

**Town of Trumbull**  
**CONNECTICUT**  
**www.trumbull-ct.gov**

TOWN ENGINEER  
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TOWN HALL  
5866 MAIN STREET  
TRUMBULL, CT. 06611



**ROAD CONSTRUCTION REGULATIONS**

Contents

- Section 1 - Street, Roadway and Sidewalk Widths
- Section 2 - Clearing and Grubbing
- Section 3 - Subgrade
- Section 4 - Base Course
- Section 5 - Surface Course, Curbs and Shoulders
- Section 6 - Storm Drainage Design
- Section 7 - Storm Drainage Construction
- Section 8 - Stormwater Management
- Section 9 - Guide posts and Railings
- Section 10 - Utilities
- Section 11 - General Notes
- Section 12 - Effective Date

## ROAD CONSTRUCTION REGULATIONS

### Section 1. STREET, ROADWAY AND SIDEWALK WIDTHS

- a. No right-of-way to be dedicated for a public street in the Town of Trumbull shall be less than fifty feet (50') in width between property lines, as shown on the final subdivision map, properly signed and filed with the Town Clerk. When permitted by the Planning and Zoning Commission, Private rights-of-way shall be fifty feet (50') in width. In any industrial zone, the right-of-way shall be a minimum of sixty-six feet (66') in width. Upon recommendation of the Planning and Zoning Commission, and by the approval Town Council and the Town Engineer, streets may be designated as thoroughfares and their width consequently increased subject to the requirements of the Planning and Zoning Commission.
- b. Pavement, curb and sidewalk details will conform to typical cross sections as described below:
  1. Pavements shall be designed with a crown at the centerline and a cross slope of three-eighths inch per foot with a width between curbs of thirty feet (30'). When permitted by the Planning and Zoning Commission, narrow roads shall have width between curbs of twenty-four feet (24'). In an industrial zone, the minimum width between curbs shall be thirty-six feet (36'). Cul-de-sacs shall have a curb-to-curb diameter of eighty feet (80').
  2. Curbing shall be constructed of Hot Bituminous Concrete placed by an approved curbing machine, as described in greater detail in Section 5 of these regulations. It shall be six inches (6") high and nine inches (9") across the base with the sloping face exposed.
  3. A minimum ten foot (10') shoulder shall be provided on each side of the pavement. Grassed areas shall be graded from the top of the curb at a rising cross slope of one-quarter inch (1/4") minimum to one inch (1") maximum per foot. Sidewalks, if required, shall be four feet (4') wide and have a cross slope of one-quarter inch per foot. Sidewalks shall be made of concrete, four inches (4") deep, and shall be set one foot (1') inside the streetline. At driveways concrete sidewalks shall have a depth of six inches (6") with wire mesh reinforcement. Generally, the

elevation of the sidewalk shall be ten inches (10") above the gutterline of the road.

## SECTION 2. CLEARING AND GRUBBING

- a. All trees, stumps, roots and other objectionable material shall be removed entirely.
- b. Sediment controls shall be properly installed in accordance with the approved Soil Erosion and Sediment Control Plan prior to commencing construction activities. All sediment controls shall be maintained to function properly throughout the period of construction until all disturbed areas have been stabilized. Town inspection is required when installation is completed.
- c. Anti-tracking pads shall be placed wherever a road or non-residential driveway from a construction site intersects an existing town road. A temporary asphalt apron shall be installed for the first 20' from the existing gutterline prior to construction. Stormwater from the apron shall not drain onto the Town road, but rather, be directed into hay bales or silt fencing on the shoulder of the road. The anti-tracking Pad shall have a twelve-inch (12") depth of five-inch-minus stone with a minimum length of fifty feet (50) for the full width of the road, beyond the paved apron. Such Anti-Tracking Pads shall be delineated on the SOIL EROSION AND SEDIMENT CONTROL PLAN. The intent of Anti-Tracking Pads and aprons is to fulfill the requirement of keeping Town roads free of dirt and stones. It is the responsibility of the developer to keep existing Town roads free of dirt and stones during construction. The developer shall install whatever additional measures are necessary to fulfill this requirement. If any objectionable material is tracked from a construction site on to a Town road, clean up shall be immediate.
- d. Unsuitable bearing materials such as peat, organic silts, clay and top soil shall be removed and replaced with suitable material as directed or approved by the Town Engineer, the Director of Public Works or properly designated agent of either.
- e. Topsoil shall be stripped and stockpiled for future use on the site, unless otherwise directed or approved by the Town Engineer, or his properly designated agent. Town inspection is required when completed.

## SECTION 3. SUBGRADE

- a. The subgrade is that earthwork which is overlaid by the base course. The fill or borrow material used for the subgrade will be subject to the approval of the Town Engineer or his designated agent. It shall be deposited in layers not to exceed twelve inches (12") in depth and rolled to 95 % compaction by a

roller weighing not less than ten (10') tons until each layer is thoroughly consolidated, for the entire area of construction. Compaction tests shall be performed on the subgrade. In cases of fill three feet (3') deep or greater, compaction tests shall be performed throughout. The number of tests and their locations shall be determined by the Town Engineer or his designated agent.

Town inspection is required during construction and when completed. Notification shall be given to the Town Engineering Department forty Eight (48) hours before commencing any operation requiring town inspection.

- b. If groundwater is encountered at an elevation of one foot (1') or less below the subgrade, excavation for the base course shall be extended an additional six inches (6"). The space so provided shall be back-filled and compacted with granular fill material as required for the base course. The intent is to increase the depth of the base course from twelve inches (12") to eighteen inches (18") in such areas. Similar treatment shall be required in areas of ledge cuts.
- c. All under-drains shall be installed and back-filled sufficiently to drain the highway effectively before placement of the base course will be permitted. See Section 6. paragraph e.
- d. The finished grading of the subgrade shall have a cross section as outlined above in Section 1, paragraph b. It shall be fifteen inches (15") below finished grade for a width of thirty four feet (34') for standard roads and conform to the grades as shown on the Plan & Profile. Generally, the width of the subgrade shall be four feet (4') wider than the final width between curbs. Also, the crown of the subgrade shall correspond to the crown of the finished road.

#### SECTION 4.           BASE COURSE

- a. The base course is that select granular fill material lying between the subgrade and the surface course of pavement. The thickness of the base course shall be twelve inches (12") after compaction laid in two six inch (6") layers, with each layer rolled up to consolidation by a roller weighing not less than ten (10) tons. Construction methods shall be in accordance with the Connecticut State Highway Specifications, Form 814, Section 3.02.03. Material for the base course shall be course bank run gravel, crushed stone or tailings, in accordance with Connecticut State Highway Specifications, Form 814, Section M.02.03 and subject to the approval of the Town Engineer or his designated agent. Town inspection is required during construction and when completed.
- b. If required by the Town Engineer or his designated agent, sufficient water and calcium chloride or other approved bonding agent shall be added to assure thorough compaction of the material being used for the base course. Compaction tests shall be performed on the base course. The number and location of the tests shall be determined by the Town Engineer or his designated agent. No paving will be allowed until the Town Engineer notified of the test results, which must show a Proctor Density of 95 % or greater.

- c. The finished grading of the base course shall have a cross section as outlined above in section 1, paragraph b. It shall be three inches (3") below finished grade for a width of thirty four feet (34') for standard roads and conform to the grades as shown on the Plan & Profile. Generally the width of the base course shall be four feet (4') wider than the final width between curbs. Also, the crown of the base course shall correspond to the crown of the finished road.

## SECTION 5. SURFACE COURSE, CURBS AND SHOULDERS

The surface course or pavement must provide must provide vehicles with a smooth, unbroken surface for easy travel. Its effectiveness depends upon the quality of work done on the subgrade and base course.

- a. The three inch (3") surface course shall be constructed of dense graded bituminous concrete in accordance with Connecticut State Highway Specifications, form 8-13, Section 4.06. The thickness of the class 1 binder course shall be one and one half inches (1 ½") after compaction by a roller weighing not less than ten (10) tons. The thickness of the class 2 wearing course shall be one and one half inches (1 ½") after compaction by a roller weighing not less than ten (10) tons. Both courses shall be laid by an approved paving machine at a minimum temperature of 250 degrees Fahrenheit. All contact surfaces of catch basins and manholes shall be painted with a thin coat of hot asphalt cement just before the pavement mixture is placed against them.  
Town inspection is required during construction and when completed.
- b. The finished grading of the surface course shall have a cross section as described in Section 1, paragraph b. for a width of thirty two feet (32') for standard roads and conform to the grades and elevations as shown on the Plan & Profile. Generally the width of the surface course shall be two feet (2') wider than the final width between curbs.
- c. Procedure for paving during inclement weather: unless specifically authorized by the Town Engineer or his designated agent, the pavement mixture shall be laid only when the atmospheric temperature in the shade is not less than forty degrees (40° F), the weather is not foggy or rainy, and the surface to be paved is free of frost and dry to the satisfaction of the Town Engineer or his designated agent. If, in the twelve (12) hour period prior to paving, the temperature was below thirty five degrees (35° F), and at the time of paving the temperature is forty degrees (40° F) and rising, only the one and one half inch (1 ½") binder course shall be allowed. All normal paving requirements will be applied when the temperature at the site is not less forty degrees (40° F) for seventy two (72) hours prior to paving and more than forty degrees (40° F) and rising at the time of paving.
- d. The design standards for roadway layouts shall be in accordance with the following: Minimum centerline radius for a horizontal curve shall be three hundred feet (300').

Between successive curves, the minimum length of the tangent distance shall be one hundred feet (100'). The length factor for a sag vertical curve shall be thirty five (35) and for a crest vertical curve shall be twenty eight (28). The length factor is multiplied by the algebraic difference in grades to obtain the minimum length of vertical curve. The minimum intersection sight distance shall be three hundred feet (300'). The minimum stopping sight distance shall be two hundred feet (200.).

- e. Bituminous Concrete Curbs shall be constructed for the full length of all roads and shall conform in shape to the standards set up by the Town Engineer. The bituminous concrete shall conform to Connecticut State Highway Specifications, Form 813, Class 3 and shall be laid by an approved machine at a minimum temperature of 250 degrees Fahrenheit. The minimum gutterline radius shall be thirty feet (30'). Town inspection is required during construction and when completed.
- f. The ten foot (10') shoulder shall be covered with a minimum of four inches (4") of topsoil and properly seeded. Reseeding shall be required, if necessary, at an interval of approximately four months. The finished shoulder shall have a cross section as outlined above in Section 1, paragraph b. Town inspection is required during construction and when completed.
- g. Driveway aprons must be paved for a minimum of ten feet (10'), connecting the gutterline to the edge of private property. A ten inch (10") layer of select granular fill shall be compacted in place and covered with a layer of asphalt two inches (2") thick after compaction. Driveways shall have a maximum grade of fifteen percent (15%). All driveways with grades steeper than seven percent (7%) shall be paved. Additional required details are specified on the Driveway Detail Sheet available at the Town Engineering Department. No person, firm, or corporation shall construct or reconstruct a driveway or permanently surface an existing driveway without first obtaining a driveway permit from the Engineering Department. Town inspection is required during construction and when completed.
- h. Cut or fill slopes beyond the ten foot (10') sidewalk area shall be no steeper than two horizontal to one vertical (2:1), except in rock (1:6 maximum). If conditions should require, this slope may be varied to maintain stability of the bank under particular soil conditions encountered. Where required to provide adequate sight distances at street intersections or sharp curves in the roadway, embankments shall be cut back as directed by the Town engineer or his designated agent. Corner visibility is regulated in Article I, Section 5 of the Zoning Regulations.
- i. Cut or fill slopes which extend into property not owned by the applicant will not be allowed without written permission of the adjacent landowner, granting slope rights to the Town. Such slope rights must be obtained by the applicant prior to approval of the subdivision application.
- j. Grades for all roads will be established by the developer through the services of a qualified Professional Engineer. Variances from grades shown on the approved plan &

Profile will be allowed only with written permission of the Town Engineer. Minimum grade shall be one percent (1 %) with a maximum grade of eight percent (8 %). Upon recommendation of the Town Engineer, when special circumstances require, the maximum grades may be modified in order to better conform with existing natural ground slopes.

