

CITY OF DULUTH
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

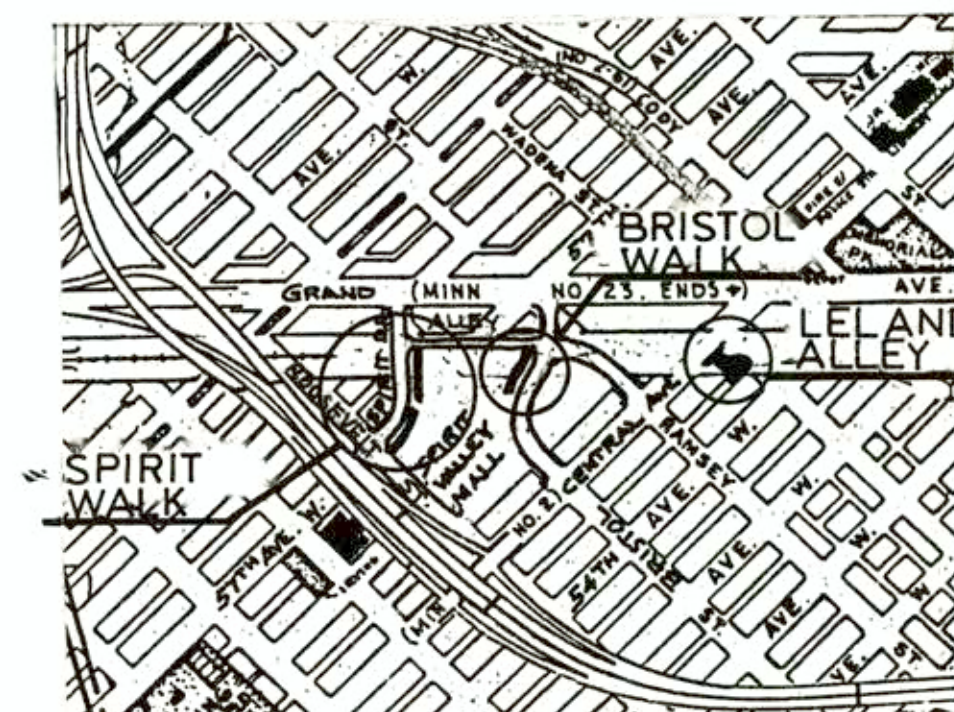
CONSTRUCTION PLANS
FOR
WEST END STREETScape
SUPERIOR STREET

from
19TH.AVENUE WEST TO 20TH. AVENUE WEST

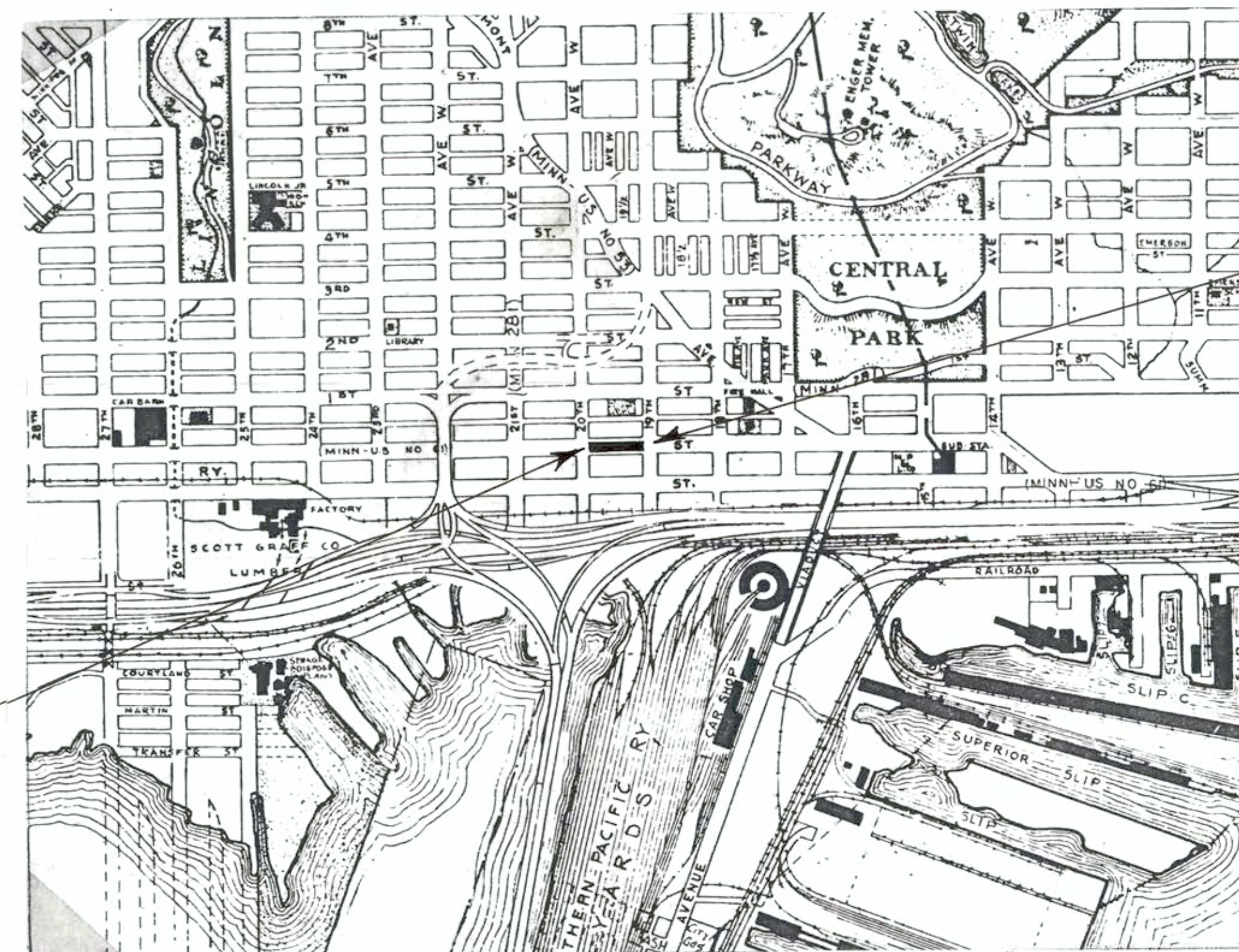
LELAND ALLEY
CENTRAL AVENUE TO 55th. ALLEY

