CITY OF SNOQUALMIE

ORDINANCE NO. 483

An Ordinance relating to and establishing standard specifications and design standards for Streets, Plat Roads, and related construction on the City right-of-way (existing & proposed) for the City of Snoqualmie and defining an offense and providing a penalty, and establishing the effective date thereof.

SECTION I - DEFINITIONS OF TERMS:

The following words, terms, and titles, or pronouns and abbreviations used in place of them, shall be construed as defined below.

1.1 CITY The City of Snoqualmie, King County, Washington.

1.2 CITY COUNCIL The regularly constituted Council and Mayor of the City.

1.3 STREET COMMITTEE The committee, composed of members of the City Council, appointed by the Mayor to investigate, study and report to the City Council on matters pertaining to streets and related subjects.

1.4 CITY PLANNING COMMISSION The regularly consitiuted Planning Commission of the City.

1.5 KING COUNTY ROAD STANDARDS The current Road Standards adopted by King County.

1.6 BUILDING DEPARTMENT The Building Department of the City or such other agencies contracted with by the City to perform specialized Building Department functions.

1.7 PUBLIC WORKS DEPARTMENT The Public Works Department of the City.

1.8 CITY ENGINEER The Engineer appointed by the City Council to serve as Engineer for the City. The word "Engineer" is sometimes used in text as inspector.

1.9 INSPECTOR The person assigned by the City to inspect the various street improvement projects, which person or combination of persons may be a member of the City's Consulting Engineering Firm, City Engineer or the City Superintendent, or any other person assigned, acting under the orders of the Mayor and City Council; their authority being limited to the particular duties to which they are assigned.

1.10 DEVELOPER The individual, firm, partnership, corporation, or combination thereof, proposing to perform, performing, or having work performed under contractural agreement in the public right-of-way or in areas to be dedicated to public use, such as in a proposed plat.

1.11 CONTRACTOR The individual, firm, partnership, corporation, or combination thereof, proposing to perform, or performing work under contractural agreement with a developer, in the public right-of-way or in areas to be dedicated to public use, such as in a proposed plat.

1.12 BUILDER The individual, firm, partnership or corporation, or combination thereof, proposing to perform, or performing work in the public right-of-way or in areas to be dedicated to public use, whether under contractural agreement or not.

1.13 PRIVATE PROPERTY OWNER The owner or owners of one or more parcels of land, desiring to perform work or have work performed in the public right-of-way, shall be considered as a Builder as defined in Paragraph 1.12, above.

1.14 PROFESSIONAL ENGINEER A professional engineer licensed and registered in the State of Washington.

1.15 REGISTERED LAND SURVEYOR A land surveyor licensed and registered as a Land Surveyor in the State of Washington.

1.16 NEW CONSTRUCTION The building of a new roadway or structure on new alignment, or the upgrading of an existing roadway or structure by the addition of one or more lane widths. New construction shall include public utilities.

1.17 RECONSTRUCTION The following types of projects are classed as reconstruction, and these design standards do not apply:

(a) Modernization of an existing highway by resurfacing, widening less than a single lane width, adding shoulders or adding turn lanes at intersections. When adding turn lanes, the existing thru lanes shall not be narrowed below their existing width.

(b) Temporary replacement of a highway facility, which is commenced immediately after the occurrence of a natural disaster or catastrophic failure, to restore the highway for the health, welfare and safety of the public.

1.18 ROADWAY WIDTH The portion of a highway between curbs or including shoulders, intended for vehicular use. This definition is for use in these design standards only.

1.19 WALKWAY A continuous way designated for pedestrians, and separated from the through lanes for motor vehicles by a curb, space or barrier.

1.20 DRAINAGE GUIDELINES Refer to "requirements & Guidelines for Drainage Control in King County" adopted as the City Standard.

SECTION II - GENERAL REQUIREMENTS

It is the intent of these Design Standards to outline the minimum requirements for streets, and related construction, in areas where new development is proposed and for improvements to existing developments.

It is recognized that deviations from these standards may be necessary on projects which have special or limiting requirements and it is herein emphasized that each project will be considered on an individual basis. The requirements of these Design Standards do not relieve a developer, contractor, builder, or private property owner from his responsibility to comply with the requirements of other codes, standards or ordinances applicable to the planning and construction of improvements as agreed upon with the City.

This Ordinance shall apply to improvements on property other than new plats, wherein the property utilizes existing or proposed public right-of-way. Improvements shall include new buildings, remodeling, parking lots, etc. requiring construction of streets and utilities deemed necessary by the City. Necessity shall be determined by the function of the improvement, community safety and welfare, and shall include aesthetics.

This Ordinance applies if the building exterior is remodeled on one or more faces.

Minimum requirements for single family residential buildings shall be installation and/or replacement of sidewalk. Development of three (3) or more contiguous single family residential buildings will require street construction (half or full section) complete with required utilities.

Commercial and multi-family buildings shall construct the necessary streets, sidewalks and utilities, etc extended beyond the property as deemed necessary by the City. Water Mains shall be improved to meet fire flow requirements as established by the Fire Marshall and the City.

SECTION III - GENERAL PROCEDURE FOR PROJECT APPROVAL

All proposed plats and/or other improvements utilizing proposed or existing public right-of-way must be approved by the City Council prior to construction. Persons wishing to record a plat or to construct an improvement utilizing the public right-of-way (existing or future) shall first meet with the City of Snoqualmie to plan and work out the specific requirements of the proposed improvements.

The developer will be required to receive the following approvals before final approval of the proposed development will be granted:

1. Snoqualmie City Council and Planning Commission approval of general concept.
2. Washington State Department of Social & Health Services (DSHS), approval of all projects having to do with public or private water supply systems.
3. Washington State Department of Ecology (D.O.E.), approval of all projects having to do with public or private sewerage disposal systems.
4. Washington State Fisheries Department and Game Department approval of all projects which affect any stream, river or lake in any way whatsoever.
5. Washington State Department of Ecology (D.O.E.), approval of all projects within a State declared flood plain zone, and/or within a State declared shoreline management zone.
6. Snoqualmie City Council approval of final plat map and all related construction drawings (street, storm, sanitary, water, with details etc.), subject to posting of performance bond if applicable
7. Any other approvals that may be necessary depending on the nature and location of the proposed project.

SECTION IV

4.1 NEW CONSTRUCTION MINIMUM STANDARDS FOR DESIGN OF STREETS

(1) Structural Design: Design procedures shall conform to accepted engineering practices approved by a registered professional engineer.

(2) Vertical clearance above the paved roadway surface shall be a minimum of 16.5 feet. Vertical clearance of structures above the walkway surface shall be a minimum of 8.0 feet.

(3) Lateral Clearance. The lateral clearance between curb face and the closest part of any fixed object (excluding traffic control signs and break away supports), shall be at least 3 feet.

(4) Bridges: Bridges shall be designed to the requirements set forth in the latest American Association of State Highway and Transportation Officials, (AASHTO) Standard Specifications for Highway Bridges. Bridges shall have a minimum roadway width of 28 feet. Sidewalks shall be in addition. Design live loading for all bridges shall be not less than HS 20-44.

(5) Roadway Geometrics: Design(s) shall be based upon accepted engineering practices and current AASHTO standards.

(6) Construction Specifications: Current editions of Standard Specifications of the Washington State Department of Transportation (WSDOT), or the American Public Works Association, (APWA), shall be used.

(7) Traffic Control: All traffic control devices shall conform to the Manual on Uniform Traffic Control Devices, (MUTCD), as modified by the Washington State Transportation Commission.

(8) Pedestrian Facilities: There shall be a minimum 4 foot (clear) surfaced walkway on each side of the street unless topography or other special conditions favor one walkway only. The City will designate the minimum width and locations of walkways.

(9) Bridge Railings: Where an approach rail is required, it will be made continuous with the bridge railing. Railing height for pedestrian only traffic is 3'-6", for bicycles only is 4'-6", for combined is 4'-6". When concrete barriers are used to separate vehicles from pedestrians and bicycles, the 32" concrete barrier shall have a metal rail extention providing a total height of 4'-6".

(10) Ramps for the Handicapped: Ramps shall be included in all construction. RCW 35.68.075 "Curb Ramps for Physically Handicapped Required," as ammended by Ch. 137, "Sidewalk Ramps," Washington Laws, 1977 First Extraordinary Session.

4.2 GENERAL GUIDELINES FOR NEW CONSTRUCTION

(1) Lateral Clearance.

(a) Location of utility poles near the edge of the right-of-way should be considered.

(b) Breakaway designs for traffic control devices and lighting should not be used where the falling object could create a hazard to pedestrian traffic.

(c) Where edge of right-of-way locations are not feasible for utilities, it is desirable that all trees, utility supports, etc., be placed a uniform distance from the curb. Clearance to trees should account for estimated trunk diameter at maturity.

(2) Utility Location - Except as noted under "Lateral Clearance" above, local standards for utility locations should be followed.

(3) Railroad Grade Crossings - Flashing light signals which indicate the approach or presence of trains should be installed at those railroad-highway grade crossings where studies by qualified engineers indicate the need of warning beyond that provided by signs and markings.

(4) Storm Drainage - Normally, storm drainage should be handled by underground collection systems but other means may be used where permitted

(5) Off Street Parking - if existing conditions do not allow the construction of a street to the minimum width, consideration should be given to removing the parking lanes and constructing strategically located parking lots.

(6) Safety Features.

(a) Guardrail installation should be considered to protect vehicle occupants where roadside obstacles cannot be removed or designed to yield upon impact.

(b) Supports for traffic control devices and lighting, including mast arm or span wires, should be designed to yield or breakaway under impact unless the breakaway design will endanger pedestrian or vehicular traffic.

(c) Guardrails or other design features which protect people from out of control vehicles at locations such as playgrounds, school yards, and commercial areas should be considered.

(d) Bridge rail designs which minimize the severity of impact and retain or redirect the encroaching vehicle should be considered.

4.3 DESIGN DETAILS FOR CITY STREETS

A. NEIGHBORHOOD COLLECTOR STREETS, NEW CONSTRUCTION

(1) Function: To collect and distribute traffic from higher-type arterial streets to access streets, or directly to traffic destinations: to serve neighborhood traffic generators such as one store or small group of stores, elementary schools, churches, club houses, small hospitals or clinics, small apartment areas, etc.

(2) Planning Features: Should function as an arterial street only within one neighborhood, and should serve traffic only with an origin or destination within that neighborhood.

(3) Access Conditions: Intersections at grade with direct access to adjacent property permitted.

(4) Traffic Features: Traffic control measures as warranted, but not to encourage traffic with trips through the neighborhood. Parking restricted as necessary.

AVERAGE DAILY TRAFFIC		500-5,000	
HORIZONTAL CURVATURE	MAX. D (°)	MIN. R (FT)	D=Degrees R=Radius in Feet.
Flat Terrain	8.0	715	
Rolling Terrain	14	410	
Mountainous Terrain	21	275	(Superelevation Required)

MAXIMUM GRADES

Flat Terrain	7%
Rolling Terrain	10%
Mountainous Terrain	12%

These grades may be exceeded for short distances when approved by Council

MINIMUM TWO (2) LANE PAVEMENT WIDTH	24Ft
Number of Lanes (Min).	2/w parking

MINIMUM ROADWAY WIDTH

With Curbs:	No Parking	28Ft (Not Recommended)
	Parking One Side	32Ft
	Parking Both Sides	40Ft (Min. for Bus Route)

NEW BRIDGES

Roadway Width (Min).	Not less than approach roadway width
Design Load (AASHTO)	HS 20-44
Vertical Clearance (Min).	16.5Ft.
RIGHT OF WAY WIDTH (Min).	60Ft.

B. ACCESS STREETS, NEW CONSTRUCTION

(1) Function: To provide access to adjacent property

(2) Planning Features: Should be designed and located to prevent continuous or unobstructed flow of traffic through a neighborhoods.

(3) Access Conditions: Intersections at grade with direct access to adjacent property.

(4) Traffic Features: Traffic control measures as warranted to provide adequate sight distance and safety.

AVERAGE DAILY TRAFFIC		Variable; usually less than 600	
HORIZONTAL CURVATURE	MAX. D (°)	MIN. R (FT)	D=Degrees R=Radius in Feet
Flat Terrain	14	410	
Rolling Terrain	28.5	200	
Mountainous Terrain	50	115	(Superelevation Required)

MAXIMUM GRADES

Flat Terrain	8%
Rolling Terrain	12%
Mountainious Terrain	15%

These grades may be exceeded for short distances when approved by Council

MINIMUM TWO (2) LANE PAVEMENT WIDTH	Varies from 22' to 20'
MINIMUM ROADWAY WIDTH	
With Curbs No Parking	26ft.
Parking One Side	30ft
Parking Both Sides	36ft (40' if Bus Route)
NEW BRIDGES	
Roadway Width (Min).	Greater than or equal to to the approach roadway but not less than 28ft.
Design Load (AASHTO)	HS 20-44
Vertical Clearance (Min).	16.5ft
RIGHT OF WAY WIDTH (Min).	60ft.

SECTION V - DRAINAGE

5.1 DRAINAGE PLAN

Drainage facilities on City roads shall generally conform to Requirements & Guidelines for Drainage Control in King County, current edition. This is hereafter referred to as "Drainage Guidelines." Note the requirements for a drainage plan, beginning on page 1 of that publication, and "Drainage Policies and/or Recomendations," which follows in the latter part of the same manual. This drainage plan shall be submitted either integral with the plan and profile for the road design, if graphic space permits, or on separate plan and data sheets. In either case the drainage plan shall include runoff calculations keyed to topographic maps; location, specific size, grade, and elevation data on all hydraulic features; and facilities for retention and for grease and siltation control.

5.2 STORM DRAINS IN CURB & GUTTER SECTION

A. Underground storm drainage shall be provided for curb street section whenever the length of surface drainage exceeds 300 feet on road grade extending either direction from crest or sag of vertical curves.

B. Storm drain pipe other than pipe connecting inlets to main storm drain shall be minimum 12-inch diameter and of specified rubber-gasketed corrugated metal or rubber-gasketed concrete pipe. Runoff shall be computed and, if the flow requires it, larger pipe shall be used.

C. Storm drain pipe connecting inlets to main storm drain by structure, i.e., catch basin or manhole, shall be minimum 8-inch diameter rubber-gasketed corrugated metal or rubber-gasketed concrete pipe, with maximum length of 55 feet.

D. Connections of storm drain pipe leading from an inlet location may be made into a main storm drain without structure, subject to case-by-case approval by the Engineer and subject to the following requirements:

1. The inletting structure shall be a catch basin and not a simple inlet lacking a catch or drop section.
2. Inlet-connection and main storm drain pipes shall be of same material and type, either rubber-gasketed corrugated metal or rubber-gasketed concrete pipe.
3. Length of inlet connection shall not exceed 55 feet.
4. Standard shop-fabricated tees, wyes, and saddles shall be used, except that connections with concrete pipe may be field-tapped.

E. Zinc-coated (galvanized) corrugated iron or steel pipe shall be coated with protective Treatment 1 in accordance with Section 9-05.4(3) of the State Standard Specifications.

F. Subject to approval by the Engineer, other pipe materials and methods, such as but not limited to plastic or cast-in-place concrete pipe, may be used provided that conditions make it feasible, recognized specifications are available to control quality, and acceptable user experience with the product is shown.

G. The rubber gasket requirement above may be waived by the Engineer if it can be shown that joint leakage will not be an adverse factor.

H. Storm drain gradients shall be such as to assure minimum flow velocity of three (3) feet per second when flowing full.

I. Closed (underground) drain lines shall not be located with centerline closer than five feet to any property line separating adjacent lots or tracts. A drainage easement shall be located entirely within a single lot or tract, except where linear extent of the drain line may involve additional properties.

5.3 CATCH BASINS, MANHOLES & INLETS

A. Maximum spacing on surface drainage courses between inlets or catch basins shall be 200 feet on road grades up to 1.5%. When road grade is 1.5% to 3.0%, maximum spacing shall be 300 feet; when grade is 3.0% or greater, maximum spacing shall be 400 feet.

B. Maximum spacing on main storm drains between access structures, whether catch basins or manholes, shall be 600 feet.

C. Curb inlets without drop section or catch may be used provided they are connected to a main storm drain by catch basin.

D. Adequate measures shall be taken to limit surface drainage from yards and roof drains so as to prevent water damage or nuisance within the right-of-way. Such measures may include but are not limited to the following:

1. Three-inch pipe laid sub-surface from yard inlet to nearest catch basin or curb inlet.
2. Three-inch pipe laid from yard inlet under sidewalk and out through curb face. This method is not permissible when curb is on high side of super-elevation or in any situation in which street drainage cannot be confined to gutter receiving yard runoff.
3. Eight-inch pipe stubbed from catch basin or curb inlet structure to back of sidewalk and plugged, to provide future connection to one or more yard drains.

5.4 RUNOFF CONTROL POLICIES

The following elements of referenced King County Code Title 20.50 and the Drainage Guidelines are summarized for emphasis:

A. Runoff Diversion: Surface water entering the road right-of-way shall be received at the naturally occurring location. Surface water existing in the right-of-way shall be discharged at the natural location with adequate energy dissipators to minimize downstream damage. There shall be no diversion at either of these points. In subdivisions in planning stage these rules shall apply to the total property, by division, which is under development and not just to the proposed road right-of-way.

B. Peak Discharge Control:

1. The peak discharge from the road right-of-way or from total subdivided property shall not be increased due to the proposed construction, and
2. Retention or detention facilities acceptable to the Engineer shall be provided in order to handle all surface water in excess of the peak discharge.

C. Oil Separation Devices: Whenever significant contamination of runoff with oil or grease is anticipated, an oil/grease separation device, as specified in Drainage Guidelines or acceptable to the Engineer, shall be installed. It shall be located at a point where it can be maintained and where it will intercept floating contaminents flowing off the road right-of-way.

D. Erosion & Siltation Control:

1. Excavation and grading shall be done in a manner to maintain controlled drainage of the worksite and to minimize the exposure of unprotected slopes to the action of precipitation or flowing ground water.
2. When possible, existing natural vegetation shall be left intact.
3. Exposed slopes when completed shall be given appropriate permanent protection as soon as practical, e.g., grass or other ground cover, riprap, rockeries, or retaining walls.
4. The provisions of Section 3, Temporary Erosion/Sedimentation Control, of the King County Drainage Guidelines shall apply. This shall include the submittal of an effective temporary erosion/sedimentation control plan to be approved by the Engineer prior to starting any clearing and grubbing of earthwork.

SECTION VI UTILITIES

6.1 STREET RIGHT-OF-WAY PRIMARILY FOR TRAFFIC

Utilities to be located within the street right-of-way shall be constructed in compliance with these Standards. In their use of the right-of-way, utilities shall be given consideration after the traffic carrying requirements of the roadway which are, namely, to provide safe, efficient and convenient passage for motor vehciles, pedestrians, and other traffic. Aesthetics shall be a consideration. As a mater of policy, undergrounding of electric utilities will be required unless waived by the Planning Commission & Council.

6.2 STANDARD UTILITY LOCATIONS

Utilities within the right-of-way on new roads or in roadways where existing topography, utilities, or storm drains are not in conflict, shall be located as shown in typical sections, and as indicated below. Where existing utilities or storm drains are in place, new utilities shall conform to these Standards as nearly as practical and yet be compatible with the existing installations. Exceptions may be approved when necessary to meet the special requirements of overhead utilities where right-of-way space is limited, planned unit developments, short subdivisions, mobile home parks, multi-family developments and commercial developments.

A. Gas and Water Lines:

1. Shoulder-and-Ditch Section:

   If practical: Outside of ditch line

   Otherwise: In shoulder 3 feet from edge of travel lane.

2. Curb and Gutter Section:

   Preferable: Near gutter of curb or at distance which will clear root masses of street trees if these are present or planned for.

   Otherwise: 10 feet from centerline. Mains and service connections to all lots should be completed prior to placing of surface materials.

3. Designated side of centerline to generally conform with King County.

   GAS: South and West; WATER: North and East.

4. Depth of Cover:

   (a) Water at 3.5' minimum cover from finished grade

   (b) Gas at 3.0' minimum cover from finished grade.

B. Sanitary Sewers: Mains located 5' south & West of centerline, side sewer cover 5 ft. min. from finished grade at property line, terminated inside lot.