- k. Line and grade stakes shall be spaced not more than fifty feet (50') apart. On horizontal and vertical curves, the stakes shall not be more than twenty five feet (25') apart. They shall be set and maintained in good order during construction and until the street is approved by the Town Engineer or his designated agent. Two copies of all cut-sheets shall be submitted to the Town Engineering Department, prior to the construction involved.
- l. Three (3) as-built prints shall be submitted to the Town Engineering Department upon completion of the work for revisions and additions. A final Mylar as-built shall be submitted before final acceptance of the road. No street shall be opened or used for public travel until it has been approved by the Town Engineer or the Director of Public Works.

## SECTION 6. STORM DRAINAGE DESIGN

### a. DESIGN

Storm drainage shall be designed by a qualified Professional Engineer and reviewed and approved by the Town Engineer. On-site drainage for private property shall be sized to pass a design storm with a ten (10) year return-frequency. Road drainage shall be sized to pass a design storm with a twenty five (25) year return-frequency. Stream and brook crossings under public streets shall be sized to pass a design storm with a fifty (50) year return-frequency. Detention systems shall be designed to detain a storm with a one hundred (100) year return-frequency in accordance with Section 8. The "Natural Resource Conservation Service" (formerly SCS) TR-55 and TR-20 methodologies shall be used. Design storms shall be Type III, 24 hour duration. The Rational Formula will not be accepted. Stormwater calculations shall be submitted for all proposed structures to the Town Engineer for review and approval.

### b. PIPES

Sufficient pipe shall be installed within the subdivision to carry existing watercourses and to drain the proposed roads. Headwalls shall be made to intercept water flowing across the proposed subdivision from adjoining properties. All pipes, except lot drains and underdrains, shall have a minimum diameter of fifteen inches (15"). The minimum slope for drainage pipe shall be one half of one percent (0.5%). Pipes shall be installed the full length in all proposed roads to provide each lot with a six inch (6") lot drain permitting the connection of house storm drains and cellar drains. All pipes shall have a minimum two feet (2') of cover.

### c. CATCH BASINS

Catch basins shall be provided such that surface water will not travel without interception more than shown in the following schedule of grades and distances.

1.00% to 2.00%	250 l.f.
2.00% to 5.00%	350 l.f.
5.00% top 8.00%	300 l.f.
8.00% to 10.00%	200 l.f.

Each catch basin shall be connected to an adjacent catch basin or a manhole. Two foot (2') deep sumps shall be provided below the lowest invert within each catch basin. Double catch basins shall be provided at low points in the road profile. In areas of high ground water, provision shall be made during construction to allow such water into catch basins. This may be done by means of a four inch (4") PVC perforated pipe with crushed stone, omitting the grout around the top half of concrete pipes connected to the catch basin, or by omitting grout between the ends of several blocks. Such weep-holes shall be placed approximately six inches (6") higher than the invert of the out-flow pipe. Construction shall conform to the standards established by the Town Engineer.

d. MANHOLES

Manholes may be utilized instead of catch basins to change the direction or grade of the pipe. Manholes shall not be spaced more than 400 feet apart. Manholes shall be constructed to standards set up by the Town Engineer.

e. UNDERDRAINS

In all roadway areas where a high water table is found to exist, either before commencing, or during, actual construction of the roadways, the developer shall be required to install underdrains to protect the stability of the roadway. In all roadway areas where the natural grade has been lowered two feet (2') or more, underdrains will be required.

If underdrains are required, an eight inch (8") asphalt-coated corrugated metal, perforated pipe shall be used, with three-quarter inch (3/4') crushed stone around the pipe. The invert of the pipe shall be set approximately three feet (3') lower than the elevation of the finished crown of the road. The stone shall extend to a depth of six inches (6") underneath the pipe, six inches (6") on each side of the pipe, and at least twelve inches (12") over the pipe. The stone shall be covered with a filter fabric or permeable building paper. The remainder of the trench shall be backfilled with compacted select granular fill as provided for the base course of the road. Such underdrains shall discharge into a catch basin or manhole.

f. DISCHARGE AND EASEMENTS

Storm drains shall be extended to a suitable discharge point into a watercourse or public drainage system, or to where drainage rights have been secured. Where the discharge

shall be onto private property within or adjoining the proposed subdivision, proper easements and drainage rights for the town shall be secured by the applicant before approval of the subdivision application. The minimum easement requirement is a width of twenty feet (20') extending twenty feet (20') beyond the end of the pipe. Within drainage easements, the center of the pipe shall be installed five feet (5') from one edge of the easement. All such easements shall be delineated on the subdivision map and labeled "Drainage Easement to the Town of Trumbull."

g. SEDIMENT CONTROL

Both during and after construction, sediment control shall be the responsibility of the Developer. Measures to control sediment and erosion should include the use of berms, dikes, dams, sediment ponds, sediment traps, gravel, riprap, netting, mulches, grasses, slope drains, ditches, channels, meandering swales, and grading. Such sediment control measures must be installed and stabilized prior to road construction and extensive re-grading of lots. Plunge pools or stilling basins shall be provided at discharge points of stormwater pipelines.

SECTION 7 STORM DRAINAGE CONSTRUCTION

The storm drainage system shall be constructed by the Developer in accordance with the following standards and procedures:

a. PIPE

All pipe used shall be of reinforced concrete, ADS N-12 PVC meeting Connecticut State Highway Specifications, Form 816 as amended. In some instances the Town Engineer may recommend use of corrugated metal pipe where he feels such pipe will provide a more satisfactory drainage system.

Town inspection is required prior to backfilling.

b. JOINTS

The joints of all pipe shall be shoved tight. Pipe laid in sandy, silty, or other soil where, in the judgment of the Town Engineer, there is danger of washing or cave-ins, shall have joints thoroughly sealed with 1:3 Portland cement mortar or bituminous mastic compound or watertight rubber gaskets. Pipelines near proposed or existing leaching fields shall be installed in accordance with the State Health Code.

c. CATCH BASINS AND MANHOLES

Catch basins and manholes shall be constructed in accordance with the plans set by the Town Engineer. Manholes shall be constructed of solid concrete radial manhole blocks six inches (6") thick. Catch basins shall be constructed of eight inch (8") solid concrete blocks. Precast concrete structures are acceptable. All structures shall be backfilled with suitable material approved by the inspector for the Town of Trumbull. Utilization of material not approved by the inspector will necessitate the use of bank run gravel exclusively.

Town inspection is required prior to backfilling.

d. HEADWALLS, CULVERTS AND BRIDGES

Where required, headwalls, culverts and bridges shall be constructed in accordance with good engineering practice and as approved by the Town Engineer.

Town inspection is required during construction and when completed.

e. OPEN CHANNELS

Open channels may be permitted at the discretion of the Town Engineer. The size of the waterway shall be of sufficient size to convey the peak discharge of a design storm with a twenty five (25) year return-frequency, with one foot (1') of freeboard. The channel shall be suitably stabilized against erosion. The side banks shall be moderately sloped, not steeper than two feet horizontal to one foot vertical (2:1) and then topsoiled and seeded or otherwise stabilized as indicated on approved plans. Town inspection is required when completed.

f. LINE AND GRADE

All pipe shall be laid to line and grade as shown on approved drainage Plan and Profile. Line and grade stakes shall be maintained in good order until the work has been inspected and approved by the Town Engineer.

Two copies of all cutsheets shall be submitted to the Town Engineering Department, prior to the construction involved.

SECTION 8 STORMWATER MANAGEMENT

- a. Development plans shall have a stormwater management system when the proposed development disturbs an area of five (5) acres or more, or when the impervious portion of the proposed development is 25% or greater. "Disturbed area" means an area where the ground cover is destroyed or removed leaving the land subject to accelerated erosion. All other developments may be required to provide such systems if deemed necessary to protect the public health, safety and well-being by the Town Engineer. The stormwater management system shall be designed to minimize any adverse increases to the peak flow rate, the timing of run-off, and the volume of run-off.
- b. The Town Engineer shall keep and maintain, and revise as appropriate from time to time, "Administrative Policy For Stormwater Management And Drainage Design Standards" Such facilities may include, but not be limited to, detention ponds, sediment ponds, underground stormwater storage and meandering swales.

SECTION 9 GUIDE POSTS AND RAILINGS

Guide posts and railings shall be installed along all streets to be dedicated to the Town where the grade beyond the shoulder is steeper than four feet horizontal to one foot vertical (4:1). Wooden guide posts, pressure-treated with creosote or C.C.A., shall be spaced six feet (6') on-center and shall have a minimum size of eight inches by eight inches (8" x 8") or a twelve inch (12") diameter. Minimum length of the post shall be six feet (6') with three and one half feet (3½') set in the ground. Railings shall have a minimum measurement of three inches by ten inches (3" x 10"), and shall be attached to

each post with two bolts, nuts and washers. The bolt shall have a minimum diameter of one-half inch (1/2"). The top of the rail shall be set two feet (2') above the top of the curb. The face of the rail shall generally be set eight feet (8') behind face of curb.

## SECTION 10            UTILITIES

Prior to the placement of the base course, all utilities are to be installed together with service extensions to each lot within the property line. Each lot shall have a storm drainage connection from the storm drainage system extending within the property line. Said connection shall be a six inch (6") PVC pipe or better. The intent of this section is to provide all required underground services to each lot prior to the placement of base course and finished pavement.

## SECTION 11            GENERAL NOTES

- a. The following reference manuals shall govern as the Town's specifications where this Regulation is silent:
  1. State of Connecticut Department of Transportation – Standard Specifications for Roads, Bridges and Incidental Construction - Form 816, as amended.
  2. State of Connecticut Guidelines for Soil Erosion and Sediment Control (1985, as amended).
  3. Connecticut Department of Transportation Drainage Manual (1973, as amended).
  4. A Policy on Geometric Design for Rural Highways, AASHO (1965, as amended).
- b. Town inspection is required for any construction activity, and notification shall be given to the Town Engineering Department forty eight hours prior to commencement of any such activities.
- c. The Town Engineer shall have the right to adjust the specifications contained herein on the basis of accepted engineering practice and site specific circumstances.
- d. All details of sanitary sewer design and construction are overseen by the Water Pollution Control Authority of the Town of Trumbull or its designated agent. Separate review and approval is required by the Water Pollution Control Authority.
- e. A permit may also be necessary from the Inland Wetlands and Watercourses Commission concerning road crossings of wetlands and watercourses, or any other activity within fifty feet (50') of spring high water.

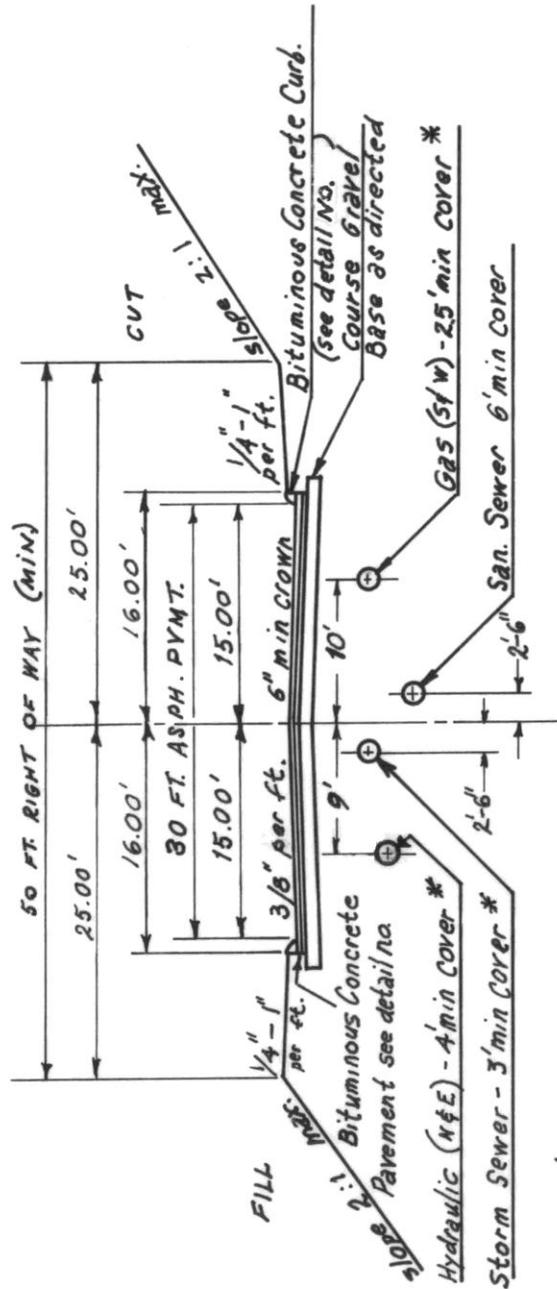
## SECTION 12            EFFECTIVE DATE

- a. After the effective date of these regulations no new street, highway or public way shall be laid out or offered for acceptance which shall not conform to the specifications as herein provided.

