



# **CONTRACTOR HANDBOOK**

**TOWN OF CUMBERLAND, MAINE**

**PUBLIC WORKS DEPARTMENT**

**290 TUTTLE ROAD**

**CUMBERLAND CENTER, MAINE 04021**

**NOVEMBER 2013**

## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION.....</b>	<b>1</b>
<b>2.0</b>	<b>CONTACT INFORMATION.....</b>	<b>2</b>
<b>3.0</b>	<b>TOWN STREET MAP.....</b>	<b>3</b>
<b>4.0</b>	<b>RELATED ORDINANCE INFORMATION.....</b>	<b>4</b>
<b>5.0</b>	<b>PERMITTING PROCEDURES.....</b>	<b>5</b>
<b>6.0</b>	<b>STORMWATER COMPLIANCE.....</b>	<b>7</b>
<b>7.0</b>	<b>CONSTRUCTION PROCEDURES.....</b>	<b>10</b>
7.1	Site Work.....	10
7.2	Construction Timing.....	10
7.3	Quality Assurance and Quality Control.....	11
7.4	Coordination.....	12
7.5	Protection of Infrastructure.....	12
7.6	Trench Dewatering.....	13
7.7	Blasting.....	13
7.8	Erosion and Sedimentation Control.....	15
7.9	Culverts, Underdrain and Stormdrain Installation.....	16
7.10	Catch Basin and Storm Drain Manhole Installation.....	17
7.11	Trench Restoration.....	17
7.12	Pipe Material.....	18
7.13	Sanitary Sewer Structures.....	19
<b>8.0</b>	<b>TOWN INSPECTED WORK.....</b>	<b>21</b>
8.1	Sewer Connections.....	21
8.2	Underdrain Connections.....	21
8.3	Erosion Control Devices.....	22
8.3.4	Maintenance of Erosion Control Devices.....	22
<b>9.0</b>	<b>CONSTRUCTION SAFETY.....</b>	<b>24</b>
9.1	Work Zone Safety.....	24
9.2	Road Side Parking.....	24
9.3	Flaggers.....	25
9.4	Requirements for Construction Lasting More Than One Day.....	25
9.5	Shoring and Bracing.....	25
9.6	Environmental Protection.....	26

## **APPENDIX A Construction Details**

### **TAB: Erosion and Sedimentation Control**

1. Erosion Control Fence Detail
2. Level Spreader Detail
3. Lot Specific Soil Erosion Control Measures
4. Outlet Plunge Pool
5. Riprap Apron Detail
6. Riprap Slope Drain
7. Riprap Slope Protection
8. Road Ditch Turnout
9. Stabilized Construction Entrance
10. Stone Check Dam
11. Straw Bale Check Dam
12. Typical Slope Soil Stabilization

### **Tab: Stormwater**

1. Typical Installation for Driveways and Roadway Cross Culverts
2. Field Inlet Detail
3. Precast Conc. Catch Basin/Drain Manhole
4. Precast Conc. Catch Basin/Drain Manhole
5. Precast Concrete Catch Basin/Manhole
6. Precast Concrete Catch Basin-Type "F"
7. Precast Concrete/Granite Curb Inlet
8. Precast Concrete Sanitary Manhole

### **Tab: Sanitary Sewer**

1. Precast Concrete Sanitary Manhole
2. Precast Concrete Sanitary Drop Manhole

### **Tab: Trench Excavation**

1. Trench Detail
2. Typical Trench Paving Detail
3. Typical Trench Paving Detail
4. Typical Trench Section/Bldg. Construction
5. Typical Underdrain Trench Detail

### **Tab: Sidewalk, Driveway and Curb**

1. Sloped Granite Curb
2. Typical Sidewalk Section
3. Typical Tipdown Curb Installation
4. Vertical Granite Curbing
5. Bituminous Curb-Mold 2
6. Bituminous Transition Curb
7. "Cape Cod" sloped Face Bituminous Concrete Curb
8. Driveway Apron Detail

Tab: Miscellaneous

1. Guard Rail Detail
2. Timber Guard Rail Detail
3. Truncated Domes Detail
4. One-Way Pedestrian Ramp
5. Two-Way Pedestrian Ramp

**APPENDIX B** Stormwater Code of Ordinances

## **1.0 INTRODUCTION**

The Town of Cumberland has developed this Handbook to help contractors, citizens, engineers and others become familiar with the construction practices, permitting and other general requirements within the Town. This Handbook provides general contact information, references to ordinances, available/required permits, stormwater compliance information and instructions and details for utility installation, restoration and repair.

The procedure and details provided in this Handbook reference other standard documents such as the Maine Best Management Practices Manual, State of Maine Department of Transportation Standard Specifications and Details for Bridges and Highways along with references to Maine Department of Environmental Protection Chapter 500 Stormwater Regulations.

The information and references provided within this Handbook will be the basis for all Contractors working within the Town and conformance to Town standards will be required. It should also be noted that the Town of Cumberland reserves the right to issue and enforce Stop Work Orders if the Town determines there is risk to the life, health and safety of the public or if work or activity is in violation of Town requirements.

This handbook is for guidance purposes only. The information in this handbook does not supersede any town, state or federal ordinance, regulation or laws.

## 2.0 CONTACT INFORMATION

Town of Cumberland  
Municipal Offices  
290 Tuttle Road  
Cumberland Center, Maine 04021

### Office Hours

Monday – Wednesday	8:00 to 5:00
Thursday	8:00 to 6:00
Friday	CLOSED

Town Website                      [www.cumberlandmaine.com](http://www.cumberlandmaine.com)

Town Manager	Bill Shane	829-2205
Operations Manager	Christopher Bolduc	829-2205
Town Manager’s Executive Assistant	Brenda Moore	829-2205

Code Enforcement Officer	Bill Longley	829-2207
Building Inspector	Bill Longley	829-2207
Electrical Inspector	Stanford Brown	829-2207
Plumbing Inspector		829-2207

Public Service Director	Christopher Bolduc	829-2220
Public Services Administrative Assistant	Laura Neleski	829-2220

Planner	Carla Nixon	829-2206
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Fire Chief	Dan Small	829-5421
Fire Department Administrator		829-5421

Police Chief	Joe Charron	829-6391
Police Department Secretary	Jean Duchesneau	829-6391

MSAD 51 School Bus Transportation	207-829-4820
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Emergency Response	911
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Buckeye	207-767-2672
Maritime Northeast Pipeline	207-751-4090
Unitel	207-797-8002
Maine DEP Oil Spill Hotline	1-800-482-0777

### **3.0 TOWN STREET MAP**



## **4.0 RELATED ORDINANCE INFORMATION**

The Contractor shall be aware that work required on new development projects shall be in accordance not only with the construction documents, but also in accordance with the Town's Zoning Ordinances that regulate the design of new developments. While the contract documents should have been designed in accordance with these ordinances, additional information and design requirements may be found within the ordinances.

The ordinances can be found on line at [www.cumberlandmaine.com](http://www.cumberlandmaine.com). Once on the Town's website, select Departments/Planning and either:

- Zoning Ordinance
- Subdivision Ordinance
- Stormwater Ordinance

Within the zoning ordinance, erosion and sedimentation control standards can be found.

The Zoning Map is found in the ordinances.

The Contractor should be familiar with the ordinance requirements and/or confirm that the design provided to them meets the requirements of the Town.

## 5.0 PERMITTING PROCEDURES

The Contractor is required to obtain permits for various forms of work within the Town. These permits include, but are not limited to, building, electrical, plumbing, sewer connections, road opening, entrance location, posted road and sign permits. Copies of these permits are included in this Handbook but the most recent version should be obtained from the Code Enforcement Department. Other permits may be required for blasting, water main connection, septic systems and environmental work.

The Contractor shall always be responsible for contacting Dig Safe (1-888-DIG-SAFE or 1-888-344-7233) **prior to** performing **any** excavation activities. The Contractor shall contact the Code Enforcement Officer (CEO) to meet and discuss the appropriate permits.

Associated fees for these permits are included within this section.

The Town of Cumberland requires that when work is performed in a public right of way the Contractor must be adequately insured to protect the interests of the Town. When performing work within a public right of way the contractor shall maintain enforce for the duration of the work insurance of the type and limits as noted below.

Before work is started the Contractor will be required to file with the Town of Cumberland a Certificate of Insurance, executed by an insurance company or companies satisfactory to the Town and licensed by the State of Maine Insurance Department to do business in the State of Maine, stating that the Contractor carries insurance in accordance with the following requirements and stipulations:

- (a) Workers Compensation Insurance: With respect to all the operations the Contractor performs and all those performed for him by subcontractors, the Contractor or the subcontractor shall carry Worker's Compensation Insurance or shall qualify as a self-insurer with the State of Maine Industrial Accident Commission, all in accordance with the requirements of the laws of the State of Maine.
- (b) Commercial General Liability: With respect to all the operations the Contractor performs and also those performed for him by subcontractors, the Contractor shall carry regular Contractor's Public Liability Insurance, and Contractor's Protective Public Liability Insurance, including underground hazard and collapse each covering bodily injury liability on not less than one million dollars (\$1,000,000). The insurance certificated shall also name the Town as additional insured on Liability portions.
- (c) Automobile Liability Insurance: The Contractor shall carry Automobile Liability Insurance covering the operation of all motor vehicles, including those hired or borrowed, used in connection with the contract, covering bodily injury liability of not less than one million dollars (\$1,000,000) for all damages arising out of injury to or destruction of property in one accident or occurrence.

- (d) Blasting: Blasting Permits are required. When explosives are to be used in the prosecution of the work the insurance required under paragraphs (a), (b) and (c) above shall also contain provisions for protection, in the amounts stated, against damage claims due to such use of explosives. A pre-blast survey shall be completed before any blasting occurs.
- (e) Execution and Limitation: Each policy shall be signed by the President and the Secretary of the insurance company and shall be counter signed by a licensed resident agent in the State of Maine as an authorized representative of the company.
- (f) Claims: Each insurance policy shall state that the insurance company shall agree to investigate and defend the insured against all claims for damages, even if groundless.
- (g) Compliance: with the requirements of this subsection may be met by procurement of insurance covering all work performed in the right of way and may be met by procurement of separate insurance for each individual project scope. In either case a Certificate of Insurance shall be filed with the Town to show evidence that all required insurance has been obtained.
- (h) Termination or Change of Insurance: Each insurance policy shall be endorsed to provide that the insurance company shall notify the Town by certified mail at least 30 days in advance of cancellations or of any change in the policy. No change shall be made without prior written approval of the Town. The Contractor shall keep all the required insurances in continuous effect until 31 days after the dated of final acceptance of the project or until such time as may be established by the Town.
- (i) Contractual Liability Insurance: The Contractor shall carry Contractual Liability Insurance covering the liability he has assumed under the contract to indemnify and save harmless the Town of Cumberland, its officers and employees with respect to bodily injuries in or death of any person or persons or injury to or destruction of property. The limits for such insurance shall not be less than those specified for Commercial General Liability Insurance in paragraph (b) above.

It should be noted that all work that is performed within the Town's right of way shall conform to the latest performance standards of the regulating trade associations. For products or workmanship specified by association, trade, or Federal Standards, the Contractor shall comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.

The Town of Cumberland expects that work performed within the public right of way will be of acceptable and durable quality meeting applicable standards that will protect the Town from undue future maintenance and upkeep costs. Accordingly the Contractor will be required to provide the Town a one (1) year warranty for workmanship and materials for the work performed. Work that fails the Town standards within the warranty period will be repaired by the Contractor within sixty (60) days and the repaired work shall meet the Town's requirements.

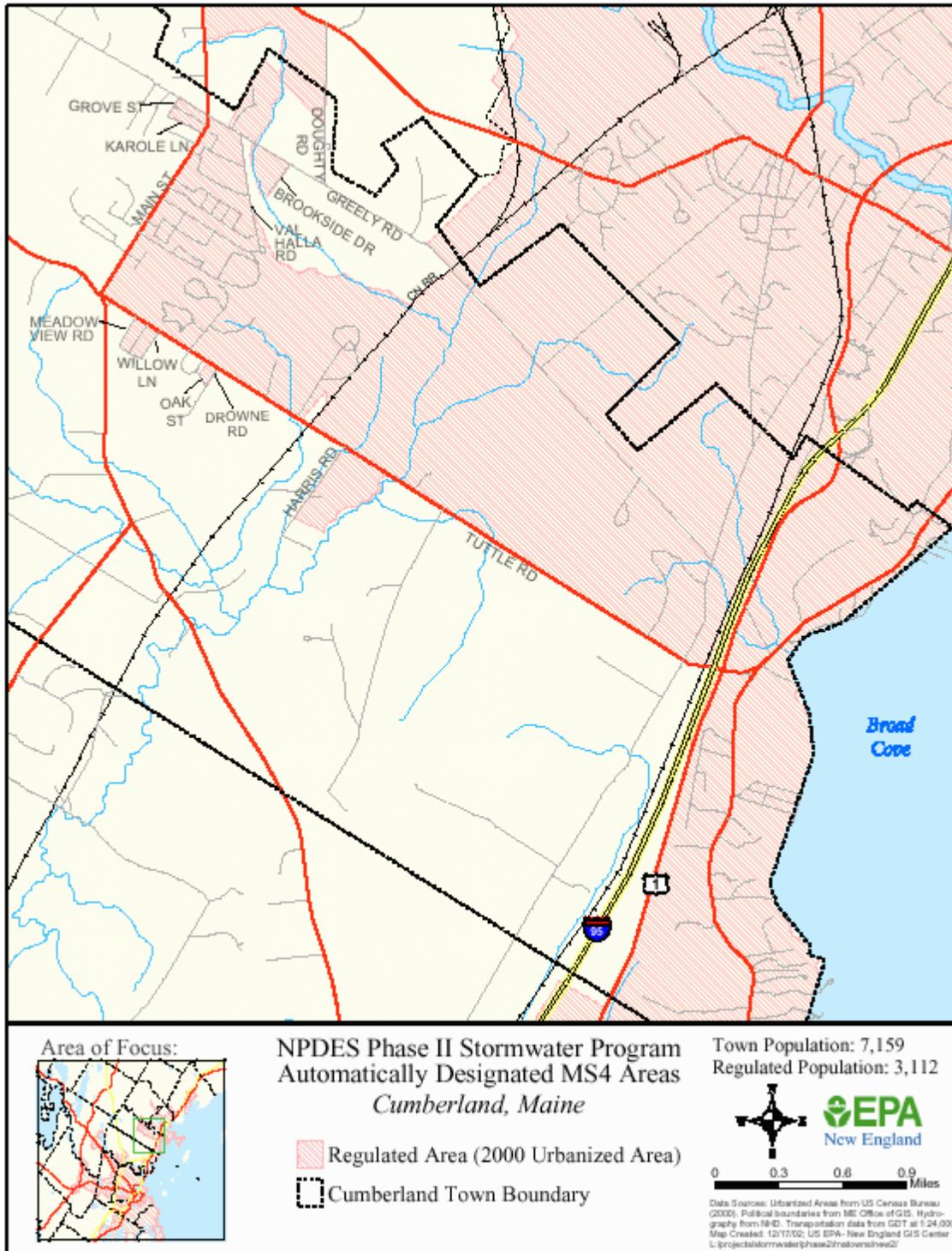
## 6.0 STORMWATER COMPLIANCE

In 2003 the Town of Cumberland's urban area (See Figure 1) became regulated by the Environmental Protection Agency and later the Maine Department of Environmental Protection under the National Pollution Discharge Elimination System (NPDES) program for storm water discharge. Cumberland was required to submit a Notice of Intent (NOI) to be covered under a five (5) year General Permit allowing storm water discharge to the waters of the State of Maine. In 2013 Cumberland filed another NOI for a renewed five year general permit and as part of the newest permit, the Town was required to develop and implement a Stormwater Management Plan, which was submitted to the Maine DEP on September 19, 2013.

Cumberland's Stormwater Management Plan defines six (6) Minimum Control Measures (MCM's) that specify generally what the Town will do to address stormwater pollution impacts to receiving waters in the Town's urban area. These MCM's include public education and outreach; public involvement and participation; illicit discharge detection and elimination; construction site stormwater runoff control; post construction stormwater management in new development and redevelopment; and pollution prevention/good housekeeping for municipal operations.

The goal of the NPDES permitting program and Cumberland's Stormwater Management Plan is to mitigate and minimize pollution impacts from non-point source stormwater runoff by managing the municipal storm drain system to the best extent practical. This is intended to be achieved by implementing the six MCM's and the associated Best Management Practices (BMP's) as they relate to stormwater runoff.

The BMP's include a wide range of practices that will change the way stormwater runoff is perceived and managed to mitigate pollution impacts. These BMP's include educating the public on how their activities may negatively impact stormwater runoff and how they can change their activities or practices to minimize or mitigate pollution impacts. BMP's also include the adoption of municipal rules that require the good management practices of developments and landowners within the urban area as well as good housekeeping by municipal operations, such as public works garages and other high impact municipal operations. The BMP's also require construction operations to provide erosion and sedimentation control during their construction activities as well as regular inspection of erosion control measures for functionality. Additionally BMPs require that municipalities provide regular inspection, maintenance and repair of their storm drain infrastructure which will minimize impacts to receiving waters.



Cumberland, Maine Urbanized Area  
**FIGURE 1**

The Town of Cumberland requires that all construction activities that occur within the Town's boundaries comply the latest edition of the Maine Erosion and Sediment Control BMP Handbook as well as the latest Chapter 500 Stormwater regulations. This includes the Urban Area as well as the remaining area of the Town. Please refer to the Maine Department of Protection for the latest copy of the Maine Erosion and Sediment Control Handbook as well as the most current Chapter 500 Stormwater regulations at [www.maine.gov/dep/](http://www.maine.gov/dep/).

To protect the Town's receiving water resources, it is imperative that prior to disturbing existing stabilized ground surfaces that erosion and sedimentation control BMP's are installed as per the required standards. It is the responsibility of the person disturbing the ground surface to furnish and install the required erosion and sedimentation control BMP's.

Installation of the BMP's is not the end of the requirements. To properly function, it is important that the BMP's be maintained on a regular basis. Prior to expected storm events, the BMP's should be inspected by a competent person and any needed repairs made. Following significant storm events, the BMP's should be inspected again to ensure that they are functional and do not require maintenance. A significant storm event is defined as one half inch of rainfall or greater. It is suggested that a log of all inspections and maintenance activities performed be kept by the responsible person.

The Town of Cumberland also prohibits the discharge of non-stormwater or non-groundwater to its storm drain infrastructure as well as receiving waters. This includes both the Town's closed or piped drainage system as well as the Town's open drainage system or "ditch" system. Please refer to Cumberland's Stormwater Discharge Ordinance for specific requirements regarding the connection to the Town's drainage infrastructure (See Appendix B). It should be noted that this ordinance only applies to the Urban Area within the Town (see Figure 1).

The Town of Cumberland also requires that significant development projects that have a post development impervious area greater than one (1) acre and are located within the Urban Area (See Figure 1), provide post construction maintenance and inspection of the storm water BMP's. The Town's ordinance also requires that the inspection and reporting of the storm water BMP activities be performed by a competent person as defined by the Ordinance. The Town ordinance requires that each owner/operator shall annually submit the required report by March 1<sup>st</sup> to the Town. A copy of the Town's Post Construction Stormwater Management Ordinance is included in Appendix B.

## **7.0 CONSTRUCTION PROCEDURES**

### **7.1 Site Work**

7.1.1 The contractor shall be responsible for maintaining the construction site and work zone in a clean, orderly and safe condition at all times. The contractor shall provide the required signage, barricades, shoring and bracing, labor and other equipment to ensure the health and safety of the public, the Contractor and his employees and others in or adjacent to the work site.

7.1.2 The Town reserves the right to issue and enforce a Stop Work Order when the Town Manager or his designee determines that a violation of the Town's requirements have occurred or is occurring or if a clear threat to the health and safety of the public or a threat to the property of the Town or adjacent property owners exists. The Contractor shall be required to immediately address the Town's concerns and shall perform whatever actions are necessary to remedy the violation or mitigate the threat as required by the Town.

### **7.2 Construction Timing**

7.2.1 Construction Season: Non emergency construction activities that require excavation in the Town's right of way shall be performed between the dates of April 1<sup>st</sup> and November 15<sup>th</sup>. Excavation after November 15<sup>th</sup> yet prior to December 15<sup>th</sup> may be performed if special authorization is obtained from the Town Manager or his designee, which will be dependent on the contractor's ability to obtain hot mix asphalt for excavation temporary repair prior to the winter shutdown.

7.2.2 Emergency Excavations: The Town may authorize excavation in the Town right of way during the winter season on an emergency basis (as determined by the Town Manager or his designee) for emergency utility repair or other required excavation at the sole discretion of the Town.

7.2.3 Winter Shutdown: At the discretion of the Town Manager or his designee, the Contractor shall be responsible for suspending construction activities on excavation projects in the Town right of way during the winter season. Winter shutdown shall be from November 15<sup>th</sup> until April 1<sup>st</sup>. At the Town Manager's sole discretion these dates may be adjusted depending on weather conditions.

- During winter shutdown all excavation in the Town right of way shall cease and all areas of disturbed pavement shall be patched with two inches of temporary hot mix asphalt if a permanent repair has not been made. All areas of temporary pavement patch shall be removed and the trench edges shall be saw-cut prior to installing the permanent base course pavement patch.

- The contractor shall remove all equipment, vehicles, shoring, materials and material stockpiles, barricades and other construction obstacles from the public right of way during winter shutdown to facilitate snow plowing operations.
- The Contractor shall be responsible for ensuring that all existing and newly installed infrastructure is stabilized and functional during the winter shutdown. Any flooding and damage that occurs as a result of the Contractor's inaction or activities shall be the responsibility of the Contractor. All catch basin frames and grates shall be set to accept runoff and at no time shall the Contractor be allowed to shed storm water runoff onto private property. The Contractor shall be responsible for cleaning, safeguarding, stabilizing and maintaining all storm drain infrastructure within the project scope during winter shutdown.
- Following winter shutdown and prior to acceptance by the Town, the Contractor shall clean all sediment and debris from any new storm drain infrastructure as required.
- All labor, materials, equipment and tools required by the Contractor to implement winter shutdown as specified by this Handbook and the Town Manager or his designee shall be considered the Contractor's responsibility.

### 7.3 Quality Assurance and Quality Control

7.3.1 All work that is performed in the Town's right of way shall be of first rate quality workmanship and shall meet all applicable codes and trade standards. All work shall be performed by individuals that are licensed in their respective trades as required by State and Federal law or by local ordinance.

7.3.2 All work that is performed in the Town of Cumberland shall meet all applicable codes and regulations as required by local, State and Federal requirements, including, but not limited to, the National Electric Code (NEC), National Fire Protection Association (NFPA), American Association of State Highway and Transportation Officials (AASHTO), Maine Department of Transportation (MDOT), American National Standards Institute (ANSI), American Society for Testing and Materials (ASTM), Portland Water District; Maine Plumbing Code and pertinent building codes.

7.3.3 All materials that are used within the Town right of way shall be of first quality and shall meet all applicable codes and trade standards as required by local, State and Federal requirements. At a minimum, all materials used within the Town right of way shall meet the requirements of the Maine Department of Transportation Standard Specifications (latest edition), the Standard Details (latest edition) and the standard details shown in this handbook.

## 7.4 Coordination

7.4.1 The Contractor shall be responsible for providing all coordination with Town departments including, but not limited to, Police, Fire, Public Works and the Cumberland emergency dispatch service. The Contractor shall also be responsible for coordinating with all utilities, both underground and overhead, SAD 51 (school bus service), area residents and businesses when performing work in the Town right of way.

7.4.2 It should be noted that both high pressure natural gas and high pressure petroleum transmission pipelines are present in Cumberland. The Contractor is responsible for coordinating with the owners/operators of these utilities when excavating within 100 feet of the pipelines.

7.4.3 Contact information can be found in Section 2.0 of this Handbook.

## 7.5 Protection of Infrastructure

7.5.1 The Contractor shall be responsible for protecting all existing utility infrastructure when working in the Town of Cumberland. This includes underground, at grade and overhead infrastructure. The Contractor shall be responsible for all damage and costs associated with infrastructure damage resulting from the Contractor's activities or negligence.

7.5.2 The Contractor shall be responsible for protecting and safeguarding all property pins, road control monuments and survey control markers. The Contractor shall be responsible for the cost of the re-establishment of any disturbed markers by a State of Maine Professional Land Surveyor.

7.5.3 **With the exception of private or public utilities, typically the Town of Cumberland owns all materials that exist within the right of way.** At the discretion of the Town Manager, the Town will maintain ownership of surplus materials that are removed or relocated as a result of work within the right of way. Surplus materials that the Town wishes to retain shall be transported by the Contractor to a location within the Town boundaries at no cost to the Town. At a minimum, the Town will retain ownership of materials including, but not limited to, the following: granite curb, granite Belgian pavers (cobblestones), catch basin frames and grates, manhole frames and covers and granite inlet stones and pavement. All surplus material not retained by the Town shall be disposed of by the Contractor as required by local, state and federal requirements.

## 7.6 Trench Dewatering

7.6.1 The Contractor shall provide adequate dewatering of all excavations such that no hazard is posed to adjacent utility infrastructure and property. At no time shall the contractor discharge groundwater or surface water from any dewatering operations into a sanitary sewer.

7.6.2 The Contractor shall receive permission from the Town prior to discharging any effluent from excavation dewatering operations to a Town owned storm sewer or road ditch system. The Contractor shall ensure that any effluent discharged will be free from silt, sediment, oil, grease or other deleterious material before discharging to a Town system.

7.6.3 At no time shall the Contractor discharge dewatering effluent to a waterbody, wetland or a Town owned storm drain/ditch system without providing Best Management Practice (BMP) treatment to the effluent to ensure that no soil, silt, sediment, oil, grease, sewerage, or other deleterious material is discharged to the environment.

## 7.7 Blasting

7.7.1 The Contractor should be aware that all blasting and items relating to blasting shall be under the direct supervision of the Code Enforcement Officer, William Longley available at (207) 829-2205. No work related to blasting shall begin without written authorization of the Cumberland Code Enforcement Officer. A Pre-Blast survey will be provided to the town.

7.7.2 Explosives: The Contractor shall keep explosives on the site only in such quantity as may be needed for the work underway and only during such time as they are to be used. The Contractor shall notify the Town, in advance, of his intentions to store and use explosives. Explosives shall be stored in a secure manner and separate from all tools. Caps or detonators shall be safely stored at least 100 feet distant from the explosives. When the need for explosives has ended all such materials shall be removed promptly from the work site. The Contractor shall observe all local ordinances, State and Federal laws relating to the transportation, storage and use of explosives. In the event that a licensed blaster is required by law, then said blaster shall maintain his license on the physical premises during the work and shall provide examination of the license to the Town as required.

7.7.3 Blasting Precautions: All operations involving explosives shall be conducted with all possible care to avoid injury to persons and property. Blasting shall be done only with such quantities and strengths of explosives and in such a manner as will break the rock in approximately the lines and grades required and yet will leave the rock not excavated in an un-shattered condition. Care shall be taken to avoid excessive cracking of the rock upon or against which any structure will be built, and to prevent injury to existing pipes, utilities or other structures and property above or below ground. Rock shall be well covered with adequate soil or blasting mats or both when required. Sufficient warning shall be given to all persons in the vicinity of the work before a charge is detonated. All blasting shall be completed within a distance of 50 feet before any portion of a masonry structure is placed or any pipe is laid.

Any site where electric blasting caps are located or where explosive charges are being placed or have been placed shall be designated as a “Blasting Area”. A “blasting area” within three hundred (300) feet of any traveled way shall be marked by approved signs with the information similar to the following:

**“BLASTING AREA – TURN OFF RADIO TRANSMITTERS”**

and on the reverse side:

**“END OF BLASTING AREA”**

The Contractor shall notify each public utility company having structures in proximity to the site of work of his intention to use explosives and such notice shall be given sufficiently in advance to enable the companies to take sufficient precautions to protect their property from injury. Such notice shall not relieve the contractor of responsibility for any damage resulting from his blasting operations.

