

CITY OF SEATTLE
Supplement
to
Standard Specifications
for
Municipal Public Works Construction
1979

**FOR USE ONLY ON
FHWA AND UAB TRUST FUNDED PROJECTS**

SUPPLEMENT NO. 1
DIVISION I - GENERAL REQUIREMENTS AND COVENANTS

Section 1-General Requirements and Covenants

1-1.19 DAYS

Add the following sentence:

See Section 8-1.05 CONTRACT TIME for definition of a working day.

1-1.36 FEDERAL HIGHWAY ADMINISTRATION

The Federal Highway Administration (FHWA) of the United States Department of Transportation is the agency which funds and administers federal-aid highway projects.

Section 4-Scope of Work

4-1.06 WASTE SITES

Add the following sentence to the first paragraph:

On FHWA Federal Aid projects, type 1 and 2 waste sites are mandatory only when deemed to be the most economical or are necessary for environmental reasons as determined by the Engineer. The mandatory waste sites shall have been granted concurrence by the State of Washington Department of Transportation and the FHWA.

Section 5-Control of Work

5-1.01 AUTHORITY OF ENGINEER

Add the following sentence to the first paragraph:

On FHWA Federal Aid projects the construction work will be subject to inspection at all times by the Engineer representing the local public agency and representatives from the State Department of Transportation and the FHWA.

5-1.12 MAINTENANCE OF WORK AFTER ACCEPTANCE
Delete paragraphs 1, 2 and 4 in their entirety.

Section 7-Legal Relations and Responsibility to the Public

7-1.05A EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES

Add the following:

The Contractor shall comply with all state laws and regulations which are in effect pertaining to Non-Discrimination, and in addition on contracts financed in whole or in part with federal funds he shall comply with all federal laws and regulations which are in effect.

When specified in the contract, the equal employment opportunity requirements listed herein not to discriminate and to take affirmative action to assure equal employment opportunity will be required and the requirements set forth in these specifications shall constitute the specific affirmative action requirements for project activities under the contract. The Contractor shall work with the Engineer, and the Federal Government on Federal Aid projects, in carrying out equal employment opportunity obligations and in their review of his/her activities under the contract.

The Contractor and all his/her subcontractors (not including material suppliers) holding subcontracts of \$10,000 or more will comply with the following minimum specific requirement activities of equal employment opportunity. The Contractor will include these requirements in every subcontract of \$10,000 or more with such modification of language as is necessary to make them binding on the subcontractor.

The Contractor will accept as his operating policy the following

statement which is designed to further the provision of equal employment opportunity to all persons without regard to their race, color, religion, sex, or national origin, and to promote the full realization of equal employment opportunity through a positive continuing program:

It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, or national origin. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training.

The Contractor will designate and make known to the Engineer an equal employment opportunity officer (hereinafter referred to as the EEO Officer) who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of equal employment opportunity and who must be assigned adequate authority and responsibility to do so.

All members of the Contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the Contractor's equal employment opportunity in each grade and classification of employment. To insure that the above agreement will be met, the following actions will be taken as a minimum:

Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the Contractor's equal employment opportunity policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer or other knowledgeable company official covering all major aspects of the Contractor's equal employment opportunity obligations within thirty days following their reporting for duty with the Contractor.

All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer or appropriate company official in the Contractor's procedures for locating and hiring minority group employees.

In order to make the Contractor's equal employment opportunity policy known to all employees, prospective employees and potential sources of employees, i.e., schools, employment agencies, labor unions (where appropriate), college placement officers, etc., the Contractor will take the following actions:

Notices and posters setting forth the Contractor's equal employment opportunity policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

The Contractor's equal employment opportunity policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

7-1.07 LEGAL WAGES ON PUBLIC WORKS

After the fifth paragraph insert the following paragraph:

On FHWA Federal-Aid projects the Federal Wage Laws and Regulations apply and the wage rates set by the Secretary of Labor are applicable. Wage rates as determined by the State of Washington Department of Labor and Industries may also apply. Whichever of the two rates is higher, either those set by the Director of the Department of Labor and Industries (State Law) or those set by the Secretary of Labor (Federal Law) prevail for a certain geographical area.

7-1.16 **TRAFFIC CONTROL WITHIN AND ABUTTING THE PROJECT**
Second sentence of the second paragraph is revised to read as follows:

The barricades shall be in accordance with the current edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways" prepared by the National Joint Committee on Uniform Traffic Control Devices.

Section 8—Prosecution and Progress

8-1.08 **FAILURE TO COMPLETE WORK ON TIME-LIQUIDATED DAMAGES**
Add the following:

On FHWA Federal-aid projects the minimum liquidated damages assessment is as follows:

SCHEDULE OF DEDUCTIONS FOR EACH DAY OF OVERRUN IN CONTRACT TIME

Original Contract Amount		Liquidated Damages per Working Day
For More Than	To and Including	
\$0	\$25,000	\$63.00
25,000	50,000	105.00
50,000	100,000	154.00
100,000	500,000	210.00
500,000	1,000,000	315.00
1,000,000	2,000,000	420.00
2,000,000	5,000,000	630.00
5,000,000	10,000,000	840.00
10,000,000 & More		980.00

Section 9—Measurement and Payment

9-1.05 **PROGRESS PAYMENTS, FINAL PAYMENTS, RETAINED PERCENTAGE**
The first sentence of the second paragraph is deleted and the following inserted:

On FHWA Federal-Aid projects, costs of materials properly stored, protected and insured at the site of the work will be paid on monthly estimates. Material delivered to the Contractor at off-site

storage will be considered for payment on monthly estimates (1) if off-site storage of materials is required for more than 30 days and (2) if materials are segregated from materials for any other project, and, (3) if materials are properly stored, protected and insured. Such materials may include, but not necessarily be limited to, the following: sand, gravel, surfacing material, aggregates, reinforcing steel, bronze plates, structural steel, machinery, piling, timber and lumber (not including forms or falsework), large signs peculiar to the specific project, and prestressed concrete beams and girders.

9-1.06 **ACCEPTANCE OF CONSTRUCTION**
Delete the 4th paragraph and substitute the following:

On FHWA Federal-Aid projects the acceptance of the contract work shall not prevent the owner from making claim against the Contractor for any defective work. See Section 5-1.12 as revised herein.

9-1.07 **FINAL GUARANTY**
Delete this item and substitute the following:

9-1.07 **GUARANTEES**

On FHWA Federal-Aid projects the Contractor shall furnish to the Owner any guarantee or warranty furnished as a normal trade practice in connection with his purchase of any equipment, materials or items to be used in the construction of the project. In addition, the Contractor shall furnish the Owner written warranties or guarantees providing for satisfactory in-service operation of the mechanical and electrical equipment and related components for a period not to exceed 6 months following project acceptance.

9-1.08 **FINAL ACCEPTANCE**

On FHWA Federal-Aid projects approval of the final estimate by signature thereon by the Owner shall constitute acceptance, on the date of such approval, of items of work shown on such final estimate. Progress estimates or payments shall not be construed as acceptance of any work under this contract.

Final acceptance shall not constitute acceptance of any unauthorized or defective work or material. The Owner shall not be barred from requiring the Contractor to remove, replace, repair or dispose of any unauthorized or defective work or material or from recovering damages for any such work or material.

CITY OF SEATTLE

SUPPLEMENT

TO

STANDARD SPECIFICATIONS

For

MUNICIPAL PUBLIC WORKS CONSTRUCTION

WASHINGTON STATE CHAPTER

AMERICAN PUBLIC WORKS ASSOCIATION

1977

Prepared By The Director of Engineering

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EXAMINED AND APPROVED BY THE

BOARD OF PUBLIC WORKS, Nov. 7, 1979

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Seattle, Washington 98104

FOREWORD

These supplemental Specifications contain modifications to the STANDARD SPECIFICATIONS FOR MUNICIPAL PUBLIC WORKS CONSTRUCTION prepared by the Washington State Chapter, American Public Works Association, 1977.

For every City of Seattle sponsored public works project supported by FHWA or UAB trust funds the:

- laws of the State of Washington
- Charter and ordinances of the City of Seattle
- 1977 publication of STANDARD SPECIFICATIONS FOR MUNICIPAL PUBLIC WORKS CONSTRUCTION (APWA) and SUPPLEMENT NO. 1 TO DIVISION 1 (GENERAL REQUIREMENTS AND COVENANTS)
- supplements contained herein
- City of Seattle STANDARD PLANS 10TH EDITION
- project plans, proposal and special provisions
- City of Seattle TRAFFIC CONTROL MANUAL FOR IN-STREET WORK

shall constitute the contract for the project and shall be considered as a whole.

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DIV. I GENERAL REQUIREMENTS AND COVENANTS

Section 1-1.02 ENGINEER

Amend entire section as follows:

The City Engineer, or executive officer of another department when such other department plans and supervises public construction for the Board of Public Works in accordance with Article VII of the Charter of The City of Seattle, including such assistants as are authorized to represent him, except that in Section 7.14A, 7.15B, 7.15D, 7.17 and 7.18 the term "Engineer" shall mean the City Engineer of The City of Seattle.

Section 1-1.03 CONSULTING ENGINEER

Amend title to read:

Section 1-1.03 CONSULTANT

Amend as follows:

In the first line of the paragraph, change word "engineer" to consultant.

Section 1-1.06 SPECIAL PROVISIONS

Add the following sentence at the end of the section:

"The term general conditions are synonymous to special provisions."

Section 1-1.18 WORK

In the third line of the paragraph after the word "thereto" add the words "shall be."

Section 1-1.20 LIQUIDATED DAMAGES

In the third line of the paragraph after the word "each" add the word "working."

Section 2-1.02 EXAMINATION OF PLANS, SPECIFICATIONS SITE OF WORK

After the 5th paragraph, add the following:

Disturbed soil samples are obtained using the Standard Penetration procedure in which a 2-inch O.D. split-spoon or Gow sampler is driven a distance of 18 inches by means of a 140 lb. hammer dropping 30 inches. Unless otherwise noted, the samples are taken at 5-foot intervals as shown on the log of each boring. Blow counts are taken for three successive 6-inch intervals and the number of blows required to drive the sampler the final 12 inches is recorded as the standard penetration resistance.

Section 2-1.03 INTERPRETATION OF CONTRACT DOCUMENTS

In the seventh line of the second paragraph after the figure "(5)" add the word "working."

Section 2-1.10 SUPPLEMENTAL PROPOSALS

Delete the 2nd paragraph in its entirety and substitute the following:

Where the proposal calls for alternates, additive and/or deduct, the Board of Public Works reserves the right to award the contract on the basis of the base bid and alternates, plus or minus, to determine the lowest bidder.

Section 2-1.13 REJECTION OF PROPOSAL

Following the sentence, in parenthesis, change Section 2-1.10 to read Section 2-1.06.

NEW SECTION

2-1.15A PREVENTION OF ENVIRONMENTAL POLLUTION AND PRESERVATION OF PUBLIC NATURAL RESOURCES

A. AIR POLLUTION

The Contractor shall not cause or allow the discharge of particulate matter, the emission of any air contaminants or odor bearing gases in excess of the limits specified under Regulation I of the Puget Sound Air Pollution Control Agency, Article 9 - Emission Standards.

The Contractor shall maintain air quality within the National Emission Standards for Hazardous Air Pollutants. Air pollutants being defined as that to which no ambient air quality standard is applicable and which in the judgment of the Administrator of the Environmental Protection Agency Clean Air Act may cause, or contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness.

B. WATER POLLUTION CONTROL

"It shall be unlawful for any person to throw, drain, run or otherwise discharge into any of the waters of this state or to cause, permit or suffer to be thrown, run, drained, allowed to seep or otherwise be discharged into such waters any organic or inorganic matter that shall cause or tend to cause pollution of such waters". (RCW 90.48.080)

Section 29 of Ordinance 97016 stipulates the various types of discharge prohibited in the public sewer system or any drainage ditch in the City of Seattle.

In order to effectively control water pollution, erosion and related damage, the contractor will be expected to perform work of a temporary nature. This work might include but is not limited to the following water quality considerations:

Diversion of Uncontaminated Water: Storm water shall be diverted around the project to prevent pick up of silt. This may be accomplished by pumping, improving ditches, lining channels or by placing metal, plastic or concrete gravity pipe.

Intercepting Ground Water: Surfacing ground water shall be intercepted and routed around construction site to prevent silt erosion by the use of gravel trenches, French drain tiles, well points, or interceptor ditch.

Turbid Water Treatment Before Discharge: Turbid water from the construction site shall be treated by settling before being discharged into a stream or other State waters. Turbidity may be removed by the use of lagoons or holding ponds, settling basins, overflow weir, polymer water treatment, discharging to ground surface, by percolation, evaporation or by passing through gravel, sand or fiber filters.

Filling: Only select sands and gravels shall be placed in direct contact with water.

Erosion Control: Erosion control shall be exercised by minimizing exposed areas and slopes. Plastic sheet cover shall be placed over exposed ground area to protect from rain erosion. Other alternative methods for erosion control under certain situations include netting, mulching with binder and seeding.

Chlorine Residual from Watermain Testing or Cleaning: Water containing chlorine residual from watermain testing and cleaning shall not be discharged directly into storm drains, streams or State waters. Chlorine water may be discharged into sanitary sewer or disposed on land for percolation. Chlorine residual may be reduced chemically with reducing agent such as sodium thiosulphate. Water shall be continually tested for chlorine residual.

Vehicle and Equipment Washing: Water used for washing vehicles and equipment shall not be allowed to enter storm drains, streams or other State waters unless separation of petroleum products, fresh concrete products or other deleterious material is accomplished prior to discharge. Detergent solution may be discharged into sanitary sewer or allowed to be held on the ground for percolation. Recirculation system for detergent washing is recommended. Steam cleaning units shall provide a device for oil separation.

Oil and Chemical Storage and Handling: Handling and storage of oil and chemicals shall not be made adjacent to waterway. The storage shall be made in dike tanks and barrels with drip pans provided under dispensing area. Shut-off and lock valves shall be provided on tanks. Shut-off nozzles shall be provided on hoses. Oil and chemicals shall be dispensed only during daylight hours unless the dispensing area is properly lighted. No disposal of waste shall be allowed on oil and chemical spills. Fencing shall be provided around oil storage. Locks shall be provided on valves, pumps and tanks.

In the event a sanitary sewer line is encountered and repair or relocation work is required, the Contractor shall provide blocking and sealing of the sanitary sewer line. Sanitary sewer flow shall be pumped out, collected and hauled by tank truck or pumped directly to a sanitary system manhole for discharge. The existing sewers shall be maintained by the contractor without interruption of service by the use of temporary sewer bypass. In addition, the excavated materials adjacent to the ruptured sanitary sewer line shall be removed from the project and deposited into refuse trucks for haul to a sanitary fill site. Equipment or tools in contact with the above materials shall be washed by pressure water lines and the attendant wash water discharged into a sanitary sewer line for transmission to a sewage treatment plant.

The Contractor shall also be responsible for temporary water pollution control measures at work areas (eg. equipment, storage sites, etc.) not located within the construction area.

Should rutting and erosion occur the Contractor shall be responsible for restoring damaged areas and for clean-up of eroded material including that in ditches and culverts.

In the event that work is suspended for an extended period of time, the contractor shall take all action necessary to control erosion, pollution and runoff during the shut down period.

Both State and Federal statutes are applicable to oil spills occurring in the State's navigable and interstate waters. Violations of the State and Federal laws are subject to penalty from both entities.

Federal statutes on oil spills were enacted under the Federal Water Pollution Control Act Amendments of 1972. A copy of these laws may be obtained by contacting: Office of Public Affairs, Region 10, U.S. Environmental Protection Agency, 1200 Sixth Avenue, Seattle, Washington 98101, Telephone 206/442-1203.

Some of the State statutes which apply to the spillage of oil and any other petroleum related product into the waters of Washington State are: RCW 90.48.315, 90.43.320, 90.48.325, and 90.48.330.

Some statutes on oil spills covering liability of the Contractor, penalty for violation, liability in damages for injury or death of fish, animals or vegetation are: RCW 90.48.335, 90.48.336, 90.48.338, 90.48.350, 90.48.910, and 90.48.142.

It shall be the responsibility of the Contractor to report all incidents of oil spills or contaminated discharges into State waters and immediately notify the City of Seattle Inspector, together with the following authorities: U.S. Coast Guard (Seattle) 284-2361 or 624-2902. If for any reason this agency cannot be reached, call the Department of Ecology at 885-1900.

In the event of a sanitary sewage spill, notification should also be made to the following: Seattle-King County Health Department, 583-2065; Metro, 284-5100.

Water Quality criteria for the State of Washington can be obtained by contacting: Department of Ecology, 15345 Northeast 36th Street, Redmond, Washington, 98052, Telephone 206/885-1900.

C. NOISE POLLUTION

The contractor shall take all reasonable measures for the suppression of noise resulting from his operations. Mobile engine driven cranes, loaders and similar material handling equipment; engines used in stationary service for standby power; and air compressors for high and low pressure service shall be equipped with exhaust and air intake silencers designed for the maximum degree of silencing. The type of silencer required is that for use in critical noise problem locations such as high density residential, hotel and hospital areas.

The contractor shall conduct his performance of contract work consistent with the applicable regulations set forth in the Washington Administrative Code pursuant to the Washington Noise Control Act of 1974 and with applicable local noise control regulations.

D. LIABILITY

The contractor shall be liable for the payment of all fines and penalties resulting from his failure to comply with the Federal, State and local pollution control regulations set forth herein even though a City Inspector is on the job at the time of the violation.

All costs involved with these preventative measures are to be considered as incidental to the construction of this project and shall be included in the bid price for the various items which comprise this contract.

If the successful bidder must undertake additional work due to the enactment of new or the amendment of existing statutes, ordinances, rules or regulations occurring after the submission of the successful bid, the awarding agency shall issue a change order setting forth the additional work that must be undertaken, which shall not invalidate the contract. The cost of such a change order to the awarding agency shall be determined in accordance with the provisions of the contract for change orders or force accounts or, if no such provision is set forth in the contract, then the cost to the awarding agency shall be the contractor's costs for wages, labor costs other than wages, wage taxes, materials, equipment rentals, insurance and subcontracts attributable to the additional activity plus a reasonable sum for overhead and profit: PROVIDED, That such additional costs to undertake work not specified in the contract documents shall not be approved unless written authorization is given the successful bidder prior to his undertaking such additional activity.

Payment for all costs incurred in performing additional work as may be required will be made in accordance with Sections 9.03 or 9.04.

In the event there is a delay on a project and the delay is caused by litigation which exceeds six months, the contractor may then elect to terminate the contract and to delete the completion of the contract and receive payment in proportion to the amount of the work completed plus the cost of delay.

Section 3-1.01A BIDDING ERRORS

In the fourth line of the second paragraph after the words "The job then," change the word "shall" to "may."

Add the following paragraph:

The Owner will assess damages against the contractor, which will be considered on a case by case basis.

Section 3-1.05 FAILURE TO EXECUTE CONTRACT

Amend the entire section as follows:

Upon failure to enter into the contract and furnish the necessary bond within the time specified in Section 3-1.03, the proposal guaranty which accompanied the bid, whether in form of a bond, check or cash deposit, shall be forfeited to the Owner and the Owner shall re-advertise for such work.

Section 3-1.07B PUBLIC LIABILITY AND PROPERTY DAMAGE INSURANCE

(change third paragraph to read)

Bodily injury liability coverage with limits of not less than \$500,000 for bodily injury, including accidental death, any one person, and subject to that limit for each person, in an amount not less than \$1,000,000 for each accident; and property damage coverage in an amount of not less than \$100,000 for each accident.

Section 4-1.03 INCREASE OR DECREASE OF WORK

Delete the first sentence in the second paragraph.

Section 4-1.04 EXTRA WORK

Change the second paragraph to read as follows:

Extra work which involves a major change in the nature or scope of the contract must have the written consent of the surety on the bond.

Section 4-1.07 SALVAGE

Amend entire section as follows:

If indicated on the plans or in the special provisions, all castings, pipe and any other material taken from any of the discarded facilities shall be carefully salvaged and delivered to the Owner in good condition and in such order of storage as the Engineer may direct; otherwise, such material shall belong to the Contractor and be removed by him from the site.

Section 5-1.01 AUTHORITY OF ENGINEER

Add the following paragraph:

"The Engineer shall decide any and all questions which may arise as to the quality or acceptability of materials furnished and work performed and as to the rate of progress of the work, and all questions as to acceptable fulfillment and performance of the contract on the part of the Contractor and as to compensation. The decision of the Engineer in such matters shall be final."

Section 5-1.01B

This section shall be deleted.

Section 5-1.02 AUTHORITY AND DUTIES OF INSPECTORS

Amend first sentence in the second paragraph as follows:

An assistant will not be authorized to approve or accept any portion of the work constructed contrary to the plans and specifications, nor to issue any instructions contrary to the plans and specifications.

Section 5-1.03 COOPERATION BY CONTRACTOR

Add the following after the second sentence:

"Should the prime contractor elect not to appear on the job when only sub-contract work is being performed the contractor shall, by letter to the engineer, delegate this responsibility to one person in each subcontractor firm. Delegation of such authority will not relieve the prime contractor the responsibility for all work and material furnished, nor shall this release the contractor of his obligations or liability under the contract and the contractor's bond."

New Section

Section 5-1.09A PROVISIONS FOR WATER COURSES, SEWERS AND DRAINS

The Contractor shall provide for the flow of all water courses, including streams, ditches, drains and combined sewers, intercepted during the progress of the work and shall completely restore the same in as good condition as he found them or shall make such final provisions for them as the City Engineer may direct. The Contractor shall not obstruct the gutter of any street but shall use all proper measures to provide for the free passage of surface water.

The Contractor shall make provisions to take care of all surplus water, mud, silt, slickings or other run-off pumped from excavations or resulting from sluicing or other operations, and shall be responsible for any damage or whatever nature resulting from his failure to provide for the adequate control of run-off.

No direct payment shall be allowed for the above work. Payment for the cost thereof shall be included in the prices bid for the various items which comprise the improvement.

Section 5-1.10 DAMAGE TO EXISTING IMPROVEMENTS AND UTILITIES

Add the Following:

In cases where a storm drain is to be located within a planting strip, the contractor shall be responsible to protect the existing curb, gutter and sidewalk from damage. If the planting strip is not sufficiently wide so that the tracks of the trenching machine will clear the curb and sidewalk, the contractor will be required to use timber pads of sufficient thickness, or other means approved by the Engineer, to protect the improvements.

The Contractor shall be required to demonstrate to the Engineer, the method or procedure he will follow in order to protect these existing improvements adequately before proceeding with construction of storm drains in the planting strip.

Section 5-1.12 MAINTENANCE OF WORK AFTER ACCEPTANCE

Delete the last sentence in the second and fourth paragraphs.

Section 5-1.15 VERBAL AGREEMENTS

Change title to read:

Section 5-1.15 ORAL AGREEMENTS

In the first and fifth lines of the paragraph, change the word "verbal" to "oral."

New Section

Section 6-1.01A OFFSHORE ITEMS CERTIFICATE

In accordance with Section 2, Chapter 139 Laws of Washington, 1967, the Contractor shall furnish the Owner a certificate setting forth the nature and source of offshore items in excess of Two Thousand Five Hundred Dollars (\$2,500) which have been utilized in the performance of the contract. Offshore items shall mean those items procured from sources beyond the territorial boundaries of the United States including Alaska and Hawaii.

This certificate shall be delivered to the Owner upon completion of the contract. The retained percentage specified in Section 9-1.05 will be withheld until this certificate of offshore items is received by the Owner.

Section 6-1.02 SAMPLES AND TESTS

In the fifth paragraph, change USASI to ANSI, American National Standards Institute.

Section 6-1.03 SPECIAL METHODS OF TEST

Add the following to the end of the first paragraph:

"and from the Materials Laboratory of the Seattle Engineering Department."

Section 7-1.03 ACCIDENT PREVENTION

In the ninth line of the first paragraph after the words "General Safety Standards" add the following: "and other safety standards and rules applicable to the work,"

Amend the second paragraph as follows:

The work shall be performed in strict conformance with the requirements of the Occupational Safety and Health Act (OSHA) and the Washington Industrial Safety

and Health Act of 1973 (WISHA). In cases of conflict, the more stringent requirement shall apply.

Section 7-1.09 STATE SALES TAX

Add the following paragraph:

Items of the proposal indicated as not being subject to State Sales Tax as defined in Rule 171 of the State Revenue Act of 1935 shall have included in the prices bid, Business and Occupation Tax, Use Tax and Retail Sales Tax on all materials, equipment and supplies used or consumed in the performance of those items of the contract.

Section 7-1.15 MAINTENANCE OF TRAFFIC

Sections 7-1.15A, 7-1.15B, 7-1.15C, 7-1.15E, 7-1.15G, 7-1.15H, and 7-1.15I shall be deleted.

The following shall be added:

(The Contractor shall conduct all work and operations in street areas in accordance with the City of Seattle "Traffic Control Manual for In Street Work.")

Section 7-1.15D EXISTING TRAFFIC SIGNS AND FACILITIES

The first sentence shall be amended as follows:

The Contractor will make all necessary adjustments to traffic signals and traffic signal activators.

Amend the last sentence as follows:

Upon completion of the project, the Contractor will reset all such signs in their permanent location.

The following shall be added:

Preservation, maintenance and resetting of all signs, as outlined above, shall be considered as incidental to the construction, and all costs in connection therewith shall be considered to be included in the prices bid for the various items comprising the improvement, unless otherwise specified in the special provisions.

Section 7-1.15F LOCAL AND EMERGENCY TRAFFIC

The 2nd paragraph shall be deleted.

In the 3rd paragraph, delete the word "reasonable" in the 2nd and 4th lines.

Add the following:

Ingress to and egress from all properties shall be maintained as near as possible to that which existed prior to the commencement of construction. The contractor shall notify all property owners and/or tenants, where street and alley closures

or restrictions may interfere with their access, at least twenty-four (24) hours in advance for residential property and at least forty-eight (48) hours in advance for commercial property.

The contractor shall coordinate his activities with all disposal firms operating in the project area so that refuse disposal service will not be interrupted at any time.

Section 7-1.15J DUST CONTROL

Delete the 2nd sentence and add the following:

Dust control shall be considered as incidental to the construction and all costs in connection therewith shall be considered to be included in the prices bid for the various items comprising the improvement.

New Section

Section 7-1.15K STREET CLEANING

Contractors working dump trucks and/or other equipment on paved streets and roadways will be required to clean said streets if required by the City Engineer during the day at the conclusion of each day's operation.

If the streets are not properly cleaned and/or the condition of the excavation warrants, the City Engineer shall direct the Contractor to provide facilities to remove clay or other deposits from the tires or between wheels before trucks and/or other equipment will be allowed to travel over paved streets.

Any violation of the above requirements shall be sufficient ground for the City Engineer to order the streets in question cleaned by others, the cost of the operation to be paid by the Contractor.

All costs in connection with the above work shall be considered as incidental to the construction and payment shall be considered to be included in the prices bid for the various items comprising the improvement.

Section 7-1.16 TRAFFIC CONTROL WITHIN AND ABUTTING THE PROJECT

This section shall be deleted.

Section 7-1.17 TRAFFIC CONTROL SIGNS

This section shall be deleted.

Section 7-1.18 PROCEDURE FOR PROCURING SIGNS

This section shall be deleted.

Note: All deleted preceding sections pertaining to traffic are covered in the 1976 Edition of the City of Seattle Traffic Control Manual for In-Street Work. All costs for conducting work in accordance with this Manual shall be included in the unit bid prices in the proposal unless otherwise provided in the Special Provisions.

Section 7-1.22 SANITARY PROVISIONS

Add the following sentence:

Such accommodation shall also be made available for use by City employees assigned to the improvement.

Section 8-1.01 CONSTRUCTION SCHEDULE

Amend entire section as follows:

"After being awarded the contract, the Contractor shall prepare and submit to the Engineer for approval a progress schedule in form and substance satisfactory to the Engineer showing the proposed dates of commencement and completion of the various items of work and which will guarantee completion of the project within the time required.

When specified in the Special Provisions, a tentative progress schedule shall be submitted prior to the preconstruction conference and the final progress schedule shall be submitted within two weeks after the preconstruction conference. In all other cases, the progress schedule shall be submitted within two weeks after the date of the notice to proceed.

When specified in the Special Provisions, the progress schedule shall be in Critical Path or P.E.R.T. form.

The Contractor shall submit to the Owner for approval revised supplementary progress schedules conforming with the times of construction and delays which may have been encountered in the performance of the work. No payments will be made to the Contractor on any estimate until a progress schedule or supplemental revised progress schedule has been approved by the Owner.

The approval of the progress schedules by the Owner shall not relieve the Contractor of responsibility or waive or modify any provisions or requirements of the contract.

Adequate equipment and forces shall be made available by the Contractor to carry out the schedule to completion of the contract within the time specified in the Special Provisions."

Section 8-1.02 NOTICE TO PROCEED AND PROSECUTION OF THE WORK

Add the following paragraph:

"The Contractor shall also be responsible for securing all labor necessary for completion of the project within the time allowed. A shortage of labor in any job classification involved in the work will not be considered an unavoidable delay for which an extension of time will be allowed."

Section 8-1.04 SUSPENSION OF WORK FOR AN EXTENDED PERIOD OF TIME

Amend the first paragraph as follows:

"In the event that a suspension of work is ordered in writing by the Engineer for an extended period of time due to unsuitable weather, the work shall be placed in such condition that no damage will occur during the suspension period and all

roadways through the construction area that may have been affected by the work shall be placed in a safe, smooth and unobstructed condition for use by public traffic with access to abutting property. If, in the opinion of the Engineer the work interrupted by the suspension could have been performed prior to occurrence of the unsuitable weather had the Contractor diligently prosecuted the work when conditions were suitable, the cost of placing the work in the above conditions shall be borne by the Contractor. If, in the opinion of the Engineer, the work could not have been performed prior to the occurrence of the unsuitable weather, the cost of placing the work in the above conditions will be borne by the Owner as extra work in accordance with Section 9-1.03. If the Contractor fails to do the work as above specified, the Owner will perform such work and if the expense thereof is determined to be the Contractor's, the Owner will deduct the cost thereof from any moneys due or to become due the Contractor."

Delete second subparagraph in its entirety.

Section 8-1.05 CONTRACT TIME

Delete 2nd sentence of the first paragraph.

Beginning with the 3rd sentence in paragraph two, the remainder of the paragraph shall be amended to read as follows:

Legal holidays shall be: January 1st; February 12th, Lincoln's Birthday; the third Monday of February, being celebrated as the anniversary of the birth of George Washington; May 30th, Memorial Day; July 4th; Labor Day; the second Monday of October, to be known as Columbus Day; November 11th, Veterans' Day; Thanksgiving Day; Christmas Day and the day on which any general election is held throughout the state. Whenever any legal holiday falls on a Sunday, the following Monday shall be a legal holiday. Whenever any holiday falls on a Saturday, the preceding Friday shall be a legal holiday for City employees only and are working days with respect to the contract.

Delete the fourth paragraph.

Section 8-1.07 UNAVOIDABLE DELAYS

Add the following after the third paragraph:

"The contract period allowed for completion of the project has been extended sufficiently to allow for periods of normal inclement weather which should be expected during the contract period and during which periods work should be anticipated to be performed. If the contractor elects not to perform work during periods of normal inclement weather, he will not be entitled to an extension of time for periods of non-work.

"Abnormal inclement weather such as prolonged periods of snow, sub-freezing temperatures, above average rainfall or other unusual weather disturbances during which periods the Contractor elects not to perform work will be declared 'unworkable days due to weather conditions' which shall be an unavoidable delay for which he will be entitled to an extension of time."

Add the following at the end of the last paragraph:

"except as provided otherwise above."

Section 8-1.09 ASSIGNMENT OF CONTRACT AND SUBLETTING

Add the following at the end of the first paragraph:

Unless otherwise provided, the list of subcontractors for which the Contractor requests the Owners approval, is required within ten (10) days after award of contract.

A Contractor wishing to make changes in subcontractors during the progress of the work shall submit the request to the Owner for approval.

Section 8-1.12 OVERTIME WORK BY OWNER EMPLOYEES

Amend entire section to read as follows:

"If the contractor desires to perform contractual work on holidays, Saturdays and Sundays, and before 6:00 a.m. and after 7:00 p.m. Monday thru Friday, he shall apply to the Engineer's office in writing for permission to work such times. The Engineer is required to forward, except for Saturday work during normal hours, such requests with his recommendation to the Board of Public Works for their approval.

If the Board of Public Works determines that such work is essential, permission will be granted for performance of the work. The Engineer will determine whether Saturday work is essential, and if so determined, permission will be granted. Permission is not required to perform contractual work before or after the established normal straight time working hours between 6:00 a.m. and 7:00 p.m. Monday through Friday. The normal straight time eight (8) hour working period shall be established prior to commencing work on the project.

Engineering salaries during normal straight time working hours of City employees working on holidays occurring Monday through Friday will be paid entirely by the Owner.

The premium portion of Engineering salaries of employees of the City department charged with administration of the project and other City Departments working Saturdays, Sundays and other than normal straight time working hours Monday through Friday shall be borne by the Contractor. The premium portion shall consist of salaries in excess of normal straight time.

Salaries shall be at the rates established by the prevailing City Salary Ordinance. The costs of engineering salaries to be borne by the Contractor will be deducted from the Contractor's final payment estimate."

NEW SECTION

Section 9-1.02A MOBILIZATION

Mobilization shall consist of preparatory work and operations performed by the contractor, including, but not limited to, those necessary for the movement of his personnel, equipment, supplies and incidentals to the project site; for the establishment of his offices, buildings and other facilities necessary for work on the project; for premiums on bonds and insurance for the project, and for other work and operations which he must perform or costs he must incur before beginning production work on the various items on the project site. Mobilization

costs for major subcontracted work shall be considered to be included except when the Contractor can show by written pre-bid agreement with the subcontractor or by other acceptable evidence that these costs have been excluded.

Based on the lump sum contract price for "Mobilization," partial payments will be made as follows:

1. When 5% of the total original contract amount is earned from other bid items, 50% of the amount bid for mobilization, or 5% of the total original contract amount, whichever is the least, will be paid.
2. When 10% of the total original contract amount is earned from other bid items, 100% of the amount bid for mobilization or 10% of the total original contract amount, whichever is the least, will be paid.
3. Upon completion of all work on the project, payment of any amount bid for mobilization in excess of 10% of the total original contract amount will be paid.

Nothing herein shall be construed to limit or preclude partial payments otherwise provided by the contract.

Section 9-1.03 PAYMENT FOR EXTRA WORK

Add the following to this section:

"When extra work is performed and paid for by acceptable lump sum or mutually agreed prices, the Contractor or subcontractor actually performing the work will be limited to markups of 10% overhead plus 10% profit separately applied on direct costs of labor including employment taxes, fringe benefits and related labor costs on materials to be entered into the work, and on the ownership or rental costs of construction plant and equipment employed during the time of the extra work.

When extra work is performed by an approved subcontractor or a subcontractor to an approved subcontractor, each contractor superior to the subcontractor actually performing the work will be allowed in turn a percentage markup on the subordinate contractor's total cost including that contractor's markup based on the following schedule:

- (a) On the first \$10,000.00 of total cost (including markups) of extra work done by all subcontractors subordinate to the Contractor or a given subcontractor, and additional markup in the amount of 10% of the total cost including overhead and profit of the contractor performing the work will be allowed.
- (b) When the accumulated total cost of extra work exceeds \$10,000.00 including markups of all subcontractors subordinate to the Contractor or to a given subcontractor, an additional markup in the amount of 5% of the total cost including overhead and profit of the contractor performing the work will be allowed.

The above allowable markups shall cover bonding and insurance costs."

Section 9-1.05 PROGRESS PAYMENTS, FINAL PAYMENT, RETAINED PERCENTAGE

Amend the first two sentences of paragraph one as follows:

The Contractor shall be entitled to monthly progress payments corresponding to the stage of the work. Progress estimates will be prepared by the Engineer not later than thirty (30) days after commencing work, and every thirty (30) days thereafter, if so entitled, for the duration of the construction and in accordance with the provisions of R.C.W. 60.28/010. These shall be based upon an approximate estimate of quantities of work completed and considered acceptable, multiplied by the unit prices or estimated percentages of lump sum prices established in the contract.

Chapter 38, 1st Extraordinary Session, 1970, Laws of Washington amending R.C.W. 60.28.010, .020 and .050 provides that at the option of the Contractor, (1) the retained percentage may be held in a fund by the public body until at least thirty (30) days following the final acceptance of the work, or (2) it may be placed in escrow with a bank or trust company by the public body until at least thirty (30) days following final acceptance.

Should the Contractor choose to adopt the above option (2), said Contractor shall, at the time he enters into a contract with the City, fully agree to the following stipulations on a form provided by the City and made a part of the contract for the work to be performed:

1. The Contractor assumes full responsibility to pay all costs which may accrue from escrow services and/or brokerage charges.
2. The Contractor further agrees to assume all risks in connection with the investment of said retained percentage in securities.

Retainage cannot be reduced for any reason below the five (5) percent minimum limit required by law.

The first sentence of paragraph two shall be amended as follows:

Costs of materials, properly stored, protected and insured at the site of the work will be paid on monthly estimates as requested by the Contractor.

Delete Paragraph four.

Amend the last paragraph as follows:

Payment of the retained percentage shall be withheld for a period of thirty (30) days following the final acceptance by the Owner, and shall be paid the Contractor at the expiration of said thirty (30) days provided the following conditions are met.

- a) An Offshore Items Certificate has been delivered to the Owner per Section 6-1.01A.
- b) Releases have been obtained from the State Department of Labor and Industries, the State of Washington Employment Security Department, and all other departments and agencies having jurisdiction over the activities of the Contractor.

- c) On contracts totaling more than Twenty Thousand Dollars (\$20,000.00), a release has been obtained from the Washington State Tax Commission.
- d) No claims, as provided by law, have been filed against the retained percentage.

In the event claims are filed, the Contractor shall be paid such retained percentages less an amount sufficient to pay any such claims, together with a sum sufficient to pay the cost of such action, and to cover attorney fees as determined by the Owner.

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- c) On contracts totaling more than Twenty Thousand Dollars (\$20,000.00), a release has been obtained from the Washington State Tax Commission.
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In the event claims are filed, the Contractor shall be paid such retained percentages less an amount sufficient to pay any such claims, together with a sum sufficient to pay the cost of such action, and to cover attorney fees as determined by the Owner.

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DIVISION II - STREETS AND RELATED CONSTRUCTION

SECTION 12 - 4.01 DESCRIPTION

This section shall be deleted.

SECTION 12-4.02 MEASUREMENT, ORNAMENTAL AND DANGER TREES

This section shall be deleted.

SECTION 12-4.03 PAYMENT

This section shall be deleted.

SECTION 13-3.10E5 COMPACTION CONTROL TEST

Amend 2nd paragraph as follows:

For granular materials, required density shall be determined in accordance with the City of Seattle Compaction Control Method for Granular Materials. Instructions for both of these methods may be had without charge upon request to the Materials Laboratory, Seattle Engineering Department, Municipal Building, Seattle, Washington.

SECTION 13-3.12 STRIPPING QUARRIES AND PITS

This section shall be deleted.

SECTION 13-3.14 AERATION EQUIPMENT

This section shall be deleted.

SECTION 13-4 MEASUREMENT

Paragraph two shall read as follows:

"Borrow will be measured by the ton at the point of delivery."

Paragraph three shall be deleted.

SECTION 14 HAUL

This section shall be deleted in its entirety.

SECTION 15-2.01 SUBGRADE FOR BASE MATERIALS

Paragraph six shall be amended to read as follows:

"When ordered by the Engineer, the Contractor shall sprinkle the subgrade with water in such quantities as directed. No compensation will be paid therefor."

SECTION 15-4 PAYMENT

Paragraph one, delete bid item No. 8.

Paragraph four shall be deleted.

SECTION 16-1.01 WATER FOR STREETS

The first sentence shall be amended to read as follows:

Water for compacting embankment, constructing subgrade, placement of screened gravel and crushed surfacing and for laying dust caused by grading operations or public travel, if ordered by the Engineer, shall be applied in the amounts and places designated by the Engineer.

SECTION 16-2.01 WATER SUPPLY

Amend the first paragraph as follows:

The Owner will furnish at the nearest source all necessary water for construction and testing purposes at no cost to the Contractor unless otherwise noted in the Special Provisions.

Delete the 2nd paragraph.

SECTION 16-2.02 REQUIREMENTS AND RESPONSIBILITY

Title shall be amended to read:

REGULATIONS FOR USE OF FIRE HYDRANTS

The entire section shall be amended as follows:

The Contractor shall use only those hydrants designated by the Seattle Water Department and in strict accordance with its requirements for hydrant use as stipulated in Ordinance 65877 and as outlined in the following regulations:

1. A written permit will be required for the use of a hydrant by other than employees of the Fire and Water Departments.
2. Wherever possible, use of water from hydrants shall be through a meter equipped with a hand-operated valve on the outlet side of the meter and affixed to the hydrant by an employee of the Water Department.
3. The Water Department employee shall ascertain that the hydrant is in good working order, shall open the main stem fully after affixing the meter to the hydrant and shall also close the hand-operated valve affixed to the meter. If the hydrant is equipped with an independent stem and gate, the Water Department shall also open the independent port to which the meter is affixed. (The above will preclude the necessity for any hydrant operation by unauthorized personnel.)
4. If it is not required or practical to use a meter in conjunction with the use of water through a hydrant, it will then be required that control of the water taken from a hydrant shall be by means of a special auxiliary valve affixed to an independent port, said valve to be equipped with a hand-operated control. Valves will be made available by the Water Department to those authorized by permit to draw water from a hydrant.

5. When Water Department valves are utilized, a deposit covering the cost of such valves and fittings, in addition to any other costs or charges, shall be made at the time the permit is issued. Wherever possible, such auxiliary valves shall be installed by Water Department personnel who, at the time of installation, shall ascertain that the hydrant is in good operating condition, shall open the main stem of the hydrant fully and ascertain that the independent gate controlling the outlet to be used is also open.
6. If it is not practical for the Water Department to install the auxiliary valves on the independent hydrant ports, those to whom permits are issued shall be fully instructed in the correct operating of a hydrant and after the main valve is open on the hydrant, all control of water flow thereafter shall be by means of the auxiliary valve. Removal of meters and valves will be done by Water Department personnel, at which time the hydrant and all equipment will be inspected.
7. All fees, estimates of rental charges and estimates of inspection and repair costs shall be collected at the time a permit is issued for hydrant use. The rates to be charged for valves furnished by the Water Department are to be charged at the current rate.
8. The Contractor will be required to make a deposit for valves for one full day's operation when a permit is issued and the Water Department will set additional valves ahead and in sequence with paving operations.

SECTION 16 - 3.03 WATER FOR SETTLING TRENCHES

This section shall be deleted in its entirety.

SECTION 16-4

This section shall be deleted.

SECTION 16-5 PAYMENT

This section shall be amended to read as follows:

All costs for water shall be considered by the Contractor as incidental to the construction and no separate payment therefor will be made."

NEW SECTION

SECTION 20 - MINERAL AGGREGATES

SECTION 20-1 DESCRIPTION

Mineral aggregate shall be free of wood, roots, bark and other extraneous material. Classification of mineral aggregates shall be by type number and for each type specified, the grading shall conform to the requirements in the Table shown on page 6.

SECTION 22 - PRODUCTION FROM QUARRY AND PIT SITES

This section shall be deleted in its entirety.

SECTION 23-2.01 CRUSHED SURFACING

The 1st paragraph shall be amended to read as follows:

Crushed surfacing shall be manufactured from ledge rock. The materials shall be uniform in quality and free of wood, roots, bark and other extraneous material and shall meet the test requirements for type aggregates Nos. 1 through 4, inclusive, as outlined in the Mineral Aggregate Table in Section 20.

The remaining paragraphs shall be deleted.

6

• Blank Run Gravel for uses other than support of Portland cement concrete pavement shall meet the following additional requirements:

Stabilometer Resistance Value (Section 6).....	68 minimum
Swell Pressure (Section 6)	0.3 PSI maximum

Swell Pressure (Section 6) 0.3 PSI maximum

5

Ballast shall consist of crushed, partially crushed or naturally occurring granular material from approved sources. In the manufacture of ballast, all oversize material up to and including boulders of ten inches (10") in the greatest dimension shall be utilized in the manufacture of the finished product.

The remaining paragraphs shall be deleted.

This section shall be deleted.

Paragraph five, regarding Water, shall be deleted.

Paragraph seven, regarding Maintenance Rock, shall be deleted.

Bid items 7, 9, 10 and 11 shall be deleted.

Paragraph six, regarding water, shall be deleted.

Paragraphs eight and nine regarding maintenance rock and preparing stockpile sites shall be deleted.

SECTION 24-2.01 SAND FILLER

The 2nd paragraph shall be amended as follows:

Sand filler shall meet the requirements for Type No. 11 as outlined in the Mineral Aggregate Table in Section 20.

SECTION 24-2.02 CRUSHED FILLER

This section shall be amended as follows:

Crushed filler shall consist of the fine product resulting from crushed stone and shall meet the requirements for Type NO. 24 as outlined in the Mineral Aggregate Table in Section 20.

SECTION 24-5 PAYMENT

Delete bid items No. 3 and No. 4.

Delete the 2nd paragraph.

SECTION 25-2 MATERIALS

This entire section shall be amended to read as follows:

Screened gravel surfacing shall consist of crushed, partially crushed or naturally occurring granular materials from approved sources and shall meet the requirements for Type No. 16 as outlined in the Mineral Aggregate Table in Section 20.

SECTION 26-2.01 CLASSES AND GRADING OF BANK RUN GRAVEL

This entire section shall be amended to read as follows:

Bank run gravel shall be substantially free from wood, roots, bark or other extraneous material. It shall have such characteristics of particle size that it will compact readily to a firm, stable course and shall meet the requirements for Type Nos. 19 or 20 as outlined in the Mineral Aggregate Table in Section 20.

SECTION 26-2.03 BANK RUN GRAVEL FROM SOURCES PROVIDED BY THE CONTRACTOR

This entire section shall be amended to read as follows:

Bank run gravel furnished from sources provided by the Contractor shall be produced from approved sources. The grading and quality shall be as specified in Section 20.

If bank run gravel from sources furnished by the Contractor has lower resistance value or higher swell pressure, it may be used if approved by the Engineer; provided that the thickness of crushed surfacing is increased over that shown on the plans by such an amount as the Engineer determines necessary to compensate for the lower values. The bank run gravel shall be decreased in thickness by an amount equal to the required increased thickness of crushed surfacing. The volume of crushed surfacing required to compensate for resistance value lower than, or swell pressure higher than, that specified above shall be measured for payment as "Bank Run Gravel, Class A or Class B," and not included by the Contractor in his unit contract price for "Bank Run Gravel, Class A or Class B."

SECTION 26-3.04 PIT OPERATIONS

This section shall be deleted.

SECTION 26-5 PAYMENT

Bid items 2, 3, 4, 5, 6 and 7 shall be deleted.

Paragraphs 3, 4, 5 and 6 shall be deleted.

SECTION 34-2.02A GENERAL REQUIREMENTS

In the 3rd paragraph delete the words "in accordance with the provisions of Section 22."

SECTION 34-2.02B TEST REQUIREMENTS

First line of the first table shall read as follows:

CLASS OF ASPHALT CONCRETE	B	G	D	E	F
% Fracture, size above U.S. No. 10	90	95	95	50	50

Add the following sentence:

Fractured aggregate shall have two or more mechanically fractured surfaces.

SECTION 34-2.02C GRADING OF MINERAL AGGREGATES

Add the following paragraph:

Requirements for mineral aggregates for asphalt concrete MC 250 and MC 800 shall be the same as for asphalt concrete Class B.

SECTION 34-2.03

Add the following paragraph:

Requirements for mineral aggregates for asphalt concrete MC 250 and MC 800 shall be the same as for asphalt concrete Class B.

For MC 250 and MC 800, the asphalt content shall be 4.0 to 5.0%.

SECTION 34-3.10 PRELEVELING FOR ASPHALT CONCRETE

Amend the 3rd paragraph as follows:

Add the words "Leveling Course" after "Asphalt Concrete Pavement Class"

SECTION 34-3.12 JOINTS

The entire section shall be amended as follows:

The placing of the top or wearing course shall be as nearly continuous as possible.

In placing the top or wearing course, the work shall be scheduled in a manner to provide for full width pavement at the conclusion of the day's work. Where this is beyond the control of the Contractor, he shall barricade and protect all cold longitudinal joints until work is resumed again. Heavy building paper shall be placed wherever cold transverse joints are necessary, or as the Engineer may direct. Upon resuming work, the paper and asphalt thereon shall be removed and the joint neatly trimmed to a straight and vertical face. Before placing mixture against them, contact surfaces of cold longitudinal or transverse joints, castings, curbs and concrete gutters shall be painted with a thin, uniform coating of cutback asphalt or SS-1 emulsified asphalt.

Immediately following the completion of the top of wearing course, all joints where the asphalt concrete meets existing asphalt concrete pavements, portland cement concrete pavements, oil mats, concrete curb, concrete gutter, etc., shall be painted with a cutback asphalt or an SS-1 emulsified asphalt as described in Section 34-3.02 and shall immediately be covered with clean dry sand. The painted strip shall be directly over the joint and shall not exceed more than one and one-half (1-1/2) inches on either side of the joint. No painting shall be performed when the pavement is wet or damp.

SECTION 34-3.13 SURFACE SMOOTHNESS

The entire section shall be amended as follows:

The finished surface of the top or wearing course shall be of uniform texture, smooth, true to crown and grade and free from defects of all kinds. The finished surface shall not vary more than one-fourth (1/4) inch from the lower edge of a ten-foot (10') straight edge placed on the surface parallel to the center line, excepting at intersections where, in the opinion of the Engineer, this may be impracticable. No portion of the finished pavement shall vary more than one-fourth (1/4) inch from a template cut to exact section shown on the plans or as staked by the Engineer, when placed at right angles to the center line on the finished surface.

