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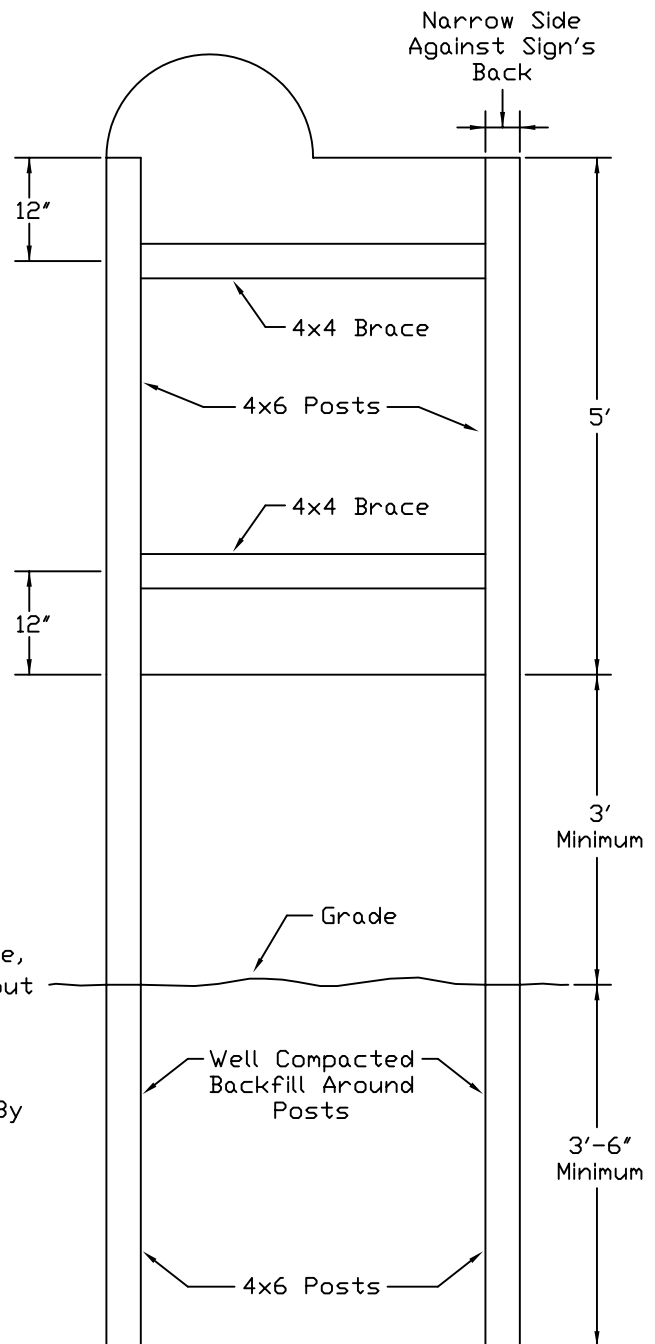
5500-A	Curb Inlet Detail – Sheet 1 of 4
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SECTION 6500 – MODULAR BLOCK RETAINING WALL SYSTEM

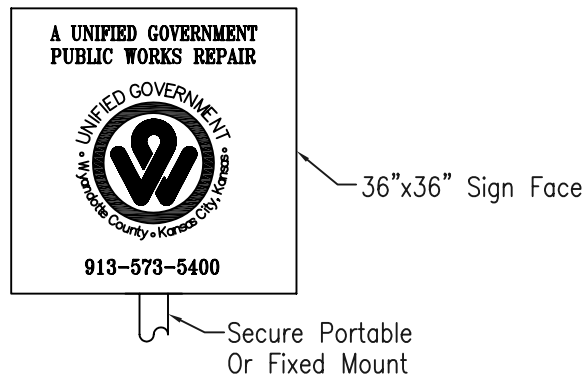
6500-A	Manufactured Block Retaining Wall For Use With Inlet Or Sidewalk
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SECTION 7100 – TREES AND SHRUBS

7100-A	Tree Planting
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1. Sign Shall Be Black On White Background, Of Durable, Weatherproof Construction, With Professional Layout & Lettering, Sample Layout Shown, Submit Actual Layout To Engineer For Approval.
2. Project Sign Required Only For Work Administered By Unified Government Public Works Department.
3. Emergency Repairs Do Not Require A Sign.
4. Posts Shall Be Built To Breakaway As Per KDOT Standards.
 - a. A Skid Mount Is An Acceptable Alternate To Buried Post Foundation.
5. Frame & Post & Skids If Used Shall Be 4x6 Weatherproofed Timbers.
6. Names Of Current Mayor & Commissioners May Be Obtained From The UG Commissioners Office: (913) 573-5040



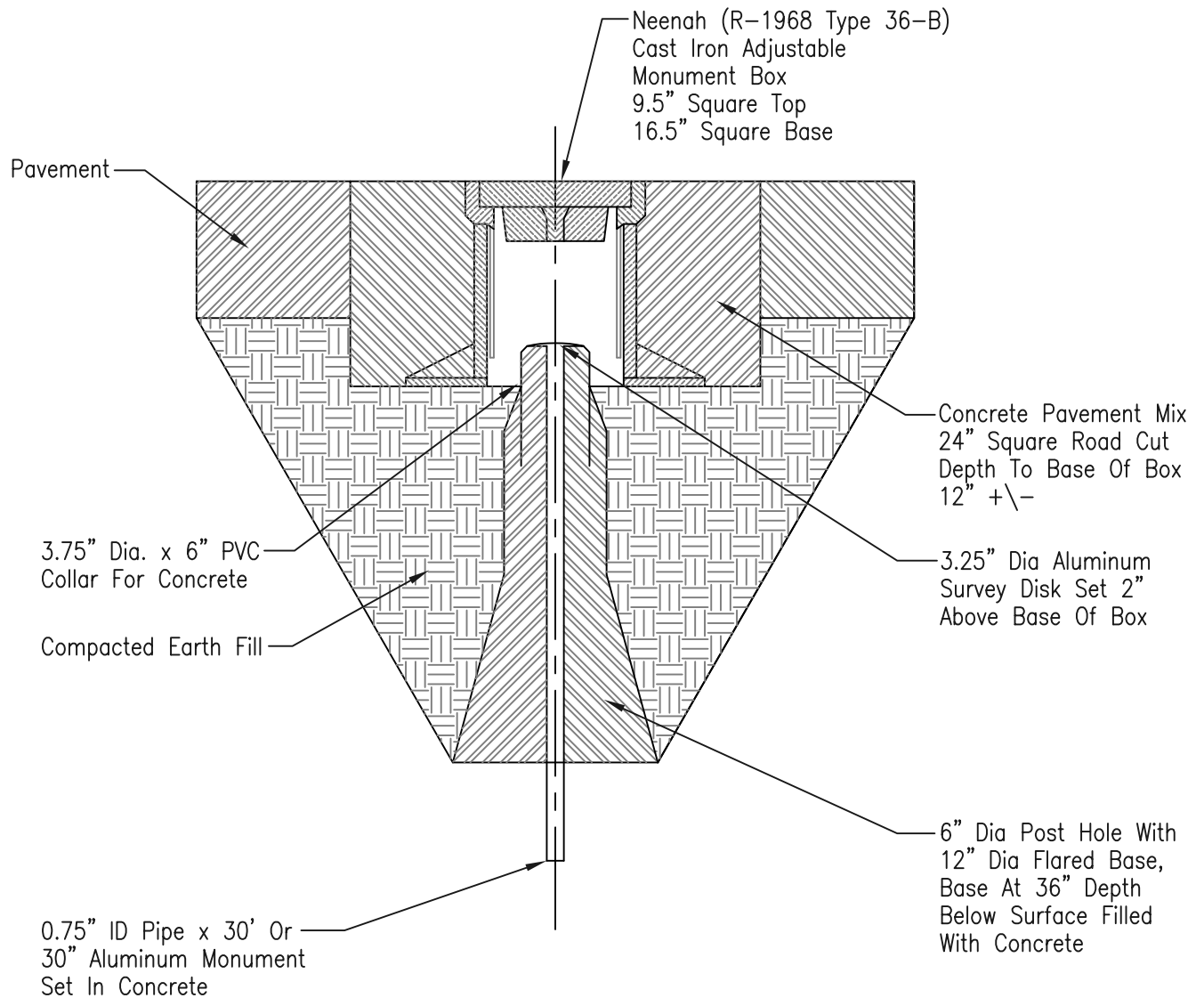
For Spot Repairs Or Projects Scheduled To Last Less Than 45 Calendar Days At A Single Site

NOTES:

1. Sign Shall Be Black On White Background, Of Durable, Weatherproof Construction, With Professional Layout & Lettering, Sample Layout Shown, Submit Actual Layout To Engineer For Approval.
2. Project Sign Required Only For Work Administered By Unified Government Public Works Department.
3. Emergency Repairs Do Not Require A Sign.

**PROJECT SIGN FOR PROJECTS OF SHORT DURATION
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT**

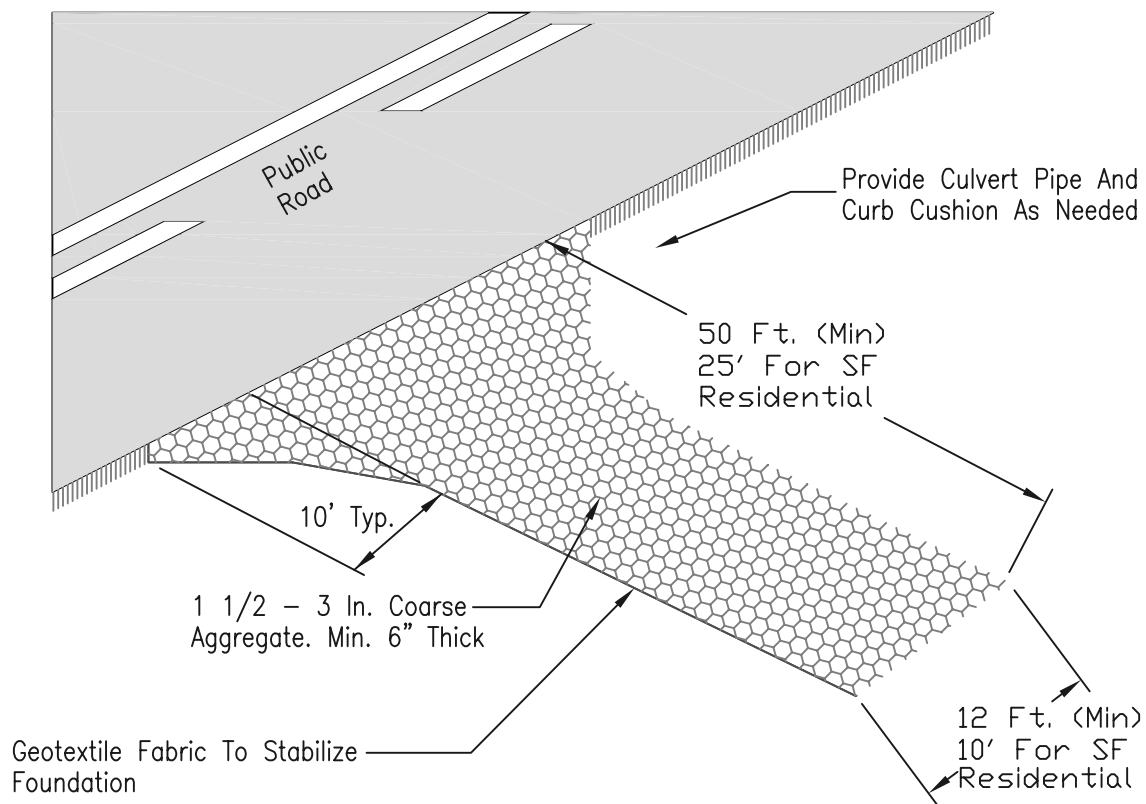
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NOTE:
All Work Shall Be Carried Out Under
The Direction Of A Kansas Registered
Professional Land Surveyor, & Subject
To Inspection By U.G. Surveyor.

REPLACEMENT OF GOVERNMENT CORNER MONUMENT IN PAVED AREA
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT

UG 1200-A
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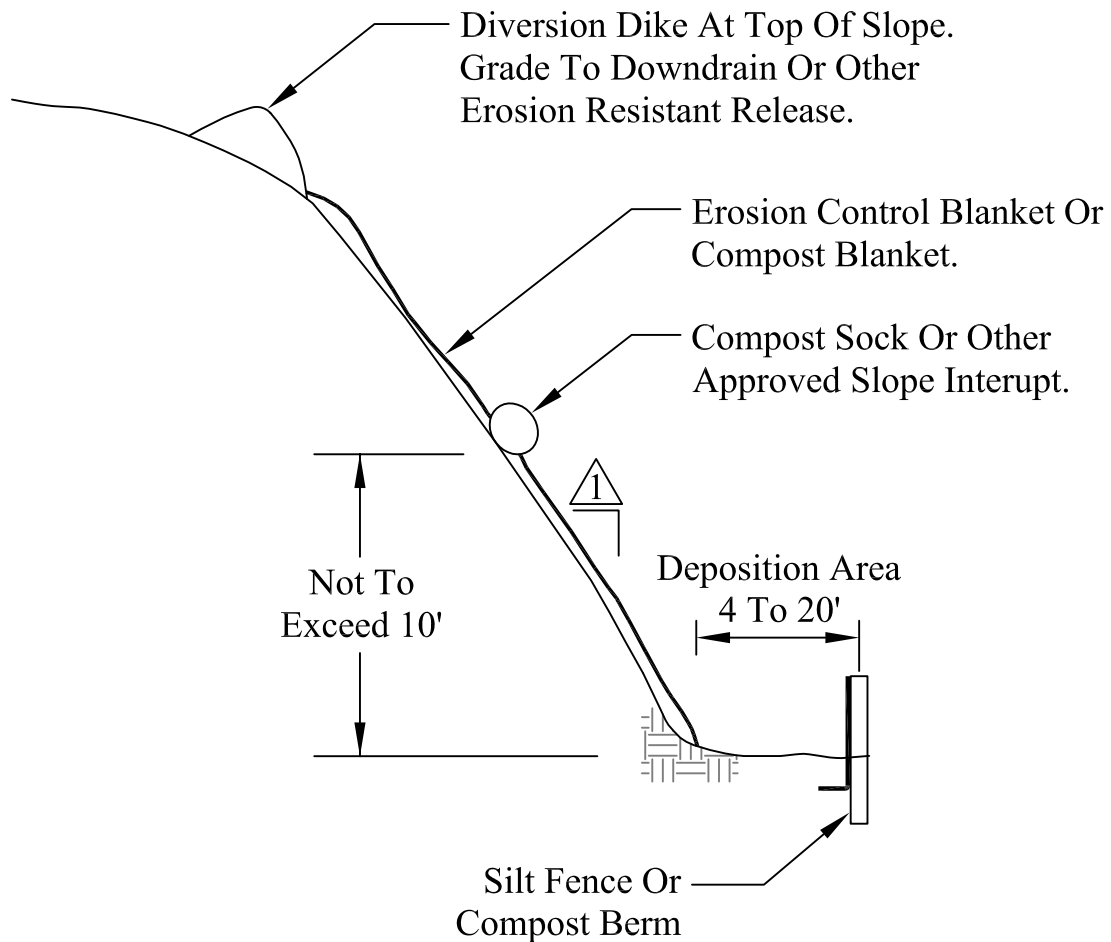


NOTES:

1. Renew Aggregate When Mud From Tires, Encroachment Of Sub Soil Or Loss Of Loose Aggregate Cause Fines To Fill More Than 25% Of Surface Voids.
2. Avoid Locating On Steep Slopes Or At Curves On Public Roads. If Possible, Locate Where Permanent Roads Will Eventually Be Constructed.

CONSTRUCTION VEHICLE ENTRY
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
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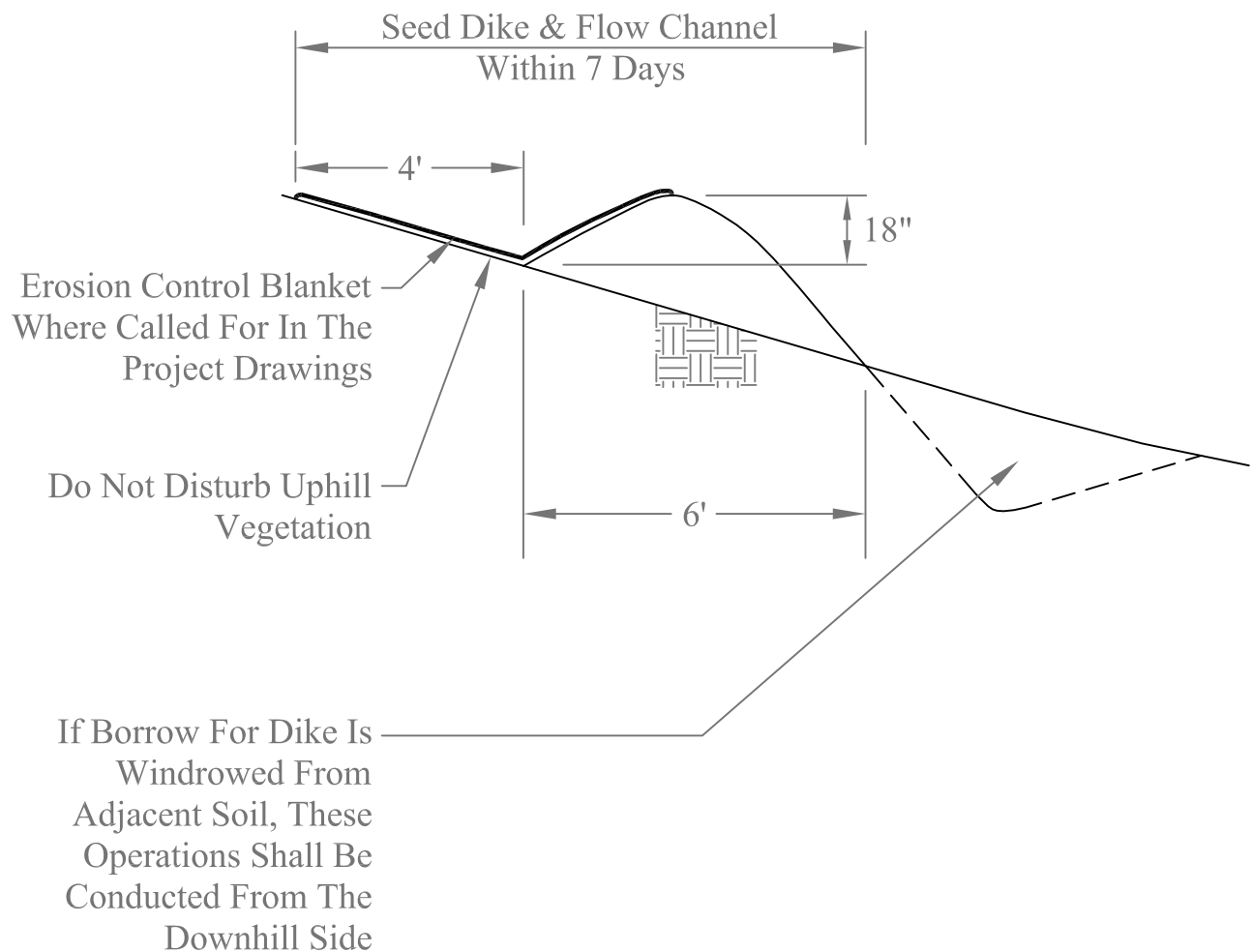
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Vertical Scale Exaggerated

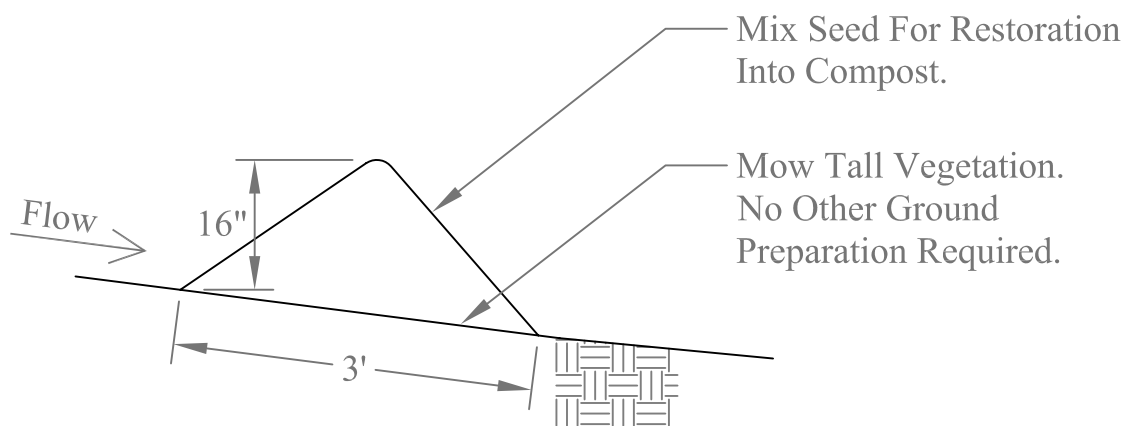
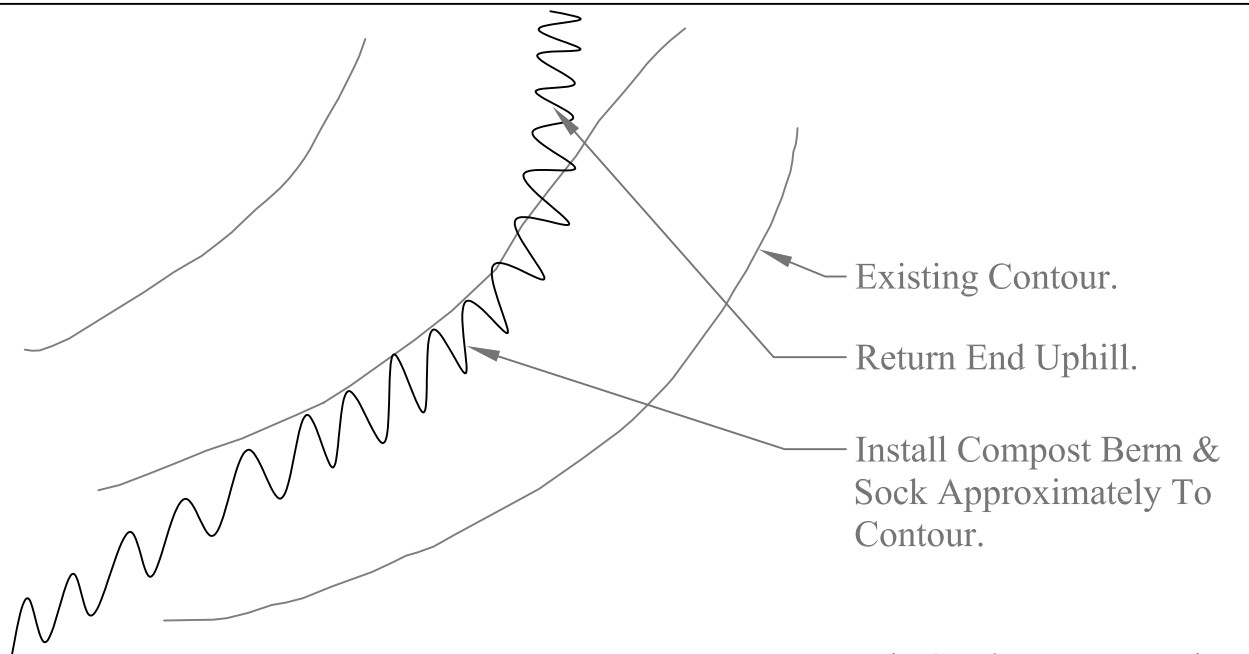
① Steep Slope Protection Applies To All Slopes Steeper Than 15%.

STEEP SLOPE PROTECTION
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT

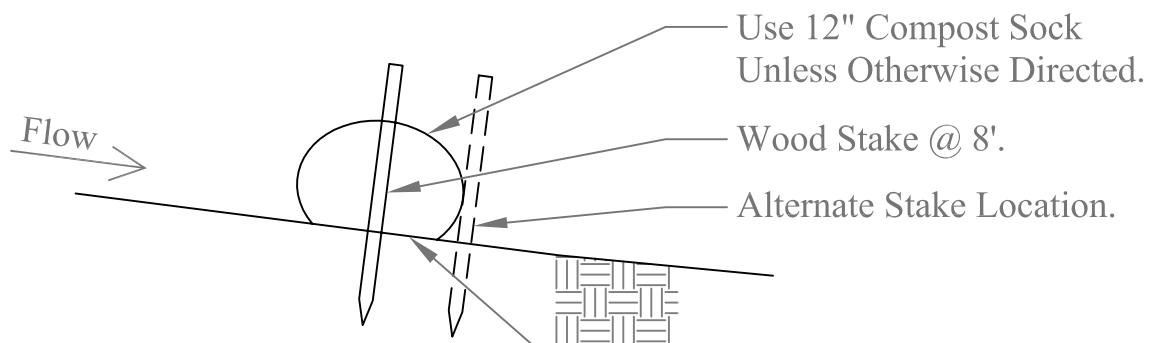


DIVERSION DIKE
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT

UG 1400-C
2008 Edition

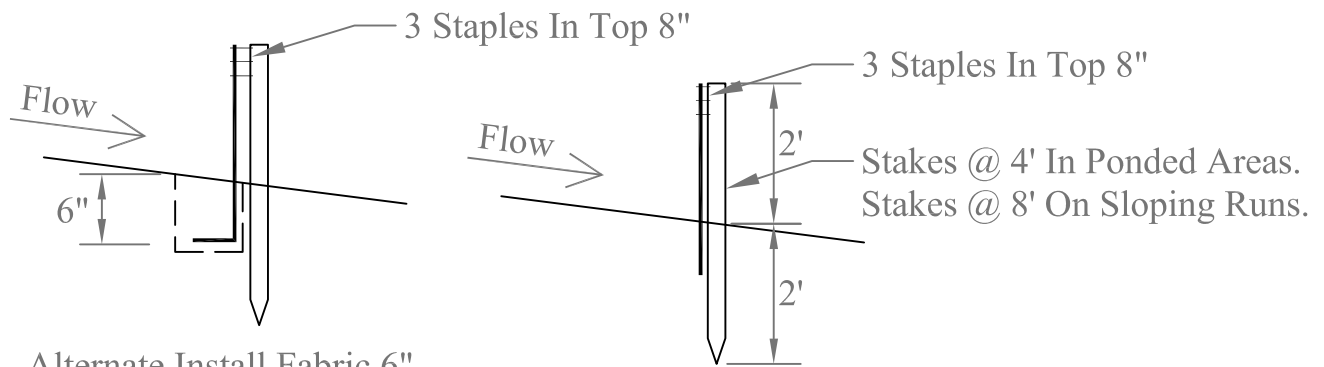
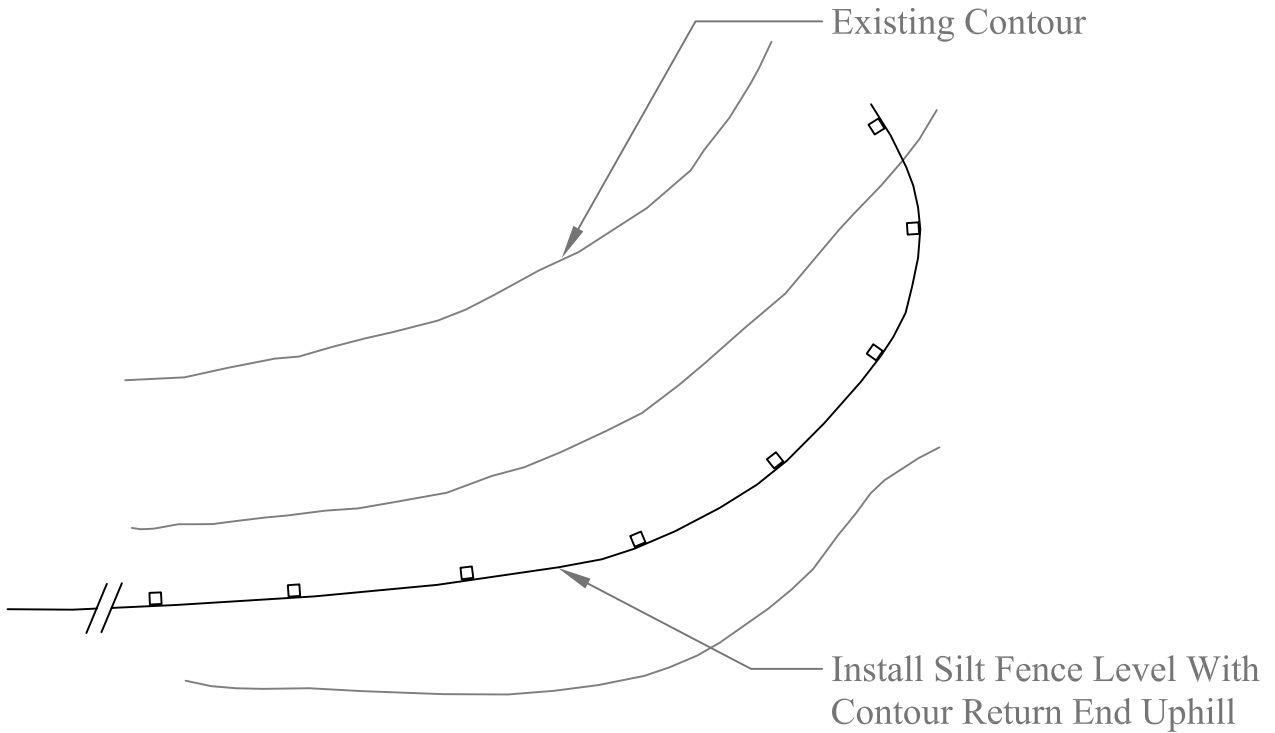


Compost Berm



Compost Sock

COMPOST BERM AND COMPOST SOCK
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT



Alternate Install Fabric 6"
Into Trench Backfill &
Compact. Use Trench
Method Only For
Inaccessible Areas, Short
Runs Or Rocky Soil.