All persons within the danger zone of blasting operations shall be warned by the Contractor and no blasting shall be done until the zone is cleared. Flaggers shall be furnished by the Contractor and stationed such that traffic may be stopped during blasting operations.

The Contractor shall be liable for all damages to persons and property caused by blasting or explosions or arising from neglect to properly guard and protect the excavations and all portions of the work, and he shall wholly indemnify the Town against all claims and such account. A pre-blast survey shall be completed at the expense of the Contractor prior to any blasting.

7.7.4 Blasting Records: The Contractor shall keep and submit to the Town an accurate record of each blast. The record shall show the general location of the blast the depth and the number of drill holes the kind and quantity of explosive used and other pertinent data for a complete record.

## 7.8 Erosion and Sedimentation Control

7.8.1 Erosion and Sedimentation Control shall be installed in accordance with the recommendations of Section 409 of the Town's Zoning Ordinance.

7.8.2 The Contractor shall install required erosion and sedimentation control measures or Best Management Practices (BMP's) **prior to** disturbing any soil or performing any construction activities. All BMP's must meet the requirements of the MDEP's *Maine Erosion and Sediment Control BMP's* manual, (latest edition), and the Town's Ordinances.

7.8.3 The Contractor shall perform regular inspection and maintenance of the erosion and sedimentation control BMP's to ensure their functionality. At a minimum, the Contractor shall inspect and repair if needed the BMP's prior to a significant rain storm event and again within 24 hours following a significant storm event. A significant storm event is defined as one half an inch of rain.

7.8.4 The Contractor shall be required to remove all temporary erosion and sedimentation control BMP's once the work area has been permanently revegetated.

7.8.5 The Contractor shall be aware that projects that disturb one acre or more of area may require the filing of a "Notice of Intent" with the Maine Department of Environmental Protection. The Contractor shall also be aware that all projects that disturb one acre or more of area and that are located within the Town's Urban Area (See Figure 1 in Section 6.0) will require additional inspection and reporting requirements as required by the Town of Cumberland's Stormwater General Permit. Please see the Town's Post-Construction Stormwater Management Ordinance for additional requirements (Appendix B).

7.8.6 Appendix A, Tab 1 includes the Town's Erosion and Sedimentation Control standard details for both temporary and permanent BMP's. These details are intended to augment the BMP's available in the MDEP *Maine Erosion and Sediment Control BMP's* manual.

## 7.9 Culverts, Underdrain and Stormdrain Installation

### 7.9.1 Culverts

The Town of Cumberland uses smooth lined, corrugated, high density polyethylene pipe (HDPE), sometimes referred to by product names of Hancor or ADS N-12. The minimum size for driveway culverts shall be 18 inches in diameter. Smaller culverts may be permitted, but only with the written authorization of the Public Works Director. Corrugated Metal Pipe (CMP) is not allowed to be used in the Town's right of way. All driveway culverts shall have a minimum of 18 inches of cover and shall have 2 inches of rigid foam insulation beneath the culvert in accordance with the standard details (See Appendix A, Tab 2). All culvert inlets and outlets shall extend a minimum of 8 inches beyond the toe of slope.

Ditching upstream and downstream of the culvert may be required to provide positive drainage through the culvert. Riprap inlet and outlet protection, including plunge pools, shall be provided for all culverts. All riprap shall be underlain with geo-textile fabric as shown in the standard details (Appendix A).

All culverts shall have a clay check dam located at the inlet and outlet ends to prevent piping of groundwater through the bedding material. The clay check dam shall extend to the full width of the trench, shall be 15 inches thick and shall extend above the crown of the culvert by 6 inches.

### 7.9.2 Underdrain and Stormdrain

1. All pipe serving as underdrain or storm drain shall be bedded in  $\frac{3}{4}$ " crushed stone to 6 inches above the crown of the pipe. The bedding depth shall be 6 inches below the invert of the pipe.
2. A punched geotextile filter fabric must be installed the width and length of the trench and the total length of the trench to separate the stone from the granular backfill. The punched geotextile fabric shall be Mirafi 140N or approved equal.
3. A free draining granular backfill shall be placed up to the road or driveway subgrade elevation.
4. Soil compaction to the subgrade elevation shall be made in 12 inch thick lifts with a vibratory compactor and shall achieve 90% of the maximum dry density of the material. Above sub-grade, 95% compaction of the aggregate subbase and aggregate base material is required.

5. It should be noted that Type B underdrain requires the pipe perforations to be placed down to drain groundwater. Type C underdrain required the pipe perforations to be placed up such that below the pipe spring line there are no perforations. Type C underdrain is used to carry both surface runoff and to collect groundwater.

### 7.10 Catch Basin and Storm Drain Manhole Installation

1. The Town of Cumberland requires that all catch basins and storm drain manhole have water tight flexible boots for pipe connections. The boots shall be Kor-N Seal elastomeric boots or approved equal.
2. The Town requires that all boots must accept double stainless steel bands. It is also required that all catch basin structures must have a minimum of 2 feet of sump below the invert out of the structure **unless otherwise approved by the Town.** The Town also requires that all catch basins be four (4) foot precast concrete structures, unless otherwise approved by the Town. The use of “F” type catch basins shall be on a case by case basis and shall require Town approval.
3. The use of hydraulic cement or mortar mix without using flexible boots will not be allowed. The size of the pipe will govern the use of flexible boots. Any other type of connection must have prior approval from the Town.
4. All brick work on top of the structure may not exceed 6” in height. Precast concrete donut risers are acceptable for use.
5. All frames and grates will be square in shape and shall be 24 inches square by 6 inches deep. Three flange or open throat frames shall be used based on curb and curb inlet requirements. Manhole covers shall be round, cast of bitumastic coated ductile iron and must meet the Towns requirements. The cover shall be cast with the words “Storm Drain” prominently located in the finish surface.
6. Pavement taper from the gutter line finish grade to the catch basin grates in roadways shall be in accordance with details.
7. Catch basin structures must be set on a minimum 12 inch thick crushed stone base. The stone must continue to the crown of the outlet pipe, around the entire basin.
8. All structures shall be pre-cast concrete units capable of supporting H-20 loadings.

### 7.11 Trench Restoration

All trenches within the Town’s right of way shall be restored in accordance with the typical trench details (see Appendix A). In areas where pavement disturbance is not clean cut the

contractor shall saw cut the pavement 18” beyond the extent of excavation or pavement cracking caused by the excavation. The saw cuts shall not be haphazard or zigzagged. All saw cuts shall extend in a straight line for a minimum of 12’ prior to a change in direction. All pavement shall be removed to the saw cut lines and the edges cleaned and tack coated in accordance with MDOT standards. **The Contractor shall be responsible for the pavement repair for one full frost cycle. Any pavement repair that in the opinion of the Town Manager or his designee is unsatisfactory as a permanent repair due to settlement, frost heave, raveling, cracking or other defect shall be repaired at the Contractor’s expense.**

## 7.12 Pipe Material

7.12.1 All pipe material used within the Town of Cumberland must meet the following requirements noted in the Pipe Material Table. Material substitutions shall not be allowed unless approved by the Town Manager or his designee.

<b>Sewer</b>	<b>Acceptable</b>	<b>Bedding</b>	<b>Submittal Required</b>
Sewer-Gravity	SDR 35 PVC	¾ crushed stone	yes
Sewer-Low Pressure	SCH 80 PVC	¾ crushed stone	yes
Sewer-Lateral	SDR 35 PVC	¾ crushed stone	yes
Sewer Low Pressure Lateral	SCH 80 PVC	¾ crushed stone	yes
Force Main – Town	Ductile Iron-Wrapped	¾ crushed stone	yes
Force Main – Private	As Approved	¾ crushed stone	yes

<b>Stormwater</b>	<b>Acceptable</b>	<b>Bedding</b>	<b>Submittal Required</b>
Main	ADS-N-12 Polyethylene smooth walled interior	¾ crushed stone	yes
Main	SDR 35 PVC	¾ crushed stone	yes
Driveway Culverts (18" Diameter Minimum)	ADS-N-12	¾ crushed stone	yes
<b>Underdrain</b>	<b>Acceptable</b>	<b>Bedding</b>	<b>Submittal Required</b>
Type "B" or Type "C"	ADS-N-12 or approved equal polyethylene smooth walled interior	¾ crushed stone	yes
Type "B" or Type "C"	SDR 35 PVC	¾ crushed stone	yes

### 7.13 Sanitary Sewer Structures

7.13.1 All sanitary sewer structures shall be pre-cast concrete units capable of supporting H-20 loadings and the exterior shall be fully coated with two coats of an approved bitumastic coating. Each precast concrete section shall be assembled using two rows of flexible bitumastic sealant at each barrel joint. Bitumastic sealant shall be Ram Nek or Kent Seal or approved equal. All sanitary sewer manholes shall have fiberglass inverts and shall provide adequate pitch through the structure to ensure solid transport. All sewer manholes shall pass a vacuum test as per the Town's standards. Sanitary sewer structure frames and covers shall be of good quality ductile iron and coated with a bitumastic weather proofing. Covers shall be at least 24 inches in diameter and shall be cast with the words "Sanitary Sewer" prominently located on the exterior.

7.13.2 All sanitary sewer force mains shall be wrapped with an approved polyethylene sheeting material that is at least 6 mils thick. All sanitary sewers, including both force mains and gravity sewers shall pass a leakage test as required by the Town of Cumberland. Sanitary sewer gravity mains shall be tested using a low air pressure test as per the Town's standards. Sanitary sewer force mains shall be tested using a hydrostatic pressure test as per the Town's standards.

7.13.3 All storm drain and sanitary sewer structures shall have flexible boot pipe connections that are capable of accepting two (2) stainless steel bands at each connection. All penetrations in any structure shall be core drilled or pre-cast into the structure, including the connection to existing infrastructure with new infrastructure. The Contractor shall not be allowed to fabricate connection holes in structures using a jack hammer, hammer drill, or sledge hammer and masonry chisel. Connections made in this fashion will be rejected and the structure repaired or replaced by the Contractor. All precast concrete structures for both sanitary sewer and storm drain must be core drilled and must use flexible rubber boots as approved by the Town.

## 8.0 TOWN INSPECTED WORK

### 8.1 Sewer Connections

All sanitary sewer connections made to the Town system must be inspected by Town staff. When connecting to a manhole, the connection must be core drilled into the existing structure and the connection must be made using an approved flexible elastomeric boot approved by the Town. The Contractor shall **not** use a jackhammer, hammer drill or sledge hammer to fabricate a hole. All type of connections must be approved and inspected by the Town prior to backfill. All connecting fixtures must be capable to accept double stainless steel bands and double bands will be required on all connections. The Contractor shall use a Kor-N-Seal elastomeric boot system or an approved equal for all connections. The Contractor shall provide the Town with twenty-four hours notice prior to all inspections. The Contractor must provide all coordination with the Town to schedule all inspections.

### 8.2 Underdrain Connections

8.2.1 All drains connected to the Town's storm drain system must be inspected by Town staff. The Town requires that all connections made to an existing structure must be core drilled and the connection made using a flexible elastomeric boot approved by the Town, such as a Kor-N-Seal boot or approved equal. The Contractor shall **not** use a jackhammer, hammer drill or sledge hammer to fabricate a hole. All type of connections must be approved and inspected by the Town prior to backfill. All connecting fixtures must be capable to accept double stainless steel bands and double bands will be required on all connections. Boot connections using single bands will be rejected.

8.2.2 All cellar drains or foundation drains connected to the Town's storm drain system shall have a back flow preventer of the size and type approved by the Town. The Contractor shall submit to the Town a shop drawing of the back flow preventer proposed to be used for approval.

8.2.3 All cellar drain or foundation drain outlets must, if not connected to the Town's underdrain system, allow water to discharge at an appropriate location. The Contractor may discharge cellar or foundation drains to the Town's open ditch along the roadway as long as the pitch of the ditch system is 2% or greater. All drain systems that discharges to a Town right of way must be approved by the Town.

8.2.4 The Contractor shall note that connection to the Town's storm drain system and ditch system is regulated by the Town's Stormwater Discharge Ordinance that is included in Appendix B of this Handbook.

### 8.3 Erosion Control Devices

8.3.1 All temporary erosion and sediment control measures including, but not limited to, silt fence, hay bales, stone check dams, temporary construction entrance, and other means of erosion and sedimentation control must be inspected by the Town prior to start of construction. If an erosion and sedimentation plan is provided, all erosion control measures required by the plan must be installed prior to the start of construction activities. The Contractor should be aware that if work begins prior to the Town performing an erosion control inspection or if during the inspection the Town discovers unsatisfactory conditions, work will be stopped and the Contractor will be required to address erosion control concerns before work will be allowed to continue.

8.3.2 The Contractor shall be responsible for providing adequate erosion and sedimentation control measures throughout the construction process and shall maintain them until permanent vegetation has been established. If the Town notes areas of deficiency in the Contractors BMP's, the Town may require additional or different erosion control measures to be installed by the Contractor in the deficient areas. The Contractor shall be required to correct minor erosion problems within two (2) working days. The Contractor shall be required to correct all serious erosion and sedimentation problems, as identified by the Town, within 24 hours of notification. Failure to correct erosion and sedimentation deficiencies within the required time frame may be grounds for the Town to issue and enforce a Stop Work Order.

8.3.3 Types of Erosion Control Acceptable to the Town (See Appendix A for Standard Details)

NOTE: Erosion and Sedimentation Controls shall meet the latest MDEP standards.

1. Silt fence, keyed in to the soil and overlapped at joints;
2. Erosion Control Mix berms, 16 inches high and 2 feet wide minimum;
3. Hay Mulch and Hay Bales. Bales must be keyed in and double staked, with strings exposed to the sides.
4. Erosion Control Mix may be substituted for silt fence if site conditions and design specifications allow.

#### 8.3.4 Maintenance of Erosion Control Devices

The Contractor is required to maintain all erosion and sedimentation control BMP's until all disturbed areas are permanently revegetated.

8.3.5 The Town or the Town’s designee shall perform periodic inspections to the site in addition to the initial inspection of the erosion and sediment control measures. The Town will complete an inspection report noting any deficiencies and if required will issue a Notice of Violation or Stop Work Order to the Contractor. A sample of the inspection form is included in Appendix C. The periodic inspections that are performed by the Town in no way excuses the Contractor from providing the required pre and post storm event inspections to ensure functionality and effectiveness of the erosion and sedimentation control measures.

## 9.0 CONSTRUCTION SAFETY

### 9.1 Work Zone Safety

9.1.1 All construction work that will affect traffic or pedestrian flow, or where pedestrians will have regular access to for more than a forty five minute period, must have an adequate Work Zone set up. **Providing an adequate Work Zone that meets standards is the responsibility of the Contractor performing the work.** All Traffic Control Devices including, but not limited to, signs, barricades, traffic cones, temporary striping, lighting, Variable Message Boards (VMB's), vehicle placement, flaggers and flagging equipment along with the Work Zone layout itself must meet Federal Highway Administration's (FHA) Manual on Uniform Traffic Control Devices (MUTCD) specifications. A copy of this manual is available through the Maine Department of Transportation's (MDOT) office or may be viewed at the Cumberland Town Hall. A pocket handbook with Work Zone examples is available through MDOT's office.

9.1.2 With prior notice, Town staff may be available to review the Contractor's Traffic Control plan and proposed Work Zone to offer insight to the Town's requirements; however, the Contractor is responsible for providing a Work Zone that meets standards. At the discretion of the Town Manager or his designee the Contractor's Traffic Control Devices and/or Work Zone are not adequate, work will not be allowed to start or continue until the proper work zone is in place.

### 9.2 Road Side Parking

9.2.1 During working hours and at the discretion of the Town, parking of trucks, equipment or storage of materials and supplies on the road side within the Town Right of Way will be allowed as long as it does not affect traffic or pedestrian flow or presents a danger to the public. If equipment is accessing the site on a continuous basis, proper signage shall be in place. If equipment must block part of a travel lane, an approved type of warning device and if need be a Work Zone must be set up to warn approaching traffic and also must meet MUTCD standards. Traffic cones set up to channel traffic through the construction area will be acceptable as long as sight distance in both directions is adequate. Additional signage may be required depending on the situation.

9.2.2 During nights and weekends, the Contractor shall provide at a minimum one full travel lane in each direction and shall move all equipment, vehicles and material stockpiles as far out of the road travel lane and shoulder as practicable. All traffic control devices that are used after daylight hours shall meet the required reflectivity of the MUTCD standards.

At the discretion of the Town Manager and dependent on traffic flow and site conditions, the Contract may be required to provide illuminated traffic control devices to ensure the safety of the traveling public. In extreme cases, the Town may require the Contractor to employ night flaggers to protect the Work Zone.

### 9.3 Flaggers

All flaggers shall be certified and shall be properly outfitted with the required safety equipment, communication equipment and flagging equipment as required by the Work Zone, the Town and MUTCD standards. All flaggers must be adequately trained in the proper procedures and signals. Safety clothing and paddle signs must be used properly and must meet MUTCD standards. Flagging also falls under the MUTCD manual and flagging staff must meet the manual requirements. In the opinion of the Town Manager or his designee, proper flagging procedures or safety equipment is not used; the Contractor will be required to correct the deficiencies immediately. Failure on the behalf of the Contractor to make the necessary deficiency corrections will result in a Stop Work Order being issued and enforced until the problem can be resolved.

### 9.4 Requirements for Construction Lasting More Than One Day

On excavating projects within the Town Right of Way or in areas where the public has access. **No holes, trenches or structures of any kind shall be left open overnight**, unless written permission is obtained by the Director of Public Services in advance. All equipment, Contractor vehicles and material stockpiles shall be located out of the travel way for both vehicles and pedestrians.

### 9.5 Shoring and Bracing

9.5.1 The Contractor shall be responsible for compliance with all local, State and Federal safety requirements, including Occupational Safety and Health Act (OSHA) requirements for excavation work.

9.5.2 When excavating in the Town right of way, the Contractor shall be responsible for providing adequate protection from soil collapse and shall utilize proper and certified shoring and bracing. This includes, but is not limited to, the use of trench boxes, manhole boxes, sheeting, sheet piling, timber bracing and over excavation. Failure to provide adequate protection from excavation collapse shall be just cause for the Town to issue a Stop Work Order.

9.5.3 The Contractor shall protect all open excavations from access by the public and unauthorized persons.

## 9.6 Environmental Protection

9.6.1 The Contractor shall be responsible for maintaining his equipment in good working order and shall strive to minimize leaks, spills and pollution discharges. The Contractor shall be responsible for meeting all applicable local, State and Federal requirements for pollution prevention including maintaining and implementing an up to date Spill Prevention, Control and Countermeasure Plan (SPCC) as required.

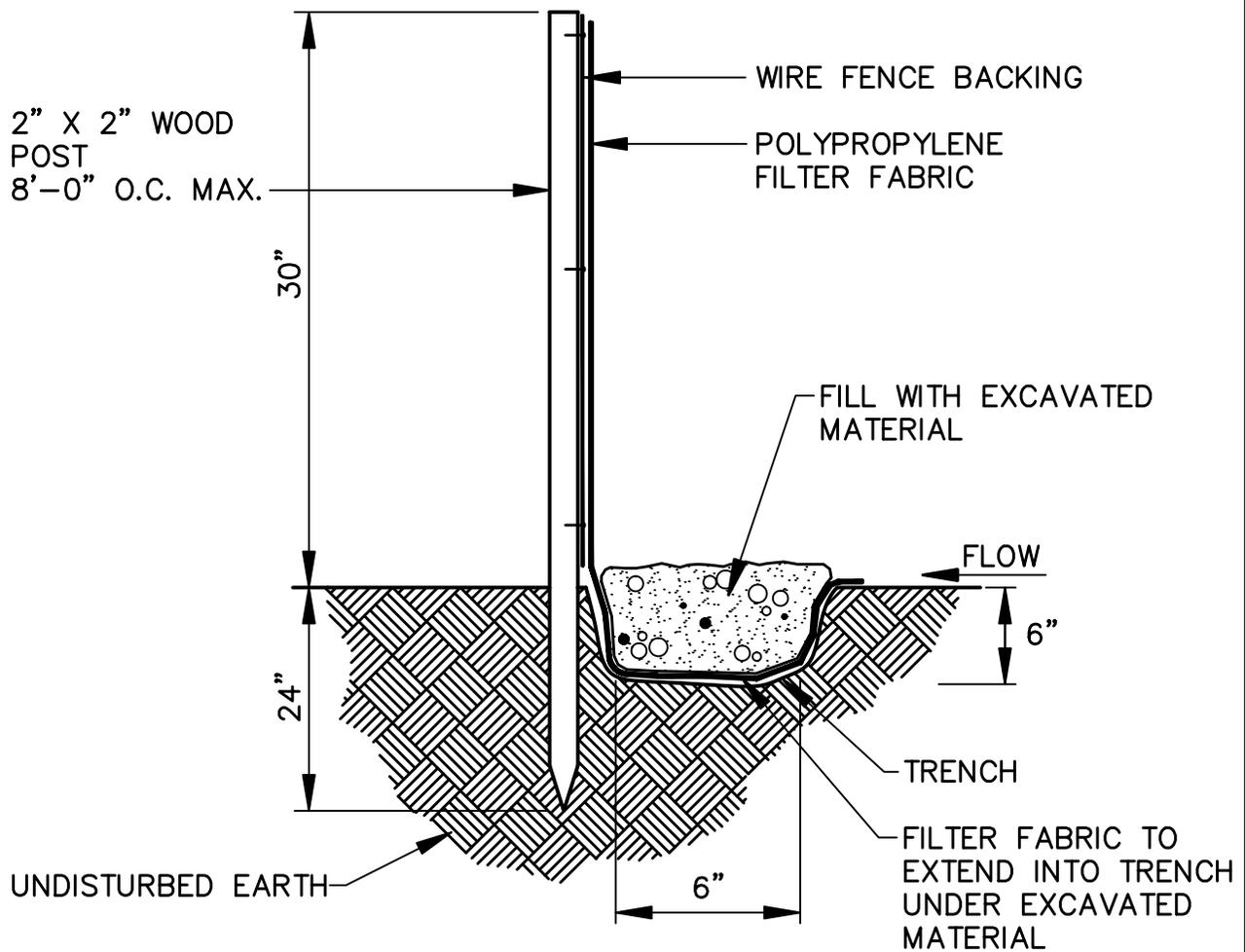
9.6.2 In the event of an oil spill the Contractor shall be responsible for immediately notifying Cumberland's emergency response as well as the Maine Department of Environmental Protection Oil Spill Hotline (1-800-482-0777). The Contractor shall also take whatever reasonable actions required to minimize pollution impact such as stemming or containing the oil flow, placing containment berms, deploying absorbent materials or booms and capturing spilled material if possible. The Contractor shall also immediately implement their SPCC plan, if one is available.

9.6.3 In the event of some other pollution or material spill, the Contractor shall immediately provide for the protection of the public as much as possible and shall immediately notify Cumberland's emergency response.

## ***APPENDIX A***

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### **Construction Details**



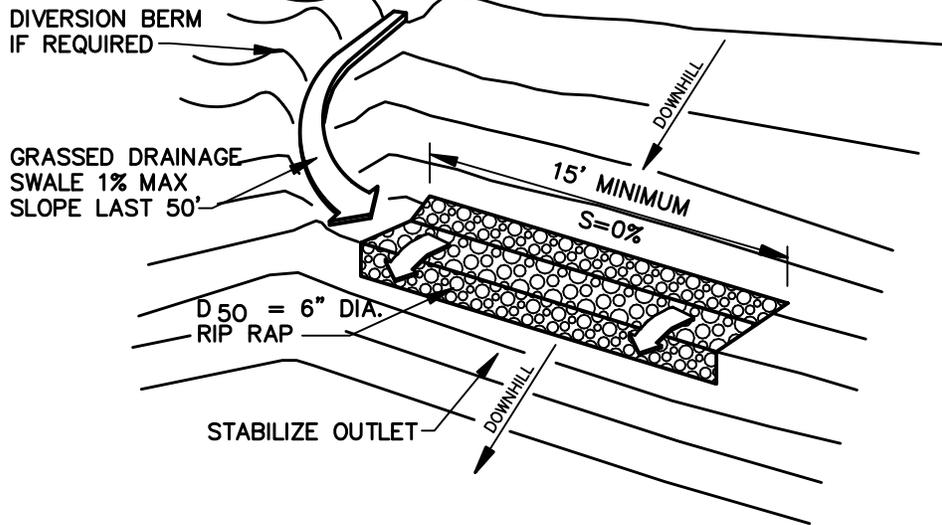
**EROSION CONTROL FENCE DETAIL**  
**NOT TO SCALE**



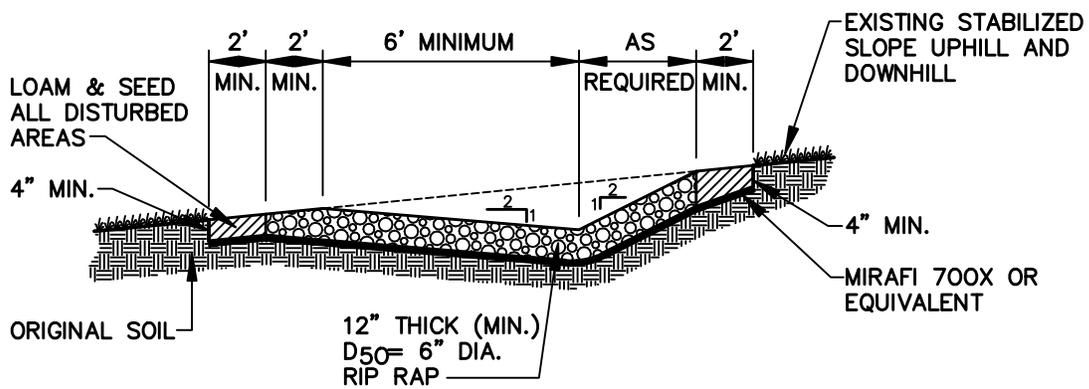
400 Commercial Street, Suite 404  
Portland, ME 04101  
Tel. (207) 772-2004  
Fax (207) 772-8248

Town of Cumberland, Maine  
290 Tuttle Road  
Tel. (207) 829-5559  
Fax (207) 829-2214





**PLAN**



**SECTION**

**NOTE:**  
 AREA IMMEDIATELY DOWNHILL FROM LEVEL SPREADER SHALL BE LEFT UNDISTURBED.

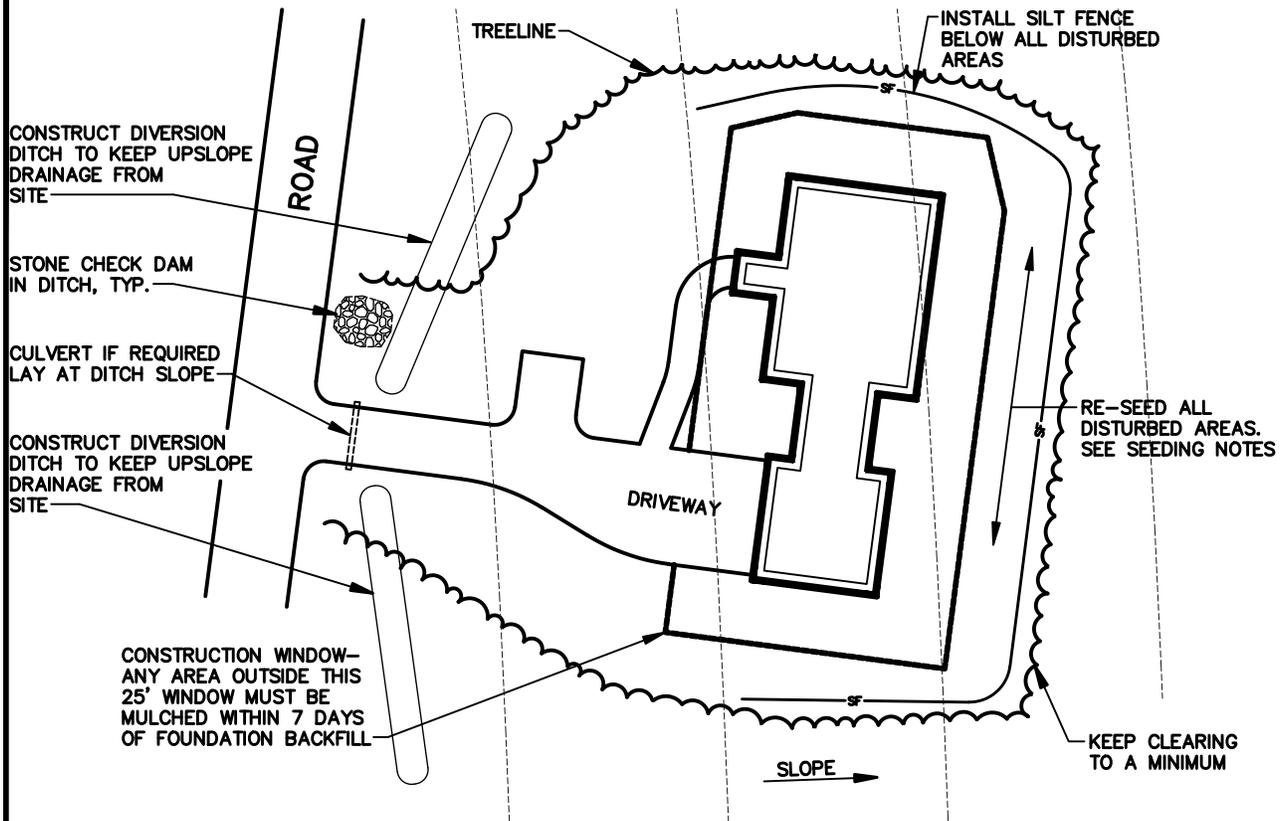
**LEVEL SPREADER DETAIL**  
**NOT TO SCALE**



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NOTES:  
THIS DETAIL INDICATES THE INTENT OF THE SOIL EROSION CONTROL MEASURES. ACTUAL SITE CONDITIONS AND LAYOUTS WILL VARY FROM SITE TO SITE.