C. Sanitary and water lines shall be separated in accordance with good engineering practice by being spaced at least 10'-0" apart, horizontally.

D. Gravity systems, whether sanitary or storm drainage, shall have precedence over other systems in planning and installation.

E. Electric utilities, power, telephone, cable TV:

Required: Underground, either side of road, at plan location and depth compatible with other utilities and storm drains. Each utility is to file with the City their construction standards and current revisions.

F. Notwithstanding other provisions, underground systems shall be located at least five feet away from road centerline and where they will not otherwise disturb existing survey monumentation.

6.3 UNDERGROUND PIPE MATERIALS & INSTALLATION

Water mains and sanitary sewer pipe installed in the public right-of-way shall conform to the provisions of Division III and Division IV of the Washington Chapter APWA Standard Specifications, current edition, except as otherwise provided herein.

6.4 SCHEDULING OF UTILITIES INSTALLATION & RELOCATION

A. Pole utilities and underground utilities, including service crossings, shall be installed or relocated prior to the start of road construction if planned road cuts and fills are minimal and location of road elements can be clearly indicated in advance. Otherwise such utilities, with connections, shall be installed or relocated after the subgrade has been completed but before surfacing has been placed.

B. As a matter of policy, utility trenching or transverse cuts in Streets will be discouraged. They will not be permitted unless it can be shown that alternatives such as boring or jacking or relocating outside the paved area are infeasible, or unless the utility can be installed just prior to reconstruction or overlay of the road. In instances where trenching or cutting is permitted, backfilling shall be done in accordance with Section 7-04.3(3) of the State Standard Specifications and the road surface shall be restored at least equal to the existing pavement. If a firm and presentable surface even with the existing pavement is not achieved, the Engineer may require remedial action such as redoing of the restoration or overlaying the backfilled trench and adjacent areas of the roadway.

6.5 GENERAL REQUIREMENTS:

A. It is the desire of the City to provide water and sanitary sewer service to all areas within the City limits, and in some cases beyond. If the proposed development is in reasonable proximity to existing sanitary sewers or watermains, and the existing facilities can be made adequate to handle the increased load anticipated from the new development, the developer will be required to connect to the existing facilities, and contribute to the capital improvement costs involved to make such facilities adequate.

B. All sanitary sewers shall be designed in accordance with the State of Washington Department of Ecology's "Criteria for Sewage Works Design", dated February 1978, including all amendments thereto.

C. All watermains shall be designed in accordance with the State of Washington Department of Social and Health Services, Division of Health. Watermains shall be flushed, disinfected and flushed again. Water samples shall be taken and analyzed in accordance with the requirements of the State Division of Health prior to the connection of any service lines.

D. All proposed utilities, together with construction details, shall be submitted on plan and profile paper to the Snoqualmie City Council for approval, and shall be stamped by a Professional Engineer, licensed to practice in the State of Washington.

E. All drainage easements, utility easements, and slope easements required inside and outside the platted area shall be submitted with final plans for approval.

SECTION VII ROADSIDE FEATURES

7.1 DRIVEWAYS

A. Permissible dimensions, slope and detail shall be as indicated on Drawings and as further specified in the following subsections.

B. Conditions of Approval of New Driveways:

1. Driveways directly giving access onto arterials may be denied if alternate access is available.
2. All abandoned driveway areas on any street shall be removed and the curbing and sidewalk, or shoulders and ditch section shall be properly restored.
3. Maintenance of driveway approaches and all sidewalks shall be the responsibility of the owner whose property they serve.
4. For a commercial establishment on a shoulder and ditch type road, where development of adjoining lands and highway traffic assume rural characteristics as determined by the Engineer, the following rule shall apply: The entire frontage area shall be graded and paved to the property line with asphalt or portland cement concrete. Surface drainage shall be intercepted and carried in a closed system. Access control to the property by means of a 6-inch curbing will be required.

C. Location of New Driveways:

1. A residental driveway is one that normally serves one parcel. A driveway serving more than one parcel shall be classed as a commercial driveway or a private street.
2. On frontage 75' or less, no more than one driveway shall be constructed; on frontages over 75' two or more driveways may be permitted, subject to approval by the Engineer.
3. No portion of driveway width shall be allowed within 5' of extensions of property lines in residential areas or 9' in commercial areas except that driveways may utilize full width of narrow access right-of-way to property if this provides the only access to the lot being served.

4. The maximum change in driveway grade shall be:

On crest vertical curves, 8% per 10'.

On sag vertical curves, 12" per 10'.

D. Existing driveways may be reconstructed as they exist provided such reconstruction is compatible with the reconstructed road.

E. Notwithstanding any other provisions, driveways shall not be allowed where they are determined by the Engineer to create a hazard or impede the operation of traffic on the roadway.

7.2 ROCK RETAINING WALLS

A. Rock retaining walls may be used for the containment of cut or fill embankments up to a maximum height of 8 feet in stable soil conditions which will result in no significant foundation settlement or outward thrust upon the walls. For heights over 8 feet or when soil is unstable, a structural wall of acceptable design shall be used.

B. Materials.

1. Size categories shall include:

Two-man rocks (300 to 600 pounds), 13" in least dimension;

Three-man rocks (800 to 1200 pounds), 16" in least dimension; and

Four-man rocks shall be used for bottom course rock in all rock retaining walls over 6' in height.

2. The rock material shall be as nearly rectangular as possible. No stone shall be used which does not extend through the wall. The rock material shall be hard, sound, durable and free from weathered portions, seams, cracks and other defects. The rock density shall be a minimum of 160 pounds per cubic foot.

C. The retaining wall shall be started by excavating a trench, not less than six (6) inches or more than one (1) foot in depth below subgrade in excavation sections or below the existing ground level in embankment sections.

D. Rock selection and placement shall be such that there will be minimum voids and, in the exposed face of the wall, no open voids over six (6) inches across in any direction. The final course shall have continuous appearance and be placed to minimize erosion of the backfill material. The larger rocks shall be placed at the base of the rockery so that the wall will be stable and have a stable appearance. The rocks shall be placed in a manner such that the logitudinal axis of the rock shall be at right angles or perpendicular to the rockery face. The rocks shall have all inclining faces sloping to the back of the rockery. Each course of rocks shall be seated as tightly and evenly as possible on the course beneath. After setting each course of rock, all voids between the rocks shall be chinked on the back with quarry rock to eliminate any void sufficient to pass a 2 inch square probe.

E. The wall backfill shall consist of quarry spalls with a maximum size of four (4) inches and a minimum size of two (2) inches. This material shall be placed to an eight(8) inch minimum thickness between the entire wall and the cut or fill material. The backfill material shall be placed in lifts to an elevation approximately six (6) inches below the top of each course of rocks as they are placed, until the uppermost course is placed. Any backfill material on the bearing surface of one rock course shall be removed before setting the next course.

F. When a sidewalk is to built over a rock retaining wall, the top of the wall shall be sealed and leveled with a cap constructed of Cement Concrete, Class C in accordance with the applicable provisions of Section 6-02 of the State Standard Specifications, but with reduced water content resulting in slump of not over two (2) inches.

7.3 SIDE SLOPES

A. Side slopes shall be constructed no steeper than 1-1/2 to 1 on fill slopes and 1 to 1 on cut slopes. Flatter slopes are preferred and may be required by the Engineer if there are indications that the earth is unstable and subject to sliding or sloughing.

B. Side slopes shall be stabilized by grass sod or seeding, or by other planting or surfacing materials acceptable to the Engineer.

C. Furnish City easements for side slopes in the form prescribed by the City.

7.4 STREET TREES & LANDSCAPING

When desired by the City, street trees and landscaping shall be incorporated into the design of any road improvement. Existing trees and landscaping should be preserved where desirable, and placement of new trees should be compatible with other features of the environment. In particular, maximum heights and spacing should not conflict unduly with overhead utilities. Trees shall be of the type that roots will not damage sidewalks etc. If street trees are planted, they should conform reasonably to City standards. Trees shall be maintained by the abutting property owner.

7.5 SURVEY MONUMENTS

A. Monuments shall be placed at all street intersections including intersections with cul-de-sacs, and at all points of curvature and points of tangency. All monuments shall be set in concrete and be provided with cast iron frames and covers.

B. All existing survey control monuments which are disturbed, lost, or destroyed during surveying or building shall be replaced by the responsible surveyor or builder at the Developer's expense

C. Survey control monuments shall be placed or replaced in accordance with recognized good practice in land surveying.

SECTION VIII INSPECTION

8.1 BASIS FOR CONTROL OF THE WORK

A. Work performed in the construction or improvement of City Streets whether by or for a private developer, by City forces, or by City Contractor, shall be done to the satisfaction of the Engineer and in accordance with approved plans. It is emphasized that no work may be started until such plans are approved. Any revision to such plans shall be approved by the Engineer and inspectors before being implemented.

B. The Engineer or other designated City personnel shall have authority to enforce the standards as well as other referenced or pertinent specifications. He will appoint assistants, and inspectors as necessary to inspect the work and they will exercise such authority as the Engineer may delegate. See definition of inspector.

C. Provisions of Section 1-05 of the State Standard Specifications shall apply.

8.2 STREET INSPECTIONS

On all Street construction, inspections will be done by the Engineer and/or his designated inspectors. Unless otherwise instructed by the City Engineer, inspections will be made as follows:

A. Inspection No. 1: Temporary water detention/retention and siltation control in accordance with "Drainage Policies and/or Recommendations" in latter part of Drainage Guidelines.

B. Inspection No. 2: All underground storm drains, sanitary sewers and watermains at stage that trenching and placing of pipe is in progress up to completion, but prior to cover. Inspection shall include checking for proper grade, alignment, bedding condition, testing of pipelines, connections to existing facilities, and to include proper backfill and compaction.

C. Inspection No. 3: General roadway, at different construction stages of drainage system, underground utilities, and roadway grading until suitable subgrade is complete, including gravel ballast if required.

D. Inspection No. 4: General roadway, at state that crushed gravel surfacing or base course has been placed, as well as curbing and sidewalk.

E. Inspection No. 5: General roadway, while paving is in progress

F. Inspection No. 6: Final air testing of sewer installation in plats after all other utilities have been installed and plat improvements are complete.

G. Inspection No. 7: Overall roadway, final, after paving, clearing of drainage system and all necessary clean-up.

H. Structural Inspections: At critical stages of foundation, placement and assembly of components, and final completion and test, as directed by the Engineer.

8.3 DEVELOPERS REQUIRED TO NOTIFY

The developer shall notify the City Engineer in advance of each required inspection. Failure to comply will necessitate additional and appropriate testing and certification by a Commercial Materials Laboratory. Costs of such testing and certification shall be borne by the developer. At the time that such action is directed by the Engineer, no further work will be permitted on the development until all tests have been completed and all corrections have been made, to the satisfaction of the Engineer.

8.4 REVISIONS TO INSPECTION SEQUENCE

If the developer believes that the inspection sequence indicated above does not fit the requirements of his project, he should make his request to the Engineer in sufficient time to permit revision of the inspection schedule.

IX DEPOSITS, FEES & OBLIGATIONS TO THE CITY

9.1 CASH DEPOSITS

A cash deposit shall be placed with the City as a guarantee fund to assure completion of all obligations in respect to fees charged for conferences, plan checks, field inspection, transfer of ownership, and all other functions performed in processing such improvements from concept to acceptance by the City. The cash deposit shall be retained (if not otherwise utilized), by the City up to the date of acceptance of the improvements by the City. This deposit may be used by the City to satisfy any outstanding obligations as to City expenses incurred (particularly including the City's consulting Engineer & other professional advisors), which obligations are not paid within 30 days of invoiced date of consultant or professional advisor, or which obligations are outstanding at time of City accepting the improvement. Furthermore, the City reserves the right to suspend any further work on the improvements should the developer fail to make timely payments of all invoices billed, and/or upon failure to reimburse the funds withdrawn from the deposit. The developer will be reimbursed all deposit money remaining after all obligations are satisfied at time of acceptance of improvement. No reimbursement will be made for incomplete improvements and the City reserves the right, after one year of inactivity by developer to dispense such funds as it desires to any related City fund, or expense. The amount

of cash deposit for each development shall be $1,000.00 or more established from time to time by Council action. The deposit is intended to assure monthly payments of City expenses as described above and does not indicate in any manner the total fees for the project, which fees usually vary indirectly with the developers ability to execute the performance of his total project.

9.2 CHECKING FEES

A checking fee will be assessed for checking plat maps. A checking fee will be assessed for checking preliminary Plans and later the detailed construction drawings (Plan-profiles etc.) covering all utilities and proposed street improvements. Fees will vary for each development and the City will bill the developer for the work performed by the City Engineer and City Inspector and any other City Staff members utilized in checking the plans for conformance with the City Standards. Billing will be based on an hourly charge in accordance with the time spent by each advisor in checking the project.

9.3 INSPECTION FEES

Inspection fees will be assessed by the Engineer through the City for time spent in inspecting the construction of utilities, street improvements and the testing associated therewith. Work will also include assistance in transferring ownership of utilities from the developer to the City. Total fees for the Inspection Phase and Transfer of Ownership will vary for each development. The City will bill the developer for the work performed and will bill on an hourly basis in accordance with the time required for these items of inspection to complete the project.

9.4 DEVELOPER AGREEMENT

A Developer Agreement shall be entered into between the City and the person or firm desiring to extend, revise or replace water and/or sewer utilities where allowed by City Ordinances, or to construct, reconstruct streets etc., within the City Limits. The Agreement particularly applies to development of plats, but is also applicable to those improvements required for certain remodeling of buildings and new construction of buildings within the City Limits. The Developer Agreement includes the required cash deposits, fees and other obligations to the City as indicated within this Section IX to perform the work in compliance with these standards.

9.5 PERFORMANCE BOND

For work performed in public right-of-ways the developer shall post a performance bond. Within the plat or development, no performance bond will be required unless the plat is to be recorded with the County and/or property is to be sold prior to completion of all the work. The amount of the bond shall in all instances be resolved on an individual basis, and shall be for the "Fair Cost Amount" as set by the City. In lieu of this Bond requirement, the developer may deposit the cash equivalent in a savings account as an assignment of funds in lieu of the Bond requirement.

9.6 GUARANTEE BOND

One year guarantee bond or its equivalent in cash shall be posted in the manner and style prescribed by the City prior to the plat being recorded with the County and/or prior to the property being sold. Service connections cannot be made until this requirement is fulfilled. Unless stated otherwise, the one year guarantee on utilities is a guarnatee on all workmanship and materials of the utility for a period of one year from the date of acceptance of the plat and its improvements; not one year from completion of installation of

improvements. Prior to acceptance of the one year guarantee, the developer shall maintain and operate all utilities. In a similar manner, all streets shall be guaranteed for two (2) years from the date of acceptance of the plat and its improvements.

SECTION X - STANDARD FORMS; DEVELOPER AGREEMENT, PERFORMANCE BOND, GUARANTEE BOND

Standard Forms, when applicable, for the Developer Agreement, Performance Bond and Guarantee Bond, etc., shall be furnished by the City.

SECTION XI - DESIGN STANDARD DRAWINGS

On File with the City Clerk are drawings supplementing and illustrating the Design Standards as referred to in this Ordinance. Drawings shall be modified, added to, or deleted, all as directed by Council Action.

SECTION XII- VIOLATIONS OF ORDINANCE

Any violations of this ordinance shall be a misdemeanor and shall be punishable by a fine not to exeed $500.00 or imprisonment in the City jail not to exceed 6 (six) months or by both fine and imprisonment.

SECTION XIII - ORDINANCE EFFECTIVE DATE

This ordinance shall take effect from the date it is published in accordance with R.C.W. 35A.12.130.

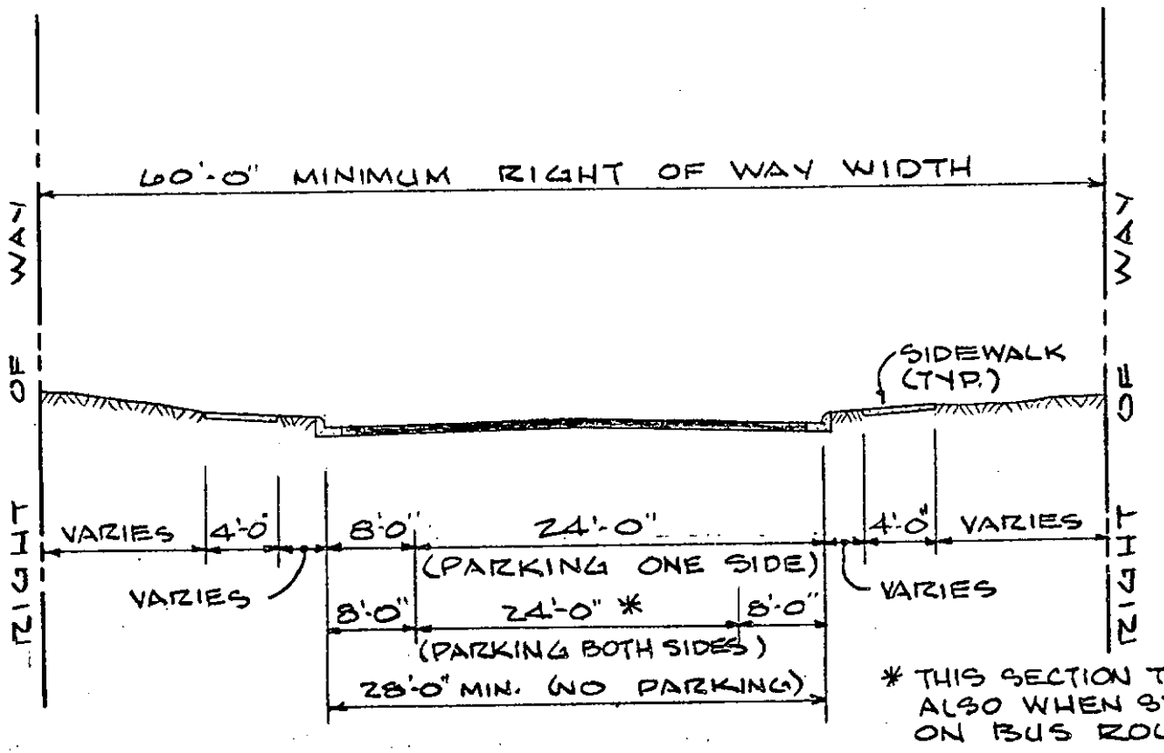
PASSED BY THE CITY Council of Snoqualmie Washington, at its regular meeting on the 28th day of July, 1980.

