

CONSTRUCTION PLANS

FOR

SWITZER & JONES RESTAURANT

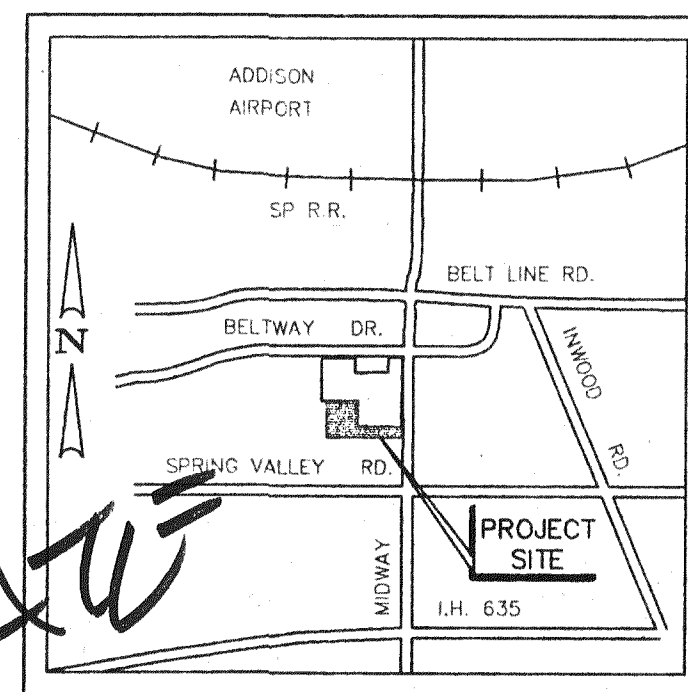
THOMAS L. CHENOWETH SURVEY, ABSTRACT NO. 273

PROJECT GENERAL NOTES

- A. Prior to final acceptance by the Town of Addison:
- 1) A Texas Registered Professional Engineer shall certify that the project was constructed in accordance with the plans and specifications approved by the Town of Addison.
The Owner shall provide one (1) reproducible set of as-builts (sealed and certified by a Texas Registered Engineer) and two (2) blue-line sets.
 - 2) A one (1) year maintenance bond is required for the subdivision infrastructure.
 - 3) Contractor shall demonstrate that the water and sanitary sewer systems meet the proper pressure, bacteria, and mandrel tests. In addition, the Owner shall provide a VHS format video tape of the sanitary sewer. The final tests shall be completed upon the installation of paving and other utilities.
- B. Prior to starting construction, the Contractor shall contact the utility companies to locate existing facilities. These include, but may not be limited to, the following:
- 1) Town of Addison
 - 2) Lone Star Gas
 - 3) Southwestern Bell
 - 4) Storer Cable
 - 5) Harron Cable Systems
 - 6) T.U. Electric
- C. Prior to beginning construction, the Owner or his authorized representative shall convene a Pre-Construction Conference between the Town of Addison, Consulting Engineer, Contractor(s), Utility Companies and any other affected parties. Notify Bruce Ellis (450-2847) at least 48 hours prior to the time of the Conference and 48 hours prior to beginning of construction.
- D. Any existing pavement, curb, and/or sidewalks damaged or removed will be repaired by the Contractor at their expense.
- E. Lot pins shall be in place during construction and prior to final acceptance. Concrete monuments shall be placed on all boundary corners, block corners, curve points and angle points in public right-of-way. Concrete monuments shall be six (6) inches in diameter and twenty-four (24) inches long. A copper pin one-fourth inch in diameter embedded at least three (3) inches in the monument at the exact intersection point of the monument. The monuments shall be set at such an elevation that after construction, the top of the monument will be not less than twelve (12) inches below the ground surface.
- F. The Contractor shall stamp a 2-inch "S" in the curb at the location of the sewer service line.
- G. At intersections that have valley drainage, the crown of the intersecting streets will culminate in a distance of forty (40) feet from the intersecting curb line unless otherwise noted.
- H. Temporary or permanent street barricades shall remain at all points of ingress and egress to prevent public use until such street received final acceptance.
- I. Contractor shall obtain a right-of-way permit by the Town of Addison for working within the public right-of-way.
- J. During construction, the Owner shall provide a qualified geotechnical lab to perform materials testing during the construction, at the request of the Town of Addison.
- K. The Contractor shall submit material sheets to the Town of Addison for approval prior to incorporating materials into the job.

TOWN OF ADDISON

DALLAS COUNTY, TEXAS

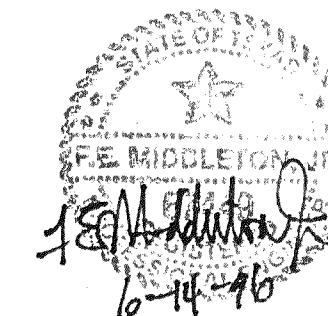


VICINITY MAP
(NOT TO SCALE)

AS BUILT

Winkelmann & Associates, Inc. hereby certifies that this plan, to the best of our knowledge is "As Built." All modifications from the originally approved construction documents have been made as per information provided by the contractor. Winkelmann & Associates, Inc. does not certify as to the construction or quality of construction as no field inspection was conducted.

[Signature] 1-9-97
DATE



SHEET INDEX

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REPLAT
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 2. DIMENSIONAL CONTROL & PAVING PLAN
 3. GRADING PLAN
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 4. UTILITY ADDITION & RELOCATION PLAN
 5. STORM SEWER PROFILE
 - 6-14. STANDARD DETAILS

DEVELOPER:

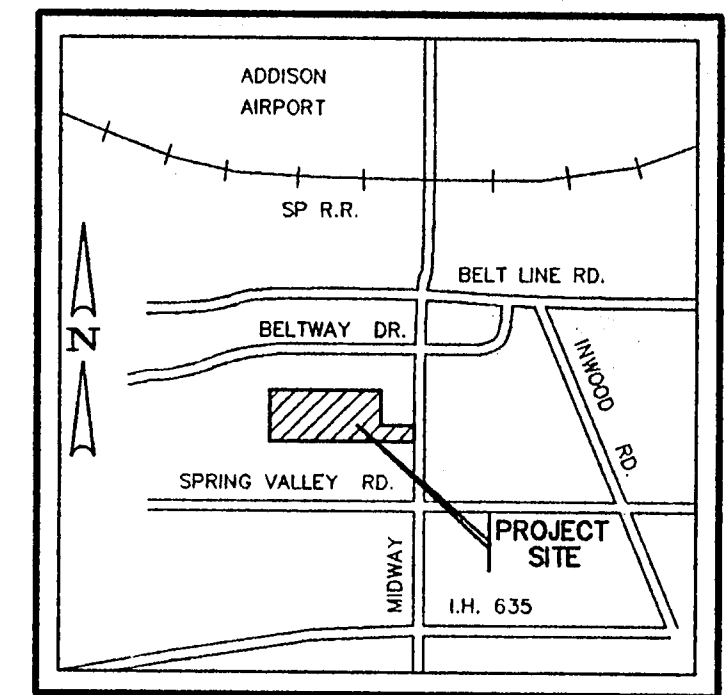
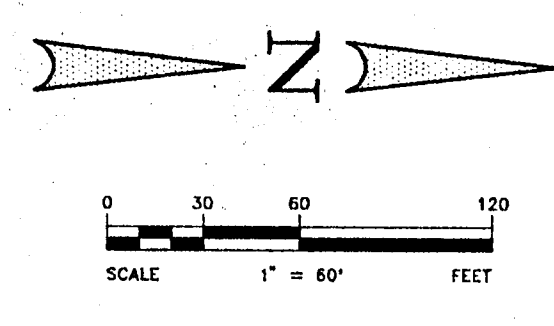
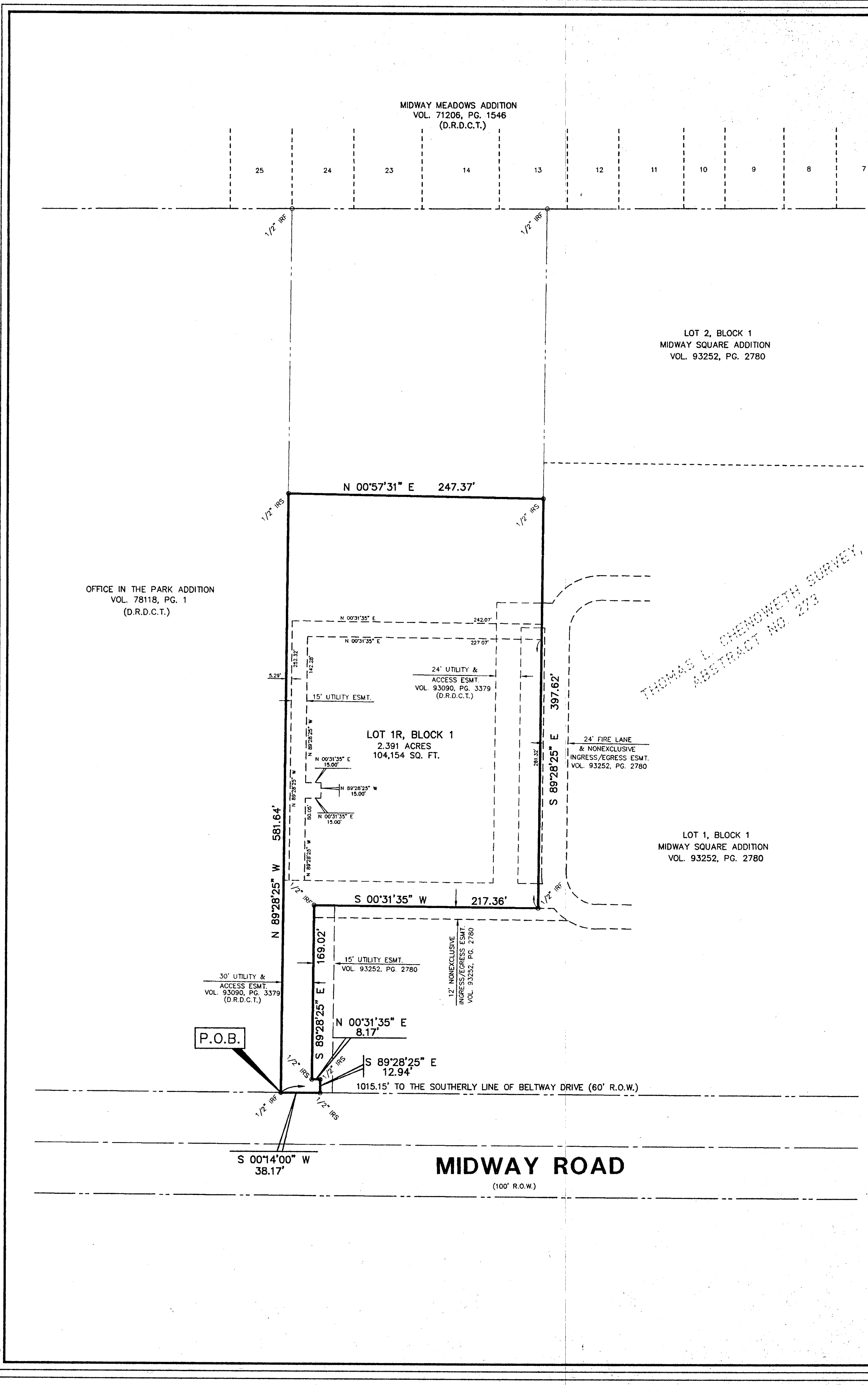
MILLER COMMERCIAL
5001 SPRING VALLEY RD. #1100
DALLAS, TEXAS 75244
(214) 416 - 4000

*14775 MIDWAY
DUPLICATE
B26-3*

JUNE 14, 1996

Winkelmann & Associates, Inc.
CONSULTING CIVIL ENGINEERS ■ SURVEYORS
12800 HILLCREST ROAD, SUITE 200 (214) 490-7090
DALLAS, TEXAS 75230 (214) 490-7099 FAX

C:\PSS\1801\RP72 Mid May 8 08:40:15 1995 RB



VICINITY MAP
(NOT TO SCALE)

OWNER'S CERTIFICATE

STATE OF TEXAS
COUNTY OF DALLAS
TOWN OF ADDISON

Whereas, 14775 Midway L.C. is the owner of a tract of land situated in the THOMAS L. SURVEY, ABSTRACT NO. 273 in the Town of Addison, Dallas County, Texas and being a portion of Lot 1, Block 1 of Texas Tumbleweed, an Addition to the Town of Addison recorded in Volume 94235, Page 2788 of the Map Records of Dallas County, Texas, and being more particularly described as follows:

BEGINNING at a 1/2 inch iron rod found at the intersection of the westerly line of Midway Road (a 100 foot right of way) and the northerly line of Office in The Park Addition, an addition to the Town of Addison, as recorded in Volume 78118, Page 1 of the Deed Records of Dallas County, Texas (D.R.D.C.T.), a distance of 1015.15 feet from the southerly line of Beltway Drive (a 60 foot right of way);

THENCE along the northerly line of said Office in The Park Addition, North 89°28'25" West, a distance of 581.64 feet to a 1/2 inch iron set;

THENCE departing the northerly line of said Office in The Park Addition and North 00°57'31" East, a distance of 247.37 feet to a 1/2 inch iron rod set in the southerly line of Midway Square Addition, an addition to the Town of Addison as recorded in Volume 93252, Page 2780 (D.R.D.C.T.);

THENCE along the southerly line of said Midway Square Addition the following:

South 89°28'25" East, a distance of 397.62 feet to a 1/2 inch iron rod found;

South 00°31'35" West, a distance of 217.36 feet to a 1/2 inch iron rod found;

South 89°28'25" East, a distance of 169.02 feet to a 1/2 inch iron rod set;

North 00°31'35" East, a distance of 8.17 feet to a 1/2 inch iron rod set;

South 89°28'25" East, a distance of 12.94 feet to a 1/2 inch iron rod set in the westerly line of said Midway Road;

THENCE departing the southerly line of said Midway Square Addition and along the westerly line of said Midway Road, South 00°14'00" West, a distance of 38.17 feet to the POINT OF BEGINNING and containing 2.391 acres or 104,154 square feet of land more or less.

That 14775 Midway L.C. does hereby adopt this replat designating the hereinabove property as Texas Tumbleweed, an addition to the Town of Addison, Texas, and subject to the conditions, restrictions and reservations stated herein, owner dedicates to the public use forever the streets and alleys shown thereon.

The easements shown on this replat are hereby reserved for the purposes as indicated, including, but not limited to, the installation and maintenance of water, sanitary sewer, storm sewer, drainage, electric, telephone, gas, and cable television. Owner shall have the right to use these easements, provided however, that it does not unreasonably interfere or impeded with the provision of the services to others. Said utility easements are hereby being reserved by mutual use and accommodation of all public utilities using or desiring to use the same. An express easement of ingress and egress is hereby expressly granted on, over, and across all such easements for the benefit of the provider of services for which easements are granted.

Any drainage and floodway easement shown hereon is hereby dedicated to the public's use forever, but including the following covenants with regards to maintenance responsibilities. The existing channels or creeks traversing the drainage and floodway easement will remain as an open channel, unless required to be enclosed by ordinance, at all times and shall be maintained by the individual owners of the lot or lots that are traversed by or adjacent to the drainage and floodway easement. The City will not be responsible for the maintenance and operation of said creek or creeks or for any damage or injury of private property or person that results from the flow of water along said creek, or for the control of erosion. No obstruction to the natural flow of water run-off shall be permitted by construction of any type building, fence or any other structure within the drainage and floodway easement. Provided, however, it is understood that in the event it becomes necessary for the City to channelize or consider erecting any type of drainage structure in order to improve the storm drainage, then in such event, the City shall have the right, but not the obligation, to enter upon the drainage and floodway easement at any point, or points, with all rights of ingress and egress to investigate, survey, erect, construct or maintain any drainage facility deemed necessary by the City for drainage purposes. Each property owner shall keep the natural drainage channels and creeks traversing the drainage and floodway easement adjacent to his property clean and free of debris, silt, growth, vegetation, weeds, rubbish, refuse, matter and any substance which would result in unsanitary conditions or obstruct the flow of water, and the City shall have the right of ingress and egress for the purpose of inspection and to alleviate any undesirable conditions which may occur. The natural drainage channels and creeks through the drainage and floodway easement, as in the case of all natural channels, are subject to storm water overflow and natural bank erosion to an extent that cannot be definitely defined. The City shall not be held liable for any damages or injuries of any nature resulting from the occurrence of these natural phenomena, nor resulting from the failure of any structure or structures, within the natural drainage channels, and the owners hereby agree to indemnify and hold harmless the City from any such damages and injuries. Building areas outside the drainage and floodway easement line shall be filled to a minimum elevation as shown on the replat. The minimum floor of elevation of each lot shall be shown on the replat.

The maintenance or paving of the utility and fire lane easements is the responsibility of the property owner. All public utilities shall at all times have the full right of ingress and egress to and from and upon the said utility easements for the purpose of constructing, reconstruction, inspecting, patrolling, maintaining and adding to or removing all or parts of its respective system without the necessity at any time of procuring the permission of anyone. Any public utility shall have the right of ingress and egress to private property for the purpose of reading meters and any maintenance and service required or ordinarily performed by that utility. Buildings, fences, trees, shrubs or other improvements or growth may be constructed, reconstructed or placed upon, over or across the utility easements as shown; provided, however, that owner shall at its sole cost and expense be responsible for any and all circumstances for the maintenance and repair of such improvements or growth, and any public utility shall have the right to remove and keep removed all or parts of any buildings, fences, trees, shrubs or other improvements or growth which in any way endanger or interfere with the construction, maintenance or efficiency of its respective system or service.

Water main and sanitary sewer easements shall also include additional area of working space for construction and maintenance of the systems. Additional easement area is also conveyed for installation and maintenance of manholes, cleanouts, fire hydrants, water service and sewer services from the main to curb or pavement line, and the descriptions of such additional easements herein granted shall be determined by their locations as installed. This plat is approved subject to all platting ordinances, rules, regulations and resolutions of the Town of Addison, Texas.

WITNESS, MY HAND, this the _____ day of _____, 1996.

Owner _____

STATE OF TEXAS
COUNTY OF DALLAS

BEFORE ME, the undersigned authority, a Notary Public, on this day personally appeared _____ known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and considerations therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the _____ day of _____, 1996.

Notary Public
My Commission Expires _____

SURVEYOR'S CERTIFICATION

I, B. J. Elam, a Registered Professional Land Surveyor, hereby certify that this survey was made on the ground under my supervision and correctly shows the boundary lines, dimensions, and area of the land indicated thereon, the location of all visible improvements, the location of all alleys, streets, right-of-ways, easements and other matters of record which the undersigned has been advised are as shown hereon. The undersigned further certifies that there are no visible discrepancies, conflicts, shortages in area, boundary line conflicts, encroachments, overlapping of improvements, easements or right-of-ways except as shown hereon and that the property has access to and from a public roadway.

Date _____

B. J. Elam
Registered Professional Land Surveyor
Texas Registration No. 4581
Winkelmann & Associates, Inc.
12800 Hillcrest Road, Suite 200
Dallas, Texas 75230
(214) 490-7090

STATE OF TEXAS
COUNTY OF DALLAS

BEFORE ME, the undersigned authority, a Notary Public, on this day personally appeared _____ known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and considerations therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the _____ day of _____, 1996.

Notary Public
My Commission Expires _____

RECOMMENDED FOR APPROVAL

MAYOR _____

CITY SECRETARY _____

NO.	DATE	REVISION	APPROV.

Winkelmann & Associates, Inc.
CONSULTING CIVIL ENGINEERS & SURVEYORS
1800 WEST RIVERSIDE, SUITE 200
DALLAS, TEXAS 75208
(214) 490-7090 FAX

THOMAS L. CHENOWETH SURVEY, ABSTRACT NO. 273
TOWN OF ADDISON
DALLAS COUNTY, TEXAS
MILLER COMMERCIAL
5001 SPRING VALLEY RD. #100
DALLAS, TEXAS 75244
(214) 419-4000

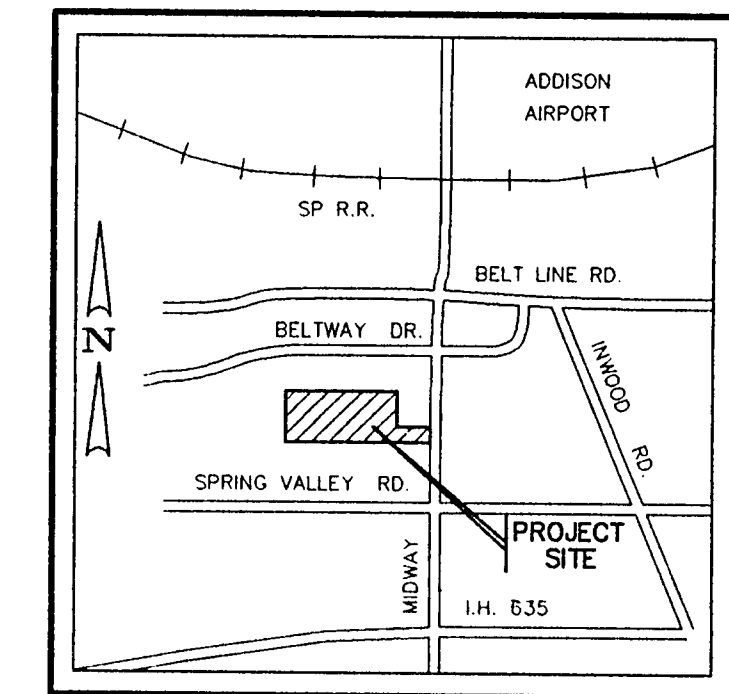
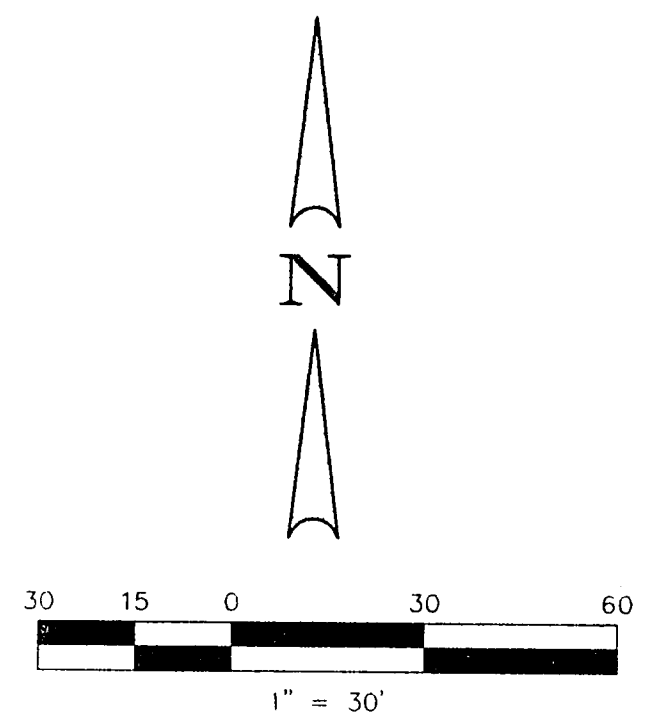
SWITZER & JONES ADDITION
A REPLAT OF
THE TEXAS TUMBLEWEED ADDITION

Scale: 1" = 60'	Date: 2/7/96
Designed By: W.A.I.	Drawn By: P.G.J.
Checked By: B.J.E.	File: 1801RP72.dwg
Project No.: 01801.02 (151)	

LOT 2, BLOCK 1
MIDWAY SQUARE ADDITION
VOL. 93252, PG. 2780

THOMAS L. CHENOWETH SURVEY,
ABSTRACT NO. 273

LOT 1, BLOCK 1
MIDWAY SQUARE ADDITION
VOL. 93252, PG. 2780

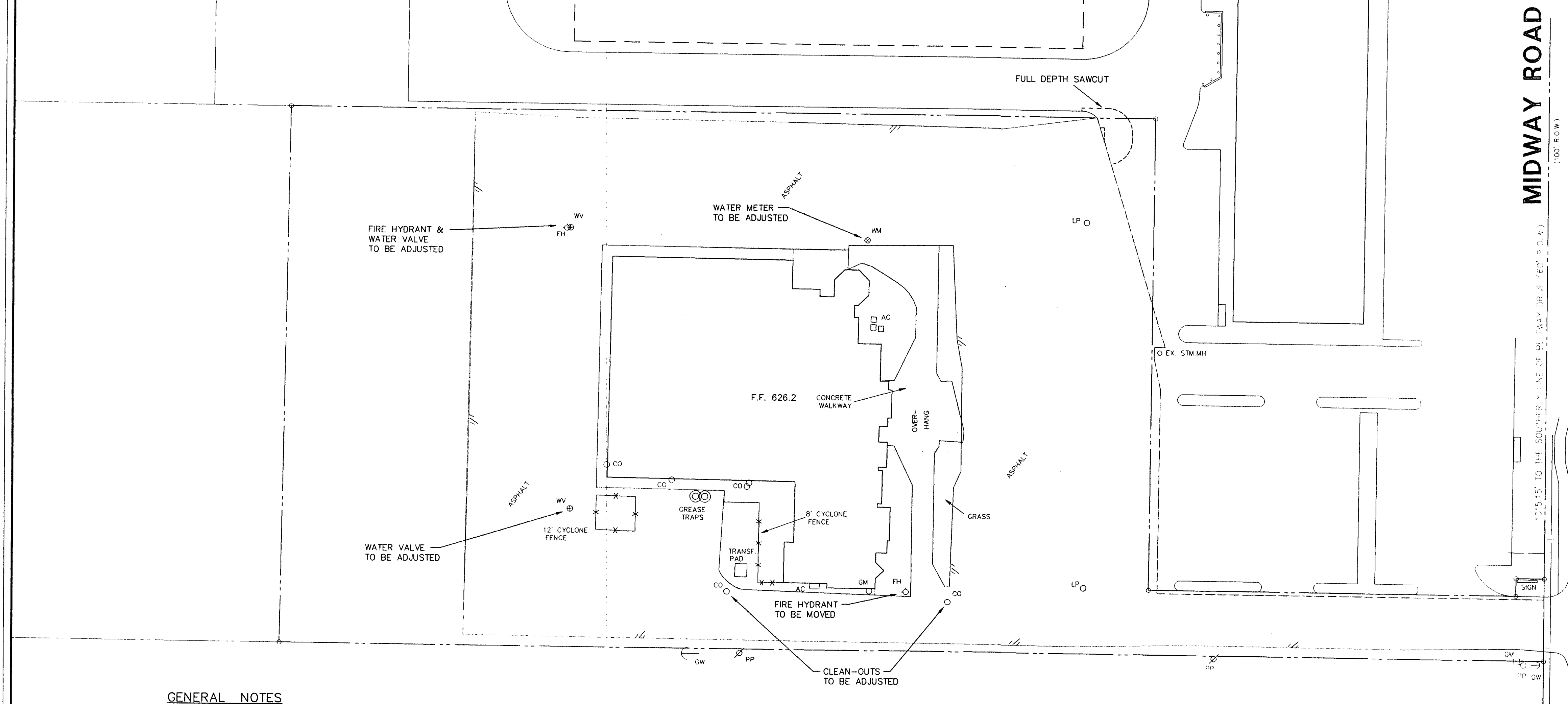


VICINITY MAP
(NOT TO SCALE)

APPROV.	F.E.M.
REVISION	REVISED PAVING DEMOLITION
DATE	6/14/96

Winkelmann & Associates, Inc.
CONSULTING CIVIL ENGINEERS & SURVEYORS
DALLAS, TEXAS 75203
(214) 492-7298
(214) 492-7299 FAX

THOMAS L. CHENOWETH SURVEY, ABSTRACT NO. 273
TOWN OF ADDISON
DALLAS COUNTY, TEXAS
CLIENT:
MILLER COMMERCIAL
5001 SPRING VALLEY RD. #1100
DALLAS, TEXAS 75244
(214) 419-4000



GENERAL NOTES

- REFER TO THE DIMENSIONAL CONTROL & PAVING PLAN FOR EXACT LOCATION OF SAWCUT LINE.
- CONTRACTOR IS TO PROTECT ALL EXISTING UTILITIES DURING THE CONSTRUCTION PHASE. ANY DAMAGE TO THE EXISTING UTILITIES WILL BE REPAIRED AT THE CONTRACTORS EXPENSE.
- ALL CONCRETE AND CURB TO BE REMOVED SHALL BE DISPOSED OF BY THE CONTRACTOR.
- FULL DEPTH SAWCUT WILL BE REQUIRED AS SHOWN ON THIS PLAN.
- ALL BARRICADES, WARNING SIGNS, SIGNAL LIGHTS, ETC... SHALL BE IN COMPLIANCE WITH THE "TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" AND THE TEXAS DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
- THE CONTRACTOR IS REQUIRED TO CONTACT THE LOCAL UTILITY COMPANIES LISTED BELOW FOR UTILITY LINE LOCATIONS PRIOR TO COMMENCING ANY CONSTRUCTION.
- THE CONTRACTOR IS TO CONTACT OWNER PRIOR TO ANY TREE REMOVAL.

UTILITY CONTACTS

LONE STAR GAS	JEAN HOOKER	931-1997
T.U. ELECTRIC	TIM BRANCHEAU	888-1307
S.W. BELL TEL.	TIM BEDELMAN	234-7085
HARRON CABLE SYS.	DENNIS ANDERSON	434-2202

OFFICE IN THE PARK ADDITION
VOL. 78118, PG. 1
(D.R.D.C.T.)

PAVING TO BE REMOVED

AS BUILT

Winkelmann & Associates, Inc. hereby certifies that this plan, to our knowledge is "As Built." All modifications to the originally approved construction documents have been made in accordance with the information provided by the contractor. Winkelmann & Associates, Inc. does not certify as to the quality of construction as no field inspection was conducted.

J.E. Middle 1-9-97

BENCHMARK NO. 1: "L" CUT IN CURB LOCATED ON NORTHEAST CORNER OF AN INLET ON THE WEST SIDE OF MIDWAY ROAD APPROXIMATELY 911 FEET SOUTH OF BELTWAY DRIVE. ELEV. = 615.72
BENCHMARK NO. 2: "L" CUT IN CURB LOCATED ON SOUTH SIDE OF BELTWAY DRIVE APPROXIMATELY 627 FEET EAST OF MIDWAY ROAD. ELEV. = 631.63

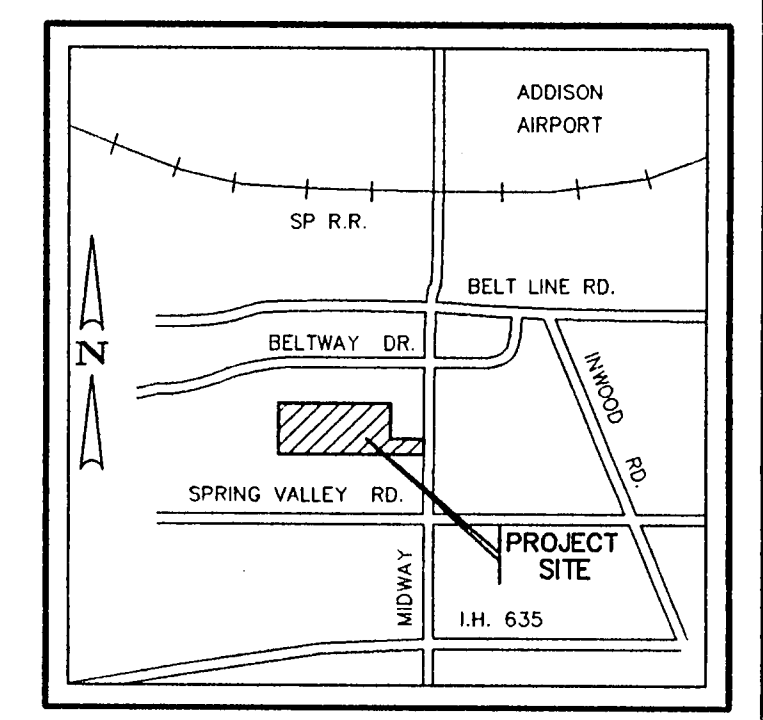
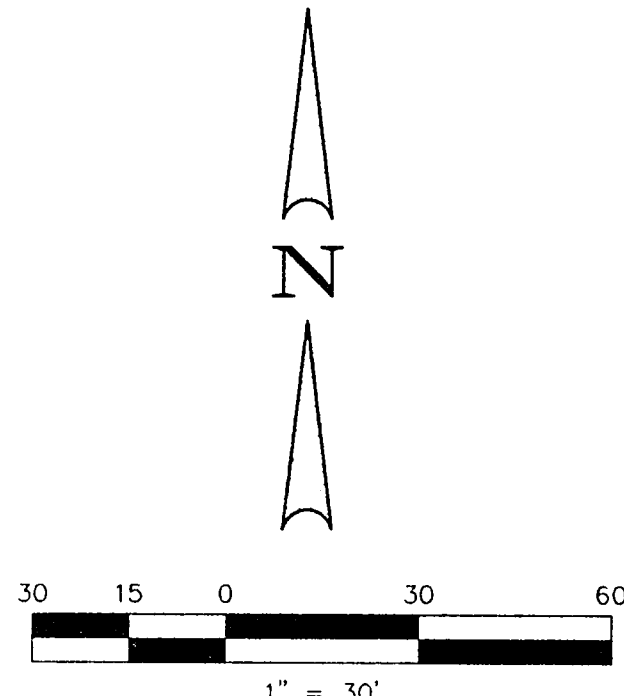
DEMOLITION PLAN
SWITZER & JONES RESTAURANT

Scale: 1" = 30'	Date: 5/17/96
Designed By: F.E.M.	Drawn By: T.J.C.
Checked By: F.E.M.	File: 1802DEMO.dwg
Project No.: 01802.01 (20)	

LOT 2, BLOCK 1
MIDWAY SQUARE ADDITION
VOL. 93252, PG. 2780

THOMAS L. CHENOWETH SURVEY
ABSTRACT NO. 275

LOT 1, BLOCK 1
MIDWAY SQUARE ADDITION
VOL. 93252, PG. 2780



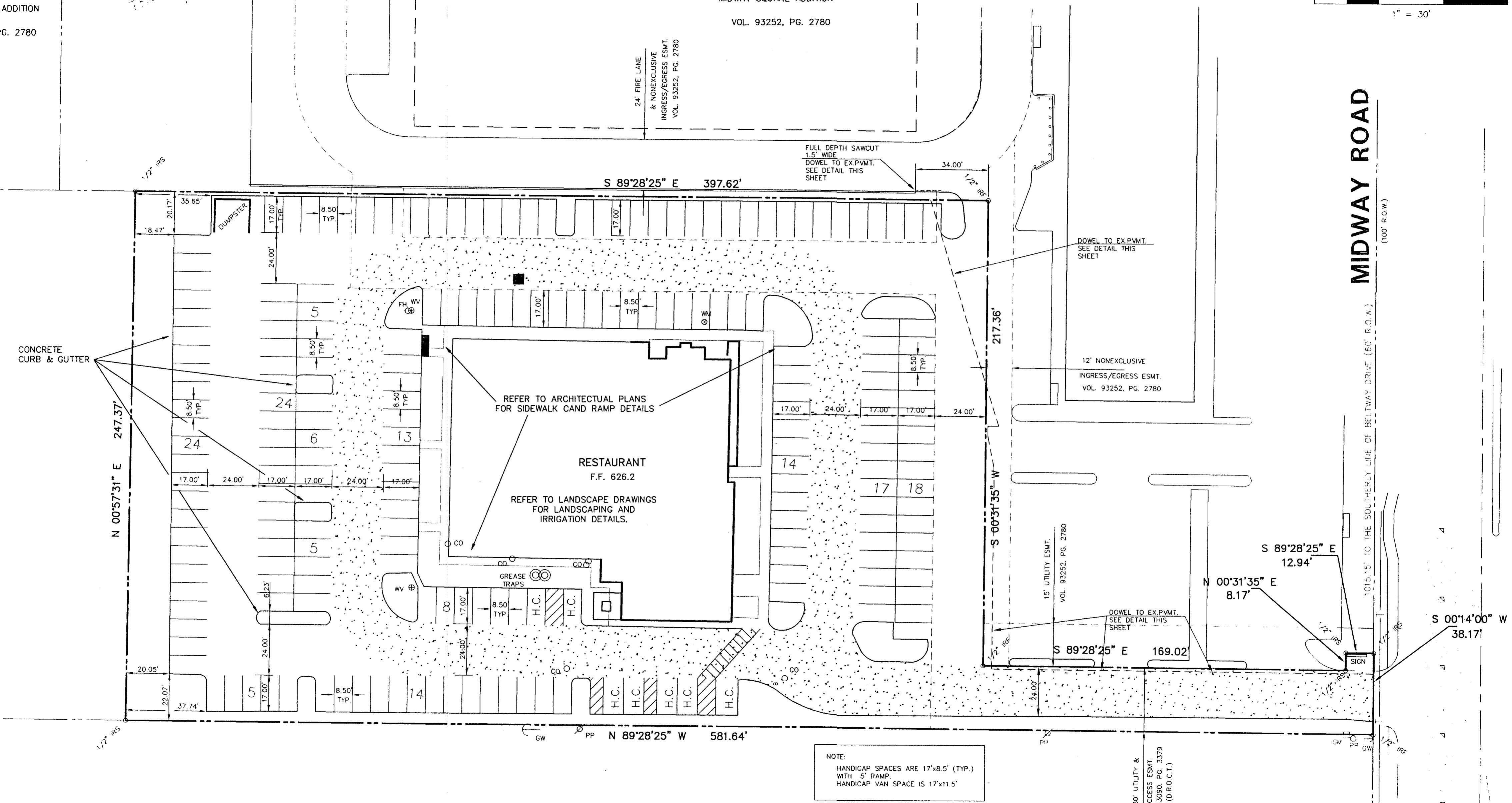
NO.	DATE	REVISION	APPROV.

