

CITY OF NORTHFIELD
DRIVEWAY AND SIDEWALK CONSTRUCTION POLICY

SECTION I: GENERAL REQUIREMENTS

1. Permit Required: No driveway or sidewalk construction shall be undertaken within the public right-of-way along any street or roadway in this municipality without a permit having been obtained from the City Engineer. Application for such permit shall be accompanied by a fee in an amount duly established from time to time by resolution of the City Council of the City of Northfield.
2. Minnesota Department of Transportation Permit: Whenever driveway or sidewalk construction is proposed within the right-of-way of a state trunk highway, a permit must also be obtained from the Minnesota Department of Transportation. Permit applications may be obtained from the District Maintenance Engineer, 1010 NW 21st Avenue, Owatonna, Minnesota, 55060.
3. Letter of Credit/Bond and Insurance Requirements: No permit shall be issued hereunder until the applicant has furnished either an irrevocable and unconditional letter of credit or a performance bond in favor of the City of Northfield in the amount of at least 125 percent of the cost of the proposed construction project, approved by the City Engineer and the City Attorney, conditioned upon completion of the project described in the application in good workmanlike manner and consistent with the requirements hereof.

No permit shall be issued until the applicant has furnished the City of Northfield with evidence of public liability, X-C-U, and property damage insurance on terms as follows: The City of Northfield shall be named as an additional insured on the certificate of insurance; the minimum liability coverage shall be \$100,000.00 for each person and \$300,000.00 for each incident; the certificate of insurance shall contain a clause providing that the subject insurance shall not be canceled without 10 days written notice to the City of Northfield of intent to cancel.

The letter of credit/bond and insurance requirements established hereby shall be in full force and effect at all times from commencement of work on any project covered hereby and until such project receives final approval in writing from the City of Northfield.

4. Penalty for Not Obtaining Permit: Any driveway constructed within City Limits on either City or State right-of-way without a permit or proper inspections shall be subject to one or all of the following penalties:
 - A. Driveway could be removed and replaced by the City or its Contractor at the property owner's expense.
 - B. A \$500 fine charged to the Contractor. This fine would have to be paid prior to any more permits being issued to the Contractor.

- C. The Contractor performing work will not be permitted to do any work within City right-of-way or obtain a permit for doing so.
 - D. The City may issue a stop work order.
 - E. The City can request the Contractor reconstruct the driveway.
 - F. If it is necessary for City Staff to tell a Contractor to stop work and obtain a permit the inspection fee will triple to \$150 and the total permit fee will be \$250.
5. Inspection and Final Approval: All driveway and sidewalk construction covered hereby shall be subject to periodic inspection and final written approval by the City Engineer or the City Engineer's representative. Inspections may be arranged by calling the office of the City Engineer at 645-3020 during regular business hours 24 hours before inspection is desired.
 6. Public Safety: Approved public warning and protection must be provided for all construction within the public right-of-way. Only approved barricades and flashers will be allowed. All barricades shall remain in place until a smooth level surface is restored. All openings which are dangerous to life or limb shall be surrounded by a safety fence approved by the City Engineer.
 7. Public and Private Utilities: The permittee shall be responsible for locating and protecting private and public utilities prior to the start of construction.
 8. Access Driveways: Access driveways may be placed adjacent to property lines except that driveways consisting of crushed rock or other non-finished surfacing shall be no closer than five (5) feet from any side or rear lot line. The number, type and location of access driveways onto public streets and roadways may be controlled and limited by the City of Northfield in the interests of public safety and efficient traffic flow. New access driveways must receive prior written approval from the City of Northfield.
 9. Temporary Rock Construction Entrance: It will be necessary for any Contractor that is doing construction that may result in mud or debris being left on city streets to construct a temporary rock entrance. The temporary rock entrance shall be maintained through out the project until such a time that the City Engineering Department has deemed it unnecessary. If rock entrances are not constructed, the City will issue a stop work order until the temporary rock entrances are in place.

SECTION II: CONSTRUCTION REQUIREMENTS

A. Driveway Entrance Construction

1. Curb Cutting: Curb entrance cuts shall be made by removal of the entire curb and gutter section across the width of the entrance.

All curb cuts shall be made by use of an approved power concrete saw. All cuts shall be made in a neat and uniform manner. The expense of such curb cutting and entrance construction shall be paid for by the person applying for the permit.

2. Entrance Design (*Refer to Plates No.1 through 4* which are attached and incorporated herein by reference):
 - a. Residential entrances shall be constructed to a minimum width of 12 feet and a maximum of 20 feet.
 - b. Commercial and Mulit-family entrances shall be constructed to a minimum width of 24 feet and a maximum width of 32 feet.
 - c. A four (4) foot concrete apron will be required immediately behind the curb and gutter on all entranced constructed in boulevards without sidewalk. (*Refer to Plate No. 2*)
 - d. Entrances constructed on boulevards with existing sidewalk shall be surfaced with concrete between the curb and gutter and the sidewalk. (*Refer to Plate No. 1*)
 - e. Entrances shall be constructed as shown *on Plates No. 1 through 4* attached to this policy. Variations will require approval by the City Engineer.
 - f. If it is necessary to remove extra sidewalk and regrade boulevards to install driveways to meet maximum slope requirements it will be entirely at the property owner's expense.
3. Temporary Rock Construction Entrance: Temporary rock entrances shall be constructed per *Plate No. 6. If soil conditions are so wet that rock will be pushed into the mud, geotextile fabric* will be required below the rock surface.
4. Foundation Preparation: The foundation shall be excavated, shaped and compacted to a firm uniform bearing surface. Unsuitable subgrade soils shall be removed and replaced as necessary. A minimum of 4 inches of Class 5 aggregate base shall be placed and compacted thoroughly prior to surfacing.
5. Forms: Forms shall be metal, or wood or other suitable material capable of sustaining the concrete in its proper position until set.
6. Concrete Joints: Construction joints shall be provided at 10-foot intervals in curb and gutter construction. Contraction joints may be formed or sawed. Joints shall be aligned with similar joints in adjoining work when practicable.
7. Placing and Finishing Concrete: Immediately before placing the concrete, the inside faces of the forms shall be wetted and the foundation moistened with water.

The concrete shall be placed in a manner that will prevent segregation, consolidated by hand tamping or internal vibrating to fill all voids, struck off to the required grade, and floated smooth. Curb face forms and contraction joint inserts shall be removed as soon as the concrete has set sufficiently to retain its molded shape.

The top surface and face of curbs shall be hand-floated with a suitable trowel as soon after the face forms have been removed and as soon as the condition of the concrete will permit.

After the water sheen has disappeared, joints and edges shall be rounded to the radii shown in *Plates No. 1, 2, and 3*, and all concrete surfaces exposed to view shall be lightly brushed to a uniform texture.

Side forms shall remain in place for at least 12 hours after the concrete has been cast. All cavities shall be filled with mortar after removal of the side forms.

