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CONNECTICUT RIVER FLOOD CONTROL

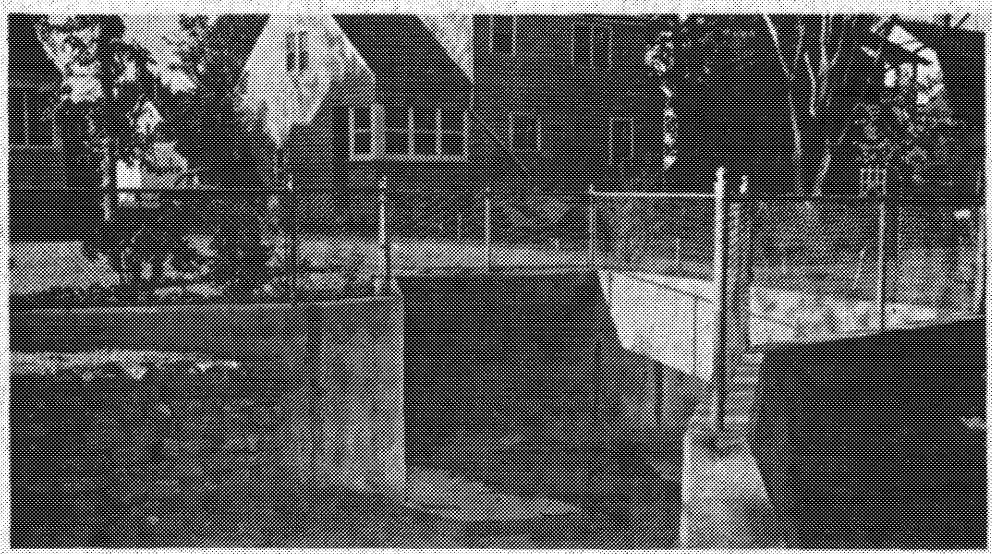
OPERATION AND MAINTENANCE MANUAL

FOR

FLOOD PROTECTION WORKS

FOLLY BROOK CONDUIT

HARTFORD, CONNECTICUT



U.S. ARMY ENGINEER DIVISION, NEW ENGLAND
CORPS OF ENGINEERS WALTHAM, MASS.

JANUARY 1960

OPERATION AND MAINTENANCE MANUAL

for

FOLLY BROOK DIKE AND CONDUIT

and

SOUTH END DIKE STOPLOG STRUCTURE

HARTFORD, CONNECTICUT

Supplement No. 2

to

Operation and Maintenance Manual

for

Hartford, Connecticut

U. S. Army Engineer Division, New England
Corps of Engineers
Waltham, Mass.

January 1960

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FOREWORD

This manual supplements the Operation and Maintenance Manual for Flood Protection System, Hartford, Conn., dated January 1946 and Supplement thereto dated March 1950.

The purpose of this supplement is to include instructions and drawings for the operation and maintenance of the Folly Brook Dike and Conduit and the South End Dike Stoplog Structure. This latter feature, referred to as Railroad Stoplog Structure No. 6 in Manual dated January 1946, has been rebuilt and new stoplogs furnished.

SUPPLEMENT NO. 2

to

OPERATION AND MAINTENANCE MANUAL

LOCAL PROTECTION SYSTEM

HARTFORD, CONNECTICUT

SECTION I - INTRODUCTION

1. PROJECT AUTHORIZATION

Construction of the Folly Brook Dike and Conduit was authorized by the Flood Control Act of 1950 (Public Law 516, 81st Congress, 2nd Session).

2. LOCATION

Folly Brook rises in the town of Wethersfield, Connecticut, flows through the southern portion of Hartford, and empties into Wethersfield Cove, an oxbow of the Connecticut River. The Folly Brook Conduit extends upstream from an existing conduit west of Wethersfield Avenue to the Hartford-Wethersfield line south of Victoria Road. The Folly Brook Dike extends from the corner of Wethersfield Avenue and Victoria Road to high ground adjacent to the Wilbur Cross Highway-Wethersfield Avenue interchange. The railroad stoplog structure is located at the westerly end of the previously completed South Meadows (Clark) Dike where the dike alignment crosses the Valley branch of the New Haven Railroad. The locations of the various features comprising this project are shown on Plate 1 of Appendix D.

3. DESCRIPTION OF PROJECT

a. Folly Brook Conduit. The Folly Brook Conduit is a rectangular, reinforced concrete box conduit approximately 2,200 feet long, extending upstream from the existing Folly Brook conduit to an intake structure located west of Victoria Road near the Hartford-Wethersfield line. The conduit, with a dish-shaped invert, is 6'-0" high by 9'-0" wide (inside dimensions) east of Franklin Avenue and 6'-6" high by 10'-0" wide west of Franklin Avenue. Plans, profiles and details of the conduit are shown on Plates 2 to 9 of Appendix D. Details of manholes and other appurtenant structures are shown on Plates 10 to 14 of Appendix D.

b. Folly Brook Dike. The Folly Brook Dike extends for about 650 feet from the southwest corner of Wethersfield Avenue and Victoria Road to high ground along the Wilbur Cross Highway-Wethersfield Avenue interchange. The rolled earth fill dike has a maximum height of 10 feet with 1 on 2 side slopes. The dike has a top elevation of 42.5 m.s.l., which is 5 feet above the design maximum water surface. Plans and details of the dike and appurtenant structures are shown on Plate 15 of Appendix D.

c. South End Dike Stoplog Structure. The new work, which incorporates portions of the old stoplog structure, includes concrete tee-walls, a concrete stoplog storage shelter, and aluminum stoplogs for closing the two 18-foot openings at the railroad. Plans and details of this structure are shown on Plates 16 and 17 of Appendix D.

4. PROTECTION PROVIDED

The Folly Brook Dike and Conduit will provide protection for approximately 120 acres of the Folly Brook drainage area in Hartford against flooding from over-bank flow of Folly Brook and/or backwater from the Connecticut River. The South End Dike Stoplog Structure completes protection for approximately 2,800 acres in Hartford. Both the Folly Brook Dike and the Stoplog Structure are designed for a maximum water surface elevation of 37.5 m.s.l., and a top elevation of 42.5 m.s.l., which are the design grades for the previously completed dike adjacent to the stoplog structure. The Folly Brook Conduit is designed for a flow of 600 c.f.s. For structural design, the maximum pressure gradient was determined to occur when the Connecticut River was at a flood stage of elevation 40 m.s.l. (2.5 feet above design water surface elevation), with a flow of 200 c.f.s. through the conduit.

5. CONSTRUCTION HISTORY

A contract for construction of the project was awarded N. Benvenuti and Sons of New London, Conn., in December 1955. The dike and conduit were completed in April 1957; the stoplog structure in September 1958, at which time the project was turned over to the City of Hartford for maintenance and operation. Copy of letter from Charles W. Cooke, Director of the Greater Hartford Flood Commission, acknowledging this transfer, is contained in Appendix B as Exhibit No. 2. The total construction cost of the project was $621,015, of which the City of Hartford contributed $236,648.

SECTION II - LOCAL COOPERATION

6. LOCAL COOPERATION REQUIREMENTS

The authorizing legislation for the Folly Brook project (Flood Control Act of 1950) stipulated that "the provisions of local cooperation applicable to the Hartford, Connecticut project heretofore authorized, as amended, are applicable to this modification". The local cooperation referred to is contained in Section 3 of the Flood Control Act of 1936, as amended, which states that "no money . . . . shall be expended . . . . until states, political subdivisions thereof, or other responsible local interests have given assurances . . . . . that they will (a) provide without cost to the United States all lands, easements, and rights-of-way necessary for the construction of the project . . . .; (b) hold and save the United States free from damages due to the construction works; (c) maintain and operate all the works after completion in accordance with regulations prescribed by the Secretary of War" (now Secretary of the Army). Final assurances were furnished by the City of Hartford on 15 July 1955 (see Exhibit No. 1 in Appendix B.) Subsequently, the City provided all lands and rights-of-way necessary for the project.

SECTION III - GENERAL PROCEDURES

7. INTRODUCTION

The successful functioning of flood protective works is not assured by construction of an adequate system of dikes, walls, gates, pumping plants and channel widening, deepening and realignment. If the system is to perform functions for which it was designed, it must be maintained carefully during periods of normal river stages and operated properly during flood periods.

The necessity for proper maintenance is imperative in view of the fact that extensive damage or even loss of life may be incurred through failure of a critical element of the system at flood time, caused by deterioration or damage that could have been avoided by proper maintenance.

Maintenance and operation shall be provided in strict accordance with the regulations prescribed by the Secretary of War. The Flood Control Regulations for Maintenance and Operation of Flood Control Works (Appendix A) were approved by the Acting Secretary of War on 9 October 1944. Upon establishment of the Department of Defense, the improvement of rivers and harbors and other waterways for flood control and other purposes, formerly the Secretary of War, became the responsibility of the Secretary of the Army.

8. GENERAL RULES AND REGULATIONS

General rules and regulations governing maintenance and operation of flood control works are given in Appendix A. These general rules and regulations are applicable to the Folly Brook project. The principal features of the Folly Brook project are described in the following sections. These sections also contain specific operation and maintenance procedures to be followed.

SECTION IV - FOLLY BROOK CONDUIT

9. DESCRIPTION

The Folly Brook Conduit, a reinforced concrete pressure conduit, begins at the upstream end of the original Folly Brook Conduit just upstream from its junction with the 6-foot, brick Franklin Avenue storm sewer overflow. The new conduit extends for a length of approximately 2200 feet in a westerly and southerly direction to the Wethersfield town line, generally within the old bed of Folly Brook.

10. MAINTENANCE

Maintenance to the conduit will include checking the sluice gates and flood gates in Manhole No. 1, at the junction of the Franklin Avenue storm sewer and the conduit in Manhole No. 2, and the manhole at the outlet of the State Office Building drain. All gates should be inspected to insure that they are operational and that no debris is interfering with complete closure.

11. OPERATION

During high water the Folly Brook Conduit should be patrolled for possible leaks at the expansion joints, which can be detected by excessive moisture over the conduit. Action shall be taken to remedy adverse conditions disclosed by the inspection as soon as possible. The flap gates in the manholes should be checked during periods of high water and, if found inoperative, the sluice gates should be operated as required to prevent flood waters from backing up through manholes and catchbasins.

SECTION V - DIKES

12. DESCRIPTION

Two new sections of dike were constructed. One, known as the Folly Brook Dike, extends from the south side of Victoria Road and Wethersfield Avenue south to high ground at the Wilbur Cross-Silas Dean highway interchange. The other, known as the South End Dike, is the reconstruction of the existing dike at Stoplog No. 6 to the new grade.

The Folly Brook Dike is constructed of homogeneous material with a cutoff at the riverside toe. It has side slopes of 1 on 2, a maximum height of 10 feet above existing ground surface and a length of approximately 650 feet. Since the dike is subject only to backwater from the Connecticut River and not to direct wave action, the slopes have been topsoiled and seeded for the prevention of erosion.

The reconstructed portion of the South End Dike was built of random material with an impervious riverside blanket and a cutoff to impervious material at the riverside toe. It has side slopes of 1 on 3 landside and 1 on 2 riverside, and is approximately 165 feet long. Since this dike is subject only to backwater from the Connecticut River and not to direct wave action the slopes have been topsoiled and seeded for the prevention of erosion.

13. MAINTENANCE

Maintenance shall be as described in Section IV - Dikes, paragraph 4-02, sections a, b., e and f. of the basic manual. The locations and types of toe drains for this project are described in the following paragraphs.

Toe drains at the landside toe of the dike are provided wherever necessary to provide an outlet for seepage through the dike during high water to prevent saturation of the landside slope and the resultant sloughing. The drains consist of vitrified clay pipe laid with open joints and A.C.C.M. pipe, laid in trenches that are backfilled with gravel.

(1) The toe drain for the South End Dike starts at the end of the stoplog storage structure, runs west to the stoplog wall corner then south along the wall for approximately 16 feet and then through the wall. From this point to west of the railroad tracks,

it is A.C.C.M. pipe, then north for a distance of approximately 20 feet to a concrete headwall it again is vitrified clay pipe. The locations are shown on Plate 16 of Appendix D.

(2) There is also a vitrified clay drain in the riverside section of the east abutment of the railroad stoplog structure. It extends from the Tee wall south along the inside face of the wall and ends at the opening through the south retaining wall. The location is as shown on Plate 17 of Appendix D.

(3) There is a vitrified tile drain on the landside toe of the Folly Brook Dike. It extends from the manhole south of Victoria Road at Sta. 0+5 to the catch basin at Sta. 1+93. The location is as shown on Plate 15 of Appendix D.

14. OPERATION

Operation shall conform to Section IV - Dikes, paragraph 4-03 of the basic manual. Approximately 6,000 sand bags will be required to maintain the five-foot freeboard from the Folly Brook Dike across Wethersfield Avenue to high ground. A crew of 200 men should be able to fill, carry and place approximately 6,000 bags per 8-hour day, all hand labor.

15. EMERGENCY REPAIR METHODS

Section 4-04 of the basic manual describes typical causes of dike failures and corrective measures to be undertaken.

SECTION VI - SOUTH END DIKE STOPLOG STRUCTURE

16. DESCRIPTION

This closure consists of a concrete stoplog structure which replaces Stoplog No. 6 referred to in Section VII, paragraph 7-01, (7) of the basic manual. The structure is a railroad stoplog for the main line and siding of the Valley Branch of the New Haven Railroad and has two openings each 18.0 feet wide, with sill elevations of 28.7 and 27.3 feet above mean sea level for the west and east openings, respectively. The closure of this structure does not require the removal of rails.

17. MAINTENANCE

Maintenance shall conform to Section VII, paragraph 7-02 of the basic manual in its entirety.

18. OPERATION

The regulations governing the operation of this structure are stated in Section VII, paragraph 7-03 of the basic manual, except that, in paragraph 7-03c, the words "aluminum stoplog panels" should be substituted for "stoplog timbers," wherever the reference is to Stoplog No. 6.

SECTION VI - SOUTH END DIKE STOPLOG STRUCTURE

16. DESCRIPTION

This closure consists of a concrete stoplog structure which replaces Stoplog No. 6 referred to in Section VII, paragraph 7-01, (7) of the basic manual. The structure is a railroad stoplog for the main line and siding of the Valley Branch of the New Haven Railroad and has two openings each 18.0 feet wide, with sill elevations of 28.7 and 27.3 feet above mean sea level for the west and east openings, respectively. The closure of this structure does not require the removal of rails.

17. MAINTENANCE

Maintenance shall conform to Section VII, paragraph 7-02 of the basic manual in its entirety.

18. OPERATION

The regulations governing the operation of this structure are stated in Section VII, paragraph 7-03 of the basic manual, except that, in paragraph 7-03c, the words "aluminum stoplog panels" should be substituted for "stoplog timbers," wherever the reference is to Stoplog No. 6.

SECTION VII - DRAINAGE STRUCTURES

19. DESCRIPTION

There is an existing 54" reinforced concrete lock joint sewer line which crosses under the stoplog structure at centerline station 2+42.83 of the stoplog, shown on the plan of the stoplog structure and the Folly Brook Dike. It begins at a manhole on Victoria Road and ends in the overflow manhole in front of the South Meadows Pumping Station at dike station 150±.

The existing Folly Brook Conduit passes under the Folly Brook Dike portion of the protective works at Station 1+18± of the dike.

The 3' brick Franklin Avenue interceptor sewer also passes under the Folly Brook Dike portion of the protective works at Station 0+20± of the dike.

20. MAINTENANCE

The maintenance section of the basic manual Section VI, paragraph 6-02 shall apply in its entirety.

21. OPERATION

The operation section of the basic manual, Section VI, paragraph 6-03 shall apply in its entirety. Attention is called to the possibility of a sand bag ring dike that will be required around the 21" gate chamber bypass to Folly Brook Conduit in Victoria Road shown on Plate 15 of Appendix D, whenever the Connecticut River reaches elevation 35.

SECTION VIII - PLANS

22. PLANS

Complete sets of as-built drawings are furnished to the City. Selected plans showing pertinent features of the project are contained in Appendix D of this supplement.

APPENDIX A

	Pages
REGULATIONS PRESCRIBED BY THE SECRETARY OF WAR	A-1 and A-2

TITLE 33—NAVIGATION AND NAVIGABLE WATERS

Chapter II—Corps of Engineers, War Department

PART 208—FLOOD CONTROL REGULATIONS

MAINTENANCE AND OPERATION OF FLOOD CONTROL WORKS

Pursuant to the provisions of section 3 of the Act of Congress approved June 22, 1936, as amended and supplemented (49 Stat. 1571; 50 Stat. 877; and 55 Stat. 638; 33 U. S. C. 701c; 701c-1), the following regulations are hereby prescribed to govern the maintenance and operation of flood control works:

§ 208.10 *Local flood protection works; maintenance and operation of structures and facilities*—(a) *General.* (1) The structures and facilities constructed by the United States for local flood protection shall be continuously maintained in such a manner and operated at such times and for such periods as may be necessary to obtain the maximum benefits.

(2) The State, political subdivision thereof, or other responsible local agency, which furnished assurance that it will maintain and operate flood control works in accordance with regulations prescribed by the Secretary of War, as required by law, shall appoint a permanent committee consisting of or headed by an official hereinafter called the "Superintendent," who shall be responsible for the development and maintenance of, and directly in charge of, an organization responsible for the efficient operation and maintenance of all of the structures and facilities during flood periods and for continuous inspection and maintenance of the project works during periods of low water, all without cost to the United States.

(3) A reserve supply of materials needed during a flood emergency shall be kept on hand at all times.

(4) No encroachment or trespass which will adversely affect the efficient operation or maintenance of the project works shall be permitted upon the rights-of-way for the protective facilities.

(5) No improvement shall be passed over, under, or through the walls, levees, improved channels or floodways, nor shall any excavation or construction be permitted within the limits of the project right-of-way, nor shall any change be made in any feature of the works without prior determination by the District Engineer of the War Department or his authorized representative that such improvement, excavation, construction, or alteration will not adversely affect the functioning of the protective facilities. Such improvements or alterations as may be found to be desirable and permissible under the above determination shall be constructed in accordance with standard engineering practice. Advice regarding the effect of proposed improvements or alterations on the functioning of the project and information concerning methods of construction acceptable under standard engineering practice shall be obtained from the District Engineer or, if otherwise obtained, shall be submitted for his approval. Drawings or prints showing such improvements or alterations as finally constructed shall be furnished the District Engineer after completion of the work.

(6) It shall be the duty of the superintendent to submit a semiannual report to the District Engineer covering inspection, maintenance, and operation of the protective works.

(7) The District Engineer or his authorized representatives shall have access at all times to all portions of the protective works.

(8) Maintenance measures or repairs which the District Engineer deems necessary shall be promptly taken or made.

(9) Appropriate measures shall be taken by local authorities to insure that the activities of all local organizations operating public or private facilities connected with the protective works are coordinated with those of the Superintendent's organization during flood periods.

(10) The War Department will furnish local interests with an Operation and Maintenance Manual for each completed project, or separate useful part thereof, to assist them in carrying out their obligations under these regulations.

(b) *Levees*—(1) *Maintenance.* The Superintendent shall provide at all times such maintenance as may be required to insure serviceability of the structures in time of flood. Measures shall be taken to promote the growth of sod, exterminate burrowing animals, and to provide for routine mowing of the grass and weeds, removal of wild growth and drift deposits, and repair of damage caused by erosion or other forces. Where practicable, measures shall be taken to retard bank erosion by planting of willows or other suitable growth on areas riverward of the levees. Periodic inspections shall be made by the Superintendent to insure that the above maintenance measures are being effectively carried out and, further, to be certain that:

(i) No unusual settlement, sloughing, or material loss of grade or levee cross section has taken place;

(ii) No caving has occurred on either the land side or the river side of the levee which might affect the stability of the levee section;

(iii) No seepage, saturated areas, or sand boils are occurring;

(iv) Toe drainage systems and pressure relief wells are in good working condition, and that such facilities are not becoming clogged;

(v) Drains through the levees and gates on said drains are in good working condition;

(vi) No revetment work or riprap has been displaced, washed out, or removed;

(vii) No action is being taken, such as burning grass and weeds during inappropriate seasons, which will retard or destroy the growth of sod;

(viii) Access roads to and on the levee are being properly maintained;

(ix) Cattle guards and gates are in good condition;

(x) Crown of levee is shaped so as to drain readily, and roadway thereon, if any, is well shaped and maintained;

(xi) There is no unauthorized grazing or vehicular traffic on the levees;

(xii) Encroachments are not being made on the levee right-of-way which might endanger the structure or hinder its proper and efficient functioning durin times of emergency.

Such inspections shall be made immediately prior to the beginning of the flood season; immediately following each major high water period, and otherwise at intervals not exceeding 90 days, and such intermediate times as may be necessary to insure the best possible care of the levee. Immediate steps will be taken to correct dangerous conditions disclosed by such inspections. Regular maintenance repair measures shall be accomplished during the appropriate season as scheduled by the Superintendent.

(2) *Operation.* During flood periods the levee shall be patrolled continuously to locate possible sand boils or unusual wetness of the landward slope and to be certain that:

(i) There are no indications of slides or sloughs developing;

(ii) Wave wash or scouring action is not occurring;

(iii) No low reaches of levee exist which may be overtopped;

(iv) No other conditions exist which might endanger the structure.

