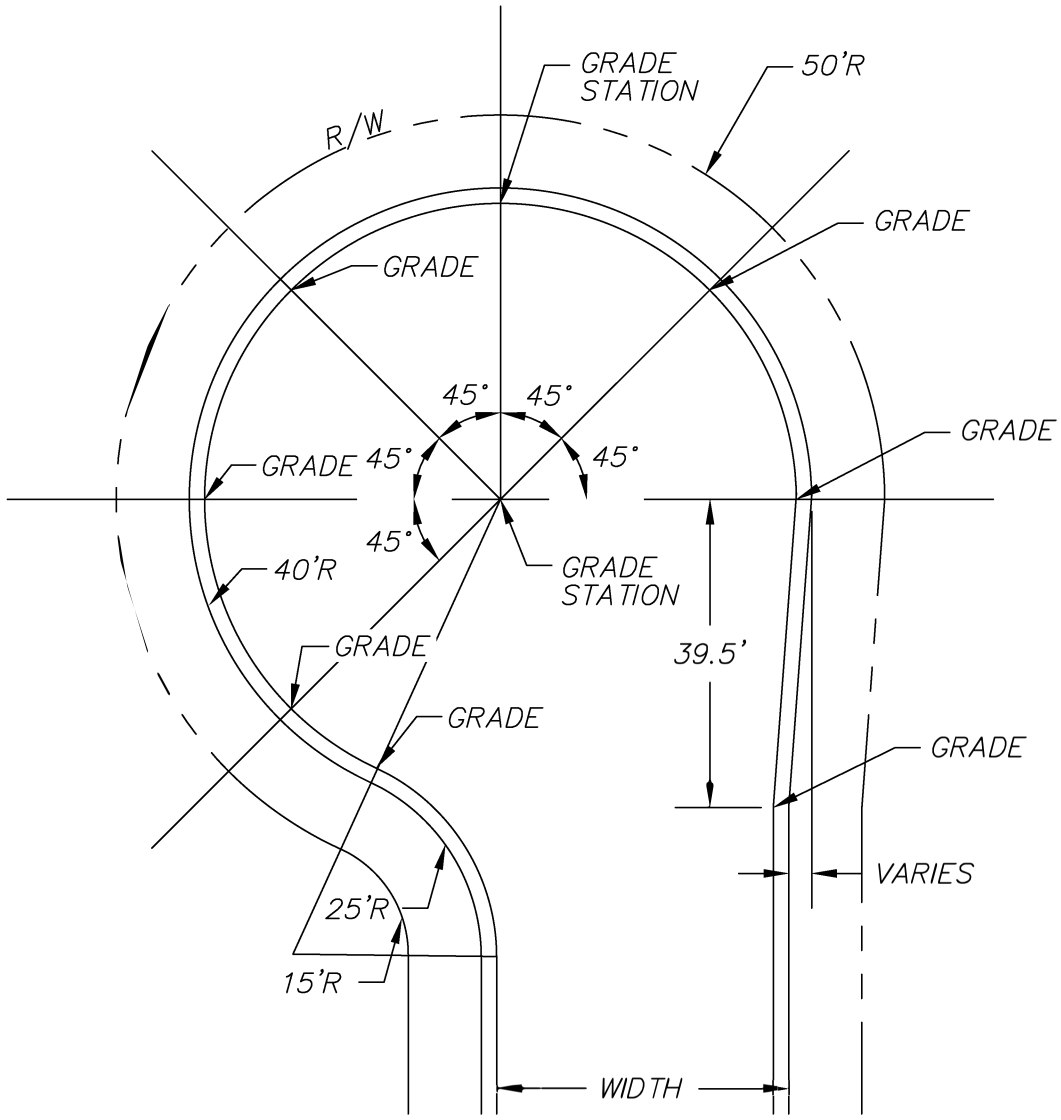


STANDARD CUL-DE-SAC

NOT TO SCALE

TANEY COUNTY-ROAD STANDARDS

19_DE.dwg

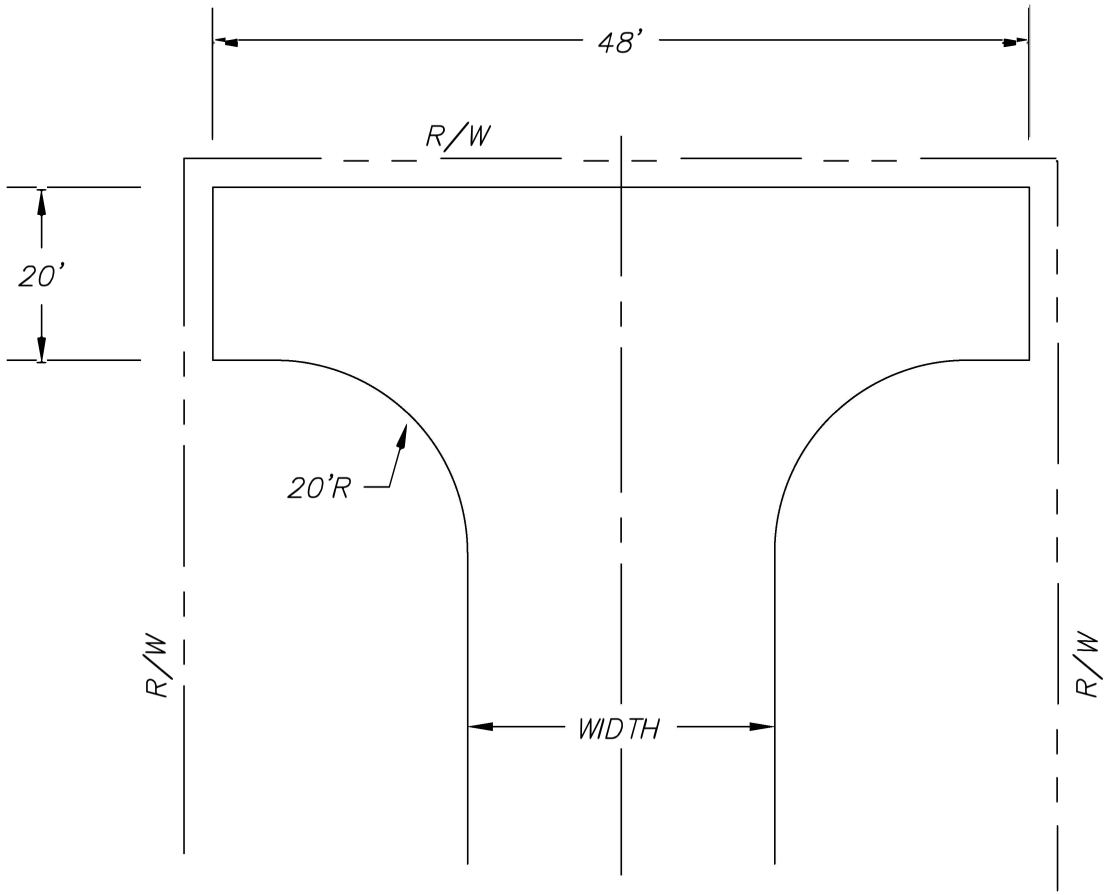


OFFSET CUL-DE-SAC

NOT TO SCALE

TANEY COUNTY-ROAD STANDARDS