BRISTOL STREET SIDEWALK
GRAND ALLEY TO 135th. SOUTH

SPIRIT DRIVE SIDEWALK
ROOSEVELT STREET TO GRAND ALLEY



CITY PROJECT NO.8086MC85



SCALE 1" = 800'

THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED 1983 SHALL GOVERN EXCEPT AS AMENDED BY THE SPECIAL PROVISIONS. ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS SHALL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.

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12-14	CROSS SECTION

BEGIN CITY PROJECT NO. 8062RS85

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

David Beeman
PROJECT ENGINEER

8-26-85
DATE

10758
REG. NO.

CITY APPROVAL

APPROVED *James B. Smith* 8-26-85 8000
CHIEF ENGINEER STREETS DATE REG. NO.

APPROVED *Henry M. Reid* 8-26-85 6260
CHIEF ENGINEER SAN. SEWER DIVISION DATE REG. NO.

APPROVED *John H. Carlson* 8-26-85 12726
CITY ENGINEER DATE REG. NO.

APPROVED *R. W. Morrison* 8/24/85 7286
DIRECTOR OF PUBLIC UTILITIES DATE REG. NO.

AS BUILT

STATEMENT OF ESTIMATED QUANTITIES					
SPEC. NO.	ITEM	UNIT	QUANTITY		
			ESTIMATE	FINAL	
<u>CITY ENGINEERS STREETScape</u>					
2101.502	Clearing	Tree	6.0	6	
2101.507	Grubbing	Tree	6.0	6	
2104.501	Remove Integrant Curb (Includes Dowels)	L. F.	930.0	721	
2104.501	Remove Curb	L. F.	120.0	72.9	
2104.503	Remove Concrete Walk , Brick, And Base	S. F.	15900.0	15354	
2104.505	Remove Bituminous Pavement	S. Y.	2190.0	2688.4	
2104.505	Remove Concrete Trench Base (Includes Curb)	S. Y.	136.0	136.3	
2104.509	Remove Catch Basin	Each	5.0	5	
2104.509	Remove Light And Traffic Base	Each	6.0	10	
2104.523	Salvage Street Light Pole And Luminaire	Each	6.0	8	
2201.501	Concrete Base 8" Thick	S. Y.	115.0	180.8	
2201.541	Integrant Curb Design B-8	L. F.	50.0	568.8	
2211.502	Aggregate Base Class 5 V. M.	C. Y.	40.0	0	
2341.504	Bituminous Material For Mixture	Ton	13.8	11.3	
2341.510	Binder Course Mixture	Ton	275.0	225.7	
2361.504	Asphalt Cement	Ton	10.5	12.4	
2361.508	Wearing Course Mixture	Ton	140.0	164.9	
2503.511	6"PVC Pipe Sewer	L. F.	40.0	80.5	
2503.511	12"PVC Pipe Sewer	L. F.	125.0	198.4	
2503.511	12"RC Pipe Sewer Class 3 Design 3006C	L. F.	100.0	111.7	
2506.509	Construct Catch Basin Design G (Includes Casting)	Each	5.0	6	
2506.522	Adjust Frame & Ring Casting	Each	1.0	1	
2531.502	Concrete Curb Doweled Design B-8	L. F.	1000.0	592.2	
	Furnish & Install Polymer Concrete Trench Drain	L. F.	148.0	142.7	
	Furnish & Install Polymer Concrete Catch Basin	Each	3.0	3	
	Adjust Water & Gas Service Boxes	Each	17.0	12	
	Furnish & Install 12"X 6" PVC Wye	Each	8.0	7	
	Drilled 10" Utility Entrance	L. F.	6.0	7.7	
	Labor	Hr.	40.0	82	
<u>P.A.C. STREETScape</u>					
02630	Concrete Tree Grate Curb	Each	22.0	21	
02630	2 1/2"Pavers With 3/4"Setting Bed, Adhesive, 4"Conc. Base, Class 5	S. F.	14704.0	12460.5	
02760	Tree Grate With Frame & Guard	Each	19.0	19	
02760	Tree Grate With Frame	Each	3.0	2	
02760	Bollards Cast Aluminum	Each	8.0	8	
02760	Bench - 4 Ft In Length	Each	3.0	3	
02630	7" Concrete Driveway and Header Pavement	S. Y.	144.0	194.4	
02800	F & I Shade Tree -3"Dia. 6 Col. Maple , 2 Lindens	Each	8.0	8	
02800	F & I 2" Dia. Red Splendor Crabapple	Each	1.0	1	
02760	Trash Receptacle	Each	2.0	6	
09000	Threshold Modification	Each	1.0	1	
	Line Paint	L. F.	382.0	310	
02650	Temporary Access To Buildings	L. S.	1.0	1	
02720	Street Name Signs	Each	8.0	8	
2104.509	Remove Plexiglass On Kiosk	Each	1.0	1	
	Parking Meter Refinishing	Each	14.0	14	
	Telespar Channel for Traffic Control	L. F.	70.0	70	
<u>SEAWAY ENGINEERING LIGHTING</u>					
16-10	Pole Type 1A	Each	6.0	6	
16-10	Pole Type 1B	Each	4.0	4	
16-10	Pole Type 2A	Each	2.0	2	
16-10	Pole Type 2B	Each	1.0	1	
16-19	Relocate Existing Street Lights	Each	2.0	2	
16-11	Pole Foundation (28" X 6')	Each	13.0	13	
16-11	Pole Foundation (30" X 6'-4")	Each	2.0	2	
16-12.15	Conduit And Wire A	L. F.	960.0	960	
16-12.15	Conduit And Wire B	L. F.	100.0	100	
16-12.15	Conduit And Wire C	L. F.	50.0	50	
16-12.15	Conduit And Wire D	L. F.	100.0	100	
16-12.15	Conduit And Wire E	L. F.	20.0	20	
16-12.15	Conduit And Wire F	L. F.	10.0	10	
16-13	Trenching	L. F.	40.0	40	
16-14	Handholes	Each	2.0	2	
16-17	Re-Connect Electrical To Kiosk	Each	1.0	1	