Appropriate advance measures will be taken to insure the availability of adequate labor and materials to meet all contingencies. Immediate steps will be taken to control any condition which endangers the levee and to repair the damaged section.

(c) *Flood walls.*—(1) *Maintenance.* Periodic inspections shall be made by the Superintendent to be certain that:

(i) No seepage, saturated areas, or sand boils are occurring;

(ii) No undue settlement has occurred which affects the stability of the wall or its water tightness;

(iii) No trees exist, the roots of which might extend under the wall and offer accelerated seepage paths;

(iv) The concrete has not undergone cracking, chipping, or breaking to an extent which might affect the stability of the wall or its water tightness;

(v) There are no encroachments upon the right-of-way which might endanger the structure or hinder its functioning in time of flood;

(vi) Care is being exercised to prevent accumulation of trash and debris adjacent to walls, and to insure that no fires are being built near them;

(vii) No bank caving conditions exist riverward of the wall which might endanger its stability;

(viii) Toe drainage systems and pressure relief wells are in good working condition, and that such facilities are not becoming clogged.

Such inspections shall be made immediately prior to the beginning of the flood season, immediately following each major high water period, and otherwise at intervals not exceeding 90 days. Measures to eliminate encroachments and effect repairs found necessary by such inspections shall be undertaken immediately. All repairs shall be accomplished by methods acceptable in standard engineering practice.

(2) *Operation.* Continuous patrol of the wall shall be maintained during flood periods to locate possible leakage at monolith joints or seepage underneath the wall. Floating plant or boats will not be allowed to lie against or tie up to the wall. Should it become necessary during a flood emergency to pass anchor cables over the wall, adequate measures shall be taken to protect the concrete and construction joints. Immediate steps shall be taken to correct any condition which endangers the stability of the wall.

(d) *Drainage structures*—(1) *Maintenance.* Adequate measures shall be taken to insure that inlet and outlet channels are kept open and that trash, drift, or debris is not allowed to accumulate near drainage structures. Flap gates and manually operated gates and valves on

drainage structures shall be examined, oiled, and trial operated at least once every 90 days. Where drainage structures are provided with stop log or other emergency closures, the condition of the equipment and its housing shall be inspected regularly and a trial installation of the emergency closure shall be made at least once each year. Periodic inspections shall be made by the Superintendent to be certain that:

(i) Pipes, gates, operating mechanism, riprap, and headwalls are in good condition;

(ii) Inlet and outlet channels are open;

(iii) Care is being exercised to prevent the accumulation of trash and debris near the structures and that no fires are being built near bituminous coated pipes;

(iv) Erosion is not occurring adjacent to the structure which might endanger its water tightness or stability.

Immediate steps will be taken to repair damage, replace missing or broken parts, or remedy adverse conditions disclosed by such inspections.

(2) *Operation.* Whenever high water conditions impend, all gates will be inspected a short time before water reaches the invert of the pipe and any object which might prevent closure of the gate shall be removed. Automatic gates shall be closely observed until it has been ascertained that they are securely closed. Manually operated gates and valves shall be closed as necessary to prevent inflow of flood water. All drainage structures in levees shall be inspected frequently during floods to ascertain whether seepage is taking place along the lines of their contact with the embankment. Immediate steps shall be taken to correct any adverse condition.

(e) *Closure structures*—(1) *Maintenance.* Closure structures for traffic openings shall be inspected by the superintendent every 90 days to be certain that:

(i) No parts are missing;

(ii) Metal parts are adequately covered with paint;

(iii) All movable parts are in satisfactory working order,

(iv) Proper closure can be made promptly when necessary;

(v) Sufficient materials are on hand for the erection of sand bag closures and that the location of such materials will be readily accessible in times of emergency.

Tools and parts shall not be removed for other use. Trial erections of one or more closure structures shall be made once each year, alternating the structures chosen so that each gate will be erected at least once in each 3-year period. Trial erection of all closure structures shall be made whenever a change is made in key operating personnel. Where railroad operation makes trial erection of a closure structure infeasible, rigorous inspection and drill of operating personnel may be substituted therefor. Trial erection of sand bag closures is not required. Closure materials will be carefully checked prior to and following flood periods, and damaged or missing parts shall be repaired or replaced immediately.

(2) *Operation.* Erection of each movable closure shall be started in sufficient time to permit completion before flood waters reach the top of the structure sill. Information regarding the proper method of erecting each individual closure structure, together with an estimate of the time required by an experienced crew to complete its erection will be given in the Operation and Maintenance Manual which will be furnished local interests upon completion of the project. Closure structures will be inspected frequently during flood periods to ascertain that no undue leakage is occurring and that drains provided to care for ordinary leakage are functioning properly. Boats or floating plant shall not be allowed to tie up to closure structures or to discharge passengers or cargo over them.

(f) *Pumping plants*—(1) *Maintenance.* Pumping plants shall be inspected by the Superintendent at intervals not to exceed 30 days during flood seasons and 90 days during off-flood seasons to insure that all equipment is in order for instant use. At regular intervals, proper measures shall be taken to provide for cleaning plant, buildings, and equipment, repainting as necessary, and lubricating all machinery Adequate supplies of lubricants for all types of machines, fuel for gasoline or diesel powered equipment, and flash lights or lanterns for emergency lighting shall be kept on hand at all times. Telephone service shall be maintained at pumping plants. All equipment, including switch gear, transformers, motors, pumps, valves, and gates shall be trial operated and checked at least once every 90 days. Megger tests of all insulation shall be made whenever wiring has been subjected to undue dampness and otherwise at intervals not to exceed one year. A record shall be kept showing the results of such tests. Wiring disclosed to be in an unsatisfactory condition by such tests shall be brought to a satisfactory condition or shall be promptly replaced. Diesel and gasoline engines shall be started at such intervals and allowed to run for such length of time as may be necessary to insure their serviceability in times of emergency. Only skilled electricians and mechanics shall be employed on tests and repairs. Operating personnel for the plant shall be present during tests. Any equipment removed from the station for repair or replacement shall be returned or replaced as soon as practicable and shall be trial operated after reinstallation. Repairs requiring removal of equipment from the plant shall be made during off-flood seasons insofar as practicable.

(2) *Operation.* Competent operators shall be on duty at pumping plants whenever it appears that necessity for pump operation is imminent. The operator shall thoroughly inspect, trial operate, and place in readiness all plant equipment. The operator shall be familiar with the equipment manufacturers' instructions and drawings and with the "Operating Instructions" for each station. The equipment shall be operated in accordance with the above-mentioned "Operating Instructions" and care shall be exercised that proper lubrication is being supplied all equipment, and that no overheating, undue vibration or noise is occurring. Immediately upon final recession of flood waters, the pumping station shall be thoroughly cleaned, pump house sumps flushed, and equipment thoroughly inspected, oiled and greased. A record or log of pumping plant operation shall be kept for each station, a copy of which shall be furnished the District Engineer following each flood.

(g) *Channels and floodways* — (1) *Maintenance.* Periodic inspections of improved channels and floodways shall be made by the Superintendent to be certain that:

(i) The channel or floodway is clear of debris, weeds, and wild growth;

(ii) The channel or floodway is not being restricted by the depositing of waste materials, building of unauthorized structures or other encroachments;

(iii) The capacity of the channel or floodway is not being reduced by the formation of shoals;

(iv) Banks are not being damaged by rain or wave wash, and that no sloughing of banks has occurred;

(v) Riprap sections and deflection dikes and walls are in good condition;

(vi) Approach and egress channels adjacent to the improved channel or floodway are sufficiently clear of obstructions and debris to permit proper functioning of the project works.

Such inspections shall be made prior to the beginning of the flood season and otherwise at intervals not to exceed 90 days. Immediate steps will be taken to remedy any adverse conditions disclosed by such inspections. Measures will be taken by the Superintendent to promote the growth of grass on bank slopes and earth deflection dikes. The Superintendent shall provide for periodic repair and cleaning of debris basins, check dams, and related structures as may be necessary.

(2) *Operation.* Both banks of the channel shall be patrolled during periods of high water, and measures shall be taken to protect those reaches being attacked by the current or by wave wash. Appropriate measures shall be taken to prevent the formation of jams of ice or debris. Large objects which become lodged against the bank shall be removed. The improved channel or floodway shall be thoroughly inspected immediately following each major high water period. As soon as practicable thereafter, all snags and other debris shall be removed and all damage to banks, riprap, deflection dikes and walls, drainage outlets, or other flood control structures repaired.

(h) *Miscellaneous facilities* — (1) *Maintenance.* Miscellaneous structures and facilities constructed as a part of the protective works and other structures and facilities which function as a part of, or affect the efficient functioning of the protective works, shall be periodically inspected by the Superintendent and appropriate maintenance measures taken. Damaged or unserviceable parts shall be repaired or replaced without delay. Areas used for ponding in connection with pumping plants or for temporary storage of interior run-off during flood periods shall not be allowed to become filled with silt, debris, or dumped material. The Superintendent shall take proper steps to prevent restriction of bridge openings and, where practicable, shall provide for temporary raising during floods of bridges which restrict channel capacities during high flows.

(2) *Operation.* Miscellaneous facilities shall be operated to prevent or reduce flooding during periods of high water. Those facilities constructed as a part of the protective works shall not be used for purposes other than flood protection without approval of the District Engineer unless designed therefor. (49 Stat. 1571, 50 Stat. 877; and 55 Stat. 638; 33 U.S.C. 701c; 701c-1) (Regs. 9 August 1944, CE SPEWF)

[SEAL] J. A. ULIO,
Major General,
The Adjutant General.

[F. R. Doc. 44-12285; Filed, August 16, 1944; 9:44 a. m.]

A-2

APPENDIX B

LOCAL COOPERATION

Exhibit No.	Title	Date
1	Assurance by City of Hartford	7 July 1955
2	Acceptance of Project by City of Hartford	24 Sept 1958

ASSURANCE BY THE CITY OF HARTFORD, CONNECTICUT

WHEREAS, the project for flood control in the Connecticut River Basin at Hartford, Connecticut, authorized by the Flood Control Act approved June 28, 1938, as amended by the Flood Control Act of August 18, 1941 and the Act of October 26, 1942, is further amended by the Flood Control Act approved 17 May 1950 to include Folly Brook Dike and Conduit at Hartford, Connecticut; and

WHEREAS, the Folly Brook Dike and Conduit will consist of approximately 1900 linear feet of pressure conduit and 700 feet of earth dike at a construction cost now estimated to be $492,300, in accordance with plans prepared by the New England Division, Corps of Engineers, United States Army; and

WHEREAS, construction of the Folly Brook Dike and Conduit is authorized subject to the provisions of local cooperation applicable to the Hartford, Connecticut project heretofore authorized, as amended, and subject to the further provision that local interests contribute $150,000, toward the cost of the project estimated, at time of authorization, to be $389,000; and

WHEREAS, the construction work is to be prosecuted under the direction of the Secretary of the Army and the supervision of the Chief of Engineers, Corps of Engineers, United States Army; and

WHEREAS, the City of Hartford desires the prosecution of this project;

NOW, THEREFORE, to comply with the requirements of the Flood Control Act approved 17 May 1950, the City of Hartford, Connecticut, pursuant to Resolution made and approved by the Court of Common Council of the City of Hartford at a meeting held on June 27, 1955, and a meeting of the Flood Commission held on June 22, 1955, does hereby assure the United States of America that it will:

(a) Provide without cost to the United States of America all lands, easements and rights-of-way necessary for the construction of the project,

EXHIBIT I-1

(b) Hold and save the United States of America free from damages due to the construction works.

(c) Maintain and operate all the works after completion in accordance with regulations prescribed by the Secretary of the Army.

(d) Contribute in cash a proportionate share of the construction cost of the project; said proportion to be based on the ratio of local cost to total cost contained in the authorizing legislation. The amount of this contribution is presently estimated to be $189,400.

IN WITNESS WHEREOF, we William H. Putnam, Chairman of the Flood Commission, and Charles W. Cooker, Director of Public Works of the City of Hartford, acting for and on behalf of said City of Hartford, under authority of The Court of Common Council have hereunto executed the within Assurance and caused the corporate seal of the City of Hartford to be affixed hereto this 7th day of July, 1955.

Signed and Sealed
in presence of:
Marion P. Coffill
Mary A. [illegible]

CITY OF HARTFORD, CONNECTICUT
By William H. Putnam
Chairman, Flood Control Commission

[illegible]
Director of Public Works

15 July 1955

The within Assurance is hereby accepted for and on behalf of the United States of America.

UNITED STATES OF AMERICA
By Robert J. Fleming Jr.
ROBERT J. FLEMING, JR.
Colonel, Corps of Engineers
Division Engineer
Contracting Officer

EXHIBIT I-2

STATE OF CONNECTICUT

COUNTY OF HARTFORD, SS. July 7th 1955

Personally appeared William H Putman

Chairman, Flood Control Commission of the City of Hartford, signer and sealer of the foregoing instrument, and acknowledged same to be the free act and deed of the City of Hartford and his free act and deed as Chairman of the Flood Control Commission of the City of Hartford.

Before me,

Porter H. Barrow
Notary Public

My Commission Expires Mar 31 1956

(NOTARY SEAL)

STATE OF CONNECTICUT

COUNTY OF HARTFORD, SS. July 7th 1955

Personally appeared Charles W. Cooke

Director of Public Works of the City of Hartford, signer and sealer of the foregoing instrument and acknowledged same to be the free act and deed of the City of Hartford and his free act and deed as Director of Public Works of the City of Hartford,

Before me,

My Commission Expires Mar 31, 1956

Porter H. Barrow
Notary Public

EXHIBIT 1-3

COUNCIL
MANAGER
GOVERNMENT

TOWN AND CITY CLERK
550 MAIN STREET, HARTFORD 4, CONN.

CITY of HARTFORD

June 30, 1955

This is to certify that at a meeting of the Court of Common Council held June 27, 1955, the following RESOLUTION was passed by roll call vote of 8 to 0.

BE IT RESOLVED:

That WILLIAM H. PUTNAM, Chairman of the Flood Commission, and CHARLES W. COOKE, Director of Public Works of the City of Hartford, be and they hereby are authorized on behalf of the City of Hartford to assure the United States of America that said City of Hartford will:

(a) Provide without cost to the United States of America all lands, easements and rights of way necessary for the construction of the project known as The Folly Brook Dike and Conduit;

(b) Hold and save the United States of America from damage due to the construction works in connection with said project;

(c) Maintain and operate all said works after completion in accordance with regulations prescribed by the Secretary of the Army;

(d) Contribute in cash a proportionate share of the construction cost of said project, said proportion to be based on the ratio of local cost to total cost contained in the authorizing legislation. (The amount of said contribution is presently estimated to be $189,400.00.)

Attest:

William C. Lawrence

City Clerk.

EXHIBIT I-4

GREATER HARTFORD FLOOD COMMISSION
11 ASYLUM STREET
HARTFORD 3, CONNECTICUT
TELEPHONE JA 2-9208

Commissioners
JOHN M. BAILEY
E. WELLES EDDY
SOLOMON ELSNER
HAROLD F. KEITH
H. WARD PINNEY
~~WILLIAM H. PUTNAM~~
~~THOMAS J. SPELLACY~~
Lyonel H. Putnam

Solomon Elsner
~~THOMAS J. SPELLACY~~
Chairman
CHARLES W. COOKE
Director
CHARLES C. KILBY
Chief Engineer
ALEXANDER A. GOLDFARB
Counsel

September 24, 1958

U. S. Engineer Corps
New England Division
150 Causeway Street
Boston, Massachusetts

Attn: Colonel Stanley W. Dziuban

Gentlemen:

This acknowledges with thanks receipt of your letter of 22 September 1958 and included therewith copy of previous letter of 10 July 1957 addressed to Mayor Cronin.

By this letter you transfer to the City of Hartford, for maintenance, the entire Folly Brook Project, so-called, including the stoplog structure at the Valley Branch Railroad line. This transfer is hereby acknowledged, and when your department's maintenance manual has been received, this manual will be turned over to Mr. Lyman C. Lovell, Director of Public Works, for his guidance in the maintenance of these structures.

I wish to take this opportunity to compliment the Engineer Corps on the final completeness of this Folly Brook job, which job had been postponed from year to year due to war conditions and other situations; but due to the continuing interest and cooperation of your department, it has finally been completed.

We wish to thank you on your success and to thank you for your help and assistance.

Very truly yours,

Chas W. Cooke

Charles W. Cooke
Director

CWC:m
cc: Lyman C. Lovell

EXHIBIT 2

APPENDIX C

INSPECTION REPORT FORMS	PAGE
NED FORM # 410	C-1
NED FORM # 410-1	C-2

LOCATION

FLOOD PROTECTION SYSTEM INSPECTION REPORT[1]

DIKE INSPECTION	✓	LOCATION AND DESCRIPTION OF DEFICIENCIES
RASS OR SOD		
IRE DAMAGE		
AVING BANKS OR EROSION		
URROWING ANIMALS		
AND BOILS		
RESSPASSING		
IPRAP		
DE DRAINS		
TOP-LOG STRUCTURES OOD TYPE		
ONDITION OF LOGS		
VAILABILITY OF LOGS		
ONDITION OF FRAMES		
VAILABILITY OF FRAMES		
GHWAY SLOTS		
ORAGE SHELTER		
OP-LOG STRUCTURES TAL TYPE		
NDITION OF PANELS		
AILABILITY OF PANELS		
AINLY NUMBERED		
LTS		
NDITION OF FRAMES		
AILABILITY OF FRAMES		
GHWAY SLOTS		
ORAGE SHELTER		
NDBAGS		
HAND		
AILABLE		

ARKS

	INSPECTED BY: TYPED NAME & TITLE	SIGNATURE

CK ITEMS IF FOUND SATISFACTORY, OTHERWISE LIST DEFICIENCIES

FORM 410
OCT 57

ARMY - NED - BOSTON

LOCATION

FLOOD PROTECTION SYSTEM INSPECTION REPORT[1]

CONCRETE WALL INSPECTION	✓	LOCATION AND DESCRIPTION OF DEFICIENCIES
WALL		
SURFACE		
CRACKS		
SETTLEMENT		
JOINTS		
SPALLING		
MASTIC		
TOE DRAINS		
FORE SHORE		
RIPRAP		
BANKS		
BRUSH		
DRAINAGE STRUCTURES		
RELIEF WALLS		
FREE RUNNING		
PIEZOMETERS		
DISCHARGE GATES		
HEAD OR TAIL GATES		
ELECTRICALLY OPERATED		
HAND OPERATED		
VALVES & PIPES THROUGH WALLS & DIKES		
FLAP VALUES		
GATE VALVES		

REMARKS

DATE	INSPECTED BY: TYPED NAME & TITLE	SIGNATURE

CHECK ITEMS IF FOUND SATISFACTORY, OTHERWISE LIST DEFICIENCIES

NED FORM 410-1 OCT 57

ARMY - NED BOSTON

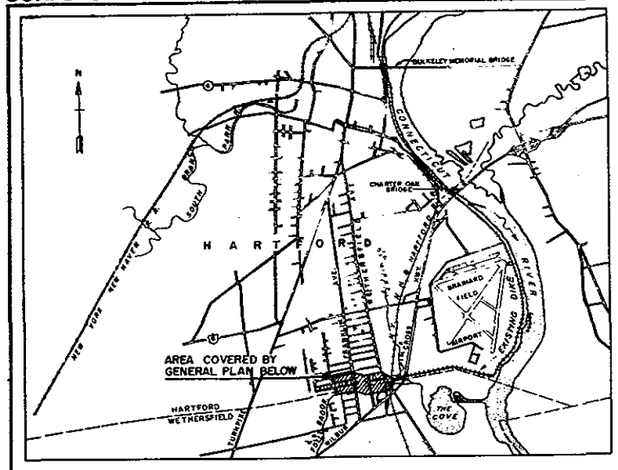
APPENDIX D

DRAWINGS

PLATE NO.	TITLE	FILE NO.
1	Project Location General Plan and Index	CT-4-4063
2	Folly Brook Conduit Plan and Profile - No. 1	CT-4-4064
3	Folly Brook Conduit Plan and Profile - No. 2	CT-4-4065
4	Folly Brook Conduit Plan and Profile - No. 3	CT-4-4066
5	Folly Brook Conduit Plan and Profile - No. 4	CT-4-4067
6	Folly Brook Conduit Plan and Profile - No. 5	CT-4-4068
7	Folly Brook Conduit Plan and Profile - No. 6	CT-4-4069
8	Folly Brook Conduit Plan and Profile - No. 7	CT-4-4070
9	Folly Brook Conduit Plan and Profile - No. 8	CT-4-4071
10	Folly Brook Conduit - Conduit Reconstruction at Manhole - No. 1	CT-4-4073
11	Folly Brook Conduit - - Manhole - No. 1	CT-4-4074
12	Folly Brook Conduit - Manhole - No. 2	CT-4-4076
13	Folly Brook Conduit Montowese Street Siphon	CT-4-4077
14	Folly Brook Conduit Victoria Road Details	CT-4-4078
15	Folly Brook Dike General Plan and Profile	CT-4-4082
16	South End Dike & Stoplog Structure General Plan	CT-4-4084
17	South End Dike & Stoplog Structure - General Plan and Section	CT-1-4999