8. Concrete Curing and Protection: After the finishing operations have been completed and as soon as the set of the concrete permits, the concrete shall be cured for a minimum period of 72 hours in accordance with Section 2301.3M of the Minnesota Department of Transportation Standard Specifications.
9. Backfill Construction: As soon as possible without subjecting the concrete work to damaging stresses, backfill shall be completed and the boulevard restored with 4 inches of topsoil and reseeded or resodded as necessary to restore it to its prior condition. All surplus materials shall be removed from the public right-of-way and disposed of.
10. Workmanship and Finish: The complete concrete work shall give the appearance of uniformity in surface contour and texture, and shall be accurately constructed to line and grade. The required joints and joint sealing shall show neat workmanship.

Edge and surface alignment on curved construction shall conform closely to the planned curvature, and the flow line surface of gutters shall be finished as necessary to eliminate low spots and avoid entrapment of water.

Concrete edges and surfaces designed to straight lines or grades shall be checked with a 10-foot straightedge, and any deviations therefrom in excess of 1/4 inch shall be considered unacceptable work. All concrete surfaces shall be of a broomed finish.

B. Sidewalk Construction:

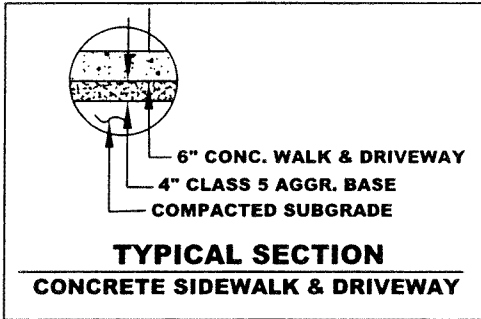
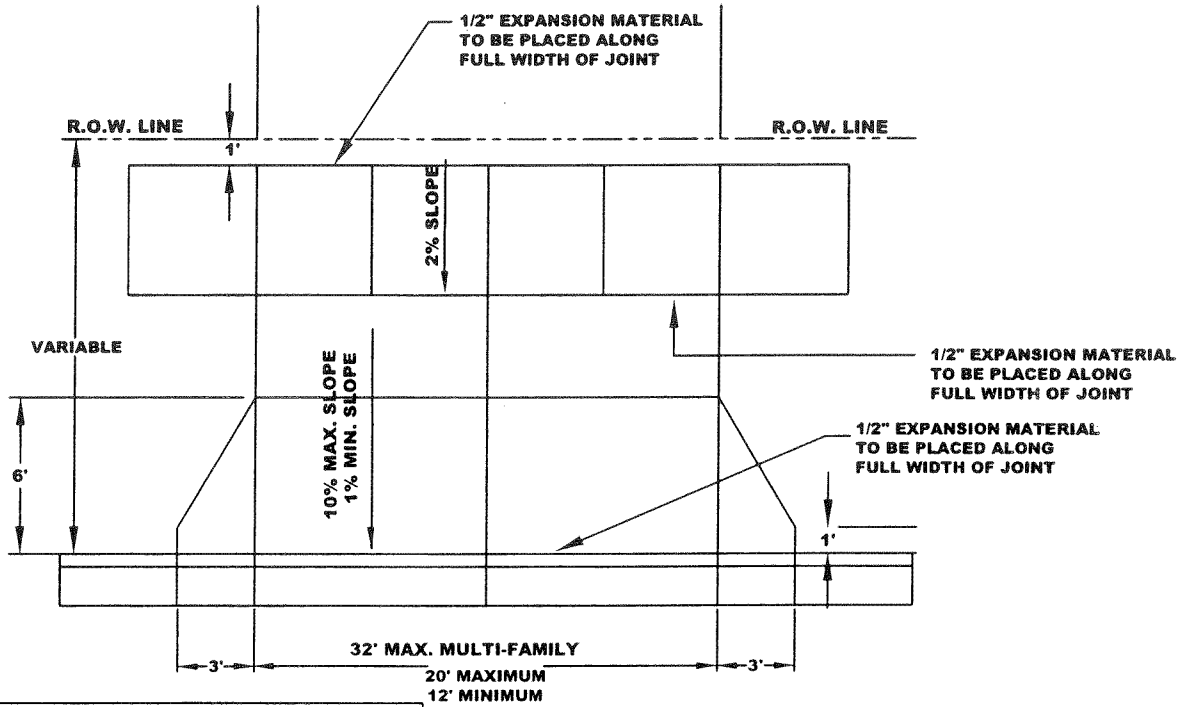
1. Changes in alignment and grade must be approved by the City Engineer prior to construction.
2. Forming, placing, finishing; and curing concrete shall be as directed under entrance construction above.
3. Sidewalks must be a minimum of 3,900 pounds per square inch cement, 5% air entrainment, nominal 4" thickness, and 6" thickness on driveway section, and a 5' width.

4. The joint on either side of the driveway section (where the 6" thick area abuts the 4" thick portion) must be an expansion joint. In addition, expansion joints must be used at each return. (A return is an area where the sidewalk continues but changes direction such as at an intersection of the public and private walks.) On long runs, it is suggested that every second or third joint be an expansion joint, rather than a rolled control joint.
5. Prior to the sidewalk being poured the Engineering Department shall make an inspection of the forms. It is the responsibility of the Contractor to make the arrangements for this inspection by calling the Engineering Department at 645-3020. A minimum of 24 hours notice is required.
6. State Statute requires that with new installation of sidewalks or when improving or replacing existing sidewalks, ramps at crosswalks shall be installed. When removing a corner sidewalk section, one curb must be made handicapped accessible with a ramp. Ramp shall be constructed per *Plate No. 5*.
7. Sidewalks and pedestrian ramps must be installed to a maximum longitudinal slope of five (5) percent and a cross slope equal to two (2) percent.
8. Sidewalks shall have a broom finish. Sidewalks cannot be troweled to a smooth finish.
9. During replacement of a sidewalk, barricades must be utilized where necessary to prevent injury to pedestrians.

C. Material

1. Aggregate base Class 5 shall conform to Minnesota Department of Transportation Specification 2211.
2. Concrete used in entrance and sidewalk construction shall conform to Minnesota Department of Transportation Specification 2461 and shall be Type 3, air entrained concrete with a minimum 28-day compressive strength of 3900 lbs.
3. Bituminous surfacing shall conform to Minnesota Department of Transportation Specification 3231, 2341, or 2350.

NOTE: AT THE JOINTS WHERE SIDEWALK TRANSITIONS FROM 6" TO 4", EXPANSION MATERIAL SHALL BE INSTALLED.

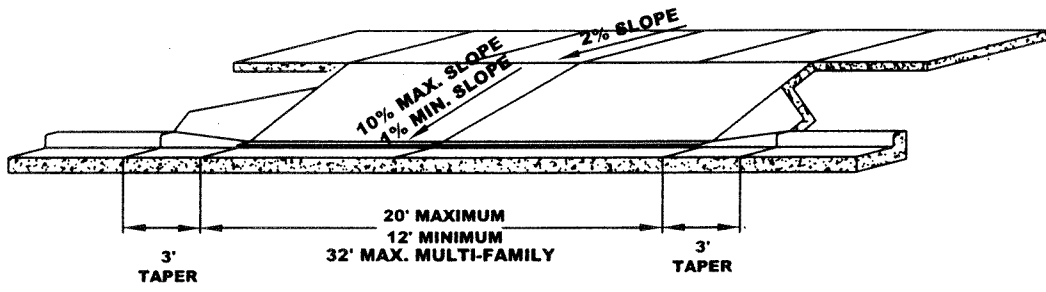


NOTE: CURBS SHALL HAVE A MAXIMUM OF 10' BETWEEN JOINTS.