Winkelmann & Associates, Inc.
CONSULTING CIVIL ENGINEERS & SURVEYORS
1528 HALSETT PASADENA SUITE 200
DALLAS, TEXAS 75235
(214) 495-7999 FAX

THOMAS L. CHENOWETH SURVEY, ABSTRACT NO. 275
TOWN OF ADDISON
DALLAS COUNTY, TEXAS
MILLER COMMERCIAL
5001 SPRING VALLEY RD. #1100
DALLAS, TEXAS 75244
(214) 419-4600

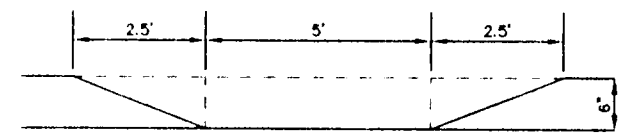
DIMENSION CONTROL AND PAVING PLAN
SWITZER & JONES RESTAURANT

Scale: 1" = 30'
Date: 5/1/96
Designed By: F.E.M.
Drawn By: T.J.C.
Checked By: F.E.M.
File: 1802DM.dwg
Project No.: 01802.01 (20)



- GENERAL NOTES:**
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF ADDISON STANDARDS, SPECIFICATIONS AND DETAILS, INCLUDING SPECIFICATIONS WITH THE TOWN OF ADDISON'S LATEST AMENDMENTS.
 - ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE TEXAS DOT SPECIFICATIONS.
 - CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES BEFORE CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING UTILITIES (SHOWN OR NOT SHOWN) WITHIN SCOPE OF CONSTRUCTION. IF ANY EXISTING UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL REPLACE THEM AT HIS OWN EXPENSE.
 - CONTRACTOR SHALL FURNISH ALL PAVEMENT MARKINGS FOR FIRE LANES, PARKING STALLS, HANDICAPPED PARKING SYMBOLS, AND MISC. STRIPING WITHIN PARKING LOT AND AROUND BUILDING AS SHOWN ON THE PLANS.
 - ALL DIMENSIONS SHOWN ARE TO BACK OF CURB UNLESS INDICATED OTHERWISE.
 - ALL CURB RADI ARE 2' UNLESS INDICATED OTHERWISE.
 - THE CONTRACTOR SHALL SUBMIT A JOINT LAYOUT PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO THE START OF PAVEMENT CONSTRUCTION. EXPANSION JOINTS 100' O.C.; DUMMY JOINTS 12' O.C.
 - ALL JOINTS SHALL EXTEND THRU THE CURB.
 - MINIMUM LENGTH OF OFFSET JOINTS AT RADIUS POINTS IS 1.5 FEET.
 - ALL JOINTS, INCLUDING EXPANSION JOINTS WITH REMOVABLE TACK STRIPS, SHALL BE SEALED WITH JOINT SEALANT.
 - TRANSVERSE JOINTS MAY BE SKEWED OR ADJUSTED BY SHIFTING TO MEET MANHOLES, INLETS, OTHER STRUCTURES, ETC.
 - ALL REINFORCING STEEL SHALL BE NEW DOMESTIC BILLET STEEL CONFORMING TO ASTM A-615, GRADE 60, AND SHALL BE SUPPORTED BY BAR CHAIRS.
 - MANHOLES, WATER VALVES, AND CLEANOUTS MAY BE BOXED OUT OR ISOLATED USING EXPANSION JOINT FILLER. MINIMUM LENGTH OF EACH SIDE OF BOX OUT SHALL BE 18 INCHES.
 - SEE IRRIGATION PLAN FOR LOCATION OF PROPOSED SLEEVING.
 - ALL SLEEVING FOR LIGHTS, IRRIGATION, ELECTRIC, AND TELEPHONE SHALL BE INSTALLED PRIOR TO PAVEMENT INSTALLATION.
 - UNLESS OTHERWISE SHOWN, ALL MEDIANS AND CURB LINES SHALL BE 6 INCH CURB AND GUTTER.
 - FIRE LANE MARKINGS ARE TO CONFORM TO TOWN OF ADDISON FIRE DEPARTMENT SPECIFICATIONS. FIRE LANES SHALL BE MARKED WITH A 6-INCH WIDE CONTINUOUS BRIGHT RED STRIPE ON BOTH SIDES. STRIPING SHALL BE ON THE CURB FACE WHERE CURB IS AVAILABLE. WHITE 4-INCH HIGH LETTERING CENTERED ON THE RED STRIPE SHALL READ "NO PARKING - FIRE LANE". THIS LETTERING SHALL BE PAINTED EVERY 15 FEET MEASURED FROM THE END OF ONE LETTERING GROUP TO THE BEGINNING OF THE NEXT GROUP. COLOR SPECIFICATION: BRIGHT RED.

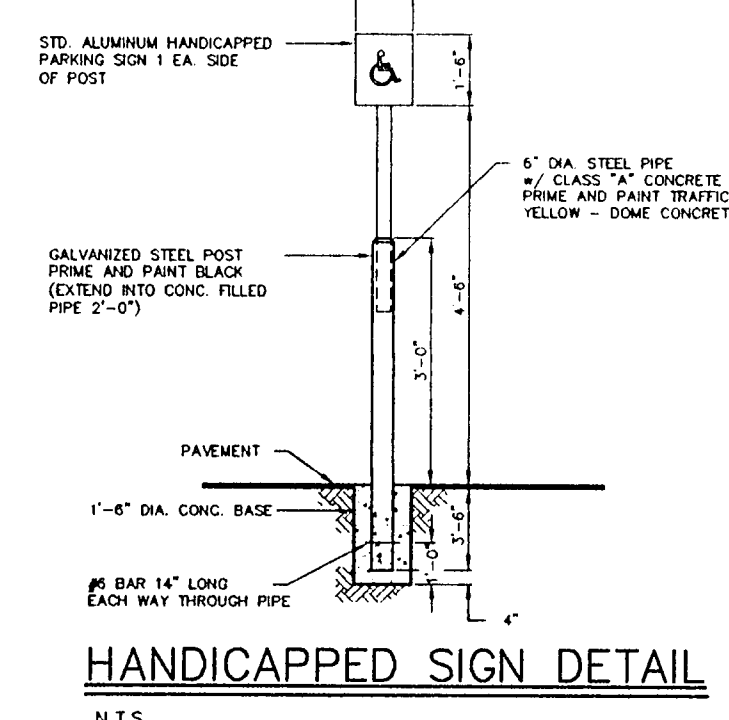
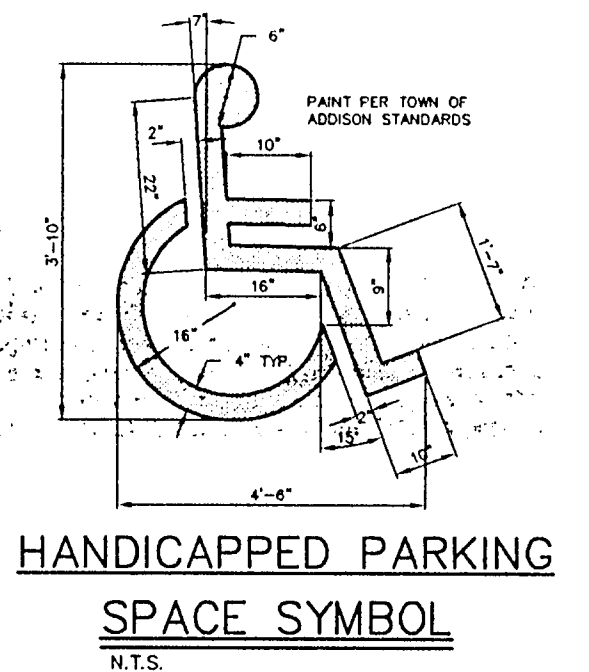
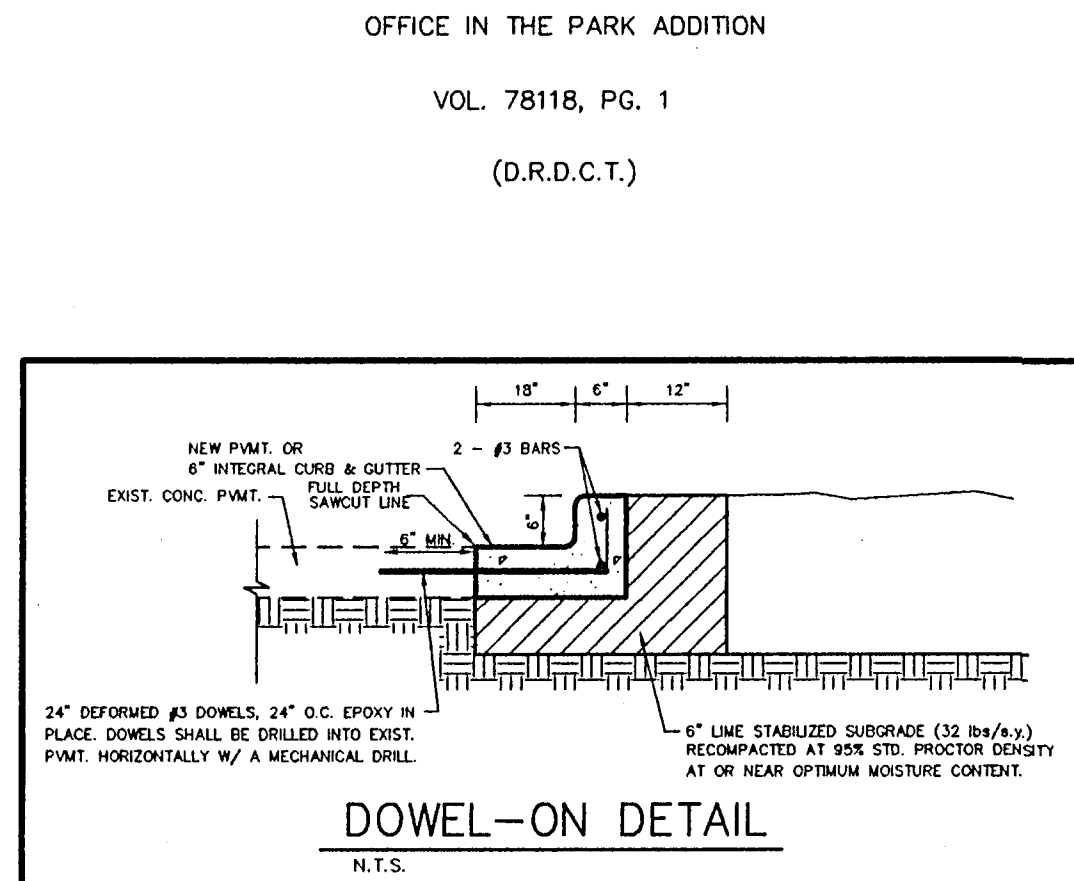
PARKING	REQUIRED = 204
	PROVIDED = 211
	(INCLUDES 7 HANDICAP SPACES)



LAY DOWN CURB DETAIL
N.T.S.

PAVING SECTIONS

- FIRE LANE & DUMPSTER LOCATIONS**
6" - 3000 PSI CONCRETE PAVEMENT WITH #3 BARS AT 18" O.C.E.W.
- 6" LIME STABILIZED SUBGRADE (32 lbs./s.y.)**
RECOMPACTED AT 95% STANDARD PROCTOR DENSITY AT OR NEAR OPTIMUM MOISTURE CONTENT.
- PARKING AREAS**
5" - 3000 PSI CONCRETE PAVEMENT WITH #3 BARS AT 18" O.C.E.W.
- 6" LIME STABILIZED SUBGRADE (32 lbs./s.y.)**
RECOMPACTED AT 95% STANDARD PROCTOR DENSITY AT OR NEAR OPTIMUM MOISTURE CONTENT.



BENCHMARK NO. 1:
1" CUT IN CURB LOCATED ON NORTHEAST CORNER OF AN INLET ON THE WEST SIDE OF MIDWAY ROAD APPROXIMATELY 911 FEET SOUTH OF BELTWAY DRIVE.
ELEV. = 615.72

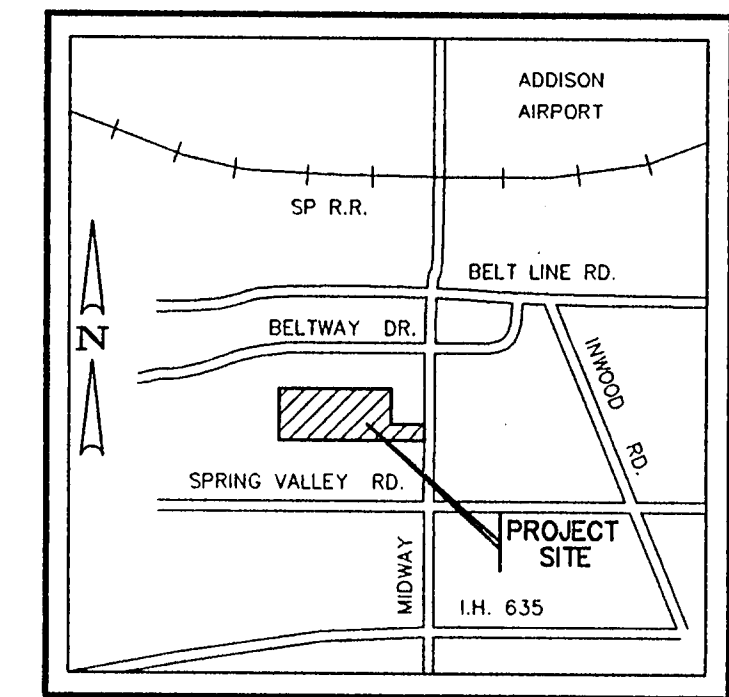
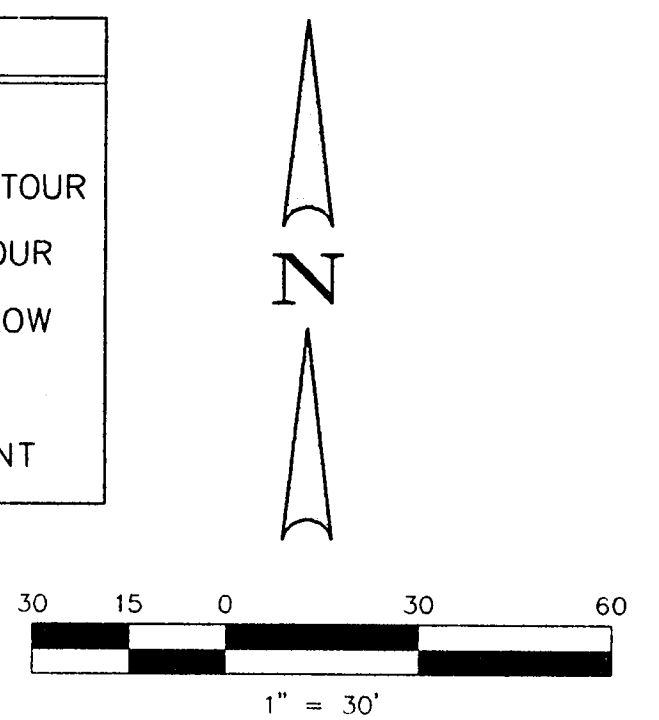
BENCHMARK NO. 2:
1" CUT IN CURB LOCATED ON SOUTH SIDE OF BELTWAY DRIVE APPROXIMATELY 627 FEET EAST OF MIDWAY ROAD.
ELEV. = 631.63

LOT 2, BLOCK 1
MIDWAY SQUARE ADDITION
VOL. 93252, PG. 2780

LOT 1, BLOCK 1
MIDWAY SQUARE ADDITION
VOL. 93252, PG. 2780

LEGEND

- 623 PROPOSED CONTOUR
- 631 --- EXISTING CONTOUR
- DIRECTION OF FLOW
- TC TOP OF CURB
- TP TOP OF PAVEMENT



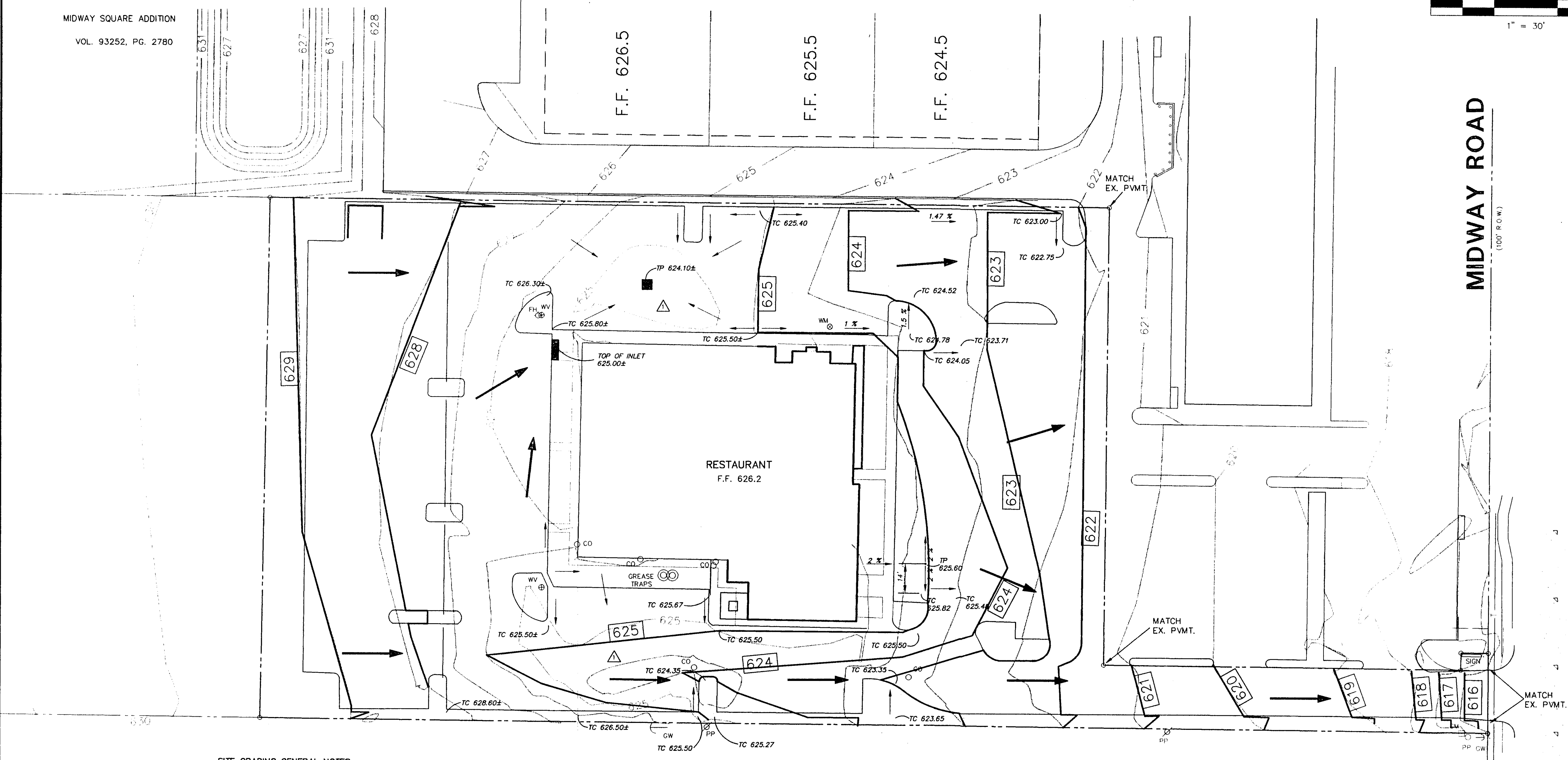
No.	DATE	REVISION	APPROV.
1	6/17/96	REVISED GRADING	F.E.M.

Winkelmann & Associates, Inc.
CONSULTING CIVIL ENGINEERS & SURVEYORS
1505 WALKER ROAD, SUITE 200
DALLAS, TEXAS 75244
(214) 497-7899 FAX



THOMAS L. CHENONETH SURVEY, ABSTRACT NO. 273
TOWN OF ADDISON
DALLAS COUNTY, TEXAS
CLIENT:
MILLER COMMERCIAL
5001 SPRING VALLEY RD., #100
DALLAS, TEXAS 75244
(214) 419-6600

GRADING PLAN
SWITZER & JONES RESTAURANT



- SITE GRADING GENERAL NOTES**
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF ADDISON STANDARDS, SPECIFICATIONS, DETAILS AND NCTCOG SPECIFICATIONS.
 - VEGETATION, DEBRIS, AND TOPSOIL CONTAINING ORGANIC MATERIALS SHOULD BE CLEARED AND GRUBBED FROM THE ENTIRE SITE (APPROX. DEPTH OF 8 INCHES) AT THE BEGINNING OF EARTHWORK.
 - REFERENCE SHEET 2 FOR PAVEMENT SUBGRADE PREPARATION REQUIREMENTS.
 - REFERENCE ARCHITECTURAL SPECIFICATIONS FOR BUILDING PAD PREPARATION.
 - PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN IN PAVED AREAS REFLECT TOP OF PAVEMENT SURFACE. THE LIMITS OF EARTHWORK IN PAVED AREAS IS THE BOTTOM OF PAVEMENT. PROPOSED CONTOURS SHOWN OUTSIDE THE PAVED AREAS ARE THE EXACT LIMITS OF GRADING.
 - THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO START OF EARTHWORK AND SHALL NOTIFY THE ARCHITECT AND ENGINEER OF ANY CONFLICTS DISCOVERED. CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING UTILITIES (SHOWN OR NOT SHOWN) WITHIN SCOPE OF CONSTRUCTION. IF ANY EXISTING UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL REPAIR THEM AT HIS OWN EXPENSE.
 - THE CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL USE SILT FENCES AND/OR STRAW BALES (OR OTHER METHOD APPROVED BY THE TOWN OF ADDISON) AS REQUIRED TO PREVENT SILT AND CONSTRUCTION DEBRIS FROM FLOWING ONTO ADJACENT PROPERTIES. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, OR LOCAL EROSION, CONSERVATION, AND SILTATION ORDINANCES. CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF PERMANENT DRAINAGE FACILITIES AND THE ESTABLISHMENT OF STAND OF GRASS OR OTHER GROWTH TO PREVENT EROSION.
 - ROUGH GRADING UNDER PROPOSED PAVING AND ALL GENERAL SITE ROUGH GRADING SHALL BE BROUGHT TO WITHIN +/- 0.1 FOOT. SEE ARCHITECTURAL PLANS FOR ROUGH GRADING ELEVATIONS IN BUILDING PAD AREA.
 - THE CONTRACTOR SHALL TAKE ALL AVAILABLE PRECAUTIONS TO CONTROL DUST. CONTRACTOR SHALL CONTROL DUST BY SPRINKLING WATER, OR BY OTHER MEANS APPROVED BY THE ARCHITECT, ENGINEER, AND THE OWNER. AT NO ADDITIONAL COST TO THE OWNER.
 - THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY EXISTING STRUCTURES, FENCES, DEBRIS, OR TREES ON SITE, AND SHALL COORDINATE ALL REMOVAL WITH THE GENERAL CONTRACTOR. NO TREES OR OTHER ITEMS SHALL BE REMOVED WITHOUT THE APPROVAL OF THE ARCHITECT, ENGINEER AND OWNER. ALL TREES NOT REMOVED SHALL BE GUARDED AND PRESERVED DURING CONSTRUCTION. IF DAMAGED, THE EXISTING TREE WILL BE REPLACED (EQUAL CALIPER) AT THE CONTRACTOR'S EXPENSE.
 - THE CONTRACTOR SHALL EMPLOY, AT HIS EXPENSE, A QUALIFIED SOILS LAB TO DE IF THE EXISTING SUBGRADE AND ON SITE, NATIVE MATERIAL IS WITHIN SPECIFICATIONS PRIOR TO STARTING FILL OPERATIONS.
 - ALL EXCAVATING IS UNCLASSIFIED AND SHALL INCLUDE ALL MATERIALS ENCOUNTERED UNLESS EXCAVATED MATERIAL AND ALL WASTE RESULTING FROM SITE CLEARING AND GRUBBING SHALL BE DISPOSED OF OFF SITE BY THE GRADING CONTRACTOR AT HIS EXPENSE.
 - BEFORE ANY EARTHWORK IS DONE, THE CONTRACTOR SHALL STAKE OUT AND MARK THE LIMITS OF PAVEMENT AND OTHER ITEMS ESTABLISHED BY THE PLANS. THE CONTRACTOR SHALL PROTECT AND PRESERVE CONTROL POINTS AT ALL TIME DURING THE COURSE OF THE PROJECT. THE GRADING CONTRACTOR SHALL PROVIDE ALL NECESSARY ENGINEERING AND SURVEYING FOR LINE AND GRADE CONTROL POINTS RELATED TO EARTHWORK.
 - THE CONTRACTOR SHALL SALVAGE AND PROTECT ALL EXISTING POWER POLES, SIGNS, MANHOLES, TELEPHONE RISERS, WATER VALVES, ETC. DURING ALL CONSTRUCTION PHASES.

NOTE:
± TOP OF CURB/PAVEMENT ELEVATIONS
BASED ON EXISTING CONTOURS.

OFFICE IN THE PARK ADDITION
VOL. 78118, PG. 1
(D.R.D.C.T.)

AS BUILT

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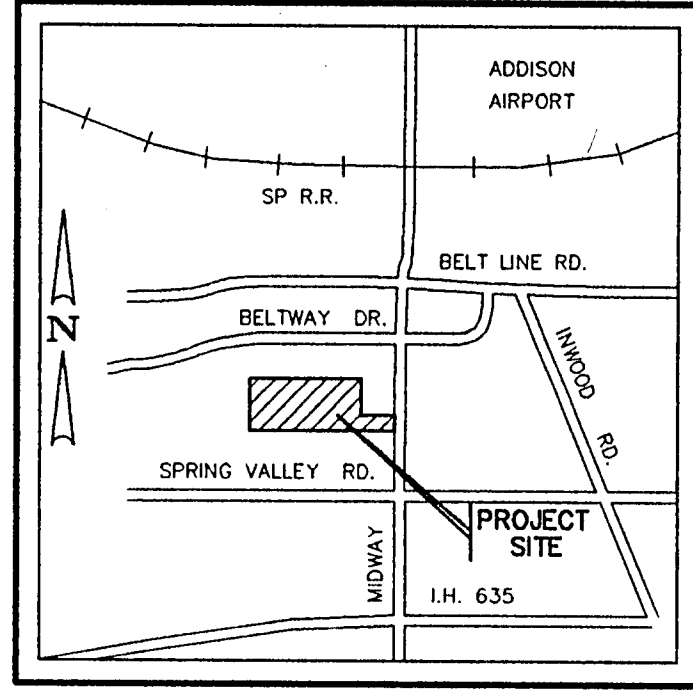
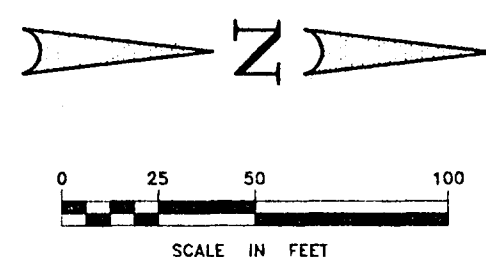
F.E.M. Winkelmann 1.9.97

BENCHMARK NO. 1:
"1" CUT IN CURB LOCATED ON NORTHEAST CORNER OF AN INLET ON THE WEST SIDE OF MIDWAY ROAD APPROXIMATELY 911 FEET SOUTH OF BELTWAY DRIVE.
ELEV. = 615.72

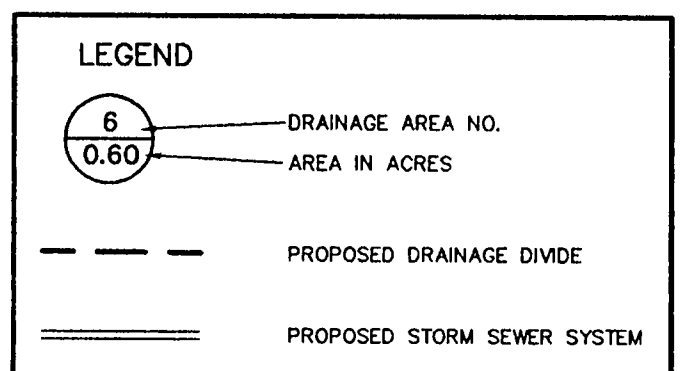
BENCHMARK NO. 2:
"2" CUT IN CURB LOCATED ON SOUTH SIDE OF BELTWAY DRIVE APPROXIMATELY 627 FEET EAST OF MIDWAY ROAD.
ELEV. = 631.63

Scale: 1" = 30' Date: 5/17/96
Designed By: F.E.M.
Drawn By: T.J.C.
Checked By: F.E.M.
File: 1802GRD.dwg
Project No.: 01802.01 (20)

SHEET
14



VICINITY MAP
(NOT TO SCALE)

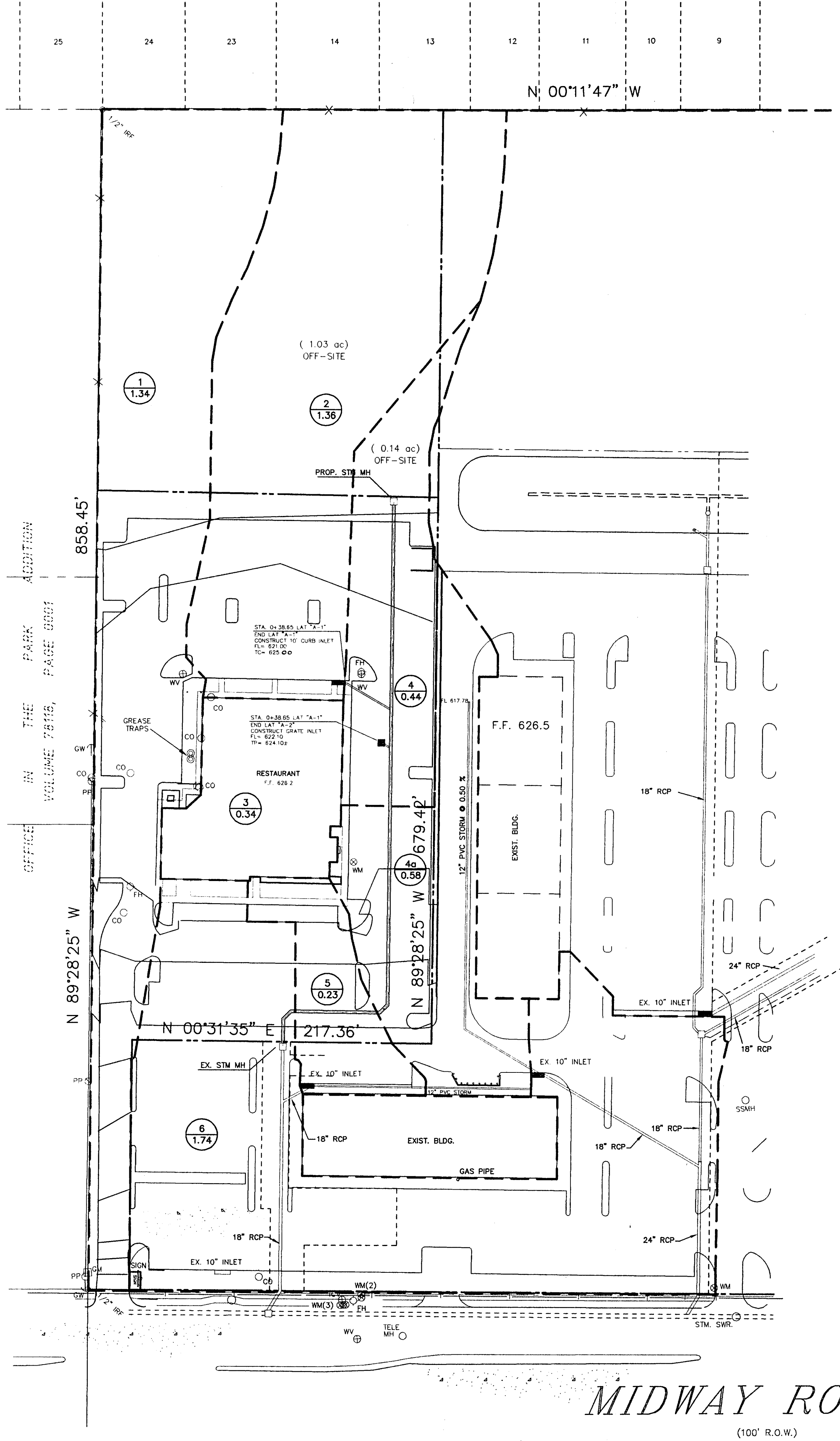


Winkelmann & Associates, Inc.
CONSULTING CIVIL ENGINEERS & SURVEYORS
1800 ALBERT ROAD, SUITE 200
DALLAS, TEXAS 75244
(214) 498-7800 FAX

THOMAS L. CHENOWETH SURVEY, ABSTRACT NO. 273
TOWN OF ADDISON
DALLAS COUNTY, TEXAS
MILLER COMMERCIAL
5001 SPRING VALLEY RD. #1100
DALLAS, TEXAS 75244
(214) 419-4000

DRAINAGE AREA MAP
SWITZER & JONES RESTAURANT

Scale: 1" = 50' Date: 5/17/96
Designed By: F.E.M.
Drawn By: T.J.C.
Checked By: F.E.M.
File: I802DAM.dwg
Project No.: 01802.01 (20)



DRAINAGE CRITERIA
Q = CIA
Q = 100 YEAR STORM
C = COEFFICIENT OF RUN-OFF: 0.90 (PAVED AREA); 0.35 (GRASS AREA)
I = INTENSITY, FROM HYDRO-35, DATED JUNE, 1977
A = DRAINAGE AREA IN ACRES

DRAINAGE CALCULATIONS

AREA NO.	AREA (ACRES)	PRE-DEV. RUNOFF COEFF. "C"	POST-DEV. RUNOFF COEFF. "C"	PRE-DEV. TIME OF CONC. "Tc" MIN.	POST-DEV. TIME OF CONC. "Tc" MIN.	PRE-DEV. INTENSITY (IN/HR)	POST-DEV. INTENSITY (IN/HR)	EXIST. Q ₁₀₀ = 100 (c.f.s.)	PROP. Q ₁₀₀ = 100 (c.f.s.)	COMMENTS
1	1.34	0.57	0.60	8.63	9.30	9.2	9.3	7.00	7.48	DRAINS TO MIDWAY RD.
2	1.36	0.42	0.48	N/A	9.00	N/A	9.0	N/A	5.88	DRAINS TO PROP. 10" INLET
3	0.34	0.90	0.90	N/A	5.00	N/A	10.6	N/A	3.24	ROOF DRAINS
4	0.44	0.64	0.73	N/A	10.30	N/A	10.3	N/A	3.31	DRAINS TO PROP. GRATE INLET
4a	0.58	0.90	0.90	N/A	11.33	N/A	8.5	N/A	4.44	DRAINS TO EX. 10" INLET
5	0.23	0.90	0.90	N/A	10.88	N/A	8.6	N/A	1.78	DRAINS TO EX. 10" INLET
6	1.74	0.90	0.90	N/A	11.67	N/A	8.3	N/A	13.00	DRAINS TO EX. 10" INLET

- REFER TO PLANS FOR MIDWAY SQUARE RETAIL PREPARED BY WAI DATED 12/6/93 FOR EXISTING DRAINAGE CALCULATIONS.
- TOTAL DETENTION REQUIRED = 2.08 cfs
- DETENTION IN AREA 4 3.31 cfs - 2.08 cfs = 1.22 cfs RELEASE RATE.

NOTE:
FUTURE UNDEVELOPED OFF-SITE DRAINAGE (PART OF AREAS 2 & 4)
Q₁₀₀ = (1.17 ac) x (0.35) x (8.5 in/hr) = 3.48 cfs

AS BUILT

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F.E.M. 1-9-97

BENCHMARK NO. 1:
"1" CUT IN CURB LOCATED ON NORTHEAST CORNER OF AN INLET ON THE WEST SIDE OF MIDWAY ROAD APPROXIMATELY 911 FEET SOUTH OF BELTWAY DRIVE.
ELEV. = 615.72

BENCHMARK NO. 2:
"1" CUT IN CURB LOCATED ON SOUTH SIDE OF BELTWAY DRIVE APPROXIMATELY 627 FEET EAST OF MIDWAY ROAD.
ELEV. = 631.63

MIDWAY ROAD
(100' R.O.W.)