_____
Mayor

ATTEST:

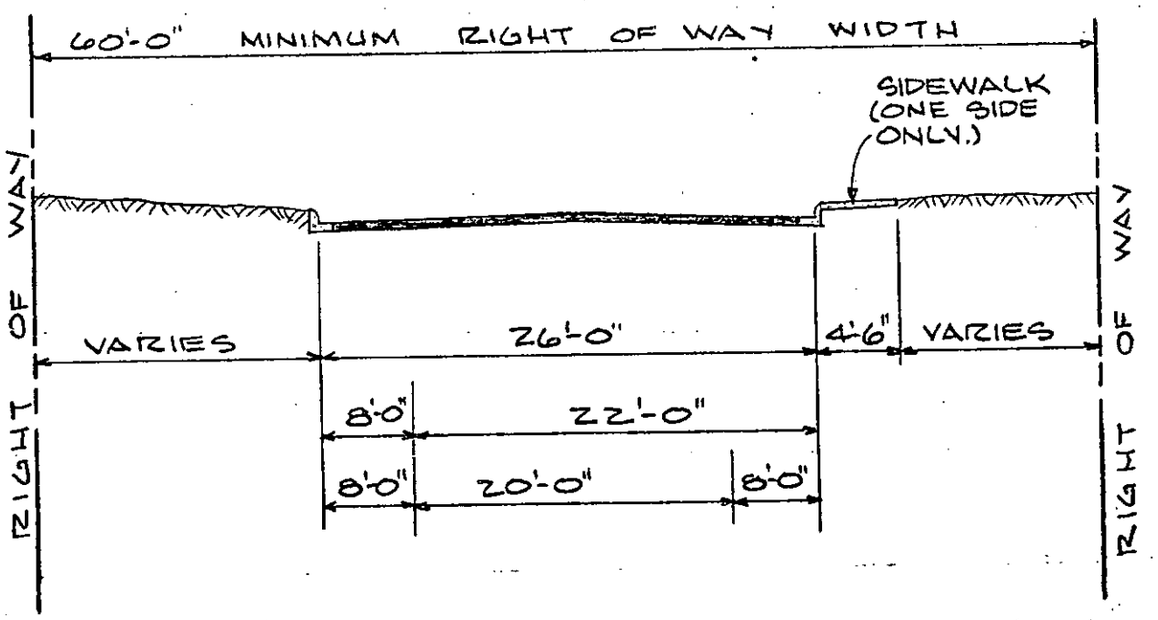
_____
City Clerk

CITY OF SNOQUALMIE DESIGN STANDARDS
INDEX TO DRAWINGS



NEIGHBORHOOD COLLECTION SECTION

NOT TO SCALE

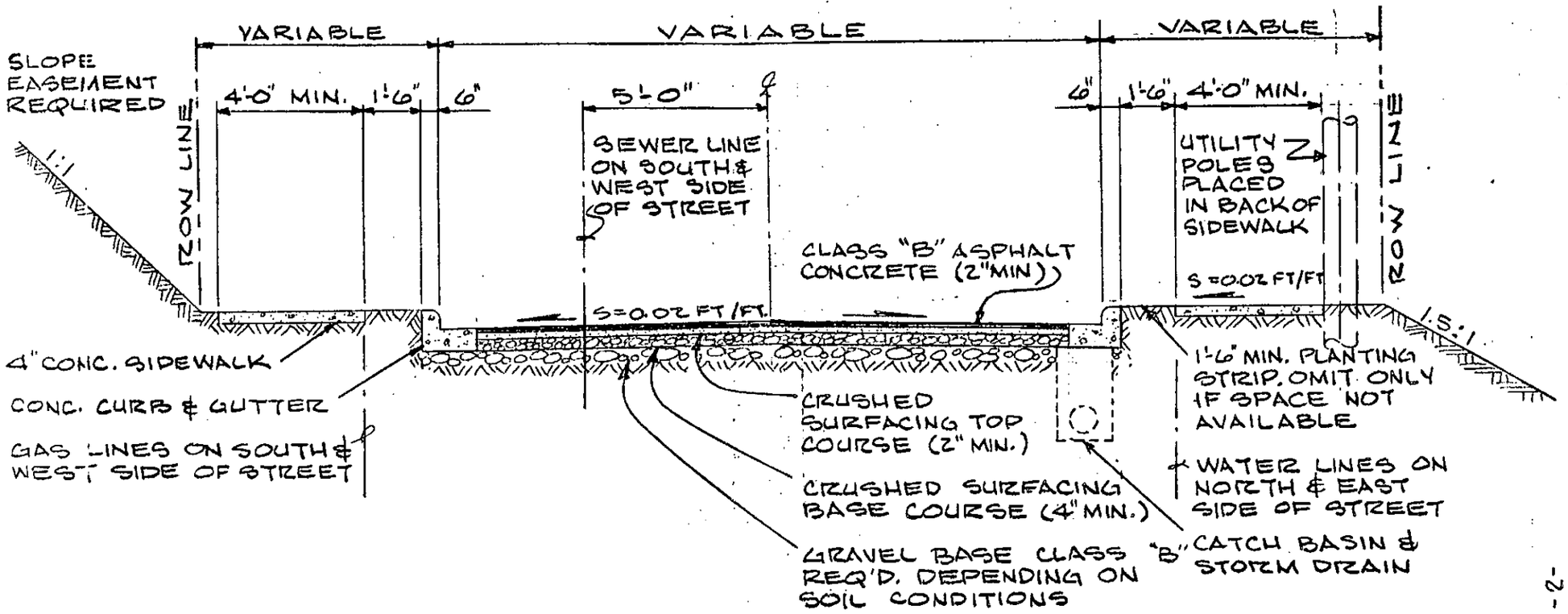


ACCESS SECTION

NOT TO SCALE

MINIMUM ROADWAY SECTIONS

Gray & Osborne, Inc. P.S.
CONSULTING ENGINEERS
SEATTLE & YAKIMA
WASHINGTON



STANDARD STREET SECTION

NOT TO SCALE

NOTES:

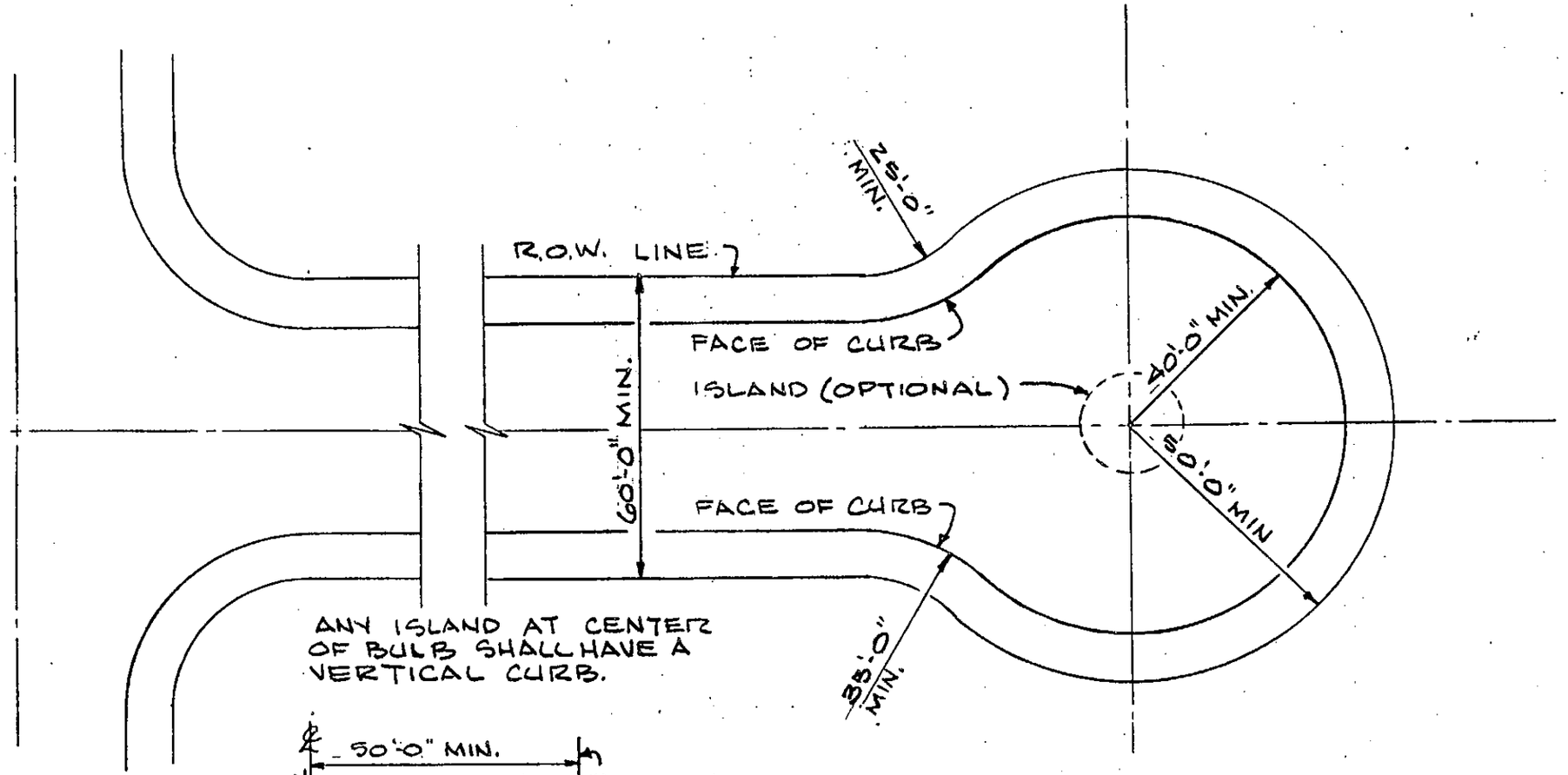
THIS DRAWING ILLUSTRATES A TYPICAL ASPHALT-CONCRETE STREET SECTION. ACTUAL SURFACING DESIGN SHALL BE BASED ON SOIL & TRAFFIC ANALYSIS.

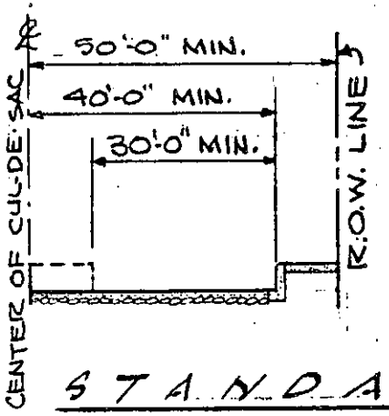
MIN. GRADE 0.7%

SIDEWALKS SHALL BE 8'-0" OR WIDER IN BUSINESS DISTRICTS

STANDARD STREET SECTION

Gray & Osborne, Inc. P.S.
CONSULTING ENGINEERS
SEATTLE & YAKIMA
WASHINGTON

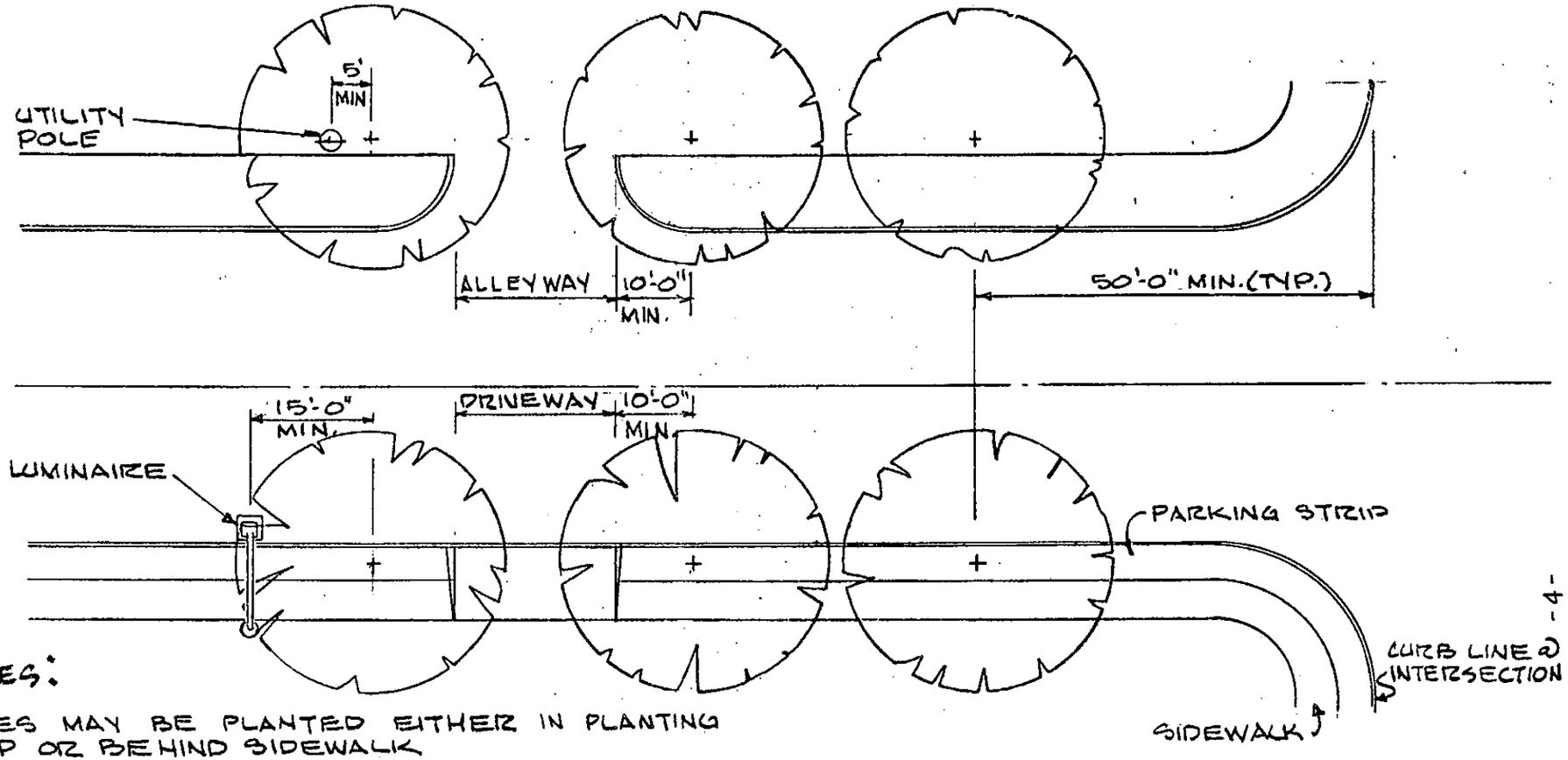




STANDARD CUL-DE-SAC

NOT TO SCALE

Gray & Osborne Inc PS
CONSULTING ENGINEERS
SEATTLE & YAKIMA
WASHINGTON



NOTES:

TREES MAY BE PLANTED EITHER IN PLANTING STRIP OR BEHIND SIDEWALK

MIN. PLANTING STRIP WIDTH (DISTANCE BETWEEN SIDEWALK & NEAREST EDGE OF CURB) FOR PLANTING TREES = 3'-0"

MIN. DISTANCE FROM CENTER OF TREE TO NEAREST EDGE OF CURB = 2'-6"

TREES SHALL BE STAKED IN A MANNER NOT TO OBSTRUCT SIDEWALK TRAFFIC.

MIN CLEAR SIDEWALK WIDTH SHALL BE 4'-0"

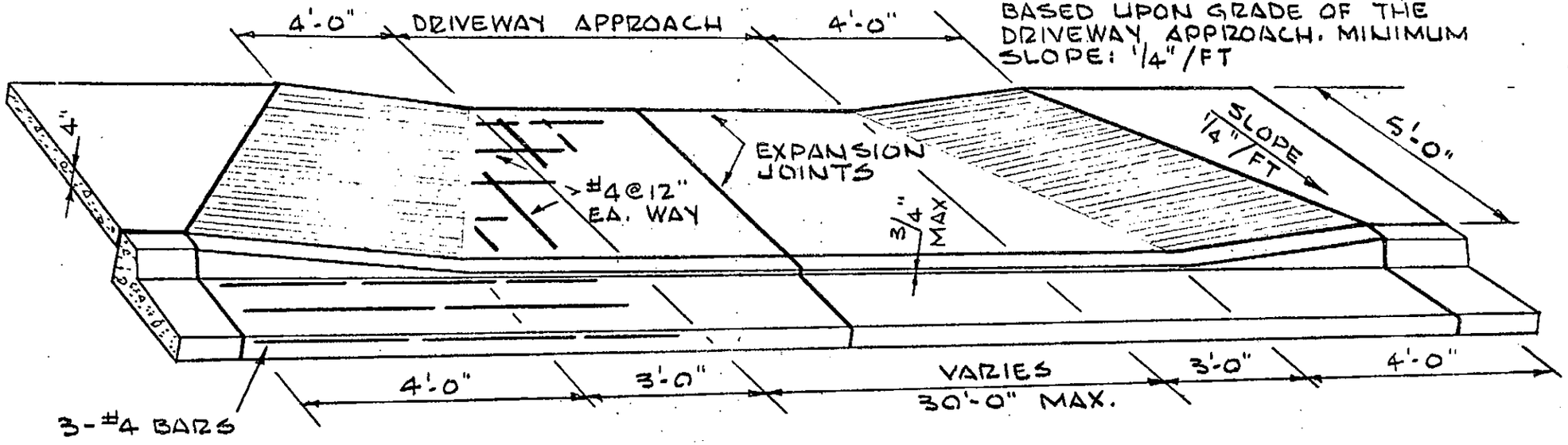
PLAN

NOT TO SCALE

STREET TREE STANDARDS

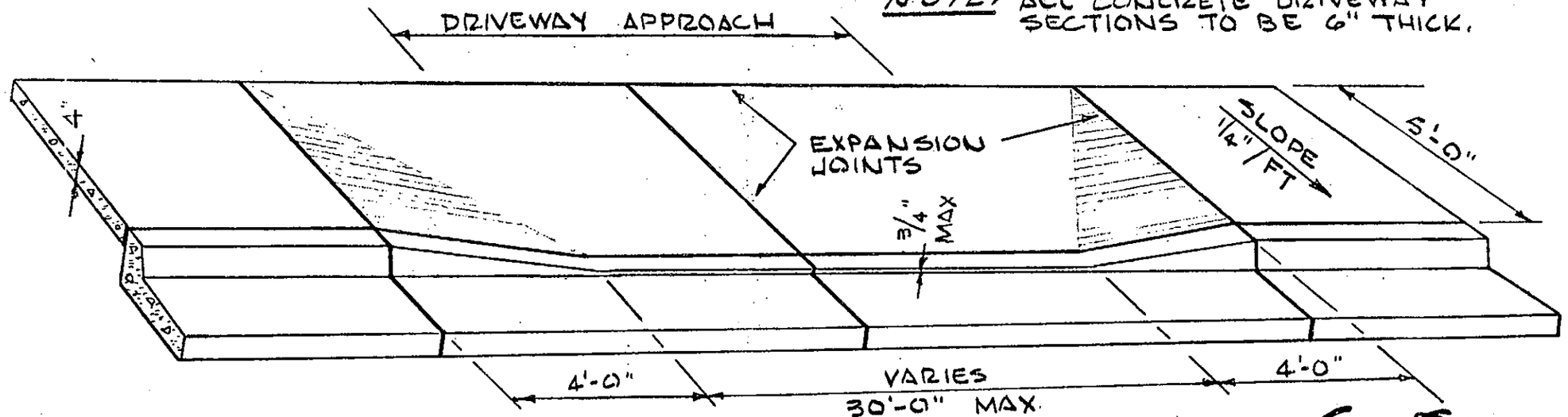
Gray & Osborne, Inc. PS
CONSULTING ENGINEERS
SEATTLE & YAKIMA
WASHINGTON

NOTE: SLOPE OF DRIVEWAY TO BE DETERMINED BY THE ENGINEER BASED UPON GRADE OF THE DRIVEWAY APPROACH. MINIMUM SLOPE: 1/4"/FT



COMMERICAL, INDUSTRIAL, & MULTIPLE-FAMILY DRIVEWAYS

NOTE: ALL CONCRETE DRIVEWAY SECTIONS TO BE 6" THICK.

