

PRIVATE STORMWATER SEWER TO SERVE WESTLINK CHRISTIAN CHURCH ADDITION

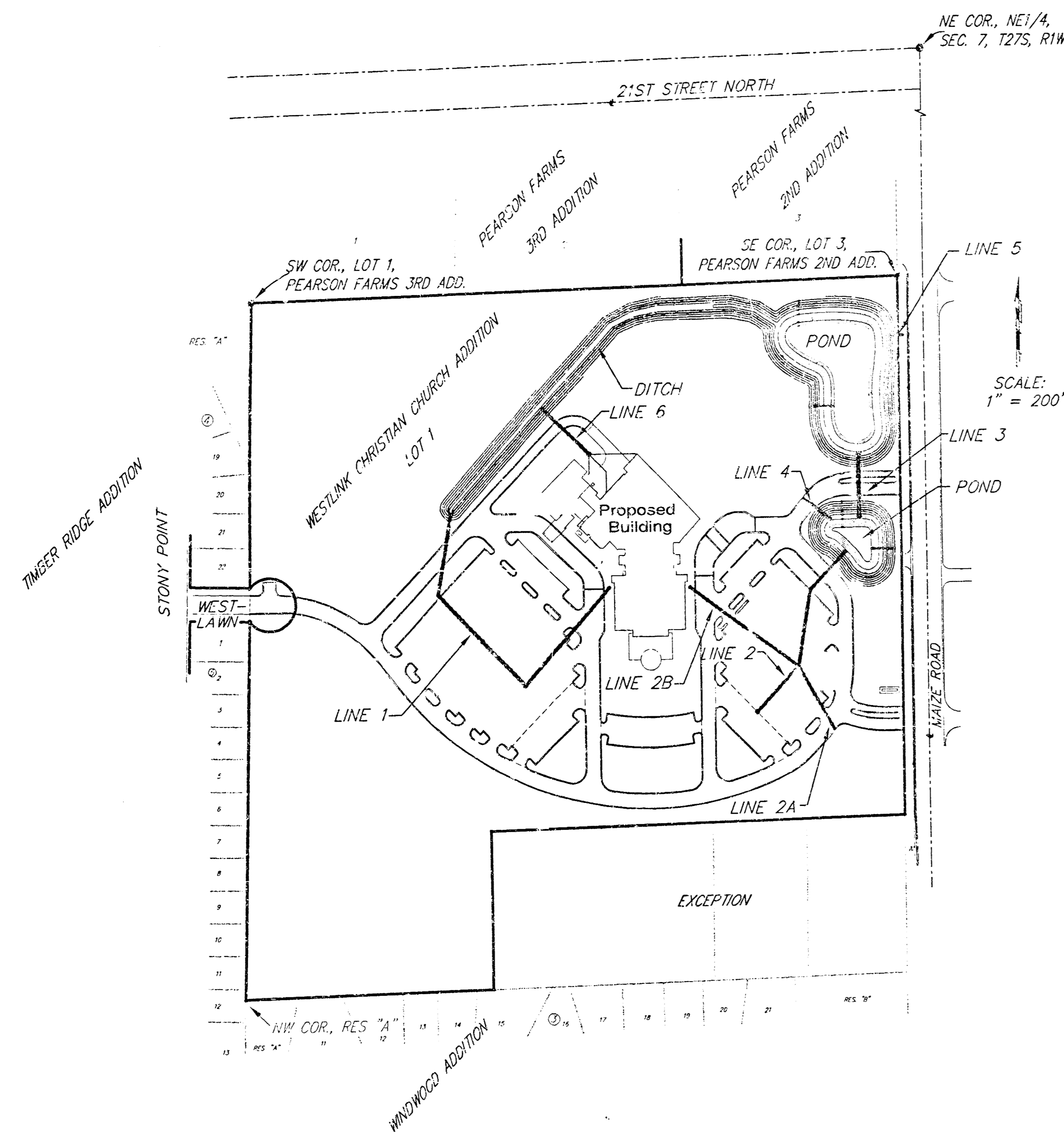
LOT 1

Private Project Number: 1156 PPS (607864)

CITY OF WICHITA, KANSAS

Michael E. Lindebak, P.E. City Engineer

SEPTEMBER 2001



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Legal Description

Lot 1, Westlink Christian Church Addition, Wichita Sedgwick County, Kansas.

Bench Marks

- Maize Rd. and 17th Street North
City of Wichita Bench Mark - 0.5 mi. South of 21st St.
11.00' South of 1/4 Sec. Corner Iron.
43.00' East of 1/4 Sec Corner Iron
Elevation = 161.05 (Per City Record)
- "d" Cut Located at the East Side of Maize
Center Line Headwall of RCBC
East Side of Maize Road
760'± South of 21st St. North
Elevation = 164.93 (City Datum)

APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

Storm Sewers VRH 9/27/01

NOTE TO CONTRACTORS

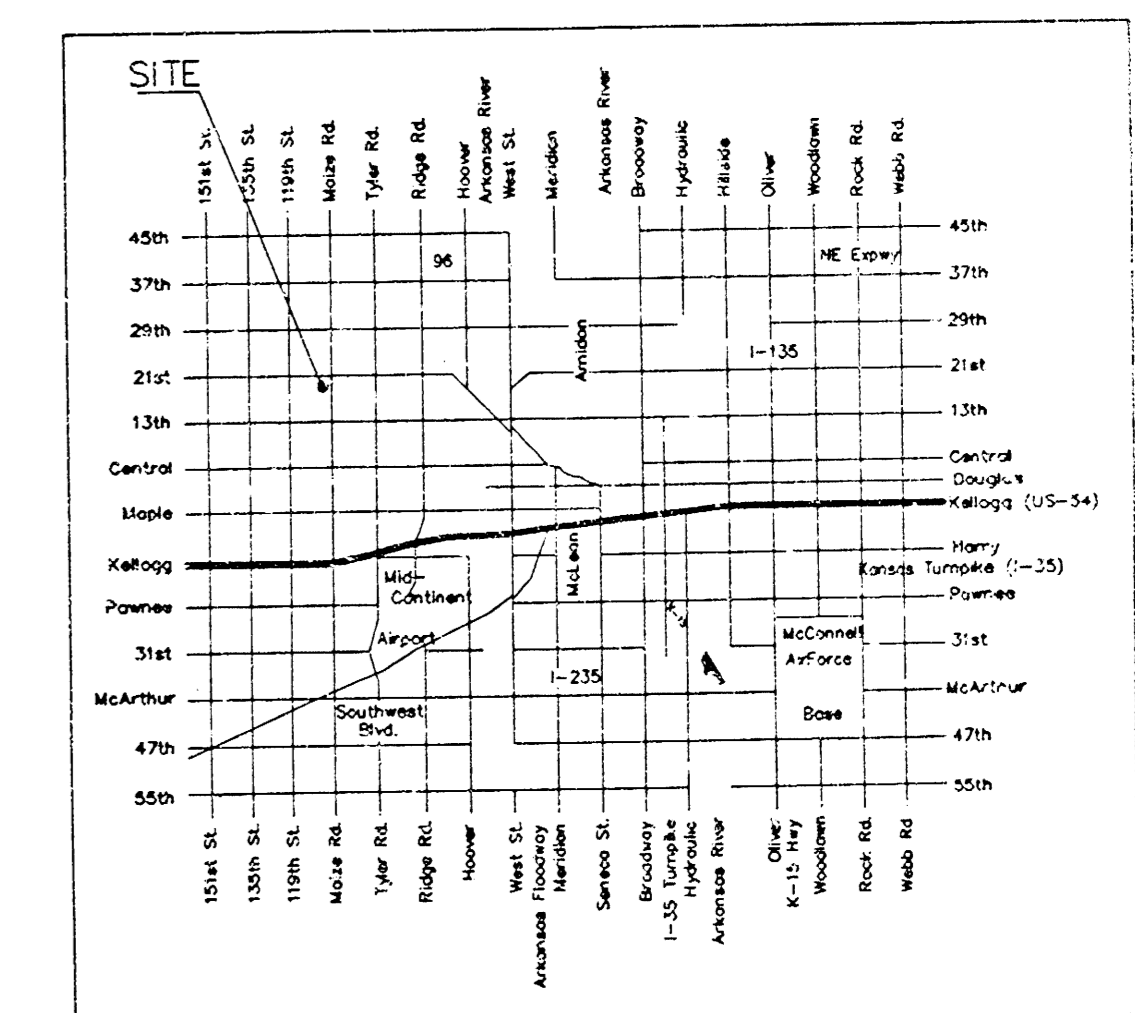
Installation, inspection and testing for this project is to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection to be in accordance with the City of Wichita standard construction engineering practices and certified by a Licensed Professional Engineer. No work shall be performed in dedicated easements or public right-of-way by the Contractor without such inspection nor shall any work be commenced without written authorization by the City Engineer. All Construction and Materials shall comply with the City of Wichita Specifications and Standards for use and available in the City Engineer's Office.

General Notes:

- Contractor will be required to provide notice to utility companies a minimum of twenty-four (24) hours prior to any excavation, as follows:

Kansas One-Call	687-2470
Cox Communications, Inc.	262-0661
K.G.E. Electric Service	383-3650
Kansas Gas Service	383-8900
Peoples Gas Company	942-8350
Southwestern Bell Telephone Company	1-571-2611
City of Wichita Water Dept.	268-4908
City of Wichita Traffic Engineering	268-4446

- Underground utility service lines and overhead utility pole lines are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans, represent the best information obtainable for design. The Contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.
- Trees and shrubs in public right-of-way which are in direct conflict with proposed new construction shall be removed by the Contractor with the Engineer's approval. Trees and shrubs which are not in direct conflict with proposed new construction shall be saved and protected from damage.
- The Contractor shall be responsible for preserving property irons. The Contractor will be required to re-establish any property irons which are damaged or destroyed by his construction operations. Such irons shall be reestablished by a licensed land surveyor in accordance with state laws.
- Contractor shall not start work on the project until the project inspector is assigned to the project and is present on the site. Any work done without inspection will be required to be uncovered for inspection.
- Rubble from the removal of miscellaneous structures and excess excavation which is to be wasted shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Engineer as to suitability, appearance and site location. Locations that, in the opinion of the Engineer, will leave an unsightly appearance will not be approved.
- Cuts made to paved surfaces on public property will be repaired by the City's contractor and charged against the owner/applicant. Unit repair prices are available from the City at 268-4418. A surcharge may be applicable. Contractor shall obtain permit prior to construction.
- All disturbed R/W areas not intended for pavement or sidewalk construction shall be seeded with Kansas Premium Fescue Blend at a rate of 8 lb./1000 Sq. Ft., fertilized with a 16-20-6 ratio at a rate of 4 lb./1000 Sq. Ft., and mulched with Prairie Hay at a rate of 92 lb./1000 Sq. Ft. Mulch shall be "patted" with forks or punched into soil to reduce loss due to wind.



LOCATION MAP

VRH
9/27/01

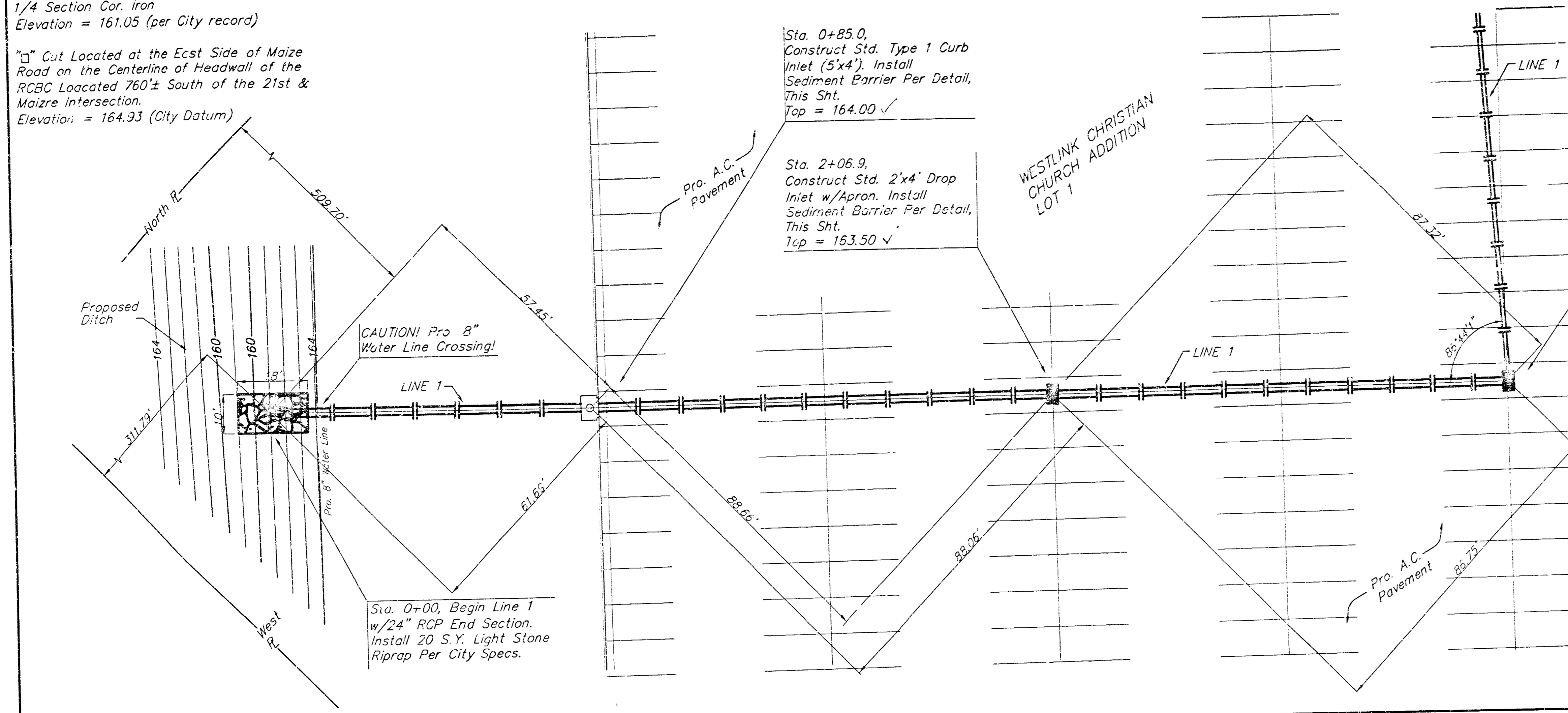
As Built 4/02 KK 10/01 Rev.

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & CONSULTING
314-262-7271 • 314-262-7272 • 314-262-7273

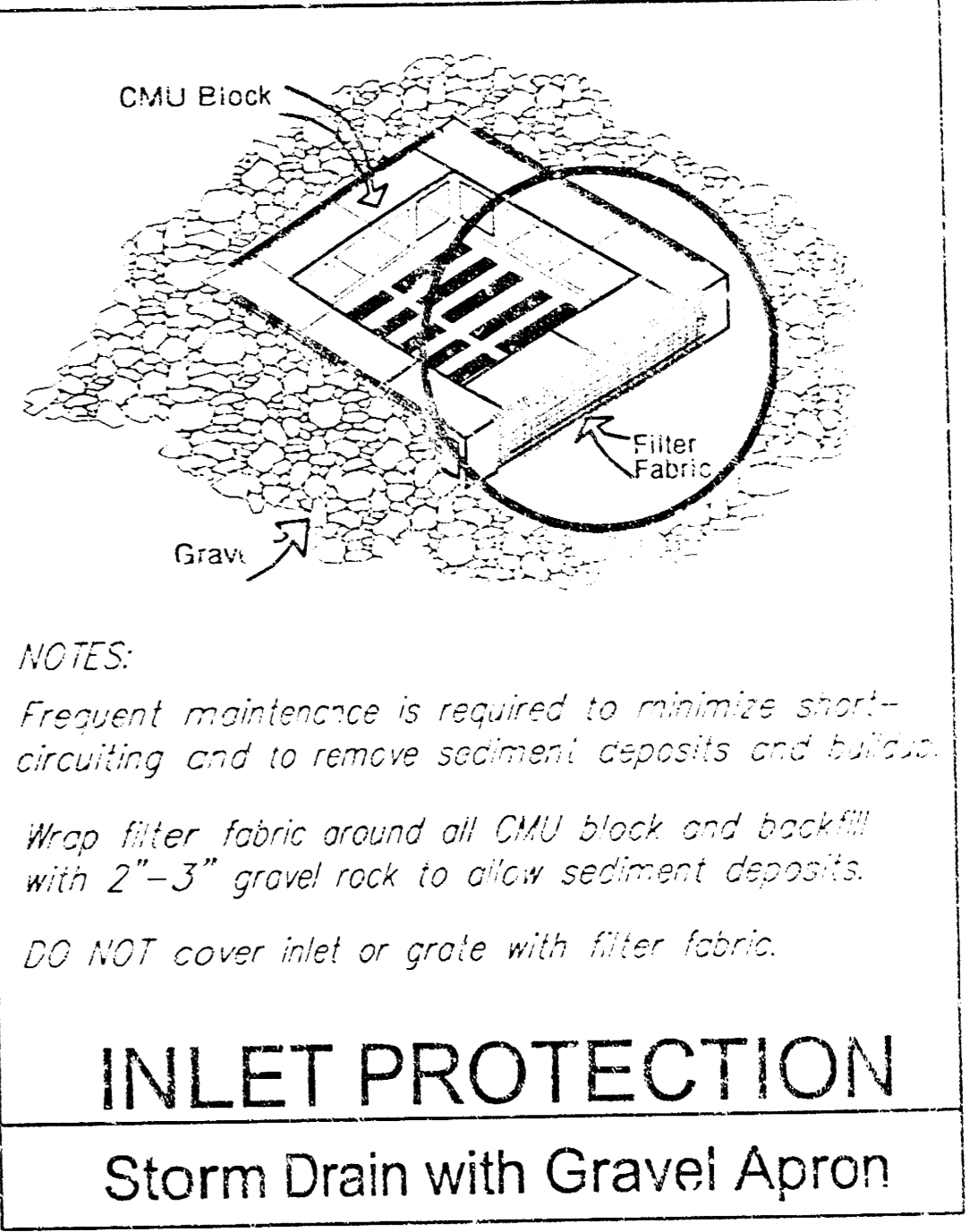
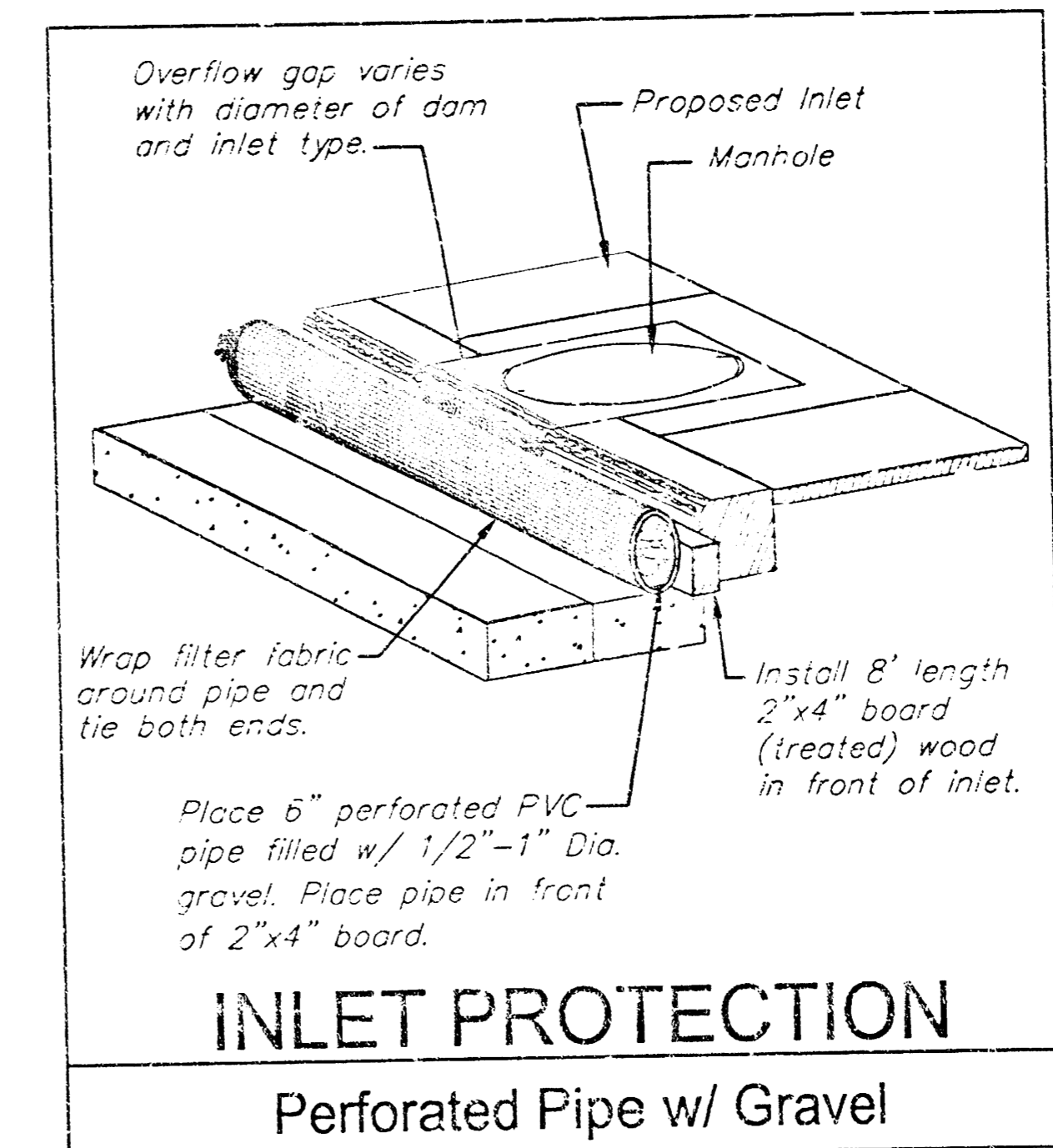
BOOKET
5-1-A-OF
MCC
C-210

BENCHMARKS:
 Maize Road and 17th Street N. - C.O.W.
 Benchmark = 0.5 mi. S. 21st. -11.00' South
 of 1/4 Sec. Corner Iron - 43.00' East of
 1/4 Section Cor. Iron
 Elevation = 161.05 (per City record)

"a" Cut Located at the East Side of Maize
 Road on the Centerline of Headwall of the
 RCBC Located 760± South of the 21st &
 Maize Intersection.
 Elevation = 164.93 (City Datum)