STATEMENT OF ESTIMATED QUANTITIES					
SPEC. NO.	ITEM	UNIT	QUANTITY		
			ESTIMATE	FINAL	
<u>P. A. C. LANDSCAPE (Crosswalk Mid-Block)</u>					
02630	2 1/2" Pavers, 3/4" Setting Bed, Adhesive, 4" Conc. Base & Class 5	S. F.	940.0	1184.7	
02630	4" Concrete Crosswalk Headers	S. Y.	15.0	0	
2104.505	Remove Concrete Trench Pavement	S. Y.	120.0	30.6	
<u>P. A. C. LANDSCAPE (Crosswalk Intersections)</u>					
02630	2 1/2" Pavers, 3/4" Setting Bed, Adhesive, 4" Conc. Base & Class 5	S. F.	580.0	864	
02630	4" Concrete Crosswalk Headers	S. Y.	31.0	0	
2104.505	Remove Concrete Trench Pavement	S. Y.	101.0	147.9	
<u>P. A. C. LANDSCAPE (West End Entry Park)</u>					
02630	2 1/2" Pavers, 3/4" Setting Bed, Adhesive, 4" Conc. Base & Class 5	S. F.	920.0	920	
02630	Concrete Walk 4" Thick	S. F.	1625.0	1898.9	
02630	Wood Pole Retaining Wall	L. F.	115.0	115	
02800	Transplant Green Ash	Each	3.0	3	
02630	Granular Borrow Fill	C. Y.	90.0	90	
02800	10' - 12' Blackhill Spruce Conifer Tree	Each	6.0	6	
02800	Alpine Currant Decid. Shrubs	Each	40.0	40	
02800	Wood Chips	S. Y.	150.0	150	
07000	Water Proofing Building Wall	S. F.	200.0	213.2	
02630	Concrete Tree Grate Curb	Each	3.0	3	
02760	Tree Grate with Frame	Each	3.0	3	
<u>P. A. C. LANDSCAPE (Entry Treatment)</u>					
02770	Canvas	Each	1.0	1	
02770	Cedar Poles	Each	6.0	6	
02720	West End Mall Sign 2 Sides	Each	1.0	1	
02720	Traffic Sign	Each	2.0	2	
02760	Bollards Cast Aluminum	Each	6.0	6	
<u>SEAWAY ENGINEERING</u>					
16-21	Replacement Parts And Lamps	L. S.	1.0	0	
<u>SEAWAY ENGINEERING</u>					
16-21	Lights, Foundation, And Wiring At Entry Park	L. S.	1.0	1	
<u>SEAWAY ENGINEERING</u>					
16-21	Sign Lighting Entry Area	L. S.	1.0	1	

EXTRA WORK SEE FINAL
ESTIMATE F-4754

CITY ENGINEERS STREETScape NOTES

- Trees less than 4" dia. are considered incidental.
- Parking lot S.E. corner 20TH. Ave West
- Light poles and luminaires will be brought to Building Maint. 11TH Ave. West and Michigan St.
- All Concrete used on project will be State mix # 3A32
- 120-150 Pen. 5.0% A.C.
- 7.5% A.C.
- Pipe used to connect trench drain to city storm sewer system.
- CB frame casting #802A ; Std. Plate #4129E, Grate Casting #816, Std. Plate # 4154B.
- Includes Cast Iron Grate and Concrete surrounding trench drain.
- Includes Cast Iron Grate.
- Contractor will drill 10" hole through building foundation at location determined by the engineer. Payment will be to the nearest tenth of a foot.
- Includes all Labor & Material for grouting and tuck pointing on building walls before new walk is constructed.