CORPS OF ENGINEERS

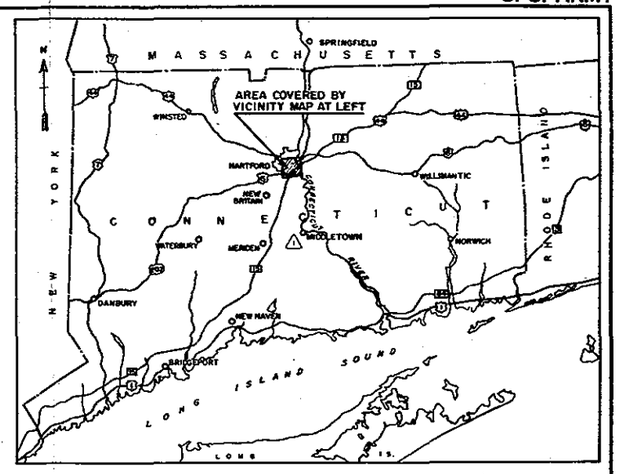
U. S. ARMY



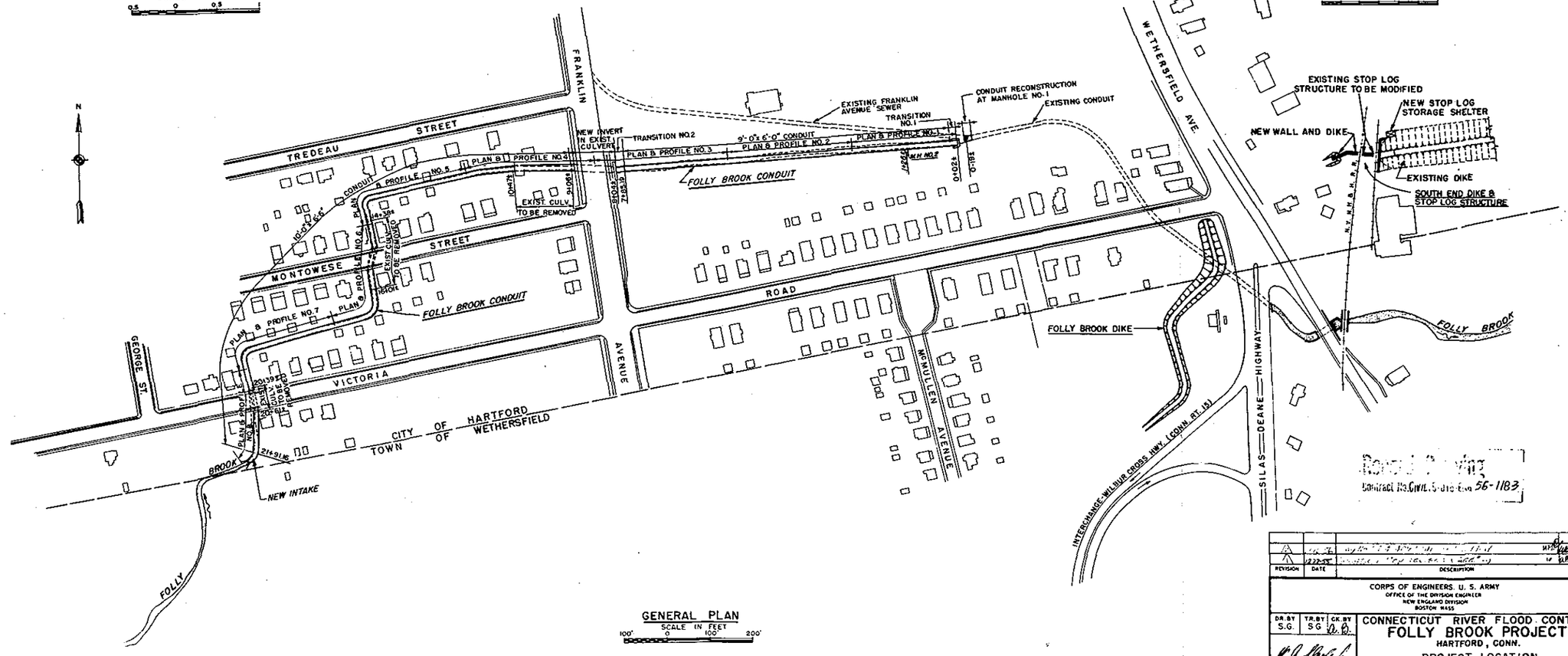
VICINITY MAP
SCALE IN MILES
0.5 0 0.5 1

INDEX TO DRAWINGS

SH.NO.	TITLE	FILE NO.
1	PROJECT LOCATION, GENERAL PLAN AND INDEX	CT-4-4063
2	HYDROGRAPHS NO. 1	CT-3-1302
3	HYDROGRAPHS NO. 2	CT-3-1303
4	SUBSURFACE EXPLORATIONS AND WORK AREAS	CT-2-1457
5	BORROW AND SPOIL AREAS	CT-2-1458
	FOLLY BROOK CONDUIT	
6	PLAN AND PROFILE NO. 1	CT-4-4064
7	PLAN AND PROFILE NO. 2	CT-4-4065
8	PLAN AND PROFILE NO. 3	CT-4-4066
9	PLAN AND PROFILE NO. 4	CT-4-4067
10	PLAN AND PROFILE NO. 5	CT-4-4068
11	PLAN AND PROFILE NO. 6	CT-4-4069
12	PLAN AND PROFILE NO. 7	CT-4-4070
13	PLAN AND PROFILE NO. 8	CT-4-4071
14	TRANSITIONS NO. 1 & NO. 2 - SECTIONS	CT-4-4072
15	CONDUIT RECONSTRUCTION AT MANHOLE NO. 1	CT-4-4073
16	MANHOLE NO. 1 - DETAILS	CT-4-4074
17	CONDUIT RECONSTRUCTION-STEEL REINFORCEMENT	CT-4-4075
18	MANHOLE NO. 2	CT-4-4076
19	MONTOWESE STREET SIPHON	CT-4-4077
20	VICTORIA ROAD DETAILS	CT-4-4078
21	MISCELLANEOUS DETAILS	CT-4-4079
22	MISCELLANEOUS SECTIONS-STEEL REINFORCEMENT	CT-4-4080
23	DRAINAGE PLAN	CT-4-4081
	FOLLY BROOK DIKE	
24	GENERAL PLAN AND PROFILE	CT-4-4082
25	MISCELLANEOUS DETAILS	CT-4-4083
	SOUTH END DIKE & STOP LOG STRUCTURE	
26	GENERAL PLAN, SECTION AND EXISTING STRUCTURE	CT-4-4084
27	SECTIONS NO. 1	CT-4-4085
28	SECTIONS NO. 2 AND DETAILS	CT-4-4086
29	CONCRETE STRUCTURES-DETAIL PLAN AND SECTIONS	CT-4-4087
30	CONCRETE STRUCTURES-STEEL REINFORCEMENT NO. 1	CT-4-4088
31	CONCRETE STRUCTURES-STEEL REINFORCEMENT NO. 2	CT-4-4089
32	STOP LOG CLOSURE	CT-4-4090
33	STOP LOG STORAGE SHELTER	CT-4-4091
34	EXISTING MANHOLE TO BE RAISED-PLAN & SECTIONS	CT-4-4092
△1	MANHOLE AT STATION 4+86 - DETAILS	CT-4-4097
1	GENERAL PLAN & SECTION	CT-1-4999
2	SECTIONS	CT-4-4117



LOCATION MAP
SCALE IN MILES
5 0 5 10 15 20 25



GENERAL PLAN
SCALE IN FEET
100' 0 100' 200'

REVISION	DATE	DESCRIPTION	BY
△	[illegible]	[illegible]	[illegible]
△	[illegible]	[illegible]	[illegible]

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DIVISION ENGINEER
NEW ENGLAND DIVISION
BOSTON MASS.

DR. BY S.G. | TR. BY S.G. | CK. BY

PROJECT ENGINEER

SUBMITTED BY: CHIEF PLANN. & REPTS. BRANCH

APPROVED: CHIEF OF ENGINEERING BRY.

APPROVED: LT. COLONEL, C.E. FOR THE DIVISION ENGINEER

CONNECTICUT RIVER FLOOD CONTROL
FOLLY BROOK PROJECT
HARTFORD, CONN.
PROJECT LOCATION
GENERAL PLAN AND INDEX

FOLLY BROOK — CONNECTICUT

DATE NOV. 1955

SCALES AS SHOWN | SPEC. NO. CIV. ENG.-19-086-56-258

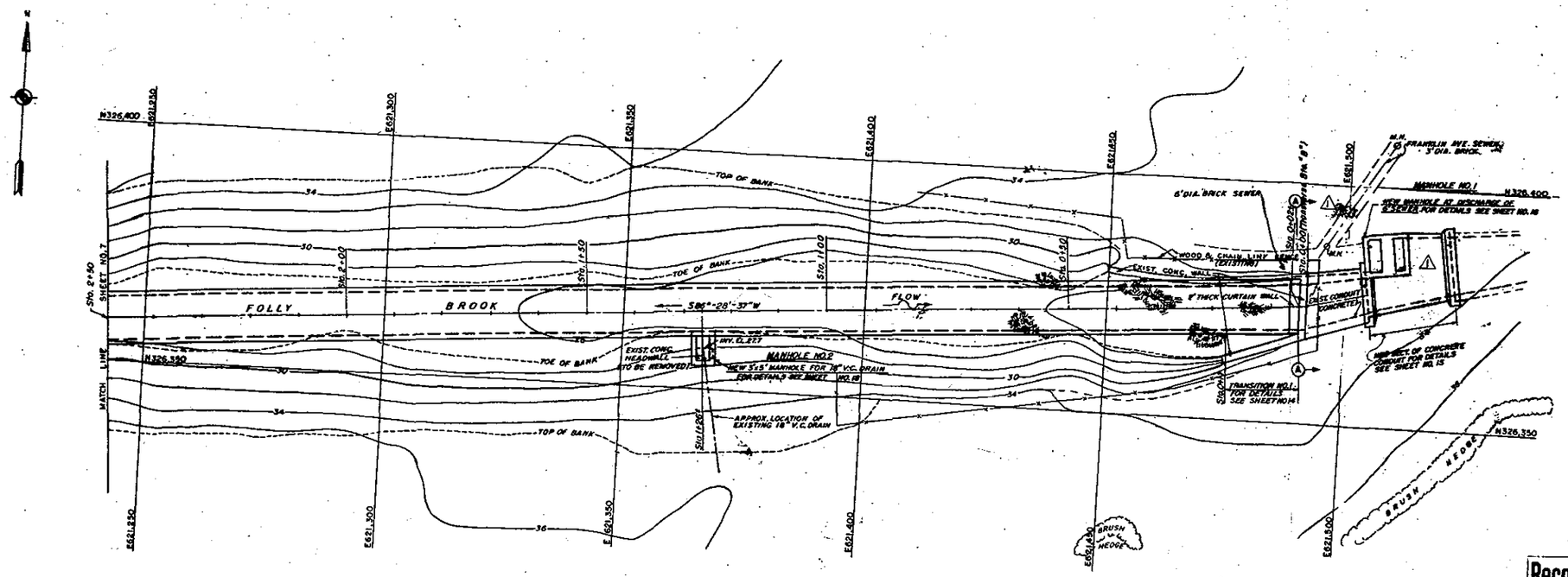
DRAWING NUMBER
CT-4-4063

SHEET 1 OF 34

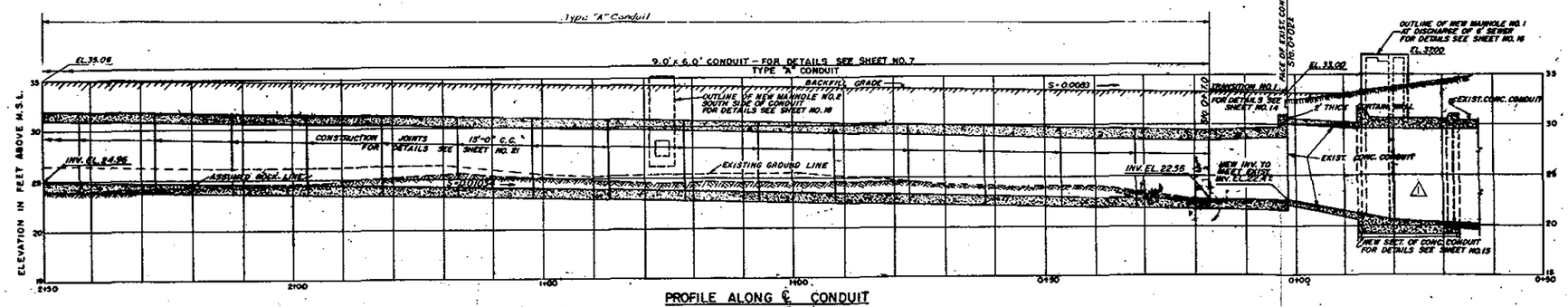
O & M PLATE NO. 1 Ht.-13

CORPS OF ENGINEERS

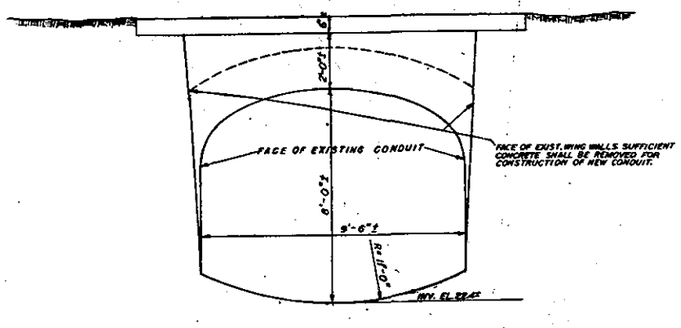
U. S. ARMY



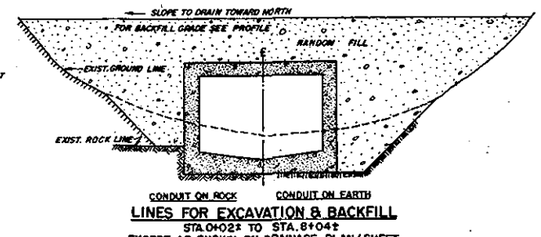
PLAN
SCALE: 1" = 10'



PROFILE ALONG ℄ CONDUIT
SCALE: HOR 1" = 10'
VERT 1" = 5'



SECTION A–A
PORTAL OF EXISTING CONDUIT
SCALE 1/2" = 1'-0"

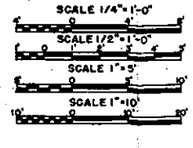


LINES FOR EXCAVATION & BACKFILL
STA. 0+02± TO STA. 8+04±
EXCEPT AS SHOWN ON DRAINAGE PLAN (SHEET
SCALE: 1/4" = 1'-0"

NOTES:

Sta. 0100 to drill hole in concrete headwall over entrance to existing Folly Brook conduit.
Elevation 52.37 M.S.L.
Coordinates – N326,374.25 – E621,496.21

It is expressly understood that the rock lines as shown on this drawing are only approximate, assumptions and are not to be used as a reliable basis for computation of estimates. The contractor must satisfy himself by his own investigations regarding all subsurface conditions affecting the work. Samples and field logs of explorations made by this office and any results of studies pertaining to them, may be examined at the office of the Division Engineer, New England Division, Corps of Engineers, U.S. Army, located at 640 Commonwealth Ave. Boston, Mass.



REVISION	DATE	DESCRIPTION	
1	6-15-56	Final Field Changes. Location of existing conduit corrected and MH #1 revised.	

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DIVISION ENGINEER
NEW ENGLAND DIVISION
BOSTON, MASS.

DR. BY S.G. | TR. BY S.G. | CK. BY

PROJECT ENGINEER

SUBMITTED BY: CHIEF, PLANS & REPORTS BRANCH

APPROVED: CHIEF, ENGINEERING DIV.

APPROVED: LT. COL., C.E. FOR THE DIVISION ENGINEER

CONNECTICUT RIVER FLOOD CONTROL
FOLLY BROOK PROJECT
HARTFORD, CONN.
FOLLY BROOK CONDUIT
PLAN AND PROFILE NO. 1

FOLLY BROOK CONNECTICUT

DATE NOV. 1955

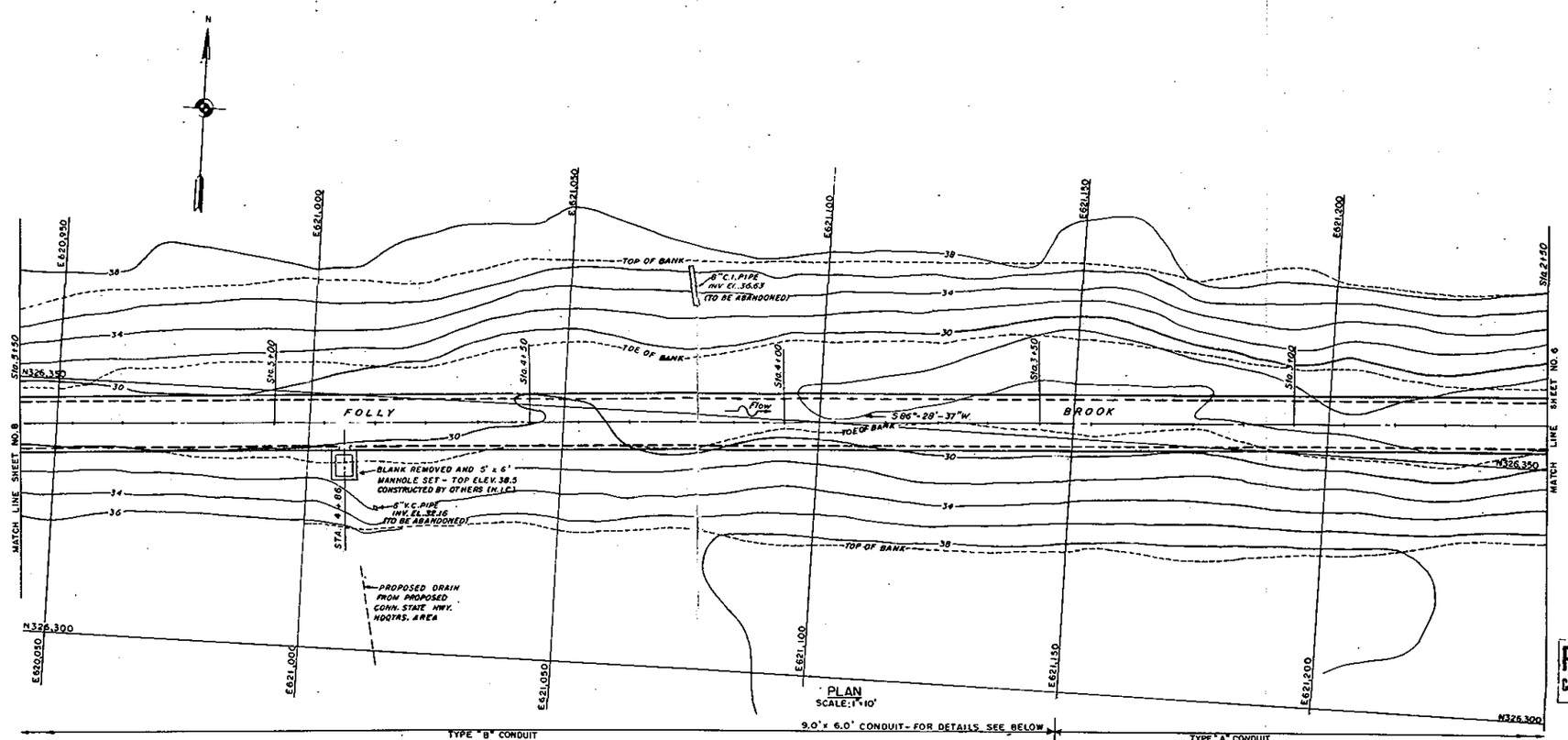
SCALES AS SHOWN | SPEC. NO. DA-19-016-ENG-56-83

DRAWING NUMBER CT-4-4064

SHEET 6 OF 34

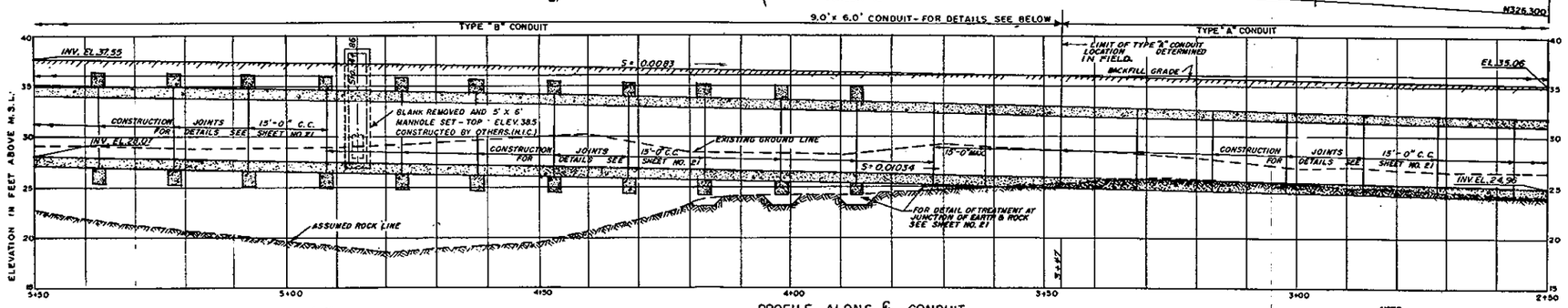
Record Drawing
Contract No. Swl. 19-016-ENG-56-1183

O & M PLATE NO. 2 H1.-13 (8)



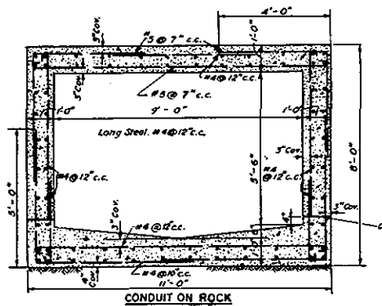
PLAN
SCALE: 1" = 10'

Record Drawing
Contract No. DACW49-016-ENG-56-1183

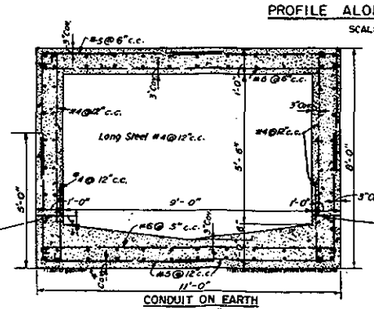


PROFILE ALONG ℄ CONDUIT
SCALE: HOR. 1" = 10' VERT. 1" = 5'

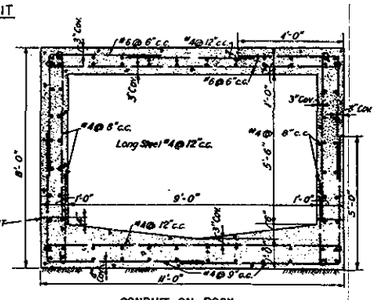
SCALE: 1/2" = 1'-0"
SCALE: 1" = 5'
SCALE: 1" = 10'



CONDUIT ON ROCK
TYPE "C"



CONDUIT ON EARTH
TYPE "B"



CONDUIT ON ROCK
TYPE "A"

9'-0" x 6'-0" CONDUIT DETAILS
SCALE: 1/2" = 1'-0"

NOTE:
All bar laps shall be 30 diameters of the smaller bar.