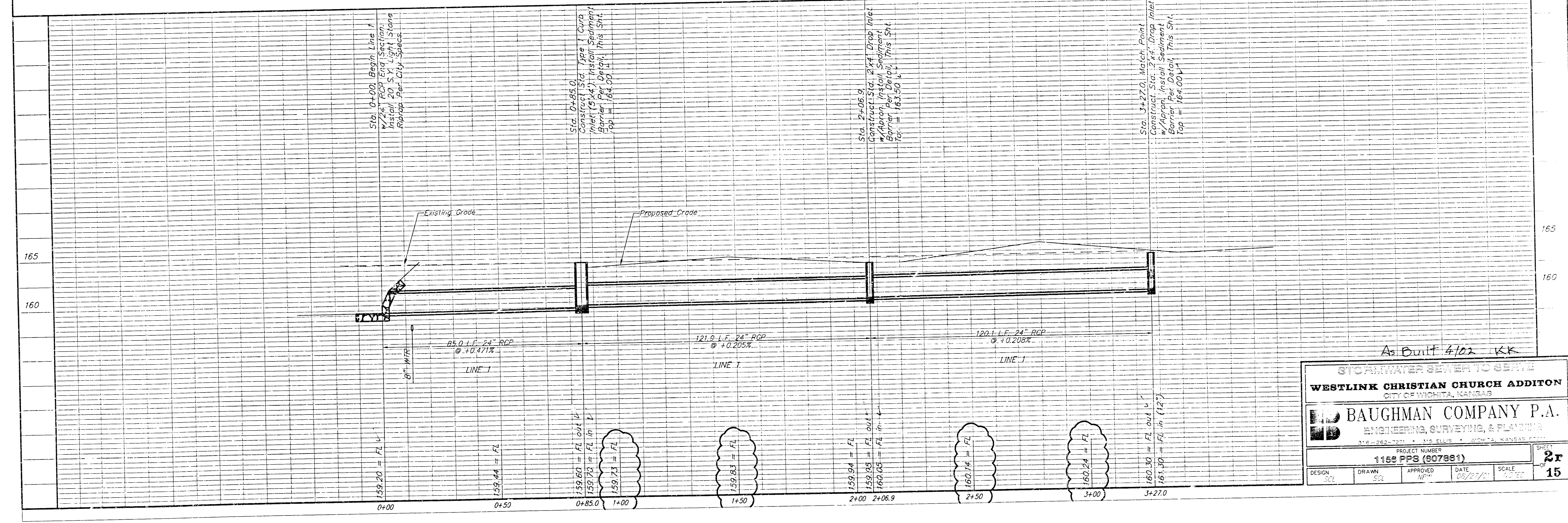


Sta. 3+27.0, Match Point
 Construct Sid. 2'x4' Drop
 Inlet w/Apron. Install
 Sediment Barrier Per Detail,
 This Sht.
 Top = 164.00 ✓



SCALE:
 1" = 20' HORIZONTAL
 1" = 5' VERTICAL
 • = IRON

REVISED 10/26/01



As Built 4/02 KK

STORMWATER SEWER TO SERVE
WESTLINK CHRISTIAN CHURCH ADDITION
 CITY OF WICHITA, KANSAS

BAUGHMAN COMPANY P.A.
 ENGINEERING, SURVEYING, & PLANNING
 316 - 262 - 7271 • 315 ELLIS • WICHITA, KANSAS 67202

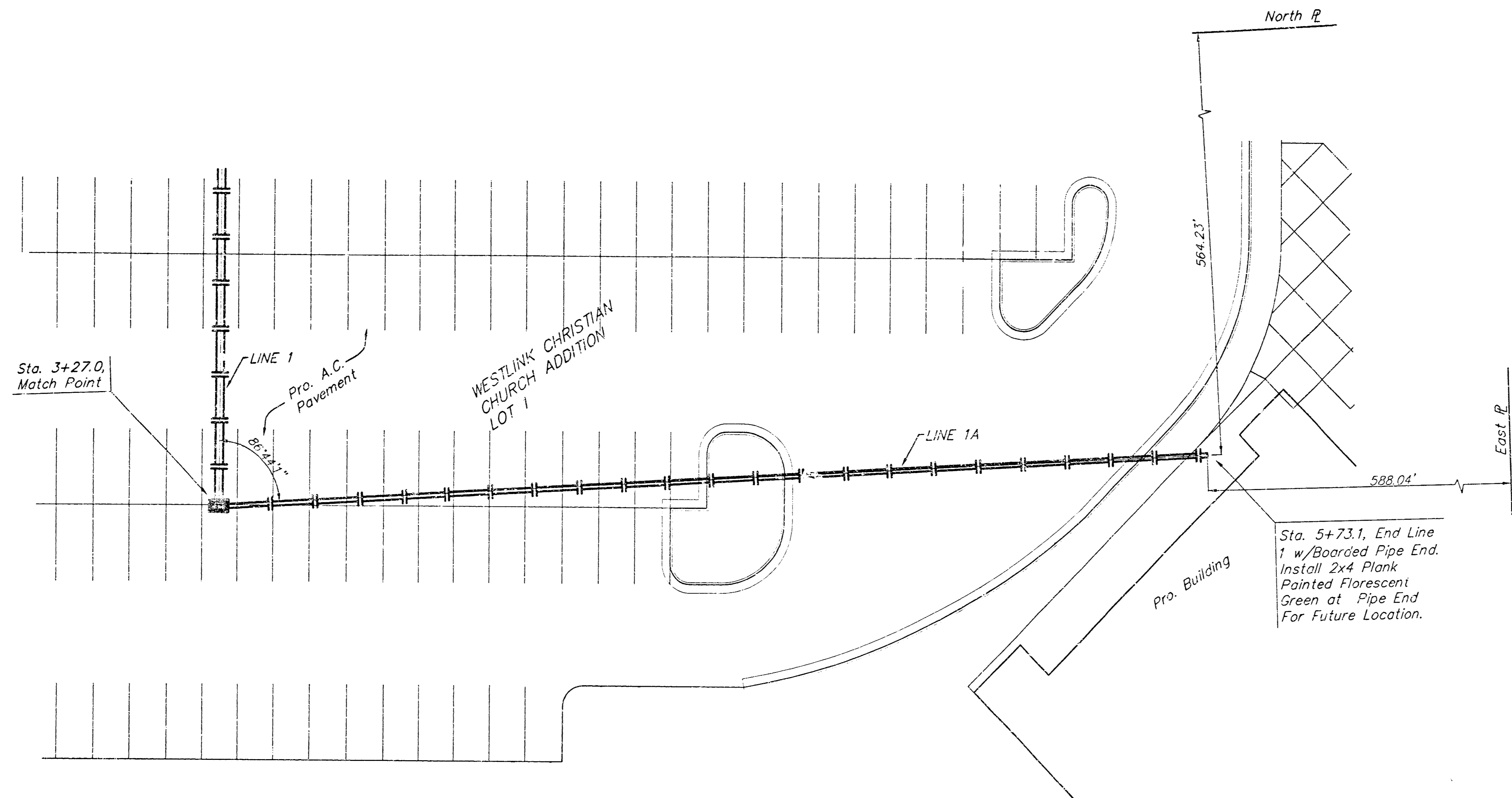
PROJECT NUMBER
1168 PPS (907881)

DESIGN SCC	DRAWN SCC	APPROVED NPM	DATE 09/21/01	SCALE AS SHOWN
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15

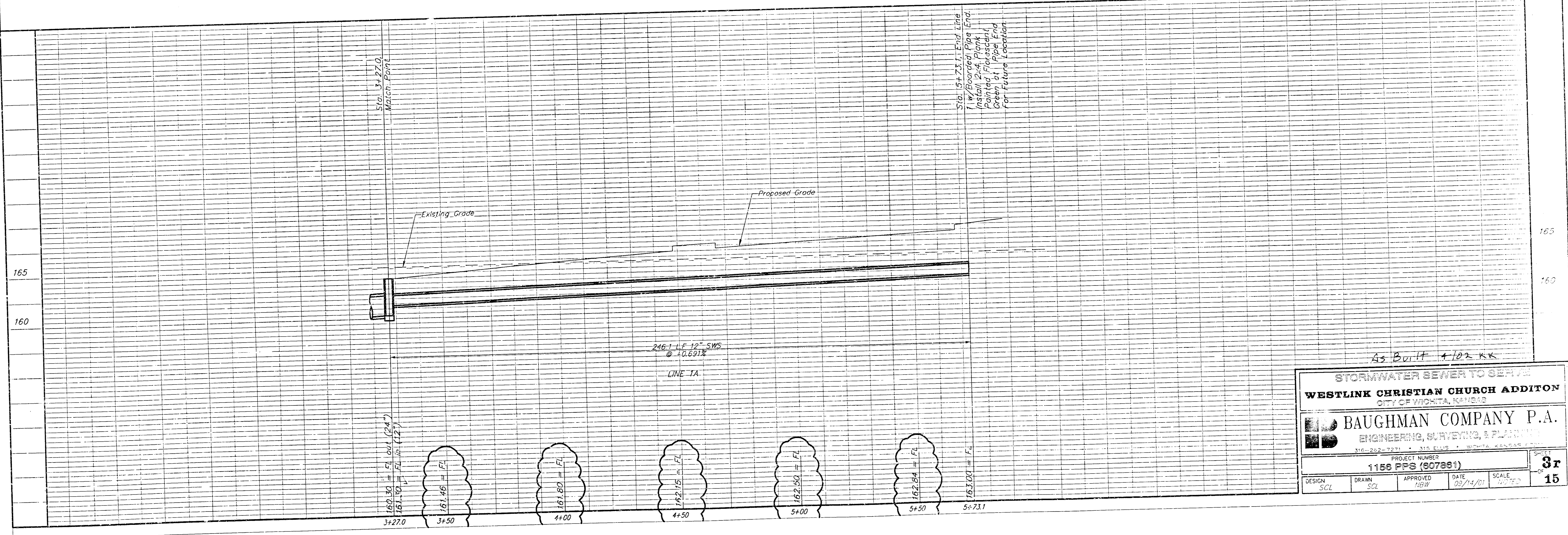
BENCHMARKS:
 Maize Road and 17th Street N. - C.G.W.
 Benchmark - 0.5 mi. S. 21st. -11.00' South
 of 1/4 Sec. Corner Iron - 43.00' East of
 1/4 Section Cor. Iron
 Elevation = 161.05 (per City record)

"□" Cut Located at the East Side of Maize
 Road on the Centerline of Headwall of the
 RCB Located 760± South of the 21st &
 Maize Intersection.
 Elevation = 164.93 (City Datum)



SCALE:
 1" = 20' HORIZONTAL
 1" = 5' VERTICAL
 • = IRON

REVISED 10/26/01

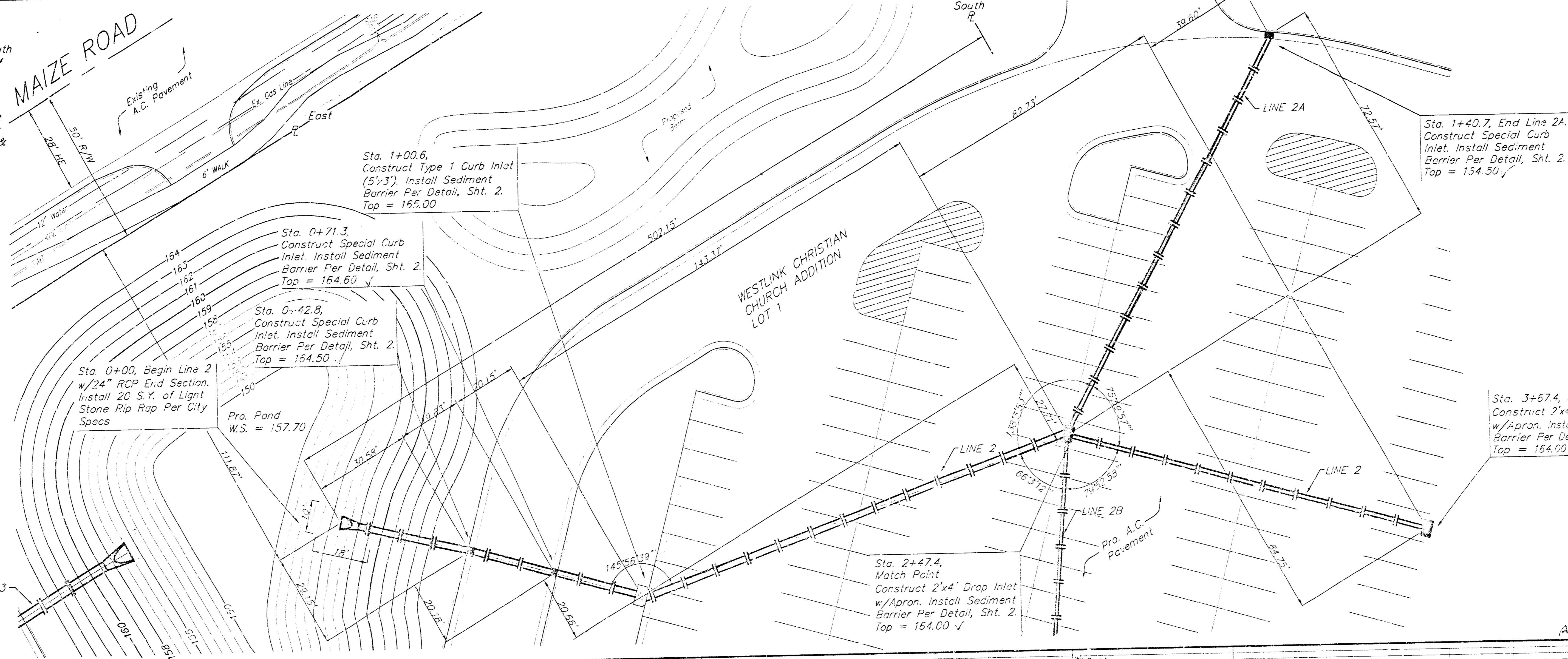


As Built 4/02 KK

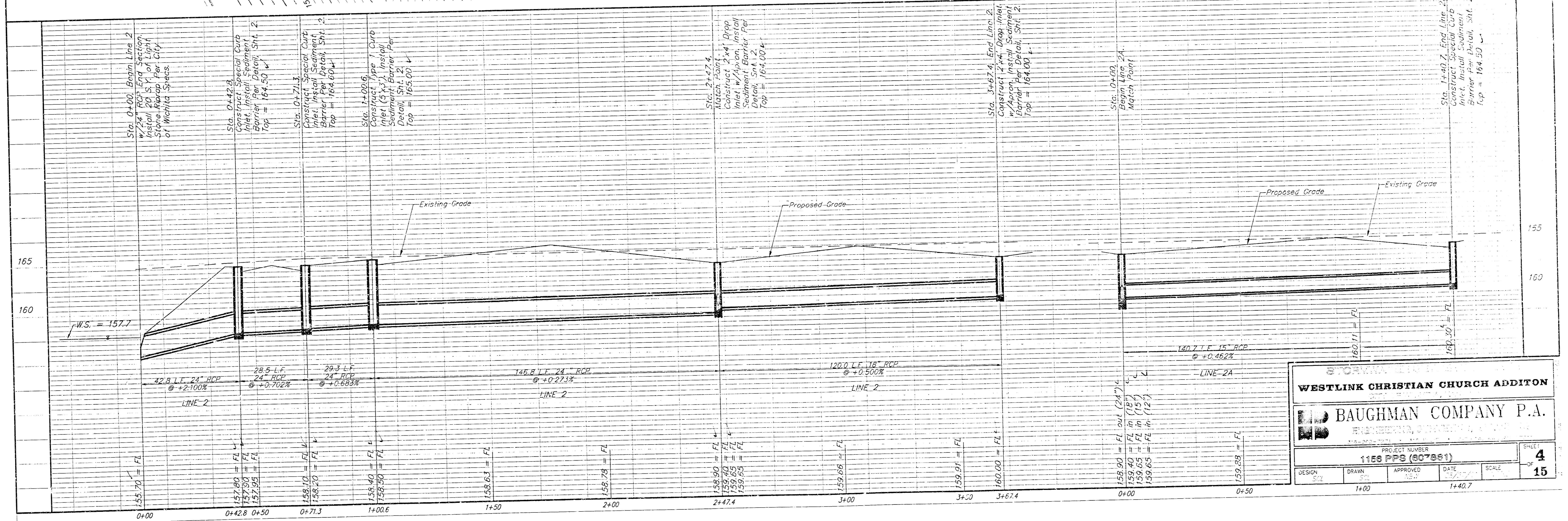
STORMWATER SEWER TO SERVE			
WESTLINK CHRISTIAN CHURCH ADDITION			
CITY OF WICHITA, KANSAS			
BAUGHMAN COMPANY P.A.			
ENGINEERING, SURVEYING, & PLANNING			
310-262-7271 • 310 BLUE • WICHITA, KANSAS 67202			
PROJECT NUMBER			3r
1158 PPS (807861)			
DESIGN	DRAWN	APPROVED	DATE
SCL	SCL	HW	08/14/01
			SCALE
			1/4" = 1'

BENCHMARKS:
 Maize Road and 17th Street N. - C.O.W.
 Benchmark - 0.5 mi. S. 21st. - 11.00' South
 of 1/4 Sec. Corner Iron - 43.00' East of
 1/4 Section Cor. Iron
 Elevation = 161.05 (per City record)

1" Cut Located at the East Side of Maize Road on the Centerline of Headwall of the RCB Located 760± South of the 21st & Maize Intersection.
 Elevation = 164.93 (City Datum)



SCALE:
 1" = 20' HORIZONTAL
 1" = 5' VERTICAL
 • = IRON



WESTLINK CHRISTIAN CHURCH ADDITON

BAUGHMAN COMPANY P.A.

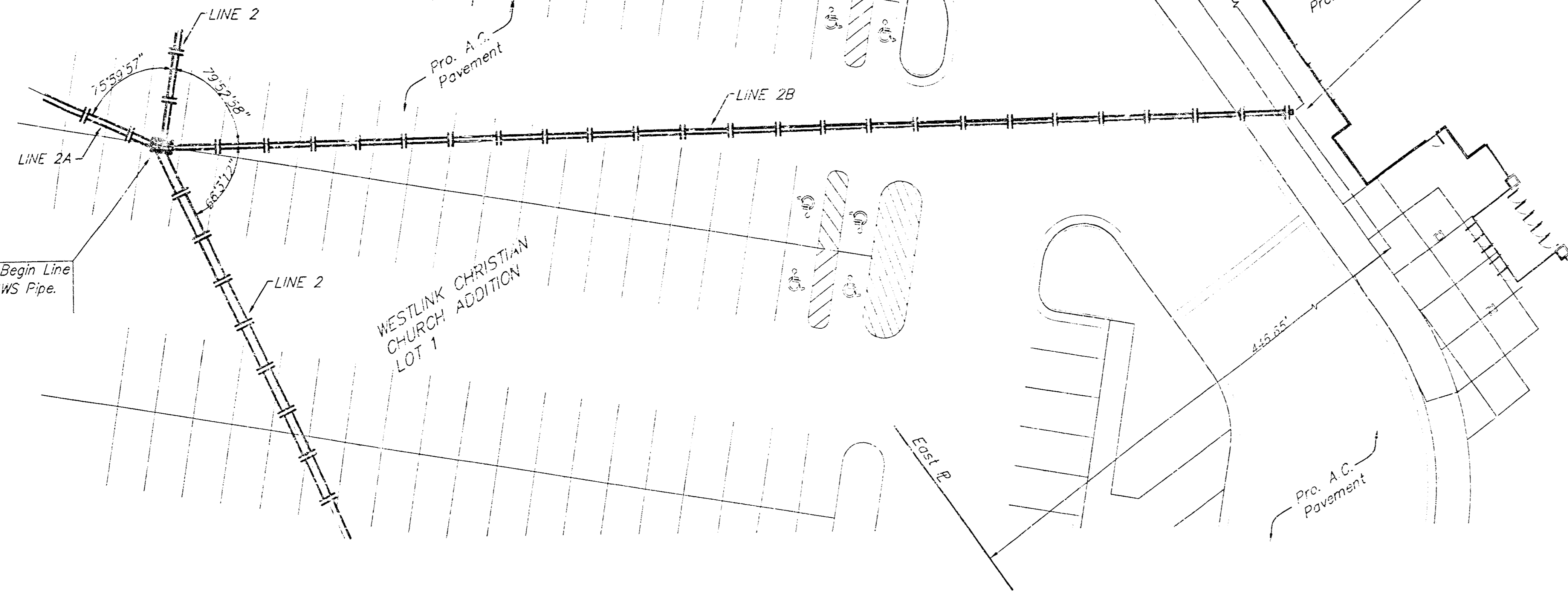
PROJECT NUMBER
 1158 PPS (07881)

DESIGN: [] DRAWN: [] APPROVED: [] DATE: [] SCALE: [] SHEET: **4** OF **15**

1+00 1+40.7

BENCHMARKS:
 Maize Road and 17th Street N. - C.O.W.
 Benchmark - 0.5 mi. S. 21st, -11.00' South
 of 1/4 Sec. Corner Iron - 43.00' East of
 1/4 Section Cor Iron
 Elevation = 161.05 (per City record)

"n" Cut Located at the East Side of Maize
 Road on the Centerline of Headwall of the
 RCBC Located 750± South of the 21st &
 Maize Intersection.
 Elevation = 164.93 (City Datum)



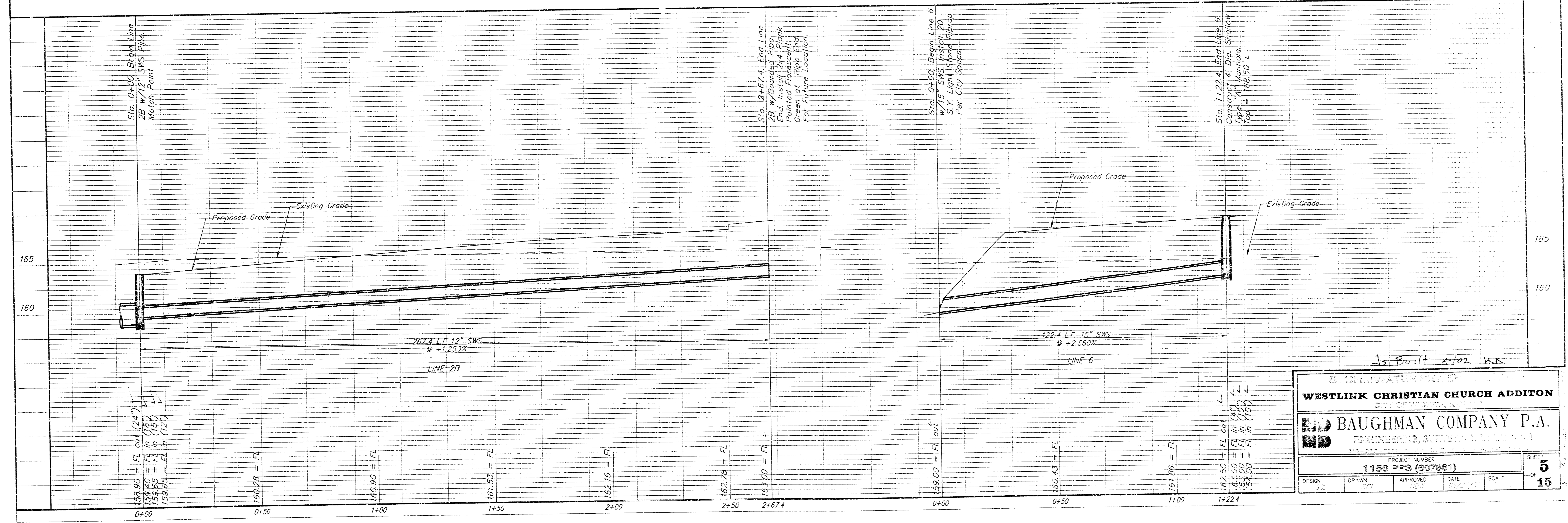
Sta. 0+00, Begin Line 6
 w/15" SWS. Install 20
 S.Y. Light Stone Riprap
 Per City Specs.