- b. Any road presently in the process of construction and/or guaranteed by bond under pre-existing regulations shall be exempt from these revised regulations.
- c. All regulations or parts of regulations inconsistent herewith, are hereby repealed to the extent of such inconsistency.

EFFECTIVE DATE: February 25, 1988  
Revised: March 7, 2008





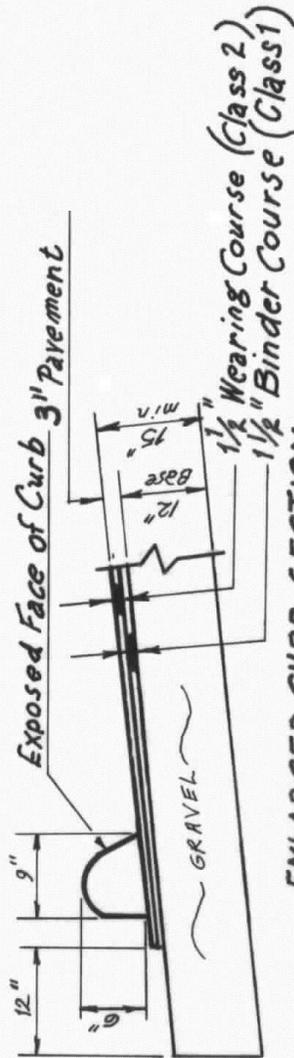
\* Below Finished Grade

U.I. & SNET Co. -  $\phi$  of poles 2.5' back of face of curb either side

Tel. Cable - 4 feet off face of curb between R and F.O.C.

TOWN OF TRUMBULL	
STANDARD DETAIL STANDARD ROADWAY SEC.	
DRAWN BY S.K.	DATE 5-17-83
APPROVED BY,	NO.

**STANDARD ROADWAY SECTION**



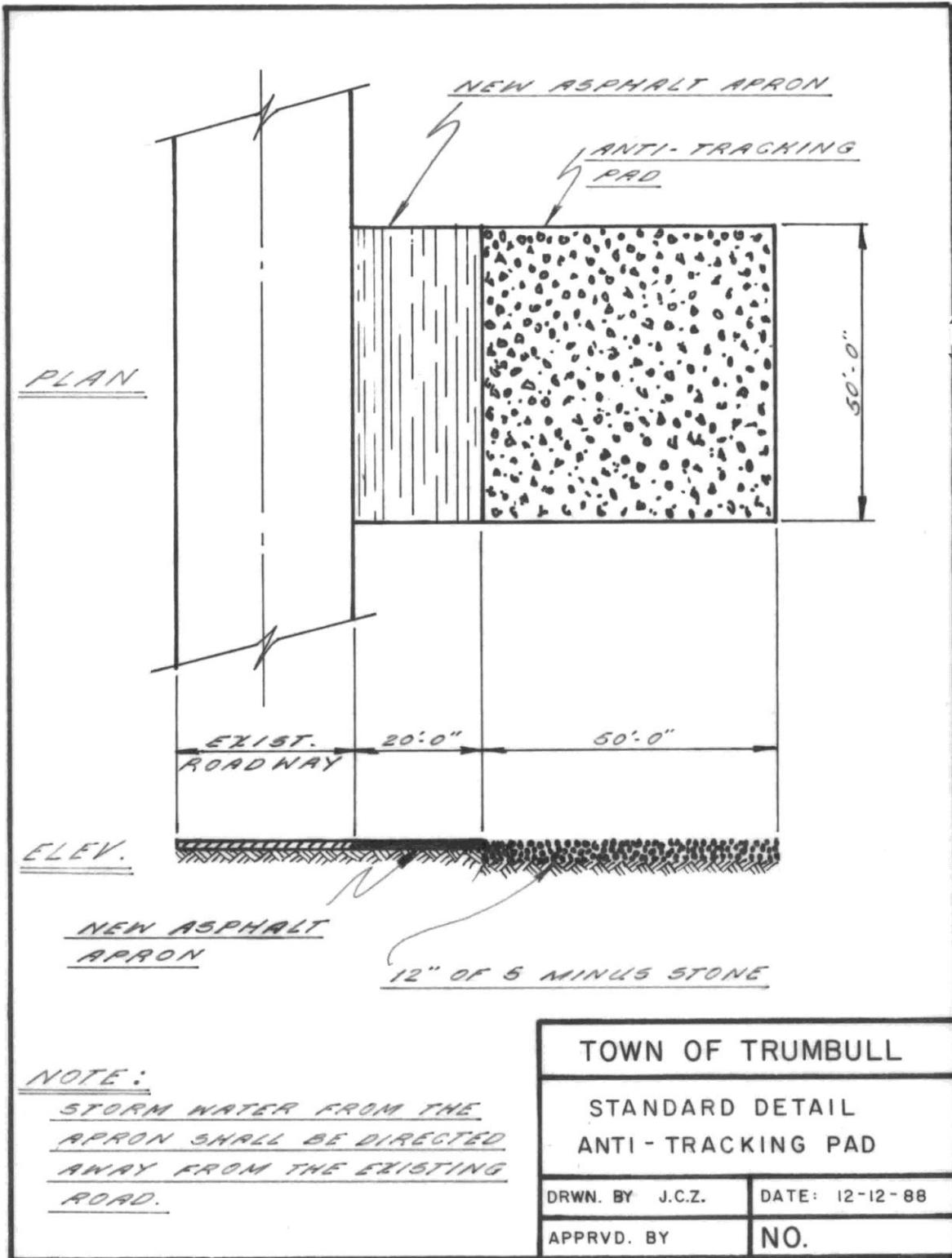
**ENLARGED CURB SECTION**

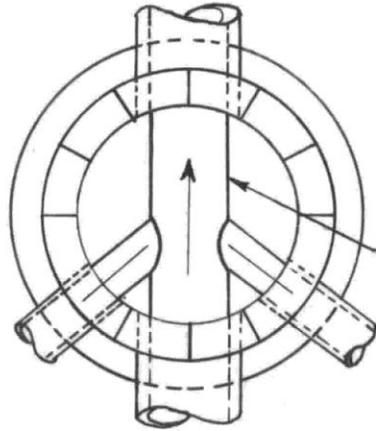
**NOTES:**

1. Storm Sewer to be N+E unless special subsurface drainage problem necessitates other location.
2. Dimensions shown are ONLY for 30' f-of curb. pavement in residential area roadway

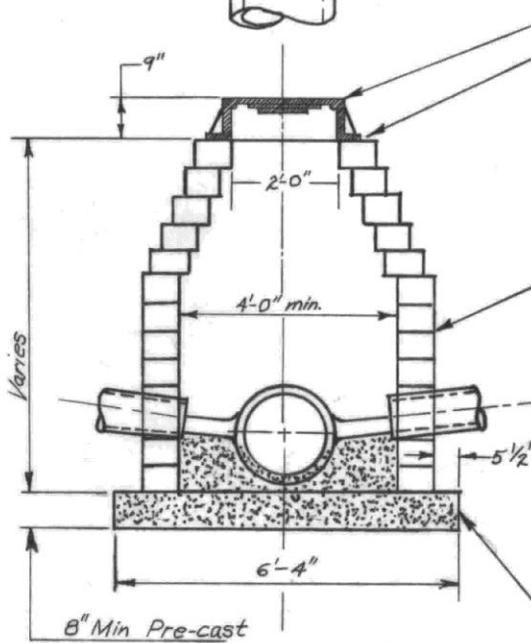
**TYPICAL SECTIONS [RESIDENTIAL]**

TOWN OF TRUMBULL	
STANDARD DETAIL STANDARD CURB SECTION	
DRAWN BY S.K.	DATE 5-17-83
APPROVED BY.	NO.





All Manholes are to have paved  
inverts ( brick or concrete)



Standard frame and cover  
Frame to be set in 1/2" of mortar,

Masonry walls are to be plastered  
outside with 1:2 cement mortar 1/2"  
thick masonry must be wet when  
mortar is applied.

ALL joints to be pointed flush & full.

Walls to be 8" thick for solid radial  
concrete block, brick or Class "A" concrete.  
Precast units may be 6" thick.

Masonry concrete units to be laid  
in cement sand mortar 1:2 mix,  
Joints to be not over 1/2 on inside face,

Class A concrete.

**STANDARD MANHOLE**  
STORM SEWERS

**NOTES:**

1. STEPS ARE REQUIRED WHEN  
CATCH BASIN DEPTH EXCEEDS 6'.
2. INSTALL CONTINUOUS WARNING  
TAPE 12" ABOVE DRAIN PIPE  
BETWEEN DRAINAGE STRUCTURES.

TOWN OF TRUMBULL.

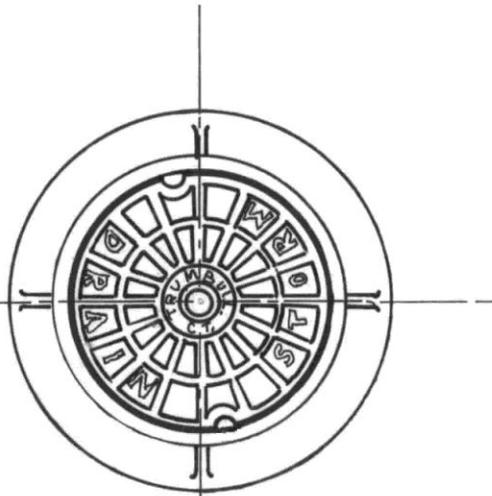
STANDARD DETAIL  
STORM SEWER MANHOLE.

DRAWN BY. S. K.

DATE, 5-6-83

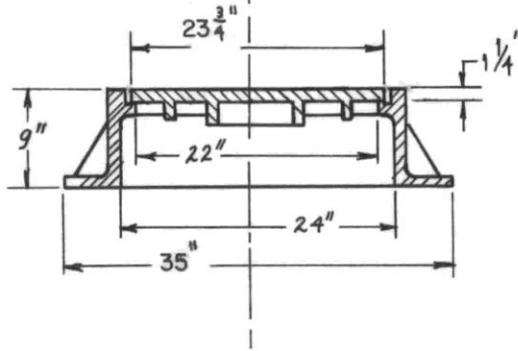
APPROVED BY.

NO.