NOTE: DRIVEWAY SHALL BE JOINTED SO THAT PANELS DO NOT EXCEED 100 sf.

NOTE: CONCRETE JOINTS SHALL BE AS SHOWN, ANY DEVIATIONS MUST BE APPROVED BY THE CITY ENGINEERING DIVISION.

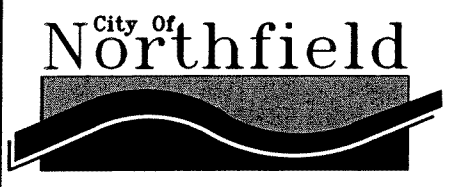
NOTE: IF IT IS NECESSARY TO REMOVE CURB AND GUTTER, EXPANSION MATERIAL SHALL BE PLACED WHERE THE NEW CURB AND GUTTER ABUTS THE EXISTING CURB AND GUTTER.



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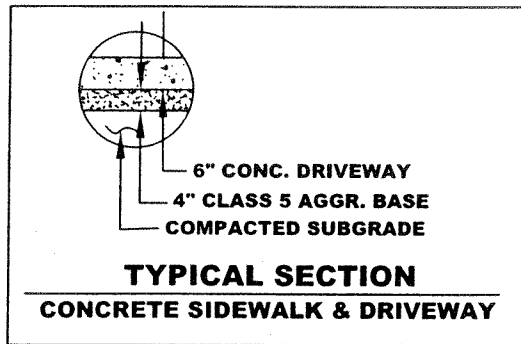
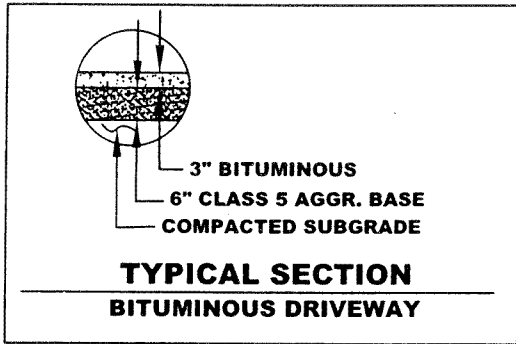
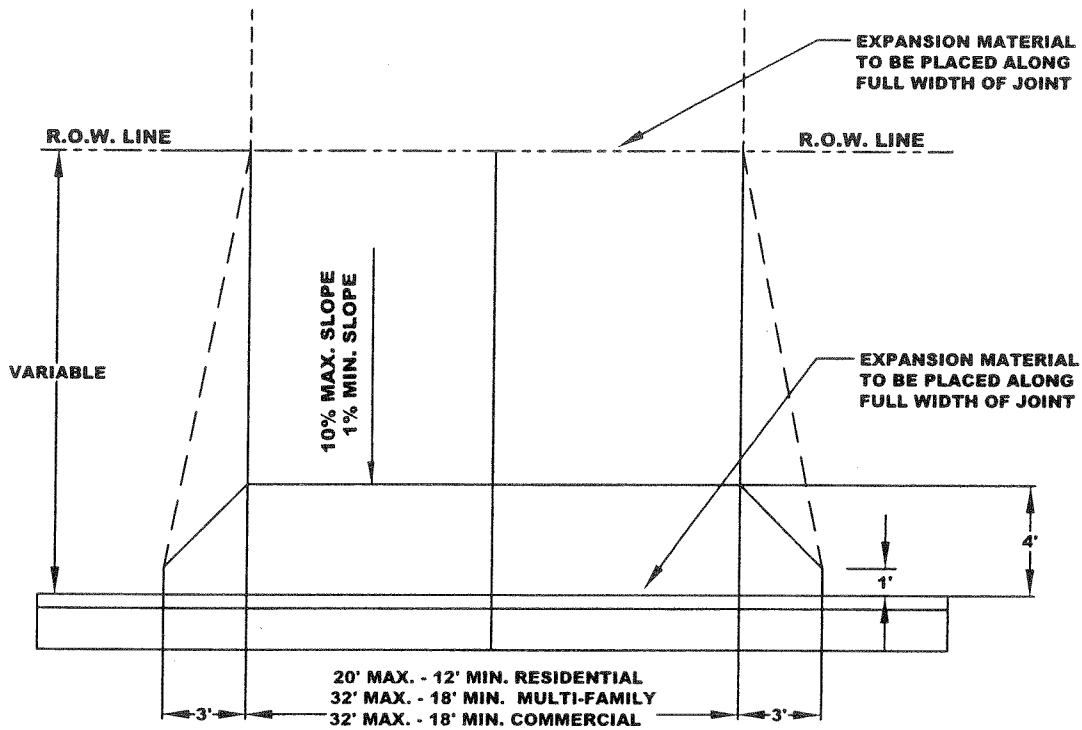
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ENGINEERING DIVISION

PLATE NO: 1

RESIDENTIAL & MULTI-FAMILY DRIVEWAY ENTRANCE WITH BOULEVARD SIDEWALK

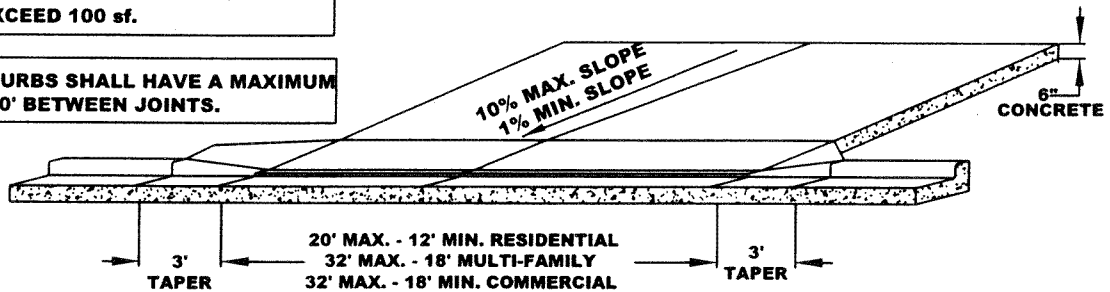


NOTE: CONCRETE JOINTS SHALL BE AS SHOWN, ANY DEVIATIONS MUST BE APPROVED BY THE CITY ENGINEERING DIVISION.

NOTE: IF IT IS NECESSARY TO REMOVE CURB AND GUTTER, EXPANSION MATERIAL SHALL BE PLACED WHERE THE NEW CURB AND GUTTER ABUTS THE EXISTING CURB AND GUTTER.

NOTE: DRIVEWAY SHALL BE JOINTED SO THAT PANELS DO NOT EXCEED 100 sf.

NOTE: CURBS SHALL HAVE A MAXIMUM OF 10' BETWEEN JOINTS.

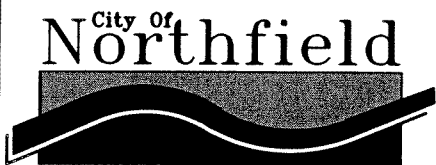


NOTE: THIS TYPE OF DRIVEWAY LAYOUT CAN BE USED ONLY WHERE THERE IS AN EXISTING 4' APRON.