C:\V\6551802\UL Fr: Jan 10 12:22:06 1997 R.B.

LOT 2, BLOCK 1
MIDWAY SQUARE ADDITION
VOL. 93252, PG. 2780

THOMAS L. CHENOWETH SURVEY,
ABSTRACT NO. 273

LOT 1, BLOCK 1
MIDWAY SQUARE ADDITION
VOL. 93252, PG. 2780

RAISE EX. 2" WATER
TO GO OVER PROPOSED
18" RCP IF NECESSARY.

STA. 3+14.99 LINE "A"
STA. 0+00 LAT "A-1"
FL 18" = 619.96
FL 12" = 620.27

STA. 2+87.16 LINE "A"
STA. 0+00 LAT "A-2"
FL 18" = 619.77
FL 8" = 620.27

24" FIRE LINE
& NONEXCLUSIVE
INGRESS/EGRESS ESMT.
VOL. 93252, PG. 2780

STA. 4+67.04 LINE "A"
END LINE "A"
CONST. STM SWR. MH
FL = 624.00
RIM = 629.00±

NOTE:
REMOVE & REPLACE EX. ASPHALT
PAVING AS SHOWN FOR INSTALLATION
OF STORM SEWERS.

STA. 0+38.65 LAT "A-1"
END LAT "A-1"
CONSTRUCT 10' CURB INLET
FL = 621.00
TC = 625.00

STA. 0+08.08 LAT "A-2"
END LAT "A-2"
CONSTRUCT GRATE INLET
FL = 622.10
TP = 624.10

RESTAURANT
F.F. 626.2

CONNECT 4"
PVC STM.
TO ROOF DRAINS

4" DOWNSPOUT
(LOCATION APPROX.)

4" DOWNSPOUT
(LOCATION APPROX.)

3" DOWNSPOUT
THRU CURB

15" UTILITY ESMT.

EX. FIRE HYDRANT TO BE
REMOVED & RETURNED
TO TOWN OF ADDISON

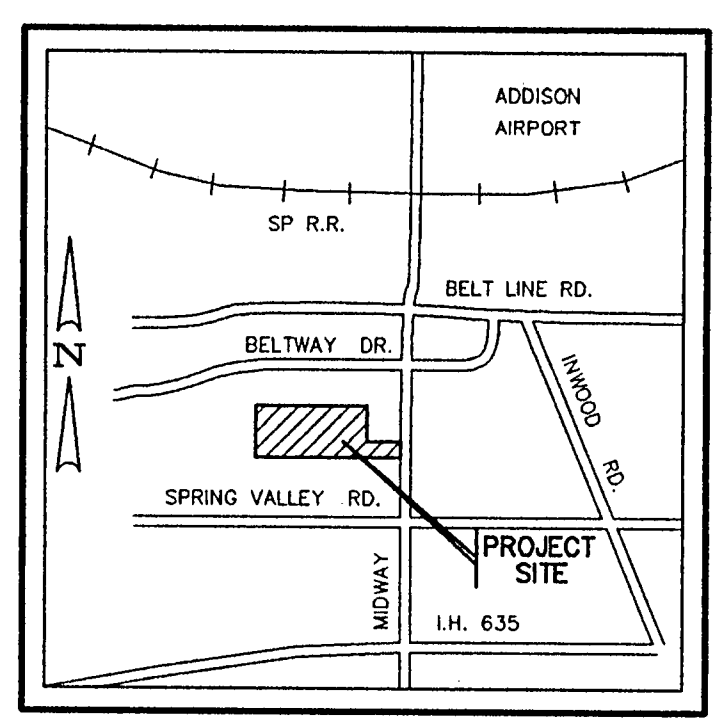
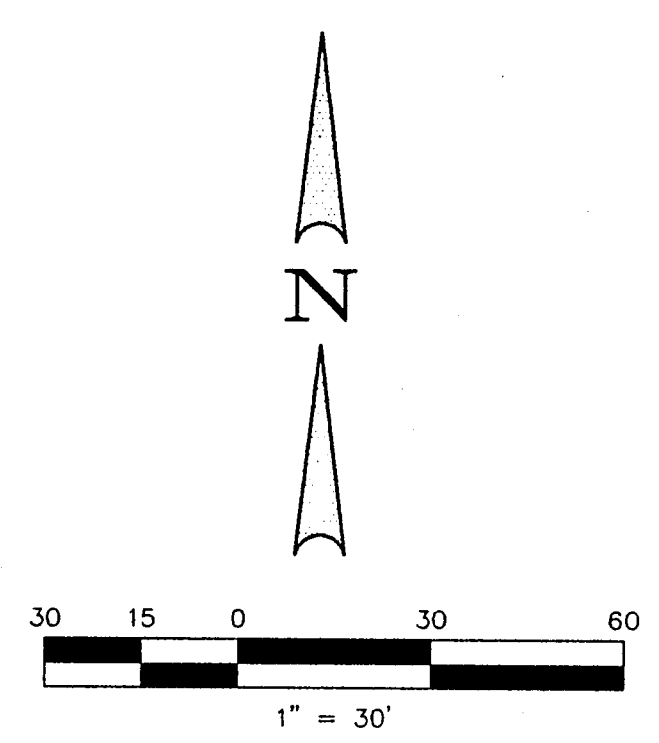
INSTALL:
1 - 8"x6" TAPPING
SLEEVE & VALVE
1 - 6" FIRE LINE & PLUG
REFER TO PLUMBING SHEET P-3
FOR CONTINUATION.

INSTALL:
1 - 8"x6" TEE
1 - 6" GATE VALVE
1 - FIRE HYDRANT
W/6" LEAD

OFFICE IN THE PARK ADDITION
VOL. 78118, PG. 1
(D.R.D.C.T.)

NOTE:
REFER TO PLUMBING PLANS SHEETS P-3 &
P-4 FOR DETAILS ON WATER & SEWER SERVICES.

NOTE:
CONTRACTOR TO ADJUST ALL EXISTING UTILITIES (WATER VALVES, METERS, ETC...)



VICINITY MAP
(NOT TO SCALE)

MIDWAY ROAD
(100' R.O.W.)

10'± TO THE SOUTHERLY LINE OF BELTWAY DRIVE (60' R.O.W.)

S 89°28'25" E 169.02'

AS BUILT

Winkelmann & Associates, Inc. hereby certifies that this plan,
to the best of our knowledge is "As Built." All modifications
from the originally approved construction documents have
been made as per information provided by the contractor.
Winkelmann & Associates, Inc. does not certify as to the
accuracy or equality of construction as no field inspection
was performed.
J.E. Miller 1-9-97
DATE

BENCHMARK NO. 1:
CUT IN CURB LOCATED ON NORTHEAST CORNER OF AN INLET
ON THE WEST SIDE OF MIDWAY ROAD APPROXIMATELY 911 FEET
SOUTH OF BELTWAY DRIVE.
ELEV. = 615.72

BENCHMARK NO. 2:
CUT IN CURB LOCATED ON SOUTH SIDE OF BELTWAY DRIVE
APPROXIMATELY 627 FEET EAST OF MIDWAY ROAD.
ELEV. = 631.63

APPROVED

Winkelmann & Associates, Inc.
CONSULTING CIVIL ENGINEERS & SURVEYORS
1300 HILLCREST ROAD, SUITE 200
DALLAS, TEXAS 75205
(214) 495-7099 FAX

REVISION

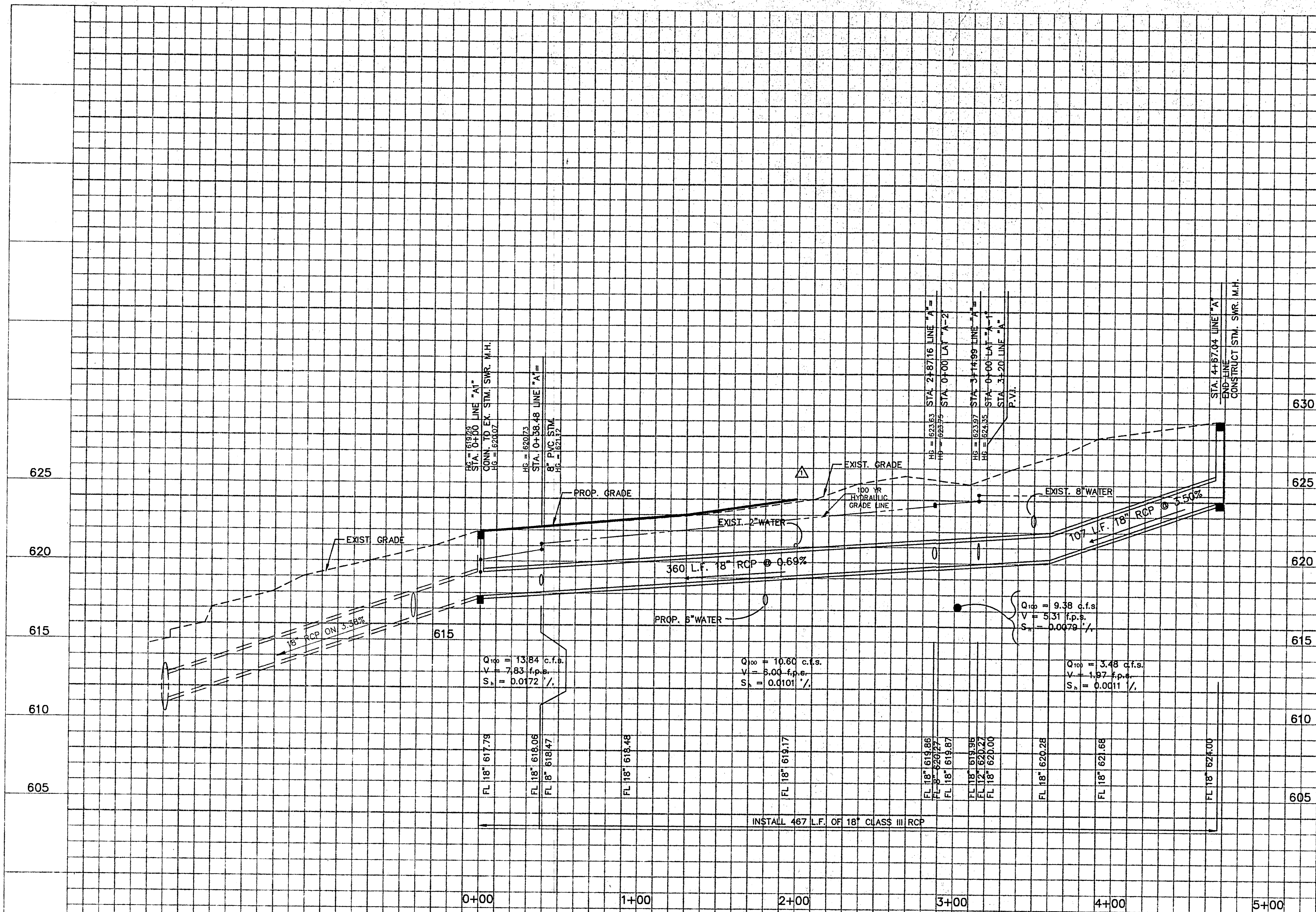
DATE

THOMAS L. CHENOWETH SURVEY, ABSTRACT NO. 273
TOWN OF ADDISON
DALLAS COUNTY, TEXAS
MILLER COMMERCIAL
5001 SPRING VALLEY RD. #1100
DALLAS, TEXAS 75244
(214) 419-4000

CLIENT:

DRAINAGE & UTILITY PLAN
SWITZER & JONES RESTAURANT

Scale: 1" = 30' Date: 5/17/96
Designed By: F.E.M.
Drawn By: T.J.C.
Checked By: F.E.M.
File: 1802JUL.dwg
Project No.: 01802.01 (20)



LINE "A"

AS BUILT

Winkelmann & Associates, Inc. Herewith certifies that this plan, to the best of our knowledge is "As Built". All modifications from the originally approved construction documents have been made as per information provided by the contractor. Winkelmann & Associates, Inc. does not certify as to the correctness or quality of construction as no field inspection was performed.

[Signature] 1.9.97
 WINKELMANN & ASSOCIATES, INC. DATE

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 ELEV. = 615.72

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 "1" CUT IN CURB LOCATED ON SOUTH SIDE OF BELTWAY DRIVE APPROXIMATELY 627 FEET EAST OF MIDWAY ROAD.
 ELEV. = 631.63

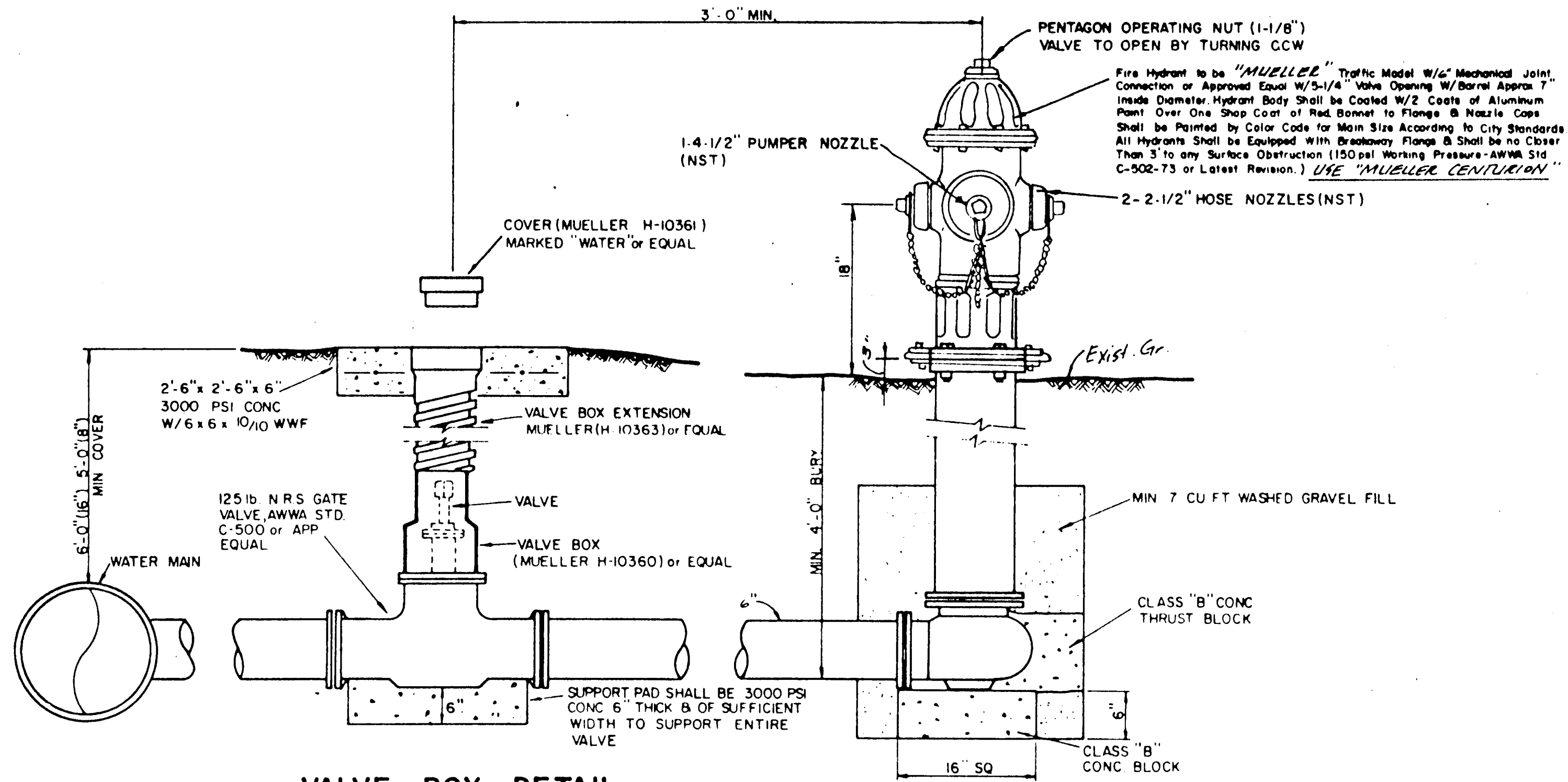
APPROV	E.E.M.
REVISION	ADDED INLET
DATE	6/14/96
No.	1

Winkelmann & Associates, Inc.
 CONSULTING CIVIL ENGINEERS ■ SURVEYORS
 1802 PREP DRIVE, SUITE 200
 DALLAS, TEXAS 75230
 (214) 490-7000
 (214) 490-7000

THOMAS L. CHENOWETH SURVEY
 ABSTRACT NO. 273
 CITY OF ADDISON, DALLAS COUNTY, TEXAS

STORM SEWER PROFILE

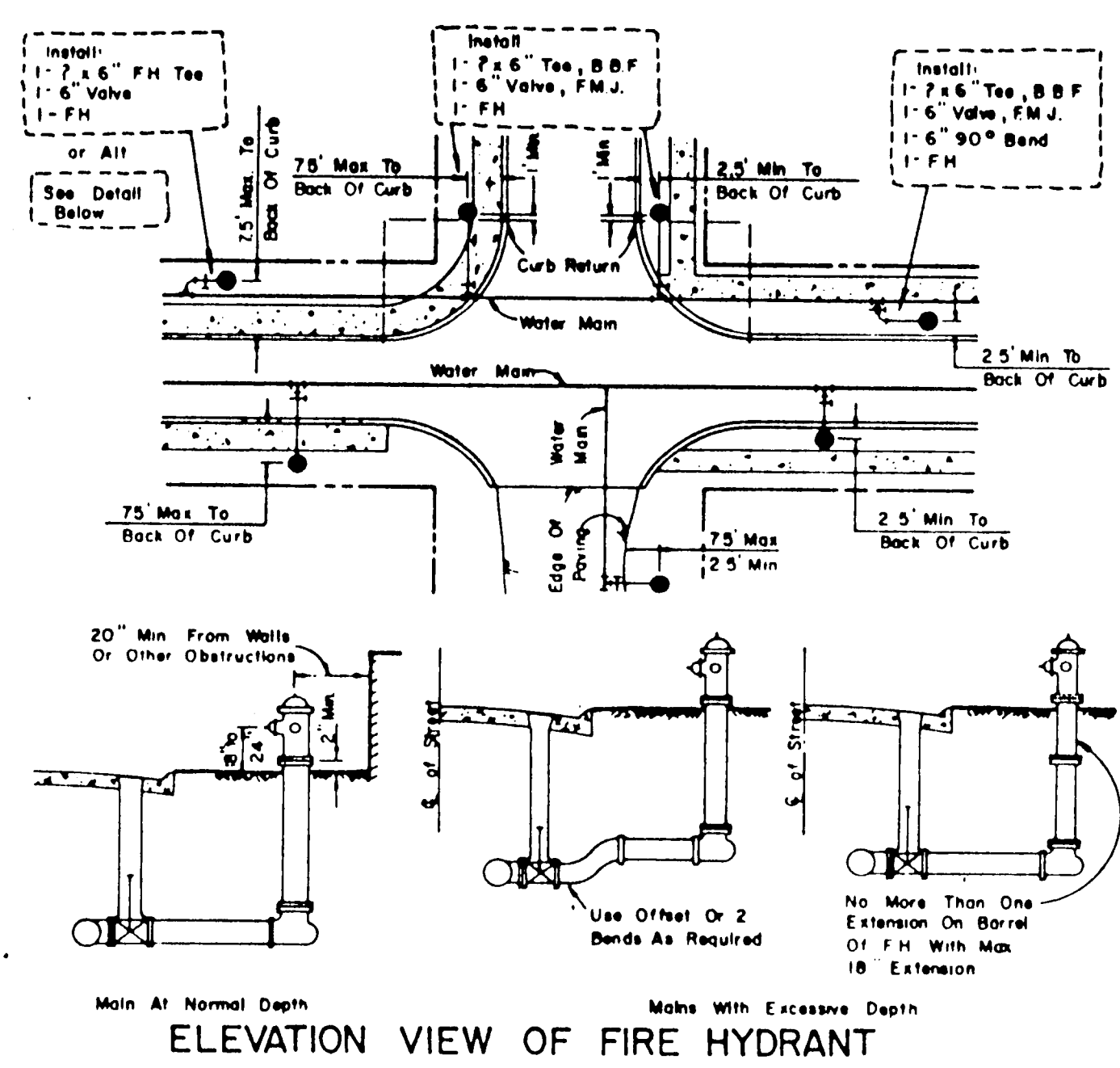
Scale: 1" = 1'-0" Date: 5/17/96
 Designed By: F.E.M.
 Drawn By: TJC
 Checked By: F.E.M.
 File: 1802PREP.DWG
 Project No.: 01802.01



VALVE BOX DETAIL
(SEE PLANS FOR "MAIN SIZE")

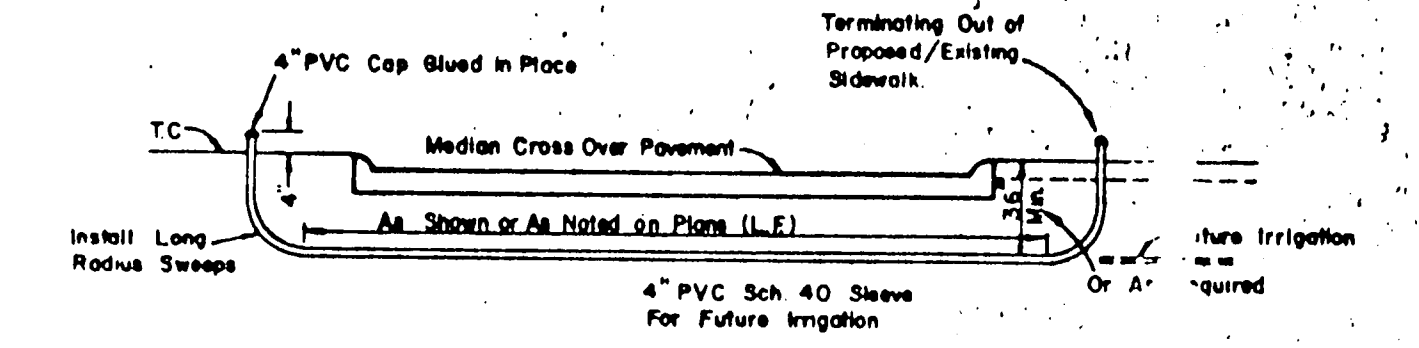
FIRE HYDRANT INSTALLATION
(INCLUDES 6" VALVE)
No Scale

- GATE VALVES AND VALVE BOXES.**
- GATE VALVES SHALL BE IRON BODY, BRONZE OR BRASS MOUNTED, NON-RISING STEM, PARALLEL SEAT TYPE VALVES SHALL BE OF EQUAL OR GREATER PRESSURE CLASS THAN THE PIPING IN WHICH THEY ARE TO BE INSTALLED.
 - VALVE BOXES SHALL BE CAST IRON AND SHALL BE OF SUFFICIENT LENGTH AND DIAMETER TO OPERATE. ALL VALVES BURIED IN THE GROUND COVERS SHALL BE MARKED "WATER". THE BOXES SHALL REST ON THE VALVE AND BE ADJUSTED SO THAT THE COVER MAY BE SET FLUSH WITH THE FINISHED GRADE.

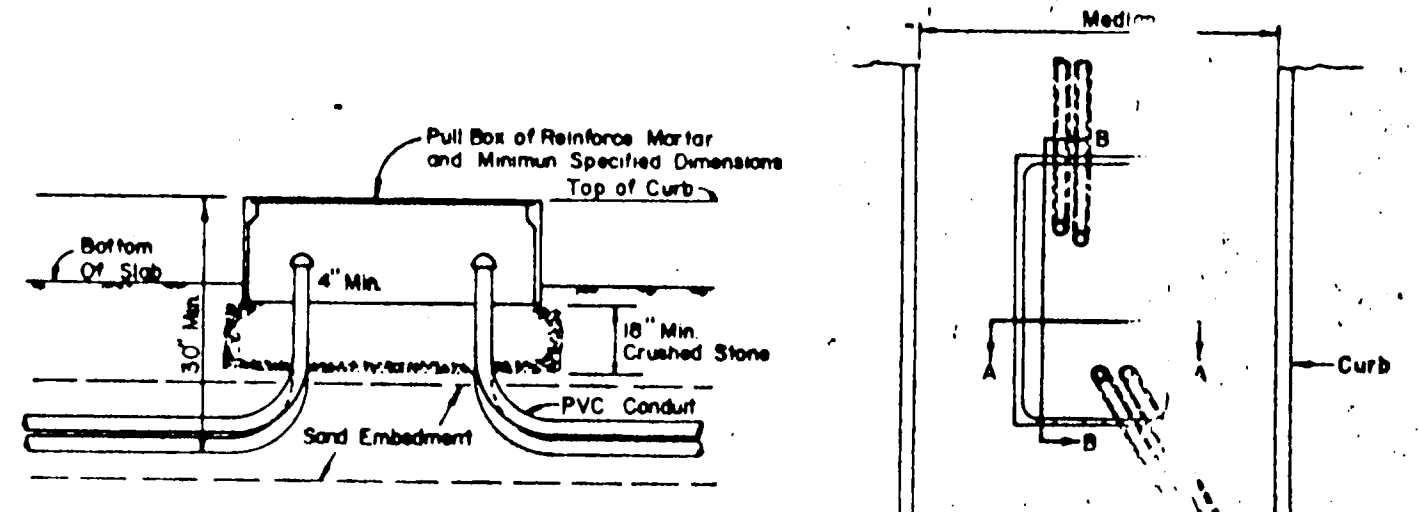


ELEVATION VIEW OF FIRE HYDRANT

- GENERAL NOTES**
- Q. of FH Barrel Shall Be Not Less Than 6.0' Or More Than 9.0' From Back Of Curb Or Edge Of Pavement.
 - Do Not Set FH in an Existing Or Proposed Sidewalk, Unless Otherwise Noted.
 - All FH Tees Shall Be M.J. With Anchoring On The Branch With M.J., M.J. 6" Valve Possible.
 - Set FH On The Lot Line Extended When Possible.
 - On Private Contracts, The Developer's Engineer Will Stake Location & Grade.
 - Never Place FH Where Fire Truck Could Not Park Beside It.



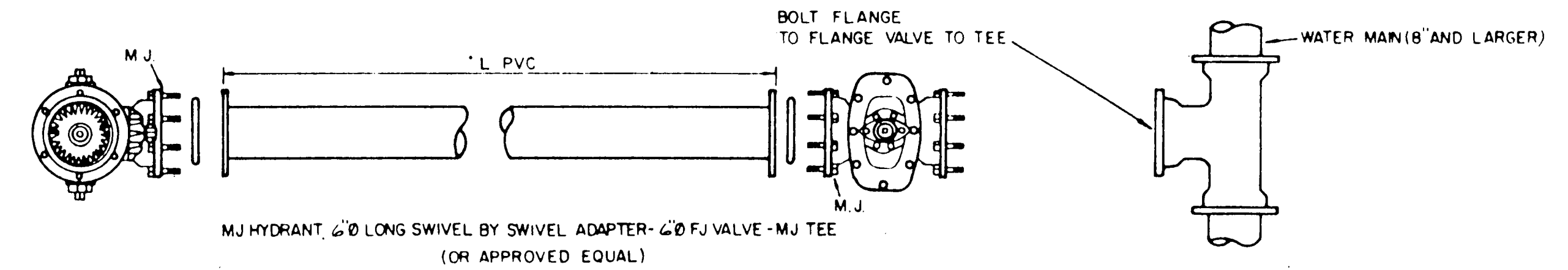
PVC SLEEVE FOR FUTURE IRRIGATION
N.I.C.



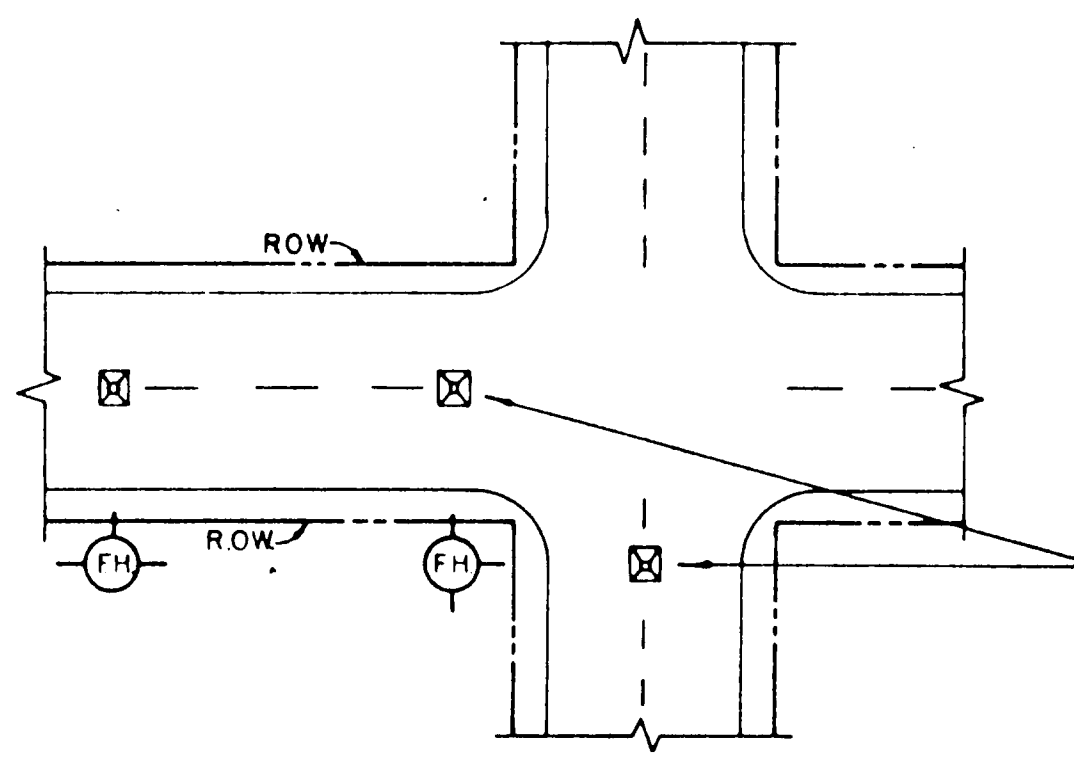
SECTION B-B

- LOCATION OF CONDUIT PLACEMENT IN MEDIANS**
- Street Directions:
North/South - West Side
East/West - South Side
- PULL BOX DIMENSIONS (MINIMUM INSIDE)**
- 12" Depth
14" Width
24" Length
2-3 "X" Knockouts, One On Each End

PULL BOX & CONDUIT DETAIL
N.I.C.

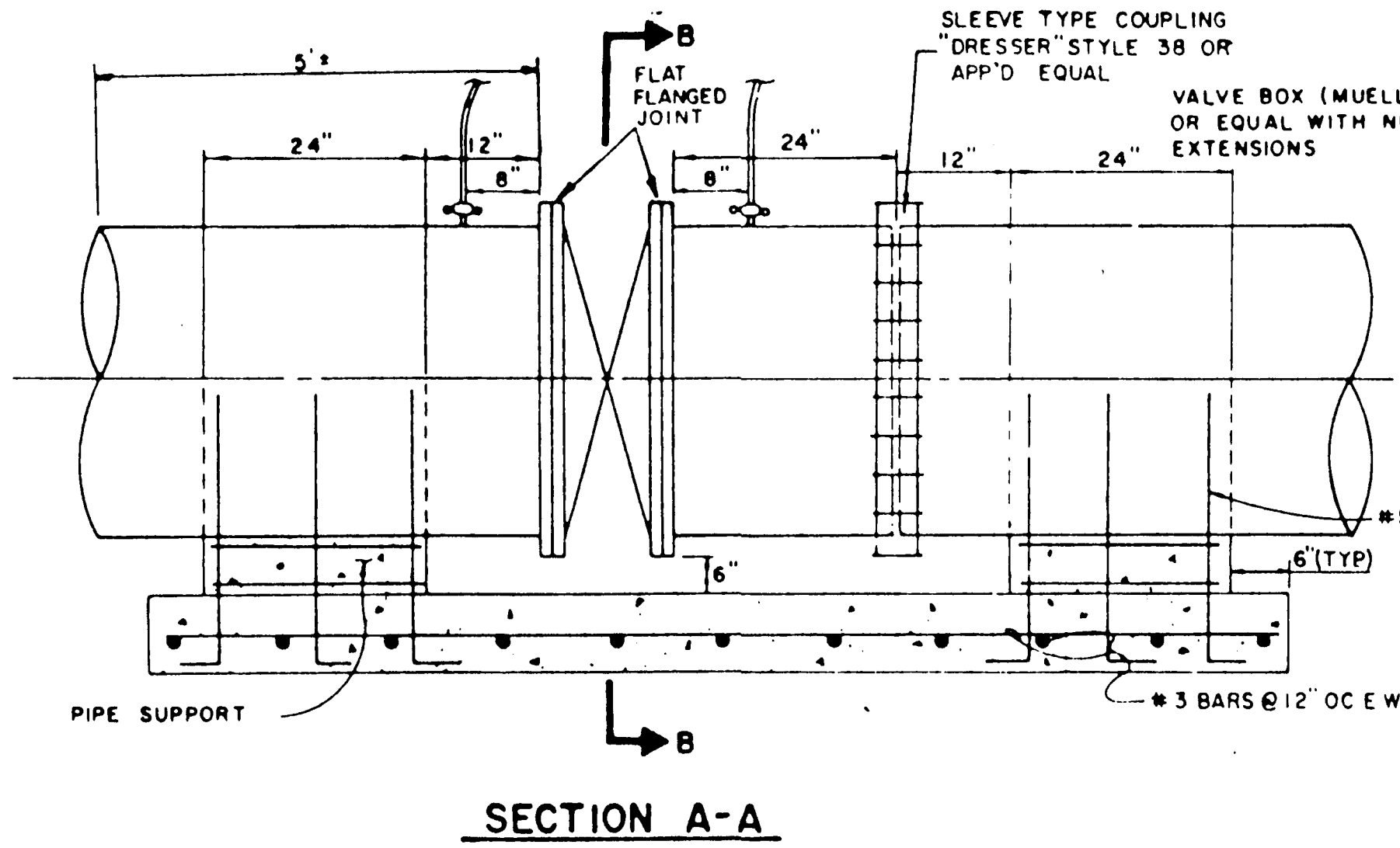


TYPICAL FIRE HYDRANT INSTALLATION

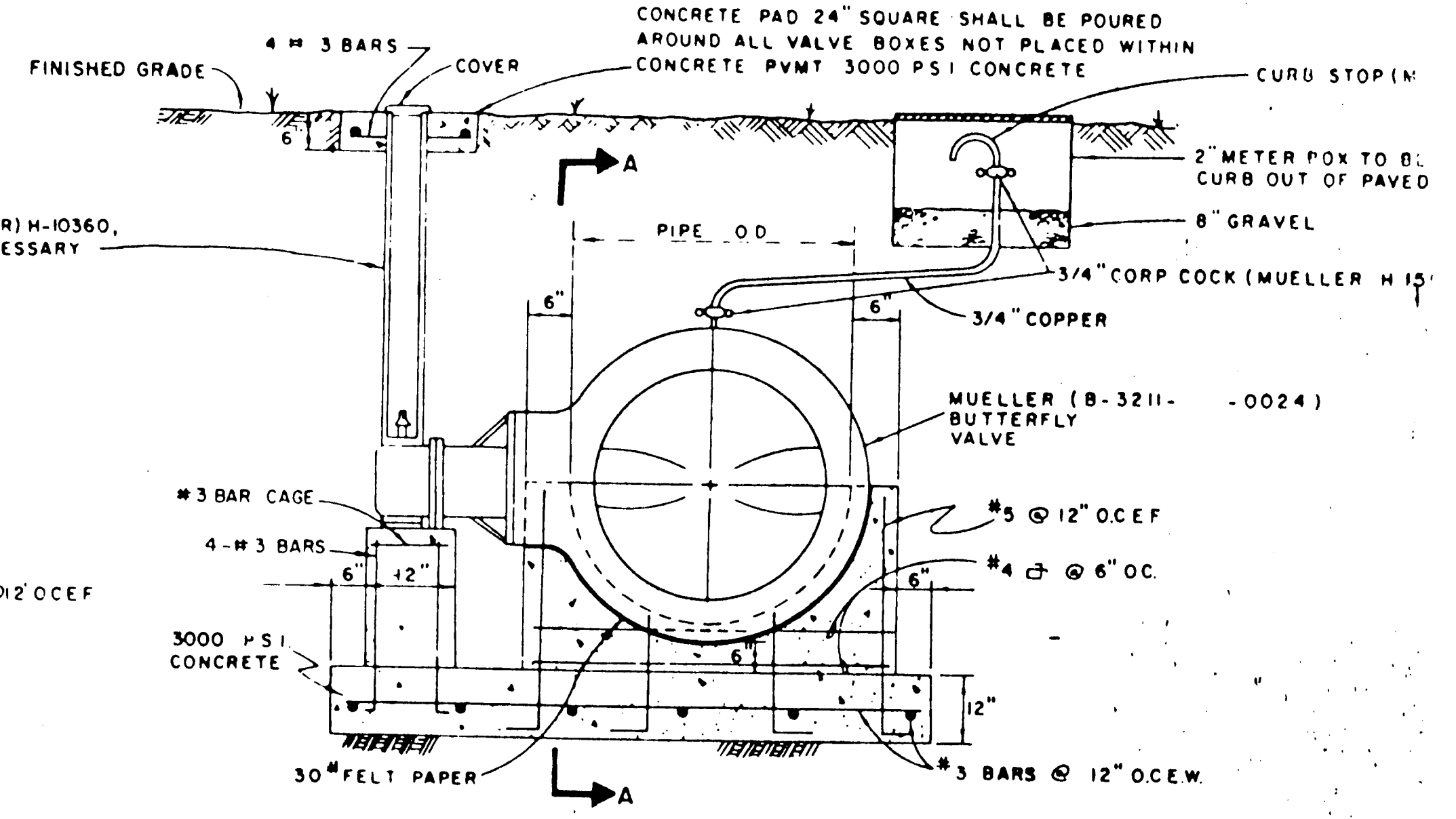


TYPICAL FIRE HYDRANT REFLECTOR INSTALLATION

A BLUE STIMSONITE FIRE-LITE REFLECTOR (OR APPROVED EQUAL) TO BE PLACED IN THE CENTER OF STREET OPPOSITE FIRE HYDRANTS. THE INSTALLATION OF THIS REFLECTOR SHALL BE AS PRESCRIBED BY THE MANUFACTURER.