20_DE.dwg

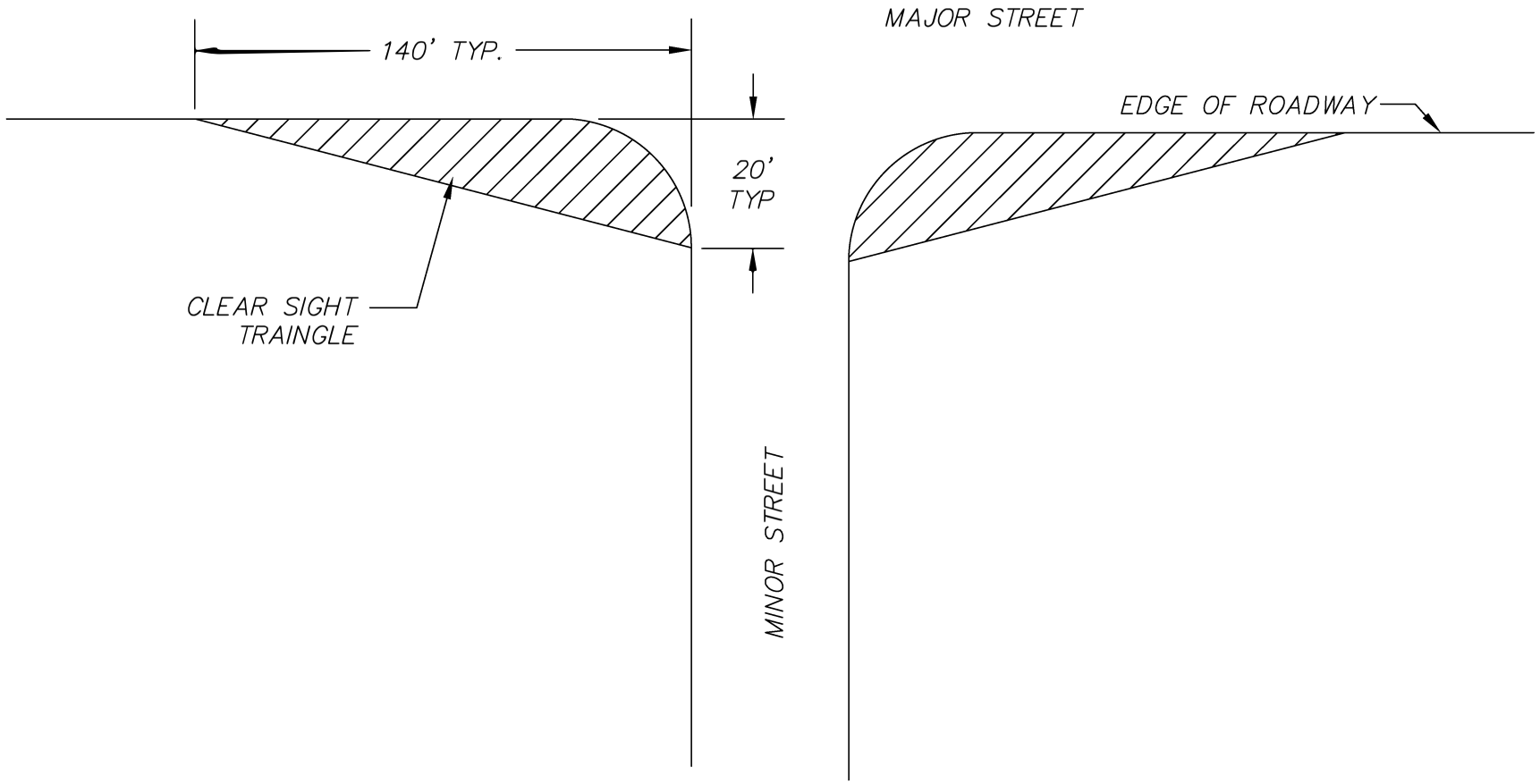


HAMMERHEAD

NOT TO SCALE

TANEY COUNTY–ROAD STANDARDS

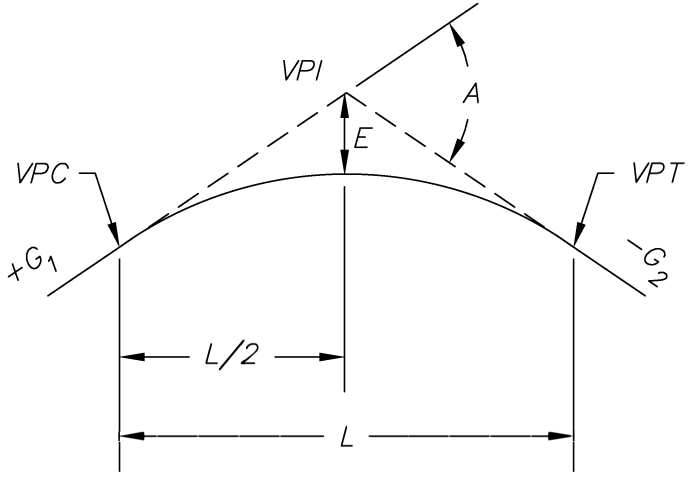
21_DE.dwg



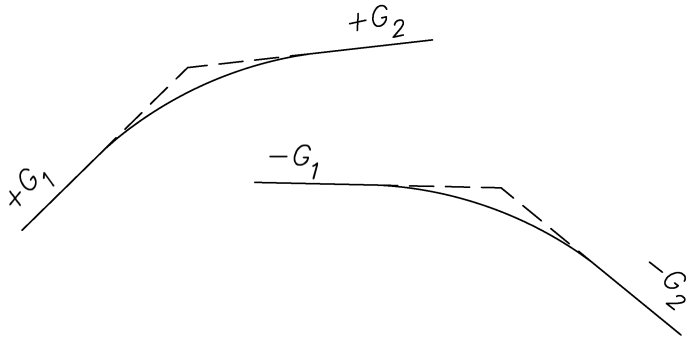
INTERSECTION CLEAR SIGHT TRIANGLE