**STANDARD SET**

Similar to Campbell Foundry Co.  
Pattern No. 1049B

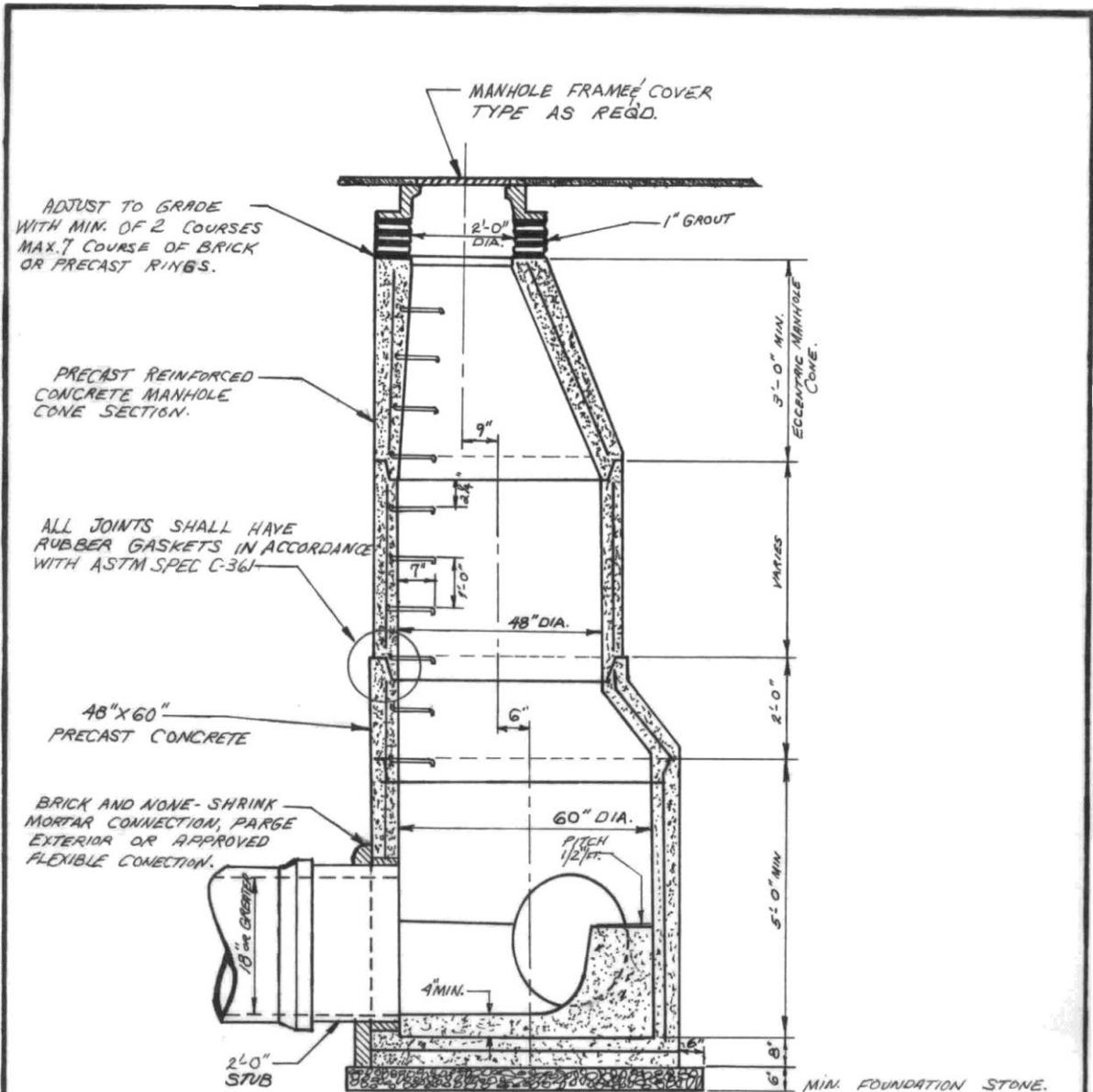


Substitute **MUST** be approved  
by the **TOWN ENGINEER.**

**STANDARD MANHOLE FRAME & COVER**  
**STORM SEWERS**

TOWN OF TRUMBULL	
STANDARD DETAIL MANHOLE FRAME & COVER	
DRWN BY S.K.	DATE 5-9-83
APPRVD BY.	NO.

REVISED 2-7-89



**60" STANDARD PRECAST CONCRETE  
MANHOLE**

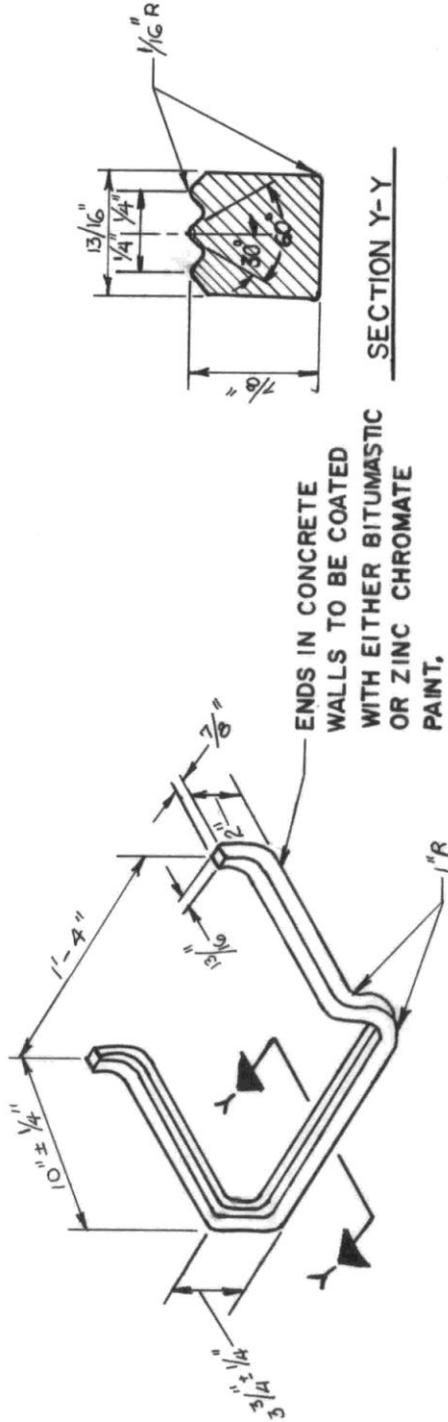
**TOWN OF TRUMBULL**  
**STANDARD DETAIL**  
**60" PRECAST CONCRETE M.HOLE**

DRWN BY S.K.      DATE 5-20-83

APPRVD BY      NO.

N.T.S.

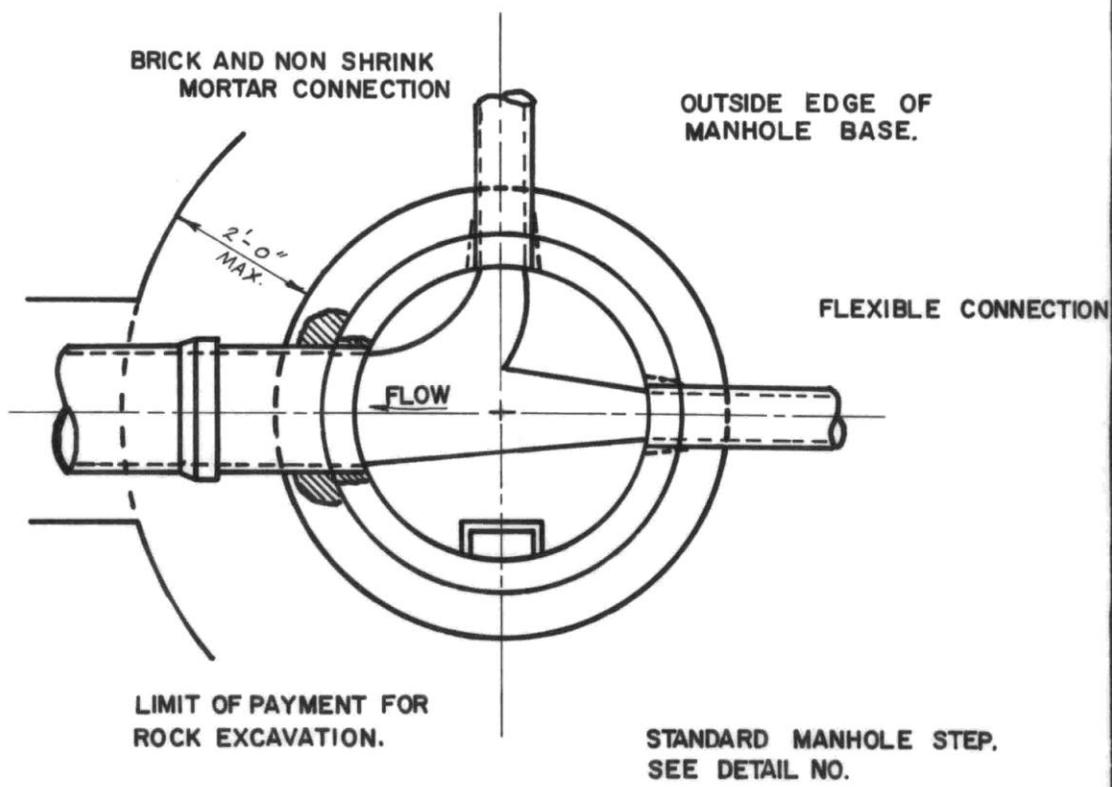
NOTE: STEP TO BE FORGED ALUMINUM



SECTION Y-Y

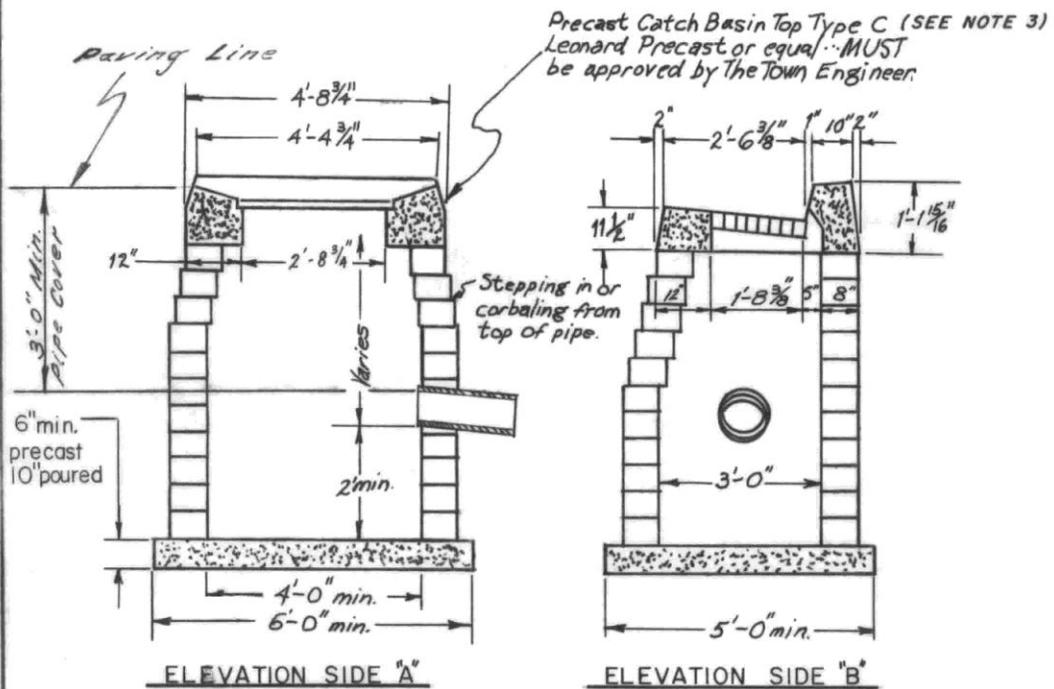
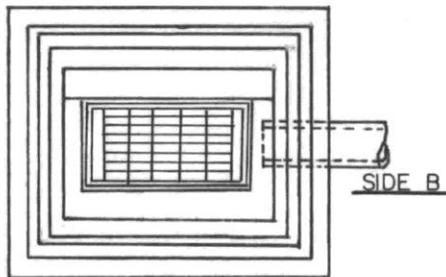
STANDARD MANHOLE STEP

TOWN OF TRUMBULL	
STANDARD DETAIL STANDARD MANHOLE STEP	
DRAWN BY S.K.	DATE 5-16-83.
APPRVD BY.	NO.



TYPICAL MANHOLE PLAN.

<b>TOWN OF TRUMBULL</b>	
<b>STANDARD DETAIL. TYPICAL MANHOLE PLAN.</b>	
DRAWN BY. S.K.	DATE. 5-23-83.
APPRVD. BY	NO.



STANDARD TYPE "C" CATCH BASIN

NOTES:

1. STEPS ARE REQUIRED WHEN CATCH BASIN DEPTH EXCEEDS 6'.
2. INSTALL CONTINUOUS WARNING TAPE 12" ABOVE DRAIN PIPE BETWEEN DRAINAGE STRUCTURES.
3. GRATE - CT. DEPT. OF TRANSPORTATION STANDARD 507K TYPE A.

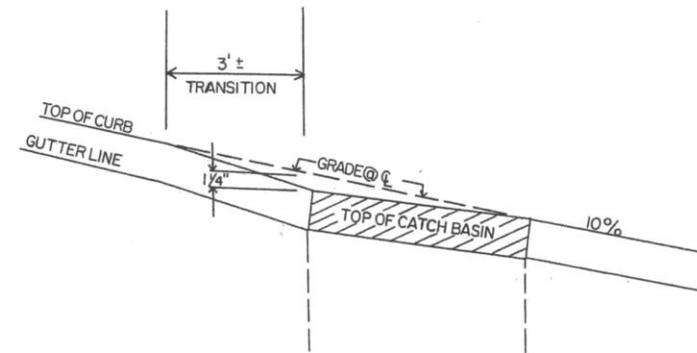
TOWN OF TRUMBULL.	
STANDARD DETAIL TYPE "C" CATCH BASIN.	
Revised 1/1/95	
DRWN BY. S.K.	DATE. 5-9-83
APPRV D BY.	NO.