NOTE:
It is expressly understood that the rock lines as shown on this drawing are only geologic assumptions and are not to be used as a reliable basis for preparation of estimates. The contractor must satisfy himself by his own investigations regarding all subsurface conditions affecting the work. Samples and field logs of explorations made by this office and any results of studies pertaining to them, may be examined at the office of Division Engineer New England Division, Corps of Engineers U.S. Army, located at 857 Comm. Ave. Boston, Mass.

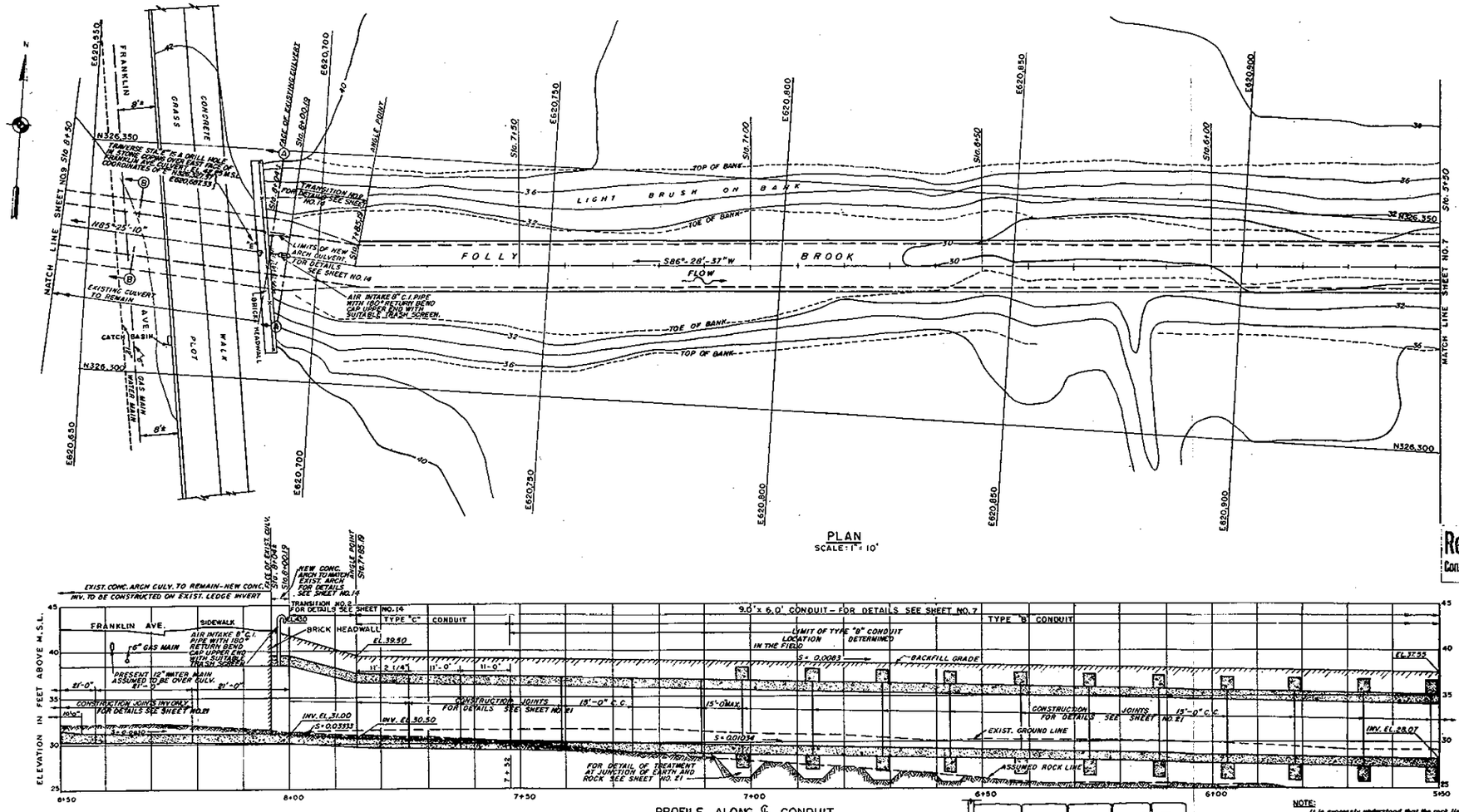
REVISION	DATE	DESCRIPTION	BY
	Nov 1958	Final Field Changes	

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DIVISION ENGINEER
NEW ENGLAND DIVISION
BOSTON, MASS.

DR. BY S.C. TR. BY S.C. CK. BY A.B.
CHIEF, DESIGN BRANCH
PROJECT ENGINEER
SUBMITTED BY
CHIEF, PLANS & SPECS. BRANCH
APPROVED
CHIEF, ENGINEERING DIV.

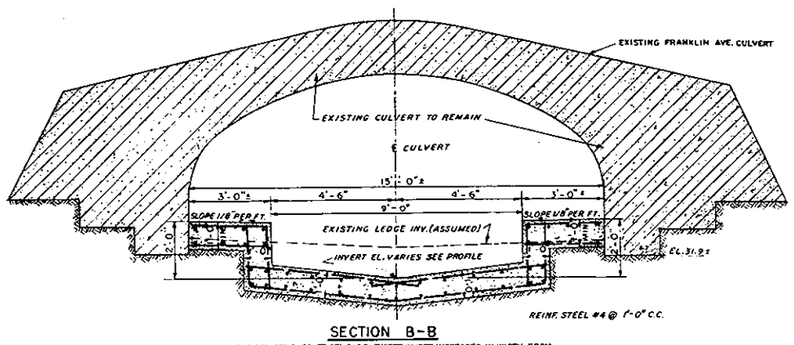
CONNECTICUT RIVER FLOOD CONTROL
FOLLY BROOK PROJECT
HARTFORD, CONN.
FOLLY BROOK CONDUIT
PLAN AND PROFILE NO. 2
FOLLY BROOK CONNECTICUT
APPROVED: LT. COL. C.E. FOR THE DIVISION ENGINEER
DATE NOV. 1955

SCALES AS SHOWN | SPEC. NO. CIVENG-19-016-56-26
DRAWING NUMBER CT-4-4065
SHEET 7 OF 34

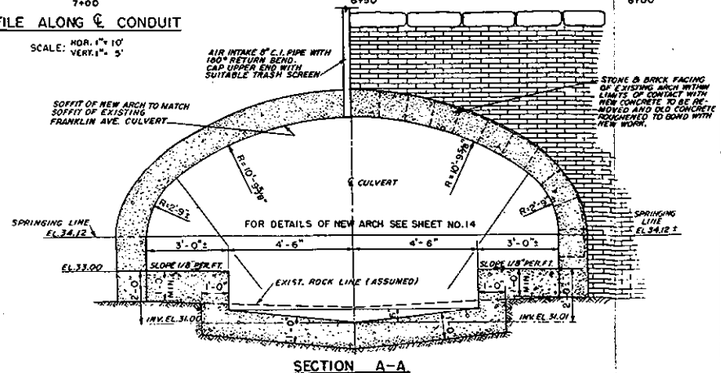


PLAN
SCALE: 1" = 10'

PROFILE ALONG ℄ CONDUIT
SCALE: HOR. 1" = 10'
VERT. 1" = 5'



SECTION B-B
TYPICAL STA. 8+04 TO STA. 9+06 EXCEPT INVERT INCREASES IN WIDTH FROM 9'-0" TO 10'-0" BETWEEN STA. 8+96 & STA. 9+05
SCALE: 1/2" = 1'-0"



SECTION A-A
SCALE: 1/2" = 1'-0"

Record Drawing
Contract No. Civil 19-016-ENG-56-1189

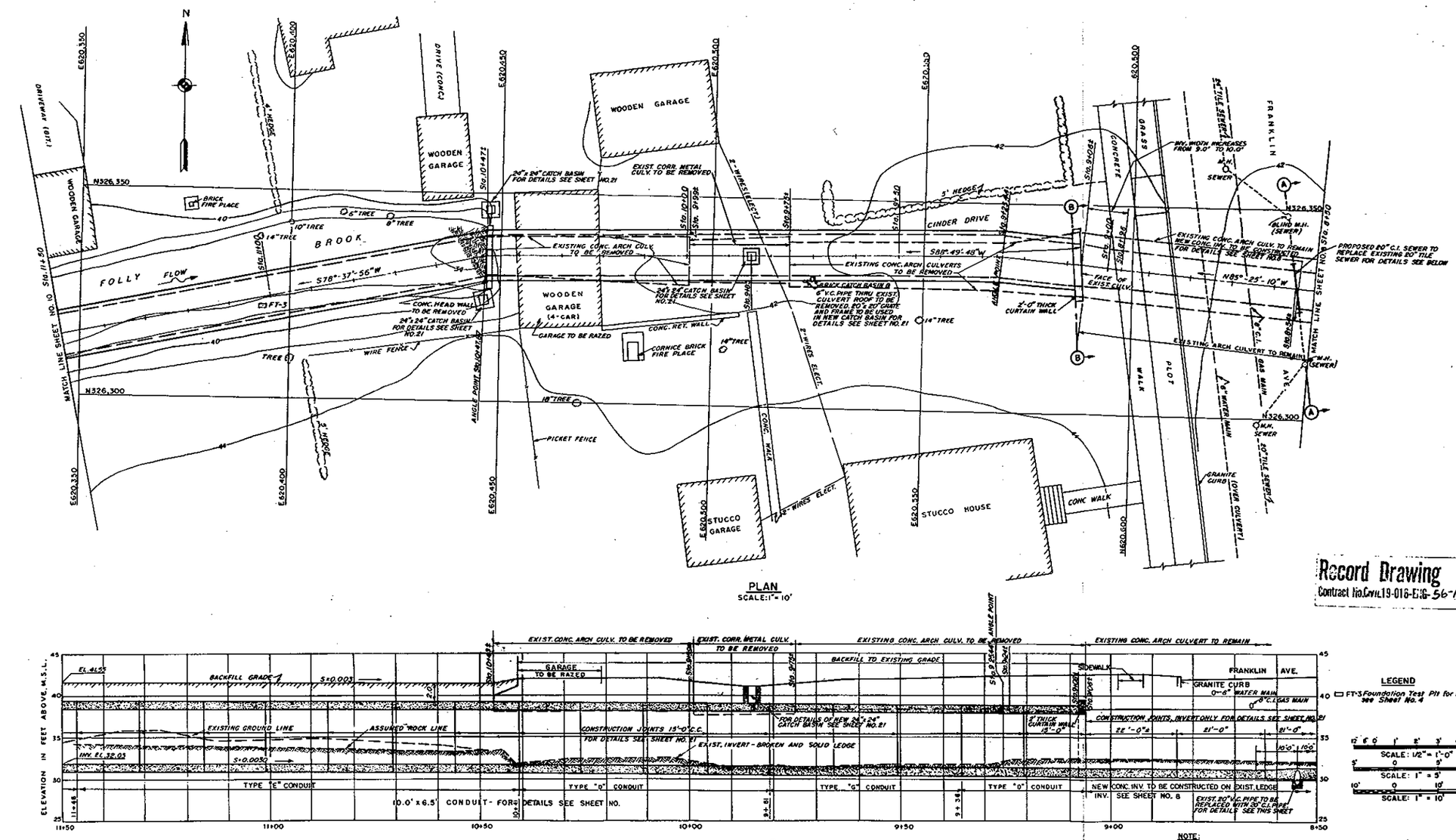
NOTE:
It is expressly understood that the rock lines as shown on this drawing are only geologic assumptions and are not to be used as a reliable basis for preparation to estimates.
The contractor must satisfy himself, by his own investigations regarding all pertinent conditions affecting the work. Samples and field logs of explorations made by this office and any reports of studies pertaining to them, may be examined at the Office of the Division Engineer, New England Division, Corps of Engineers U.S. Army, located at 857 Commonwealth Ave., Boston, Massachusetts.
Location of existing utilities and data on existing culverts taken from best available sources but not guaranteed.

REVISION	DATE	DESCRIPTION	BY
	Nov. 1956	Final Field Changes	

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DIVISION ENGINEER
NEW ENGLAND DIVISION
BOSTON, MASS.

DR. BY S.G. TR. BY S.G. CK. BY A.P.
CHIEF DESIGNER
PROJECT ENGINEER
SUBMITTED BY
CHIEF, DESIGN & EV'T'G BRANCH
APPROVED
CHIEF, ENGINEERING DIV.
LT. COL. C.E. FOR THE DIVISION ENGINEER

CONNECTICUT RIVER FLOOD CONTROL
FOLLY BROOK PROJECT
HARTFORD, CONN.
FOLLY BROOK CONDUIT
PLAN AND PROFILE NO. 3
FOLLY BROOK CONNECTICUT
DATE NOV. 1955
SCALES AS SHOWN
SPEC. NO. CIV. ENG.-19-016-56-26
DRAWING NUMBER CT-4-4066
SHEET 8 OF 34



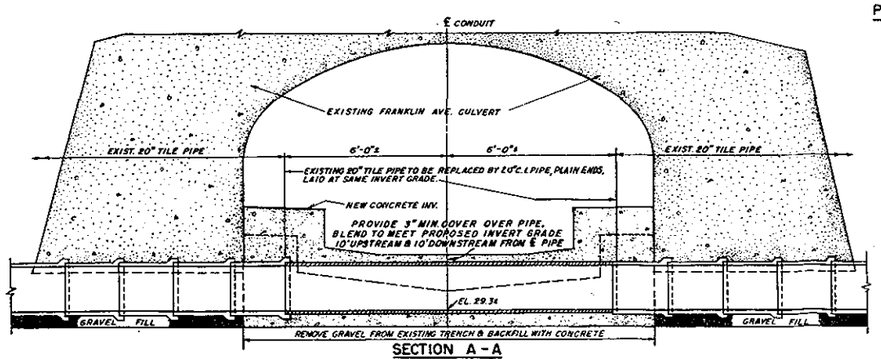
PLAN
SCALE: 1" = 10'

PROFILE ALONG ℄ CONDUIT
SCALE: HOR. 1" = 10' VERT. 1" = 5'

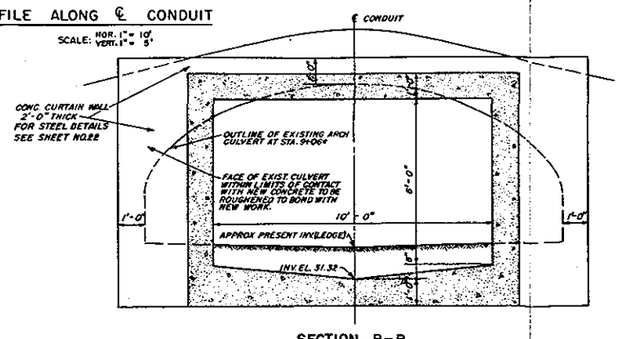
LEGEND

FT-3 Foundation Test Pit for log see Sheet No. 4

SCALE: 1/2" = 1'-0"
SCALE: 1" = 5'
SCALE: 1" = 10'



SECTION A-A
SCALE: 1/2" = 1'-0"



SECTION B-B
SCALE: 1/2" = 1'-0"

NOTE:
It is expressly understood the rock lines as shown on this drawing are only geologic assumptions and are not to be used as a reliable basis for preparation of estimates. The contractor must satisfy himself by his own investigations regarding all subsurface conditions affecting the work. Samples and field logs of explorations made by this office and any results of studies pertaining to them, may be examined at the Office of the Division Engineer New England Division, Corps of Engineers U.S. Army located at 857 Comm. Ave. Boston, Mass. Locations of existing utilities and data on existing culverts taken from best available sources but not guaranteed.
For steel reinforcement in curtain wall see Sheet No. 22

REVISION	DATE	DESCRIPTION	BY
	NOV. 1958	Final Field Changes.	

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DIVISION ENGINEER
NEW ENGLAND DIVISION
BOSTON, MASS.

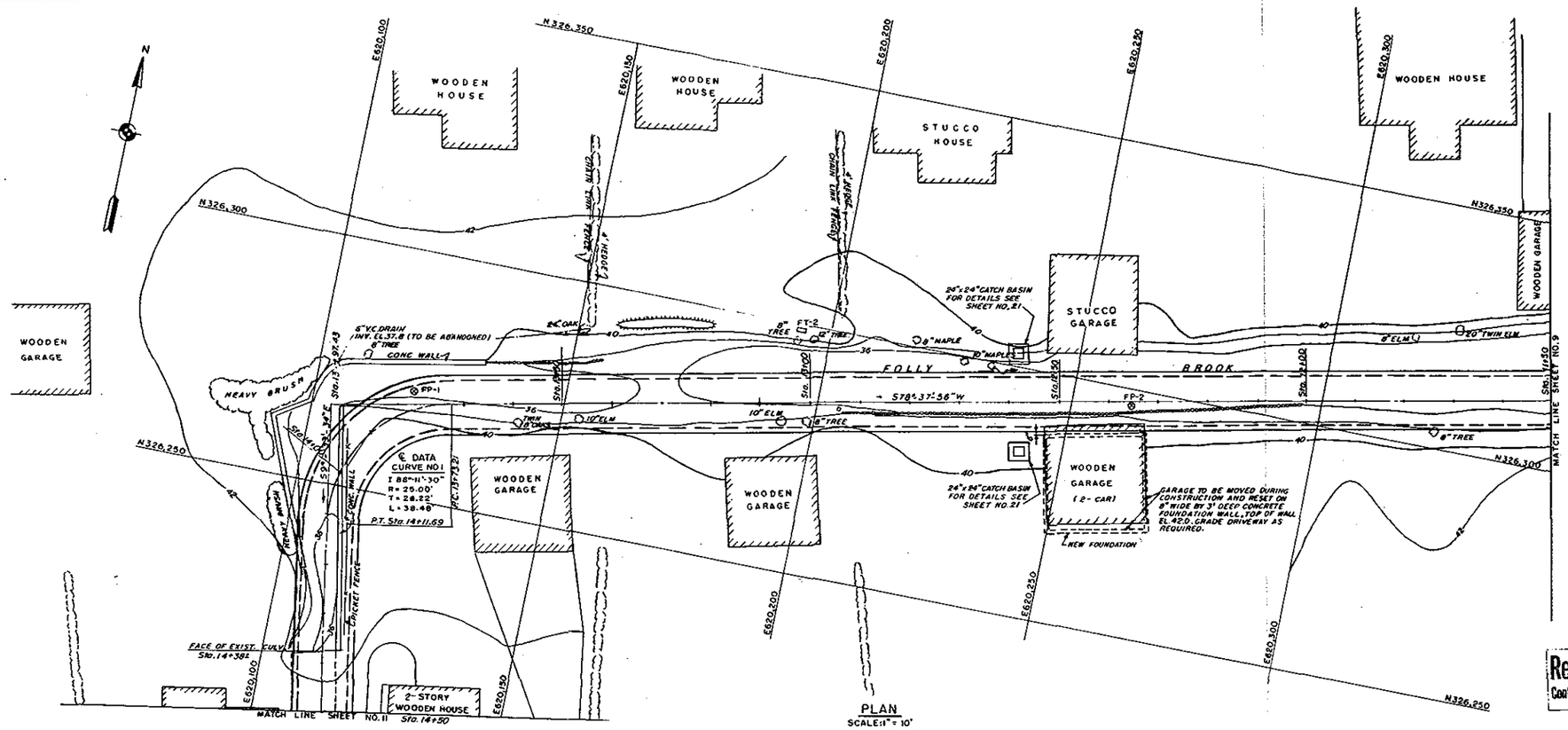
DR. BY S.G. | TR. BY S.G. | CK. BY R.B.