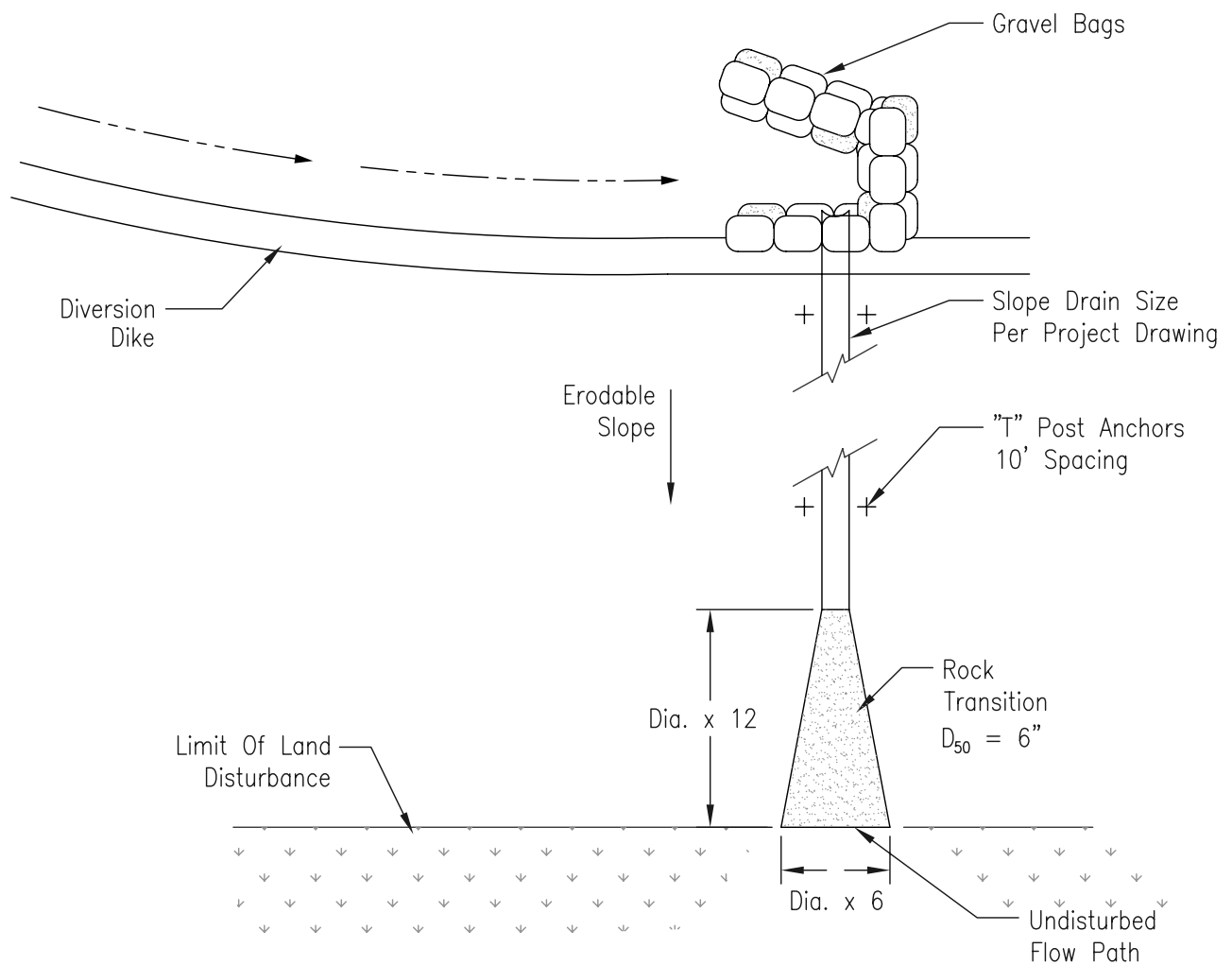
Fabric Sliced
6" Into Ground
By Slicer.

SILT FENCE INSTALLATION

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UNIFIED GOVERNMENT

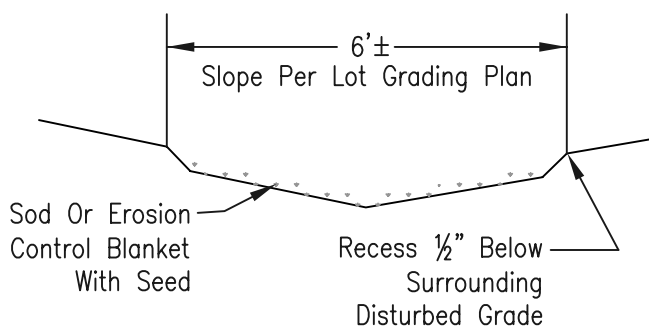
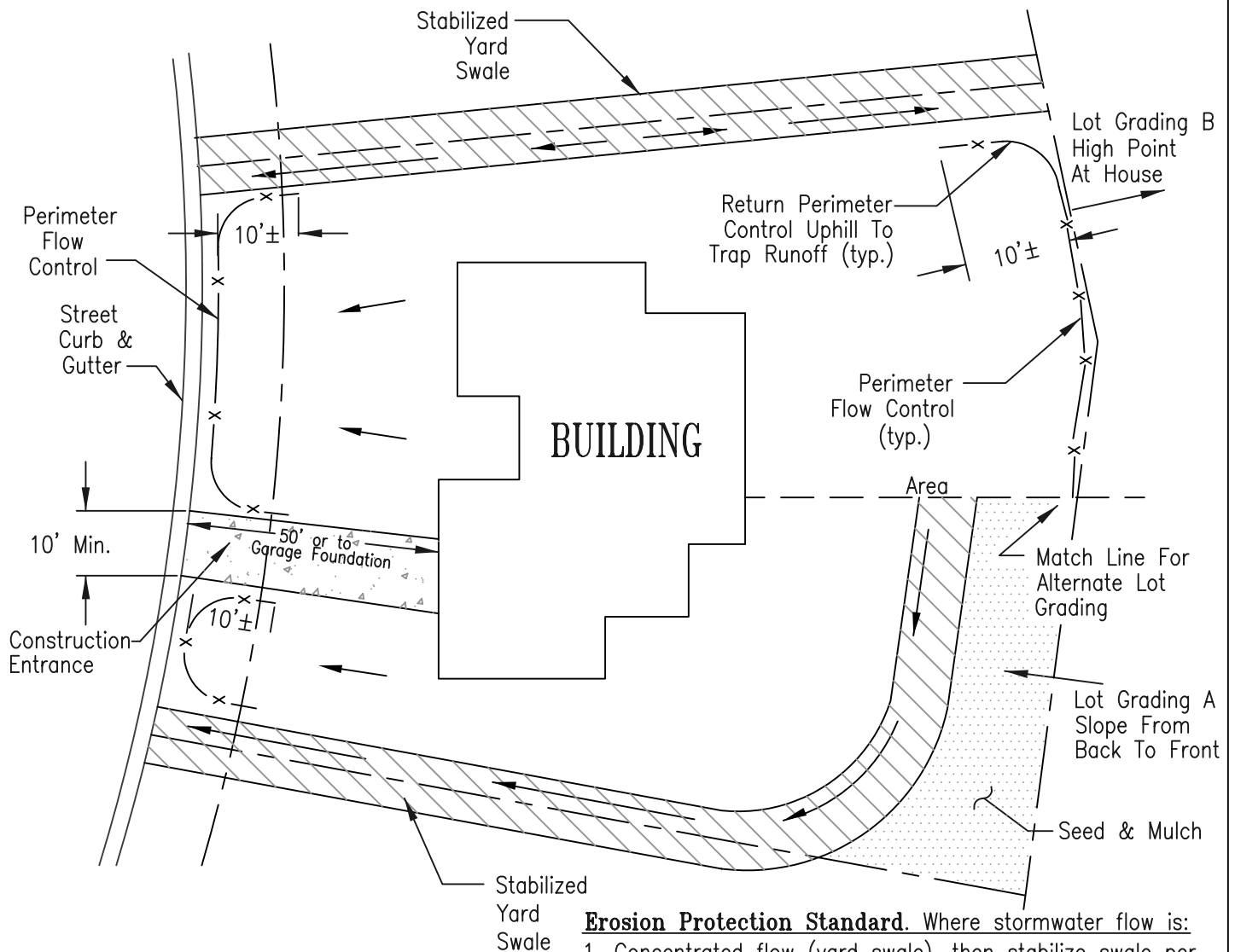
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Note: For Temporary Erosion Control Only

SLOPE DRAIN
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT

UG 1400-F
 2008 Edition



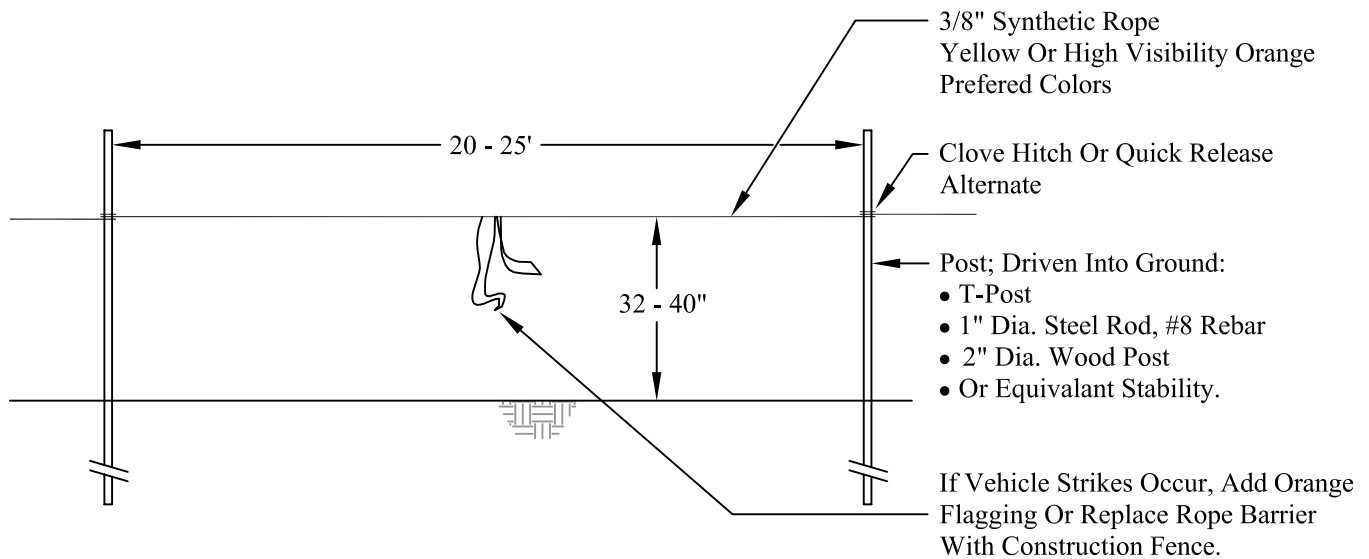
STABILIZED YARD SWALE

Erosion Protection Standard. Where stormwater flow is:

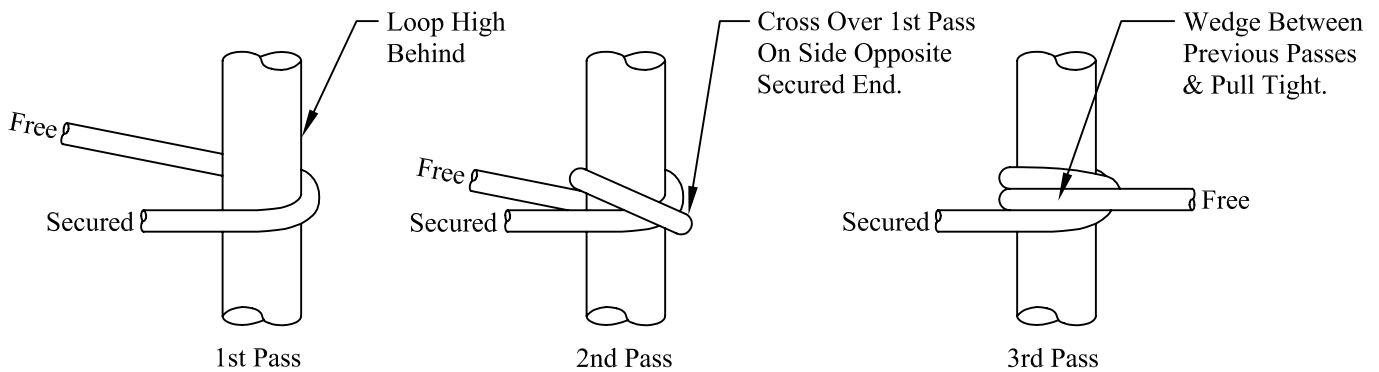
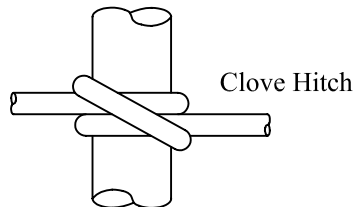
1. Concentrated flow (yard swale), then stabilize swale per detail on this page.
2. Sheet flow entering the site from an undisturbed area, then no additional protection is required.
3. Sheet flow entering the site from a disturbed area, then install perimeter flow control. Perimeter flow control may be compost sock, silt fence, 6 foot width of sod, 10 foot width of undisturbed native cover, or rocked construction entrance.
4. Sheet flow exiting the site, then install perimeter flow control to slow the velocity. See notes for definition of perimeter flow control.

**MINIMUM EROSION CONTROL FOR SINGLE
FAMILY RESIDENTIAL LOT
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT**

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Typical Dimensions & Materials



Quick Release Alternate to Clove Hitch



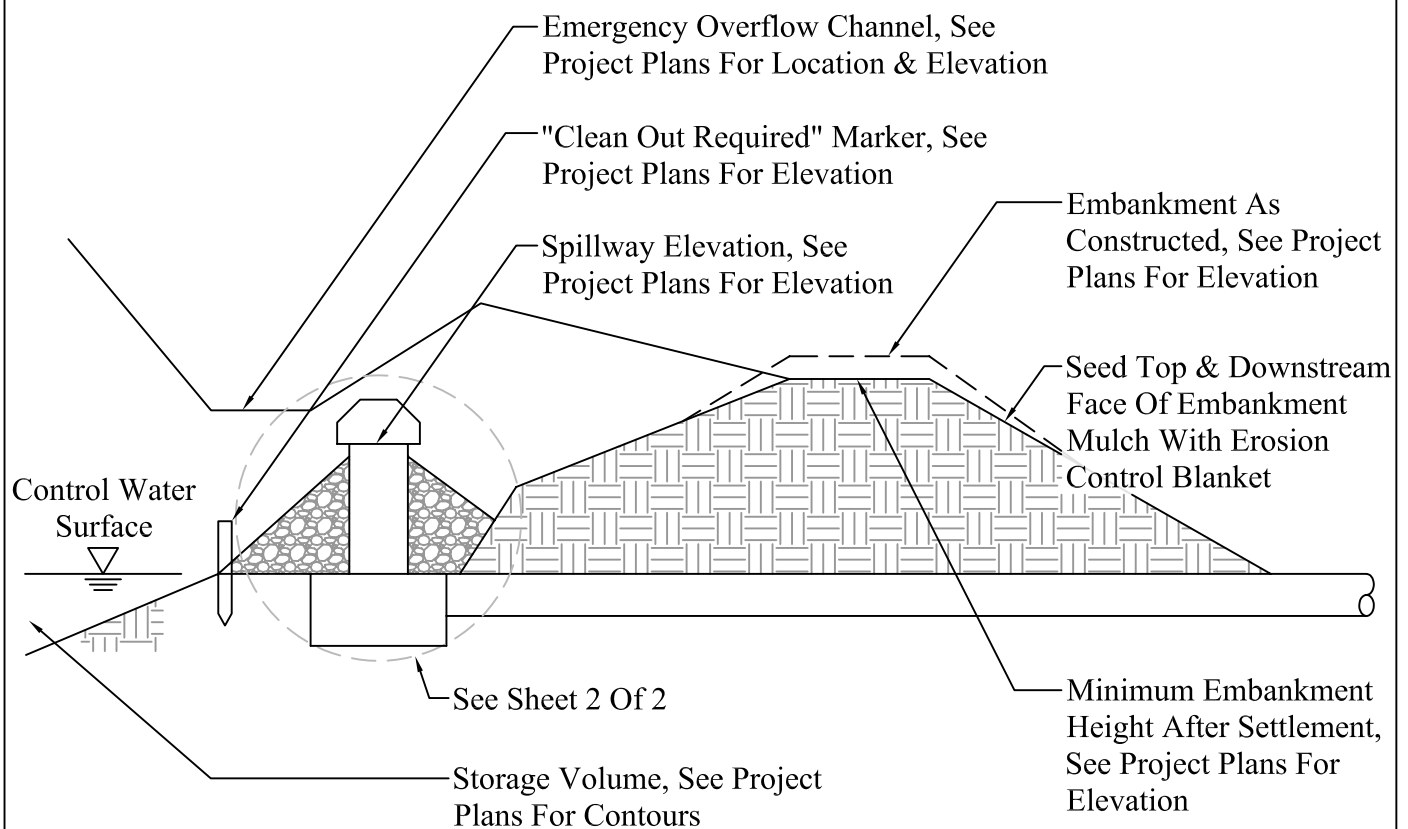
Note: Quick Release Alternate Must Be Kept
Taut Throughout Placement. Not For
Use On End Posts.

ROPE BARRIER

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UG 1400-H
2008 Edition

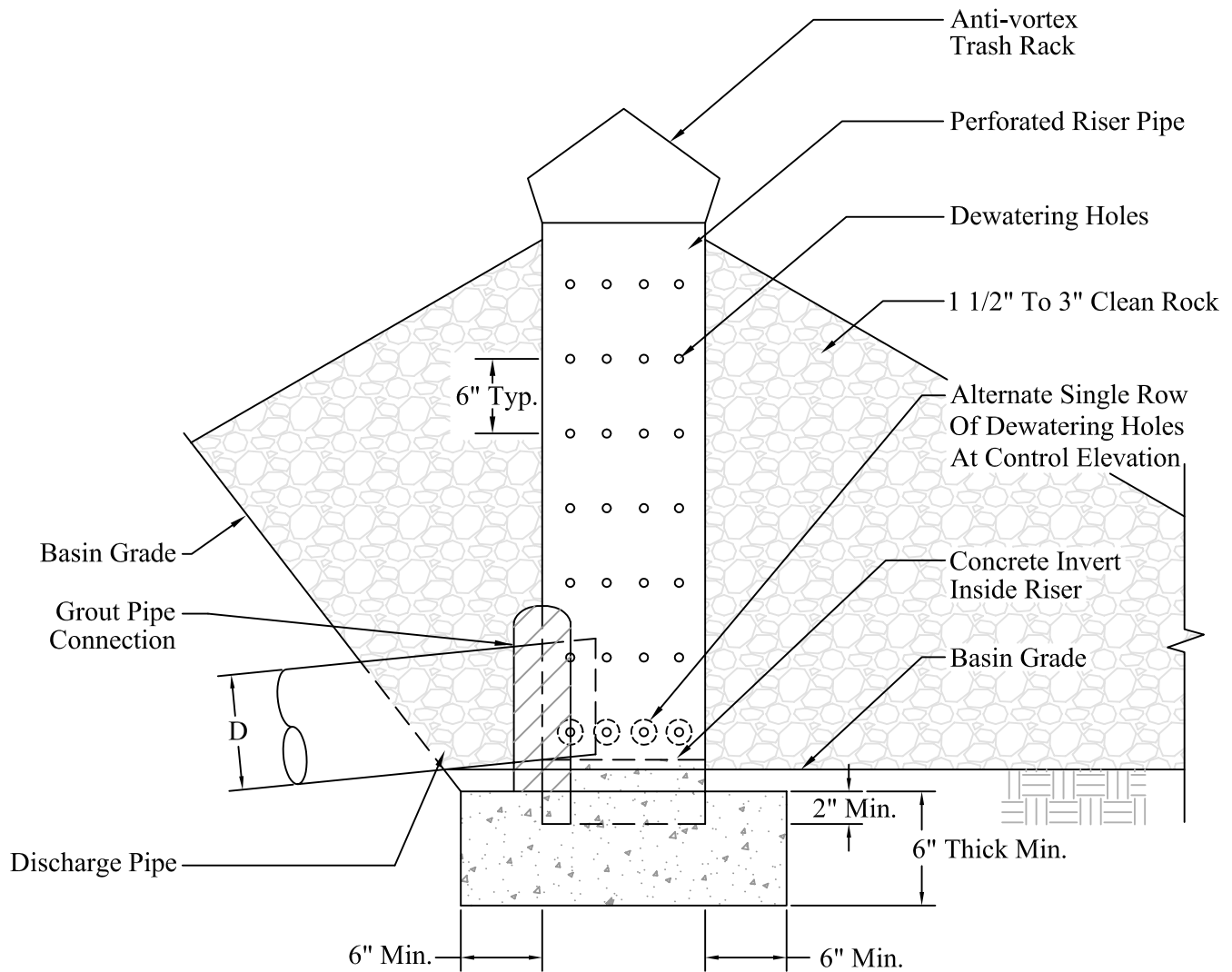


SECTION THROUGH EMBANKMENT AND BASIN CONTROLS

NO SCALE

SEDIMENT BASIN OUTLET, SHEET 1 OF 2
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT

UG 1400-I
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NO SCALE

NOTES:

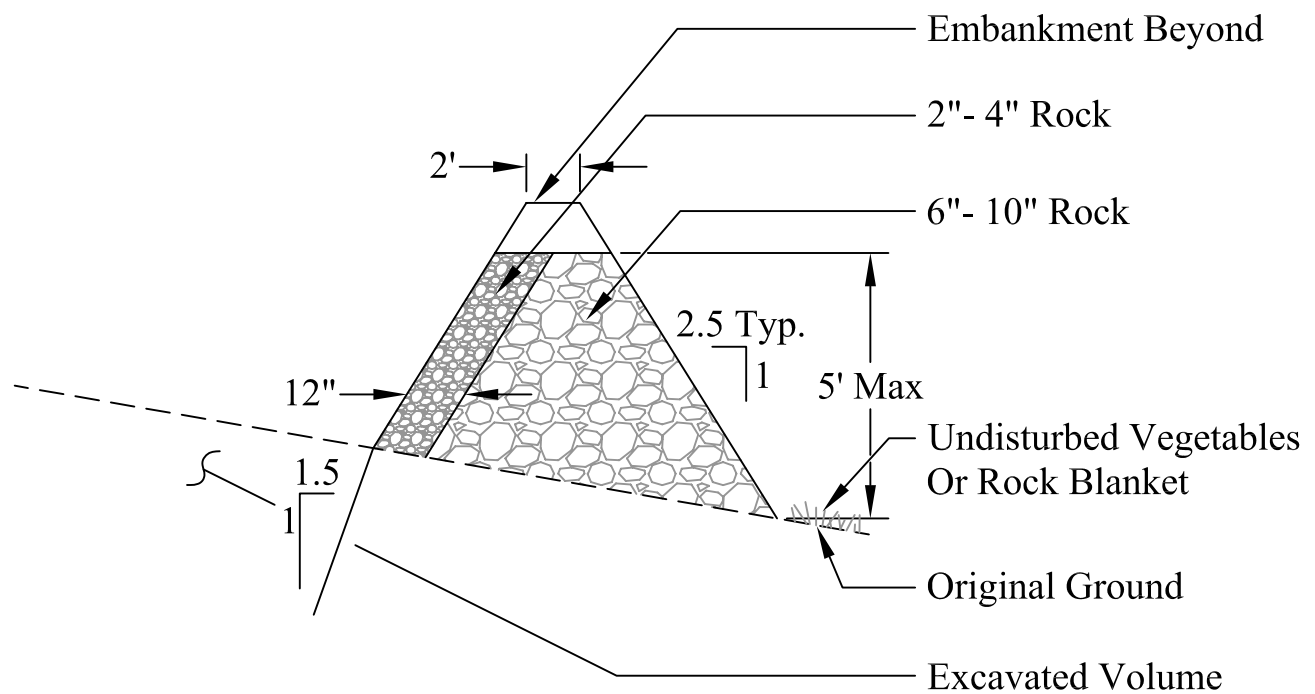
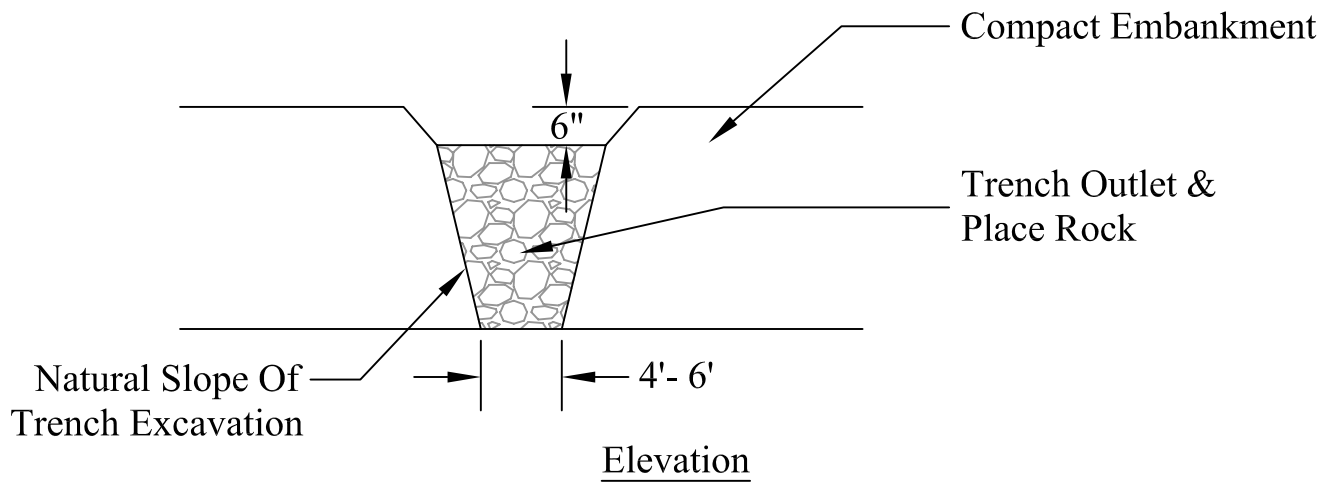
1. See Project Plans Or Design Guidelines For Diameter Of Pipes And Size And Number Of Dewatering Holes.
2. An Anti-Vortex And Trash Rack Shall Be Securely Installed On Top Of The Riser.
3. The Riser Shall Have A Base Attached With Sufficient Weight And Size To Prevent Flotation Or Over-Turning Of The Riser.