The following table is to be used for sloping the tops of all catch basins installed in the Town of Trumbull. For uneven grades, the pitch shall be prorated accordingly:

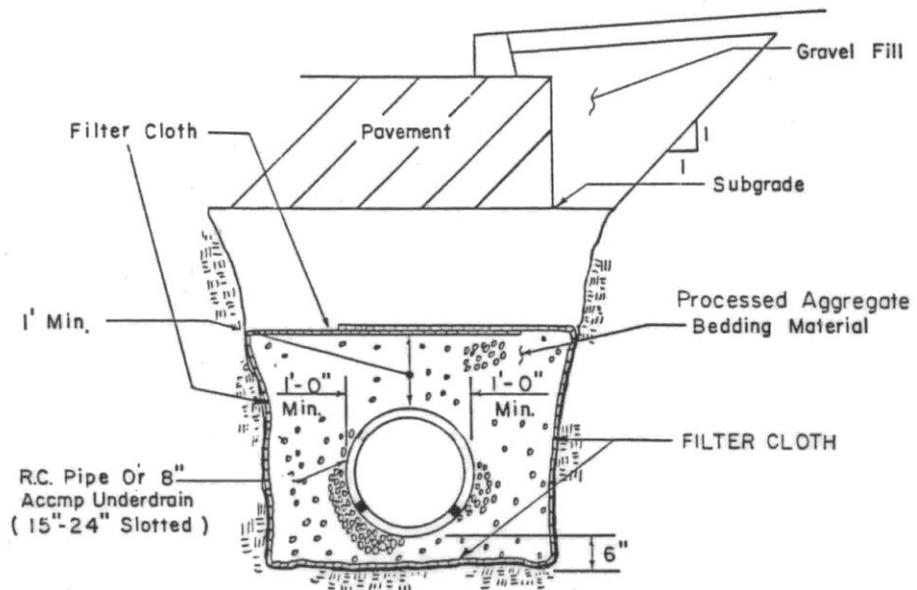
% Grade of Road	Pitch of Road in 4'5"	Recommended pitch of catch basin top in 4'5" (length of top)
1%	1/2"	1/2"
2%	1 1/8"	1 1/8"
3%	1 5/8"	1 5/8"
4%	2 1/8"	2 1/8"
5%	2 5/8"	2 5/8"
6%	3 1/8"	3"
7%	3 3/4"	3 1/2"
8%	4 1/2"	4"
9%	4 3/4"	4"
10%	5 1/4"	4"

As the table shows, for road grades up to 5% the top of the catch basin and the top of the curb shall form a continuous straight line. For grades over 5% the downhill end of the catch basin shall be at proper curb grade and the uphill end shall be lowered to obtain the pitch shown in the table.

October 1966

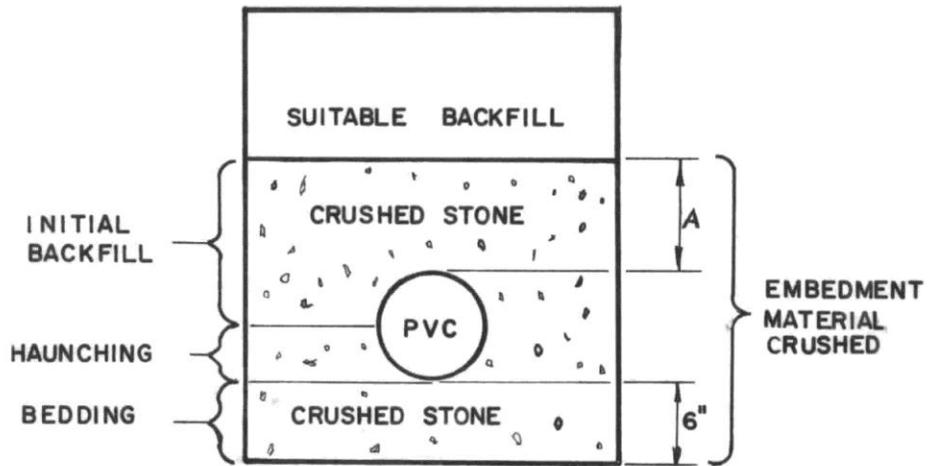


EXAMPLE FOR 10% GRADE (NOT TO SCALE)



**TYPICAL TRENCH**  
**SLOTTED OR UNDERDRAIN PIPE**

<b>TOWN OF TRUMBULL</b>	
<b>STANDARD DETAIL</b>	
<b>UNDERDRAINS</b>	
DRWN BY: B.W.	DATE 1-6-86
APPRVD BY M.W.	N.T.S.



PVC PIPE INSTALLATION



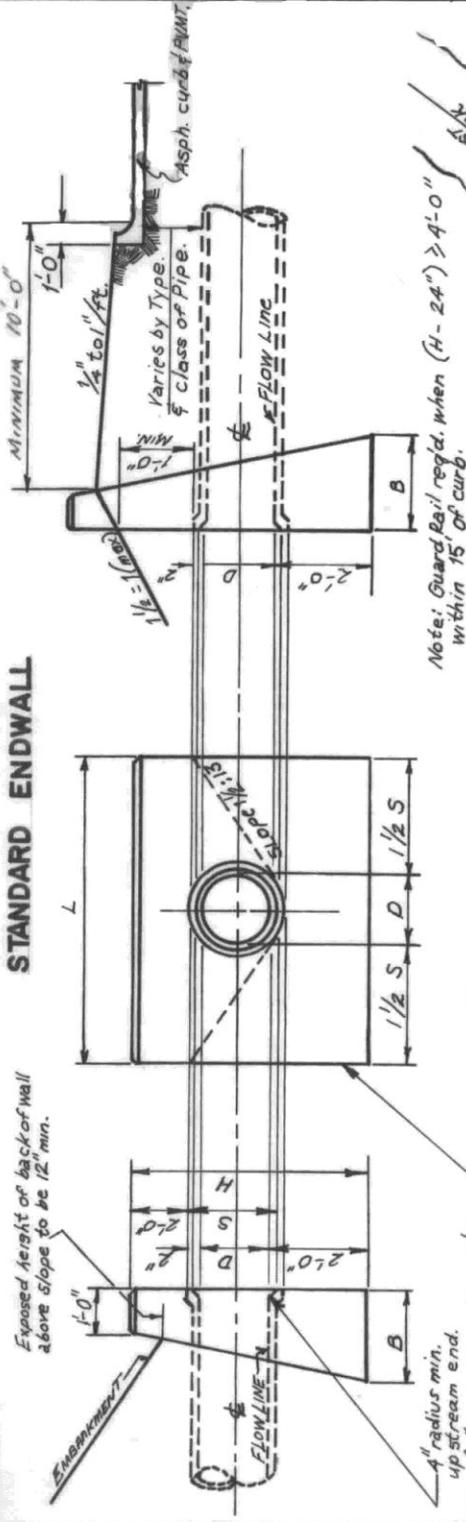
SUB TRENCH DESIGN

A FOR SHALLOW INSTALLATIONS LESS THAN 3'  
 CLASS I MATERIAL TO BE EXTENDED UP TO ROAD  
 ELAVATIONS OVER 3'A=1'  
 CLASS I ANGULAR 1/4 TO 1-1/2"

<b>TOWN OF TRUMBULL</b>	
<b>STANDARD DETAIL PVC INST. TRENCH DESIGN.</b>	
DRAWN BY S.K.	DATE. 5-20-83
APPRVD BY.	NO.

N.T.S.

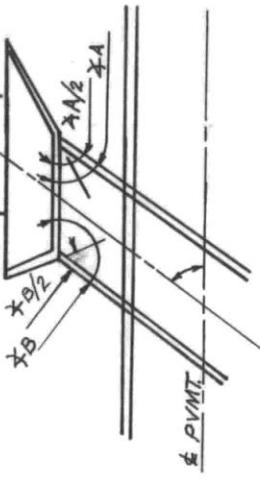
**STANDARD ENDWALL**



**FRONT ELEVATION**

**WALL AT FOOT OF SLOPE**

**WALL AT SHOULDER**



DIMENSIONS AND QUANTITIES FOR ONE ENDWALL BASED ON  $S = D + 2'$

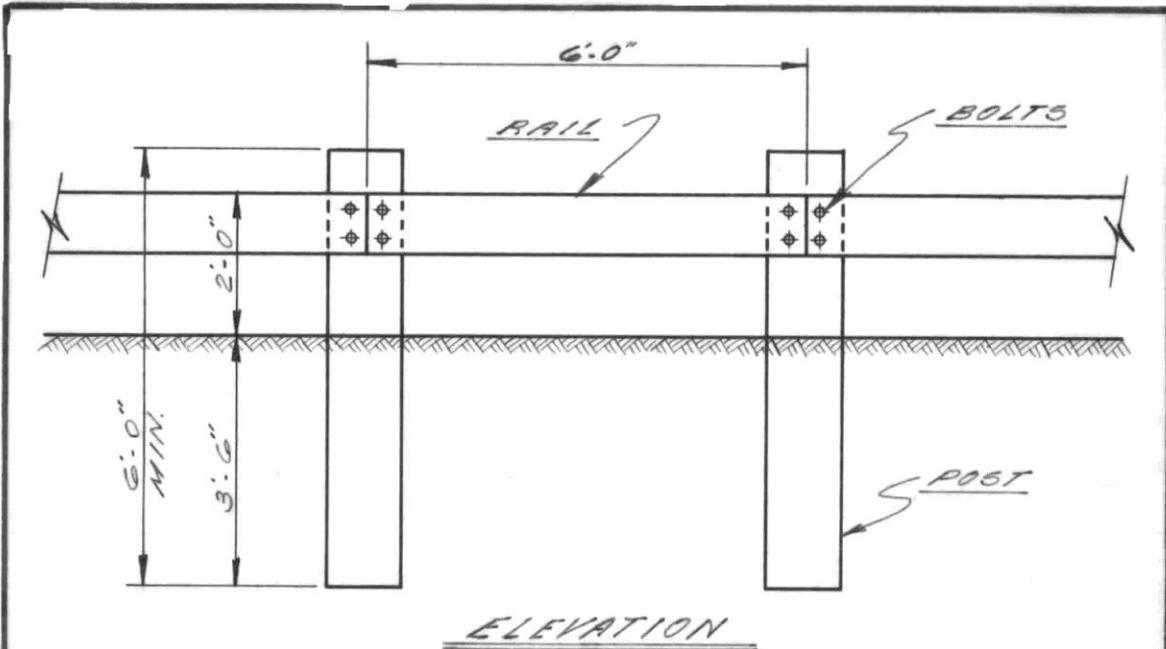
D	S	H	L	BATTER	B	VOL.
Ins.	Ft of Ins	Ft of Ins	Ft of Ins	Ins / Ft	Ft of Ins	Cu. Yds.
12	1'-2"	5'-2"	4'-6"	2 1/2	1'-11 1/4"	1.10
15	1'-5"	5'-5"	5'-6"	2 1/2	1'-11 7/8"	1.45
18	1'-8"	5'-8"	6'-6"	2 1/2	2'-0 1/2"	1.83

H = TOTAL HEIGHT OF ENDWALL  
 B = BASE  
 D = INSIDE DIAMETER OF PIPE  
 S = HEIGHT OF SLOPE ABOVE FLOW LINE AT FACE OF WALL MINIMUM = D + 2  
 L = LENGTH OF WALL =  $9.5 + D$   
 ALL EDGES OF EXPOSED SURFACES TO BE CHAMFERED ONE INCH.