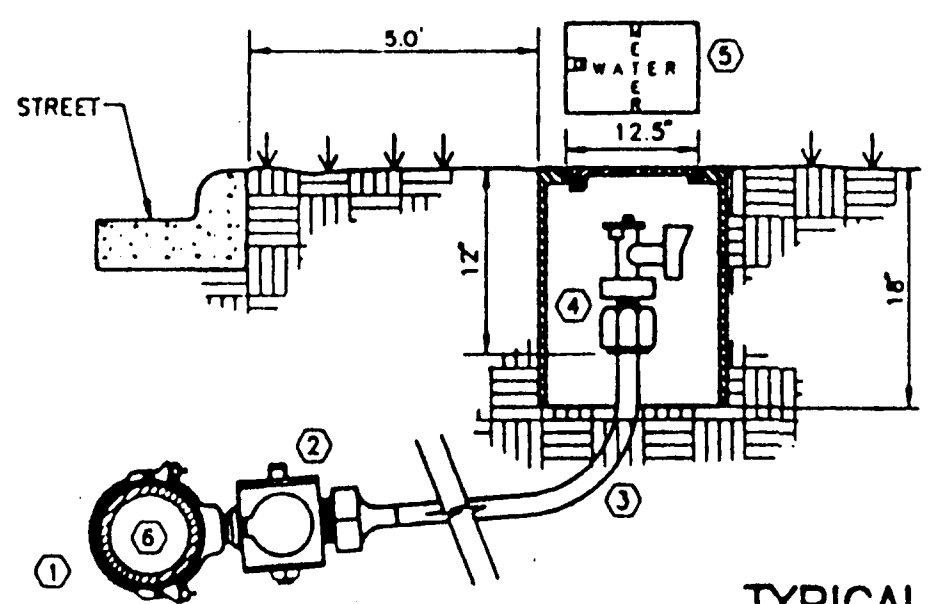


SECTION A-A



SECTION B-B

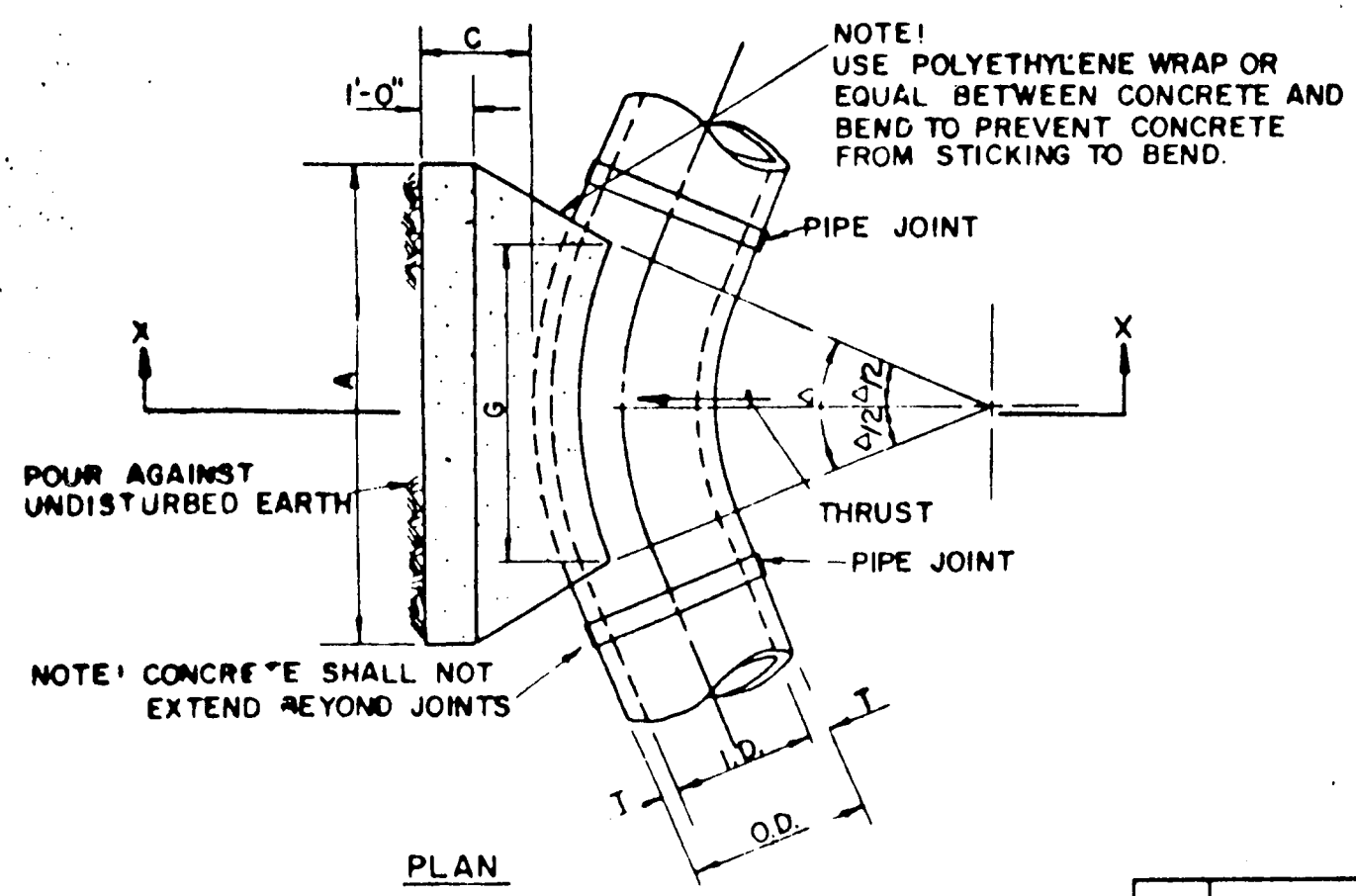
BUTTERFLY VALVE DETAIL
N.I.C.



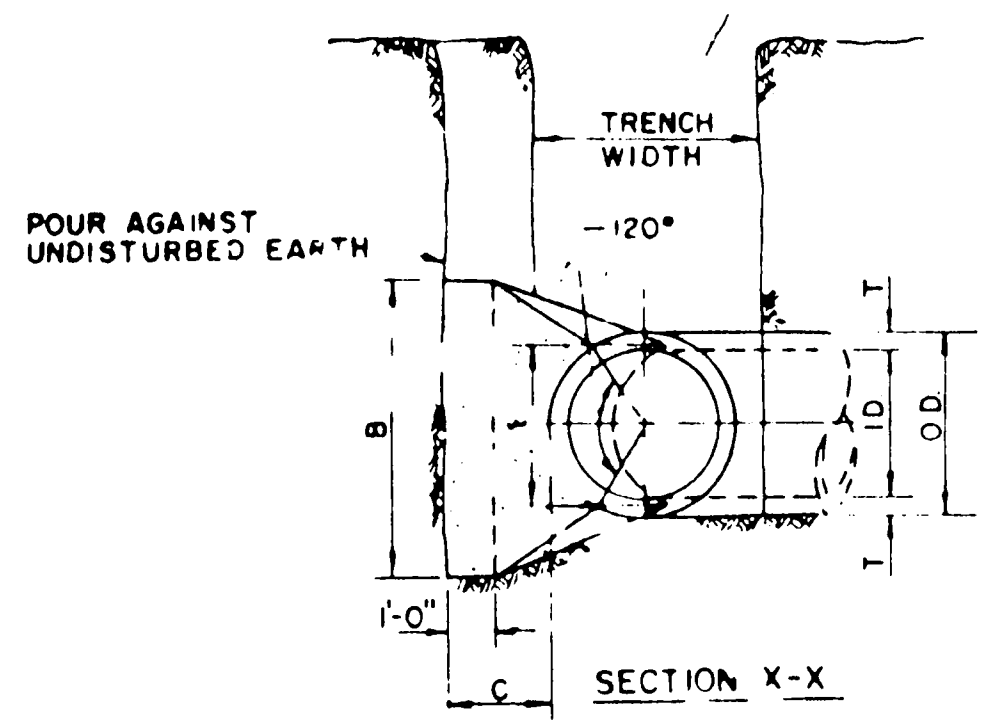
TYPICAL WATER SERVICE DETAIL

- DOUBLE STRAP BRONZE SADDLE W/CCW THREADS. MUELLER.
- CORPORATION STOP W/CCW THREADS. MUELLER. H-15008 COMPRESSION OR H-15000 FLARED.
- 3/4" TYPE "X" SOFT COPPER W/NO SPLICES.
- ANGLE STOP W/LOCK WING. MUELLER. H-14258 COMPRESSION OR H-14255 FLARED.
- WATER METER BOX (RECTANGULAR SHAPE ONLY). CONCRETE OR METAL SHELL CONSTRUCTION.
- WATER MAIN. PVC AWWA C900 SDR 14/18 INTEGRAL WALL BELL.

TOWN OF ADDISON, TEXAS			
DEPARTMENT OF ENGINEERING			
STANDARD CONSTRUCTION DETAILS			
WATER			
FIRE HYDRANTS, PULL BOXES AND VALVES			
Designed -	Drawn -	Date -	Job No. -
Approved -	Checked -	Scale -	Sheet 6 OF 14

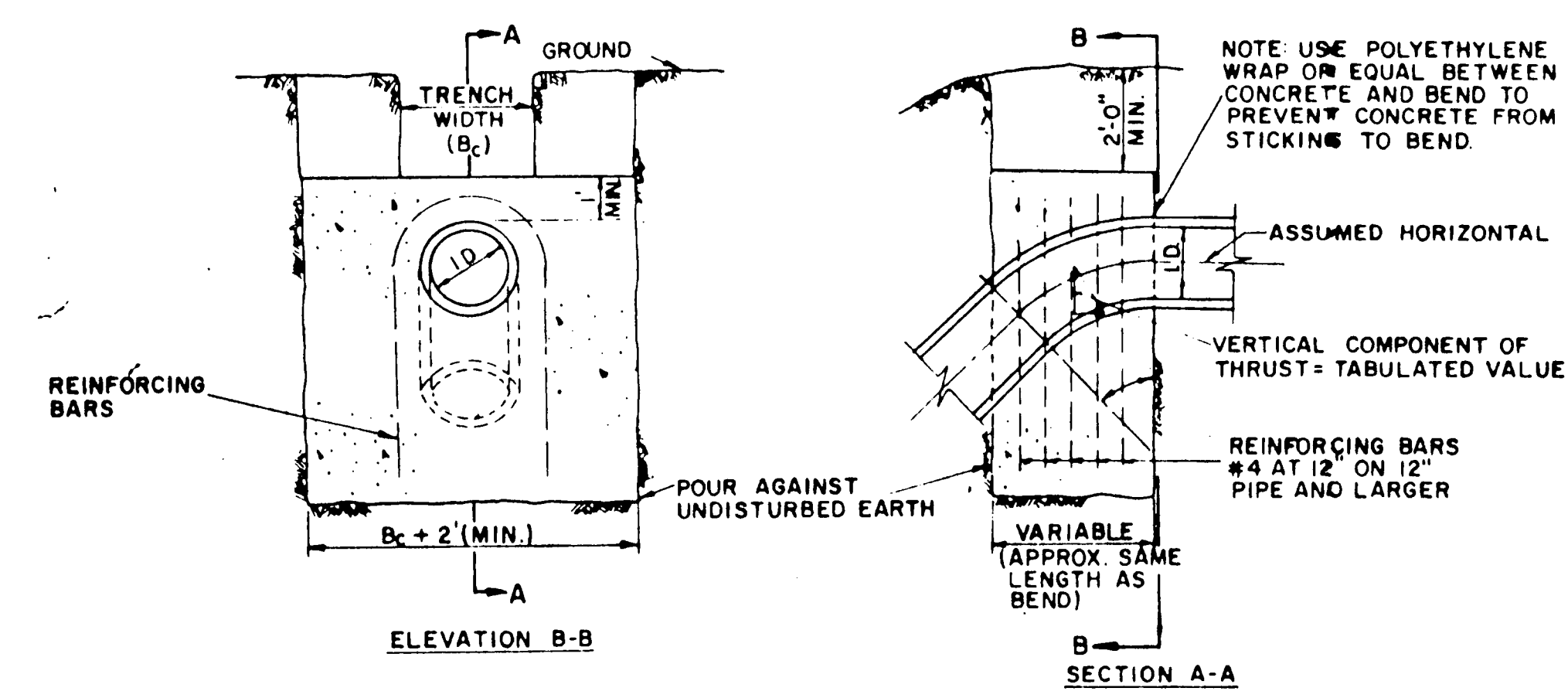


ID (IN)	T (IN)	C 11.25°		C 22.50°		E (FT)
		FT	FT	FT	FT	
4.68	0.4	1.5	1.5	0.9		
10.12	0.5	1.5	1.5	1.2		
16.18	0.6	1.5	1.5	1.6		
20.07	1.5	1.5	1.5	1.8		
24.09	1.5	1.5	1.5	2.1		
30.28	1.5	1.5	1.5	2.6		
36.45	1.5	2.3	3.3			
42.50	1.8	2.6	3.8			
48.55	2.0	3.0	4.3			
54.60	2.3	3.4	4.8			
60.65	2.5	3.8	5.3			
66.68	2.8	4.1	5.7			
72.75	3.0	4.5	6.3			
78.75	3.3	4.9	6.7			
84.80	3.5	5.3	7.2			
90.85	3.8	5.6	7.7			
96.90	4.0	6.0	8.2			



ID (IN)	G (FT)	THRUST (TONS)	EARTH			ROCK			ID (IN)	G (FT)	THRUST (TONS)	EARTH			ROCK		
			A (FT)	B (FT)	VOL (CY)	A (FT)	B (FT)	VOL (CY)				A (FT)	B (FT)	VOL (CY)	A (FT)	B (FT)	VOL (CY)
4.68	0.4	1.0	1.0	1.3	0.1	1.0	1.0	0.1	4.68	0.8	2.0	1.5	1.5	0.1	1.0	1.0	0.1
10.12	0.6	2.2	1.5	1.3	0.1	1.0	1.5	0.1	10.12	1.1	4.4	2.0	2.5	0.3	1.5	1.5	0.1
16.18	0.8	5.0	2.0	2.5	0.3	1.5	2.0	0.2	16.18	1.6	9.9	3.0	3.5	0.4	2.0	2.5	0.3
20.07	0.9	6.2	2.0	3.5	0.4	1.5	3.0	0.3	20.07	1.8	12.3	3.5	3.5	0.7	2.0	3.5	0.4
24.09	1.1	8.9	3.0	3.0	0.5	1.5	3.0	0.3	24.09	2.2	17.7	4.0	4.5	1.0	3.0	3.0	0.5
30.28	1.4	10.4	3.0	3.5	0.6	2.0	3.5	0.4	30.28	2.7	20.7	5.0	4.5	1.5	3.0	4.0	0.8
36.45	1.7	15.0	3.5	4.5	0.9	2.0	4.0	0.5	36.45	3.3	29.8	5.5	5.5	2.3	4.0	4.0	1.3
42.50	1.9	20.4	4.5	5.0	1.5	2.5	5.0	0.8	42.50	4.0	42.3	6.0	6.0	3.9	4.5	5.0	2.1
48.55	2.2	26.6	4.5	6.0	2.0	2.5	6.0	1.1	48.55	4.8	52.9	6.0	7.0	5.7	4.8	6.0	2.8
54.60	2.5	33.7	6.0	6.0	3.0	3.0	6.0	1.4	54.60	5.7	67.0	6.0	8.0	6.0	6.0	6.0	4.1
60.65	2.7	41.6	6.0	7.0	3.6	3.0	7.0	1.8	60.65	6.7	82.7	6.0	9.0	10.6	6.0	7.0	5.3
66.68	3.0	50.3	6.5	8.0	5.1	3.5	8.0	2.7	66.68	8.0	100.1	10.5	10.0	14.1	6.5	8.0	7.2
72.75	3.3	59.9	7.5	8.0	6.3	4.0	8.0	3.7	72.75	9.5	119.1	11.0	11.0	17.6	7.5	8.0	9.1
78.75	3.6	70.2	8.0	9.0	8.1	4.0	9.0	3.9	78.75	11.3	139.8	12.0	12.0	22.5	8.0	9.0	11.7
84.80	3.8	81.5	8.5	10.0	10.3	4.5	10.0	5.3	84.80	13.5	162.1	13.0	12.5	27.2	8.5	10.0	14.8
90.85	4.1	93.5	9.5	10.0	12.2	5.0	10.0	6.3	90.85	16.1	186.1	14.0	13.5	33.7	9.5	10.0	17.7
96.90	4.4	106.4	10.0	11.0	15.0	5.0	11.0	7.4	96.90	19.6	211.7	15.0	14.5	41.2	10.0	11.0	21.8

HORIZONTAL BEND THRUST BLOCK



ID (IN)	THRUST (TONS)	11.25°		22.50°		30°		45°		67.50°		90°		ID (IN)
		FT	VOL (CY)	FT	VOL (CY)	FT	VOL (CY)	FT	VOL (CY)	FT	VOL (CY)	FT	VOL (CY)	
4.68	1.0	0.5	2.0	1.0	2.5	1.3	3.6	1.8	4.6	2.3	5.0	2.5	4.68	
10.12	2.2	1.1	4.3	2.2	5.7	2.8	8.0	4.0	10.5	5.2	11.3	5.7	10.12	
16.18	5.0	2.5	9.7	4.9	12.7	6.4	18.0	9.0	23.5	11.8	25.5	12.7	16.18	
20.07	6.1	3.1	12.0	6.0	15.7	7.9	22.2	11.1	29.2	14.5	31.4	15.7	20.07	
24.09	8.2	4.4	17.3	8.7	22.6	11.3	32.0	16.0	41.8	20.9	45.2	22.6	24.09	
30.28	10.5	5.2	20.3	10.1	26.5	13.3	37.5	18.8	49.0	24.5	53.1	26.5	30.28	
36.45	14.9	7.5	29.2	14.6	38.2	19.1	54.0	27.0	70.5	35.3	76.4	38.2	36.45	
42.50	20.3	10.1	39.8	19.9	52.0	26.0	73.5	36.7	96.0	48.0	104.0	52.0	42.50	
48.55	26.5	13.2	51.9	26.0	67.9	33.9	96.0	48.0	126.0	62.7	136.0	67.9	48.55	
54.60	33.5	16.8	65.7	32.9	85.9	42.9	122.0	60.7	159.0	79.4	172.0	85.9	54.60	
60.65	41.4	20.7	81.2	40.6	106.0	53.0	150.0	75.0	196.0	98.0	212.0	106.0	60.65	
66.68	50.1	25.0	98.2	49.1	128.0	64.2	182.0	90.7	237.0	119.0	257.0	128.0	66.68	
72.75	59.6	29.8	117.0	58.4	153.0	76.3	216.0	108.0	282.0	141.0	305.0	153.0	72.75	
78.75	69.9	35.0	137.0	68.6	179.0	90.0	254.0	127.0	331.0	164.0	358.0	179.0	78.75	
84.80	81.1	40.5	159.0	79.5	208.0	104.0	294.0	147.0	384.0	192.0	416.0	208.0	84.80	
90.85	93.1	46.5	183.0	91.3	239.0	119.0	337.0	169.0	441.0	221.0	477.0	239.0	90.85	
96.90	106.0	53.0	208.0	104.0	272.0	136.0	384.0	192.0	502.0	251.0	543.0	272.0	96.90	

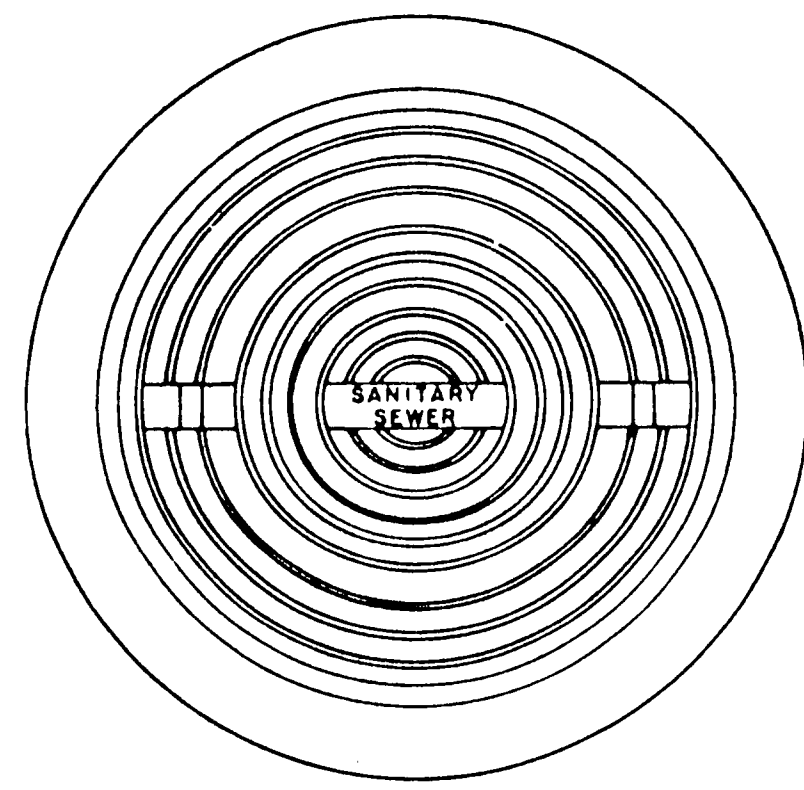
GENERAL NOTES - FOR ALL THRUST BLOCKS

- All Calculations Are Based On Internal Pressure Of 200 P.S.I. For 24" ID Pipe And Smaller And 150 P.S.I. On 30" ID And Larger.
- Volumes Of Vertical Bend Thrust Blocks Are Net Volumes Of Concrete To Be Furnished. The Corresponding Weight Of The Concrete (Class F) Is Equal To Or Greater Than The Vertical Component Of Thrust On The Vertical Bend.
- Wall Thickness (T) Assumed Here For Estimating Purposes Only.
- Concrete For Blocking Shall Be Class B Concrete.
- Dimensions May Be Varied As Required By Field Conditions Where And As Directed By The Engineer. The Volume Of Concrete Blocking Shall Not Be Less Than Shown Here.

VERTICAL BEND THRUST BLOCK

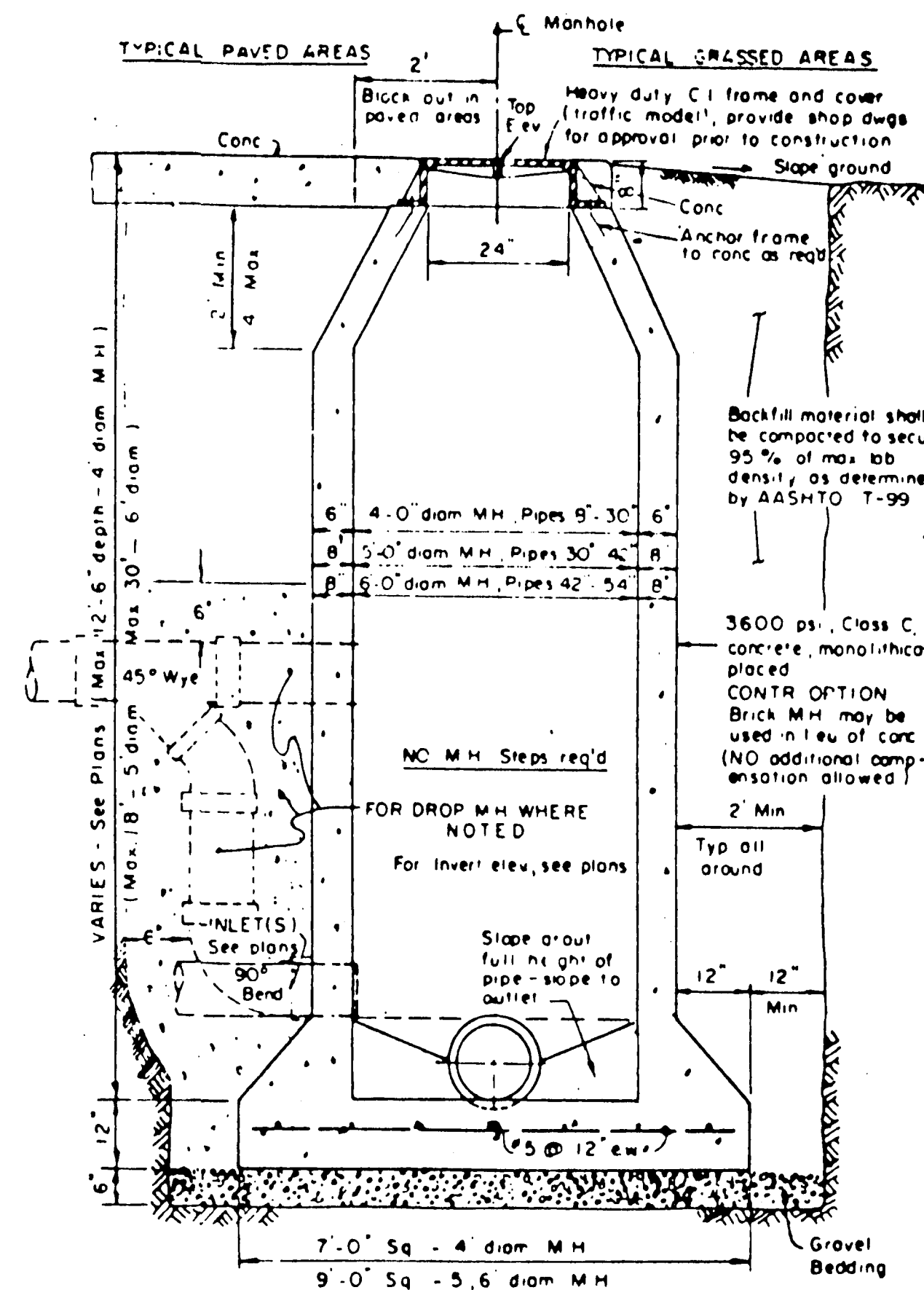
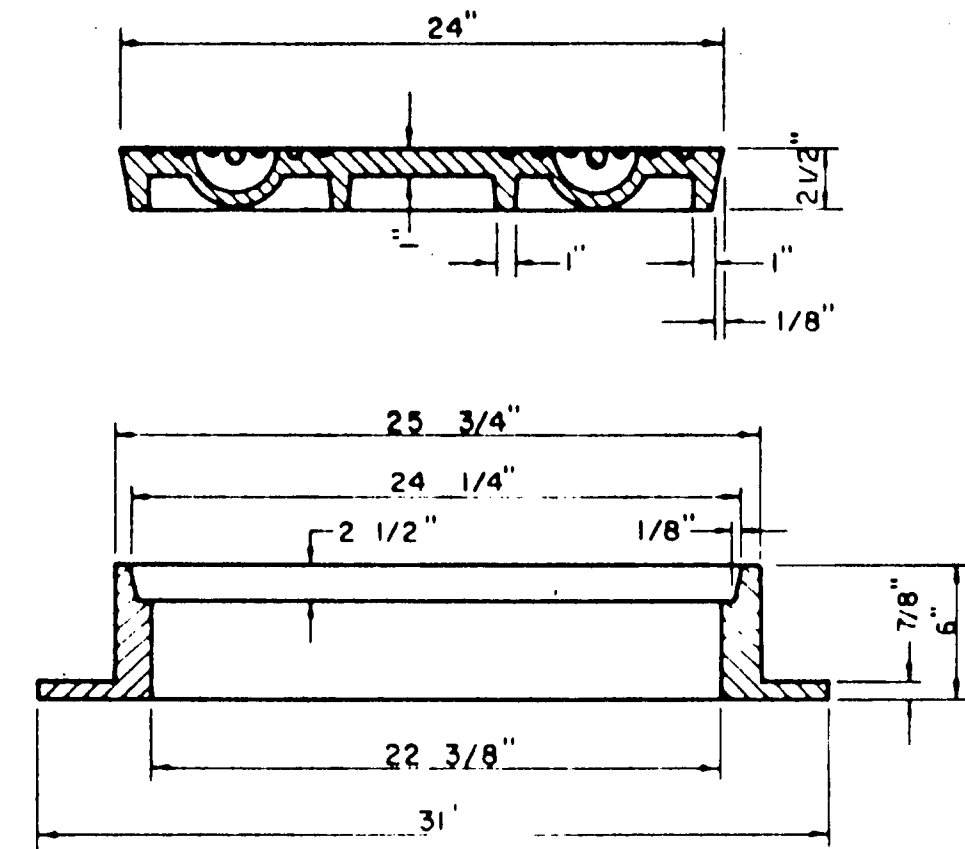
ID (IN)	THRUST (TONS)	EARTH			ROCK			ID (IN)	THRUST (TONS)	EARTH			ROCK			
		A (FT)	B (FT)	VOL (CY)	A (FT)	B (FT)	VOL (CY)			A (FT)	B (FT)	VOL (CY)	A (FT)	B (FT)	VOL (CY)	
4.68	1.0	2.6	2.0	1.5	0.2	1.0	1.8	0.1	4.68	1.5	3.9	2.0	2.0	0.2	1.5	0.1
10.12	2.2	5.9	2.5	2.5	0.3	2.0	1.8	0.2	10.12	2.2	6.7	3.5	2.5	0.5	2.0	0.3
16.18	2.2	13.2	3.5	4.0	0.8	2.5	3.0	0.8	16.18	3.2	19.5	4.5	4.5	1.2	3.0	0.6
20.07	2.4	16.3	4.5	4.0	1.0	3.0	3.0	0.5	20.07	3.6	24.1	5.5	4.5	1.5	3.5	0.7
24.09	2.4	23.4	6.0	4.0	1.4	3.5	3.5	0.7	24.09	4.3	34.6	8.0	4.5	2.3	4.5	1.1
30.28	3.6	27.5	5.5	5.0	1.9	3.5	4.0	0.9	30.28	5.4	40.8	8.5	5.0	3.2	5.8	1.6
36.45	4.4	39.5	7.0	6.0	3.4	4.5	4.5	1.8	36.45	6.5	58.5	10.0	6.0	5.3	6.5	2.6
42.50	5.1	53.8	8.0	7.0	5.1	5.5	5.0	2.5	42.50	7.5	79.6	11.5	7.0	8.1	8.0	3.0
48.55	5.8	70.3	9.0	8.0	7.4	6.0	6.0	3.7	48.55	8.6	104.0	13.0	8.0	11.9	9.0	4.0
54.60	6.5	89.0	10.0	9.0	10.3	7.0	6.5	5.3	54.60	9.7	131.5	15.0	9.0	17.1	10.5	4.5
60.65	7.3	110.0	11.0	10.0	13.9	7.5	7.5	7.3	60.65	10.7	162.4	16.5	10.0	25.1	11.0	7.5
66.68	8.0	132.9	12.5	11.0	18.9	8.5	8.0	9.6	66.68	11.8	196.5	18.0	11.0	30.1	12.0	8.5
72.75	8.7	158.2	13.5	12.0	24.0	9.0	9.0	12.3	72.75	12.9	233.9	19.8	12.0	38.6	14.0	8.5
78.75	9.4	185.6	14.5	13.0	30.0	10.0	9.5	15.6	78.75	13.9	274.5	21.5	13.0	49.8	14.5	9.5
84.80	10.1	215.3	15.5	14.0	37.1	10.5	10.5	19.5	84.80	15.0	318.4	23.0	14.0	61.2	15.5	10.5
90.85	10.9	247.1	16.5	15.0	45.0	11.5	11.0	23.9	90.85	16.1	365.3	24.5	15.0	74.5	17.0	10.5
96.90	11.6	281.2	18.0	16.0	55.3	12.5	11.5	28.9	96.90	17.1	415.6	26.0	16.0	89.3	18.0	11.5

ID (IN)	THRUST (TONS)	EARTH			ROCK			ID (IN)	THRUST (TONS)	EARTH			ROCK			
		A (FT)	B (FT)	VOL (CY)	A (FT)	B (FT)	VOL (CY)			A (FT)	B (FT)	VOL (CY)	A (FT)	B (FT)	VOL (CY)	
4.68	2.1	5.6	3.0	2.0	0.3	2.0	1.8	0.2	4.68	2.7	7.1	3.0	1.5	0.4	2.0	0.2
10.12	3.1	12.6	5.5	2.5	0.8	3.5	2.0	0.4	10.12	4.0	16.0	6.8	2.8	1.0	3.8	0.5
16.18	4.7	28.3	7.5	4.0	1.9	5.0	3.0	0.9	16.18	6.0	36.0	8.0	4.0	2.4	4.8	1.0
20.07	5.2	34.9	9.0	4.0	2.3	5.5	3.5	1.2	20.07	6.6	44.4	10.0	4.5	3.1	6.0	1.5
24.09	6.2	50.3	11.5	4.5	3.5	6.5	4.0	1.6	24.09	7.9	64.0	14.5	4.5	5.0	8.0	2.1
30.28	7.8	58.9	12.0	5.0	4.8	7.5	4.0	2.2	30.28	9.9	75.0	15.0	5.0	6.7	10.0	3.3
36.45	9.4	84.9	14.5	6.0	8.2	9.5	4.8	3.8	36.45	11.9	108.0	18.0	6.0	11.4	12.0	4.5
42.50	10.9	115.0	17.0	7.0	12.8	11.0	5.5	6.3	42.50	14.7	147.0	21.0	7.0	17.8	14.0	6.5
48.55	12.8	150.9	19.0	8.0	18.4	13.0	6.0	8.2	48.55	19.2	240.0	24.0	8.0	26.2	16.0	8.0
54.60	14.0	191.0	21.5	9.0	28.0	15.0	6.5	12.9	54.60	27.0	343.0	27.0	9.0	36.9	18.0	10.1
60.65	15.6	235.8	24.0	10.0	38.6	16.0	7.5	17.6	60.65	30.0	450.0	30.0	10.0	50.3	20.0	12.0
66.68	17.1	285.3	26.0	11.0	46.0	18.0	8.0	23.0	66.68	33.0	582.8	33.0	11.0	64.2	22.0	13.5
72.75	18.7	338.5	28.5	12.0	57.8	19.0	9.0	28.4	72.75	35.8	738.0	36.0	12.0			



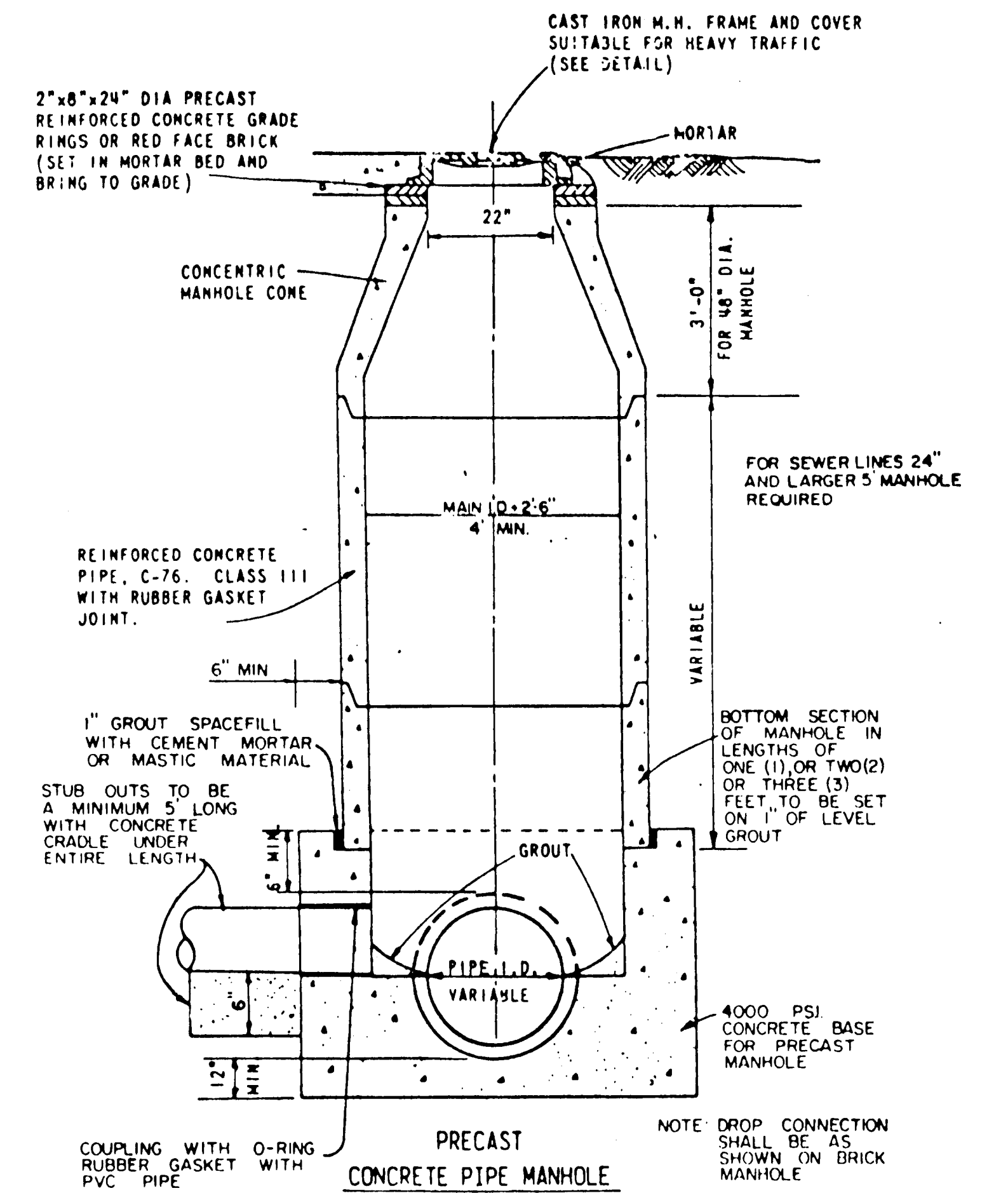
APPROX
WEIGHT
RING AND COVER
385 LBS.