SEDIMENT BASIN OUTLET, SHEET 2 OF 2

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Vertical Scale Exaggerated

Section

SEDIMENT TRAP OUTLET

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See Pavement Patch Details
Section 2250 For Required Pavement
Sections, Overcuts, & Load
Transfer Devices

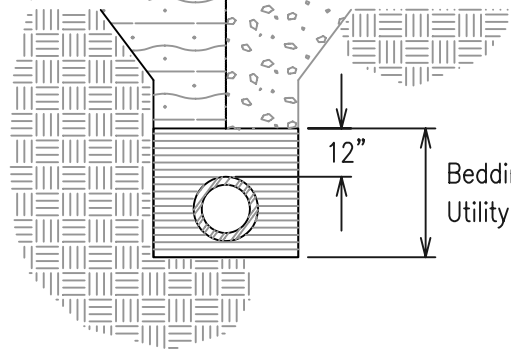
Match Adjacent
Elevation and Surfaces

3.0' Impact Area For
Calculation of ROW Permit
Fees

1.0' Overcut

In Open Areas Fill with
Acceptable Excavated
Material @ 90%. If Trench
is in Embankment,
Match Embankment
Compaction Requirement.

Under Pavement and within 4'
Horizontal of Pavement, Fill with
Aggregate Base Course, AB-3 @ 95%
Small Patches May Use Flowable Fill,
(60 to 90 psi).

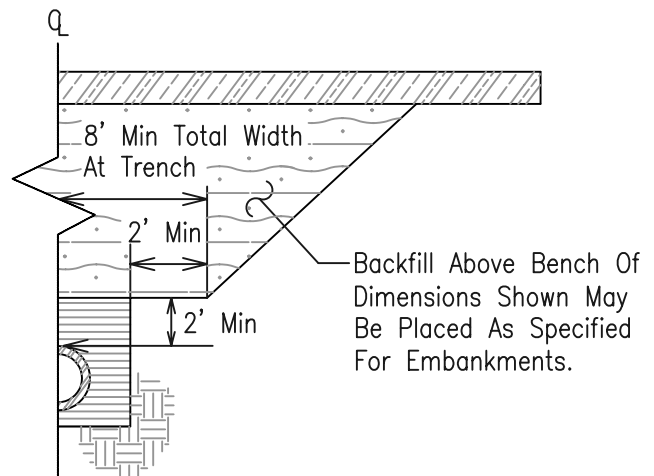


Bedding Zone: See Individual
Utility Requirements

TRENCH SECTION

NOTES:

1. If Rock Is Encountered Contact Engineer To Verify & Define Upper Limit Of Rock. See Individual Utility Requirements For Over excavation.
2. Shore Or Slope Sides Of Excavation. OSHA Has Additional Requirements For Excavations.
3. Thickness Of Lifts Must Match Compaction Methods.



ALTERNATE BACKFILL

TRENCH DETAIL

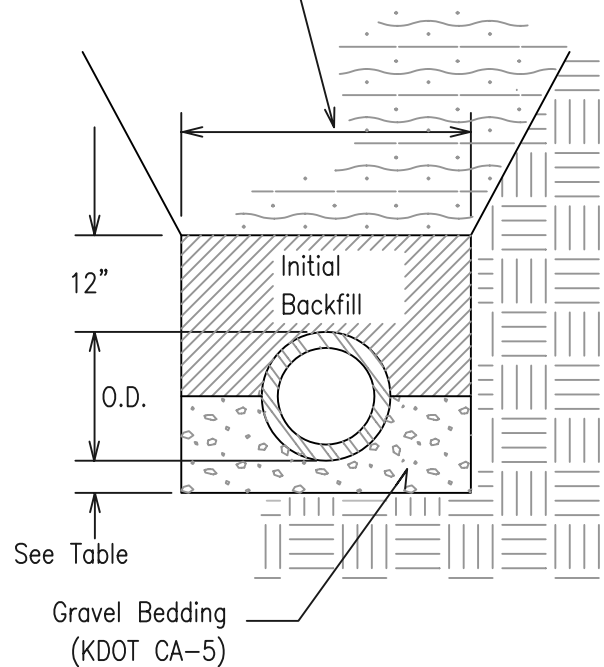
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Width Shall Not Exceed 2 1/2
Times The Outside Pipe Diameter.

Initial Backfill Allowable Materials		
Application	Select Fill	Stone Fill
Paved Areas, All Materials & Depths	No	Yes
Open Areas, Rigid Pipes, Depths to 30'	Yes	Yes
Open Area, Flexible Pipe, Depths to 30'	Yes	Yes

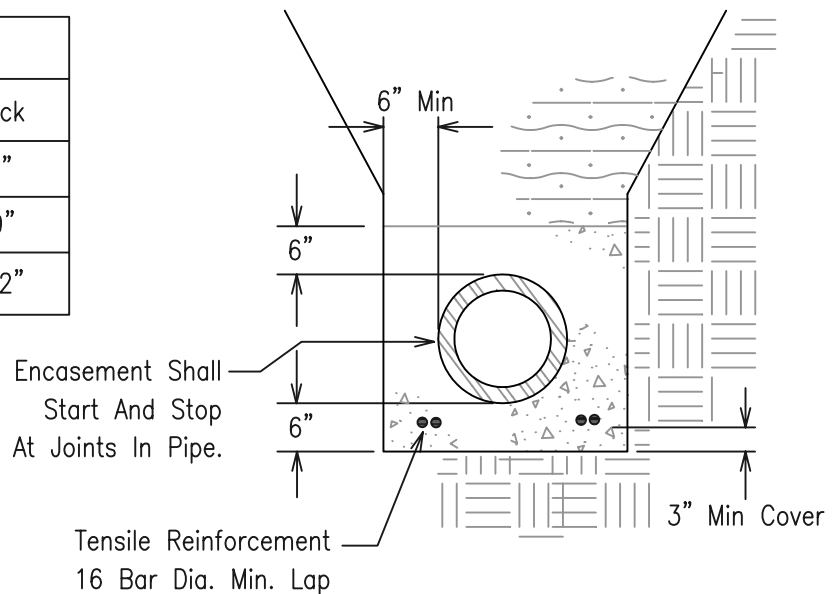
See Section 2100 For Definition Of Stone Fill
& Select Fill



STANDARD SEWER BEDDING

Bedding Depth Below Pipe		
Pipe Diameter	In Soil	In Rock
24" & Less	4"	6"
27" through 60"	4"	9"
66" & Greater	6"	12"

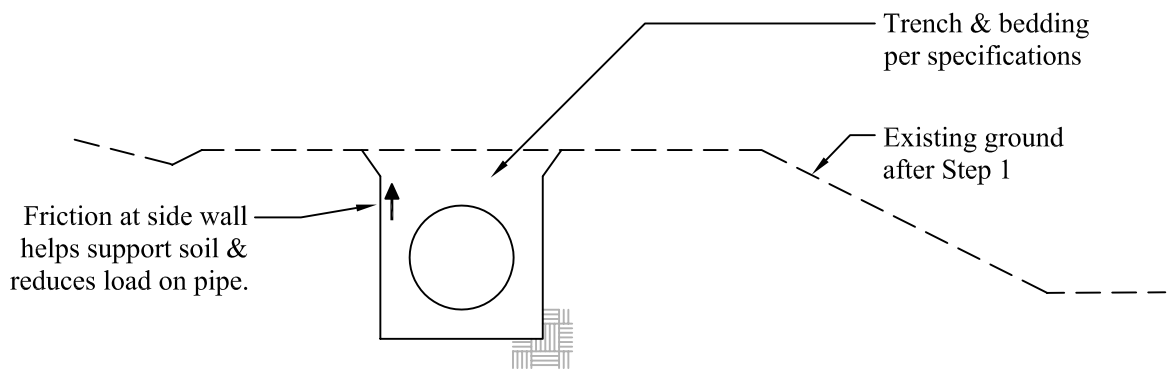
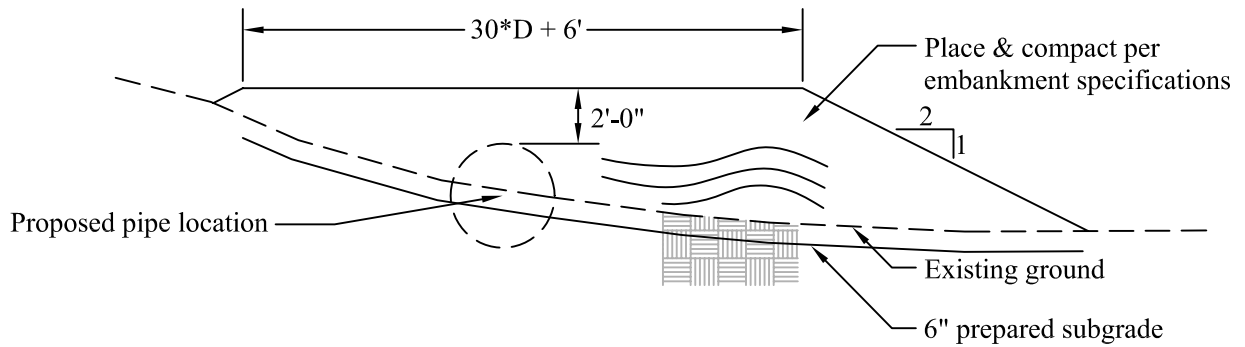
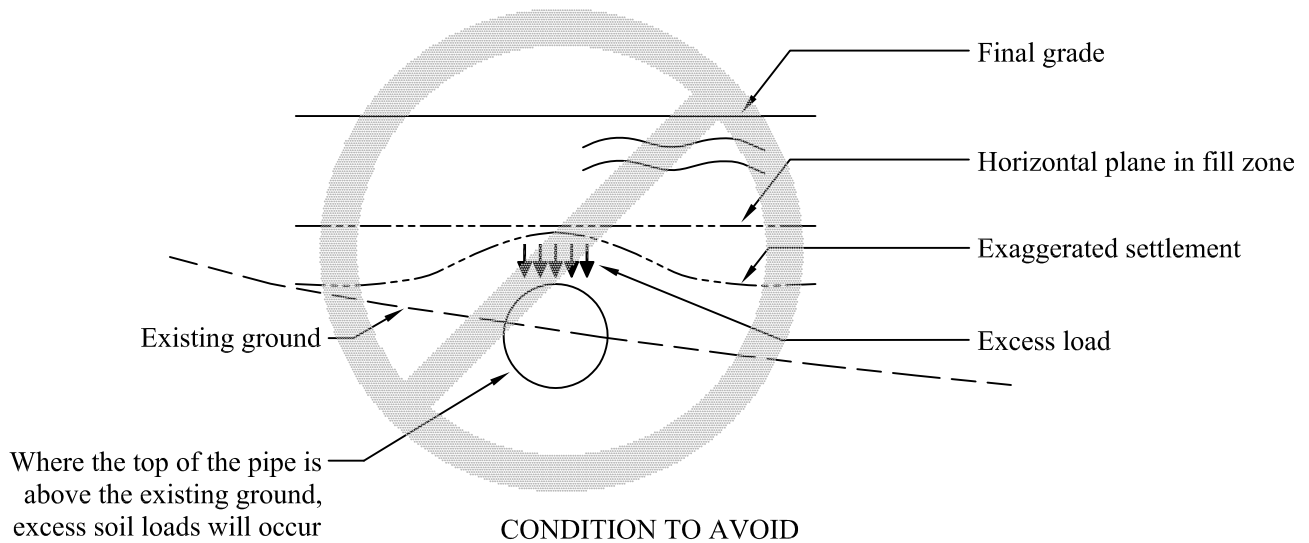
Concrete Encasement Minimum 6"
Beyond Outer Wall Of Pipe. Form or
Cast Against Trench Wall. Reinforcing
Steel Shall Be two #6 Bar for Pipe Up
To 8" Dia; Four #6 Bar for 10" Through
24" Dia; & as Approved By the Engineer
for Larger Than 24".



SEWER ENCASEMENT

SANITARY AND STORM SEWER BEDDING
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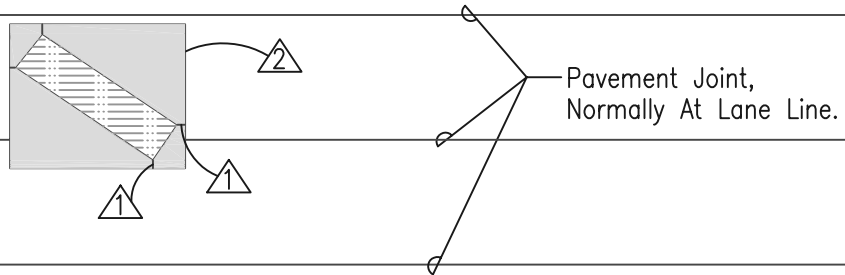
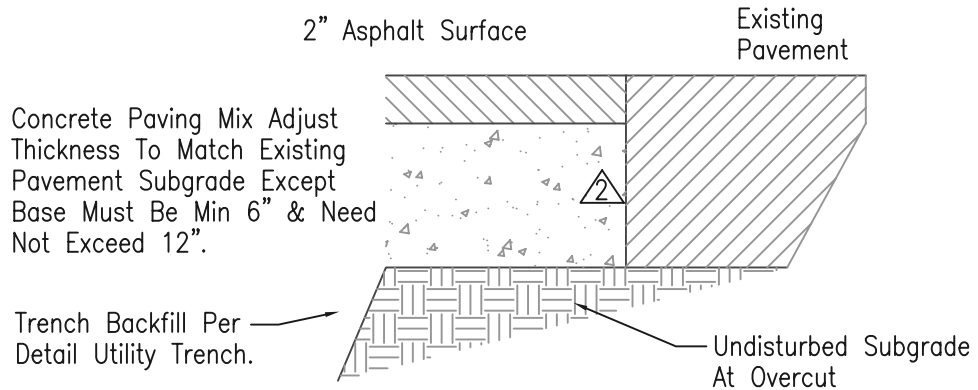
UG 2100-B
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NO SCALE

PLATFORM FOR EXPOSED PIPE INSTALLATION
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
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UG 2100-C
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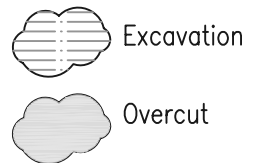
FLAG NOTES:

- ① Minimum Overcut Shall Be 1.0 Foot, Overcut Shall Be A Single Rectangle Oriented Parallel & Perpendicular to the Travel Lanes.
- ② No Load Transfer Devices Are Required At Overcut Joint.

SHEET NOTES:

- 1. Streets With Brick Base & Asphalt Overlay Shall Be Patched Per Asphalt Pavement Patch Details.
- 2. Refer To Specification For Asphalt & Concrete Mix, Tack, Placement, And Compaction Requirements.
- 3. Overcut Edges Shall Be Saw Cut Full Depth. Damaged Edges Shall Be Recut.

LEGEND

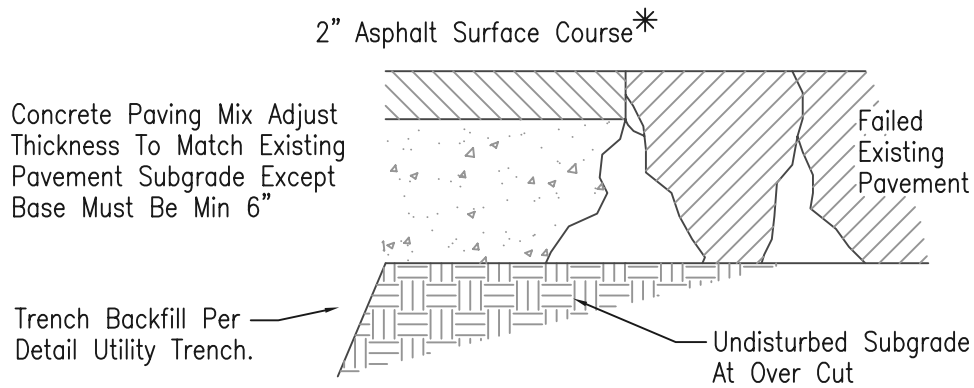


ASPHALT PAVEMENT PATCH

PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION

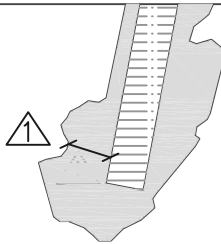
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PAVEMENT X-SECTION

* At UG Engineer's Instruction Use 6" Minimum Flush Filled Concrete Paving Mix.



FLAG NOTES:

- ① To Maximum Extent Permitted By Pavement Condition, Locate A Saw Cut Between 6" & 2'-0" Of The Excavation. For Remainder Of Pavement Edge, Remove Dislodged Pavement Fragments With Minimum Disruption To Remaining Fragments. Any Shape Of Pavement Patch Acceptable In Failed Pavements.

SHEET NOTES:

1. Applicability: Failed Pavement Is Any Pavement So Fragmented That 30% Or More Of The Perimeter Of The Excavation Has A No Practical Saw Line Within 2 Feet Of The Excavation. "No Practical Saw Line" Shall Mean Sawing Would Dislodge Rather Than Cut The Pavement. UG Engineering Shall Determine.

2. Refer To UG Standard Specifications For Asphalt & Concrete Mix & Tack, Placement & Compaction Requirements.

LEGEND



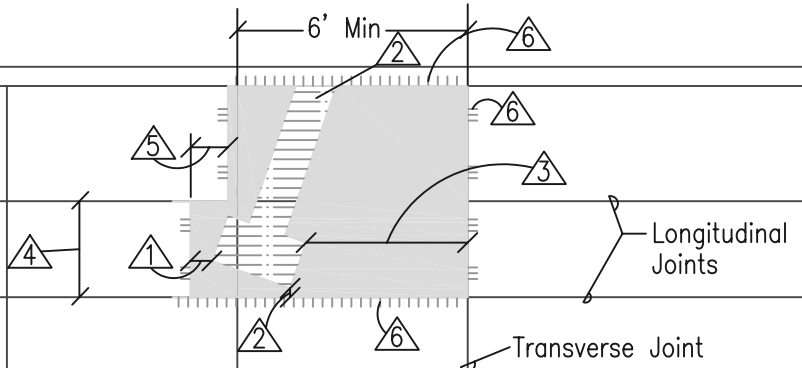
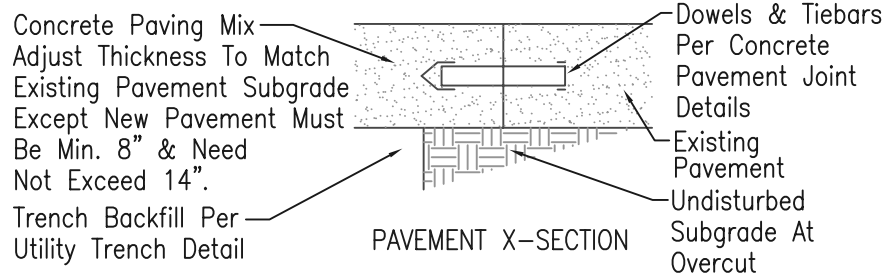
Excavation



Pavement Patch

PAVEMENT PATCH IN FAILED PAVEMENTS
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UNIFIED GOVERNMENT

UG 2250-B
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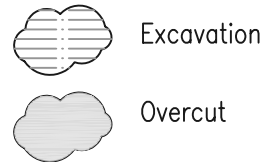
FLAG NOTES:

- ① Minimum Longitudinal Overcut In Mid-Panel Shall Be 1.0 Foot.
- ② Minimum Transverse Overcut 0.0 Foot.
- ③ Where Minimum Longitudinal Overcut Would Result In Remaining Panel Less Than 10' Long Between Cut & Transverse Joint Or Shrinkage Crack, Then Replace Panel To Transverse Joint Or Shrinkage Crack.
- ④ Patches Shall Extend From One Longitudinal Joint To Another. No Additional Overcut Is Required.
- ⑤ Where Patch Crosses Longitudinal Joint, Patch May Stagger Only If Stagger Is Greater Than 6 Feet.
- ⑥ Transverse Joint Dowels & Longitudinal Joint Tie Bars (Including Curb Tie Bars) Shall Be Installed Per Details For Concrete Pavement Joint Layout & Patching.

SHEET NOTES:

- 1. Streets With Brick Driving Surface Shall Be Patched Per Asphalt Pavement Patch Details.
- 2. If Asphalt Overlay Covers More Than 80% Of The Panels Surrounding The Cut, Then Restore Per Asphalt Pavement Patch Details.
- 3. Refer To UG Standard Specifications For Concrete Mix, Curing Requirements, And For Minimum Strength For Opening To Traffic.
- 4. Pavement Thickness And Finish Shall Match Thickness Of Adjacent Panels Except New Pavement Shall Not Be Less Than 8" Thick, Nor Greater Than 14" Thick.
- 5. Overcut Edges Shall Be Saw Cut Full Depth. Damaged Edges Shall Be Recut.

LEGEND



CONCRETE PAVEMENT PATCH

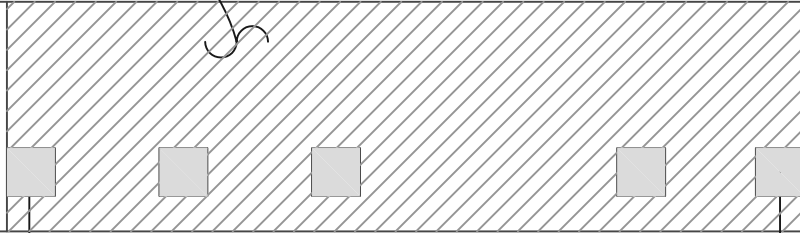
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UG 2250-C
2008 Edition

②

Pavement Joint
Normally @ Lane Line



①

LEGEND



Overcut



Additional Mill &
Overlay Beyond
Over Cut

FLAG NOTES:

①

When 3 Or More Patches Over The Same Utility, Whether As Part Of The Current Repair Or A Previous Repair, Are Separated By An Average Center-To-Center Distance Of 25 Feet Or Less The Mill And Overlay Requirement Shall Be Applicable. Intermediate Gaps Of Greater Than 25 Feet Shall Be Incorporated In The Merge Patch As Long As The Average c-c Distance Requirement Is Met.

②

Minimum 2" Depth Mill & Overlay Full Width Of All Lanes Multiple Patches Encroach. Overlay Shall Be Placed By Paving Machine. Terminal Header Shall Align Across All Lanes To Be Over Laid.

EXCEPTIONS TO THIS RULE WILL BE AT THE ENGINEER'S DISCRETIONS. FACTORS TO BE CONSIDERED ARE:

A. The Condition Of The Unpatched Pavement. The Worse The Unpatched Pavement, The Less Need To Merge The Patch. Failed Pavements May Not Require Any Merging Of Patches.

B. Alignment Of The Multiple Patches. The Closer The Patches Are To The Wheel Path, The Greater The Need To Merge Patches.

C. The Total Number Of Multiple Patches. The Greater The Number Of Patches, The Greater Need To Merge The Patches.

D. The Average & Maximum Distance Between Multiple Patches. The Greater The Average Or Maximum distance, The Less Need To Merge Patches.

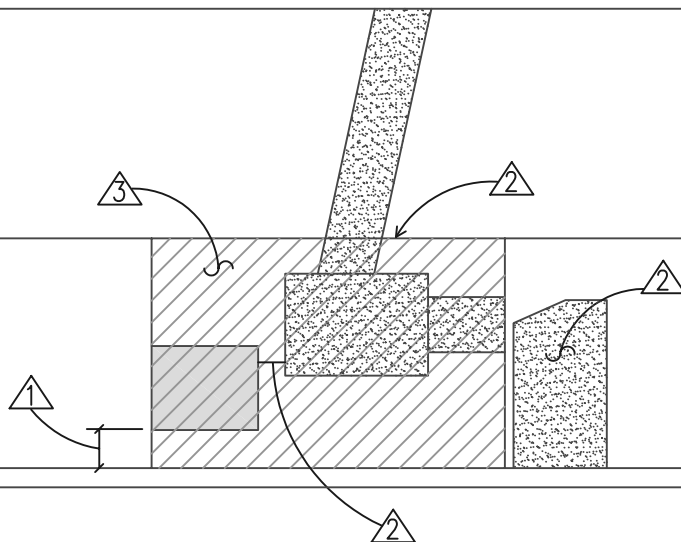
E. The Location Of Lane Lines And Pavement Joints. Preference Given To Merging Patches In The Same Lane.

PATCH MERGING – CASE 1

PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION

UNIFIED GOVERNMENT

UG 2250-D
2008 Edition



FLAG NOTES:



If Standard Overcut Would Be Less Than 2' From The Curb And Gutter, Then Extend The Patch To The Gutter Line.



Merge Every Existing Patch Whose Edge Is Less Than 9' From A Rectangle Drawn Around The Standard Overcut And All Closer Patches That Meet The Same Requirement. This Is A Recursive Determination With No Set Limit Of Intermediate Patches.

Exceptions To This Rule Will Be At The Engineer's Discretion. Factors To Be Considered Are:

- A. The Surface Texture And Structural Soundness Of The Existing Patch. The Better The Existing Patch, The Less Need To Merge The Patch.
- B. The Condition Of The Unpatched Pavement. The Worse The Unpatched Pavement, The Less Need To Merge The Patch. Failed Pavements May Not Require Any Merging Of Patches.
- C. The Continuity Of The Existing Patch To The Standard Overcut. The Greater The Number Of Intervening Patches, The Less The Need To Join The Patch.

D. The Size Of The Merged Patch. The Larger The Merged Patch, The Less Need To Merge Additional Existing Patches.

E. The Location Of Lane Lines And Pavement Joints. Preference Given To Merging Patches In The Same Lane.



Merged Patch Shall Be Full Depth Pavement Replacement Or 2" Mill And Overlay At Engineer's Discretion. Overlay Shall Be Placed By Paving Machine. Factors To Be Considered Are:

- A. The Structural Soundness Of The Existing Patch. The Better The Existing Patch, The Less Need For Full Depth Pavement Replacement.
- B. The Condition Of The Unpatched Pavement. The Better The Unpatched Pavement, The Less Need For Full Depth Replacement.

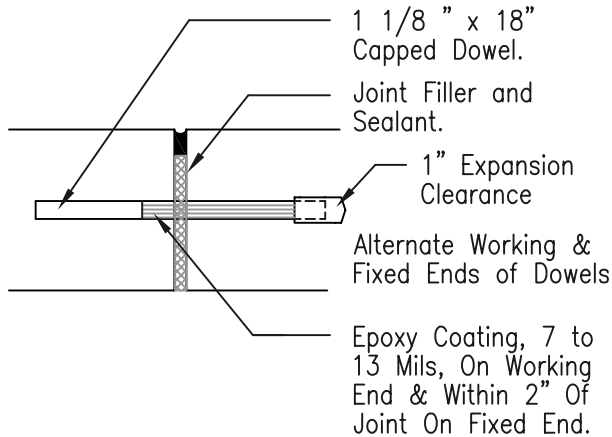
LEGEND

- Standard Overcut
- Existing Patch
- Area Of Merged Patch

PATCH MERGING – CASE 2

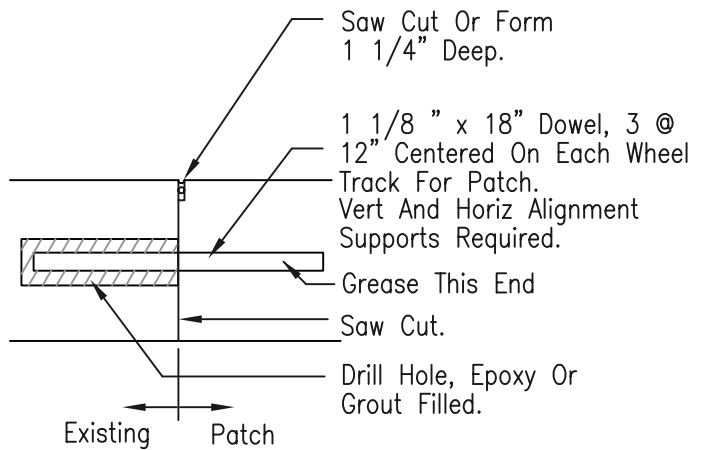
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT

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2008 Edition

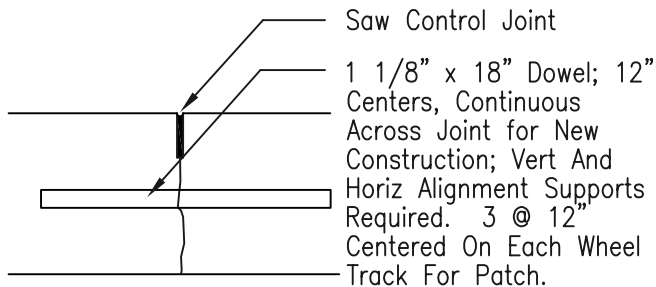


EXPANSION JOINT

Space Expansion Joints As Shown On Project Drawings

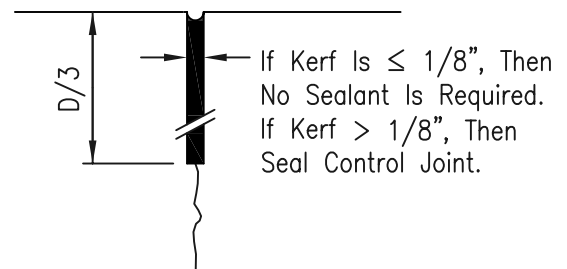


TRANSVERSE JOINT AT PATCH



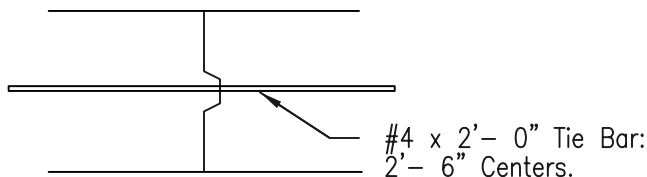
TRANSVERSE JOINT NEW PAVEMENT

Spacing of Transverse Joint As Shown On Project Drawings; 15' If Not Shown.