BUILDING CONTRACTORS MUST COMPLY WITH THE EROSION CONTROL NOTES SHOWN ON THESE DRAWINGS AND WITH "MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES."

## **LOT SPECIFIC SOIL EROSION CONTROL MEASURES**

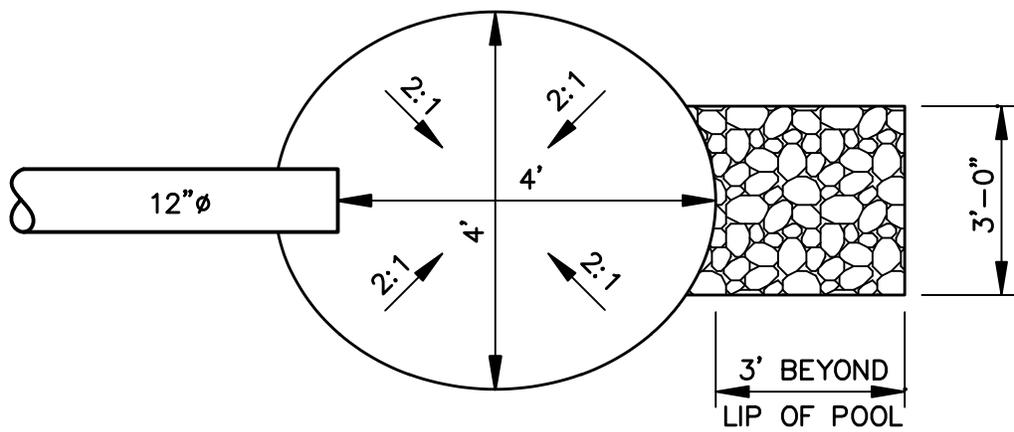
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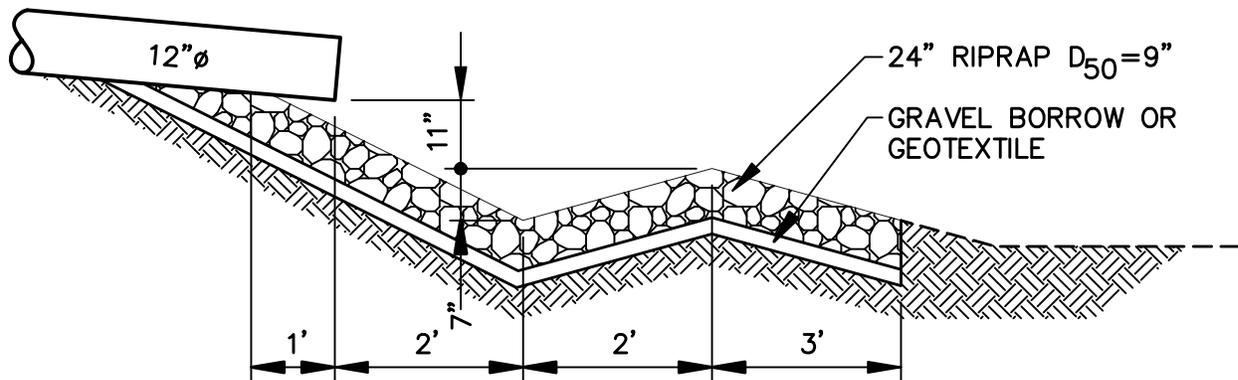
400 Commercial Street, Suite 404  
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PLAN



SECTION

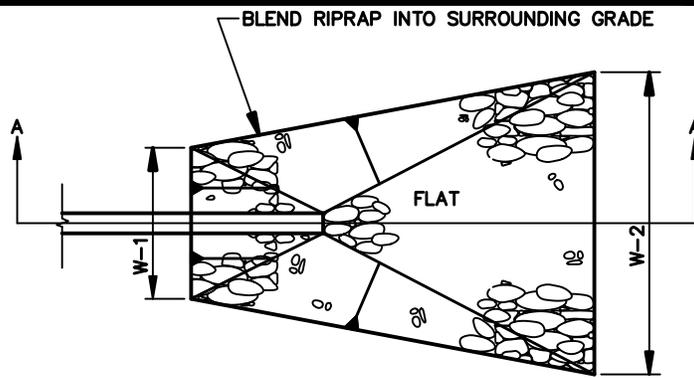
**OUTLET PLUNGE POOL**  
**NOT TO SCALE**



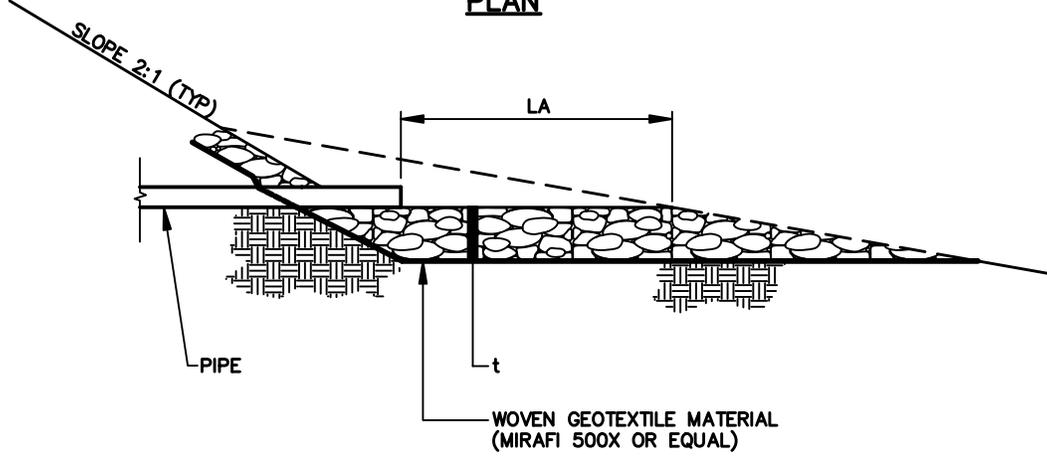
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**PLAN**



**SECTION A-A**

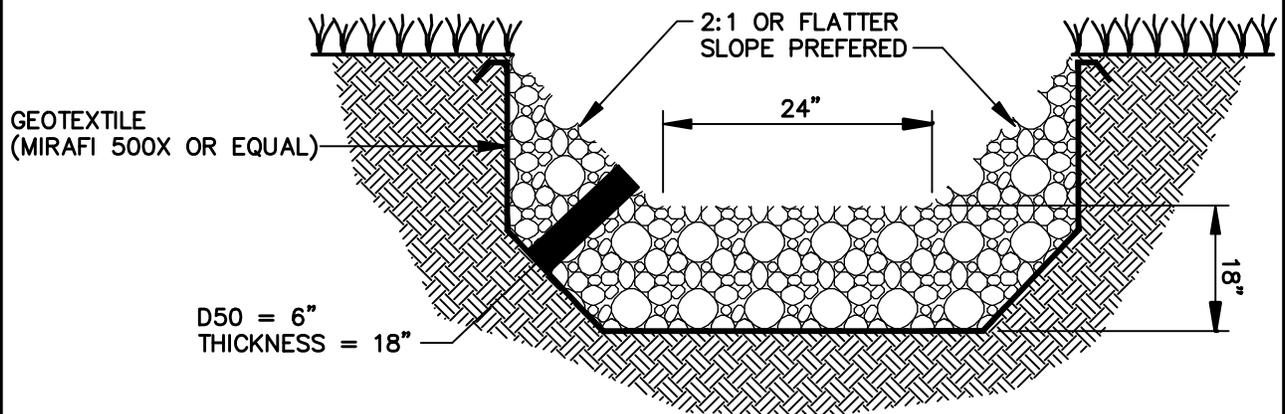
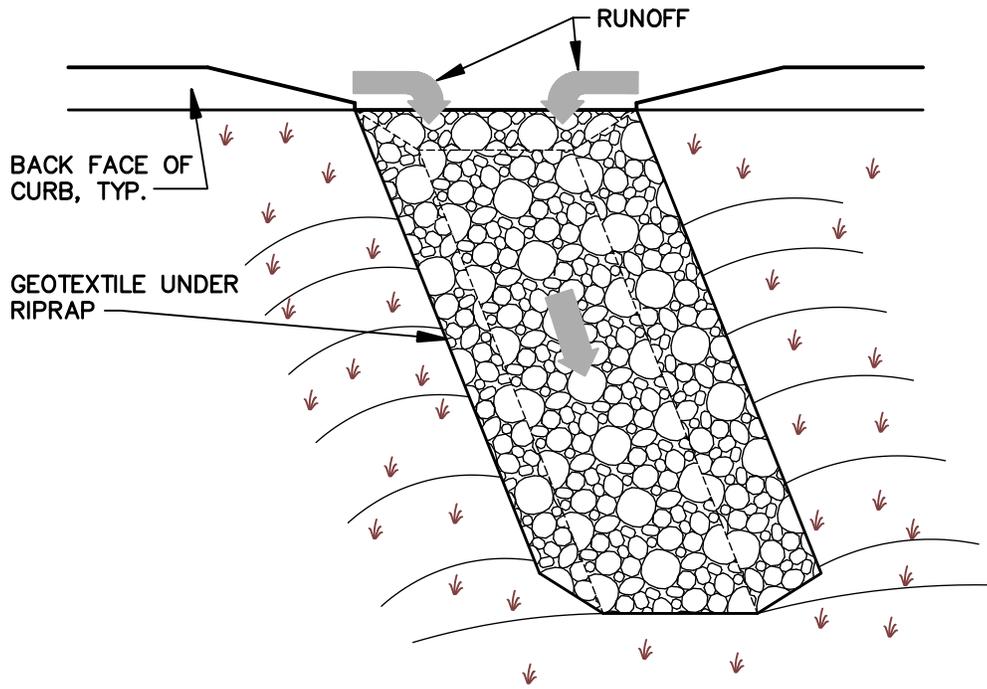
APRON SCHEDULE					
CULVERT	RIPRAP		RIPRAP		
	d50 SIZE (FT)	THICKNESS t (INCH)	LENGTH LA (FT) (MIN)	WIDTH W1 (FT)	WIDTH W2 (FT)
12" OR LESS	0.5'	15"	10'	3.0'	12'
15"	0.5'	15"	10'	3.75'	12'
18"	0.5'	15"	10'	4.5'	12'
24"	0.5'	15"	14'	6.0'	12'
30"	0.5'	15"	16'	7.5'	12'
36"	0.5'	18"	24'	9.0'	27'
42"	1.0'	24"	32'	10.5'	36'
48"	1.0'	24"	34'	12'	38'

**RIPRAP APRON DETAIL**  
**NOT TO SCALE**

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SECTION

## RIPRAP SLOPE DRAIN

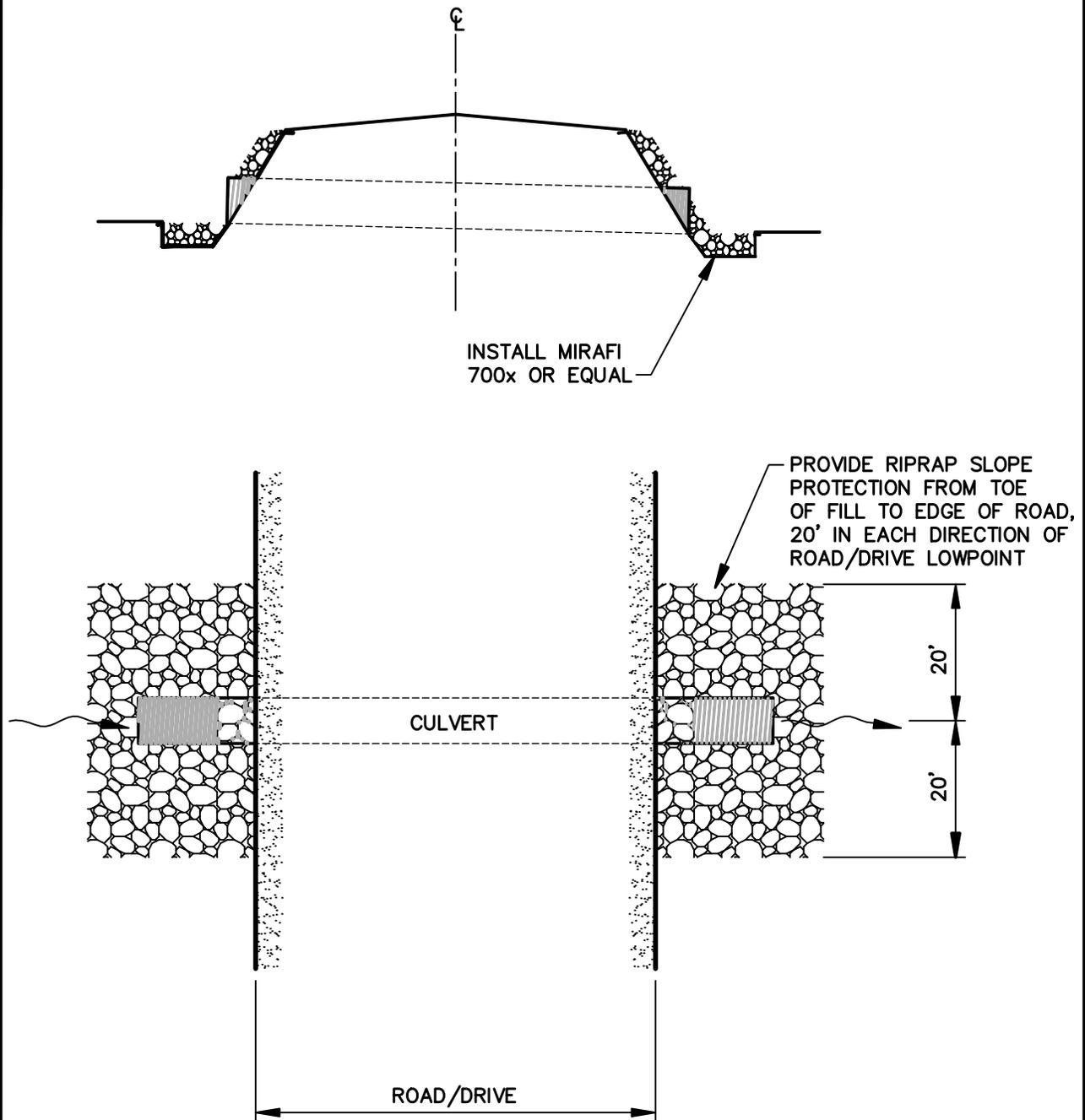
**NOT TO SCALE**



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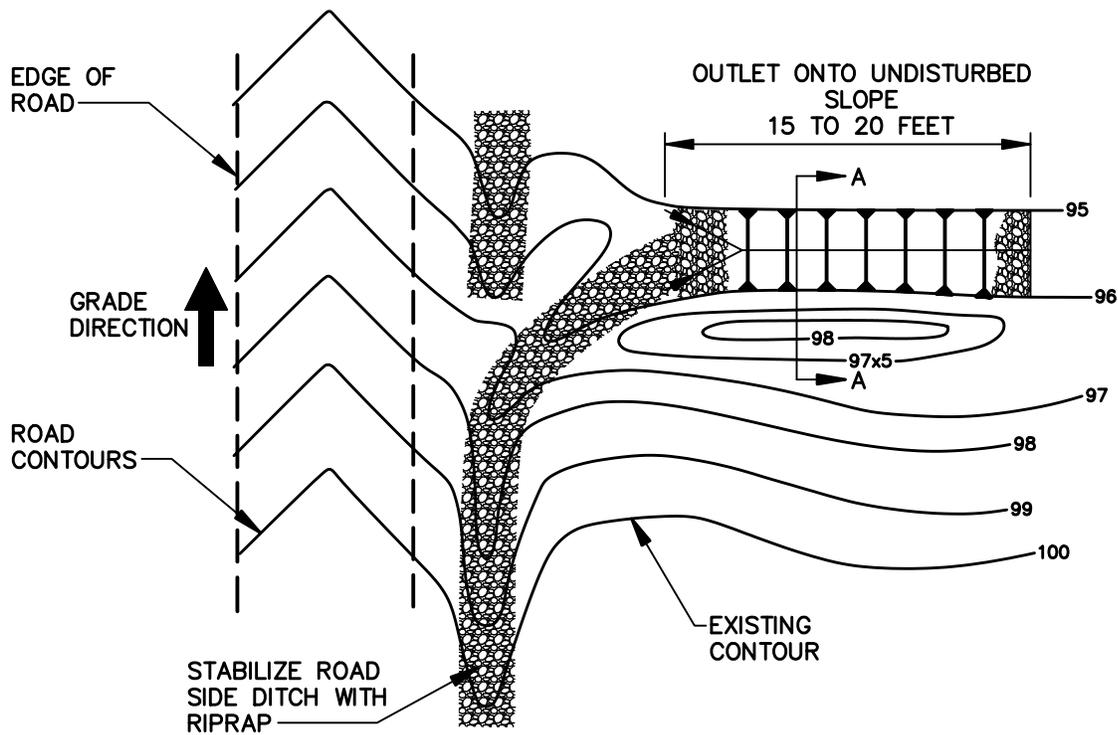
**RIPRAP SLOPE PROTECTION**  
**NOT TO SCALE**



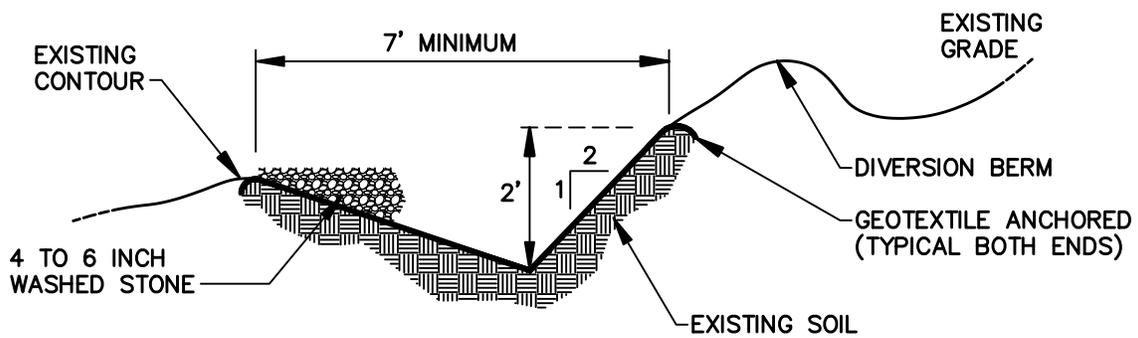
400 Commercial Street, Suite 404  
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**PLAN**



**SECTION A-A**

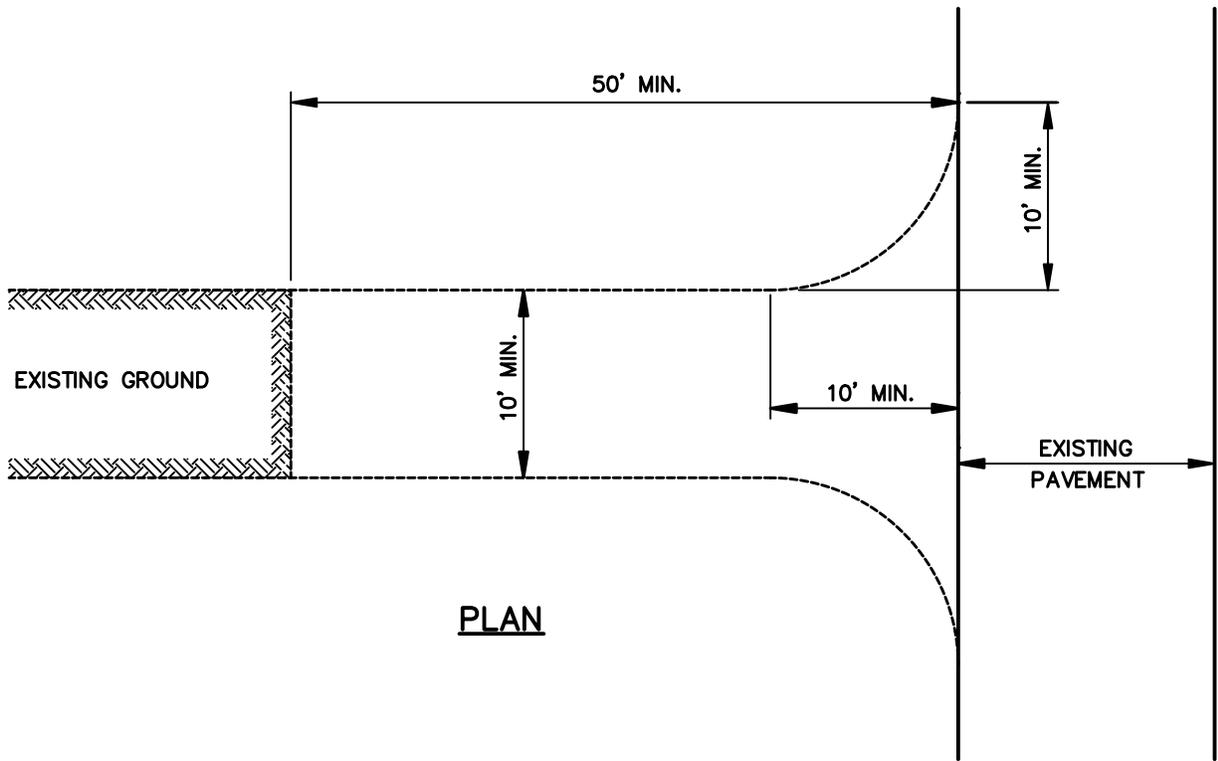
**ROAD DITCH TURNOUT**  
**NOT TO SCALE**



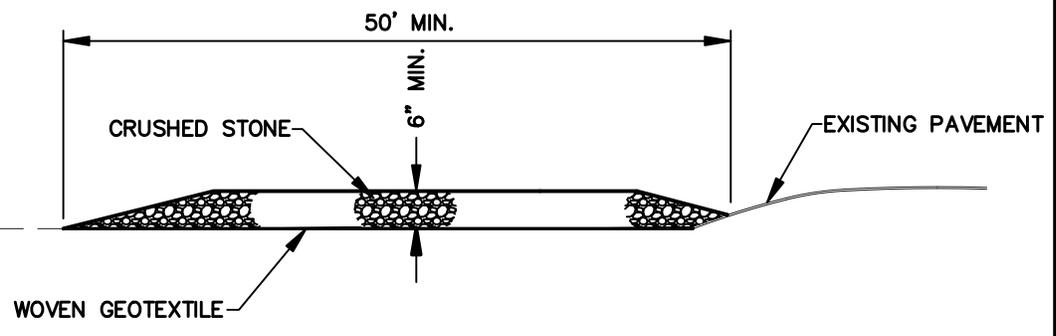
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PLAN



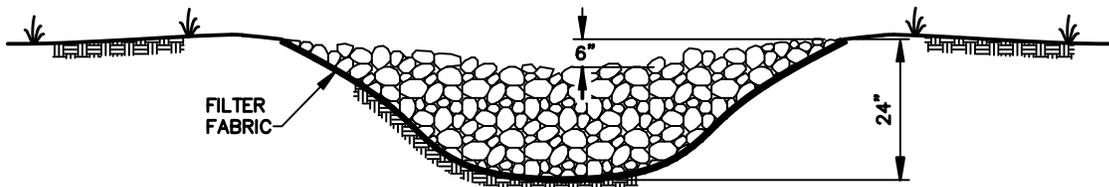
PROFILE

**STABILIZED CONSTRUCTION ENTRANCE**  
**NOT TO SCALE**

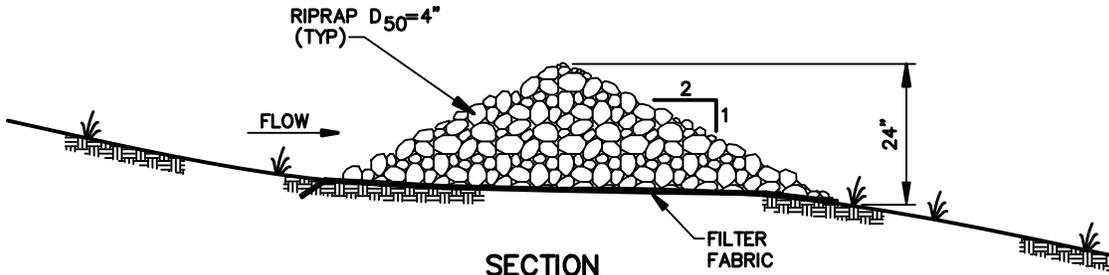
**OAK** ENGINEERS  
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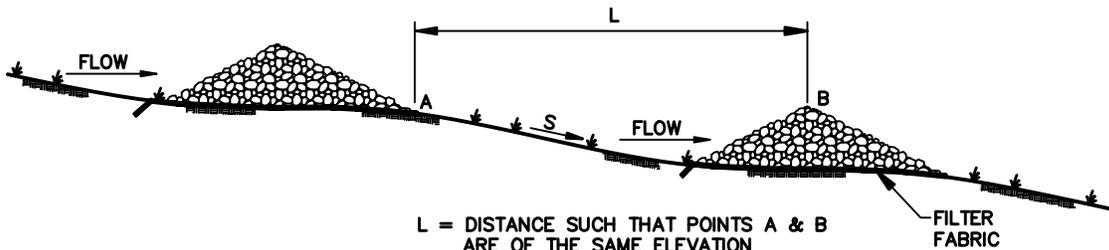




**ELEVATION**



**SECTION**



L = DISTANCE SUCH THAT POINTS A & B ARE OF THE SAME ELEVATION

S = SLOPE

S (FT/FT)	L (FT)
0.020	100
0.030	66
0.040	50
0.050	40
0.080	25
0.100	20
0.120	17
0.150	13

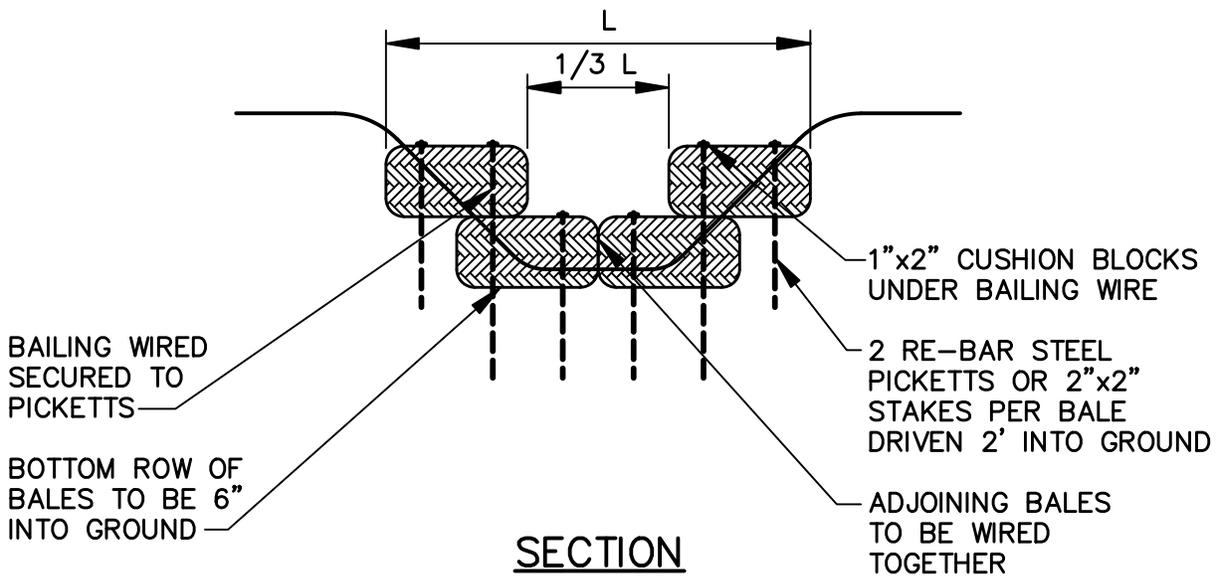
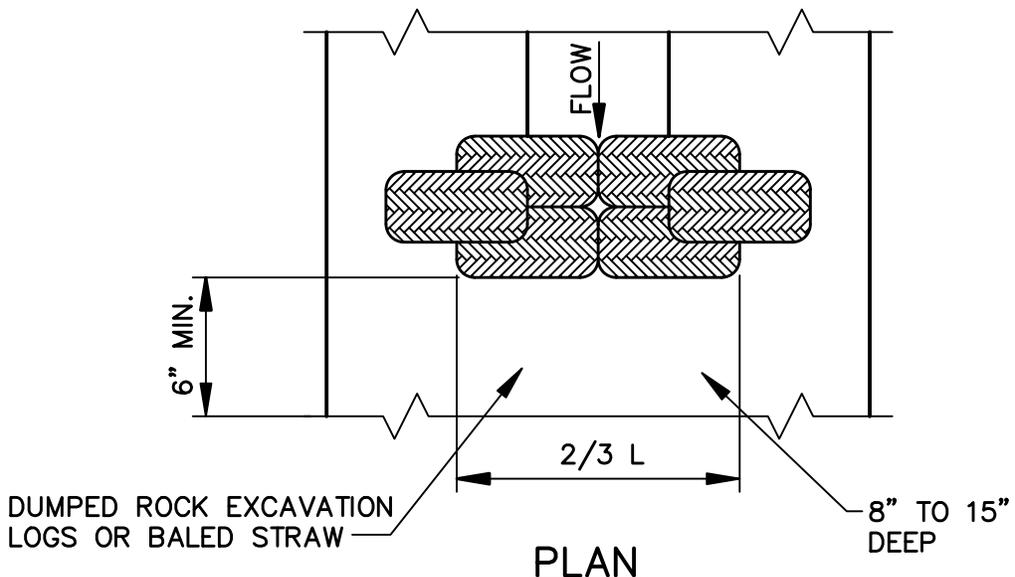
**STONE CHECK DAM**  
**NOT TO SCALE**



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**NOTES:**  
STRAW BALES ARE TO BE BOUND.