NOT TO SCALE

TANEY COUNTY–ROAD STANDARDS
22_DE.dwg

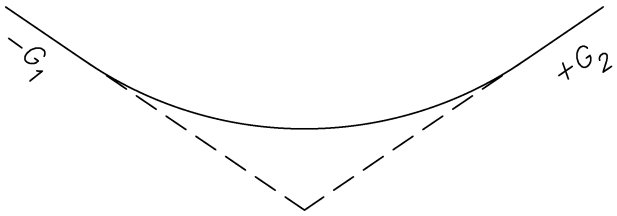


TYPE I

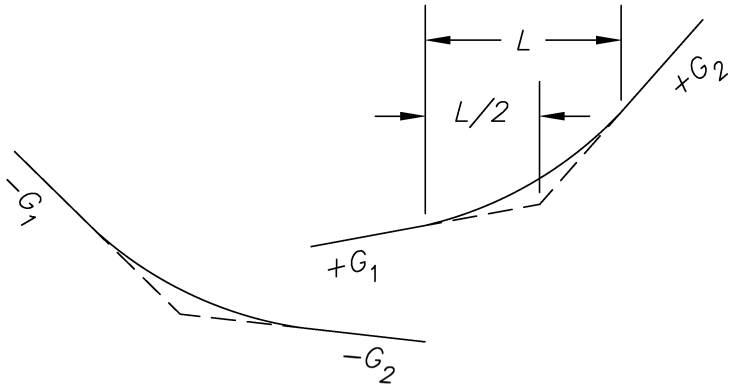


TYPE II

CREST VERTICAL CURVES



TYPE III



TYPE IV