**TOWN OF TRUMBULL**

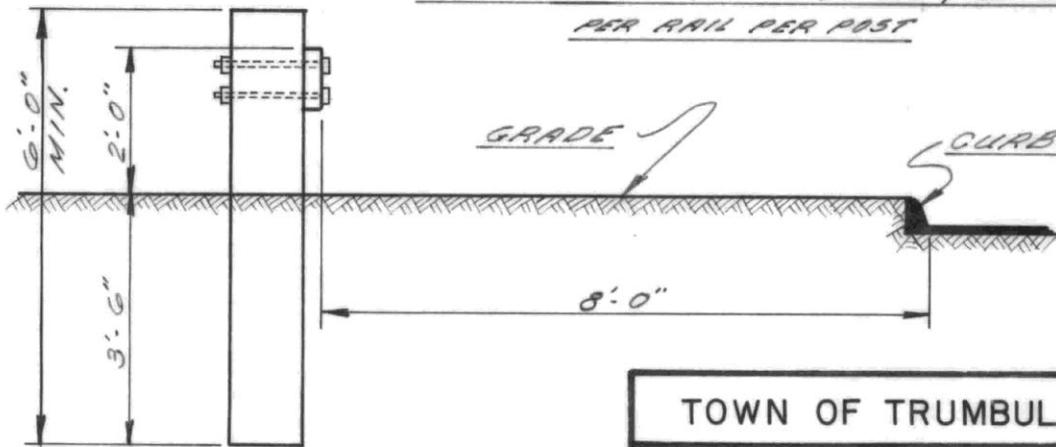
**STANDARD DETAIL  
STANDARD ENDWALL**

DRAWN BY S.K. DATE 5-16-83  
 APPROVED BY NO.



MATERIAL:

- \* WOOD POSTS - 8"x8" OR 12"  $\phi$
- \* WOOD RAILS - 3"x10" MIN.
- \* BOLTS - TWO 1/2"  $\phi$  BOLTS, NUTS & WASHERS  
PER RAIL PER POST



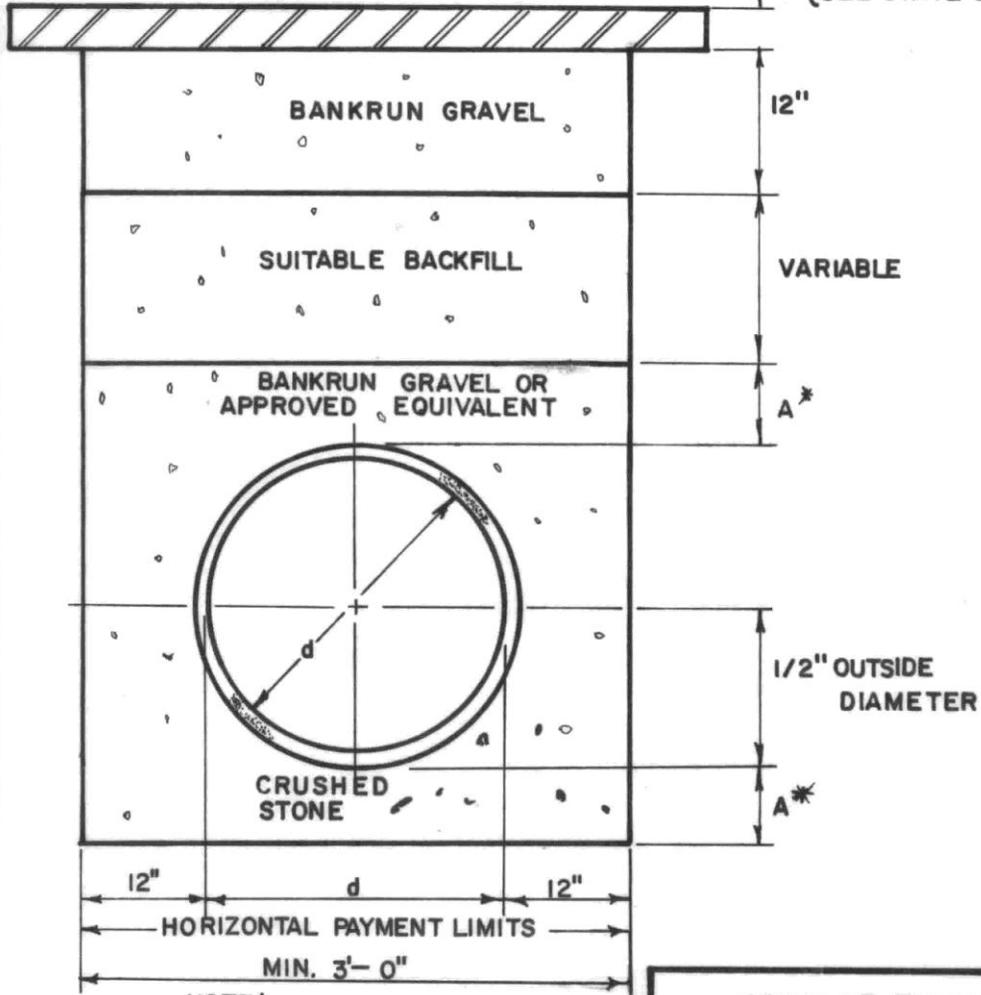
\* WOOD RAILS & POSTS TO BE  
PRESSURE TREATED WITH CREOSOTE OR GSA.

TOWN OF TRUMBULL	
STANDARD DETAIL GUIDE POSTS & RAILINGS	
DRWN. J. C. Z.	DATE: 12-12-88
APPRVD. BY	NO.

NEAT CUT EDGE OF EXISTING PAVEMENT TYP.  
 PRIOR TO PAVING CLEAN EDGE AND PAINT WITH LIQUID BITUMEN  
 MAX. PAY LIMITS FOR PAVEMENT REPAIR.

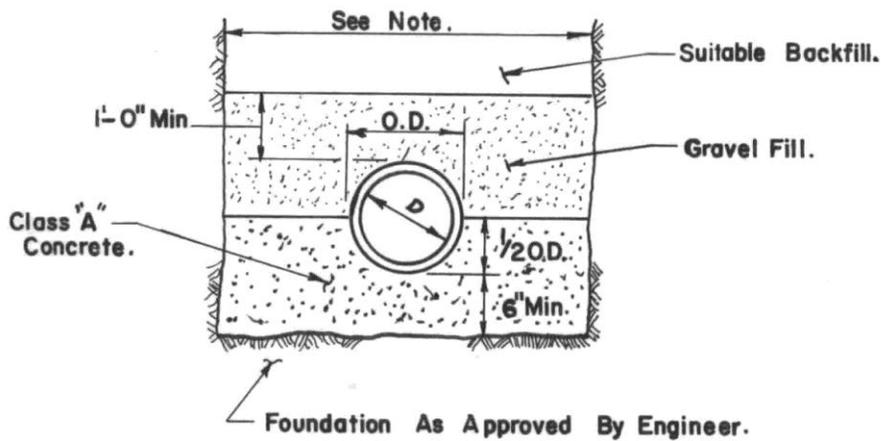
$d + 6'-0"$  FOR  $d$  LESS THAN 30"  
 $d + 7'-0"$  FOR  $d$  GREATER THAN OR EQUAL  
 TO 30'

2" SURFACE  
 (SEE STATE SPEC. 4.02)

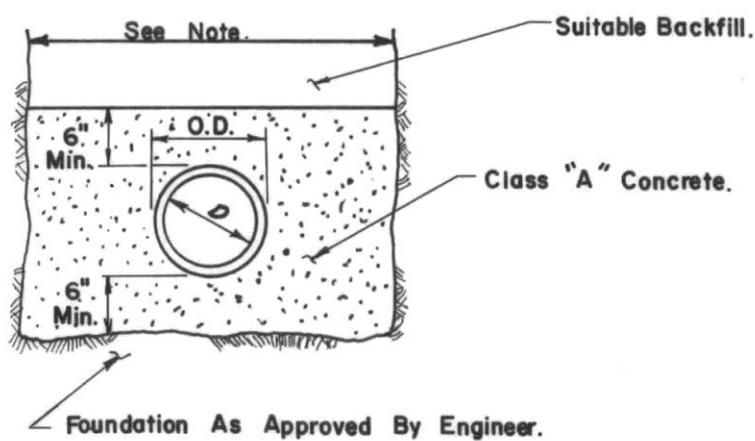


NOTE:  
 WHEN  $d$  IS LESS THAN  
 24"  $A = 6"$   
 WHEN  $d$  IS 24" OR GREATER  
 $A = 4"$

TOWN OF TRUMBULL	
STANDARD DETAIL TYP. SEWER TRENCH UNDER PVMT.	
DRAWN BY S.K.	DATE 5-16-83
APPRVD BY	NO.



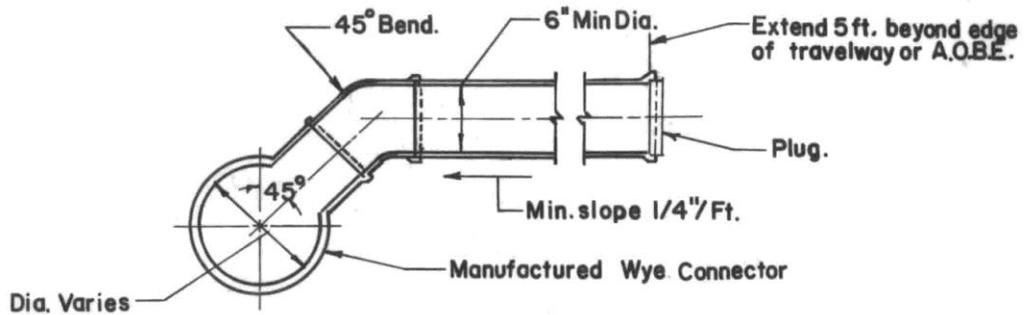
**CONCRETE CRADLE**



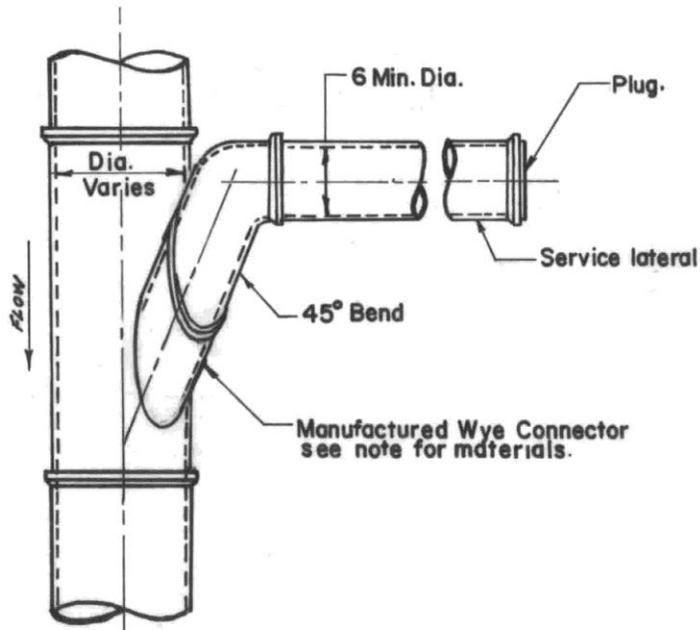
**CONCRETE ENCASEMENT**

note: max. pay width for those items specified is d+2'-0" for d less than 30" d+3'-0" for d equal to or greater than 30". no separate payment will be made for trench excavation

<b>TOWN OF TRUMBULL.</b>	
<b>STANDARD DETAIL CONCRETE CRADLE &amp; ENCASE.</b>	
DRWN BY S.K.	DATE 5-27-83.
APPRVD BY.	NO.