**STRAW BALE CHECK DAM**  
**NOT TO SCALE**



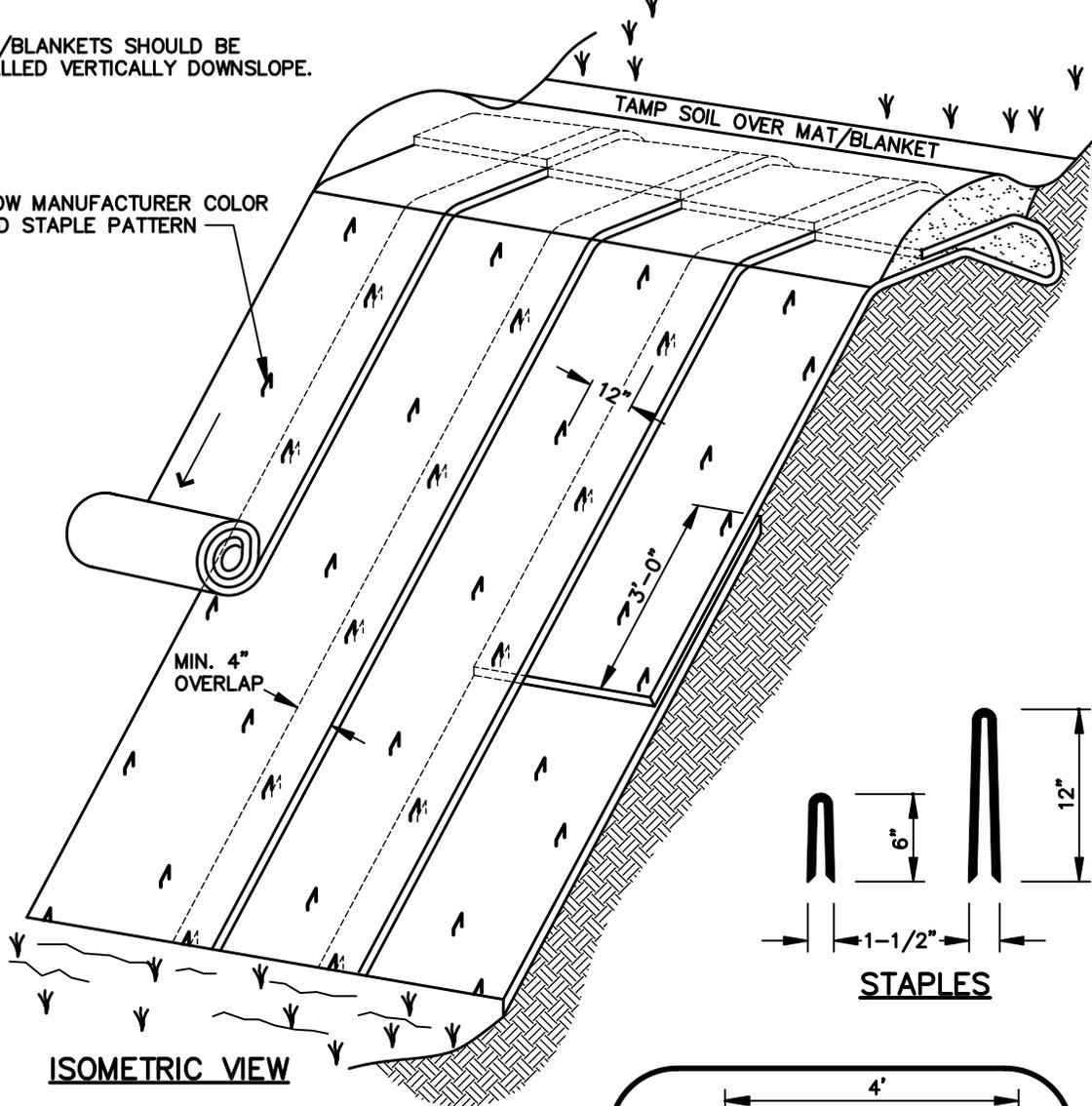
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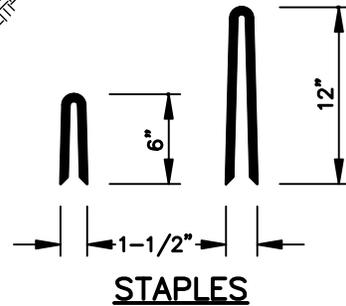


MATS/BLANKETS SHOULD BE INSTALLED VERTICALLY DOWNSLOPE.

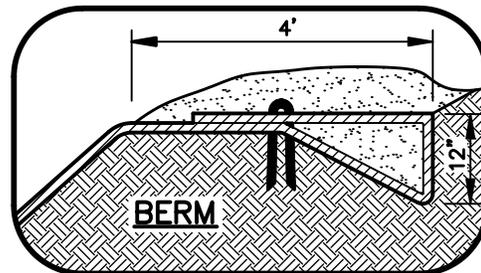
FOLLOW MANUFACTURER COLOR CODED STAPLE PATTERN



**ISOMETRIC VIEW**



**STAPLES**



**BERM**

**NOTES:**

1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
2. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
3. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
4. CHOOSE MATERIAL BASED ON SLOPE, SOILS, APPLICATION.

**TYPICAL SLOPE SOIL STABILIZATION**

**NOT TO SCALE**

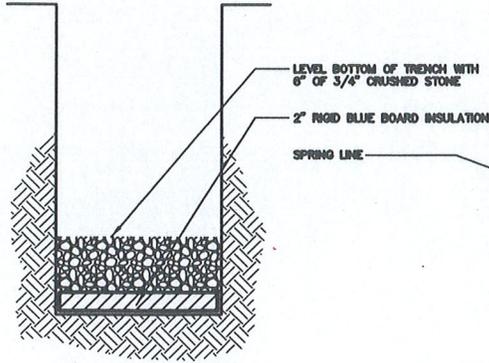


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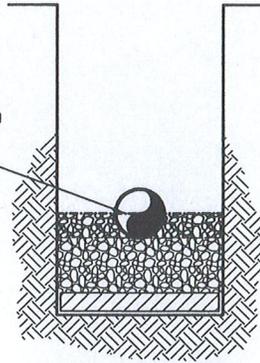
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**STEP 1**

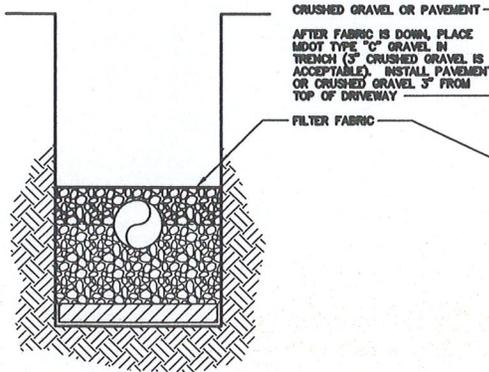


**STEP 2**

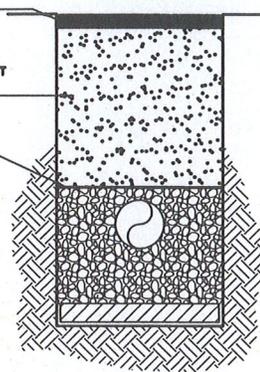


- PLACE PIPE ON 6" BED OF STONE
- FILL STONE TO SPRING LINE OF PIPE
- USE SHOVEL TO CHECK IN VOIDS

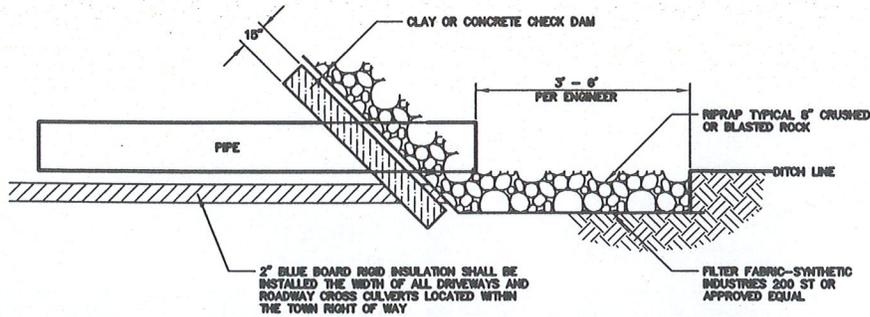
**STEP 3**



**STEP 4**



- BACKFILL WITH STONE OVER TOP OF PIPE FOR STORM, SEWER, OR UNDER DRAIN PIPE
- 2" MIN. OVER TOP OF PIPE WITH STONE
- PLACE APPROVED FILTER FABRIC OVER TOP OF STONE



- THE CULVERT MUST HAVE A CLAY OR CONCRETE CHECK DAM LOCATED AT THE INLET AND OUTLET ENDS TO PREVENT WATER FROM PIPING THROUGH THE STONE AND POTENTIALLY WASHING OUT THE CULVERT.
- ALL DRIVEWAY CULVERTS AND ALL ROADWAY CROSS CULVERTS ARE REQUIRED TO HAVE 2" BLUE BOARD RIGID INSULATION BENEATH THE CULVERT AND BELOW THE DITCH LINE.
- THICKNESS OF RIPRAP BLANKET SHALL BE NO LESS THAN 15" DEEP. CLAY/CONCRETE WATER STOP SHALL BE NO LESS THAN 15" DEEP.

# TYPICAL INSTALLATION FOR DRIVEWAYS AND ROADWAY CROSS CULVERTS

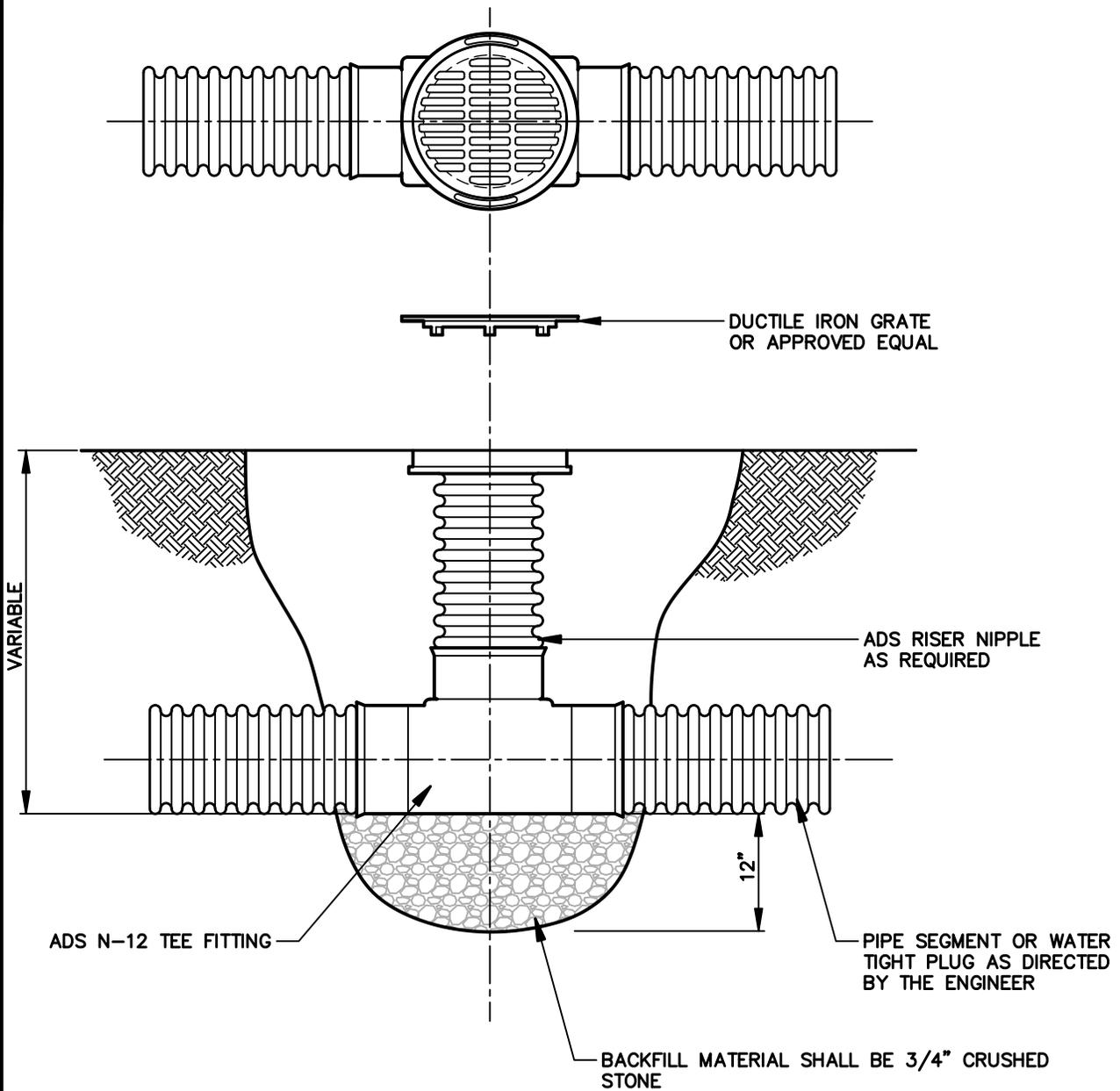
NOT TO SCALE



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Town of Cumberland, Maine  
 290 Tuttle Road  
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 Fax (207) 829-2214





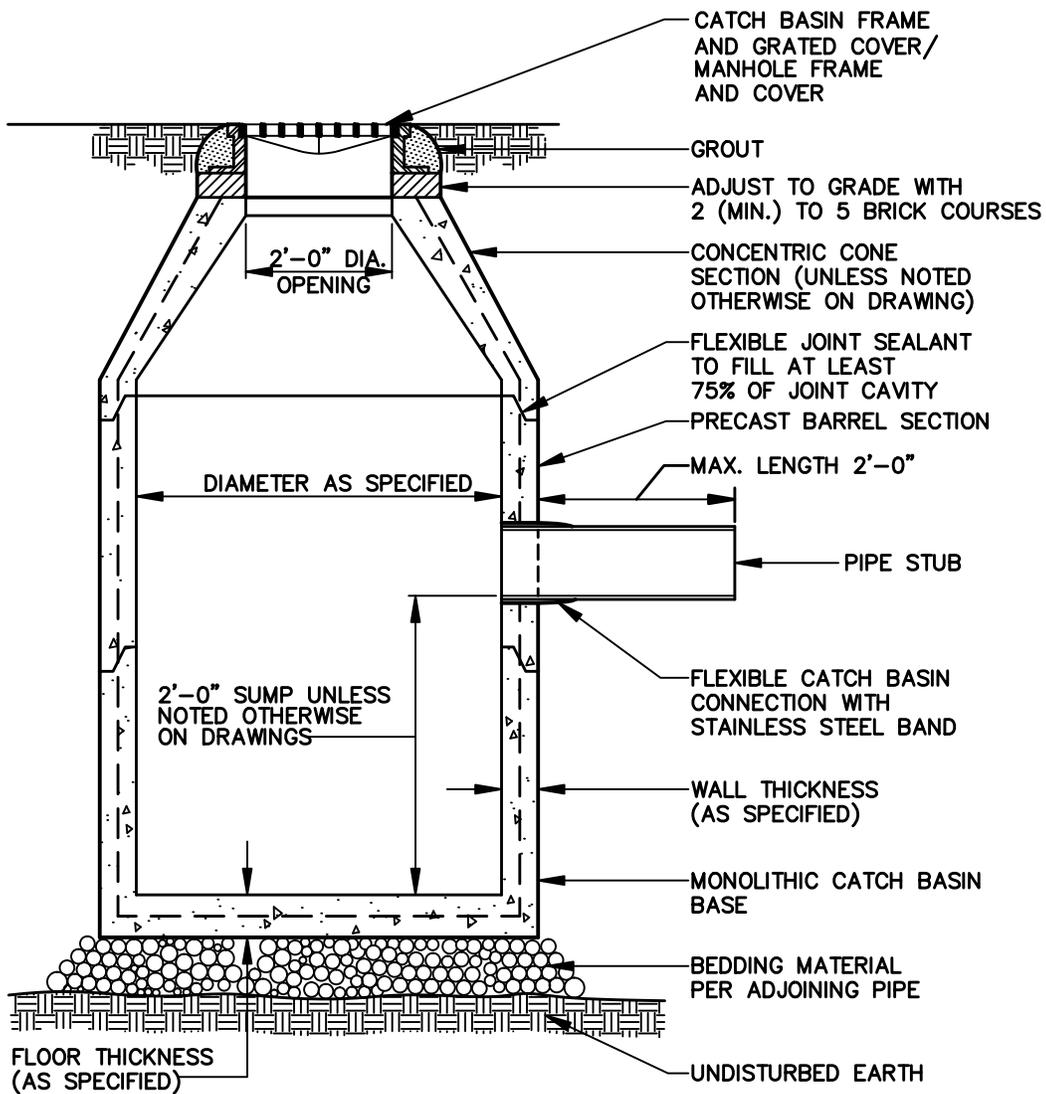
**FIELD INLET DETAIL**  
**NOT TO SCALE**



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I.D.	WALL WIDTH	FLOOR THICKNESS
4'-0"	5"	6"
5'-0"	6"	6"
6'-0"	7"	6"
8'-0"	8"	8"
10'-0"	10"	9"

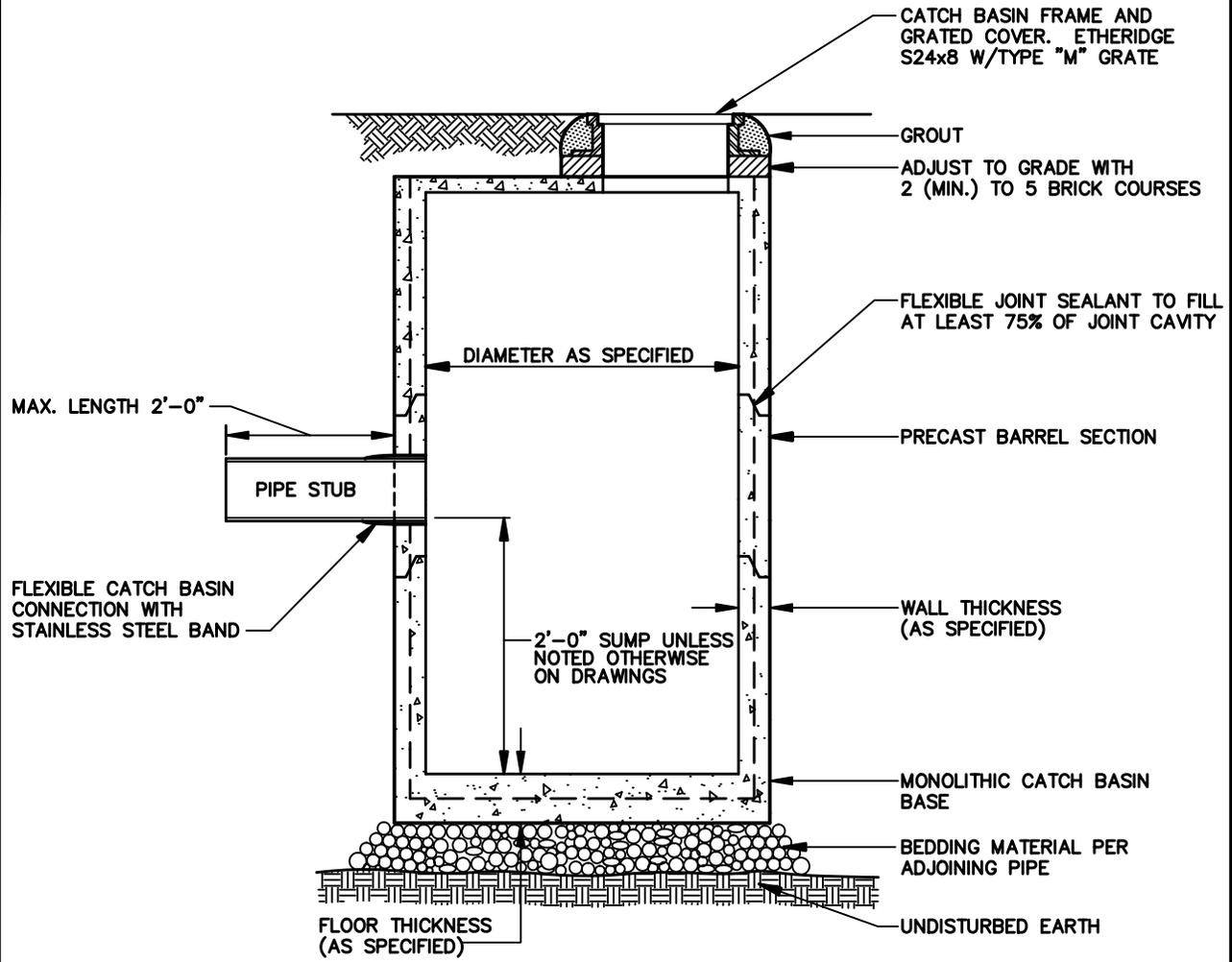
# PRECAST CONC. CATCH BASIN/DRAIN MANHOLE

**NOT TO SCALE**

**OAK** ENGINEERS  
 400 Commercial Street, Suite 404  
 Portland, ME 04101  
 Tel. (207) 772-2004  
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Town of Cumberland, Maine  
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I.D.	WALL WIDTH	FLOOR THICKNESS
4'-0"	5"	6"
5'-0"	6"	6"
6'-0"	7"	6"
8'-0"	8"	8"
10'-0"	10"	9"

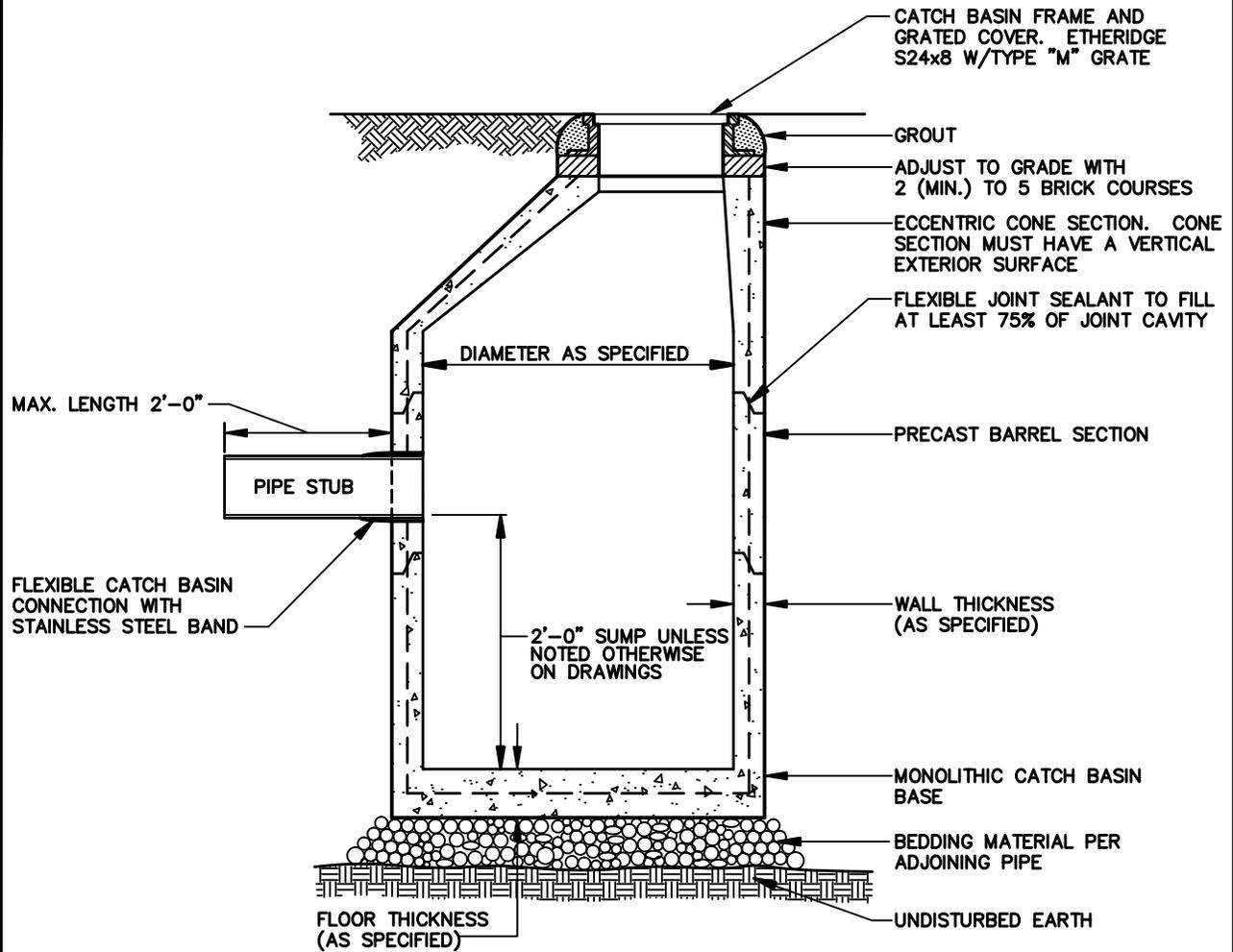
# PRECAST CONC. CATCH BASIN/DRAIN MANHOLE