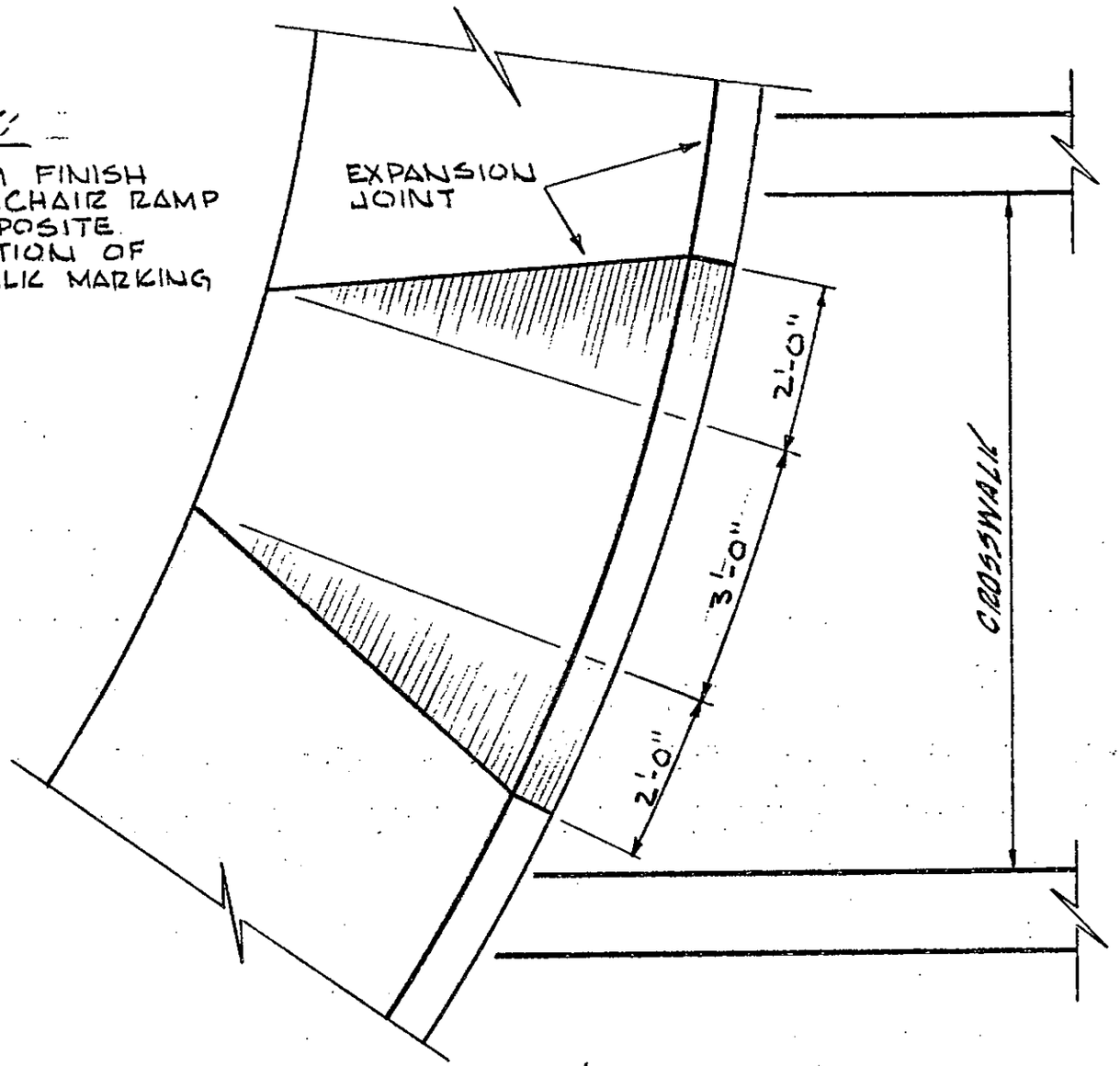


RESIDENTIAL DRIVEWAYS

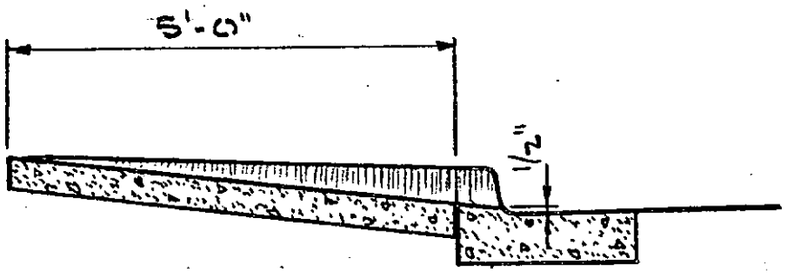
Gray & Osborne, Inc. P.S.
CONSULTING ENGINEERS
SEATTLE & YAKIMA
WASHINGTON

NOTE:

BROOM FINISH WHEELCHAIR RAMP IN OPPOSITE DIRECTION OF SIDEWALK MARKING



PLAN



SECTION

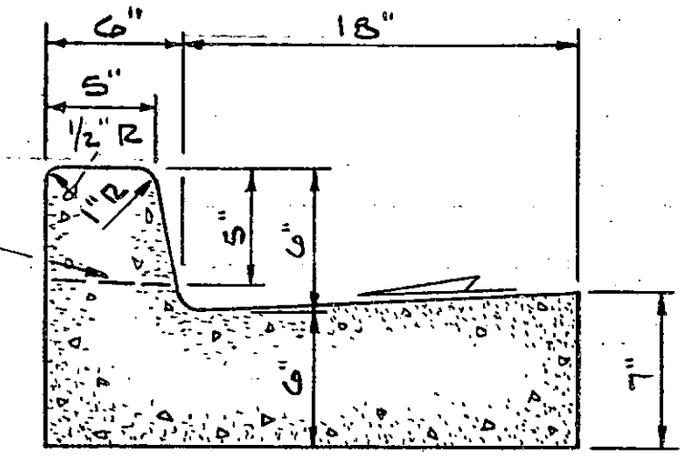
WHEELCHAIR RAMP

Gray & Osborne, Inc. PS

CONSULTING ENGINEERS
SEATTLE & YAKIMA
WASHINGTON

NOTE:

THE CURB AND GUTTERS SHALL HAVE ½" MASTIC JOINT FILLER MATERIAL AT INTERVALS OF NOT GREATER THAN 20'-0", WITH DUMMY JOINTS AT 10'-0".

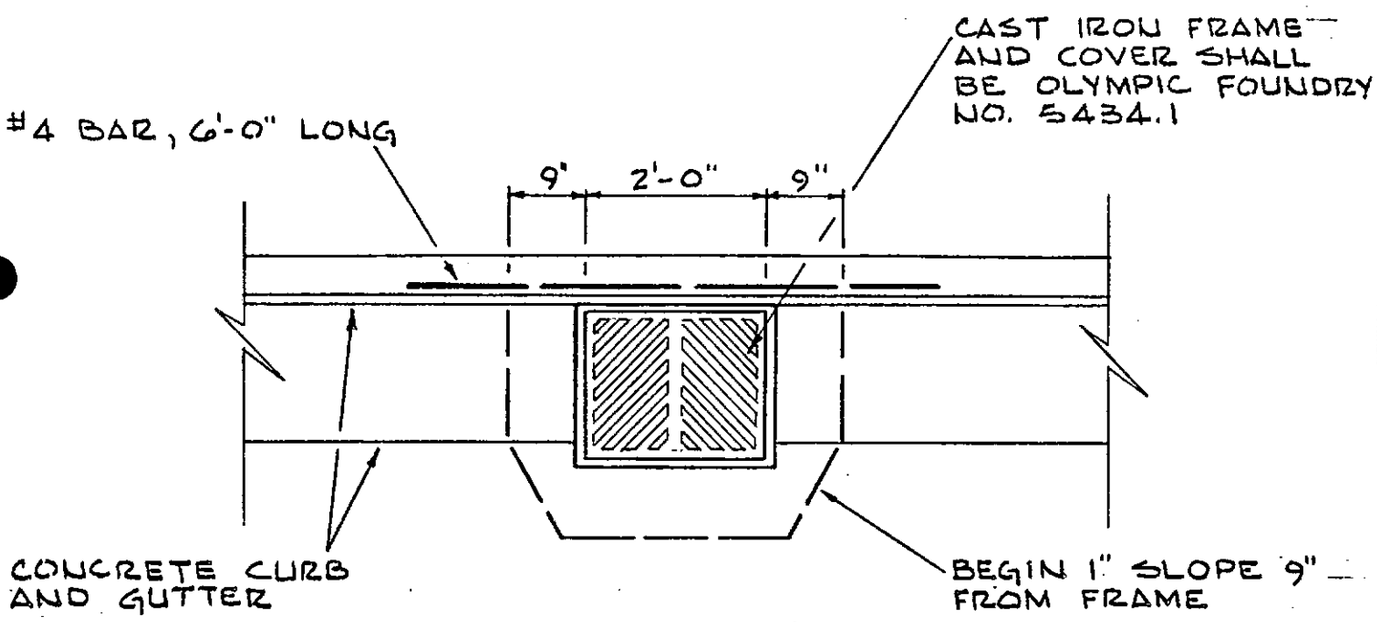


TOP OF CURB AT DRIVEWAY

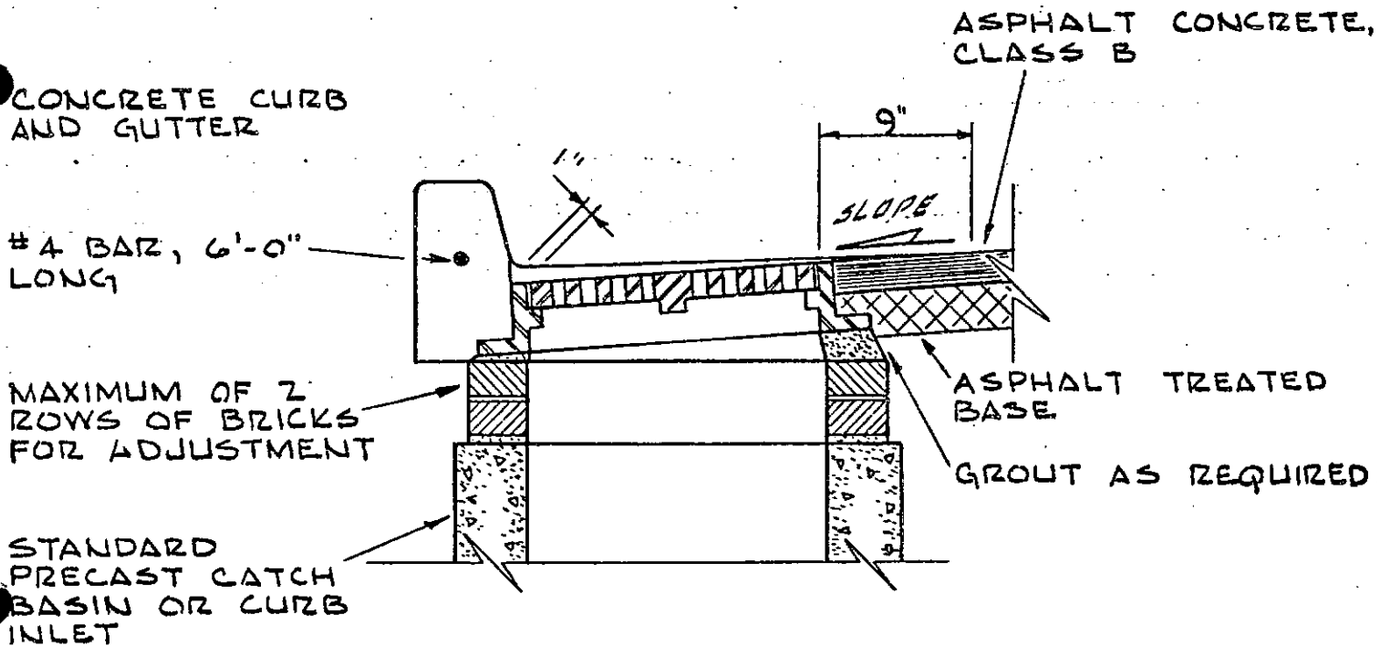
ELEVATION

CONCRETE CURB & GUTTER

Gray & Osborne, Inc. PS
CONSULTING ENGINEERS
SEATTLE & YAKIMA
WASHINGTON



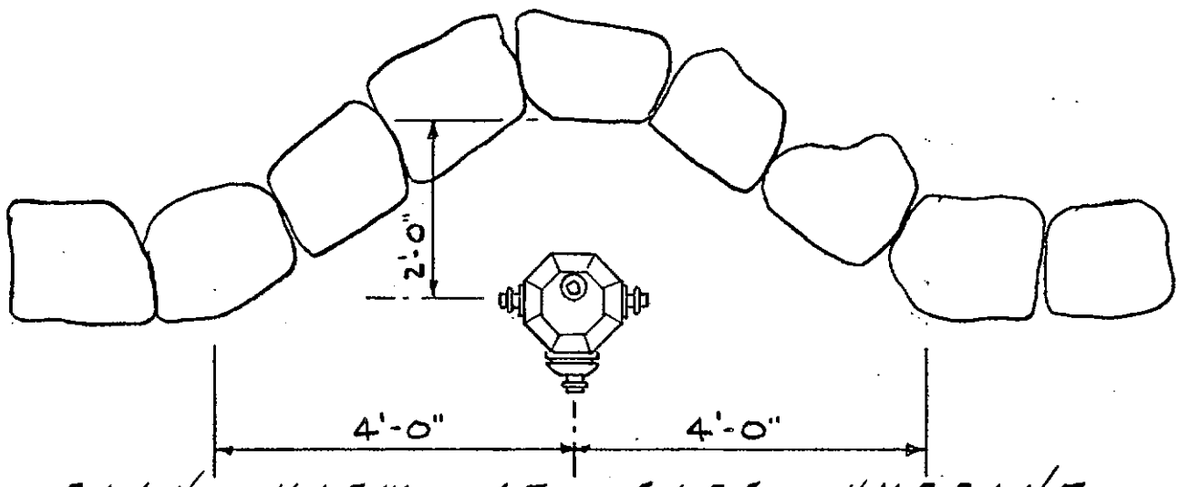
PLAN



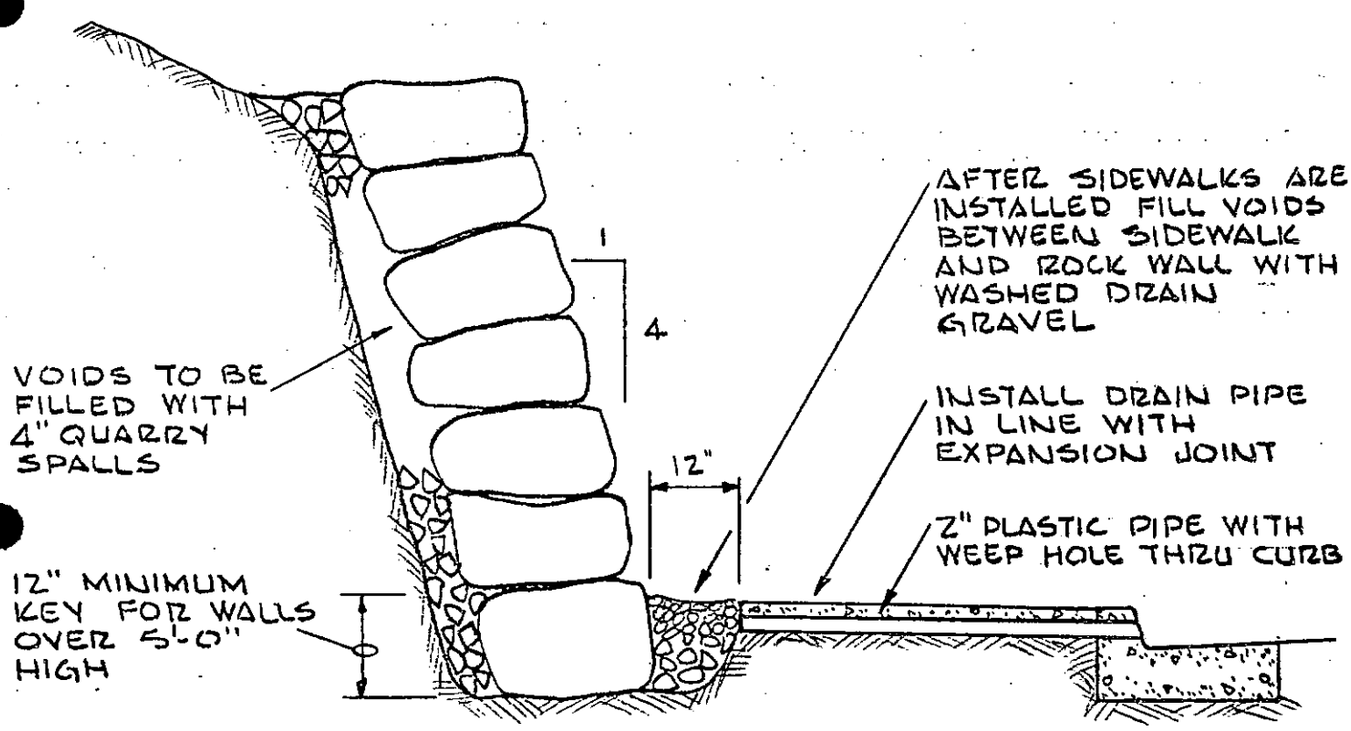
ELEVATION

CATCH BASIN & CURB INLET DETAILS

Gray & Osborne, Inc. PS
CONSULTING ENGINEERS
SEATTLE & YAKIMA
WASHINGTON



PLAN VIEW AT FIRE HYDRANT



ELEVATION

ROCK WALL

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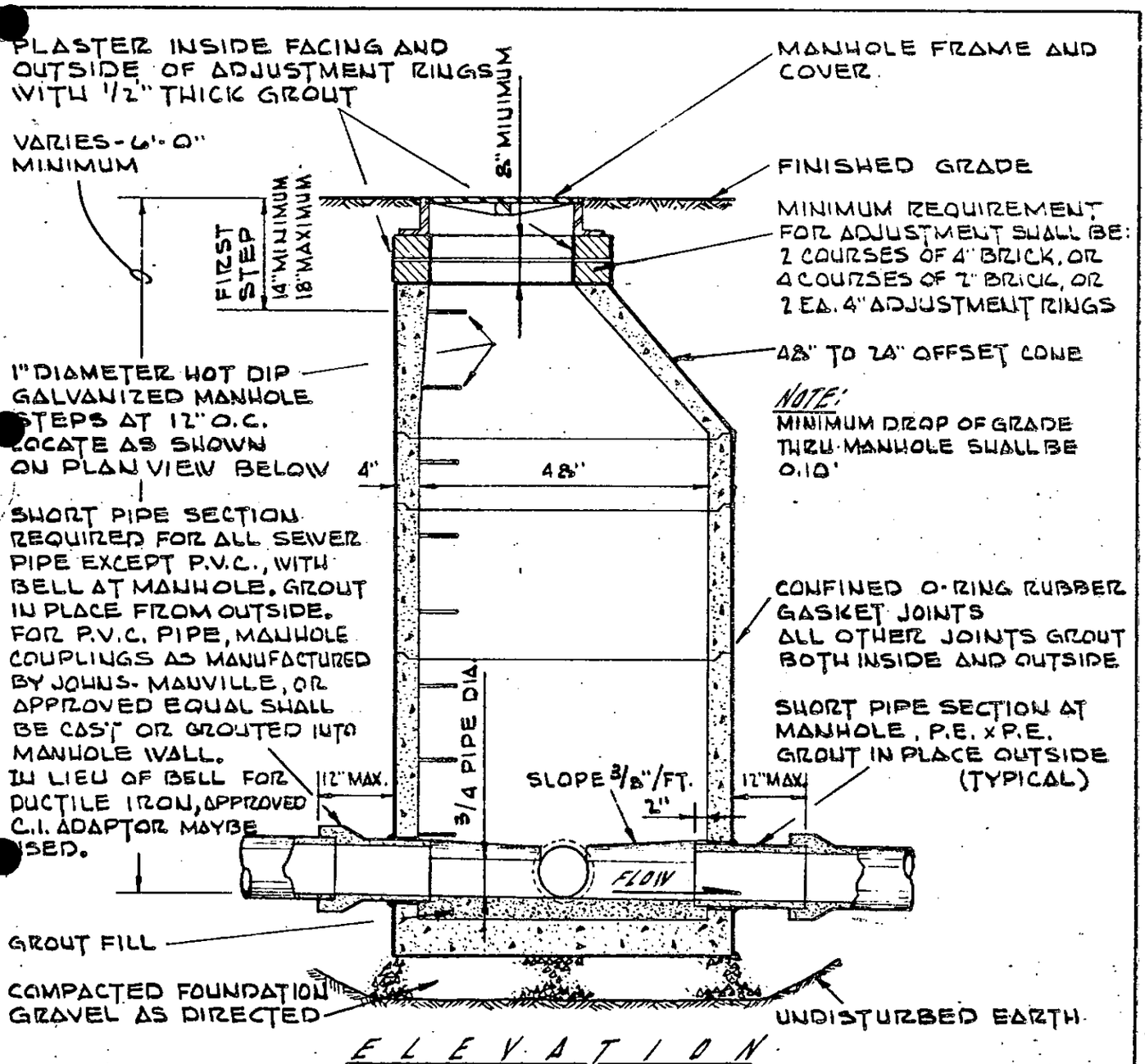
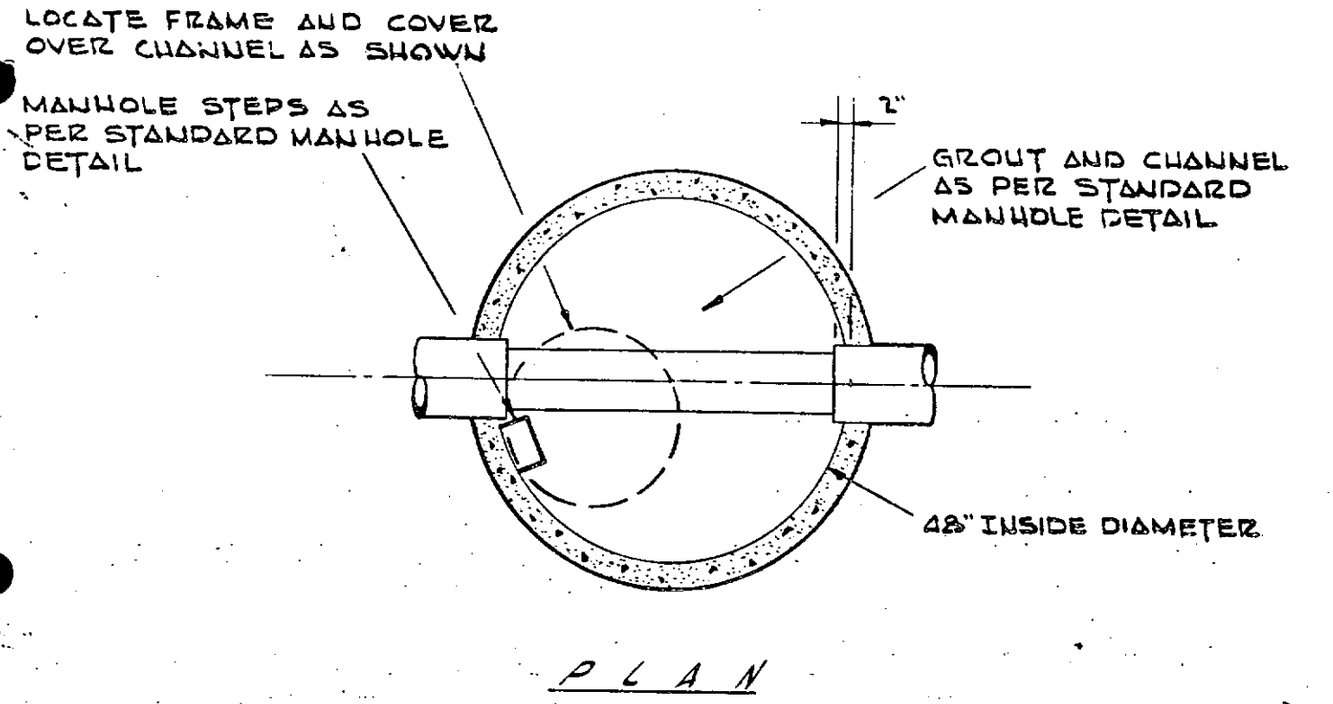
CONSULTING ENGINEERS
SEATTLE & YAKIMA
WASHINGTON