Sta. 2+67.4, End Line
 2B w/Boarded Pipe
 End. Install 2x4 Plank
 Painted Fluorescent
 Green at Pipe End
 For Future Location.

Sta. 1+22.4, End Line 6.
 Construct 4' Dia. Shallow
 Type "A" Manhole.
 Top = 168.30v

SCALE:
 1" = 20' HORIZONTAL
 1" = 5' VERTICAL
 • = IPCI

Contractor Shall
 Leave Block Cuts
 For Future SWS
 Connection.



As Built 4/02 K.R.

STORM WATER DRAINAGE
WESTLINK CHRISTIAN CHURCH ADDITION
 1150 PPS (807881)

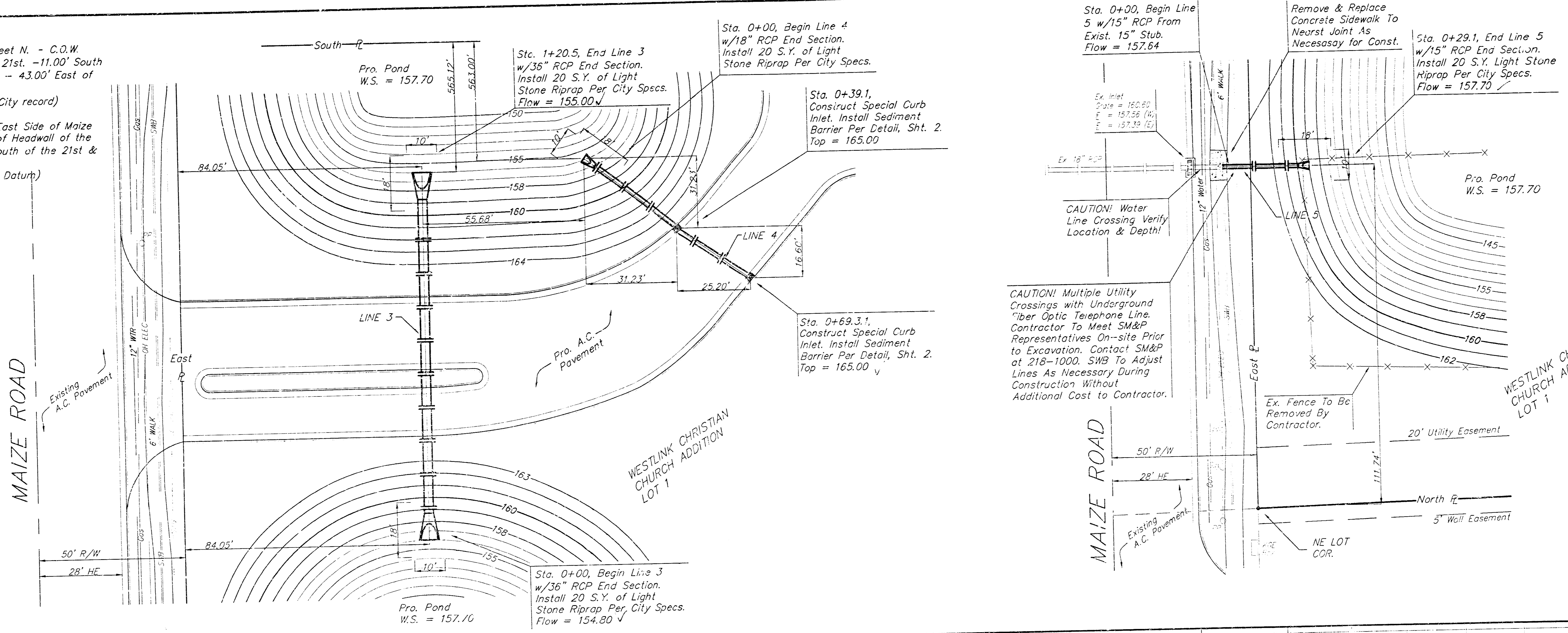
BAUGHMAN COMPANY P.A.
 ENGINEERING, ARCHITECTURE, LANDSCAPE ARCHITECTURE

PROJECT NUMBER: 1150 PPS (807881)
 SHEET: 5 OF 15

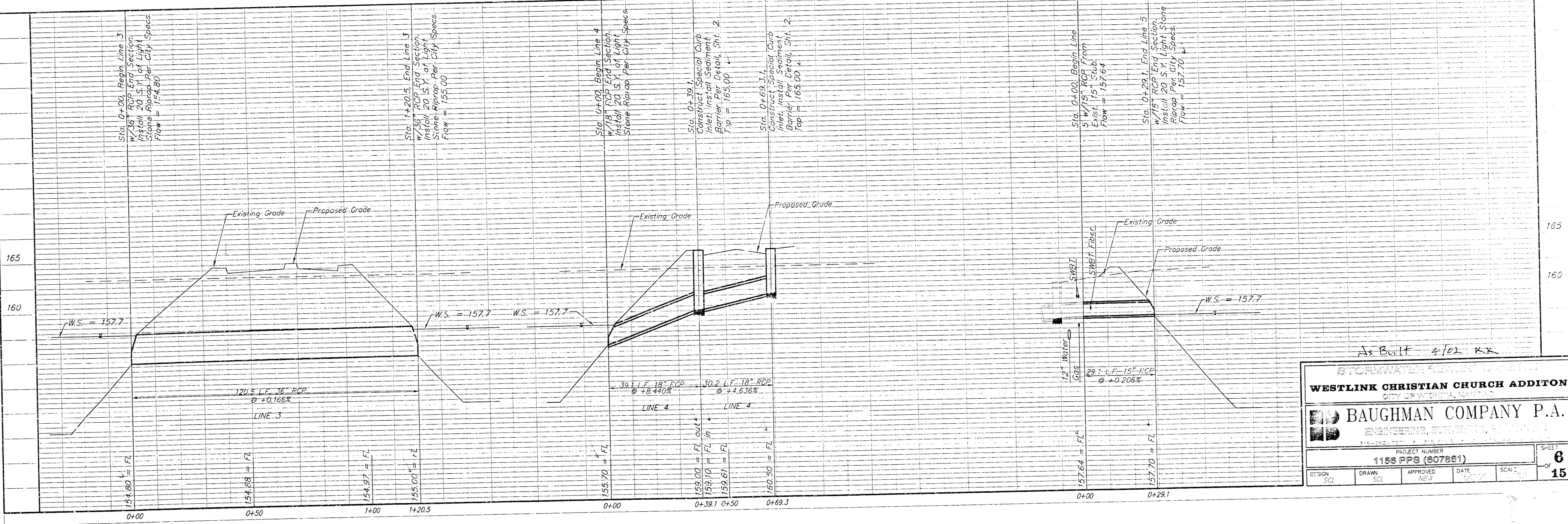
DESIGN: SCJ	DRAWN: SCJ	APPROVED: [Signature]	DATE: 10/20/11	SCALE:
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BENCHMARKS:
 Maize Road and 17th Street N. - C.O.W.
 Benchmark = 0.5 mi. S. 21st. -11.00' South
 of 1/4 Sec. Corner Iron - 43.00' East of
 1/4 Section Cor. Iron
 Elevation = 151.05 (per City record)

"D" Cut Located at the East Side of Maize Road on the Centerline of Headwall of the RCBC Located 760± South of the 21st & Maize Intersection.
 Elevation = 164.93 (City Datur)



SCALE:
 1" = 20' HORIZONTAL
 1" = 5' VERTICAL
 • = IRON



As Built 4/02 KK

WESTLINK CHRISTIAN CHURCH ADDITION
 CITY OF WINDY HILLS, MISSOURI

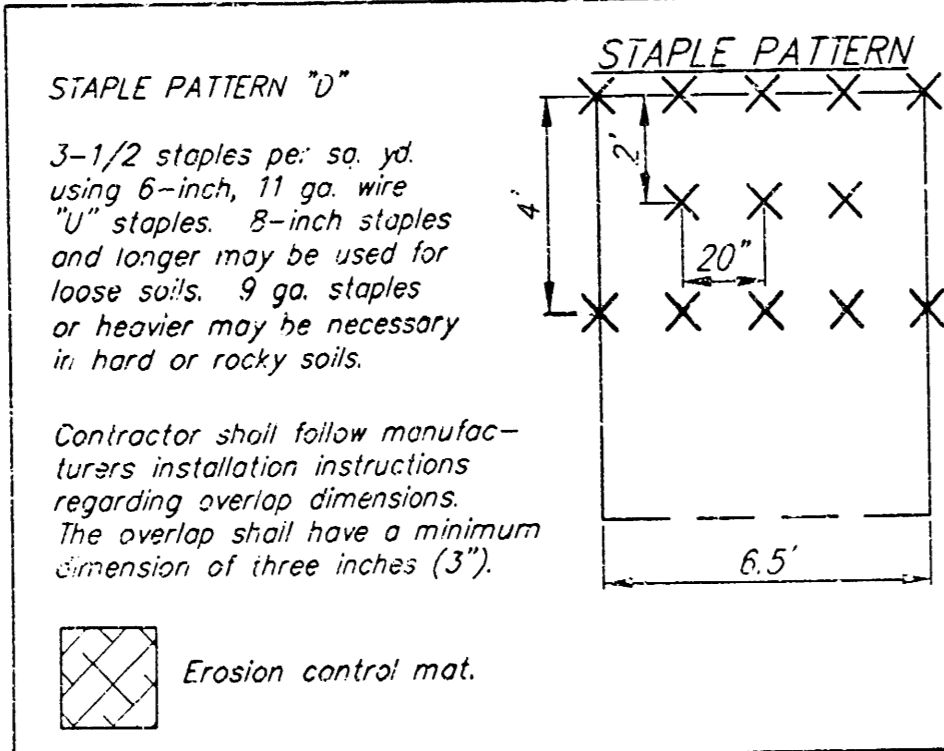
BAUGHMAN COMPANY P.A.
 ENGINEERING, ARCHITECTURE, INTERIOR DESIGN

PROJECT NUMBER: 1156 PPS (607881)

DESIGN: SCL, DRAWN: SCL, APPROVED: NE-J, DATE: 1/17, SCALE: 1/8" = 1'-0", SHEET: 8 OF 15

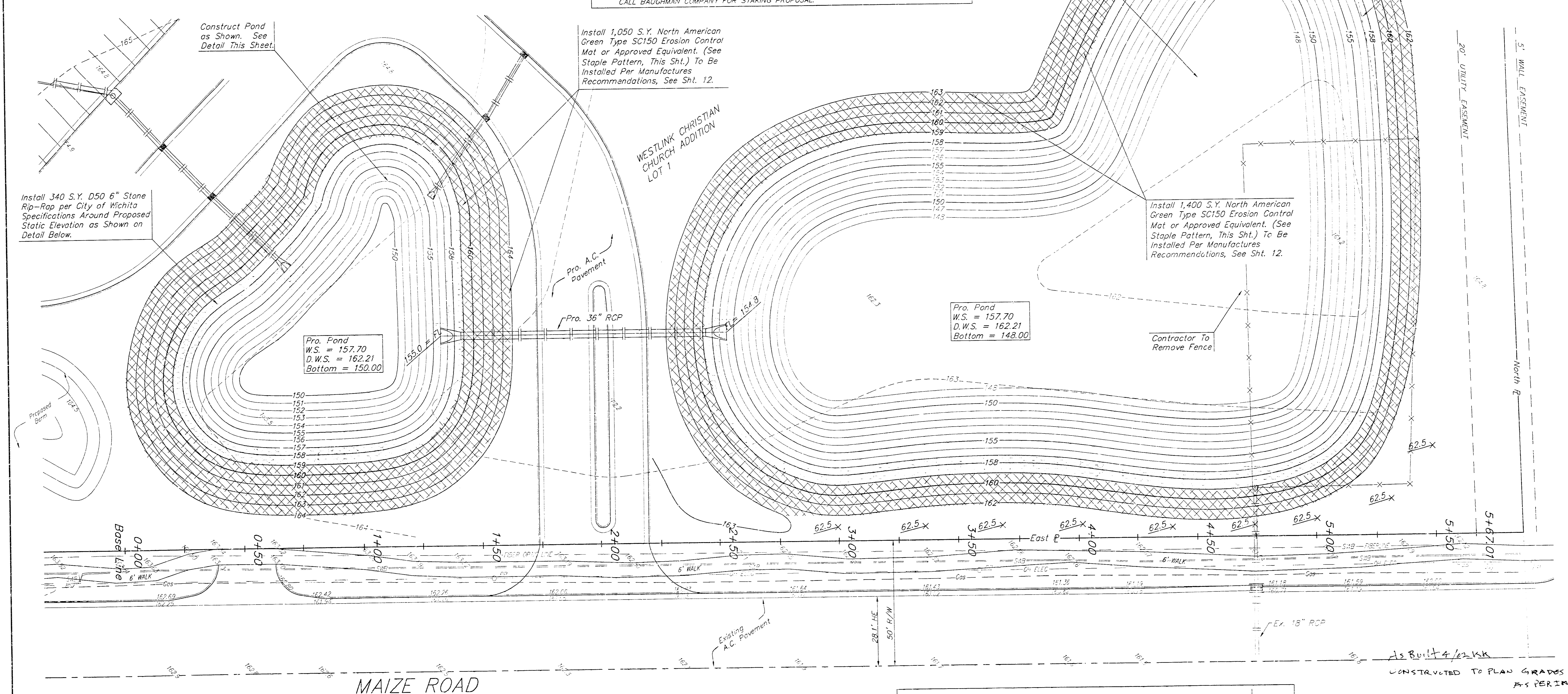
BENCHMARKS:
 Maize Road and 17th Street N. - C.O.W.
 Benchmark = 0.5 mi. S. 21st. -11.00' South
 of 1/4 Sec. Corner Iron = 43.00' East of
 1/4 Section Cor. Iron
 Elevation = 161.05 (per City record)

"1" Cut Located at the East Side of Maize Road on the Centerline of Headwall of the RCBC Located 760'± South of the 21st & Maize Intersection.
 Elevation = 164.63 (City Datum)

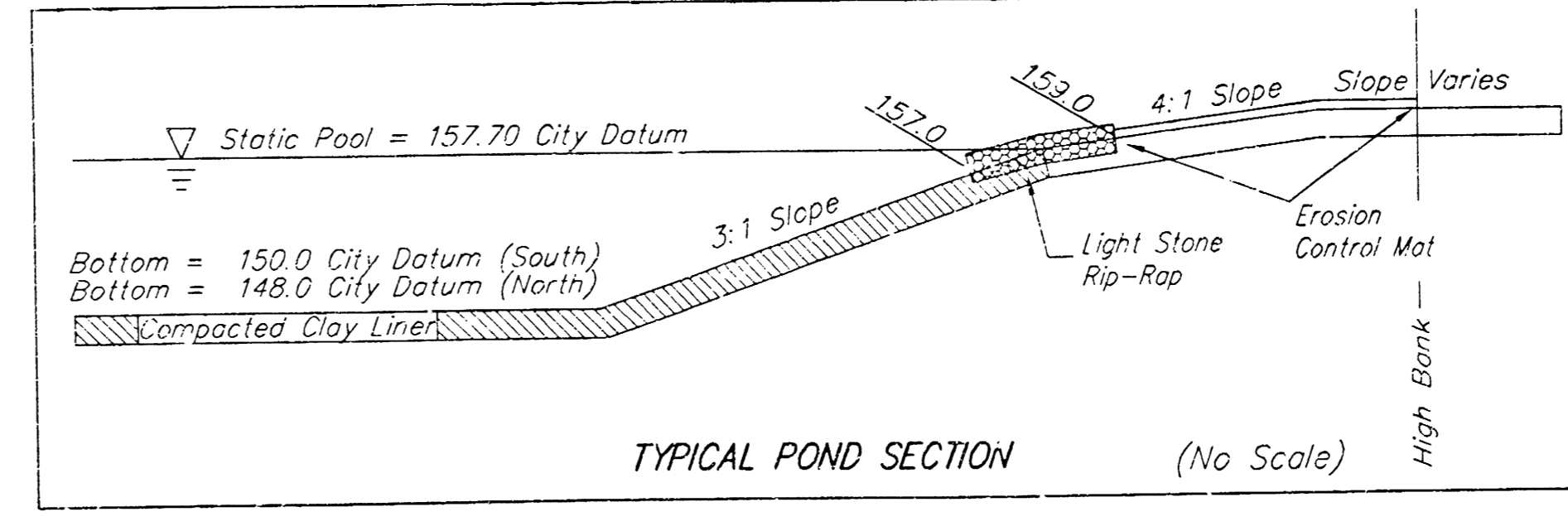


- NOTES:**
1. POND BOTTOM AND SIDESLOPES BELOW STATIC POOL ELEVATION SHALL BE OVER-EXCAVATED 1' AND A 1' CLAY LINER SHALL BE COMPACTED TO 95% STD. DENSITY. THE PLASTICITY INDEX (P.I.) SHALL BE AT LEAST 20. THE COMPACTION AND P.I. SHALL BE VERIFIED DURING CONSTRUCTION.
 2. ANY EXCESS EXCAVATION SHALL BE STORED ON-SITE AT LOCATIONS TO BE DETERMINED BY THE ENGINEER.
 3. ALL DISTURBED AREAS NOT COVERED BY PAVEMENT ARE TO BE SEEDED AND MULCHED AS FOLLOWS:
 SEED -- KANSAS PREMIUM FESCUE BLEND; 8#/1000 SQ. FT., DRILLED
 MULCH -- 2 TONS PRAIRIE HAY / ACRE, WHERE EROSION MAT IS NOT INSTALLED
 FERTILIZER -- 16-26-16 RATIO - 350 LBS./AC.
 4. INSTALL SC150 EROSION CONTROL MAT FROM ABOVE THE RIPRAP BORDER (159.00) TO THE PROPOSED HIGH BANK. CALL NORTH AMERICAN GREEN, INC. AT 1-800-772-2040 FOR MORE INFORMATION.
 5. BAUGHMAN COMPANY CAN PROVIDE STAKING INFORMATION AT THE TIME OF CONSTRUCTION. CALL BAUGHMAN COMPANY FOR STAKING PROPOSAL.

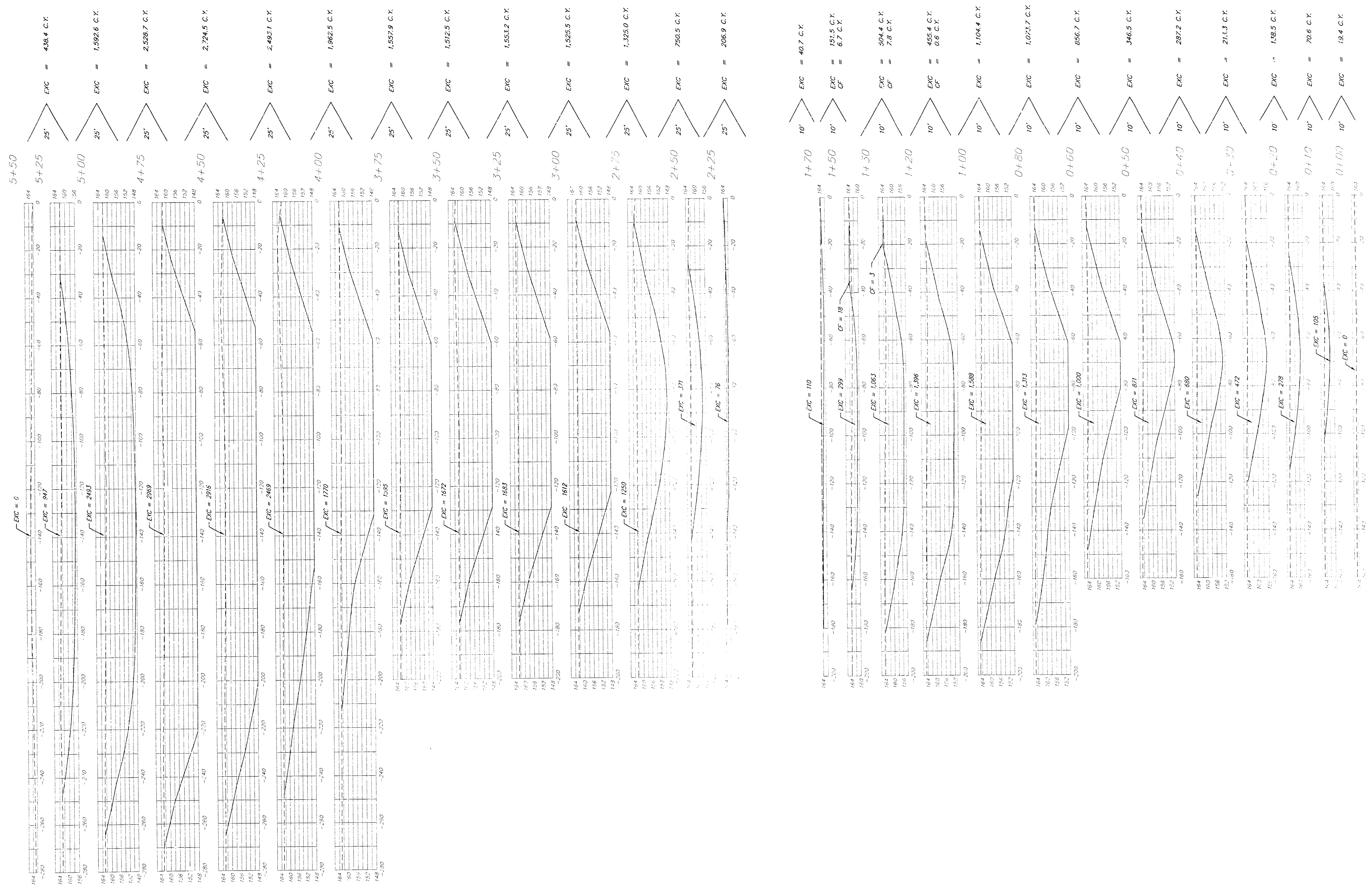
SCALE:
 1" = 20'
 • = IRON



EARTHWORK SUMMARY:
 25,434 C.Y. EXCAVATION
 0.0 C.Y. FILL
 (NOTE: THIS QUANTITY IS TO ACHIEVE FINAL SHAPE OF POND. IT DOES NOT INCLUDE THE OVER-EXCAVATION OF 1' TO PLACE THE CLAY LINER. THIS QUANTITY DOES NOT INCLUDE ANY CORRECTION FACTORS AND IS FOR INFORMATION ONLY.)