**NOT TO SCALE**

**OAK** ENGINEERS  
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5'-0"	6"	6"
6'-0"	7"	6"
8'-0"	8"	8"
10'-0"	10"	9"

## PRECAST CONCRETE CATCH BASIN/MANHOLE

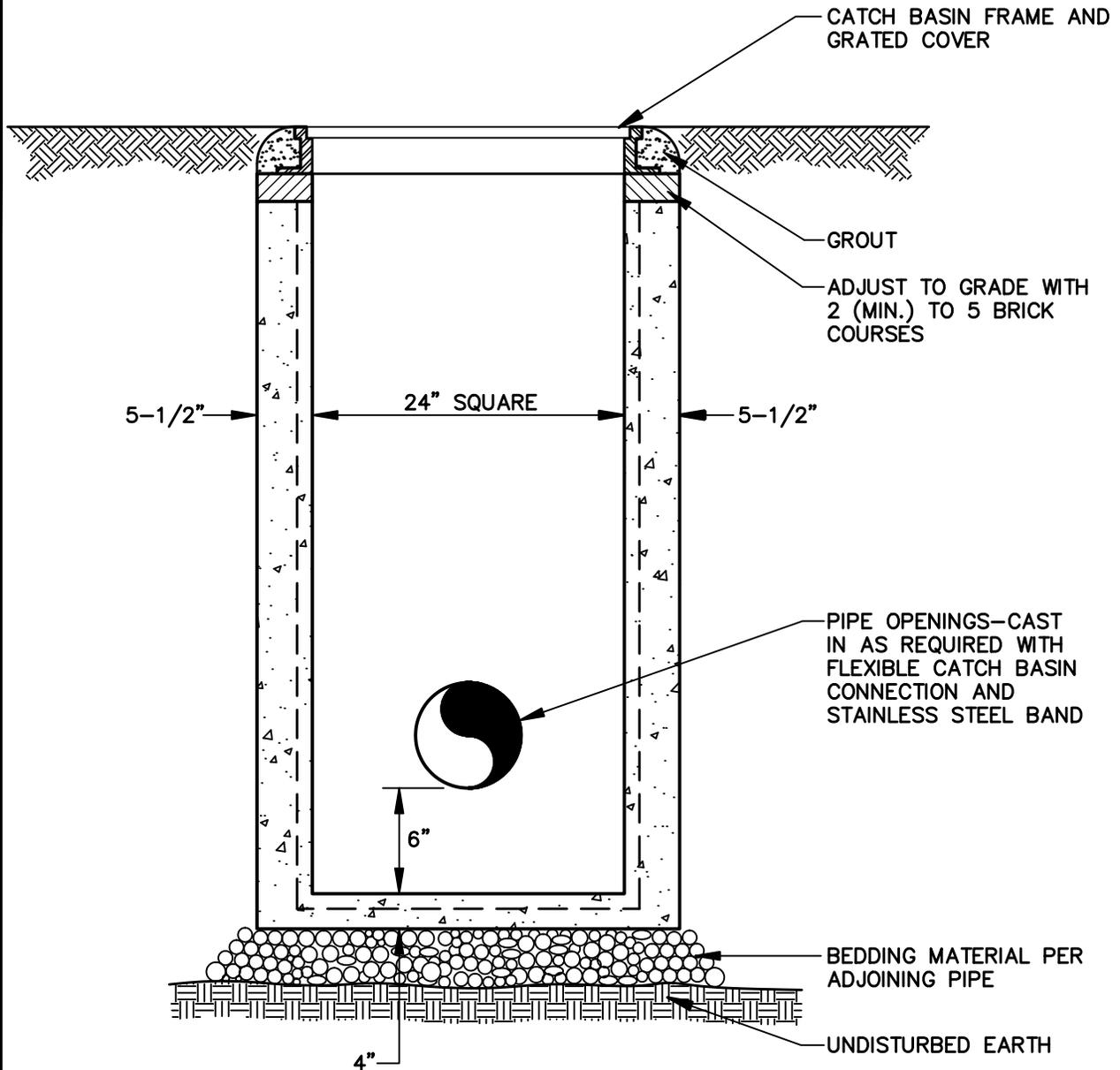
**NOT TO SCALE**



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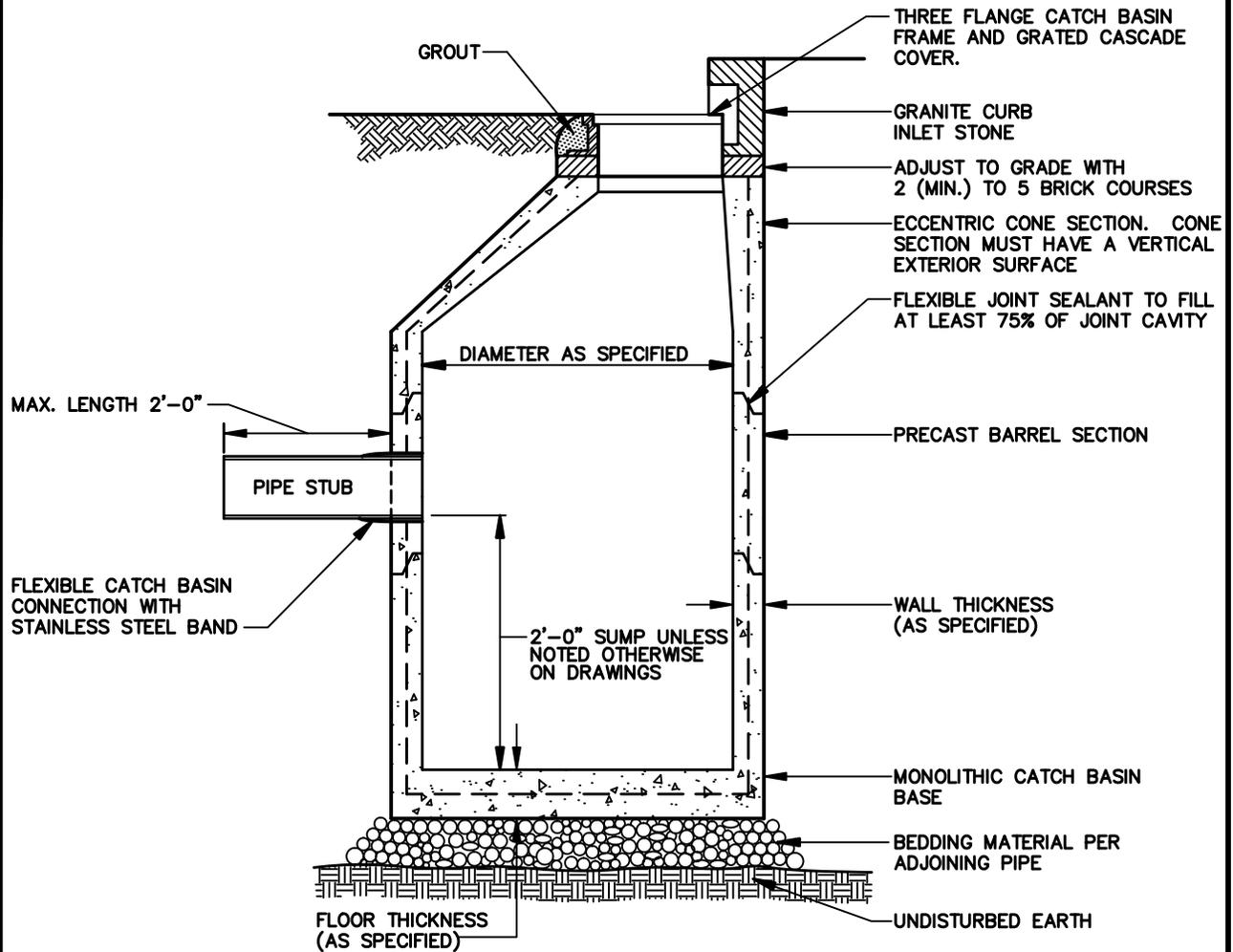
**PRECAST CONCRETE CATCH BASIN-TYPE "F"**  
**NOT TO SCALE**



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I.D.	WALL WIDTH	FLOOR THICKNESS
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5'-0"	6"	6"
6'-0"	7"	6"
8'-0"	8"	8"
10'-0"	10"	9"

## PRECAST CONCRETE/GRANITE CURB INLET

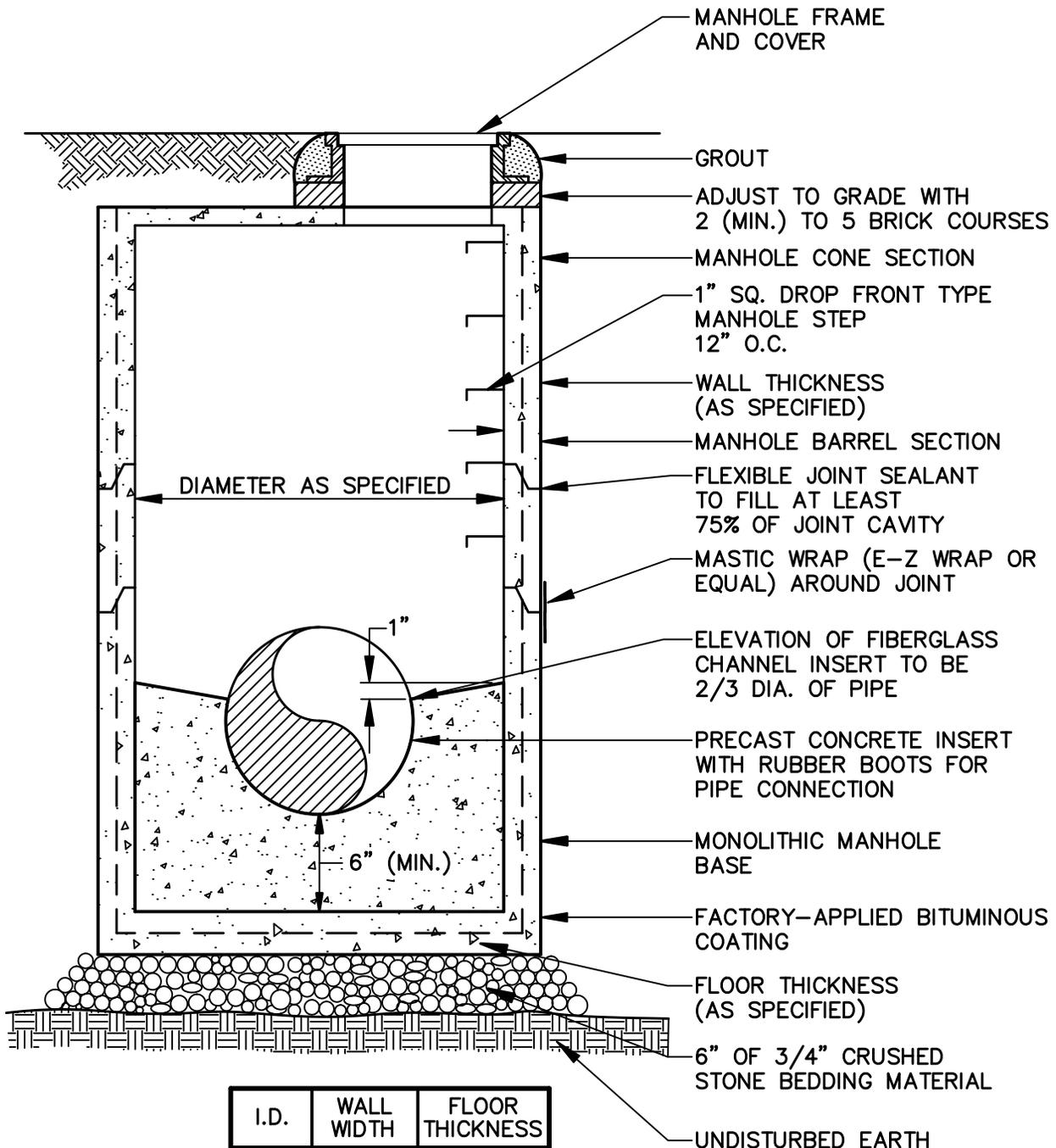
**NOT TO SCALE**



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I.D.	WALL WIDTH	FLOOR THICKNESS
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6'-0"	7"	6"
8'-0"	8"	8"
10'-0"	10"	9"

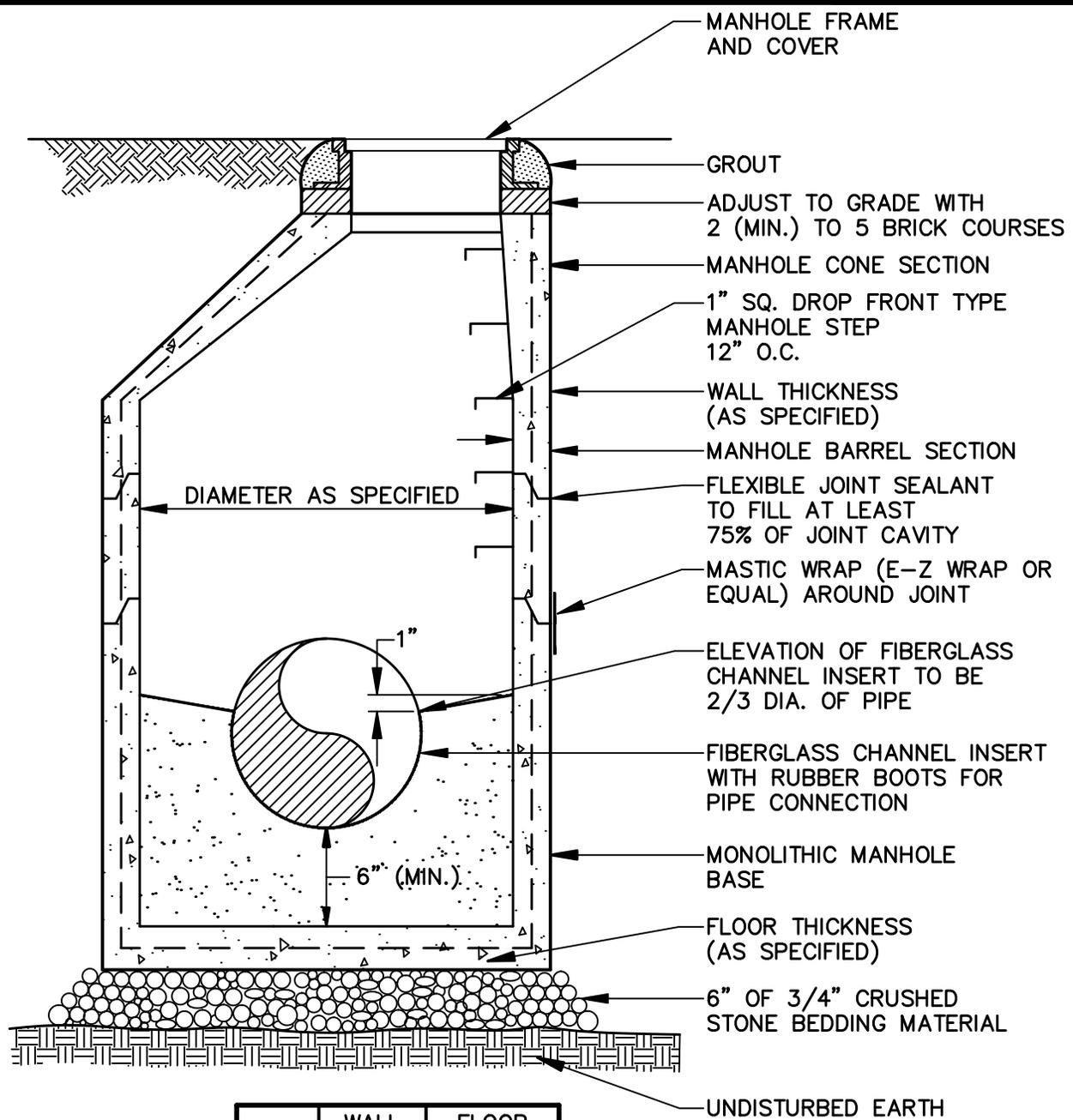
# PRECAST CONCRETE SANITARY MANHOLE

**NOT TO SCALE**

**OAK** ENGINEERS  
 400 Commercial Street, Suite 404  
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 Tel. (207) 772-2004  
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I.D.	WALL WIDTH	FLOOR THICKNESS
4'-0"	5"	6"
5'-0"	6"	6"
6'-0"	7"	6"
8'-0"	8"	8"
10'-0"	10"	9"

## **PRECAST CONCRETE SANITARY MANHOLE**

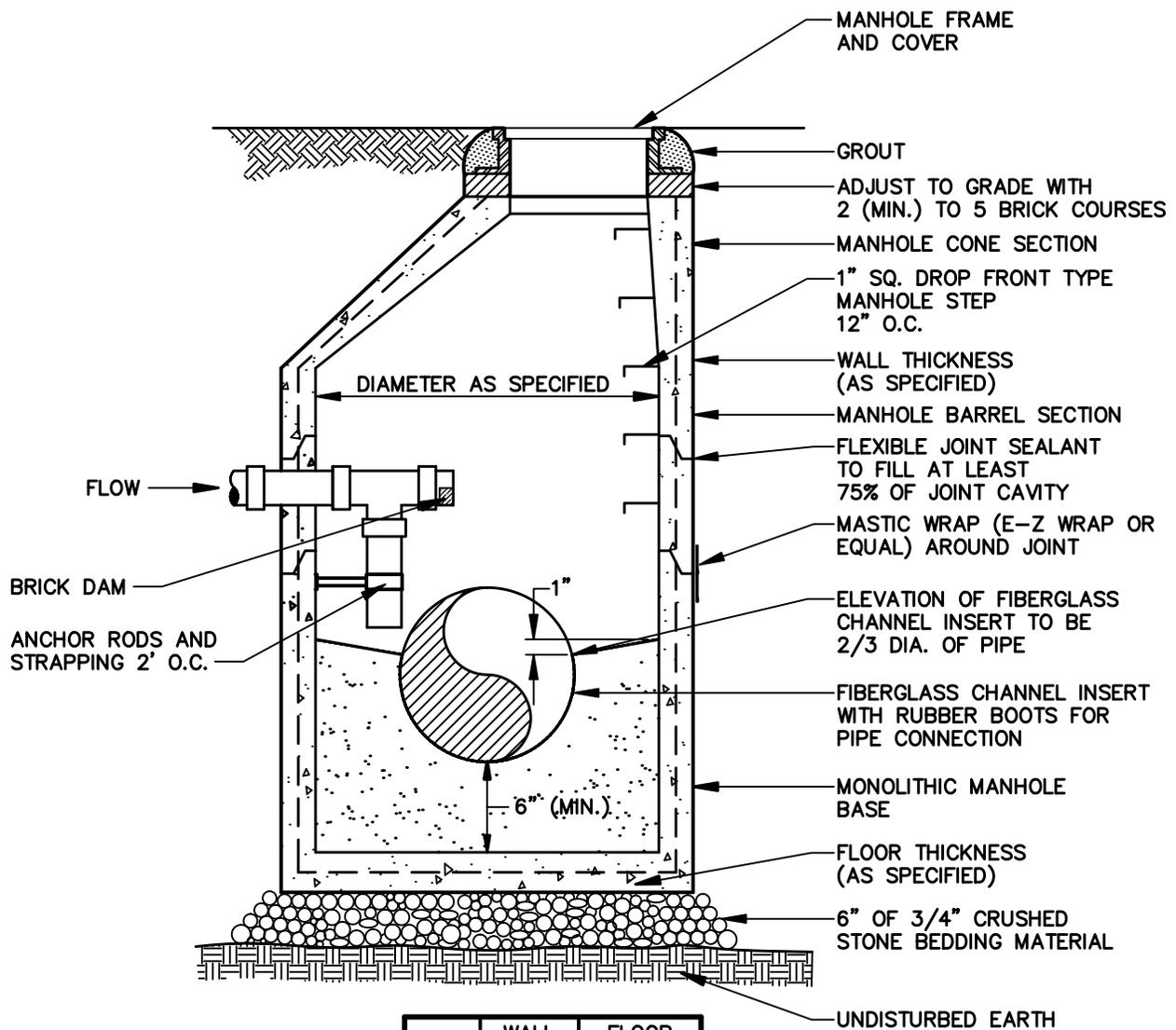
**NOT TO SCALE**



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I.D.	WALL WIDTH	FLOOR THICKNESS
4'-0"	5"	6"
5'-0"	6"	6"
6'-0"	7"	6"
8'-0"	8"	8"
10'-0"	10"	9"

# PRECAST CONCRETE SANITARY DROP MANHOLE

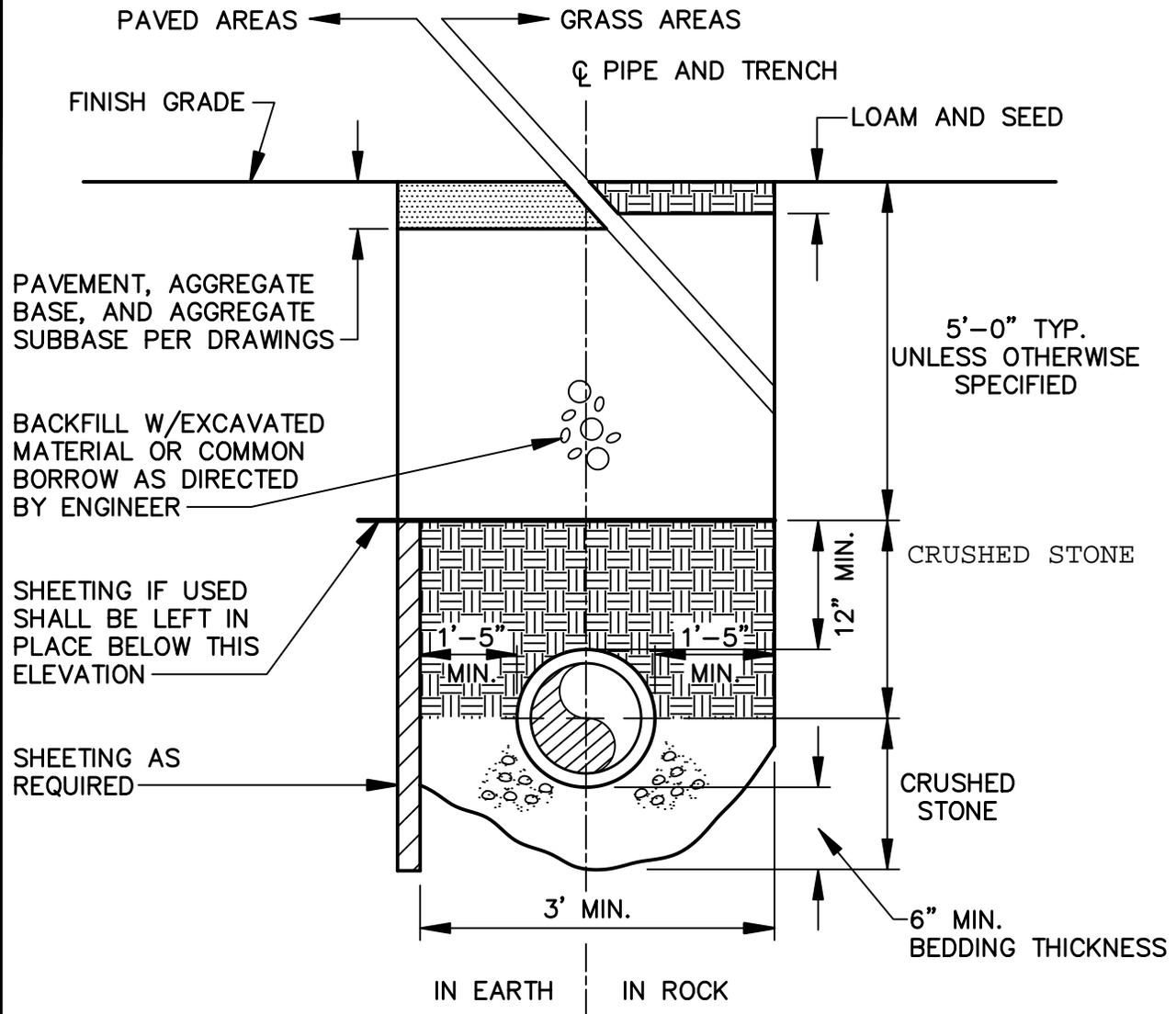
**NOT TO SCALE**



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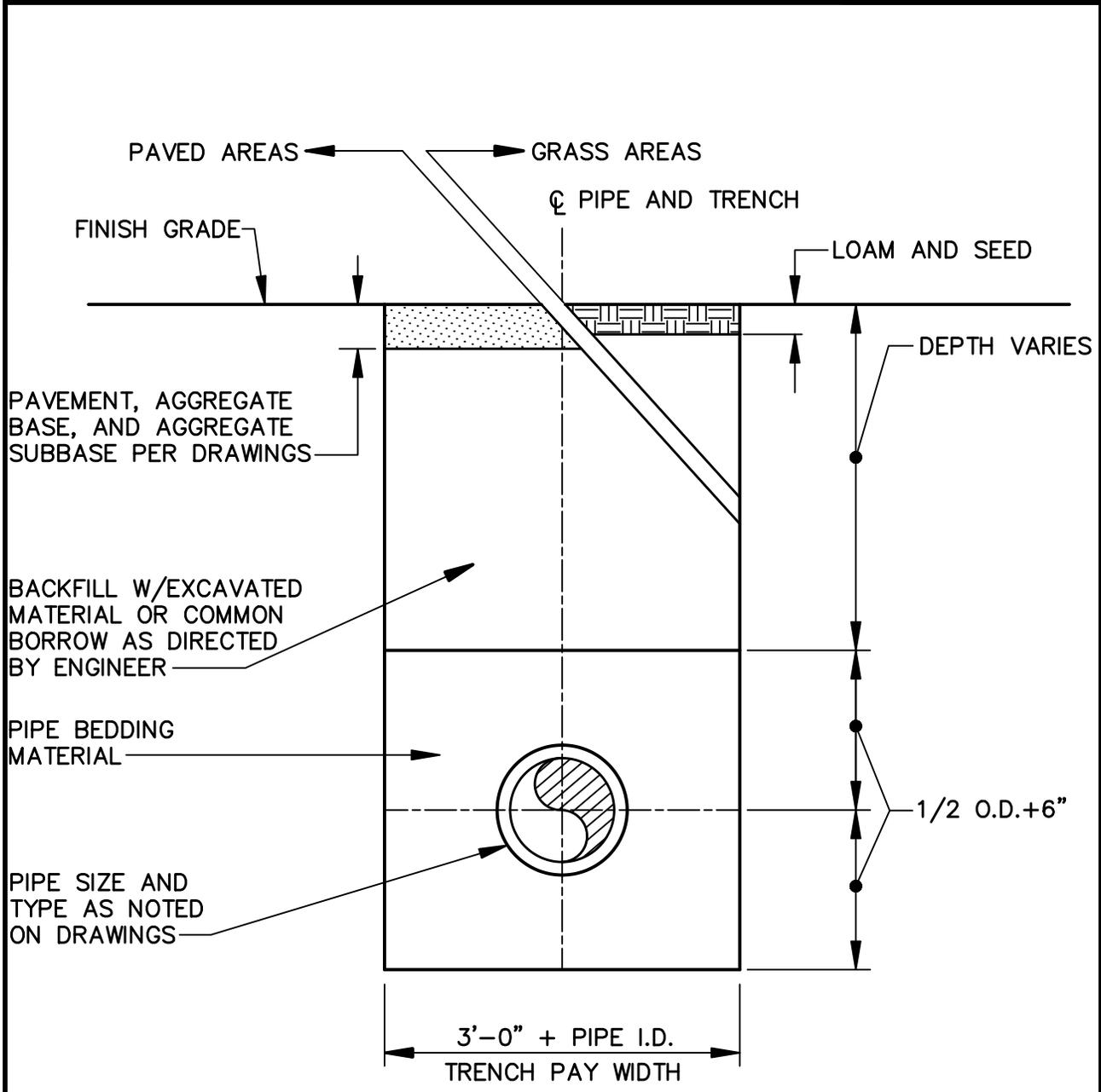