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NOT TO SCALE

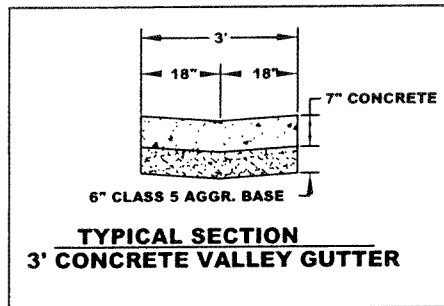
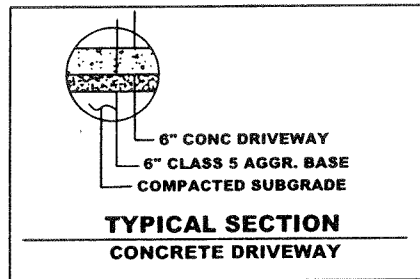
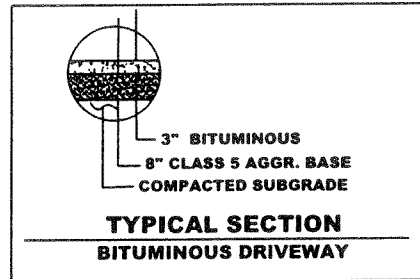
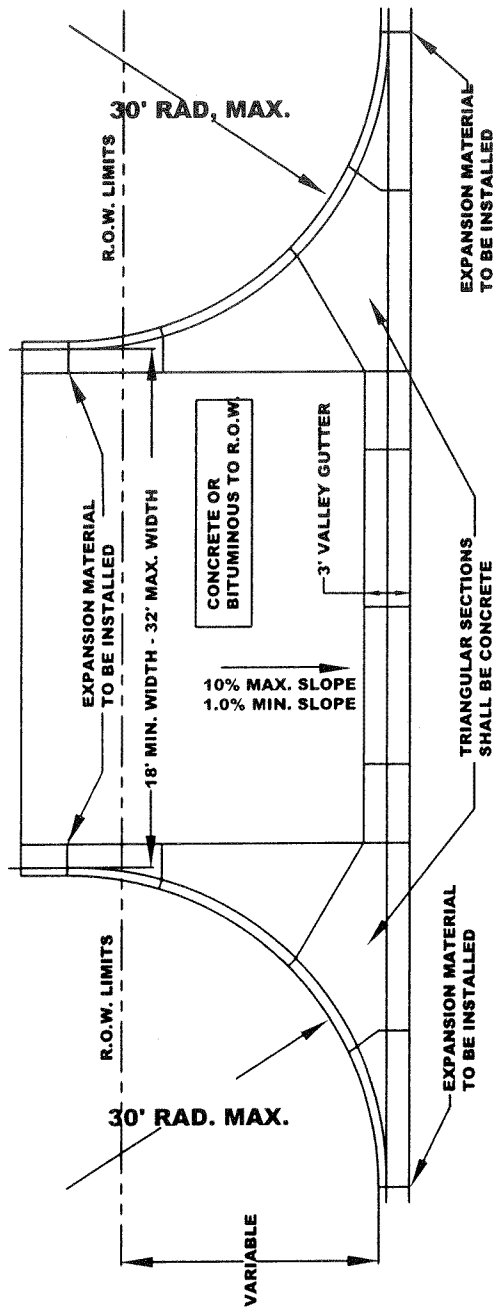
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**ENGINEERING
DIVISION**

PLATE NO: 2

*RESIDENTIAL, MULTI-FAMILY &
COMMERCIAL DRIVEWAYS FOR EXISTING 4'
APRON WITHOUT BOULEVARD SIDEWALK*



NOTE: CONCRETE JOINTS SHALL BE AS SHOWN, ANY DEVIATIONS MUST BE APPROVED BY THE CITY ENGINEERING DIVISION.

NOTE: CURBS SHALL HAVE A MAXIMUM OF 10' BETWEEN JOINTS.

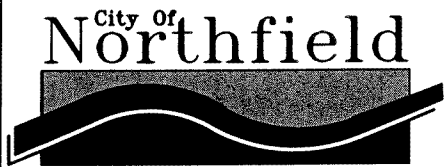
NOTE: IF IT IS NECESSARY TO REMOVE CURB AND GUTTER, EXPANSION MATERIAL SHALL BE PLACED WHERE THE NEW CURB AND GUTTER ABUTS THE EXISTING CURB AND GUTTER.

NOTE: THIS TYPE OF DRIVEWAY CAN BE USED ONLY WHEN BOULEVARD SIDEWALK IS NOT PRESENT.

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UPDATED: 2007



*ENGINEERING
DIVISION*

PLATE NO: 3

*COMMERCIAL ENTRANCE
WITHOUT BOULEVARD
SIDEWALK*

30' RAD, MAX.

BEGIN 3' TAPER

R.O.W. LIMITS

BEGIN 3' TAPER

EXPANSION MATERIAL
TO BE INSTALLED

18' MIN. WIDTH - 32' MAX. WIDTH

2% SLOPE

10% MAX.
1.0% MIN.

BEGIN 3' TAPER

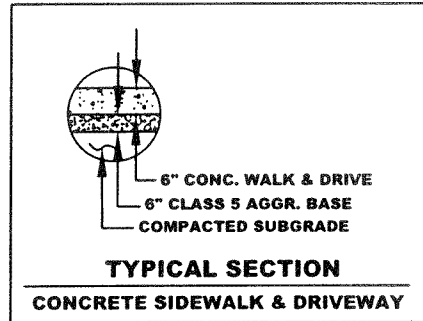
R.O.W. LIMITS

BEGIN 3' TAPER

EXPANSION MATERIAL
TO BE INSTALLED

30' RAD. MAX.

VARIABLE



NOTE: CONCRETE JOINTS SHALL BE AS SHOWN,
ANY DEVIATIONS MUST BE APPROVED
BY THE CITY ENGINEERING DIVISION.

NOTE: DRIVEWAYS SHALL BE
JOINTED SO THAT THERE
ARE NO PANELS THAT
EXCEED 100 sf.