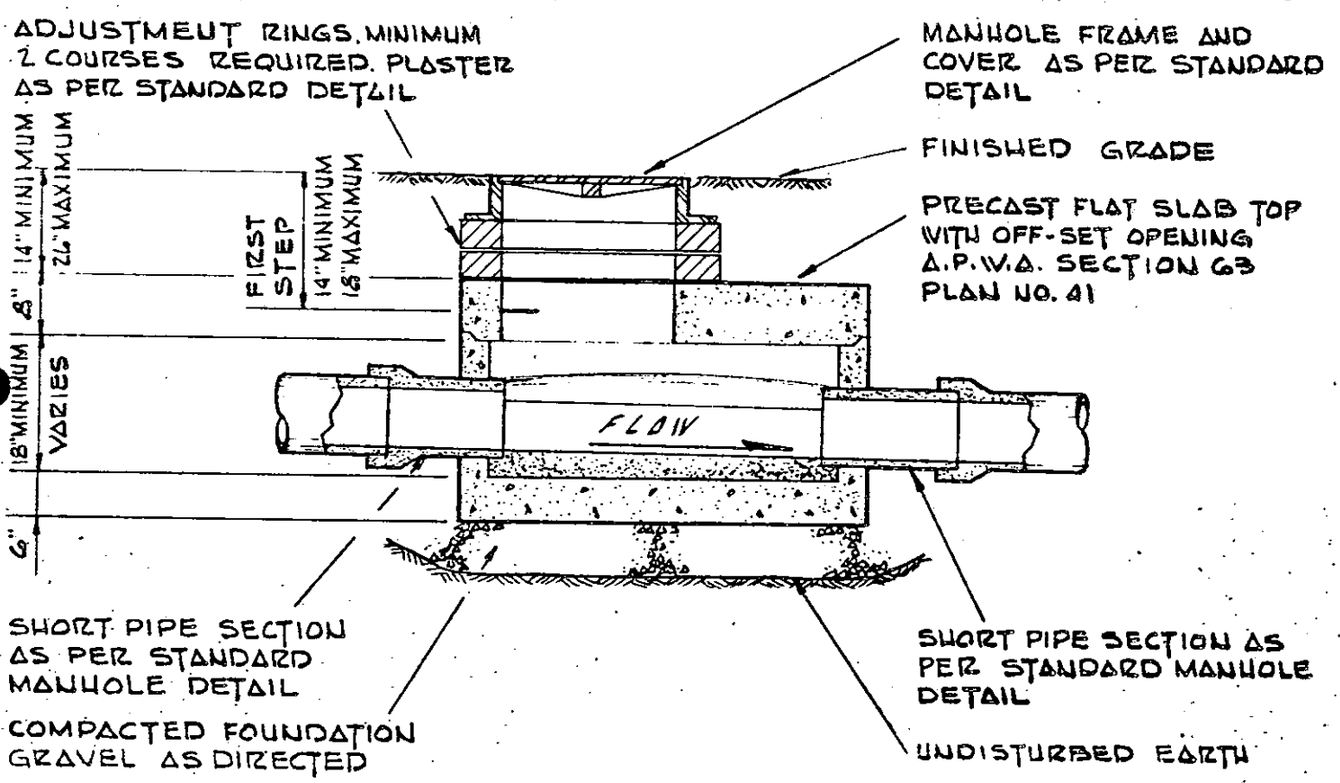


STANDARD MANHOLE DETAILS

Gray & Osborne, Inc. P.S.
CONSULTING ENGINEERS
SEATTLE & YAKIMA
WASHINGTON



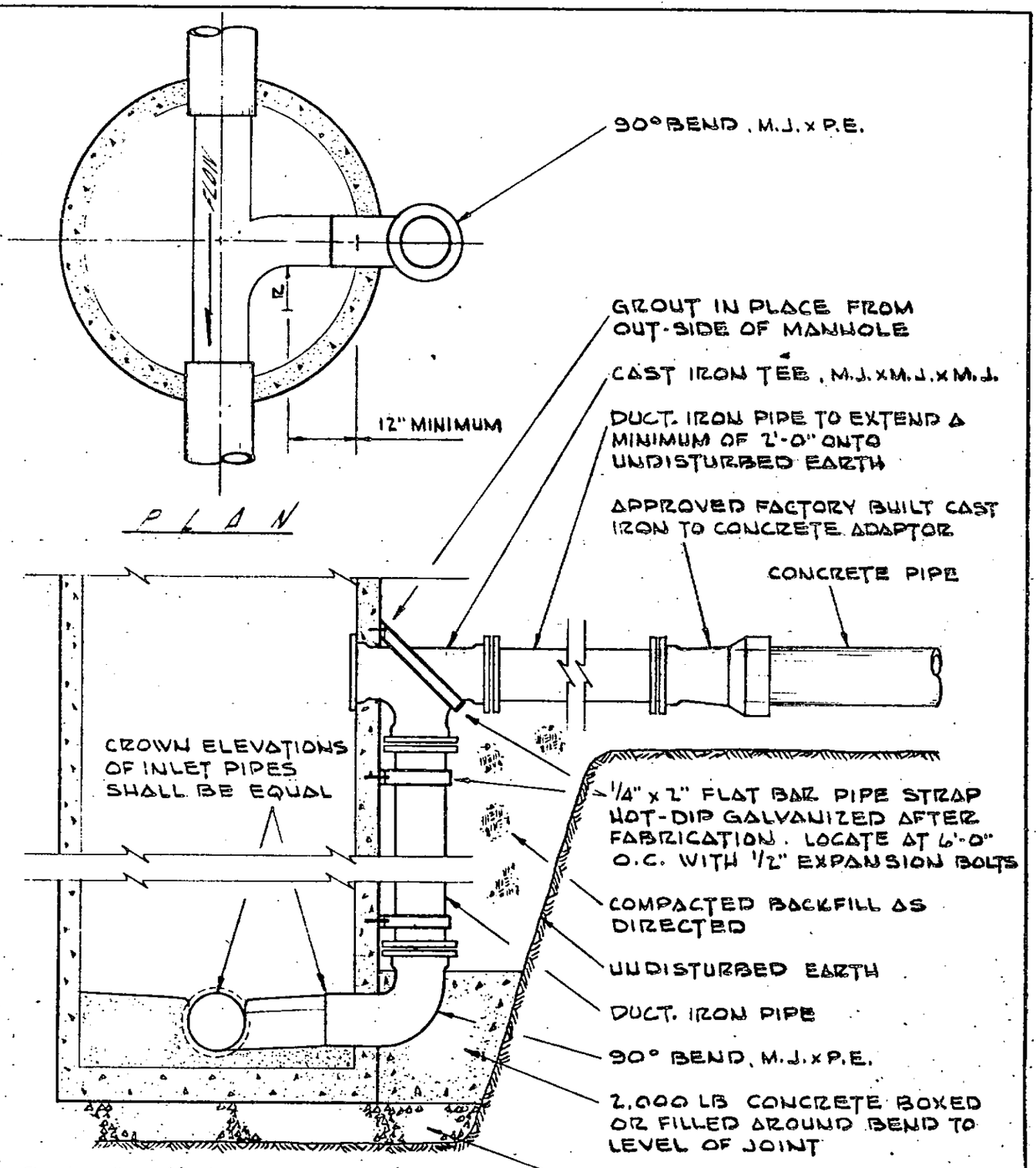
PLAN



ELEVATION

SHALLOW MANHOLE DETAILS

Gray & Osborne, Inc.
CONSULTING ENGINEERS
SEATTLE & YAKIMA
WASHINGTON

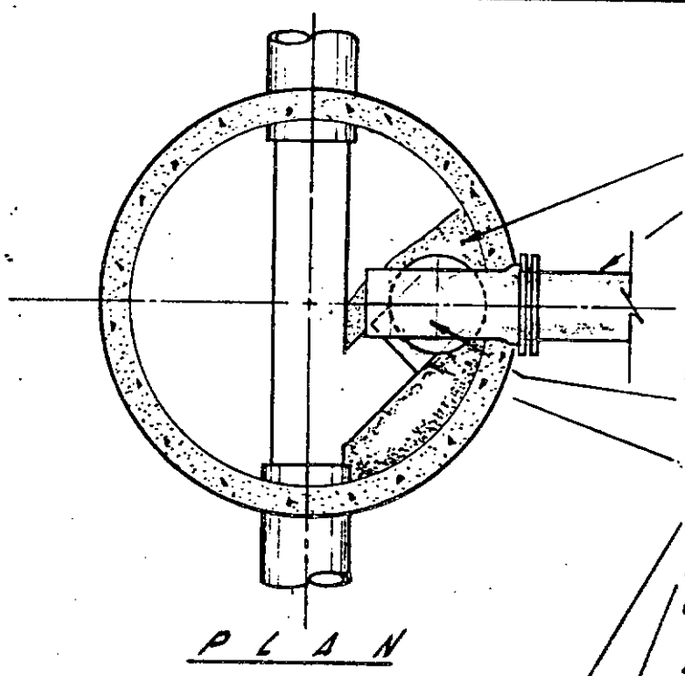


NOTE:

DUCTILE IRON PIPE SHALL BE CLASS 52 MINIMUM. FITTINGS SHALL BE CAST IRON CLASS "D".

OUTSIDE DROP MANHOLE DETAILS

Gray & Osborne Inc. P.S.
CONSULTING ENGINEERS
SEATTLE & YAKIMA
WASHINGTON



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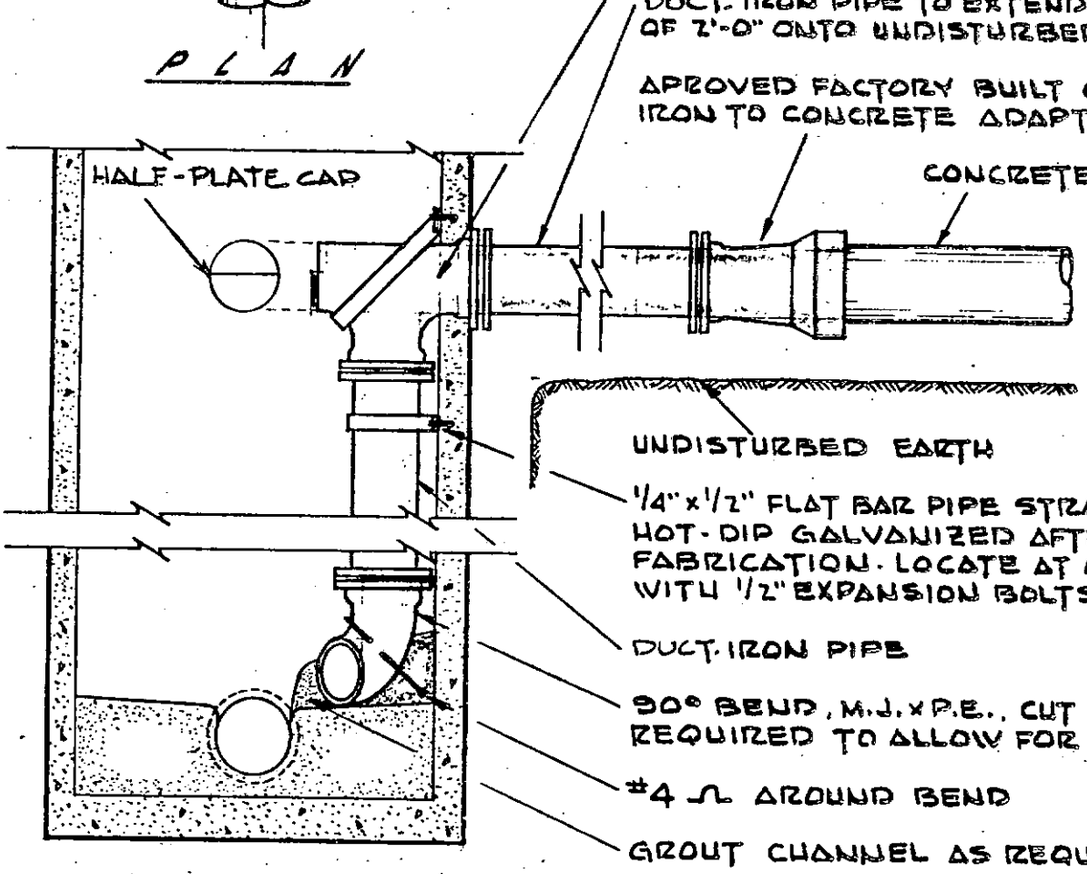


ELEVATION

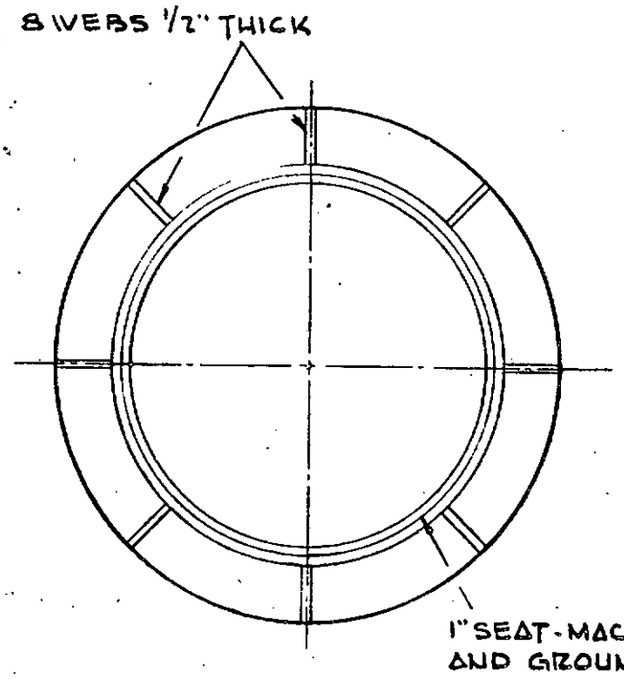
NOTE:

A. DUCTILE IRON PIPE SHALL BE CLASS 52 MINIMUM. FITTINGS SHALL BE CAST IRON CLASS "D".

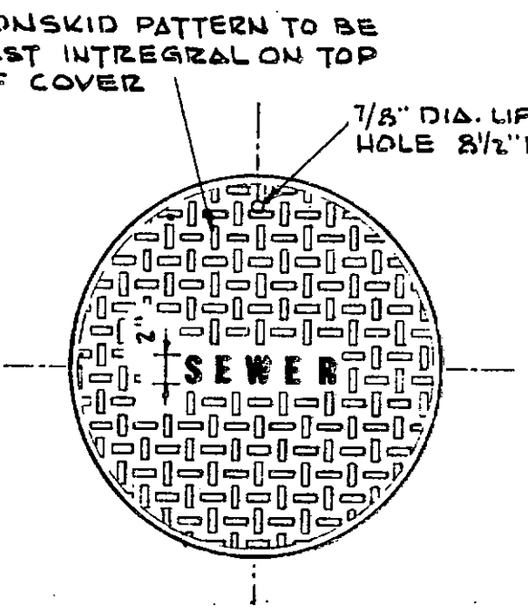
B. THIS DETAIL TO BE USED ONLY UPON APPROVAL OF CITY.

INSIDE DROP MANHOLE DETAILS

Gray & Osborne, Inc. PS
CONSULTING ENGINEERS
SEATTLE & YAKIMA
WASHINGTON

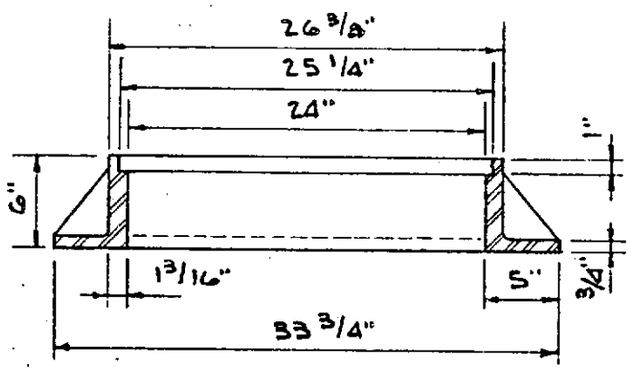


PLAN



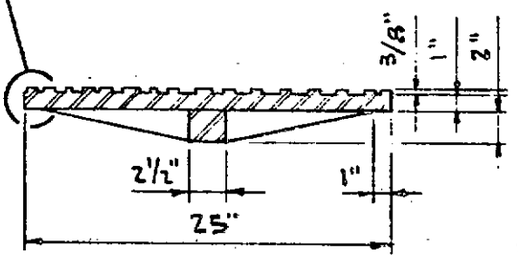
PLAN

1/8" MAXIMUM ALLOWABLE TOLERANCE ALL AROUND BETWEEN MANHOLE FRAME AND COVER



SECTION
MANHOLE FRAME

MANHOLE COVER SHALL HAVE SQUARE MACHINED SURFACES



SECTION
MANHOLE COVER

NOTE:

COVER SHALL HAVE THE WORD "SEWER" CAST WITH 2" HIGH LETTERS AND RAISED 3/8"

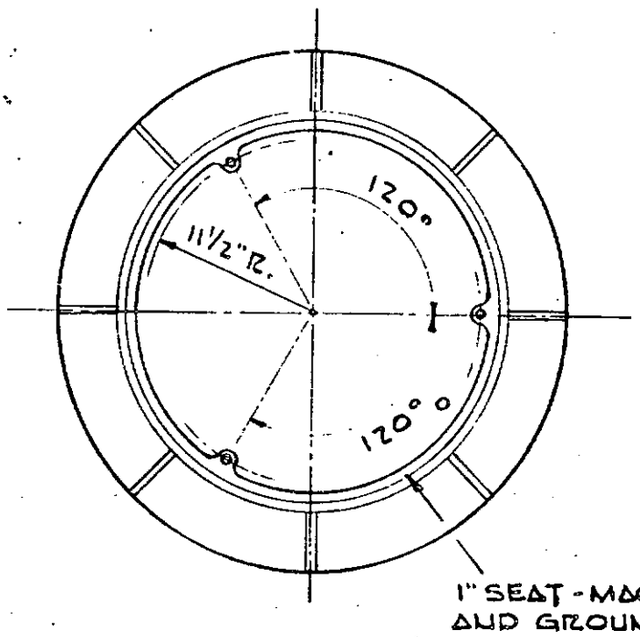
TOTAL WEIGHT OF FRAME AND COVER SHALL BE 360 LBS. MINIMUM.