CAST IRON GRATE AND FRAME DETAIL

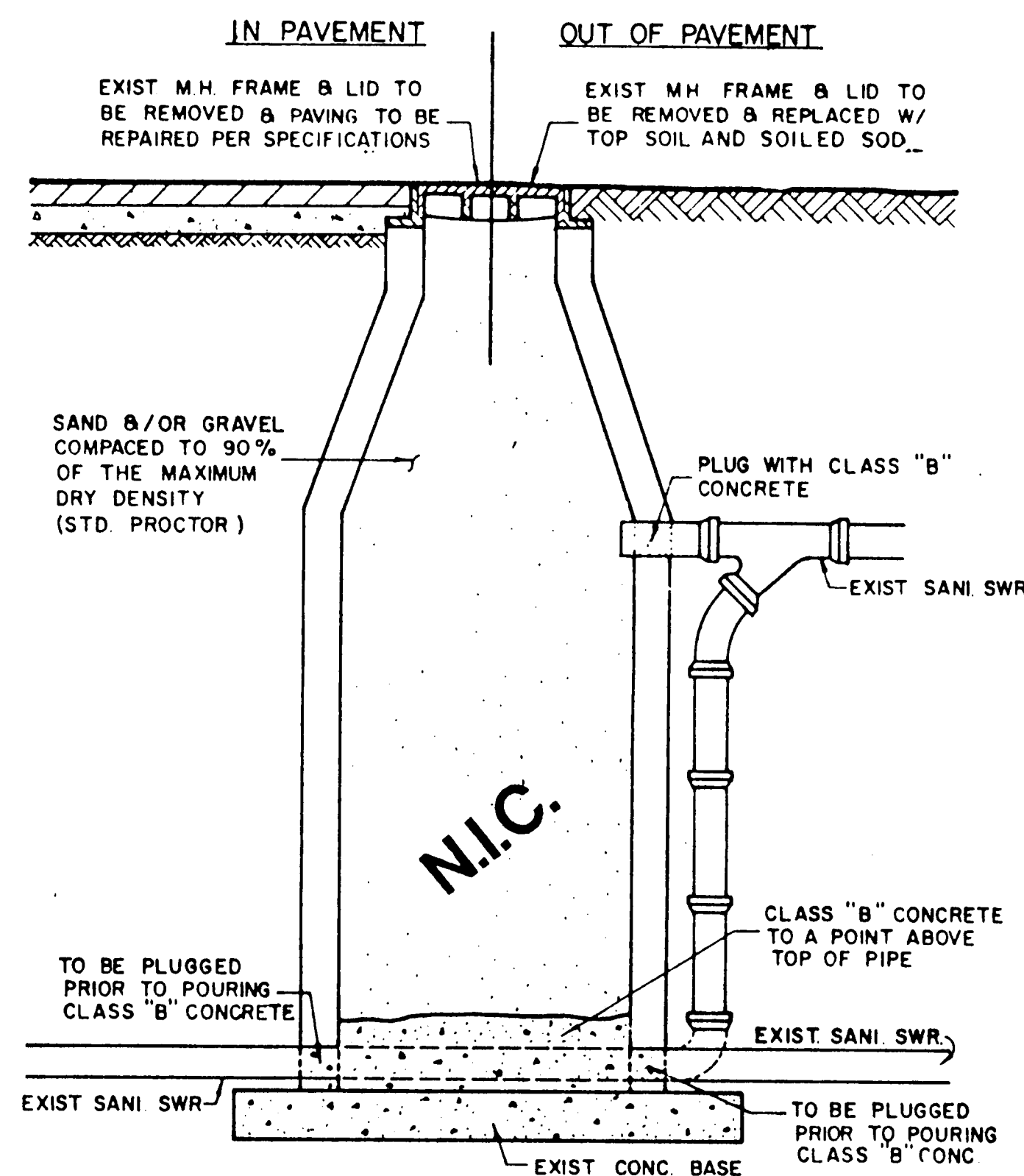


CAST IN PLACE MANHOLE

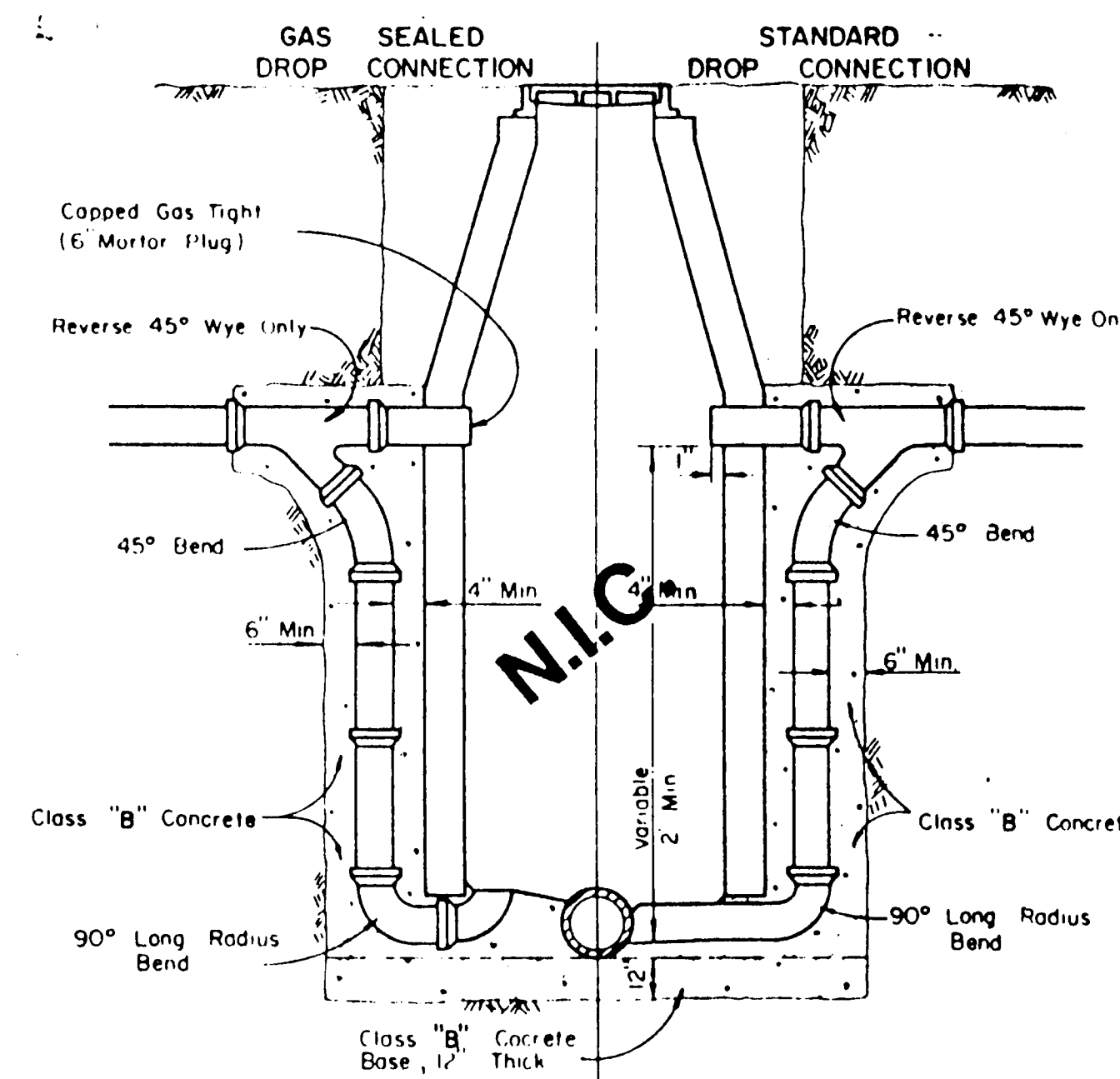
WHERE DROP M.H. IS REQUIRED, USE INSIDE DROP CONNECTION AS PER TOWN OF ADDISON STANDARDS.



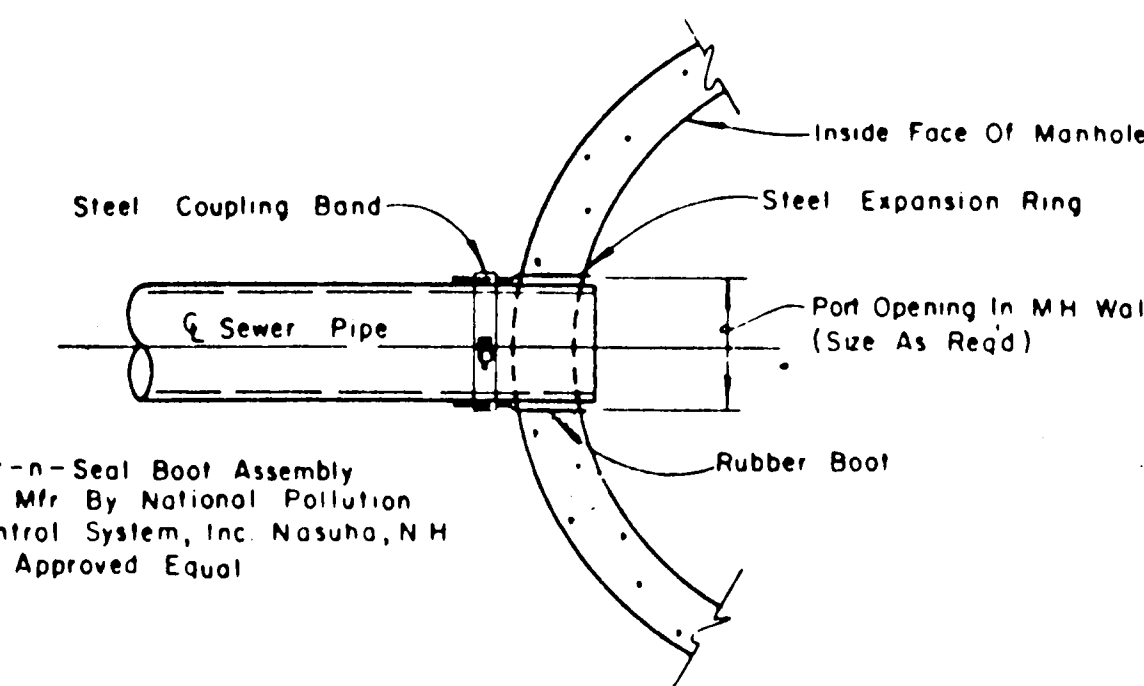
PRECAST MANHOLE



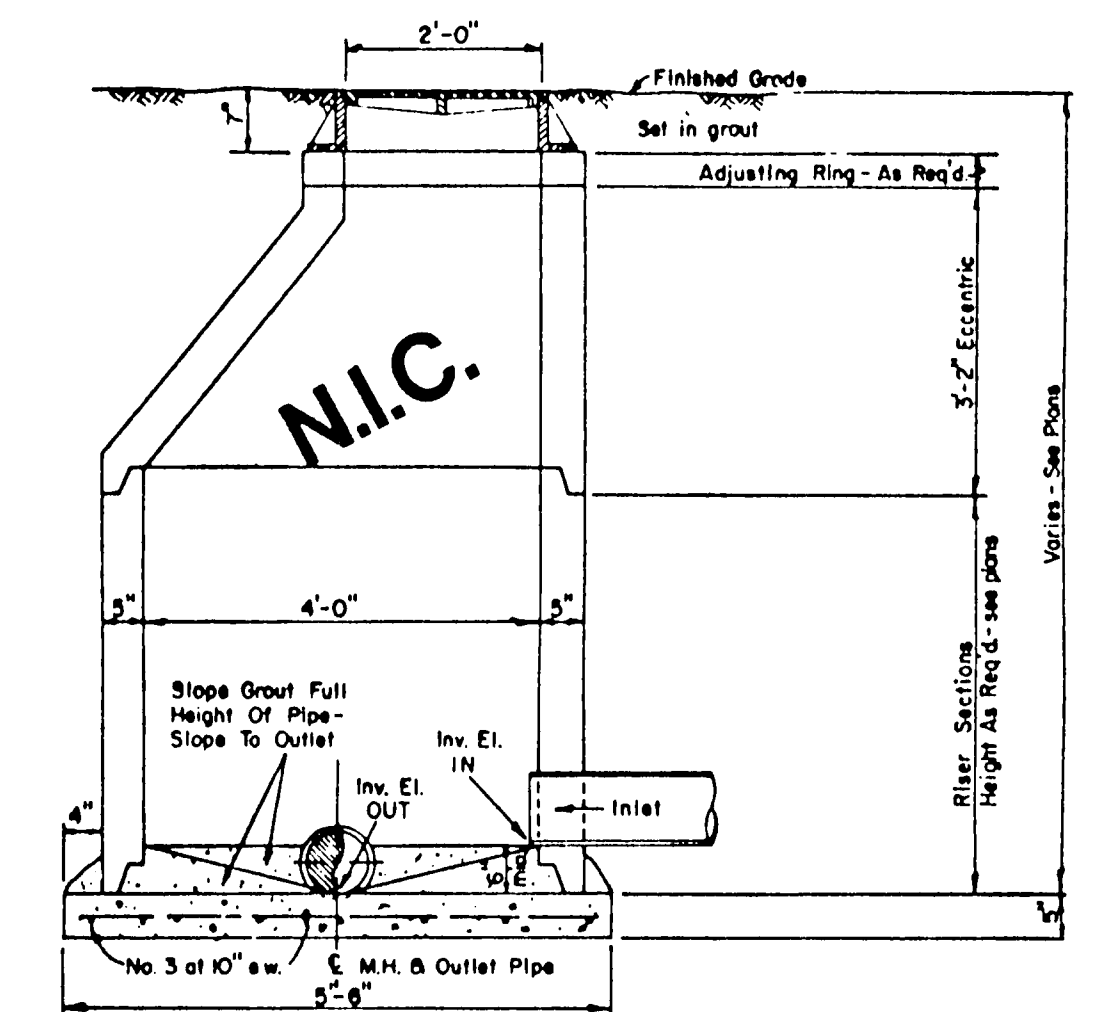
ABANDONMENT OF EXISTING MANHOLE
IN AND OUT OF PAVEMENT



DROP CONNECTIONS FOR
SANITARY SEWER MANHOLES



TYPICAL SEWER
CONNECTION AT MANHOLE

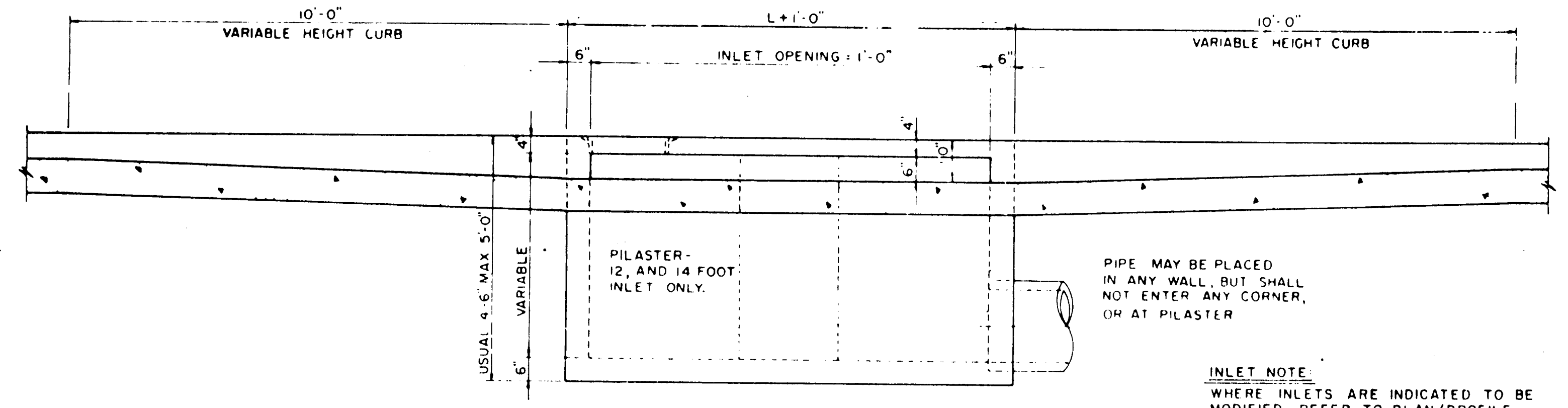
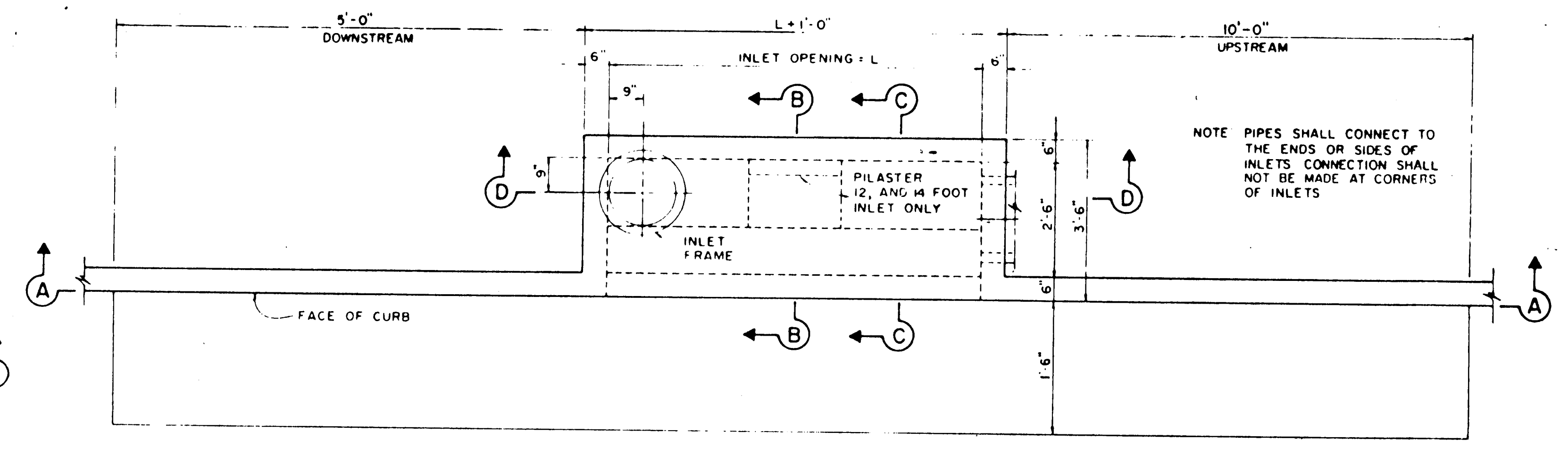
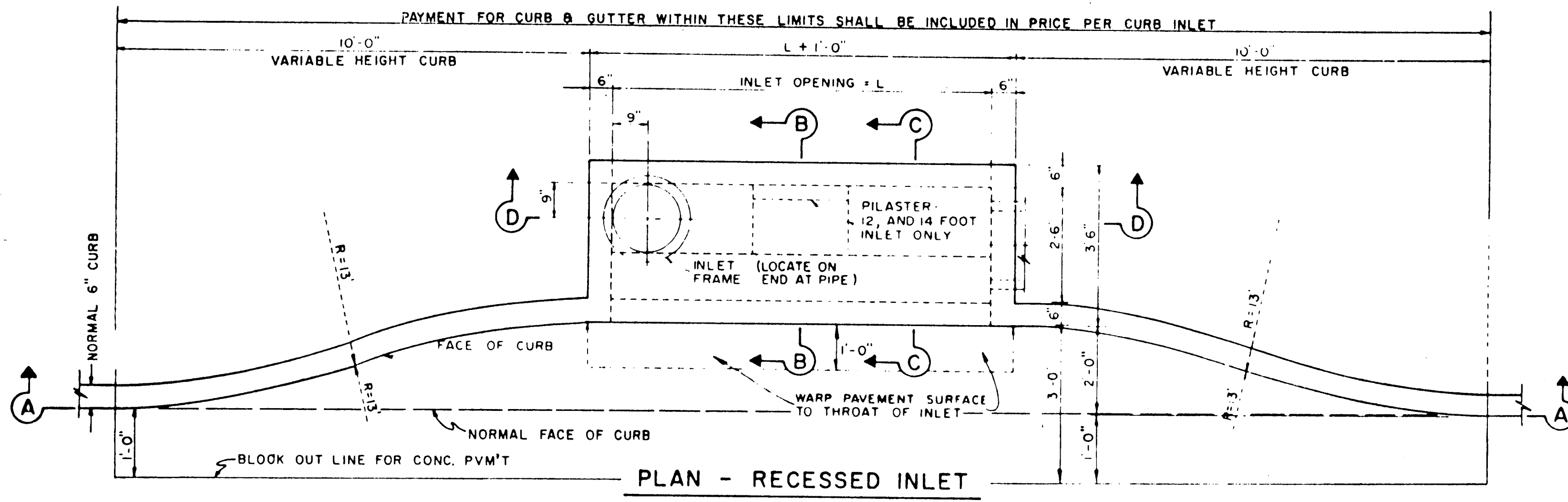


ECCENTRIC MANHOLE DETAIL

CLASS B Conc. - 2000psi at 28 days (Compressive)

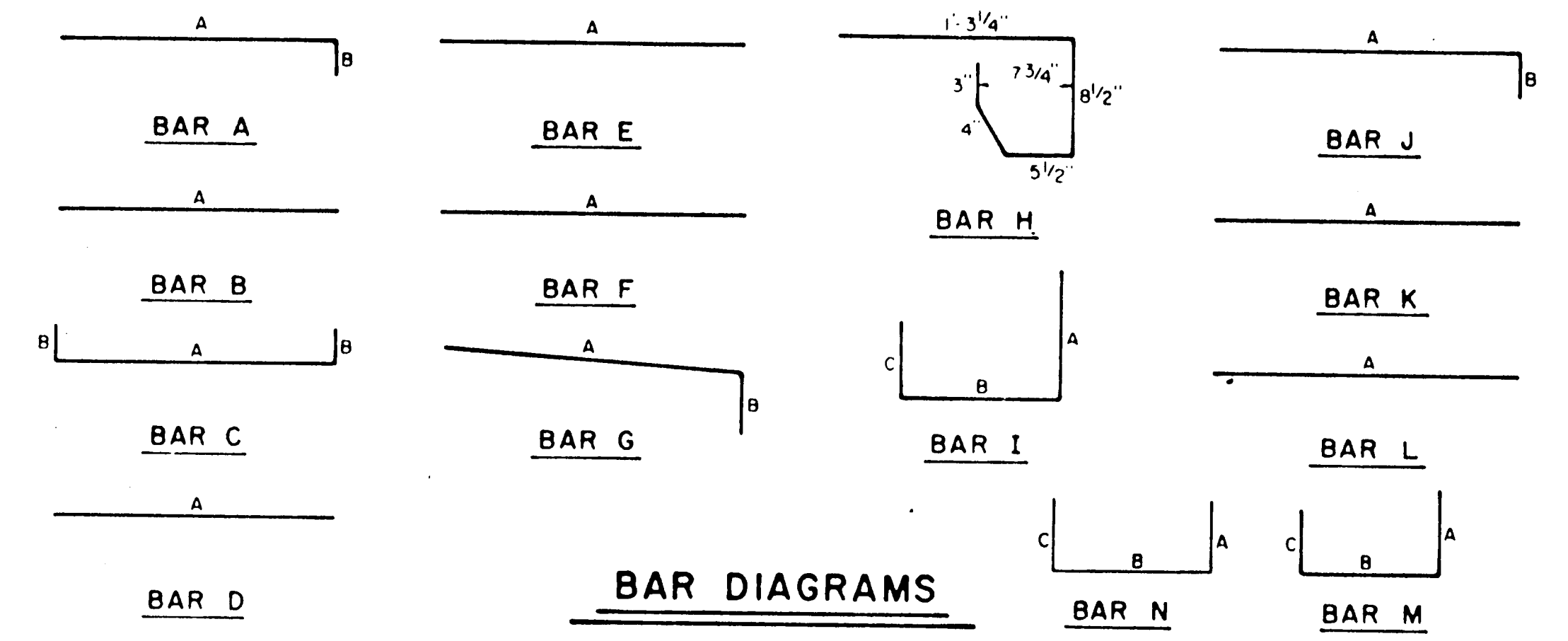
TOWN OF ADDISON, TEXAS
DEPARTMENT OF ENGINEERING
STANDARD CONSTRUCTION DETAILS
SANITARY SEWER
MANHOLES AND CONNECTIONS

Designed -	Drawn -	Date -	Job No.
Approved -	Checked -	Scale -	Sheet 8 of 14



4, 6, 8, 10, 12, AND 14 FOOT INLETS

INLET NOTE
WHERE INLETS ARE INDICATED TO BE MODIFIED, REFER TO PLAN/PROFILE SHEETS FOR ELEV. DIFFERENT SIZES OR MODIFICATIONS. ALL OTHER ITEMS SHALL REMAIN AS SHOWN ON THIS STANDARD DETAIL SHEET

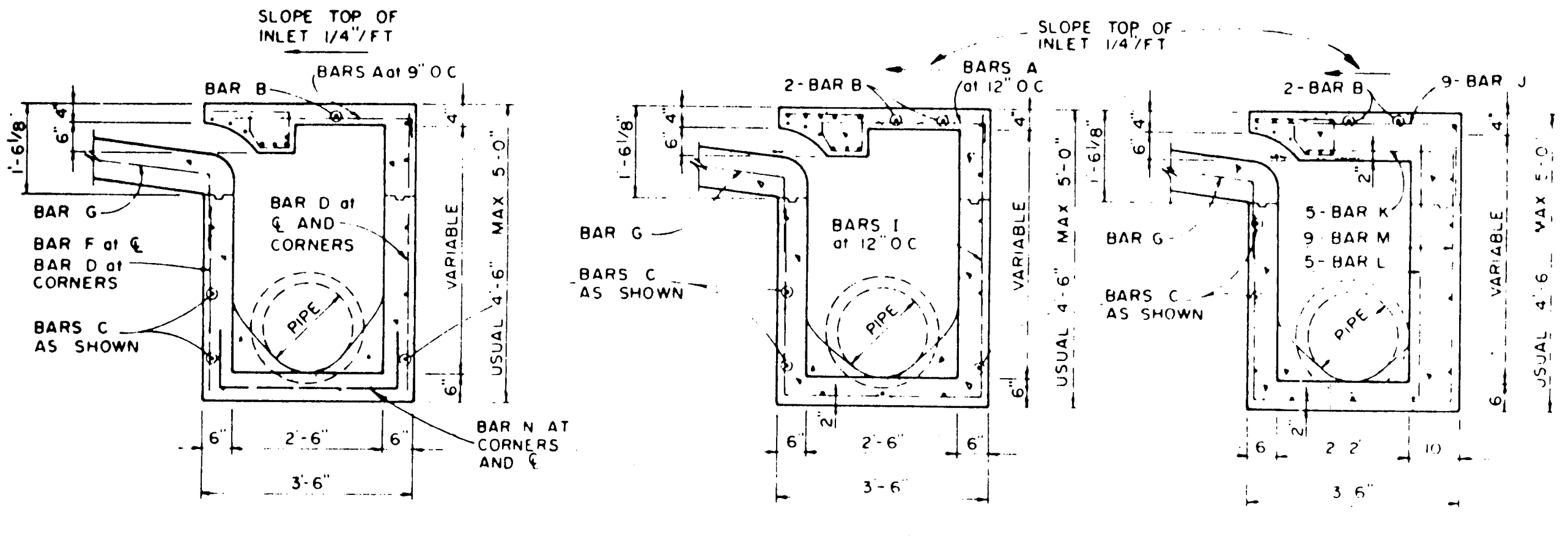


REINFORCING STEEL SCHEDULE

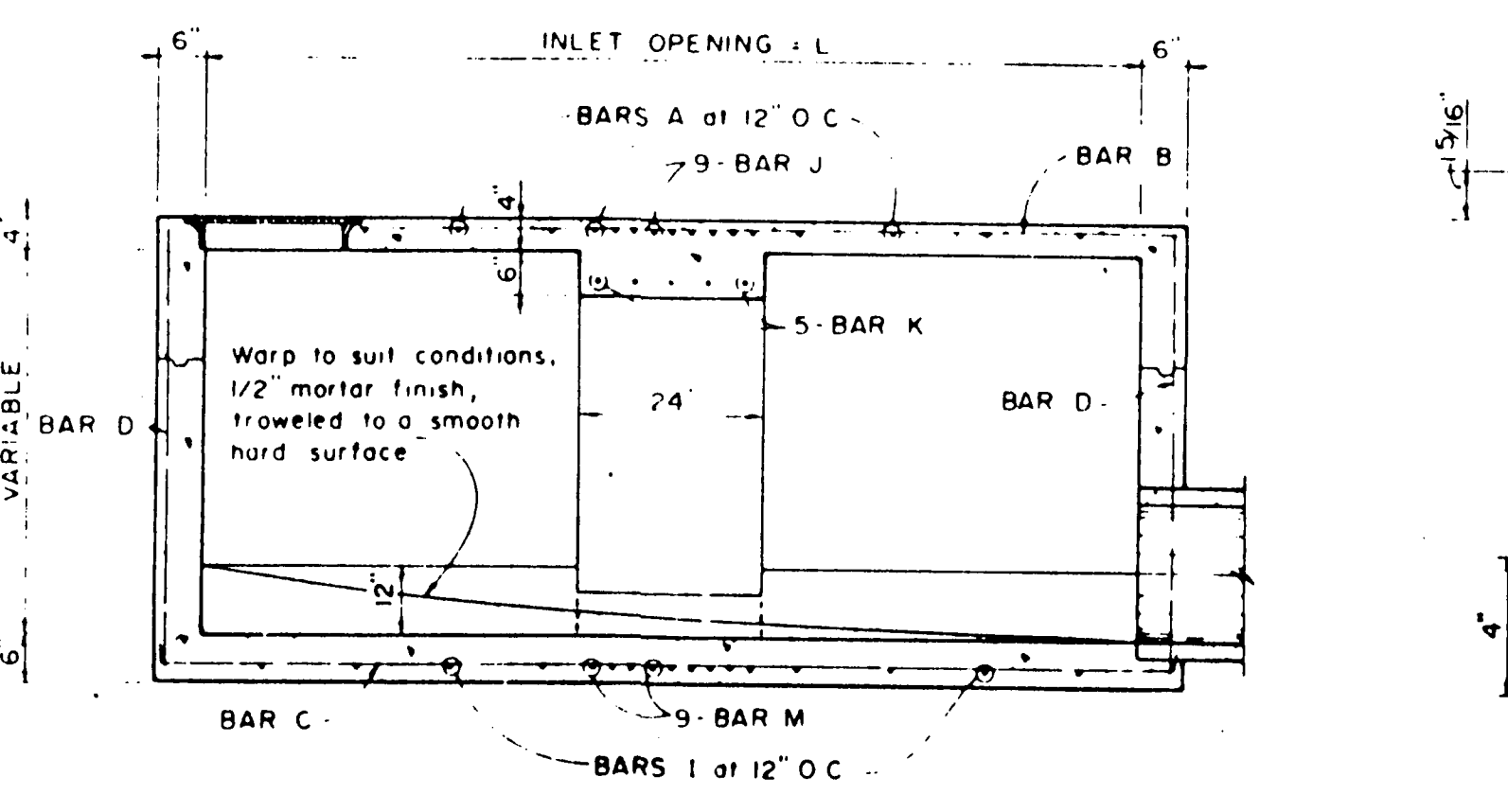
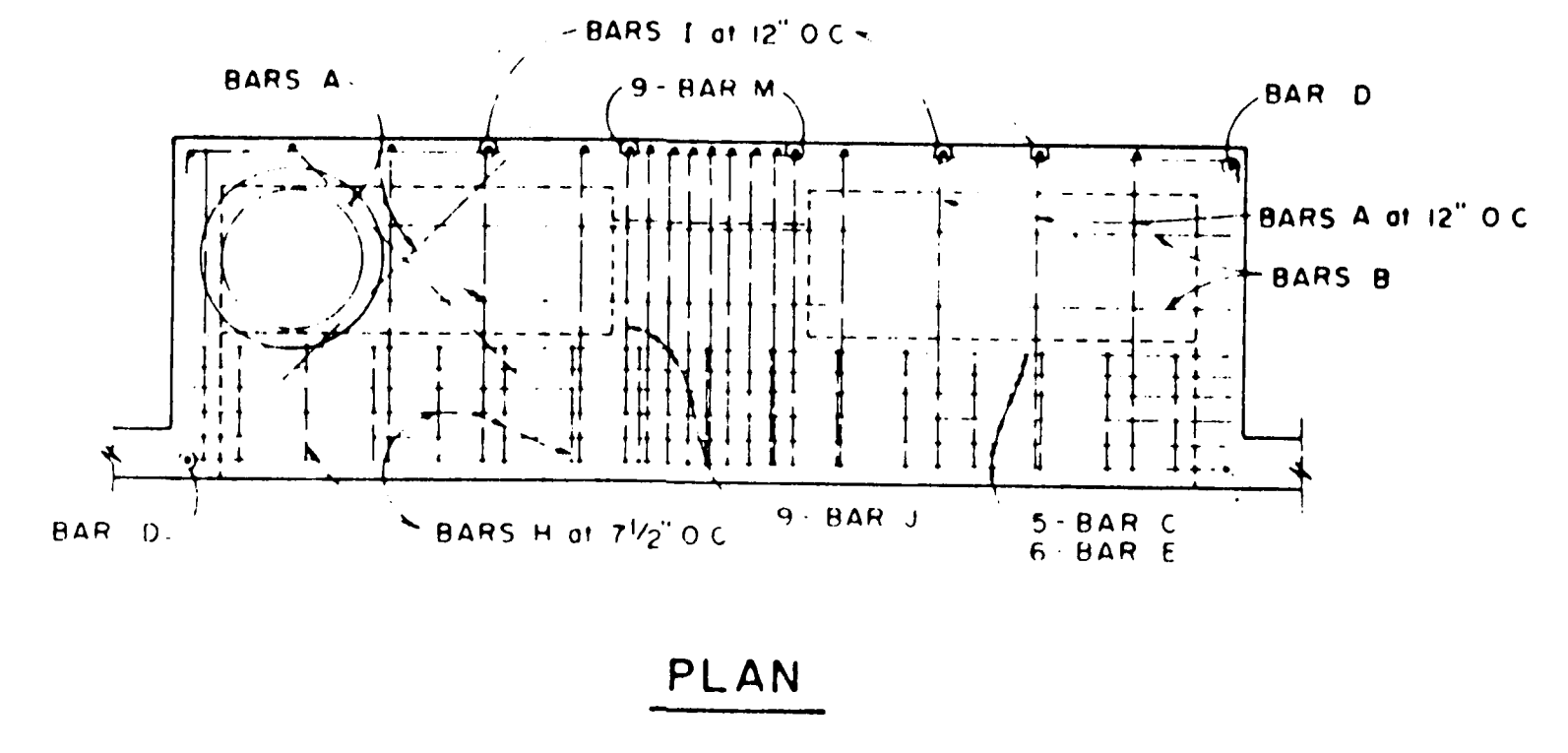
DIMENSIONS SHOWN ARE FOR MAXIMUM SIZE INLETS