STORMWATER BERM TO BE BUILT
WESTLINK CHRISTIAN CHURCH ADDITION
BAUGHMAN COMPANY P.A.
 ENGINEERING, SURVEYING & PLANNING
 PROJECT NUMBER: 1158 PFS (807881)
 SHEET 7 OF 15
 DESIGN: [] DRAWN: [] APPROVED: [] DATE: [] SCALE: []



Scale:
 1"=20' Horizontal
 1"=20' Vertical

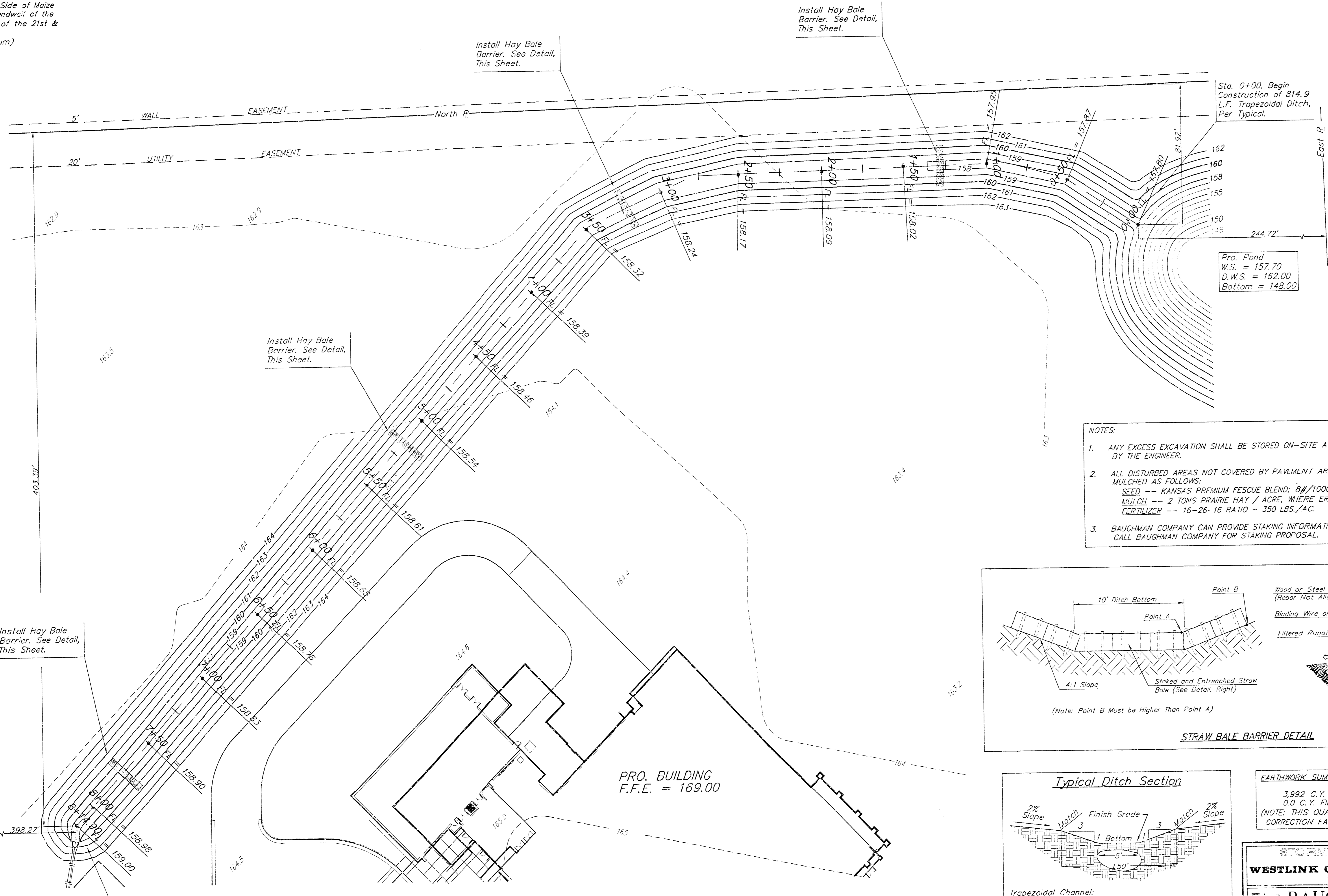
TOTAL EXCAVATION:
 Exc. = 25,434 C.Y.
 CF = 15.1 C.Y.

	BAUGHMAN COMPANY P. A. ENGINEERING & SURVEYING <small>316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211</small>
	WESTLINK CHRISTIAN CHURCH ADDITION
	SHEET 8/15

POND X-SECTIONS

BENCHMARKS:
 Maize Road and 17th Street N. - C.O.W.
 Benchmark - 0.5 mi. S. 21st. -11.00' South
 of 1/4 Sec. Corner Iron - 43.00' East of
 1/4 Section Cor. Iron
 Elevation = 161.05 (per City record)

"C" Cut Located at the East Side of Maize
 Road on the Centerline of Headw.; of the
 RCBC Located 760± South of the 21st &
 Maize Intersection.
 Elevation = 164.93 (City Datum)

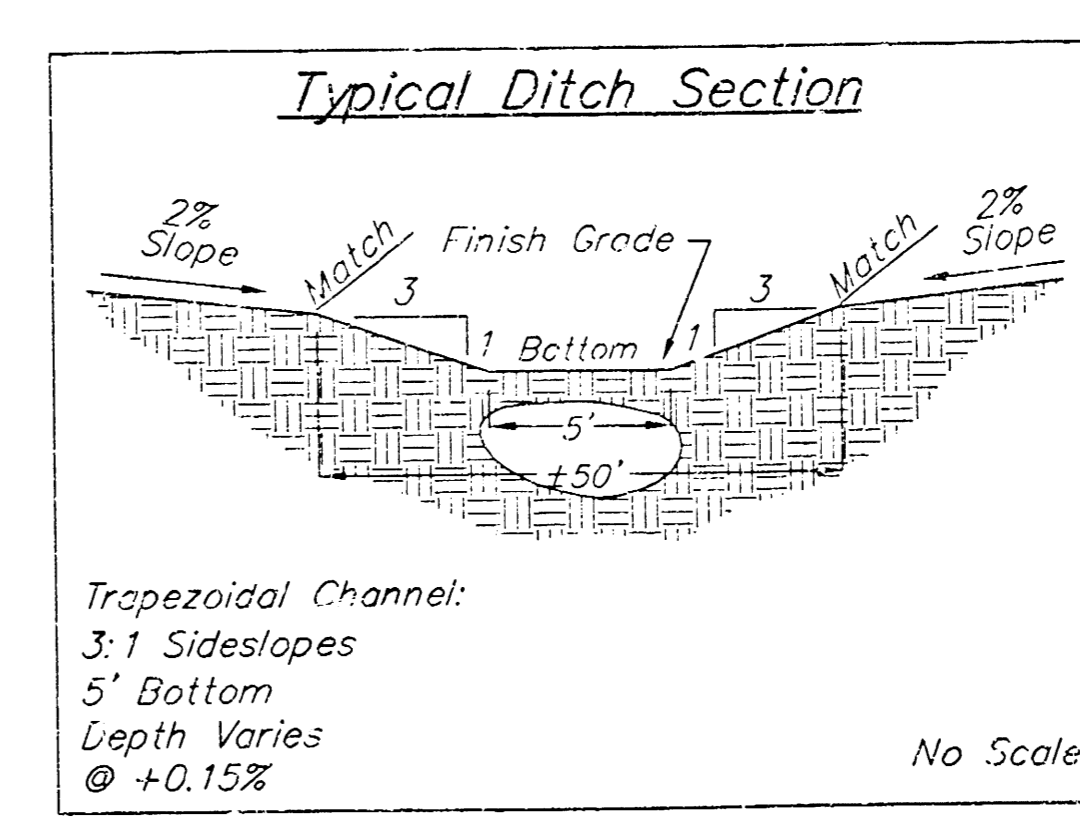
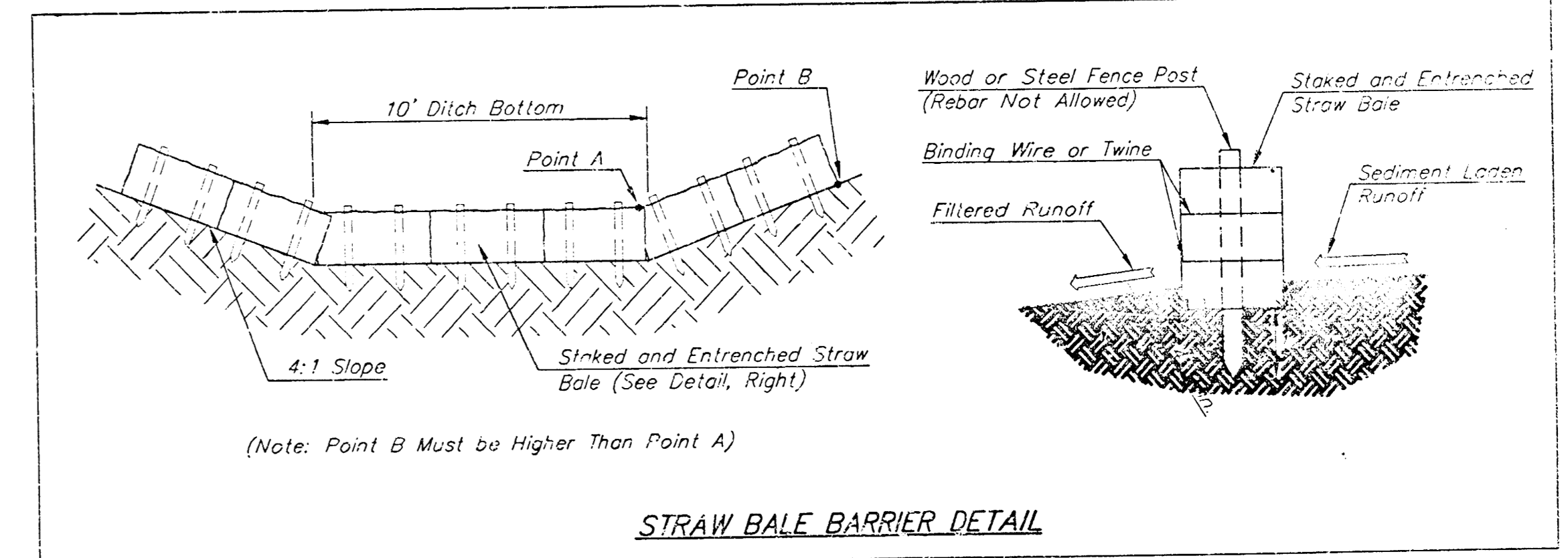


SCALE:
 1" = 30'
 • = 100'

Sta. 0+00, Begin
 Construction of 814.9
 L.F. Trapezoidal Ditch,
 Per Typical.

Pro. Pond
 W.S. = 157.70
 O.W.S. = 162.00
 Bottom = 148.00

- NOTES:**
1. ANY EXCESS EXCAVATION SHALL BE STORED ON-SITE AT LOCATIONS TO BE DETERMINED BY THE ENGINEER.
 2. ALL DISTURBED AREAS NOT COVERED BY PAVEMENT ARE TO BE SEEDED AND MULCHED AS FOLLOWS:
 SEED - KANSAS PREMIUM FESCUE BLEND; 8#/1000 SQ. FT., DRILLED
 MULCH - 2 TONS PRAIRIE HAY / ACRE, WHERE EROSION MAT IS NOT INSTALLED
 FERTILIZER - 16-26-16 RATIO - 350 LBS./AC.
 3. BAUGHMAN COMPANY CAN PROVIDE STAKING INFORMATION AT THE TIME OF CONSTRUCTION. CALL BAUGHMAN COMPANY FOR STAKING PROPOSAL.



EARTHWORK SUMMARY:
 3,992 C.Y. EXCAVATION
 0.0 C.Y. FILL
 (NOTE: THIS QUANTITY DOES NOT INCLUDE ANY CORRECTION FACTORS AND IS FOR INFORMATION ONLY.)

WESTLINK CHRISTIAN CHURCH ADDITION

BAUGHMAN COMPANY P.A.
 ENGINEERING, SURVEYING & PLANNING

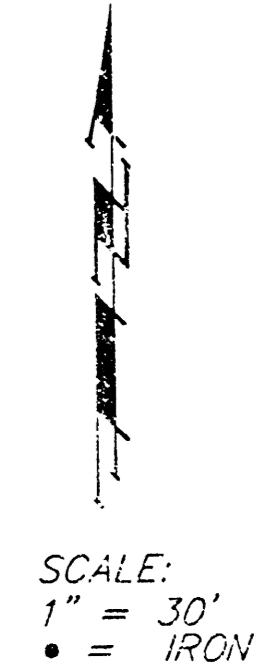
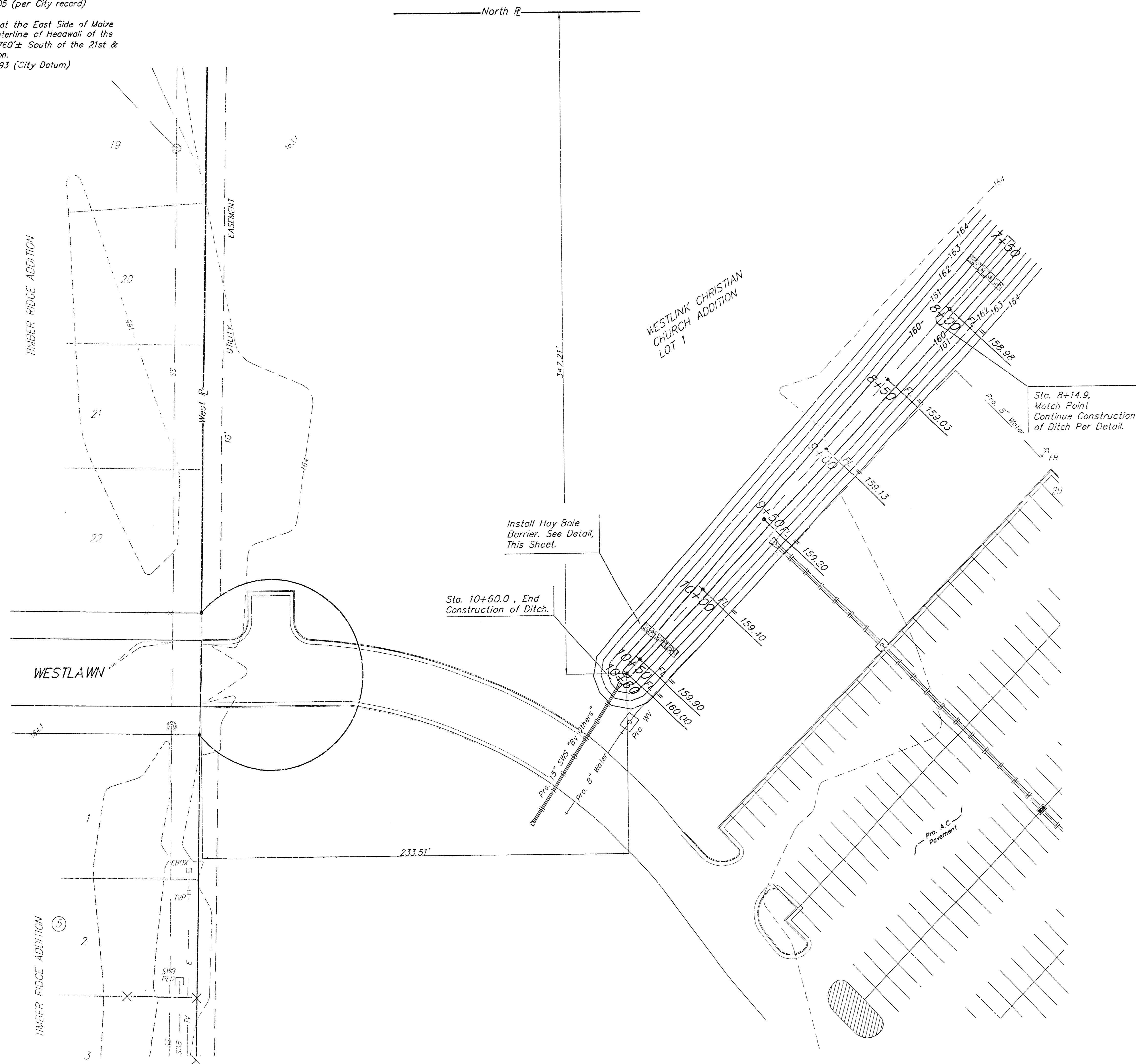
PROJECT NUMBER: 1156 PPS (807881)

DESIGN	DRAWN	APPROVED	DATE	SCALE
SCL	SCL	APD		

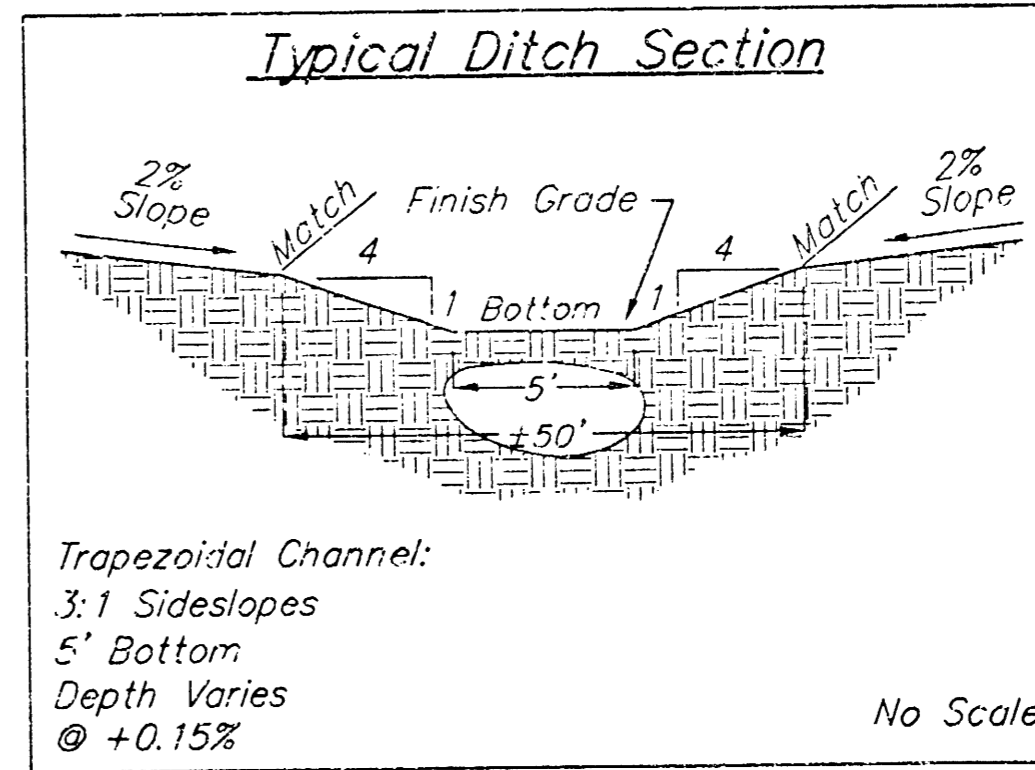
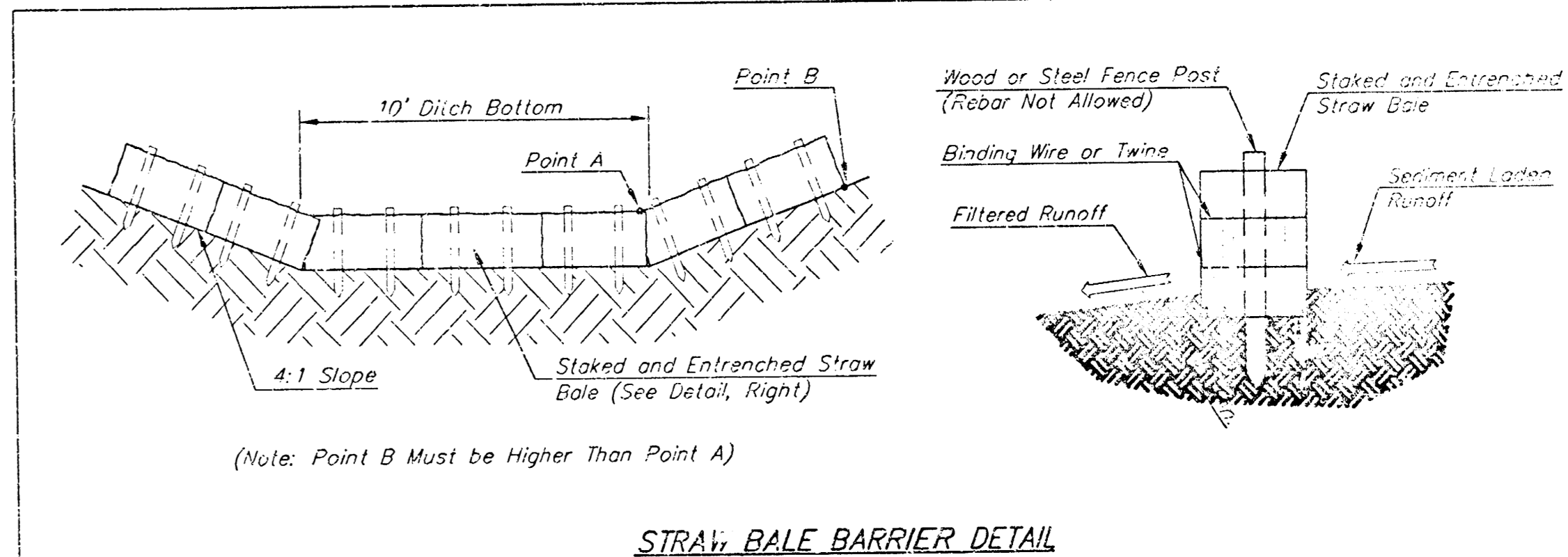
SHEET 9 OF 15

BENCHMARKS:
 Maize Road and 17th Street N. - C.C.W.
 Benchmark = 0.5 mi. S. 21st. -11.00' South
 of 1/4 Sec. Corner Iron = 43.00' East of
 1/4 Section Cor. Iron
 Elevation = 161.05 (per City record)

"D" Cut Located at the East Side of Maize
 Road on the Centerline of Headwall of the
 RCBC Located 760'± South of the 21st &
 Maize Intersection.
 Elevation = 164.93 (City Datum)



- NOTES:**
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 2. ALL DISTURBED AREAS NOT COVERED BY PAVEMENT ARE TO BE SEEDED AND MULCHED AS FOLLOWS:
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 MULCH -- 2 TONS PRAIRIE HAY / ACRE, WHERE EROSION MAT IS NOT INSTALLED
 FERTILIZER -- 16-25-16 RATIO - 350 LBS./AC.
 3. BAUGHMAN COMPANY CAN PROVIDE STAKING INFORMATION AT THE TIME OF CONSTRUCTION. CALL BAUGHMAN COMPANY FOR STAKING PROPOSAL.



EARTHWORK SUMMARY
 1,100 C.Y. EXCAVATION
 0.0 C.Y. FILL
 (NOTE: THIS QUANTITY DOES NOT INCLUDE ANY CORRECTION FACTORS AND IS FOR INFORMATION ONLY.)