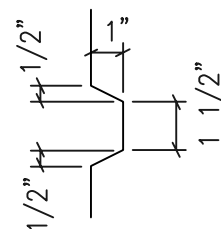
CONTROL JOINT DIMENSIONS

Note: Joints In Sidewalks Or Driveways Me Be Tooled As An Alternate To Saw Cutting. Tooled Joints Do Not Require Sealant.



TIED LONGITUDINAL CONSTRUCTION JOINT

Place Longitudinal Joint Where Shown On The Project Drawing; At Lane Lines If Not Shown.



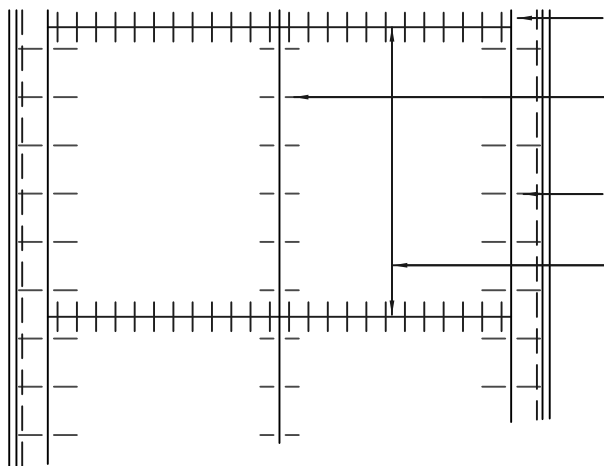
KEY SHAPE

CONCRETE PAVEMENT JOINT DETAILS

PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION

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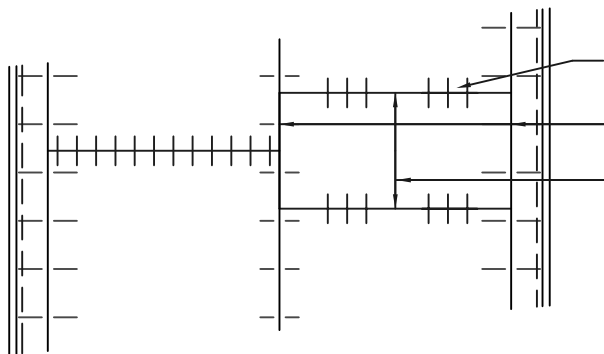
Dowels In Dowel Basket At Transverse Joints

Deformed Tiebars At Longitudinal Joint (Lane Line)

Deformed Tiebars At Curb Joint.

Space Joints To Eliminate Wire Mesh, 15' Typical, Or As Shown On The Project Drawings.

NEW CONSTRUCTION

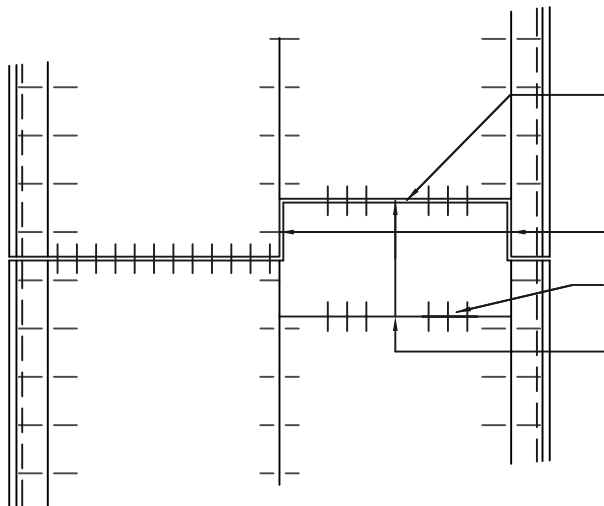


3 @ 1-1/8 " x 18" Dowels In Each Wheel Track

Deformed Tiebars At Curb And Lane Line.

Length As Marked By Engineer, 6' Minimum.

TRANSVERSE CONTROL JOINT REPAIR



Install Joint Filler On Transverse and Longitudinal Joints On One Side Of Patch To Make Continuous Working Joint.
Dowel Caps Required On Expansion Joint.

Cut Tiebars. Do Not Reinstall.

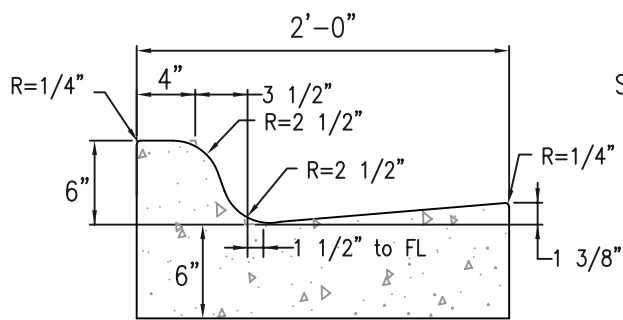
3 @ 1-1/8 " x 18" Dowels In Each Wheel Track

Length As Marked By Engineer, 6' Minimum.

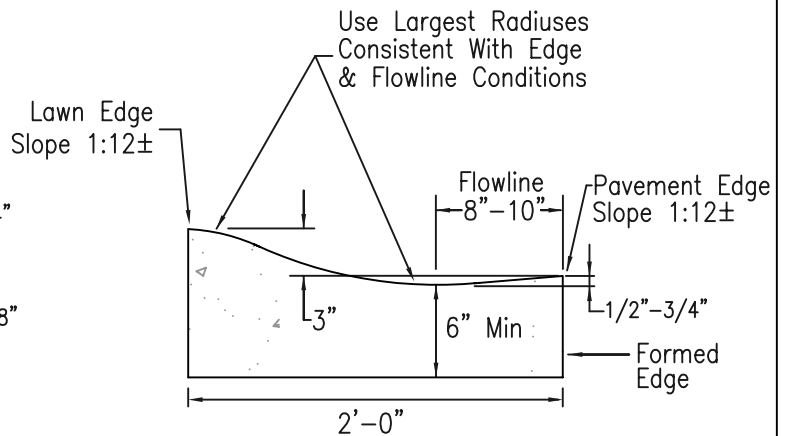
TRANSVERSE EXPANSION JOINT REPAIR

CONCRETE PAVEMENT JOINT LAYOUT AND PATCHING
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT

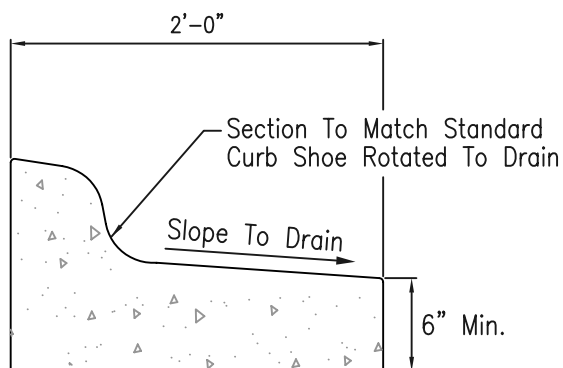
UG 4100-B
2008 Edition



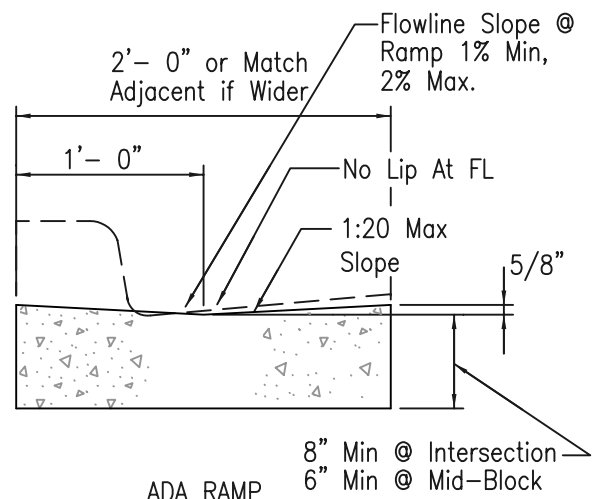
STANDARD, STAND UP, OR
VERTICAL CURB



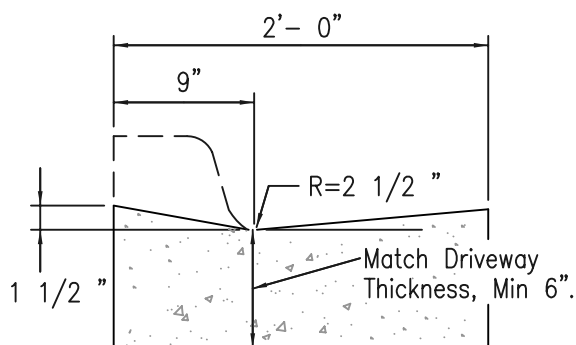
ROLL OVER, OR LAZYBACK CURB
For Residential Use Only



MEDIAN, SPILL OR DRY CURB



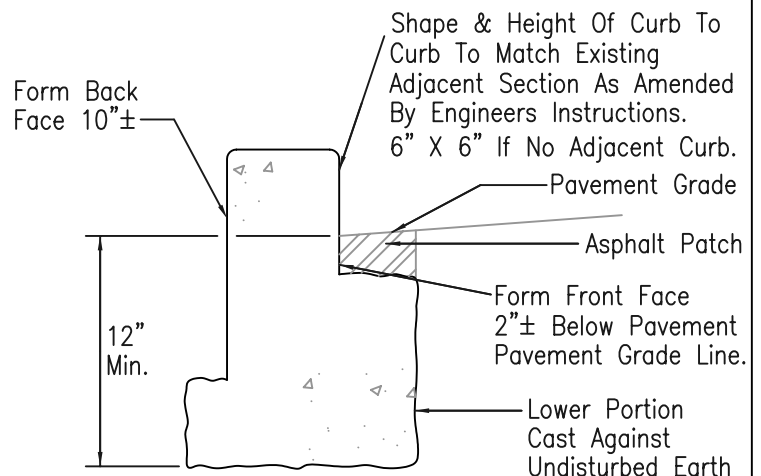
ADA RAMP



DRIVEWAY

NOTES:

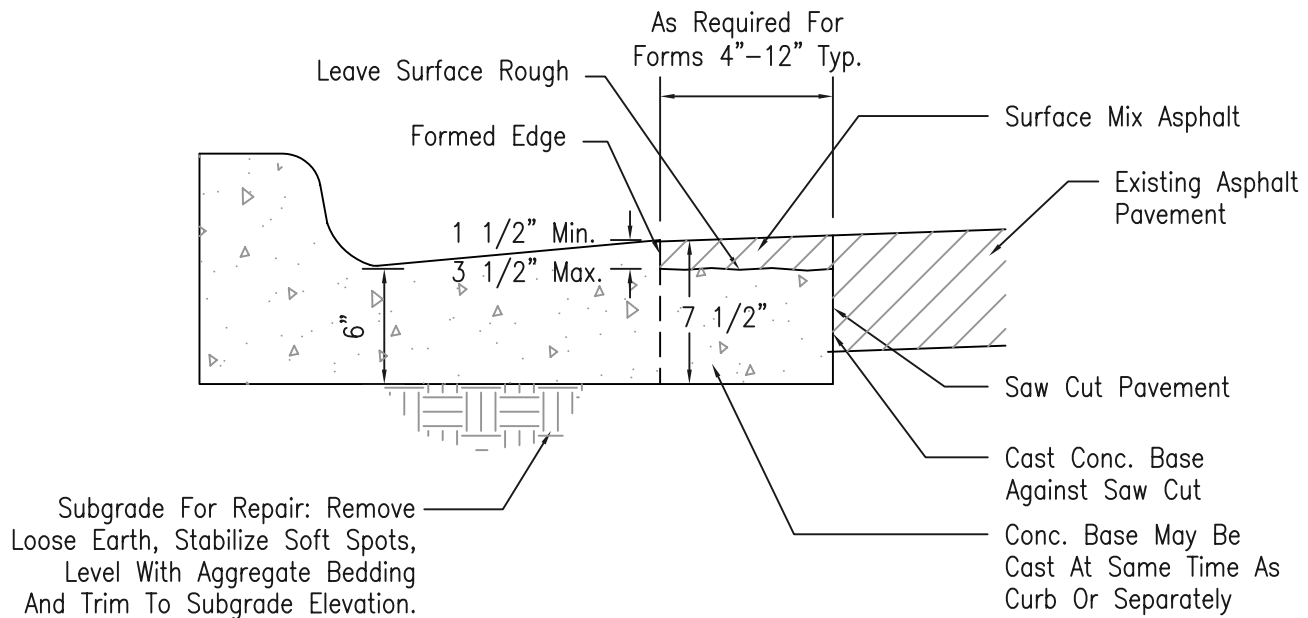
Broom Finish Shall Be Used For All
Curb & Gutter.



CURB ONLY

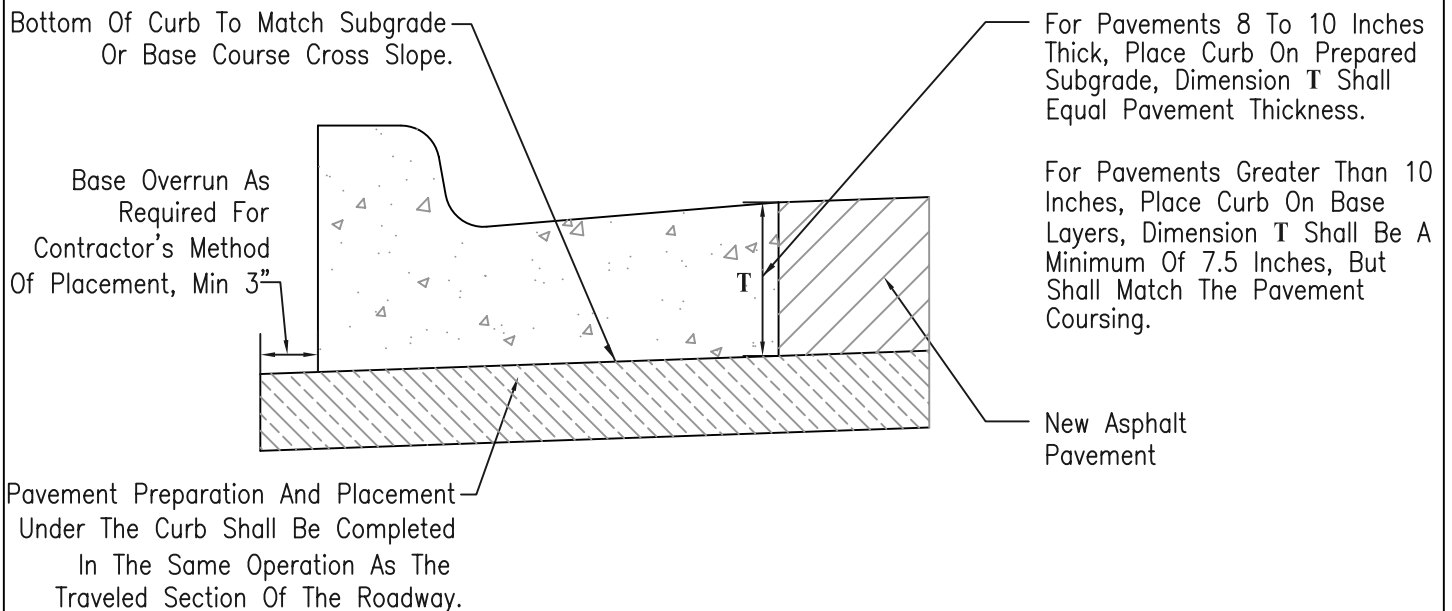
CURB AND GUTTER SECTIONS PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION UNIFIED GOVERNMENT

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2008 Edition



CURB REPAIR

(Where Adjacent Pavement Is To Remain In Place)



CURB FOR NEW PAVEMENT

(For New Mainline Pavement & Repairs Where Adjacent Pavement Is Replaced)

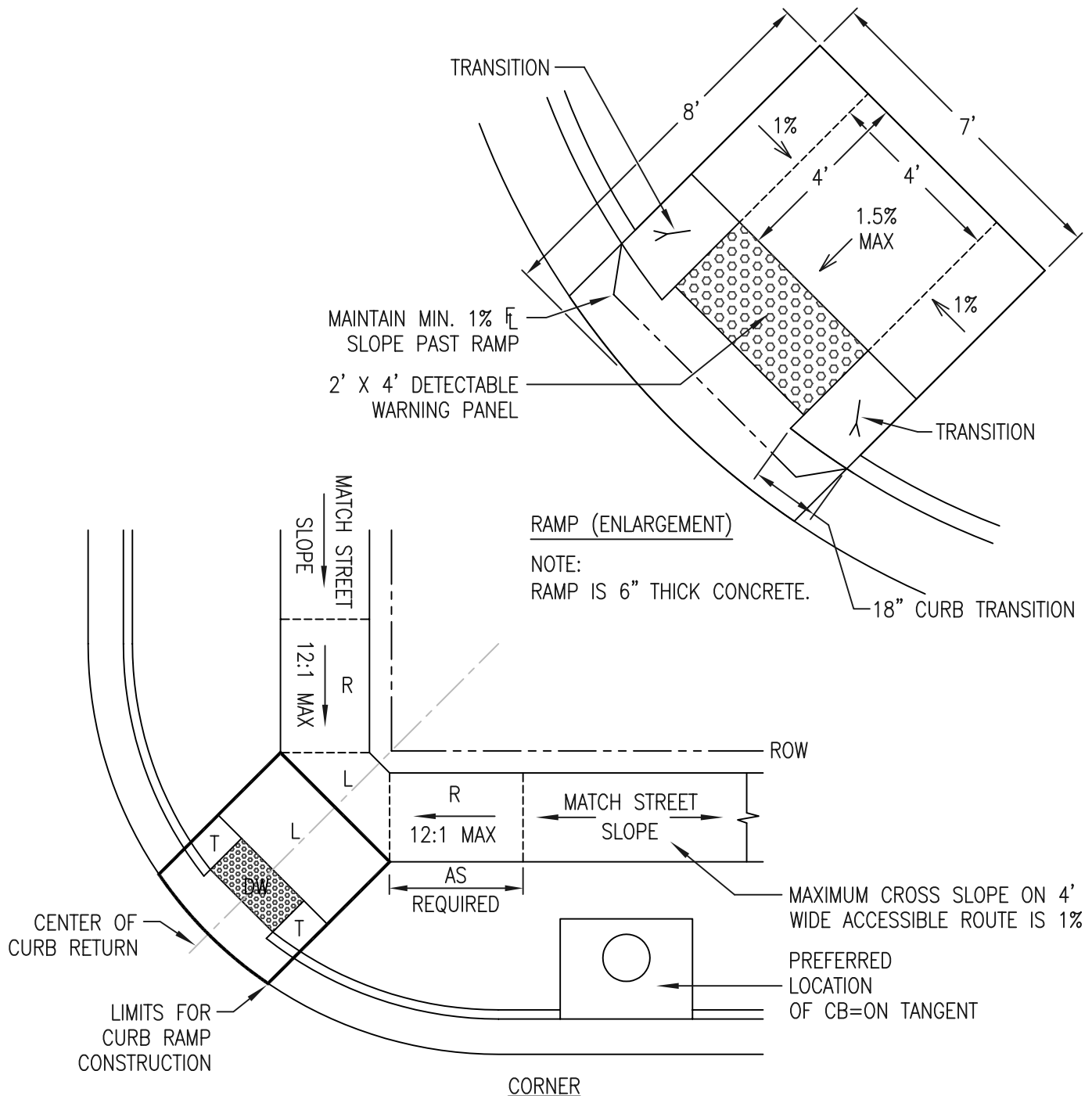
NOTES: Installation Details Shown on This Sheet for Standard Curb Apply to All Typical Curb Sections.

CURB AND GUTTER INSTALLATION (ASPHALT STREETS)

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LEGEND:

- L: LANDING: SLOPE 1% TOWARD FLOWLINE & 0 TO 2% ACROSS WIDTH OF LANDING.
- R: RAMP: MAXIMUM 8.3% SLOPE IN DIRECTION OF TRAVEL, CROSS SLOPE 0 TO 2%.
- T: TRANSITION: MAXIMUM 10% SLOPE IN ANY DIRECTION, WHEN ADJACENT TO APPROACH WALK.
- DW: DETECTABLE WARNING PANELS.

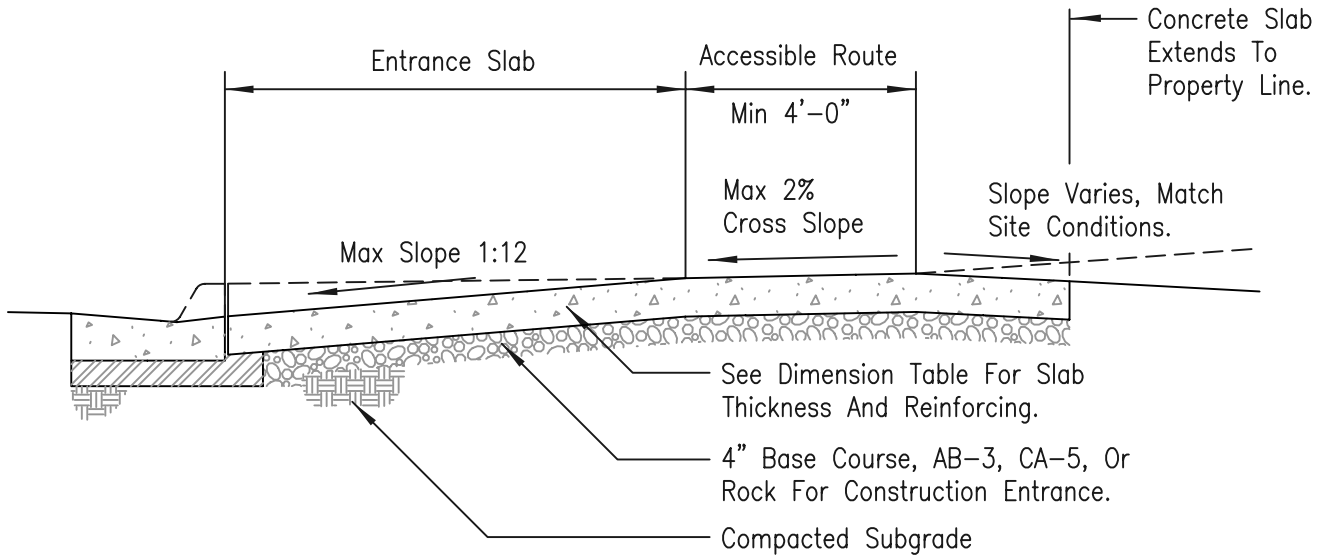
ADA RAMP FOR NEW CONSTRUCTION

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Location Of Accessible Route
Varies. See Driveway Layout Detail



DRIVEWAY SECTION

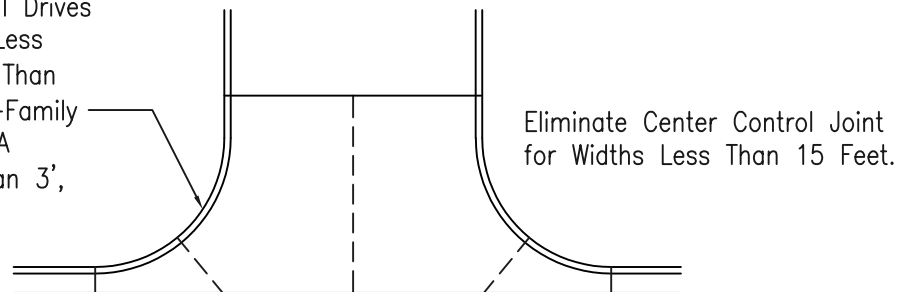
Type	Max. Width	Min. Slab Thickness	Min. Reinforcing
Residential *	25'	6"	None
Commercial	30'	8"	None
Industrial Δ	35'	8"	#4 @ 12" CC At Midspan On Chairs

*For Rural Section Roads (No C&G) Residential Driveways May Be 6" Asphalt On Compacted Subgrade.

Δ May Be Larger Than 35' If Approved By The County Engineer.

DIMENSION TABLE

Commercial & Industrial Drives May Have Radius Not Less Than 15', Nor Greater Than 25'. Single and Multi-Family Residential Shall Have A Transition Not Less Than 3', Nor Greater Than 5'.