INLET LENGTH	BAR TYPE	BAR DIA. (1/8 IN)	NO. REQ'D	BAR DIMENSIONS		
				A	B	C
4	A	3	6	3'-2"	0'-3"	-
	B	3	1	2'-10"	-	-
	C	4	15	4'-8"	0'-6"	-
	D	4	5	4'-8"	-	-
	F	4	1	3'-2"	-	-
	G	3	5	2'-0"	1'-3"	-
	H	3	4	-	-	-
	N	3	3	3'-2"	3'-2"	3'-2"
6	A	3	9	3'-2"	0'-3"	-
	B	3	1	4'-10"	-	-
	C	4	15	6'-8"	0'-6"	-
	D	4	5	4'-8"	-	-
	F	4	1	3'-2"	-	-
	G	3	5	2'-0"	1'-3"	-
	H	3	6	-	-	-
	N	3	3	3'-2"	3'-2"	3'-2"
8	A	3	12	3'-2"	0'-3"	-
	B	3	1	6'-10"	-	-
	C	4	15	8'-8"	0'-6"	-
	D	4	5	4'-8"	-	-
	F	4	1	3'-2"	-	-
	G	3	5	2'-0"	1'-3"	-
	H	3	8	-	-	-
	N	3	3	3'-2"	3'-2"	3'-2"
10	A	3	10	3'-2"	0'-3"	-
	B	3	2	8'-10"	-	-
	C	4	16	10'-8"	0'-6"	-
	D	4	4	4'-8"	-	-
	E	5	6	10'-8"	-	-
	G	3	5	2'-0"	1'-3"	-
	H	3	15	-	-	-
	I	4	8	4'-8"	3'-2"	3'-2"
	L	4	5	4'-3"	-	-
12	A	3	12	3'-2"	0'-3"	-
	B	3	2	10'-10"	-	-
	C	4	16	12'-8"	0'-6"	-
	D	4	4	4'-8"	-	-
	E	5	6	12'-8"	-	-
	G	3	5	2'-0"	1'-3"	-
	H	3	18	-	-	-
	I	4	10	4'-8"	3'-2"	3'-2"
	J	5	9	3'-2"	1'-3"	-
	K	4	5	2'-3"	-	-
	L	4	5	4'-3"	-	-
	M	5	9	4'-3"	3'-2"	3'-9"
14	A	3	14	3'-2"	0'-3"	-
	B	3	2	10'-10"	-	-
	C	4	16	14'-8"	0'-6"	-
	D	4	4	4'-8"	-	-
	E	5	6	14'-8"	-	-
	G	3	5	2'-0"	1'-3"	-
	H	3	21	-	-	-
	I	4	12	4'-8"	3'-2"	3'-2"
	J	5	9	3'-2"	1'-3"	-
	K	4	5	2'-3"	-	-
	L	4	5	4'-3"	-	-
	M	5	9	4'-3"	3'-2"	3'-9"

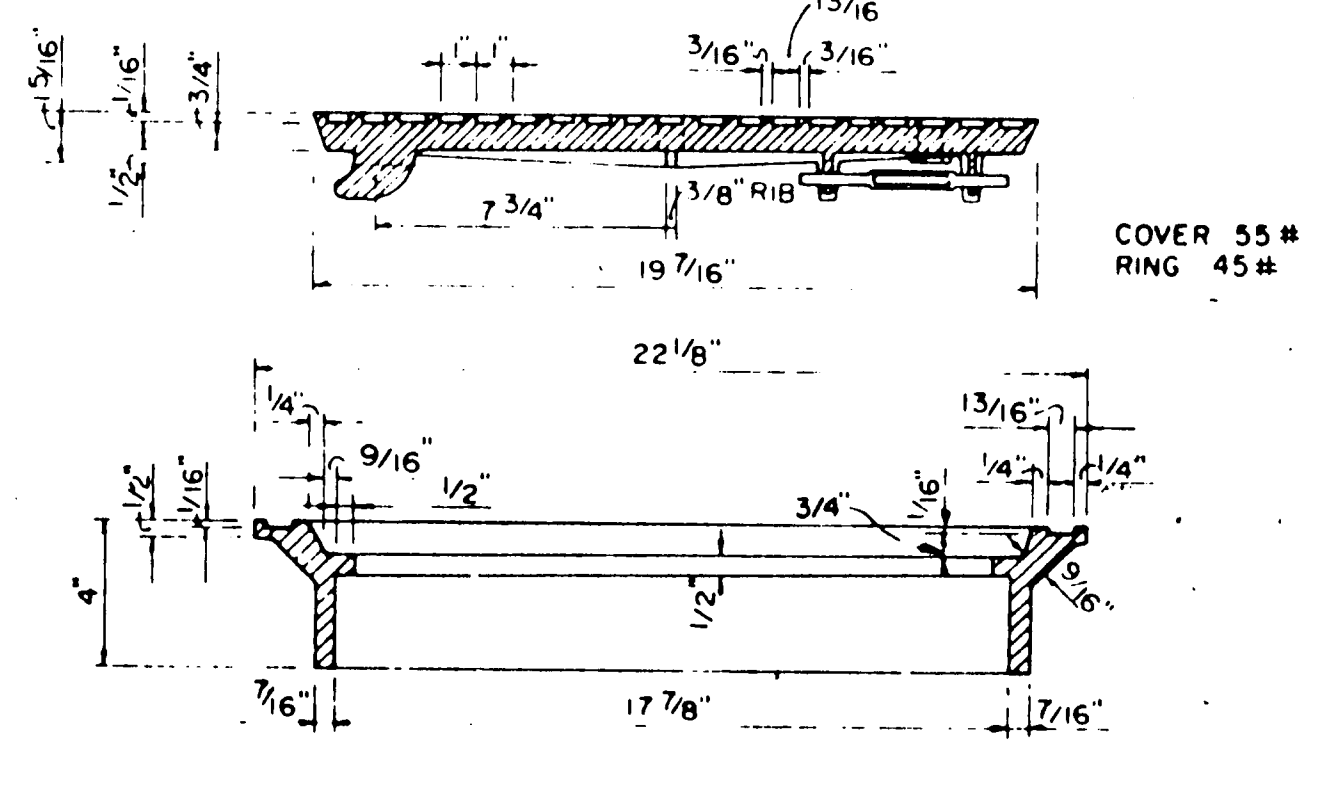
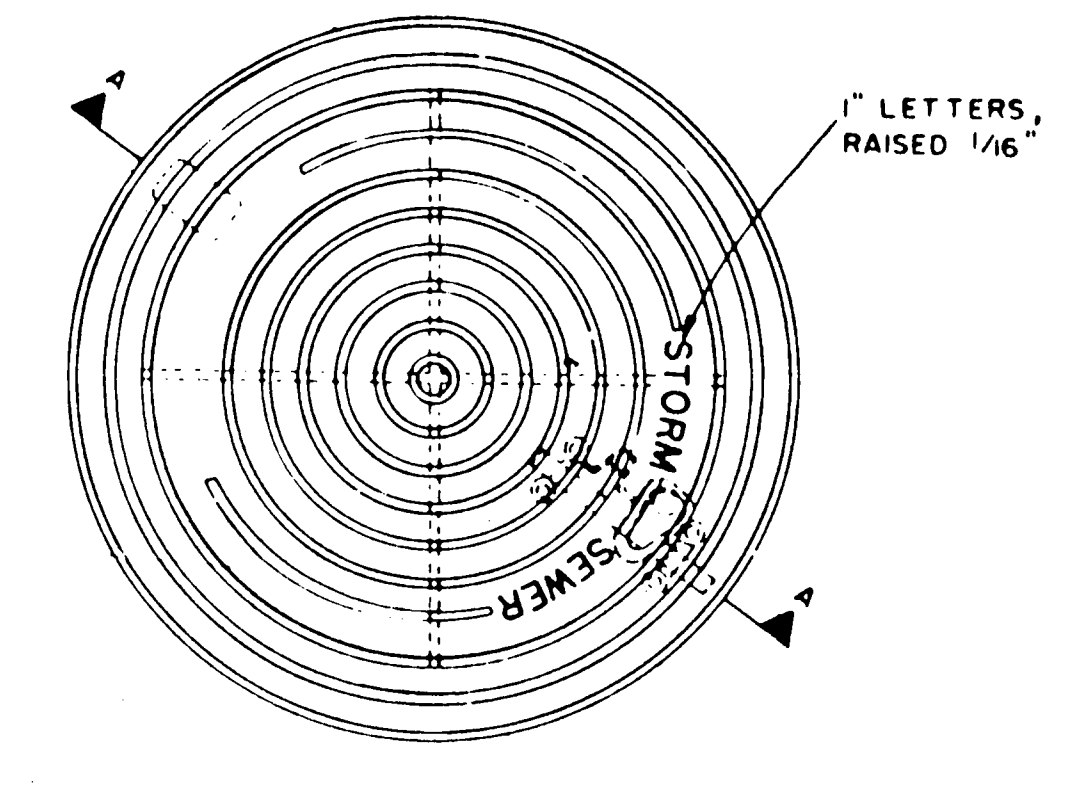
* SEE DIAGRAM FOR DIMENSIONS



4, 6, AND 8 FOOT INLETS



10, 12, AND 14 FOOT INLETS

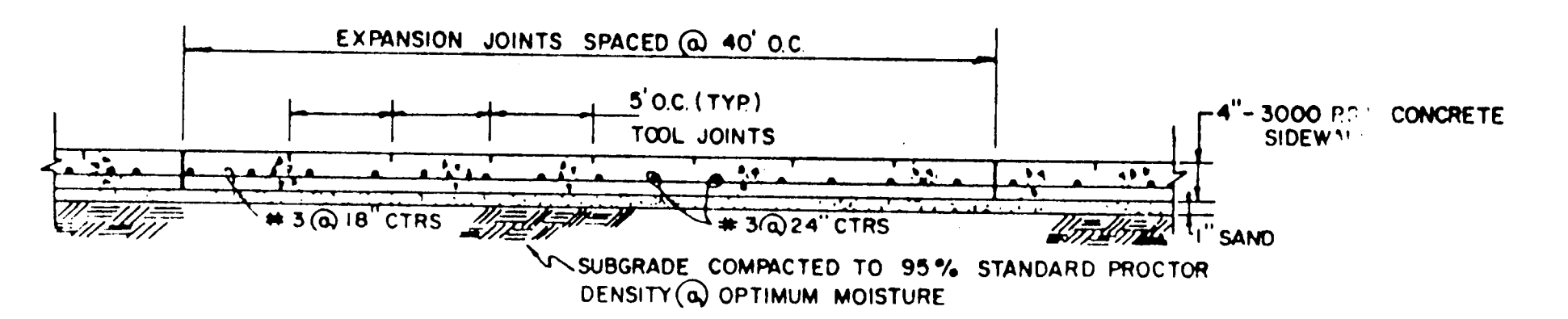
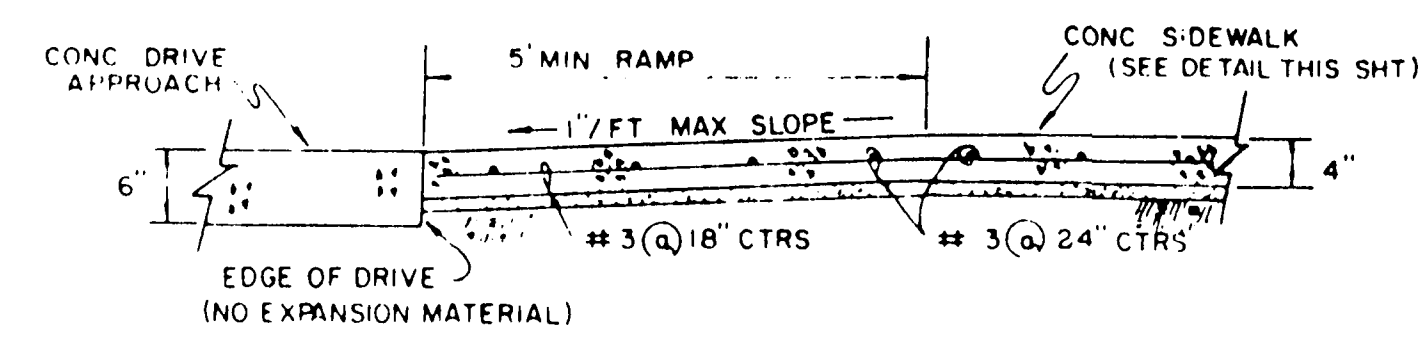
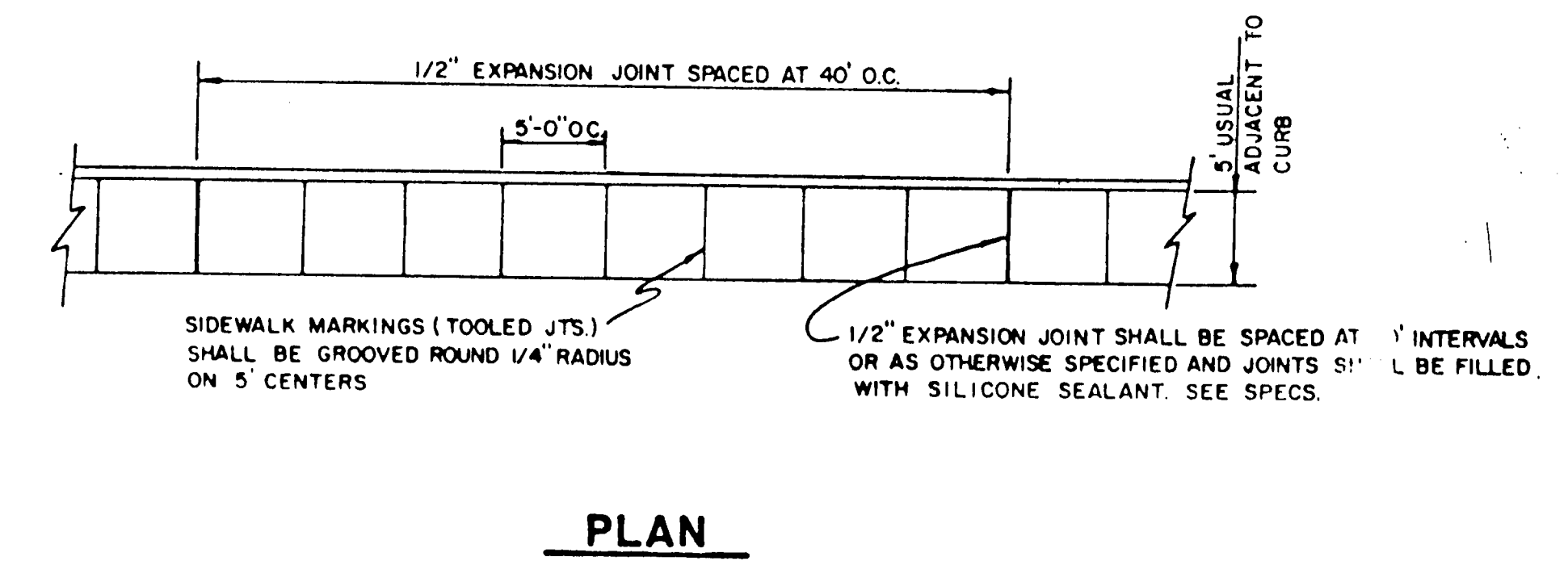
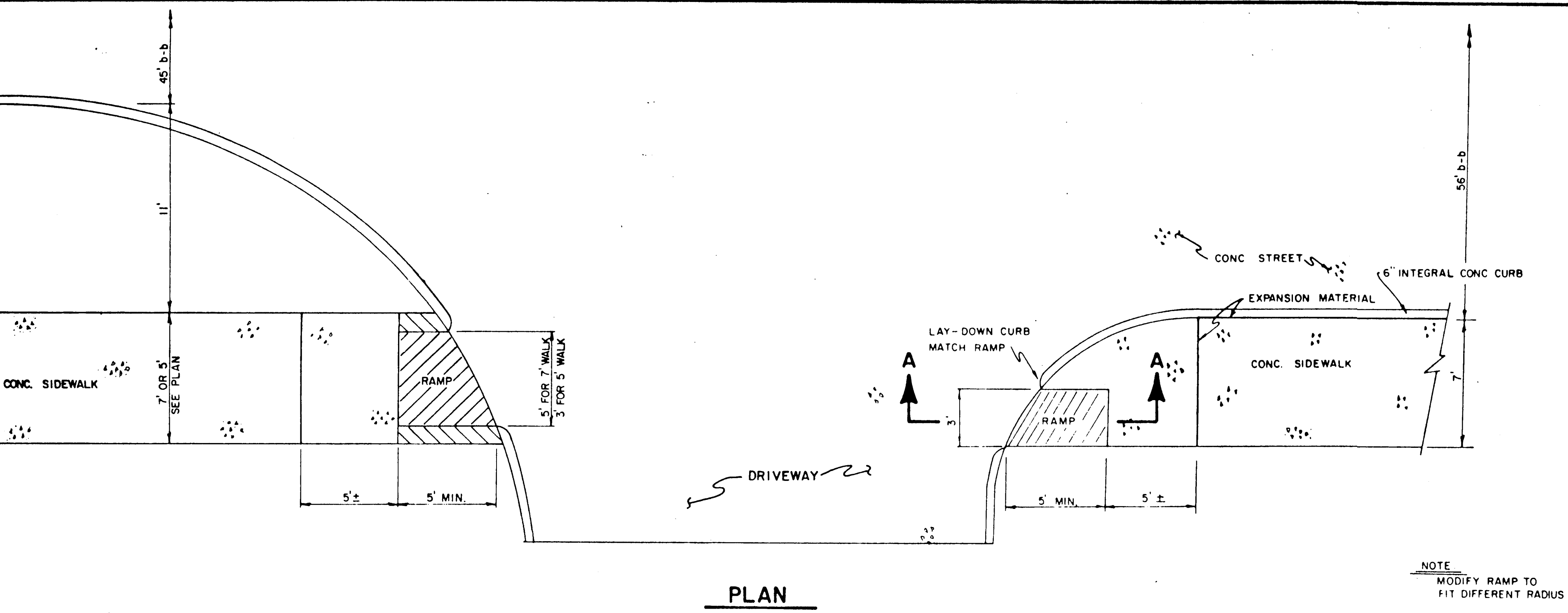


INLET FRAME AND COVER

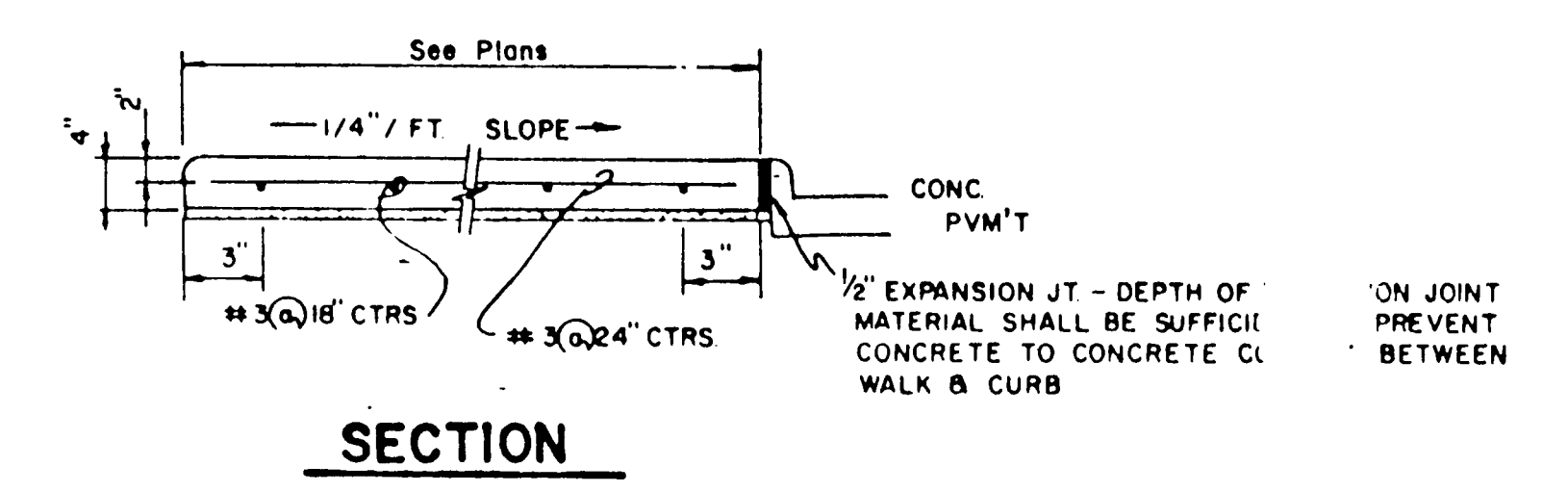
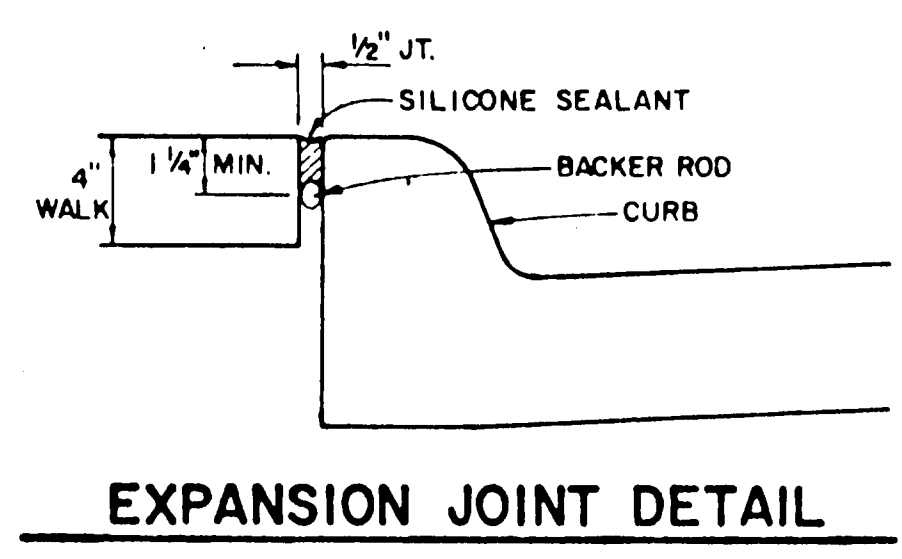
TOWN OF ADDISON, TEXAS
DEPARTMENT OF ENGINEERING

STANDARD CONSTRUCTION DETAILS
STORM DRAINAGE

CURB INLETS



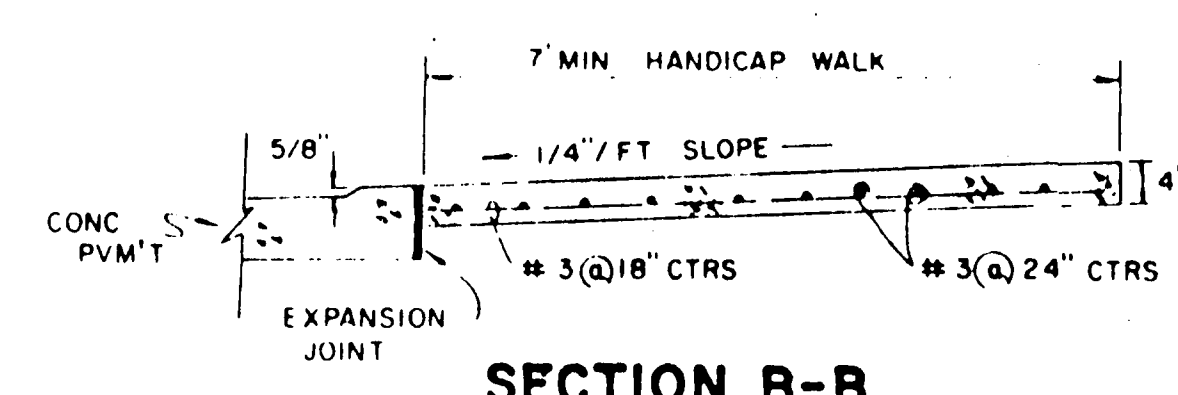
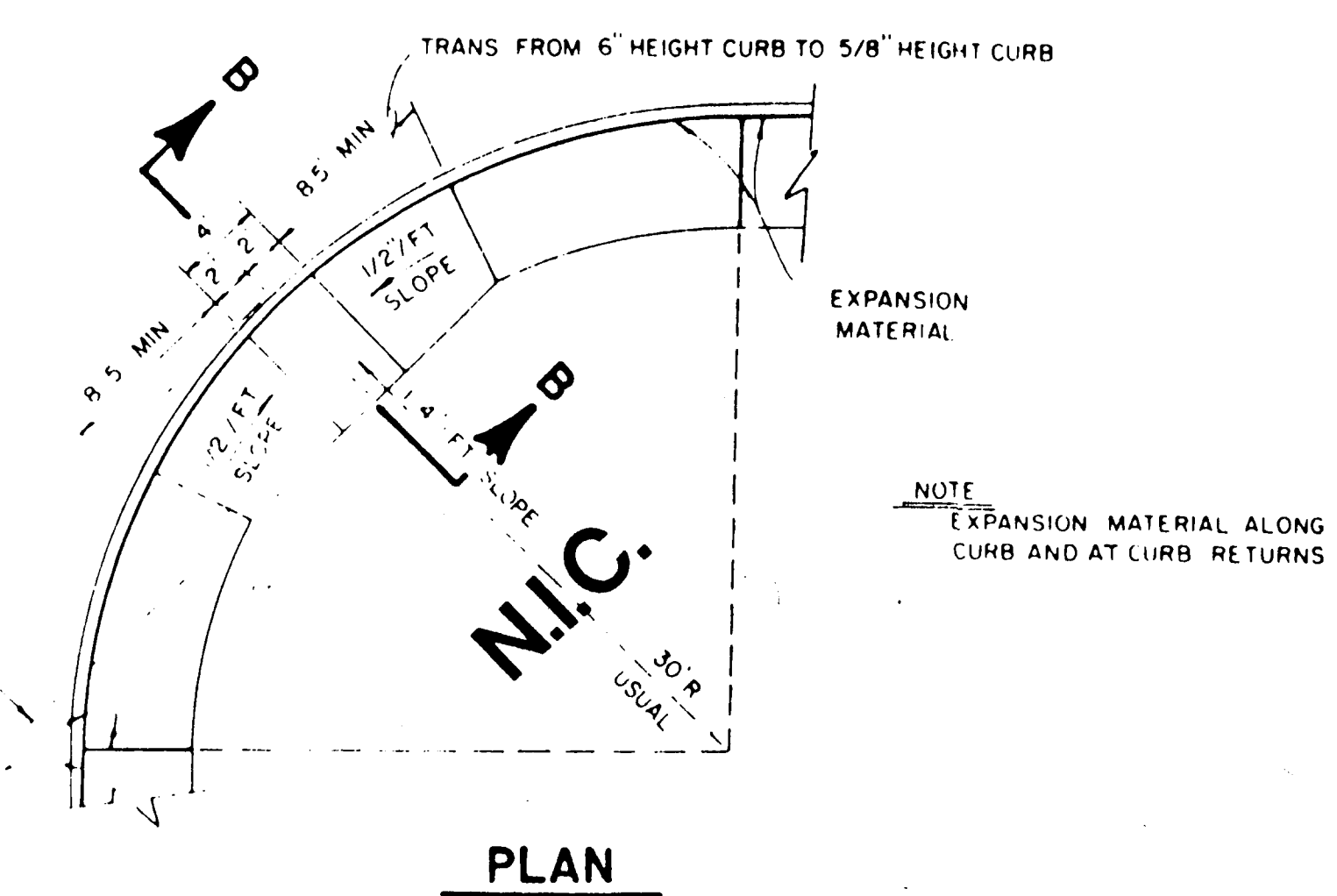
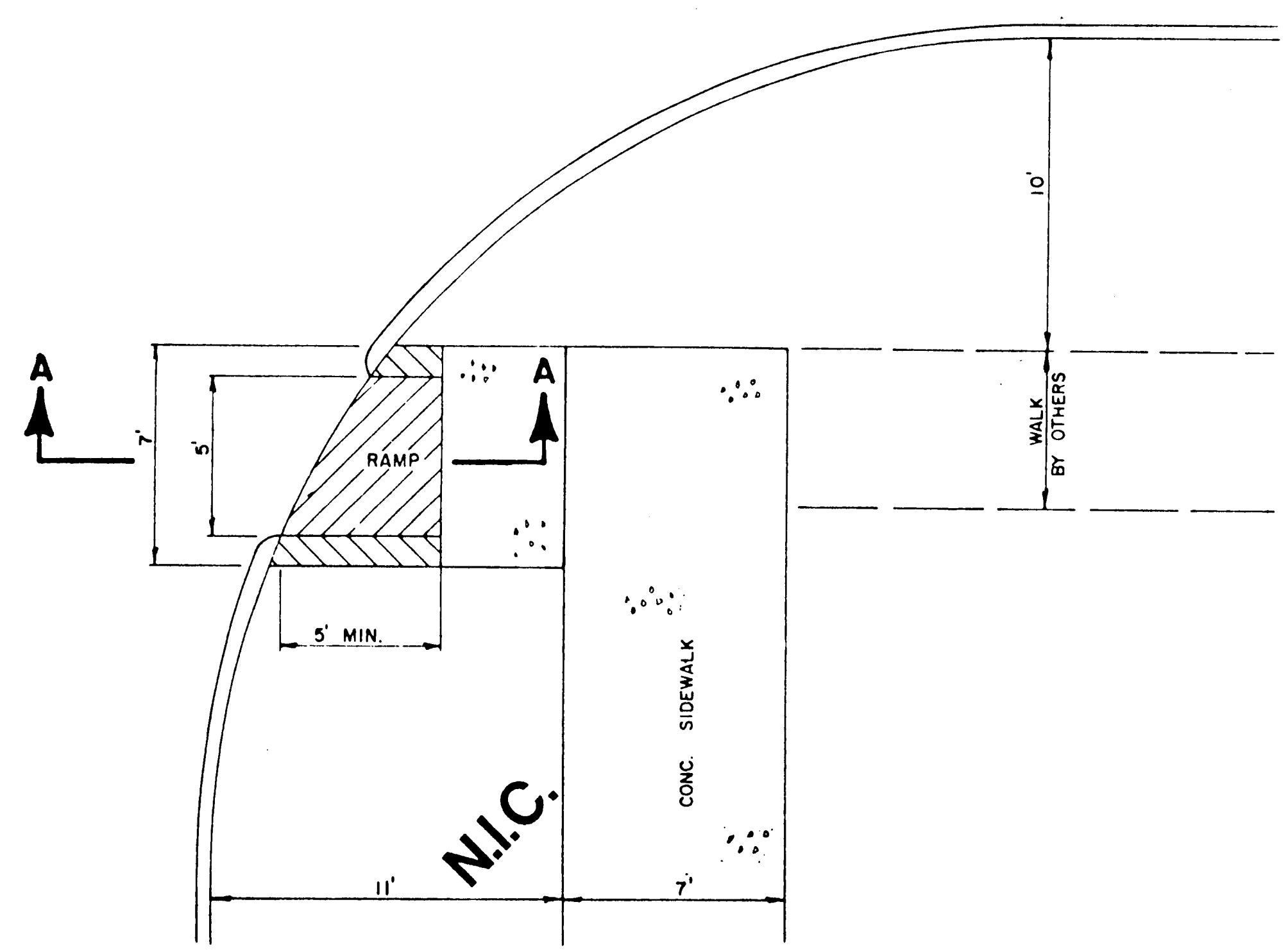
**BARRIER-FREE RAMP DETAIL
WITH WALK ADJACENT TO CURB**



CONCRETE SIDEWALK DETAIL

GENERAL NOTES

- Reinforced concrete sidewalk shall be 5 or 7 feet wide, a minimum of four (4) inches thick and shall be 3000 psi at 28 days (5 sack mix). Unless noted otherwise.
- Chamfer all exposed edges of concrete (1/4) inch.
- All bar dimensions are given as center to center of bars and are located as shown.
- All reinforcing steel shall be No. 3 on 18 inch centers longitudinally, 24 inch centers transversely and shall conform to the requirements of ASTM A-615, Grade 60.
- 1" thick min. fine, washed sand cushion shall be free from organic materials or clays and shall be used for grade adjustment.
- Subgrade shall be compacted to a density not less than 95% at optimum moisture.
- Tooled joints (contraction joints) shall be on five (5) foot centers and shall be round one-fourth (1/4) inch radius.
- A one-half (1/2) inch expansion joint shall be placed every eight (8) tooled joints, and where works abut old work, or where new work is constructed adjacent to other concrete, a one-half inch expansion joint shall be used where sidewalk is adjacent to curb, the expansion joint shall be made of pre-molded bituminous expansion joint filler or redwood with silicone sealant. See Specs.
- Sidewalks shall be finished by lightly brooming surface transversely to direction of main traffic or where adjacent sidewalks differ from this standard, new sidewalks shall conform to adjacent sidewalk (e.g. exposed aggregate).
- Cross slope walk one-fourth (1/4) inch per foot towards curb or as shown on the drawings to provide drainage.