When deviations in excess of the above tolerances are found, the surface shall be corrected by the addition of asphalt mixture to low places or the removal of material from high places, followed by further rolling. This shall be done as soon after the first rolling as possible and before the pavement mixture becomes chilled. Correction of defects shall be performed until there are no deviations anywhere greater than the allowable tolerances.

SECTION 34-3.20 TRAFFIC AND DETOURS

This section shall be amended as follows:

The maintenance of traffic and the handling and care of traffic signs shall meet the requirements outlined in the City of Seattle Traffic Control Manual for In Street Work or in the Special Provisions.

SECTION 34-5 MEASUREMENT AND PAYMENT

Amend bid item No. 3 by adding the words "or per ton."

Delete bid item No. 4 and insert the following:

"Asphalt Concrete Pavement, Class (Leveling Course) per ton."

Delete bid items 6, 7, 8 and 9.

SECTION 34-5.03 PRIME COAT AGGREGATE

In the first line in paragraph one, add "or per ton" after per cubic yard.

In the first line in paragraph four add "or by the ton" after the cubic yard.

SECTION 34-5.04 ASPHALT FOR TACK COAT

Delete this section and substitute the following:

Change title to read: ASPHALT CONCRETE PAVEMENT CLASS (Leveling Course)

The Unit contract price per ton for asphalt leveling course shall be full compensation for all costs of material, labor, tools and equipment necessary for the application of the leveling course as specified.

SECTION 34-5.06 MINERAL AGGREGATES IN STOCKPILE

This section shall be deleted.

SECTION 34-5.07 BLENDING SAND

This section shall be deleted.

SECTION 34-5.08 FURNISHING MINERAL FILLER

This section shall be deleted.

SECTION 34-5.09 WATER

This section shall be deleted.

SECTION 34-5.10 REMOVING EXISTING PAVEMENT

In the 5th line, delete the word "hereinbefore" and add the words "in Section 52" after specified.

SECTION 36-3.03 JOINTS

Change 10' intervals to 15' and add "or shall match existing transverse joints or cracks in existing pavement" at the end of first sentence.

At the end of the paragraph, add the following:

"Joints shall not be placed in conflict with curb dowels."

SECTION 37-2.02 CONCRETE AGGREGATES

Amend as follows:

Concrete aggregates shall be manufactured from sand and gravel.

SECTION 37-2.02C2 WEAR IN LOS ANGELES MACHINE

In the 3rd line of the paragraph, change 35 to 30.

NEW SECTION

SECTION 37-2.06C NON-EXTRUDING JOINT FILLER

Non-extruding joint filler shall be used in all sidewalk, sidewalk driveway crossings, stairways, curb and curb and gutter sections.

SECTION 37-2.13 JOINT-SEALANTS

At the end of the 1st paragraph, add the following:

"or the Materials Laboratory, Seattle Engineering Department, City Municipal Building, Seattle, Washington."

NEW SECTION

SECTION 37-3.04A COLORING CONCRETE

Cement concrete which is to be used to patch all existing cement concrete surfaces shall have added to it, at the time of mixing, a coloring agent which will produce a non-glare color satisfactory to the Engineer and which shall be dry lamp black or approved equal in an amount not to exceed two (2) pounds per cubic yard of concrete.

All costs of furnishing and using a coloring agent shall be considered as incidental to the construction and shall be included in the bid prices of the various items comprising the project.

SECTION 37-3.06 CONSISTENCY OF CONCRETE

Add the following paragraphs:

The slump of concrete, with machine compaction measured with the slump cone (ASTM Designation C 143), shall not exceed two (2) inches.

The slump of concrete placed by hand shall not exceed three and one-half (3-1/2) inches.

SECTION 37-3.08 READY MIXED CONCRETE

Fourth paragraph, Item No. 2 and the 1st paragraph under Item No. 3 shall be deleted.

NEW SECTION

SECTION 39-3.12A ROADWAY BALLAST

During periods of inclement weather the Contractor shall furnish and place Type 2 material to protect the sub-grade prior to paving. This material is to be used only at the direction of the Engineer and is not intended as an aid to fine grading. Prior to placing the ballast the Contractor shall remove and dispose of soft and unstable subgrade material. The ballast shall be compacted as specified in Section 15. Vibratory compactors will not be allowed.

This item will not be considered a major bid item.

Payment will be made at the price bid per ton for "Roadway Ballast," which shall be full compensation for furnishing and placing the material including removing and disposing of unsuitable material.

Measurement shall be by the ton at the point of loading. Duplicate copies of the weight bills shall be furnished the Engineer.

SECTION 39-3.18C - SAWED CONTRACTION JOINTS

Add the following at the end of the 1st paragraph:

Transverse joints shall be sawed at a maximum of sixty (60) foot intervals or such other spacing as directed by the Engineer, as soon as the cut can be made without undue raveling of concrete. Intermediate joints shall be sawed thereafter."

SECTION 39-3.18D TRANSVERSE CONSTRUCTION JOINTS

In line 2 of paragraph 3, delete the words "extra concrete"

SECTION 39-3.18J LONGITUDINAL CONSTRUCTION JOINTS

2nd paragraph, 3rd line, after the words per linear foot add "for each edge."

SECTION 39-3.20G EMULSIFIED ASPHALT

This section shall be deleted.

SECTION 39-3.22 CONCRETE PAVEMENT CONSTRUCTION IN SINGLE LANE

Title shall be amended to read as follows:

CONCRETE PAVEMENT CONSTRUCTION IN SINGLE, DOUBLE
OR MULTIPLE LANES

The following shall be added to the first paragraph:

Concrete pavement shall be constructed in the following manner:

Twenty-five (25) foot paving shall be constructed full width in one operation, unless otherwise authorized by the Engineer. Should the Contractor be allowed to pave a twenty-five (25) foot street in two (2) operations, then the Contractor shall be required to construct a thickened edge section, as shown on Standard Plan.

No separate payment will be made for the thickened edge for 25-foot wide pavement, but the cost shall be included in the price bid for "Cement Concrete Pavement," per square yard.

Thirty-two (32) foot, thirty-six (36) foot, forty (40) foot and forty-four (44) foot pavement sections shall be paved in two (2) operations, with additional compensation for thickened edges, if required. Should the Contractor be allowed to pave thirty-two (32) foot, thirty-six (36) foot, forty (40) foot and forty-four (44) foot pavements in more than two (2) operations, then thickened edges, if required, shall be constructed at no additional expense to the Owner. Pavement widths greater than forty-four (44) feet will be paved as specified in the Special Provisions.

SECTION 39-3.23 CONCRETE BASE PAVEMENT

This section shall be amended as follows:

- | | |
|--------------|-----------------------|
| Item No. (2) | Delete last sentence. |
| Item No. (3) | Delete. |
| Item No. (4) | Amend as follows: |

Dummy or through joints shall be constructed unless otherwise noted in the Special Provisions.

SECTION 39-3.29 EXTRA CONCRETE FOR ALLEY APPROACH RAMP

The 2nd paragraph shall be amended to read as follows:

Payment for placing and finishing such cement concrete ramps above plan grade of alley pavement will be made at the unit price bid per cubic yard for "Extra Concrete for Alley Approach Ramp" for the additional thickness of concrete required for construction of such ramps. Measurement for payment shall be by the cubic yard for the actual amount of extra concrete so placed.

NEW SECTION

SECTION 39-3.30 CEMENT CONCRETE ALLEY PAVEMENT

Cement concrete pavement shall be constructed as shown on Standard Plan No. 104.

NEW SECTION

SECTION 39-3.30A EDGE SUPPORT WALLS FOR ALLEY PAVEMENT

Where called for on the plans or in the Special Provisions, the Contractor shall construct "Type 104B Alley Pavement Edge Wall," as detailed on Standard Plan No. 104B for the concrete section under the pavement base along the edge of the alley pavement, or "Type 104.1 Alley Pavement Support Wall," as detailed on Standard Plan No. 104.1.

Payment shall be as specified under Section 39-4.

After removal of forms, all exposed concrete wall surfaces that will be permanently in view above the ground line shall be finished to a uniform Class 3 surface finish, as specified in Division V, Structural and Related Specifications.

NEW SECTION

SECTION 39-3.30B CURB FOR ALLEY PAVEMENTS

Where types of curb are required along the sides of alley pavement in accordance with the plans or as directed by the Engineer, the curb shall be constructed complete upon the top of the alley pavement and will be paid for as "Cement Concrete Alley Curb, Type 108C" per linear foot.

Construction of curb upon alley pavement shall conform to the applicable requirements therefor specified in Section 40-3.02B.

Measurement for Payment of curb constructed with alley pavement shall be by the linear foot for the actual length of the curb constructed on top of the alley pavement slab. The unit contract price shall be full compensation for all labor, tools, equipment, materials and incidental work necessary to construct the curb complete in place on top of the alley pavement.

NEW SECTION

SECTION 39-3.31 CONCRETE UNDERPINNING

Where directed by the City Engineer, existing concrete foundations left above grade shall be supported with concrete underpinning. Concrete shall be Class 5(3/4).

Measurement and Payment: Payment shall be made at the price bid per cubic yard for "Concrete Underpinning," which will be full compensation for the concrete, forms, excavation and backfilling.

Measurement shall be of the actual amount placed as computed by the City Engineer.

SECTION 39-4 MEASUREMENT AND PAYMENT

Add the following bid items:

- (7) "Type 104B Alley Pavement Edge Wall," per cubic yard.
- (8) "Type 104.1 Alley Pavement Support Wall," per cubic yard.
- (9) "Cement Concrete Alley Pavement, (class, thickness)" per square yard.
- (10) "Concrete Underpinning," per cubic yard.

SECTION 39-4.03 STEEL REINFORCING BARS

Add the following at the end of the 1st paragraph:

Reinforcing steel bars shall be used to reinforce pavement around castings, as directed by the Engineer. Reinforcing steel shall be one-half (1/2) inch round deformed billet steel bars according to ASTM Designation A 615 Grade 40.

NEW SECTION

SECTION 39-4.07 TYPE 104B ALLEY PAVEMENT EDGE WALL

Measurement for payment of "Type 104B Alley Pavement Edge Wall" will be made on the basis of actual computed cubic yards of concrete in the wall section.

The unit contract price per cubic yard shall be full compensation for all labor, tools, materials, equipment and other incidental work necessary to construct complete in place the inverted wall section under the pavement edge simultaneously with the paving operation in accordance with the standard plan and these specifications. Excavation shall be paid for at unit contract price bid for Structure Excavation.

NEW SECTION

SECTION 39-4.08 TYPE 104.1 ALLEY PAVEMENT SUPPORT WALL

Measurement for payment of "Type 104.1 Alley Pavement Support Wall" will be made on a cubic yard basis for the actual length of the wall formed in place in accordance with the details shown on Standard Plan NO. 104.1.

The unit contract price per cubic yard shall be full compensation for all labor, tools, materials, equipment and all necessary incidental work required to excavate and construct the reinforced concrete support wall complete in place below the elevation of the alley pavement sub-grade, in accordance with the dimensions and details shown on Standard Plan No. 104.1.

SECTION 40-3.01D STRIPPING FORMS AND FINISHING

Amend as follows:

2nd line in 2nd paragraph, delete the words "For Type A Curb" and capitalize "the."

SECTION 40-3.01E CURING

Delete the 2nd and 3rd sentences in paragraph two.

SECTION 40-3.02 TYPE A AND TYPE B CURB

Title shall be amended to read CURB.

Delete references to Type A and B in paragraphs one, two and three.

SECTION 40-3.03 TYPE C AND TYPE D LOW CURB

This section shall be deleted.

SECTION 40-3.05 TRANSITIONAL CURB

This section shall be deleted.

SECTION 40-4 MEASUREMENT AND PAYMENT

Delete bid item No. 3.

Add the following at the end of 2nd paragraph:

"and no deductions will be made for driveways."

SECTION 41-4 MEASUREMENT

Amend the entire section as follows:

Measurement for cement concrete driveways will be by the square yard for the class and thickness of driveways actually placed in conformance with the methods shown on the Standard Plans, excluding the area underneath the curb.

SECTION 41-5 PAYMENT

Delete bid items 2 and 3.

SECTION 42-3.01 EXCAVATION AND SUBGRADE

Amend the first sentence in paragraph one to read as follows:

Excavation for sidewalks shall be as described in Section 13-1.01, unless otherwise provided for in the Special Provisions.

The following paragraphs shall be added to this section:

Quantities for the earthwork shall be computed to the top surface of the sidewalk and no additions or deductions shall be made for the volume of the sidewalk. Payment for the quantities of earthwork involved in the sidewalk subgrade and the preparation of the subgrade shall be included in the unit price bid for "Cement Concrete Sidewalk."

It is expected there will be sufficient suitable native material excavated from various portions of the improvement to fill low areas in the sidewalk subgrade and planting strip area when needed and no further payment will be allowed for fill material.

The Contractor shall estimate for himself the amount of earthwork involved in excavating below the top surface of the sidewalk including subgrading and for excavation of planting strip area.

SECTION 42-3.03 PLACING AND FINISHING CEMENT CONCRETE SIDEWALK

Add the following at the end of the 4th paragraph:

"or to match adjacent existing sidewalk."

SECTION 42-3.03A DEPRESSED CURB (WHEELCHAIR RAMP)

Add the following:

The wheel chair ramp shall be measured and paid for as "Cement Concrete Sidewalk" and shall include the necessary earthwork.

The depressed curb shall be measured and paid as "Cement Concrete, Curb, Type 108C."

NEW SECTION

SECTION 42-3.05 SIDEWALK DRAINS

Where shown on the construction plans for sidewalks or directed by the Engineer, four (4) inch approved drain pipe shall be placed under the sidewalk in one length and extended across the planting area to the roadway gutter line, or through curb if existing, as shown on Standard Plan No. 117.

The horizontal slope angle of the four (4) inch drain pipe, between the inlet elevation of the back section to provide positive drainage, will be established in the field by the Engineer at the time of excavating for the sidewalk construction.

Sidewalk drain pipe will be paid for on a basis of linear feet for inlet depths at the gravel pocket.

The unit contract price shall include all labor, tools, drain in accordance with the details shown on the standard plan, including an excavation at the inlet end of the pipe to make a gravel pocket corresponding to that shown on the standard plan, Section A-A, that is a minimum of three (3) feet in length parallel to the back of the sidewalk.

NEW SECTION

SECTION 42-3.06 EXPANSION AND CONTRACTION JOINTS

Standard locations for expansion joints for sidewalks are:

- (1) At street margins produced and at thirty (30) feet or twenty-eight (28) feet intervals for Type A or B as shown on Standard Plan No. 114.
- (2) To separate concrete driveways, stairways and their landings from sidewalks as shown on Standard Plans Nos. 106, 107 and 115, respectively.

- (3) Around the vertical barrel of fire hydrants, around utility poles and large diameter underground utility cover castings when located in the sidewalk area.
- (4) Longitudinally between concrete walks, curbs, paved planting strips and solid masonry or concrete walls where they abut.

No payment will be made for furnishing and placing expansion and contraction joint materials for cement concrete sidewalks. All costs therefor shall be considered incidental to the construction and included in the unit bid contract prices of the proposal for sidewalk.

Payment for extra concrete placed as shown on the standard plan. Section B-B will be made at the unit contract price for "Thickened Edge for Sidewalk."

Transverse and longitudinal expansion joints as shown on the Standard Plans shall be three-eighths (3/8) inch thickness premolded non-extruding joint material, cut to a width equal to the full depth of the concrete where located, plus one-half (1/2) inch. When installed, they shall be placed with top edge one-eighth (1/8) inch below the finished surface of the concrete, in a perpendicular plane to the surface and with the bottom edge embedded in the subgrades. All joints shall be in straight alignment, except where placed in curved locations as required by the construction plans.

Contraction joints for sidewalks shall conform to the applicable requirements for expansion joints for pavement except for thickness of joint material being three-sixteenth (3/16) inch and width of two (2) inches. The top edge shall be one-eighth (1/8) inch below the finished surface of the sidewalk.

SECTION 42-5 PAYMENT

Add the following bid item:

7. "4-inch Sidewalk Drain (Depth)," per linear foot.

SECTION 43 CEMENT CONCRETE COMBINED SIDEWALK CURB AND GUTTER

Amend title to read:

SECTION 43 CEMENT CONCRETE COMBINED SIDEWALK, CURB, GUTTER AND MONOLITHIC CEMENT CONCRETE CURB AND SIDEWALK

SECTION 43-4 MEASUREMENT

Add the following paragraph:

Measurement for monolithic cement concrete curb and sidewalk shall be from the face of curb to back edge of sidewalk as shown on Standard Drawing 114.1.

SECTION 50-3.02 PRECAST CONCRETE MONUMENTS

This section shall be deleted in its entirety.

SECTION 50-3.03 POURED MONUMENT

This section shall be deleted in its entirety.

SECTION 50-4 MEASUREMENT AND PAYMENT

Delete bid items 1, 2 and 4.

In the 2nd paragraph, fourth line, delete the words "monuments and."

SECTION 52 - REMOVAL OF EXISTING STREET IMPROVEMENTS

Amend title to read as follows:

SECTION 52 - REMOVE, RELOCATE OR ABANDON EXISTING STREET IMPROVEMENTS

SECTION 52-2.01 GENERAL

Delete the 2nd paragraph.

SECTION 52-2.02 REMOVAL OF PAVEMENT

This section shall be amended as follows:

Existing pavement such as concrete, brick, cobblestone or combinations of the various materials including asphalt which constitute a rigid type of pavement and which is four (4) inches or more in thickness, shall be removed as shown on the plan or directed by the Engineer.

In the removal of pavement for the purpose described above, extreme care shall be taken to prevent damage to any pavement that is to remain in place and to leave vertical cleavage planes in order that the paved surface will be as durable as before it was disturbed.

If Contractor elects to saw-cut the concrete pavement, the depth of saw-cut shall be one-half the depth of the pavement.

If Contractor elects to line drill the concrete pavement, the spacing shall be on 6-inch maximum centers and the drill holes shall be perpendicular to the surface.

No separate payment will be made for sawing or line drilling and the cost thereof shall be included in the prices bid for the various items comprising this improvement.

Pavement breakers such as a "headache ball" shall not be used and paving breakers shall be of such types as will not damage any of the utility installations and shall be approved by the Engineer before use.

Removal of existing non-rigid pavement, such as bituminous mixes as a surfacing upon earth or granular subgrades shall be removed as common excavation, except as may otherwise be provided in Special Provisions.

SECTION 52-2.02A PAVEMENT REMOVAL, CLASS A

This section shall be deleted in its entirety.

SECTION 52-2.02B PAVEMENT REMOVAL, CLASS AA

This section shall be deleted in its entirety.

SECTION 52-2.02C PAVEMENT REMOVAL, CLASS B

This section shall be deleted in its entirety.

SECTION 52-2.02D PAVEMENT REMOVAL, CLASS C

This section shall be deleted in its entirety.

SECTION 52-2.07 REMOVAL OF CATCH BASINS, MANHOLES, CURB
INLETS, SUMPS, ETC.

Title to be amended as follows:

SECTION 52-2.07 ABANDON, REMOVE OR RELOCATE EXISTING
MANHOLES, CATCH BASINS, INLETS AND SANDBOXES

The first two paragraphs of this section shall be amended as follows:

Where existing manholes, catch basin, inlets or sandboxes are noted on the Plans or directed by the Engineer to be removed, relocated or abandoned, the Contractor shall carry out the task in the manner outlined in Section 52-2.07A, B and C. Payment for removing, relocating or abandoning existing manholes, catch basins, inlets or sandboxes shall be made in accordance with the bid items in the Proposal.

Where existing manholes, catch basins, inlets or sandboxes are located within the neat line of a trench excavation and are noted for removal or abandonment on the plan or when directed by the Engineer, the Contractor shall remove such structure at no cost to the City. The removal of any such structure within the neat line of a trench excavation including time and material required to properly plug all pipe openings with Class 5 (3/4) concrete, shall be considered as incidental to the cost of constructing the new facility.

Delete the third paragraph.

NEW SECTION

SECTION 52-2.07A ABANDON EXISTING IMPROVEMENT

SECTION 52-2.07A1 ABANDON EXISTING MANHOLE

Where noted on the plans as "Abandon Existing Manhole," the Contractor shall break down the top two feet below grade of the existing manhole, remove casting and plug the existing sewerpipe openings longitudinally in the pipe 12 inches with Class 5 concrete as elsewhere herein specified. The remainder of the manhole shall then be filled with Type 9 or Type 17 aggregate compacted to the satisfaction of the Engineer. Pavement patching shall be in accordance with Section 54.

NEW SECTION

SECTION 52-2.07A2 ABANDON EXISTING CATCH BASIN

The work required at all catch basins indicated to be abandoned shall include the dewatering and removal of debris from the catch basin structure, breaking down the structure to a depth of two (2) feet below the surface and disposing of all debris and salvageable material.

The existing outlet pipe shall be plugged by filling with Class 5 (3/4) concrete for a minimum longitudinal length of twelve inches. The remaining structure and void shall be filled with Type 9 or Type 17 mineral aggregate thoroughly compacted to preclude settlement.

Pavement patching shall be in accordance with Section 54.

NEW SECTION

SECTION 52-2.07A3 ABANDON EXISTING INLET

The work required at all inlets indicated to be abandoned shall include the removal of the existing grating, plugging of the outlet pipe by filling with Class 5 (3/4) concrete for a minimum length of 12 inches. The inlet shall be filled with Class 5 (1-1/2) H.E.S. concrete. The surface of the concrete shall match the grade of the existing paving and shall be brush-finished.

NEW SECTION

SECTION 52-2.07B REMOVE EXISTING IMPROVEMENTS

SECTION 52-2.07B1 REMOVE EXISTING MANHOLE

The work required at all manholes indicated for removal shall include the removal of the existing frame and cover and disposal of the manhole structure. All connecting pipes shall be plugged by filling with Class 5 (3/4) concrete for a minimum longitudinal length of 12 inches. The remaining void shall be filled with suitable material as directed by the Engineer and thoroughly compacted to preclude settlement.

Pavement patching shall be in accordance with Section 54.

NEW SECTION

SECTION 52-2.07B2 REMOVE EXISTING CATCH BASIN

The work required at all catch basins indicated for removal shall include the removal of the existing frame and cover, existing outlet trap and disposal of the catch basin structure. All connecting pipes shall be plugged by filling with Class 5 (3/4) concrete for a minimum length of 12 inches. The remaining void shall be filled with suitable material as directed by the Engineer and thoroughly compacted to preclude settlement.

Pavement patching shall be in accordance with Section 54.

NEW SECTION

SECTION 52-2.07B3 REMOVE EXISTING INLET

The work required at all inlets to be removed to accommodate the installation of new catch basins and inlets shall include the removal of the existing grating and casting and removal of the concrete encasement. The casting and encasement may be removed in one unit and disposed of as excess material. If the inlet casting is separated from the encasement, the castings shall be salvaged as specified in Section 52-2.08.

The existing outlet pipe shall be removed as required for installation of the new catch basin or inlet and new connecting pipe.

NEW SECTION

SECTION 52-2.07C RELOCATE EXISTING IMPROVEMENTS

SECTION 52-2.07C1 RELOCATE EXISTING MANHOLE, CATCH BASIN OR INLET

Work required for relocation of existing manholes, catch basins or inlets shall be as specified in Sections 52-2.07B1, 52-2.07B2 and 52-2.07B3, for removal. Installation of these existing facilities at the new location, shall be done in accordance with the appropriate specifications outlined in Sections 63 and 64.

SECTION 52-2.08 SALVAGE

Add the following paragraph:

In all streets where stone blocks are encountered beneath asphalt surfacing, the Contractor will take necessary steps to remove stone blocks and asphalt before cutting or drilling through concrete base. Contractor shall carefully remove with proper scooping equipment, the stone blocks and asphalt and haul them to the City's South Transfer Station. Prior to delivery, the Engineer shall be notified in advance and arrangements will be made to have a representative of the Engineering Department at the station. The Contractor will be responsible to see that all stone blocks encountered are delivered as specified above.

SECTION 53-2.03 CONTRACTOR TO SCHEDULE WORK

Delete the 2nd sentence.

SECTION 53-3.01A GENERAL

This section shall be amended to read as follows:

Adjustment of cover casting for the subject structures to final grade when for new work constructed in conjunction with the project shall be incidental to their construction and no separate payment therefore will be made; provided, however, that when the new construction has been completed by the Contractor to a final grade as set by the Engineer and such final grade is subsequently revised by the Engineer, then the change necessary shall be made as an adjustment and paid for in accordance with the following specifications for the adjusting of existing utility structures which payment would be in addition to the original new construction payment.

Adjustment payment shall be at the bid price whenever the required adjustment consists of raising or lowering the top of the existing structure to place the cover casting to a new grade, provided the vertical adjustment does not exceed twenty (20) inches and the sizes of the structure opening remains the same. When the vertical adjustment exceeds twenty (20) inches or results in a change in the size of the structure opening, payment will be in accordance with the following provisions.

- (a) Downward Adjustment: When the required adjustment is downward in excess of twenty (20) inches and cannot be made to conform to the requirements for new construction and is not otherwise provided for on the Proposal plans or Special Provisions, the lowering work shall be performed by the Contractor as directed by the Engineer and paid for on the basis of extra work as provided in Section 9.03.

Where adjustment is downward more than twenty (20) inches and can be made in conformance with the requirements for new work and involves removing the structure precast cone, or flat side reducing section and reinstalling to conform to the new final grade, the adjustment shall be completed by the Contractor and additional payment in addition to payment for adjusting will be made on the basis of linear feet for all original vertical height of the structure removed in excess of eight (8) inches to make the adjustment in accordance with new work requirements as "shafting" of the maximum diameter removed.

- (b) Upward Adjustment: Where adjustment is upward in excess of twenty (20) inches and the existing precast cone or flat slab reducing section is

removed and reinstalled at the new grade in conformance with requirements for new construction, additional payment, in addition to payment for adjusting, on the basis of linear feet will be made for all height in excess of twenty (20) inches as "shafting" of the maximum diameter installed.

The above conditions, as described for a structure constructed with precast sections, shall likewise apply for such structures constructed with masonry blocks or bricks in mortar and cast-in-place concrete structures."

SECTION 53-3.01C CEMENT CONCRETE PAVING PROJECTS

Reference to Section number in the third line shall be amended to read "SECTION 53-3.01A."

SECTION 53-4.06 ADDITIONAL DEPTH SHAFTING FOR EXISTING MANHOLE

Amend title to read as follows:

SECTION 53-4.06 SHAFTING

This section shall be amended to read as follows:

The unit contract price for "Shafting" per linear foot of the diameter involved, as described in Section 53-3.01A for completing adjustment construction for manholes, catch basins and valve chambers, shall be full compensation for completing the upward or downward change in the existing structure shafting as required, which payment will be in addition to payment for adjusting the existing cover casting to final grade.

SECTION 57-2 CONSTRUCTION DETAILS

The following shall be added after the fifth paragraph:

The Owner will not clean existing catch basins involved on any improvement, after award of contract by the Board of Public Works.

The Contractor shall accept the condition of all existing catch basins involved on the improvement and shall maintain them for the duration of the contract in a manner satisfactory to the Engineer.

The Engineer shall note defective parts found on the existing catch basins prior to construction operations by the Contractor on any area of the improvement. Where directed by the Engineer, the Contractor shall make the required repairs to the existing catch basins and full compensation therefore will be made by appropriate bid items included in the Proposal of this contract or as provided in Section 9.04.

Delete the last two sentences in paragraph nine and substitute the following:

Water for flushing will be furnished at no cost to the Contractor in accordance with the applicable provisions of Section 5-1.13.

Sidewalks shall be cleaned by hand-brooming in conjunction with water if necessary.

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DIVISION III - SANITARY SEWERS AND STORM DRAINS

Section 60-3.01B CONCRETE PIPE, REINFORCED

Add the following at the end of the 3rd paragraph:

"The pipe shall be tested by the three-edge bearing method in accordance with ASTM C497."

Section 61-2 CLASSIFICATION

This section shall be deleted.

Section 61-2.01 TRENCH EXCAVATION AND BACKFILL, CLASS A

This section shall be deleted.

Section 61-2.02 TRENCH EXCAVATION AND BACKFILL, CLASS B

This section shall be deleted.

Section 61-2.03 TRENCH EXCAVATION AND BACKFILL, CLASS C

Title shall read:

Section 61-2.03 "TRENCH EXCAVATION AND BACKFILL IN SOLID ROCK"

In the first line of paragraph one, change the words "Class C" to "Solid Rock Excavation."

Section 61-3.01 EXCAVATION

In the 2nd paragraph after the word follows:, add the following:

(See standard drawing on Typical Trench Section)

Section 61-3.03A FOUNDATION PREPARATION

Method 2 Ballasting:

The last paragraph shall be amended as follows:

Where foundation material is required and is so indicated on the plans, all costs for its procurement and placement, including removal and disposal of the unsuitable material, shall be included in the unit contract price for "Foundation Material." Where foundation material is not shown on the plans and no bid item is included in the proposal, and it is determined by the Engineer that foundation material is required, payment for furnishing and placing the material, including removal and disposal of the unsuitable material, will be made in accordance with Section 9-1.03.

Section 61-3.03C BEDDING FOR RIGID CONDUITS

Delete the last sentence in the 3rd paragraph.

Section 61-3.03 C2 CLASS B BEDDING

In the 3rd line of the 2nd paragraph, change 27" to 30."

In the 8th line of the 2nd paragraph, change "springline" to "a point 6" above the top of the pipe."

Section 61-3.03 C3 CLASS C BEDDING

In the last line of the paragraph, change "lower quadrant" to "springline."

Section 61-3.03 C5 MATERIALS

Delete the entire section and add the following:

Materials shall be as indicated on the standard plans.

Section 61-3.05 BACKFILLING FOR SEWERS AND DRAINS

Delete the last paragraph.

Section 61-3.06A WATER SETTLING

This section shall be amended as follows:

Water settling will not be permitted, unless authorized in writing by the Engineer.

Section 61-3.06B MECHANICAL COMPACTION

The 1st paragraph shall be amended as follows:

When mechanical compaction is specified, backfill shall be placed in lifts of 12-inches or less and each lift shall be compacted to at least 95% of the maximum density as determined by the Compaction Control Test specified in Section 13-3.10E5. Water settling will not be permitted.

Section 61-3.07 BANK RUN GRAVEL FOR TRENCH BACKFILL

In the 6th and 7th lines of the paragraph, delete the wording "Bank Run Gravel, Class A or Class B as specified in Section 26-2" and substitute the wording "Type No. 17 Mineral Aggregate as specified in Section 20."

Section 61-3.11 TOP SOIL REMOVAL AND REPLACEMENT

Amend the entire paragraph as follows:

Removal of top soil and replacement of it shall be performed in accordance with the provisions of Section 55. Where no bid item is taken, the cost shall be considered as incidental to the contract.

Section 61-3.12 LAWN REMOVAL AND REPLACEMENT

Amend the entire paragraph as follows:

Removal of lawn and the replacement of it shall be performed in accordance with the provisions of Section 56. Where no bid item is taken, the cost shall be considered as incidental to the contract.

Section 61-4.01B MEASUREMENT BY THE CUBIC YARD

In the 1st paragraph under "width," delete both sentences and make reference to Section 61-3.01. Under "Depth," revise as follows: "The vertical measurement shall be for the actual compacted depth of imported backfill material placed."

Delete the 2nd paragraph pertaining to measurement.

Section 61-4.01C UNEXPECTED OBJECTS

This section shall be amended as follows:

Where unexpected objects such as stumps, railroad ties, buried pavement, etc. are encountered in the trench excavation and such unexpected objects causes the contractor delays and requires extra work or equipment for its removal and disposal, Section 4-1.05 shall apply.

Section 61-4.04 FOUNDATION MATERIAL

Amend this section as follows:

Foundation material will be measured by the cubic yard as determined by cross section based on the trench width as specified in Section 61-4.01B.

Section 61-4.07 COMPACTING EQUIPMENT

This section shall be deleted.

Section 61-5 PAYMENT

This section shall be amended as follows:

Bid Items Nos. 1 through 8 shall be deleted.

Bid Item Nos. 9 and 10 shall be replaced by the following:

"Bank Run Gravel for Trench Backfill, Type No. ()," per cubic yard.

Bid Item Nos. 11, 12 and 13 shall be replaced by the following:

"Pipe Bedding (Class) (Size) Pipe," per linear foot.

Bid Item Nos. 15, 16, 17, 18, 19 and 20 shall be deleted.

Section 62-3.10 TESTING FOR ACCEPTANCE

Title of this section was inadvertently omitted. Place title immediately following the one sentence in Section 62-3.09B.

Section 62-3.10D AIR PRESSURE TEST FOR SEWERS AND STORM DRAINS CONSTRUCTED OF AIR-PERMEABLE MATERIALS

Delete the 2nd sentence under Item No. 2.

Section 62-4 MEASUREMENT

In the 4th line of the 1st paragraph after "center of" add the words "new or re-channelled."

In the 5th line of the 1st paragraph after the word "structures" add the words "or to manholes not channelled."

Add the following sentence:

Measurement for sewer payment is shown in diagram on Standard Plan No. 179.

Section 63-2.09B PRECAST MANHOLE SECTIONS

The 1st paragraph shall be amended as follows:

Standard precast sections shall consist of circular sections, in standard nominal inside diameters, 36", 48", and 72". Heights of sections shall be multiples of 12" at option of the manufacturer, excepting however, that each manufacturer shall produce at least three standard heights in each standard diameter. The nominal thickness of the 36" and 48" sections shall be 4", and the nominal thickness of the 72" sections shall be 6".

The following shall be added after the amended 1st paragraph:

Reinforcement for standard sections shall consist of a single cage of steel, placed at the approximate center of the wall of the section. The 36" and 48" standard sections shall have not less than 0.12 square inches, and the 72" standard sections not less than 0.17 square inches of circumferential steel per linear foot. The cage shall be circumferential steel per linear foot. The cage shall be welded at every circumferential wire, or lapped 40 diameters and tied. The welded splice shall develop a tensile strength of 50,000 psi of wire diameter.

Joints between sections shall be tongue and groove, and shall provide 1/2" nominal annular space and a minimum of 1-1/4" lap.

No more than two lift holes shall be cast into each section. Holes shall be so located as to not damage reinforcing or expose it to corrosion. At the manufacturer's option, steel loops may be provided for handling, in lieu of lift holes.

Section 63-2.09C PRE-CAST CONES

In the second line, change "86" to "36".

Section 63-3.02 BEDDING

This section shall be amended as follows:

Manholes constructed with precast base sections, unless otherwise provided in the special provisions or directed by the Engineer, shall be placed to grade upon a four inch (4") thickness of Type No. 9 mineral aggregate of Section 20, mixed with four (4) sacks of portland cement per cubic yard of mineral aggregate, with sufficient water added to form a stabilized layer. The mixed material shall be placed across the entire width of the manhole base excavation and leveled so as to provide bearing contact with the entire bottom area of the precast base section.

Section 63-3.07 MONOLITHIC CONCRETE MANHOLES

Delete reference to "Type IV" in the 1st line of the paragraph.

Section 63-3.11 CHANNELS

Add the following paragraph:

Where necessary or noted on the plans, the contractor shall rebuild the channel of the existing manhole in such a manner as will provide for flow of sewage through the manhole bottom to the new pipe sewer. All costs incurred in re-channeling of existing manholes shall be considered as incidental to the contract, unless a bid is taken for this work.

Section 63-3.12 PIPE CONNECTIONS

In the 2nd line of the paragraph, delete the figure "1" after the word "within."

In the 3rd line, add the words "outside face" just ahead of "manhole structure."

After the first sentence, add the following:

No flexible joint will be placed closer than twelve (12) inches from the outside face of the manhole.

Delete the last sentence.

Section 64-2.02 TRAPS

Amend as follows:

Traps shall be constructed in accordance with the Standard Drawing.

Section 66-5 PAYMENT

Delete bid item No. 3.

Add the following bid item:

"Test Tees, (size)," per each.

Section 67-2.01 PIPE BED

Amend the 1st paragraph as follows:

The area upon which the embankment for the pipe bed is to be placed shall be stripped to the extent as directed by the Engineer and the cost thereof will be included in the cost of the pipe.

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DIVISION IV - WATER DISTRIBUTION

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DIVISION IV WATER DISTRIBUTION

Section 72-2.08 PIPE FITTINGS

Section 72-2.08A CAST IRON

This section shall be amended as follows:

After the first four words in the paragraph, "All cast iron fittings," add the words "except sleeves."

After the first sentence, add the following:

"Sleeves shall be of the long body type (10" minimum length) and shall conform to the above mentioned specifications."

Section 73-1.03 REMOVAL OF PAVEMENT FROM DRIVEWAYS AND SIDEWALKS

This entire section shall be amended to read as follows:

Removal of existing street improvements shall be performed as specified in Section 52.

Section 73-1.04 GRADE AND ALIGNMENT

First paragraph, 2nd sentence. At the end of the sentence, delete the words "special provisions" and substitute the words "standard plan."

Section 73-1.05 LOCATING AND MARKING UNDERGROUND UTILITIES

Change reference to Section Nos. to read "See Sections 5-1.09 and 5-1.10."

Section 73-2 TRENCH EXCAVATION

The 1st sentence in the 3rd paragraph shall be amended to read as follows:

"Work shall comply with the requirements of the Washington Industrial Safety and Health Act of 1973 (WISHA)."

Section 73-2.02 SOLID ROCK EXCAVATION

Delete the 1st paragraph and refer to Section 61-2.03.

At the end of the 3rd paragraph, change reference to Section 73-3.03 to read "Section 9-1.04."

Section 73-2.04 UNFORSEEN BURIED OBJECTS ENCOUNTERED IN TRENCH
EXCAVATION ON GRADED STREETS

Delete this entire section and refer to Section 61-4.01C.

Section 73-2.07 COMPACTION OF BACKFILL

In the last line of the 1st paragraph, delete the words "water settling or."

Section 73-2.07A WATER SETTLING OF TRENCHES

This section shall be deleted.

Section 73-2.07B EQUIPMENT FOR WATER SETTLING TRENCHES

This section shall be deleted.

Section 73-2.07C SOURCE OF WATER FOR WATER SETTLING

This section shall be deleted.

Section 73-2.07D COMPACTION OF BACKFILL UNDER SPECIAL CONDITIONS

This section shall be amended to read as follows:

At locations where paved streets, driveways or sidewalks will be constructed or reconstructed over the trench, or where provided for in the special provisions or directed by the Engineer, the backfill shall be spread in layers and compacted as specified in Section 61-3.06.

Section 73-2.08 BANK RUN GRAVEL FOR TRENCH BACKFILL

In the first paragraph, delete the words "Class A or Class B" and change reference to Section 26 to Section 20.

Section 73-3.02 TRENCH EXCAVATION AND BACKFILL

Amend entire section as follows:

Full compensation for "Trench Excavation and Backfill" shall be regarded as included in the unit prices bid per linear foot for "Watermain" of the various sizes and classes as listed in the proposal, except where bank run gravel is ordered by the Engineer.

Section 73-3.03 SOLID ROCK EXCAVATION

Amend entire section as follows:

Payment for "Solid Rock Excavation" will be made in accordance with Section 9-1.04.

Section 73-3.04 REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL

Delete the 1st paragraph.

In the 2nd paragraph, 1st line, after the word "available" add the words "as outlined in Section 73-2.05."

Amend the 3rd paragraph as follows:

The cost of compaction of suitable replacement material shall be included in the various items comprising the improvement.

Section 73-3.05 MECHANICAL TAMPING

This section shall be deleted.

Section 73-3.06 BANK RUN GRAVEL FOR TRENCH BACKFILL

In the 2nd paragraph, delete the last sentence and add the following:

"Payment for mechanical tamping or other approved method of compaction shall be included in the unit price bid for the material in place."

"Payment shall also include the cost of disposing of the unsuitable material."

Section 74-2.10 CONNECTIONS TO EXISTING MAINS

Add the following at the end of the 1st paragraph:

The contractor shall furnish the necessary excavation and material handling equipment and shall be available to assist in making the connection.

Section 74-2.12 FIELD TESTS

Delete the 2nd sentence in the 4th paragraph.

In the 5th paragraph, delete the word "gate" found in the 2nd, 3rd and 5th lines.

Section 74-2.12A TESTING SECTION WITH HYDRANTS INSTALLED

Amend Test No. 3 as follows:

Each hydrant shall be tested in accordance with requirements outlined in Section 74-2.12.

Section 74-2.12B TESTING EXTENSIONS FROM EXISTING MAINS

Delete the word "gate" in lines 2, 3, 5, 9 and 11 in paragraph one, lines 2, 6, 8 in paragraph two, and lines 2, 4 and 6 in paragraph three.

Section 74-2.13A FLUSHING

Amend the 1st sentence in the 2nd paragraph as follows:

Taps required for chlorination or flushing purposes will be furnished and installed by the Utility.

Section 74-3.02 PAYMENT FOR WATER MAINS AND WATER SERVICE CONNECTIONS

Amend the 2nd paragraph as follows:

Special Fittings used but not called for on the plans, will be paid for at the supplier's invoice cost plus 15% for overhead and profit. Special fittings called for on the plans but not used will be deducted from the Contractor's final estimate based on the current cost of the supplier of fittings used on the improvement.

Amend the 3rd paragraph as follows:

Pipe line accessories such as hydrants, hydrant connections, gate valves, etc., will be paid for separately as provided in Sections 77 and 75. Excavation and backfilling of trenches shall be incidental to the construction and shall be included in the various unit prices bid for pipe line accessories.

Section 74-3.05 TRENCH EXCAVATION AND BACKFILL FOR WATER SERVICE CONNECTIONS

This section shall be deleted.

Section 74-4 UNIT PRICE METHOD OF PAYMENT FOR WATER DISTRIBUTION MAIN CONSTRUCTION

This section shall be deleted.

Section 74-4.01 MEASUREMENT OF WATER MAINS FOR UNIT PRICE PAYMENT

This section shall be deleted.

Section 74-4.02 PAYMENT FOR WATERMAIN CONSTRUCTION UNDER UNIT PRICE METHOD

This section shall be deleted.

Section 75-1 DESCRIPTION

The last sentence in the 2nd paragraph shall be amended as follows:

All valves shall open counterclockwise.

3rd paragraph: Amend AWWA C504-70 to read AWWA C504-74.

The following paragraph shall be added:

The Owner will accept only gate valves of the following manufacturers as approved by the Board of Standardization conforming to these specifications:

Rensselaire, Stockham, Ludlow, Iowa, M & H, Darling, Crane, Pacific States, RP & C, Mueller and Kennedy in sizes twelve (12) inch or less, and any other approved by the Board of Standardization prior to the date of contract.

Section 76-1 DESCRIPTION

2nd line, 1st paragraph, delete the words "cast iron."

2nd line, 2nd paragraph, delete the word "gate."

3rd line, 2nd paragraph, delete the words "cast iron."

NEW SECTION

Section 76-2.01A PLASTIC VALVE BOXES

Plastic valve boxes shall be two piece, adjustable telescoping type with metal lid and flange or ring portion. They shall be suitable for use with 2" through 12" AWWA double disc, non-rising stem valves. Boxes shall be adjustable in length from a minimum of 28" to a maximum of 40". Minimum diameter of interior of either section shall be 6". Extension sections shall be available. Acceptable valve boxes shall be those manufactured by Handley Industries, Inc., Plymouth, or equal, and shall meet requirements as detailed on the standard drawing.

Section 76-3.06 CAST IRON VALVE BOXES

Amend title to read: Section 76-3.06 VALVE BOXES

1st sentence, 1st paragraph, delete the words "cast iron."

2nd and 3rd sentences, 1st paragraph, delete the word "gate."

1st sentence, 2nd paragraph, delete the words "cast iron."

3rd and 7th sentences, 2nd paragraph, delete the word "gate."

Section 76-4.01 PAYMENT FOR VALVE CHAMBERS

4th sentence, 2nd paragraph, delete the words "cast iron."

Section 76-4.02 PAYMENT FOR CAST IRON VALVE BOXES

Amend title to read: Section 76-4.02 PAYMENT FOR VALVE BOXES

1st and 4th sentences of the paragraph, delete the words "cast iron."

Section 77-2.05 HYDRANT DIMENSIONS

The 1st line of the section shall be amended to read as follows:

The dimensions and details shall be as shown on the standard drawings.

Section 77-2.07 SHACKLING LUGS

This section shall be amended as follows:

Lugs for harnessing the hydrant to the main in the street shall be provided as shown on the standard drawings.

Section 77-2.10 PAINTING

2nd paragraph shall be amended to read as follows:

"The outside of the hydrant above the finished ground line after backfilling is completed, shall be thoroughly cleaned and then painted with one (1) coat of Hydrant Green paint, Farwest Paint Co., X-158, or equal."

Section 77-3.01 SETTING HYDRANTS

Add the following paragraph:

Hydrant shackle rods, if used, shall be thoroughly cleaned and painted, after installation, with 2 coats of asphalt varnish, as specified in Section 77-2.10, or with such other bituminous paint as may be authorized by the Engineer.

Section 77-3.02 HYDRANT CONNECTIONS

This section shall be deleted.

Section 77-3.02A SHACKLE RODS

This section shall be deleted.

Section 77-3.02B AUXILIARY VALVES

All auxiliary valves shall conform to Section 75 in all respects and shall be installed in accordance with the standard drawing.

Section 77-3.04 MOVING EXISTING HYDRANTS

In the next to the last sentence, delete the following words:

"for hydrant setting Type A and Type B."

NEW SECTION

Section 77-3.07 RETAINING WALLS FOR HYDRANTS

Where directed by the Engineer, the contractor shall furnish and place broken concrete sidewalk slabs or rockery rock for bulkheads around hydrants in accordance with the standard drawing.

The broken concrete slabs shall be a minimum of 3-1/2 inches in thickness and not less than 3 feet x 3.5 feet in size. The slabs shall be set in level layers of the same thickness and the exposed face shall be as smooth as the shape and size of the slabs will permit.

The rockery rock shall be sound quarried rock, durable, free of cracks and the source of rock shall be approved by the Engineer before placement.

The backfill behind the slab or rockery shall be compacted earth from the job site as approved by the Engineer.

Measurement and Payment: Payment will be made at the unit price bid per square foot for, "Retaining Wall for Hydrant," which shall be full compensation for all labor, material and equipment to place the rockery rock or slab concrete in place.

Measurement shall be on the front face area in place.

Section 77-4.01 PAYMENT FOR FIRE HYDRANTS

This section shall be amended to read as follows:

Payment will be made at the unit contract price per each for "Hydrant, Six (6) Inch Connection" which shall be full compensation for the hydrant in place. As incidental thereto, the contractor shall include in his unit contract prices of hydrants all costs of every kind for six (6) inch auxiliary valves, valve boxes, castings, shackles, tie rods, pair blocks, coarse gravel, painting, and other items required for the complete installation of the hydrant as specified, excepting however, that the six (6) inch pipe connecting the hub and flange casting to the main will be paid for at the unit contract price per linear foot for "Hydrant Connection."

Section 78-1 GENERAL

The 1st paragraph shall be amended to read as follows:

Surface improvements such as pavement curb, curb and gutter and other like surface facilities that have been removed during the construction of water mains, shall be restored by the contractor as outlined in Sections 52 and 54.

The 2nd paragraph shall be deleted.

Section 78-2.01 REMOVAL OF EXISTING STREET IMPROVEMENTS

This section shall be amended as follows:

Removal and disposal of existing street improvements shall be done in accordance with Section 52.

Section 78-2.02 RESTORATION OF EXISTING STREET IMPROVEMENTS

Amend the 1st paragraph as follows:

Restoring of existing street improvements shall be as specified in Sections 52 and 54.

The 2nd and 3rd paragraphs shall be deleted.

Section 78-3.01 EXISTING STREET IMPROVEMENTS

The end of the first sentence shall be amended to read as follows:

"payment will be limited as specified in Section 73-2."

The 2nd sentence shall be amended as follows:

"Any surfaces requiring restoration outside of this limit which is removed or damaged by the contractor, shall be restored by him at his own expense."

Section 78-3.02 CEMENT CONCRETE CURB, CURB AND GUTTER

The 2nd sentence in the 1st paragraph shall be amended as follows:

"Measurement for payment will be restricted as outlined in Section 73-2."

The remainder of the section shall be deleted.

NEW SECTION

Section 79 WATER DISTRIBUTION PAY ITEMS

Payment will be made at the unit contract price for such of the following bid items as are included in the proposal:

1. Clearing and Grubbing, per Lump Sum
2. Mobilization, per Lump Sum
3. (Gate or Butterfly) Valve, (size), per Each
4. Valve Chamber, Standard, per Each
5. Valve Chamber, Large, per Each
6. Valve Chamber Throat Extension, per Linear Foot
7. Valve Box, per Each
8. (size (type) (class) Watermain including Fittings, per Linear Foot
9. Hydrant, (size) Connection, per Each
10. (size) (type) (class) Hydrant Connection Pipe, per Linear Foot
11. Hydrant Extension Vertical, per Pound
12. Hydrant Extension Horizontal, per Pound
13. Resetting Existing Hydrants, per each
14. Moving Existing Hydrants, per each
15. Reconnecting Existing Hydrants, per each
16. 1-1/2-inch Blow-off Assembly, per Each
17. 1-1/2-inch Copper Pipe, per Linear Foot
18. Concrete Blocking, in place, per Cubic Yard
19. Retaining Wall for Hydrant, per Square Foot

Trench excavation and backfill and removal and replacement of existing improvements shall be accomplished in accordance with the provisions of Division III, except that pipe bedding will not be used.

The cost of items not listed in the proposal shall be considered as incidental to the contract and no separate payment shall be made therefore.

CITY OF SEATTLE

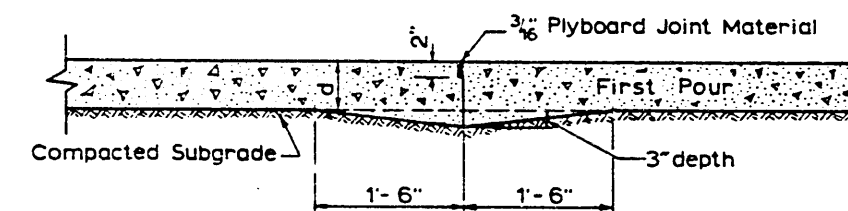
**Standard Plans
Tenth Edition**

Note: Standard Dwg. Nos. 122, 136, 137, 156, 158, 168, 169, 170, 178, 193 and 207 listed below can be found in the 1975 APWA book under APWA Dwg. number indicated.