**TRENCH DETAIL**  
**NOT TO SCALE**

**OAK** ENGINEERS  
 400 Commercial Street, Suite 404  
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**Town of Cumberland, Maine**  
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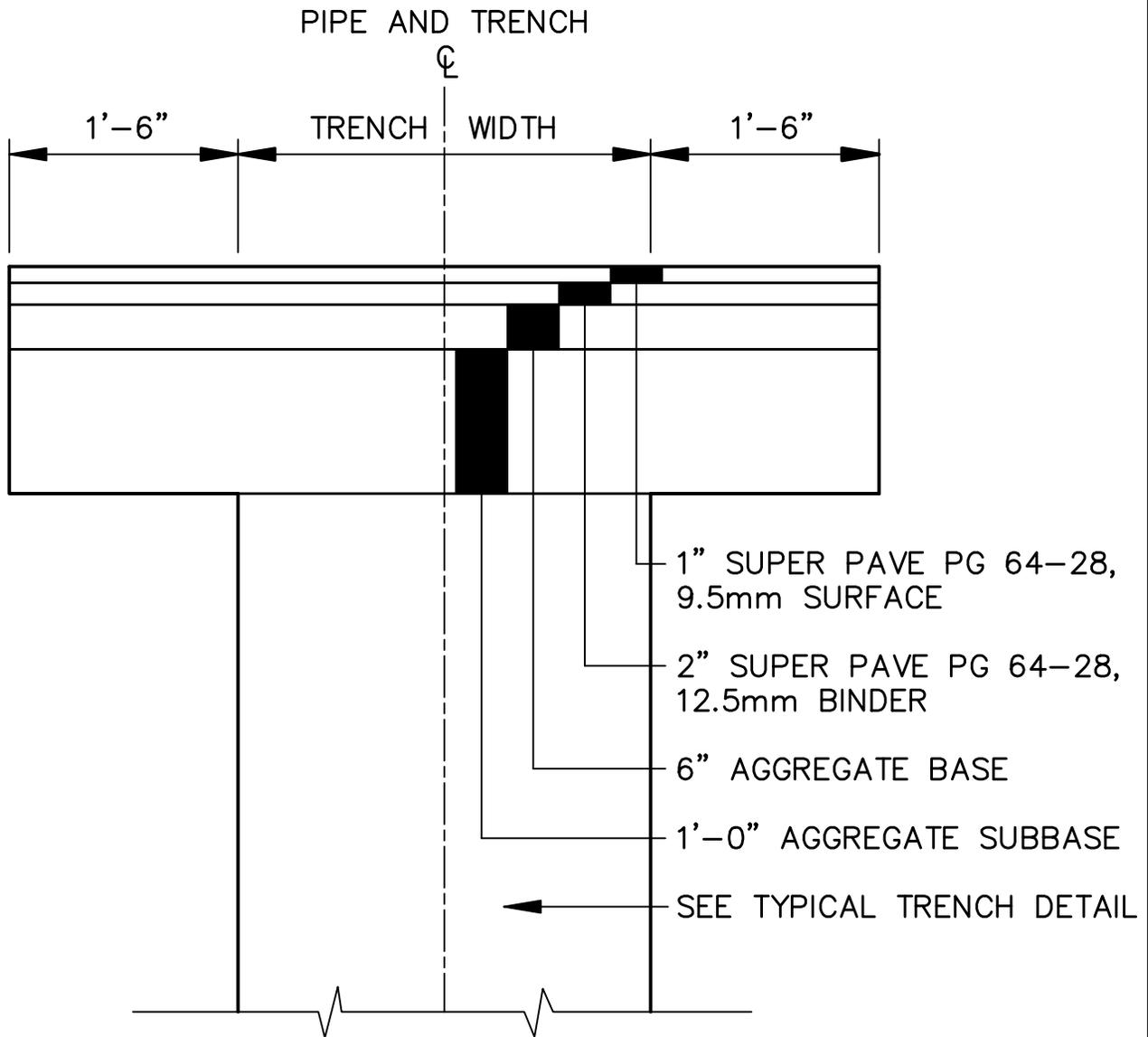


**TYPICAL TRENCH PAVING DETAIL**  
**NOT TO SCALE**

**OAK** ENGINEERS  
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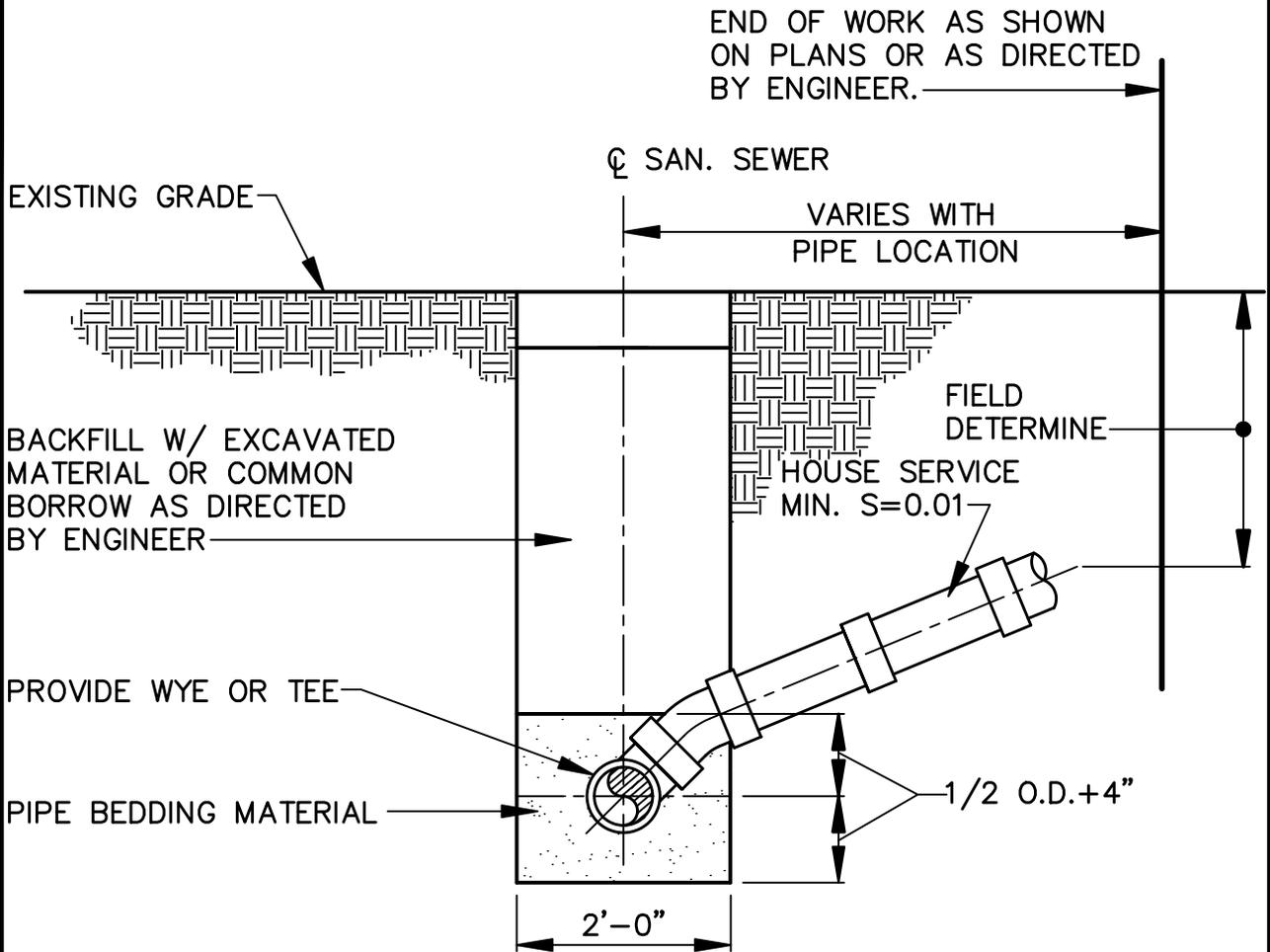
**TYPICAL TRENCH PAVING DETAIL**  
**NOT TO SCALE**



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NOTE:  
 WHERE TRENCHES FOR HOUSE CONNECTIONS  
 EXTEND INTO STREET, SEE TYPICAL TRENCH  
 DETAIL FOR DETAILS.

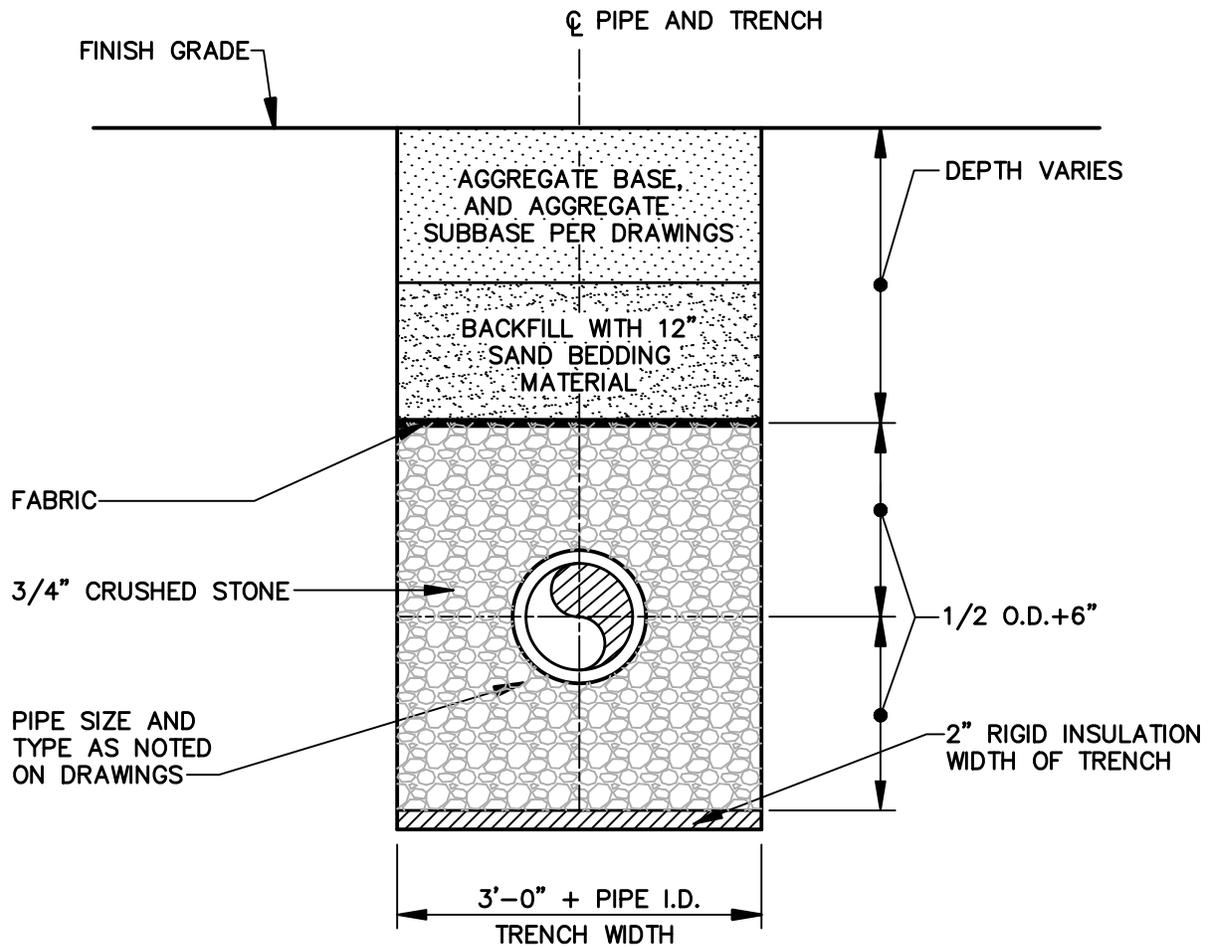
**TYPICAL TRENCH SECTION/BLDG. CONST.**  
**NOT TO SCALE**



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1. SAND BACKFILL AND RIGID INSULATION AS REQUIRED.

## TYPICAL UNDERDRAIN TRENCH DETAIL

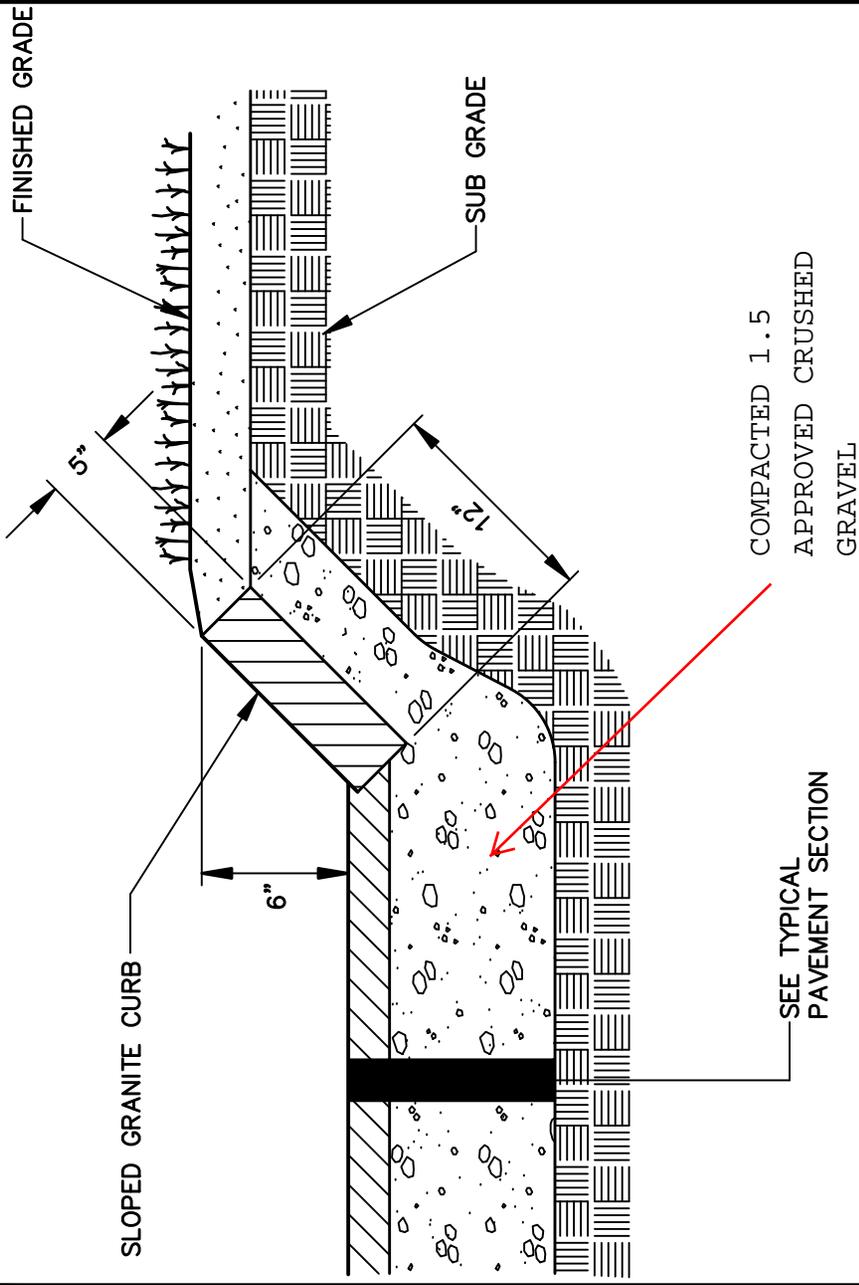
**NOT TO SCALE**



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## SLOPED GRANITE CURB

**NOT TO SCALE**

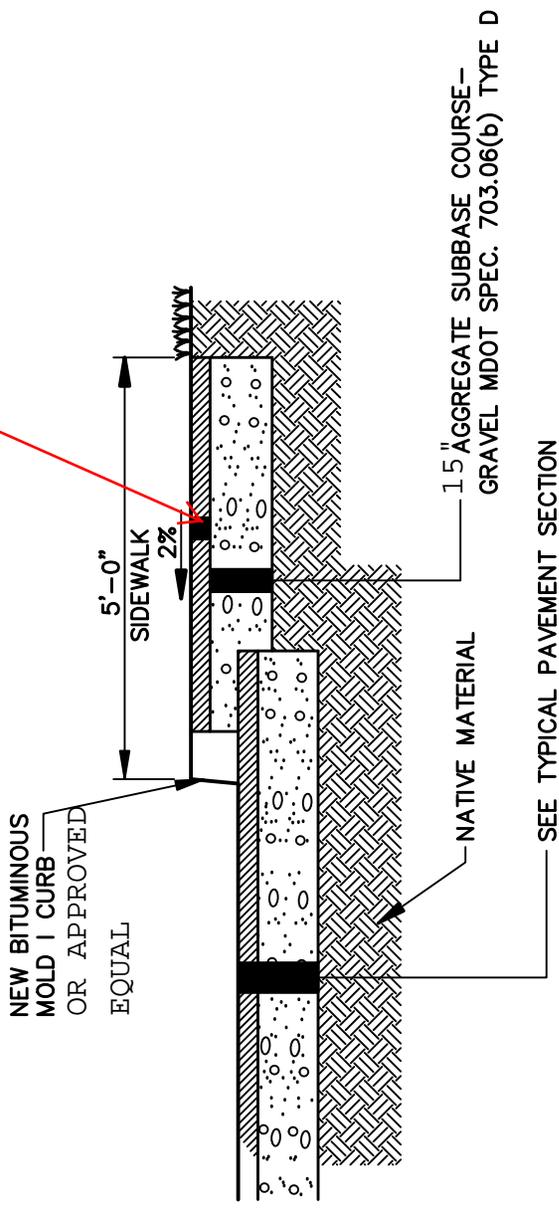


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- 2 Lifts
- 1.5" 12.5mm  
Base Pavement
- 1.0" 9.5mm  
Surface Pavement



## TYPICAL SIDEWALK SECTION

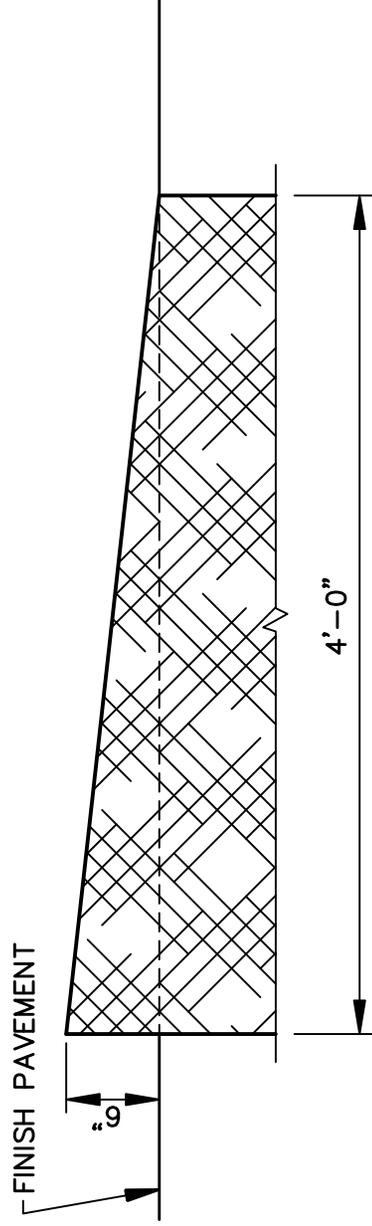
**NOT TO SCALE**



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## TYPICAL TIPDOWN CURB INSTALLATION

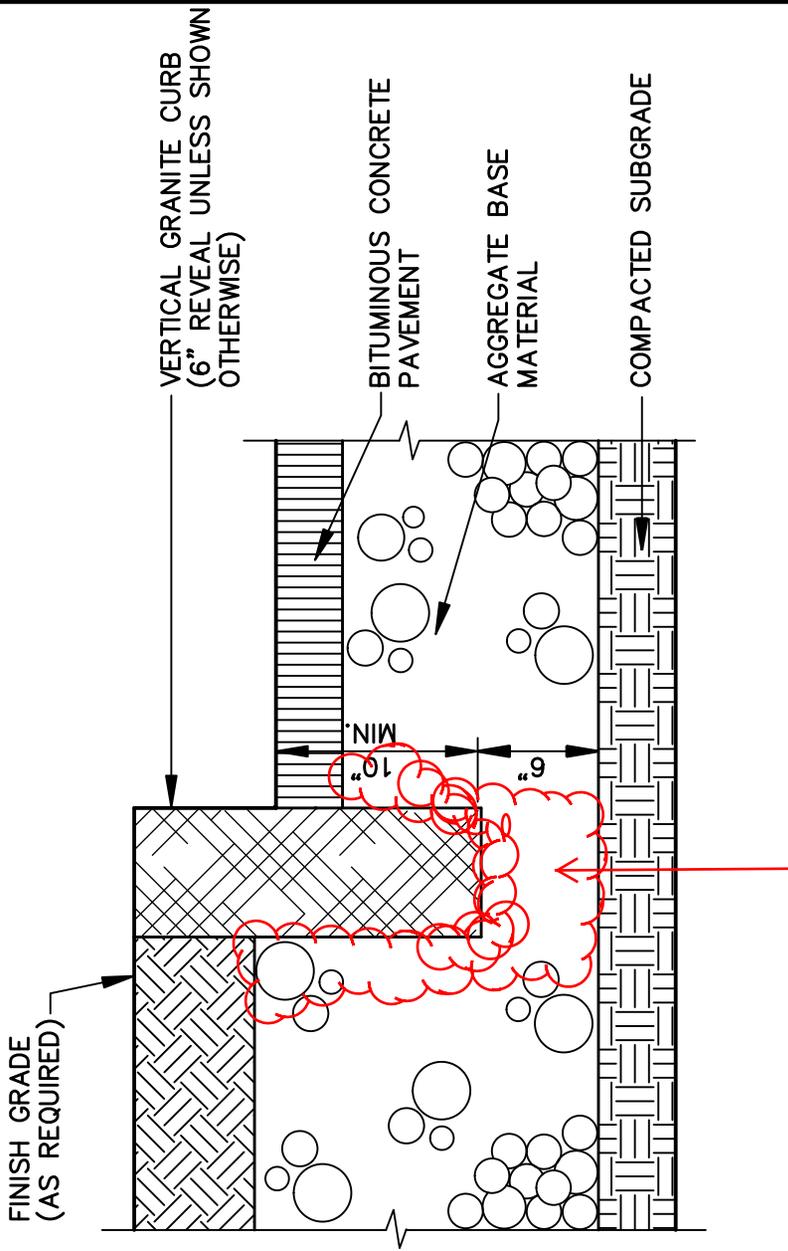
**NOT TO SCALE**



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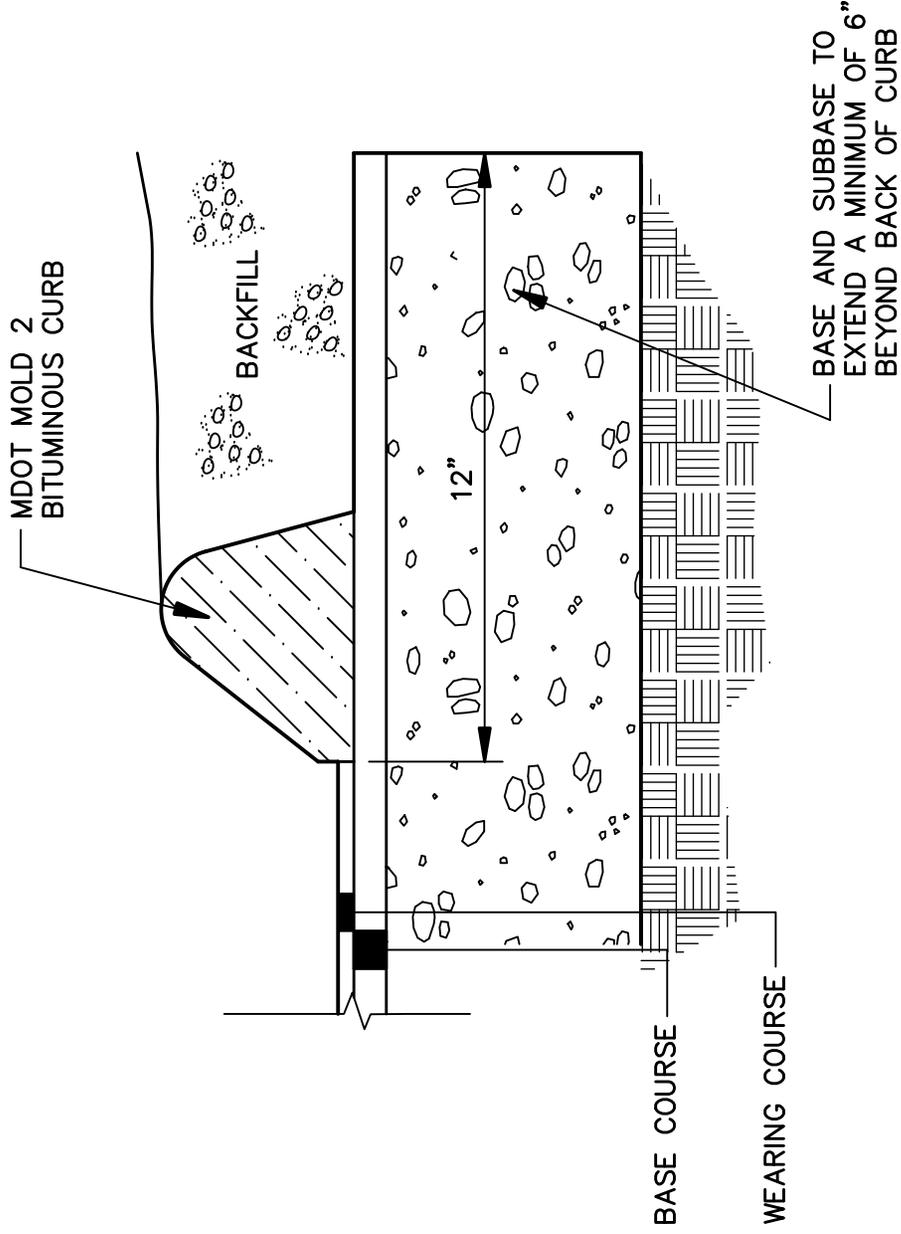


3000psi concrete at each joint and  
4" below stone to bottom of pavement

## VERTICAL GRANITE CURBING

**NOT TO SCALE**

 <p><b>Town of Cumberland, Maine</b> 290 Tuttle Road Tel. (207) 829-5559 Fax (207) 829-2214</p>	 <p>400 Commercial Street, Suite 404 Portland, ME 04101 Tel. (207) 772-2004 Fax (207) 772-3248</p>
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## **BITUMINOUS CURB-MOLD 2**