AS BUILT

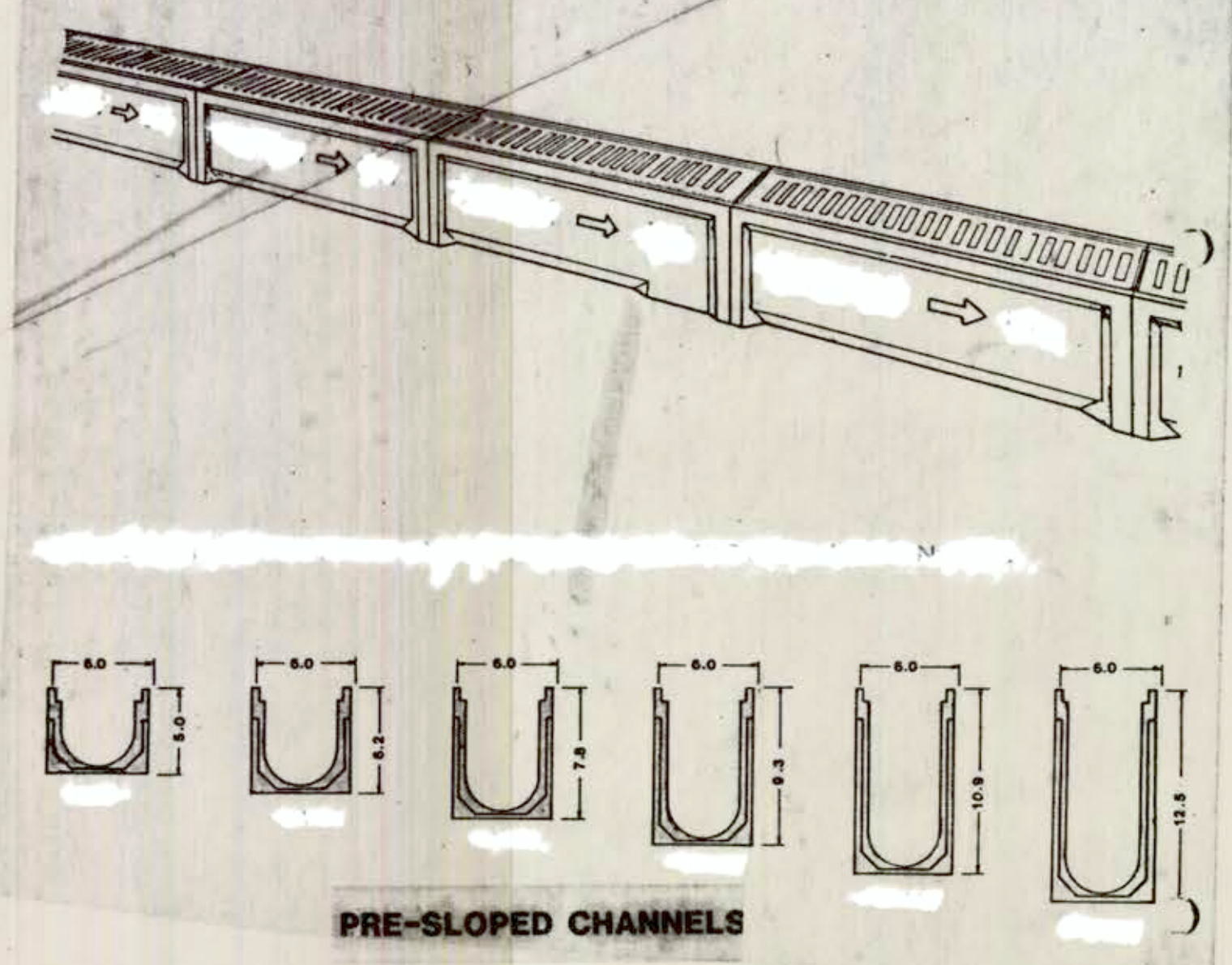
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

Deirdre Beaman
PROJECT ENGINEER

8-26-85 10758
DATE REG. NO.

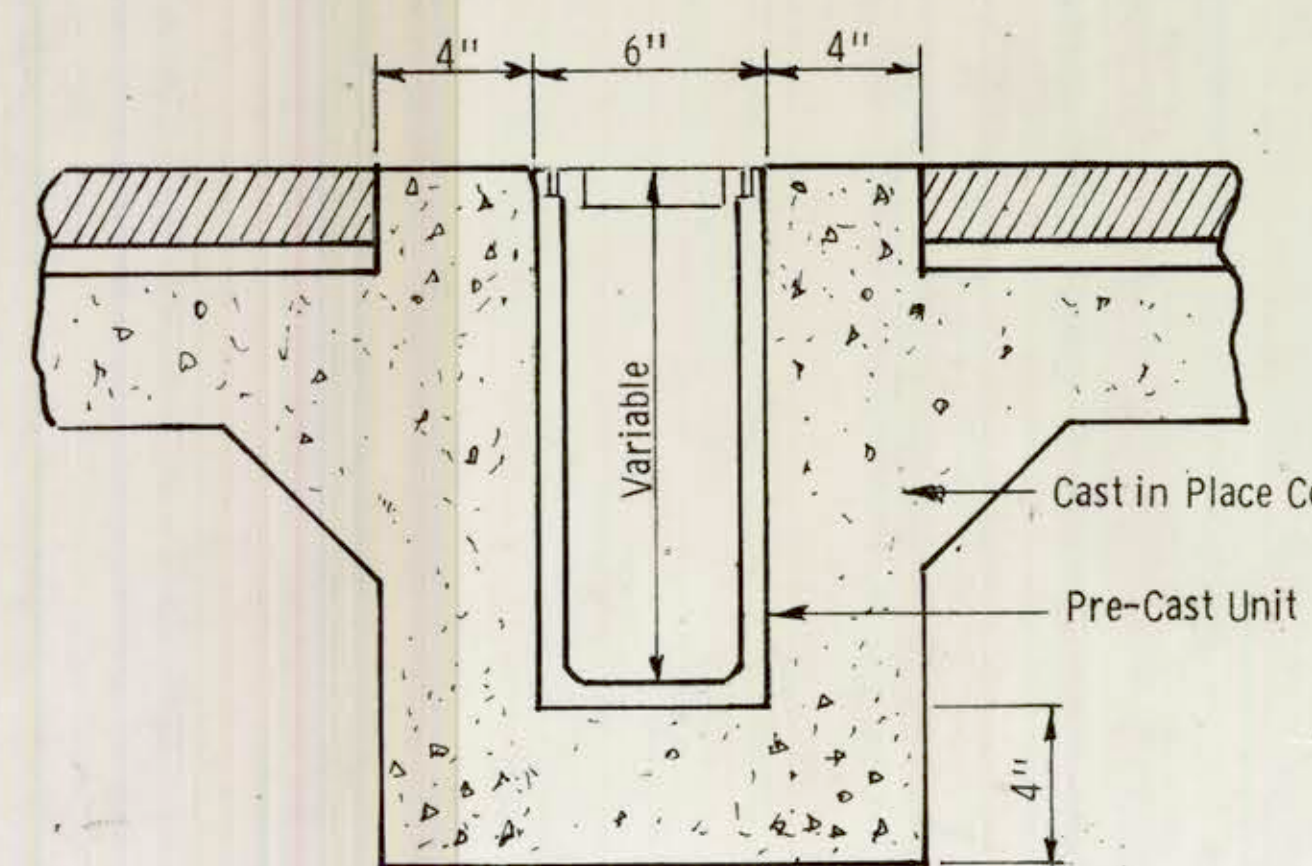
DESIGN BY DJB	SUPERIOR ST. STREETScape FROM 19TH AVE WEST TO 20TH AVE W
DRAWN BY RJA	
CHECKED BY DJB	ESTIMATE QUANTITIES
SCALE NONE	
DATE 8-26-85	