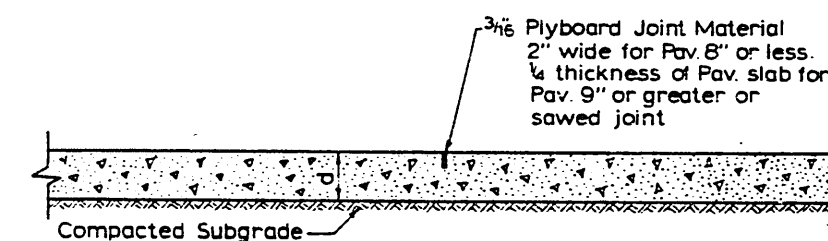
DIVISION VII STANDARD PLANS

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102	Arterial Pavement Sections
103	Residential Pavement Sections
104	Cement Concrete Alley Pavements
104.1	Cement Concrete Alley Pavement with Support Wall
104.1A	Cement Concrete Alley Pavement with Support Wall
106	Type 106 Driveway
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115	Cement Concrete Stairway Construction Details
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117	Sidewalk Drain
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125	Type 125 Traffic Buttons
126	Type 126 Terminal Nosing Illuminated
127	Type 127 Terminal Nosing Illuminated
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131	Concrete Block, Brick or Monolithic Concrete Manholes
132	Type 132 Manhole
133	Type 133 Manhole
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137	(APWA Dwg. #43) Drop Connection
138	Ladder and Manhole Step
141	Type 141-24 inch Diameter Manhole Ring and Cover or Valve Chamber Ring and Cover
145	Manhole Ring Extensions
149	Location of Catch Basin with Inlets
150	Type 150 Catch Basin
151	Type 151 Catch Basin
152	Type 152 Catch Basin
153	Type 153 Catch Basin
153.1	Type 153 Catch Basin Installation

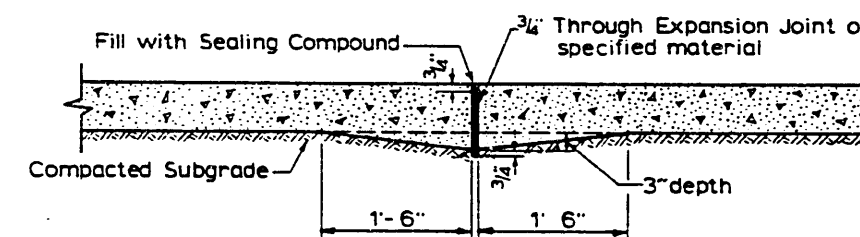
156	(APWA Dwg. #56) Catch Basin Inlet - Precast Cover and Extension Units
158	(APWA Dwg. #49) Type 158 Inlet Frame and Grate
162	Type 162 Outlet Trap
163	Type 163 Outlet Trap
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175	Vertical Connection
176	Sanitary Side Sewer Installation
177	Pipe Bedding
178	(APWA Dwg. #61) Sewer Construction Details
179	Sewer Payment Diagram
180	Type 180 Hydrant Setting - Residential
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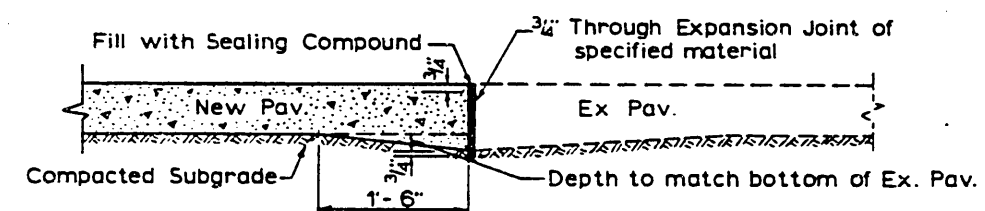
Construction Joint
Longitudinal or Transverse



Contraction Control Joint
Longitudinal or Transverse



Expansion Joint
New Construction

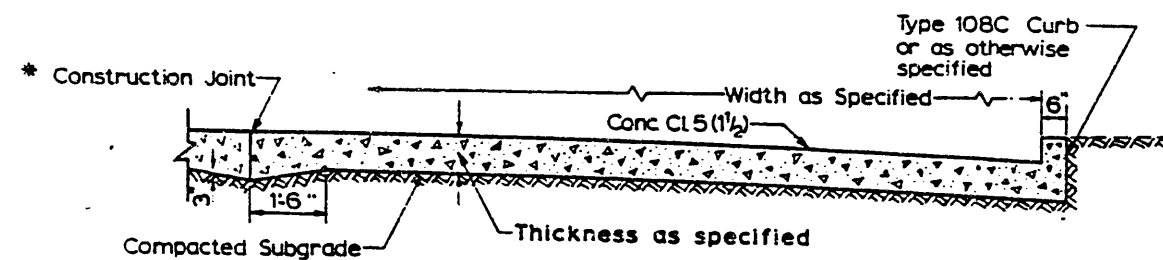


Expansion Joint
Between Old & New Construction

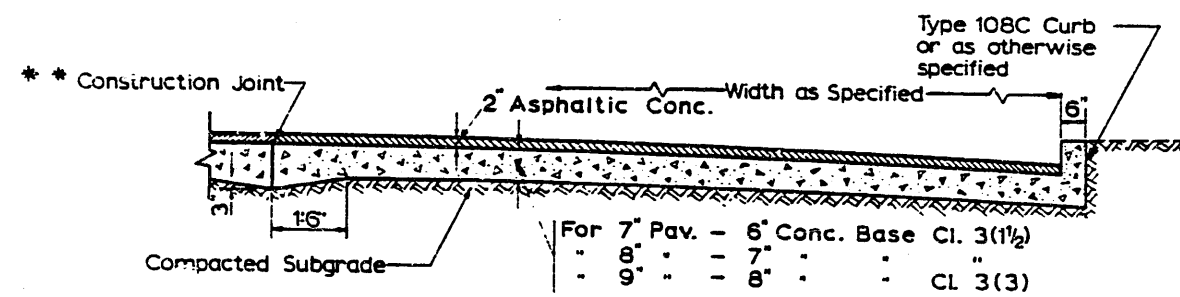
DO NOT SCALE

Revised 4-5-67	CITY OF SEATTLE	
	DEPARTMENT OF ENGINEERING	
	Types of Joints for Concrete Pavement	
	APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1964 ATTEST: <i>E. J. Kelly</i> SECRETARY	

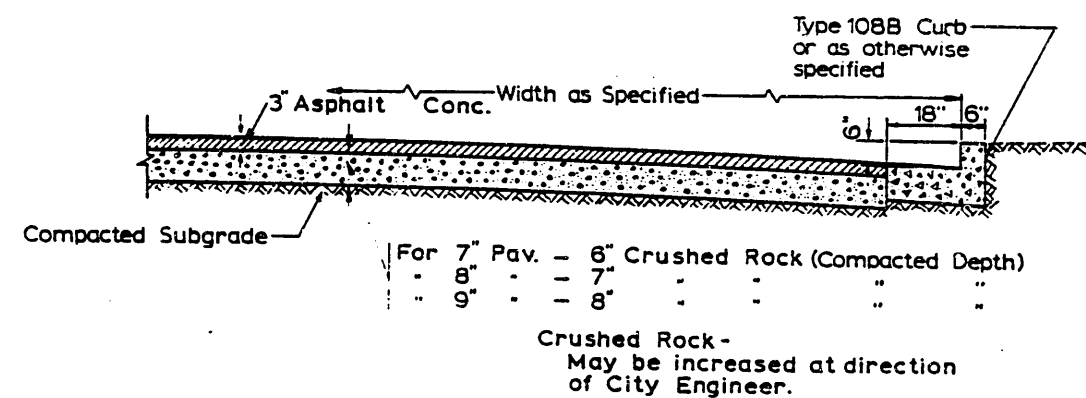
Standard Plan No. 102



102 A-Cement Concrete Pavement



102 B-Asphalt Concrete on Cement Concrete Base



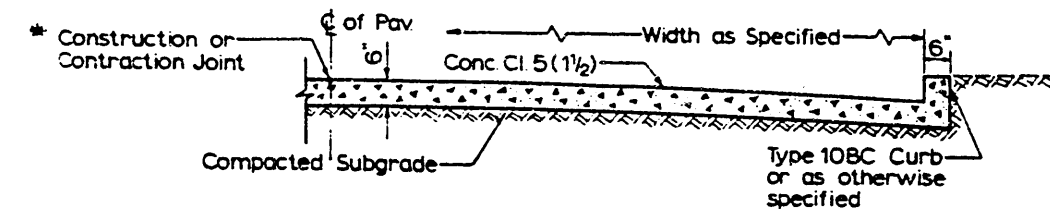
102 C-Asphalt Concrete on Crushed Rock Base

- * Construction Joint when roadway is paved in two or more lanes.
 - Contraction Joint when entire roadway width is paved in single operation.
 - * * Construction Joint when base is placed in two or more lanes.
- For spacing of Construction or Contraction Joints see Std. Specs. Sec. 39-3.18.

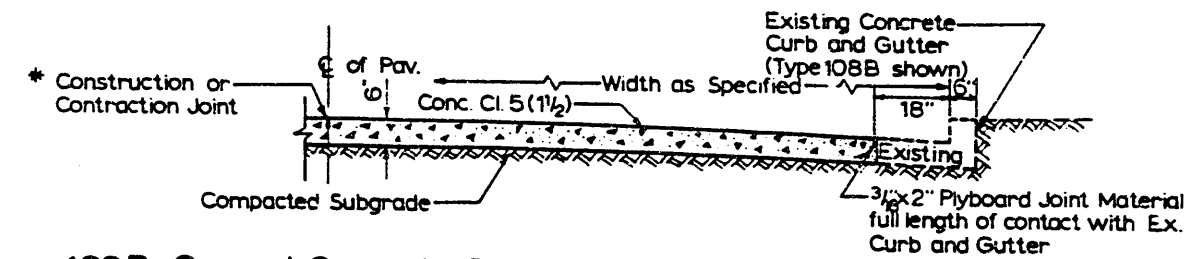
DO NOT SCALE

Revised	5-1-70	CITY OF SEATTLE DEPARTMENT OF ENGINEERING
Revised	1-6-65	
Arterial Pavement Sections		
APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1964		
ATTEST: <i>[Signature]</i> CHAIRMAN <i>[Signature]</i> SECRETARY		

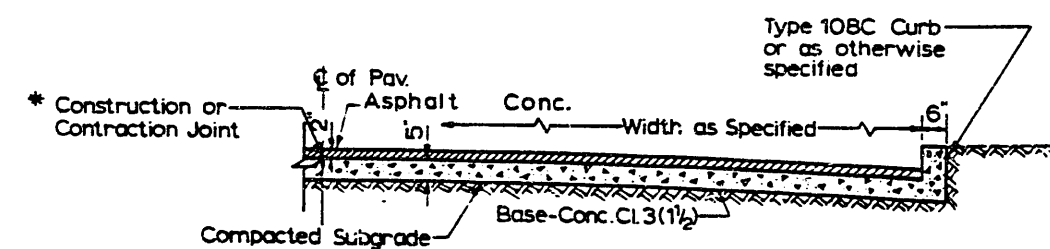
Standard Plan No. 103



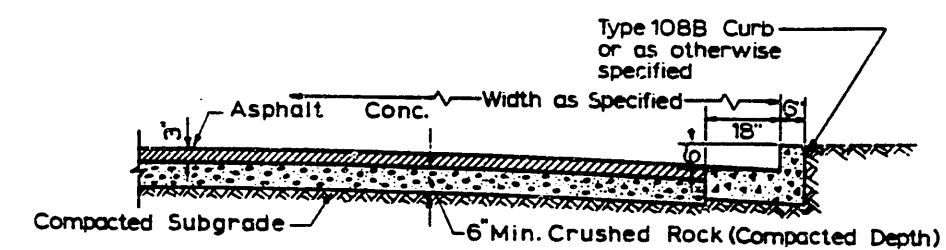
103A-Cement Concrete Pavement with Integral Curb



103B-Cement Concrete Pavement, Curb and Gutter Existing



103C-Asphalt Concrete on Cement Concrete Base



103D-Asphalt Concrete on Crushed Rock Base

For spacing of Construction or Contraction Joints See Std. Specs. Sec. 39-3.18.

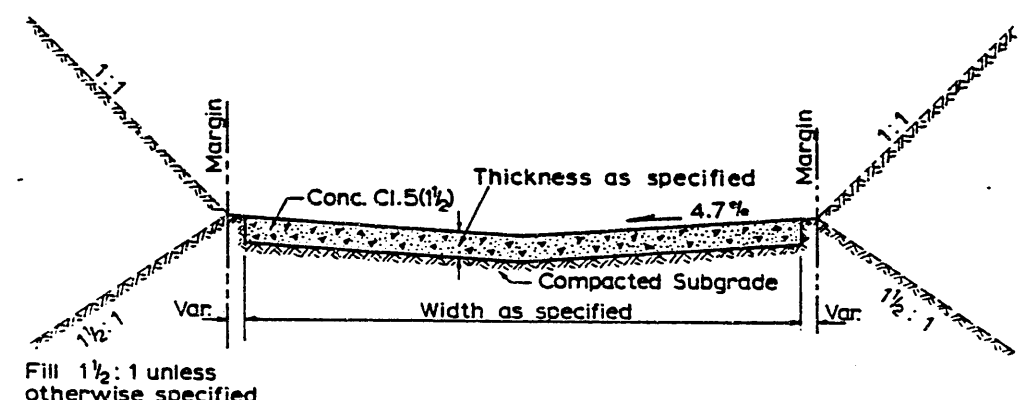
- * When Construction Joint thickened edge required.

DO NOT SCALE

Revised	5-1-70	CITY OF SEATTLE DEPARTMENT OF ENGINEERING
Revised	1-6-65	
Residential Pavement Sections		
APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1964		
ATTEST: <i>[Signature]</i> CHAIRMAN <i>[Signature]</i> SECRETARY		

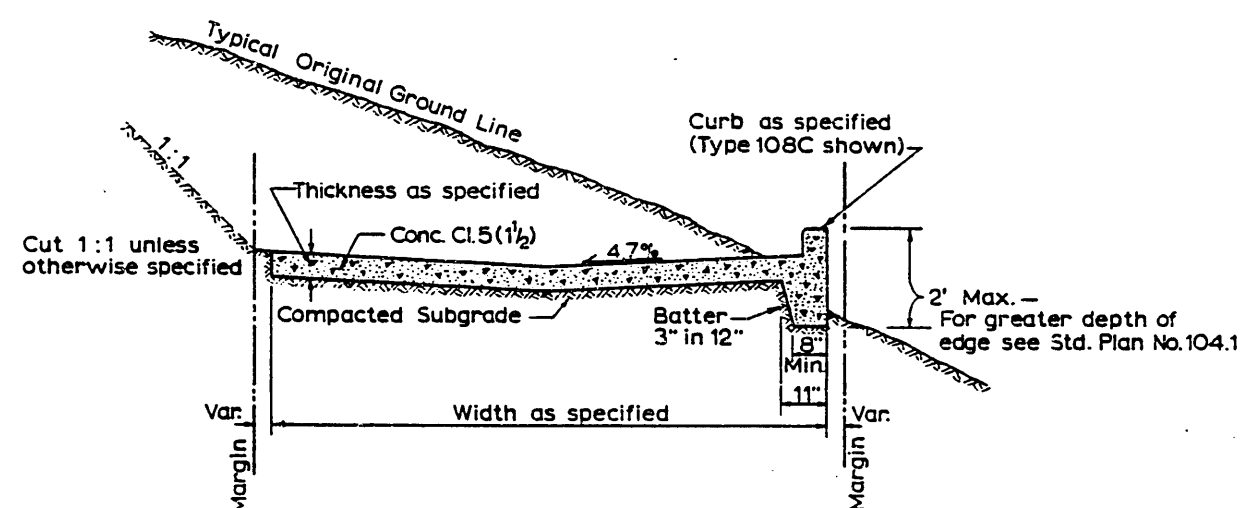
Standard Plan No.104

Cut 1:1 unless
otherwise specified



Fill 1 1/2:1 unless
otherwise specified

104 A - Cement Concrete Alley Pavement



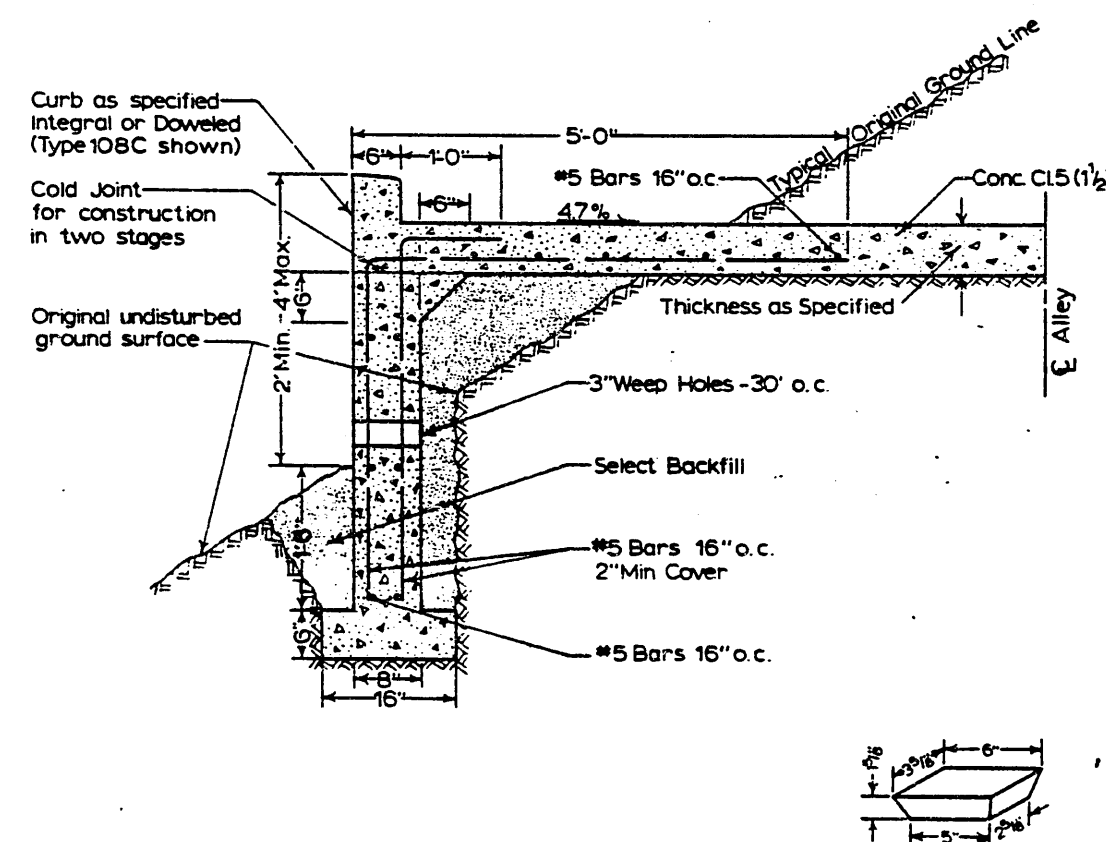
104 B - Cement Concrete Alley Pavement
For Shallow Embankment Area

Note:
When alley pavement is 18' or wider
place contraction joint along centerline
of alley.

DO NOT SCALE

CITY OF SEATTLE DEPARTMENT OF ENGINEERING	
Cement Concrete Alley Pavements	
APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1966	
ATTEST:	CHAIRMAN SECRETARY

Standard Plan No.104.1



Base of Support Wall to be bearing on firm
undisturbed earth.

Back form for Support Wall may be omitted
and concrete placed against native earth
when ground conditions permit.

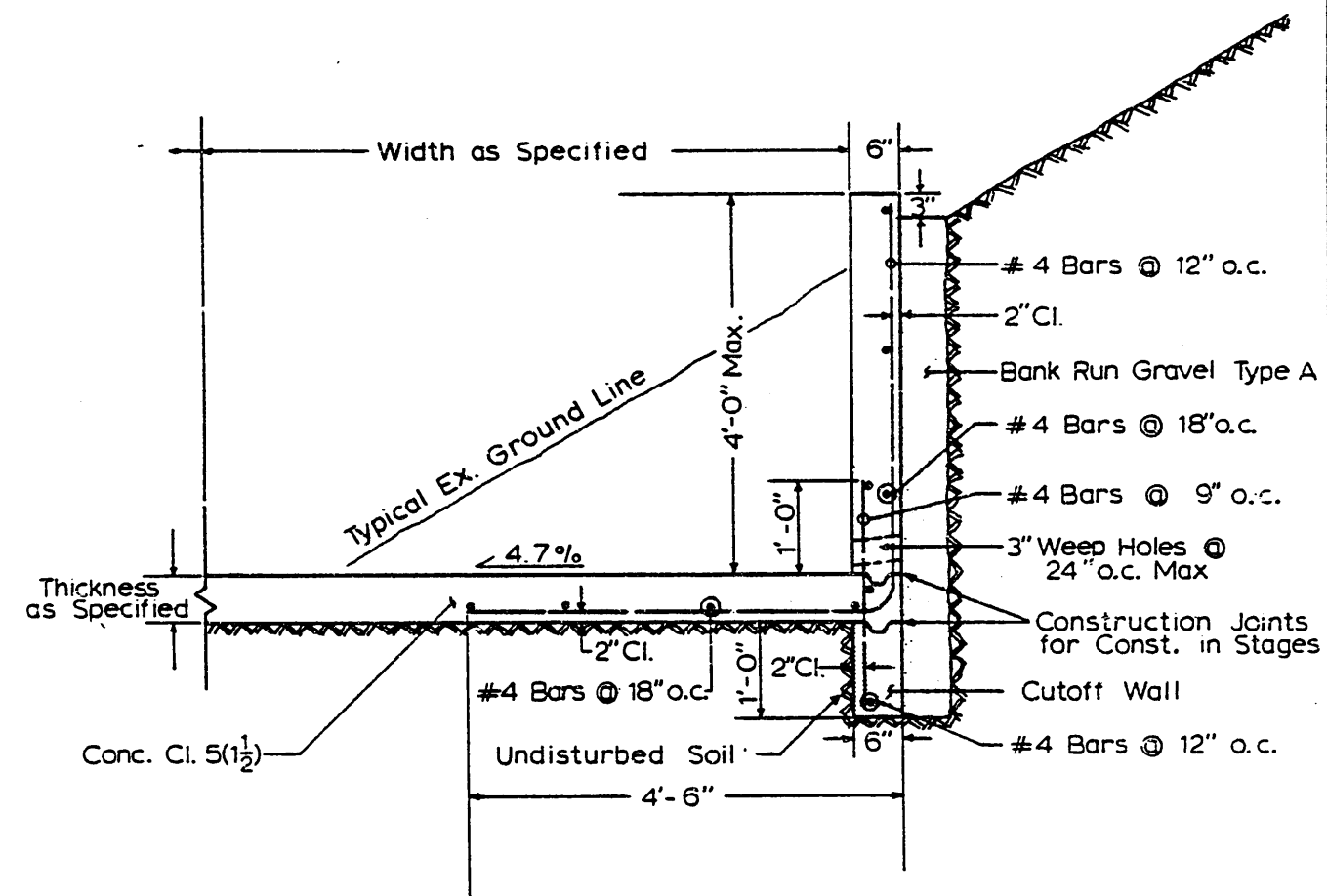
Cold joint, when construction is not integral
with alley slab, shall be at level with base
of alley pavement slab, with Shear Key
indentations spaced 18" on centers.

Beveled block for forming Shear
Key in wall section to be made
from standard 2"x4"x6" wood
or other suitable material.

DO NOT SCALE

CITY OF SEATTLE DEPARTMENT OF ENGINEERING	
Cement Concrete Alley Pavement with Support Wall	
APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1966	
ATTEST:	CHAIRMAN SECRETARY

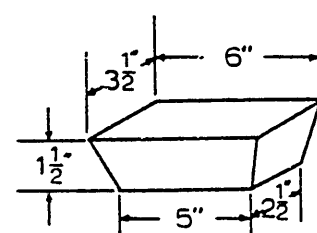
Standard Plan No.104.1A



Notes:

1. Provide Cutoff Wall:
 - a) When Wall Height Exceeds 2'-0".
 - b) When Alley Pav. Width is Less Than 16'-0".
 - c) When Type 104.1 Support Wall is Required on the Opposite Side of the Alley.
2. Provide Wall Expansion Joints at 24' o.c. Max.
3. Back Form for Support Wall May be Omitted and Conc. Placed Against Native Earth When Ground Conditions Permit.
4. Construction Joint:

When Construction of Wall is not Integral With the Alley Pav., a Construction Joint Shall be Provided at the Top and/or Bottom of the Alley Pav. Slab With the Shear Key Indentations Spaced 18" o.c. See Detail of Shear Key Form at Right.



Beveled Block for Forming Shear Key in Wall Section to be Made From Std. 2"x4"x6" Wood or Other Suitable Material. See Note 4 at Left.

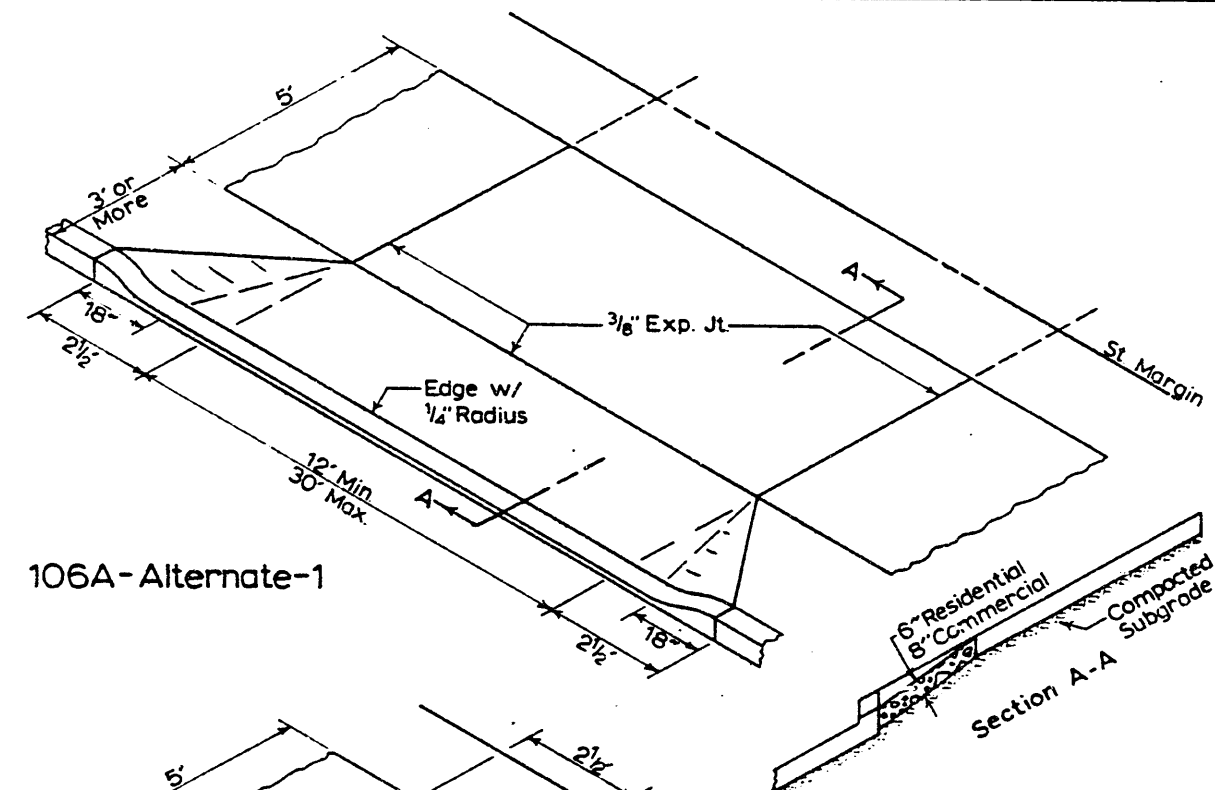
DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

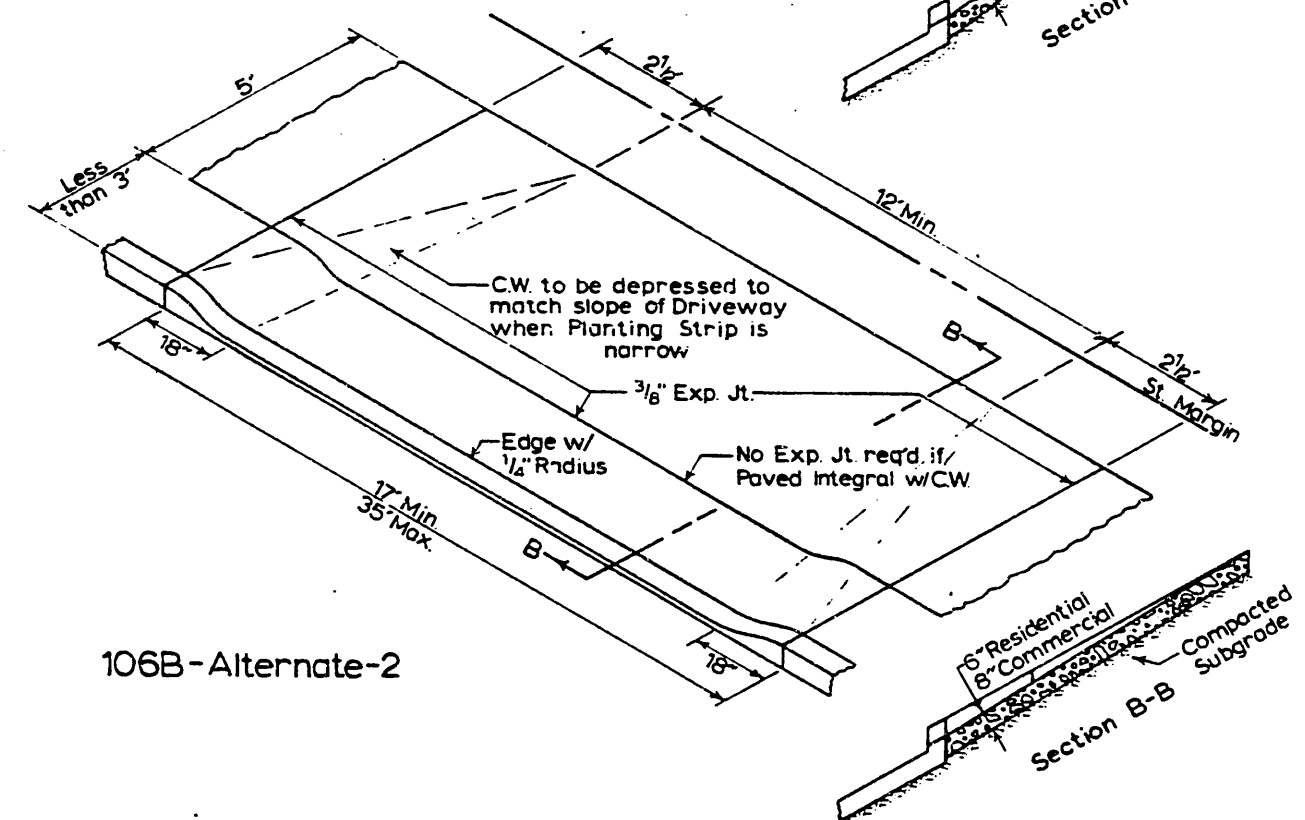
Cement Concrete Alley
Pavement with Retaining Wall

APPROVED BY THE BOARD OF PUBLIC WORKS
11-11-1926 *Paul G. S. [Signature]* CHAIRMAN
TEST: *[Signature]* SECRETARY

Standard Plan No.106

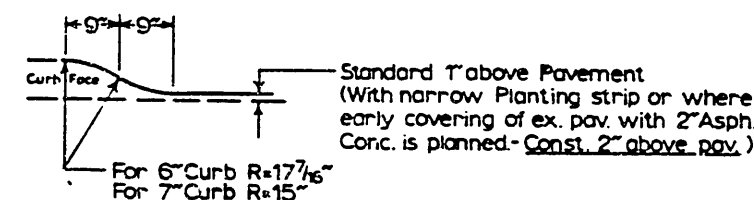


106A-Alternate-1



106B-Alternate-2

Conc. Cl. 5(1/2) or Cl. 5(3/4)
at Contractor's option



Standard T above Pavement
(With narrow Planting strip or where
early covering of ex. pav. with 2" Asph.
Conc. is planned - Const. 2" above pav.)

For 6" Curb R=17 1/2"
For 7" Curb R=15"

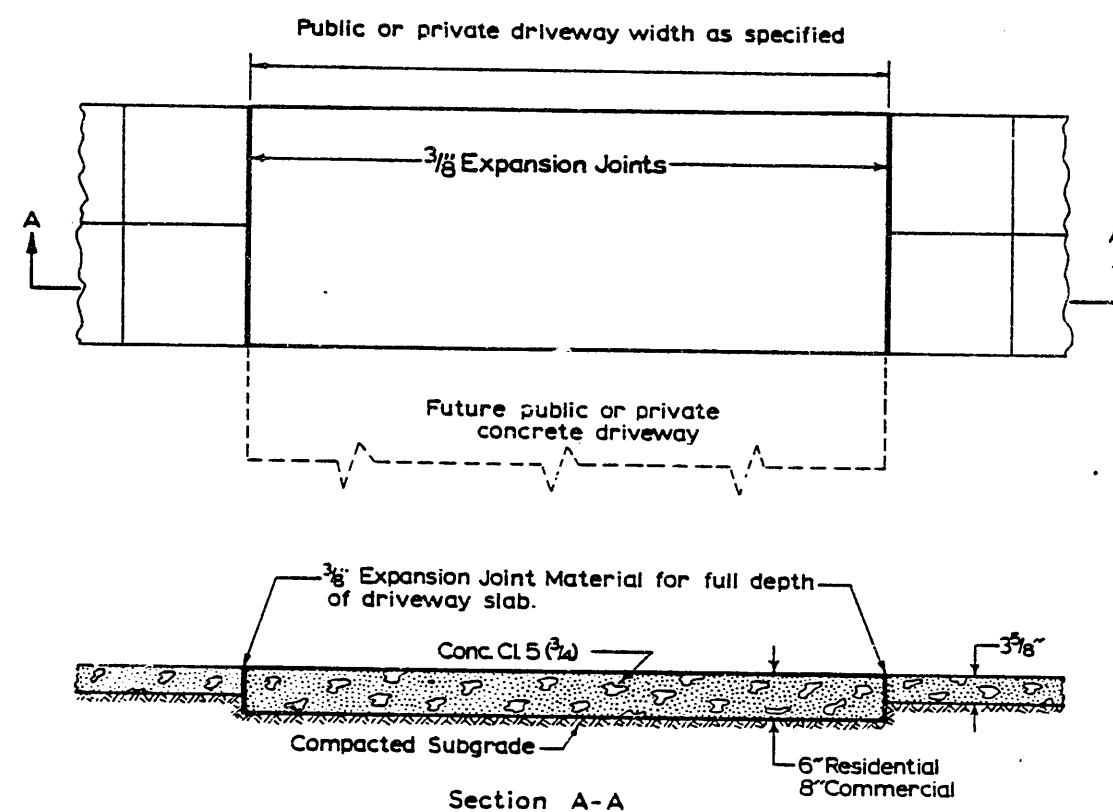
DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Type 106 Driveway

APPROVED BY THE BOARD OF PUBLIC WORKS
11-11-1926 *[Signature]* CHAIRMAN
ATTEST: *[Signature]* SECRETARY

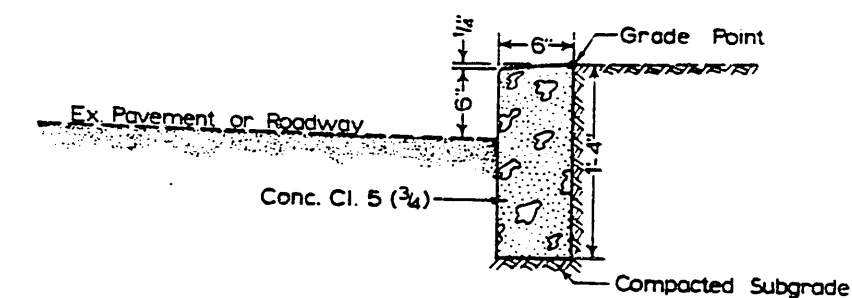
Standard Plan No.107



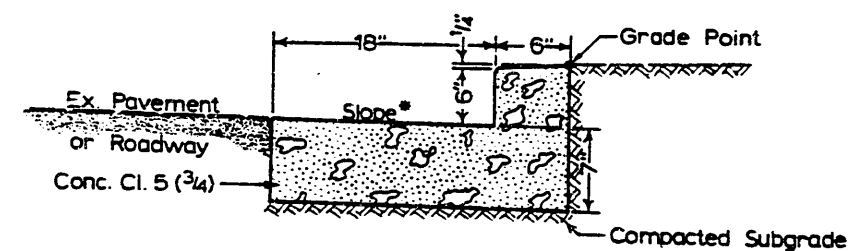
DO NOT SCALE

5-1-70 Revised	CITY OF SEATTLE	
	DEPARTMENT OF ENGINEERING	
	Concrete Driveway Placed With Sidewalk Construction	
	APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1964 ATTEST: <i>[Signature]</i> CHAIRMAN <i>[Signature]</i> SECRETARY	

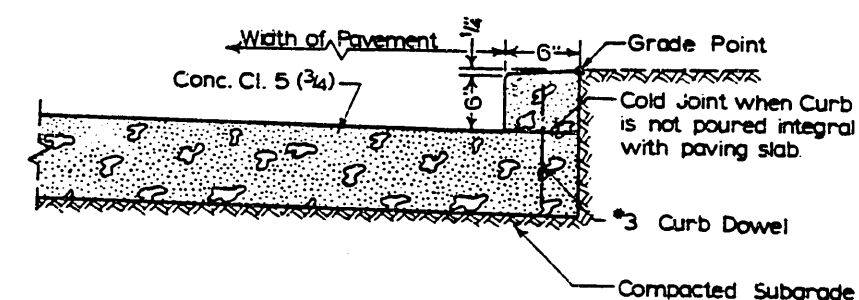
Standard Plan No.108



108A Curb
(For Monolithic Curb and Sidewalk See Std. Plan No. 114.1)



108 B-Curb and Gutter



108 C Curb

For Type 108A Curb placed along edge of existing pavement $\frac{3}{8}$ " Expansion Joints shall be placed for full depth of curb to match location of joints in existing pavement.

* Gutter shall be sloped the same as adjacent pav.

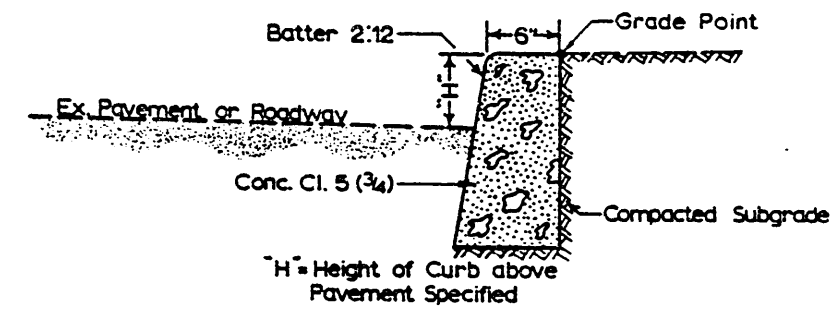
For spacing of Contraction Joints see Std. Specs. Sec. 40-3.01F

For Curb Dowels see Std. Specs. Sec. 39-3.15

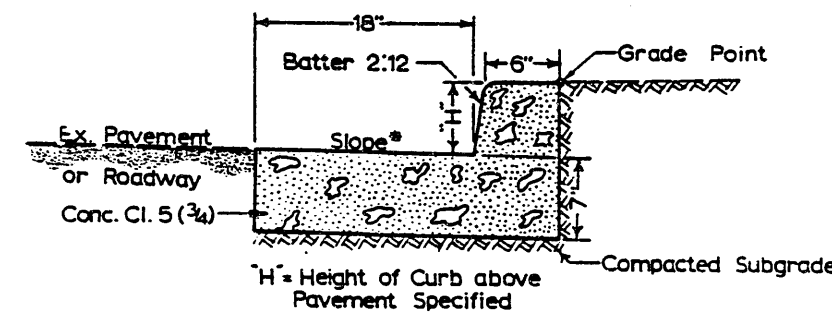
DO NOT SCALE

5-1-70 Revised	CITY OF SEATTLE	
	DEPARTMENT OF ENGINEERING	
	Type 108 Curbs	
	APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1964 ATTEST: <i>[Signature]</i> CHAIRMAN <i>[Signature]</i> SECRETARY	

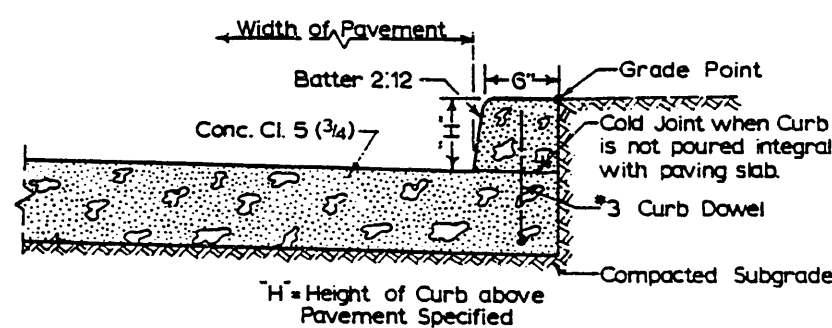
Standard Plan No.110



110A Curb
(For Monolithic Curb and Sidewalk See Std. Plan No.114.1)



110B-Curb and Gutter



110C Curb

For Type 110A Curb placed along edge of existing pavement $\frac{3}{8}$ " Expansion Joints shall be placed for full depth of curb to match location of joints in existing pavement.

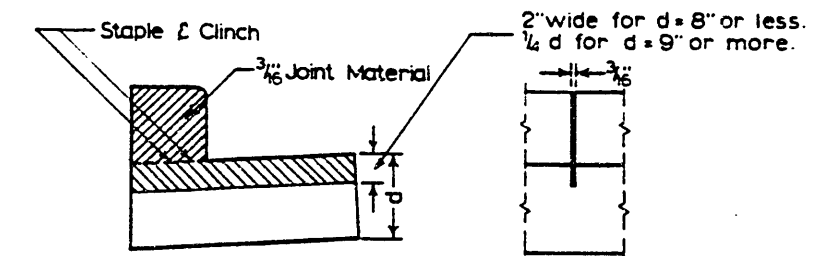
* Gutter shall be sloped the same as adjacent pav.

For spacing of Contraction Joints see Std. Specs. Sec. 40-3.01F

For Curb Dowels see Std. Specs. Sec. 39-3.15

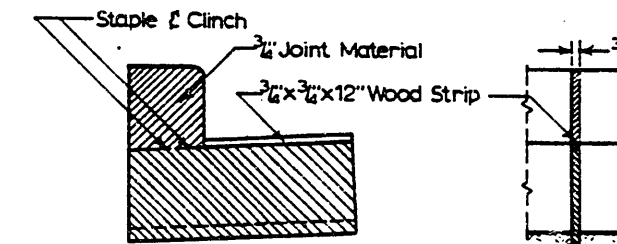
DO NOT SCALE	
CITY OF SEATTLE DEPARTMENT OF ENGINEERING	
Type 110 Curbs	
APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1964	
ATTEST:	CHAIRMAN SECRETARY

Standard Plan No.112



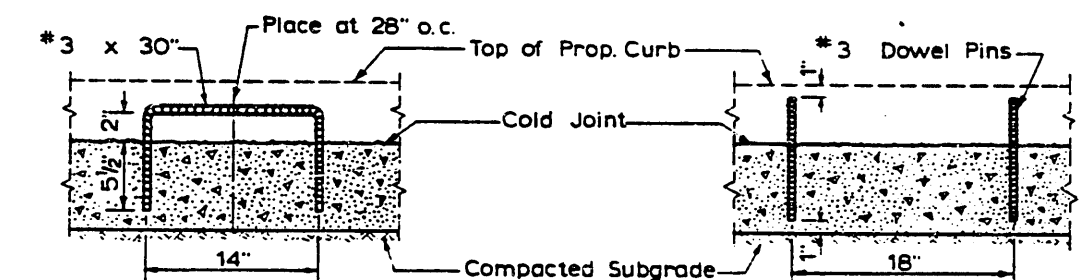
Contraction Joint For Type B Curb or Curb & Gutter

Other Types of Curbs Vary According to Required X-Section



Expansion Joint For Type B Curb or Curb & Gutter

Other Types of Curbs Vary According to Required X-Section

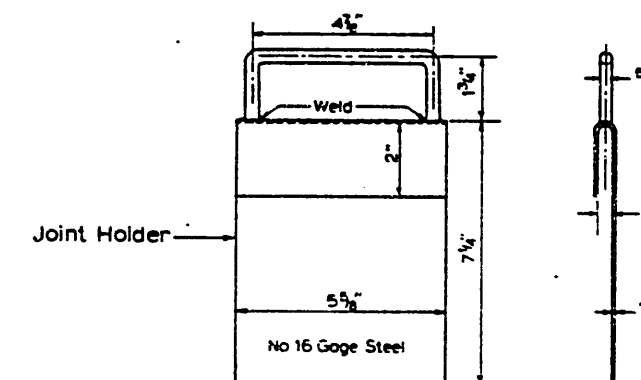


Curb Dowel
For Residential Pavement with a Curb Height of 6"

Curb Dowel Pins
For Arterial Pavement with a Curb Height of 9" or Greater

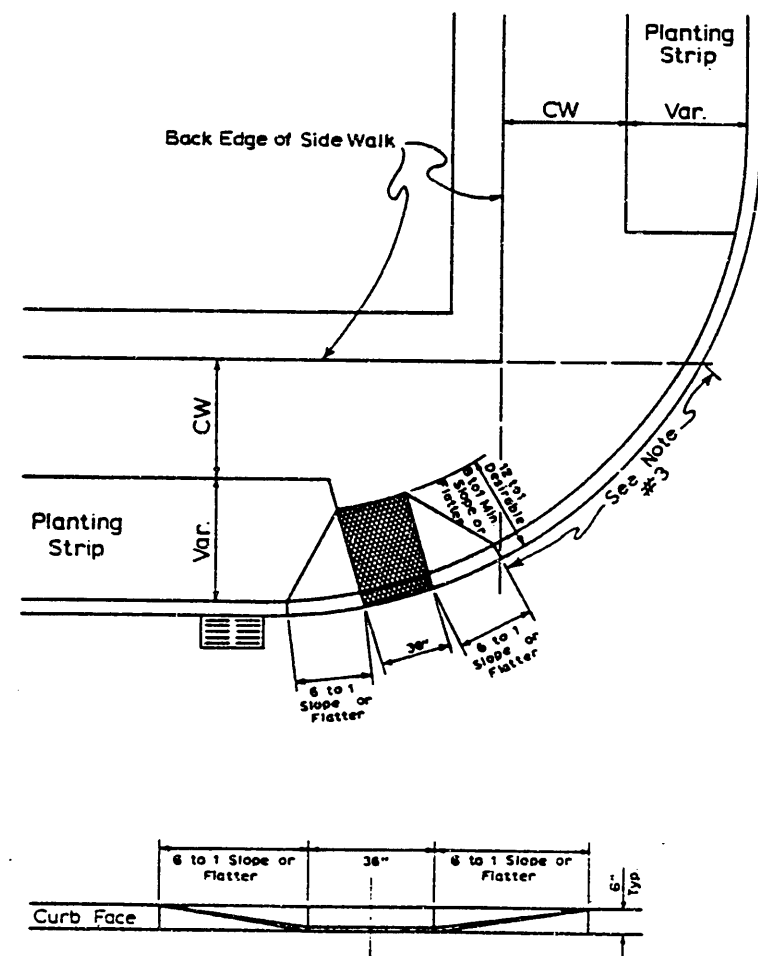
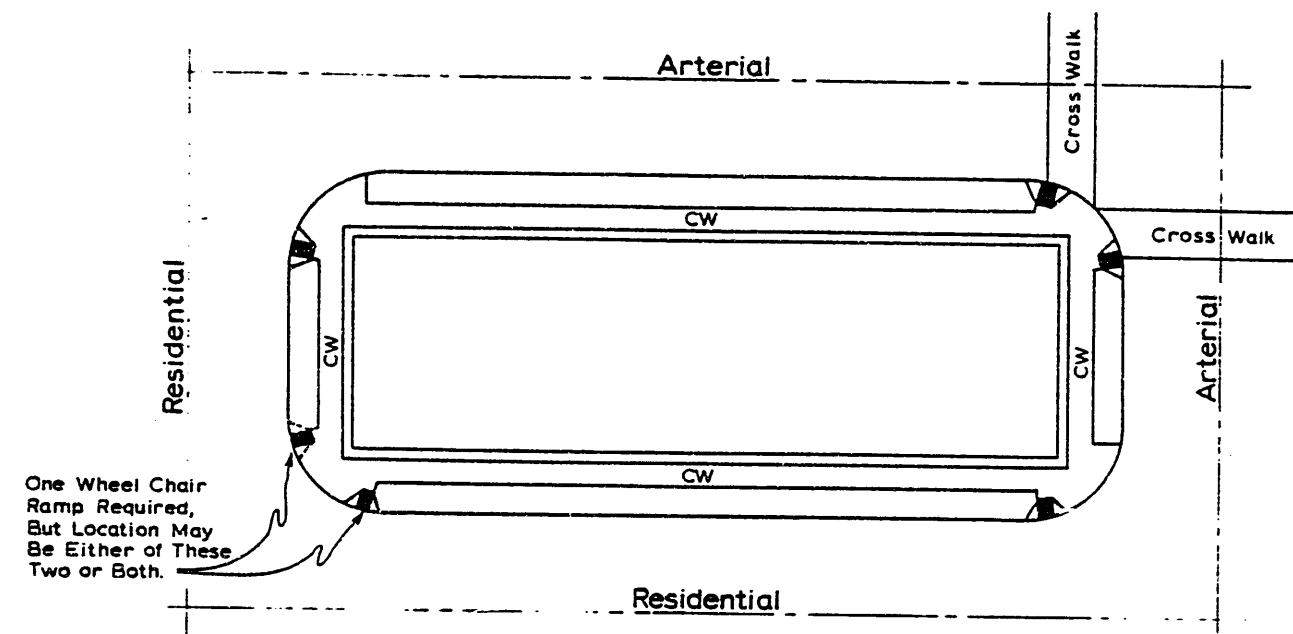
Dowels For Dowelled Curb Construction

Details as shown for Type 108 Curb. Cut Joint Material to match Type 110 Curb.