PROJECT ENGINEER
SUBMITTED BY: CHIEF PL. AND SPEC'S BRANCH
REVIEWED: CHIEF
APPROVED: LT. COL. C.E. FOR THE DIVISION ENGINEER

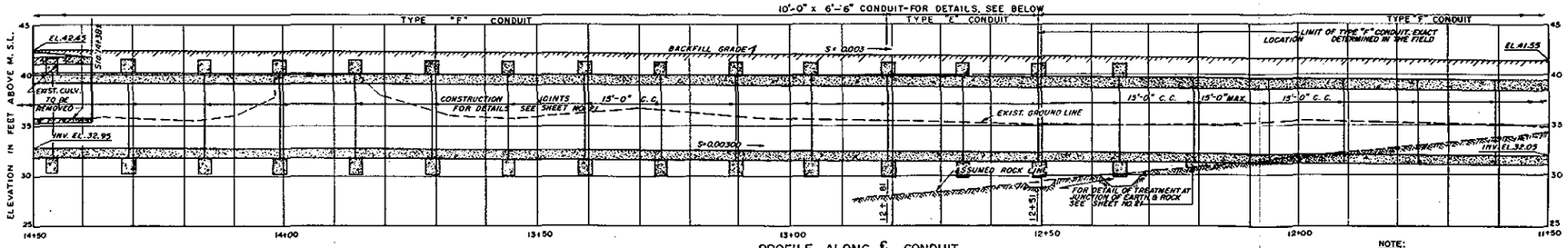
CONNECTICUT RIVER FLOOD CONTROL
FOLLY BROOK PROJECT
HARTFORD, CONN.
FOLLY BROOK CONDUIT
PLAN AND PROFILE NO. 4
FOLLY BROOK CONNECTICUT
DATE NOV. 1955

SCALES AS SHOWN | SPEC. NO. CIV. ENG.-19-016-56-26
DRAWING NUMBER CT-4-4067
SHEET 9 OF 34

Record Drawing
Contract No. Civil 19-016-Eng-56-1183



PLAN
SCALE: 1" = 10'



PROFILE ALONG ℄ CONDUIT
SCALE: HOR. 1" = 10' VERT. 1" = 5'

LEGEND

FT-2 Foundation Test Pit For log see Sheet No. 4

FP-2 Foundation Probe. For results see Sheet No. 4

SCALE: 1/2" = 1'-0"
SCALE: 1" = 5'
SCALE: 1" = 10'

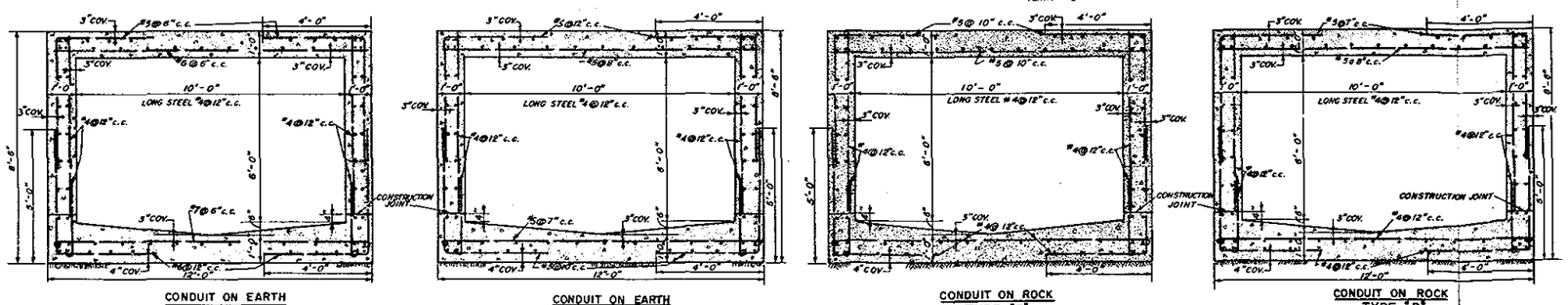
NOTE:

It is expressly understood that the rock lines as shown on this drawing are only geologic assumptions and are not to be used as a reliable basis for preparation of estimates.

The contractor must satisfy himself by his own investigations regarding all subsurface conditions affecting the work.

Samples and field logs of explorations made by this office and any results of studies pertaining to them, may be examined at the Office of the Division Engineer, New England Division Corps of Engineers U. S. Army, located at 657 Commonwealth Ave., Boston, Massachusetts.

All bar laps shall be 30 diameters of the smaller bar.



CONDUIT ON EARTH TYPE "G"

CONDUIT ON EARTH TYPE "F"

CONDUIT ON ROCK TYPE "E"

CONDUIT ON ROCK TYPE "D"

10'-0" x 6'-6" CONDUITS DETAILS
SCALE: 1/2" = 1'-0"

REVISION	DATE	DESCRIPTION	BY
	Nov. 1958	Final Field Changes	

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DIVISION ENGINEER
NEW ENGLAND DIVISION
BOSTON, MASS.

DR. BY S.G. | TR. BY S.G. | CK. BY

CHIEF, DESIGN BRANCH
PROJECT ENGINEER
SUBMITTED BY
CHIEF, PLANNING & REP'T'S BRANCH
APPROVED
CHIEF, ENGINEERING DIV.

CONNECTICUT RIVER FLOOD CONTROL
FOLLY BROOK PROJECT
HARTFORD, CONN.
FOLLY BROOK CONDUIT
PLAN AND PROFILE NO. 5
FOLLY BROOK CONNECTICUT

APPROVED
LT. COL. C.E. FOR THE DIVISION ENGINEER

DATE NOV. 1955

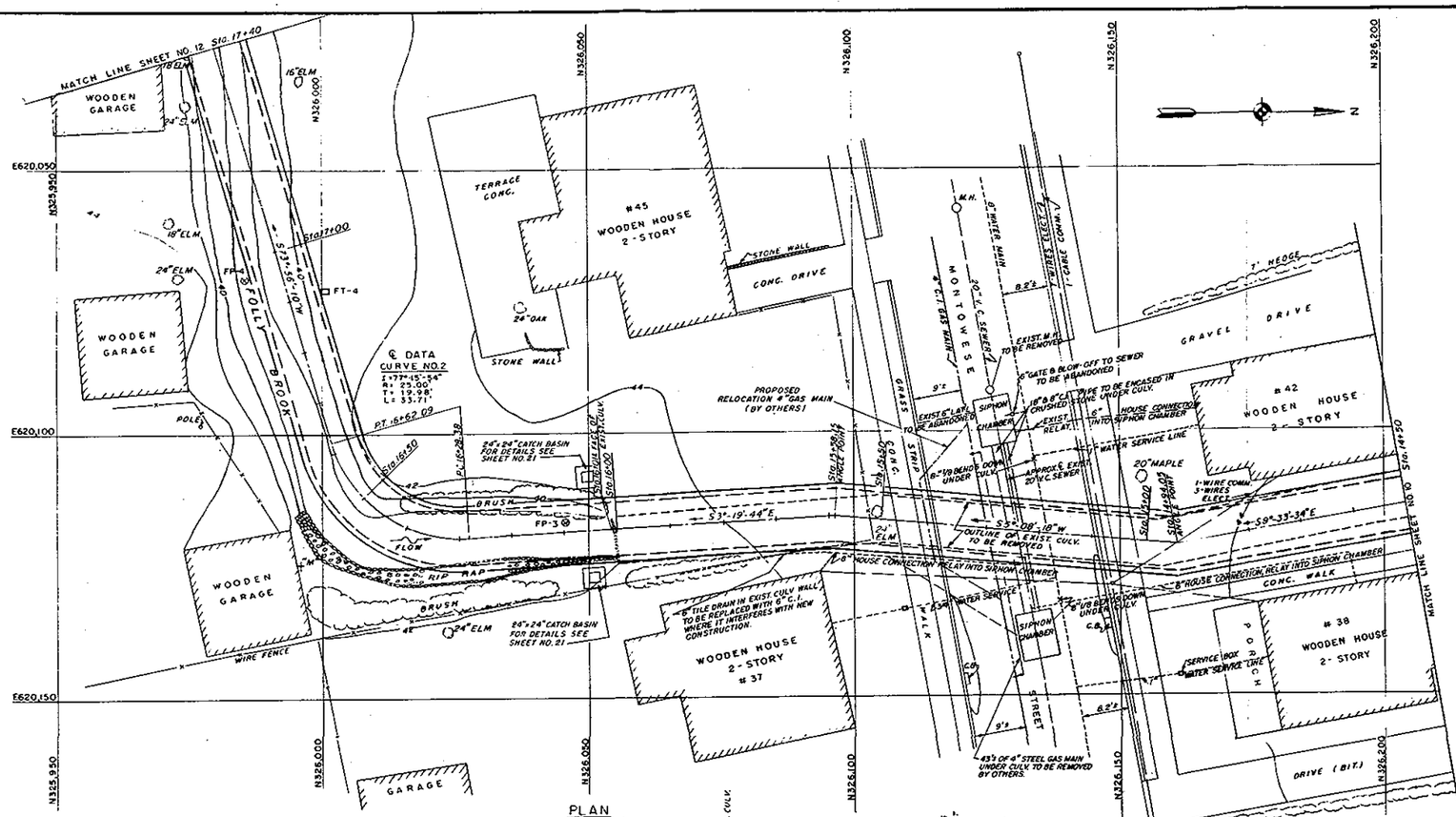
SCALES AS SHOWN | SPEC. NO. CIV. ENG-19-016-56-26

DRAWING NUMBER
CT-4-4068
SHEET 10 OF 34

Record Drawing
Contract No. CIV-19-016-ENG-56-1183

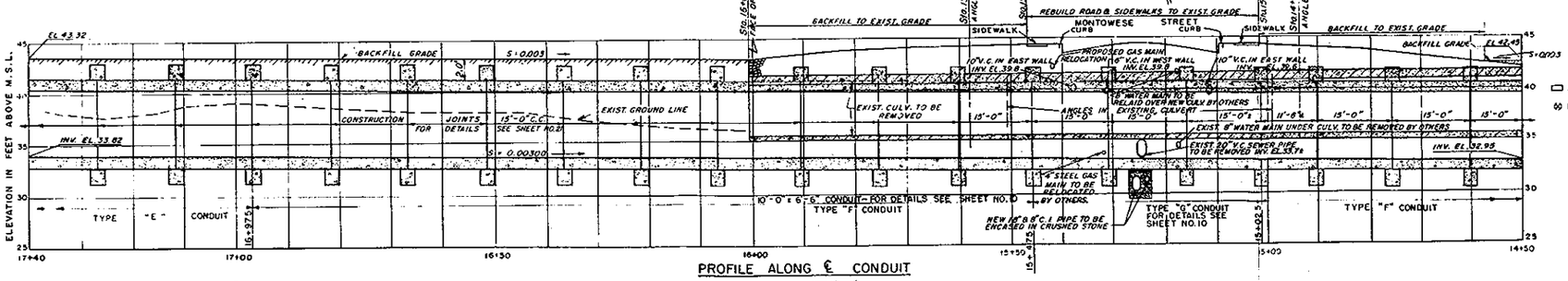
CORPS OF ENGINEERS

U. S. ARMY



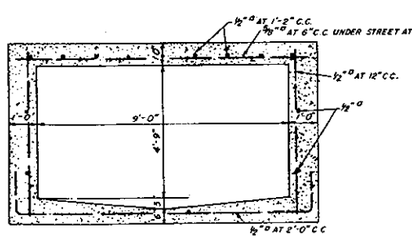
PLAN
SCALE: 1" = 10'

Record Drawing
Contract No. Cml. 19-016-ENG-56-1183

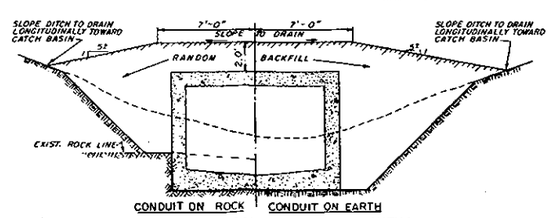


PROFILE ALONG ℄ CONDUIT
SCALE: HOR. 1" = 10', VERT. 1" = 5'

LEGEND
FT-4 Foundation Test Pit For log see Sheet No. 4
FP-4 Foundation Probe For results see Sheet No. 4



SECTION THRU EXISTING MONTOWESE ST. CULVERT
(TO BE REMOVED)
SCALE: 1/2" = 1'-0"



LINES FOR EXCAVATION AND BACKFILL
STA. 9+06± TO STA. 21+91± EXCEPT WHERE NOTED OTHERWISE ON PLANS
SCALE: 1/4" = 1'-0"

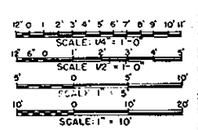
NOTES

Existing 6" and 10" drains to be lowered to discharge into new conduit.

Location of utilities and data on existing culvert taken from best available sources but not guaranteed.

For details of new sewer siphon and siphon chambers see Sheet No. 19.

Gas and water mains to be removed and replaced by others after being uncovered by contractor.



REVISION	DATE	DESCRIPTION	BY
	Nov 1958	Final Field Changes	

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DIVISION ENGINEER
NEW ENGLAND DIVISION
BOSTON, MASS

DR. BY	TR. BY	CK. BY
S.G.	S.G.	

PROJECT ENGINEER
CHIEF PLANS BRANCH
APPROVED
CHIEF ENGINEERING DIV.
APPROVED
LT. COL. C.E. FOR THE DIVISION ENGINEER

CONNECTICUT RIVER FLOOD CONTROL
FOLLY BROOK PROJECT
HARTFORD, CONN.

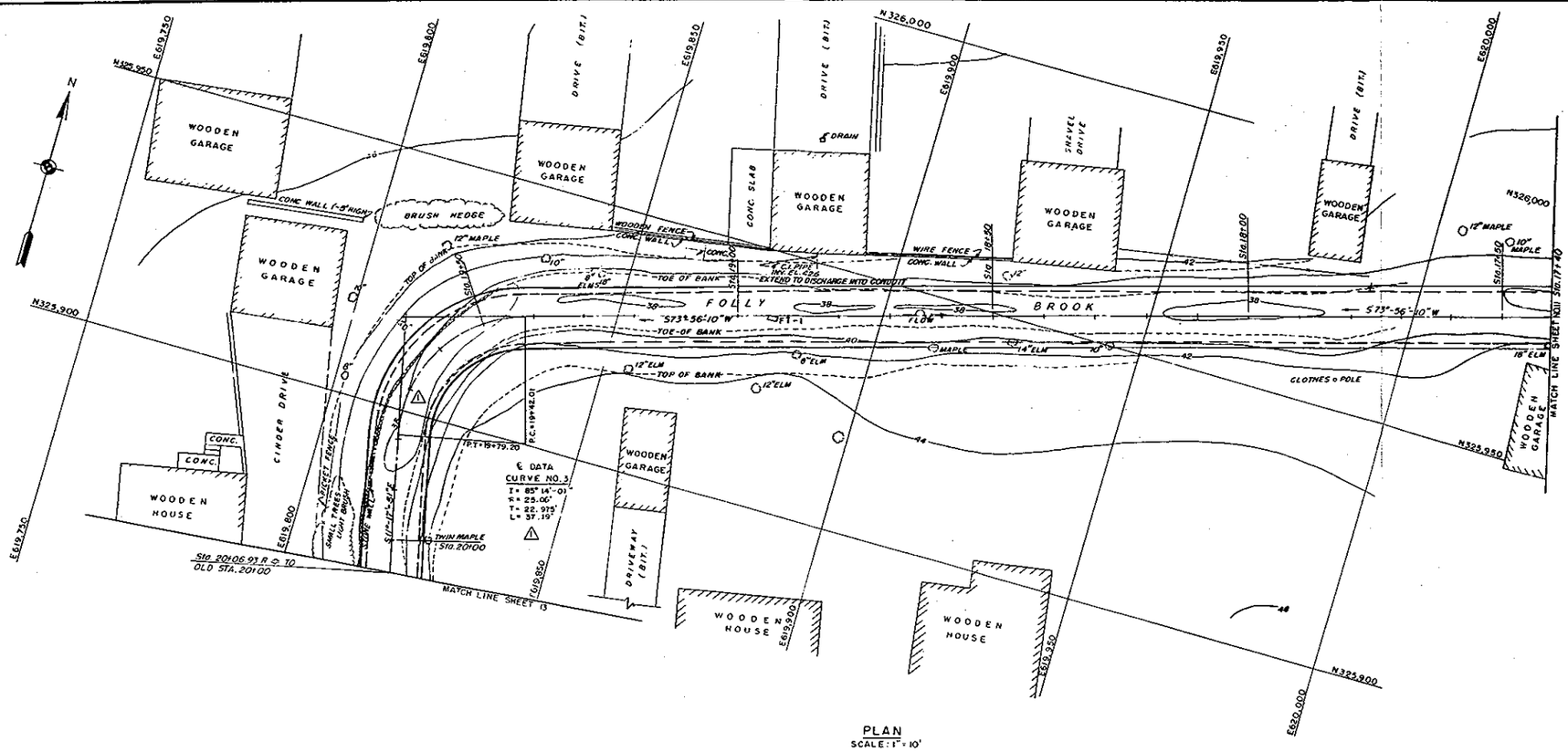
FOLLY BROOK CONDUIT
PLAN AND PROFILE NO. 6

FOLLY BROOK CONNECTICUT
DATE NOV. 1955

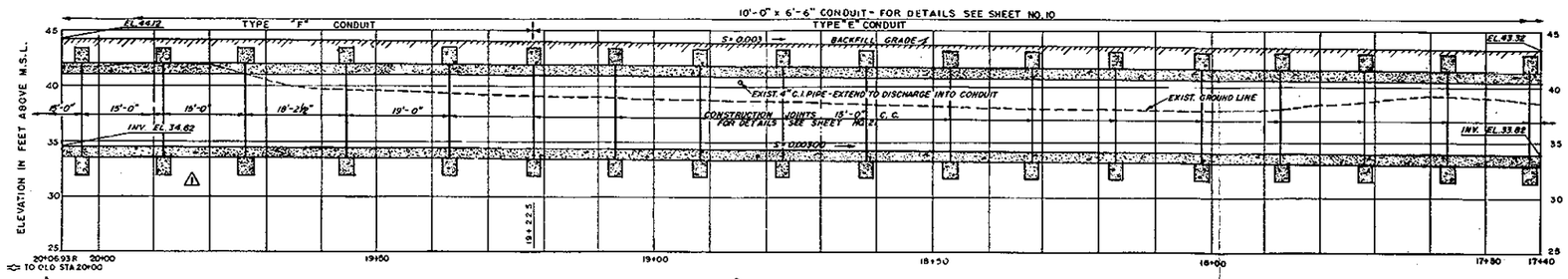
SCALE: AS SHOWN
SPEC. NO. CIV. ENG.-19-016-56-26
DRAWING NUMBER
CT-4-4069
SHEET 11 OF 34

O & M PLATE NO. 7 H1.-13 (11)

CORPS OF ENGINEERS U. S. ARMY



PLAN
SCALE: 1" = 10'



PROFILE ALONG ℄ CONDUIT
SCALE: HOR. 1" = 10' VERT. 1" = 5'

LEGEND

FT-1 Foundation Test Pit - For log see Sheet No. 4

SCALE 1"-5'

SCALE 1"-10'

Record Drawing
Contract No. CIVIL19-016-ENG-56-1183

REVISION	DATE	DESCRIPTION	BY
	Nov 1958	Final Field Changes	
1	4-27-56	Alignment, Profile and Elevations revised	AB

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DIVISION ENGINEER
NEW ENGLAND DIVISION
BOSTON, MASS.

DR. BY S.G. | TR. BY S.G. | CK. BY G.B.