FRAME AND COVER SHALL BE A.P.W.A. PLAN NO. 42 OR OLYMPIC FOUNDARY NO. 5943-W.S. MODIFED TO HAVE 1EA. 7/8" DIAMETER LIFT HOLE

STANDARD MANHOLE FRAME & COVER

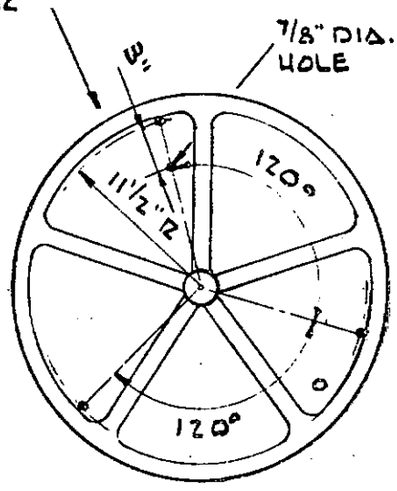
Gray & Osborne, Inc. PS
CONSULTING ENGINEERS
SEATTLE & YAKIMA
WASHINGTON

8 WEBS 1/2" THICK



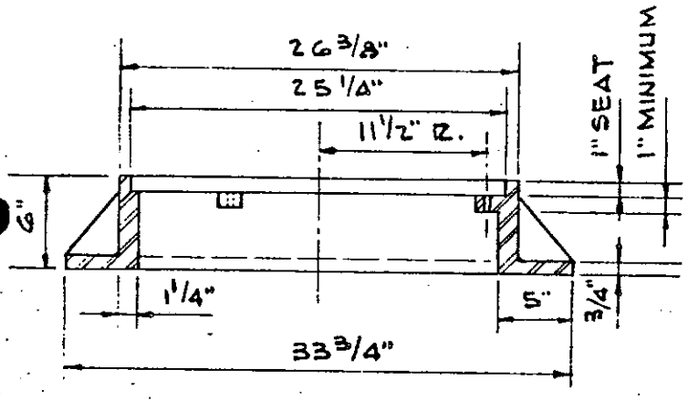
PLAN

NONSKID PATTERN TO BE CAST INTEGRAL WITH THE WORD "SEWER" ON TOP OF COVER AS PER STANDARD COVER



BOTTOM

PLAN



SECTION

MANHOLE FRAME

NOTE:
COVER SHALL BE AS PER STANDARD DETAIL AND PROVIDED WITH 3 EACH HOLES FOR LOCK DOWN PURPOSE

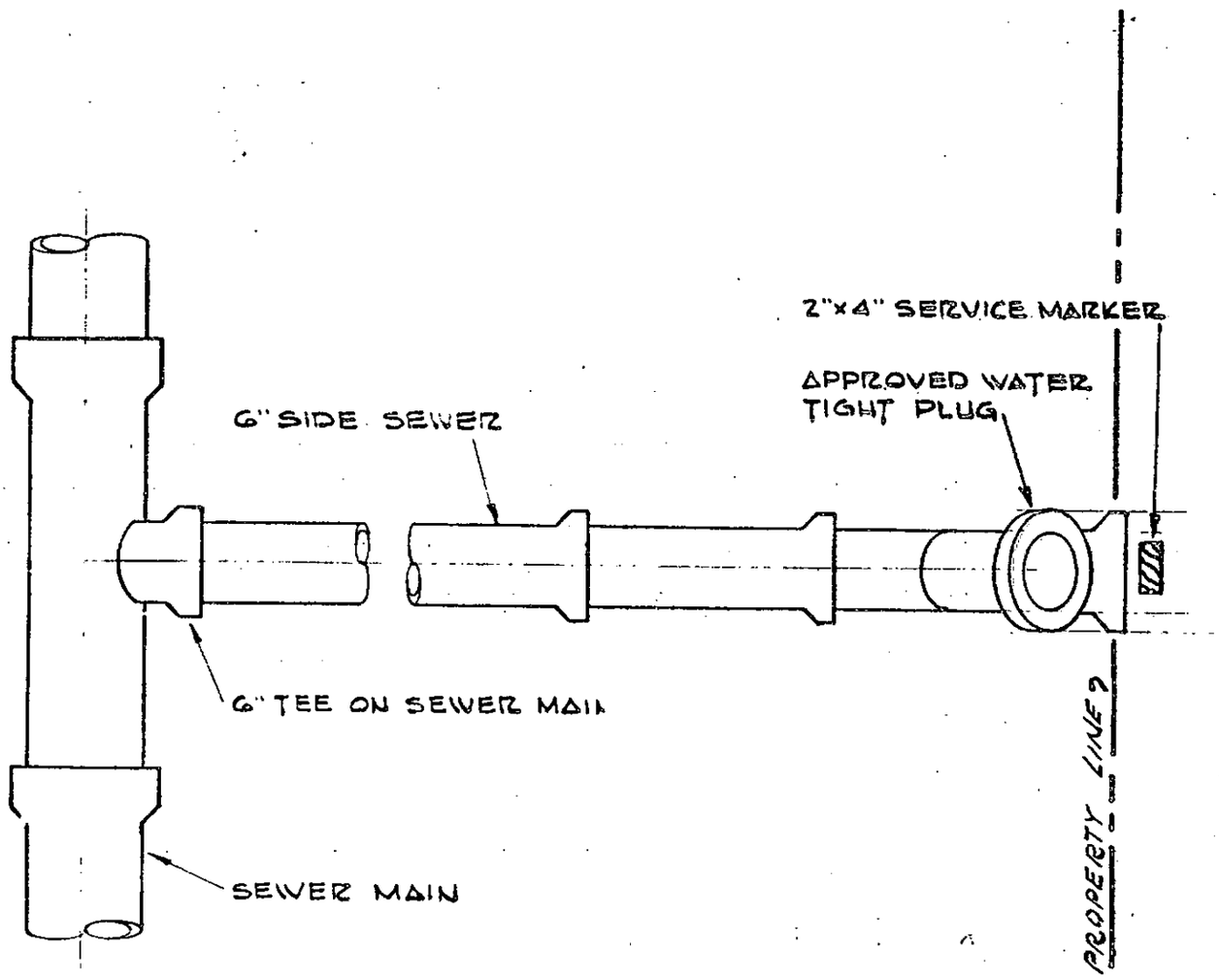
NOTE:
PROVIDE 3 EACH 5/8", 11 N.C. SOCKET HEAD SCREWS, 3 5/8" LONG

ALL HOLES FOR LOCKING IN COVER SHALL BE IN ALIGNMENT AND INTERCHANGABLE

TOTAL WEIGHT OF FRAME AND COVER SHALL BE 360 LBS. MINIMUM.

LOCK DOWN MANHOLE FRAME & COVER

Gray & Osborne Inc. PS
CONSULTING ENGINEERS
SEATTLE & YAKIMA
WASHINGTON



PLAN

SIDE SEWER DETAILS

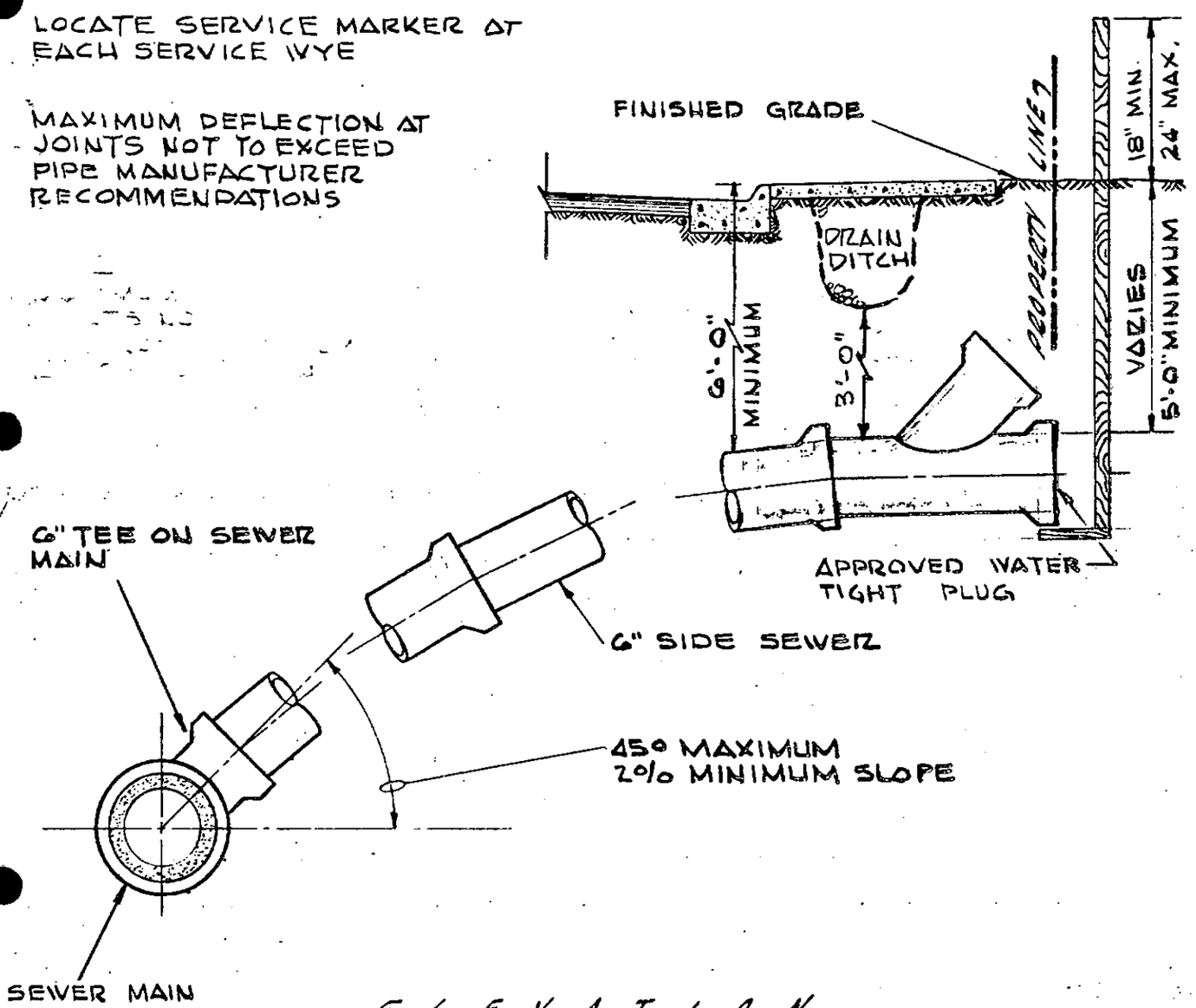
PLAN

Gray & Osborne, Inc. P.S.
CONSULTING ENGINEERS
SEATTLE & YAKIMA
WASHINGTON

NOTE:
PAINT PORTION OF SERVICE MARKER THAT IS ABOVE GRADE WITH WHITE PAINT. STENCIL WITH BLACK LETTERS "S/S" USING 3" HIGH LETTERS

LOCATE SERVICE MARKER AT EACH SERVICE WYE

MAXIMUM DEFLECTION AT JOINTS NOT TO EXCEED PIPE MANUFACTURER RECOMMENDATIONS

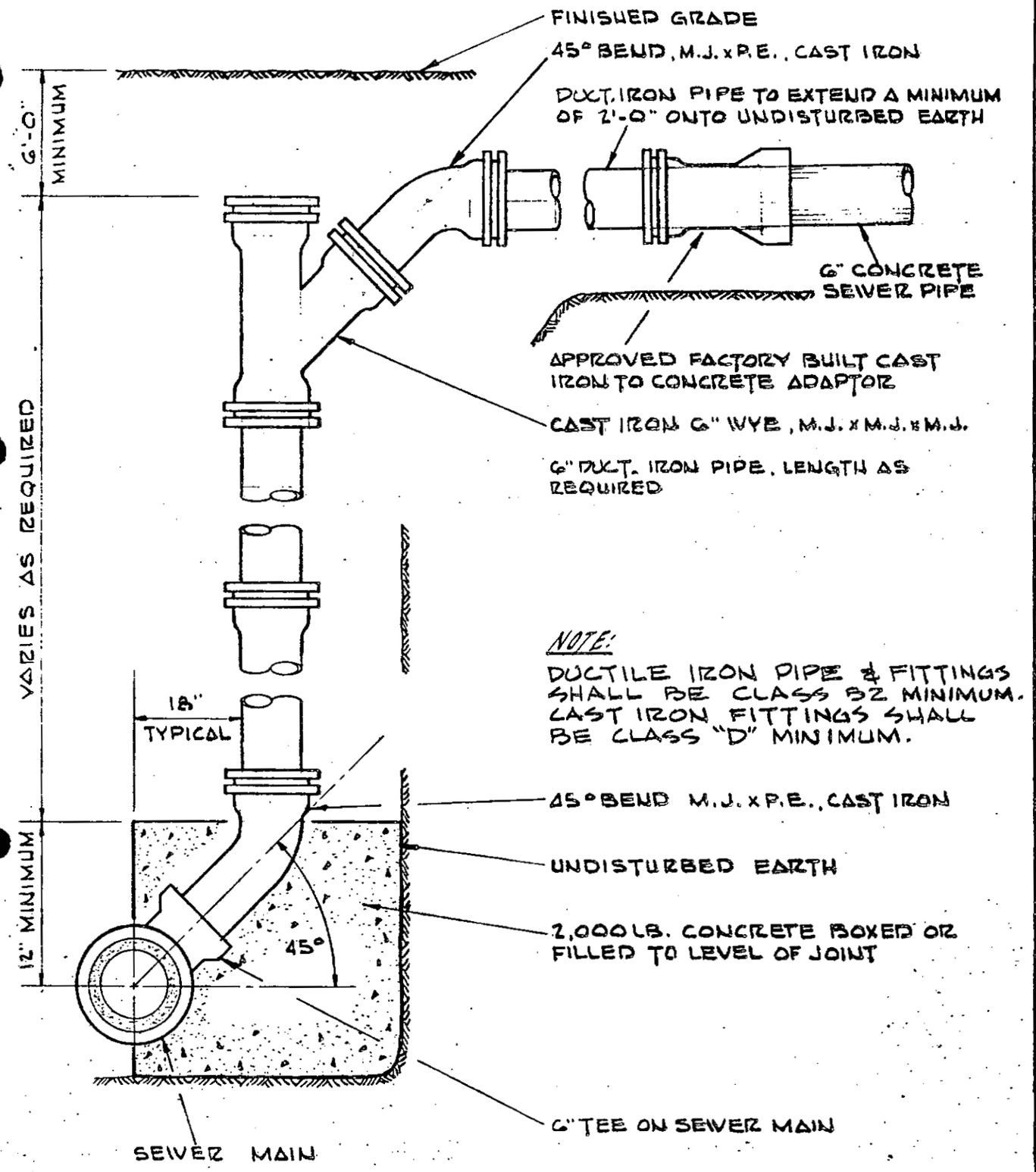


ELEVATION

SIDE SEWER DETAILS

ELEVATION

Grey + Osborne Inc. P.S.
CONSULTING ENGINEERS
SEATTLE & YAKIMA
WASHINGTON



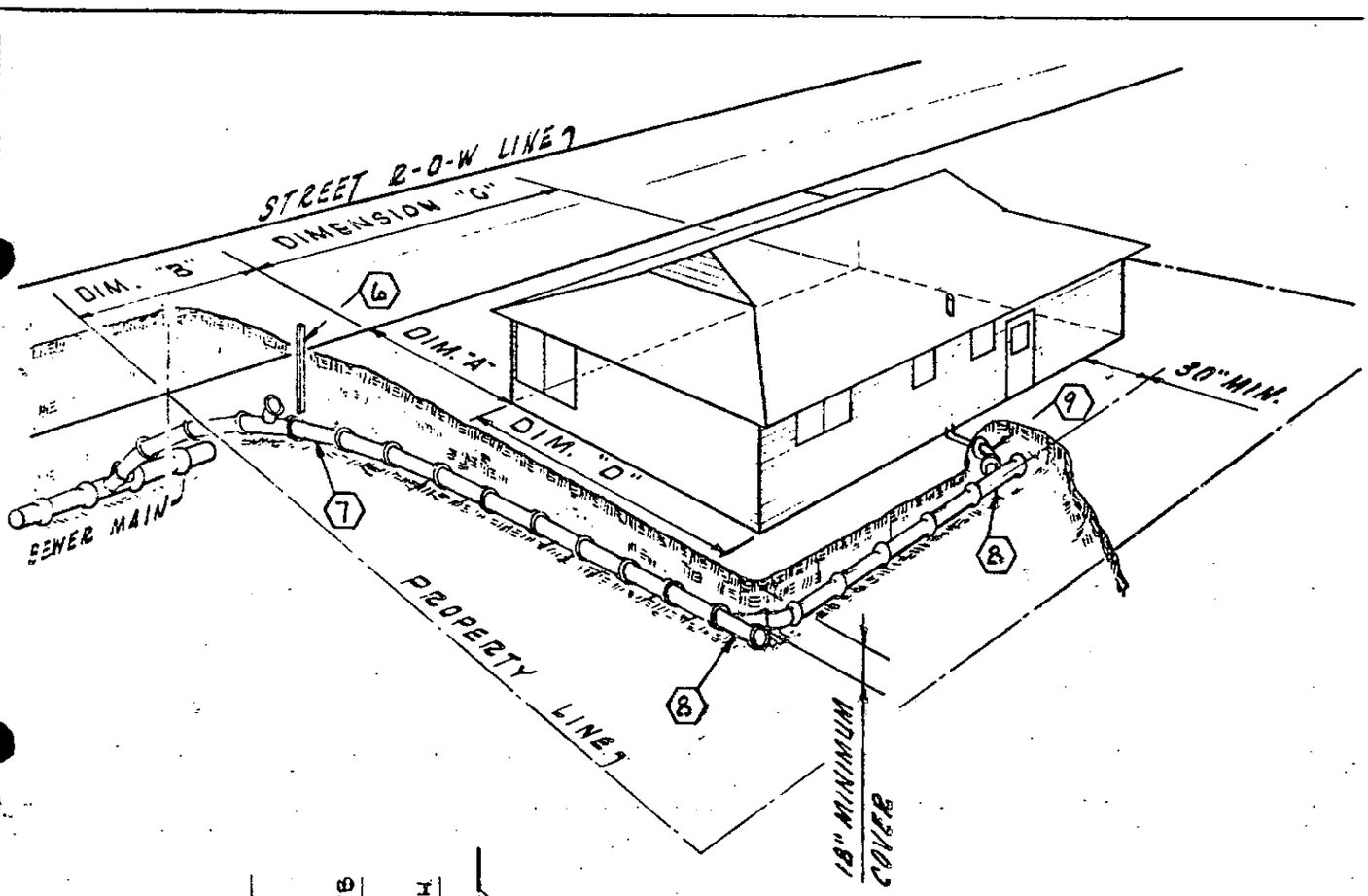
NOTE:

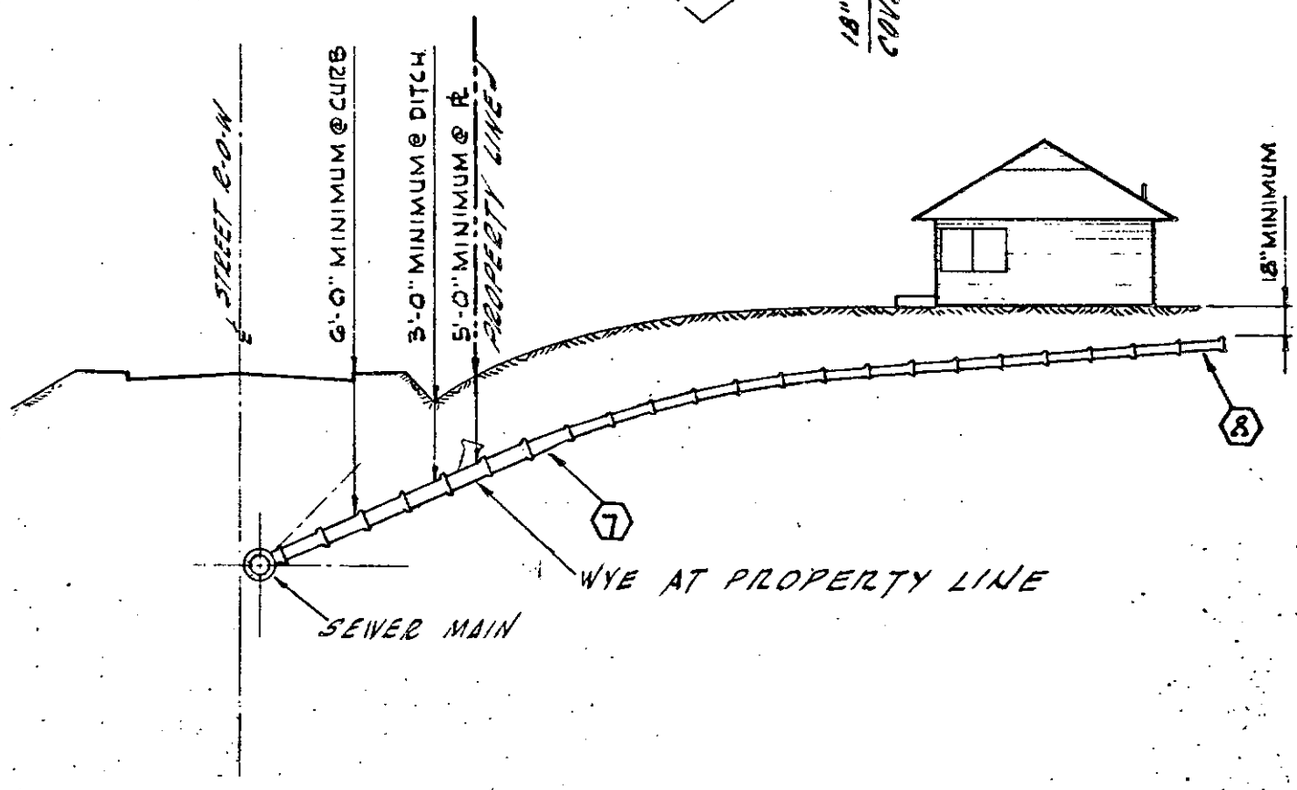
DUCTILE IRON PIPE & FITTINGS SHALL BE CLASS 52 MINIMUM. CAST IRON FITTINGS SHALL BE CLASS "D" MINIMUM.