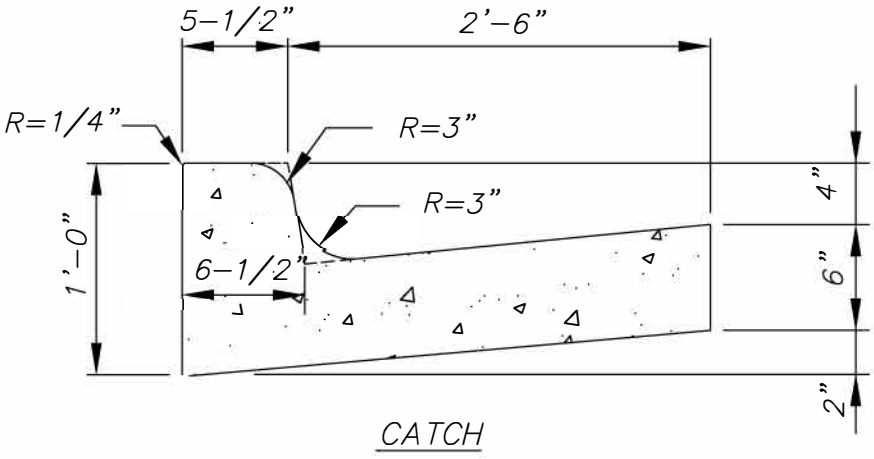
SAG VERTICAL CURVES

TYPES OF VERTICAL CURVES

NOT TO SCALE

G_1 AND G_2 = Tangent grades in percent
A = Algebraic difference in grade
K is defined in Table 3.8
L = Length of vertical curve = KA