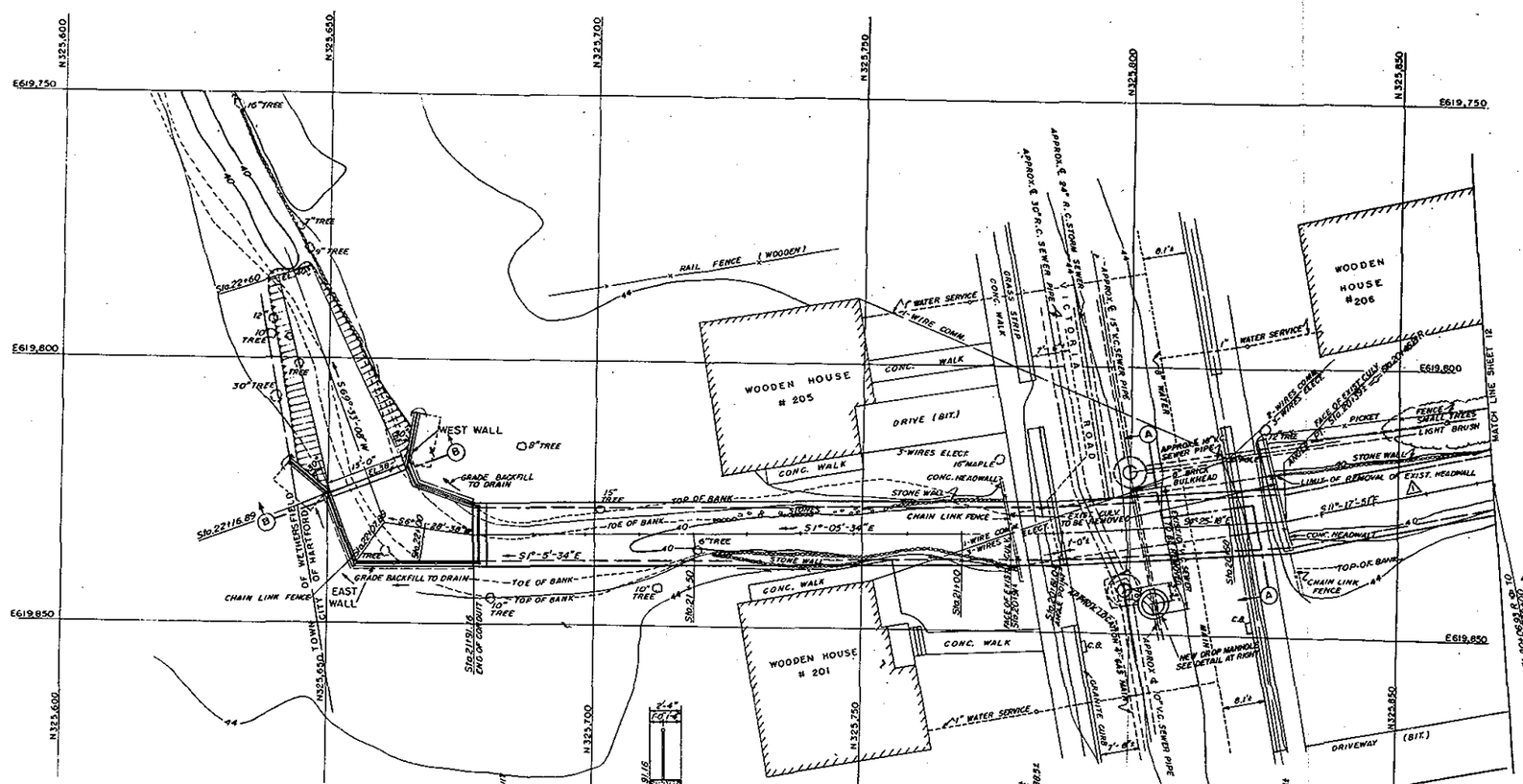
CONNECTICUT RIVER FLOOD CONTROL
FOLLY BROOK PROJECT
HARTFORD, CONN.
FOLLY BROOK CONDUIT
PLAN AND PROFILE - NO. 7
FOLLY BROOK CONNECTICUT

PROJECT ENGINEER
SUBMITTED BY
CHIEF, PLANS & REPTS. BRANCH
APPROVED
CHIEF, ENGINEERING DIV.
APPROVED
LT. COL., C.E. FOR THE DIVISION ENGINEER
DATE NOV. 1955

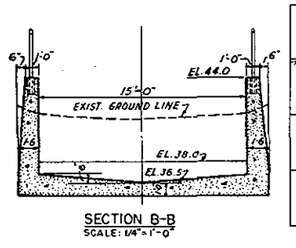
SCALES AS SHOWN | SPEC. NO. CIV. ENG.-19-016-56-26
DRAWING NUMBER CT-4-4070
SHEET 12 OF 34

O & M PLATE NO. 8 Ht.-13 (12)

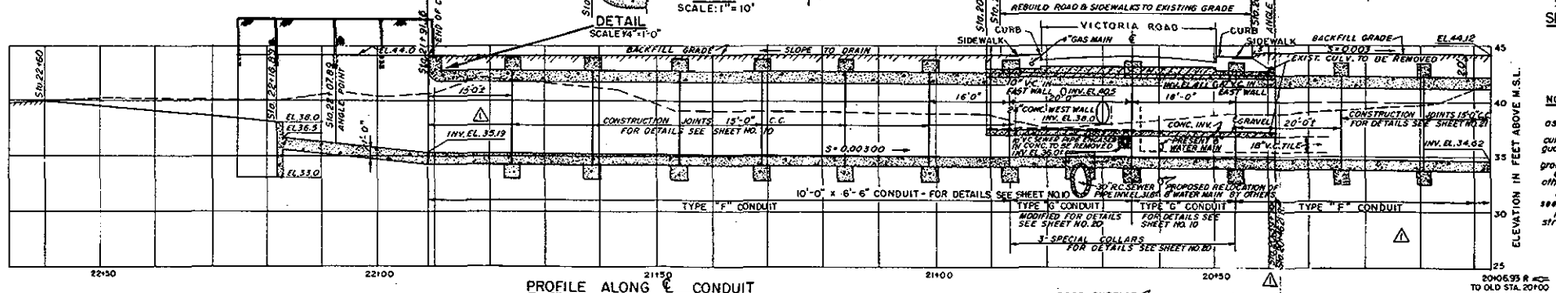
Record Drawing
Contract No. Cwo19-016-ENG-56-1183



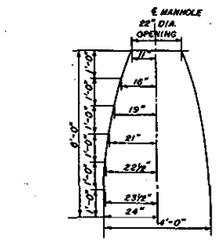
PLAN
SCALE: 1" = 10'



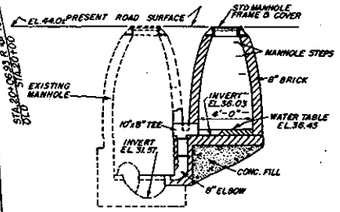
SECTION B-B
SCALE: 1/4" = 1'-0"



PROFILE ALONG ℄ CONDUIT
SCALE: HOR. 1" = 10' VERT. 1" = 5'



DETAIL SHOWING DIMENSIONS TO INSIDE FACE FOR UPPER 6' OF MANHOLE
SCALE: 1/2" = 1'-0"

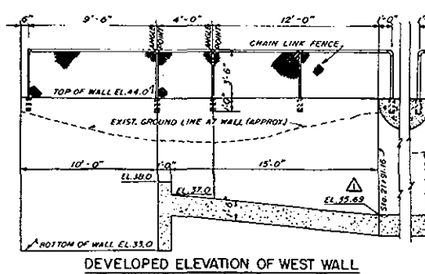


SPECIAL DROP MANHOLE CONNECTING VICTORIA ROAD SEWER TO FOLLY BROOK SEWER
SCALE: 1/4" = 1'-0"

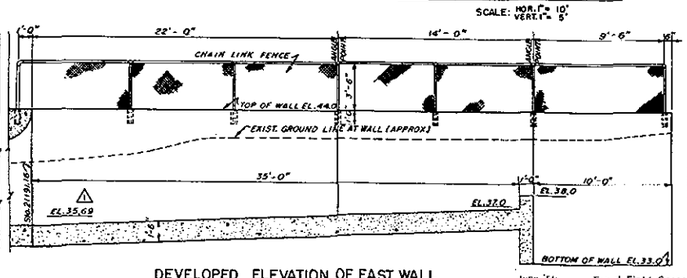
NOTES

10" and 24" Storm drains to be extended and/or lowered as necessary to discharge into proposed conduit.
Locations of existing utilities and data on existing culvert taken from best available sources but not guaranteed.
Range Posts shall be set in suitable pipe sleeves and grouted in place.
Gas and water mains to be removed and replaced by others after being uncovered by Contractor.
For details of conduit invert over 30" RC, see Sheet No. 80
For details of steel reinforcing of intake structure see Sheet No. 22

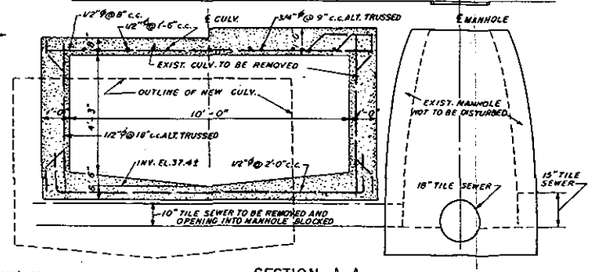
SCALE: 1/4" = 1'-0"
SCALE: 1/2" = 1'-0"
SCALE 1" - 5'
SCALE 1" - 10'



DEVELOPED ELEVATION OF WEST WALL
SCALE: 1/4" = 1'-0"



DEVELOPED ELEVATION OF EAST WALL
SCALE: 1/4" = 1'-0"



SECTION A-A
SCALE: 1/2" = 1'-0"

REVISION	DATE	DESCRIPTION	BY
1	4-27-56	Alignment, Profile and Elevations revised	
	June '59	Final Field Corrections	
	Nov. 1958	Final Field Changes	

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DIVISION ENGINEER
NEW ENGLAND DIVISION
BOSTON, MASS.

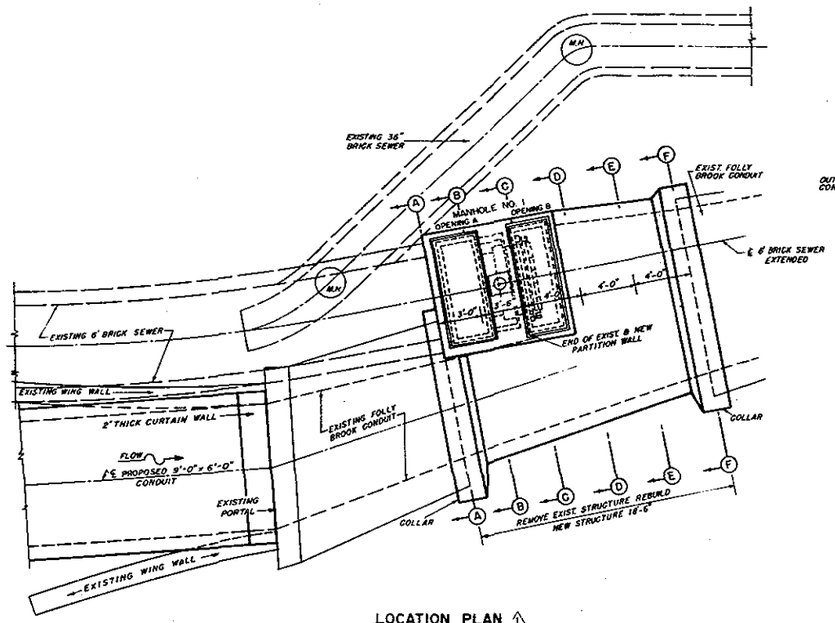
DR. BY S.G. | TR. BY S.G. | CK. BY A.B.

CONNECTICUT RIVER FLOOD CONTROL
FOLLY BROOK PROJECT
HARTFORD, CONN.
FOLLY BROOK CONDUIT
PLAN AND PROFILE - NO. 8

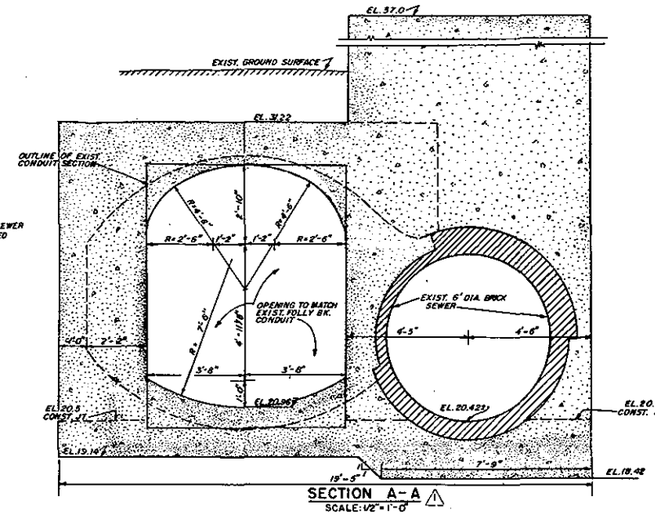
PROJECT ENGINEER
SUBMITTED BY
CHIEF PLANS & REPTS. BRANCH
APPROVED
CHIEF ENGINEERING DIV.

FOLLY BROOK CONNECTICUT
APPROVED LT. COL., C.E. FOR THE DIVISION ENGINEER
DATE NOV. 1955

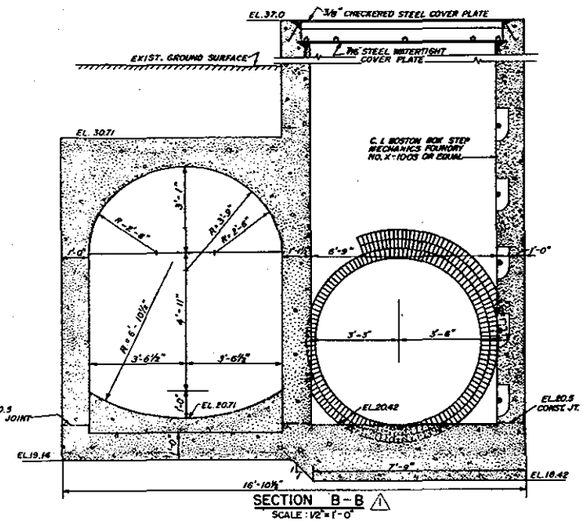
SCALE: AS SHOWN | SPEC. NO. CIV. ENG.-19-016-56-26
DRAWING NUMBER CT-4-4071
SHEET 13 OF 34



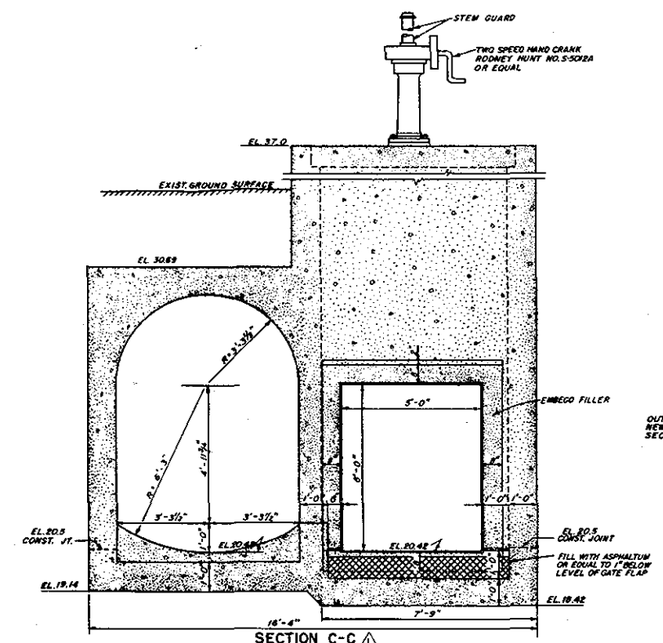
LOCATION PLAN
SCALE: 1/4" = 1'-0"



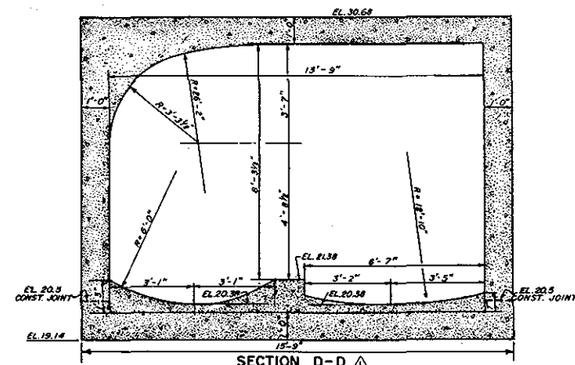
SECTION A-A
SCALE: 1/2" = 1'-0"



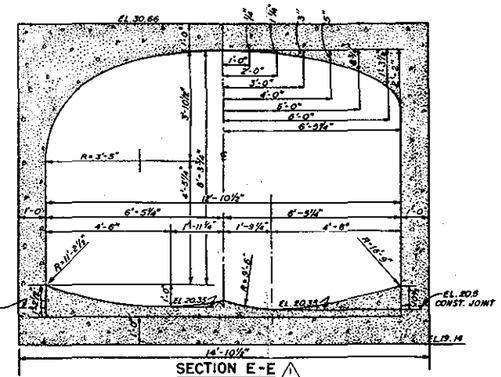
SECTION B-B
SCALE: 1/2" = 1'-0"



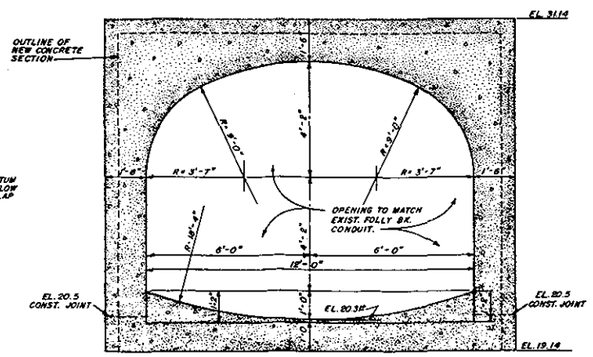
SECTION C-C
SCALE: 1/2" = 1'-0"



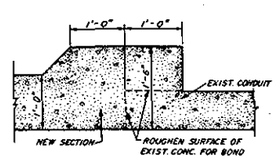
SECTION D-D
SCALE: 1/2" = 1'-0"



SECTION E-E
SCALE: 1/2" = 1'-0"



SECTION F-F
SCALE: 1/2" = 1'-0"



COLLAR DETAIL
SCALE: 1" = 1'-0"

SCALE: 1/4" = 1'-0"
SCALE: 1/2" = 1'-0"

Record Drawing
Contract No. CIVIL 19-01-[illegible]-56-1183

NOTE:
For details of Manhole No. 1 see Sheet No. 16
For details of steel reinforcing see Sheet No. 17
Invert to be shaped after base slab has set up.

REVISION	DATE	DESCRIPTION	BY
1	[illegible]	[illegible]	[illegible]

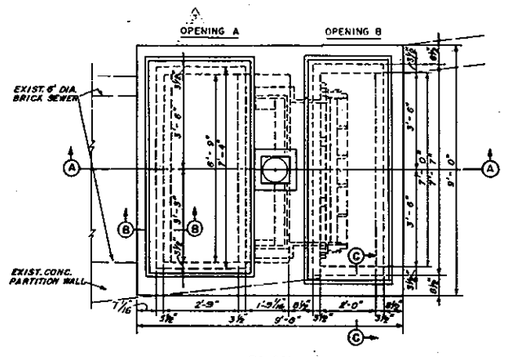
CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DIVISION ENGINEER
NEW ENGLAND DIVISION
BOSTON, MASS

DR. BY A. B. | TR. BY S.G. | CK. BY [illegible]

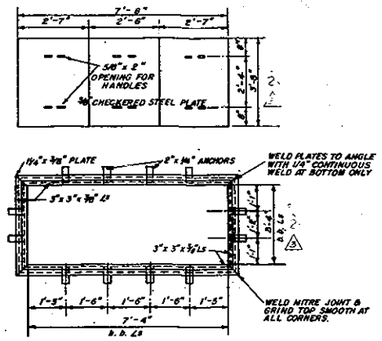
CONNECTICUT RIVER FLOOD CONTROL
FOLLY BROOK PROJECT
HARTFORD, CONN.
FOLLY BROOK CONDUIT
CONDUIT RECONSTRUCTION AT MANHOLE NO. 1
FOLLY BROOK CONNECTICUT

PROJECT ENGINEER
SUBMITTED BY
CHIEF PLANNING DEPT'S BRANCH
APPROVED
CHIEF ENGINEERING DIV.
APPROVED
LT. COL. C. E. FOR THE DIVISION ENGINEER
DATE NOV. 1955

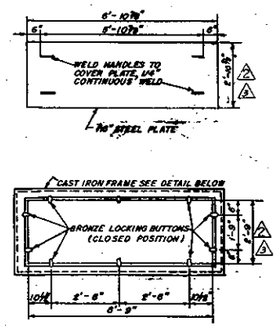
SCALES AS SHOWN | SPEC. NO. CIVENG-19-016-56-26
DRAWING NUMBER CT-4-4073
SHEET 15 OF 34



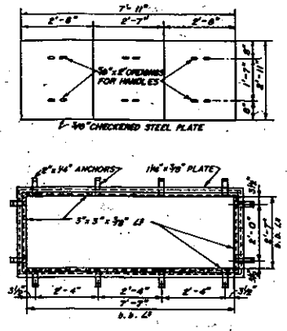
PLAN
SCALE: 1/2" = 1'-0"



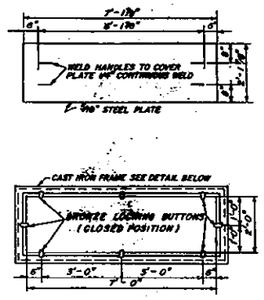
OPENING - A
FRAME AND COVER
PLAN AND DETAIL
SCALE: 1/2" = 1'-0"