E L E V A T I O N

STANDING SIDE SEWER

Gray & Osborne, Inc. PS
CONSULTING ENGINEERS
SEATTLE & YAKIMA
WASHINGTON





SERVICE SEWERS ON PRIVATE PROPERTY

Gray & Osborne, Inc. PS
CONSULTING ENGINEERS
SEATTLE & YAKIMA
WASHINGTON

GENERAL NOTES:

1. Legal description of lot must be provided.
2. Dimensions A, B, C & D which show the size and location of house on lot must be known to obtain a permit. If the lot is not rectangular or if the house is not parallel to both sides or front of lot, additional dimensions shall be furnished to accurately locate the house on the lot.
3. 6'-0" minimum cover at curb line and in alleys.
4. 5'-0" minimum cover at property line.
5. On private property minimum cover shall be 18" over top of pipe and minimum 30" out from house.
6. 2" by 4" service connection marker.
7. Standard 6" to 4" reducer.
8. Wye and 45° bend with approved watertight plug to fit manufacturer's pipe bell.
9. Connect house stack to side sewer connection with approved adapter.
10. Not over 100 feet between cleanouts. Cleanouts required for 45° bends and greater. Cleanout shall be a plugged tee or plugged wye lateral. All bends are to be made using wyes and cleanouts. Cleanouts must be brought up to a depth of 18" below finished grade.
11. No downspouts or outside drains are allowed to connect to side sewer.
12. Side sewer pipe shall be 4" or larger, cast iron, concrete, vitrified clay, asbestos cement or PVC ASTM 3034.
13. All materials used in the construction of any side sewer installation shall have prior approval of the City Superintendent.

SIDE SEWER REQUIREMENTS:

All joints shall be rubber gasket type. Parallel water and sewer lines shall be 10 feet apart horizontally wherever possible. Side sewer shall be inspected by Engineer prior to backfilling. Side sewer shall be plugged and tested in presence of Engineer/Inspector by filling with water. Leakage rate shall not exceed 0.31 gal./hr. for 4" pipe and 0.47 gal./hr. for 6" pipe, per 100 feet of pipe.

6" Sewer Pipe

6 inch sewer pipe is required in the street right of way and shall have a 2% minimum grade. Construction in street must be done by a licensed side sewer contractor and requires a permit.

4" Sewer Pipe

4 inch (minimum size) sewer pipe is required on private property at 2% minimum grade (1/4 inch fall per foot). Construction on private property may be done by owner but requires a permit.

GENERAL NOTES
SERVICE SEWERS ON
PRIVATE PROPERTY

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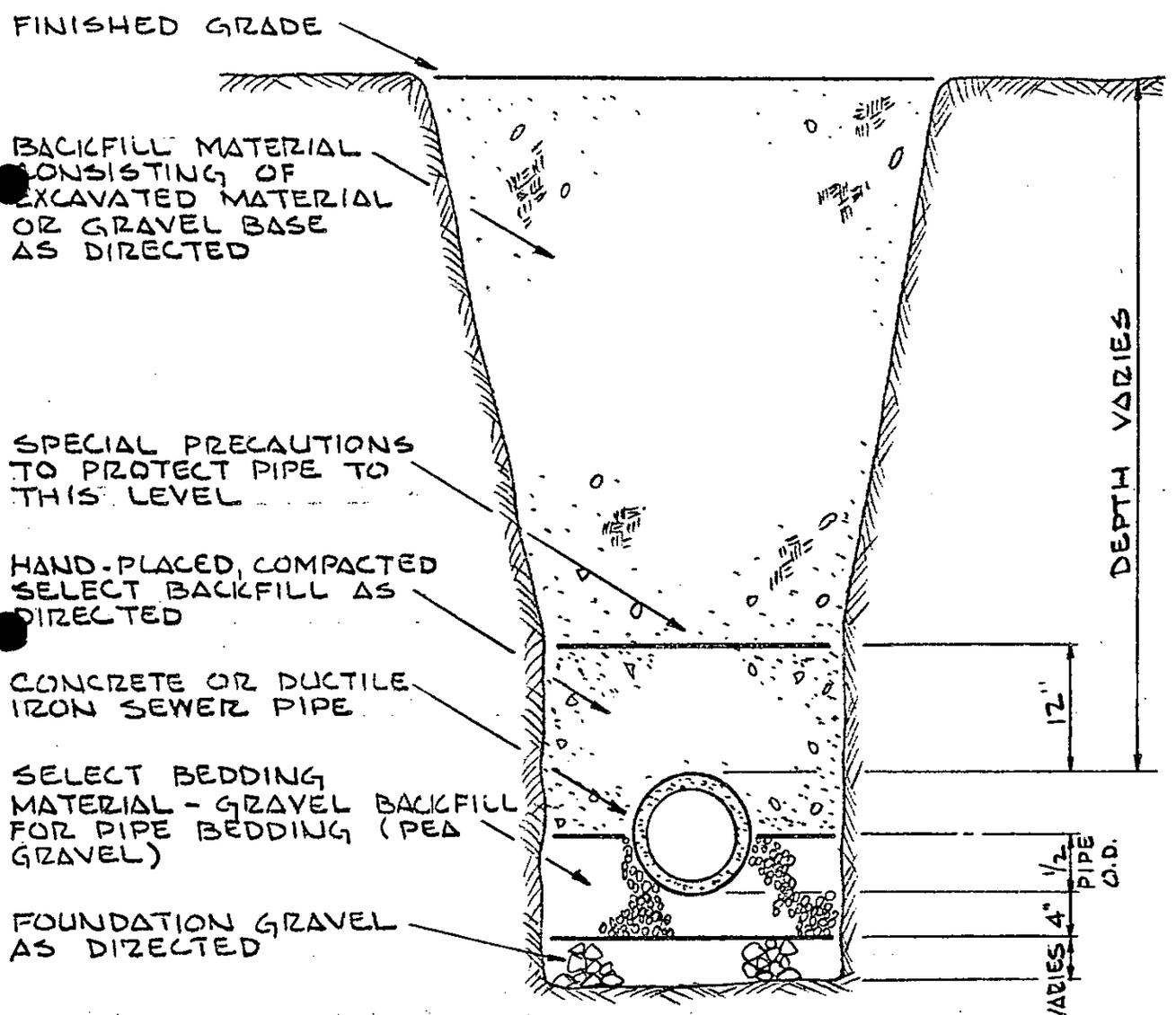
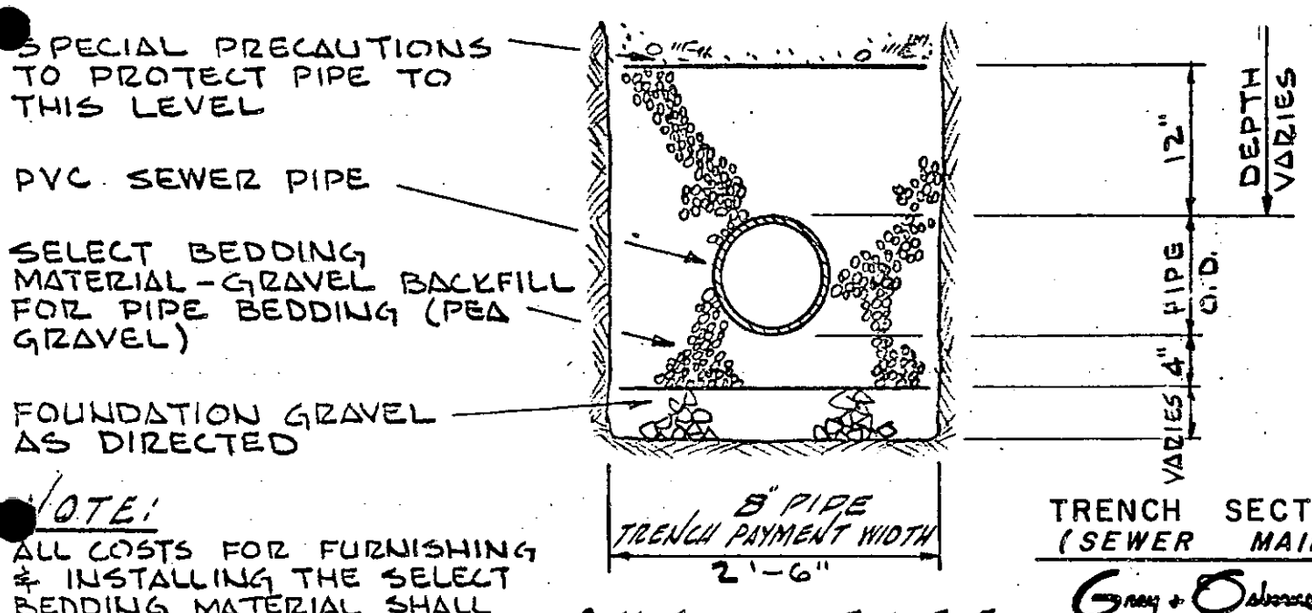
SEATTLE & YAKIMA
WASHINGTON



CONCRETE PIPE



PVC PIPE

NOTE:
ALL COSTS FOR FURNISHING & INSTALLING THE SELECT BEDDING MATERIAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SEWER PIPE

TRENCH SECTION
(SEWER MAIN)

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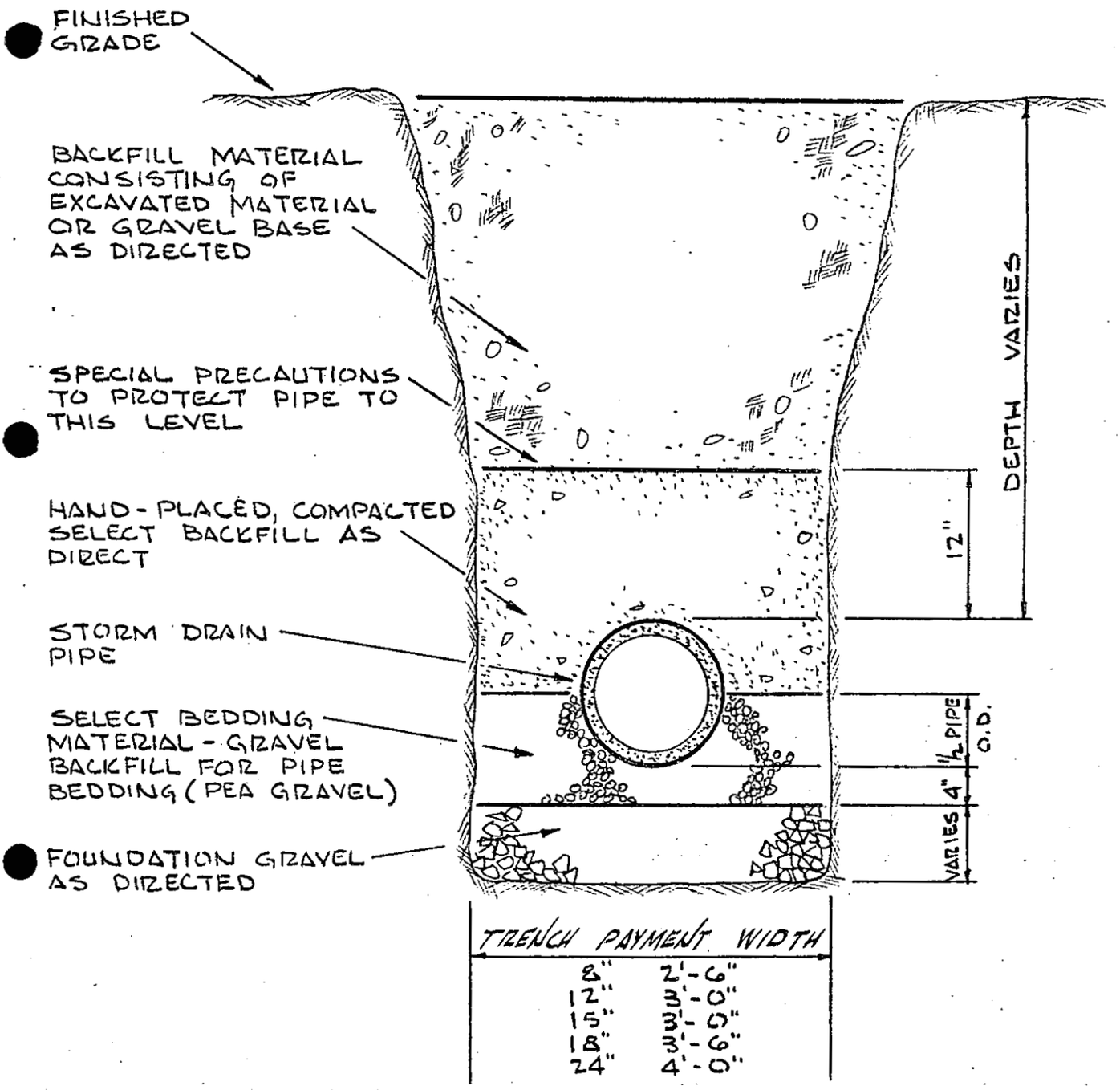
WASHINGTON



TRENCH SECTION
(STORM DRAIN)

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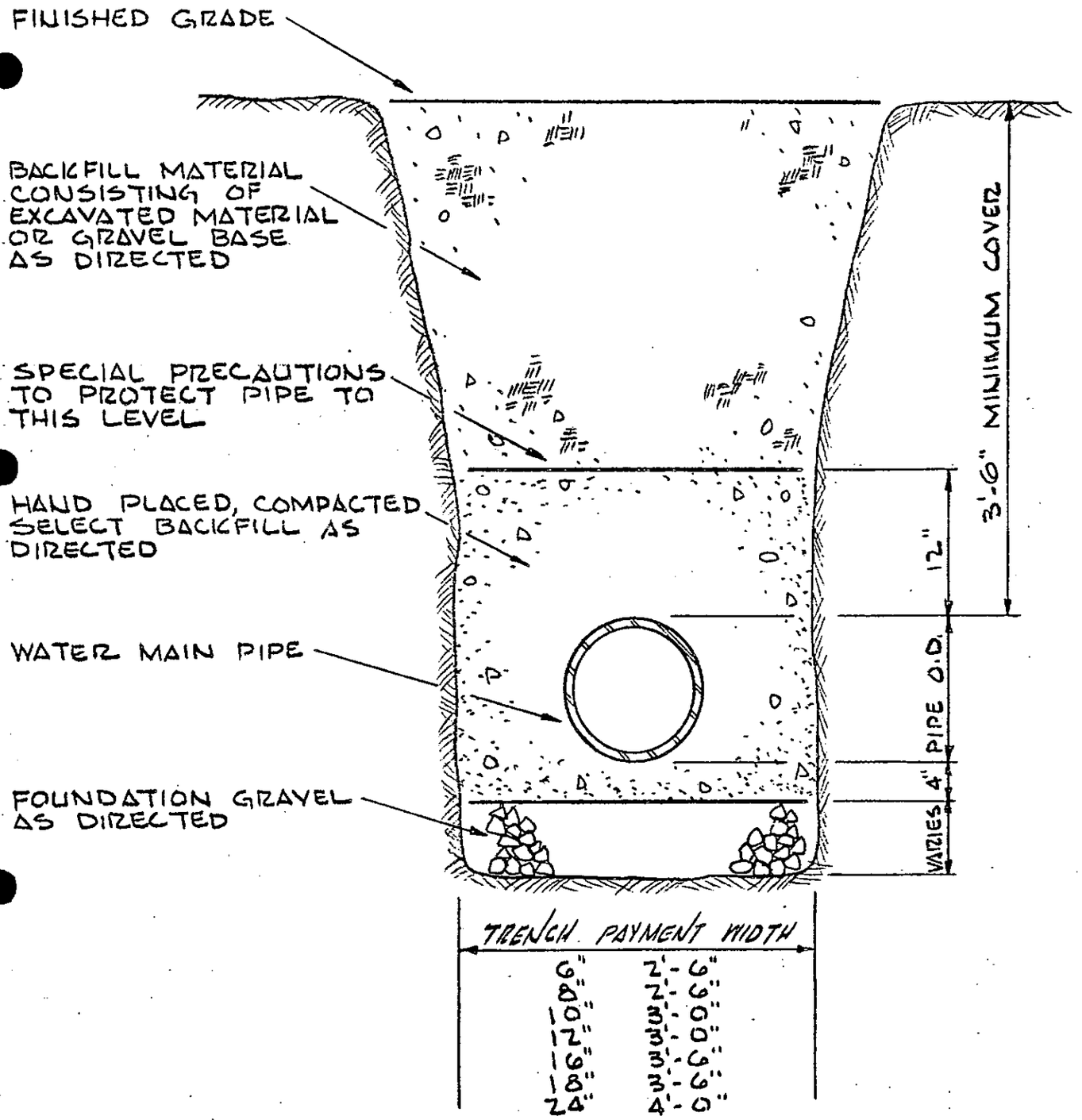

TRENCH SECTION
(WATER MAIN)