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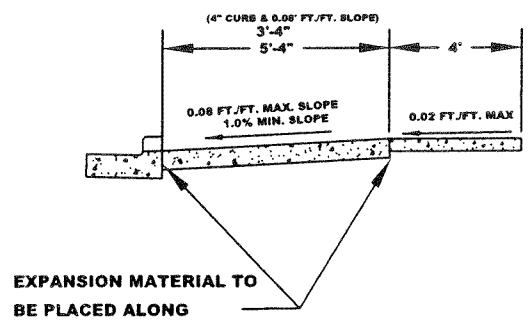
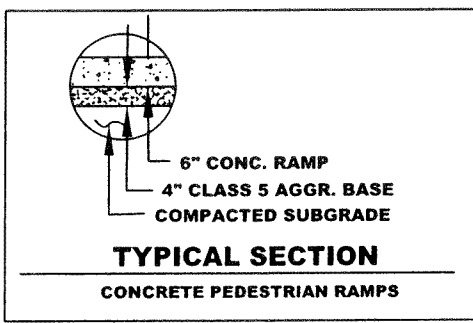
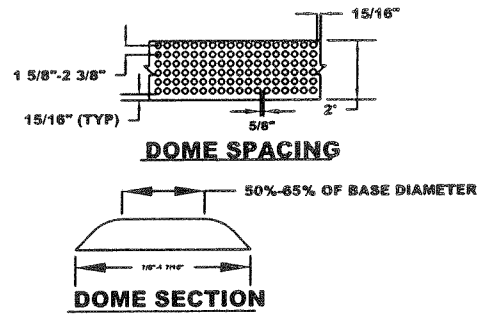
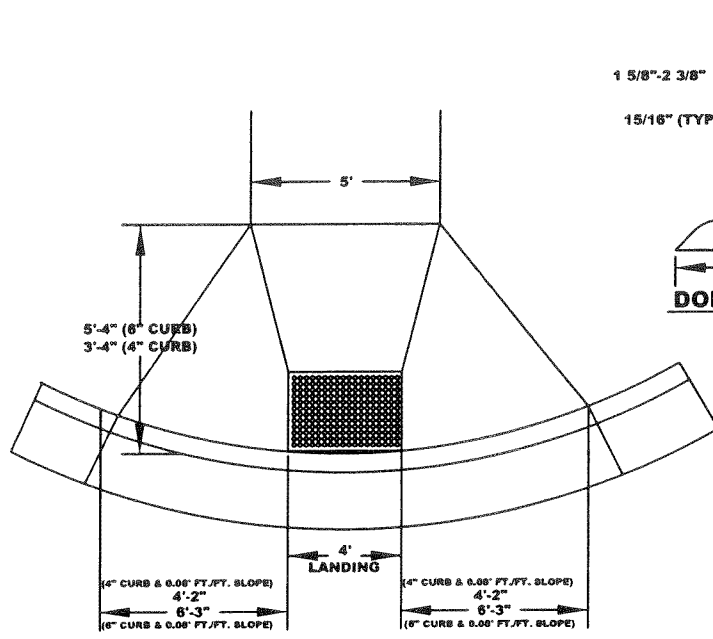
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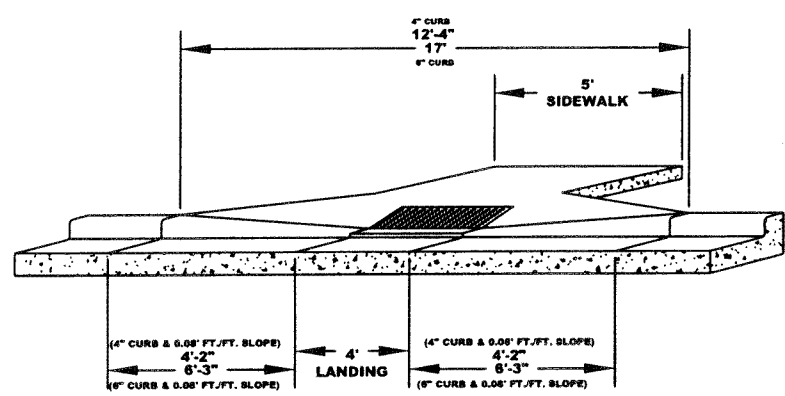
*ENGINEERING
DIVISION*

PLATE NO: 4

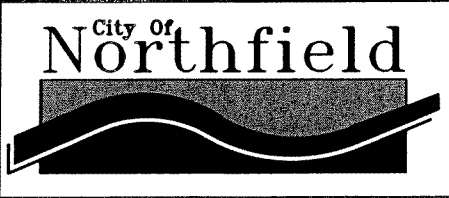
*COMMERCIAL ENTRANCE
WITH BOULEVARD
SIDEWALK*



NOTE: TRUNCATED DOMES SHALL BE HANOVER® DETECTABLE WARNING TILE, CHARCOAL GREY IN COLOR OR RED WHEN USED IN THE DOWNTOWN AREA



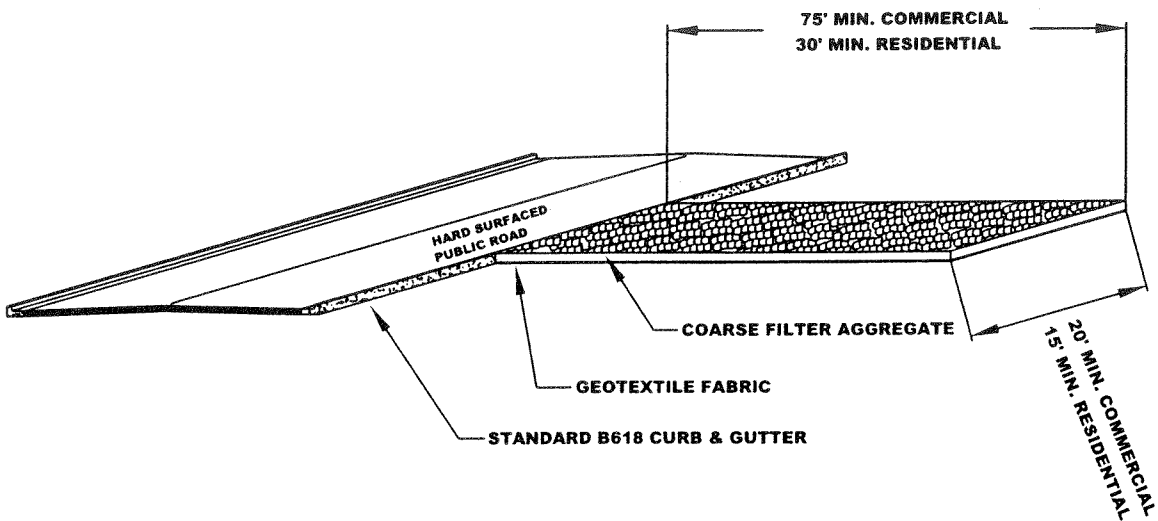
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ENGINEERING DIVISION

PLATE NO: 5
TYPICAL PEDESTRIAN RAMP

ROCK CONSTRUCTION ENTRANCE



NOTES:

- 1) DEPTH OF ROCK ENTRANCE SHALL BE A MINIMUM OF 3".
- 2) IN AREAS THAT SOIL CONDITIONS ARE WET, IT MAY BE NECESSARY TO USE GEOTEXTILE FABRIC UNDER THE COARSE FILTER AGGREGATE
- 3) IF THE ROCK BECOMES COMPLETELY FILLED WITH SOIL OR OTHER CONTAMENTS, IT WILL BE NECESSARY TO ADD MORE ROCK TO THE ENTRANCE.