CONTROL JOINT LOCATIONS

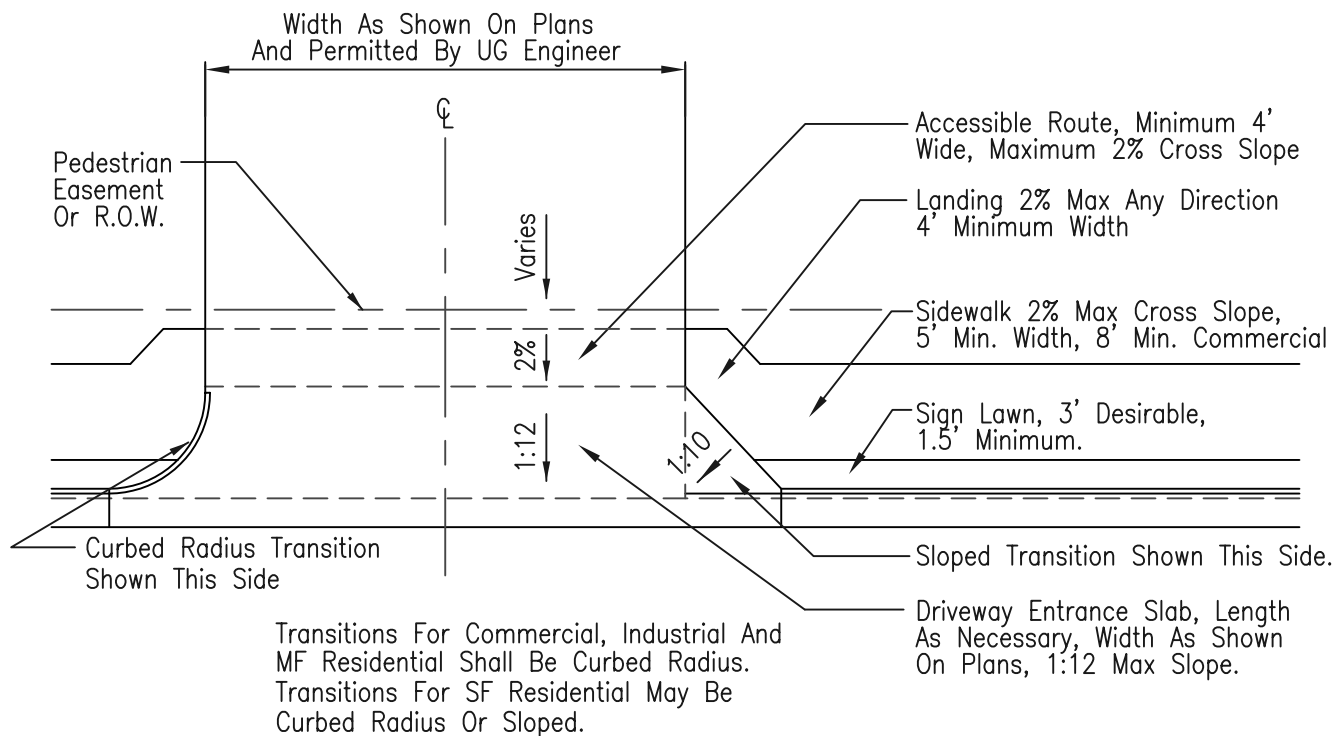
DRIVEWAY LAYOUT, SHEET 1 OF 2

GENERAL

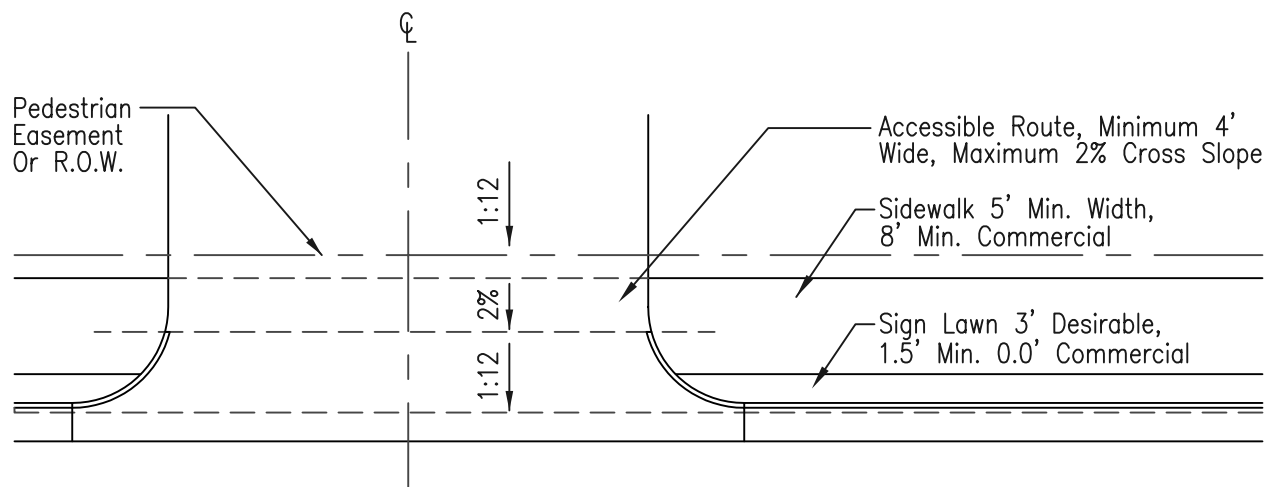
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION

UNIFIED GOVERNMENT

UG 4100-G
2008 Edition

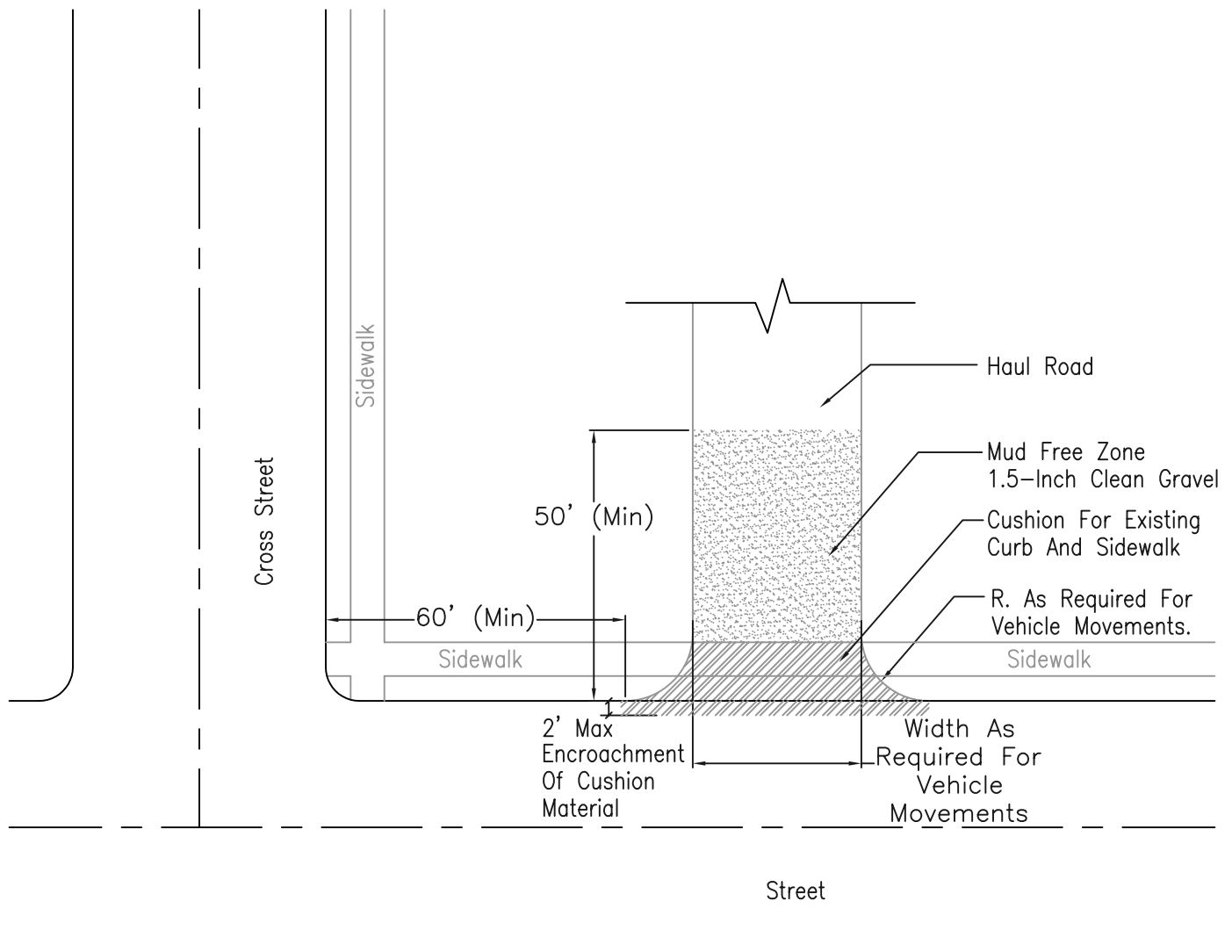


ACCESSIBLE ROUTE AT TOP OF DRIVEWAY



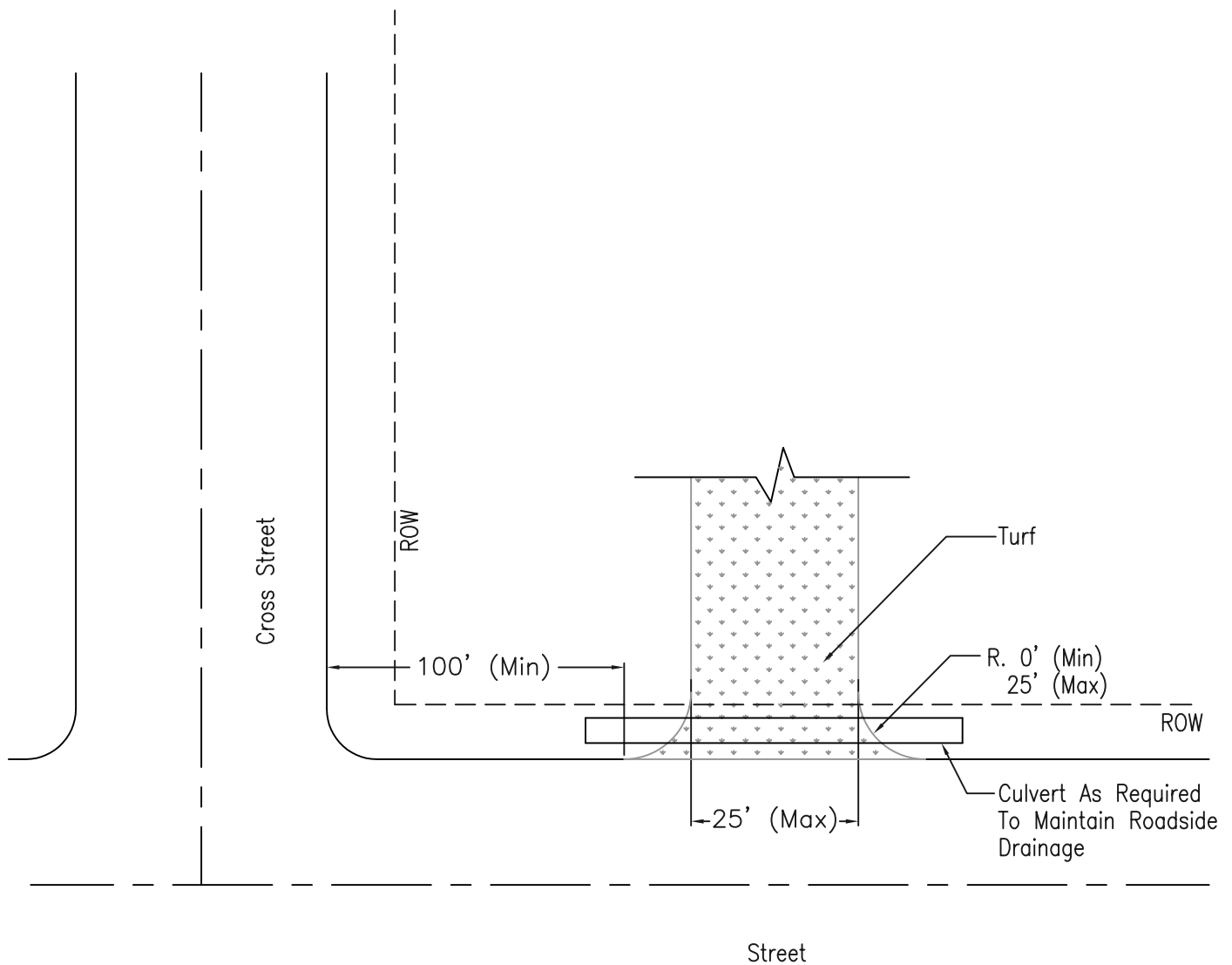
ACCESSIBLE ROUTE ALIGNED WITH SIDEWALK

DRIVEWAY LAYOUT, SHEET 2 OF 2 **FOR ADA ACCESSIBILITY** **PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION** **UNIFIED GOVERNMENT**



DRIVEWAY DIMENSIONS & MATERIALS, SHEET 1 OF 6
CONSTRUCTION ENTRANCE
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT

UG 4100-I
 2008 Edition



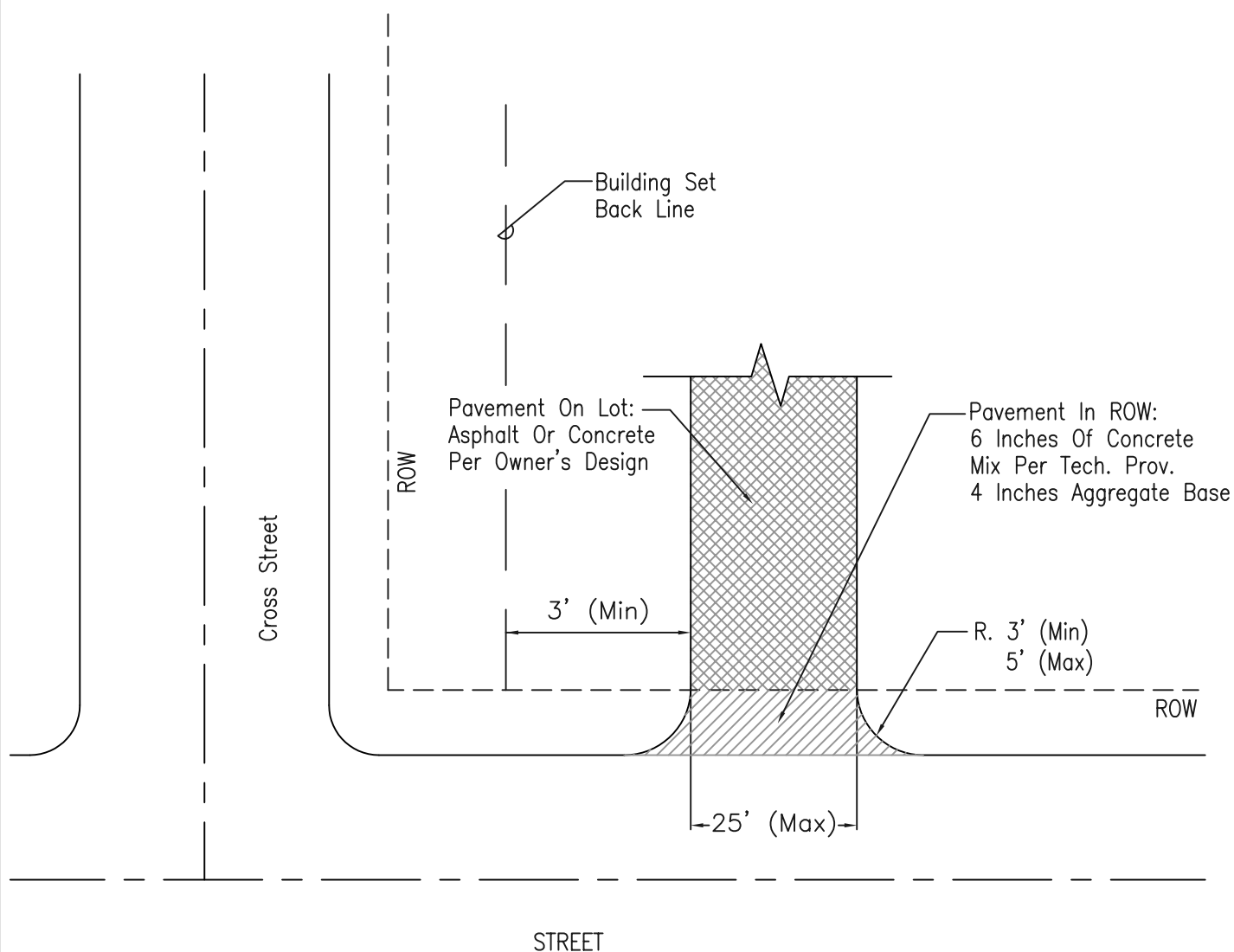
DRIVEWAY DIMENSIONS & MATERIALS, SHEET 2 OF 6

FIELD ENTRANCE

PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION

UNIFIED GOVERNMENT

UG 4100-J
2008 Edition

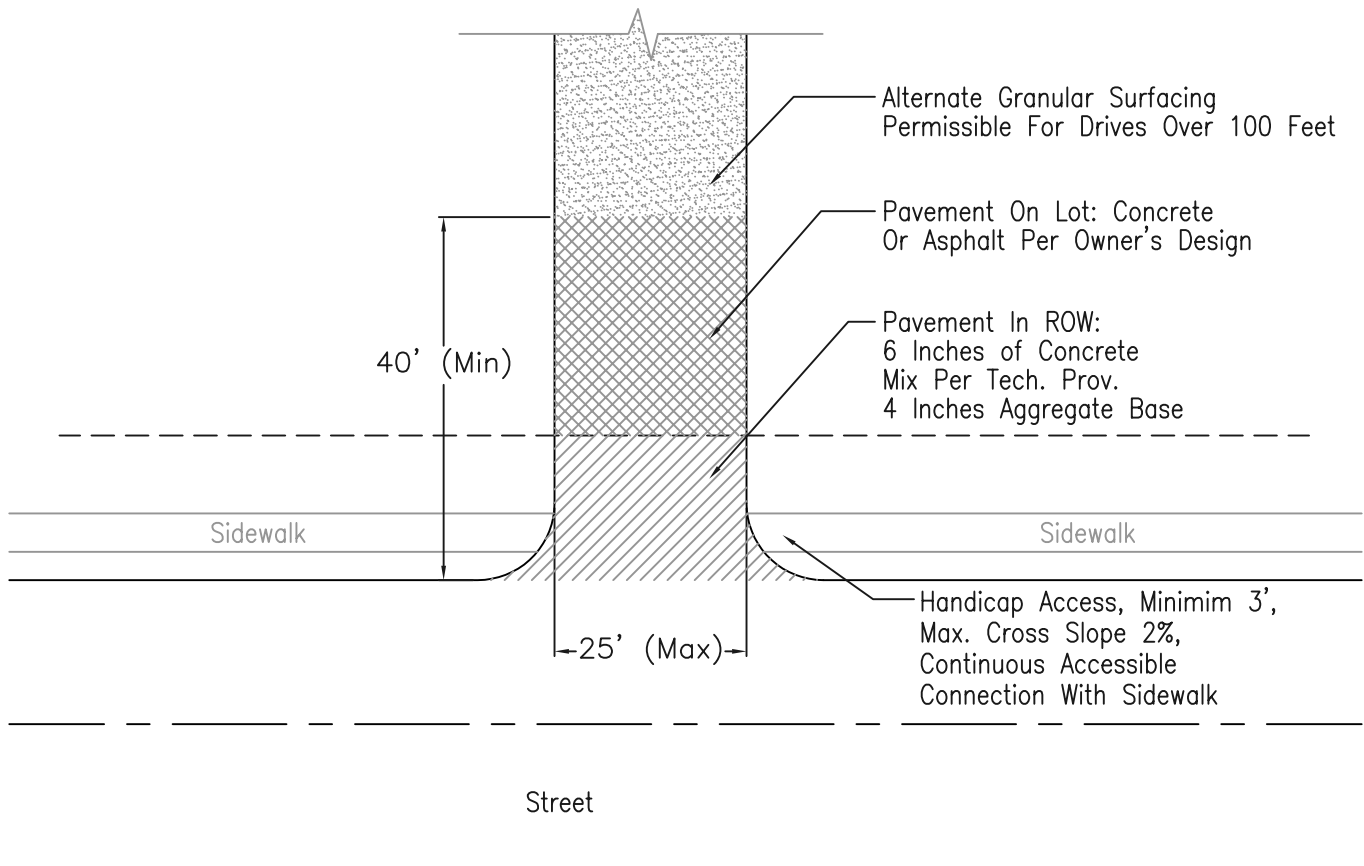


NOTE:

Applies To Single Family & Duplex Lots. Multifamily Entries Shall Conform To Commercial Driveway Standards.

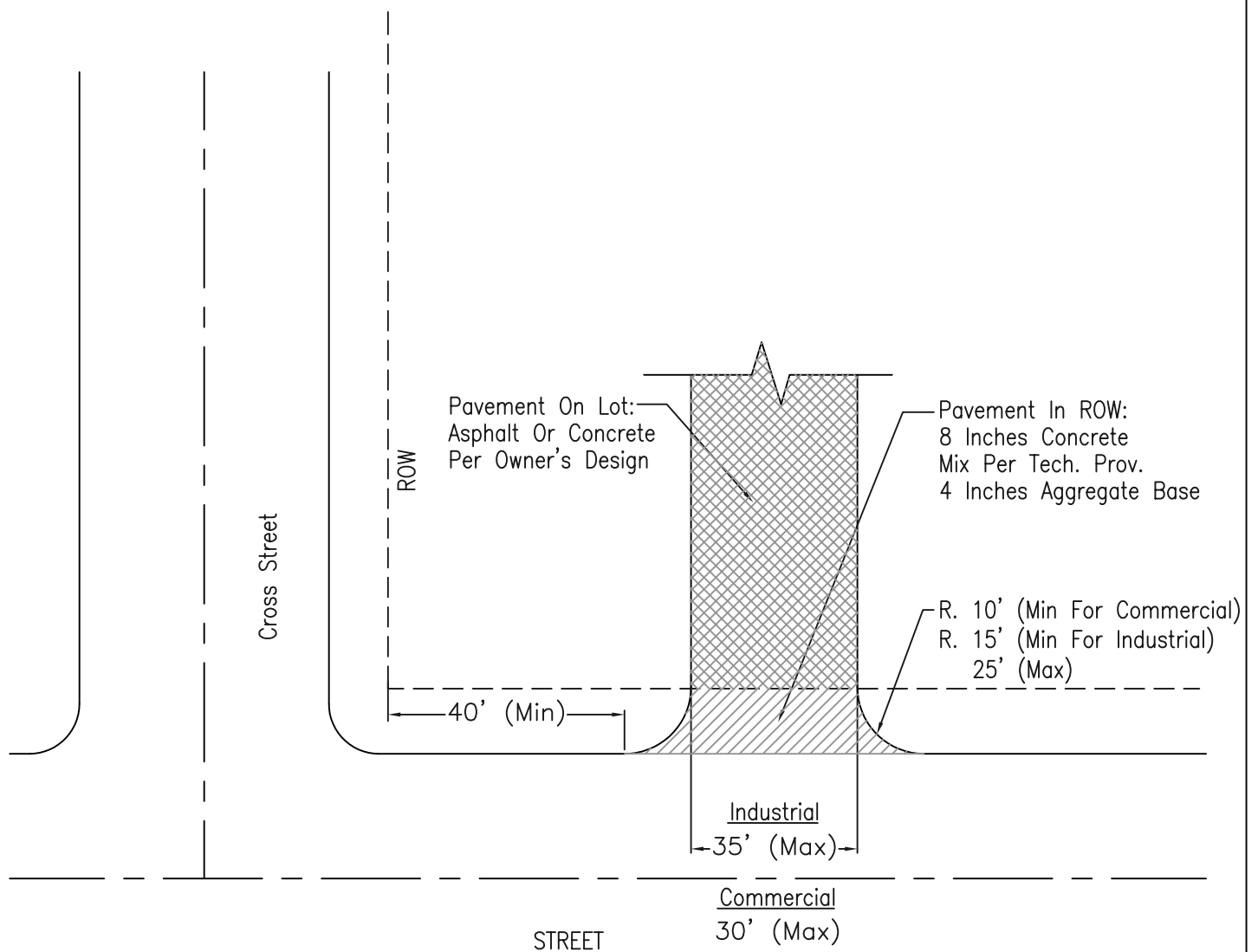
DRIVEWAY DIMENSIONS & MATERIALS, SHEET 3 OF 6
RESIDENTIAL
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT

UG 4100-K
 2008 Edition



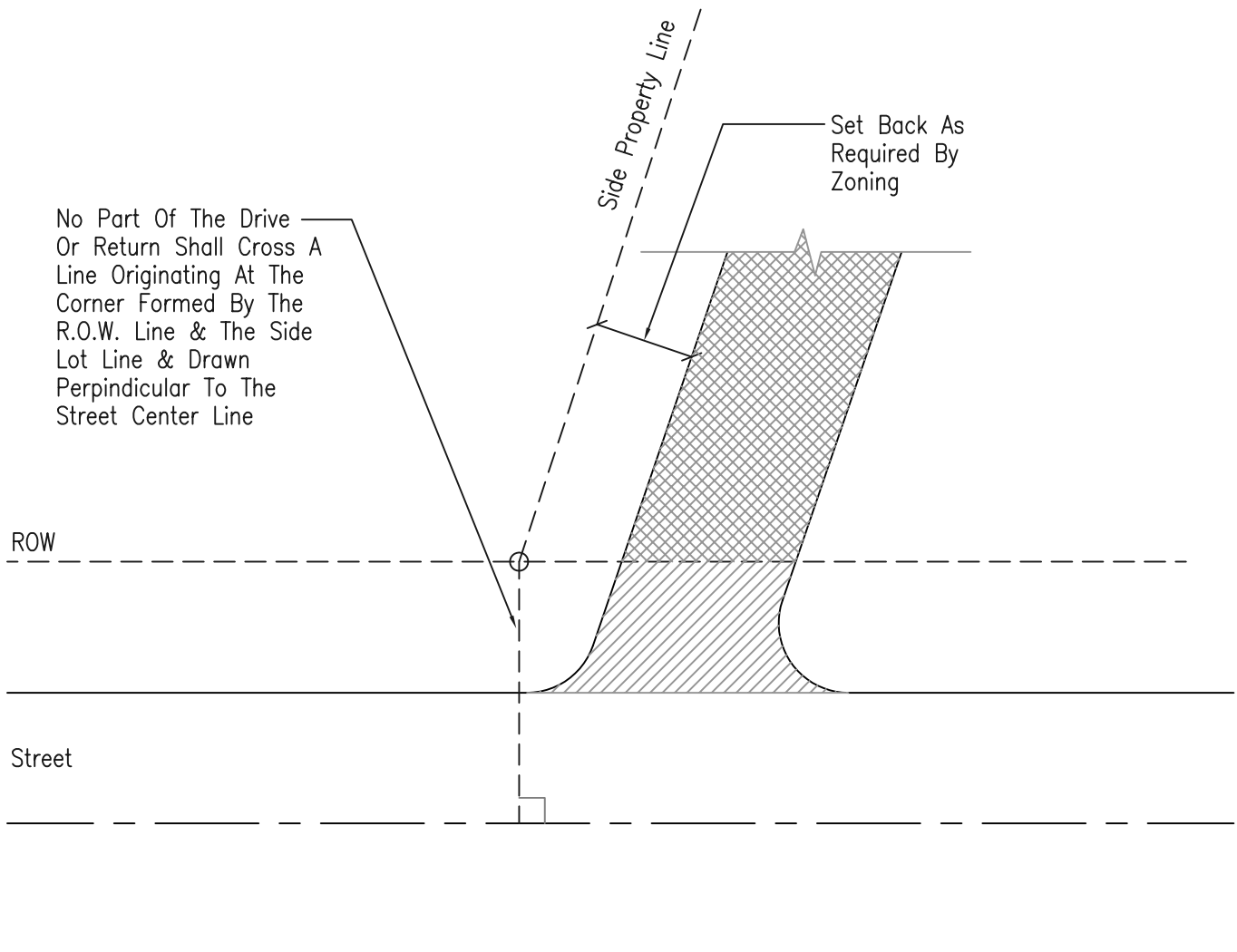
DRIVEWAY DIMENSIONS & MATERIALS, SHEET 4 OF 6
LONG DRIVEWAY ON RESIDENTIAL LOTS
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT

UG 4100-L
2008 Edition



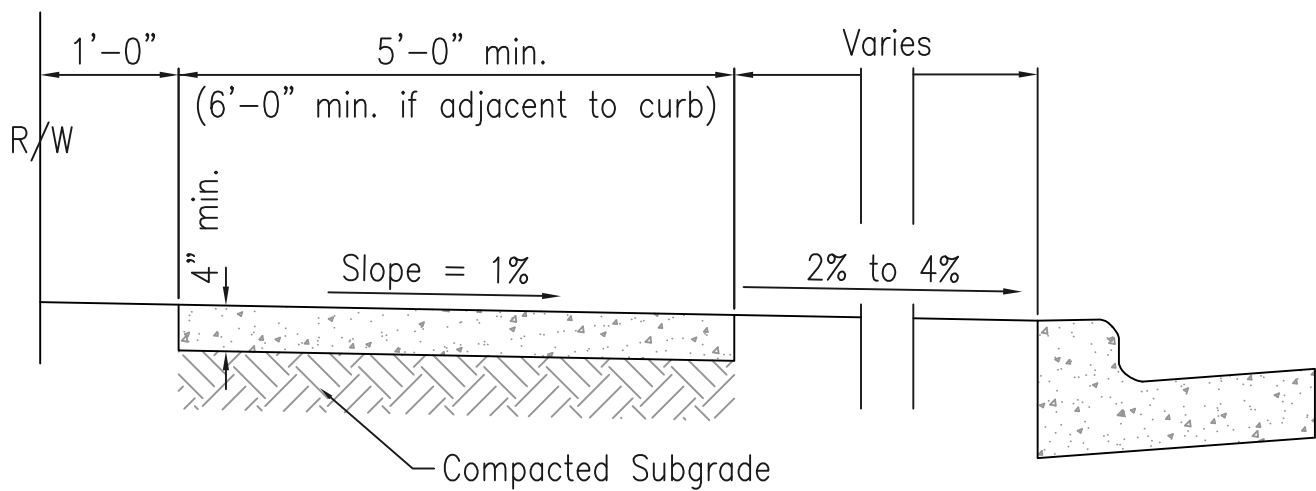
DRIVEWAY DIMENSIONS & MATERIALS, SHEET 5 OF 6
 COMMERCIAL / INDUSTRIAL DRIVEWAY
 PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
 UNIFIED GOVERNMENT