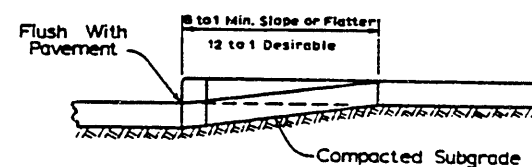
DO NOT SCALE	
CITY OF SEATTLE DEPARTMENT OF ENGINEERING	
Joints and Curb Dowels	
APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1964	
ATTEST:	CHAIRMAN SECRETARY

Typical Wheel Chair Ramp Locations



Notes

1. Inlets Shall Be Outside the Wheel Chair Ramp (24" Min. Clearance from Ramp).
2. The Wheel Chair Ramp Shall Be Moved Away from the Crosswalk to Avoid Conflicts with Hydrants, Poles, Inlets, or Other Utilities, Except Where the Street Grade Exceeds 4%.
3. Wheel Chair Ramp Should Not Encroach into the Area Formed by the Projection of the Back Side of the Side Walks (As Shown) Without Approval of the City Engineer. Min. Curb Distance between Any Two Ramps is 6 Ft.
4. The Ramp Must Have A Course Textured Surface Approved By the City Engineer.
5. All Signalized Intersections Should Be Treated As Arterial-Arterial.

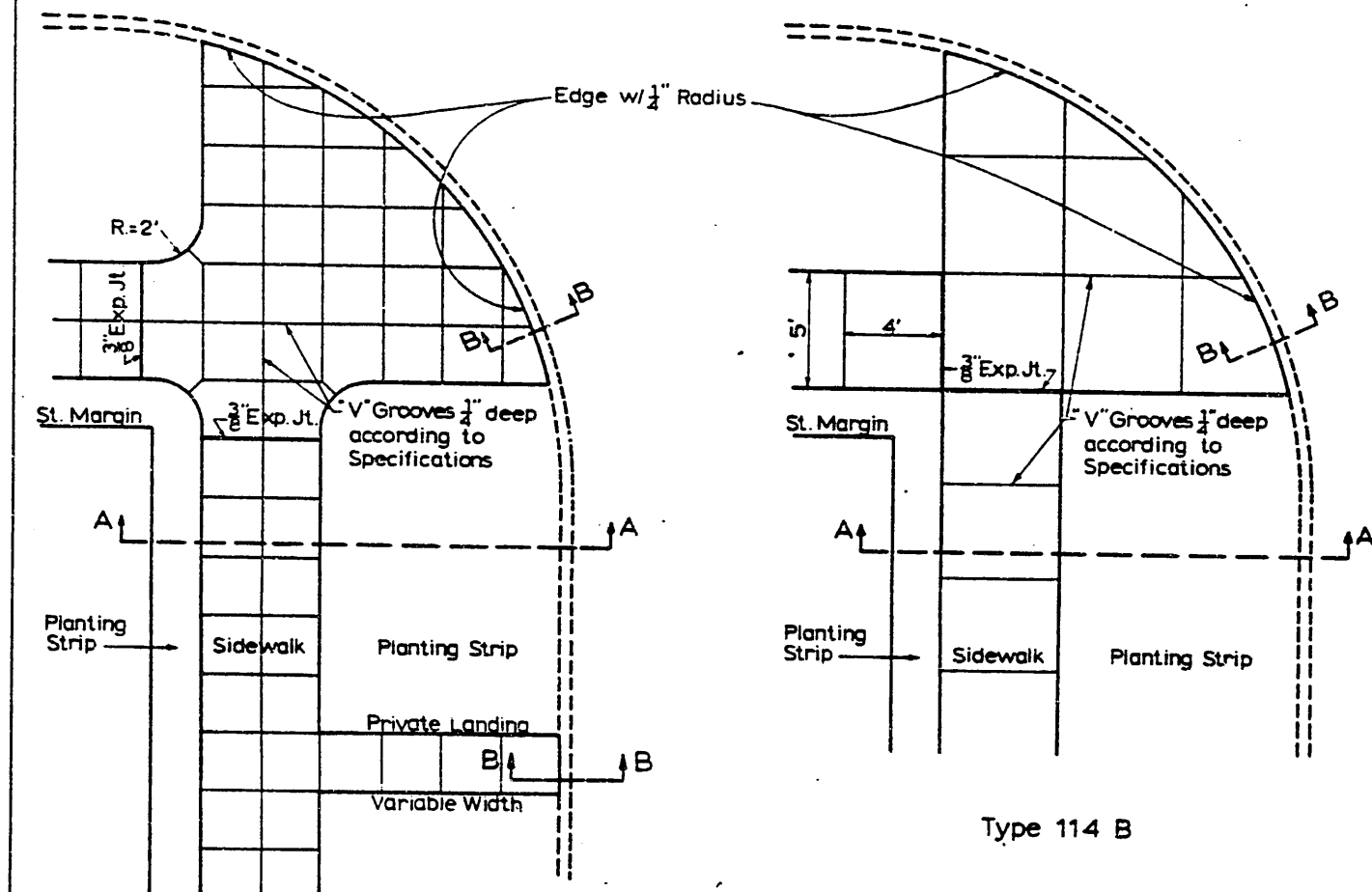


DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

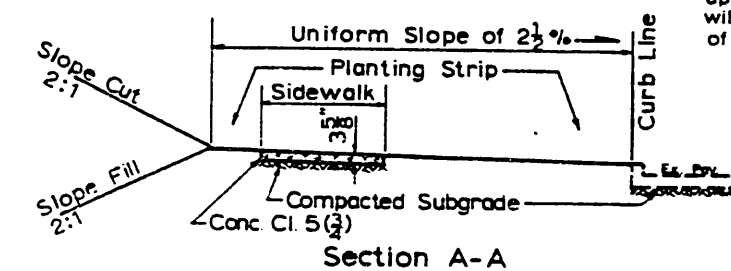
Wheel Chair Ramp

APPROVED BY THE BOARD OF PUBLIC WORKS
1/23/75
ATTEST: *[Signature]* SECRETARY

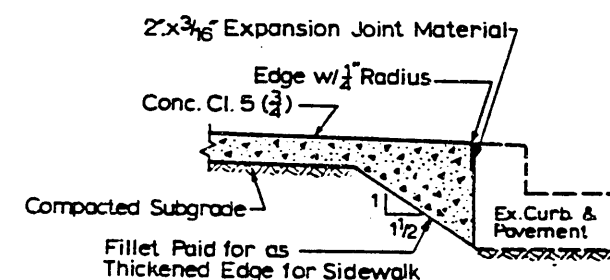


Type 114 A

Type 114 B



Section A-A



Section B-B

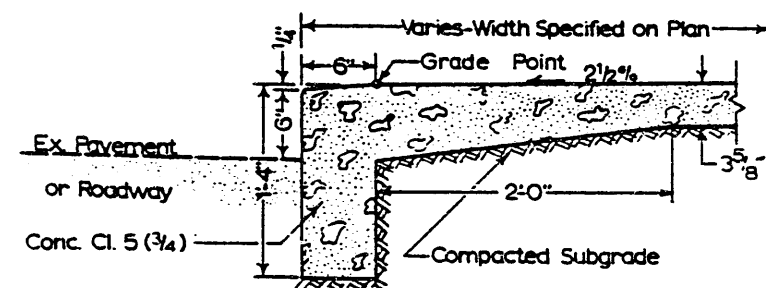
When planting strip pavement is approved, Dummy joint material will be required at the perimeter of the planting strip pavement.

DO NOT SCALE

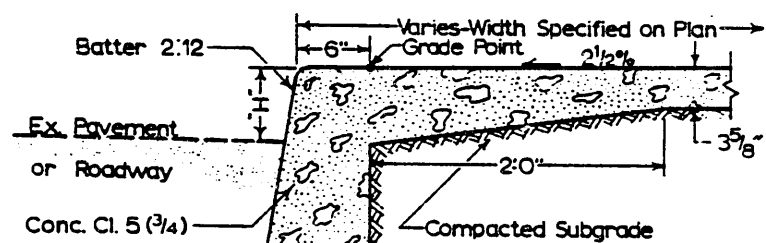
CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Sidewalk Details

APPROVED BY THE BOARD OF PUBLIC WORKS
4-5-1967
ATTEST: *[Signature]* SECRETARY



114.1 A-Type 108 Curb



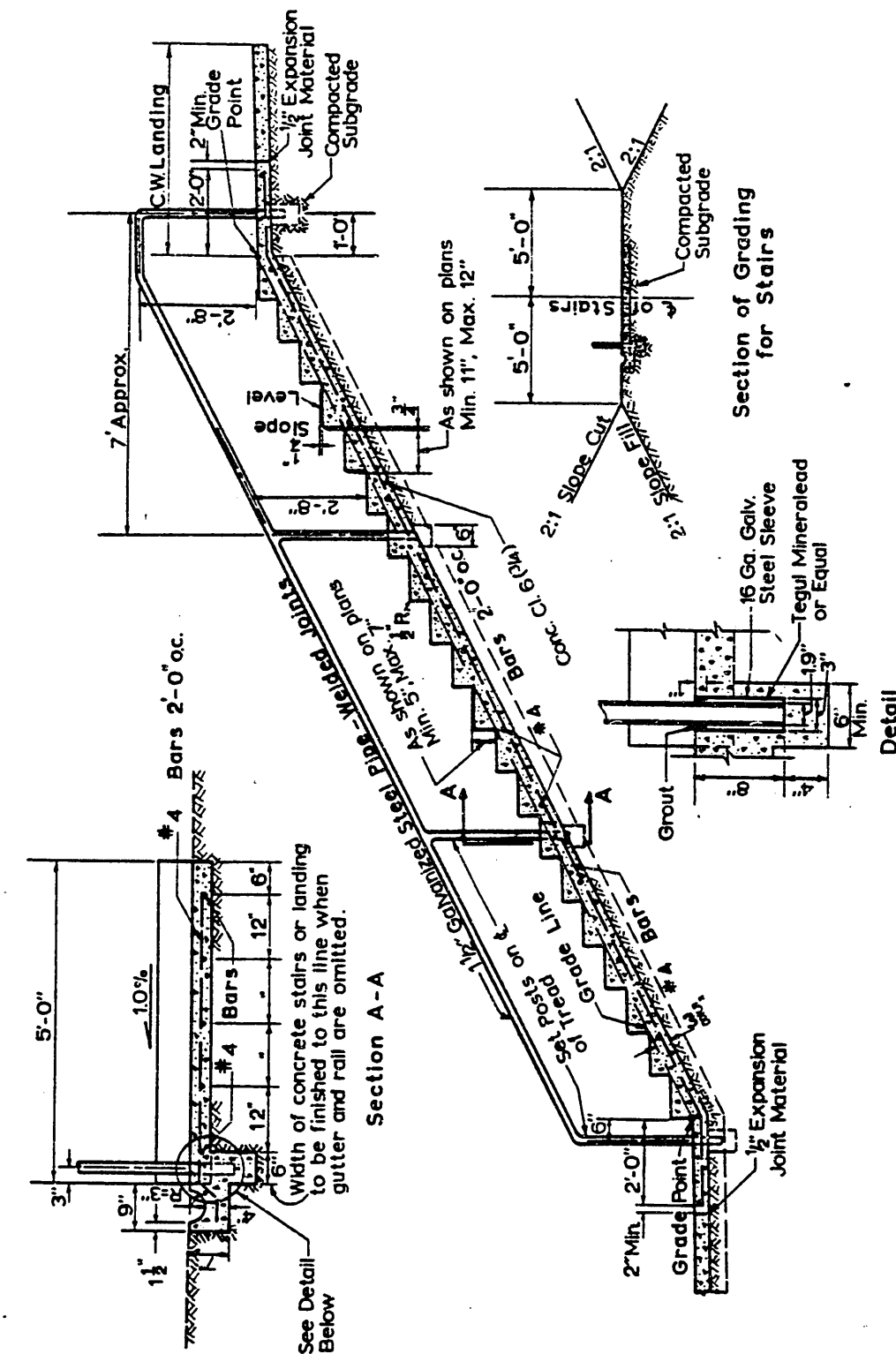
114.1 B-Type 110 Curb

Vertical Backface of Curb shall be formed against native earth where practical, otherwise by Backform left in place.

Surface marking of C.W. begins from longitudinal Curb marking 6" from Face of Curb.

DO NOT SCALE

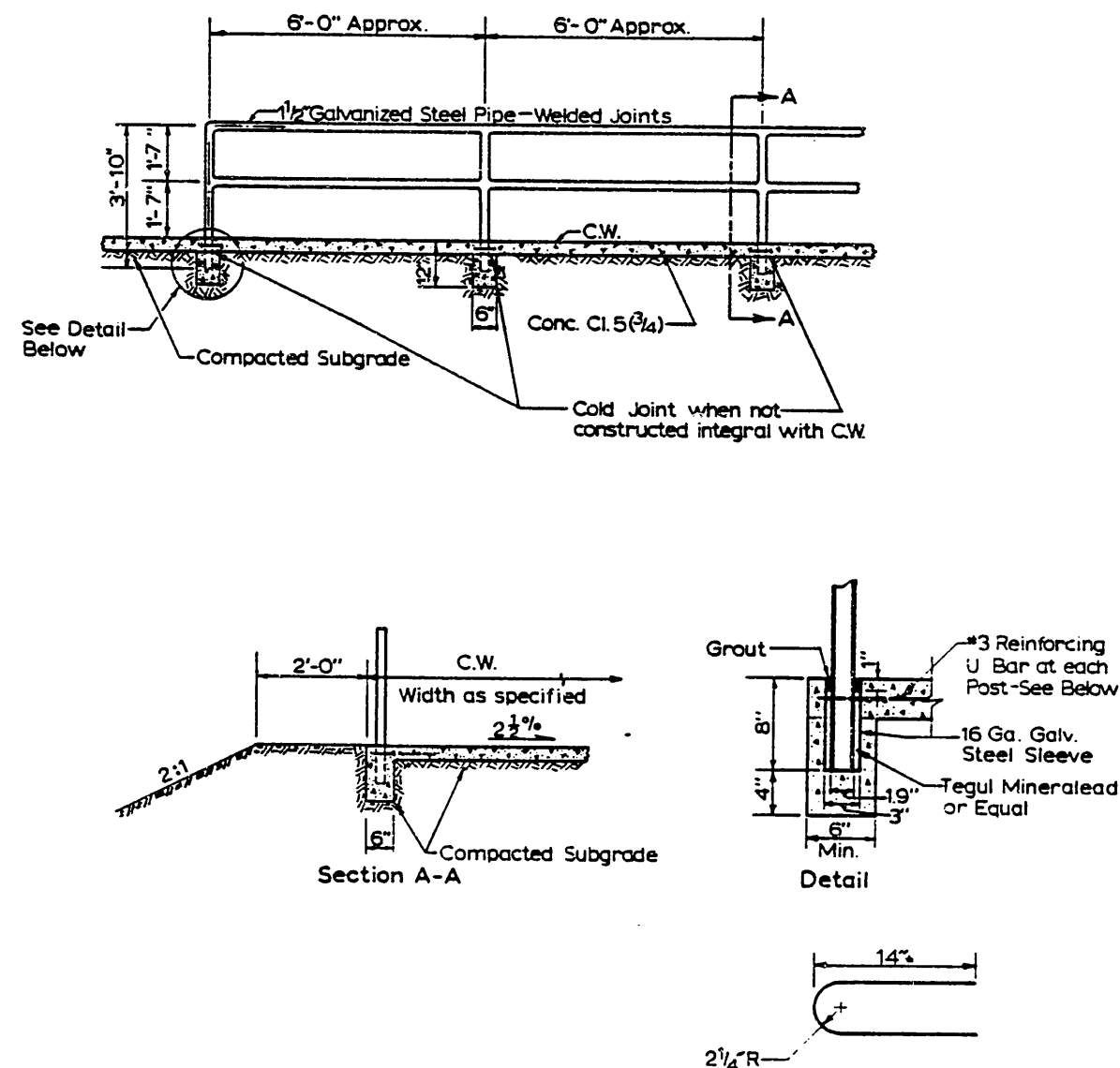
Revised	5-1-70
Revised	4-5-67
CITY OF SEATTLE DEPARTMENT OF ENGINEERING	
Monolithic Curb and Sidewalk	
APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1964	
ATTEST:	CHAIRMAN SECRETARY



Section A-A

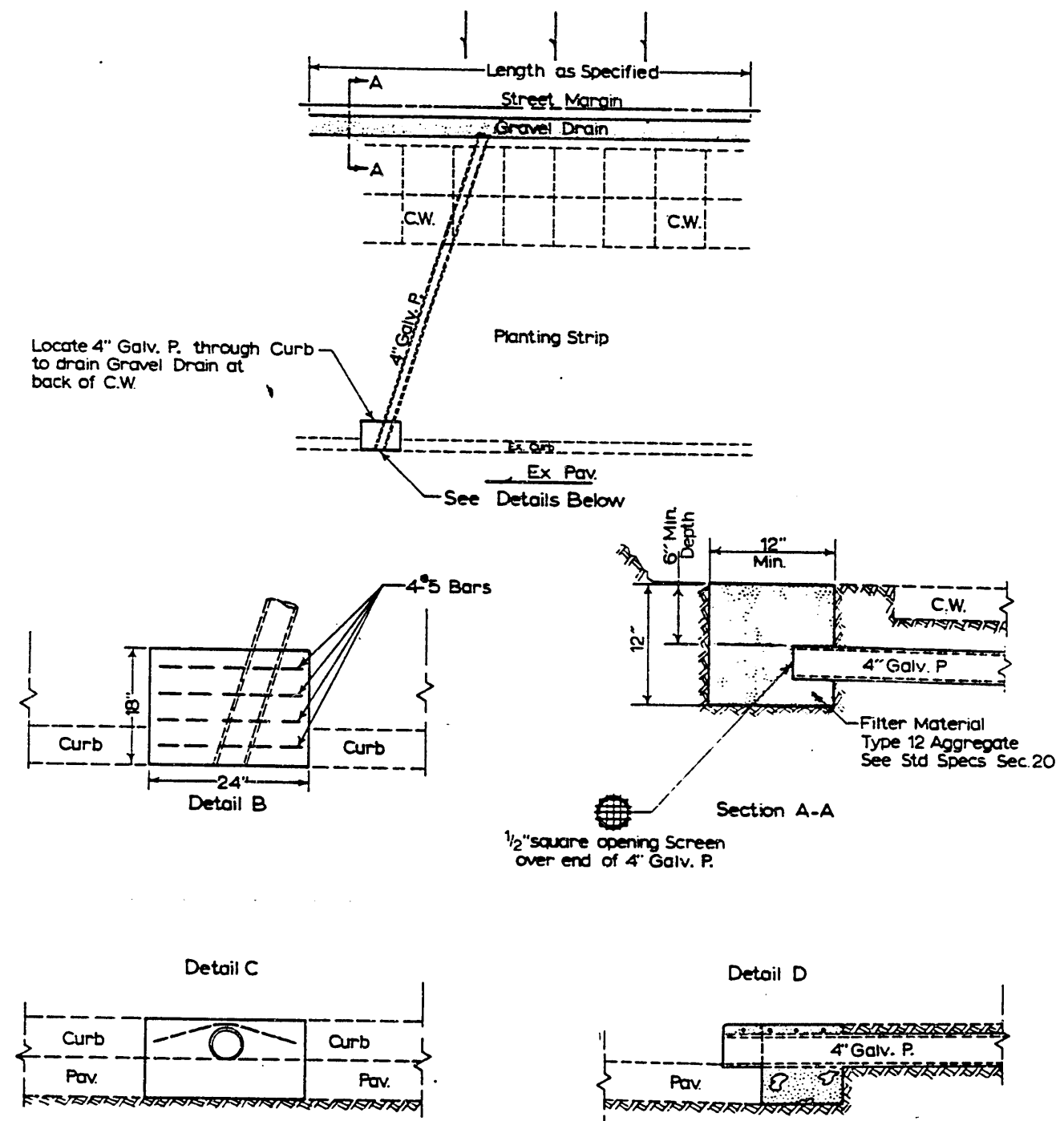
DO NOT SCALE

Revised	4-7-76
Revised	5-1-70
Revised	4-5-67
Revised	1-6-65
CITY OF SEATTLE DEPARTMENT OF ENGINEERING	
Cement Concrete Stairway Construction Details	
APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1964	
ATTEST:	CHAIRMAN SECRETARY



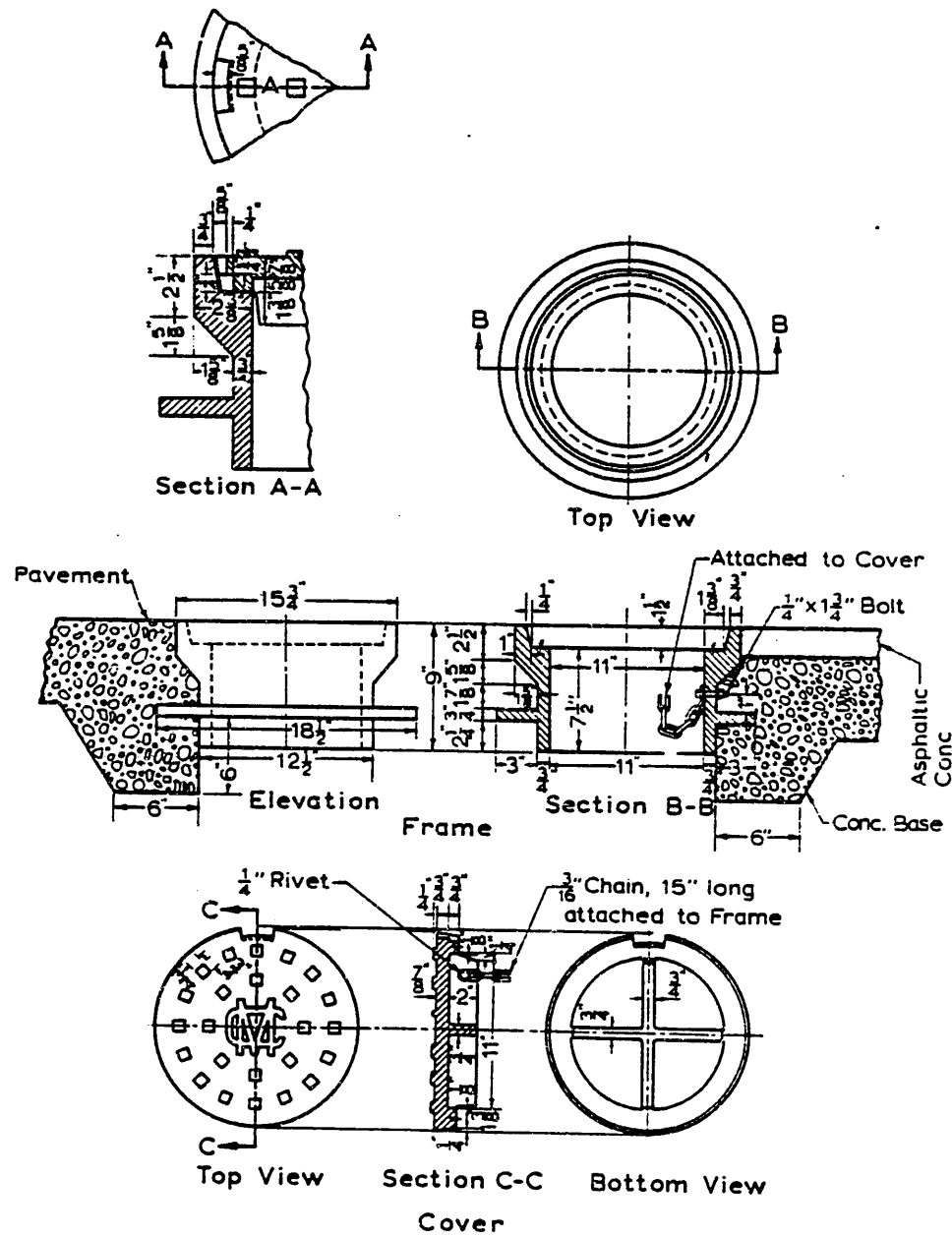
Revised	4-7-76
Revised	5-1-70
Revised	4-5-67
Revised	1-6-65

CITY OF SEATTLE	
DEPARTMENT OF ENGINEERING	
Steel Pipe Handrail Construction Details	
APPROVED BY THE BOARD OF PUBLIC WORKS	
JANUARY 8, 1964	
ATTEST:	CHAIRMAN
	SECRETARY



Revised	5-1-70
Revised	4-5-67
Revised	1-6-65

CITY OF SEATTLE	
DEPARTMENT OF ENGINEERING	
Sidewalk Drain	
APPROVED BY THE BOARD OF PUBLIC WORKS	
JANUARY 8, 1964	
ATTEST:	CHAIRMAN
	SECRETARY

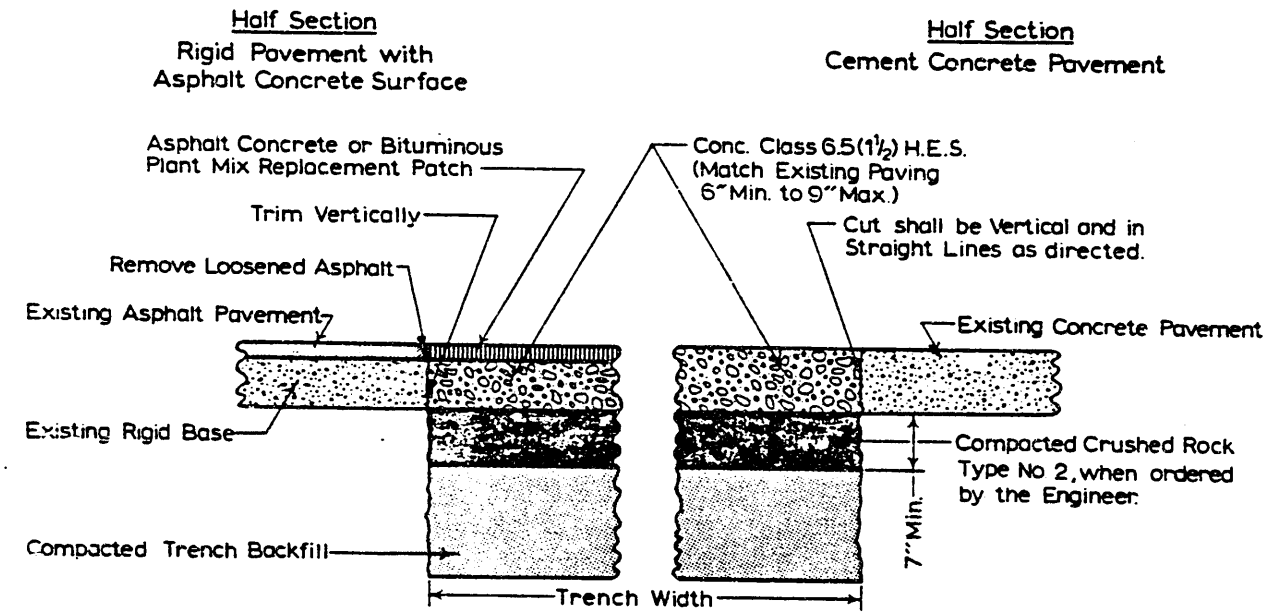


All Castings to have a bituminous coating according to Std. Specs. Sec. 63.208.

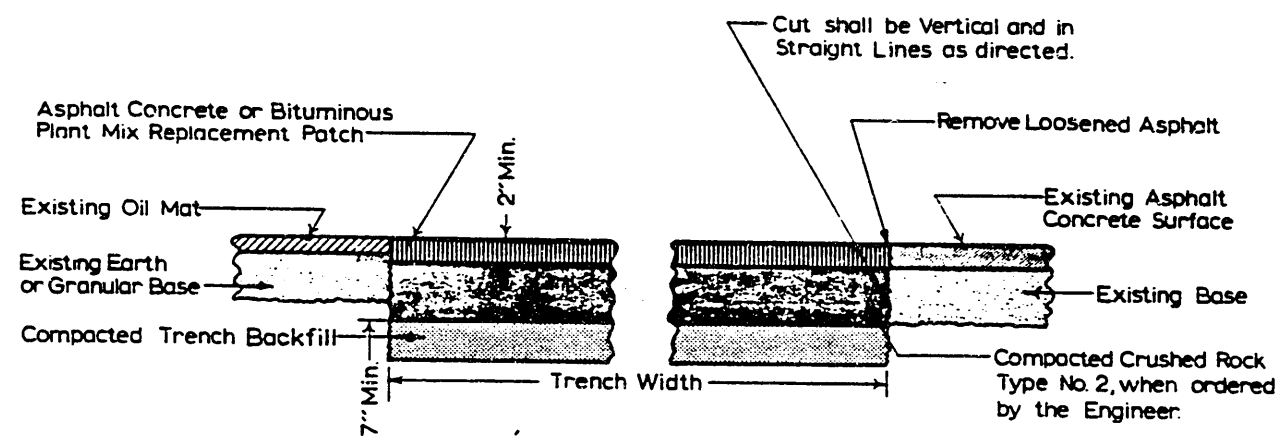
DO NOT SCALE

Monument Case

APPROVED BY THE BOARD OF PUBLIC WORKS
JANUARY 8, 1964 11/7/64 CHAIRMAN
 ATTEST: E. S. Edwards SECRETARY



Typical Patch for Rigid Pavement



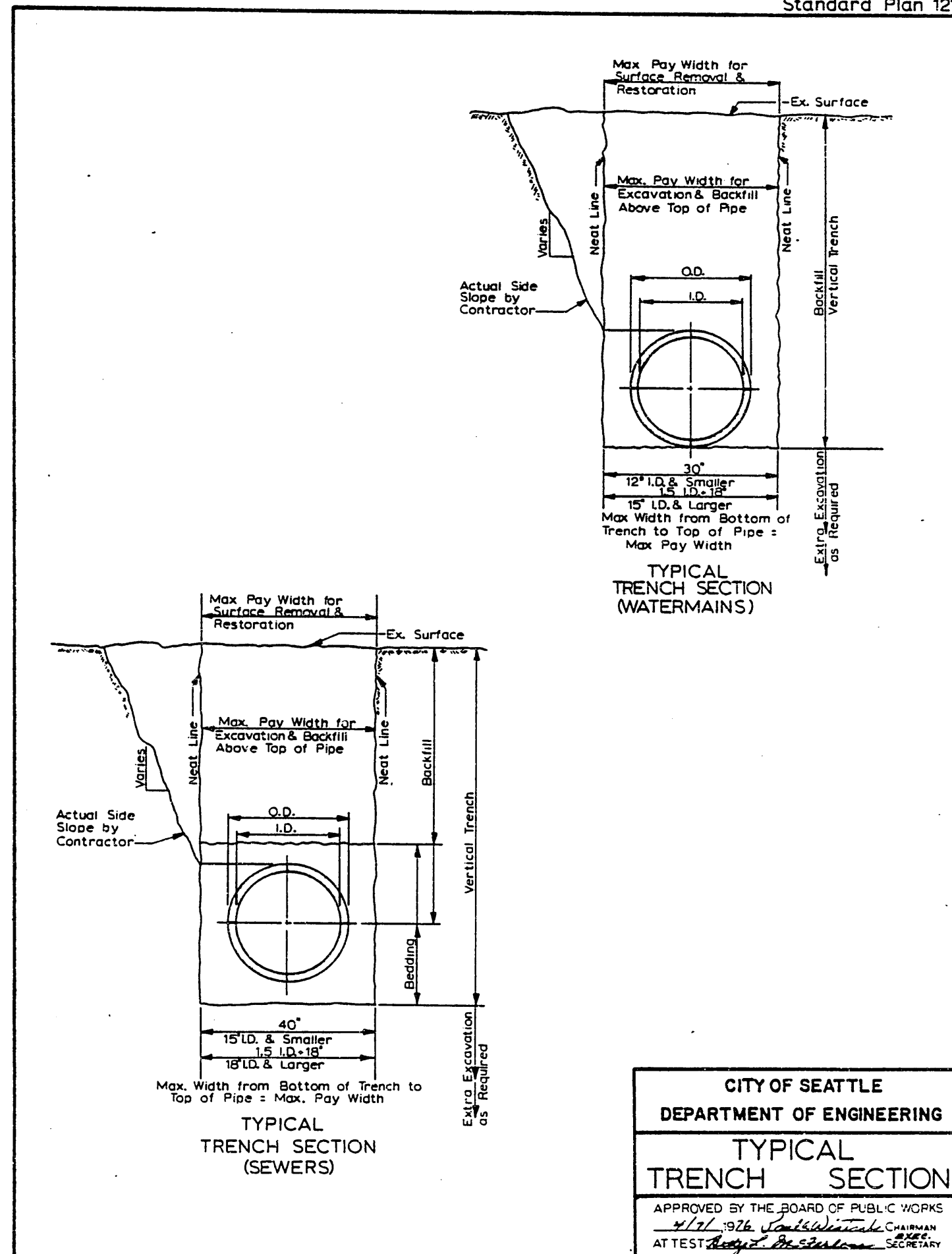
Typical Patch for Flexible Pavement

DO NOT SCALE

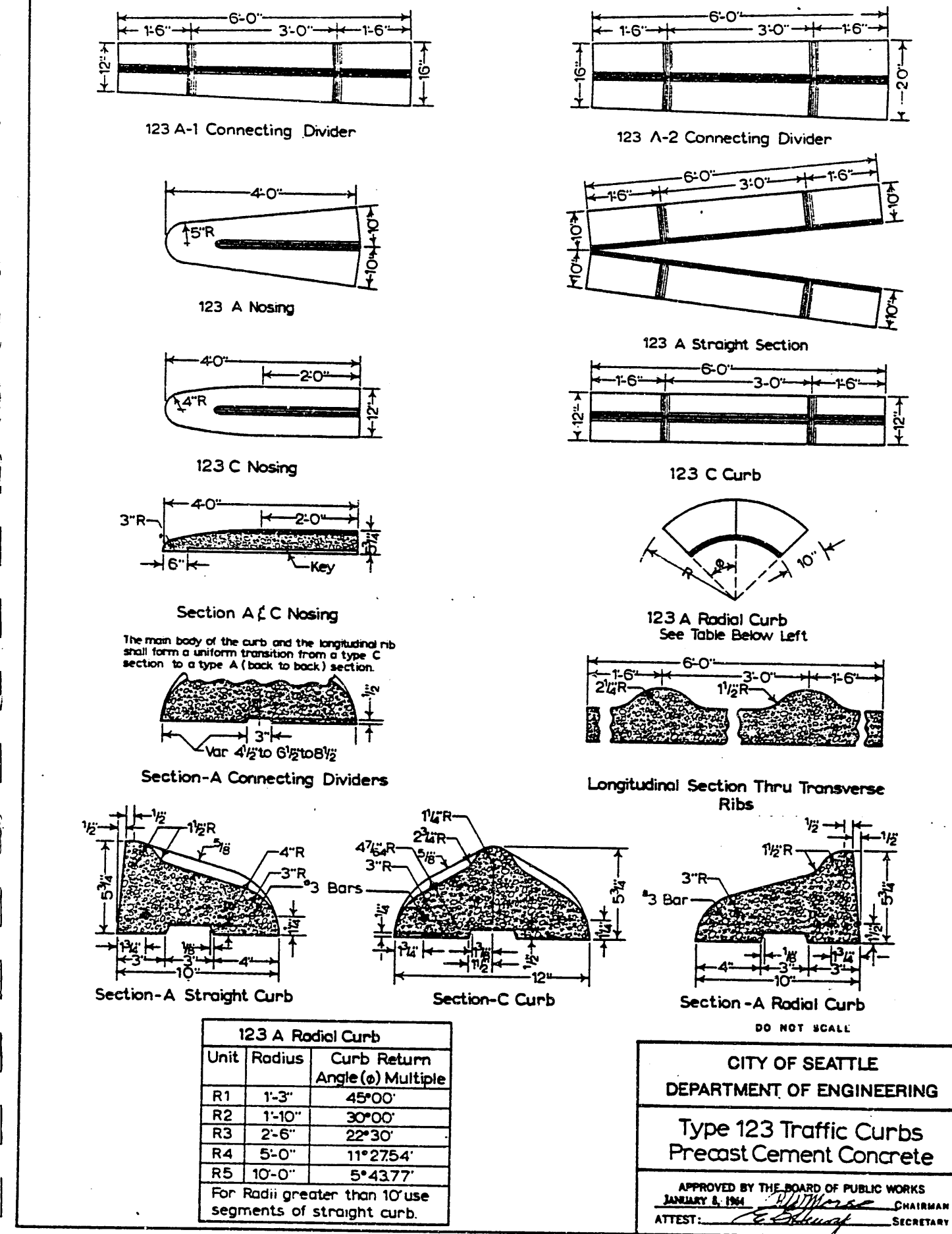
CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

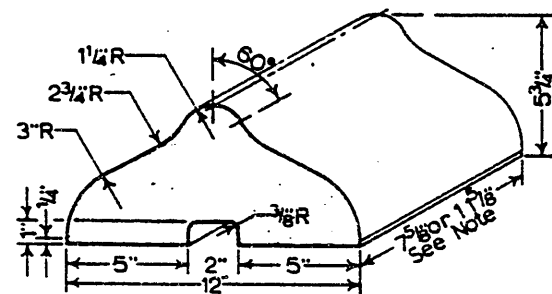
Pavement Patching

APPROVED BY THE BOARD OF PUBLIC WORKS
JANUARY 8, 1964 Bill Morse CHAIRMAN
ATTEST: E. E. Mena SECRETARY

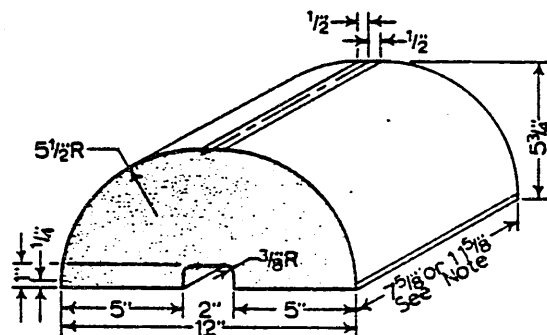


CITY OF SEATTLE
DEPARTMENT OF ENGINEERING
TYPICAL
TRENCH SECTION
APPROVED BY THE BOARD OF PUBLIC WORKS
JANUARY 8, 1964
ATTEST: *[Signature]* SECRETARY

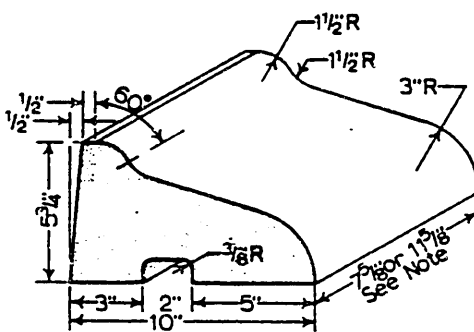




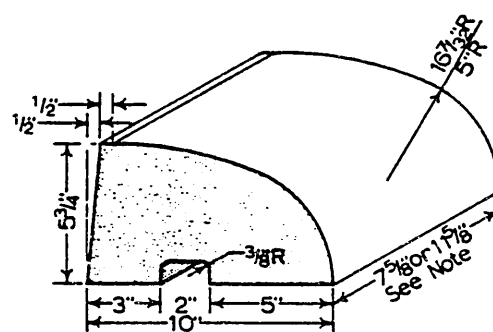
124 C-Block



124 C-Reflector Block



124 A-Block



124 A-Reflector Block

With 7⁵/₈" Blocks every sixth Block may be a Reflector Block or as otherwise specified.

With 11⁵/₈" Blocks every fourth Block may be a Reflector Block or as otherwise specified.

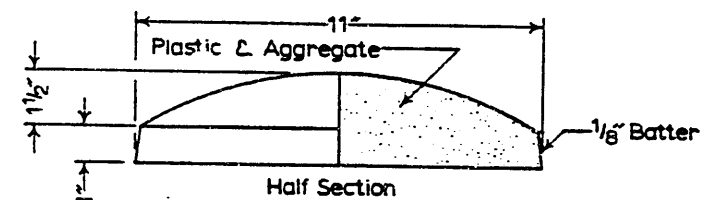
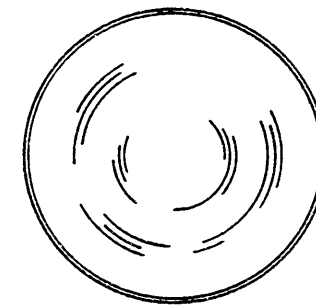
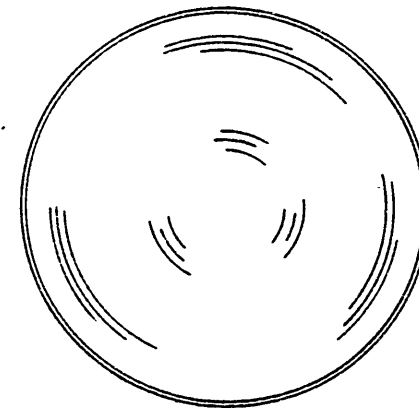
DO NOT SCALE

Revised	5-1-70
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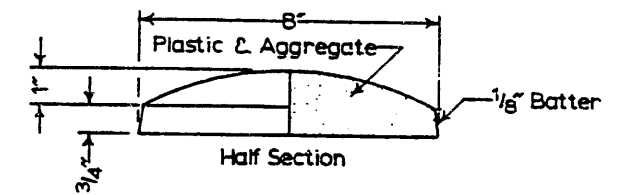
CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Type 124 Traffic Curbs
Block-Precast Cement Concrete

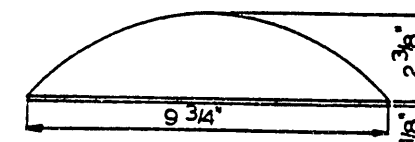
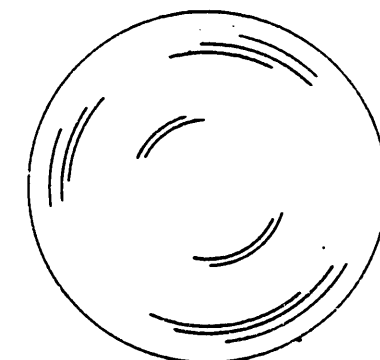
APPROVED BY THE BOARD OF PUBLIC WORKS
JANUARY 8, 1964 H. H. Wierse CHAIRMAN
ATTEST: E. Edgewood SECRETARY