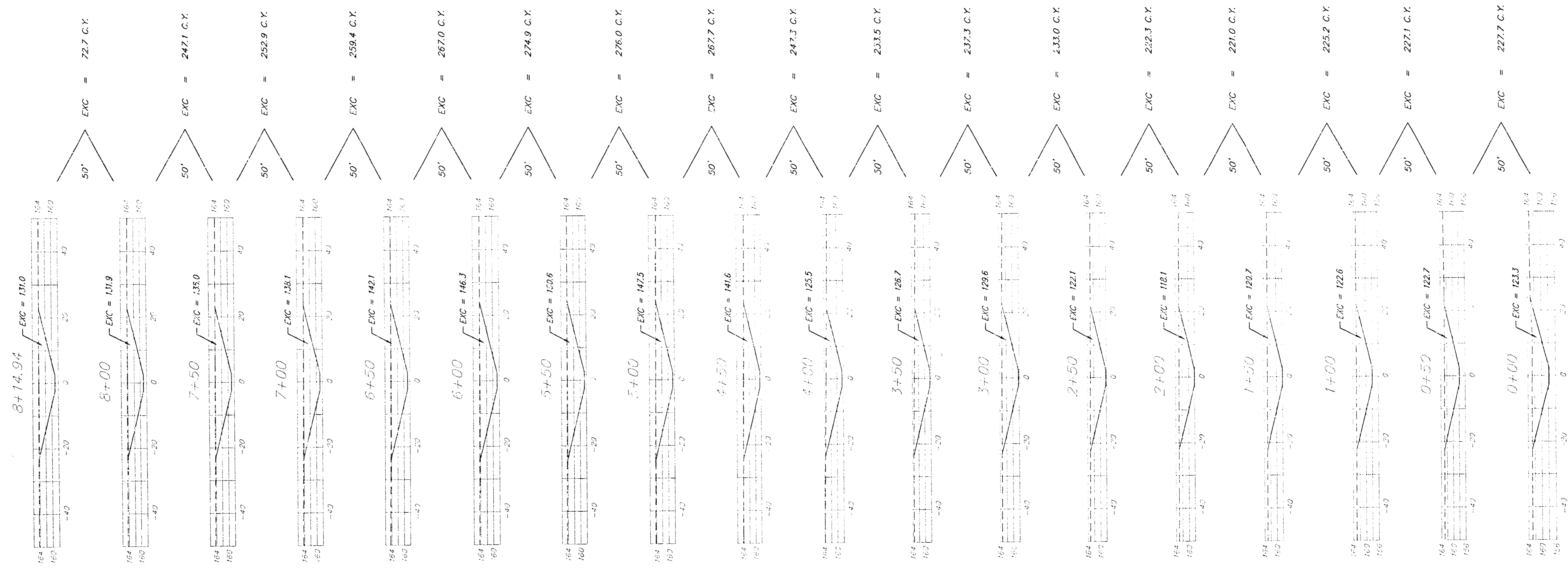
STORMWATER SOLUTIONS
WESTLINK CHRISTIAN CHURCH ADDITION
 ST. LOUIS, MISSOURI

BAUGHMAN COMPANY P.A.
 ENGINEERING, SURVEYING, & PLANNING
 MISSOURI REGISTERED PROFESSIONAL ENGINEERS

PROJECT NUMBER: 1159 PPS (207881)

DESIGN: SCL	DRAWN: SCL	APPROVED: [Signature]	DATE: 10/23/20	SCALE: [Blank]
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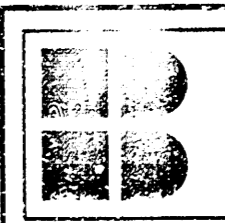
SHEET 9a OF 15



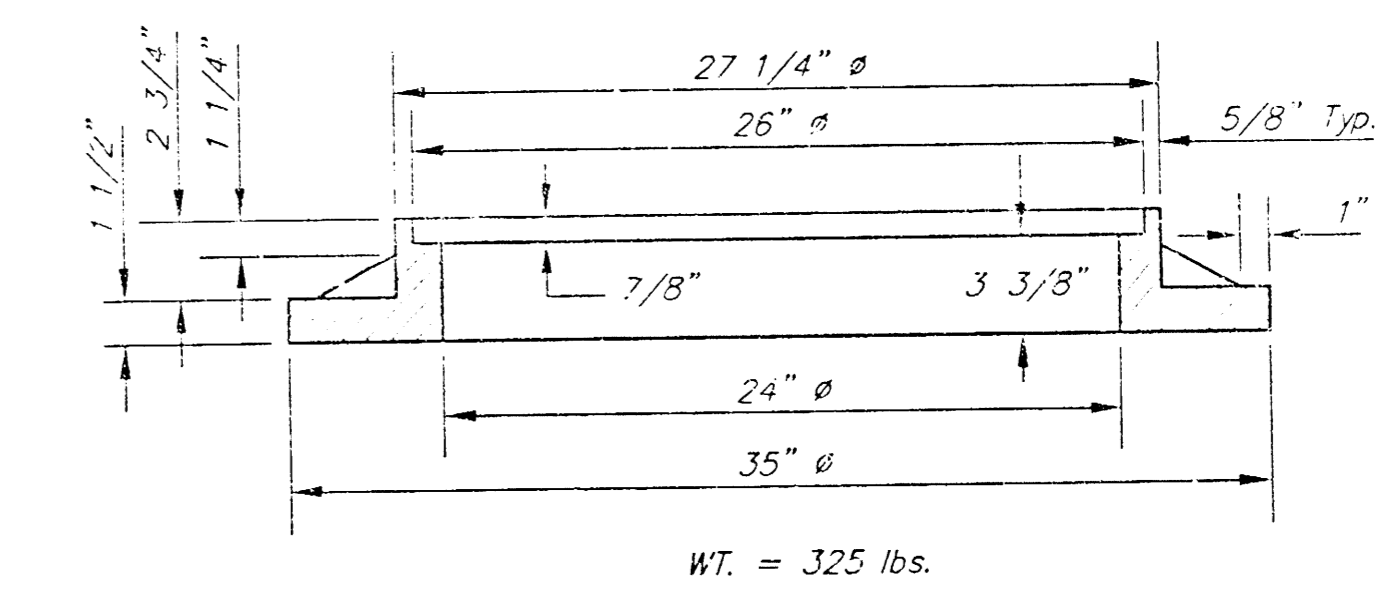
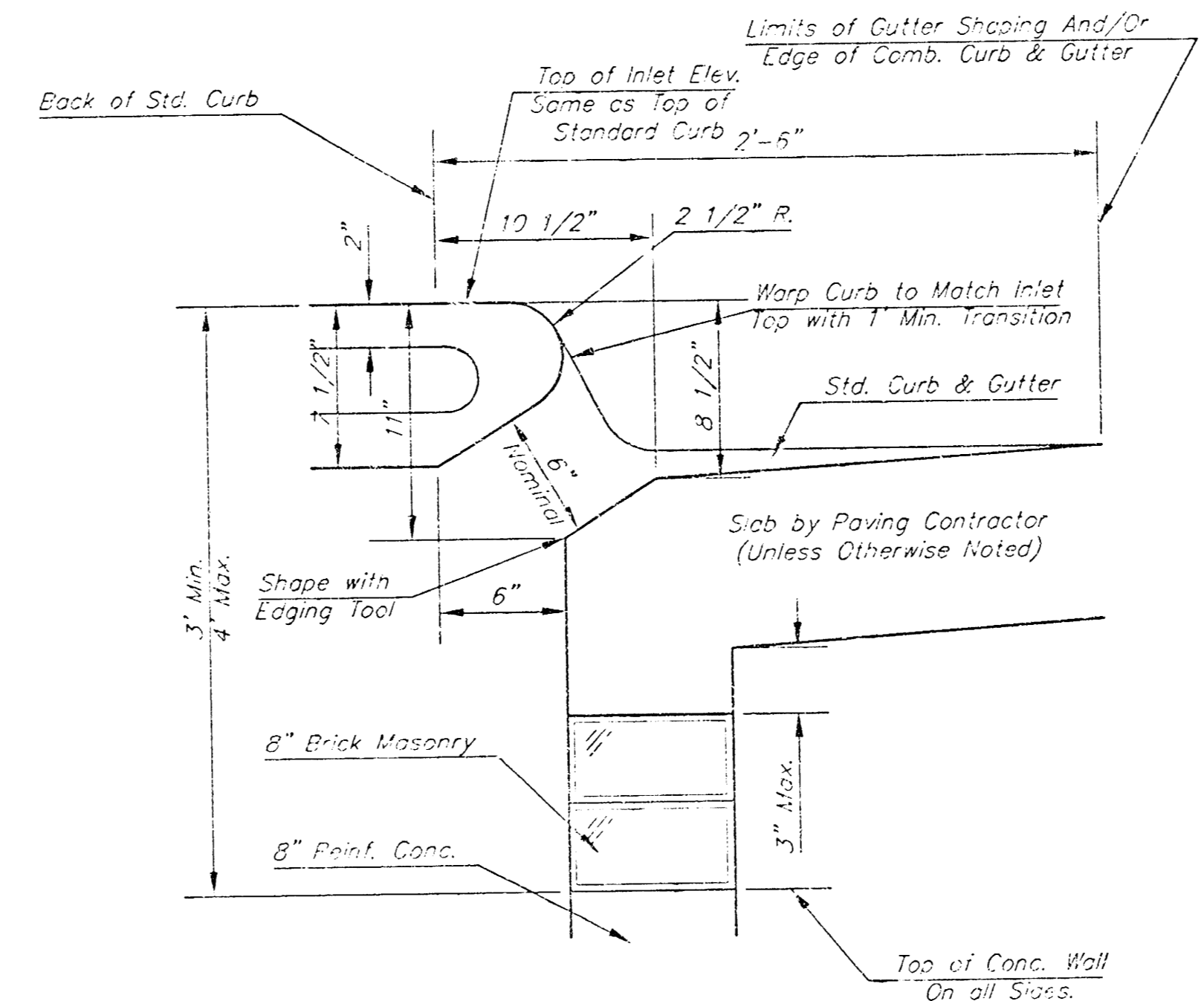
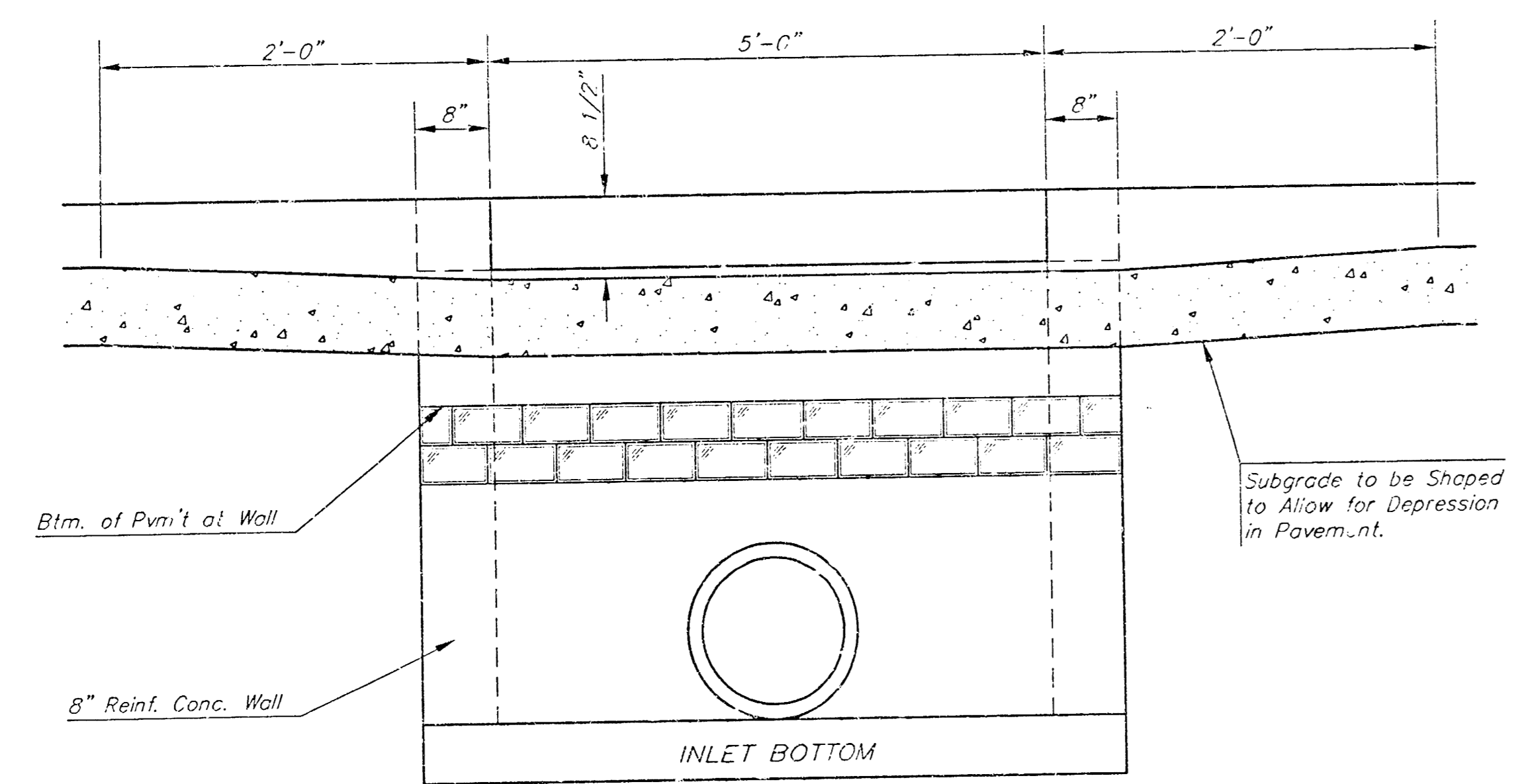
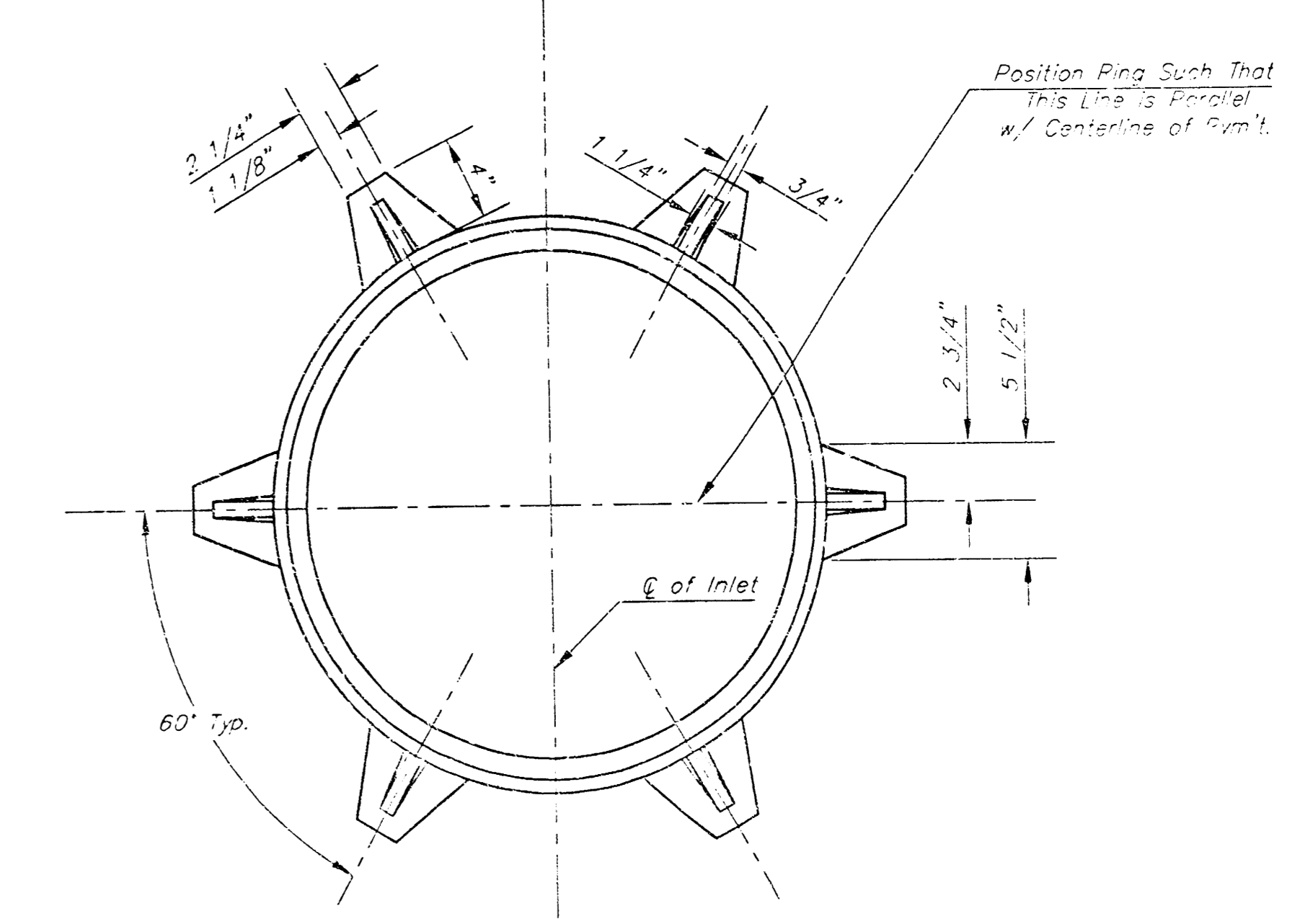
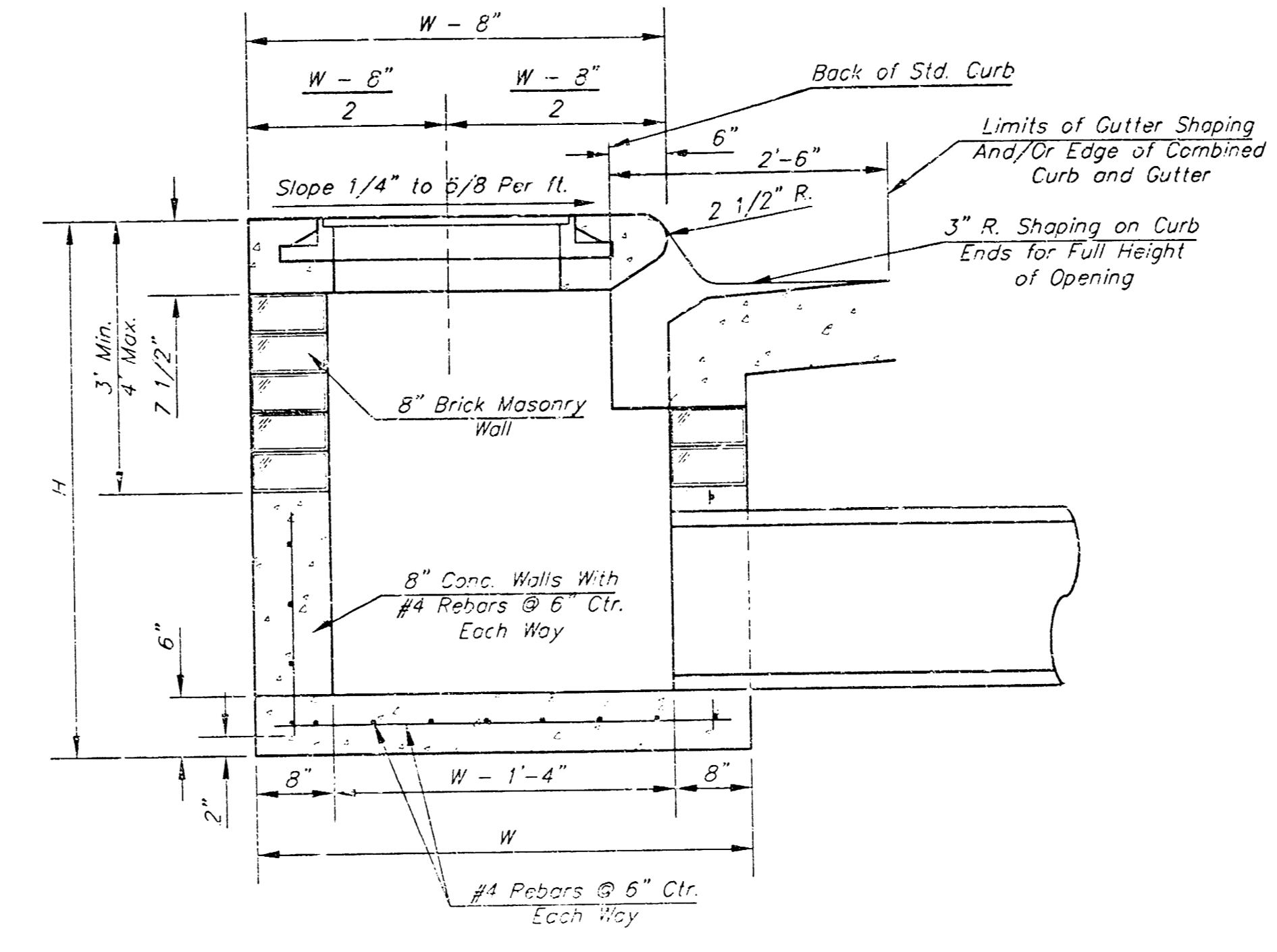
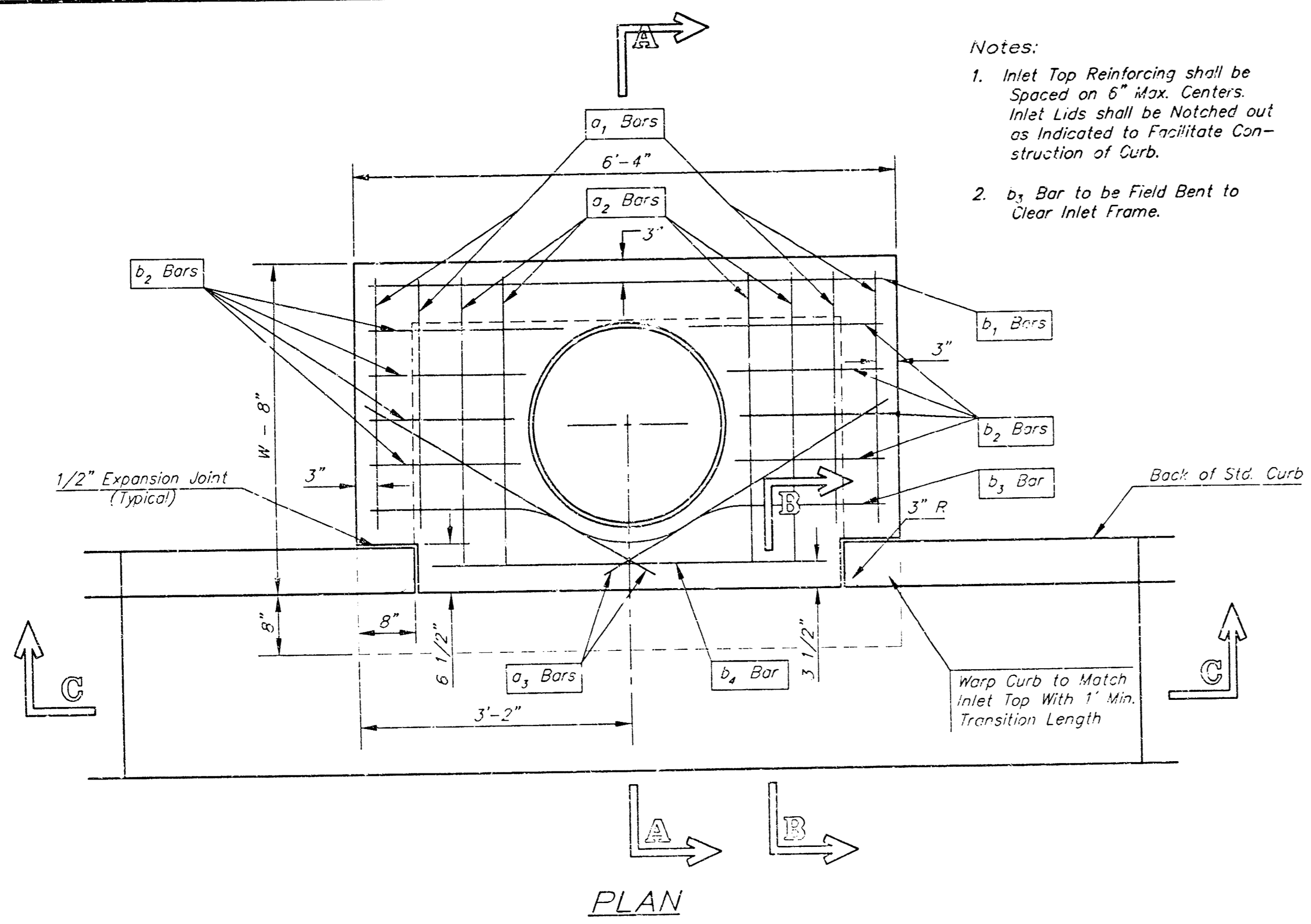
BATCH X-SECTIONS

Scale:
 1"=20' Horizontal
 1"=20' Vertical

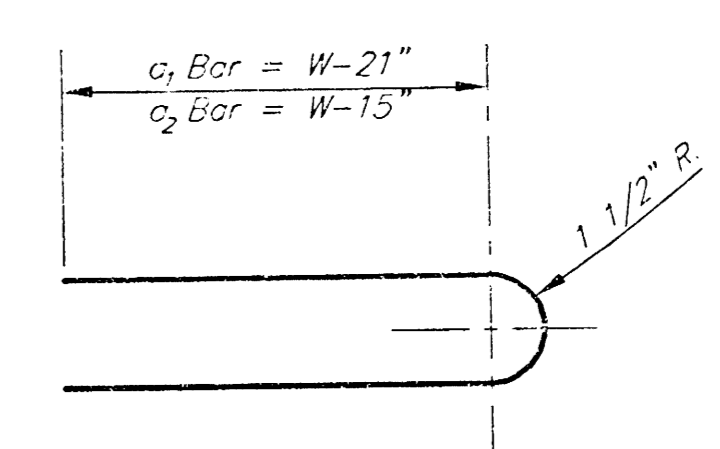
TOTAL EXCAVATION:
 Exc. = 3,992 C.Y.
 CF = 0 C.Y.