UG 4100-M
 2008 Edition



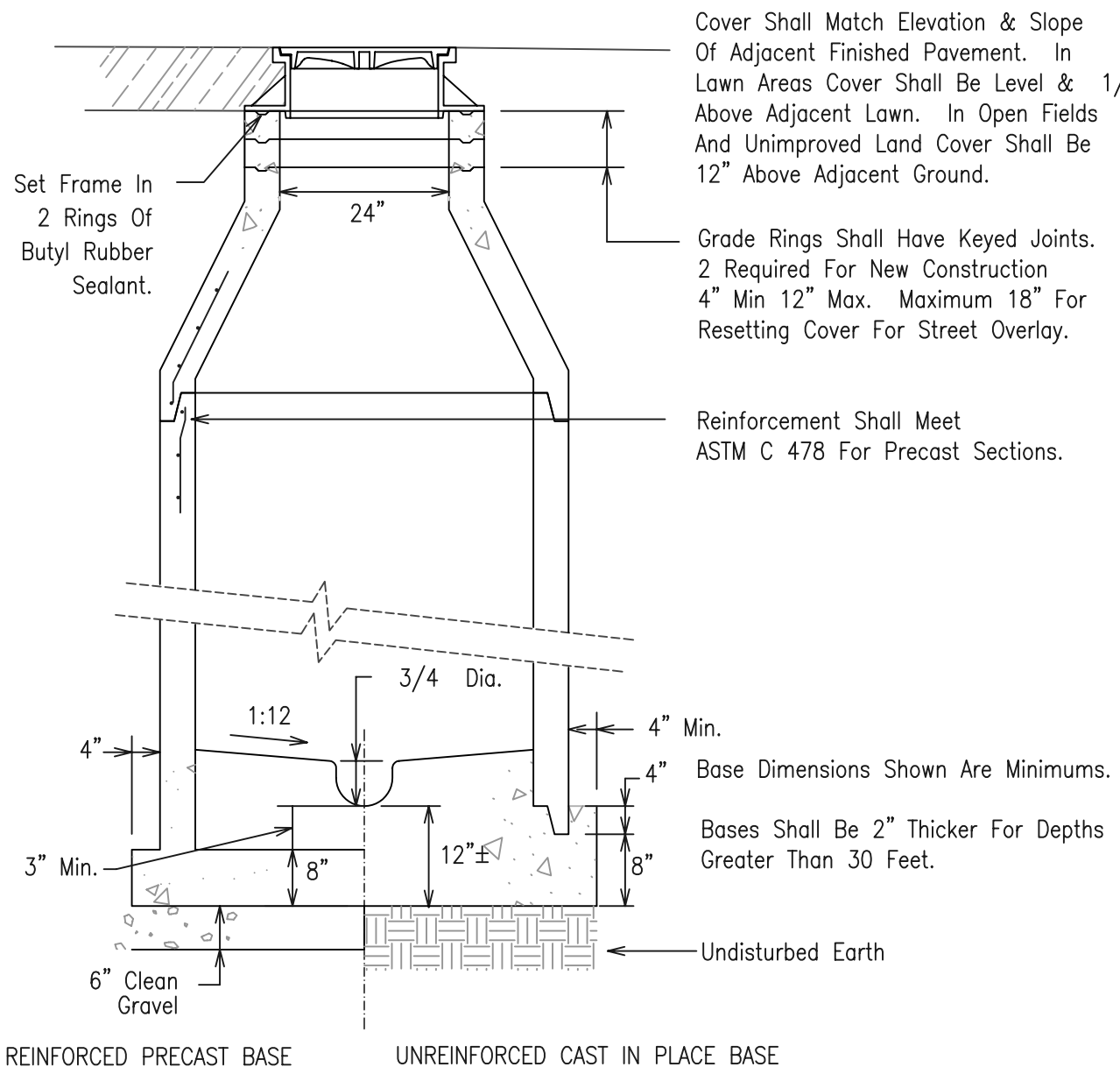
DRIVEWAY DIMENSIONS & MATERIALS, SHEET 6 OF 6
SIDE PROPERTY LINE SETBACK ALL DRIVEWAYS
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT

UG 4100-N
 2008 Edition



STANDARD SIDEWALK DETAIL
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT

UG 4100-0
 2008 Edition



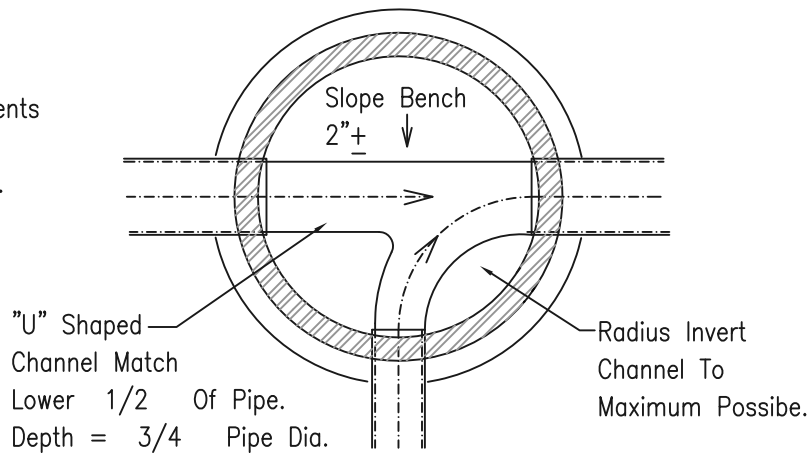
NOTES:

1. Risers, Cones & Grade Rings Shall Conform To ASTM C 478. Use Concentric Cones Unless Otherwise Directed.
2. All New Sanitary Manholes Shall Be Vacuum Tested.
3. Water Proofing Requirements: Apply Mastic Gasket Or Preformed Joint Material At Every Joint, Including Adjustment Rings. Two 6 Mil Coats Of External Damp Proofing Required. Apply Composite External Joint Waterproofing At Barrel and Adjustment Ring Joints. See Spec for Internal Damp Proofing Requirements. Grout Fill Lifting Holes.

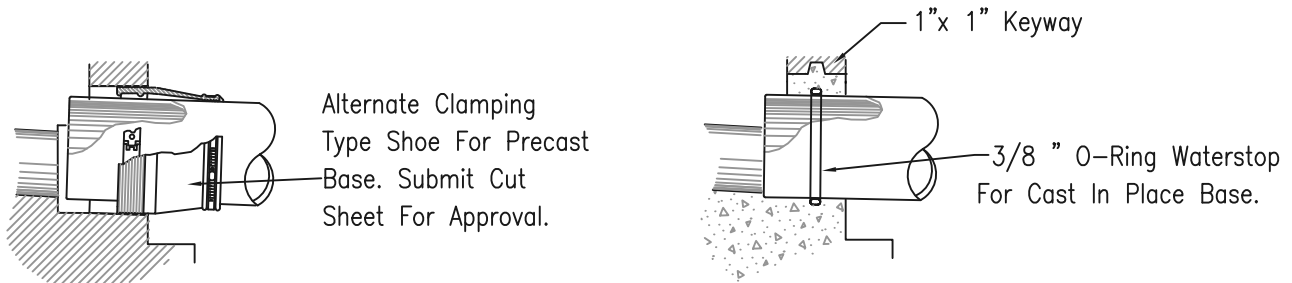
STANDARD MANHOLE DETAIL, SHEET 1 OF 3
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT

UG 5000-A
 2008 Edition

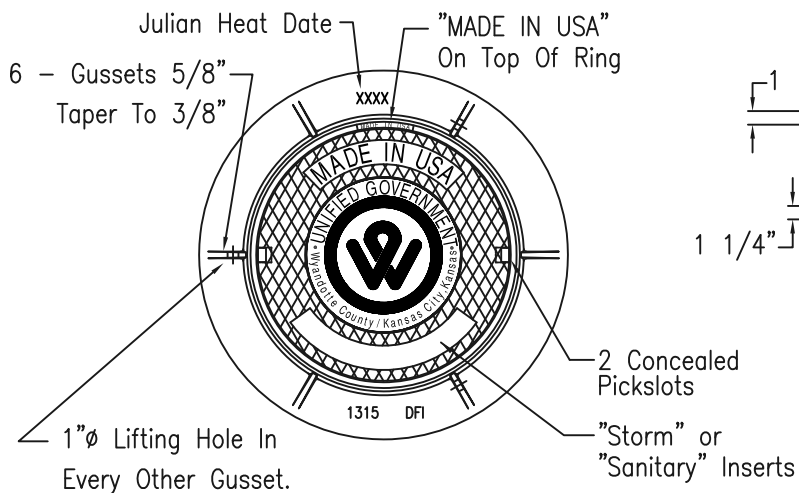
Invert Shaping Requirements
Apply To All Manholes,
Junction Boxes, & Inlets.



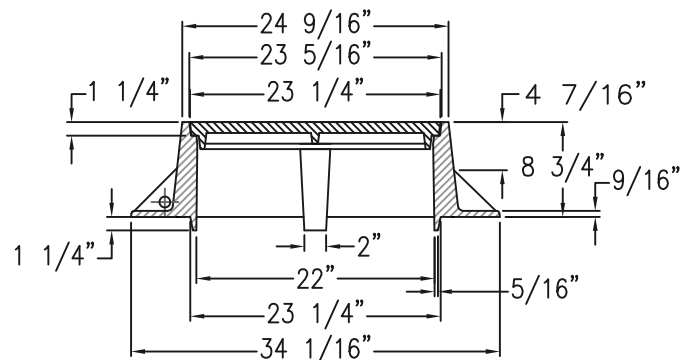
INVERT SHAPING



SANITARY SEWER PIPE JOINT WATERSTOP



STANDARD MANHOLE COVER (SANITARY)



NOTE:

- Furnished With Machined Horizontal Bearing Surface.
- Material: Gray Cast Iron ASTM A-48, Class 35B.
- Weight: Frame 225 Lbs.
Cover 135 Lbs.
- Finish: No Paint

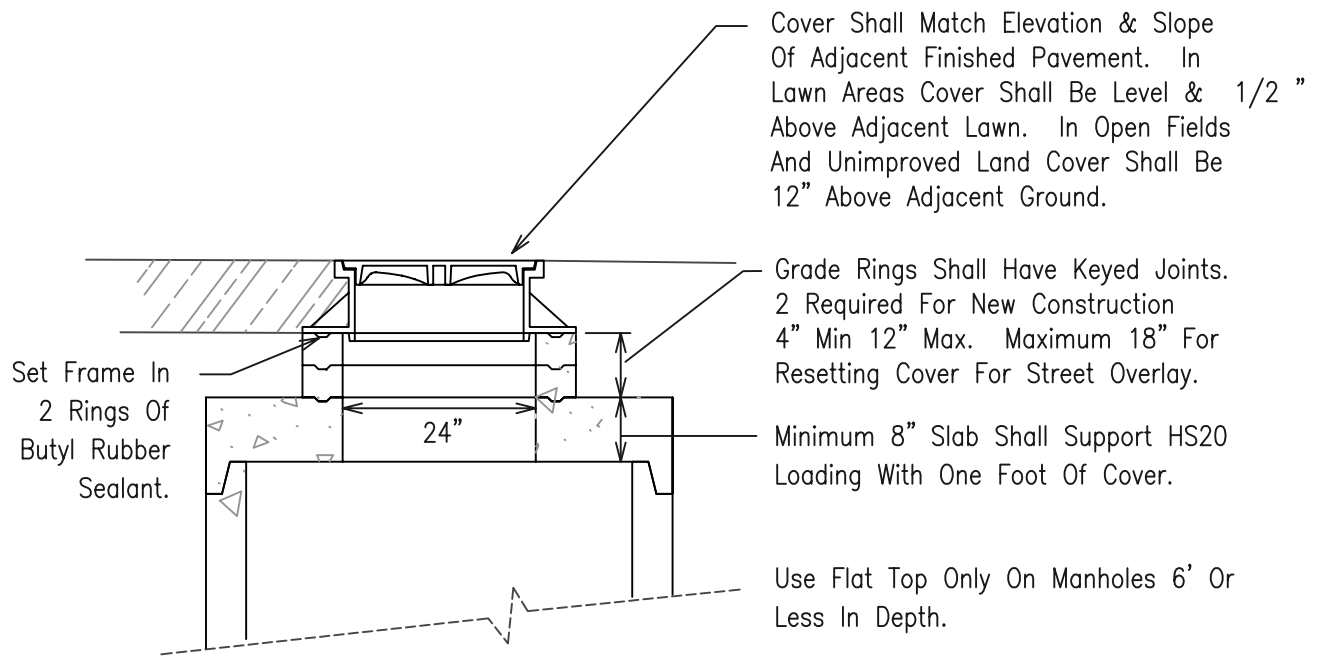
STANDARD MANHOLE DETAIL, SHEET 2 OF 3

PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION

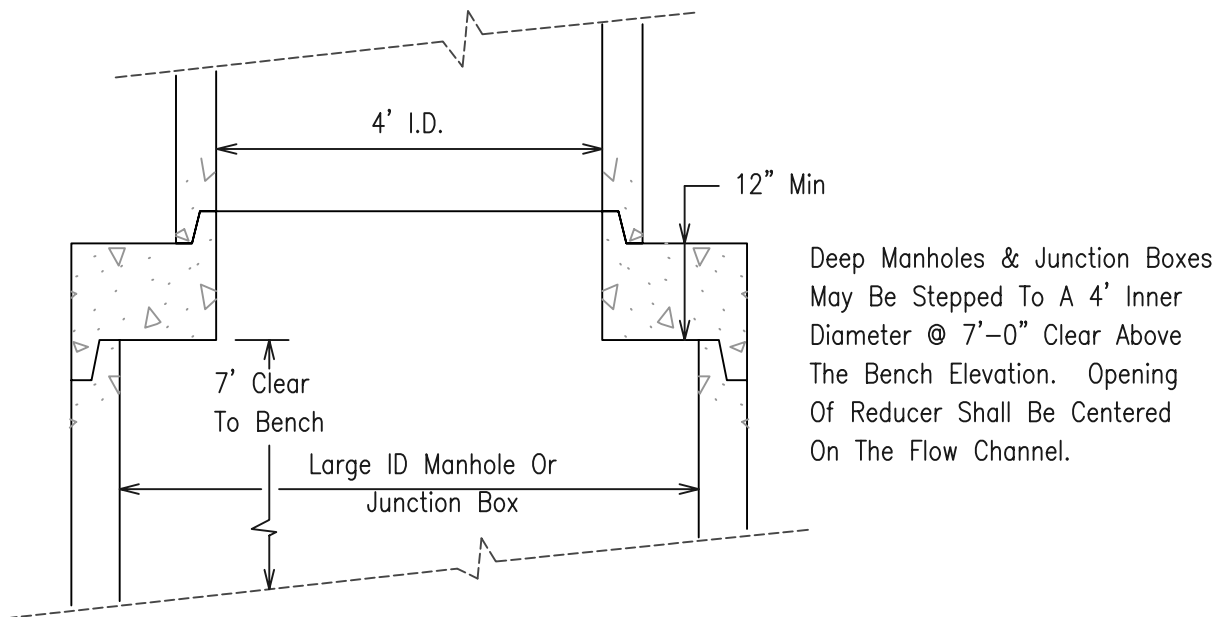
UNIFIED GOVERNMENT

UG 5000-B
2008 Edition

Revised on 7/30/2012
23 $\frac{1}{8}$ " on the MH lid was changed to 23 $\frac{1}{4}$ "



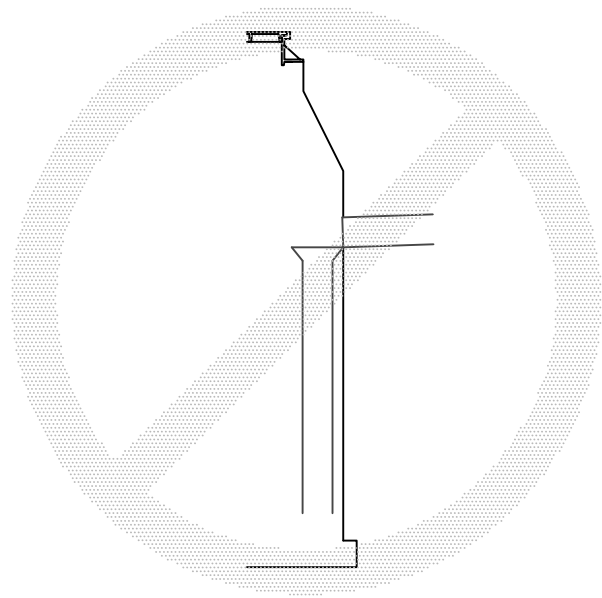
FLAT TOP MANHOLE, SHALLOW INSTALLATION



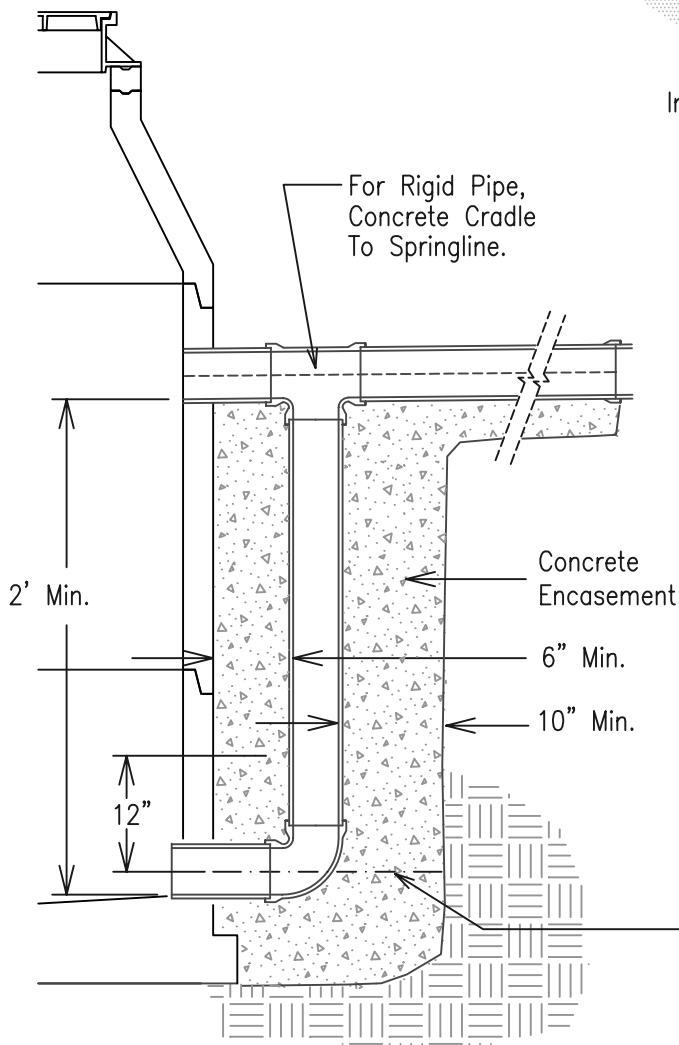
BARREL REDUCTION FOR DEEP MANHOLES

STANDARD MANHOLE DETAIL, SHEET 3 OF 3
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
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Inside Drops Are Not Allowed



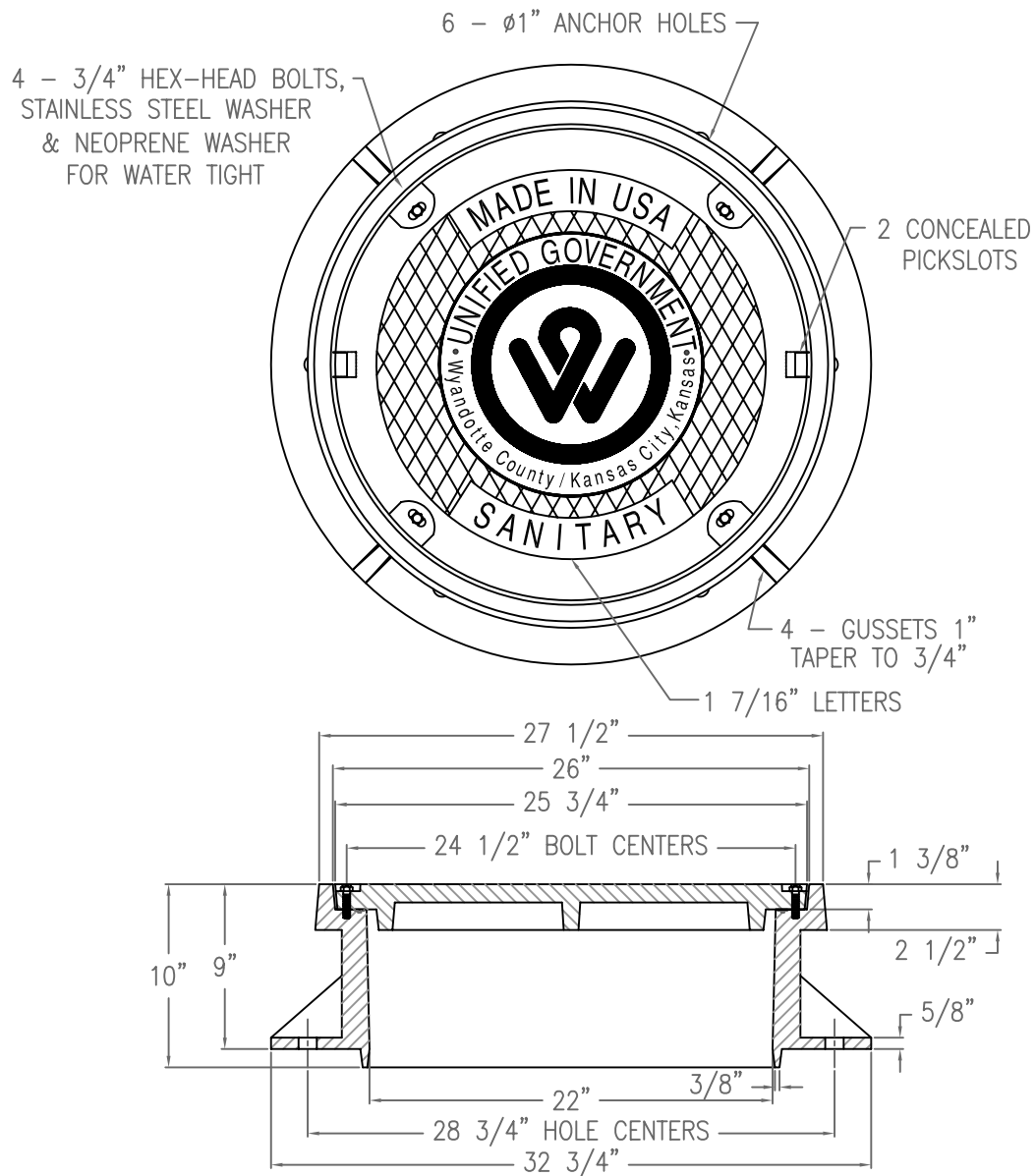
For Rigid Pipe,
Extend Cradle To 1st Joint
Past Point Where Trench
Reaches Allowable Width.

Drop Pipe Shall Be Same
Diameter & Material As Main.

Upper Limit for Encasement
for PVC Drop Pipe and Main
Remainder of Backfill Shall
Be Granular Material.

DROP MANHOLE DETAIL
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT

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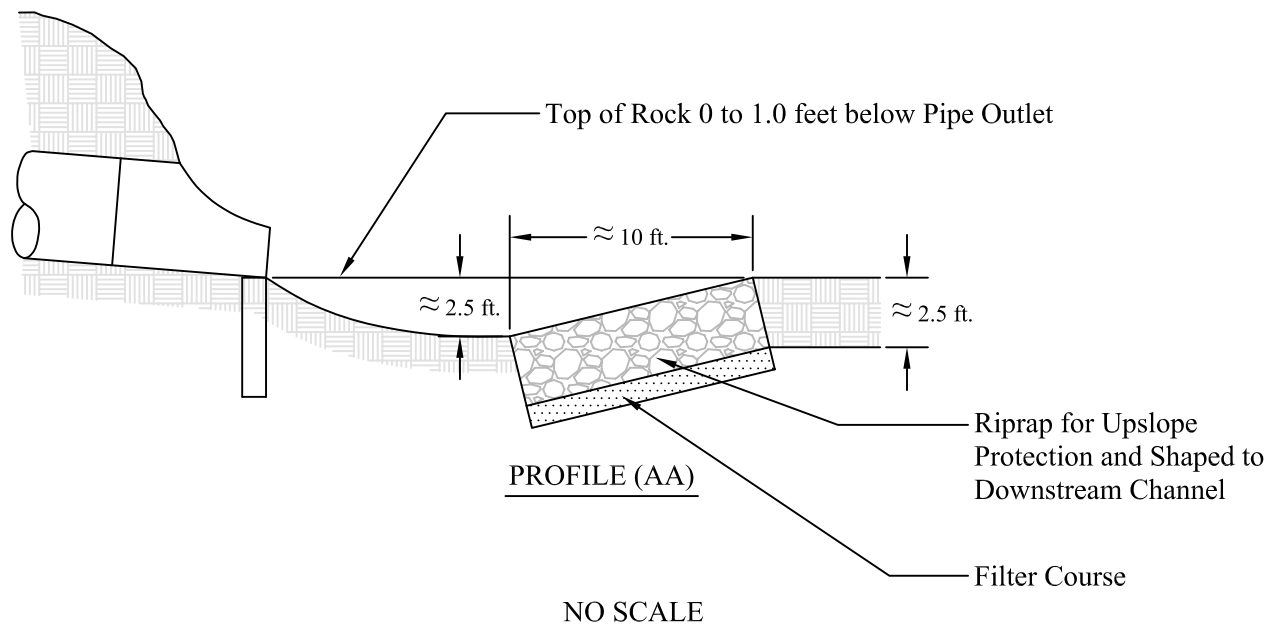
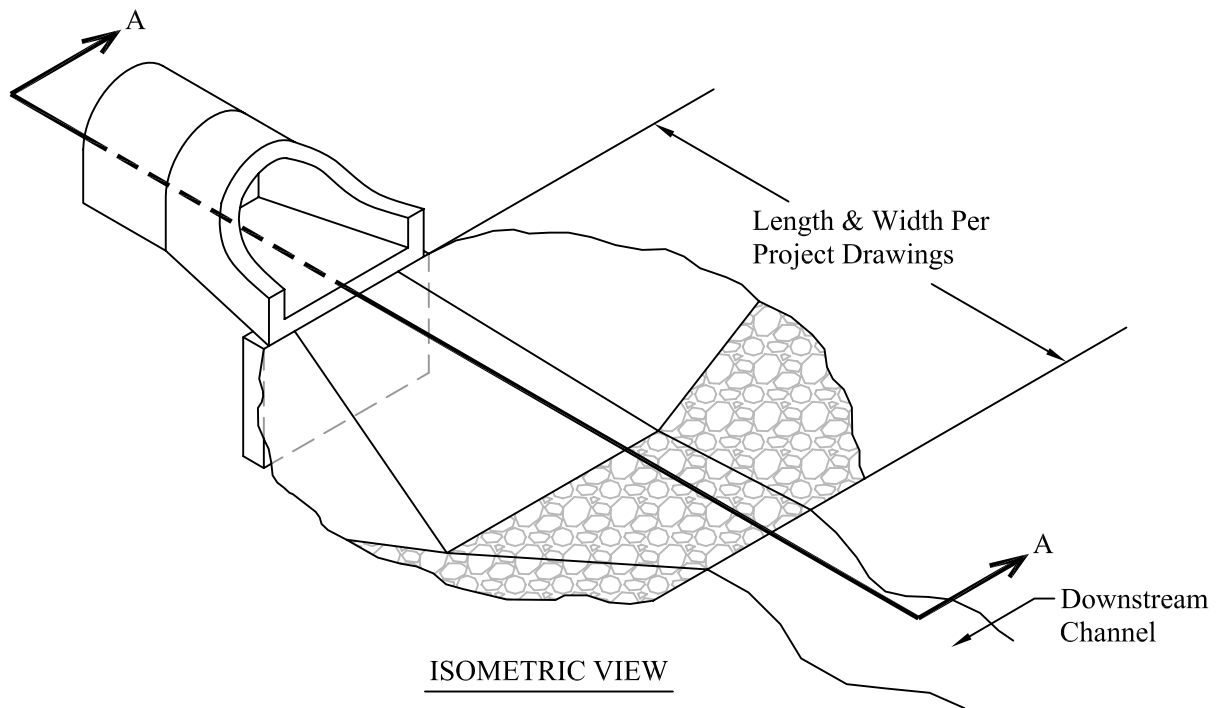
NOTES:

1. FURNISHED WITH MACHINED
HORIZONTAL BEARING SURFACE.
2. FURNISHED WITH T-GASKET.

MATERIAL:	CAST GRAY IRON ASTM A-48, CLASS 35B
FINISH:	NO PAINT
WEIGHT:	FRAME 310 LBS. COVER 195 LBS.