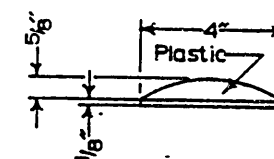
Type 125A
11" Plastic Button



Type 125B
8~ Plastic Button



Type 125 D
9 3/4" Plastic Button



Type 125C
4~Lane Marker

DO NOT SCALE

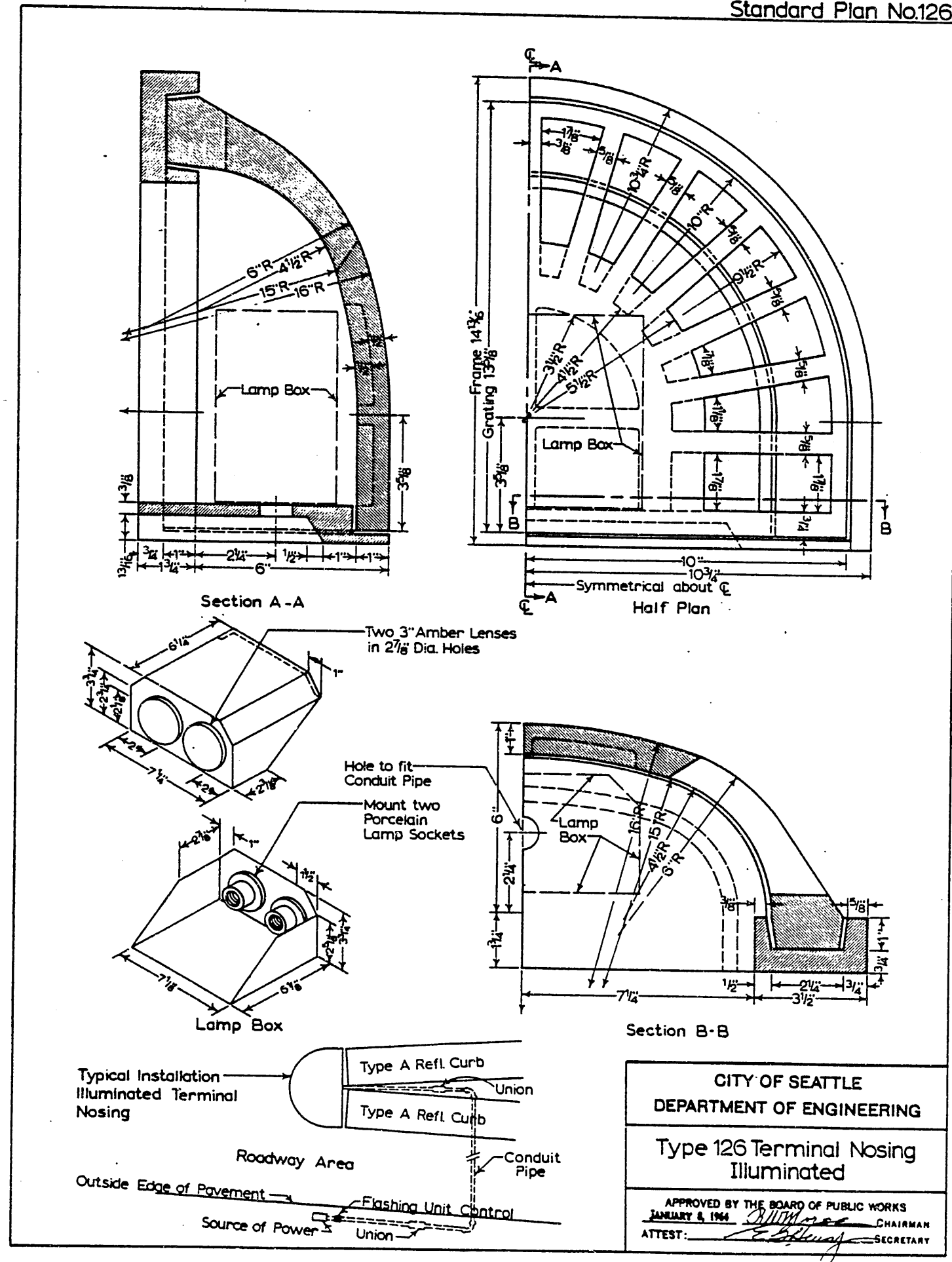
Revised 4-7-76

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

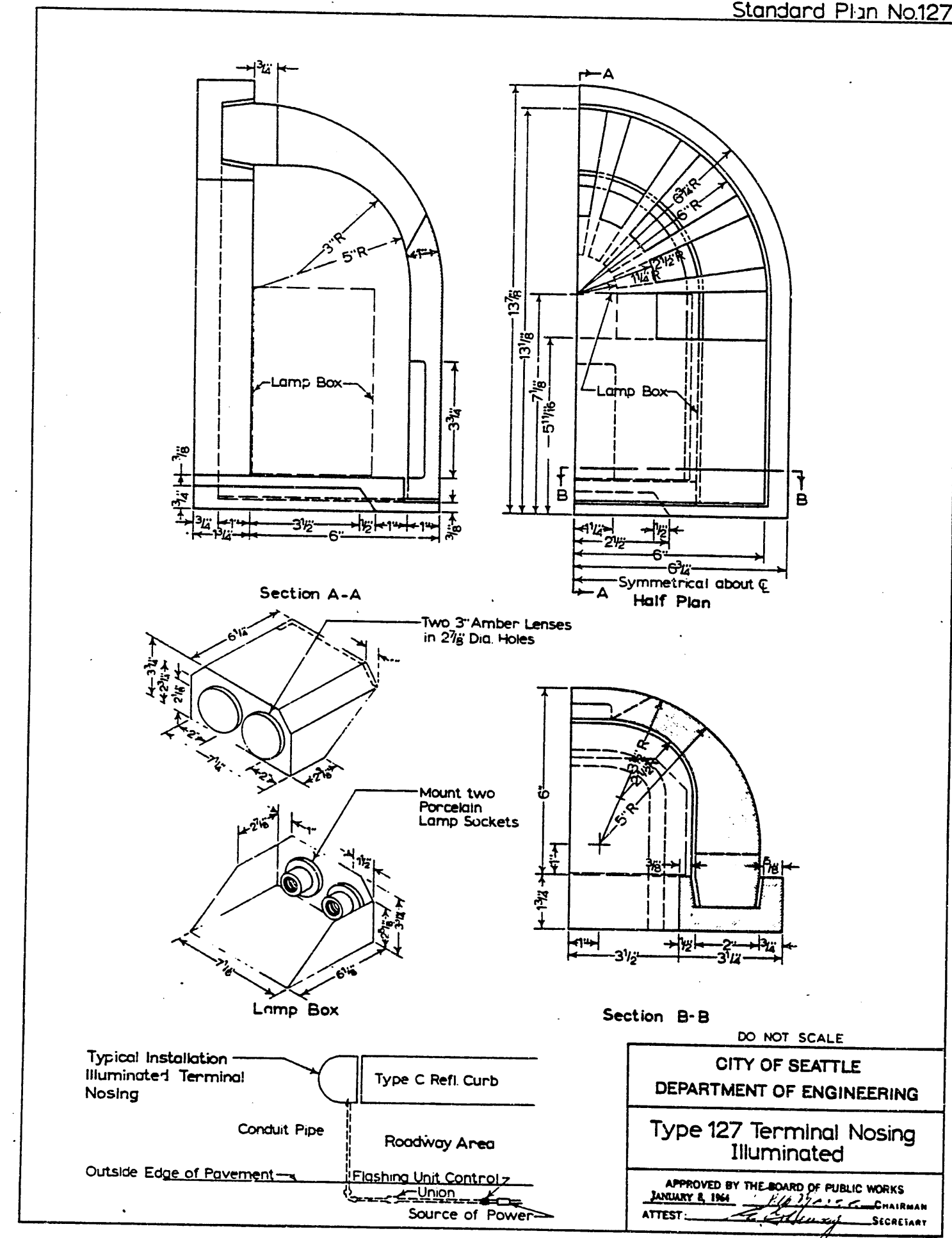
Type 125 Traffic Buttons

APPROVED BY THE BOARD OF PUBLIC WORKS
7.9.1970 Wase CHAIRMAN
 ATTEST: [Signature] SECRETARY

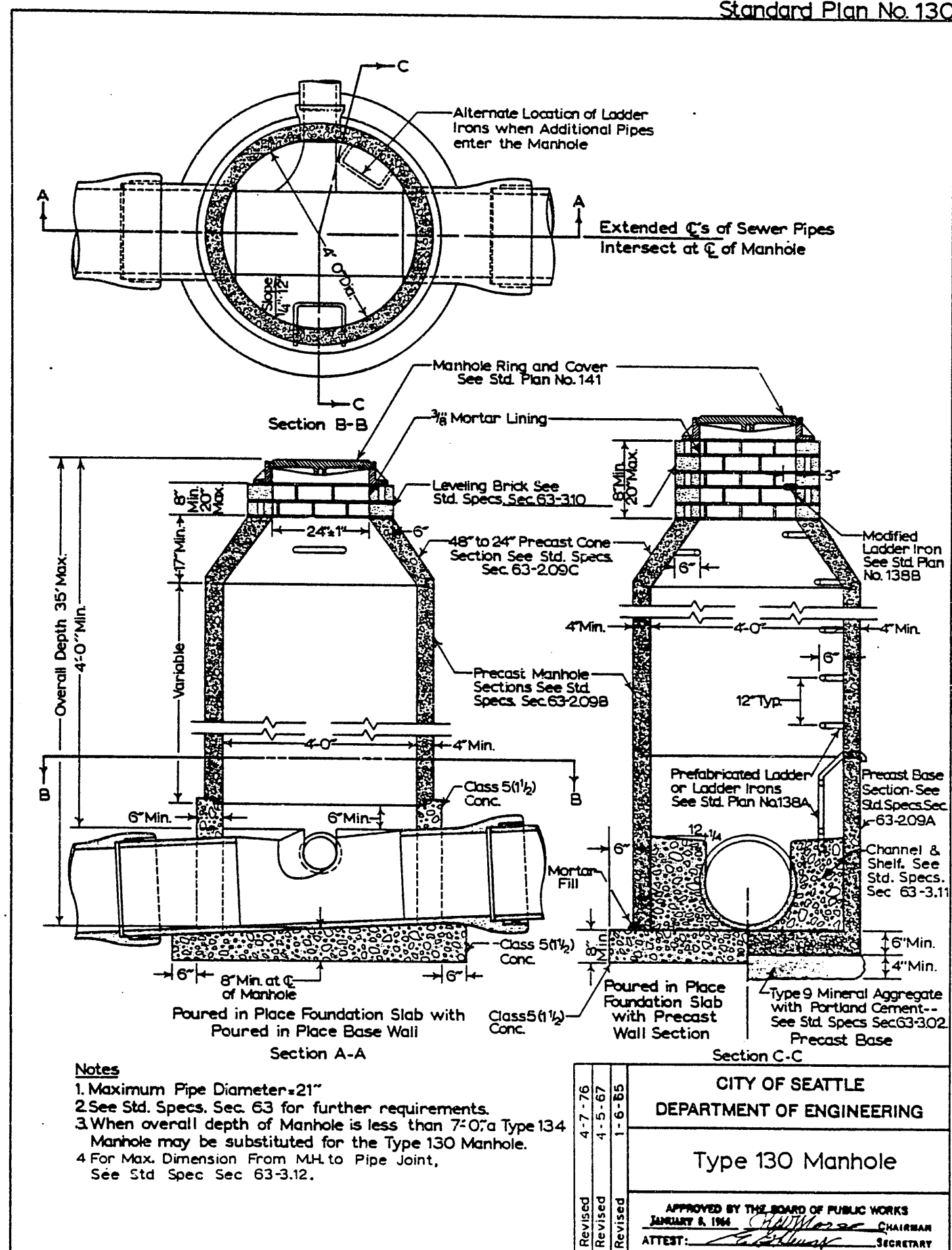
Standard Plan No.126



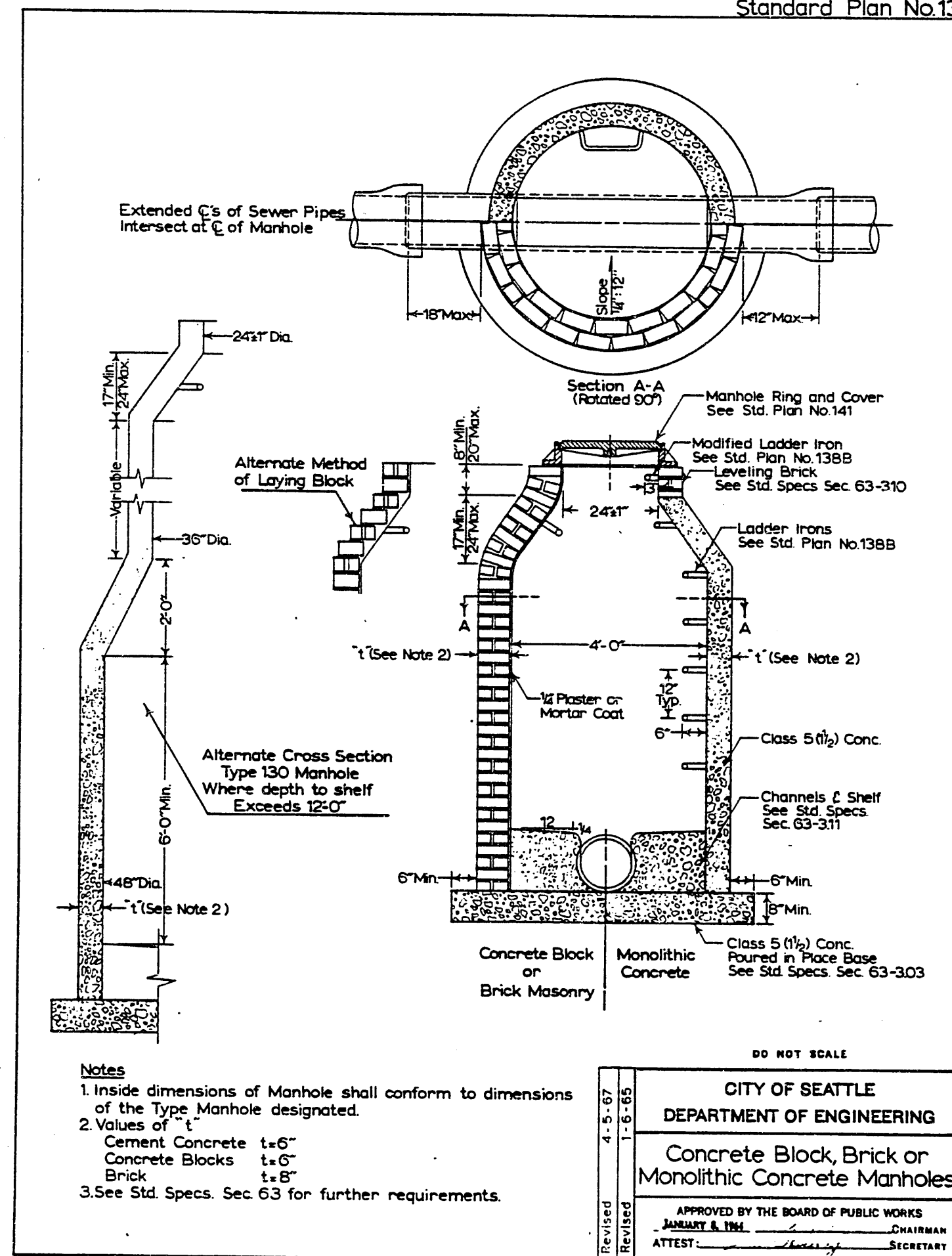
Standard Plan No.127



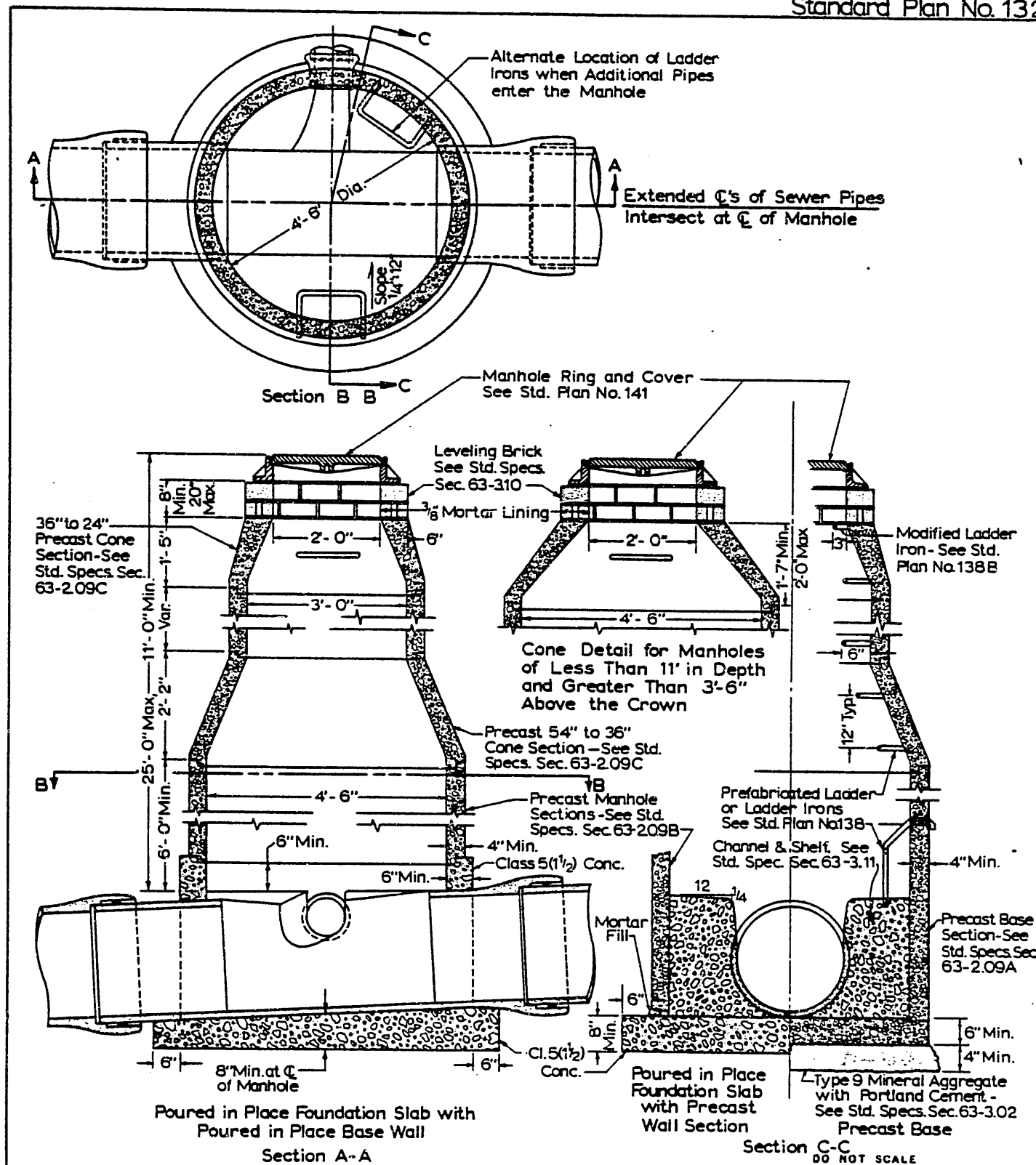
Standard Plan No. 130



Standard Plan No. 131



Standard Plan No. 132

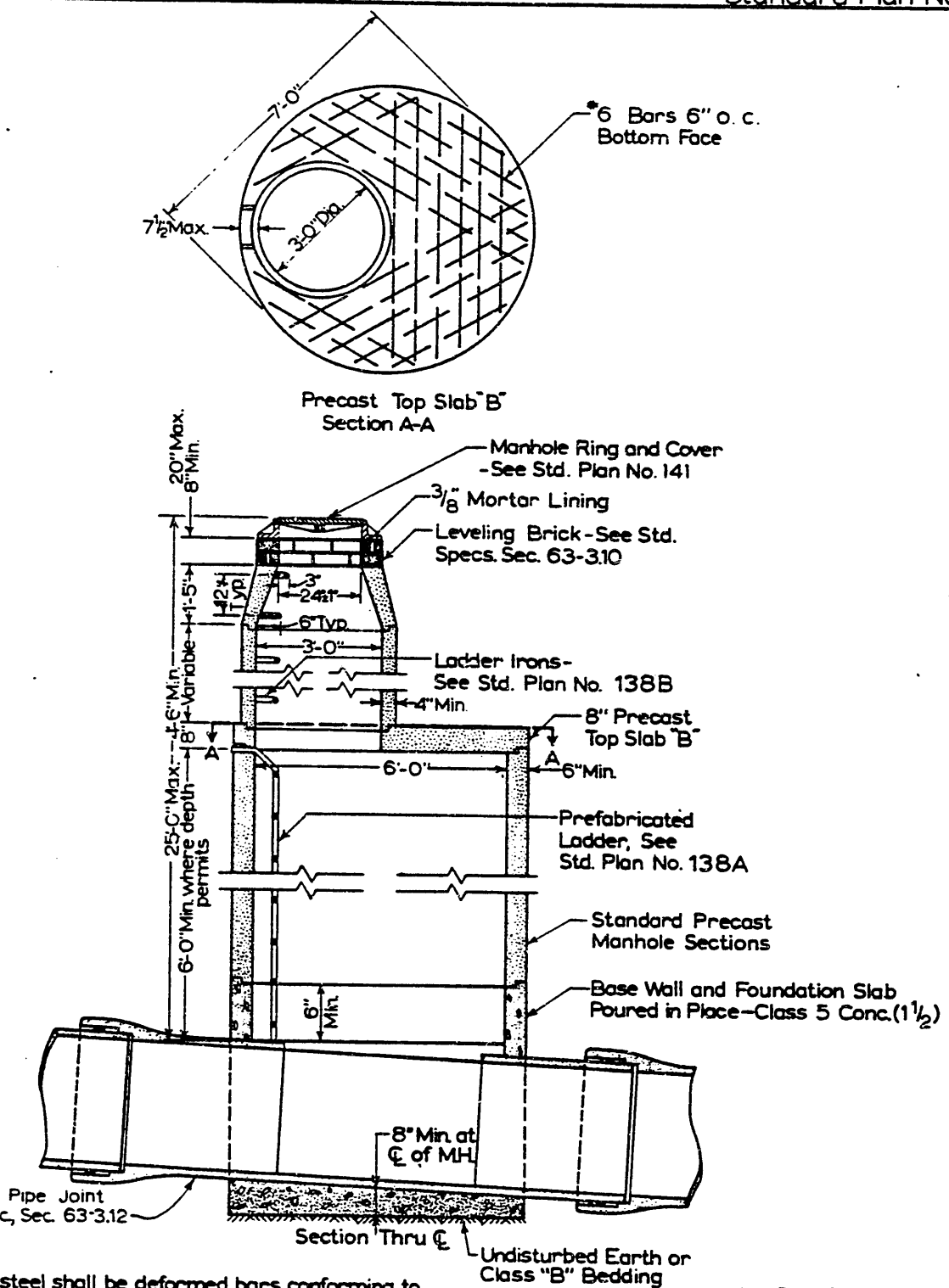


Notes

1. Maximum Pipe Diameter = 36"
2. See Std. Specs. Sec. 63 for further requirements.
3. For Manholes constructed of alternate materials see Std. Plan No. 131.
4. The maximum dimension from Manhole to pipe joint See Std. Specs. Sec. 63-3.12.

Revised	4-7-76	CITY OF SEATTLE DEPARTMENT OF ENGINEERING
Revised	4-5-67	
Revised	1-6-65	
		Type 132 Manhole
APPROVED BY THE BOARD OF PUBLIC WORKS		
JANUARY 8, 1964 <i>William E. Williams</i> CHAIRMAN		
ATTEST: <i>William E. Williams</i> SECRETARY		

Standard Plan No. 133



From MH to Pipe Joint
See Std. Spec. Sec. 63-3.12

Reinforcing steel shall be deformed bars conforming to ASTM A-15 and shall have a minimum cover of 2".

Unit, as shown, is a cast-in-place base section above which optional construction may be brick, conc. block or cast-in-place construction at Contractor's option, unless otherwise provided in the proposal.

Construct manholes in accordance with Section 63 of the Std. Specifications.

Base walls all cast-in-place for 12" and larger pipe.

Allow flexible joints of unreinforced pipe to deflect. No concrete on, around or under joint.

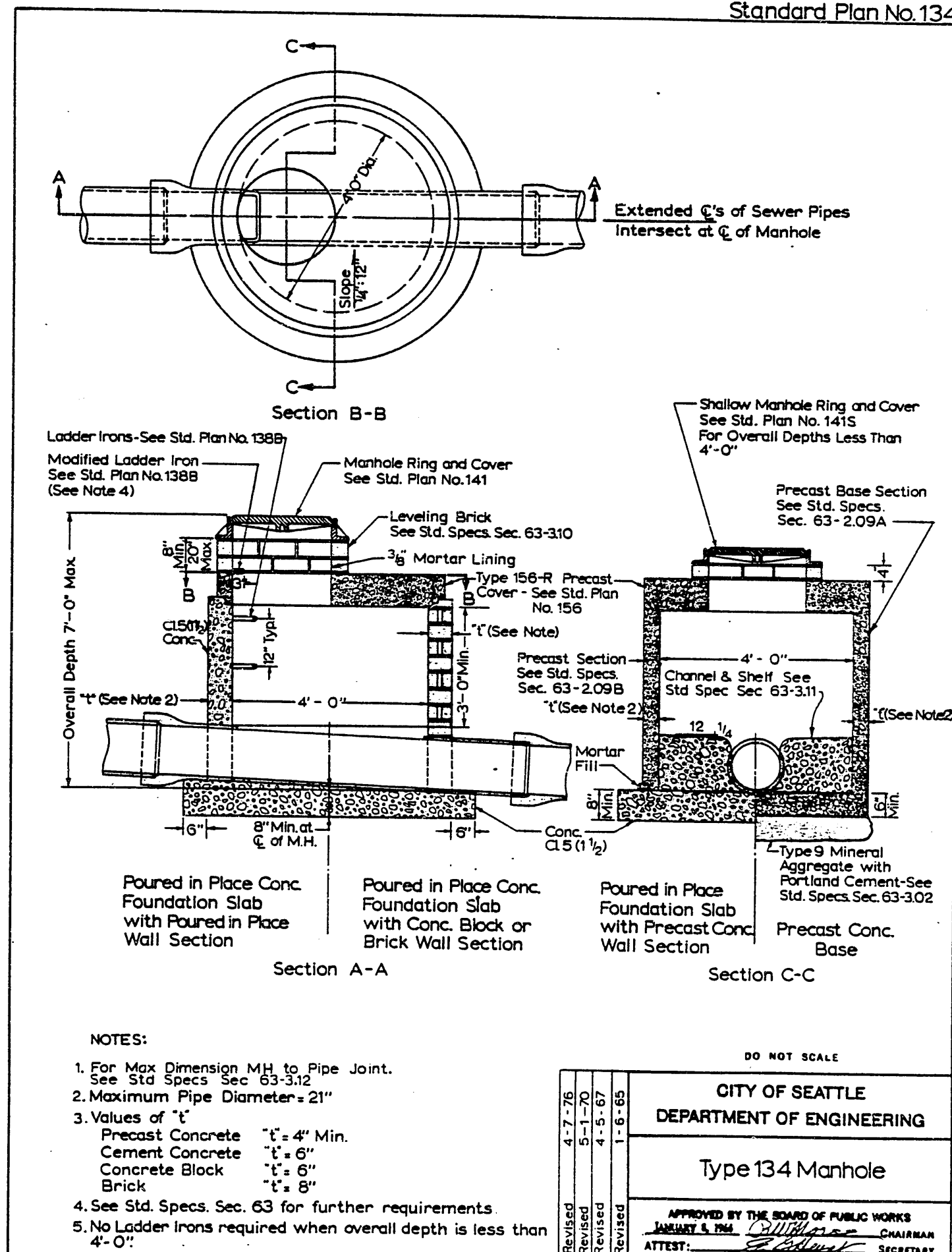
All lift holes and joints to be filled with mortar.

Max. Pipe Dia. 42"

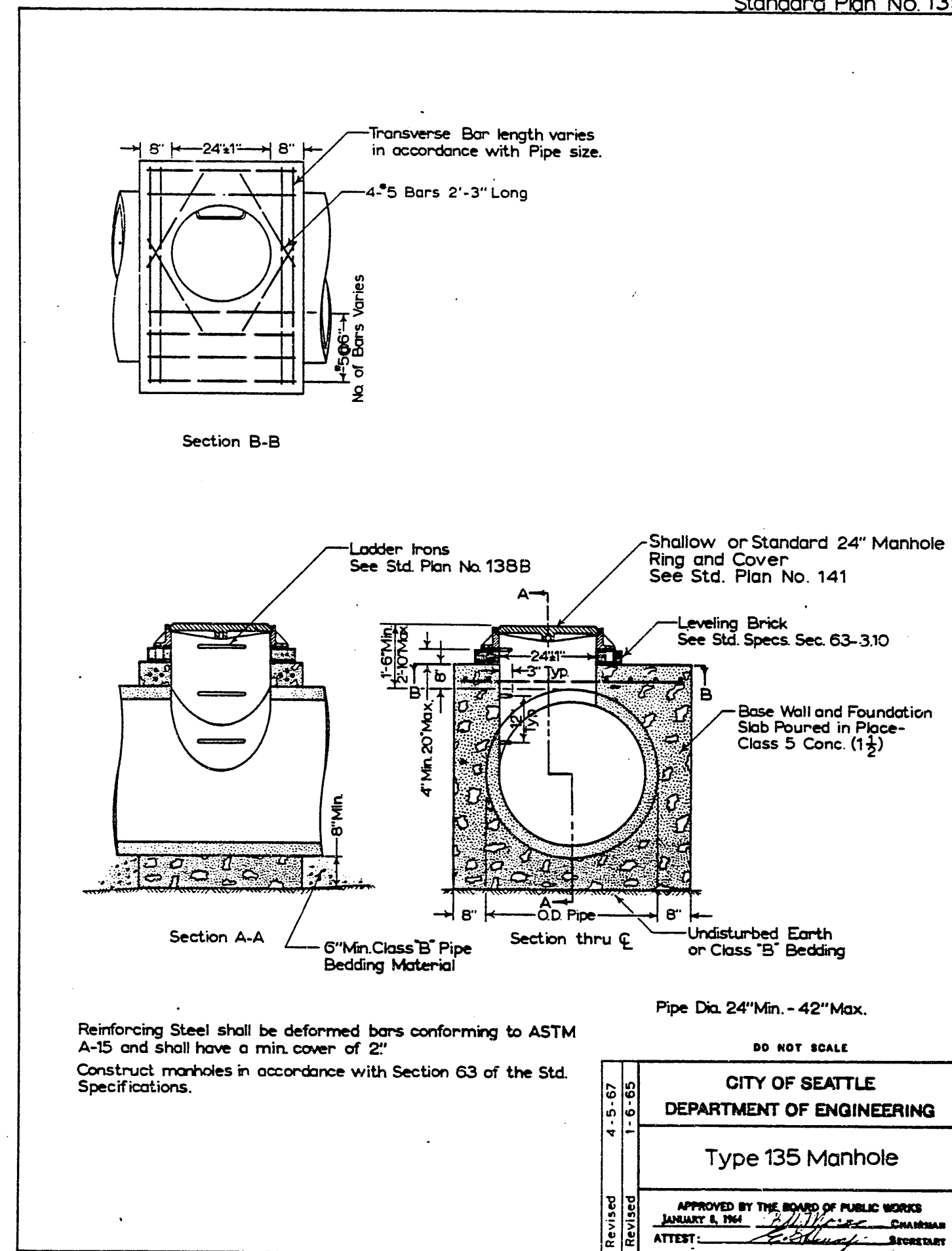
DO NOT SCALE

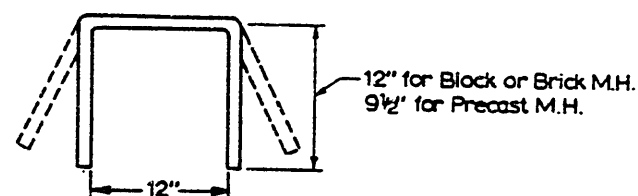
Revised	4-7-76	CITY OF SEATTLE DEPARTMENT OF ENGINEERING
Revised	5-1-70	
Revised	4-5-67	
Revised	1-6-65	
		Type 133 Manhole
APPROVED BY THE BOARD OF PUBLIC WORKS		
JANUARY 8, 1964 <i>[Signature]</i>		CHAIRMAN
ATTEST: <i>[Signature]</i>		SECRETARY

Standard Plan No. 134



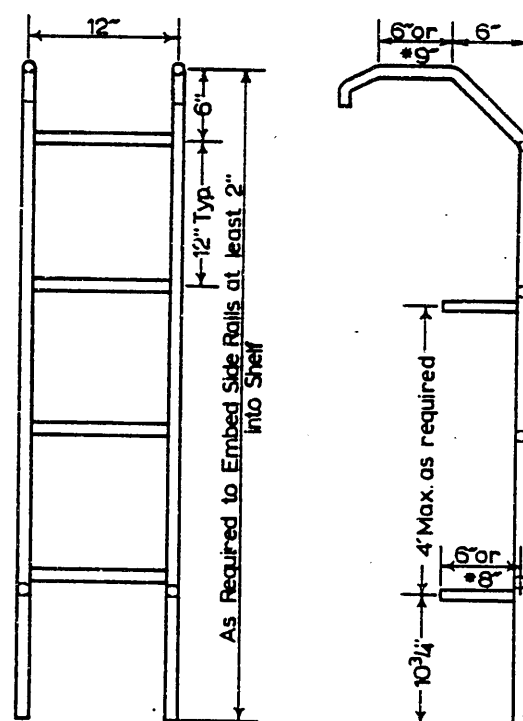
Standard Plan No. 135





Legs may be parallel or approximately radial at option of manufacturer except that all steps in any manhole shall be similar.

138 B -Manhole Step



138A - Prefabricated Ladder

*Larger Dimension when Ladder is used with Precast Reducing Slab.

Rungs and Irons to be deformed or non-skid.

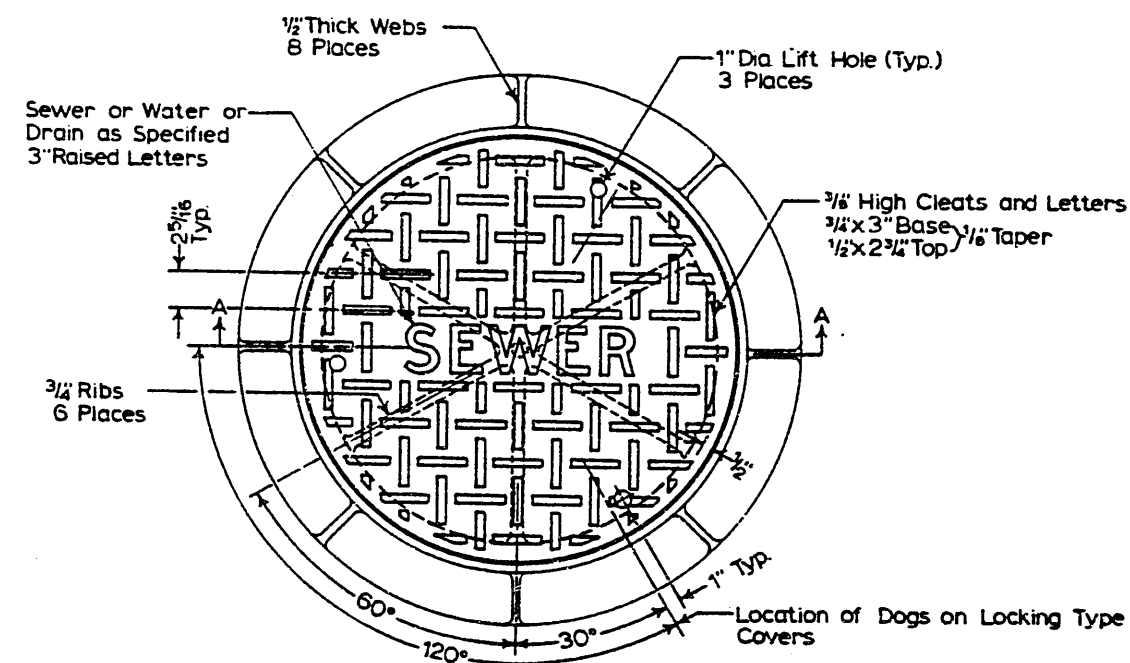
Materials for Aluminum Ladder Irons and Prefabricated Ladders, or Galvanized Deformed Bar Ladder Irons and Prefabricated Ladders, shall conform to the specifications therefor in Section 63-2.02A and Section 63-2.02B, respectively.

DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

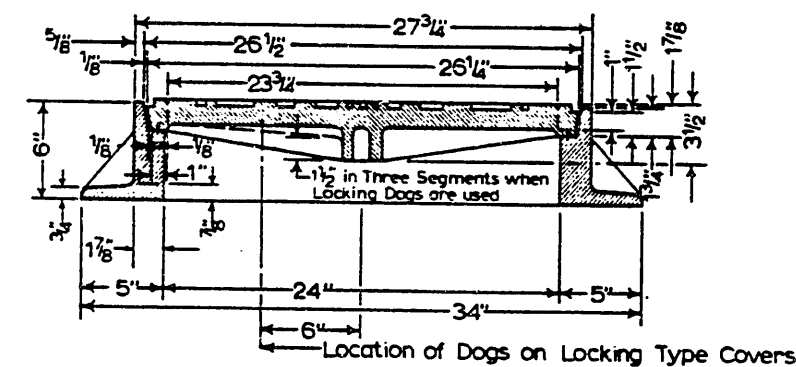
Ladder and Manhole Step

APPROVED BY THE BOARD OF PUBLIC WORKS
JANUARY 8, 1964 *[Signature]* CHAIRMAN
ATTEST: *[Signature]* SECRETARY



Ring and Cover shall be tested for accuracy of fit and shall be marked in sets for delivery.

All Castings to have a bituminous coating according to Std. Specs. Sec. 63.208.



Section A-A

Designate Nodular Iron as Type 141N
(Nodular Iron To Be Used For Cover Only)

Designate Locking Cover as Type 141L
(For Locking Device See U.S. Govt. Patent
Office Design Patent No. 2697389)

Designate Shallow Ring as Type 141S
(For Shallow Ring 6" Dimension to be 4")

Combinations of Type Designations May Be Used
(Type 141-LNS - Type 141 Locking Cover, Nodular Iron, Shallow Ring)

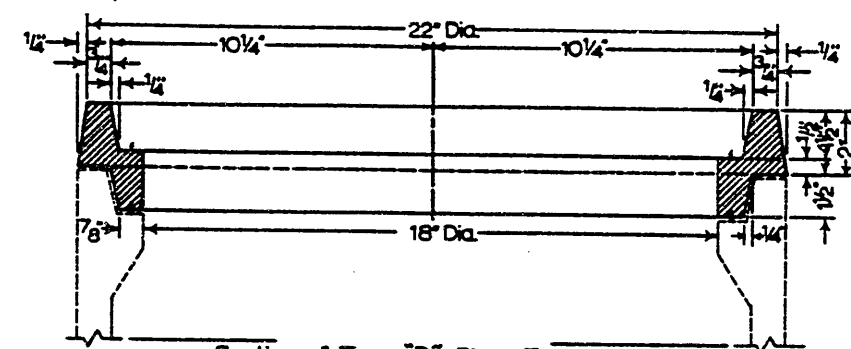
DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

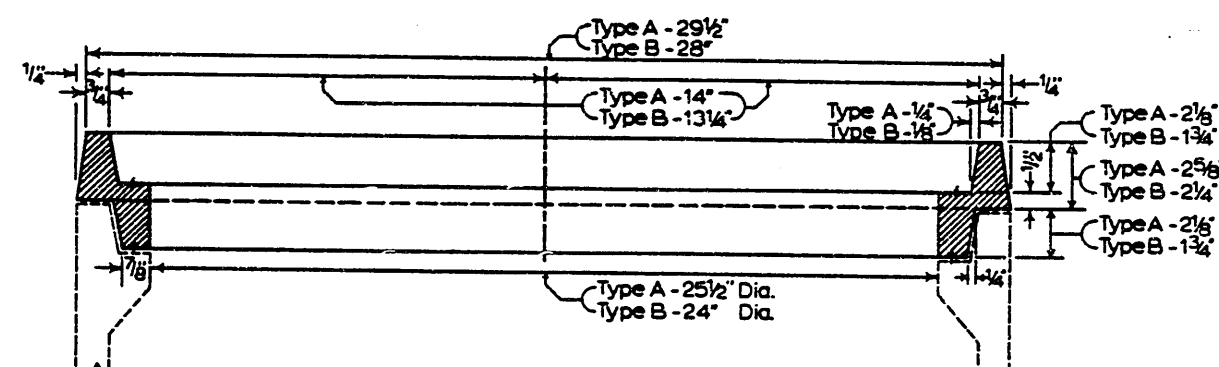
Type 141-24 Inch Diameter
Ring and Cover

APPROVED BY THE BOARD OF PUBLIC WORKS
JANUARY 8, 1964 B. H. Moore CHAIRMAN
ATTEST: E. E. Evans SECRETARY

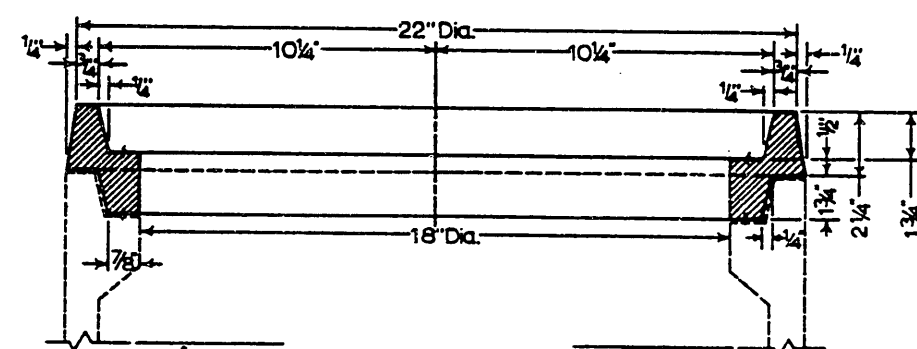
Standard Plan No. 145



Section of Type "D" Ring Extension



Section of Types "A" & "B" Ring Extensions



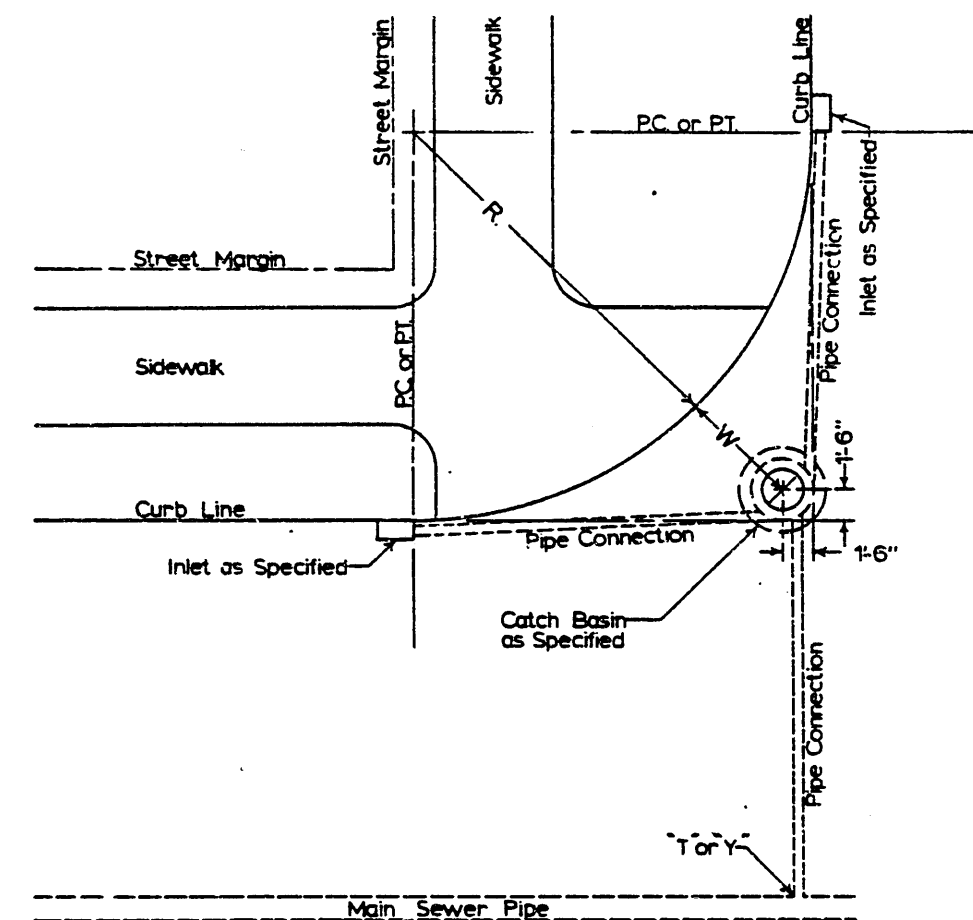
Section of Type "C" Ring Extension

Manhole ring extension shall be tested for accuracy of fit. See Std. Specs. Sec. 113.
All Castings to have a bituminous coating according to Std. Specs. Sec. 63.208.

Revised 4-5-67	DO NOT SCALE	
	CITY OF SEATTLE DEPARTMENT OF ENGINEERING	
	Manhole Ring Extensions	
	APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1964 ATTEST: <i>[Signature]</i> CHAIRMAN <i>[Signature]</i> SECRETARY	

34

Standard Plan No. 149

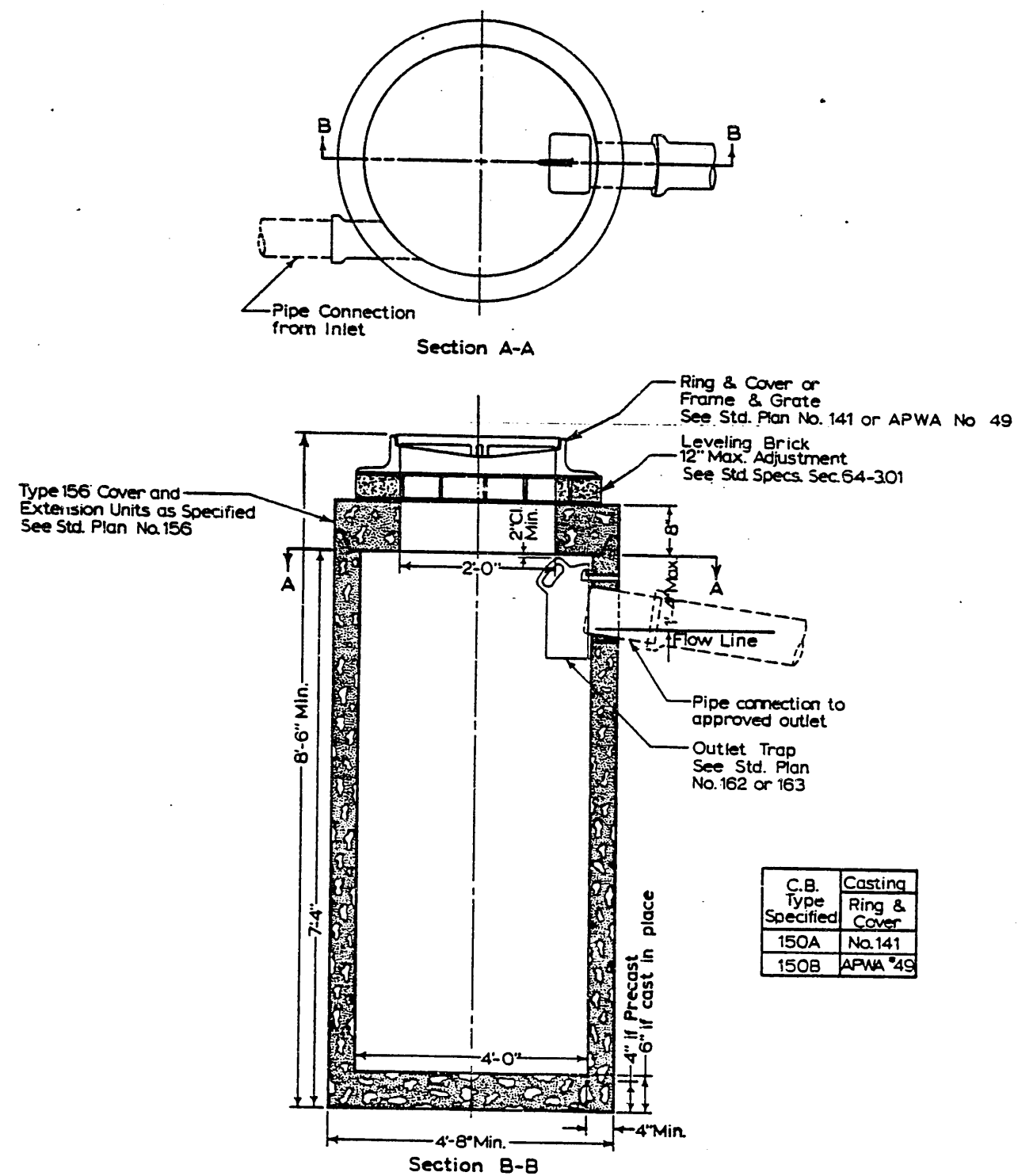


Distance "W" for Catch Basin location varies according to "R" as located by the City Engineer for making satisfactory pipe connections, and to clear other underground utilities.

DO NOT SCALE	
CITY OF SEATTLE DEPARTMENT OF ENGINEERING	
Location of Catch Basin with Inlets	
APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1964 ATTEST: <i>[Signature]</i> CHAIRMAN <i>[Signature]</i> SECRETARY	

35

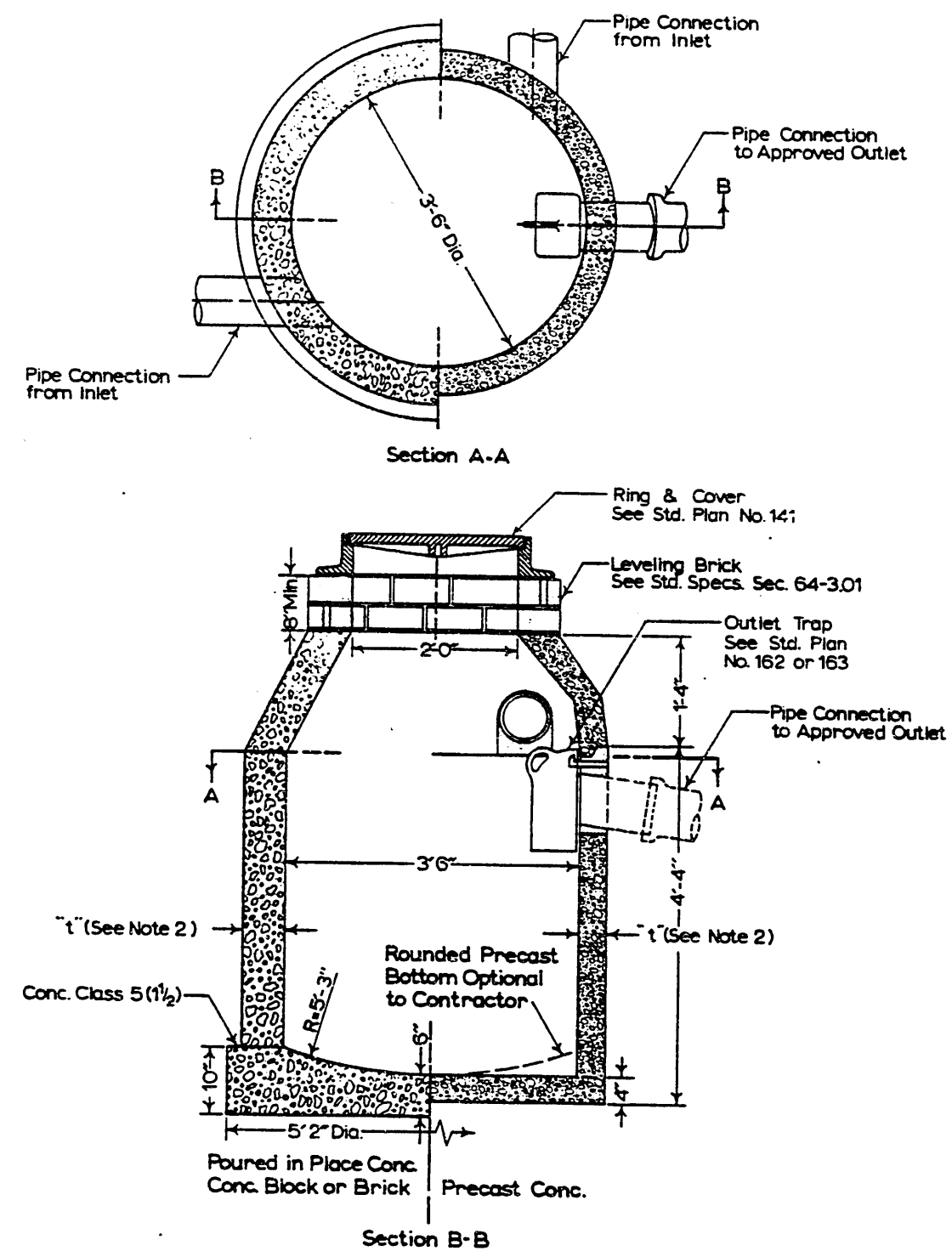
Standard Plan No.150



All lift holes and joints to be filled with mortar.