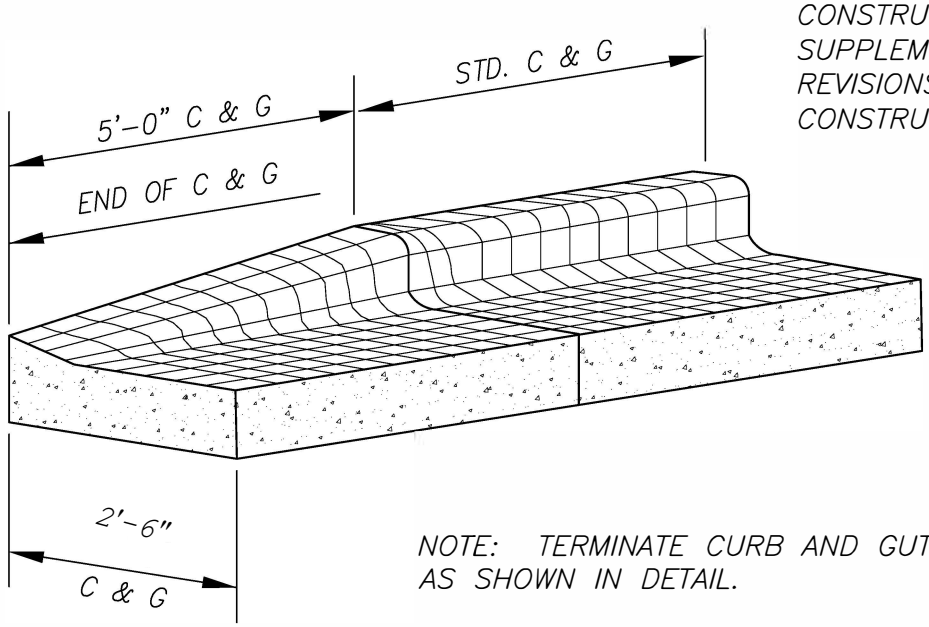
TANEY COUNTY–ROAD STANDARDS
23_DE.dwg



CATCH

CONCRETE CURB AND GUTTER DETAIL

THE CONTRACTOR SHALL FOLLOW "SPECIFICATION SECTION 500" AS STATED IN THE LATEST EDITION OF THE "MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION,", AND CURRENT SUPPLEMENTAL SPECIFICATION REVISIONS, "FOR MATERIAL AND CONSTRUCTION".



NOTE: TERMINATE CURB AND GUTTER AS SHOWN IN DETAIL.