TYPICAL SECTION



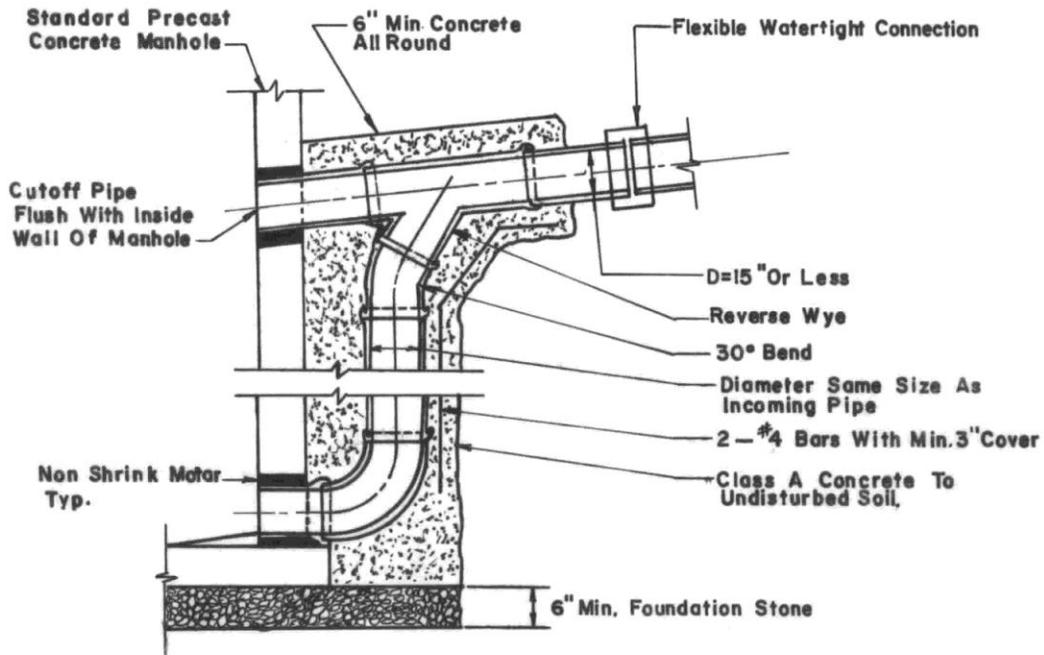
PLAN

STANDARD SERVICE LATERAL CONNECTION

All 6" service laterals and chimneys shall be constructed of the following materials, unless otherwise specified or directed by the Engineer:

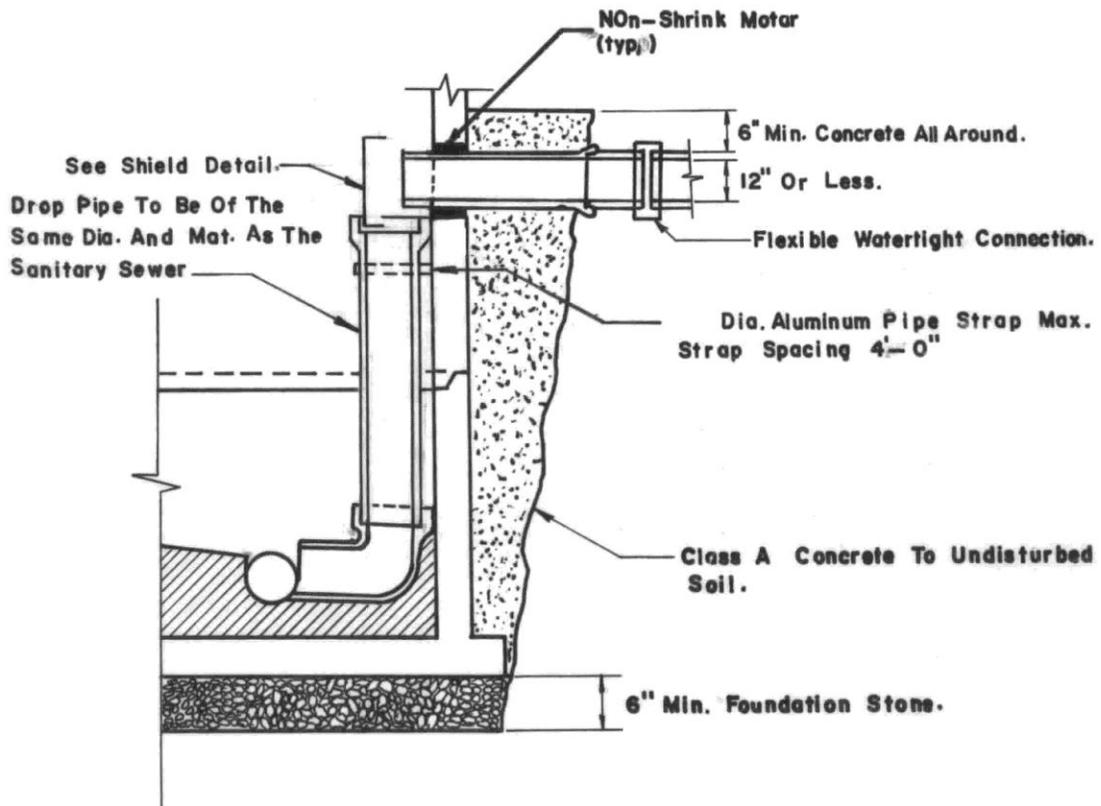
- A) ACP where street sewers are ACP or RCP.
- B) PVC pipe where street sewers are PVC pipe.
- C) DIP where street sewers are DIP

<b>TOWN OF TRUMBULL</b>	
<b>STANDARD DETAIL SERVICE LATERAL CONNECTION</b>	
DRWN BY S.K.	DATE 6-9-83
APPRVD. BY	NO.



DROP MANHOLE DETAIL,  
(OUTSIDE DROP)

TOWN OF TRUMBULL	
STANDARD DETAIL DROP MANHOLE (OUTSIDE)	
DRWN BY S. K.	DATE 5-11-83
APPRVD BY.	NO.



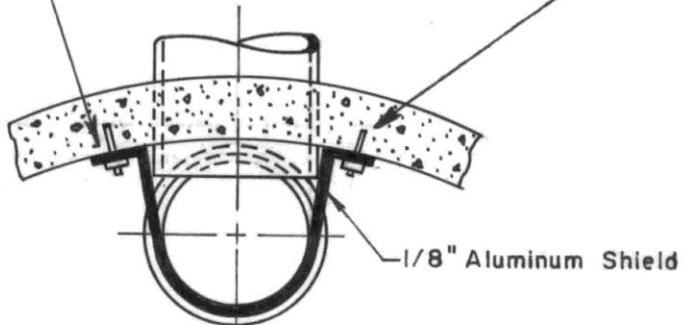
DROP MANHOLE DETAIL  
( INSIDE DROP )

<b>TOWN OF TRUMBULL.</b>	
<b>STANDARD DETAIL</b> <b>DROP MANHOLE DETAIL (INSIDE)</b>	
DRWN BY S.K.	DATE. 5-9-83
APPRVD BY.	NO.

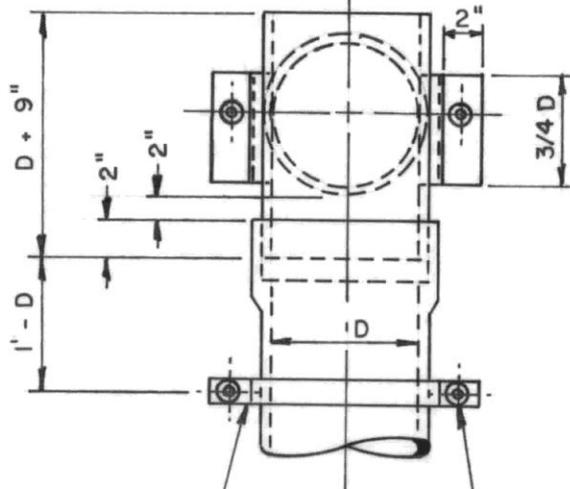
Bitumastic Connection

Ⓐ

1/2" D. Stainless Steel Expansion Bolt With Nut And Washer



PLAN



1 1/4" x 1/4" Aluminum Strap

1/2" Stainless Steel Bolt With Nut & Washer

ELEVATION

SHIELD DETAIL  
(INSIDE DROP)

TOWN OF TRUMBULL

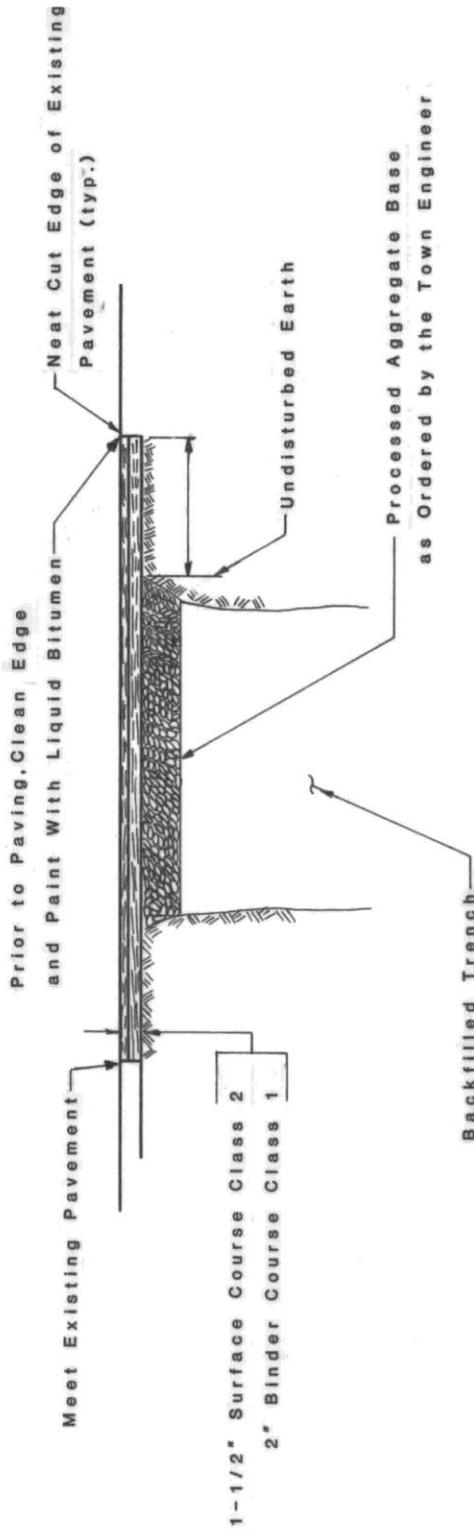
STANDARD DETAIL  
DROP MANHOLE SHIELD DETAIL

DRWN. BY J. Z.

DATE 1-7-87

APPRVD. BY

NO.



**STREET OPENING**

**PAVEMENT REPAIR**

**TOWN OF TRUMBULL**

**STANDARD DETAIL  
PAVEMENT REPAIR**

DRWN BY: B.W.

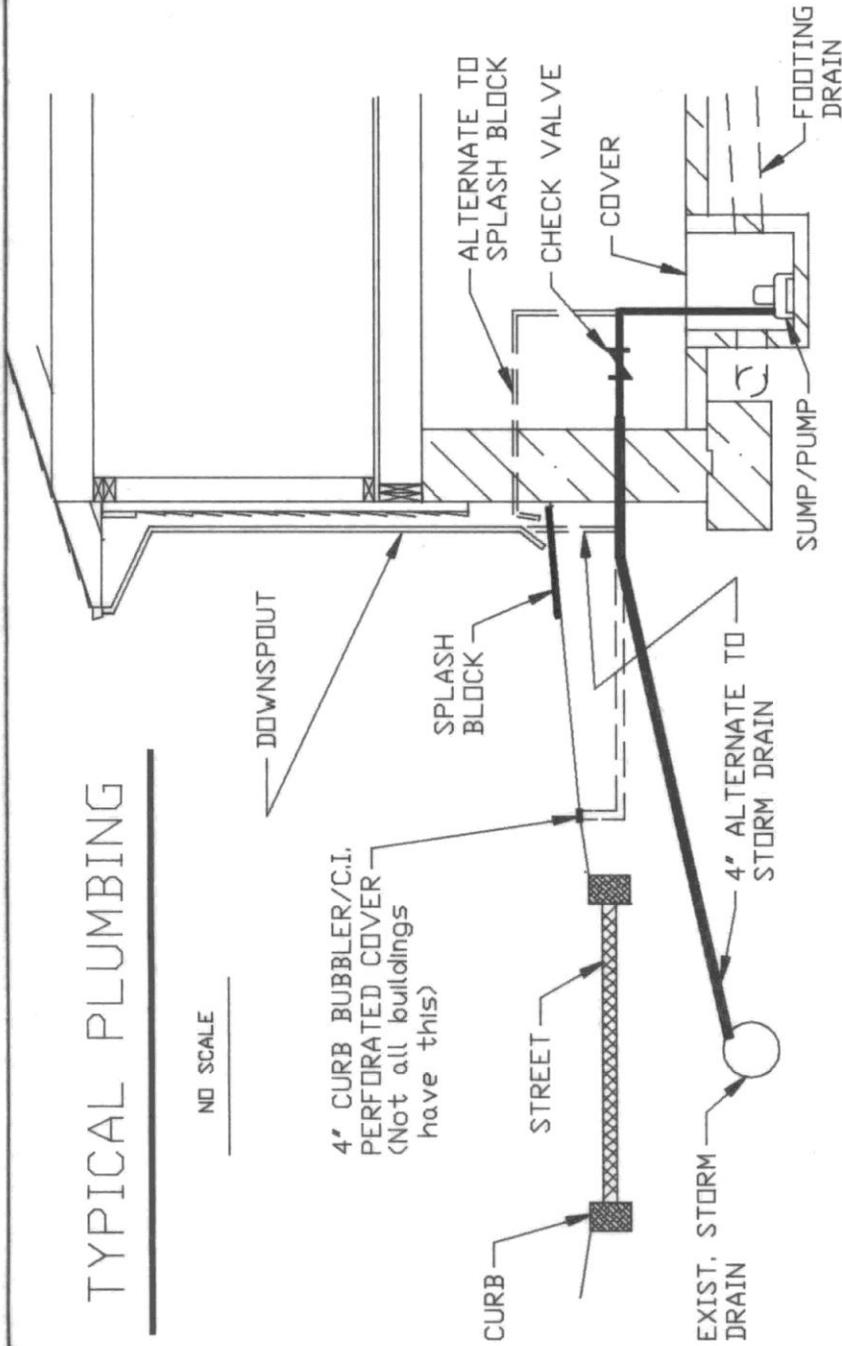
DATE: 7-19-85

APPRVD BY: M.W.