Revised	4-7-76	CITY OF SEATTLE DEPARTMENT OF ENGINEERING
Revised	5-1-70	
Revised	4-5-67	
		Type 150 Catch Basin
APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1964		
ATTEST:		CHAIRMAN SECRETARY

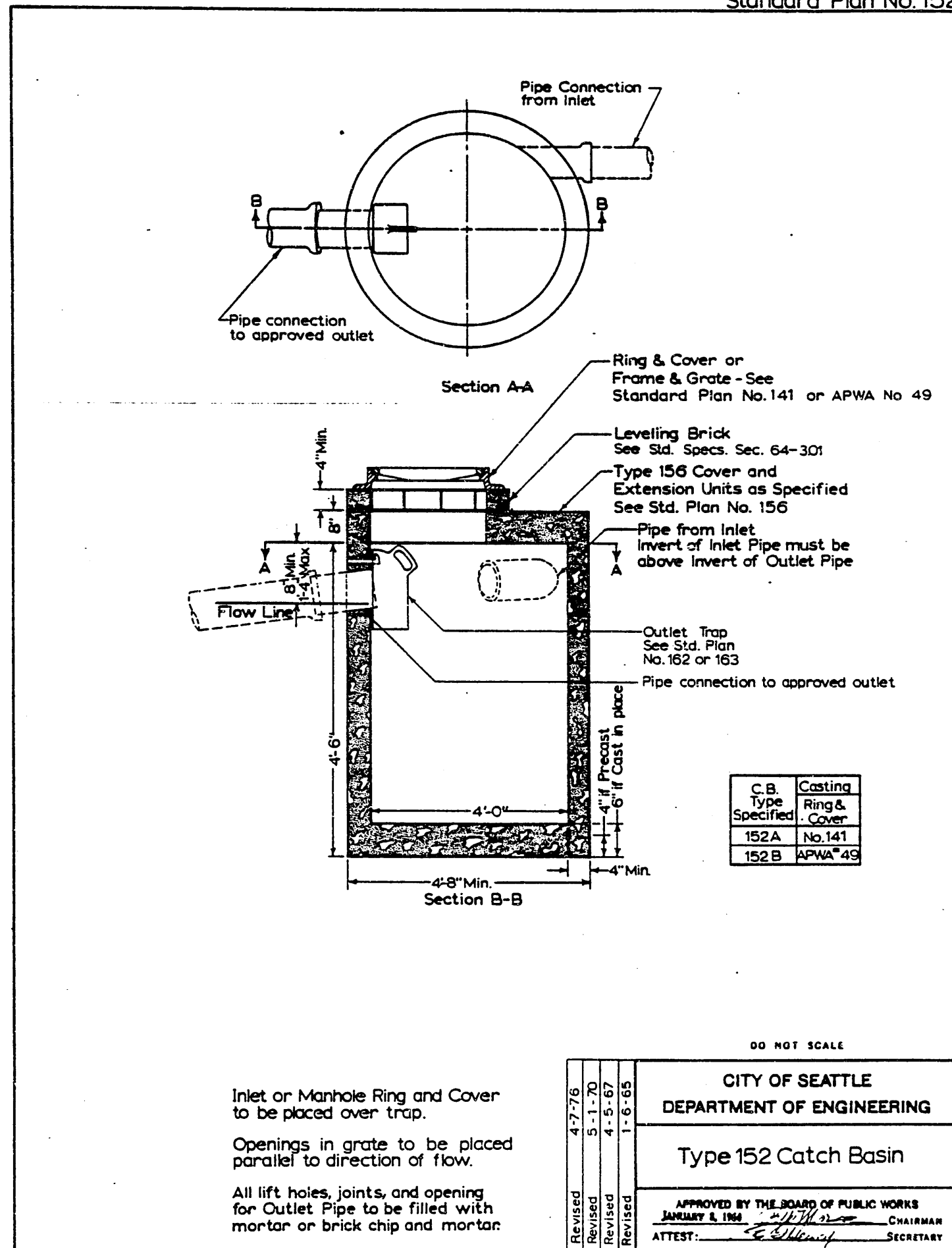
Standard Plan No.151



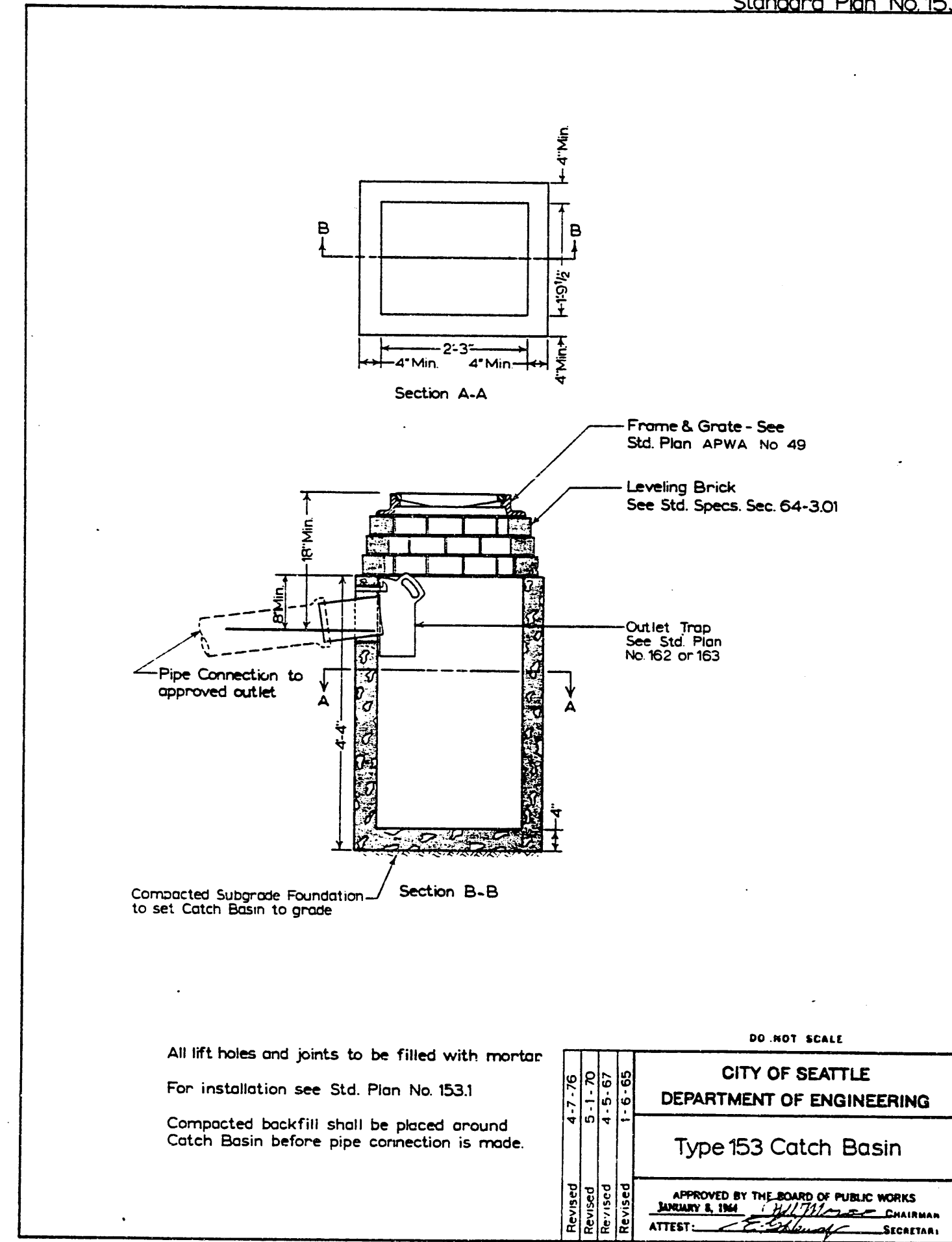
- Notes**
- Invert of Inlet Pipes must be above invert of Outlet Pipe.
 - Values of "t"
 - See Std. Specs. Sec. 64 for further requirements.

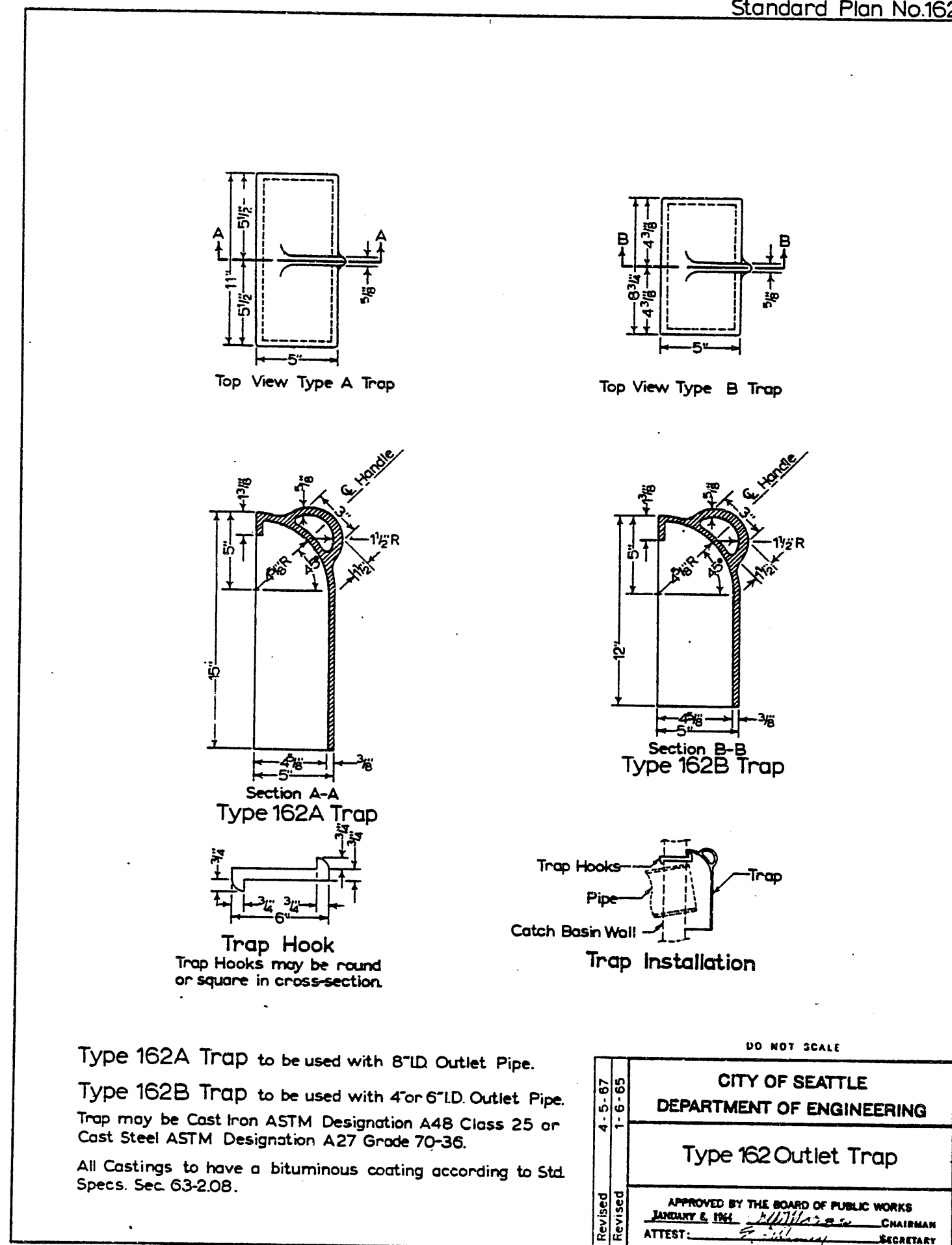
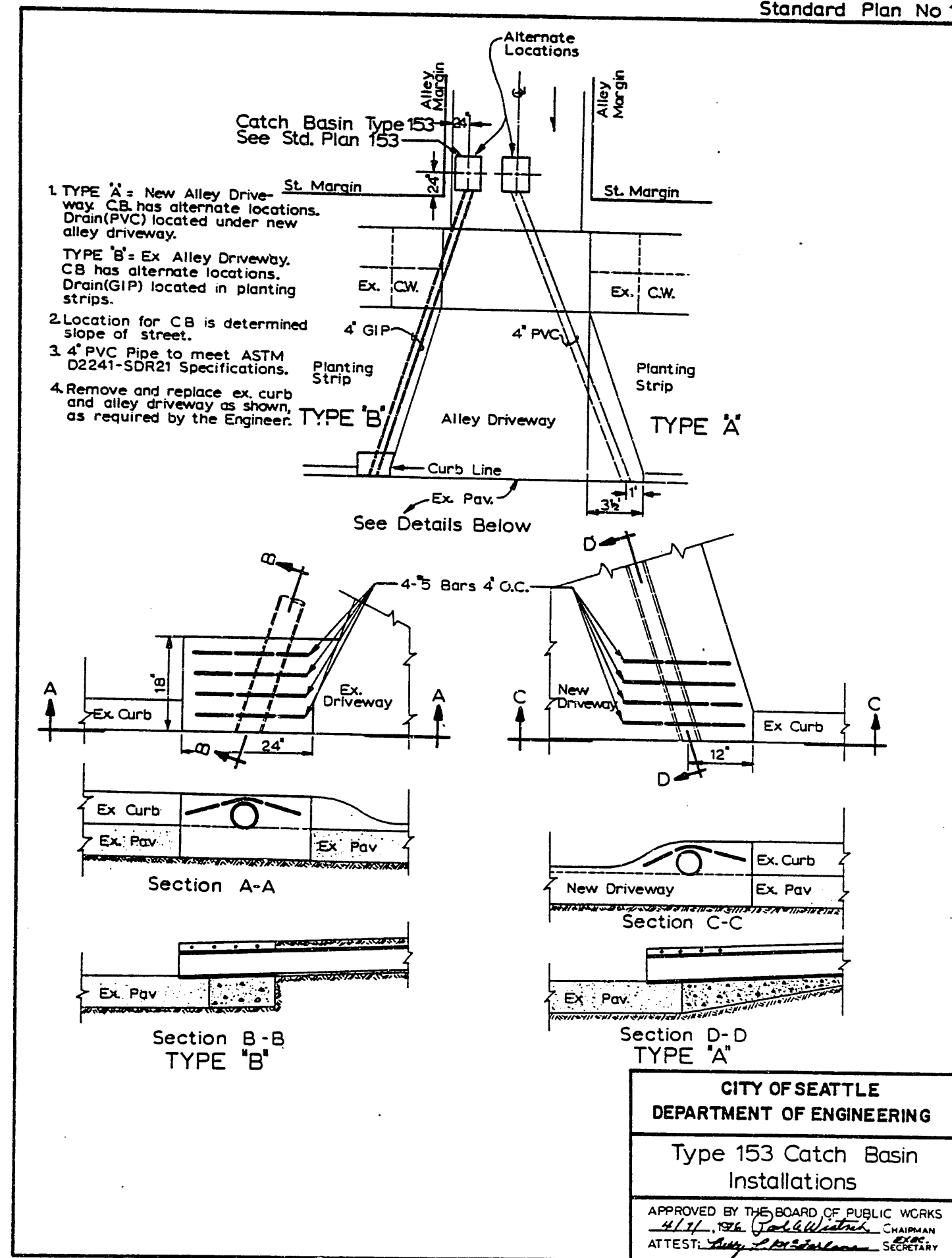
Revised	5-1-70	CITY OF SEATTLE DEPARTMENT OF ENGINEERING
Revised	4-5-67	
Revised	4-5-67	
		Type 151 Catch Basin
		APPROVED BY THE BOARD OF PUBLIC WORKS
		19 <u>1970</u> CHAIRMAN
		ATTEST: <u>[Signature]</u> SECRETARY

Standard Plan No. 152

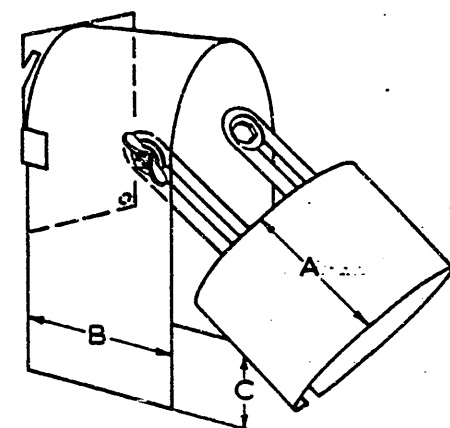


Standard Plan No. 153



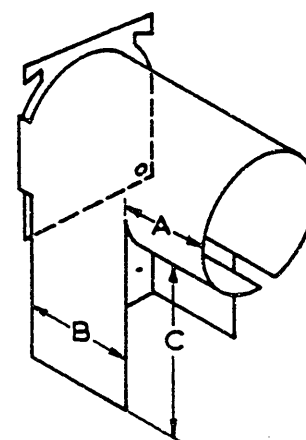


Standard Plan No.163



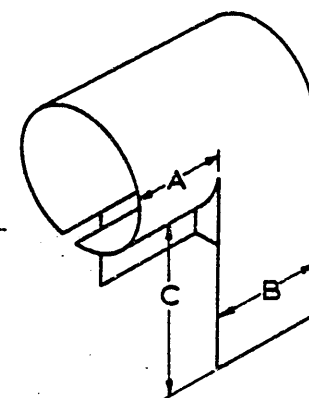
TYPE 163A
Adjustable With Gate

Size	A	B	C _{Max}	Gauge
4"	3"	3"	3.75"	18
6"	4"	5"	4.5"	14
8"	4"	6.5"	5.5"	14



TYPE 163B
Dimensions With Or Without Gate

Size	A	B	C	Gauge
4"	3"	3"	3"	18
6"	4"	5"	4"	14
8"	4"	6.5"	4"	14
10"	4"	8"	4"	14
12"	5"	10"	4"	Body 14 Collar 12



TYPE 163C

Type 163A is to be used only where the catch basin outlet pipe makes an angle of more than 10° with the horizontal. Type 163B or Type 163C is to be used only where the catch basin outlet pipe makes an angle of less than 10° with the horizontal.

The Aluminum Self-Locking Trap may be used, at the option of the contractor, as an alternate to Type 162A and Type 162B traps as shown on Standard Plan No.162.

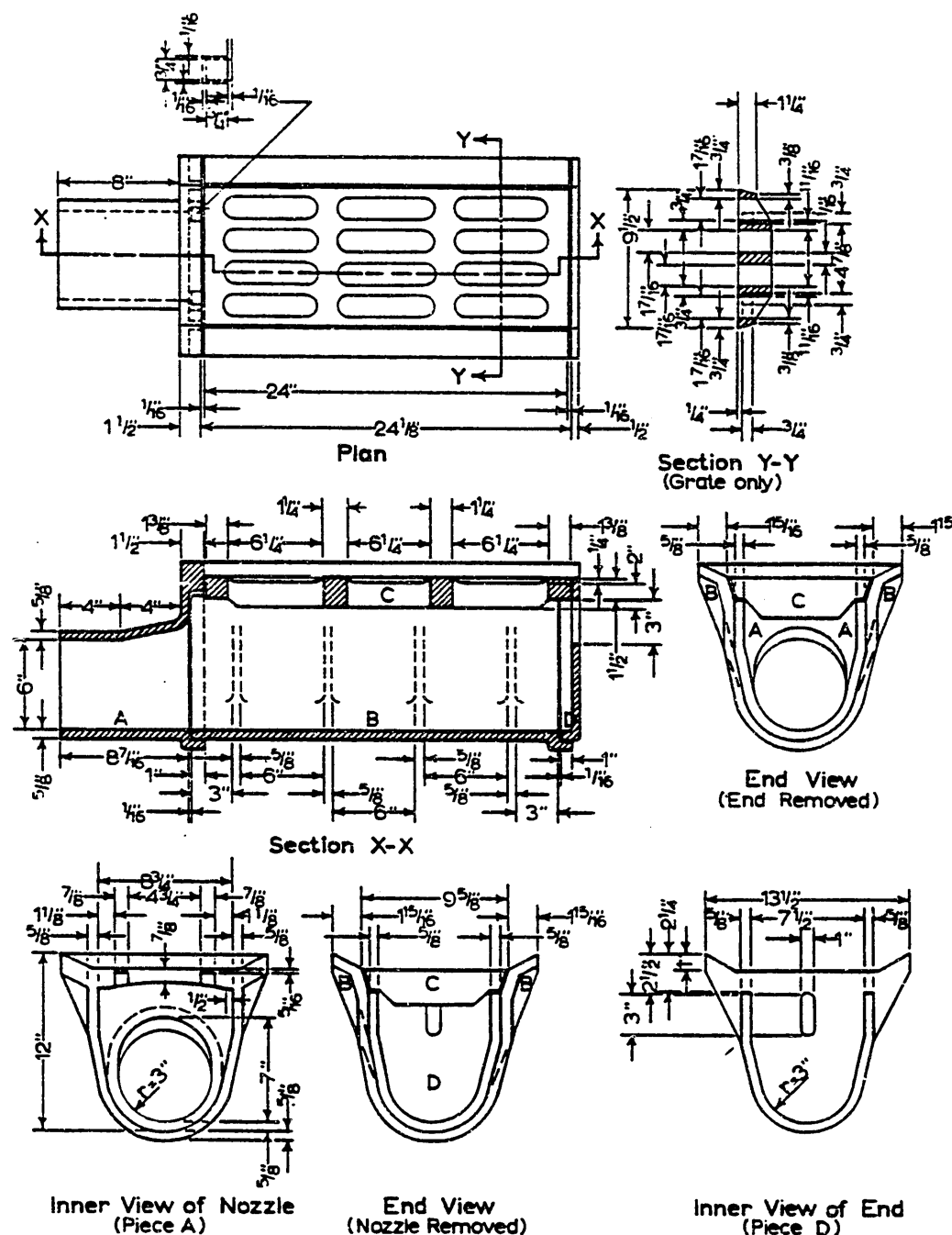
DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Type 163 Outlet Trap

APPROVED BY THE BOARD OF PUBLIC WORKS
7-8-1970 *[Signature]* CHAIRMAN
ATTEST: *[Signature]* SECRETARY

Standard Plan No.164



For Inlet Installation see Std. Plan No.164.1.

All Castings to have a bituminous coating according to Std. Specs. Sec. 63.208.

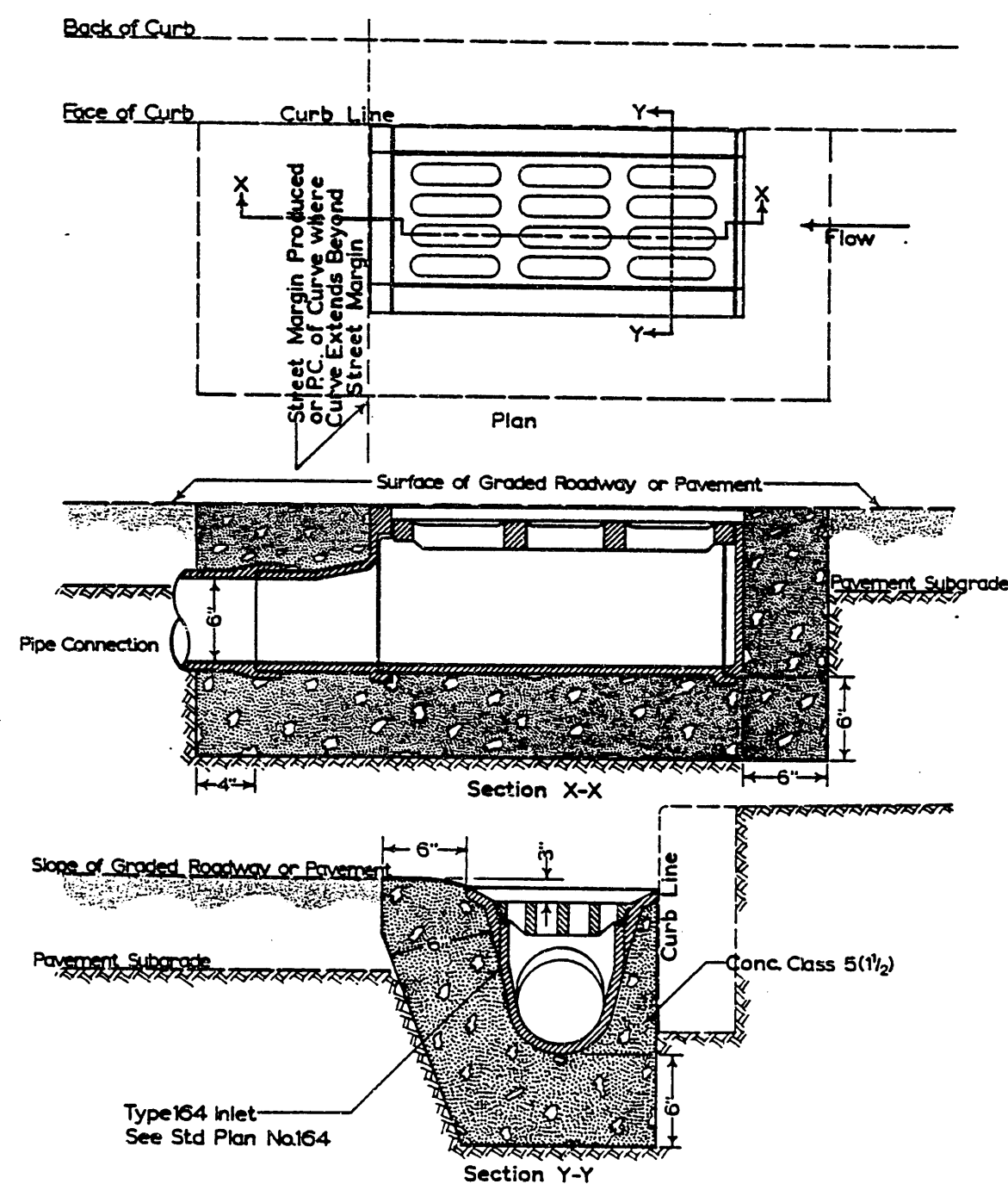
DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Type 164 Inlet
Castings and Assembly

APPROVED BY THE BOARD OF PUBLIC WORKS
JANUARY 8, 1964 *[Signature]* CHAIRMAN
ATTEST: *[Signature]* SECRETARY

Standard Plan No. 164.1



Frame and Grate are to be set so the Curb Face will not interfere with removal of Grate.

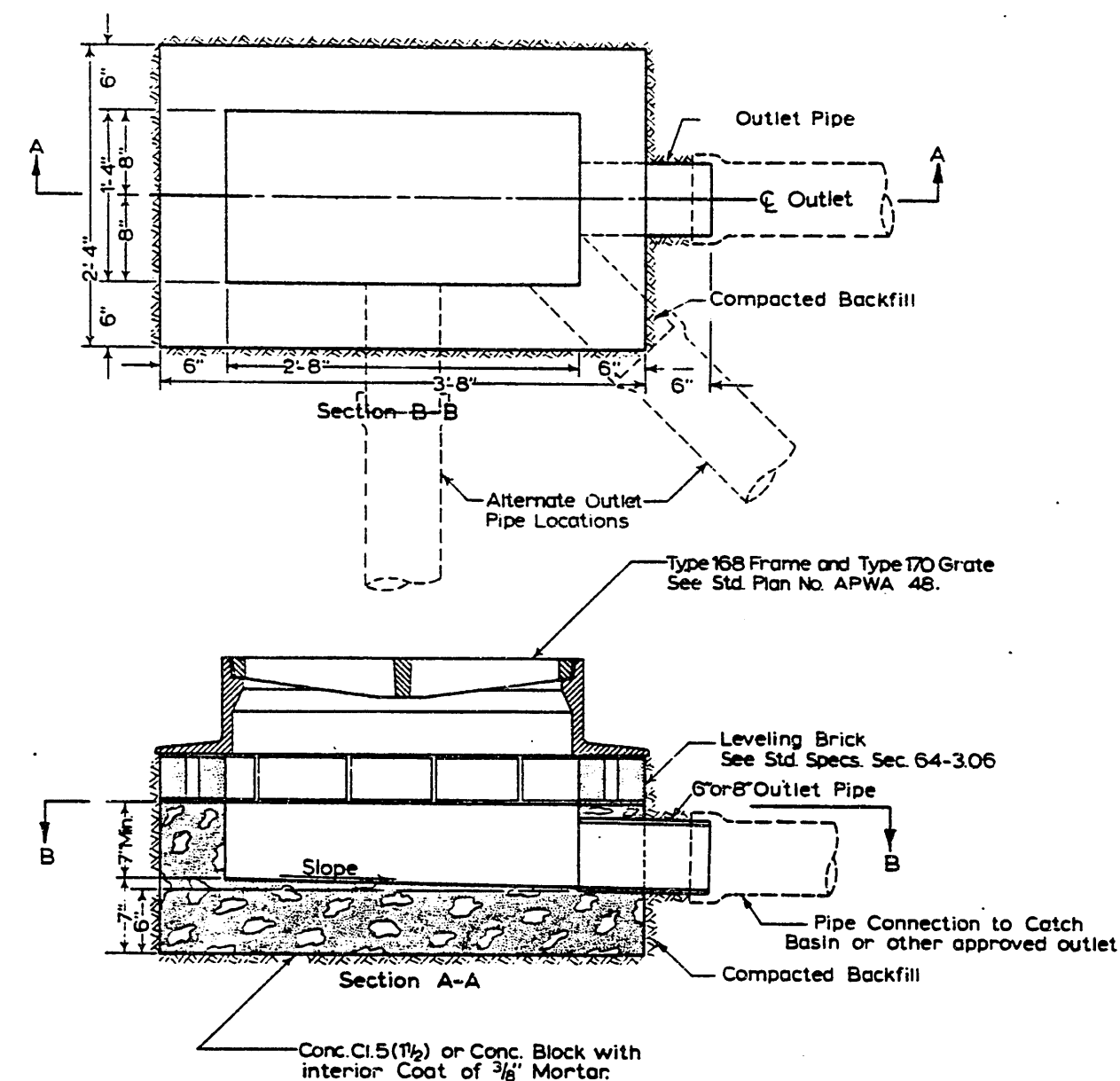
DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Type 164 Inlet Installation

APPROVED BY THE BOARD OF PUBLIC WORKS
JANUARY 5, 1964
ATTEST: *[Signature]* CHAIRMAN
[Signature] SECRETARY

Standard Plan No. 165



Cast Outlet Pipe of Inlet included in payment for Inlet.

Pipe Connection payment separate from payment for Inlet.
See Std. Specs. Sec. 69-304

For Inlet Installation See Std. Plan No. 165.1

DO NOT SCALE

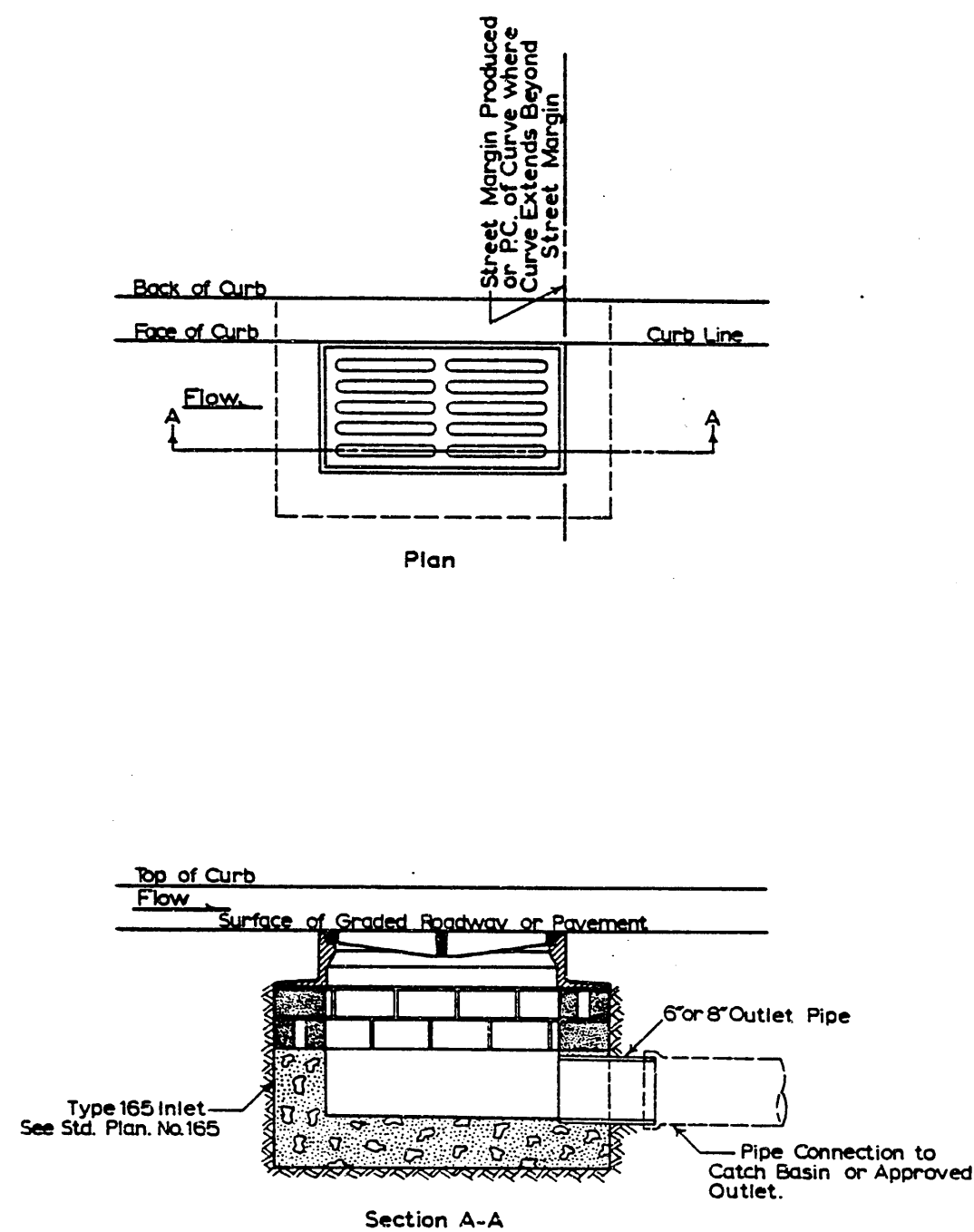
CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Type 165 Inlet

4-7-76
Revised
5-1-70
Revised
4-5-67
Revised

APPROVED BY THE BOARD OF PUBLIC WORKS
JANUARY 5, 1964
ATTEST: *[Signature]* CHAIRMAN
[Signature] SECRETARY

Standard Plan No.165.1

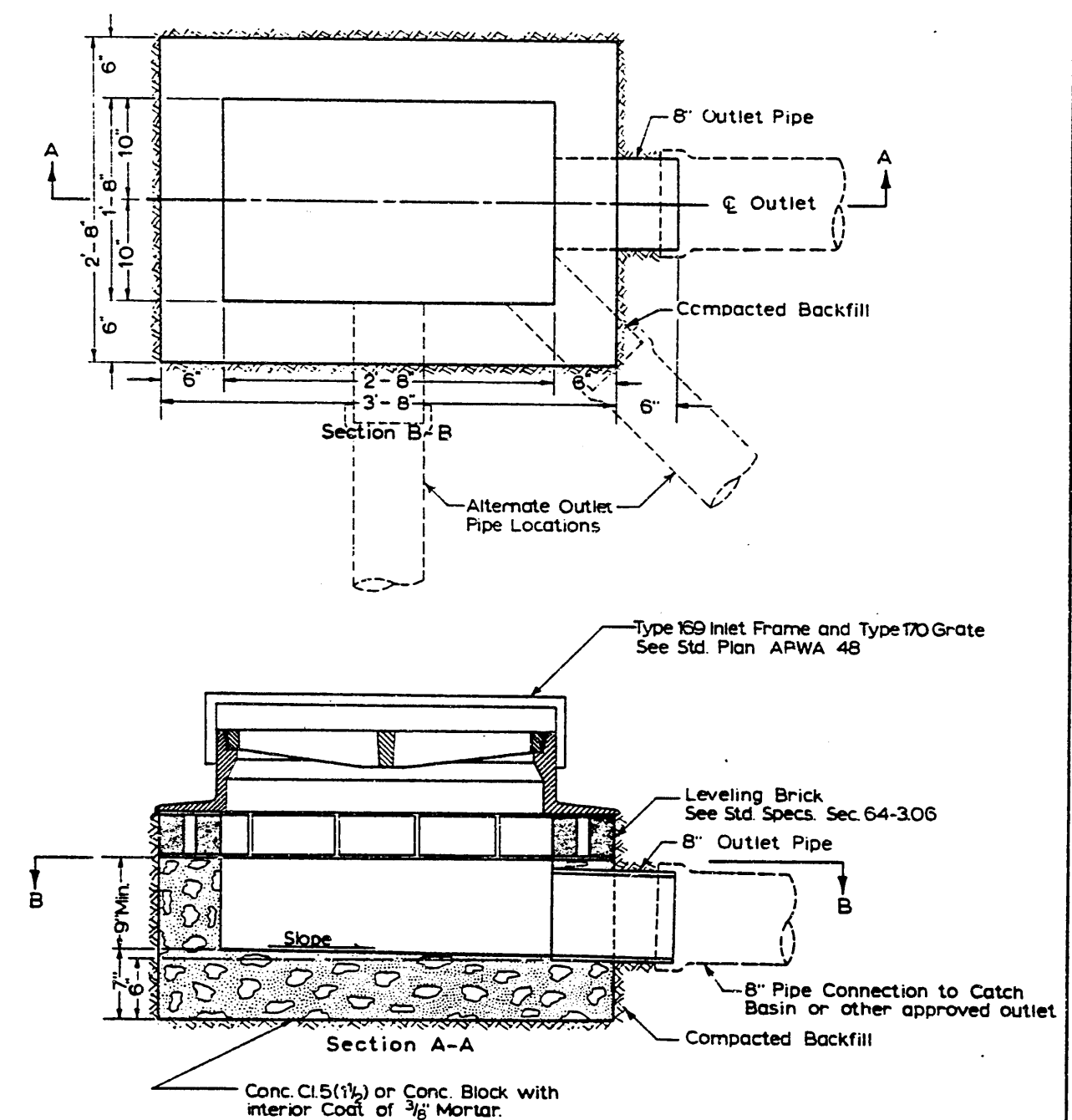


Frame and Grate are to be set so the Curb Face will not interfere with removal of Grate

DO NOT SCALE

Revised	5-1-70	CITY OF SEATTLE DEPARTMENT OF ENGINEERING
	4-5-67	
Revised		Type 165 Inlet Installation
<hr/>		
APPROVED BY THE BOARD OF PUBLIC WORKS		
JANUARY 8, 1964 <i>[Signature]</i> CHAIRMAN		
ATTEST: <i>[Signature]</i> SECRETARY		

Standard Plan No.166

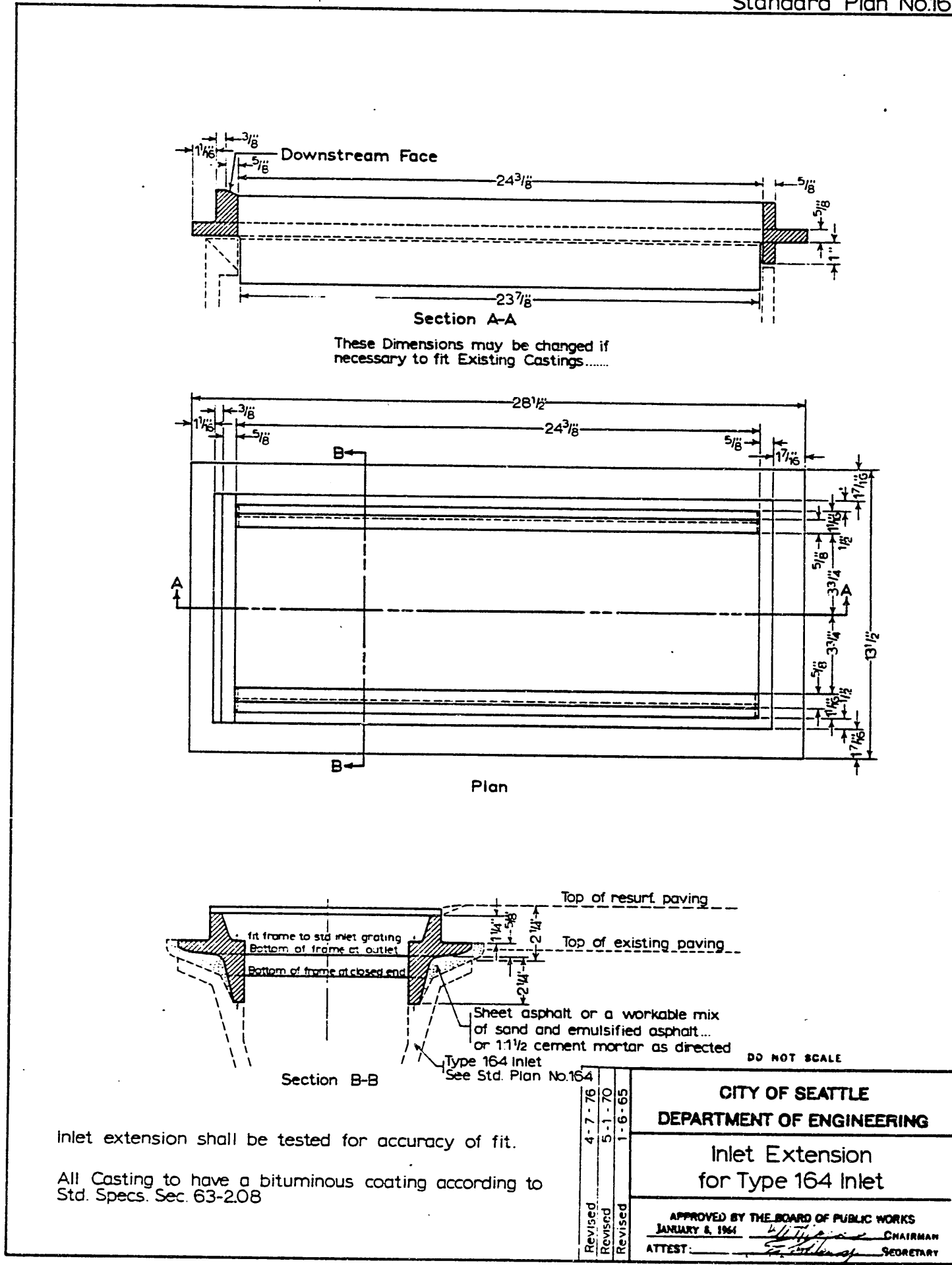
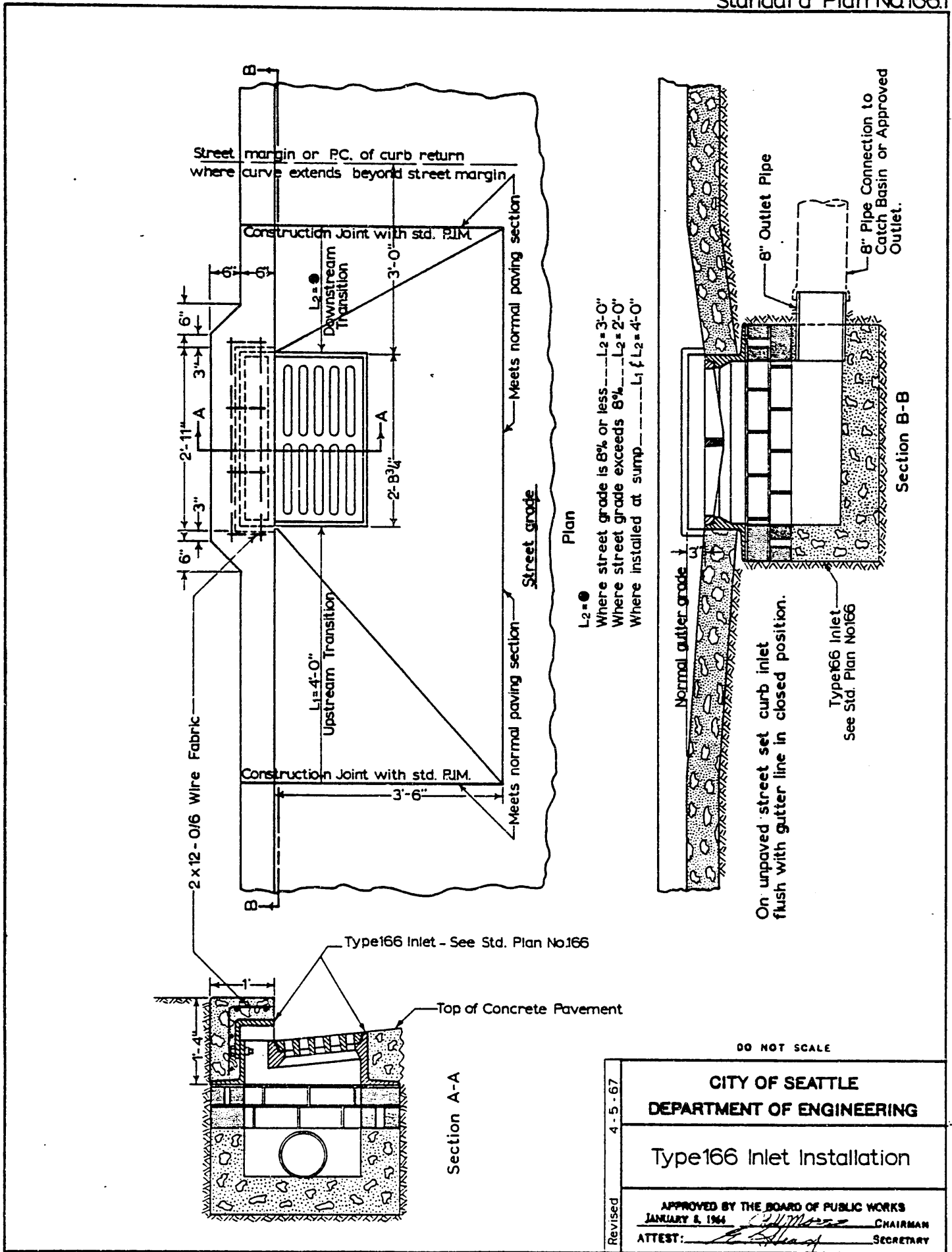


Cast Outlet Pipe of Inlet included in payment for Inlet

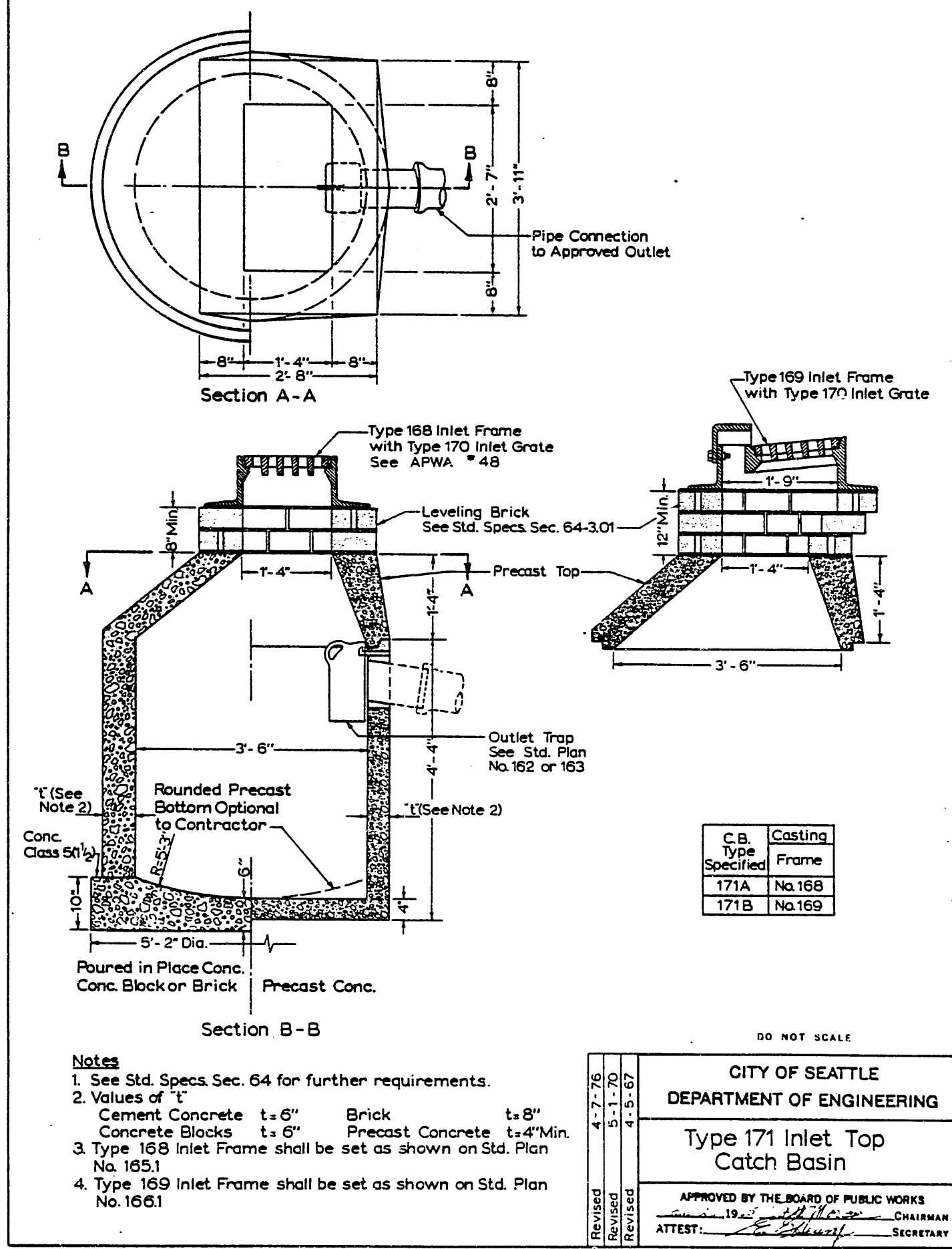
Pipe Connection payment separate from payment for Inlet.
See Std. Specs. Sec. 69-3.04
For Installation See Std. Plan No.166.1

DO NOT SCALE

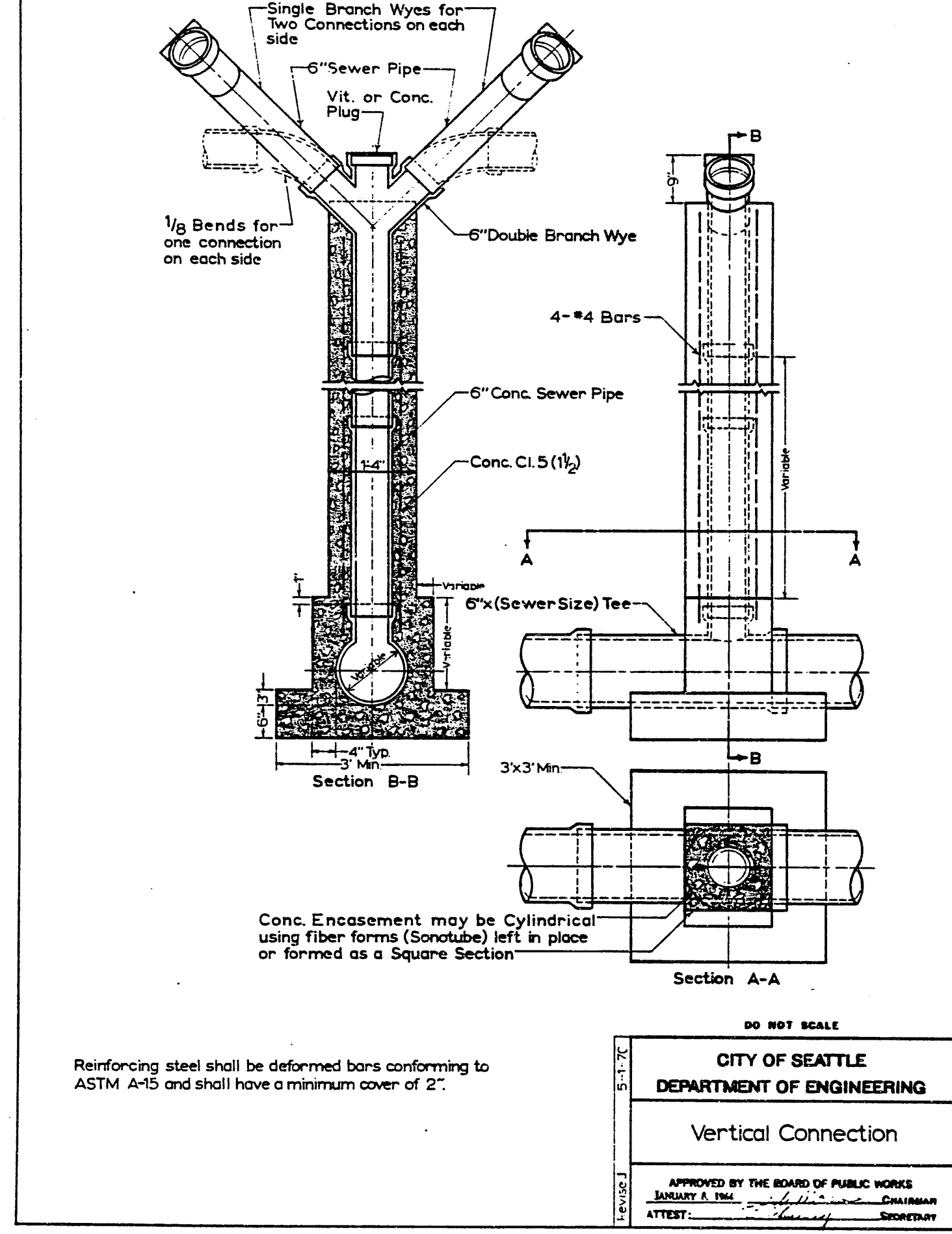
Revised	4-7-76	CITY OF SEATTLE DEPARTMENT OF ENGINEERING
Revised	5-1-70	
Revised	4-5-67	Type 166 Inlet
APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1964 <i>[Signature]</i> CHAIRMAN		
ATTEST: <i>[Signature]</i> SECRETARY		



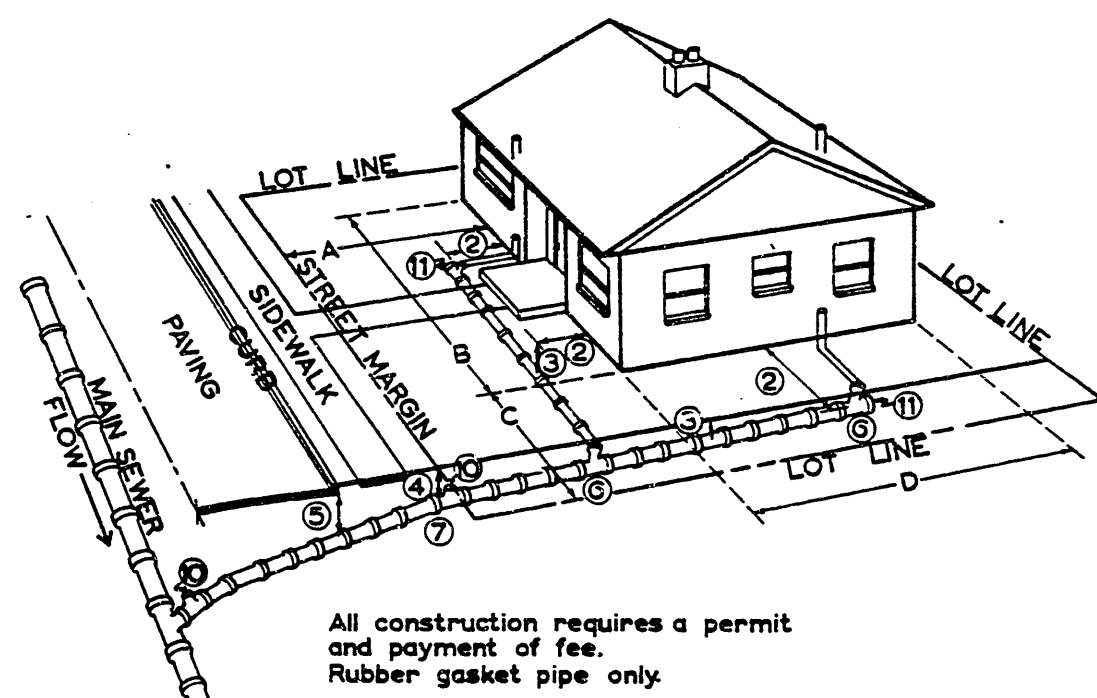
Standard Plan No. 171



Standard Plan No. 175



All construction to be in accordance with current Side Sewer Ordinance.