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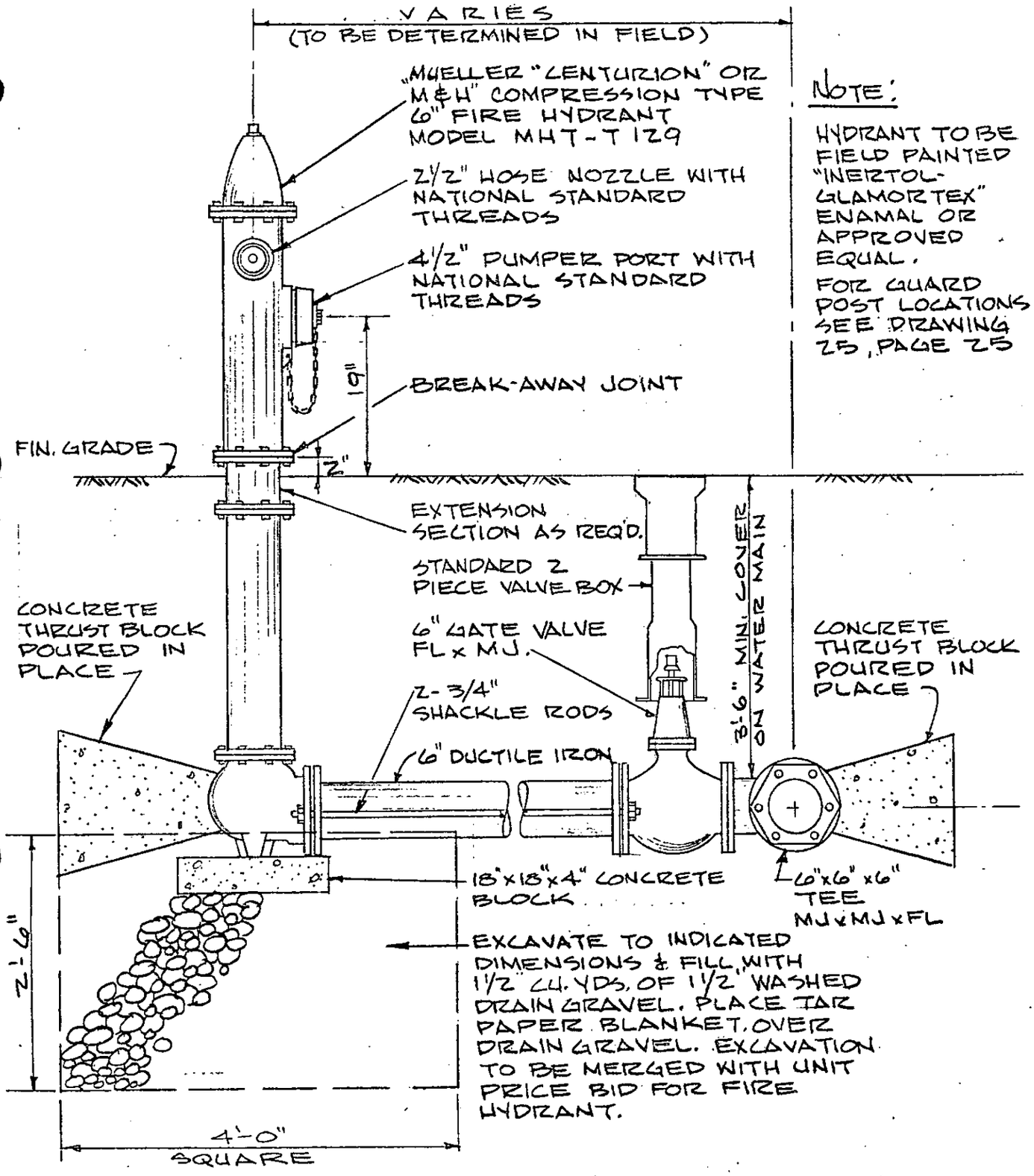

Note:

HYDRANT TO BE FIELD PAINTED "INERTOL-GLAMORTEX" ENAMAL OR APPROVED EQUAL.

FOR GUARD POST LOCATIONS SEE DRAWING 25, PAGE 25

FIRE HYDRANT DETAIL

NOT TO SCALE

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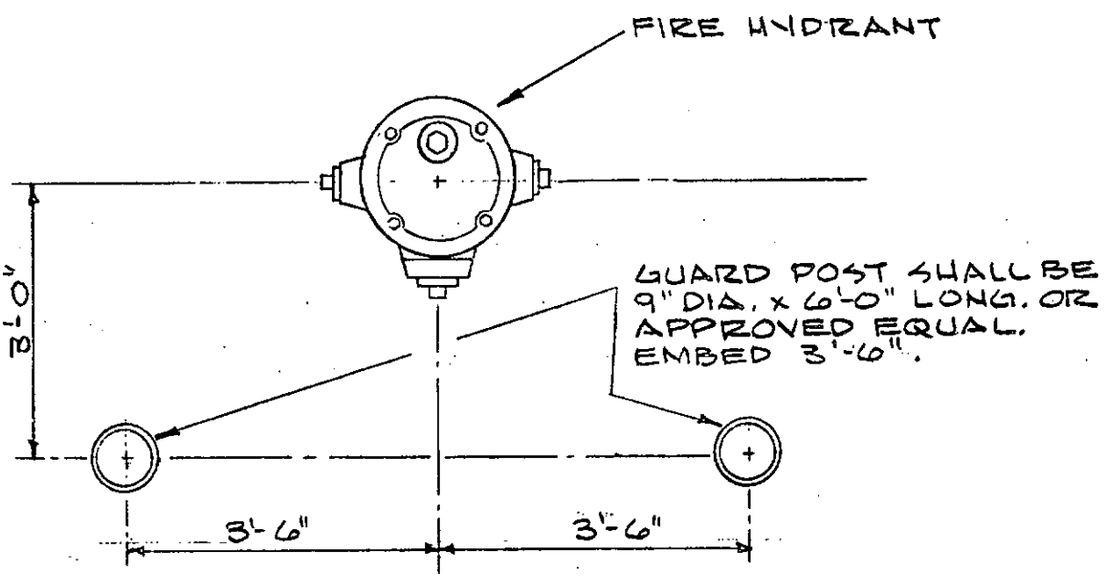

GUARD POST DETAIL

NOT TO SCALE

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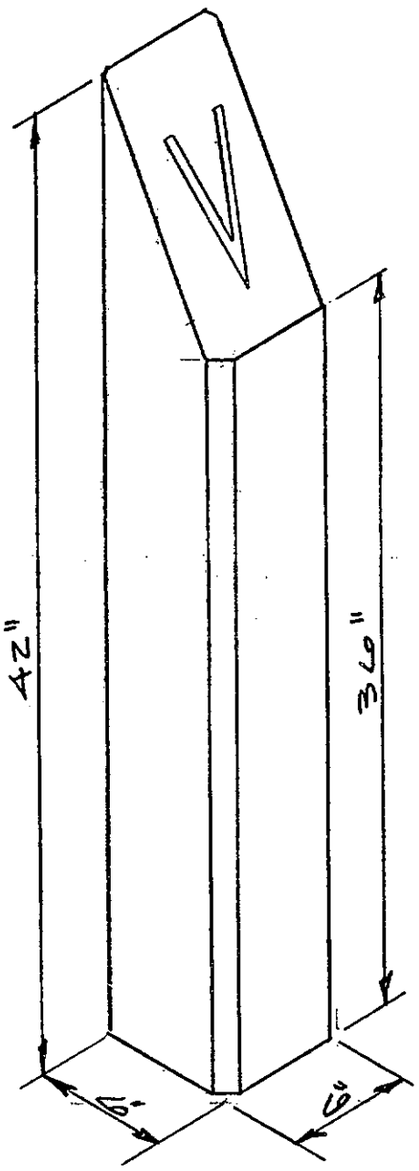
NOTE:

CONTRACTOR TO PAINT CONCRETE VALVE MARKER YELLOW W/ BLACK LETTERS SHOWING VALVE SIZE & DISTANCE FROM MARKER.



TAPER TO 4"x4"

VALVE MARKER

NOT TO SCALE

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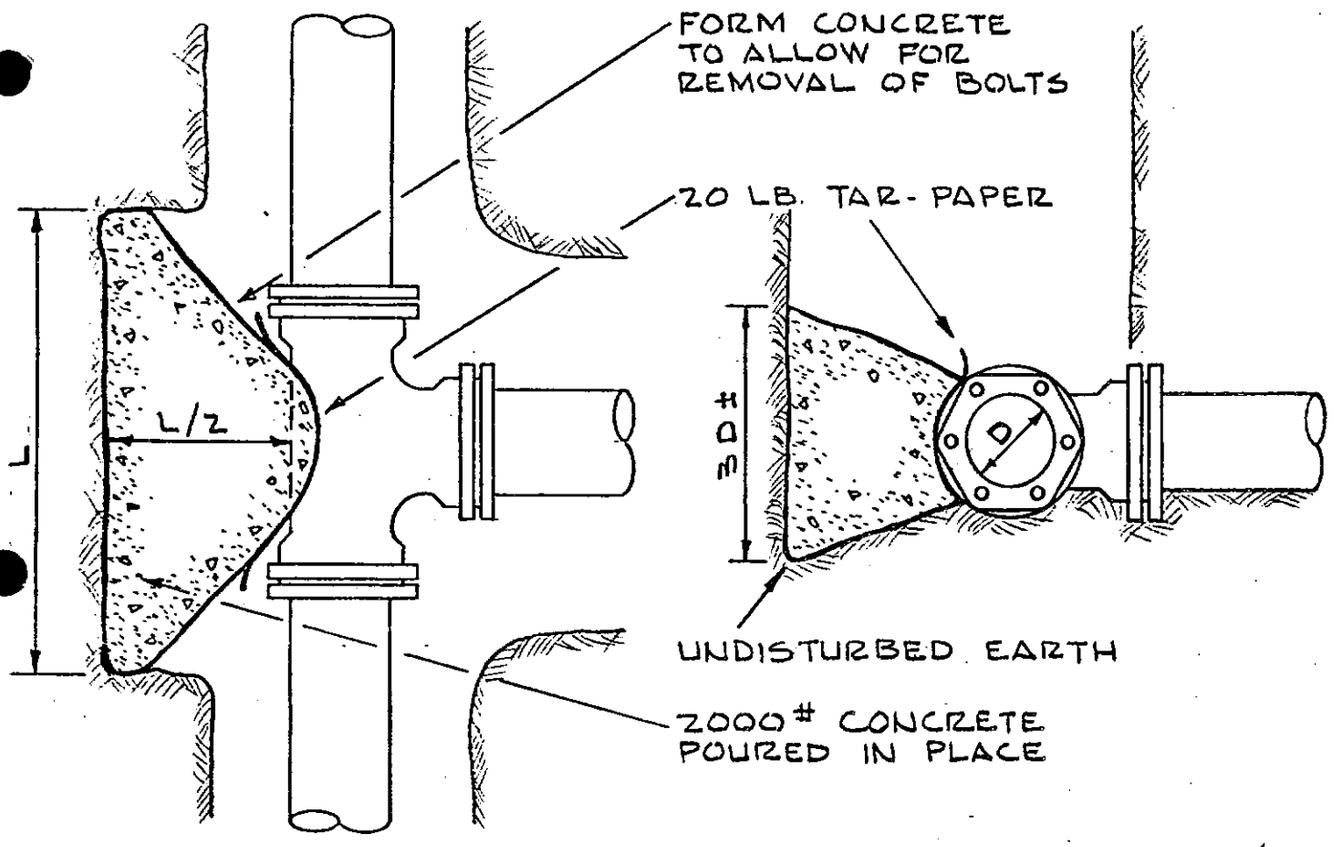

PLAN

ELEVATION

BEARING AREA TABLE

FITTING	TEE	90°	45°	22½°	11¼°
6"	4 SQ FT	6 SQ FT	3 SQ FT	2 SQ FT	2 SQ FT
8"	7 SQ FT	10 SQ FT	6 SQ FT	3 SQ FT	2 SQ FT
10"	10 SQ FT	15 SQ FT	9 SQ FT	5 SQ FT	3 SQ FT
12"	14 SQ FT	22 SQ FT	12 SQ FT	6 SQ FT	4 SQ FT
16"	24 SQ FT	38 SQ FT	21 SQ FT	11 SQ FT	7 SQ FT
18"	32 SQ FT	48 SQ FT	27 SQ FT	14 SQ FT	8 SQ FT

THRUST BLOCK DETAILS

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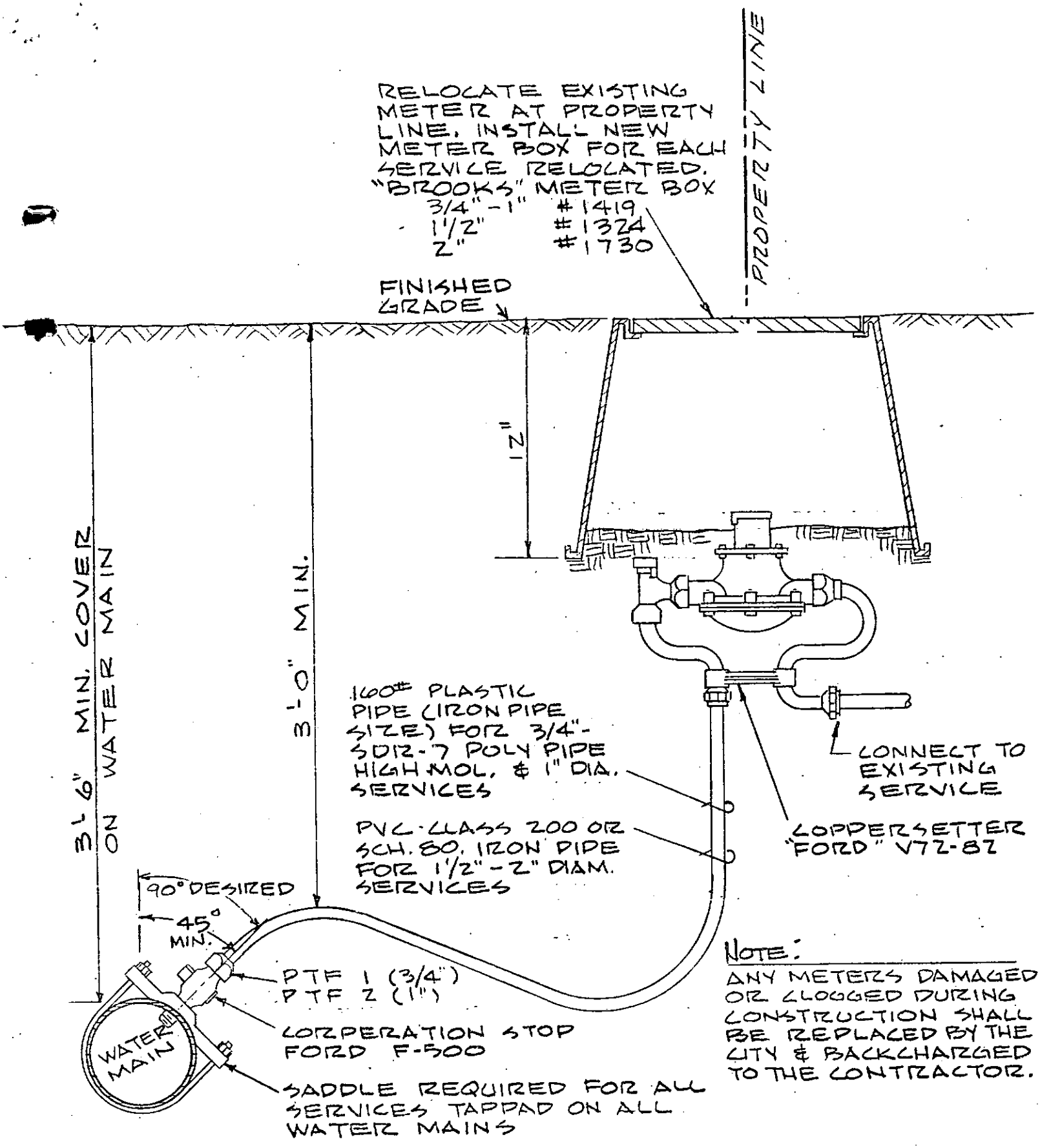

NOTE:

ANY METERS DAMAGED OR CLOGGED DURING CONSTRUCTION SHALL BE REPLACED BY THE CITY & BACKCHARGED TO THE CONTRACTOR.

WATER SERVICE CONNECTION

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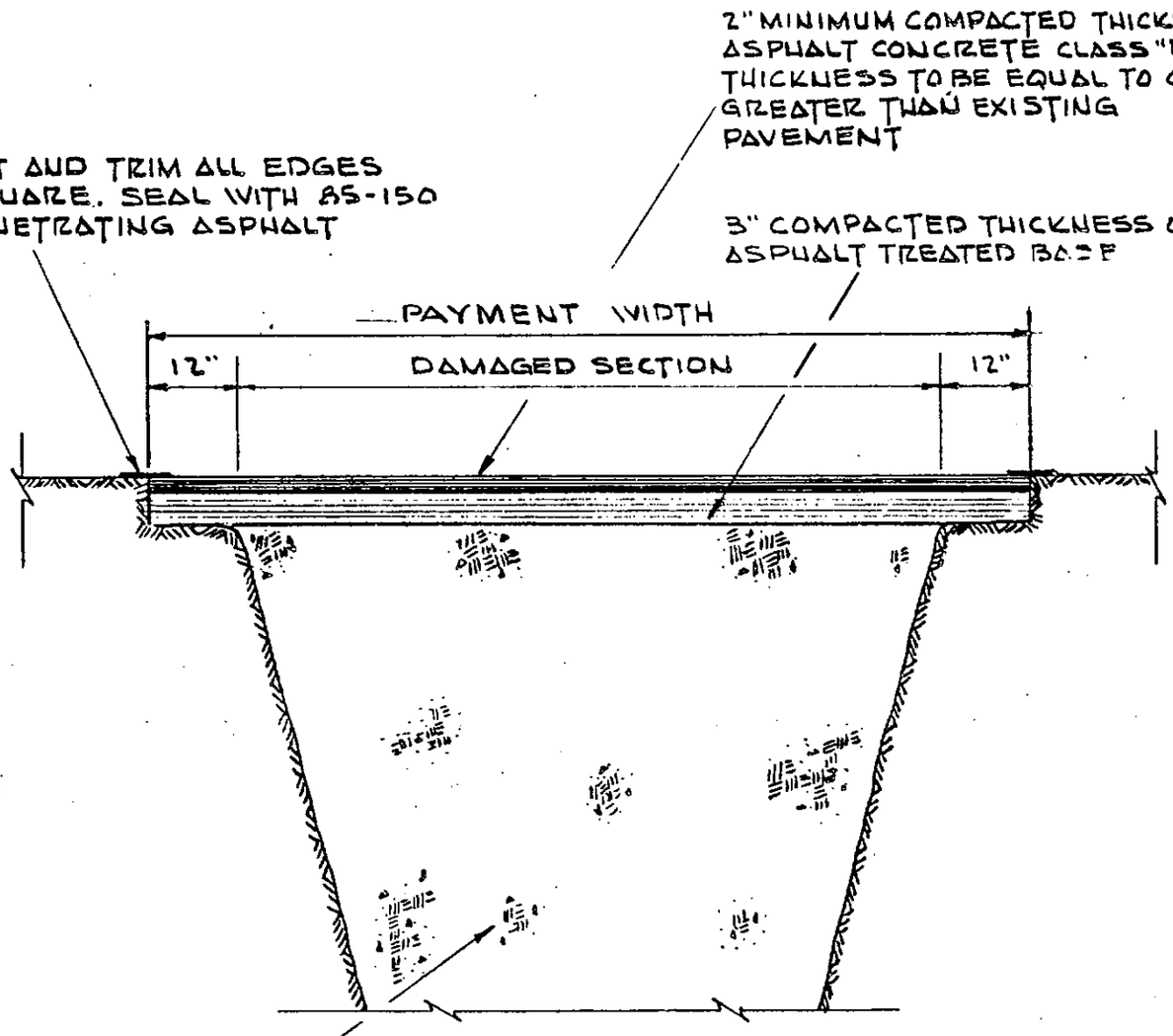
WASHINGTON



PAYMENT WIDTH	UNDER 8' DEEP	OVER 8' DEEP
6"	6'-0"	8'-0"
8"	6'-0"	8'-0"
10"	6'-0"	8'-0"
12"	6'-0"	8'-0"
15"	8'-0"	10'-0"
18"	8'-0"	10'-0"
24"	8'-0"	10'-0"

ASPHALT PAVEMENT REPAIR

Gray & Osborne, Inc. P.S.
CONSULTING ENGINEERS
SEATTLE & YAKIMA
WASHINGTON

ORDINANCE No. 483 PASSED by the City Council and APPROVED by the Mayor of the City of Snoqualmie, Washington, this 28th day of July, 1980.

SIGNED: Charles S. Peterson
CHARLES S. PETERSON, MAYOR

ATTEST:

Mary Kohlschmidt
MARY KOHLSCHMIDT, CITY CLERK