The presloped channels consist of 25 individual drain sections. Each section is numbered and has a built-in slope gradient of .65%. All presloped channel sections are 4 feet long and 6 inches wide. Total length for all 25 sections is 100 feet.



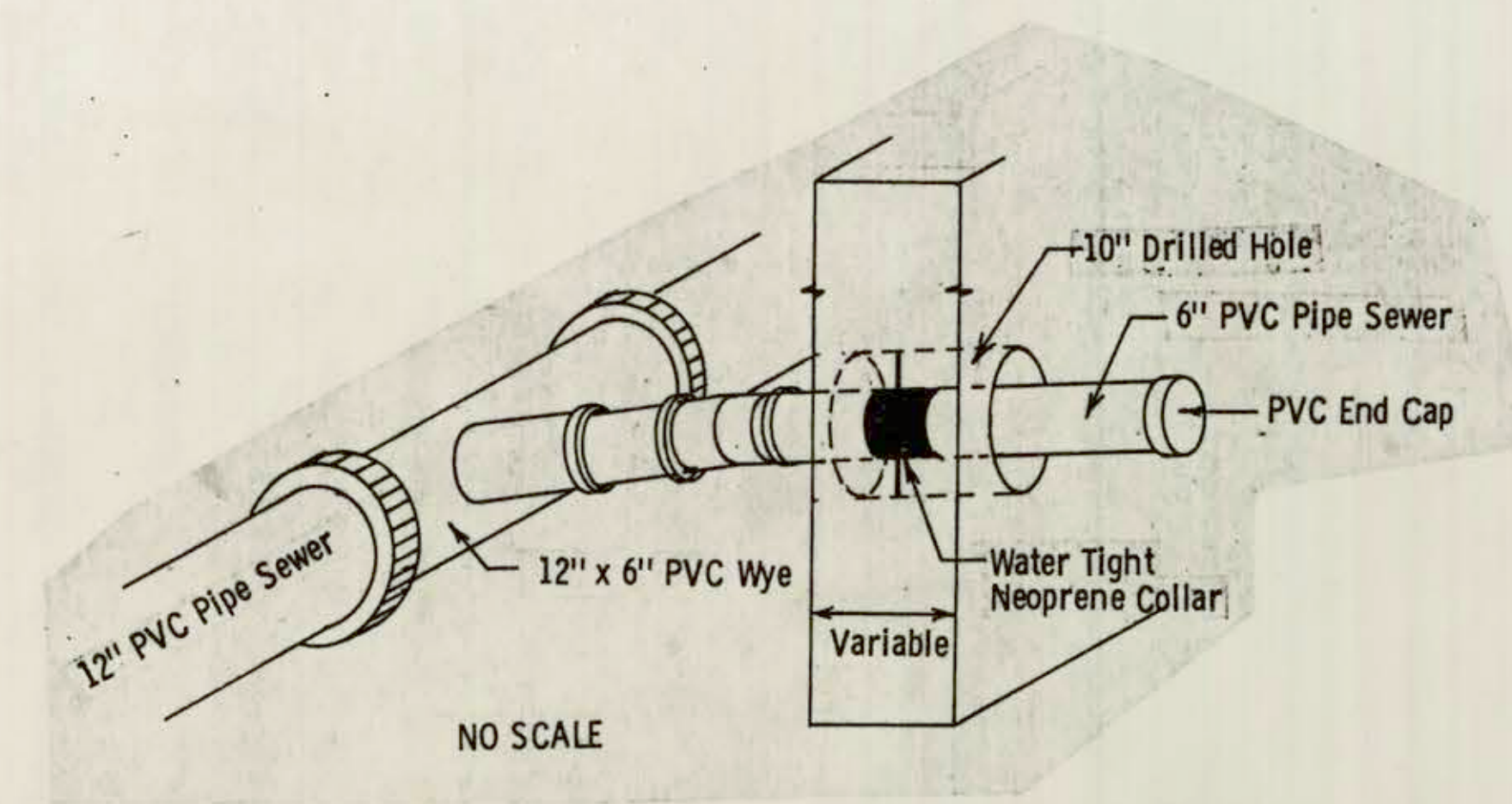
PRE-SLOPED CHANNELS

CATCH BASIN

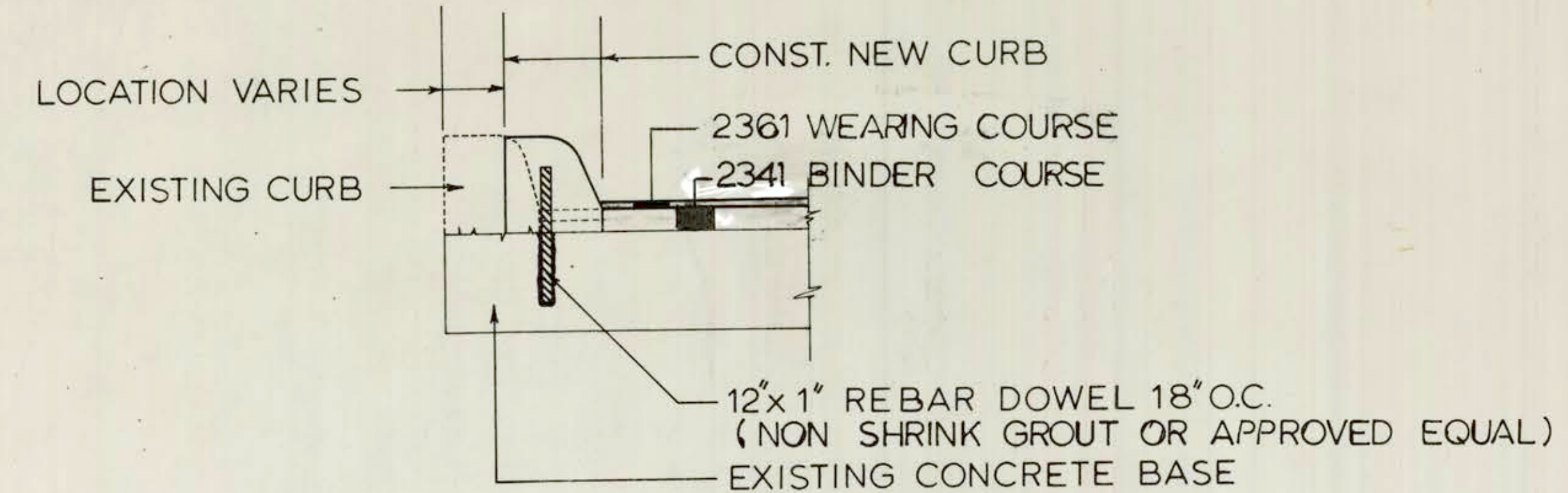


TYPICAL CROSS SECTION

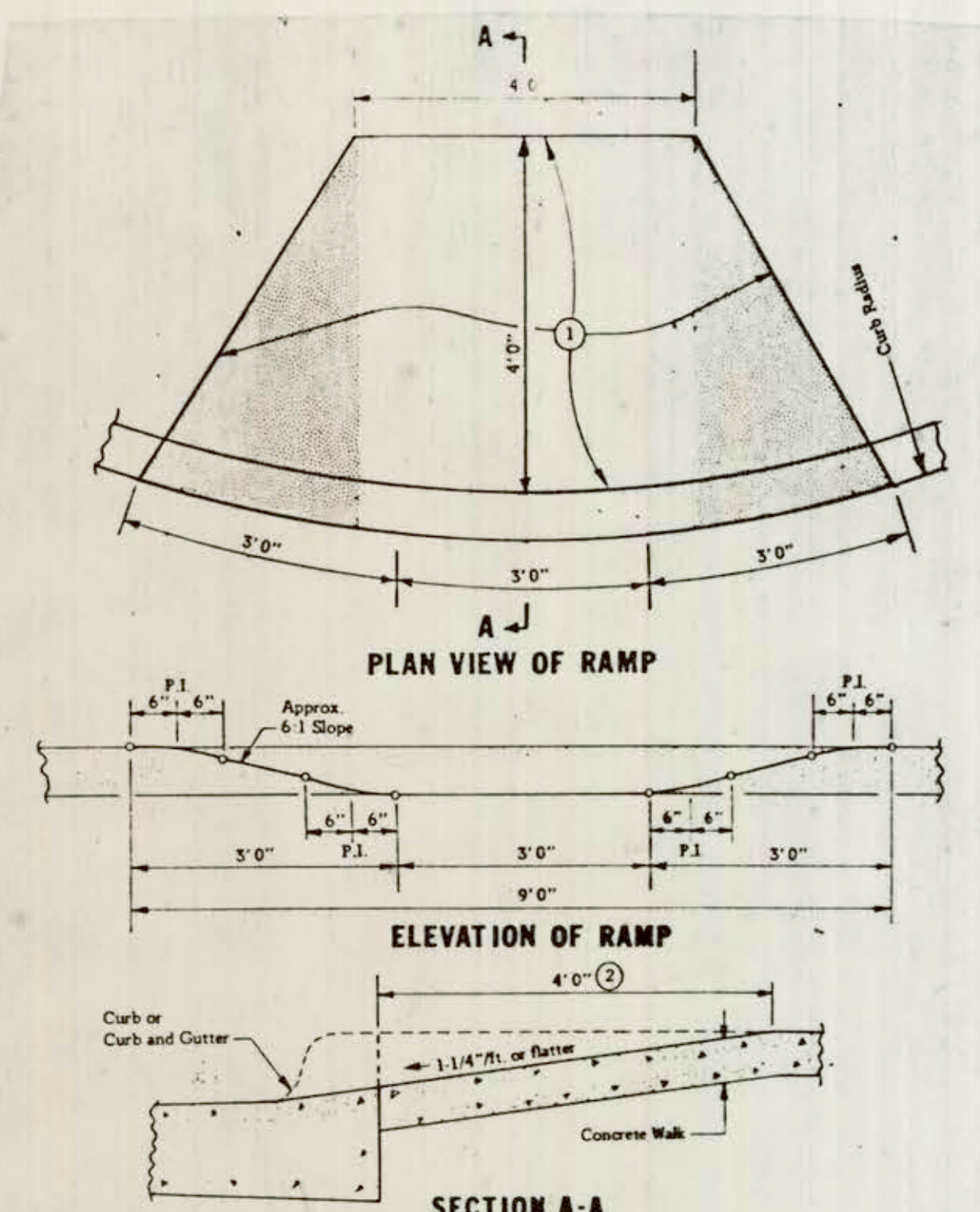
TRENCH DRAIN



TYPICAL ROOF DRAIN SERVICE THROUGH BUILDING FOUNDATION OR VAULT WALL



DOWELED B8 CURB DETAIL



NOTE:
The curb and curb transition on the ramp will be paid for as linear feet of concrete curb or concrete curb and gutter. The ramp area will be paid for as square feet of concrete walk. Surface treatment will be considered incidental.

1 Surface Treatment - This treatment shall consist of an aggregate surface finish. The aggregate shall meet the requirements of Spec. 3137 CA-70 modified to 100% passing the 1/2" sieve. Immediately prior to placing the coarse aggregate, the surface shall be coated with an approved epoxy bonding agent.

In lieu of the above treatment, the contractor at his option after normal concrete finishing, may embed aggregate, meeting the requirements of Spec. 3137 CA-70 modified to 100% of the material 1/2" to 3/8" in size, in the green concrete. The embedded aggregate shall protrude at least 3/16" above the concrete surface. The exposed aggregate may be lightly rained to wash mortar off of it.

2 4'0" dimensions may be increased where feasible, to provide a flatter slope.

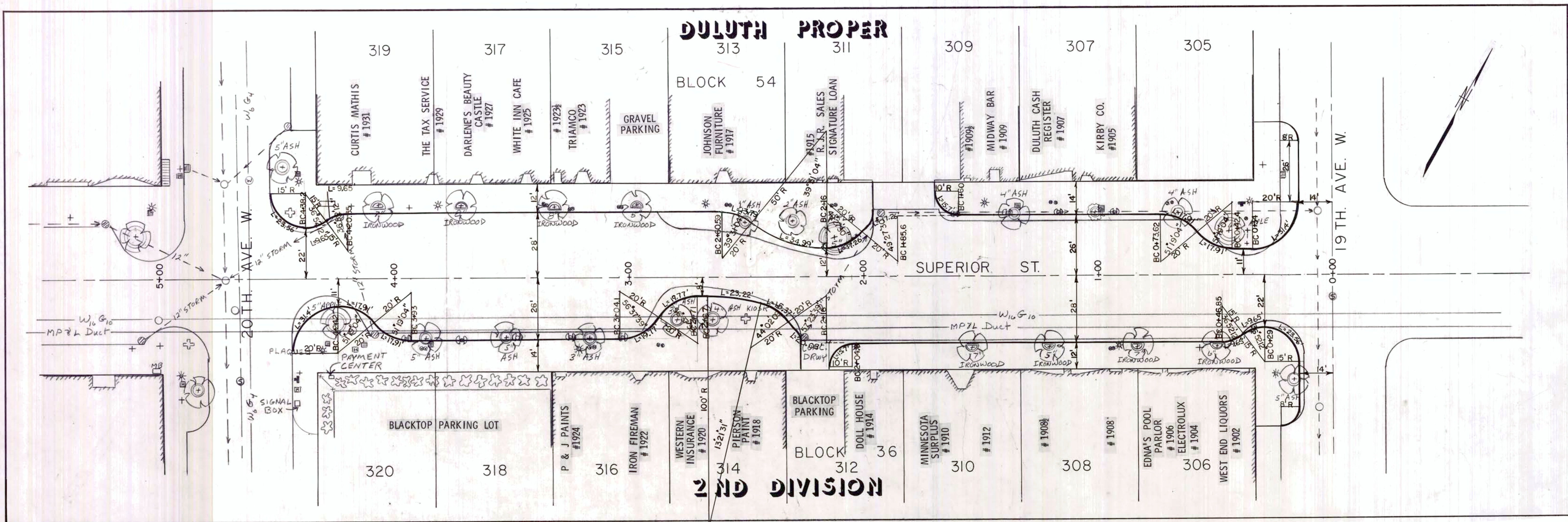
PEDESTRIAN CURB RAMP
(Paver Brick Construction)