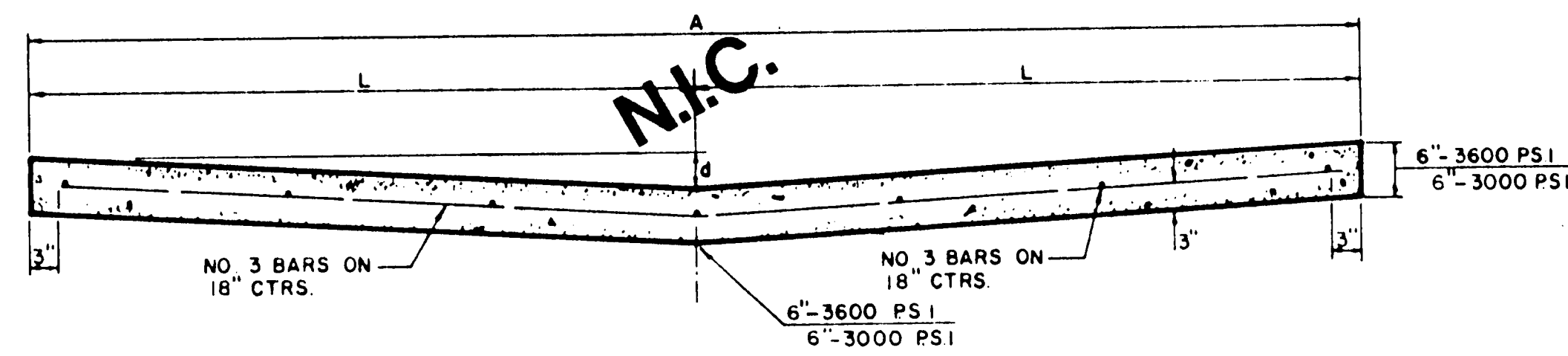


HANDICAP ROLL-DOWN CURB DETAIL

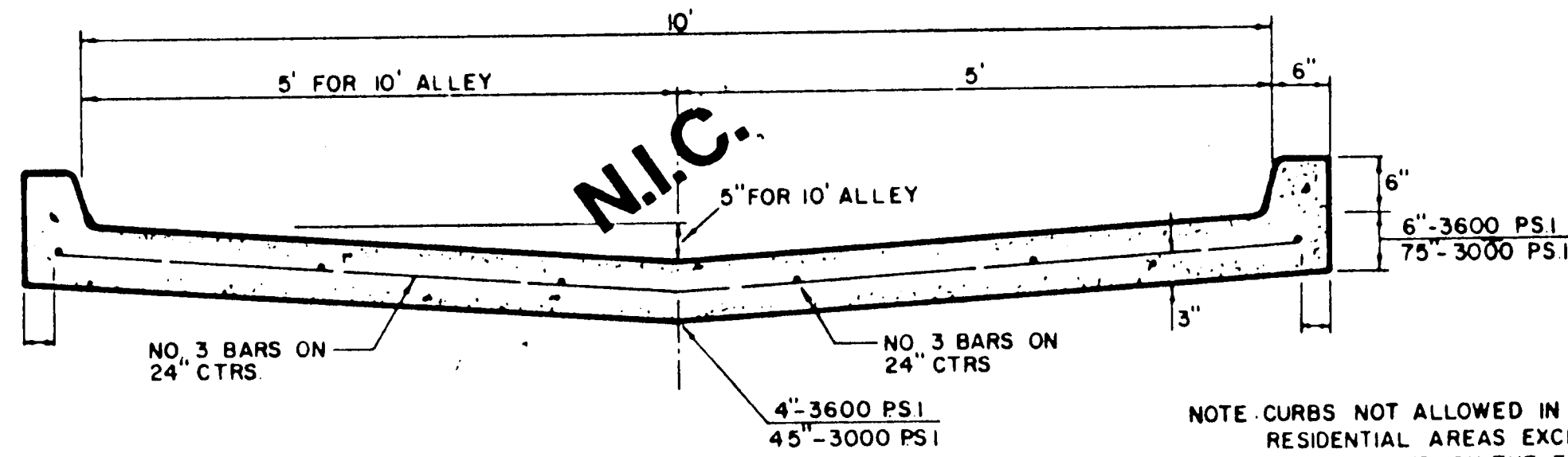
**BARRIER FREE RAMP DETAIL
WITH WALK SEPARATE FROM CURB**

NO.	REVISION	BY	DATE
TOWN OF ADDISON, TEXAS DEPARTMENT OF ENGINEERING			
STANDARD CONSTRUCTION DETAILS PAVING			
SIDEWALKS & RAMP			
APPROVED _____			
DATE			SHEET 10 OF 14

ALLEY WIDTH (A)	HALF SECTION WIDTH (L)	INVERT DEPTH (d)
10'	5'	4"
12'	6'	6"
16'	8'	6"
20'	10'	6"

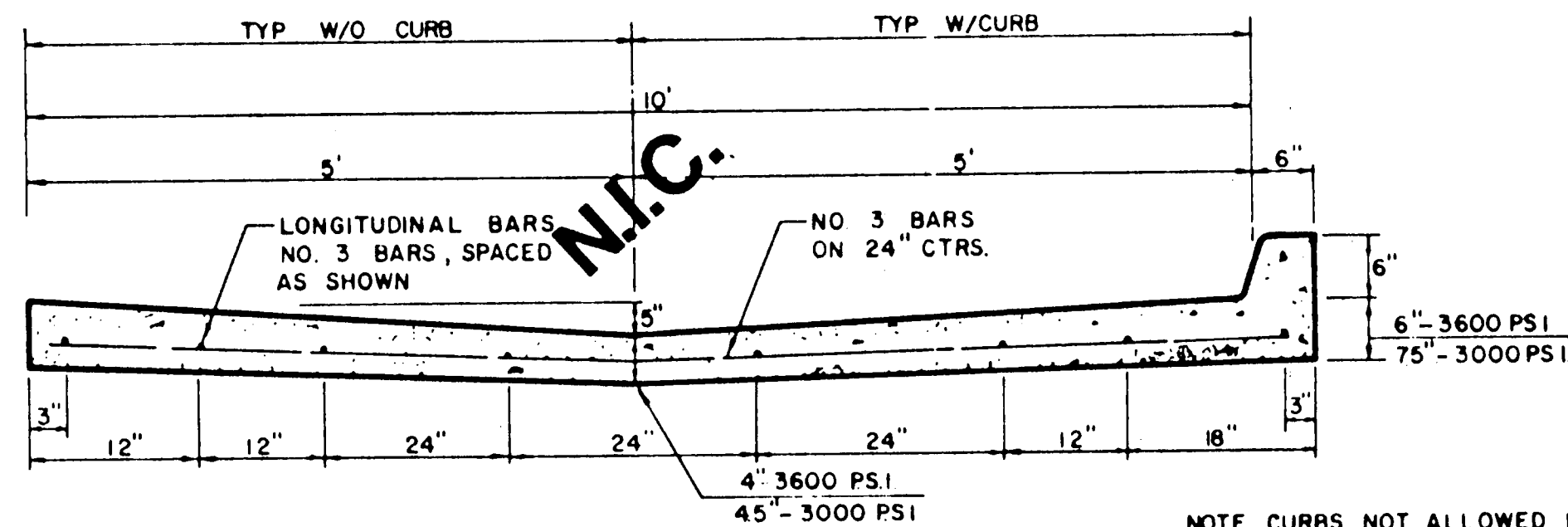


STANDARD 10', 12', 16', & 20' ALLEY SECTION



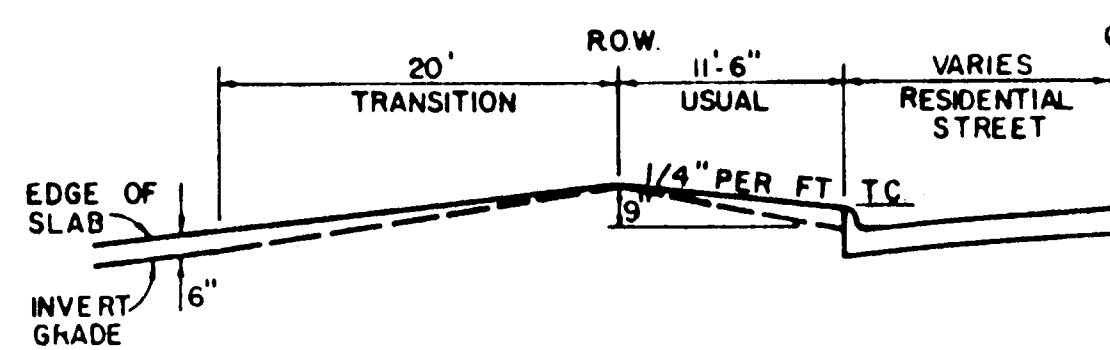
STANDARD ALLEY SECTION WITH CURBS

NOTE CURBS NOT ALLOWED IN RESIDENTIAL AREAS EXCEPT AS APPROVED BY THE ENGINEER.

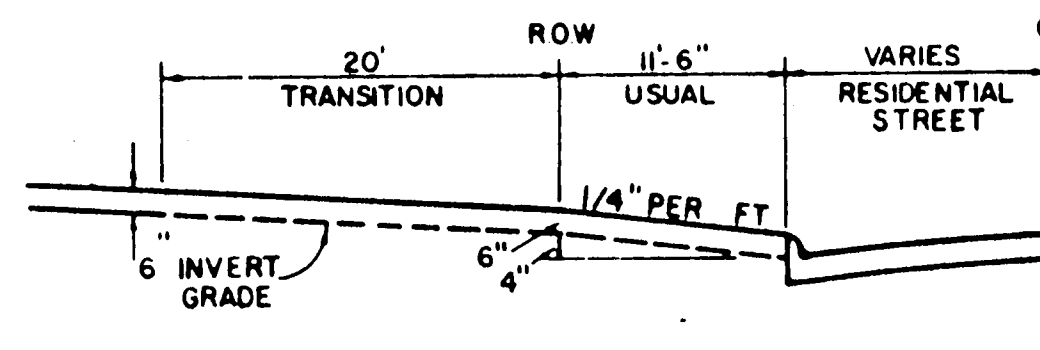


ALTERNATE 10' ALLEY SECTION / CURB

NOTE CURBS NOT ALLOWED IN RESIDENTIAL AREAS EXCEPT AS APPROVED BY THE ENGINEER

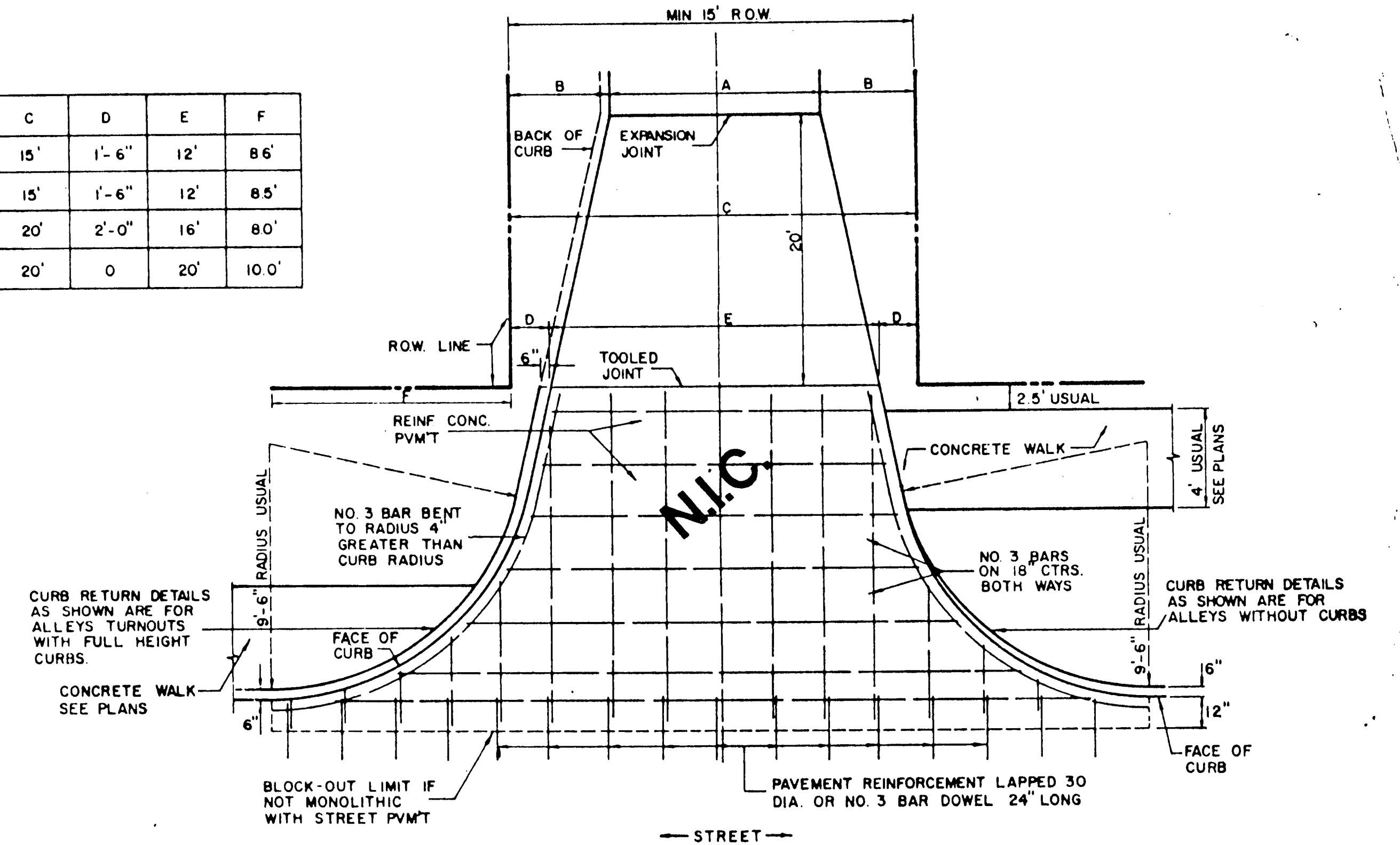


TYPE I ALLEY ENTRANCE



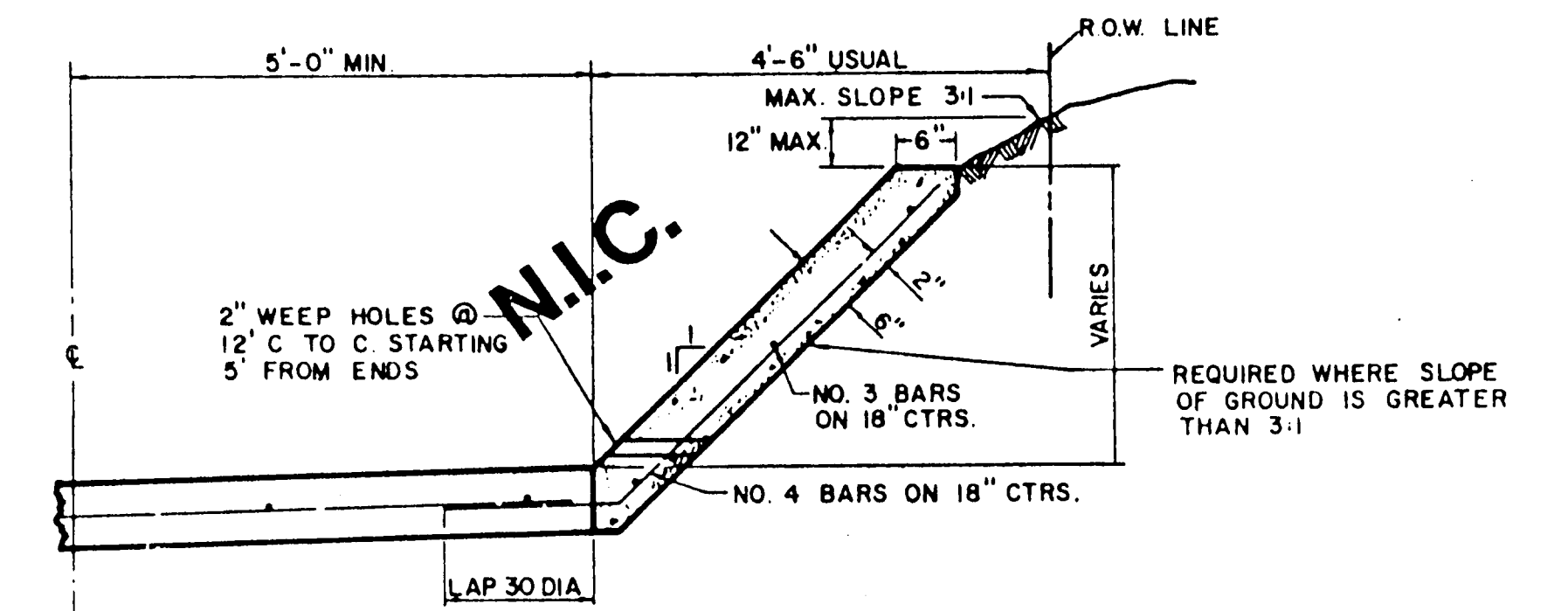
TYPE II ALLEY ENTRANCE

ALLEY WIDTH	A	B	C	D	E	F
10'	10'	2'-6"	15'	1'-6"	12'	8'6"
12'	12'	1'-6"	15'	1'-6"	12'	8'5"
16'	16'	2'-0"	20'	2'-0"	16'	8'0"
20'	20'	0	20'	0	20'	10'0"

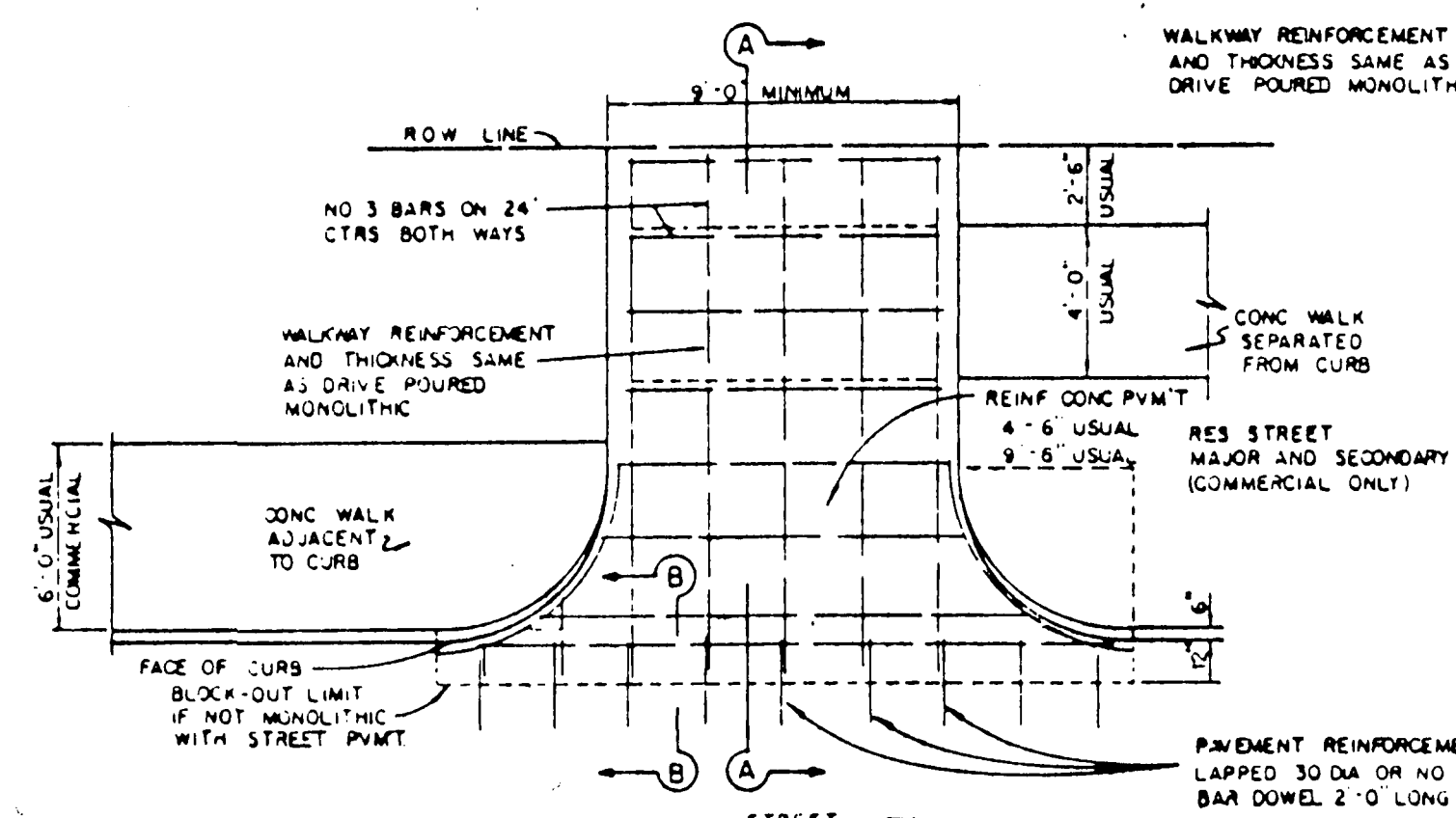


ALLEY RETURN DETAILS

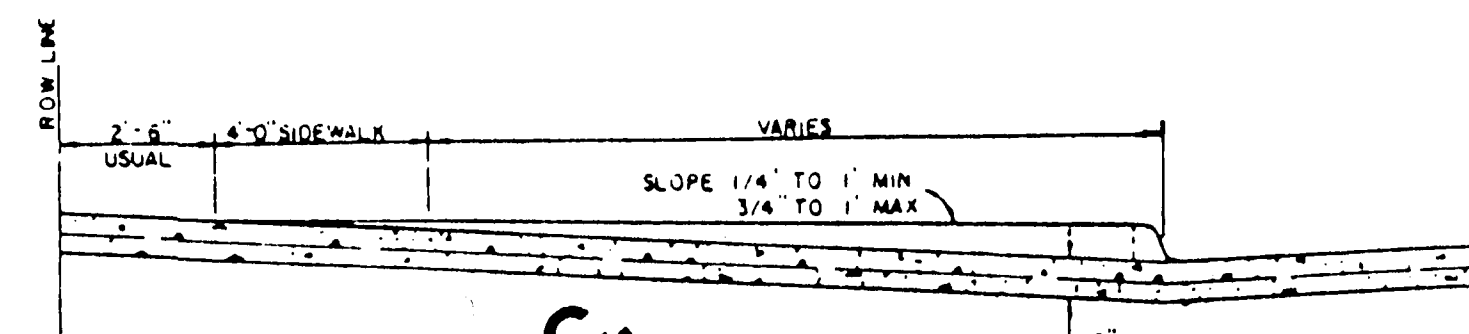
FOR DETAILS ONLY - SEE PLAN FOR DIMENSIONS



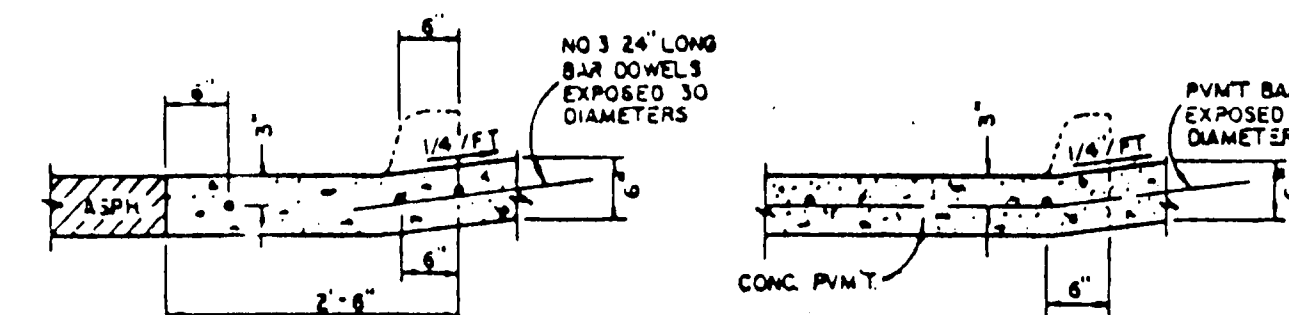
ALLEY SLOPE PROTECTION



DRIVEWAY RETURN TO STREET



SECTION A-A



SECTION B-B
DRIVEWAY RETURN DETAILS

GENERAL NOTES FOR ALLEYS AND DRIVEWAYS

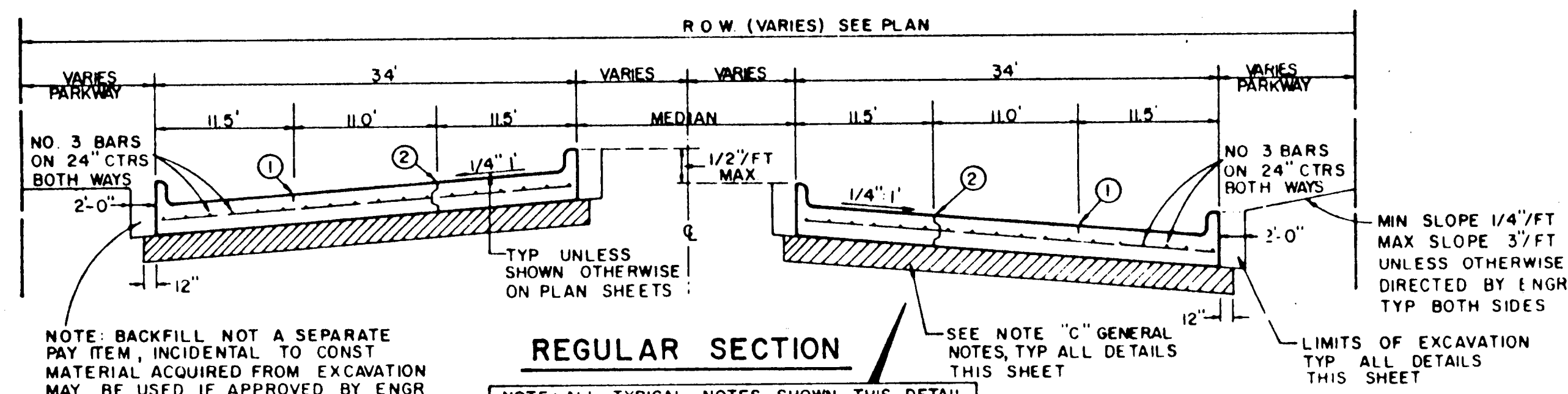
1. CONCRETE FOR ALLEY RETURNS AND DRIVEWAYS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS IDENTICAL TO THAT SPECIFIED FOR THE STREET PAVEMENT OR BASE WHEN BUILT AS COMPONENTS OF A CONCRETE PAVING PROJECT. WHEN BUILT SEPARATELY, THE STRENGTH SHALL BE AS SPECIFIED ON THE CONSTRUCTION PLANS.
2. CONCRETE FOR ALLEY PAVEMENT SHALL BE OF THE STRENGTH SPECIFIED ON THE CONSTRUCTION PLANS. (3000 P.S.I. OR 3600 P.S.I. MINIMUM COMPRESSIVE)
3. SPACING AND CONSTRUCTION OF JOINTS SHALL CONFORM TO STREET PAVEMENT DETAILS.

TOWN OF ADDISON, TEXAS
DEPARTMENT OF ENGINEERING

STANDARD CONSTRUCTION DETAILS
PAVING

ALLEY & DRIVEWAY RETURNS

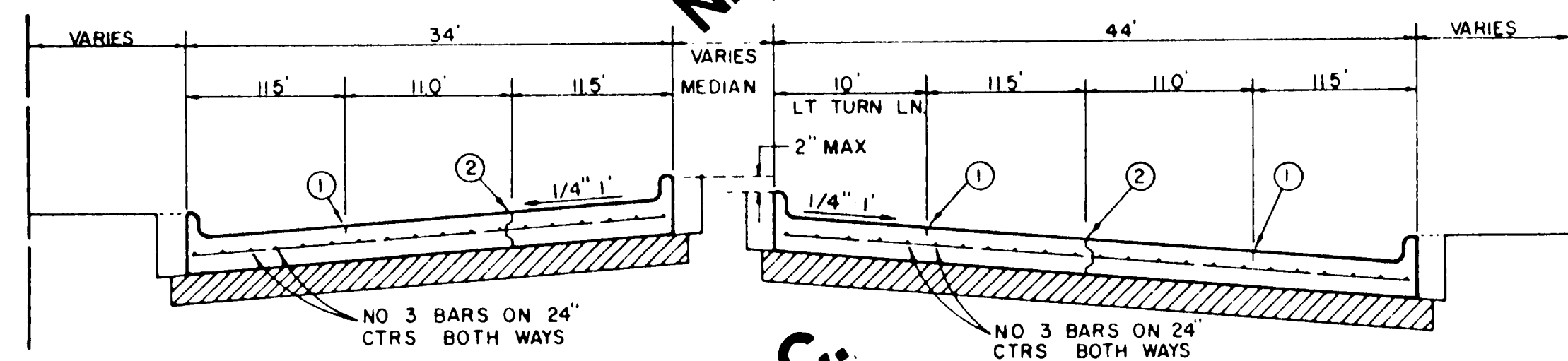
Designed -	Drawn -	Date -	Job No.
Approved -	Checked -	Scale -	Sheet 11 of 14



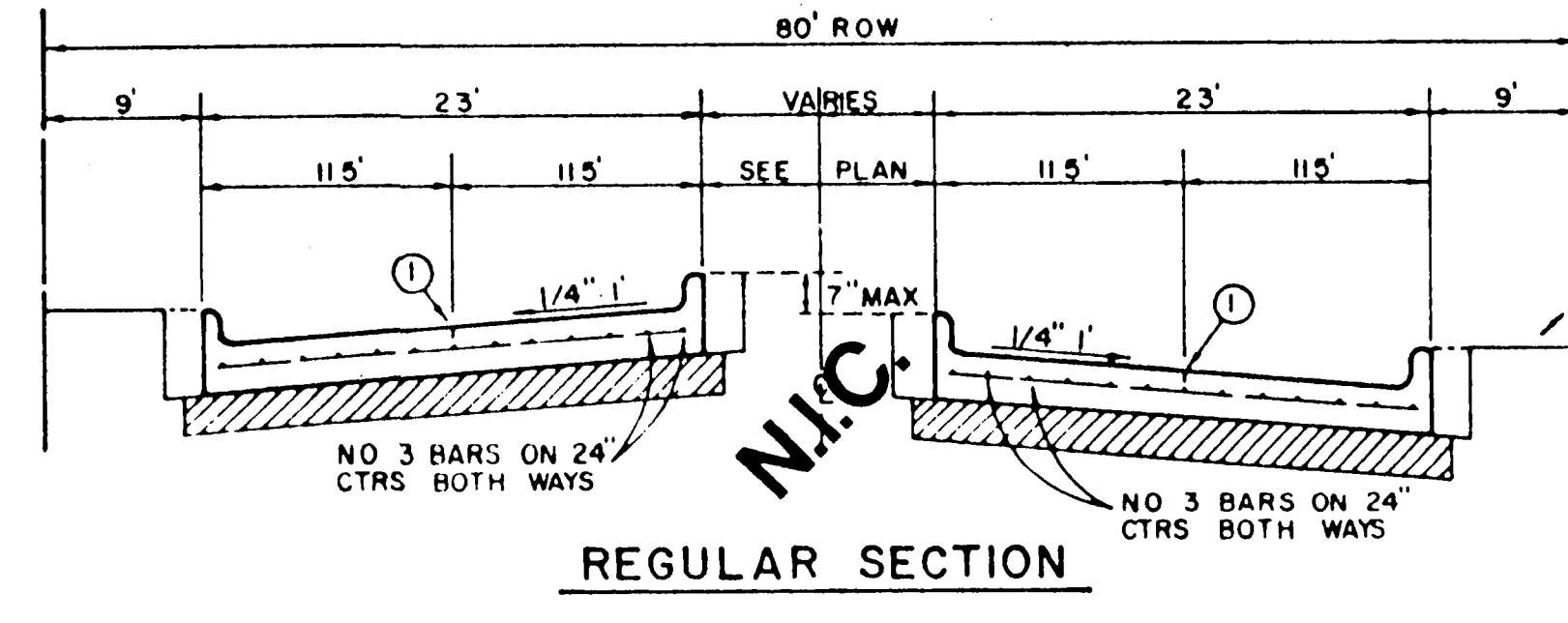
NOTE: BACKFILL NOT A SEPARATE PAY ITEM, INCIDENTAL TO CONST. MATERIAL ACQUIRED FROM EXCAVATION MAY BE USED IF APPROVED BY ENGR

REGULAR SECTION

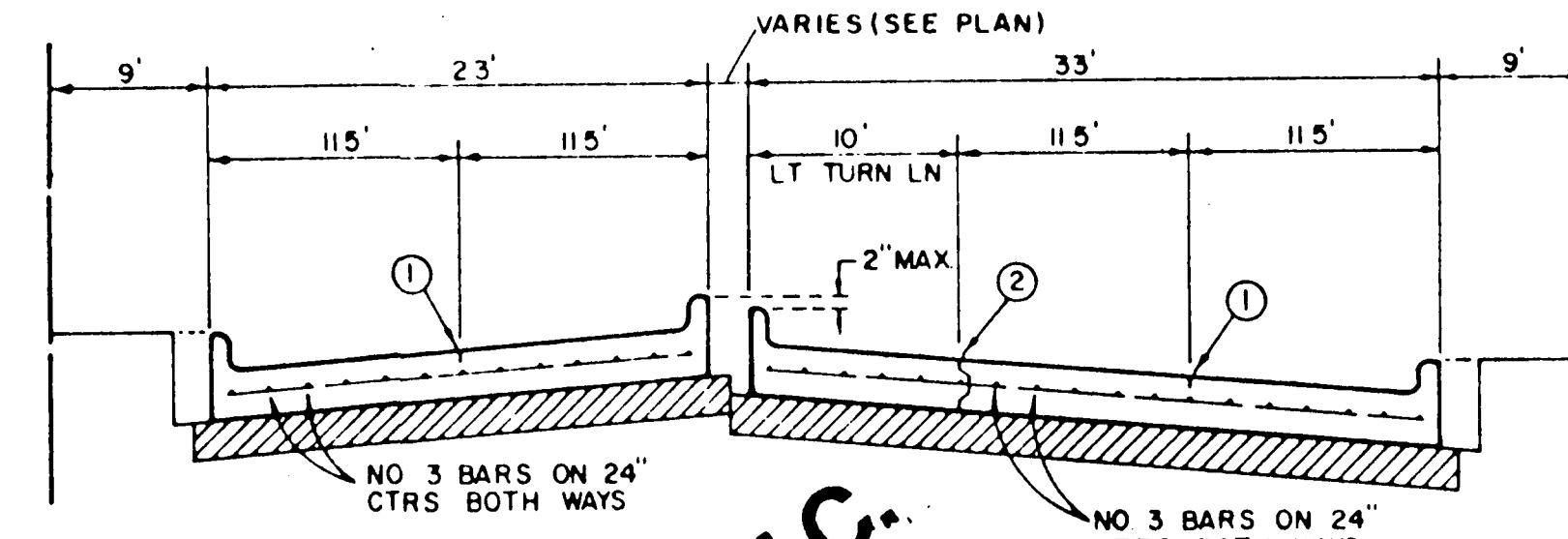
NOTE: ALL TYPICAL NOTES SHOWN THIS DETAIL SHALL APPLY TO ALL DETAILS THIS SHEET UNLESS OTHERWISE INDICATED