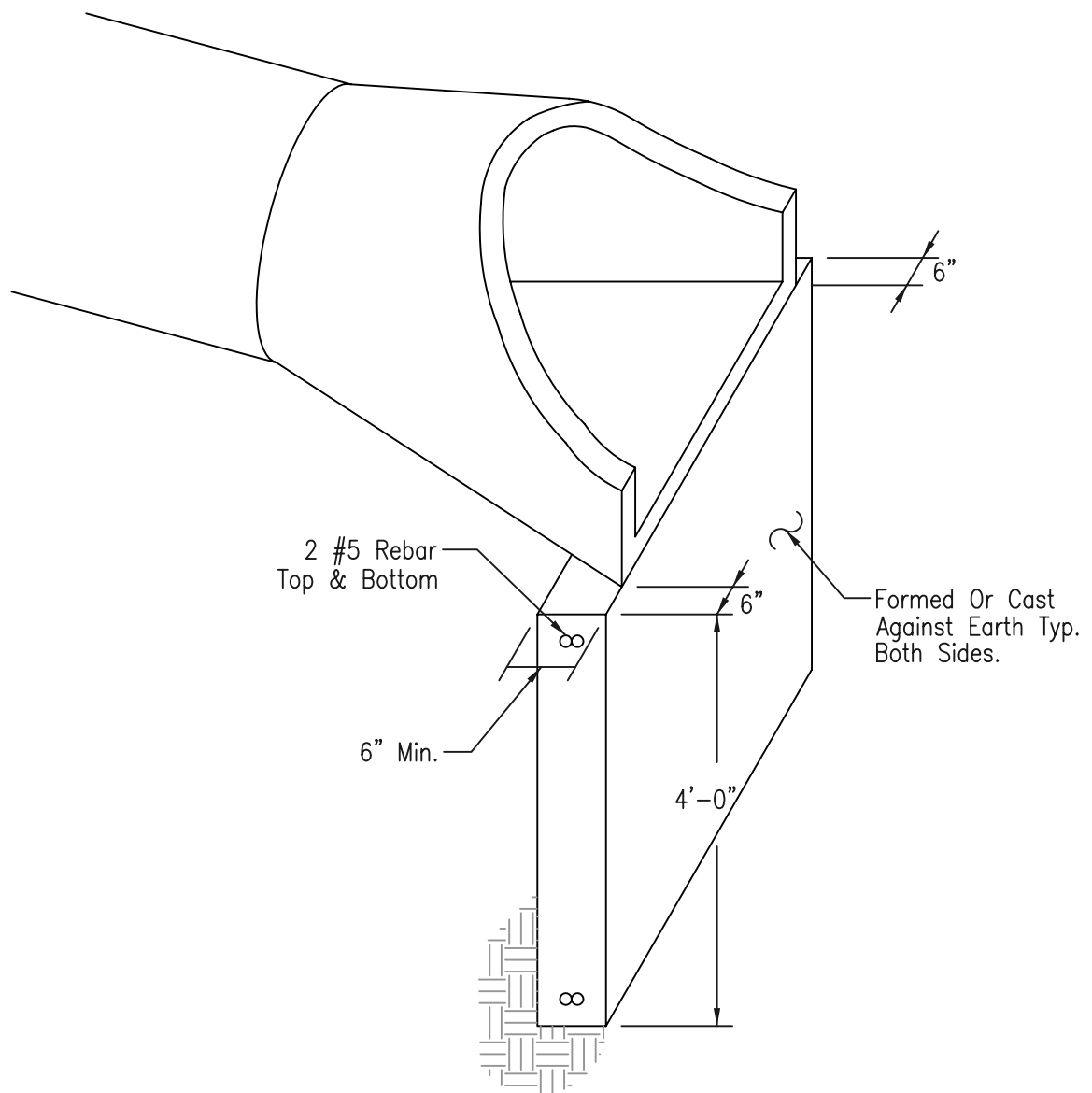
BOLT-DOWN MANHOLE DETAIL
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT

UG 5000-E
2008 Edition



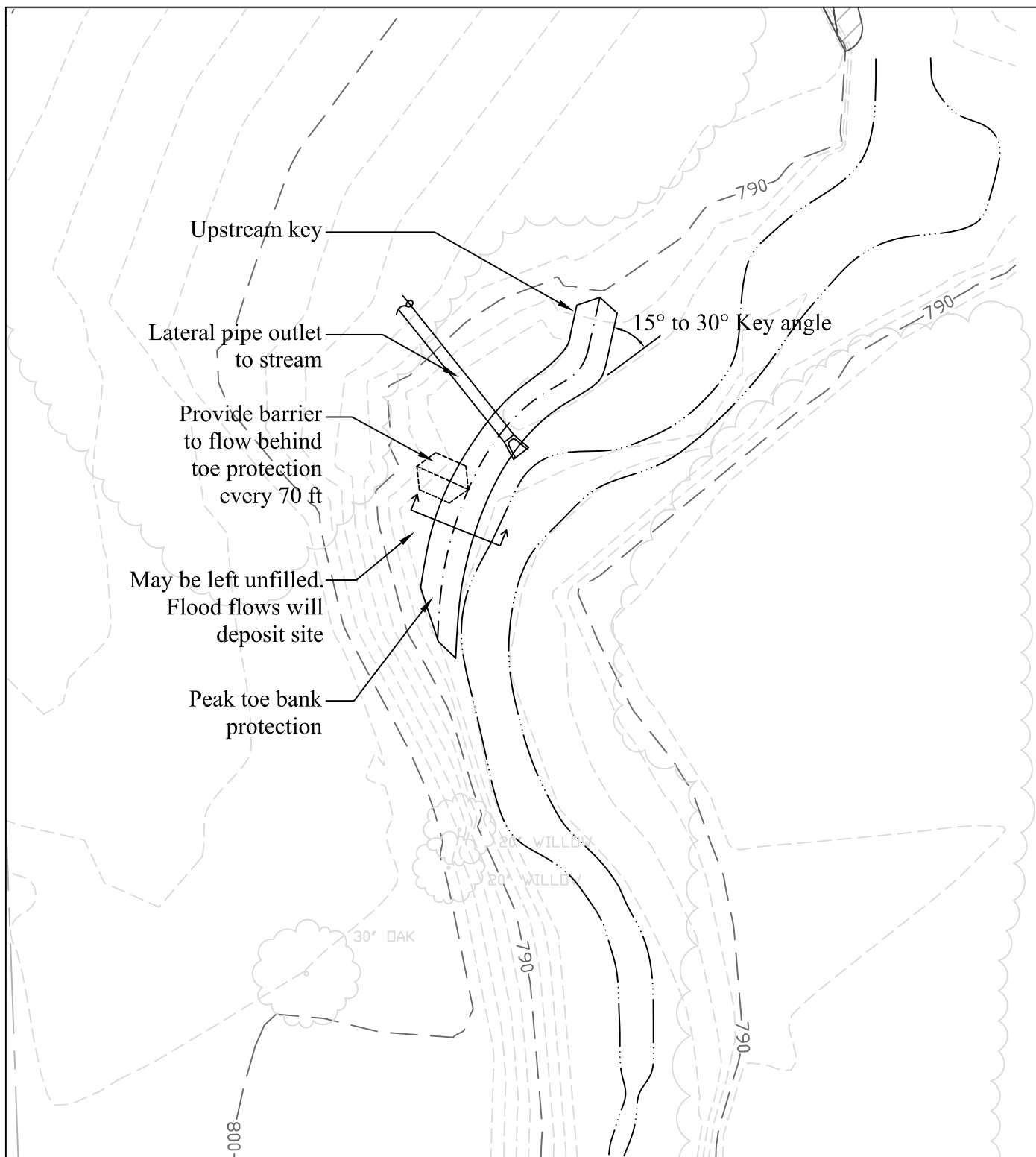
PLUNGE POOL FOR OUTLET IN LINE WITH STREAM
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT

UG 5200-A
2008 Edition



TOE WALL FOR FLARED END SECTION
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT

UG 5200-B
 2008 Edition

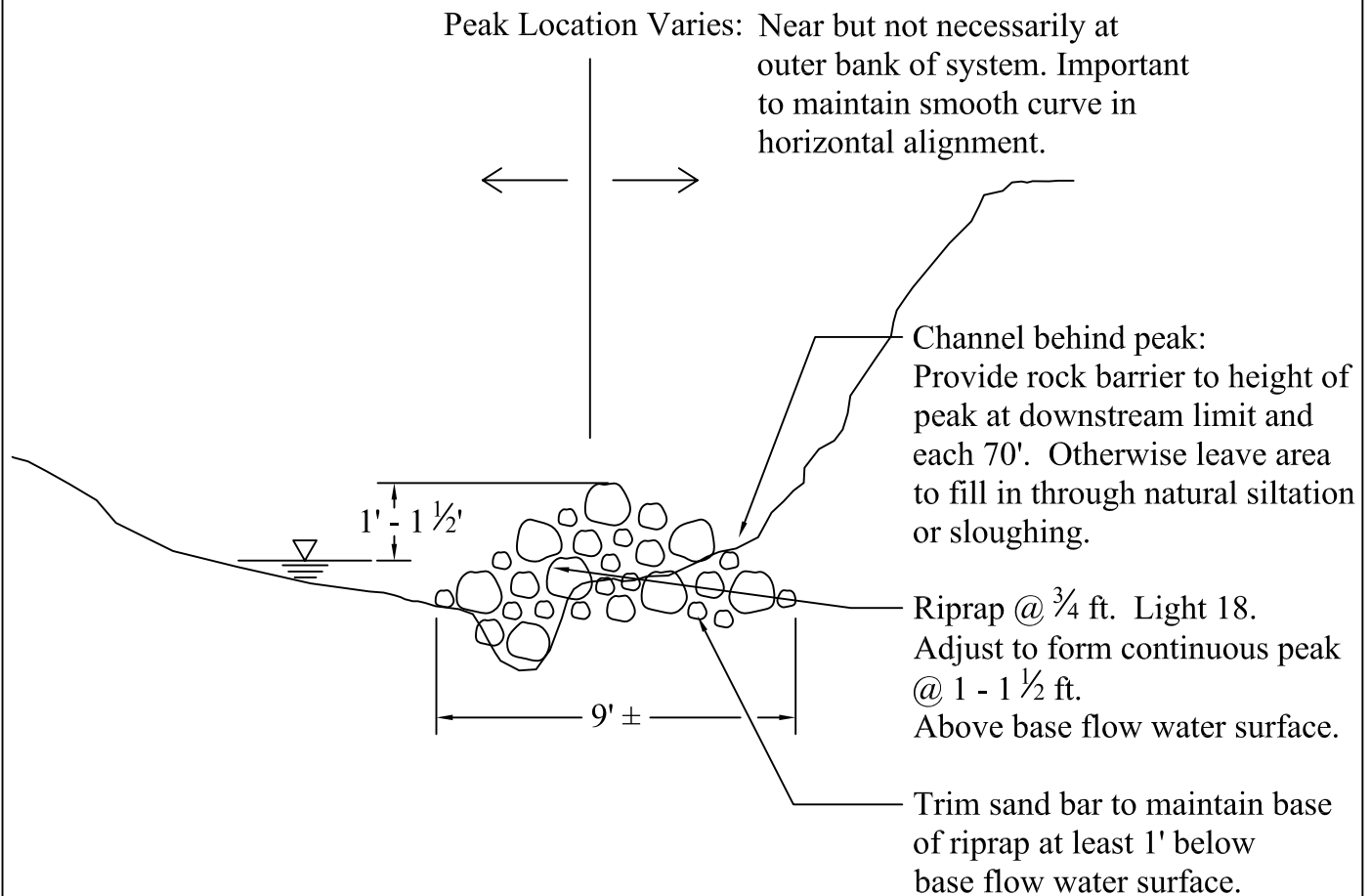


STORM SEWER OUTLET LATERAL TO STREAM, SHEET 1 OF 2
PLAN VIEW

PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION

UNIFIED GOVERNMENT

UG 5200-C
2008 Edition



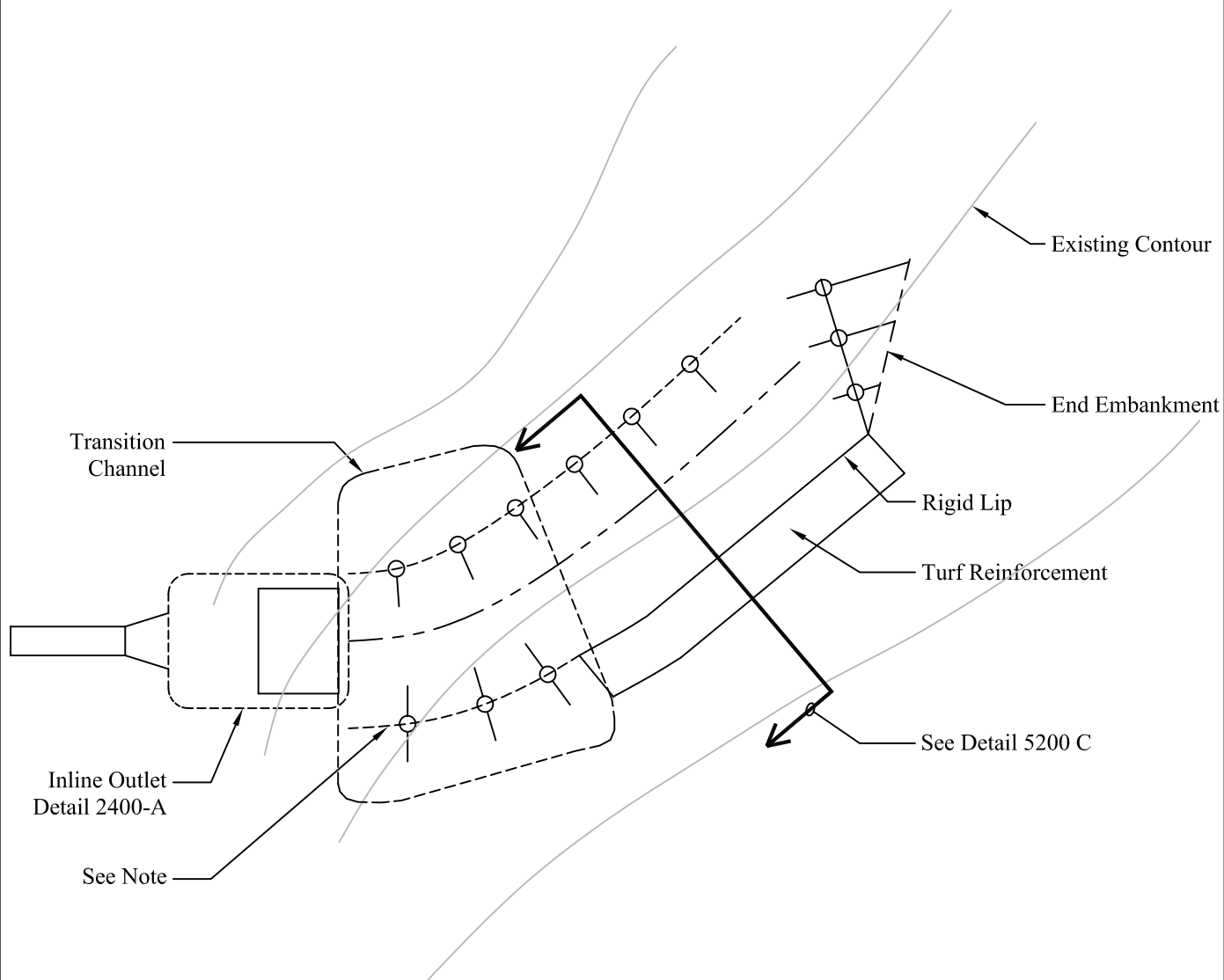
NO SCALE

STORM SEWER OUTLET LATERAL TO STREAM, SHEET 2 OF 2
TOE BANK PROTECTION

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UNIFIED GOVERNMENT

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NOTE:

Top Bank Of Transition Channel & End Embankment
To Be A Minimum Of 6" Above Rigid Lip.

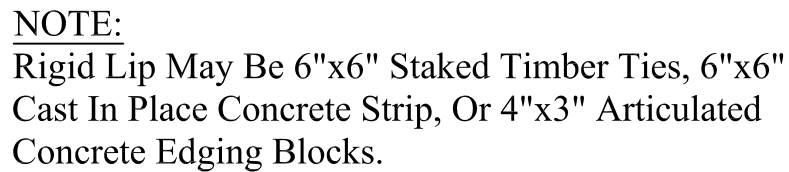
LEVEL SPREADER, SHEET 1 OF 2

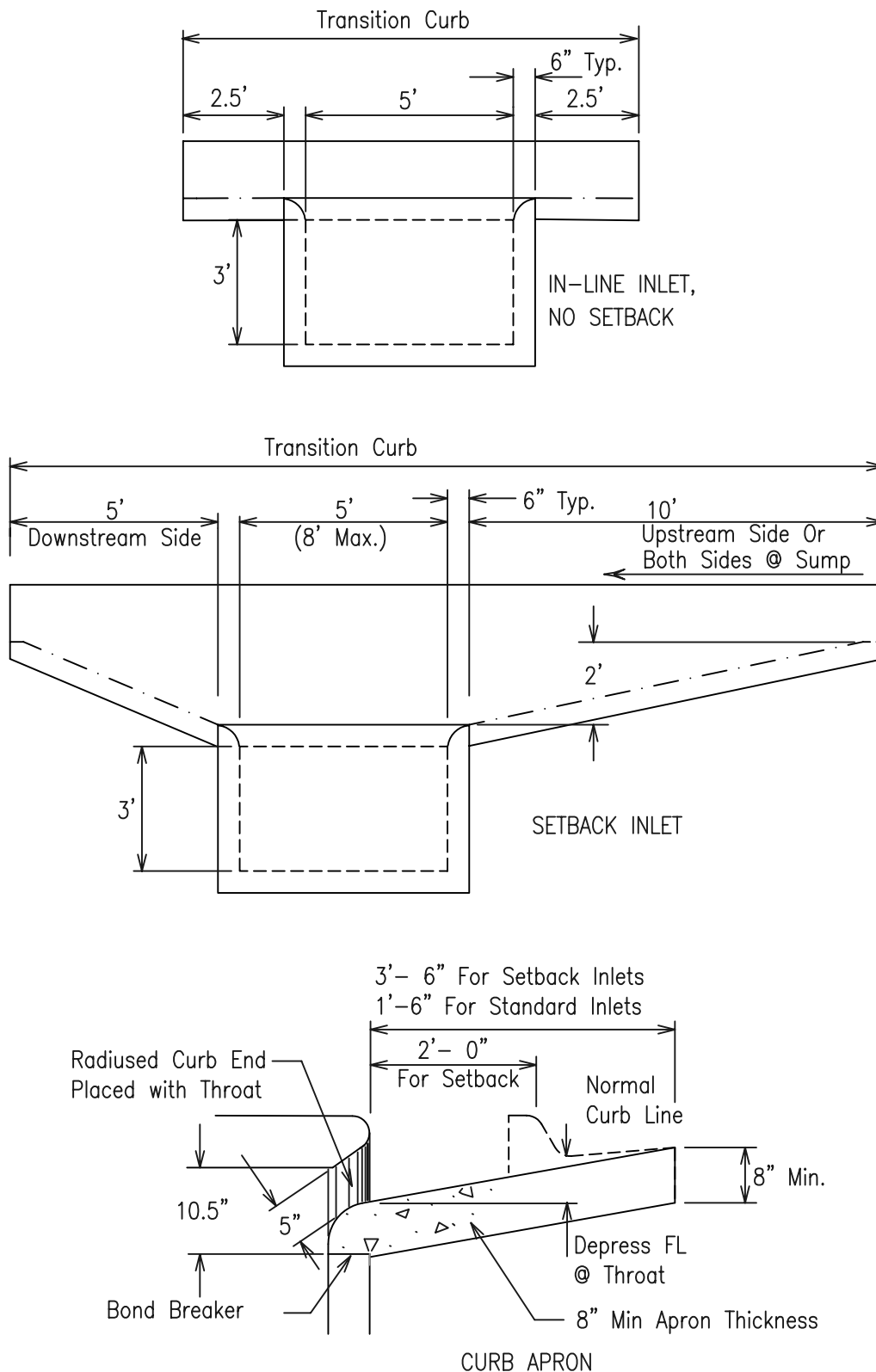
PLAN VIEW

PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION

UNIFIED GOVERNMENT

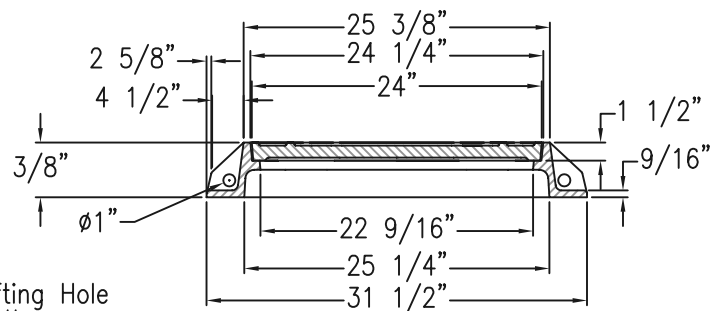
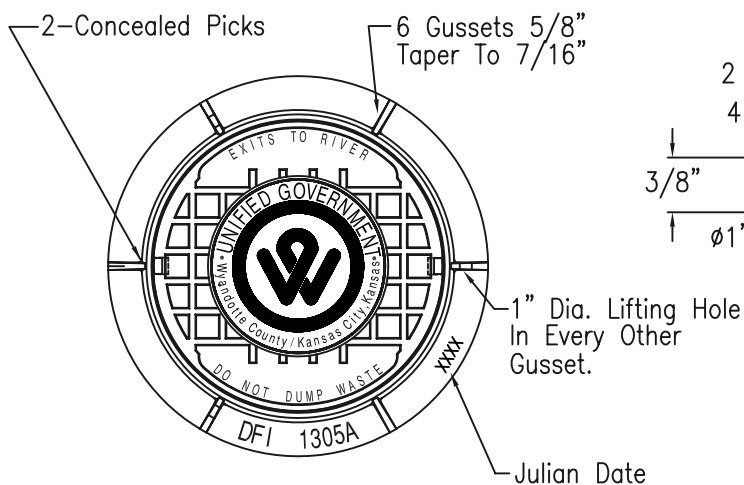
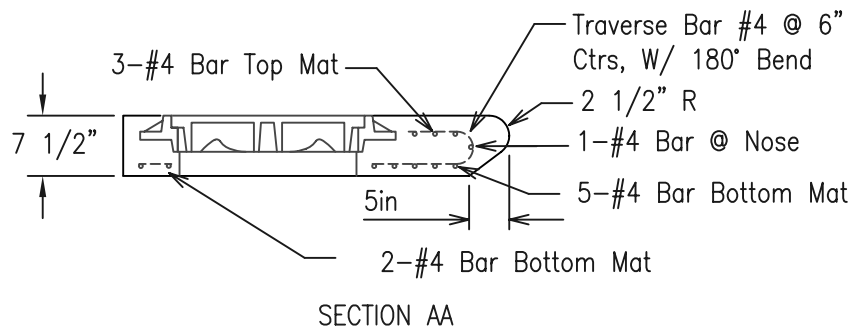
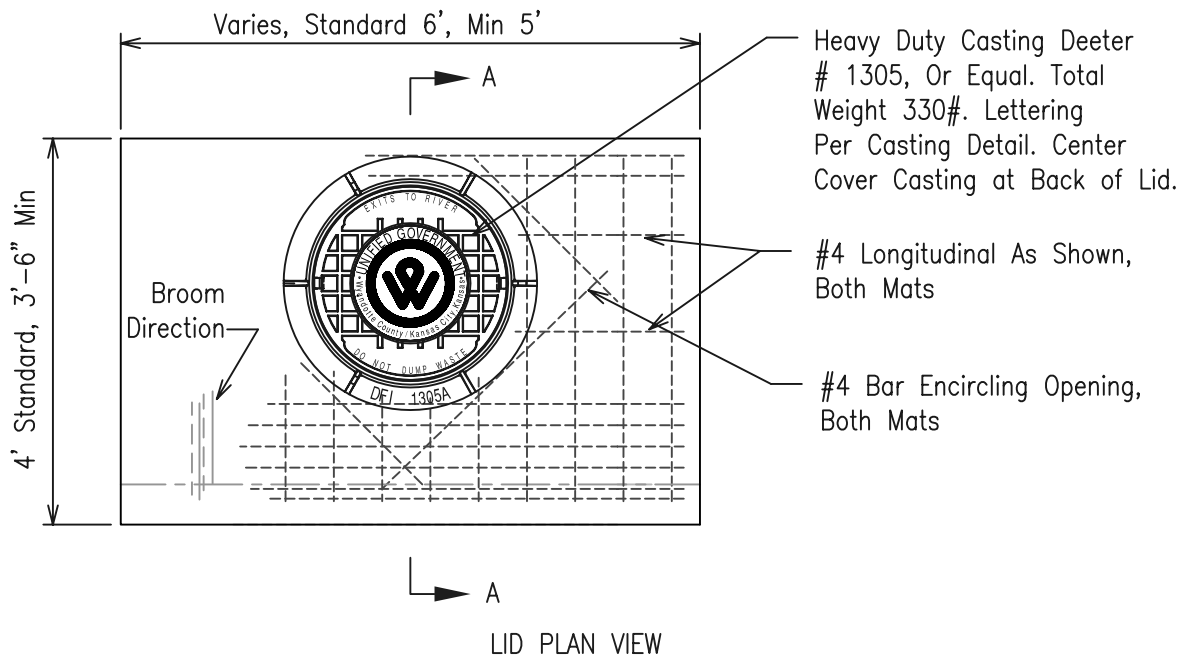
UG 5200-E
2008 Edition

UG 5200–F
2008 Edition



CURB INLET DETAIL, SHEET 1 OF 4
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT

UG 5500-A
 2008 Edition



NOTE:

- Furnished With Machined Horizontal Bearing Surface.

Material: Gray Cast Iron ASTM A-48, Class 35B.

Weight: Frame 110 Lbs.
Cover 135 Lbs.