**NOT TO SCALE**

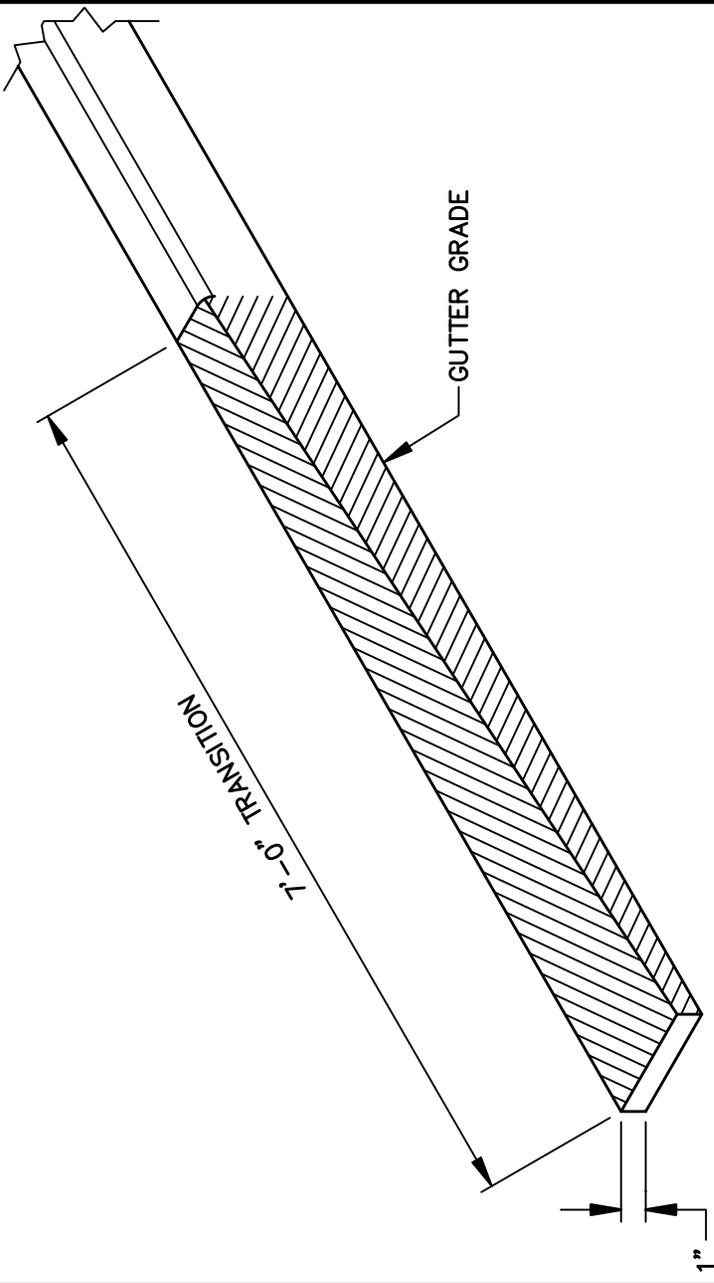
**OAK**  
ENGINEERS

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**Town of Cumberland, Maine**

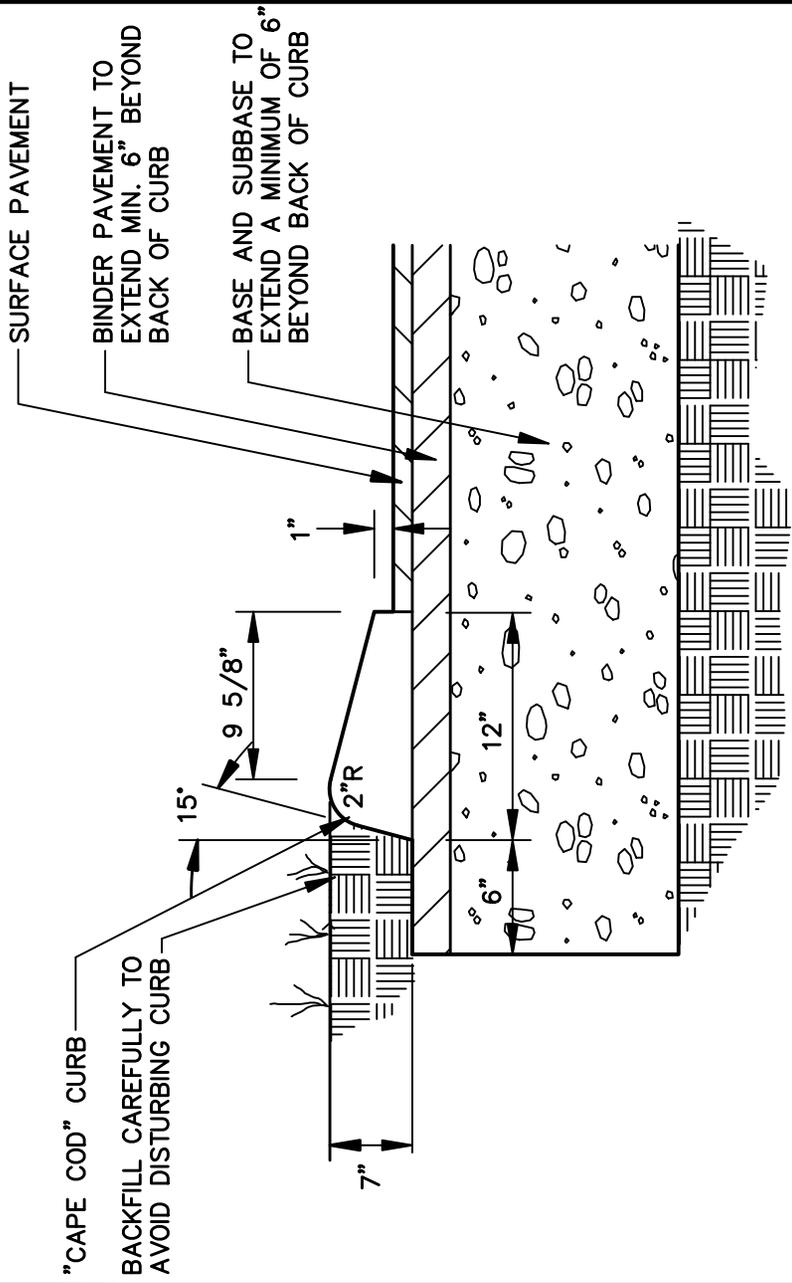
290 Tuttle Road  
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**BITUMINOUS TRANSITION CURB**  
**NOT TO SCALE**

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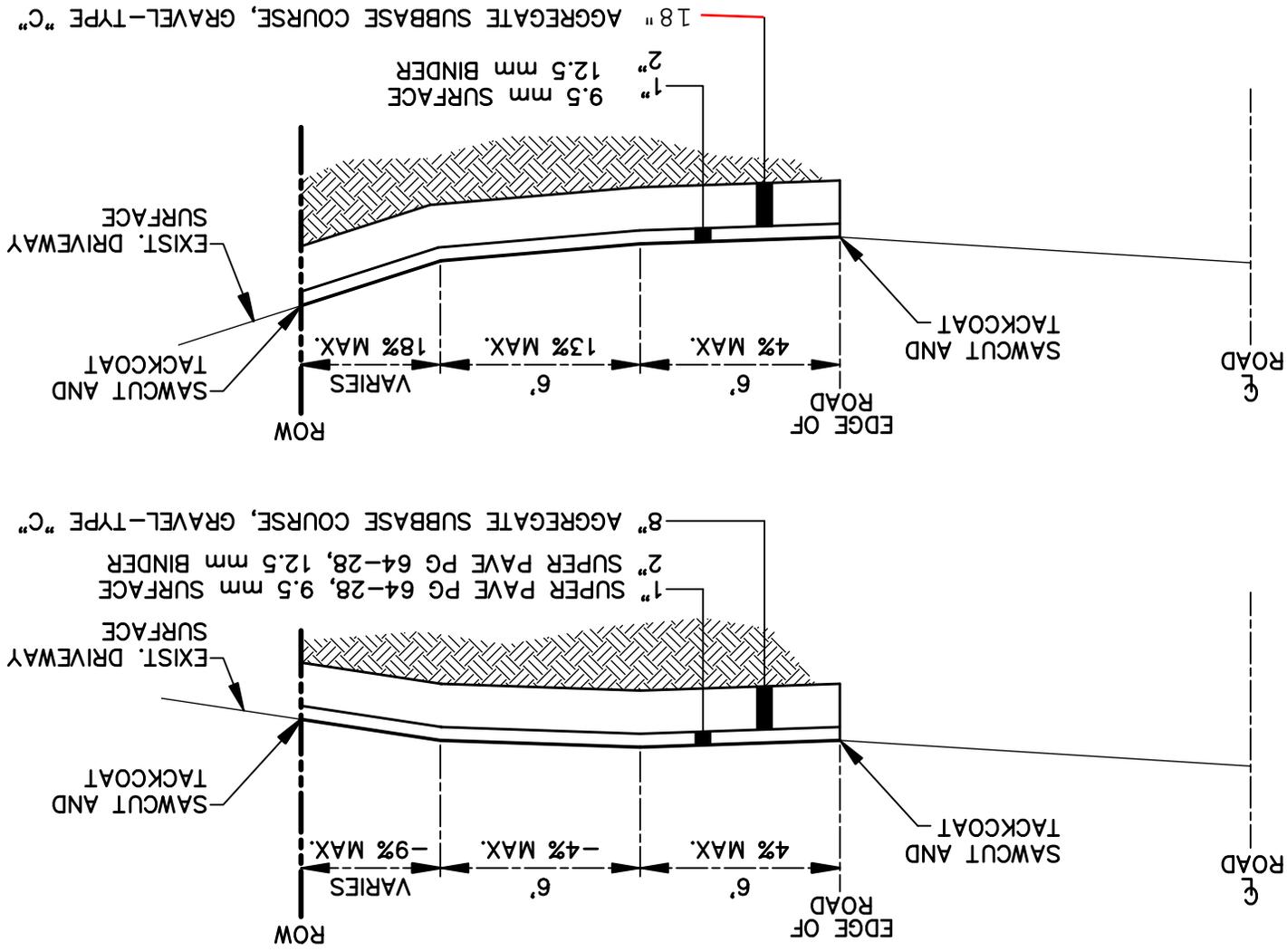
**"CAPE COD" SLOPED FACE  
BITUMINOUS CONCRETE CURB**  
**NOT TO SCALE**



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# DRIVEWAY APRON DETAIL

NOT TO SCALE

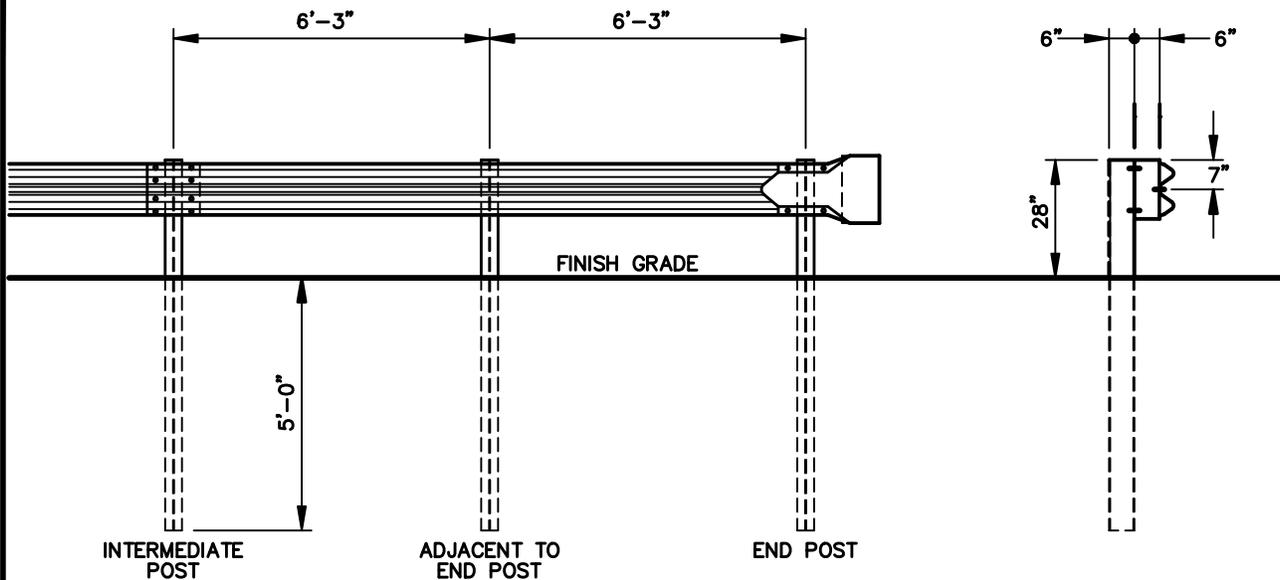


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**NOTES:**

1. INTERMEDIATE POST SPACING SHALL BE 6'-3" UNLESS OTHERWISE SHOWN.
2. STEEL POST AND OFFSET BRACKETS FOR GUARD RAIL SHALL BE W6x8.5 OR W6x9.
3. "W" BEAM BACK UP PLATES SHALL BE PLACED BEHIND RAIL ELEMENTS AT INTERMEDIATE STEEL POSTS (NON SPLICE POSTS).
4. OFFSET BRACKET SHALL BE INSTALLED ON ALL POSTS.
5. GUARD RAIL - TERMINAL END TO BE USED ON ALL ENDS.

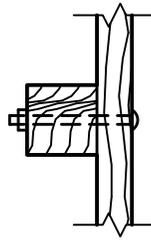
**GUARD RAIL DETAIL**  
**NOT TO SCALE**



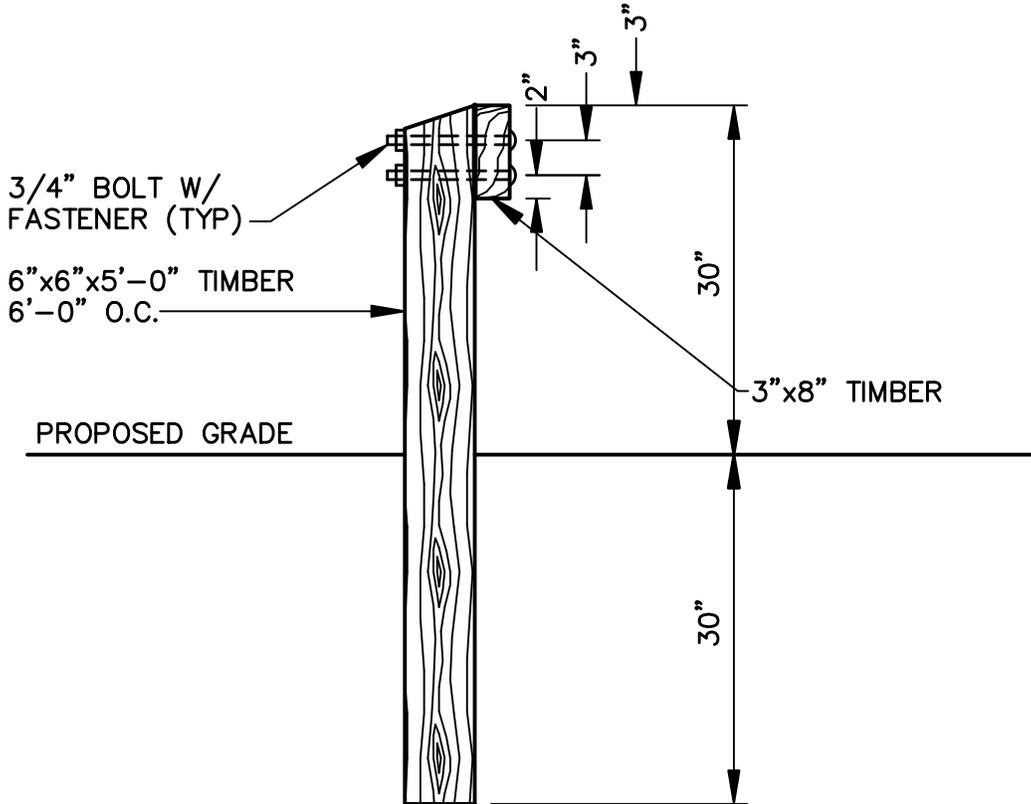
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PLAN



SECTION

NOTE:  
ALL TIMBERS TO BE PRESSURE TREATED.

## TIMBER GUARD RAIL DETAIL

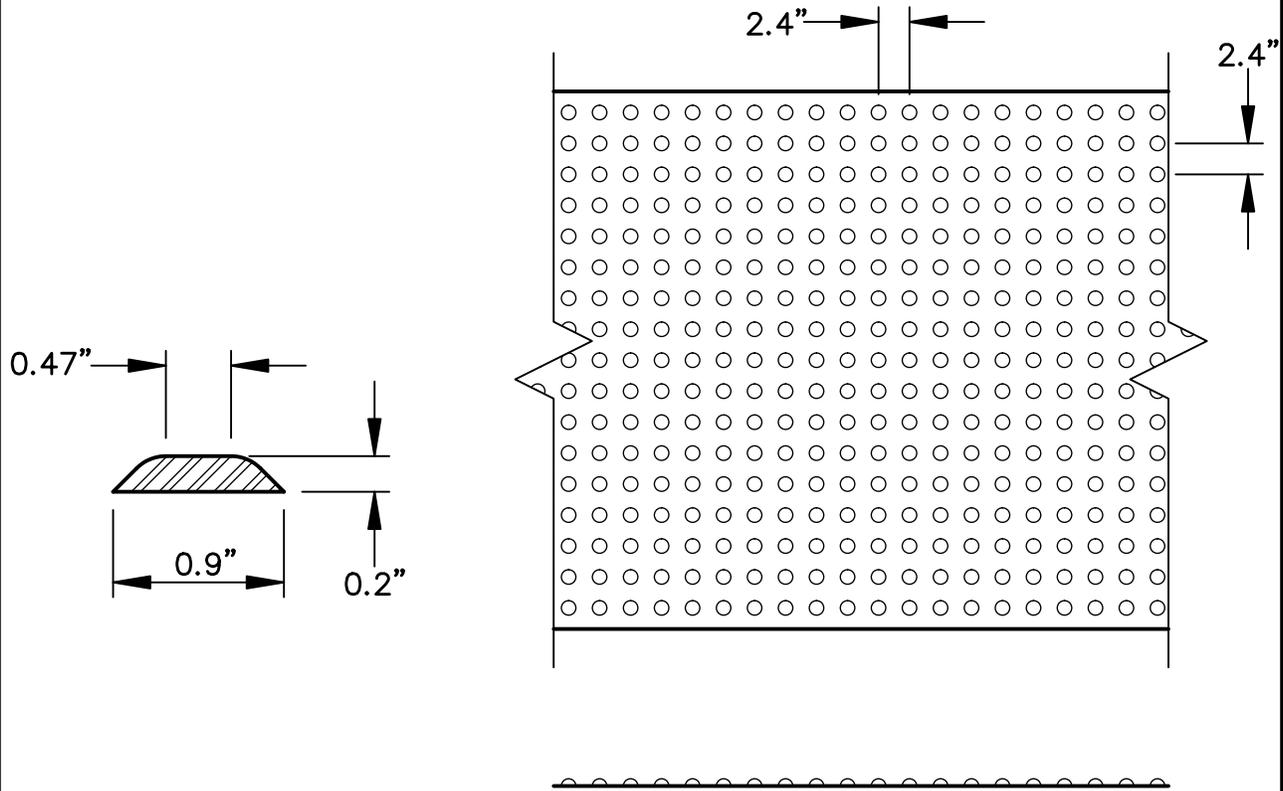
**NOT TO SCALE**



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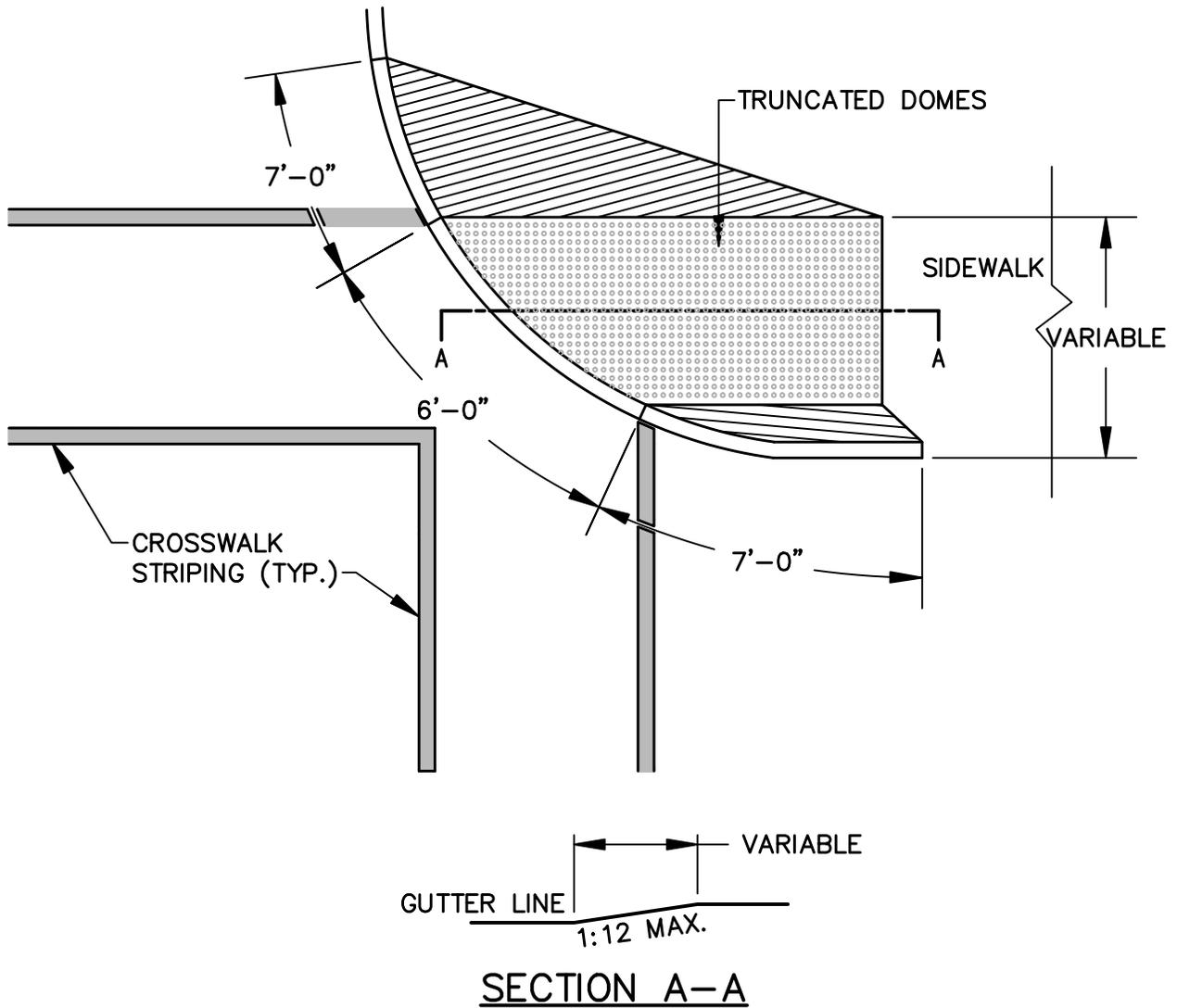
**TRUNCATED DOMES DETAIL**  
**NOT TO SCALE**



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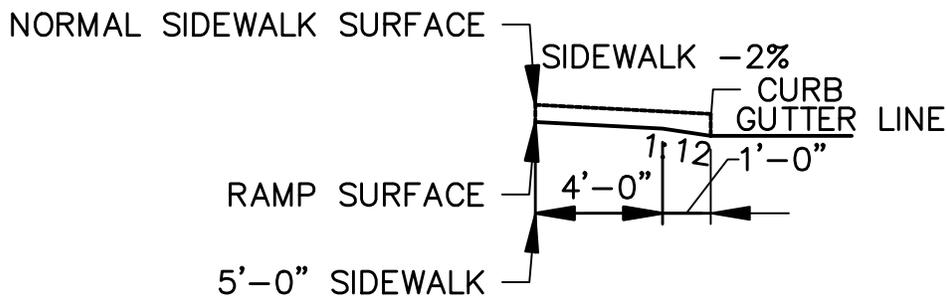
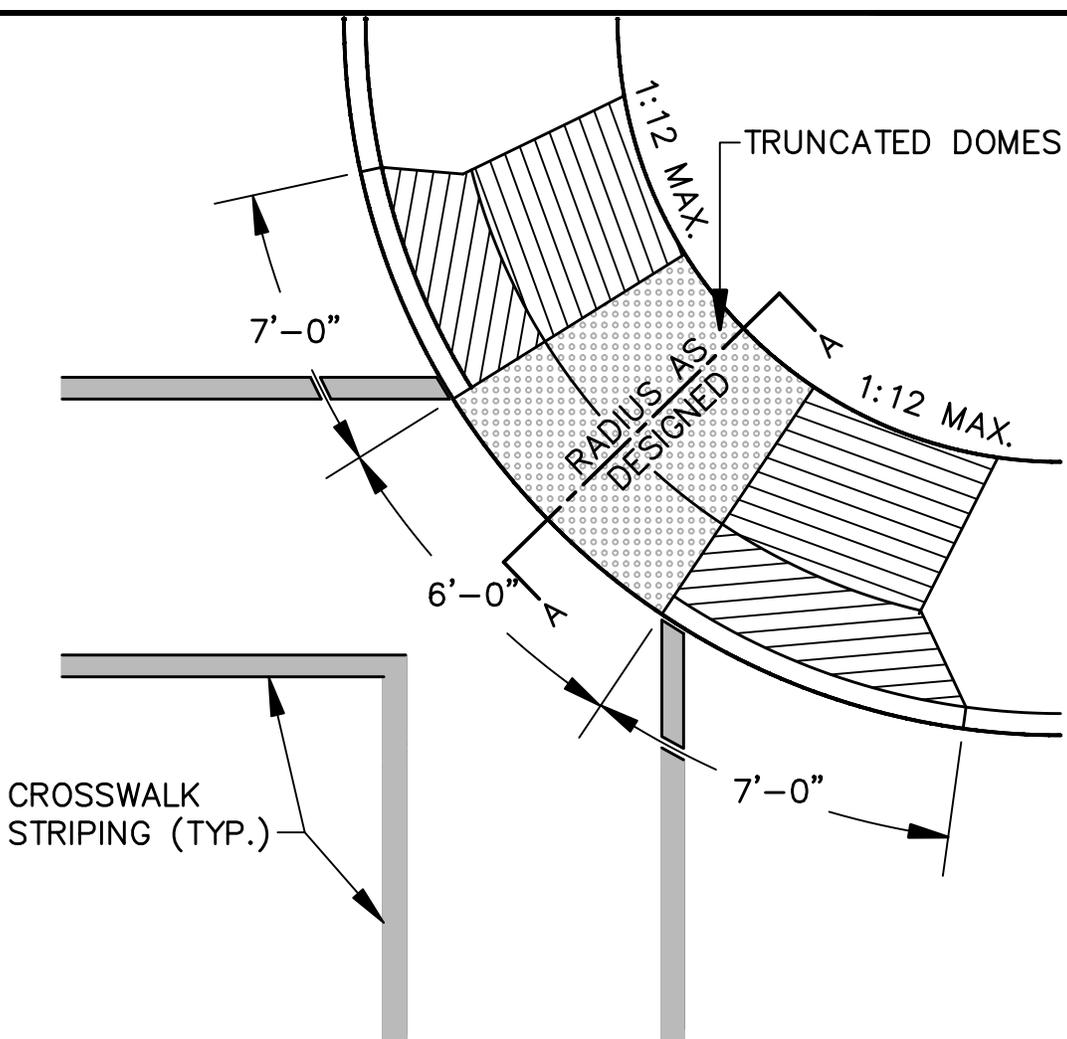
**ONE-WAY PEDESTRIAN RAMP**  
**NOT TO SCALE**



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SECTION A-A

**TWO-WAY PEDESTRIAN RAMP**

**NOT TO SCALE**



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## ***APPENDIX B***

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### Stormwater Code of Ordinances

## Chapter 242. STORMWATER MANAGEMENT

**[HISTORY: Adopted by the Town Council of the Town of Cumberland as indicated in article histories. Amendments noted where applicable.]**

### GENERAL REFERENCES

Floodplain management — See Ch. **105**.