NOTE: Pavement Thickness Shown is Minimum Depth of Bituminous Concrete. Pavement Shall be Replaced to the Original Depth and Type of Pavement Material

# TYPICAL PLUMBING

NO SCALE



ALL PROPERTY OWNERS WITH DOWNSPOUTS OR SUMP PUMPS CONNECTED TO THE SANITARY SEWER MUST INDIVIDUALLY CORRECT THESE IN THE FOLLOWING APPROVED MANNER:

### APPROVED PLUMBING

#### DOWNSPOUTS

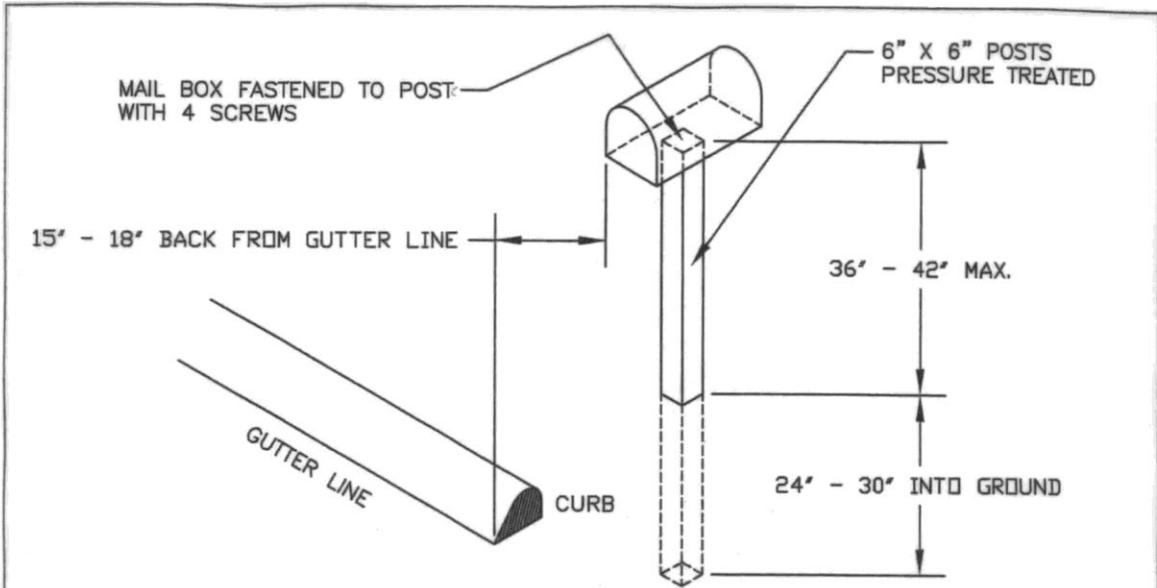
1. DIRECT LINE TO STORM DRAIN OR BUBBLER
2. SPLASH BLOCKS

#### SUMP PUMP

1. DIRECT TO STORM DRAIN CURB BUBBLER
2. DISCHARGE TO OUTSIDE SPLASH BLOCKS.

### NOTES

1. A CHECK VALVE SHOULD BE INSTALLED ON SUMP PUMP
2. NO CONNECTION TO SANITARY SEWER PIPES



SUGGESTED MAIL BOX & POST INSTALLATION

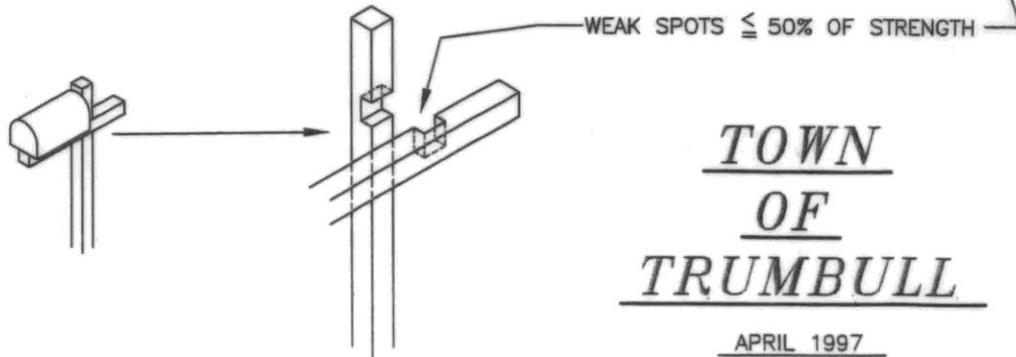
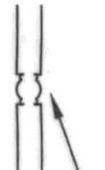
NOTE: This design will withstand most thrown snow assaults, and will generally provide many years of service before it has to be replaced.

DON'T BURY POSTS IN CONCRETE

DON'T USE 4" X 4" POSTS (DO USE 6"X6" POST; SEE ABOVE)

DON'T USE "TURNED DOWN" 4" X 4" POSTS

DON'T NOTCH POSTS



# **TOWN OF TRUMBULL DRIVEWAY REGULATIONS**

## **ROAD CONSTRUCTION REGULATIONS SECTION 5g.**

Driveway aprons must be paved for a minimum of ten feet (10'), connecting the road gutterline to the edge of private property. A ten inch (10") layer of select granular fill shall be compacted in place and covered with a layer of asphalt two inches (2") thick after compaction. Driveways shall have a maximum grade of fifteen percent (15%). All driveways with grades steeper than seven percent (7%) shall be paved. Additional required details are specified on the Driveway Detail sheet available at the Town Engineering Department. No person, firm, or corporation shall construct or reconstruct a driveway or permanently surface an existing driveway without first obtaining a driveway permit from the Engineering Department.  
Town inspection is required during construction and when completed.

### **TRUMBULL MUNICIPAL CODE**

#### **ARTICLE II. GRADING ROADS**

**Sec. 17-31. Changing grade which conforms to town road regulations**

No person shall change or cause to be changed the grade of that portion of the right-of-way of any road located between the paved portion of the road and the property line of the abutting property if such portion of the right-of-way is already graded in conformity with the road regulations of the town.

**Sec. 17-32. Conformance of grading during construction of building.**

Any person who, in conjunction with the construction of any new dwelling or commercial building, grades any portion of the right-of-way of any road located between the paved portion of the road and the property line of the abutting property, which portion of the right-of-way is not already graded in accordance with the road regulations of the town, shall grade in accordance with the road regulations of the town.

**Sec. 17-33. Driveway construction or resurfacing – Permit required.**

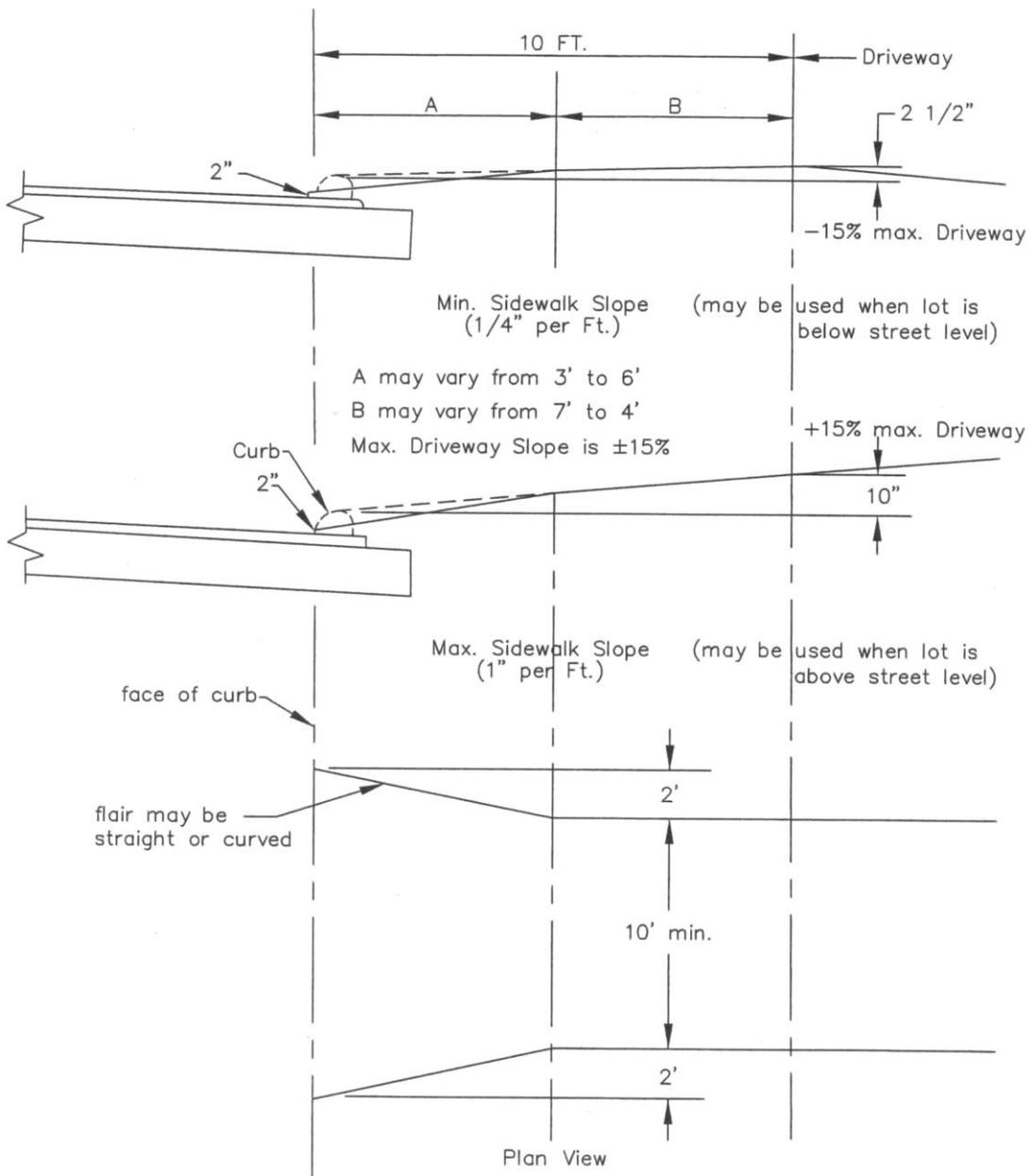
No person shall construct or reconstruct a driveway or permanently surface an existing driveway without first obtaining a permit therefor from the Building Commission.

**Sec. 17-34. Same- Conformance to town road regulations; exception.**

- (a) No person, having obtained a permit as required in section 17-33, shall construct, reconstruct or permanently surface such driveway area between the paved portion of the road and the property line unless such construction, reconstruction or permanent surfacing is done in conformity with the road regulations of the town.
- (b) Waiver of this provision may be obtained from the Building Inspector or Town Engineer, who shall be empowered to grant such waiver upon written application to the Building Commission.

**Sec. 17-35 Violations.**

- (a) Any person failing to comply with any provisions of this article or who permits or causes to be done any of the things forbidden or prohibited by this article shall, for each such offence, be subject to a fine of twenty-five dollars (\$25.00).
- (b) In addition to the penalty provided for in this section, if any person, after notice duly given, neglects or refuses to comply with any of the provisions of this article for a period of sixty (60) days, the First Selectman may order such work to be done as he deems necessary in order to permit compliance with this article. The actual work shall be done by the town or an agent of the town, and the actual cost thereof shall be charged against such person.



TYPICAL DRIVEWAY SECTIONS

NOTE: All driveways steeper than 7% shall be paved.

7-28-03  
TOWN OF TRUMBULL  
ENGINEERING DEPT.