	BAUGHMAN COMPANY P. A. ENGINEERING & SURVEYING 316/262-7271 • 215 ELLIS • WICHITA, KANSAS 67211
	WESTLINK CHRISTIAN CHURCH ADDITION

SHEET
10/15



*See City of Wichita Standard Manhole Ring and Cover Detail Sheet for Cover Details to Be Used with Inlet Frame.



STEEL SCHEDULE

BAR NUMBER	a ₁	a ₂	a ₃	a ₄					b ₂	b ₃	b ₄	Wt. Lbs.
				W-4'-4"	W-5'-4"	W-6'-4"	W-7'-4"	W-8'-4"				
SIZE	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#6	
LENGTH	W=4'-4"	5'-7"	6'-7"	4'-0"	6'-1"	-	-	-	1'-9"	6'-2"	4'-8"	60±
	W=5'-4"	7'-7"	8'-7"	5'-0"	6'-1"	-	-	-	1'-9"	6'-2"	4'-8"	81±
	W=6'-4"	9'-7"	10'-7"	6'-0"	6'-1"	-	-	-	1'-9"	6'-2"	4'-8"	101±
	W=7'-4"	11'-7"	12'-7"	7'-0"	6'-1"	-	-	6'-1"	1'-9"	6'-2"	4'-8"	121±
W=8'-4"	13'-7"	14'-7"	8'-0"	-	-	-	6'-1"	1'-9"	6'-2"	4'-8"	141±	

Note: a₃ Bars to be Placed Approx. 2" Below Top of Inlet Cover.

STANDARD CURB INLET PRECAST TOPS			
W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4'-4"	3'-8" 6'-4" 7 1/2"	21" & SMALLER	0.38±
5'-4"	4'-8" 6'-4" 7 1/2"	24" & 30"	0.51±
6'-4"	5'-8" 6'-4" 7 1/2"	36" & 42"	0.64±
7'-4"	6'-8" 6'-4" 7 1/2"	48" & 54"	0.77±
8'-4"	7'-8" 6'-4" 7 1/2"	60" & 66"	0.90±

GENERAL NOTES

- Concrete tops to be installed on thin mortar cushion to insure full support along brick walls. Concrete tops may be cast in place or precast. Concrete used for inlet construction shall be concrete pavement mix.
- Contractor shall have the option of constructing 8" brick masonry walls between the concrete inlet base and top on this inlet when W=6'-4" and H=7'-0" or less.
- Inlet invert shall be shaped with 8 sack sand mix concrete to create flow channels and to increase hydraulic efficiency such that the inlet will be self cleaning between all inlet and/or outlet pipes.
- The ends of all pipes installed in inlets shall be cut off flush with the inside face of the inlet wall.

Revised - Dec. 21, 1984

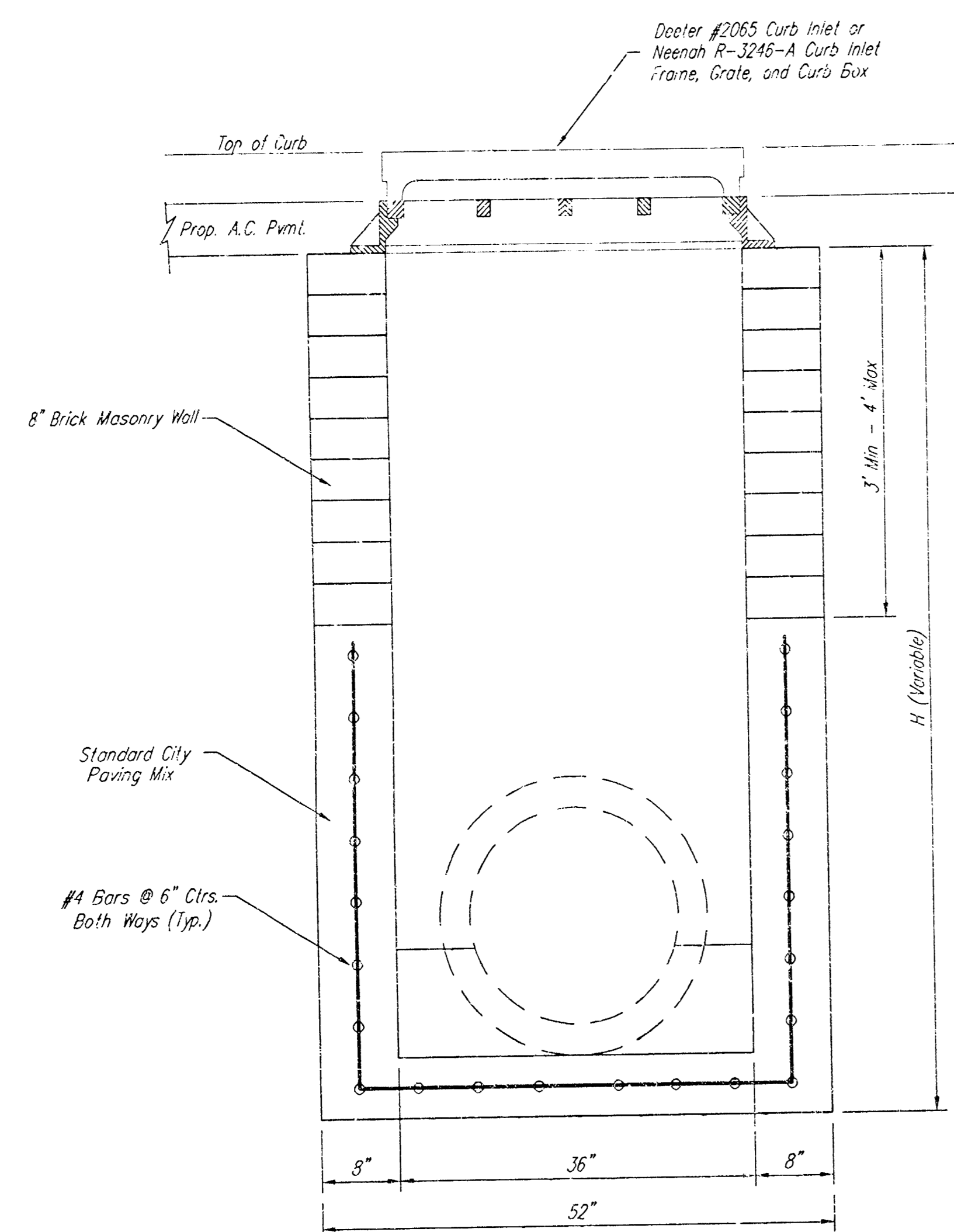
TYPE 1 CURB INLET

BAUGHMAN COMPANY P.A.

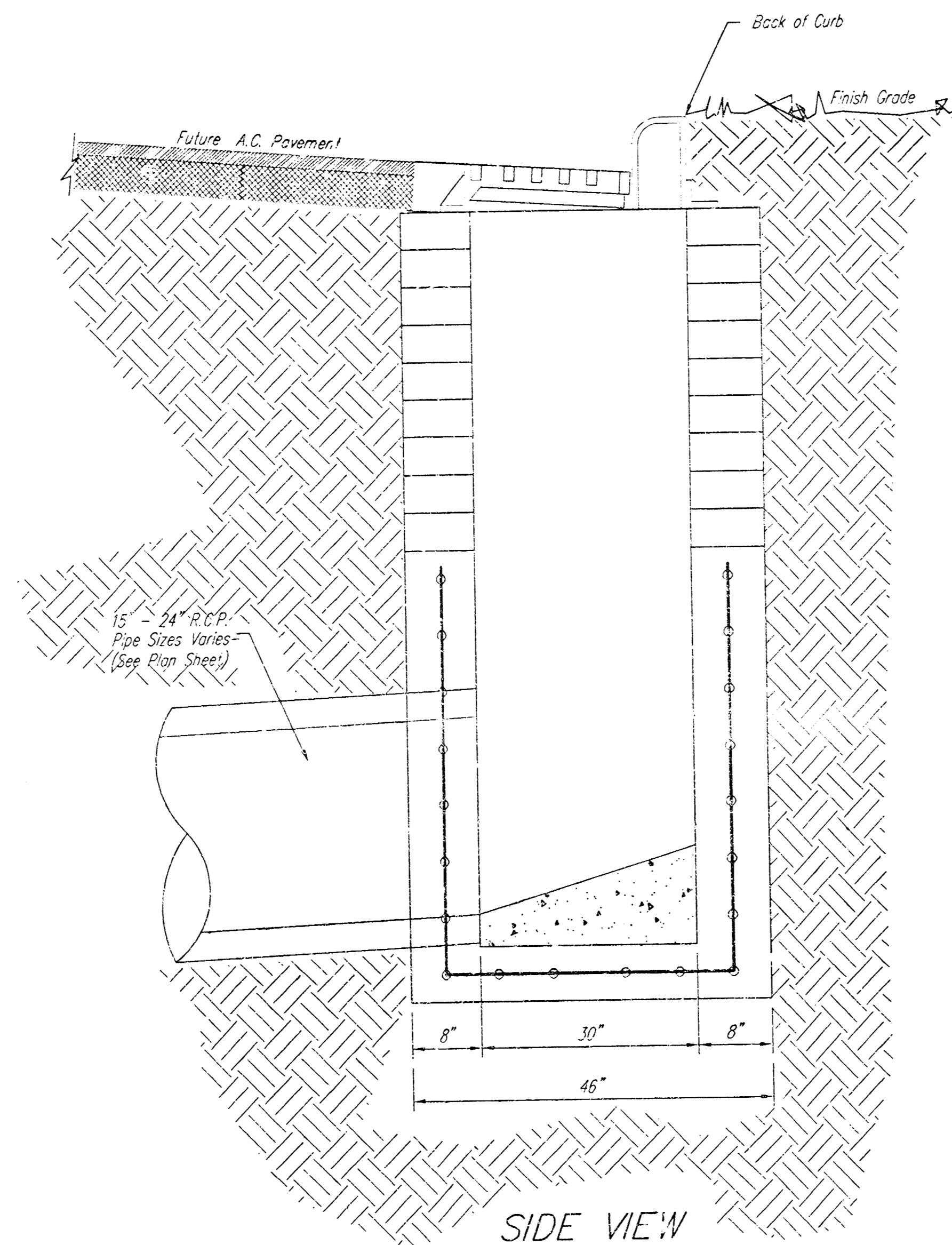
PROJECT NUMBER
1155 PPS (C07861)

DESIGN: [] DRAWN: [] APPROVED: [] DATE: [] SCALE: []

SHEET 11 OF 15



FRONT VIEW



SIDE VIEW

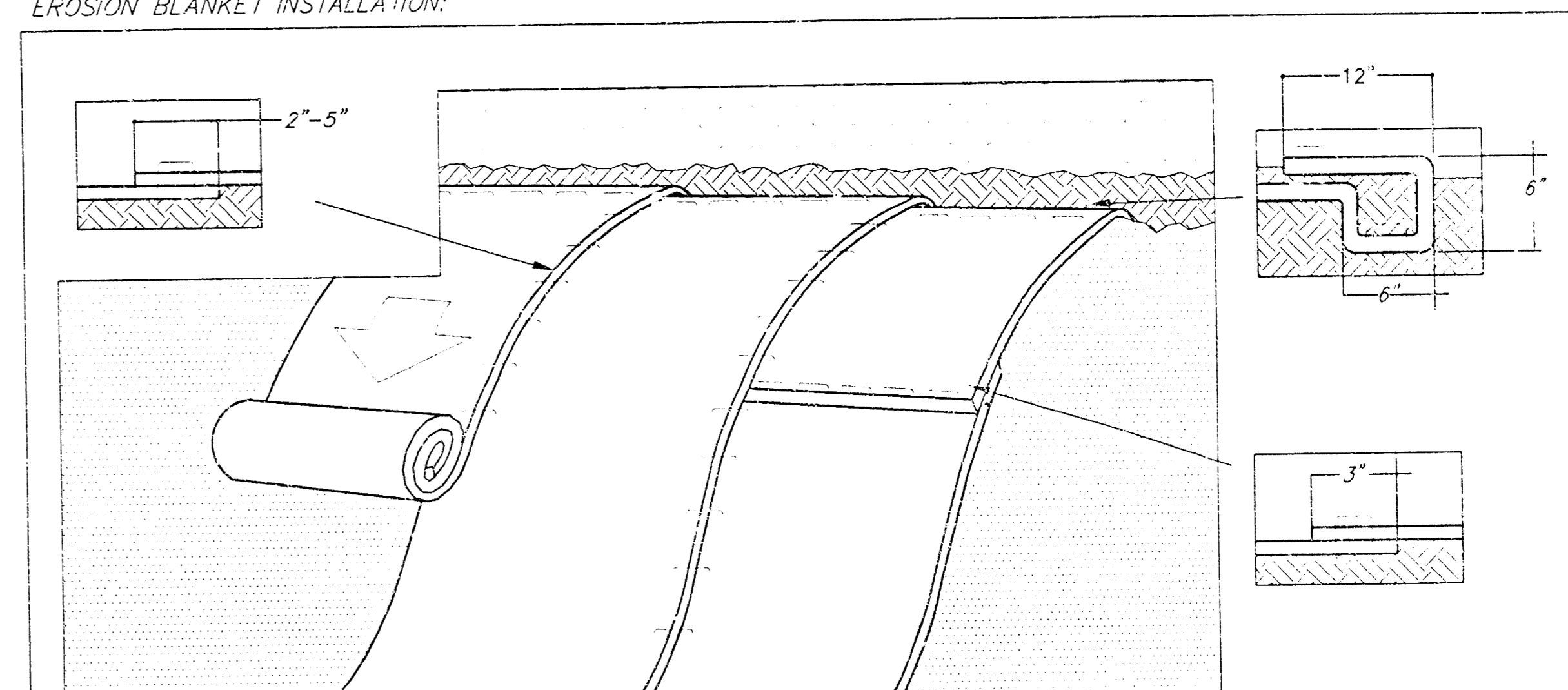
GENERAL NOTES:

Contractor shall have the option of constructing 8" brick masonry walls between the concrete inlet base and frame on this inlet when the height (H) is 7 feet or less.

The inlet invert shall be shaped with 8 sack sand mix concrete to create flow channels and to increase the hydraulic efficiency such that the inlet shall be self cleaning between all inlet and/or outlet pipes.

The end of all pipes installed in this inlet shall be cut off flush with the inside face of the inlet wall.

EROSION BLANKET INSTALLATION:

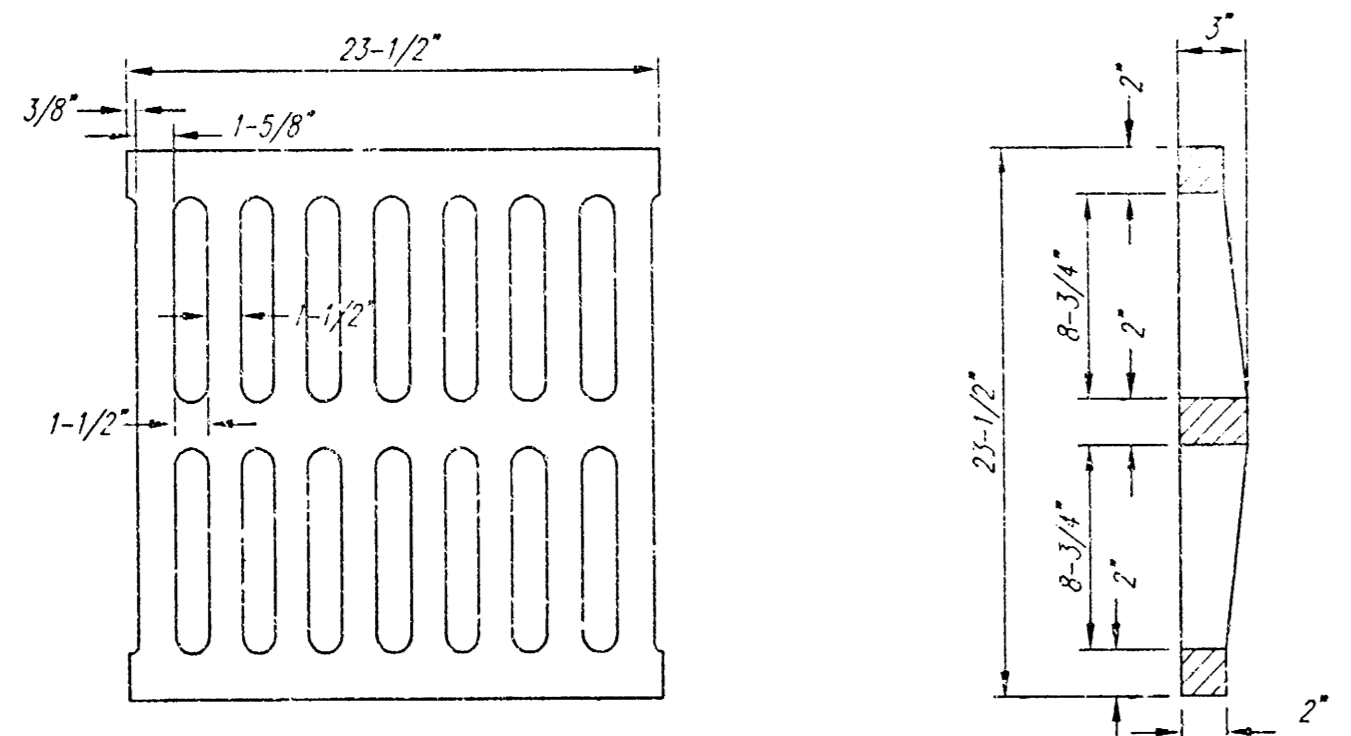
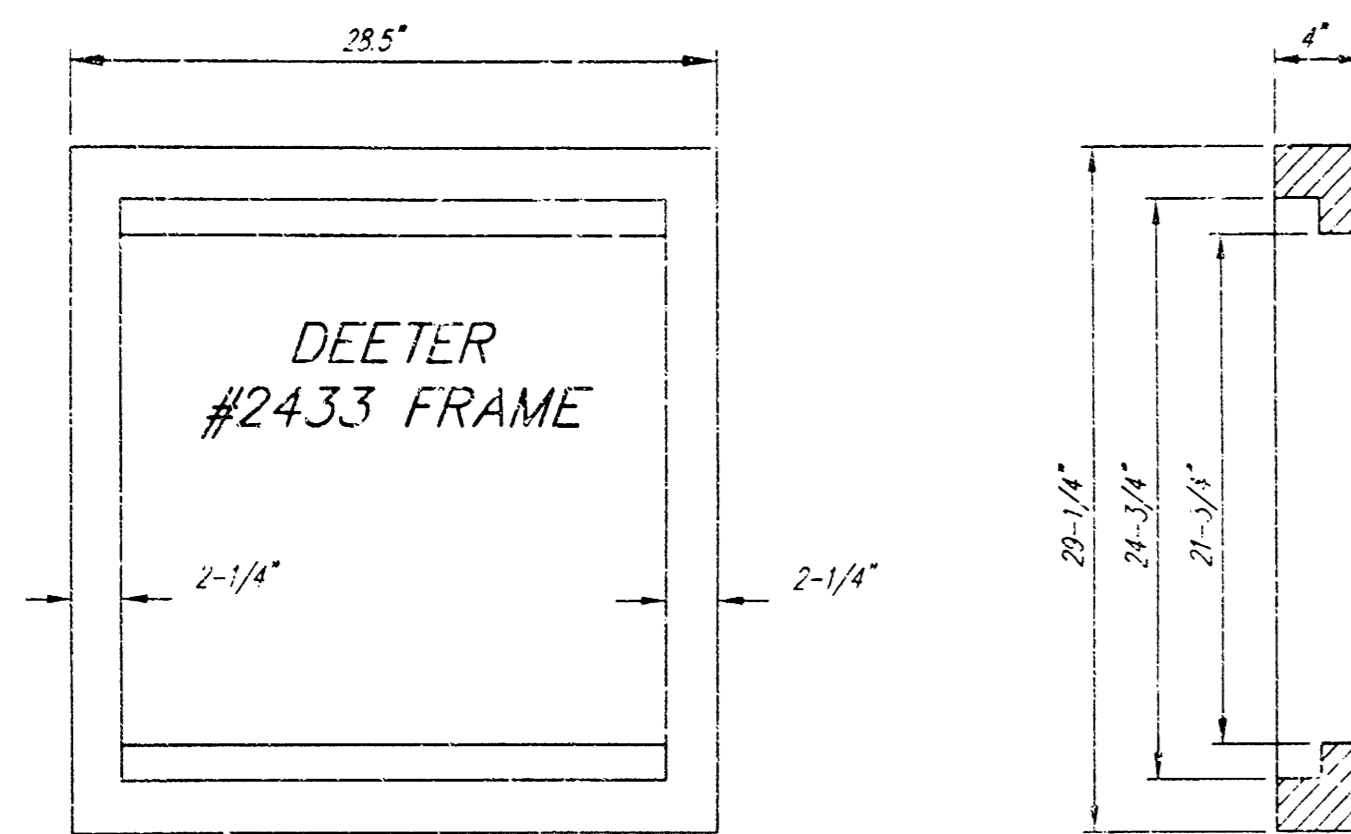


1. Prepare soil before installing blankets, including any necessary applications, i.e. fertilizer and seed.
2. Begin at the top of the slope by anchoring the blanket in a 6" deep x 6" wide trench with approx. 12" of blanket extended beyond the up-slope portion of the trench. Anchor the blanket with a row staples/stakes approx. 12" apart in the bottom of the trench. Backfill and compact the trench after stapling. Apply seed to compacted soil on fold remaining 12" portion of the blanket back over seed and compacted soil. Secure blanket over compacted soil with a row of staples/stakes spaced approx. 12" apart across the width of the blanket.
3. Roll the blankets down across the slope. Blankets will unroll with appropriate side against the soil surface. All blankets must be securely fastened to soil surface by placing staples/stakes in appropriate locations as shown in the staple pattern guide. When using Optional dot system, Staples/stakes should be placed through each of the colored dots corresponding to the appropriate staple pattern.
4. The edge of parallel blankets must be staple with approximately 2"-5" overlap depending on blanket type. To ensure proper seam alignment, place the edge of the overlapping blanket (blanket being installed on top) even with the colored seam stitch on the previously installed blanket.
5. Consecutive blankets spliced down the slope must be placed end over end (shingle style) with an approximate 3" overlap. Staple through overlapped area, approximately 12" apart across entire blanket width.