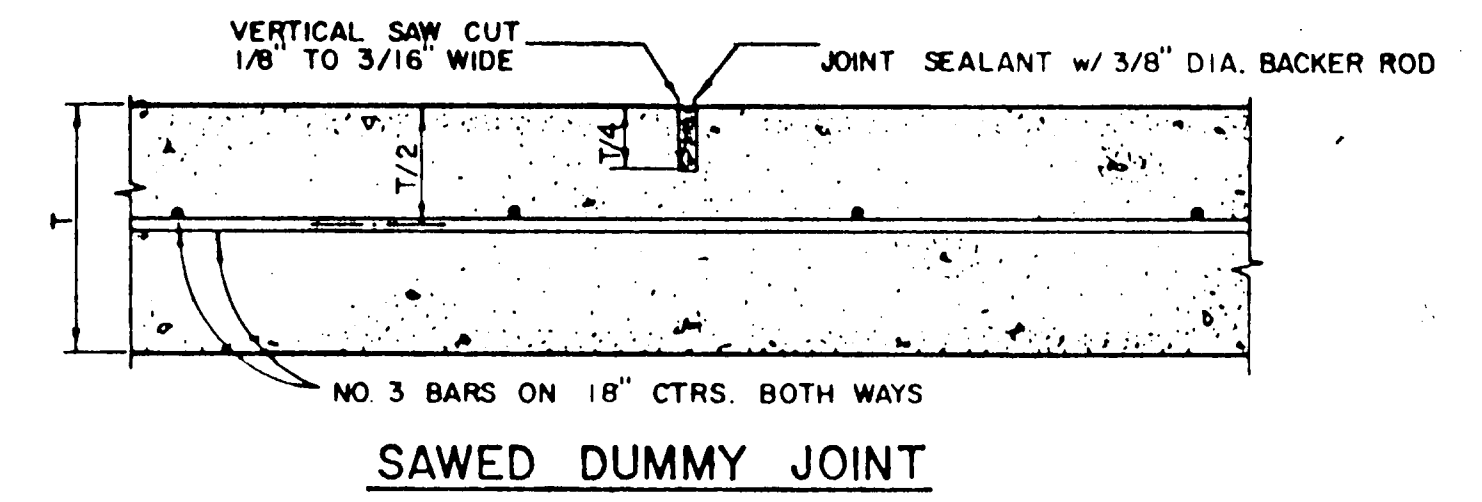
LEFT TURN SECTION
MAJOR ARTERIAL



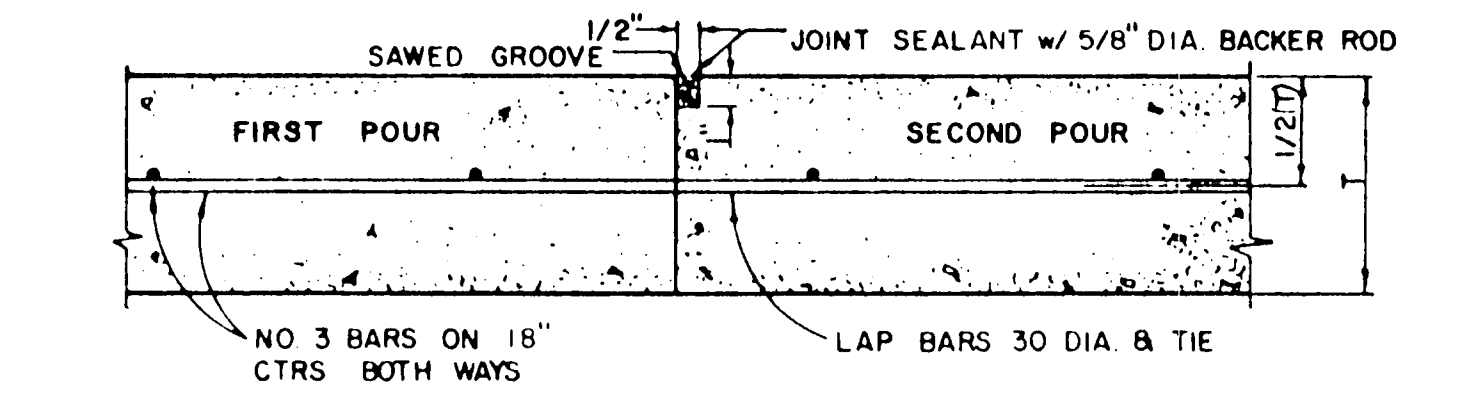
REGULAR SECTION



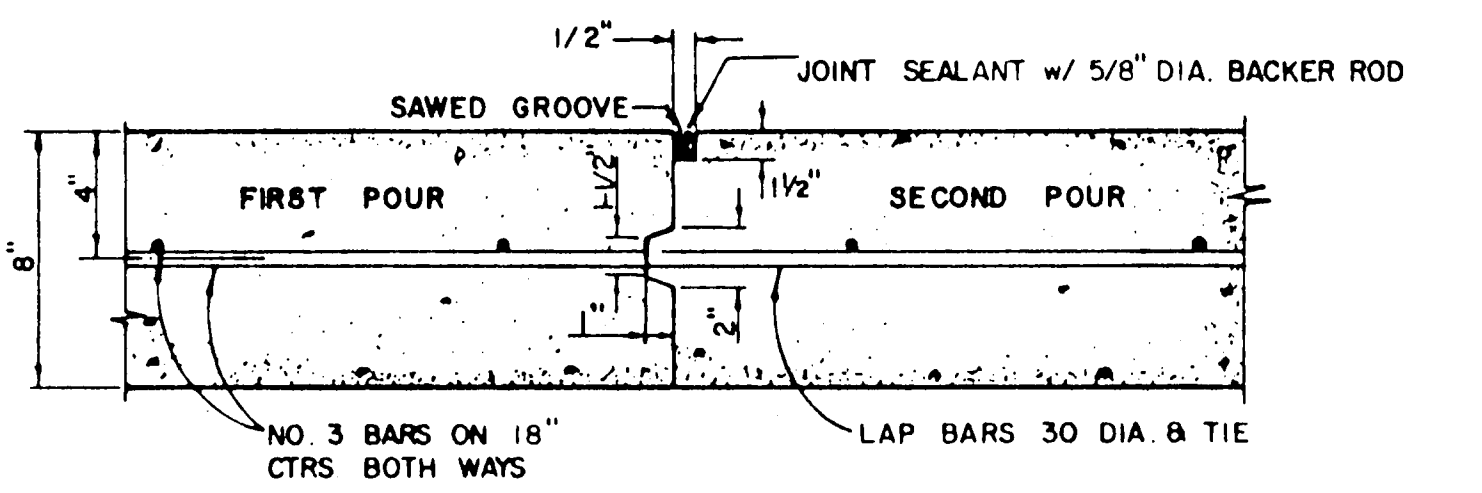
LEFT TURN SECTION
MINOR ARTERIAL



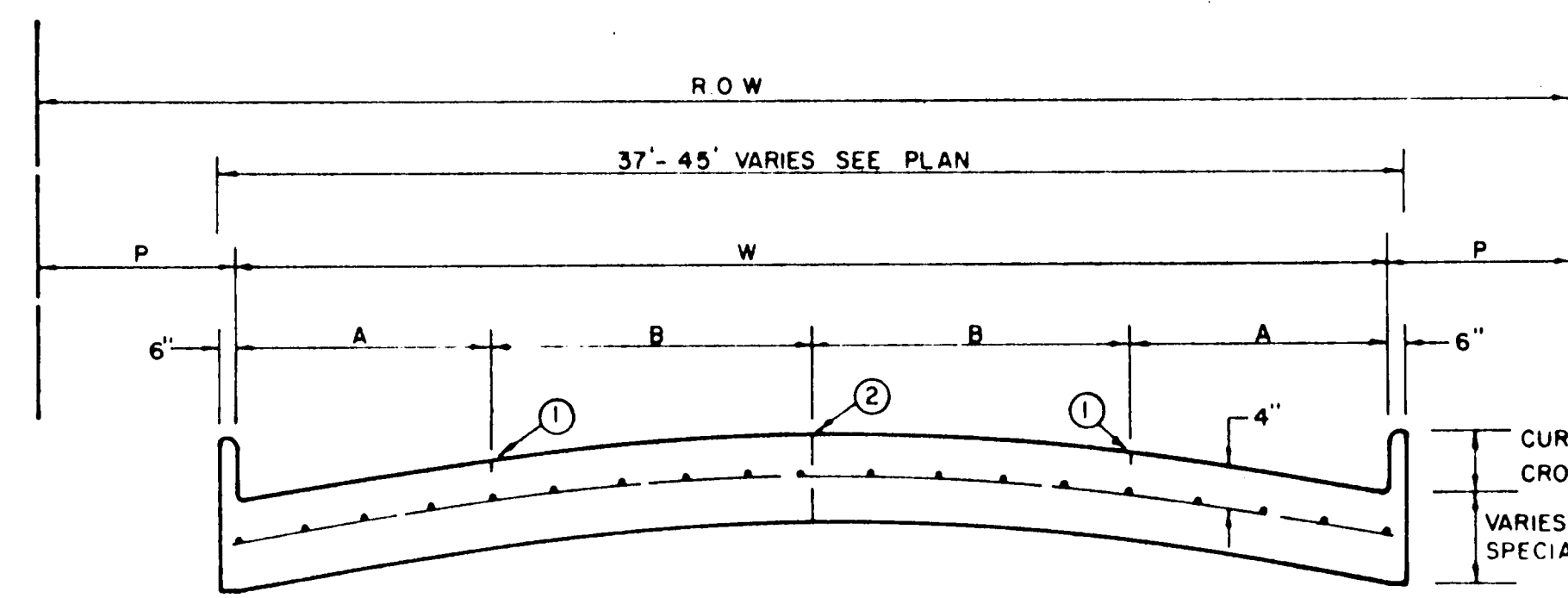
SAWED DUMMY JOINT



CONSTRUCTION JOINT FOR 6 INCH PAVEMENT



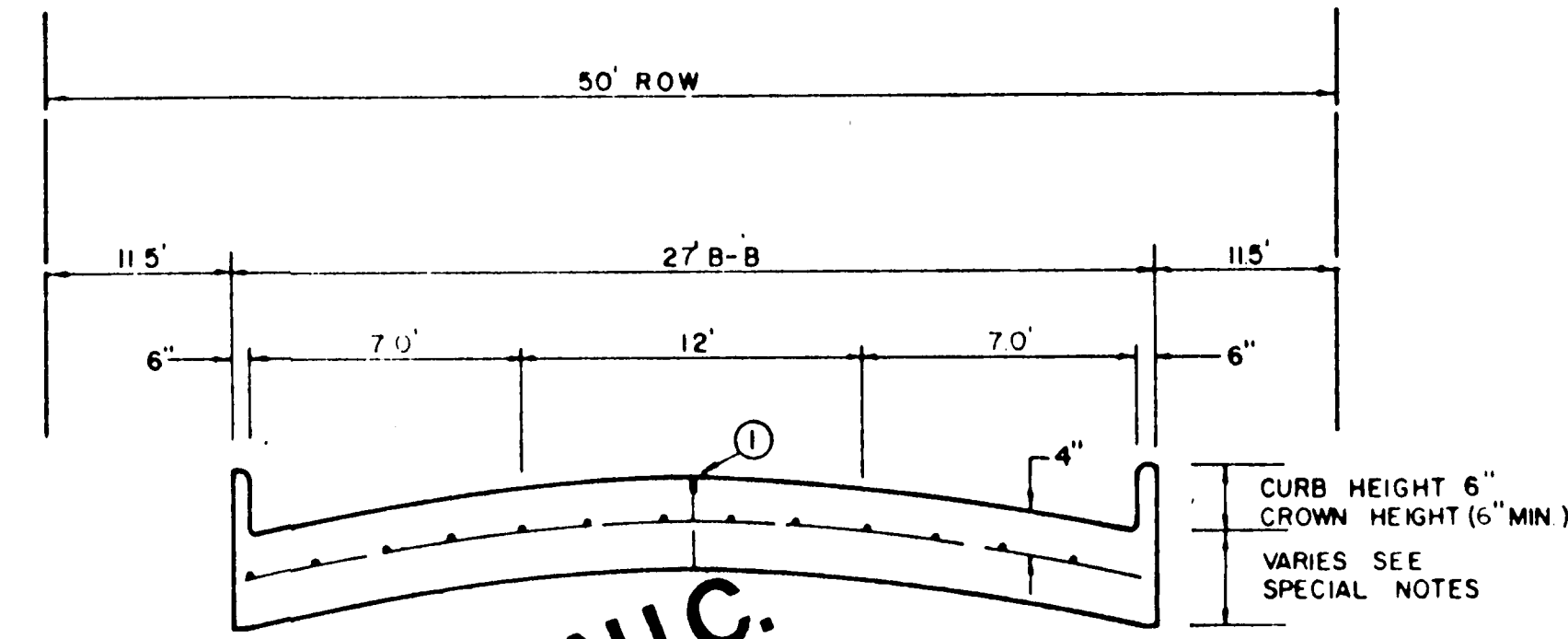
CONSTRUCTION JOINT FOR 8 INCH PAVEMENT



FOUR MOVING LANES OR TWO MOVING LANES/TWO PARKING LANES

STREET TYPE	STREET WIDTH (W)	A	B	ROW WIDTH	P
COLLECTOR	36'	8'	10'	60'	11.5'
COLLECTOR	40'	8' OR 11'	10' OR 12'	60'	9.5'
COLLECTOR	44'	11'	11'	65'	10.0'

COLLECTOR STREET



ONE MOVING LANE / TWO PARKING LANES

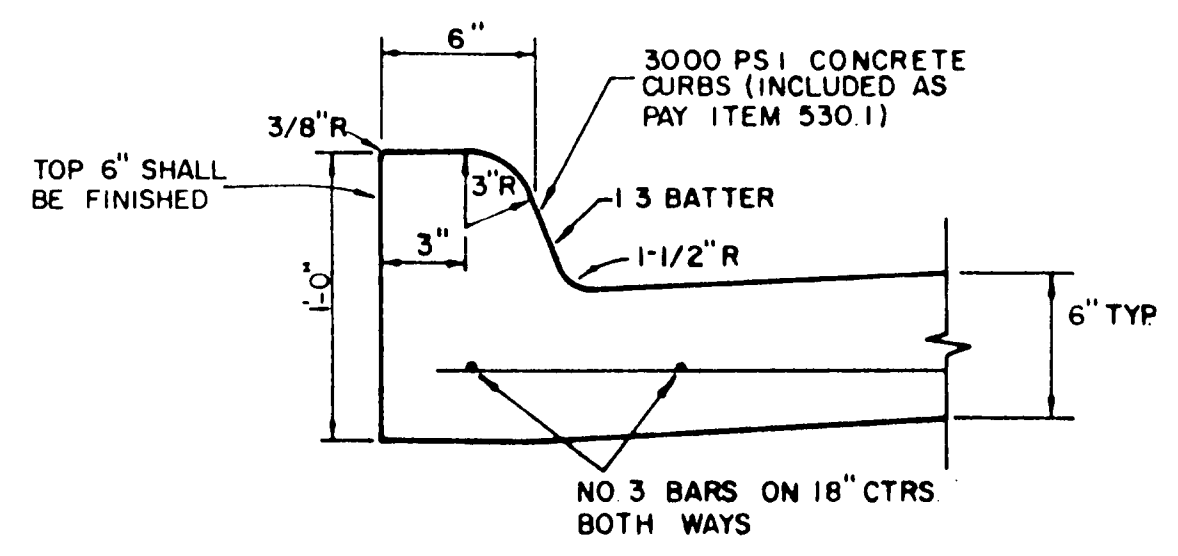
LOCAL STREET

REINFORCED CONCRETE PAVEMENT

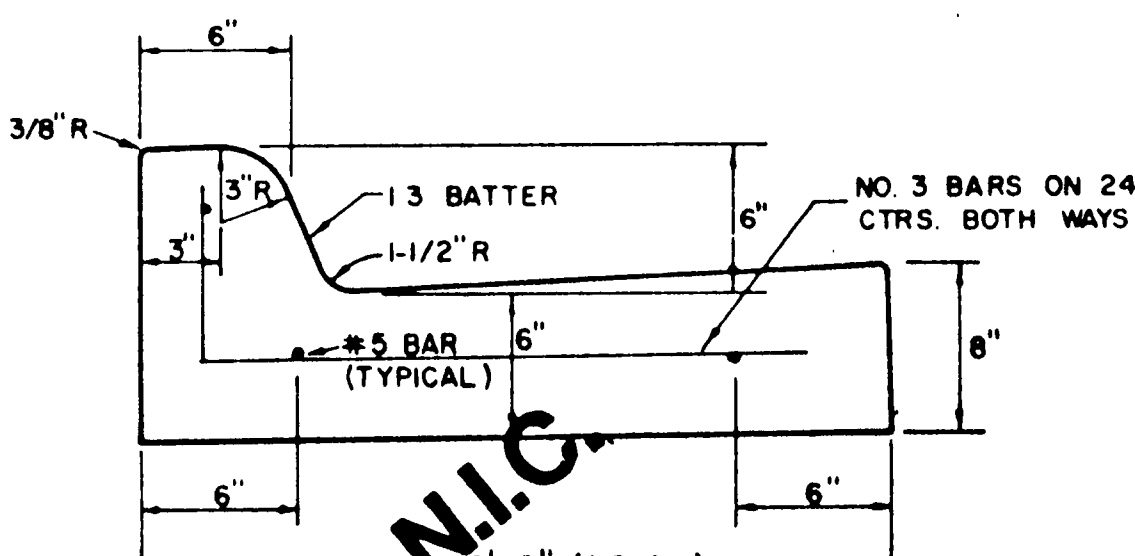
ALL REINFORCING BARS SHALL BE NO 3 TRANSVERSE BARS TO BE SPACED ON 1'-6" CENTERS, LONGITUDINAL BARS TO BE SPACED ON 1'-6" EXCEPT WHERE NOTED.
 UNDIVIDED STREETS-PROVIDE 4" DBL-REF YELLOW & BUTTON P-117-Y PATTERNS TO BE ESTABLISHED BY ENGINEER SEE DETAIL SHEET
 ① SAWED LONGITUDINAL DUMMY JOINT
 ② CONSTRUCTION JOINT (FULL WIDTH PVMT IS ALLOWED WHERE APPROVED BY ENGINEER)
 ③ FINISH SHALL BE TRANSVERSE WITH TRAFFIC LANES AND SHALL BE STEEL TINED BROOM FINISH.

GENERAL NOTES

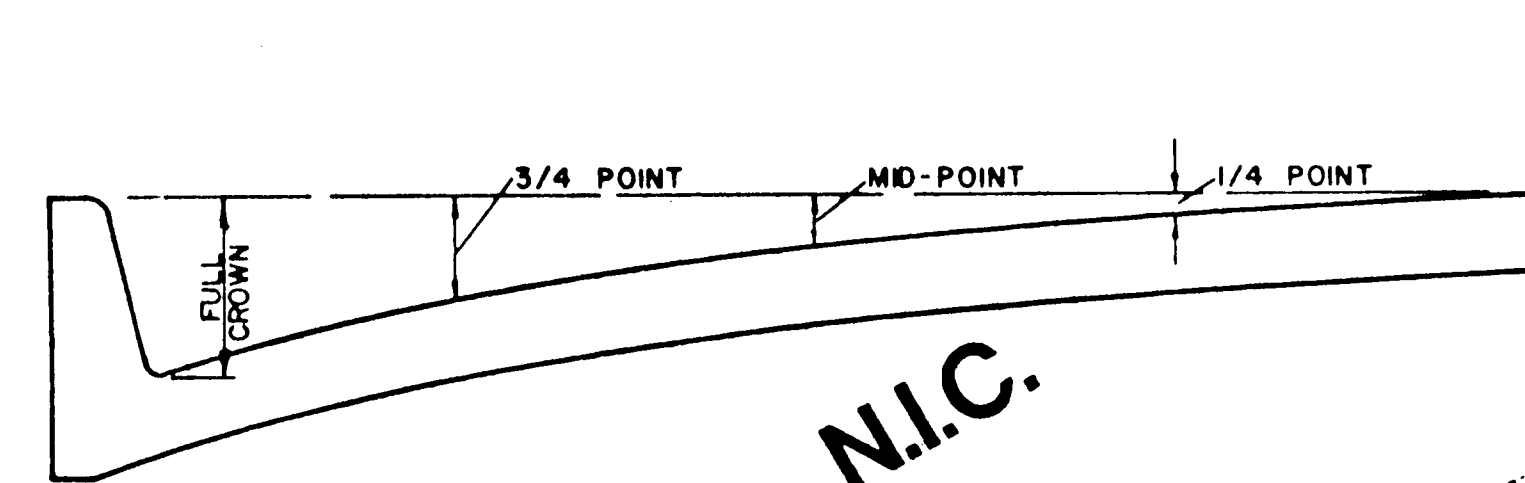
- A. GENERAL PAVEMENT THICKNESS FOR STREETS SHALL BE AS SPECIFIED BELOW IN SPECIAL NOTES.
- B. STANDARD SPECIFICATIONS REINFORCED CONCRETE PAVEMENTS
 1. ALL CURBS SHALL BE PLACED INTEGRAL WITH PAVEMENT
 2. CURBS SHALL MEET THE SAME COMPRESSIVE STRENGTH AS SPECIFIED FOR THE CONCRETE PAVEMENT.
 3. DETAIL AND ARRANGEMENT OF JOINTS, ALL TYPES, SHALL BE AS SHOWN ON THE STANDARD CONSTRUCTION DETAILS, OR AS APPROVED BY ENGINEER.
 4. BAR LAPS SHALL BE 30 DIAMETERS.
- C. BAR CHAIRS OR AN APPROVED SUPPORTING DEVICE SHALL BE FURNISHED.



STANDARD CURB

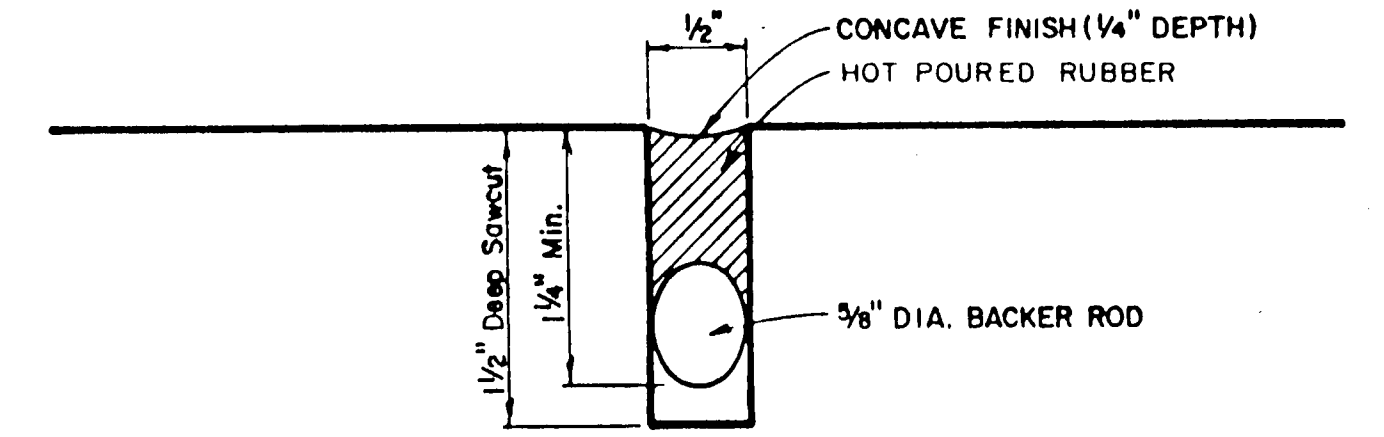


SEPARATE CURB AND GUTTER



ROADWAY WIDTH (W)	TOTAL CROWN HEIGHT	3/4 POINT	MID-POINT	1/4 POINT
26'	6"	3-3/8"	1-1/2"	3/8"
36'	6"	3-3/8"	1-1/2"	3/8"
44'	6"	3-3/8"	1-1/2"	3/8"
48'	6"	3-3/8"	1-1/2"	3/8"

TABLE OF CROWN HEIGHTS AND ORDINATES FOR VARIOUS PARABOLIC SECTIONS



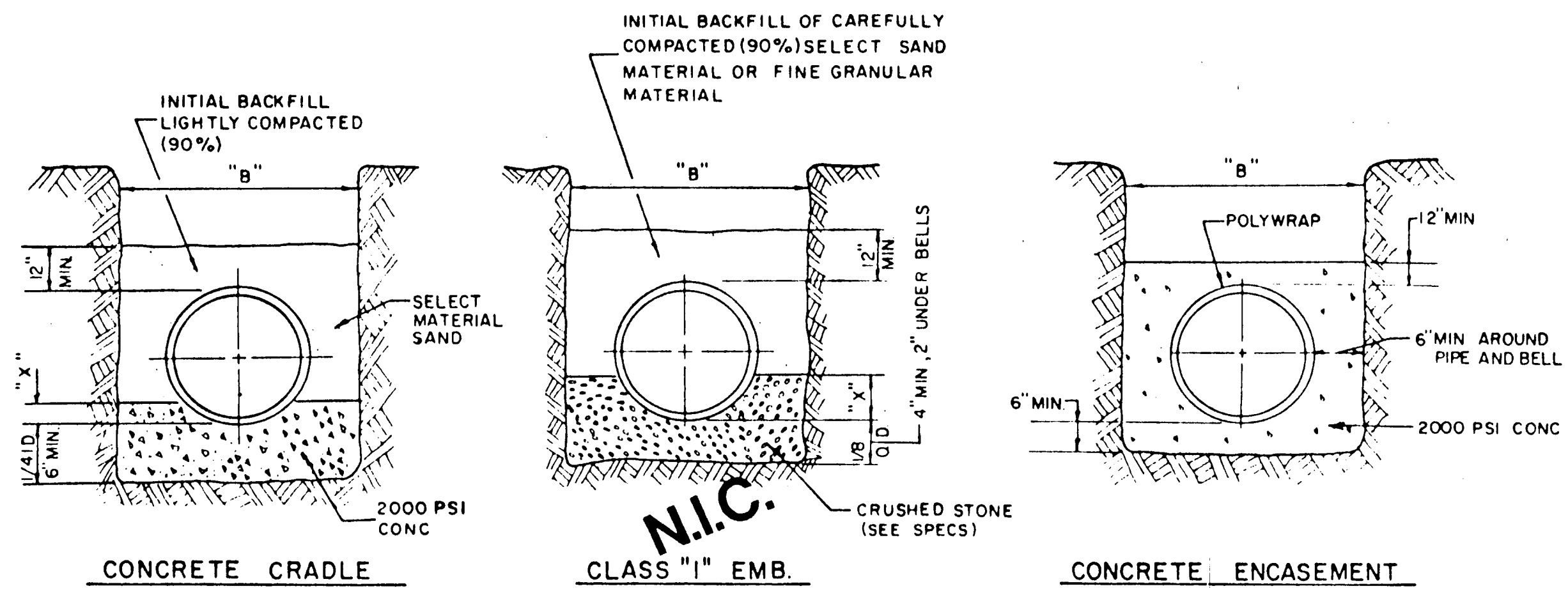
TYPICAL JOINT DETAIL

TOWN OF ADDISON, TEXAS
 DEPARTMENT OF ENGINEERING

STANDARD CONSTRUCTION DETAILS PAVING

STREET CROWNS & JOINTS

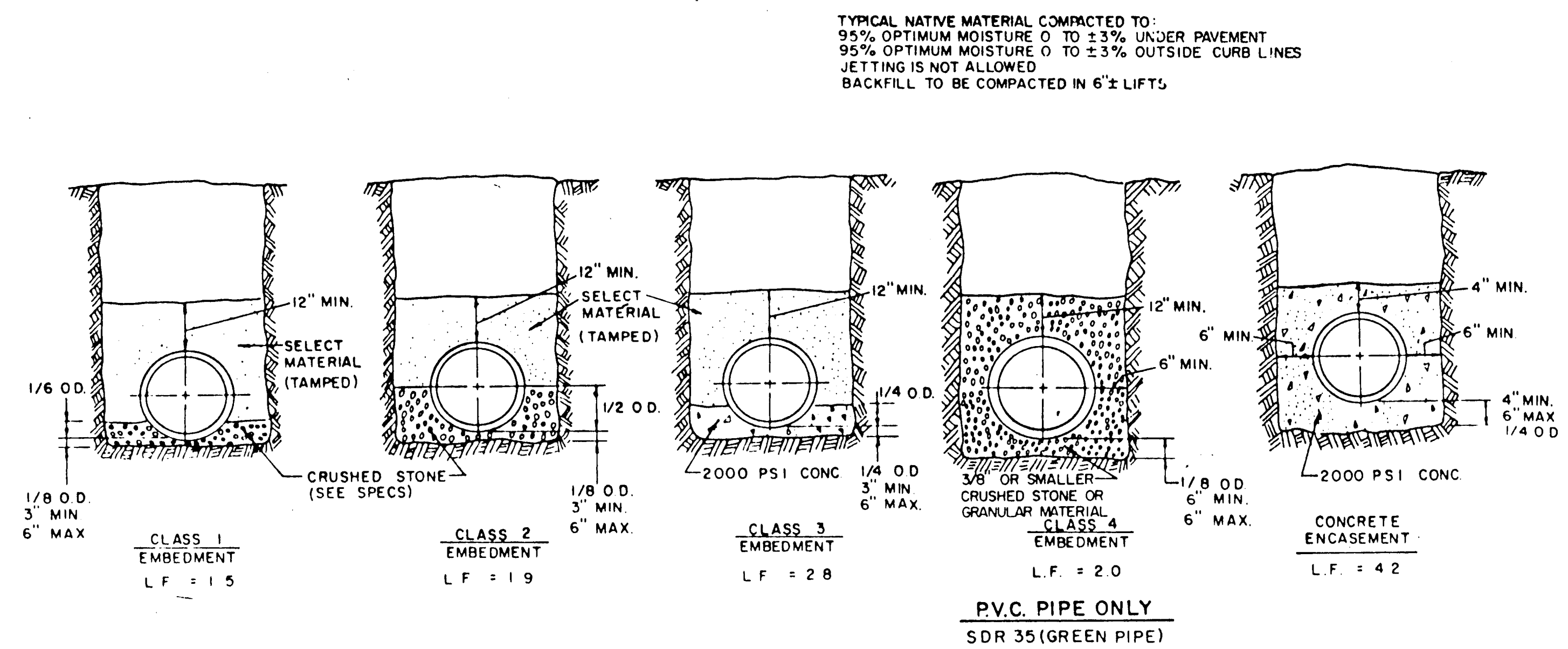
Designed - _____ Drawn - _____ Date - _____ Job No. _____
 Approved - _____ Checked - _____ Scale - _____ Sheet 13 of 14



EMBEDMENT DETAILS FOR RCCP WATERLINE

TABLE OF QUANTITIES OF MATERIALS IN CUBIC YARDS PER 100 LINEAR FEET

INSIDE DIAMETER OF PIPE	APPROX OUTSIDE DIAMETER OF PIPE	"X" IS A MINIMUM DEPTH	"B" TRENCH WIDTH FOR COMPUTATION OF QUANTITIES	CONCRETE		CRUSHED STONE FOR "CL" EMBEDMENT
				FOR EMBEDMENT	FOR ENCASUREMENT	
REINFORCED CONCRETE CYLINDER PIPE						
14"	17.25"	2.53'	3.4'	6.91	16.07	5.16
16"	19.38"	2.84'	3.6'	7.50	17.76	5.64
18"	21.78"	3.19'	3.8'	8.11	19.52	6.16
24"	27.75"	4.06'	4.4'	9.97	24.90	9.28

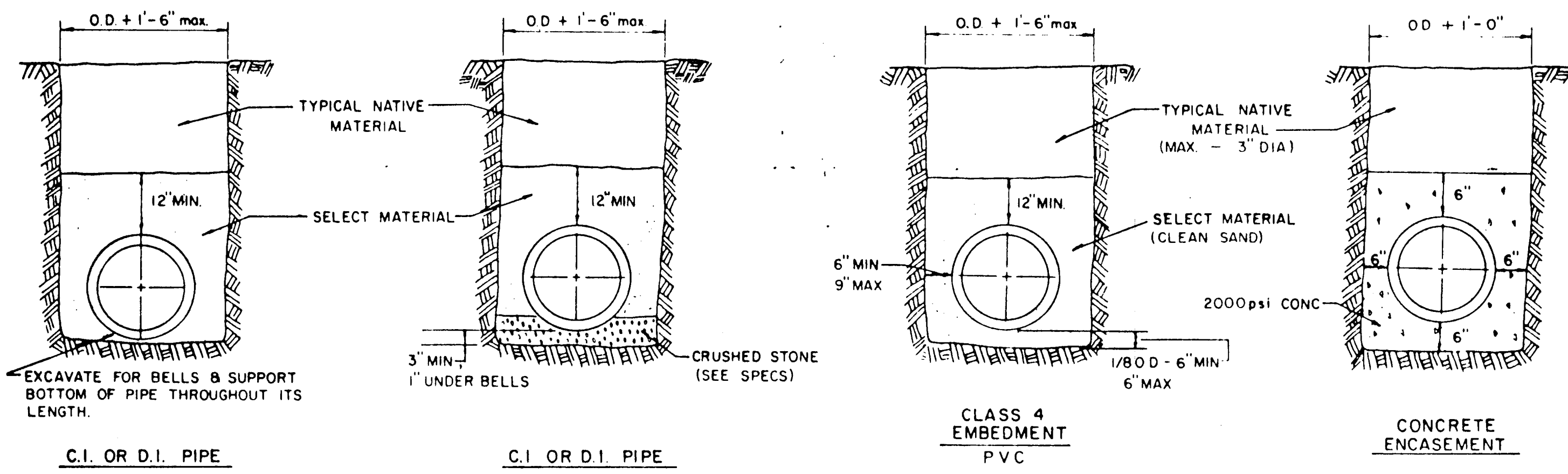


EMBEDMENT DETAILS FOR SANITARY SEWER

TABLE OF QUANTITIES OF 2000 PSI CONCRETE, GRAVEL OR CRUSHED STONE IN CUBIC YARDS PER 100 LINEAR FEET FOR EACH CLASS EMBEDMENT

TABLE OF QUANTITIES PER 100 LINEAR FEET REINFORCED CONCRETE PIPE

SIZE OF PIPE IN INCHES I.D.	OD OF PIPE IN INCHES	TRENCH WIDTH IN INCHES	TRENCH WIDTH IN FEET	CLASS 1 EMBEDMENT CRUSHED STONE	CLASS 2 EMBEDMENT CRUSHED STONE	CLASS 3 EMBEDMENT CONCRETE	CONCRETE ENCASUREMENT
12	16.00	32	2.67	4.1	6.5	4.8	15.8
15	19.50	36	3.00	4.8	7.8	6.4	19.2
18	23.00	39	3.25	5.7	9.2	8.2	21.2
21	26.50	43	3.58	6.9	11.0	10.2	24.9
24	30.00	46	3.83	8.3	13.1	12.4	28.7
27	33.50	51	4.25	10.3	16.1	14.4	32.8
30	37.00	57	4.75	12.7	20.1	17.0	34.8
33	40.50	62	5.17	15.1	23.8	19.3	39.2
36	44.00	67	5.58	18.0	28.6	22.1	43.8

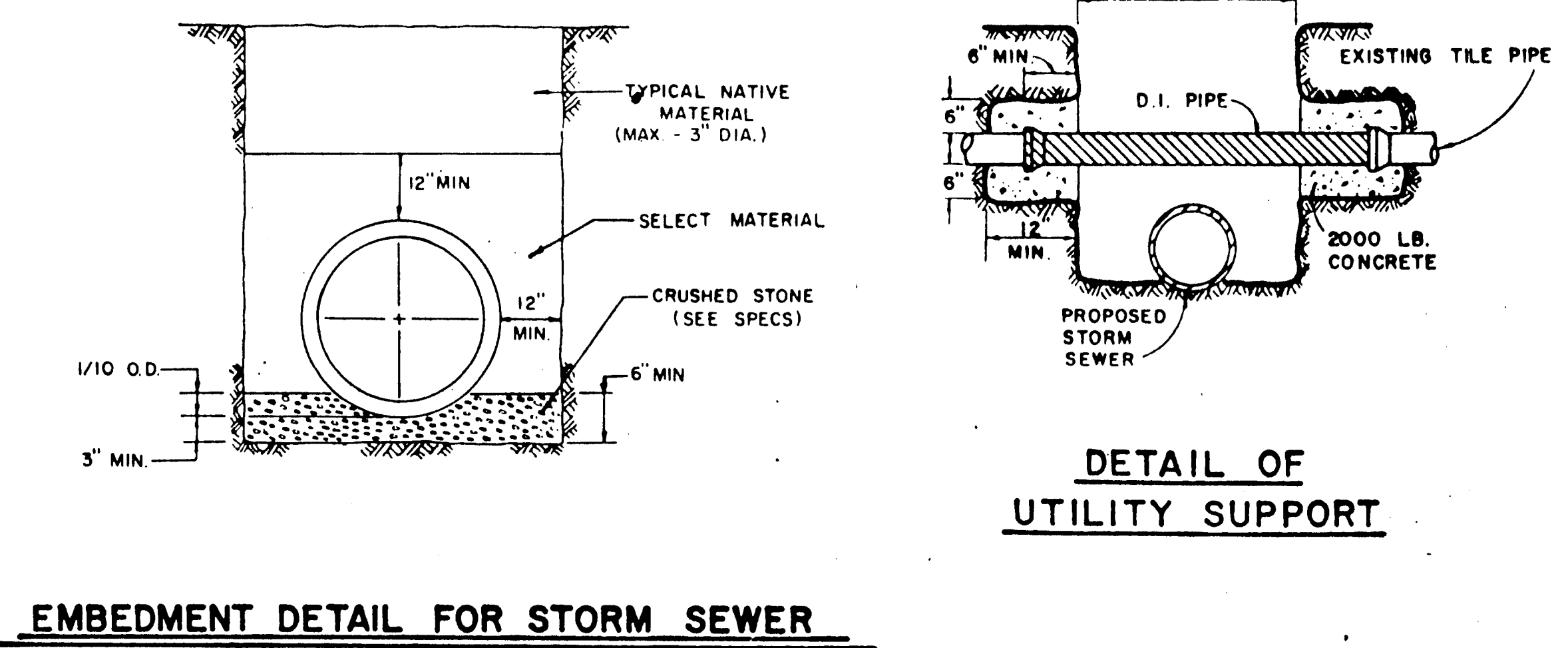
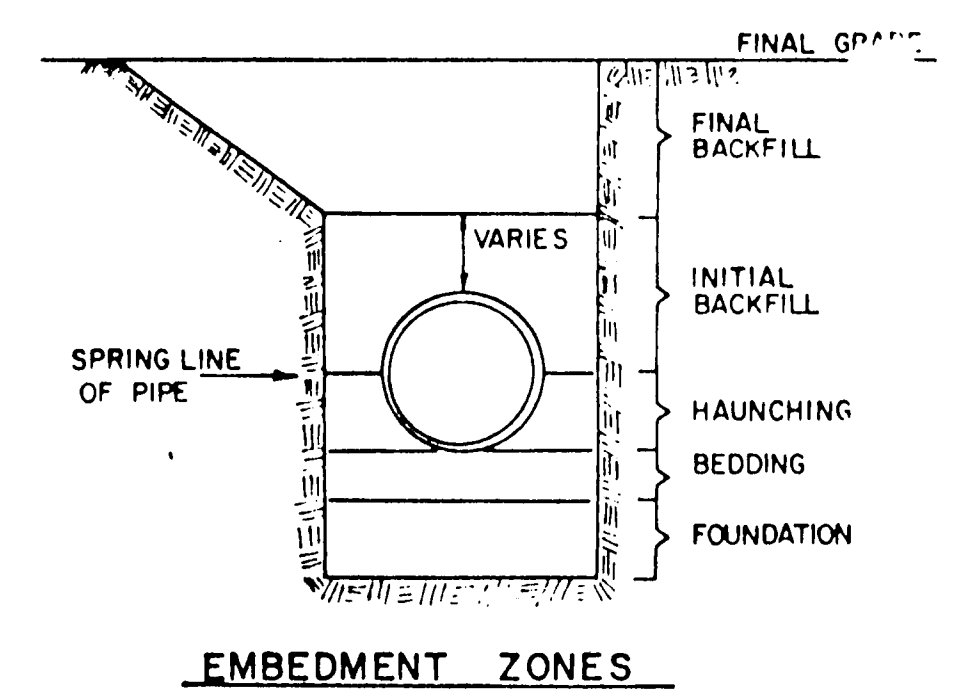


EMBEDMENT DETAILS FOR WATER MAIN

TABLE OF QUANTITIES PER 100 LINEAR FEET-PVC PIPE (IN CUBIC YARDS)

SIZE OF PIPE IN INCHES	OD OF PIPE IN INCHES	TRENCH WIDTH IN INCHES	TRENCH WIDTH IN FEET	CLASS 4 EMBEDMENT CRUSHED STONE	CONCRETE ENCASUREMENT
6	6.28	24	2.00	8.0	11.7
8	8.16	24	2.00	8.7	12.4
10	10.20	26	2.18	10.2	14.2
12	12.24	28	2.35	11.7	15.9
16	15.30	31	2.61	14.0	18.8
24		36	3.0		
30		42	3.5		

NOTE: ALL SANITARY SEWER LINES THIS PROJECT SHALL HAVE CLASS 4 EMBEDMENT UNLESS OTHERWISE NOTED.



TOWN OF ADDISON, TEXAS
DEPARTMENT OF ENGINEERING

STANDARD CONSTRUCTION DETAILS

EMBEDMENT DETAILS

Designed -	Drawn -	Date -	Job No.
Approved -	Checked -	Scale -	Sheet 14 of 14