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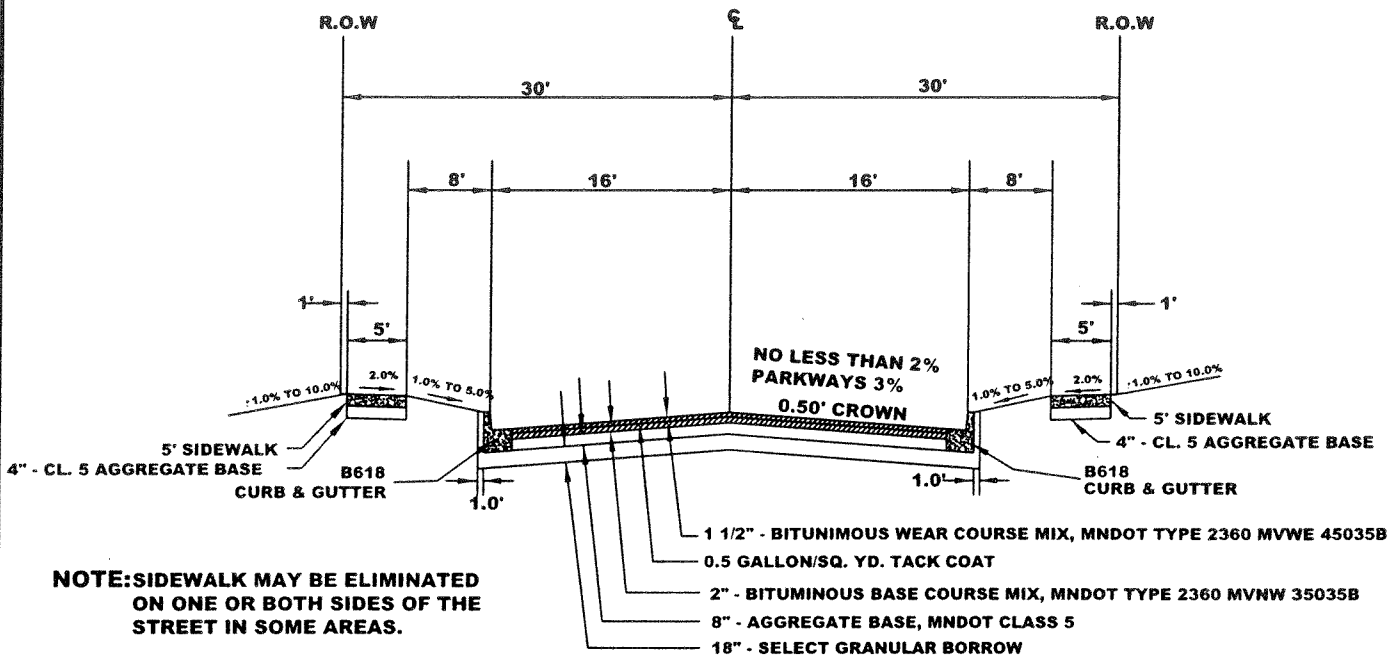
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ENGINEERING
DIVISION

PLATE NO: 6

ROCK CONSTRUCTION
ENTRANCE



TYPICAL STREET SECTION

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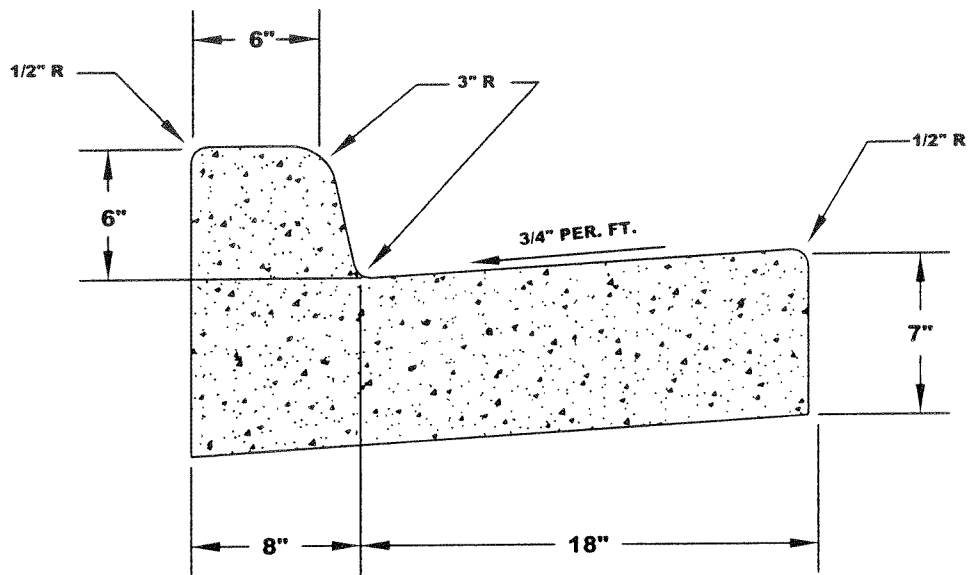


ENGINEERING
DIVISION

PLATE NO: 7

TYPICAL STREET
SECTION

**MnDOT B618
CONCRETE CURB AND GUTTER**



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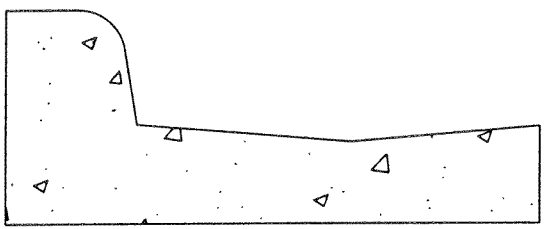
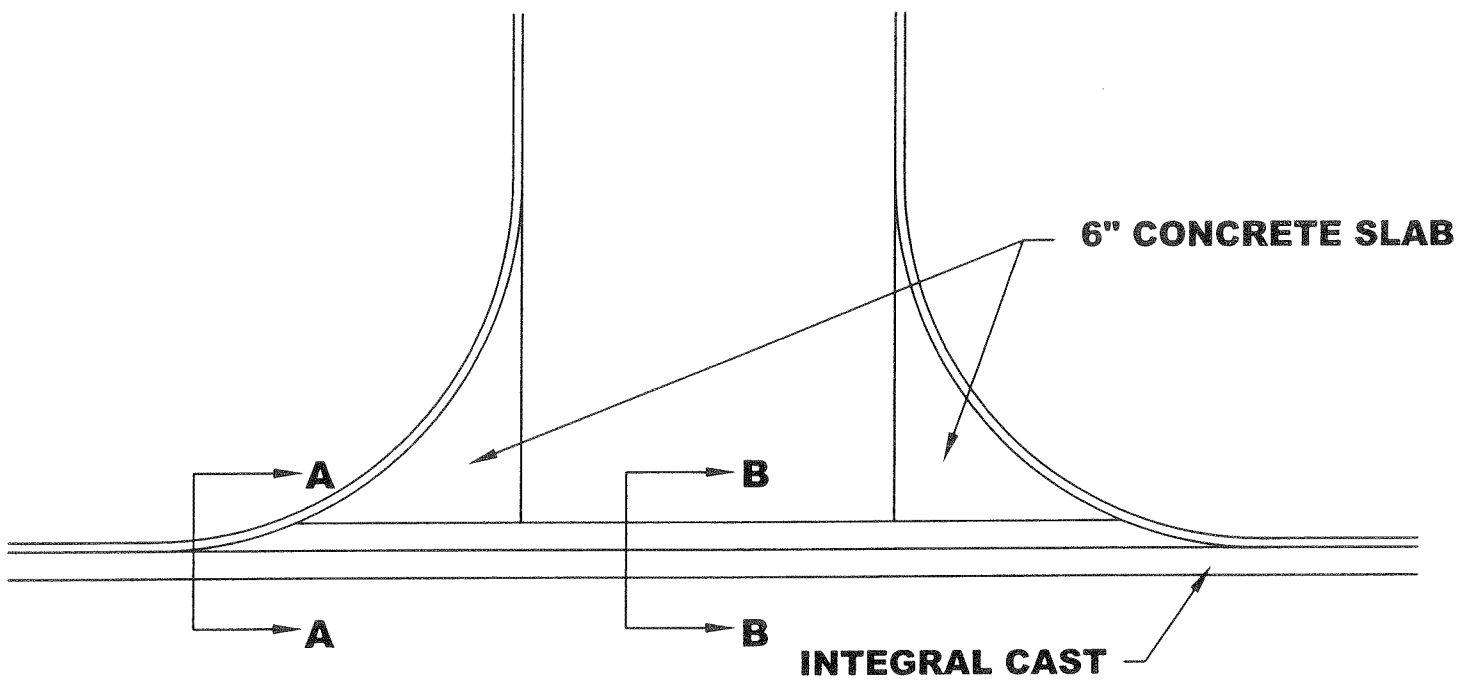
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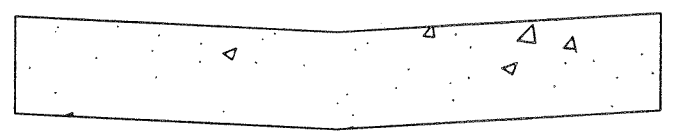
*ENGINEERING
DIVISION*