SPECIAL CURB INLET

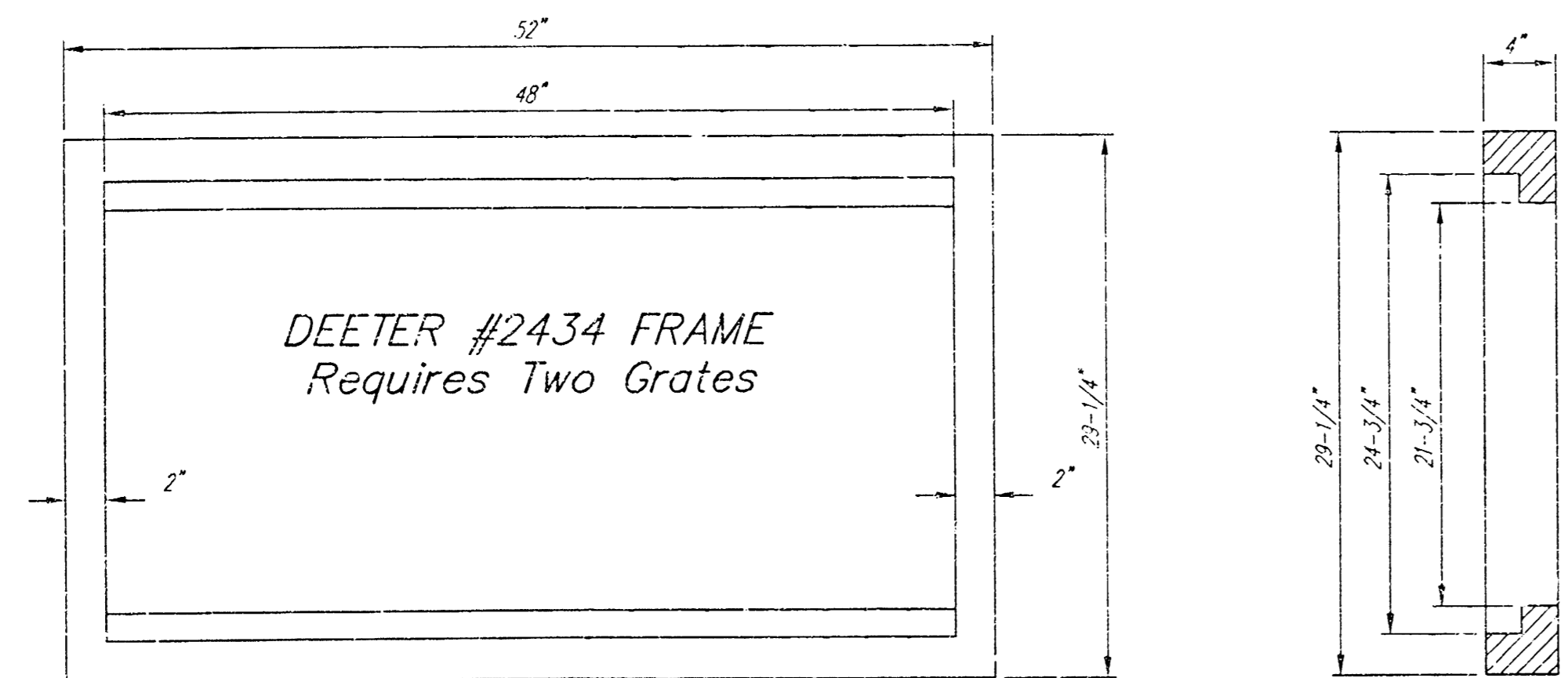
WITH EROSION BLANKET INSTALLATION
BAUGHMAN COMPANY P.A.
 ENGINEERING, SURVEYING & ARCHITECTS
 116 - 2620 - 7271 • 215 - 262-7271 • 215 - 262-7272

PROJECT NUMBER 1158 PPS (607861)				SHEET 12
DESIGN	DRAWN	APPROVED	DATE	SCALE
	SQL	NEW		

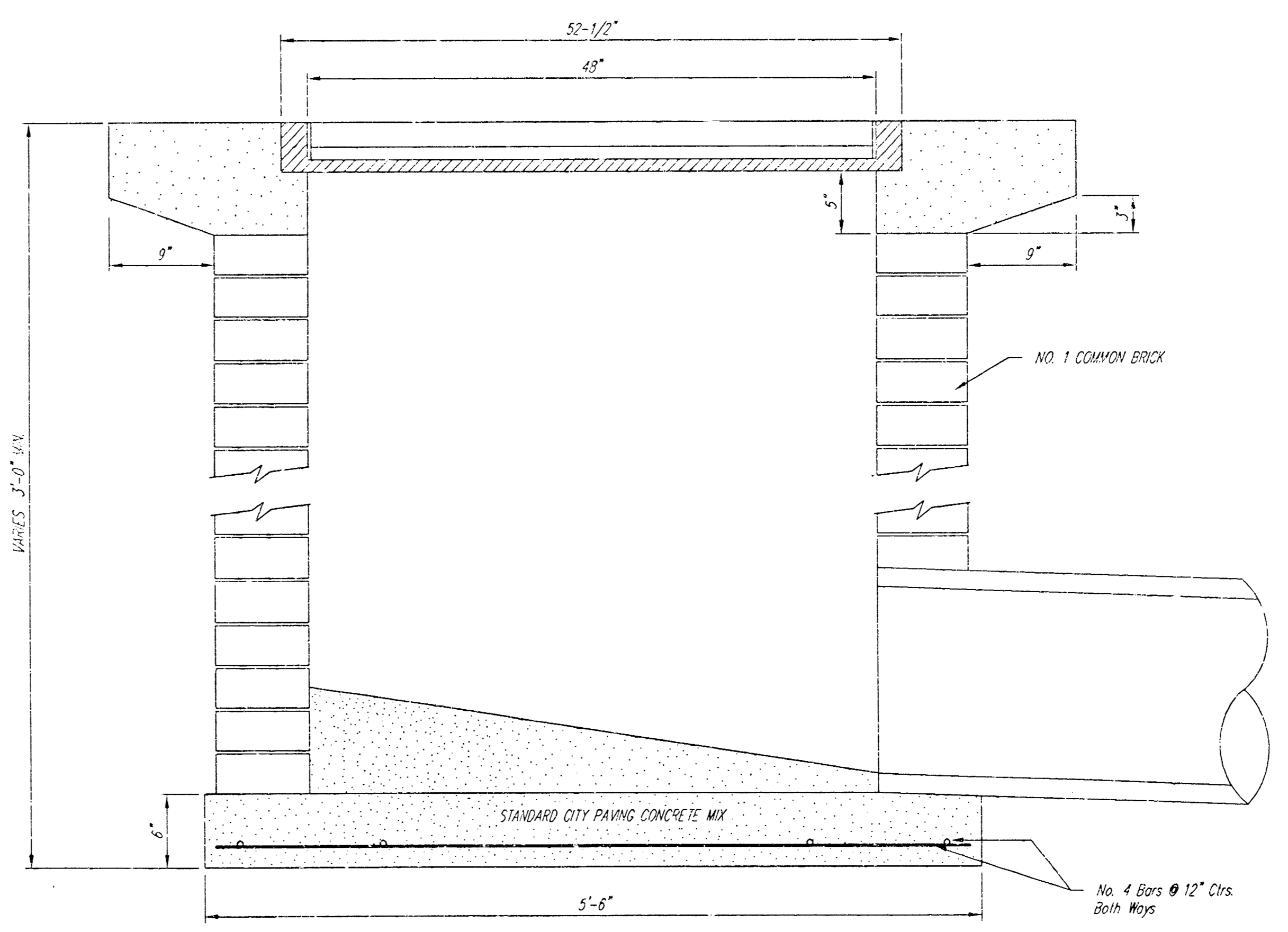
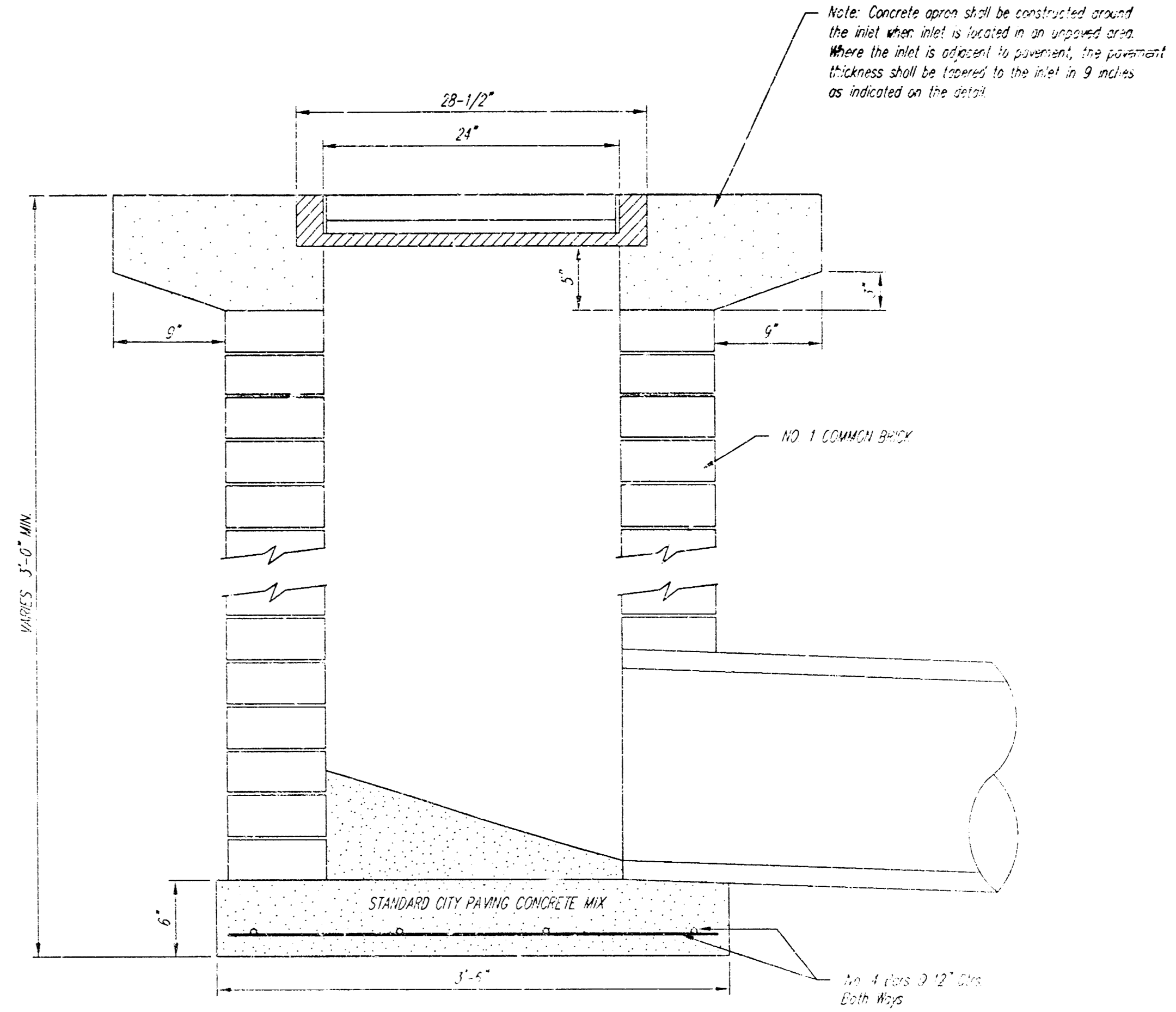
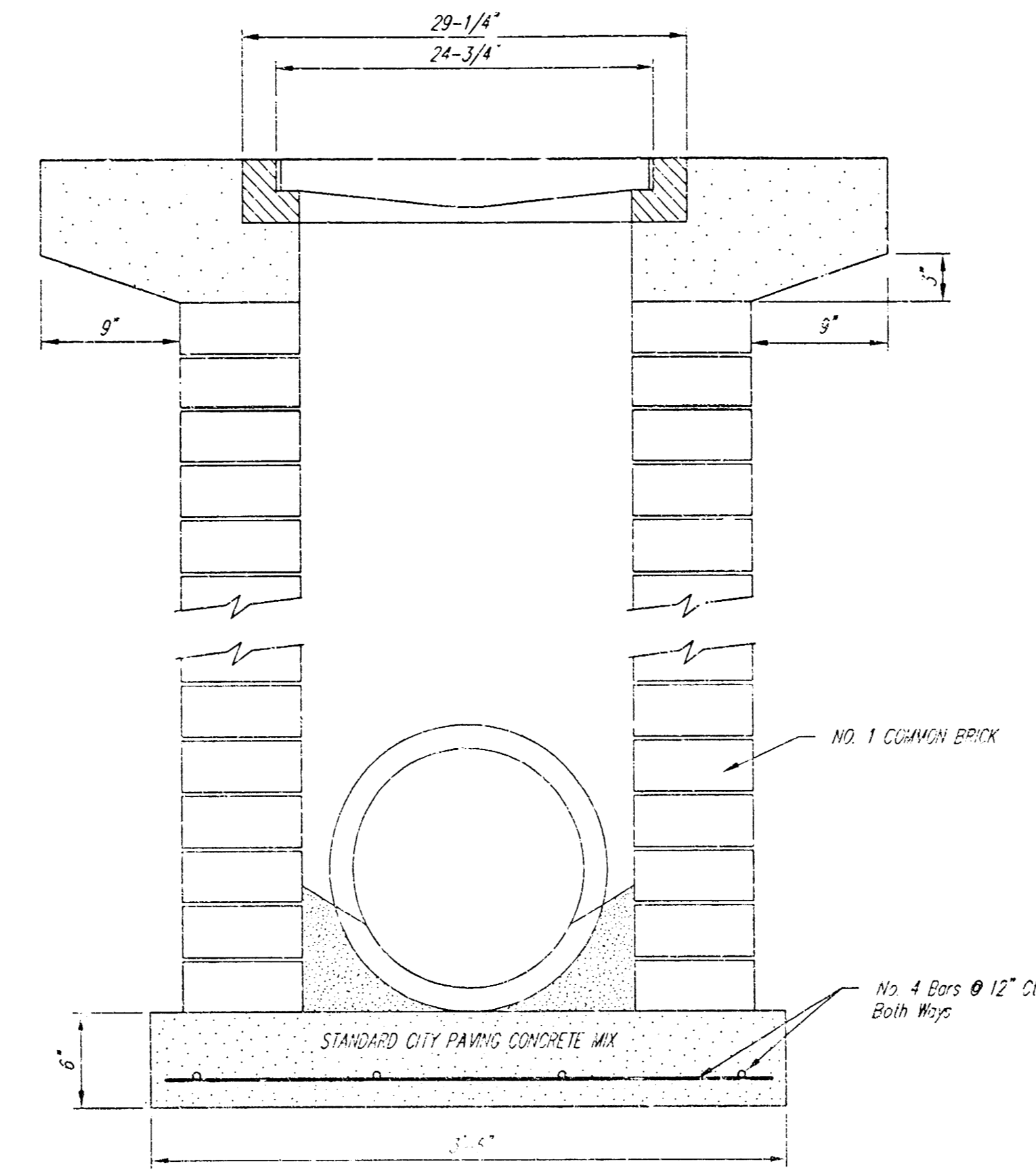


DEETER #2433 GRATE
24" x 24" Frame and Grate Detail

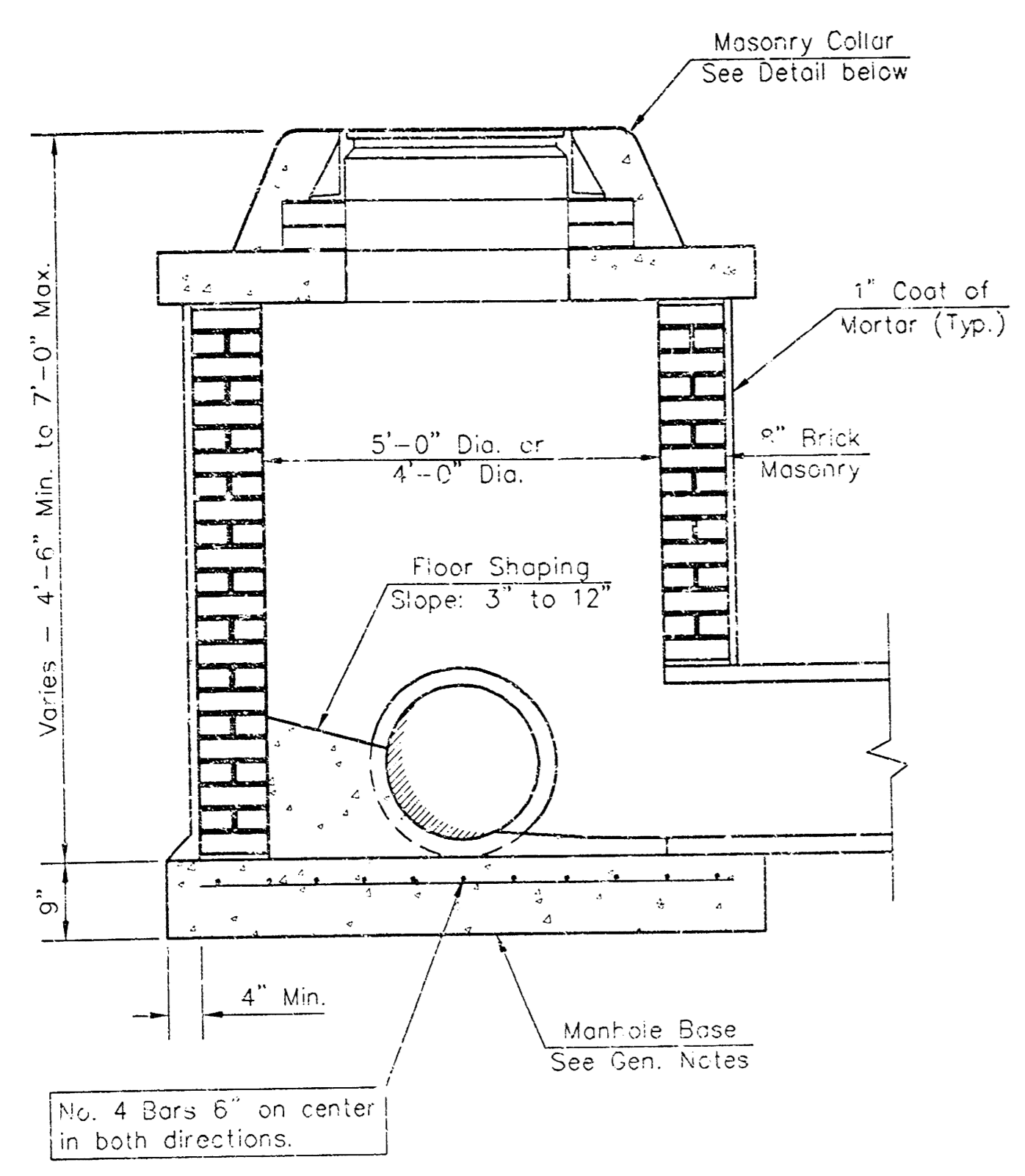
NOTE: Grates shall be imprinted on the top surface with "CITY OF WICHITA" using letters at least 1/4" in height. Other marking methods may be approved by the engineer.