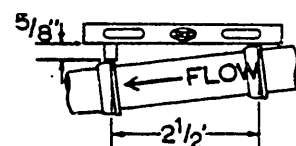


All construction requires a permit and payment of fee.
Rubber gasket pipe only.

Complete legal description of property and dimensions A, B, C, and D that show the size and location of the house are mandatory for issuance of permit.

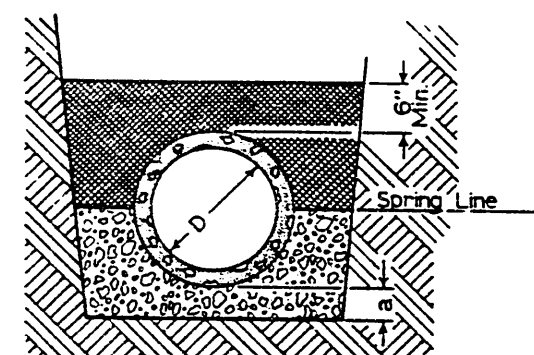
1. All house plumbing outlets must be connected to the sewer. No downspouts or storm drainage may be connected, except to separate storm drain.
2. 30" min. distance from house.
3. 18" min. coverage of pipe.
4. 30" min. coverage at property line.
5. 5' min. coverage at curb line.
6. Lay pipe in straight line between bends. Make all changes in grade or line with $\frac{1}{8}$ bend or wye. 90° change with wye and $\frac{1}{8}$ bend.
7. Standard 4" to 6" increaser.
8. 6" sewer pipe--min. size in street, and elsewhere as directed.
9. 4" sewer pipe--min. size on property. 2% min. grade, 100% (45°) max. grade.
10. Test "T" with plug.
11. Conc. or Vit. plug.
12. Construction in street must be done by a licensed sewer contractor.

Method of obtaining 2% min. grade.

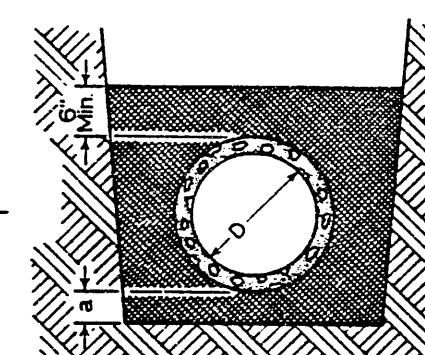


Attach $\frac{5}{8}$ " knob or piece of scrap material to level. Lay level on bells of pipe with knob pointing in direction of flow. Level bubble must read level. Attach straight board to short levels to reach both bells.

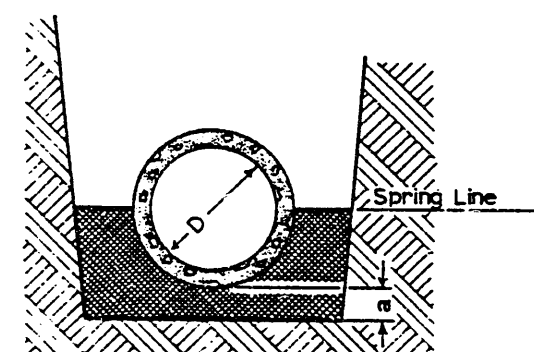
DO NOT SCALE	
CITY OF SEATTLE DEPARTMENT OF ENGINEERING	
Sanitary Side Sewer Installation	
APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1964 ATTEST: <i>[Signature]</i> SECRETARY	



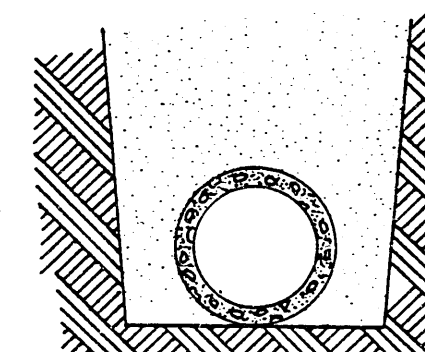
Class "A" Bedding
(Concrete Bedding)



Class "B" Bedding



Class "C" Bedding



Type 9 aggregate
See Std. Specs. Sec. 20.

Concrete Class 4 ($1\frac{1}{2}$)

Select Native
Material

a=4" When "D" is less than 30"

a=6" When "D" is 30" or more.

Reinforcement shall be specified on the Construction Drawing for Class "A" Bedding.

Concrete shall have a maximum water-cement ratio of 8:2 and a minimum cement factor of 4.

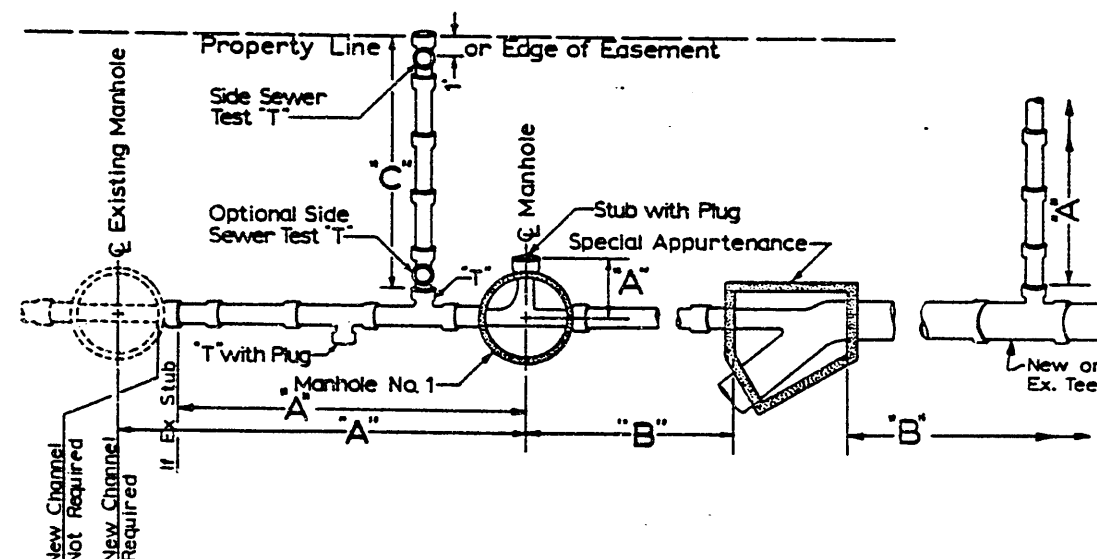
DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Pipe Bedding

APPROVED BY THE BOARD OF PUBLIC WORKS
JANUARY 8, 1964
ATTEST: *[Signature]* SECRETARY

Standard Plan No.179



Payment Shall Be Made For :

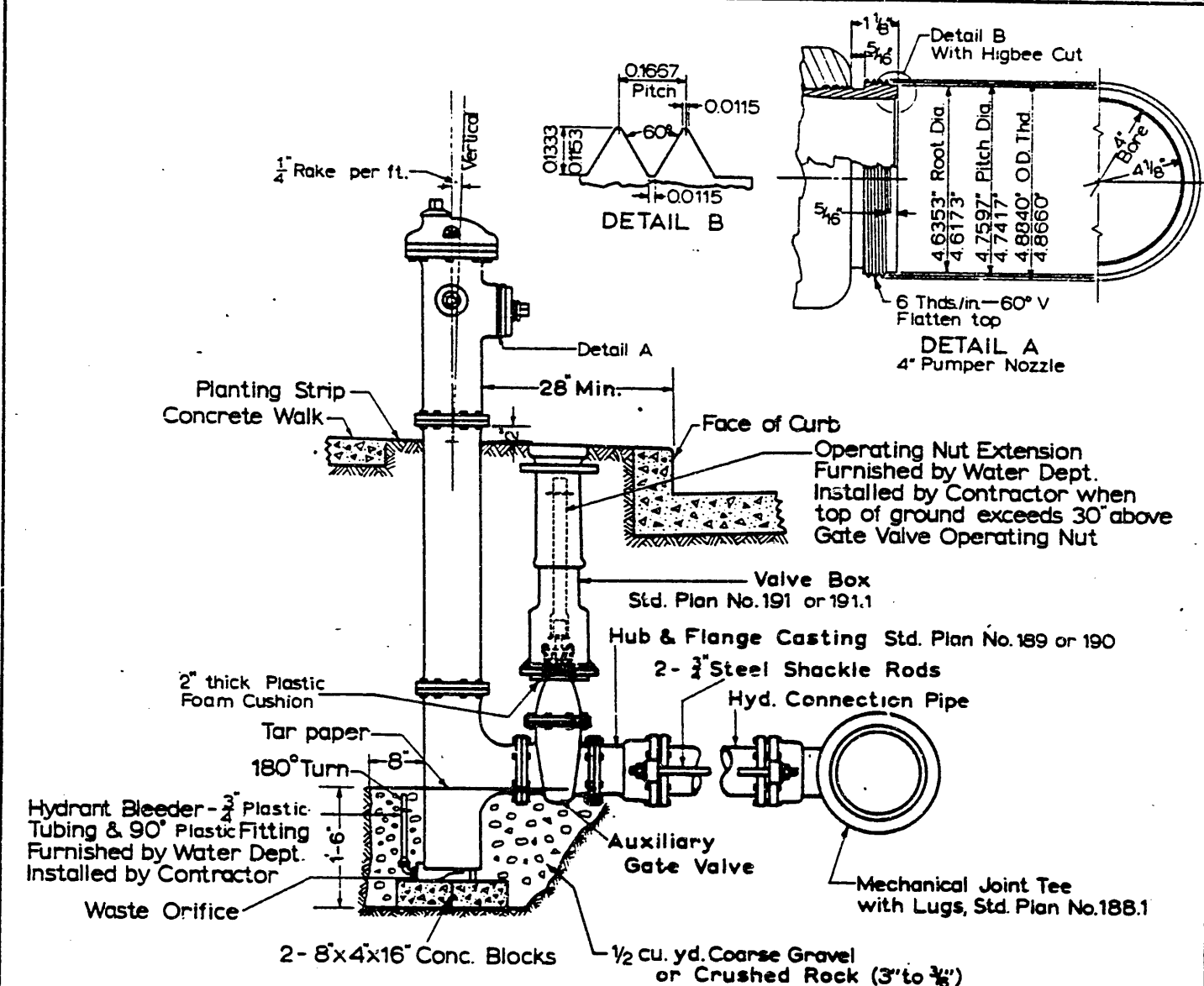
1. Pipe diameters "A," "B" or "C" - Per Linear Foot.
2. Tees or Wyes of proper size, type and with plug - Unit price each in addition to unit price per foot for "A," "B" or "C."

All Pipe shall be measured on the slope along the ϕ of Pipe.

DO NOT SCALE

Revised	4-7-76
Revised	4-5-67
Revised	1-6-65
CITY OF SEATTLE	
DEPARTMENT OF ENGINEERING	
Sewer Payment Diagram	
APPROVED BY THE BOARD OF PUBLIC WORKS	
JANUARY 6, 1964	
ATTEST: <i>[Signature]</i> SECRETARY	

Standard Plan No.180



All fire hydrant threaded nipples such as the 2 1/2 in. discharge ports and the 4 in. pumper nozzle shall be equipped with the blunt start or Higbee Cut.

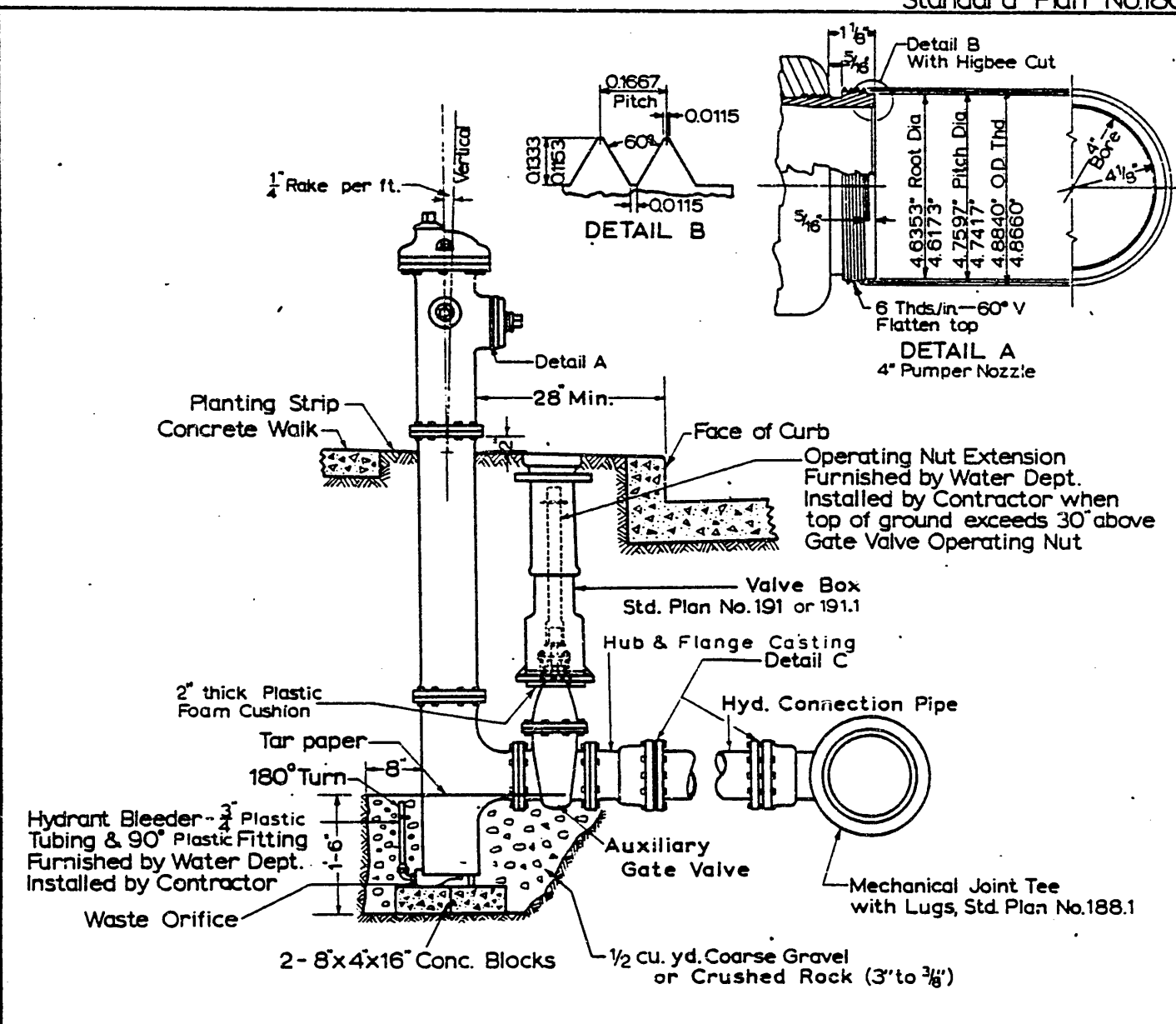
The 2 1/2 in. nipples shall be in accordance with the National Fire Protection Association Bulletin No. 194, dated 1963.

Hydrant tees shall be set horizontally—connection shall be level.

DO NOT SCALE

Revised	4-7-76
Revised	5-1-70
Revised	4-5-67
Revised	1-6-65
CITY OF SEATTLE	
DEPARTMENT OF ENGINEERING	
Type 180 Hydrant Setting - Residential	
APPROVED BY THE BOARD OF PUBLIC WORKS	
JANUARY 6, 1964	
ATTEST: <i>[Signature]</i> SECRETARY	

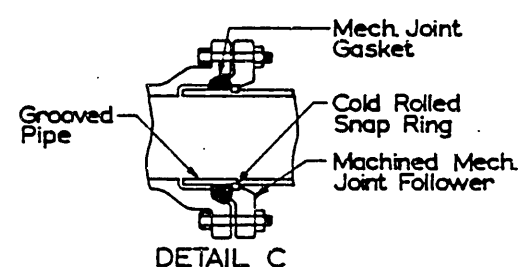
Standard Plan No. 180.1



All fire hydrant threaded nipples such as the 2 1/2 in. discharge ports and the 4 in. pumper nozzle shall be equipped with the blunt start or Higbee Cut.

The 2 1/2 in. nipples shall be in accordance with the National Fire Protection Association Bulletin No. 194, dated 1963.

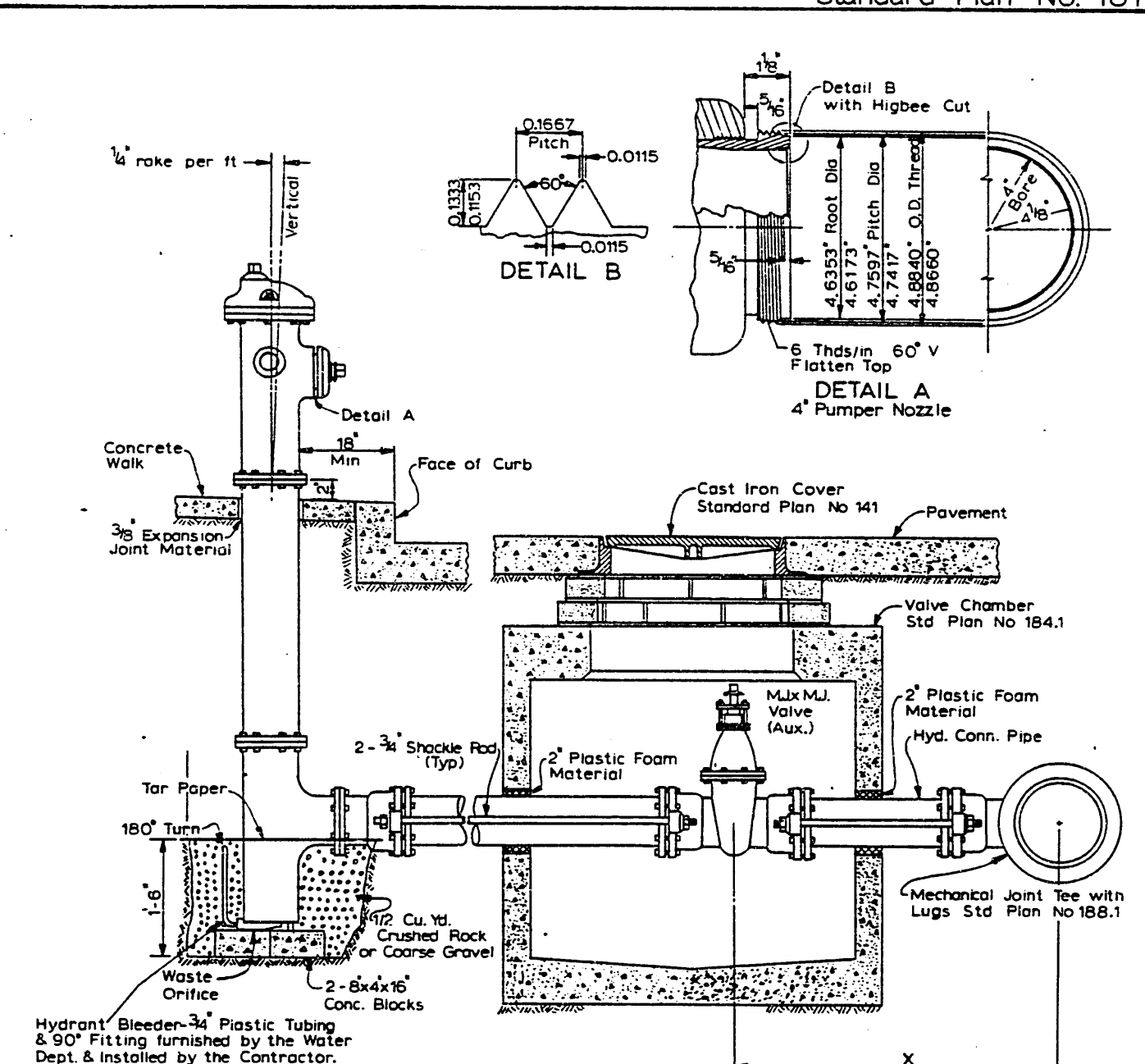
Hydrant tees shall be set horizontally—connection shall be level.



DO NOT SCALE

Revised 4-7-76	CITY OF SEATTLE	
	DEPARTMENT OF ENGINEERING	
	Type 180.1 Hydrant Setting - Residential	
	APPROVED BY THE BOARD OF PUBLIC WORKS 7-9-76 <i>[Signature]</i> CHAIRMAN ATTEST: <i>[Signature]</i> SECRETARY	

Standard Plan No. 181



All fire hydrant threaded nipples, such as the 2 1/2 discharge ports and the 4\"/>

The 2 1/2\"/>

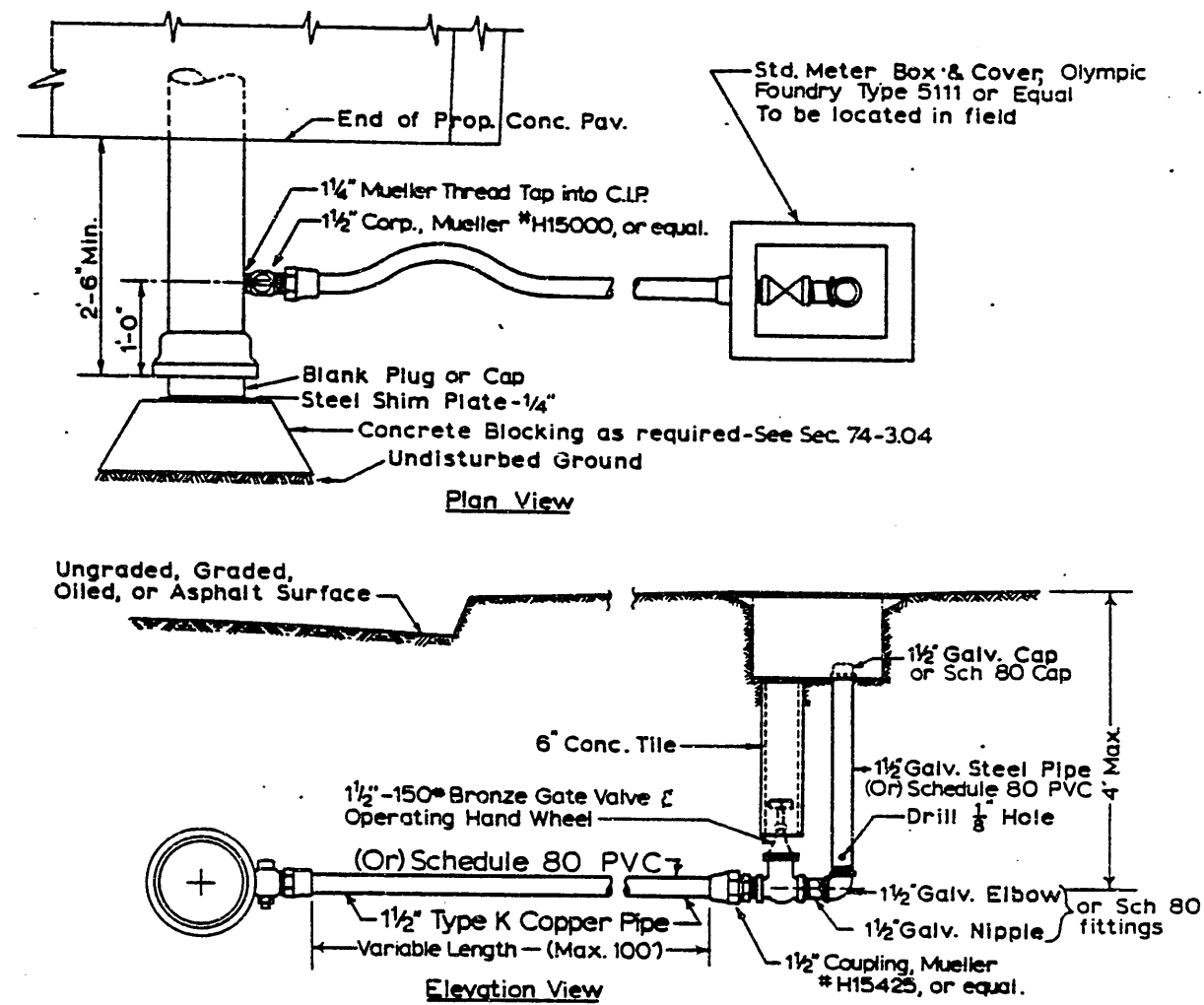
Hydrant tees shall be set horizontally—connection shall be level.

MAIN SIZE	X
12\" & Under	4'-0"
20\" & Under	4'-6"
24\" & Under	4'-9"
30\" & Under	5'-0"

DO NOT SCALE

CITY OF SEATTLE	
DEPARTMENT OF ENGINEERING	
Type 181 Hydrant Setting - Business Dist.	
APPROVED BY THE BOARD OF PUBLIC WORKS 4-7-76 <i>[Signature]</i> CHAIRMAN ATTEST: <i>[Signature]</i> SECRETARY	

Standard Plan No.182

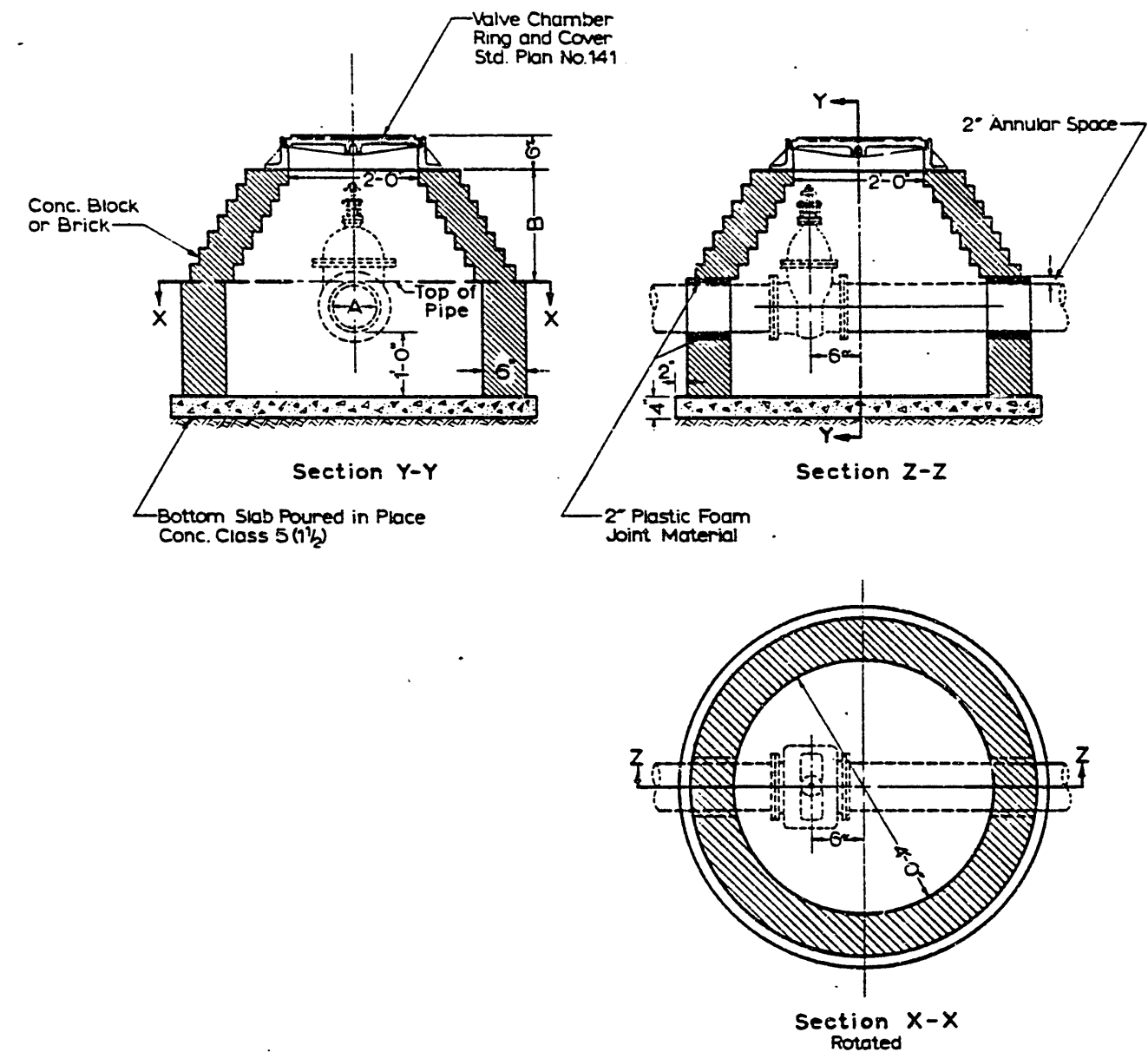


1 1/2 BLOW-OFF DETAIL FOR C.I. PIPE - 6 INCH AND LARGER
(D.I. PIPE)

FOR 4\"/>

DO NOT SCALE	
CITY OF SEATTLE DEPARTMENT OF ENGINEERING	
1 1/2 inch Blow-off Assembly	
APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1964	
Revised 4-7-76	Revised 1-6-65
Revised 4-5-67	Revised 1-6-65
ATTEST: <i>[Signature]</i> SECRETARY	

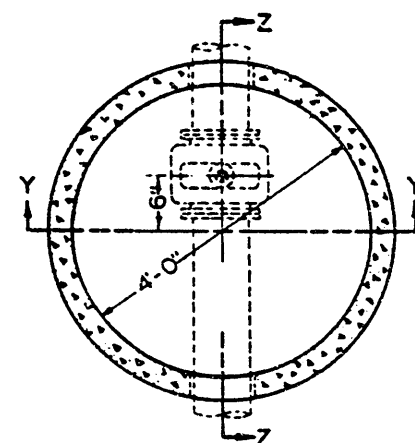
Standard Plan No.183



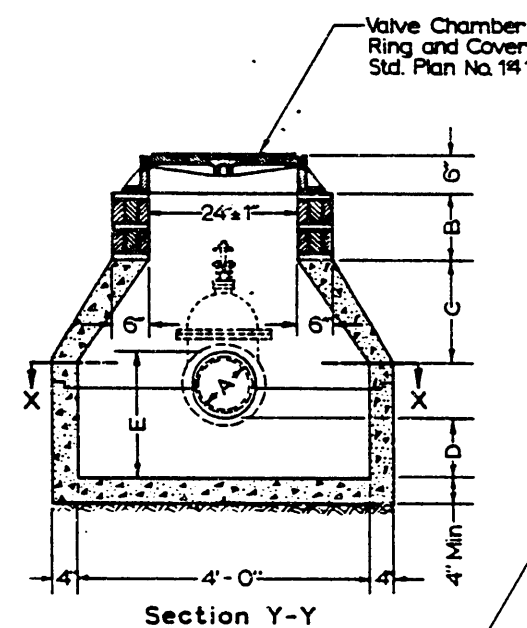
When "A" Pipe Dia. is 4" 6" or 8"
"B" = 2'-0" Min.

When "A" Pipe Dia. is 12"
"B" = 2'-6" Min.

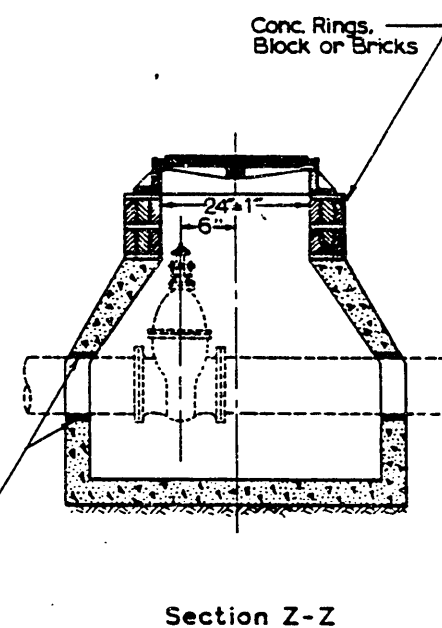
DO NOT SCALE	
CITY OF SEATTLE DEPARTMENT OF ENGINEERING	
Type 183 Valve Chamber- Masonry Construction	
APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1964	
Revised 4-7-76	Revised 1-6-65
Revised 5-1-70	Revised 1-6-65
Revised 4-5-67	Revised 1-6-65
ATTEST: <i>[Signature]</i> SECRETARY	



Section X-X



Section Y-Y



Section Z-Z

Concrete - Compressive strength 3000 psi. at 28 days.

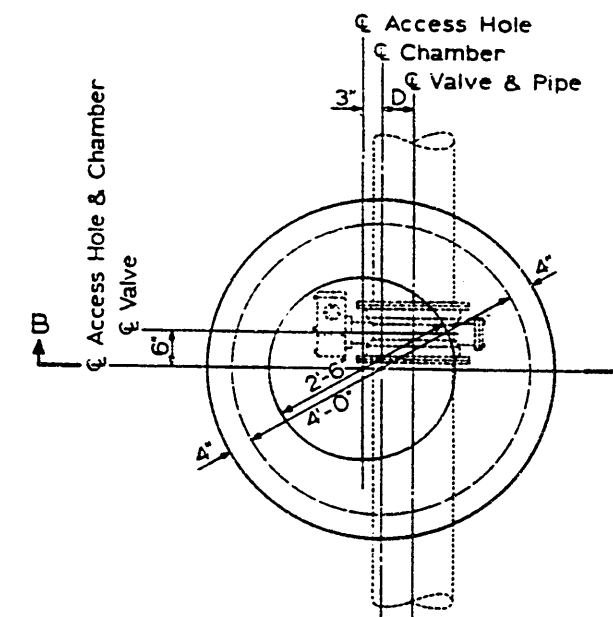
When "A" Pipe Dia. is 4", 6", or 8"
 "B" = 6" Min.
 "C" = 4" Max.
 "D" = 10" Min.
 "E" = 9" Max.

When "A" Pipe Dia. is 12"
 "B" = 1'-2" Min.
 "C" = 2'-1" Max.
 "D" = 12" Min.
 "E" = 2'-3" Max.

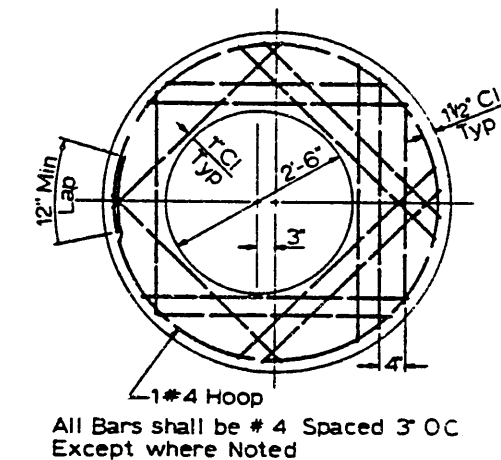
Revised	4-7-76
Revised	5-1-70
Revised	4-5-67
Revised	1-6-65

DO NOT SCALE
 CITY OF SEATTLE
 DEPARTMENT OF ENGINEERING
 Type 184 Valve Chamber-
 Precast

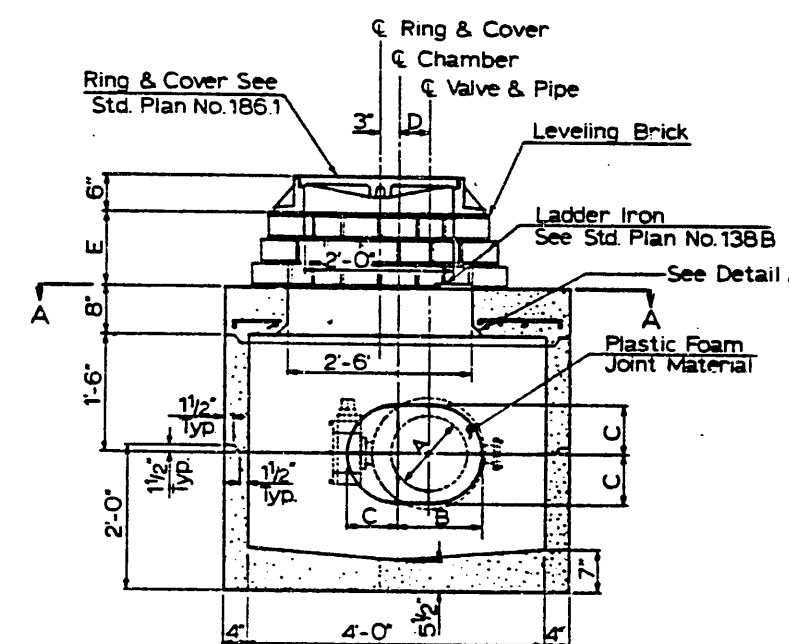
APPROVED BY THE BOARD OF PUBLIC WORKS
 JANUARY 6, 1964
 ATTEST: *[Signature]* SECRETARY



Section A-A



Reinforcing Plan



Section B-B

Butterfly Valves:
 When "A" Pipe Dia. is 4", 6", or 8":
 "B" = 11 1/2"
 "C" = 6 1/2"
 "D" = 6 1/2"
 "E" = 7 1/2"
 When "A" Pipe Dia. is 12":
 "B" = 1'-1 1/2"
 "C" = 8 1/2"
 "D" = 5"
 "E" = 10 1/2"

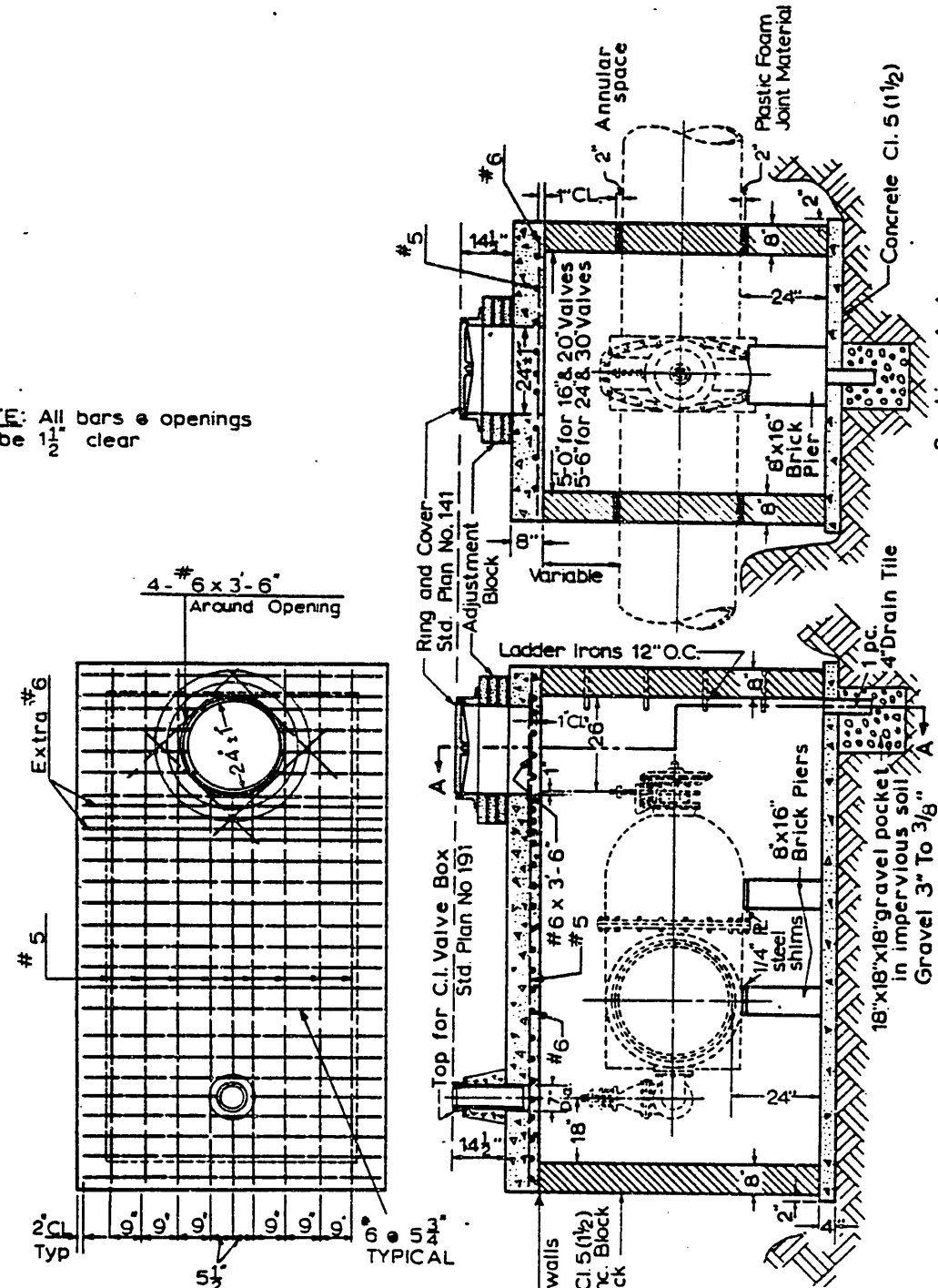
Gate Valves:
 When "A" Pipe Dia. is 4", 6", or 8":
 "B" = 11 1/2"
 "C" = 6 1/2"
 "D" = 0"
 "E" = 7 1/2"
 When "A" Pipe Dia. is 12":
 "B" = 1'-1 1/2"
 "C" = 8 1/2"
 "D" = 0"
 "E" = 1'-5 1/2"

NOTE: Butterfly valve installation shown. If gate valve is used or if dimension "E" is greater than shown, additional ladder irons and/or alternate location of ladder irons shall be as specified by the Engineer.

All Steel shall be Deformed Bars
 Conforming to ASTM A15
 Conc. compressive strength = 3000psi @ 28days

CITY OF SEATTLE DEPARTMENT OF ENGINEERING Type 184.1 Valve Chamber Precast APPROVED BY THE BOARD OF PUBLIC WORKS 4/7/1976 <i>[Signature]</i> CHAIRMAN ATTEST: <i>[Signature]</i> SECRETARY
--

NOTE: All bars & openings to be $\frac{1}{2}$ " clear



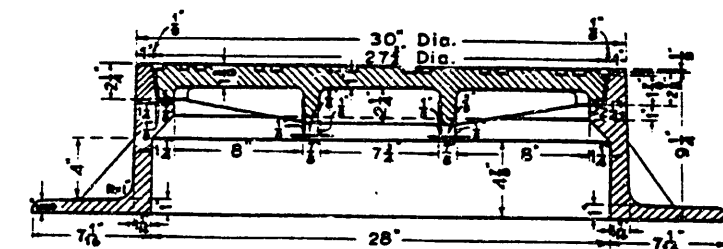
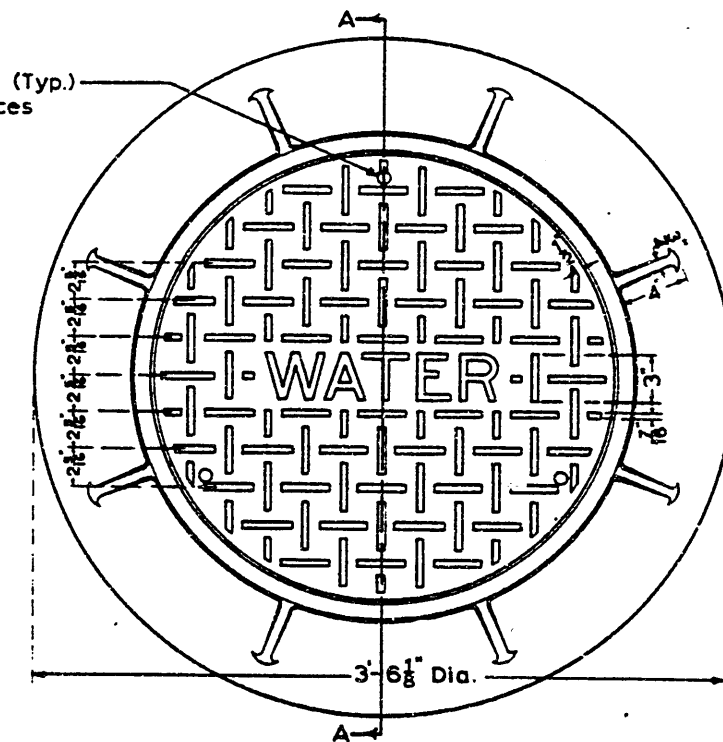
Concrete for top slab shall be class B $f'_c = 3000$ psi steel reinforcing bars shall conform to ASTM A615 grade 40. Max. aggregate size shall be $\frac{3}{4}$ ".

DO NOT SCALE

Revised	4-7-76
Revised	4-5-67
Revised	1-6-65

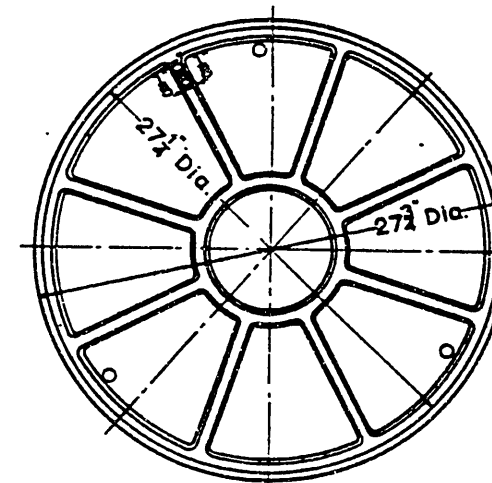
CITY OF SEATTLE DEPARTMENT OF ENGINEERING	
Type 185 Valve Chamber	
APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1964	
ATTEST:	CHAIRMAN SECRETARY

1" Dia. Lift Hole (Typ.)
3 Places



Section A-A

Bottom View



Ring and Cover shall be tested for accuracy of fit and shall be marked in sets for delivery.