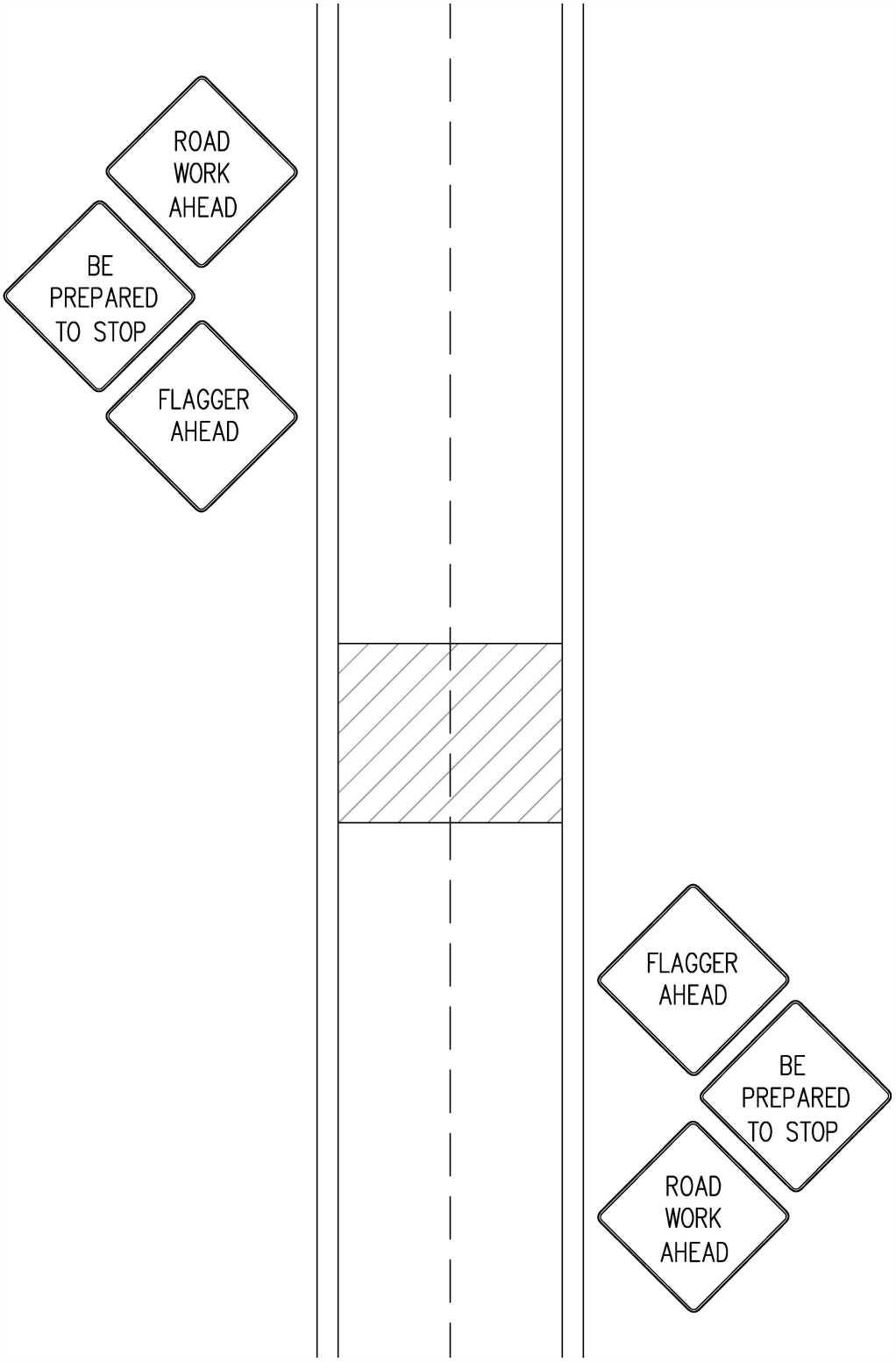
CURB TRANSITION DETAIL

NOT TO SCALE

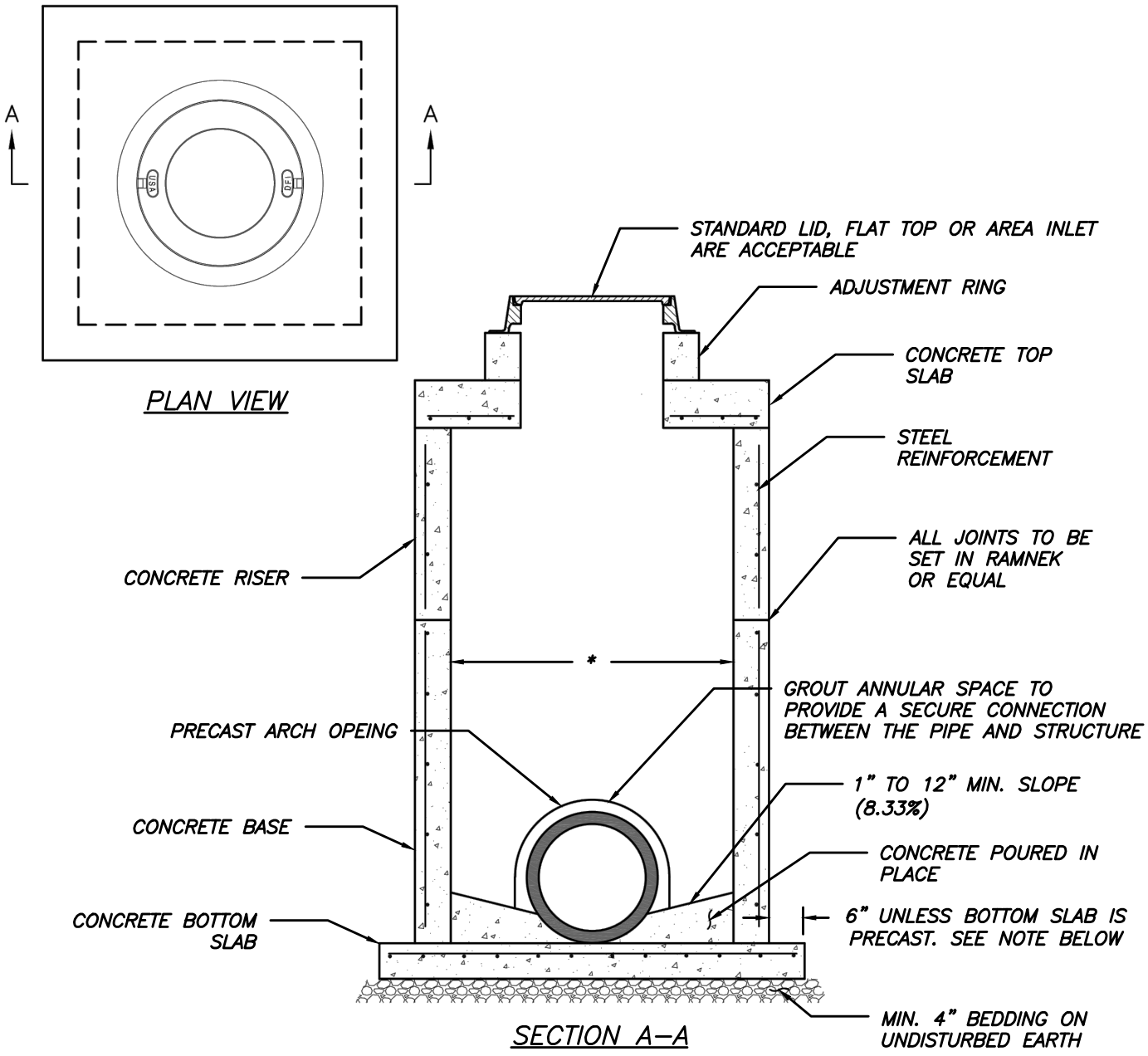
TANEY COUNTY–ROAD STANDARDS

MISC CURB DETAIL.dwg

EXAMPLE OF A TEMPORARY ROAD CLOSURE: CONDITIONS REPRESENTED ARE A PLANNED CLOSURE NOT EXCEEDING 20 MINUTES DURING THE DAYTIME. WHEN USED, THE ***BE PREPARED TO STOP*** *SIGN SHOULD BE LOCATED BEFORE THE FLAGGER SYMBOL SIGN.*



TANEY COUNTY–ROAD STANDARDS
24_DE.dwg



NOTES:

1. JUNCTION BOX SHALL BE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH ASTM C 913.
2. JUNCTION BOX SHALL BE CONSTRUCTED WITH AS FEW JOINTS AS REASONABLY PRACTICAL. WHEN JOINTS ARE NECESSARY, JOINTS SHALL BE WATERTIGHT, DETAILED ON SHOP DRAWINGS AND DESIGNED TO PREVENT LATERAL MOVEMENT DURING AND AFTER CONSTRUCTION
3. CONCRETE TOP SLAB SHALL BE DESIGNED TO WITHSTAND LOADING BASED ON A COMBINATION OF DEAD LOADS, SNOW LOADS, AND A–16 (HS20–44) TRAFFIC LOADS IN ACCORDANCE WITH ASTM C890.