PLATE NO: 8

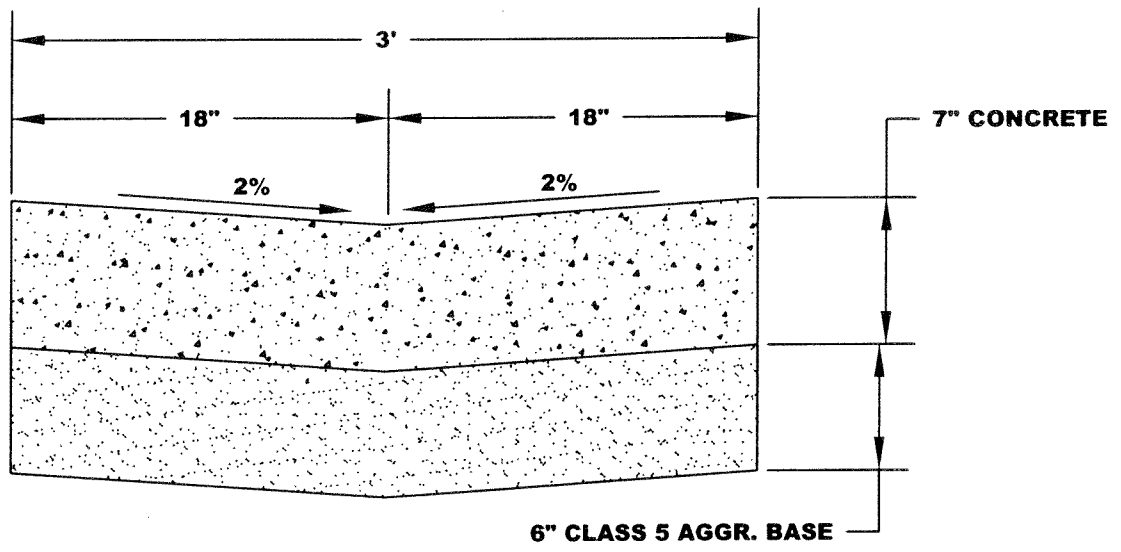
*B618 CURB
SECTION*



**SECTION A-A
THRU B618 C. & G.**



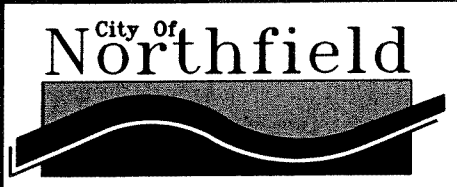
**SECTION B-B
THRU CONCRETE VALLEY GUTTER**



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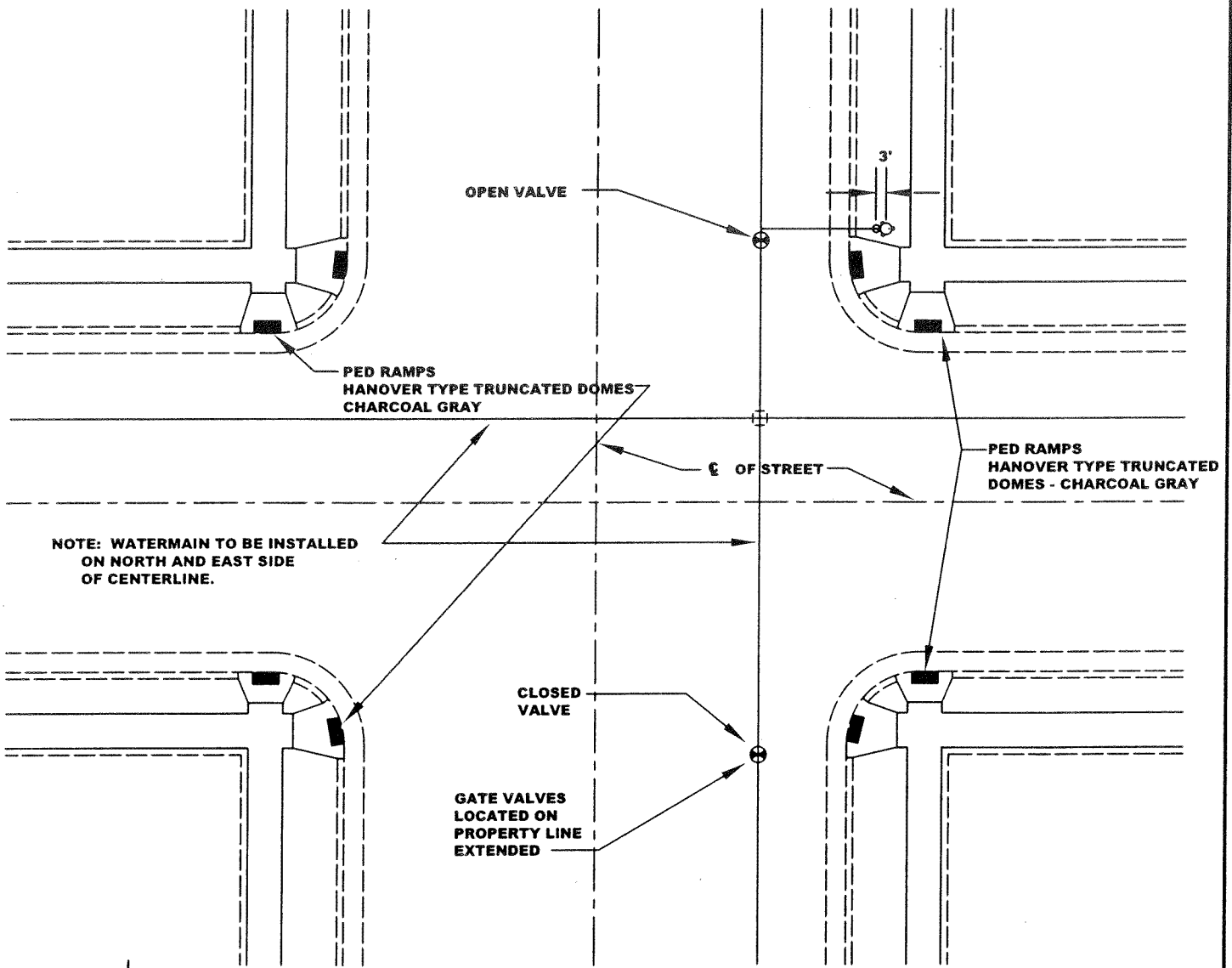
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*ENGINEERING
DIVISION*