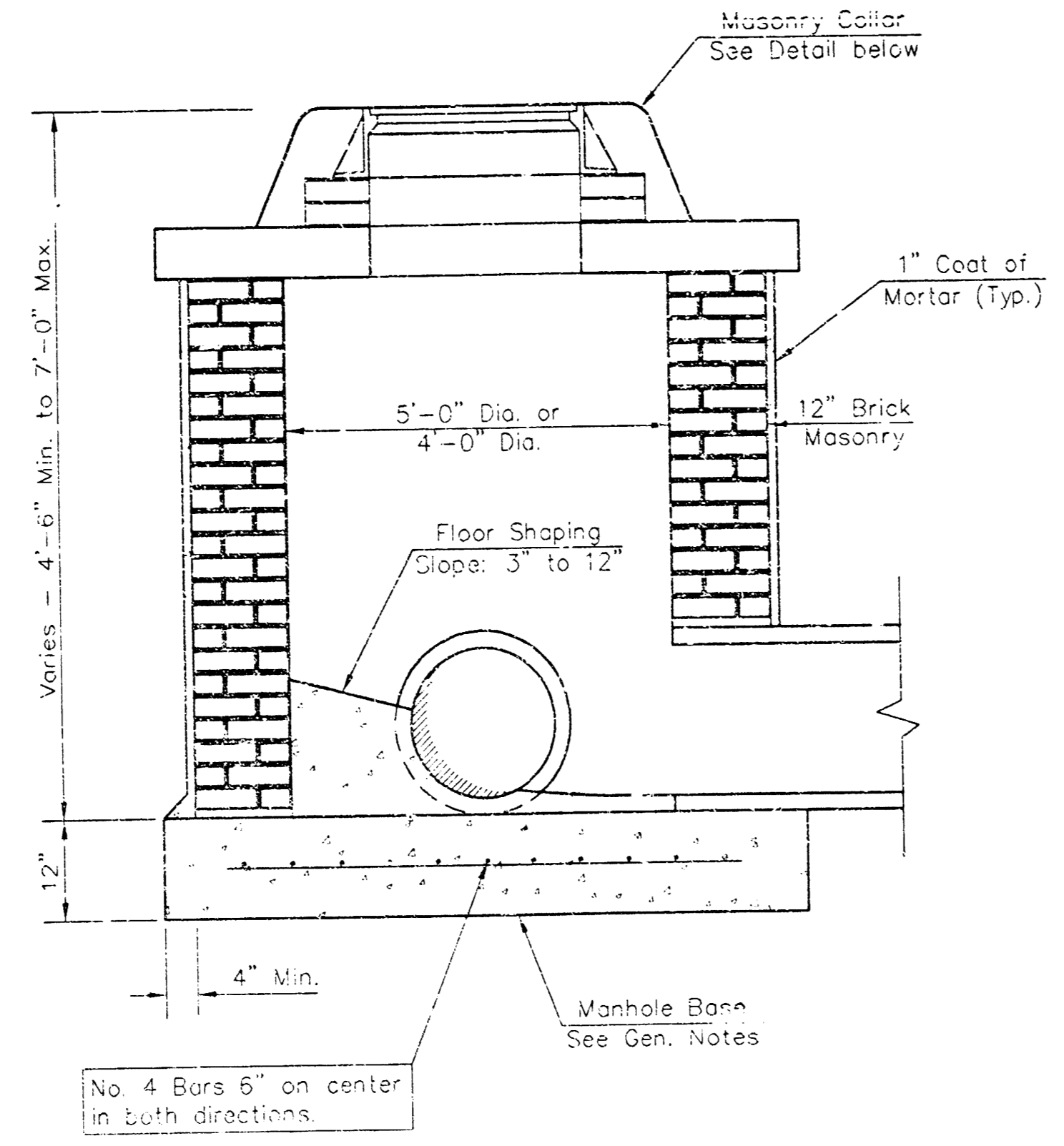
Double 24" x 24" Frame Detail



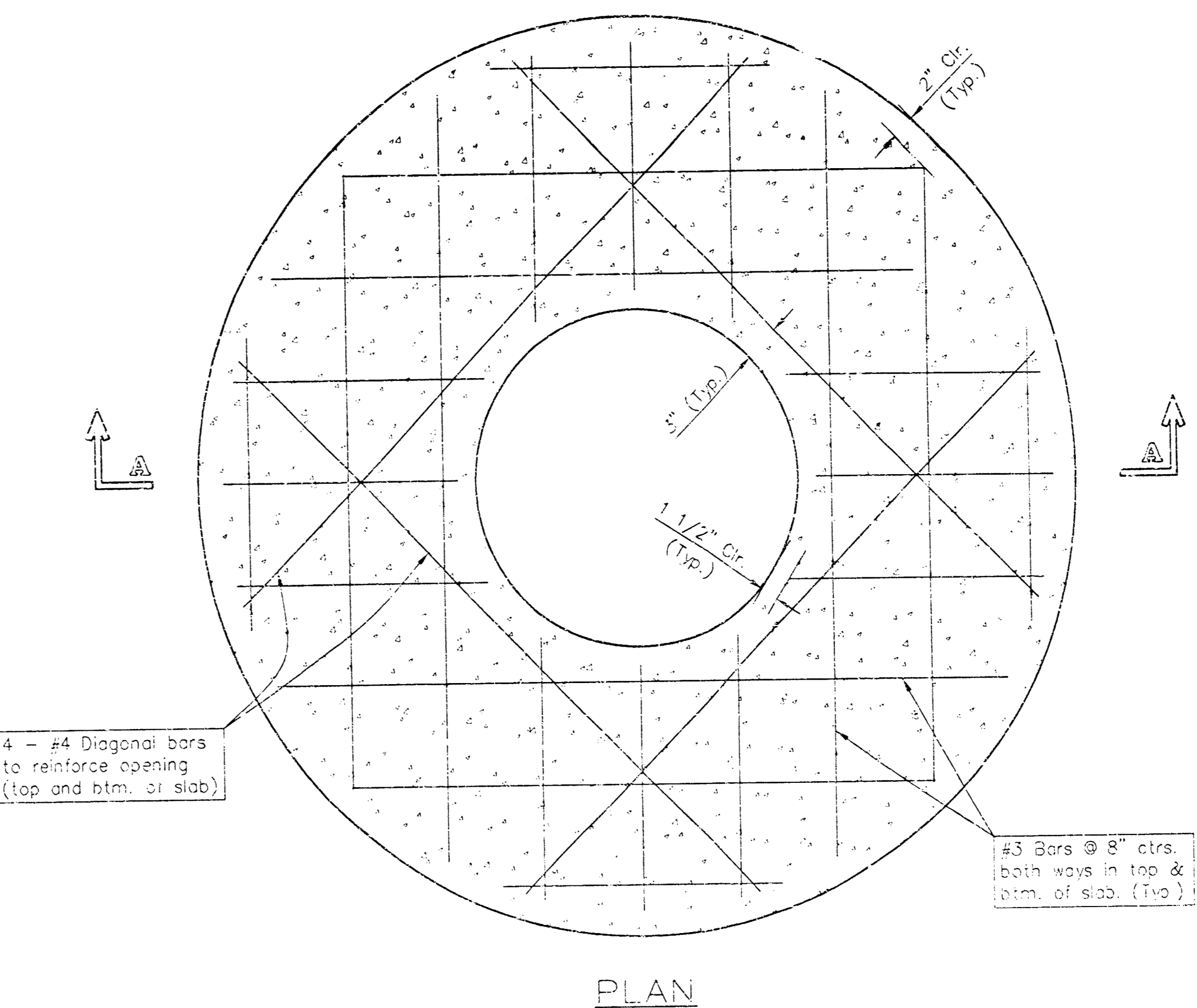
Drop Inlet				
BAUGHMAN COMPANY P.A.				
<small>ENGINEERS, ARCHITECTS & SURVEYORS</small>				
<small>114 S. GARDNER ST. WICHITA, KANSAS 67202</small>				
PROJECT NUMBER 1158 PPS (607861)				SHEET 13
DESIGN C.D.M.	DRAWN S.J.iff	APPROVED	DATE	SCALE 15



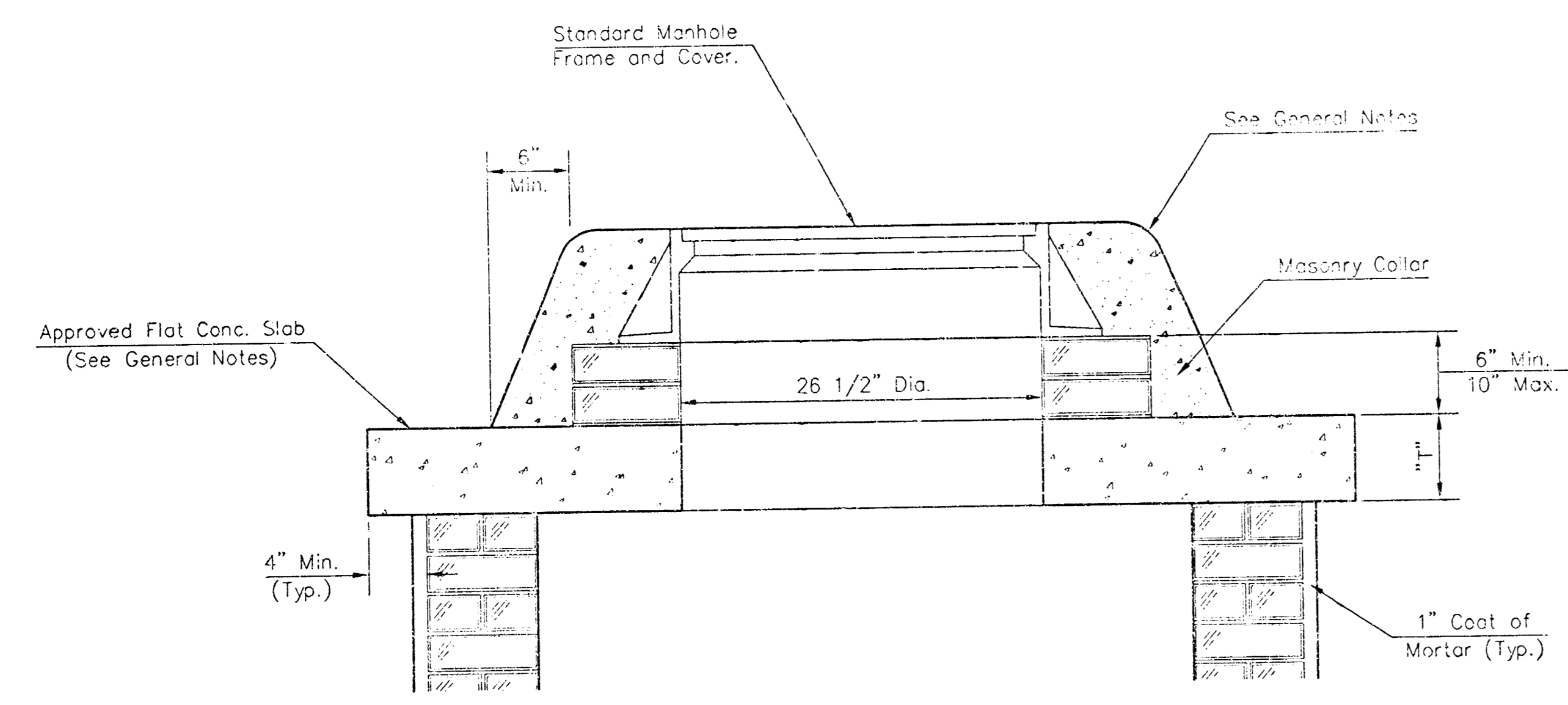
SHALLOW TYPE "A" MANHOLE



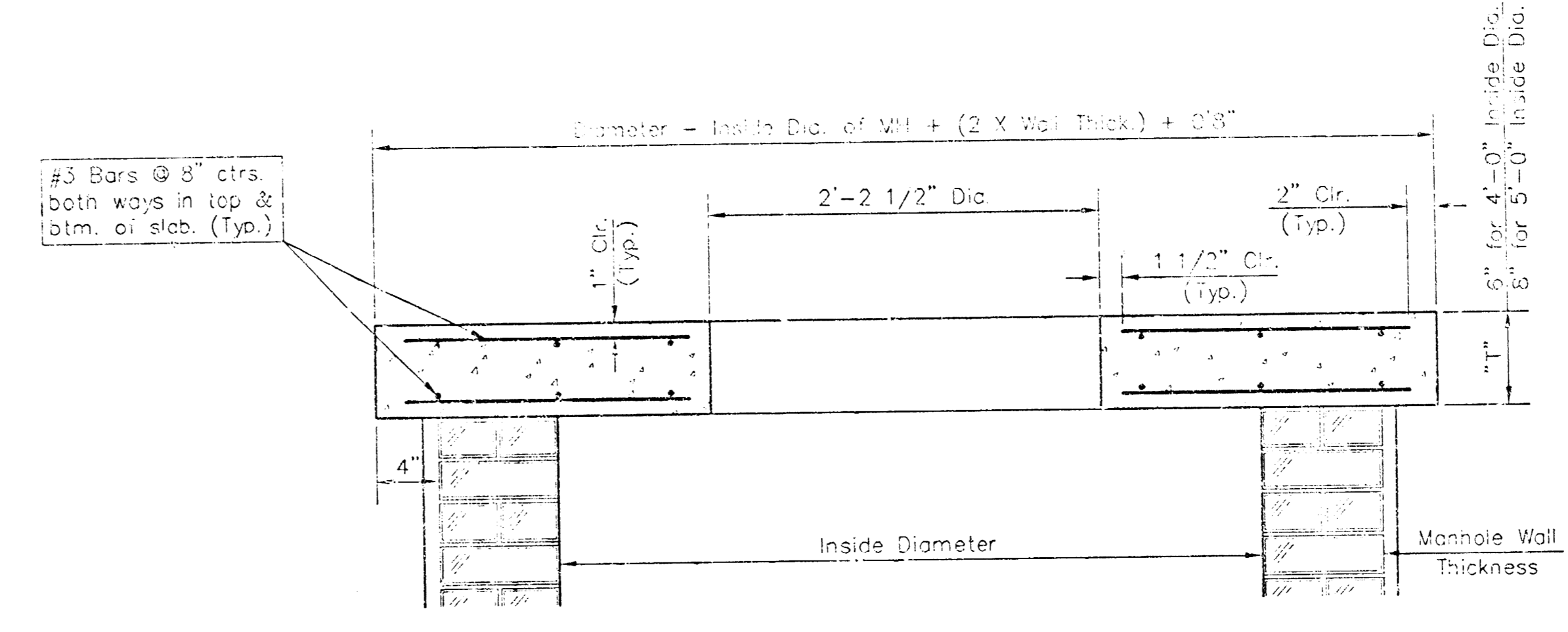
SHALLOW TYPE "B" MANHOLE



PLAN

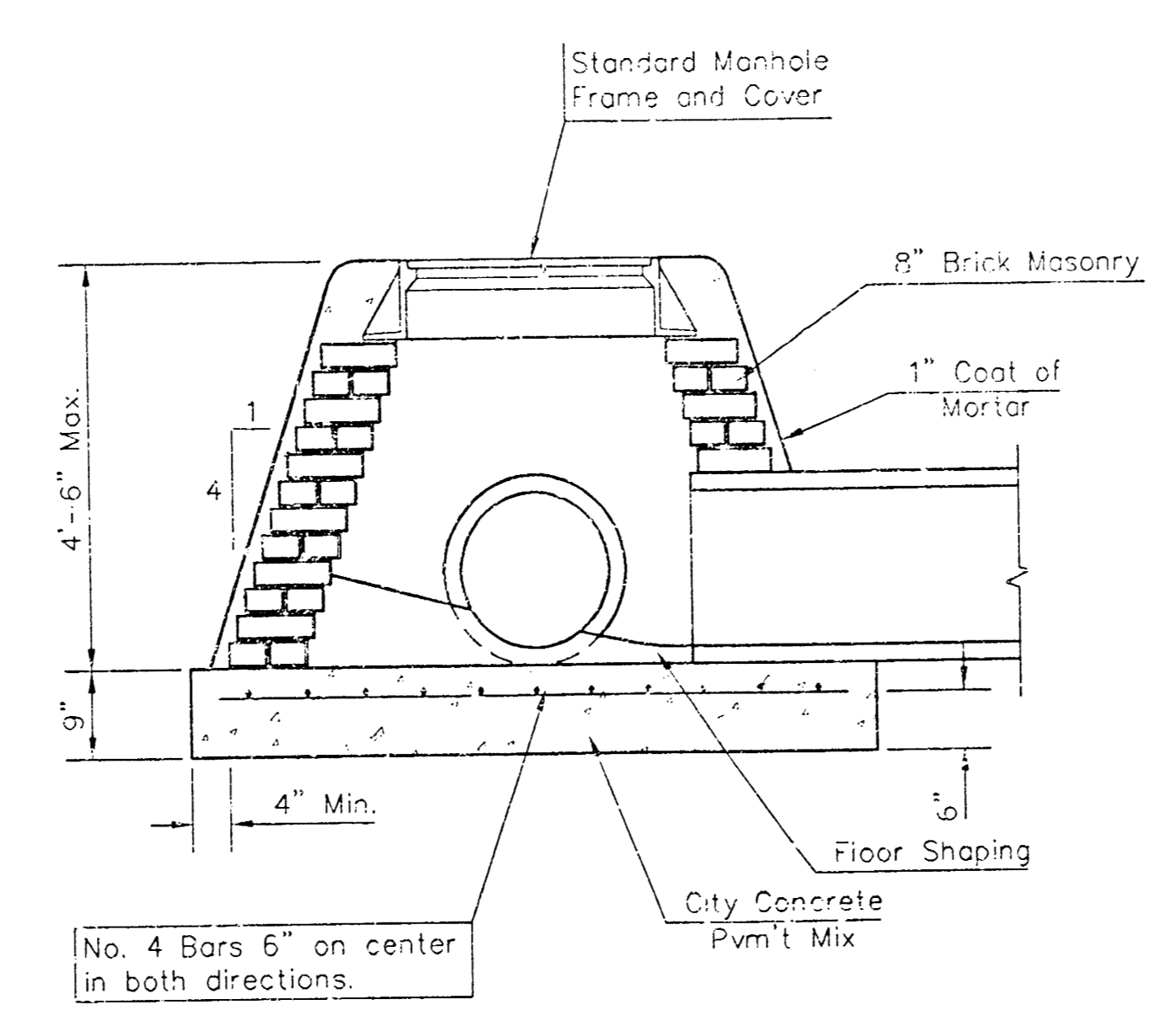


MASONRY COLLAR DETAIL

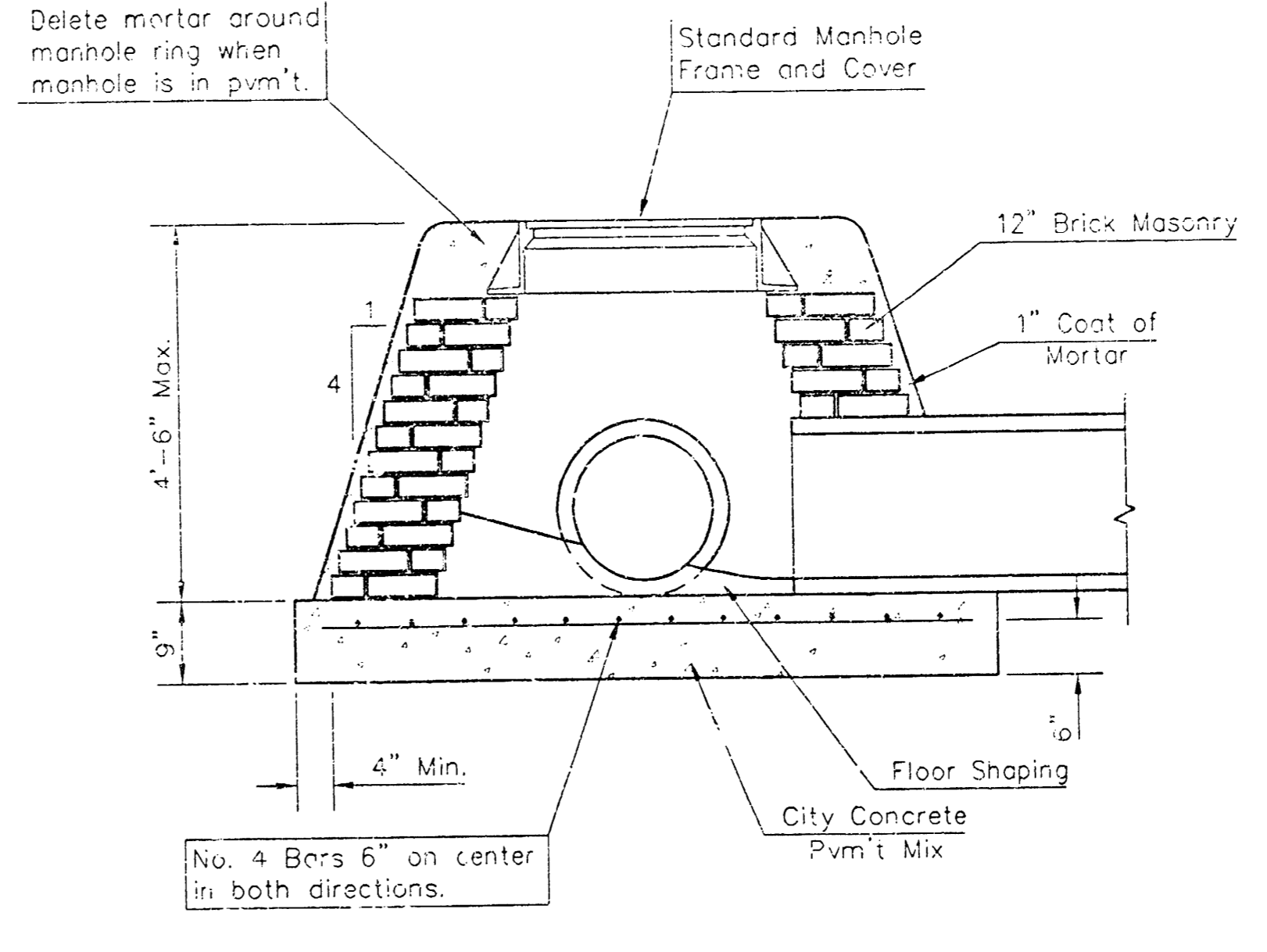


SECTION A-A

FLAT CONCRETE SLAB DETAILS



SPECIAL SHALLOW TYPE "A" MANHOLE



SPECIAL SHALLOW TYPE "B" MANHOLE

GENERAL NOTES

- Mortar used in masonry construction shall contain 8 sacks of cement per cubic yard. Concrete used in manhole bases shall conform to the requirements of concrete for concrete pavement construction as specified in the city standard paving specifications using city concrete cement mix without an air-entraining admixture. Mortar shall be placed around the manhole ring as shown on the drawings when manholes are constructed in unpaved areas. Type "A" shallow manholes can be used on sewers when the manhole is not located within public street pavement. Manholes constructed where pipe sizes are smaller than 24" shall have an inside diameter of 4". Manholes constructed where pipe sizes are 24" or larger shall have an inside diameter of 5". Completed manhole shall be without leaks and water tight.
- Reinforcing steel shall be installed in the manhole bases and shall consist of no. 4 bars placed on 6" centers in both directions. The manhole base reinforcement shall be placed 6" above the bottom of the manhole base. All costs for furnishing and installing reinforcing steel shall be included in the unit price bid for the manhole.
- The floors of all manholes shall be shaped with flow channels such that the manholes will be self-cleaning and free of areas where solids could be deposited as sewage flows through the manhole from an inlet pipe to the outlet pipe. Flow channels shall be formed to match the bottom halves of the inflowing pipes and the outflowing pipe as shown by the drawings. Manhole floors shall have slopes of 3 inches per foot in the areas outside of the flow channels sloped toward the flow channels. Pipes laid through manholes shall have the top half removed to meet lines for the full inside diameter of the manhole. Manhole floors shall be shaped around the bottom half of the pipe which forms the flow channel.
- Pipes installed within the excavation made for the manhole shall be cradled with concrete to the limits of the manhole excavation. When any pipe is used, the cradle shall extend to the first joint outside the manhole. The cradle shall be terminated at the day pipe joint in a manner which will maintain the flexibility of the joint. Cost of cradle within manhole excavation or to day pipe joints adjacent to manhole shall be included in the unit price bid for the manhole.
- Manhole cover castings and manhole frame castings shall conform to the requirements as indicated in the standard specifications and as shown in the standard detail drawings.
- The crowns of inflowing pipes shall never be set lower than the crown of the outflowing pipe.
- Standard shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type and diameter indicated. Standard special shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type indicated. All standard shallow manhole diameters will be 4' unless indicated otherwise.
- All brick used in manhole construction shall meet Grade SW of ASTM C652 or C62-87.

Std. Manhole Detail

BAUGHMAN COMPANY P.A.
ENGINEERS

DESIGN	DRAWN	APPROVED	DATE	SCALE	SHEET
					14
					15