Finish: No Paint

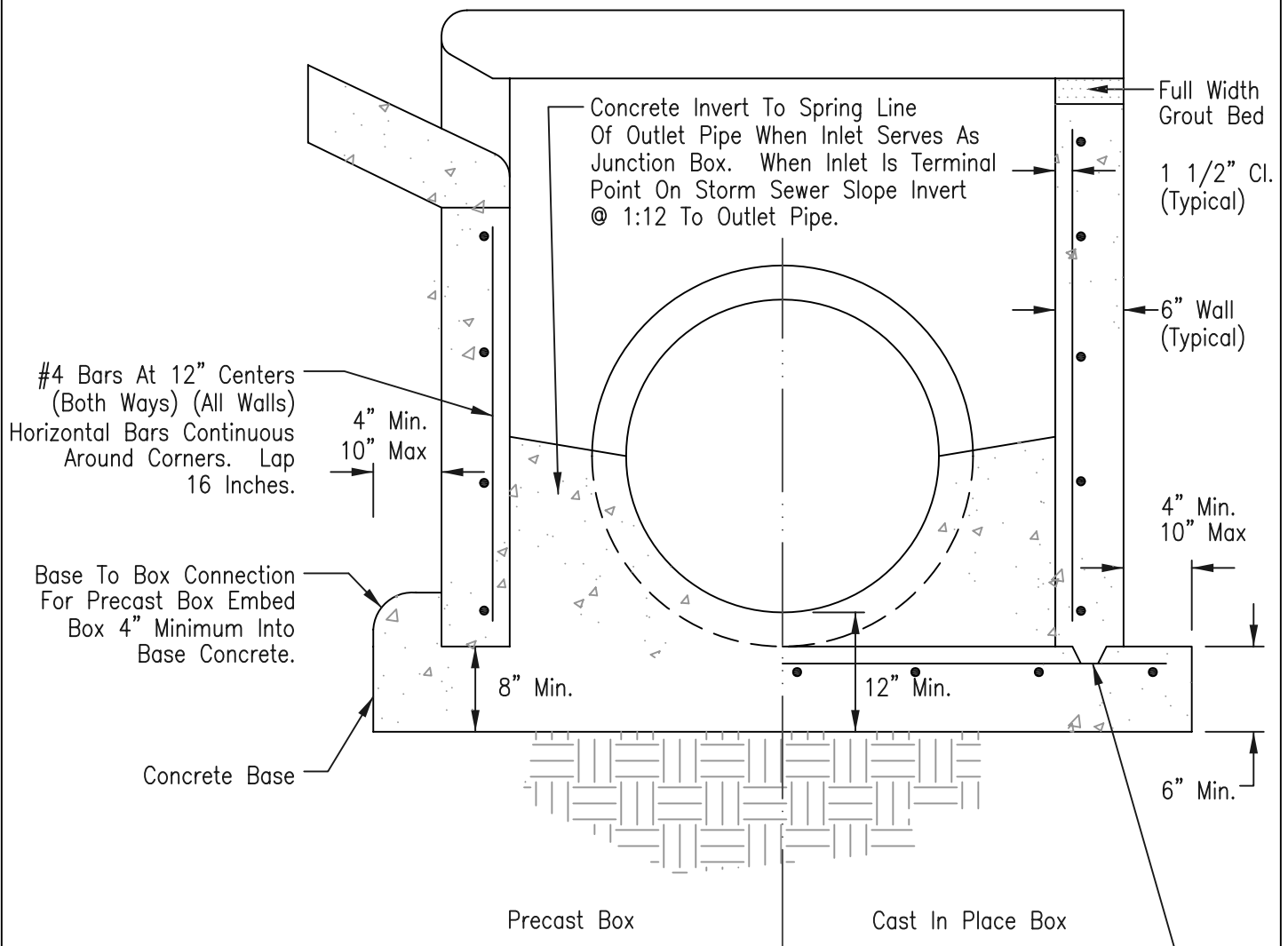
STANDARD CURB INLET CASTING (STORM)

CURB INLET DETAIL, SHEET 2 OF 4

PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION

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UG 5500-B
2008 Edition



NOTES:

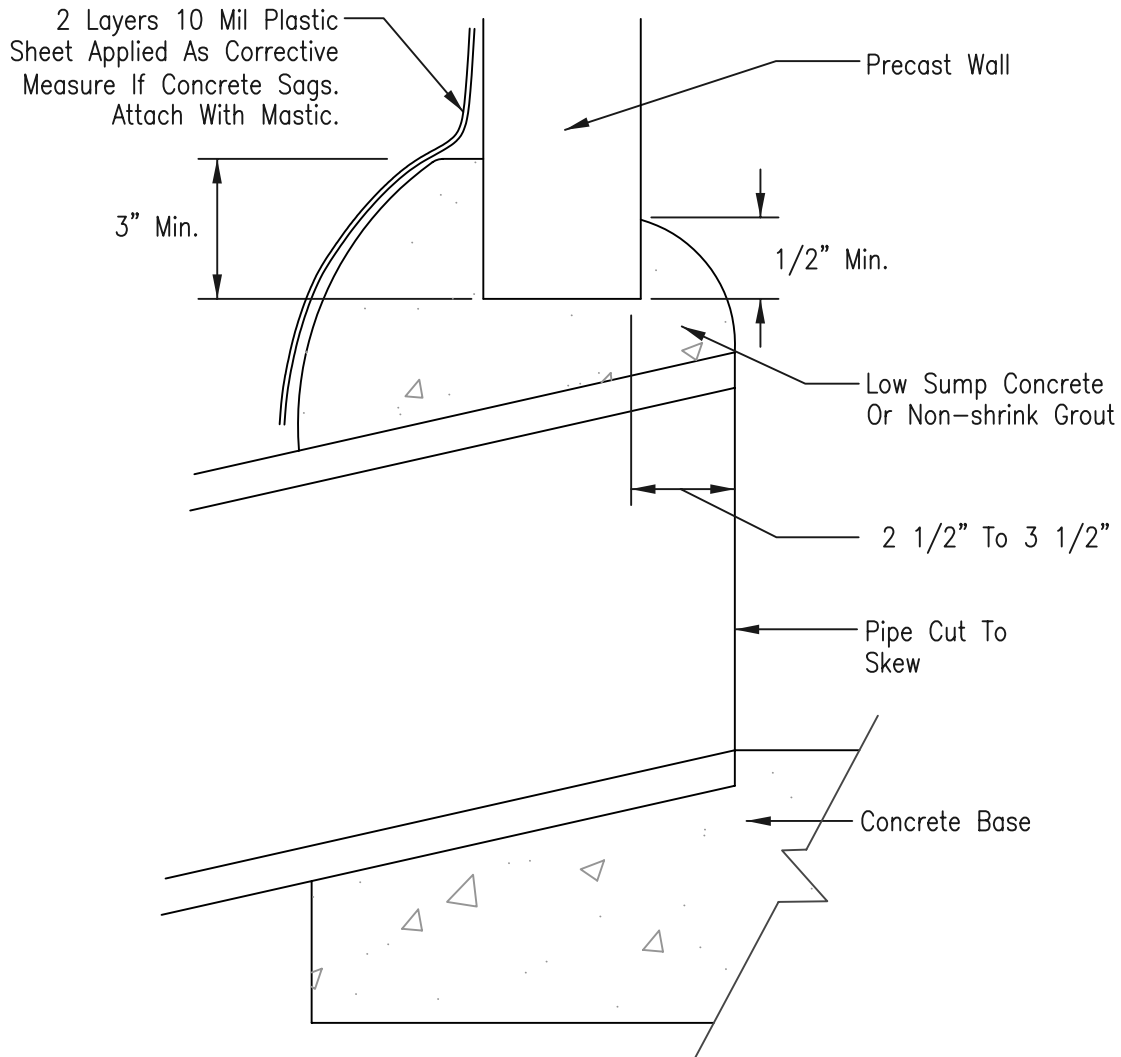
For Street Grades Up To 4% Tip Precast Box To Match Street Grade. For Grades Greater Than 4% Order Box With Appropriate Slope Across Top.

Precast Base May Be Used For Construction Of New Sewer Line But Shall Not Be Used For Replacement Of Existing Inlets.

Steps Not Required.

CURB INLET DETAIL, SHEET 3 OF 4
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT

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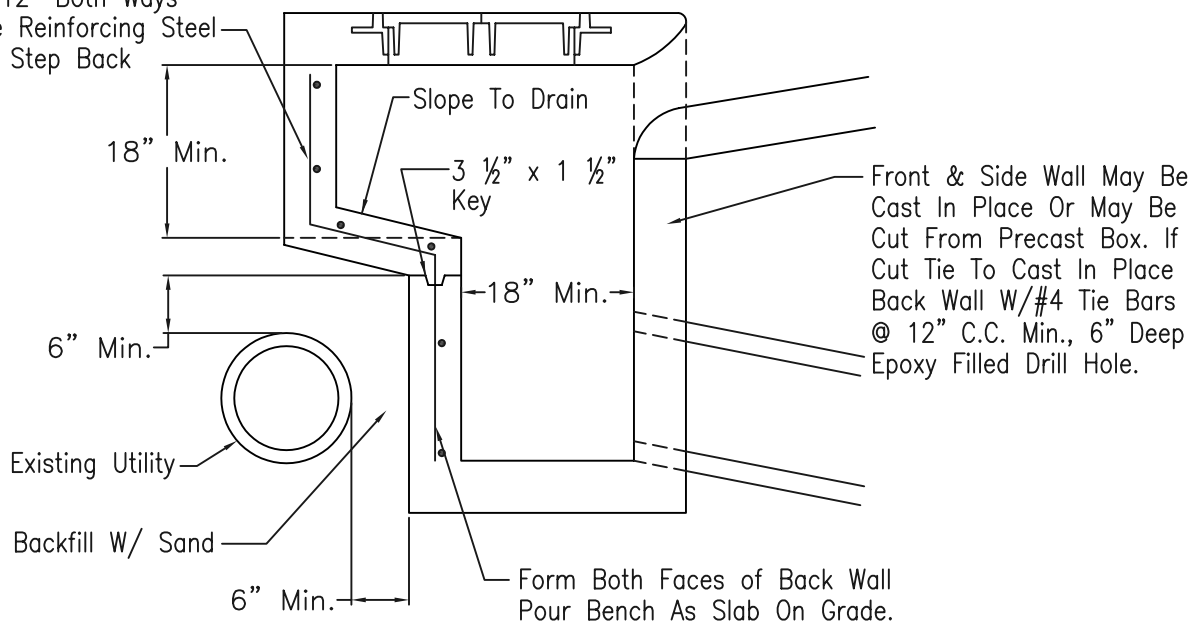
NOTES:

For Cast In Place Box, Place Pipe First &
Cast Wall To Fully Bond With Pipe.

CURB INLET DETAIL, SHEET 4 OF 4
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
UNIFIED GOVERNMENT

UG 5500-D
2008 Edition

4 @ 12" Both Ways
Continue Reinforcing Steel
Through Step Back
Section.



NOTES:

See Curb Inlet Detail For Other Requirements.

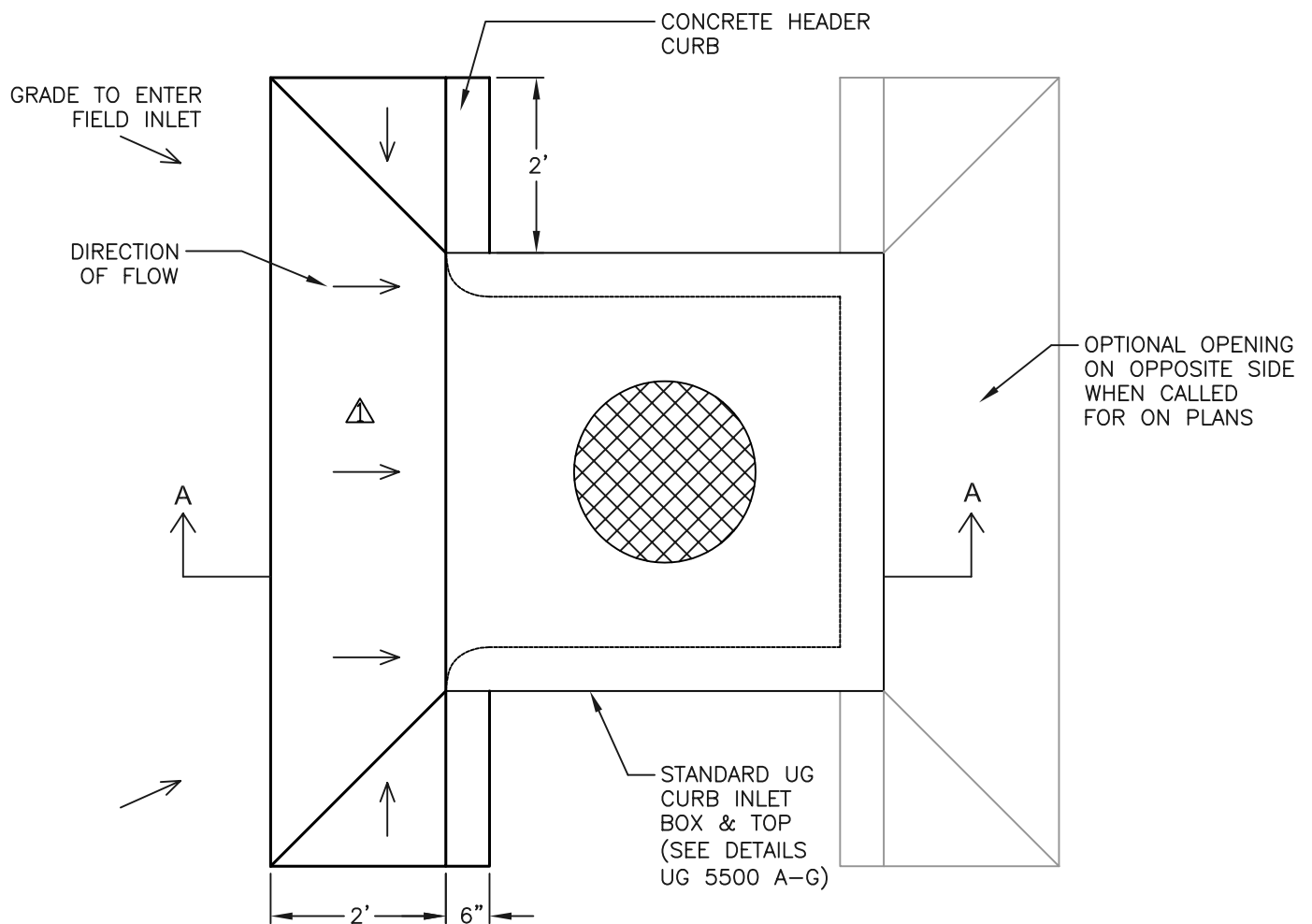
For Use Only When Approved By Engineer To Avoid Conflict With An Existing Utility.

STEPPED BOX DETAIL FOR CURB INLET

PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION

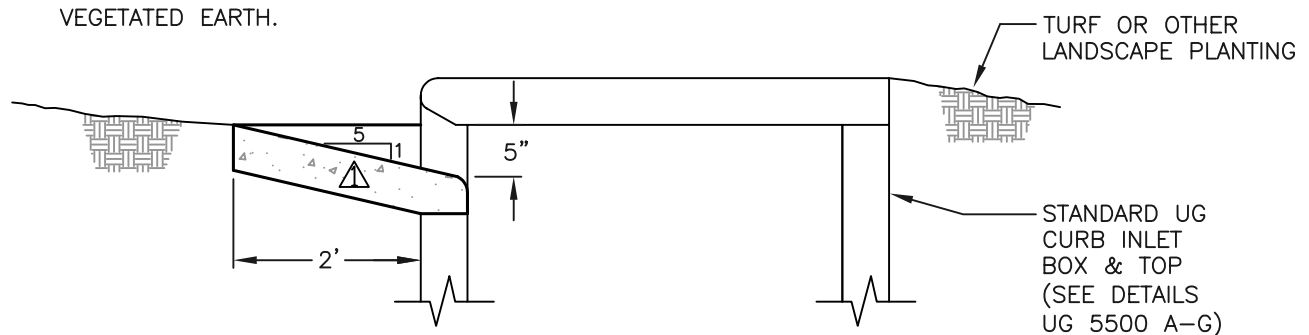
UNIFIED GOVERNMENT

UG 5500-E
2008 Edition



PLAN VIEW

NOTE: FIELD INLET IS A SIDE OPENING INLET LOCATED AWAY FROM PAVEMENT & SURROUNDED BY VEGETATED EARTH.



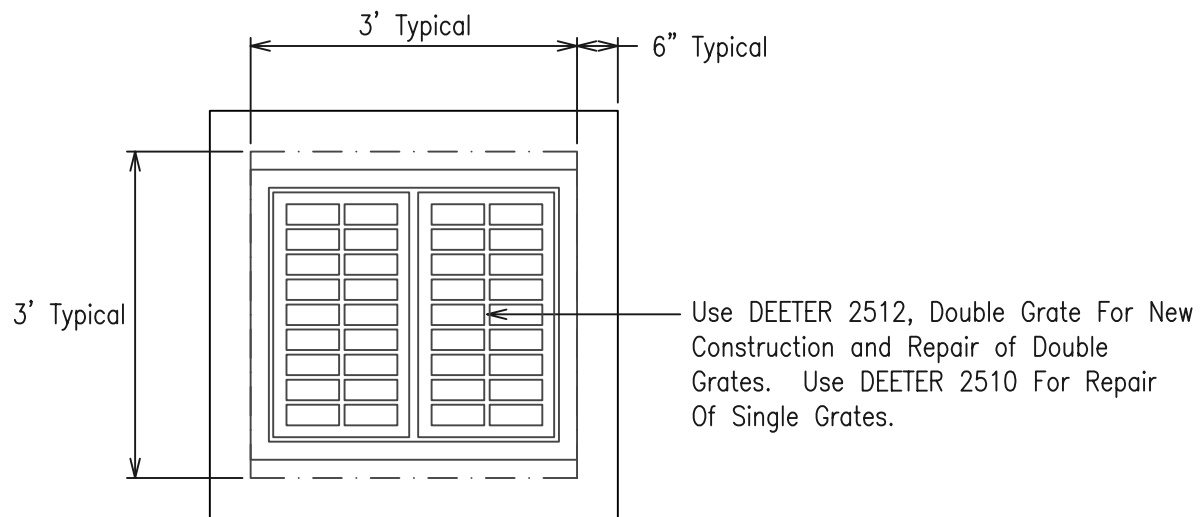
SECTION A-A

△ INSTALL CONCRETE THROAT IN ORIENTATION CALLED FOR ON PLANS

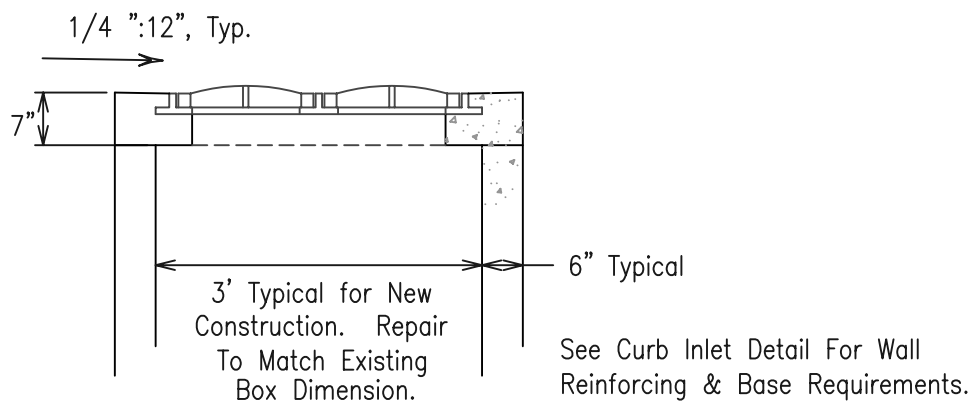
FIELD INLET

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UG 5500-F
2008 Edition



PLAN VIEW



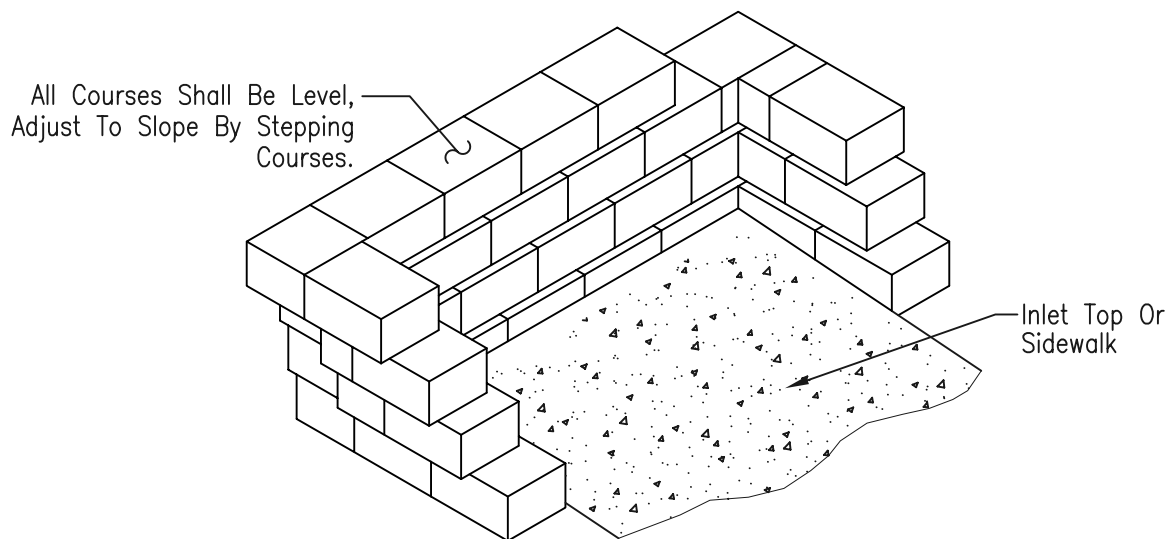
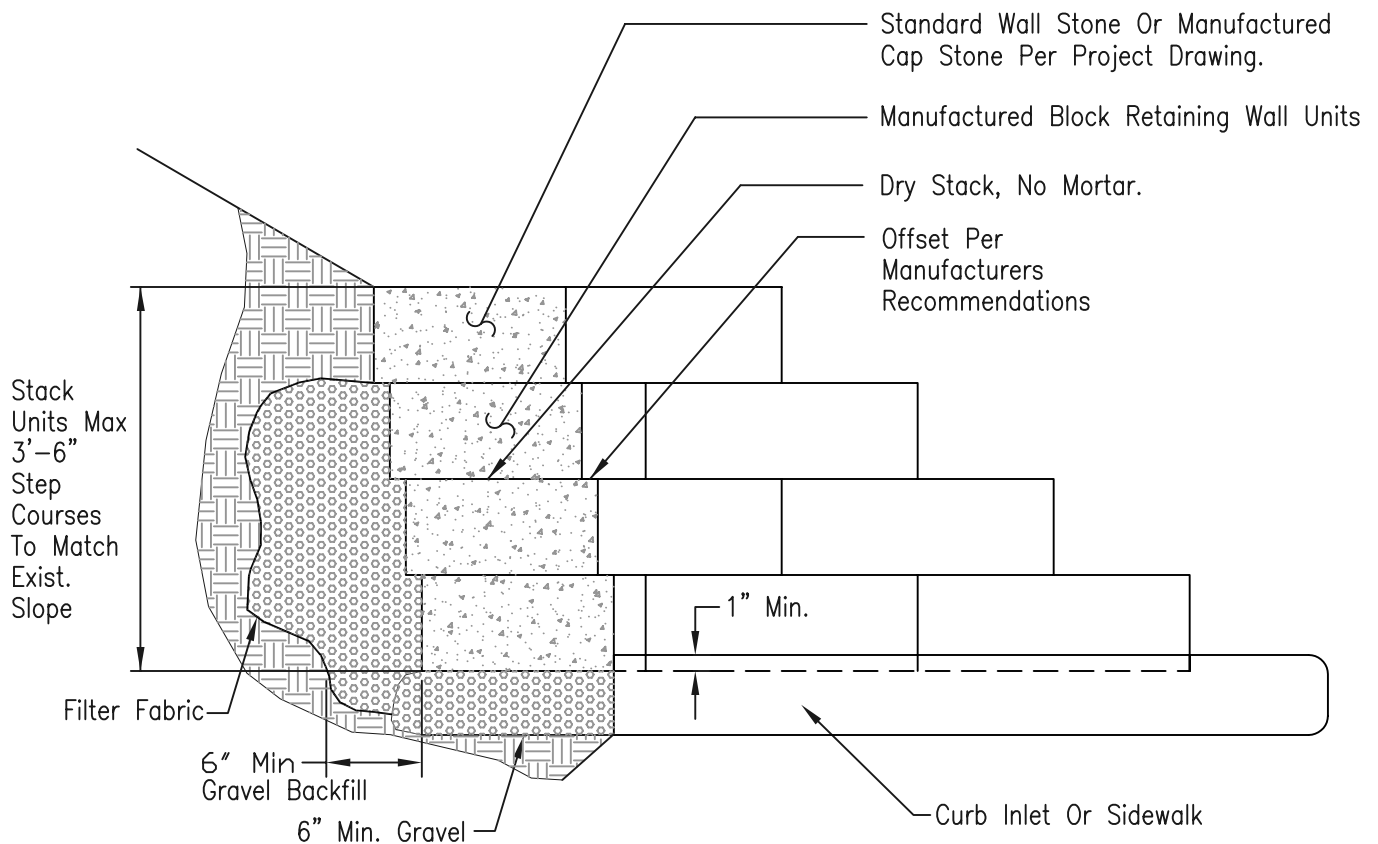
SECTION

NOTE:

Tops Cast Monolithic With Boxes
Are Acceptable.

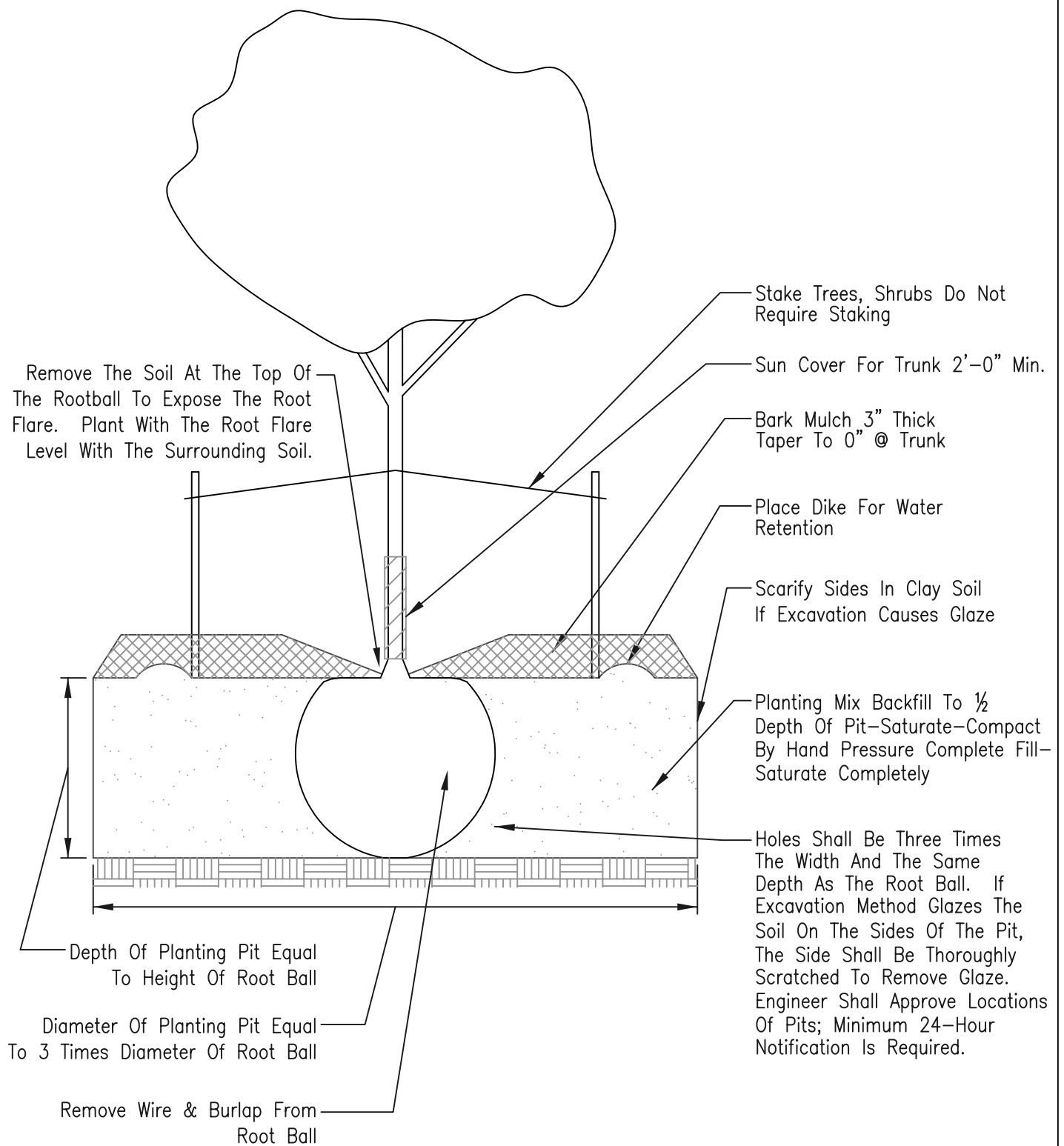
GRATED AREA INLET
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**MANUFACTURED BLOCK RETAINING WALL
FOR USE WITH INLET OR SIDEWALK
PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION
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TREE PLANTING

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