Shoreland zoning — See Ch. **226**.

Site plan review — See Ch. **229**.

Subdivision of land — See Ch. **250**.

Zoning — See Ch. **315**.

### Article I. Stormwater Discharge

**[Adopted 7-27-2009]**

§ 242-1. Purpose.

- A. The purpose of this article is to provide for the health, safety, and general welfare of the citizens of the Town of Cumberland through the regulation of nonstormwater discharges to the Town's storm drainage system as required by federal and state law.
- B. This article establishes methods for controlling the introduction of pollutants into the Town's storm drainage system in order to comply with requirements of the Federal Clean Water Act and state law.

§ 242-2. Objectives.

The objectives of this article are to:

- A. Prohibit unpermitted or unallowed stormwater discharges to the storm drainage system; and
- B. Set forth the legal authority and procedures to carry out all inspection, monitoring and enforcement activities necessary to ensure compliance with this article.

§ 242-3. Applicability.

This article shall apply to all persons discharging stormwater and/or nonstormwater discharges from any premises into the storm drainage system located within the urban area as depicted in Attachment A. *Editor's Note: Attachment A is on file in the Town Clerk's office.*

§ 242-4. Administration.

The Town Manager or his/her designee is the Code Enforcement Officer who shall administer, implement, and enforce the provisions of this article.

§ 242-5. Definitions.

For the purposes of this article, the terms listed below are defined as follows:

**CLEAN WATER ACT**

The Federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.) and any subsequent amendments thereto.

**DISCHARGE**

Any spilling, leaking, pumping, pouring, emptying, dumping, disposing or other addition of pollutants to waters of the state. "Direct discharge" or "point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft from which pollutants are or may be discharged.

**EXEMPT PERSON OR DISCHARGE**

Any person who is subject to a multi-sector general permit for industrial activities, a general permit for construction activity, a general permit for the discharge of stormwater from the Maine Department of Transportation and the Maine Turnpike Authority municipal separate storm sewer systems, or a general permit for the discharge of stormwater from state or federally owned authority municipal separate storm sewer system facilities, and any nonstormwater discharge permitted under a NPDES permit, waiver, or waste discharge license or order issued to the discharger and administered under the authority of the United States Environmental Protection Agency (EPA) or the Maine Department of Environmental Protection (DEP).

**INDUSTRIAL ACTIVITY**

Activity or activities subject to NPDES industrial permits as defined in 40 CFR 122.26(b)(14).

**MUNICIPAL SEPARATE STORM SEWER SYSTEM or MS4**

Conveyances for stormwater, including but not limited to roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels or storm drains (other than publicly owned treatment works and combined sewers), owned or operated by any municipality, town, sewer or sewage district, fire district, state agency or federal agency or other public entity that discharge directly to surface waters of the state.

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)**

**STORMWATER DISCHARGE PERMIT**

A permit issued by the EPA or by the DEP that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

**NONSTORMWATER DISCHARGE**

Any discharge to an MS4 that is not composed entirely of stormwater.

**PERSON**

Any individual, firm, corporation, municipality, town, quasi-municipal corporation, state agency or federal agency or other legal entity which creates, initiates, originates or maintains a discharge of stormwater or a nonstormwater discharge.

**POLLUTANT**

Dredged spoil, solid waste, junk, incinerator residue, sewage, refuse, effluent, garbage, sewage sludge, munitions, chemicals, biological or radiological materials, oil, petroleum products or by-products, heat, wrecked or discarded equipment, rock, sand, dirt and industrial, municipal, domestic, commercial or agricultural wastes of any kind.

**PREMISES**

Any building, lot, parcel of land, or portion of land, whether improved or unimproved, including adjacent sidewalks and parking strips, located within the Town from which discharges into the storm drainage system are or may be created, initiated, originated or maintained.

**REGULATED SMALL MS4**

Any small MS4 regulated by the State of Maine general permit for the discharge of stormwater from small municipal separate storm sewer systems (general permit), including all those located partially or entirely within an urbanized area (UA) and those additional small MS4s located outside a UA that as of the issuance of the general permit have been designated by the DEP as regulated small MS4s.

**SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEM or SMALL MS4**

Any MS4 that is not already covered by the Phase I MS4 Stormwater Program, including municipally owned or operated storm sewer systems, state or federally owned systems, such as colleges, universities, or prisons, Maine Department of Transportation and Maine Turnpike Authority road systems and facilities, and military bases and facilities.

**STORM DRAINAGE SYSTEM**

The Town's municipal separate storm sewer system, including the Town's regulated small MS4 and areas outside the Town's urbanized area that drain into the regulated small MS4.

**STORMWATER**

Any stormwater runoff, snowmelt runoff, and surface runoff and drainage.

**TOWN**

The Town of Cumberland.

**URBANIZED AREA (UA)**

The areas of the State of Maine so defined by the latest decennial census by the United States Bureau of the Census.

§ 242-6. General prohibition.

Except as allowed or exempted herein, no person shall create, initiate, originate or maintain a nonstormwater discharge to the storm drainage system. Such

nonstormwater discharges are prohibited notwithstanding the fact that the Town may have approved the connections, drains or conveyances by which a person discharges unallowed nonstormwater discharges to the storm drainage system.

§ 242-7. Allowed nonstormwater discharges.

The creation, initiation, origination and maintenance of the following nonstormwater discharges to the storm drainage system is allowed:

- A. Landscape irrigation;
- B. Diverted stream flows;
- C. Rising groundwaters;
- D. Uncontaminated groundwater infiltration [as defined at 40 CFR 35.2005(20)];
- E. Uncontaminated pumped groundwater;
- F. Uncontaminated flows from foundation drains;
- G. Air-conditioning and compressor condensate;
- H. Irrigation water;
- I. Flows from uncontaminated springs;
- J. Uncontaminated water from crawl space pumps;
- K. Uncontaminated flows from footing drains;
- L. Lawn watering runoff;
- M. Flows from riparian habitats and wetlands;
- N. Residual street wash water (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material has been removed and detergents are not used);
- O. Hydrant flushing and firefighting and firefighting training activity runoff;
- P. Waterline flushing and discharges from potable water sources;
- Q. Individual residential car washing;
- R. Dechlorinated swimming pool discharges;
- S. Discharges specified in writing by the Code Enforcement Officer as being necessary to protect public health and safety; and
- T. Dye testing, with verbal notification to the Code Enforcement Officer prior to the time of the test.

§ 242-8. Exempt person or discharge.

This article shall not apply to an exempt person or discharge, except that the Code Enforcement Officer may request from exempt persons and persons with exempt discharges copies of permits, notices of intent, licenses and orders from the EPA or DEP that authorize the discharge(s).

§ 242-9. Suspension of access to small MS4.

- A. The Code Enforcement Officer may, without prior notice, physically suspend discharge access to the storm drainage system to a person when such suspension is necessary to stop an actual or threatened nonstormwater discharge to the storm drainage system which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the storm drainage system, or which may

cause the Town to violate the terms of its environmental permits. Such suspension may include, but is not limited to, blocking pipes, constructing dams or taking other measures, on public ways or public property, to physically block the discharge to prevent or minimize nonstormwater discharges to the storm drainage system.

- B. If the person fails to comply with a suspension order issued in an emergency, the Code Enforcement Officer may take such steps as deemed necessary to prevent or minimize damage to the storm drainage system or to minimize danger to persons; provided, however, that in taking such steps the Code Enforcement Officer may enter upon the premises that is the source of the actual or threatened nonstormwater discharge to the storm drainage system only with the consent of the premises' owner, occupant or agent.

§ 242-10. Right of entry; monitoring of discharges.

In order to determine compliance with this article, the Code Enforcement Officer may enter upon and inspect premises subject to this article at reasonable hours with the consent of the premises' owner, occupant or agent, to inspect the premises and connections thereon to the storm drainage system and to conduct monitoring, sampling and testing of the discharge to the storm drainage system.

§ 242-11. Enforcement.

It shall be unlawful for any person to violate any provision of or to fail to comply with any of the requirements of this article. Whenever the Code Enforcement Officer believes that a person has violated this article, the Code Enforcement Officer may enforce this article in accordance with 30-A M.R.S.A. § 4452.

§ 242-12. Notice of violation.

Whenever the Code Enforcement Officer believes that a person has violated this article, the Code Enforcement Officer may order compliance with this article by written notice of violation to that person indicating the nature of the violation and ordering the action necessary to correct it, including, without limitation:

- A. The elimination of nonstormwater discharges to the storm drainage system, including but not limited to disconnection of the premises from the MS4.
- B. The cessation of discharges, practices, or operations in violation of this article.
- C. At the person's expense, the abatement or remediation (in accordance with best management practices in DEP rules and regulations) of nonstormwater discharges to the storm drainage system and the restoration of any affected property and/or the payment of fines, of the Town's remediation costs and of the Town's reasonable administrative costs and attorney fees and costs. If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such abatement or restoration must be completed.

§ 242-13. Violations and penalties; injunctive relief.

Any person who violates this article shall be subject to fines, penalties and orders for injunctive relief and shall be responsible for the Town's attorney fees and costs, all in accordance with 30-A M.R.S.A. § 4452. Each day that such violation continues shall constitute a separate violation. Moreover, any person who violates this article also shall be responsible for any and all fines, penalties, damages and costs, including but not limited to attorney fees and costs, incurred by the Town for violation of federal and state environmental laws and regulations caused by or related to that person's violation of this article; this responsibility shall be in addition to any penalties, fines or injunctive relief imposed under this article.

§ 242-14. Consent agreement.

The Code Enforcement Officer may, with the approval of the municipal officers, enter into a written consent agreement with the violator to address timely abatement of the violation(s) of this article for the purposes of eliminating violations of this article and of recovering fines, costs and fees without court action.

§ 242-15. Appeal of notice of violation or suspension.

*Editor's Note: Amended at time of adoption of Code (see Ch. 1, General Provisions, Art. I).*

- A. Any person receiving a notice of violation or suspension notice may appeal the determination of the Code Enforcement Officer to the Board of Adjustment and Appeals. The notice of appeal must be received within 30 days from the date of receipt of the notice of violation.
- B. The Board of Adjustment and Appeals shall hold a hearing on the appeal within 30 days from the date of receipt of the notice of appeal. The Board of Adjustment and Appeals may affirm, reverse or modify the decision of the Code Enforcement Officer.

§ 242-16. Enforcement measures after notice and appeal; emergency situations.

- A. If the violation has not been corrected pursuant to the requirements set forth in the notice of violation or, in the event of an appeal to the Board of Adjustment and Appeals, within 45 days of a decision of the Board of Adjustment and Appeals affirming or modifying the Code Enforcement Officer's decision, then the Code Enforcement Officer may recommend to the municipal officers that the Town's Attorney file an enforcement action in a Maine court of competent jurisdiction under Rule 80K of the Maine Rules of Civil Procedure. *Editor's Note: Amended at time of adoption of Code (see Ch. 1, General Provisions, Art. I).*
- B. Notwithstanding these requirements, in the event of an emergency situation that presents an immediate threat to public health, safety or welfare or that may result in damage to the Town's storm drainage system, the Town may seek injunctive relief at any time after learning of such emergency situation.

§ 242-17. Ultimate responsibility of discharger.

The standards set forth herein are minimum standards; therefore this article does not intend or imply that compliance by any person will ensure that there will be no

contamination, pollution, or unauthorized discharge of pollutants into waters of the United States caused by said person. This article shall not create liability on the part of the Town, or any officer, agent or employee thereof, for any damages that result from any person's reliance on this article or any administrative decision lawfully made hereunder.

§ 242-18. Authority.

The Town of Cumberland enacts this article pursuant to 30-A M.R.S.A. § 3001 (municipal home rule ordinance authority), 38 M.R.S.A. § 413 (the Wastewater Discharge Law), 33 U.S.C. § 1251 et seq. (the Clean Water Act), and 40 CFR 122 [the United States Environmental Protection Agency's regulations governing the National Pollutant Discharge Elimination System (NPDES)]. The Maine Department of Environmental Protection, through its promulgation of the general permit for the discharge of stormwater from small municipal separate storm sewer systems, has listed the Town of Cumberland as having a regulated small municipal separate storm sewer system ("small MS4"); under this general permit, listing as a regulated small MS4 necessitates enactment of this article as part of the Town's stormwater management program.

## Article II. Post-Construction Stormwater Management

**[Adopted 9-14-2009]**

§ 242-19. Purpose.

- A. The purpose of this article is to provide for the health, safety, and general welfare of the citizens of the Town of Cumberland through review and approval of post-construction stormwater management plans and monitoring and enforcement of compliance with such plans as required by federal and state law.
- B. This article establishes methods for post-construction stormwater management in order to comply with minimum control measure requirements of the Federal Clean Water Act, of federal regulations and of Maine's small municipal separate storm sewer systems general permit.

§ 242-20. Objectives.

The objectives of this article are to:

- A. Reduce the impact of post-construction discharge of stormwater on receiving waters; and
- B. Reduce stormwater runoff rates and volumes, soil erosion and nonpoint source pollution, wherever possible, through use of best management practices as promulgated by the Maine Department of Environmental Protection pursuant to its Chapter 500 and 502 rules and ensure that these management controls are properly maintained and pose no threat to public safety.

§ 242-21. Applicability.

- A. This article applies to all new development and redevelopment within the Town that discharges stormwater to the Town's municipal separate storm sewer system (MS4) and to associated stormwater management facilities.
- B. Exception. This article does not apply to new development or redevelopment on a lot, tract or parcel where that lot, tract or parcel is part of a subdivision that is approved under this article. Said lot, tract or parcel shall not require separate review under this article but shall comply with the post-construction stormwater management plan requirements for that approved subdivision.

§ 242-22. Definitions.

For the purposes of this article, the terms listed below are defined as follows:

**APPLICANT**

A person with requisite right, title or interest or an agent for such person who has filed an application for new development or redevelopment that requires a post-construction stormwater management plan under this article.

**BEST MANAGEMENT PRACTICES (BMP)**

Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. Best management practices also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

**CLEAN WATER ACT**

The Federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), also known as the "Clean Water Act," and any subsequent amendments thereto.

**CONSTRUCTION ACTIVITY**

Construction activity including one acre or more of disturbed area. "Construction activity" also includes activity with less than one acre of total land disturbed area if that area is part of a subdivision that will ultimately disturb an area equal to or greater than one acre.

**DISCHARGE**

Any spilling, leaking, pumping, pouring, emptying, dumping, disposing or other addition of pollutants to waters of the state. "Direct discharge" or "point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft from which pollutants are or may be discharged.

**DISTURBED AREA**

Clearing, grading and excavation. Mere cutting of trees, without grubbing, stump removal, or disturbance or exposure of soil, is not considered

"disturbed area." "Disturbed area" does not include routine maintenance but does include redevelopment. "Routine maintenance" is maintenance performed to maintain the original line and grade, hydraulic capacity, and original purpose of land or improvements thereon.

**ENFORCEMENT AUTHORITY**

The Town Manager or his/her designee who is the person(s) or department authorized by the Town to administer and enforce this article.

**MUNICIPAL PERMITTING AUTHORITY**

The municipal official or body that has jurisdiction over the land use approval or permit required for a new development or redevelopment.

**MUNICIPAL SEPARATE STORM SEWER SYSTEM or MS4**

Conveyances for stormwater, including but not limited to roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels or storm drains (other than publicly owned treatment works and combined sewers), owned or operated by any municipality, sewer or sewage district, fire district, state agency or federal agency or other public entity that discharge directly to surface waters of the state.

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER DISCHARGE PERMIT**

A permit issued by the United States Environmental Protection Agency (EPA) or by the Maine Department of Environmental Protection (DEP) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

**NEW DEVELOPMENT**

Any construction activity on unimproved premises, and for purposes of this article includes redevelopment as defined below.

**PERSON**

Any individual, firm, corporation, municipality, town, quasi-municipal corporation, state agency or federal agency or other legal entity.

**POLLUTANT**

Dredged spoil, solid waste, junk, incinerator residue, sewage, refuse, effluent, garbage, sewage sludge, munitions, chemicals, biological or radiological materials, oil, petroleum products or by-products, heat, wrecked or discarded equipment, rock, sand, dirt and industrial, municipal, domestic, commercial or agricultural wastes of any kind.

**POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN**

Best management practices and associated inspection and maintenance procedures for the stormwater management facilities employed by a new development or redevelopment to meet the standards of this article and approved by the municipal permitting authority.

**PREMISES**

Any building, lot, parcel of land, or portion of land, whether improved or unimproved, including adjacent sidewalks and parking strips, located

within the Town from which discharges into the storm drainage system are or may be created, initiated, originated or maintained.

**QUALIFIED POST-CONSTRUCTION STORMWATER INSPECTOR**

A person who conducts post-construction inspections of stormwater management facilities for compensation and who has received the appropriate training for the same from DEP.

**REDEVELOPMENT**

Construction activity on premises already improved with buildings, structures or activities or uses, but does not include such activities as exterior remodeling of structures.

**REGULATED SMALL MS4**

Any small MS4 regulated by the State of Maine general permit for the discharge of stormwater from small municipal separate storm sewer systems ("general permit"), including all those located partially or entirely within an urbanized area (UA) and those additional small MS4s located outside a UA that as of the issuance of the general permit have been designated by the DEP as regulated small MS4s.

**SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEM or SMALL MS4**

Any MS4 that is not already covered by the Phase I MS4 Stormwater Program, including municipally owned or operated storm sewer systems, state or federally owned systems, such as colleges, universities, or prisons, Maine Department of Transportation and Maine Turnpike Authority road systems and facilities, and military bases and facilities.

**STORM DRAINAGE SYSTEM**

The Town's municipal separate storm sewer system, including the Town's regulated small MS4 and areas outside the Town's urbanized area that drain into the regulated small MS4.

**STORMWATER**

Any stormwater runoff, snowmelt runoff, and surface runoff and drainage.

**STORMWATER MANAGEMENT FACILITIES**

Any parking areas, catch basins, drainage swales, detention basins and ponds, pipes and related structures that are part of the post-construction stormwater management plan for a new development or redevelopment.

**TOWN**

The Town of Cumberland.

**URBANIZED AREA (UA)**

The areas of the State of Maine so defined by the latest decennial census by the United States Bureau of the Census.

§ 242-23. Stormwater management plan.

- A. Except as provided in § 242-21B above, no applicant for a building permit, subdivision approval, site plan approval or other zoning, planning or other land use approval for new development to which this article is applicable shall receive such permit or approval for that new development unless the municipal permitting authority for that new

development also determines that the applicant's post-construction stormwater management plan for that new development meets the requirements of this article.

- B. At the time of application, the applicant shall notify the municipal permitting authority if its post-construction stormwater management plan includes any BMP(s) that will discharge to the Town's MS4 and shall include in this notification a listing of which BMP(s) will so discharge.

§ 242-24. Performance standards.

- A. The applicant shall make adequate provision for the management of the quantity and quality of all stormwater generated by a new development through a post-construction stormwater management plan. This post-construction stormwater management plan shall be designed to meet the standards contained in the Maine Department of Environmental Protection's Chapter 500 and 502 rules and shall comply with the practices described in the manual "Stormwater Management for Maine," published by the Maine Department of Environmental Protection, January 2006, which hereby are incorporated by reference pursuant to 30-A M.R.S.A. § 3003.
- B. The applicant shall meet the quantity and quality standards above either on site or off site. Where off-site facilities are used, the applicant must submit to the Town documentation, approved as to legal sufficiency by the Town's Attorney, that the applicant has a sufficient property interest in the property where the off-site facilities are located, by easement, covenant or other appropriate legal instrument, to ensure that the facilities will be able to provide post-construction stormwater management for the new development and that the property will not be altered in a way that interferes with the off-site facilities.
- C. Where the applicant proposes to retain ownership of the stormwater management facilities shown in its post-construction stormwater management plan, the applicant shall submit to the Town documentation, approved as to legal sufficiency by the Town's Attorney, that the applicant, its successors, heirs and assigns shall have the legal obligation and the resources available to operate, repair, maintain and replace the stormwater management facilities. Applicants for new development or redevelopment requiring stormwater management facilities that will not be dedicated to the Town shall enter into a maintenance agreement with the Town. A sample of this maintenance agreement is attached as Appendix 1 to this article. *Editor's Note: Appendix 1 is on file at the Town Clerk's office.*
- D. Whenever elements of the stormwater management facilities are not within the right-of-way of a public street and the facilities will not be offered to the Town for acceptance as public facilities, the municipal permitting authority may require that perpetual easements not less than 30 feet in width, conforming substantially to the lines of existing natural drainage and in a form acceptable to the Town's Attorney, shall be provided to the Town allowing access for maintenance, repair, replacement and improvement of the stormwater management facilities. When an offer of dedication is required by the municipal permitting authority, the applicant shall be responsible for the maintenance of these stormwater management facilities under this article until such time (if ever) as they are accepted by the Town.
- E. In addition to any other applicable requirements of this article and the Town's Municipal Code, any new development which also requires a stormwater management permit

from the Maine Department of Environmental Protection (DEP) under 38 M.R.S.A. § 420-D shall comply with the rules adopted by DEP under 38 M.R.S.A. § 420-D, Subsection 1, as the same may be amended from time to time, and the applicant shall document such compliance to the municipal permitting authority. Where the standards or other provisions of such stormwater rules conflict with municipal ordinances, the stricter (more protective) standard shall apply.

§ 242-25. General requirements.

Any person owning, operating, leasing or having control over stormwater management facilities required by a post-construction stormwater management plan approved under this article shall demonstrate compliance with that plan as follows:

- A. That person or a qualified post-construction stormwater inspector hired by that person shall, at least annually, inspect the stormwater management facilities, including but not limited to any parking areas, catch basins, drainage swales, detention basins and ponds, pipes and related structures, in accordance with all municipal and state inspection, cleaning and maintenance requirements of the approved post-construction stormwater management plan.
- B. If the stormwater management facilities require maintenance to function as intended by the approved post-construction stormwater management plan, that person shall take corrective action(s) to address the deficiency or deficiencies.
- C. That person shall employ a qualified post-construction stormwater inspector to provide, on or by March 1 of each year, a completed and signed certification to the enforcement authority, in a form identical to that attached as Appendix 2 to this article, *Editor's Note: Appendix 2 is on file at the Town Clerk's office.* certifying that the stormwater management facilities have been inspected and that they are adequately maintained and functioning as intended by the approved post-construction stormwater management plan, or that they require maintenance or repair, describing any required maintenance and any deficiencies found during inspection of the stormwater management facilities, and if the stormwater management facilities require maintenance or repair of deficiencies in order to function as intended by the approved post-construction stormwater management plan, the person shall provide a record of the required maintenance or deficiency and corrective action(s) taken.

§ 242-26. Right of entry.

In order to determine compliance with this article and with the post-construction stormwater management plan, the enforcement authority may enter upon property at reasonable hours with the consent of the owner, occupant or agent to inspect the stormwater management facilities.

§ 242-27. Annual report.

Beginning July 1, 2009, and each year thereafter, the Town shall include the following in its annual report to the Maine Department of Environmental Protection:

- A. The cumulative number of sites that have stormwater management facilities discharging into its MS4;
- B. A summary of the number of sites that have stormwater management facilities discharging into its MS4 that were reported to the Town;
- C. The number of sites with documented functioning stormwater management facilities; and
- D. The number of sites that required routine maintenance or remedial action to ensure that stormwater management facilities are functioning as intended.

§ 242-28. Enforcement.

It shall be unlawful for any person to violate any provision of or to fail to comply with any of the requirements of this article or of the post-construction stormwater management plan. Whenever the enforcement authority believes that a person has violated this article or the post-construction stormwater management plan, the enforcement authority may enforce this article in accordance with 30-A M.R.S.A. § 4452.

§ 242-29. Notice of violation.

- A. Whenever the enforcement authority believes that a person has violated this article or the post-construction stormwater management plan, the enforcement authority may order compliance with this article or with the post-construction stormwater management plan by written notice of violation to that person indicating the nature of the violation and ordering the action necessary to correct it, including, without limitation:
  - (1) The abatement of violations and the cessation of practices or operations in violation of this article or of the post-construction stormwater management plan;
  - (2) At the person's expense, compliance with BMPs required as a condition of approval of the new development, the repair of stormwater management facilities and/or the restoration of any affected property; and/or
  - (3) The payment of fines, of the Town's remediation costs and of the Town's reasonable administrative costs and attorney fees and costs.
- B. If abatement of a violation, compliance with BMPs, repair of stormwater management facilities and/or restoration of affected property is required, the notice shall set forth a deadline within which such abatement, compliance, repair and/or restoration must be completed.

§ 242-30. Violations and penalties; injunctive relief.

Any person who violates this article or the post-construction stormwater management plan shall be subject to fines, penalties and orders for injunctive relief and shall be responsible for the Town's attorney fees and costs, all in accordance with 30-A M.R.S.A. § 4452. Each day that such violation continues shall constitute a separate violation. Moreover, any person who violates this article or the post-construction stormwater management plan also shall be responsible for any and all fines, penalties, damages and costs, including but not limited to attorney fees and costs, incurred by the Town for violation of federal and state environmental laws and regulations caused by or

related to that person's violation of this article or of the post-construction stormwater management plan; this responsibility shall be in addition to any penalties, fines or injunctive relief imposed under this article.

§ 242-31. Consent agreement.

The enforcement authority may, with the approval of the municipal officers, enter into a written consent agreement with the violator to address timely abatement of the violation(s) of this article or of the post-construction stormwater management plan for the purposes of eliminating violations of this article or of the post-construction stormwater management plan and of recovering fines, costs and fees without court action.

§ 242-32. Appeal of notice of violation or suspension.

*Editor's Note: Amended at time of adoption of Code (see Ch. 1, General Provisions, Art. I).*

- A. Any person receiving a notice of violation or suspension notice may appeal the determination of the enforcement authority to the Board of Adjustment and Appeals in accordance with the provisions of Chapter **315**, Zoning, § **315-77D**. The notice of appeal must be received within 30 days from the date of receipt of the notice of violation.
- B. The Board of Adjustment and Appeals shall hold a de novo hearing on the appeal within 30 days from the date of receipt of the notice of appeal. The Board of Adjustment and Appeals may affirm, reverse or modify the decision of the enforcement authority. A party aggrieved by the decision of the Board of Adjustment and Appeals may appeal that decision to the Maine Superior Court within 45 days of the date of the Board of Adjustment and Appeals decision pursuant to Rule 80B of the Maine Rules of Civil Procedure.

§ 242-33. Enforcement measures after notice and appeal.

*Editor's Note: Amended at time of adoption of Code (see Ch. 1, General Provisions, Art. I).* If the violation has not been corrected pursuant to the requirements set forth in the notice of violation or, in the event of an appeal to the Board of Adjustment and Appeals, within 45 days of a decision of the Board of Adjustment and Appeals affirming or modifying the enforcement authority's decision, then the enforcement authority may recommend to the municipal officers that the Town's Attorney file an enforcement action in a Maine court of competent jurisdiction under Rule 80K of the Maine Rules of Civil Procedure.

§ 242-34. Authority.

The Town of Cumberland enacts this article pursuant to 30-A M.R.S.A. § 3001 (municipal home rule ordinance authority), 38 M.R.S.A. § 413 (the Wastewater Discharge Law), 33 U.S.C. § 1251 et seq. (the Clean Water Act), and 40 CFR 122 [United States Environmental Protection Agency's regulations governing the National Pollutant Discharge Elimination System (NPDES)]. The Maine Department of

Environmental Protection, through its promulgation of the general permit for the discharge of stormwater from small municipal separate storm sewer systems, has listed the Town of Cumberland as having a regulated small municipal separate storm sewer system ("small MS4"); under this general permit, listing as a regulated small MS4 necessitates enactment of this article as part of the Town's stormwater management program in order to satisfy the minimum control measures required by Part IV D 5 (Post-construction stormwater management in new development and redevelopment).