4. BOTTOM SLAB SHALL BE POURED IN PLACE. IF MANUFACTURER IS CONCERNED ABOUT STRUCTURAL INTEGRITY OF BASE DURING TRANSPORTATION THEN THE BOTTOM SLAB MAY BE PRECAST WITH RISER.
5. PIPE TO BE ON GRADE BEFORE BOTTOM SLAB IS CONSTRUCTED UNLESS BOTTOM IS PRECAST WITH BASE.
6. ALL PIPES SHALL FIT FLUSH WITH INSIDE FACE OF JUNCTION BOX.
7. BOTTOM OF JUNCTION BOX TO BE FILLED WITH CONCRETE FORMING CHANNELS TOWARD OUTLET PIPE FROM ALL INLET PIPES. CONCRETE SHALL BE FLUSH WITH INVERT OF OUTLET PIPE.
8. NO MORE THAN 2 ADJUSTMENT RINGS MAY BE USED BUT SHALL NOT EXCEED 18 INCHES.
9. CONCRETE TOP SLAB SHALL BE PINNED TO STRUCTURE AT THE CORNERS USING ONE #4 DEFORMED BAR IN EACH CORNER. BAR SHALL EXTEND A MIN. OF 6" INTO RISER BELOW.

PIPE DIAMETER	*MIN. INSIDE DIMENSION OF STRUCTURE
15" – 24"	THREE FEET (3')
27" – 30"	FOUR FEET (4")
36" – 42"	FIVE FEET (5')
48" – 54"	SIX FEET (6')

CULVERT CLEANOUT BOX DETAIL

TANEY COUNTY–ROAD STANDARDS