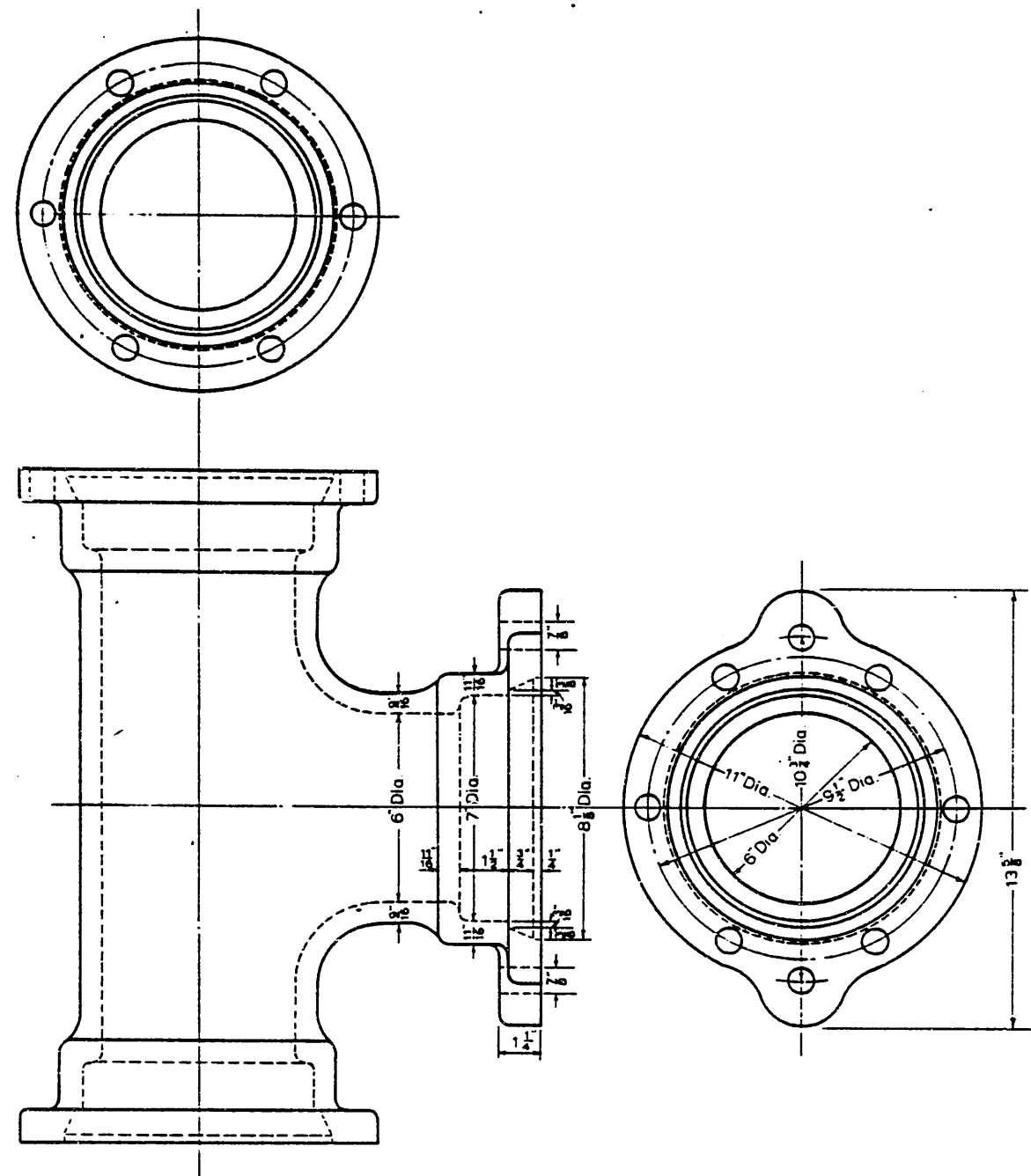
All Castings to have a bituminous coating according to Std. Specs. Sec. 63-2.08.

DO NOT SCALE

Revised	4-7-76
Revised	1-6-65

CITY OF SEATTLE DEPARTMENT OF ENGINEERING	
Type 187 - 25 1/2 inch Valve Chamber Ring and Cover	
APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1964	
ATTEST:	CHAIRMAN SECRETARY

Standard Plan No.188.1



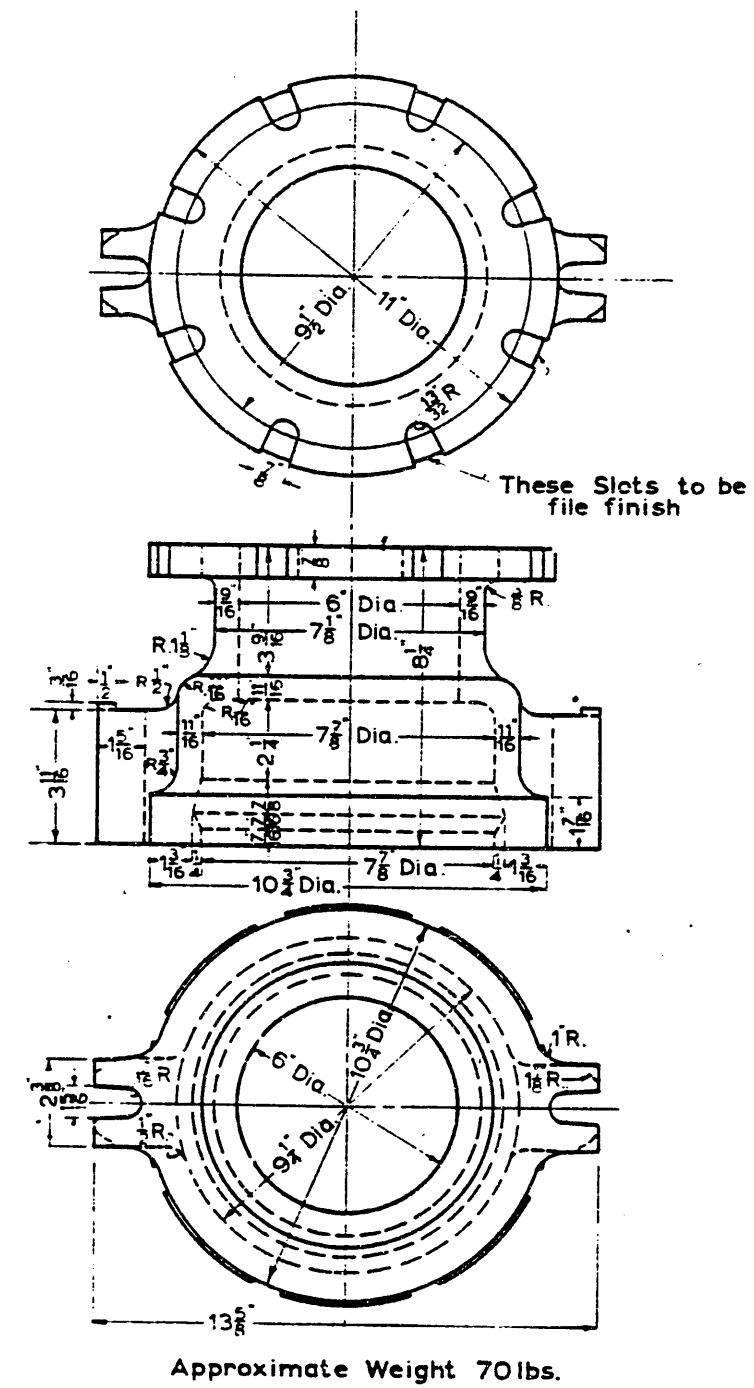
DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Mechanical Joint
Hydrant Tee

APPROVED BY THE BOARD OF PUBLIC WORKS
JANUARY 8, 1964
ATTEST: *[Signature]* SECRETARY

Standard Plan No.189



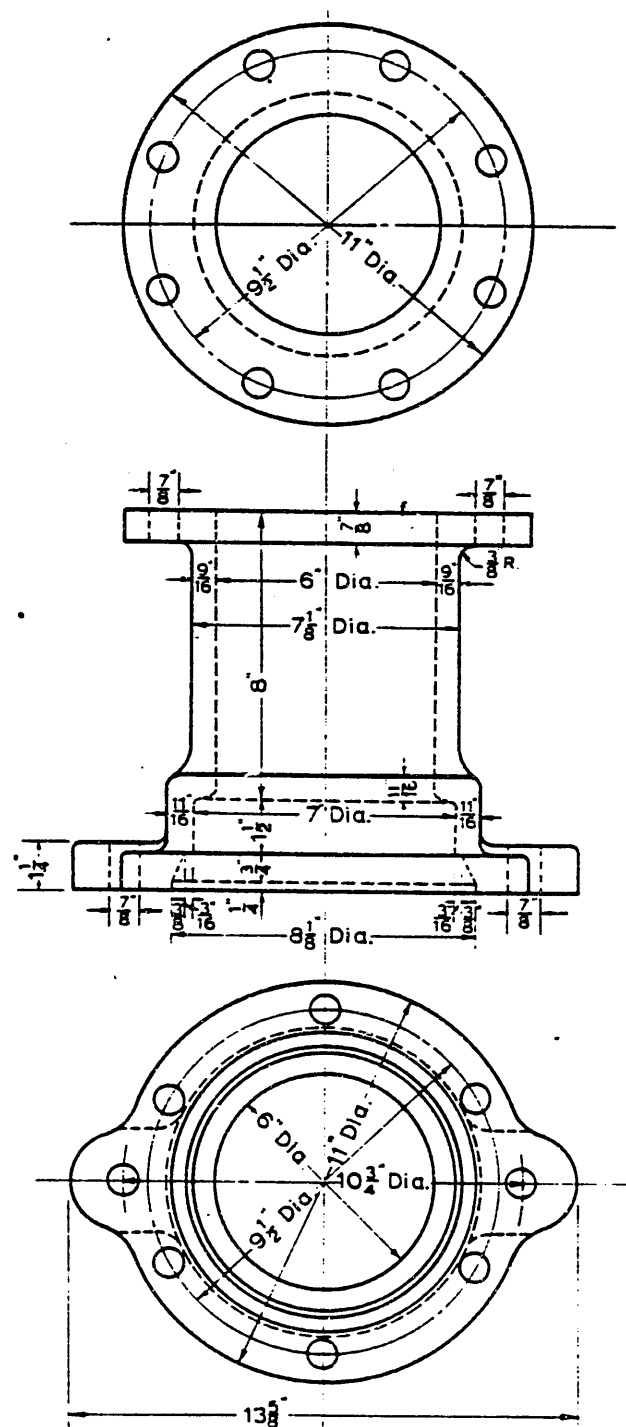
Approximate Weight 70lbs.

DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

6 Inch Hub and Flange
Shackled

APPROVED BY THE BOARD OF PUBLIC WORKS
JANUARY 8, 1964
ATTEST: *[Signature]* SECRETARY

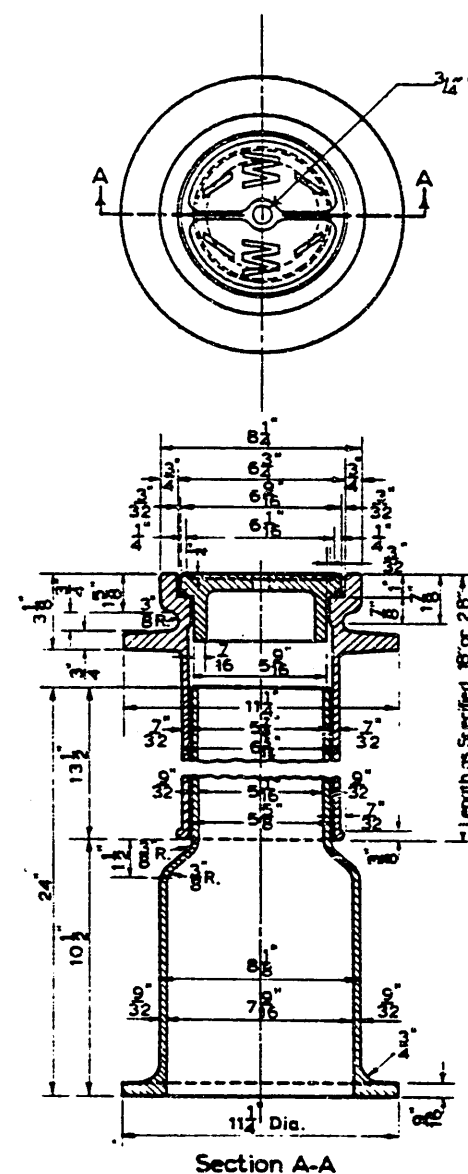


DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

6 Inch Hub and Flange
Mechanical Joint

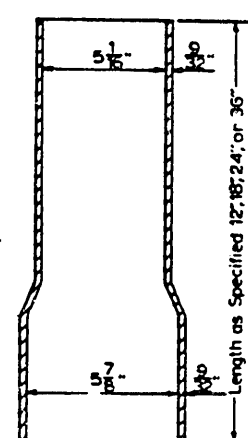
APPROVED BY THE BOARD OF PUBLIC WORKS
JANUARY 3, 1964 *[Signature]* CHAIRMAN
ATTEST: *[Signature]* SECRETARY



Section A-A

Frame and Cover shall be tested for accuracy of fit and shall be marked in sets for delivery.

All Castings to have a bituminous coating according to Std. Specs. Sec. 63.208.



Extension Piece

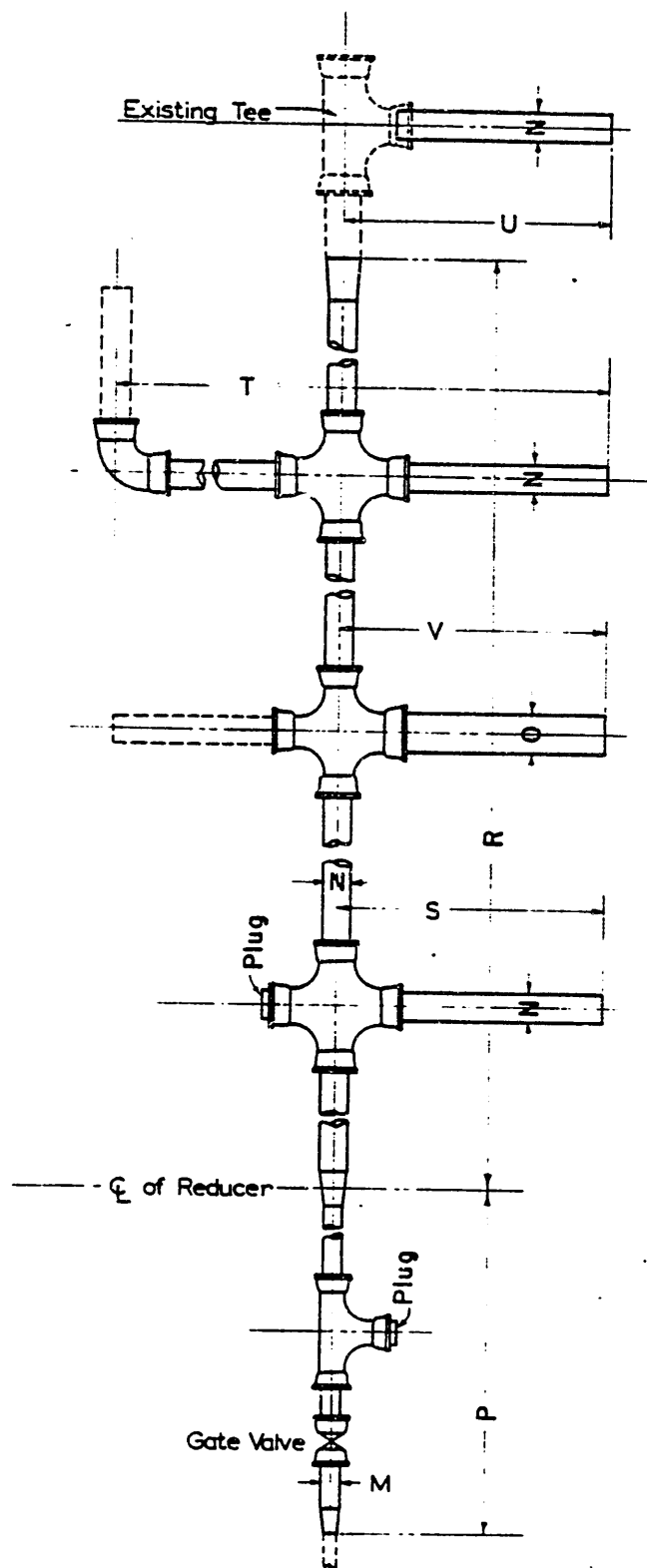
DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Cast Iron Valve Box

Revised
4-7-76
1-6-65

APPROVED BY THE BOARD OF PUBLIC WORKS
JANUARY 3, 1964 *[Signature]* CHAIRMAN
ATTEST: *[Signature]* SECRETARY



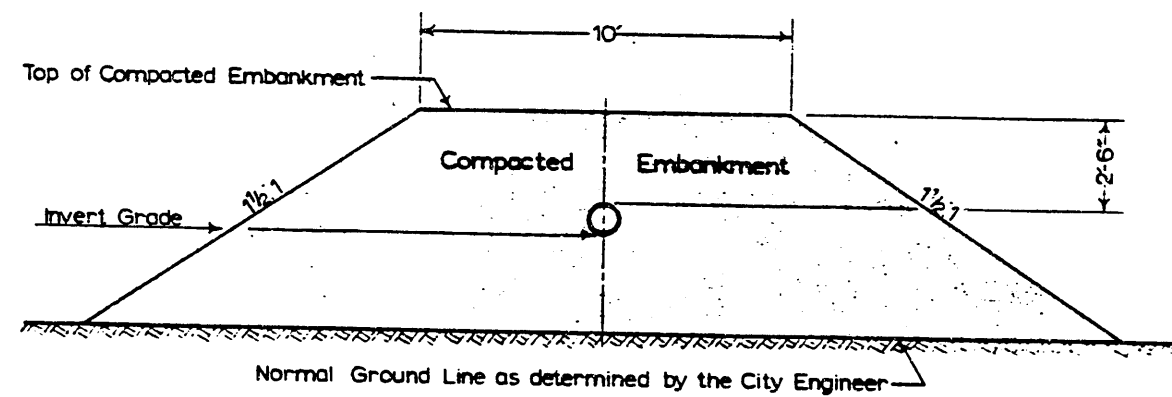
Payment will be made for
P-linear feet of pipe of diameter "M"
R-S-T, & U-linear feet of pipe of diameter "N"
V-linear feet of pipe of diameter "O"
See Specifications for Details and for Alternate Method.

DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Watermain Payment Diagram

APPROVED BY THE BOARD OF PUBLIC WORKS
JANUARY 8, 1964 W. H. Jones CHAIRMAN
ATTEST: E. E. Jones SECRETARY



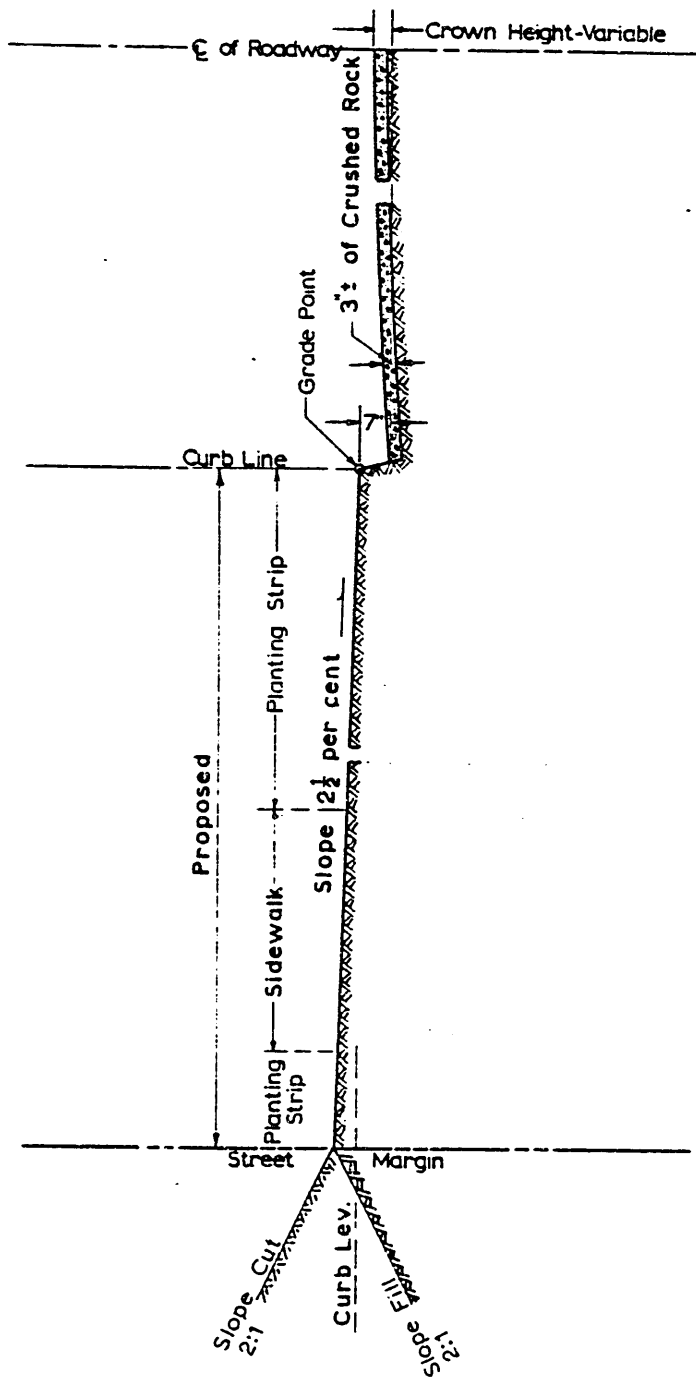
Watermains Constructed in Fill

DO NOT SCALE

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DEPARTMENT OF ENGINEERING

Watermain Construction Detail

APPROVED BY THE BOARD OF PUBLIC WORKS
JANUARY 8, 1964 W. H. Miller CHAIRMAN
ATTEST: W. H. Miller SECRETARY

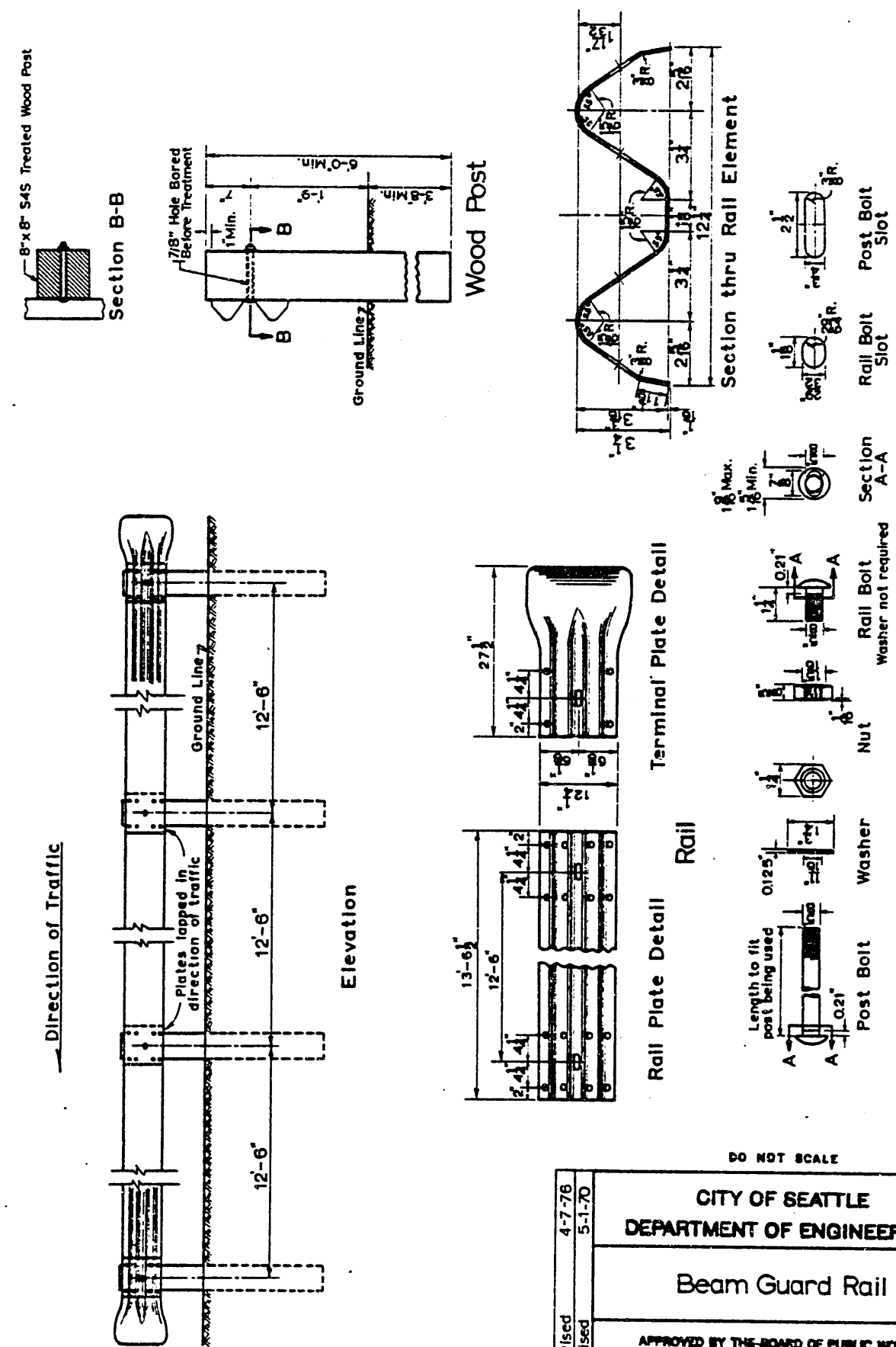


DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Half Section Grading

APPROVED BY THE BOARD OF PUBLIC WORKS
JANUARY 3, 1964 L. J. Williams CHAIRMAN
TEST: E. Williams SECRETARY

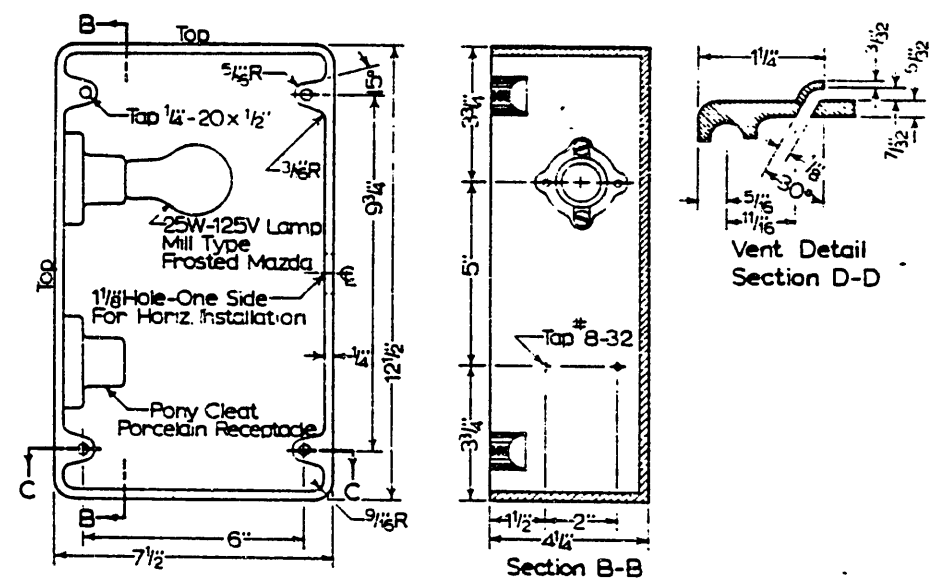
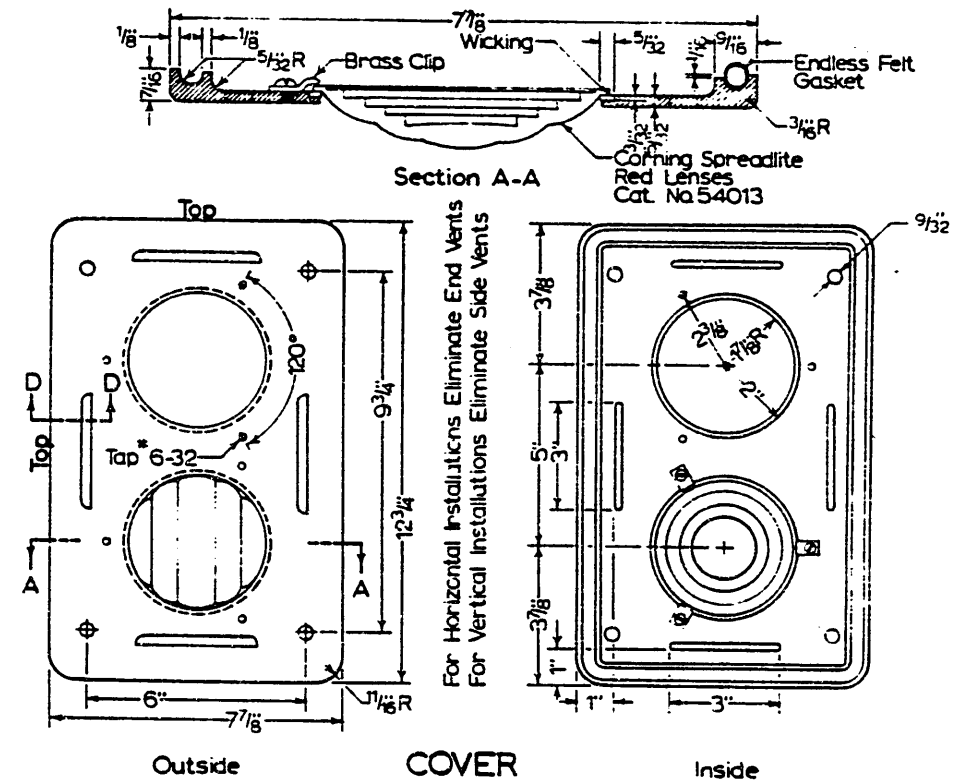


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DEPARTMENT OF ENGINEERING

Beam Guard Rail

APPROVED BY THE BOARD OF PUBLIC WORKS
 JANUARY 8, 1964 *[Signature]* CHAIRMAN
 ATTEST: *[Signature]* SECRETARY



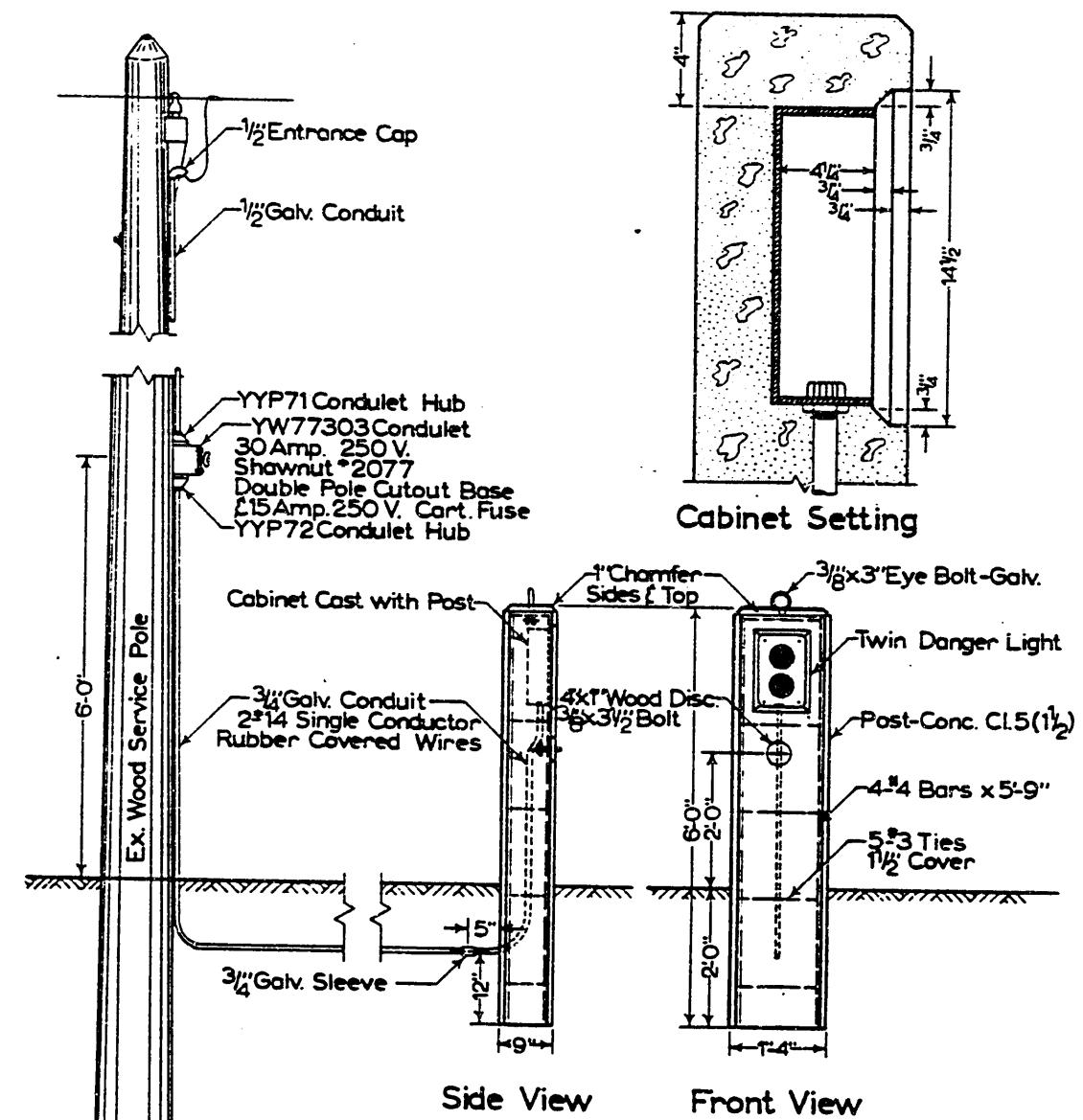
For Installation See Std. Plan No. 212.1

DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Twin Danger Light

APPROVED BY THE BOARD OF PUBLIC WORKS
JANUARY 8, 1964
TEST: SECRETARY

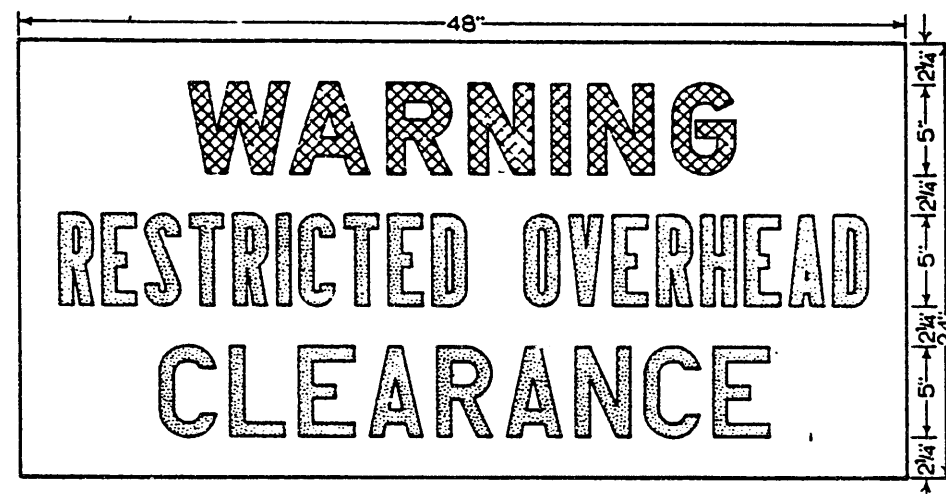


DO NOT SCALE

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Twin Danger Light
Installation

APPROVED BY THE BOARD OF PUBLIC WORKS
JANUARY 8, 1964
ATTEST: SECRETARY



= Red

= White Background

= Black

NOTES:

The Contractor shall erect restricted overhead clearance signs for the benefit of railway traffic when they are called for in the special provisions. These signs shall be fully reflectorized.

In general, the signs shall be erected as a protection when the vertical clearance will be restricted to less than 22'-6", measured from the top of the highest rail.

The signs shall be mounted on the outside face of the falsework at the center of the span over the tracks and above the restricted overhead clearance line.

All cost for the furnishing, erection and dismantling of the signs shall be considered as incidental to the improvement and no separate payment will be made.

DO NOT SCALE

Revised 5-1-70	CITY OF SEATTLE	
	DEPARTMENT OF ENGINEERING	
	Restricted Overhead Clearance Sign	
	APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1964 ATTEST: <i>[Signature]</i> CHAIRMAN <i>[Signature]</i> SECRETARY	

Abbreviations

Aban	Abandon(ed)	GM	Gas Meter
Adj	Adjust	GSP	Galvanized Steel Pipe
Al	Aluminum	GV	Gate Valve
AV	Air Valve	HB	Horizontal Bend
Asph	Asphalt	HH	Handhole
ABW	Asphalt Bike Way	HPG	High Pressure Gas
AW	Asphalt Walk	HPS	High Pressure Sodium Luminaire
Avg	Average	Hyd	Hydrant
BfV	Butterfly Valve	Inl	Inlet
BO	Blow Off	IE	Invert Elevation
Br	Brick	Inv	Invert (Line)
Blkhd	Bulkhead	IP	Iron Pipe
Bsmt	Basement	LIT	Large Inlet Top
BV	Ball Valve	Loc	Location, Locate
CB	Catch Basin	Log	Steam Log
CC	Concrete Culvert	MH	Manhole
C&G	Curb and Gutter	MVL	Mercury Vapor Luminaire
Ch	Chamber	M	Monument Line
CIP	Cast Iron Pipe	Pav	Pavement
Cl	Class	PDP	Perforated Drain Pipe
CMP	Corrugated Metal Pipe	Prop	Proposed
Conc	Concrete	PS	Pipe Sewer Combined
CBW	Concrete Bike Way	PSD	Pipe Storm Drain
Cd	Conduit	PSS	Pipe Sewer Sanitary
Conn	Connect	R	Radius
Cr	Cross	RCP	Reinforced Concrete Pipe
CR	Curb Radius	RD	Roof Drain
CW	Concrete Walk	Reconn	Reconnect
CL	Center Line	Red	Reducer
DIP	Ductile Iron Pipe	Reloc	Relocate
Dwy	Driveway	Rem	Remove
Ecc	Eccentric	Repl	Replace
ECb	Electrical Cable	Ret	Retire(d)
ECd	Electrical Conduit	RIT	Round Inlet Top
ED	Electrical Duct	RR	Railroad
EL	Elevation	R&R	Remove and Replace
EMH	Electrical Man Hole	R/W	Right of Way
Esmt	Easement		
EV	Electrical Vault		
Ex	Existing		
FACb	Fire Alarm Cable		
Flr	Floor		
FM	Force Main		
G	Gas		
GIP	Galvanized Iron Pipe		

CITY OF SEATTLE	
DEPARTMENT OF ENGINEERING	
Abbreviations	
APPROVED BY THE BOARD OF PUBLIC WORKS JANUARY 8, 1964 ATTEST: <i>[Signature]</i> CHAIRMAN <i>[Signature]</i> SECRETARY	

Abbreviations

SB	Sand Box
SCL	Seattle City Light
SD	Service Drain
SED	Seattle Engineering Department
Sl	Sleeve
SS	Side Sewer Combined
SSS	Side Sewer Sanitary
Stl P	Steel Pipe
SWD	Seattle Water Department
Σ	Survey Line
T	Tee
Tel	Telephone
TCb	Telephone Cable
TCd	Telephone Conduit
TD	Telephone Duct.
Temp	Temporary
TH	Test Hole
TMH	Telephone Manhole
TrSB	Traffic Signal Box
TrSP	Traffic Signal Pole
TVCb	Television Cable
VB	Vertical Bend
VC	Vertical Curve
VCh	Valve Chamber
w/	With
W	Watermain
WM	Water Meter
WMR	Watermain Radius
WCR	Wheel Chair Ramp
WSP	Wood Stave Pipe
WU	Western Union
WWF	Welded Wire Fabric

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Abbreviations

APPROVED BY THE BOARD OF PUBLIC WORKS
4/7/1976 *Charles W. [Signature]* CHAIRMAN
ATTEST: *[Signature]* SECRETARY

ITEM	EXISTING	PEN	CONSTRUCT	PEN FORMATT NO.	* OR EQUAL
Cement Concrete Pavement	6" Conc	00	6" Conc Pav	2 1/2 7008	
Asphalt Concrete Pavement	2" Asph/6" Conc	00	8"-102B Pav	2 1/2 7045	
Asphalt Concrete Surfacing	2" Asph	00	2" Asph	2 1/2 7045	
Cement Concrete Walk	CW	00	CW	2 1/2 7111	
Wheel Chair Ramp	WCR	00	WCR	2 1/2 7111	
Cement Concrete Bike Way	3" CBW	00	3" CBW	2 1/2 7111	
					* OR EQUAL

APPROVED BY THE BOARD OF PUBLIC WORKS
4/7/1976 *Charles W. [Signature]* CHAIRMAN
ATTEST: *[Signature]* SECRETARY

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Standard
Symbols

ITEM	EXISTING	PEN	CONSTRUCT	PEN FORMATT NO.	*
Asphalt Concrete Bike Way	3' ABW	00	3' ABW	2 1/2	7045
Grading	Graded	00	To Be Graded	2 1/2	
Grade	22.3% (SMALL 00)		22.3% (LARGE 00)	00	
Vertical Curve	V/C (SMALL 00)	00	V/C (LARGE 00)	00	
Manhole		0	MH-7	2	See Pipe Usage
Inlet-Type 164		0		1	
Inlet-Type 165		0		1	
Inlet-Type 166		0		1	
Catch Basin, Round Inlet Top		0		1	
Catch Basin, Type 151		0		1	
Catch Basin, Type 153		0		1	
Catch Basin, Type 171A		0		1	
Catch Basin, Type 171B		0		1	
Concrete Culvert	12" CC	0	12" CC	2	
					* OR EQUAL

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 ATTEST *[Signature]* CHAIRMAN
[Signature] SECRETARY

CITY OF SEATTLE
 DEPARTMENT OF ENGINEERING

Standard
 Symbols

ITEM	EXISTING	PEN	CONSTRUCT	PEN FORMATT NO.	*
Pipe Sewer Combined < 12" Dia	8" PS	0	8" PS	3	
Pipe Sewer Combined ≥ 12" Dia	24" PS	0	24" PS	2	7045
Side Sewer Combined	6" SS	0	6" SS	3	
Pipe Sewer Sanitary < 12" Dia	10" PSS	0	10" PSS	3	
Pipe Sewer Sanitary ≥ 12" Dia	24" PSS	0	24" PSS	2	7060
Side Sewer Sanitary	6" SSS	0	6" SSS	3	
Pipe Storm Drain < 12" Dia	8" PSD	0	8" PSD	3	
Pipe Storm Drain ≥ 12" Dia	24" PSD	0	24" PSD	2	7063
Service Drain Inlet & CB Connection	8" SD	0	8" SD	3	
Sand Box	SB	0	SB	2	
Watermain < 8" Dia	6" W	0	6" W	3	
Watermain < 12" Dia	8" W	0	8" W	4	
Watermain ≥ 12" Dia	12" W	0	12" W	2	7046
Bend	8"-11" Bend	0	8"-11" Bend	2	
Cross	8x8x6" Cr. T	0	8x8x6" Cr. T	1	
Tee	8x8x6" T	0	8x8x6" T	1	
Plug	or	0	or	1	
					* OR EQUAL

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[Signature] SECRETARY

CITY OF SEATTLE
 DEPARTMENT OF ENGINEERING

Standard
 Symbols

Standard Plan No 216.3

ITEM	EXISTING	PEN	CONSTRUCT	PEN	FORMAT
Hydrant		0		1	
Gate Valve		0		1	
Gate Valve w/Chamber		0		2	
Gate Valve w/185 Chamber		0		1&2	
Reducer		0		2	
Air Valve		0		2	
Blow Off		0		2	
Water Meter		0		2	
Transmission Pole		00		00	
Metal Pole w/ (MVL) (HPS)		00		00	
Strain Pole		00		00	
Combined Lighting and Strain Pole (MVL) (HPS)		00		00	
Traffic Signal Mast Arm Pole		00		00	
Combined Lighting and Signal Mast Arm Pole (MVL) (HPS)		00		00	

* OR EQUAL

Standard Plan No 216.4

ITEM	EXISTING	PEN	CONSTRUCT	PEN	FORMAT
Pedestrian Push Button Foundation		00		00	
Pedestrian Signal Foundation		00		00	
Signal Control Foundation		00		00	
Handhole		00		00	
Utility Wood Pole		00		00	
City Wood Pole		00		00	
Utility Wood Pole w/(MVL) (HPS)		00		00	
City Wood Pole w/(MVL) (HPS)		00		00	
Utility Wood Pole w/Anchor		00		00	
Utility Guy Pole w/Anchor		00		00	
Street Lighting Standard		00		00	
Electrical Cable (Direct Burial)		0		0	
Electrical Conduit		0		0	
Electrical Duct		0		0	
Combined Electrical & Telephone Duct		0		0	
Traffic Signal Conduit		0		0	

* OR EQUAL

ITEM	EXISTING	PEN	CONSTRUCT	PEN
Telephone Cable (Direct Burial)	2" TCb	O		
Telephone Conduit	3" TCd	O		
Telephone Duct	12x12" ID	O		
Television Cable (Direct Burial)	2" TVCb	O		
Steam Log	14" Log	O		
Steam Vault	[STEAM VAULT]	O		
Gas Main	12" G	O		
Gas Valve	H	O		
Gas Meter	G M	O		
Gas Regulator	G Reg [M]	O		
(Gas=All Petroleum Lines)				
Monument	⚡	①		
Brass Plug	⊕	OO		
Tack	△	OO		
Hub	□	OO		
Center Line	C	OO		
Monument Line	M	OO		
Survey Line	S	OO		
Permant Easement Line			
Construction Easement Line				
Dimension Line		. OO		
Match Line				

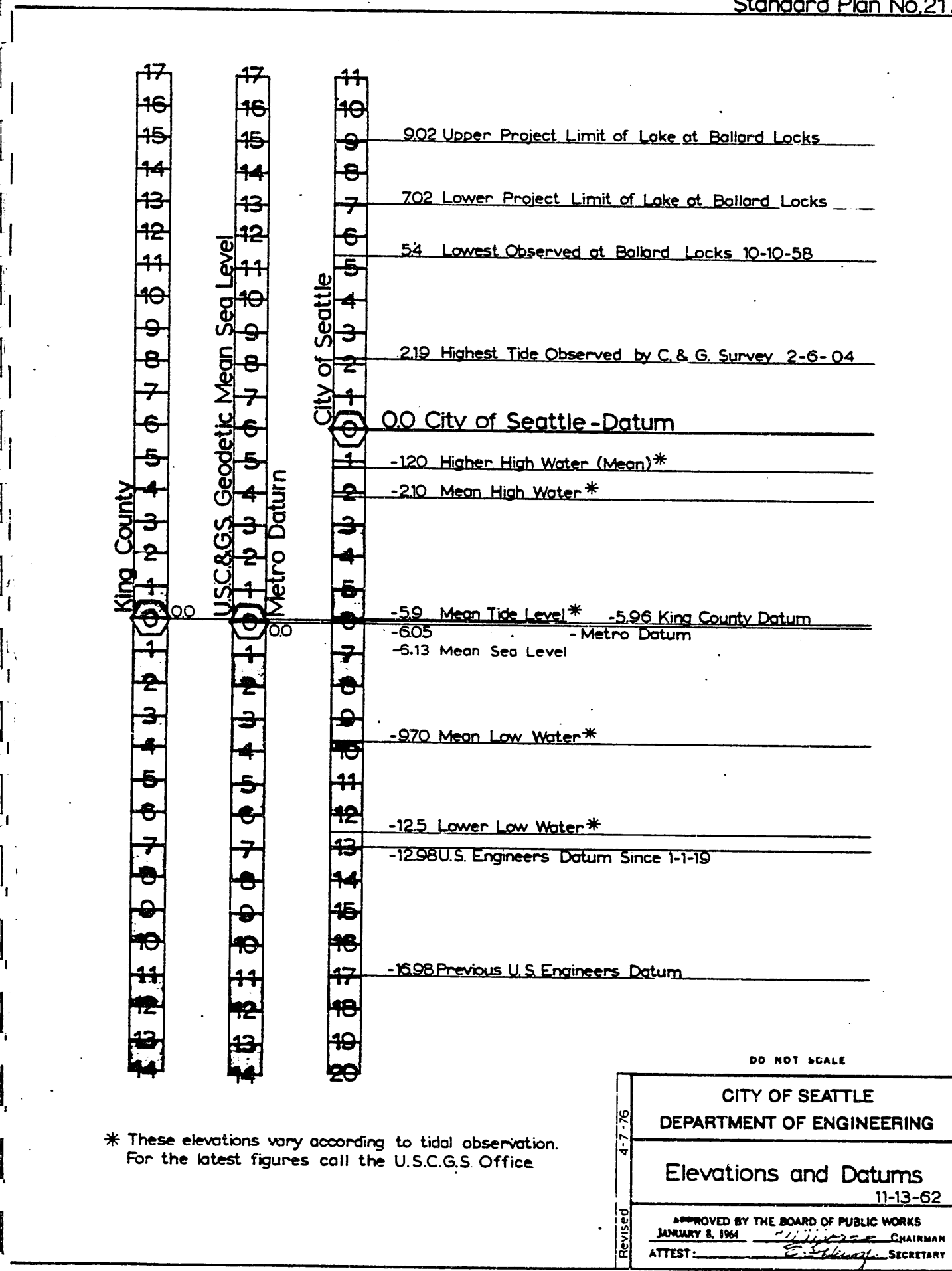
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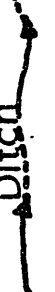



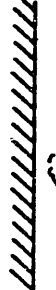



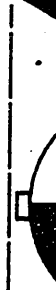


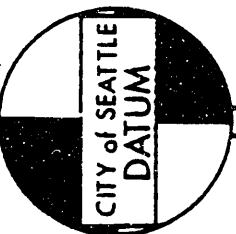
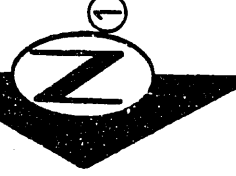







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* OR EQUAL

① P4050



Standard Plan No 216.6

ITEM	EXISTING	PEN	CONSTRUCT	PEN	* PRETYPE
Small Ditch or Stream		00		2	
Large Ditch or Stream		00		2	
Chain Link Fence		00			
Wood Fence		00			
Building		00			
Tree < 12" Dia		00			
Tree ≥ 12" Dia		00			
Rockery		00			
Guard Rail		00			
Ground, Grade Line		0		0	
City of Seattle Datum		①		①	
North Arrow		①		①	
Abandon(ed)		00		0	
Retired		00			
Lot & Ownership Lines		00			
Right of Way Line		2 1/2			
State Highway R/W		① 2 1/2			
Test Hole and Number		① 0			

* OR EQUAL

① P4050

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4/7/77
ATTEST

CITY OF SEATTLE
DEPARTMENT OF ENGINEERING

Standard
Symbols