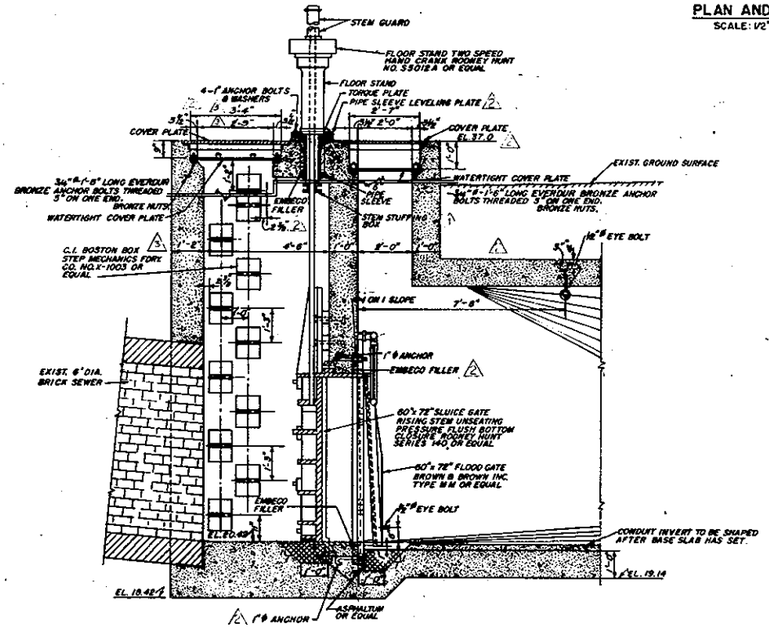
OPENING - A
WATERTIGHT FRAME & COVER PLATE
PLAN AND DETAIL
SCALE: 1/2" = 1'-0"



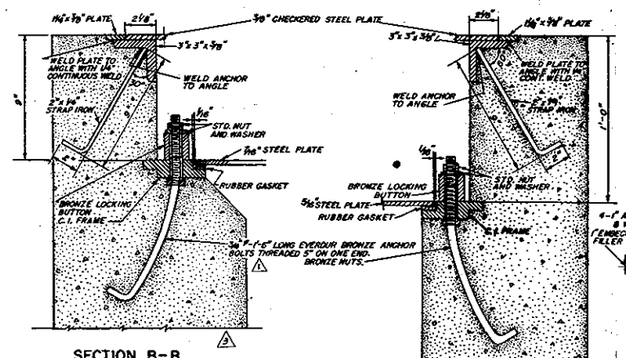
OPENING - B
FRAME AND COVER
PLAN AND DETAIL
SCALE: 1/2" = 1'-0"



OPENING - B
WATERTIGHT FRAME & COVER PLATE
PLAN AND DETAIL
SCALE: 1/2" = 1'-0"

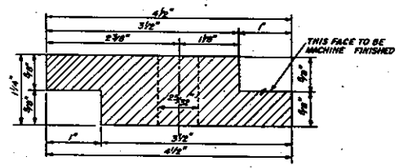


SECTION A-A
SCALE: 1/2" = 1'-0"

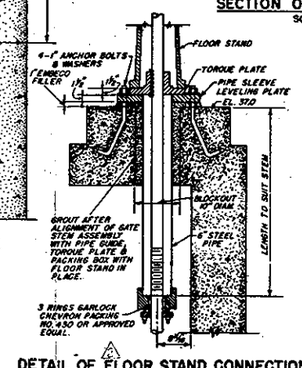


SECTION B-B
SCALE: 3" = 1'-0"

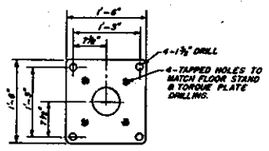
SECTION C-C
SCALE: 3" = 1'-0"



SECTION OF CAST IRON FRAME
SCALE FULL SIZE



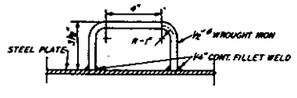
DETAIL OF FLOOR STAND CONNECTION
NOT TO SCALE



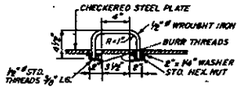
LEVELING PLATE
NOT TO SCALE

NOTES:
For location of Manhole No. 1 see Sheet No. 15
For details of steel reinforcing see Sheet No. 17

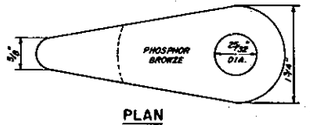
Record Drawing
Contract No. Civil 19-016-56-1183



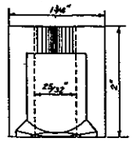
HANDLE FOR WATERTIGHT COVER
SCALE: 3" = 1'-0"



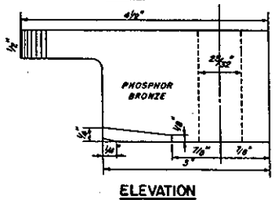
HANDLE FOR COVERS
SCALE: 1 1/2" = 1'-0"



PLAN



END VIEW



ELEVATION

DETAIL OF BRONZE LOCKING BUTTON
SCALE FULL SIZE

REVISION	DATE	DESCRIPTION	BY
12	9-27-56	Opening A - Frame & Cover revised	
13	6-15-56	Details added - conduit roof slab lowered & [illegible]	

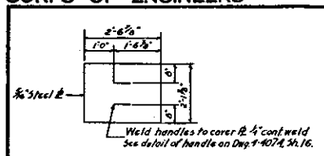
CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DIVISION ENGINEER
NEW ENGLAND DIVISION
BOSTON, MASS.

DR. BY B.B. TR. BY S.G. CK. BY J.P.
CHIEF, DESIGN BRANCH
PROJECT ENGINEER
SUBMITTED
CHIEF, PLANS & SPEC'S BRANCH
APPROVED
CHIEF, ENGINEERING DIV.

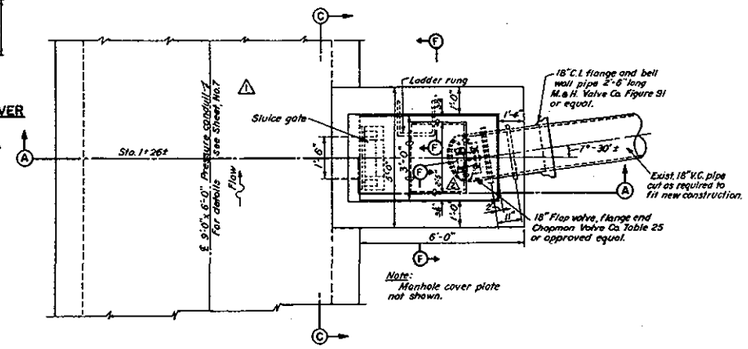
CONNECTICUT RIVER FLOOD CONTROL
FOLLY BROOK PROJECT
HARTFORD, CONN.
FOLLY BROOK CONDUIT
MANHOLE NO. 1
DETAILS
FOLLY BROOK CONNECTICUT

APPROVED
LT. COL. C. ADOR THE DIVISION ENGINEER
DATE NOV. 1955

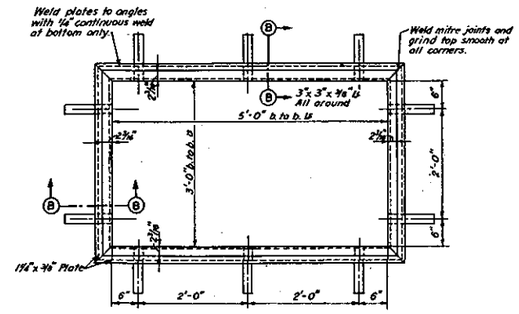
SCALES: AS SHOWN SPEC. NO. CIV. ENG.-19-016-56-26
DRAWING NUMBER
CT-4-4074
SHEET 16 OF 34



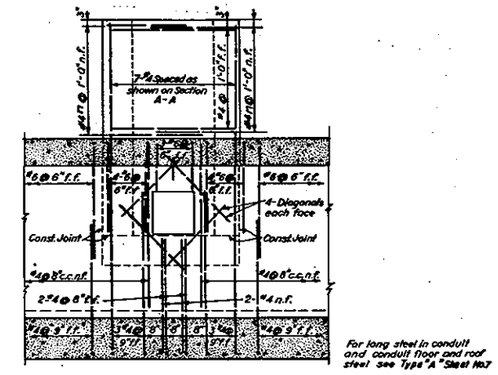
WATERTIGHT FRAME & COVER PLATE
PLAN & DETAIL △
SCALE 1/2"=1'-0"



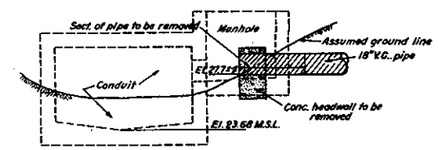
PLAN
SCALE: 1/2" = 1'-0"



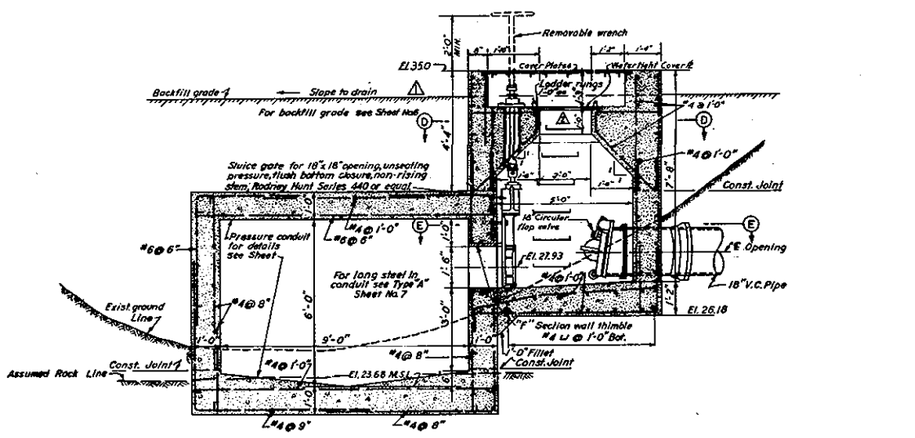
MANHOLE COVER FRAME
SCALE: 1" = 1'-0"
1-Required



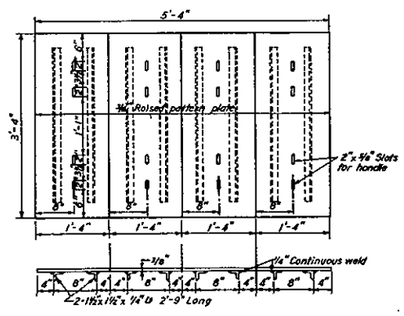
SECTION C-C
SCALE: 1/2"=1'-0"



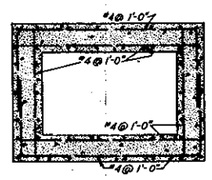
SECTION THRU CONDUIT & MANHOLE SHOWING CONCRETE HEADWALL & SECTION OF V.C. PIPE TO REMOVED
SCALE: 1/4" = 1'-0"



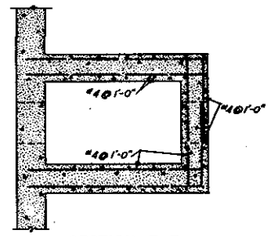
SECTION A-A
SCALE: 1/2" = 1'-0"



PLATES FOR MANHOLE OPENING
SCALE: 1" = 1'-0"
1-Set Required



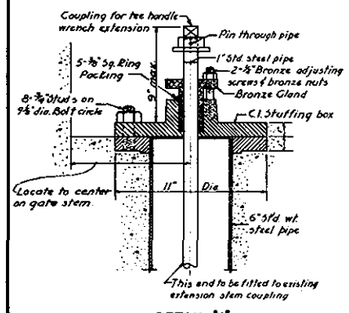
SECTION D-D
SCALE: 1/2" = 1'-0"



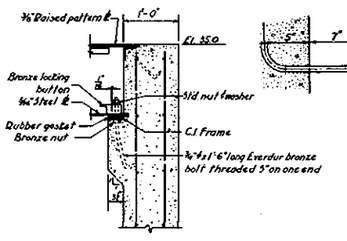
SECTION E-E
SCALE: 1/2"=1'-0"

NOTE:
For location of Manhole No.2 see Sheet No.7
All bar laps shall be 30 diameters of the smaller bar.

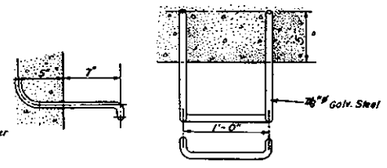
Record Drawing
Contract No. Civil C.O. 6-56-1183



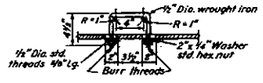
DETAIL "A" △
SCALE 3"=1'-0"



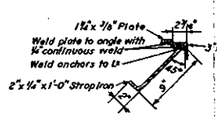
SECTION F-F △
SCALE 1"=1'-0"



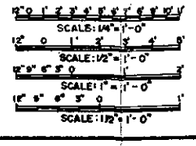
LADDER RUNGS
SCALE: 1½" = 1'-0"
7-Required



△ HANDLE FOR COVERS
SCALE: 1½" = 1'-0"
8-Required



SECTION B-B
SCALE: 1/2" = 1'-0"



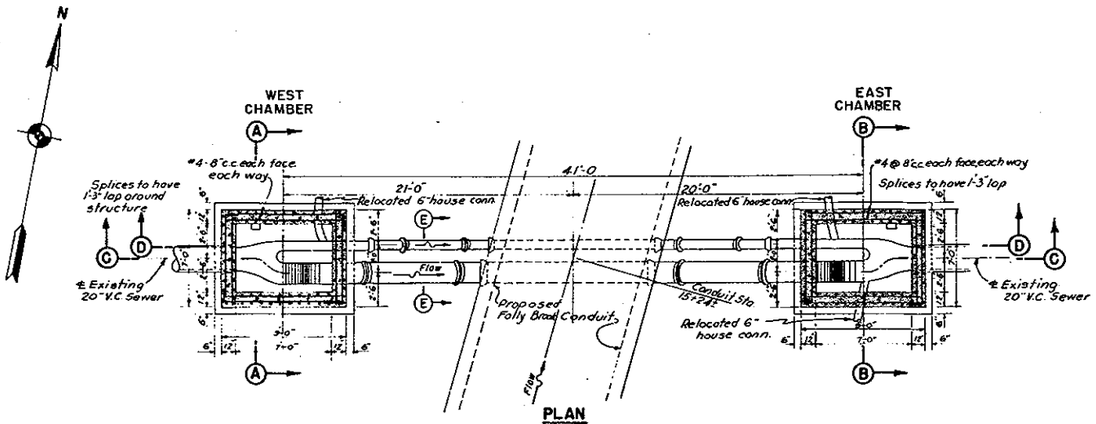
REVISION	DATE	DESCRIPTION	BY
△	11-20-56	Manhole revised. Watertight cover added.	
△	4-2-56	Handle for covers revised & sheet Nos. added.	

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DIVISION ENGINEER
NEW ENGLAND DIVISION
BOSTON, MASS.

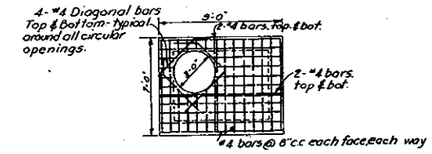
DR. BY LKP | TR. BY S.G. | CK. BY
CHIEF, DESIGN BRANCH
PROJECT ENGINEER
SUBMITTED BY
CHIEF, PLANS & SPEC'S BRANCH
APPROVED
CHIEF, ENGINEERING DIV.
APPROVED: LT. COL. C.E. FOR THE DIVISION ENGINEER

CONNECTICUT RIVER FLOOD CONTROL
FOLLY BROOK PROJECT
HARTFORD, CONN.
FOLLY BROOK CONDUIT
MANHOLE NO.2
FOLLY BROOK CONNECTICUT
DATE NOV. 1955

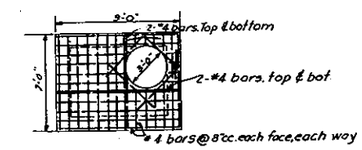
SCALES AS SHOWN | SPEC. NO. OCV. ENG-19-016-56-55
DRAWING NUMBER CT-4-4076
SHEET 18 OF 34



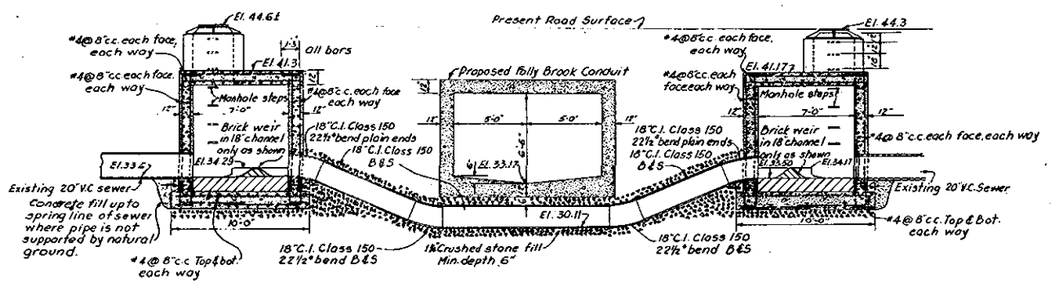
PLAN
SCALE: $\frac{1}{4}$" = 1'-0"



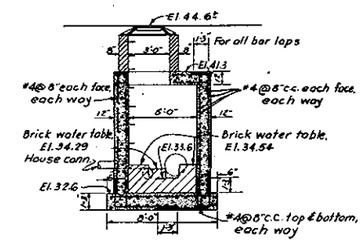
TOP PLAN
WEST CHAMBER
SCALE: $\frac{1}{4}$" = 1'-0"



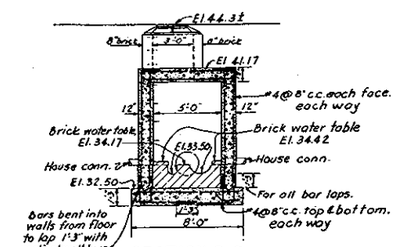
TOP PLAN
EAST CHAMBER
SCALE: $\frac{1}{4}$" = 1'-0"



SECTION C-C
SCALE $\frac{1}{4}$" = 1'-0"

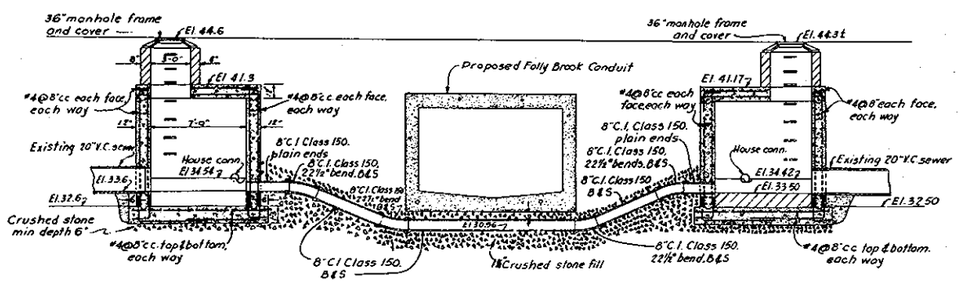


SECTION A-A
SCALE $\frac{1}{4}$" = 1'-0"

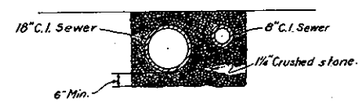


SECTION B-B
SCALE: $\frac{1}{4}$" = 1'-0"

56-1183



SECTION D-D
SCALE $\frac{1}{4}$" = 1'-0"



SECTION E-E
SCALE: $\frac{1}{2}$" = 1'-0"

NOTES:
Manhole frames and covers shall be similar and equal to Mechanics Foundry Co. No. K-7081
All bar laps shall be 30 diameters of the smaller bar.

SCALE 1/4" = 1'-0"
4' 0 4' 8'

SCALE 1/2" = 1'-0"
1' 0 1' 2' 3' 4' 5'

REVISION	DATE	DESCRIPTION	BY

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DIVISION ENGINEER
NEW ENGLAND DIVISION
BOSTON, MASS

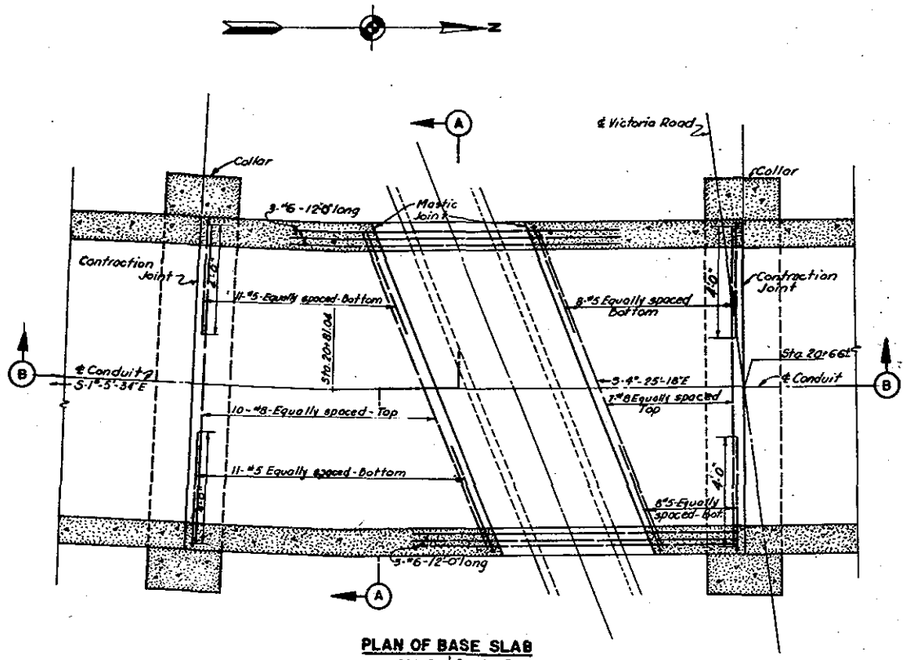
DR. BY A.J.H. | TR. BY A.J.H. | CK. BY JCW

CHIEF, DESIGN BRANCH
PROJECT ENGINEER
SUBMITTED BY
CHIEF, PLANN. & REP'TS BRANCH
APPROVED
CHIEF, ENGINEERING DIV.