PLATE NO: 9

CONCRETE VALLEY GUTTER



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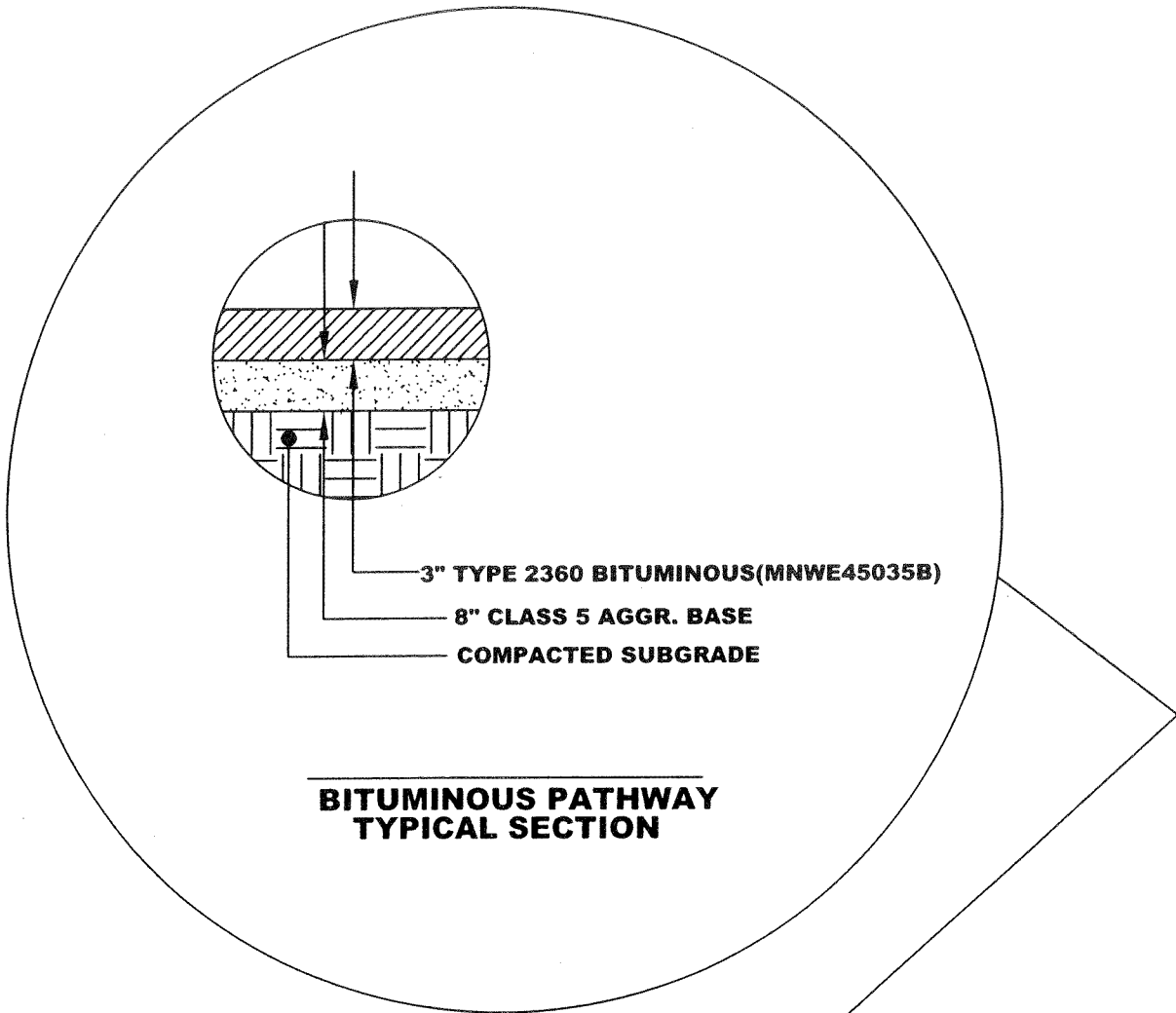


ENGINEERING
DIVISION

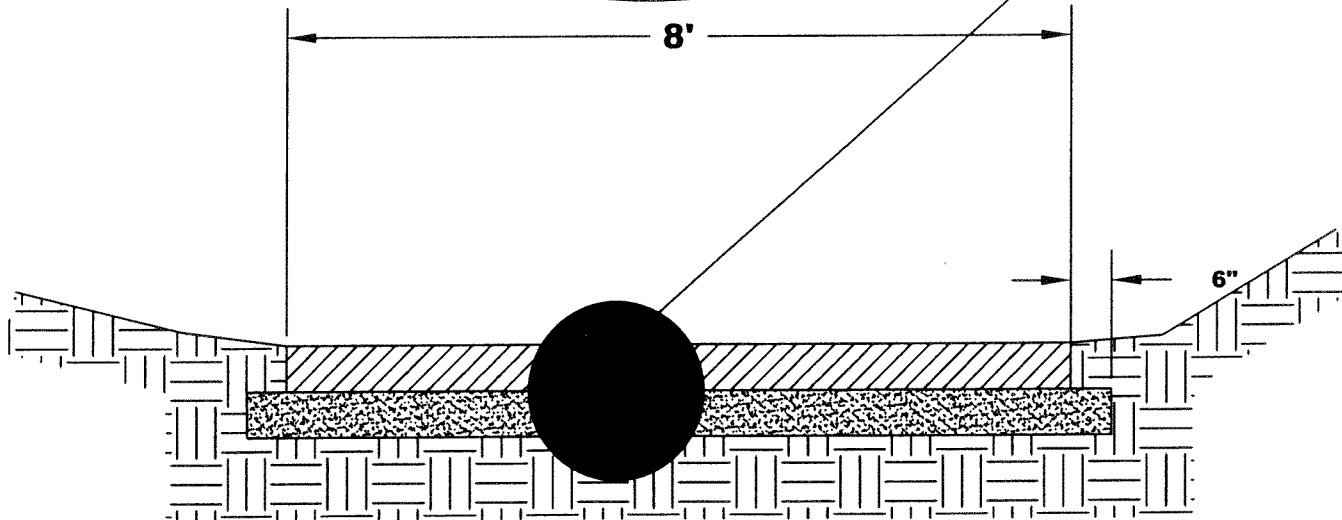
PLATE NO: 10

TYPICAL
INTERSECTION

**BITUMINOUS PATHWAY
TYPICAL SECTION**



**BITUMINOUS PATHWAY
TYPICAL SECTION**



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NOT TO SCALE

UPDATED: 2007



*ENGINEERING
DIVISION*

PLATE NO: 11

*BITUMINOUS
PATHWAY*