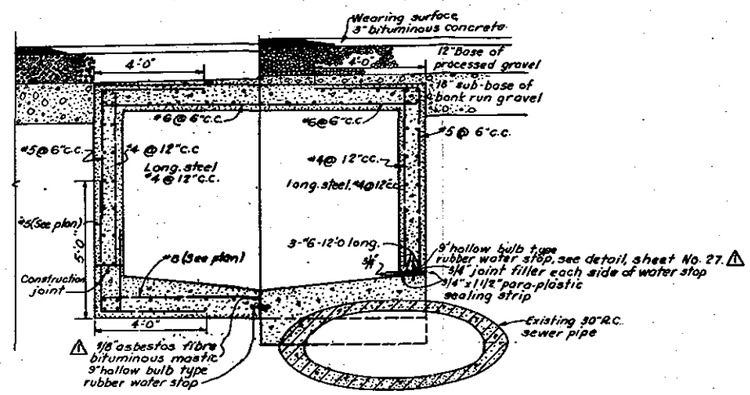
CONNECTICUT RIVER FLOOD CONTROL
FOLLY BROOK PROJECT
HARTFORD, CONN.
FOLLY BROOK CONDUIT
MONTOWESE STREET SIPHON
FOLLY BROOK CONNECTICUT

APPROVED
LT. COL., CE FOR THE DIVISION ENGINEER
DATE NOV. 1955

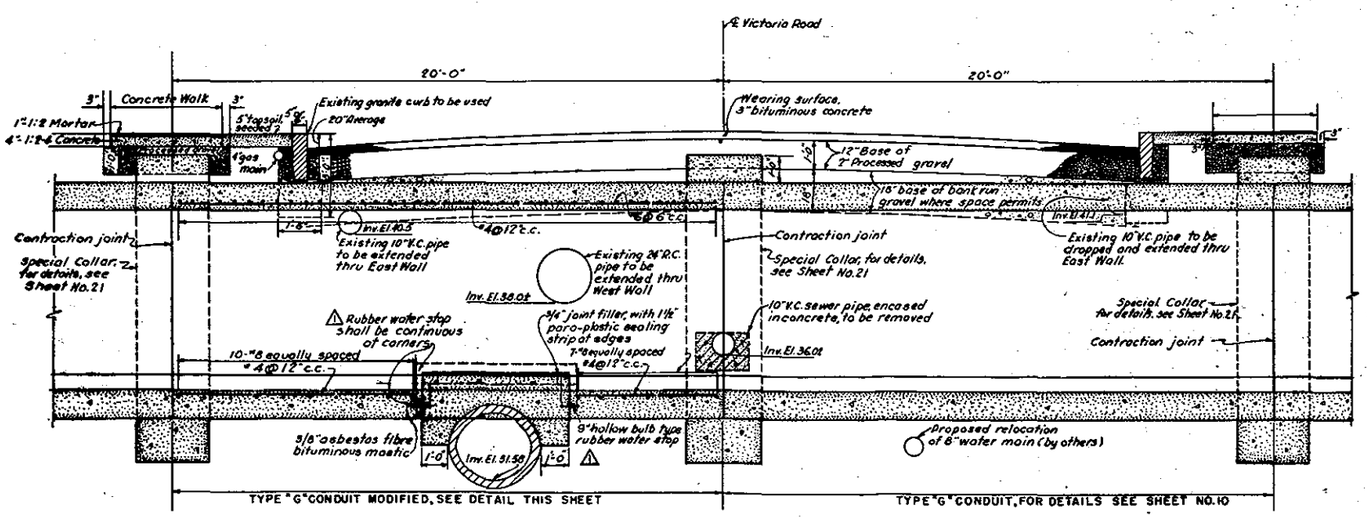
SCALE AS SHOWN | SPEC. NO. CIV. ENG-19-018-56-28
DRAWING NUMBER
CT-4-4077
SHEET 19 OF 34



PLAN OF BASE SLAB
SCALE: 1/2" = 1'-0"



SECTION A-A
SCALE: 1/2" = 1'-0"



SECTION B-B
SCALE: 1/2" = 1'-0"

NOTES

Location of existing utilities taken from best available sources but not guaranteed.
Gas and water mains to be removed and replaced by others after being uncovered by the contractor.
All bar laps shall be 30 diameters of the smaller bar.
Circular opening of water stop at ends to be plugged with soft rubber for a minimum depth of 2".

Record Drawing
Contract No. CW419-010-E.G-56-1183

SCALE: 1/2" = 1'-0"

REVISION	DATE	DESCRIPTION	BY
1	4-2-56	Rubber waterstop revised and note added.	

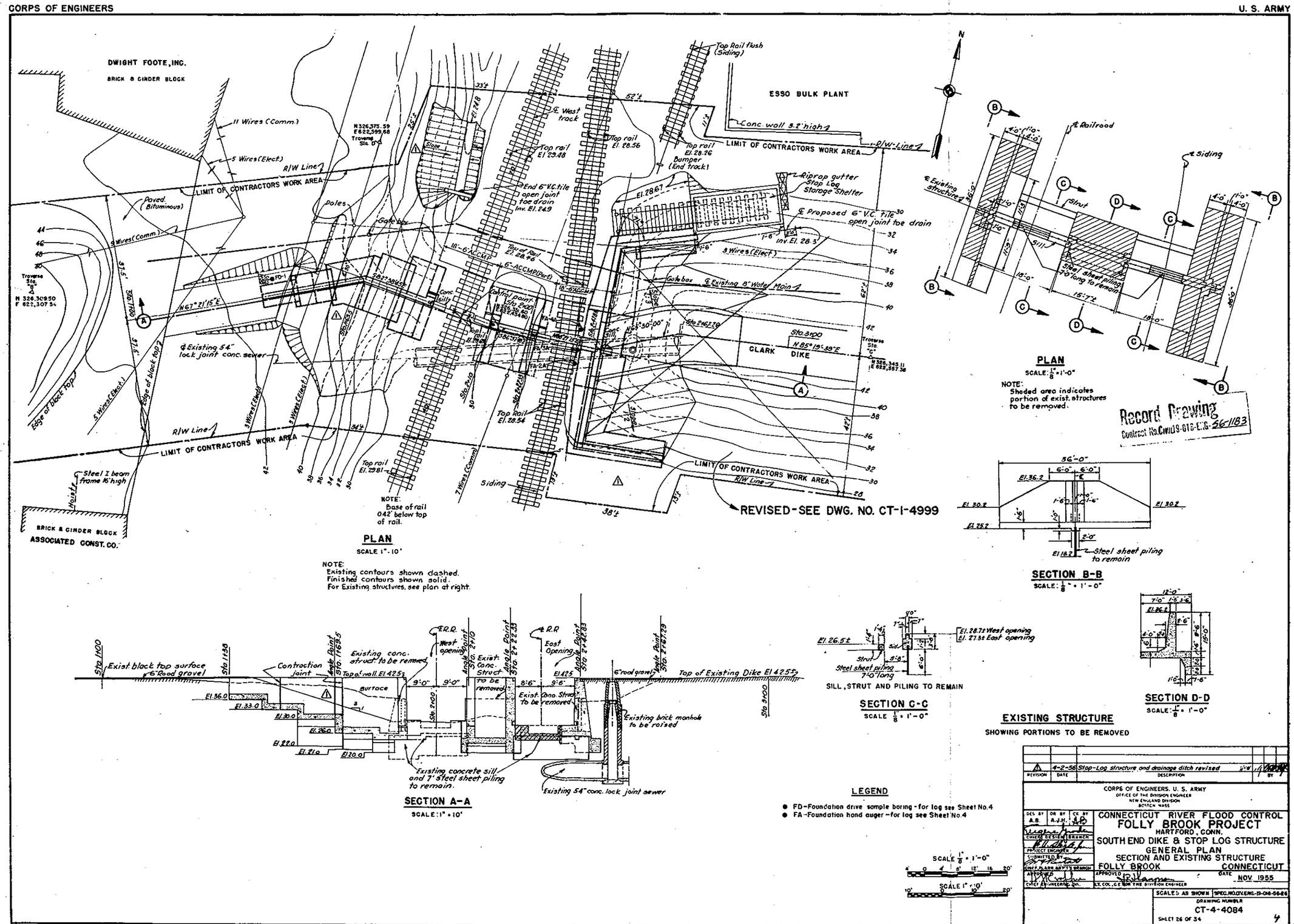
CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DIVISION ENGINEER
NEW ENGLAND DIVISION
BOSTON, MASS.

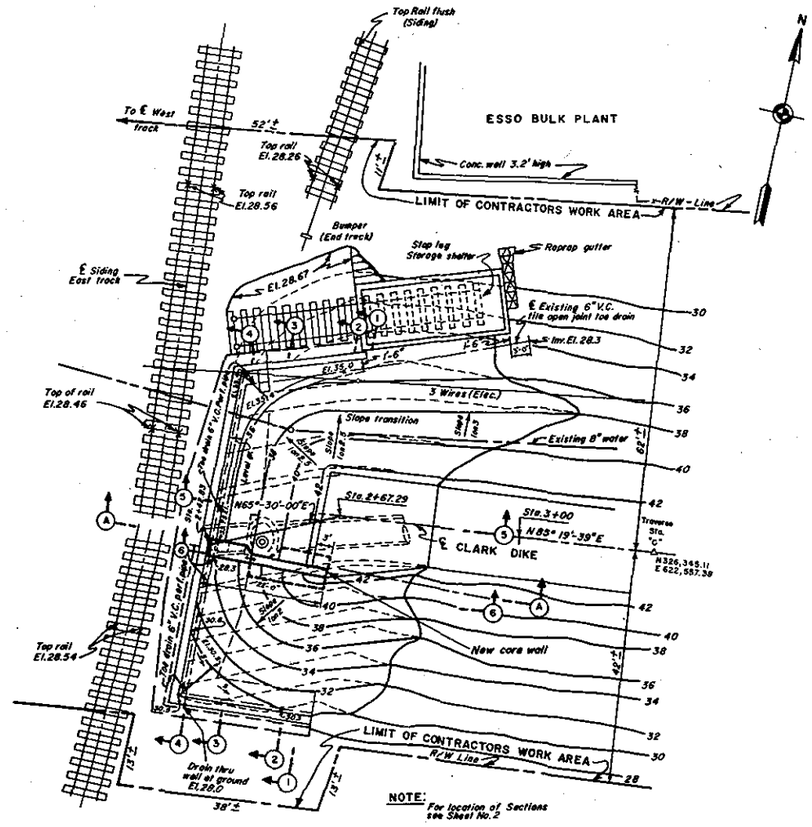
DR. BY A.B. | TR. BY A.J.H. | CK. BY

CONNECTICUT RIVER FLOOD CONTROL
FOLLY BROOK PROJECT
HARTFORD, CONN.
FOLLY BROOK CONDUIT
VICTORIA ROAD DETAILS
FOLLY BROOK CONNECTICUT

APPROVED
CHIEF, DESIGN BRANCH
SUBMITTED BY
CHIEF, PLANS & SPECS. BRANCH
APPROVED
CHIEF, ENGINEERING DIV.
APPROVED
LT. COL. OF THE DIVISION ENGINEER
DATE NOV. 1955

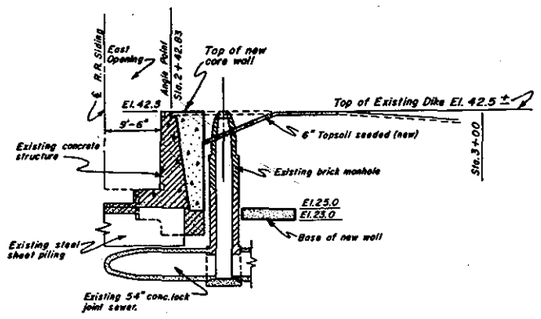
SCALE AS SHOWN
DRAWING NUMBER CT-4-4078
SHEET 20 OF 34


DWIGHT FOOTE, INC.
BRICK & CINDER BLOCK
ESSO BULK PLANT
LIMIT OF CONTRACTORS WORK AREA
R/W Line
CLARK DIKE
Existing 54" lock joint conc. sewer
Existing 8" Water Main
Proposed 6" V.C. tile open joint toe drain
Riprap gutter
Stop Log Storage Shelter
Conc. wall 3.2' high
Top Rail flush (Siding)
Top rail El. 28.56
Top rail El. 28.26
Bumper (End track)
Top rail El. 29.48
End 6" V.C. tile open joint toe drain Inv. El. 24.9
Top rail El. 28.54
Top rail El. 29.81
Siding
Edge of black top
Steel I beam frame 16' high
BRICK & CINDER BLOCK
ASSOCIATED CONST. CO.
REVISED-SEE DWG. NO. CT-1-4999
NOTE: Base of rail 0.42' below top of rail.
PLAN
SCALE 1"-10'
NOTE: Existing contours shown dashed. Finished contours shown solid. For Existing structures, see plan at right.
PLAN
SCALE 1/8" = 1'-0"
NOTE: Shaded area indicates portion of exist. structures to be removed.
Record Drawing
Contract No. CWI19-018-ENG-56-1183
SECTION B-B
SCALE 1/8" = 1'-0"
Steel sheet piling to remain
SECTION A-A
SCALE 1" = 10'
Exist. black top surface
6" Road gravel
Contraction joint
Existing conc. struct. to be removed
Top of wall El. 42.5±
Top of Existing Dike El. 42.5±
Existing brick manhole to be raised
Existing concrete sill and 7' steel sheet piling to remain.
Existing 54" conc. lock joint sewer
SECTION C-C
SCALE 1/8" = 1'-0"
SILL, STRUT AND PILING TO REMAIN
SECTION D-D
SCALE 1/8" = 1'-0"
EXISTING STRUCTURE
SHOWING PORTIONS TO BE REMOVED
LEGEND
FD-Foundation drive sample boring - for log see Sheet No. 4
FA-Foundation hand auger - for log see Sheet No. 4
SCALE 1/8" = 1'-0"
SCALE 1" = 10'
4-2-56 Stop-Log structure and drainage ditch revised
REVISION DATE DESCRIPTION BY
CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DIVISION ENGINEER
NEW ENGLAND DIVISION
BOSTON, MASS.
CONNECTICUT RIVER FLOOD CONTROL
FOLLY BROOK PROJECT
HARTFORD, CONN.
SOUTH END DIKE & STOP LOG STRUCTURE
GENERAL PLAN
SECTION AND EXISTING STRUCTURE
FOLLY BROOK CONNECTICUT
DATE NOV. 1955
SCALES AS SHOWN
DRAWING NUMBER CT-4-4084
SHEET 26 OF 34

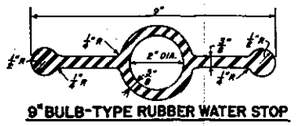


PLAN
SCALE: 1" = 10'

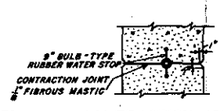
NOTE: Existing contours shown dashed. Finished contours shown solid.



SECTION A-A
SCALE: 1" = 10'



9" BULB-TYPE RUBBER WATER STOP
SCALE: 6" = 1'-0"



DETAIL OF CONTRACTION JOINT
SCALE: 1" = 1'-0"

NOTE: Elevations refer to Mean Sea Level Datum.

Record Drawing
Contract No. Cml 19-816-Eng-56-1183

REVISION	DATE	DESCRIPTION	BY

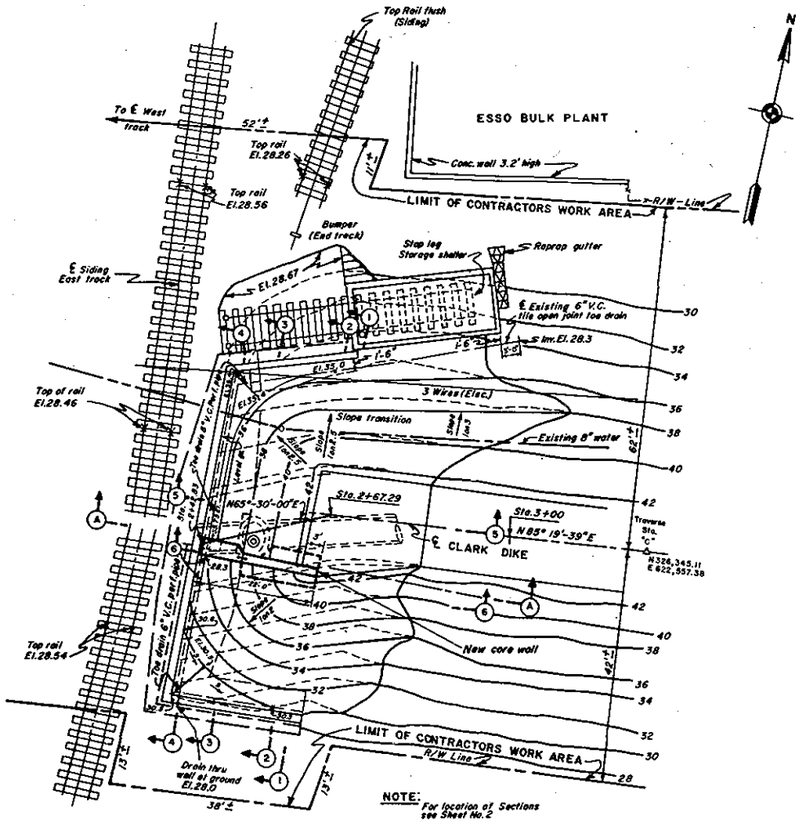
CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DIVISION ENGINEER
NEW ENGLAND DIVISION
BOSTON, MASS.

DR. BY | TR. BY S.J.C. | CK. BY

PROJECT ENGINEER
SUBMITTED BY
CHIEF, PLANNING & REPORTS BRANCH
APPROVED BY
CHIEF, ENGINEERING DIV.

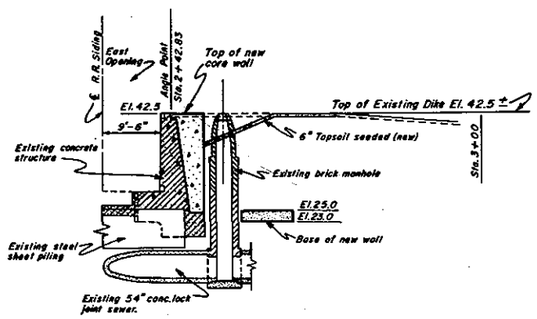
CONNECTICUT RIVER FLOOD CONTROL
FOLLY BROOK PROJECT
HARTFORD, CONN.
SOUTH END DIKE & STOP LOG STRUCTURE
GENERAL PLAN & SECTION
FOLLY BROOK CONNECTICUT
DATE AUG. 1957
LT. COL. C.E. FOR THE DIVISION ENGINEER

SCALE: as SHOWN | SPEC. NO. ENG-18-016-CIV-56-28
DRAWING NUMBER CT-1-4999
SHEET 1 OF 2

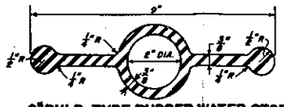


PLAN
SCALE: 1" = 10'

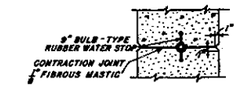
NOTE: Existing contours shown dashed. Finished contours shown solid.



SECTION A-A
SCALE: 1" = 10'



9" BULB-TYPE RUBBER WATER STOP
SCALE: 6" = 1'-0"



DETAIL OF CONTRACTION JOINT
SCALE: 1" = 1'-0"

NOTE: Elevations refer to Mean Sea Level Datum.

Record Drawing
Contract No. Gwl.19-016-ENG-56-1183

REVISION	DATE	DESCRIPTION	BY

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DIVISION ENGINEER
NEW ENGLAND DIVISION
BOSTON MASS

DR. BY | TR. BY S.J.C. | CK. BY

CONNECTICUT RIVER FLOOD CONTROL
FOLLY BROOK PROJECT
HARTFORD, CONN.

SOUTH END DIKE & STOP LOG STRUCTURE
GENERAL PLAN & SECTION

FOLLY BROOK CONNECTICUT

PROJECT ENGINEER
SUBMITTED BY
CHIEF PLANS & SPECIFICATIONS
APPROVED
CHIEF ENGINEERING DIV.
APPROVED
LT. COL. C.E. FOR THE DIVISION ENGINEER

DATE AUG. 1957

SCALE AS SHOWN | SPEC. NO. ENG-18-016-CIV.-56-28

DRAWING NUMBER CT-1-4999

SHEET 1 OF 2