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

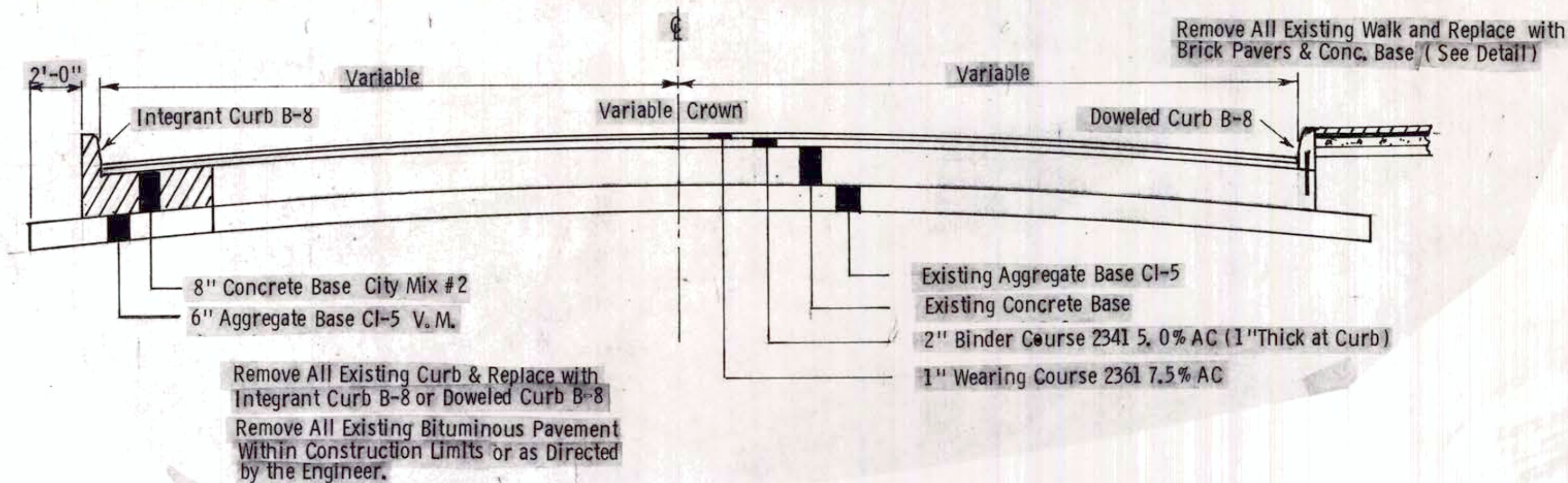
Dean J. Berman
PROJECT ENGINEER
8-26-85 10758

AS BUILT

DESIGN BY DJB	MISC. DETAILS
DRAWN BY RJM	
CHECKED BY DJB	SUPERIOR STREET FROM 19TH AVE WEST TO 20TH AVE WEST
DATE 8-26-85	
SCALE AS SHOWN	



GENERAL LAYOUT



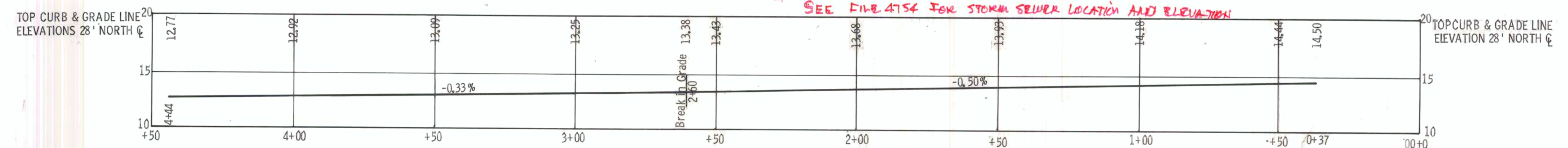
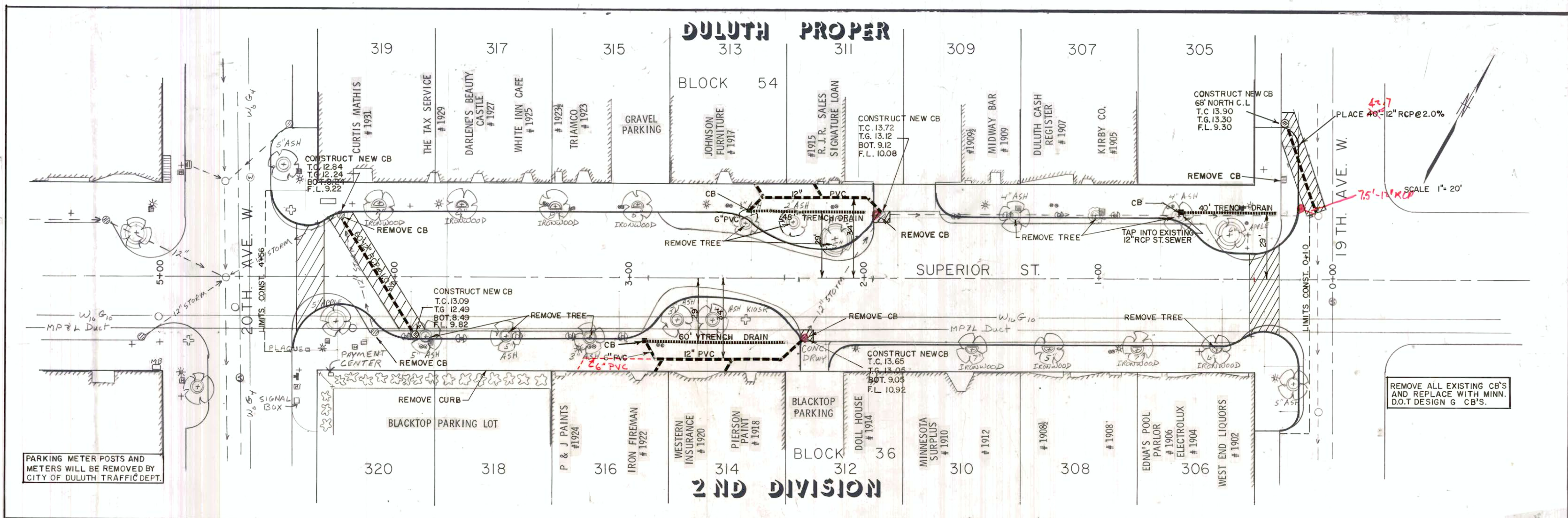
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

David Beaman
PROJECT ENGINEER

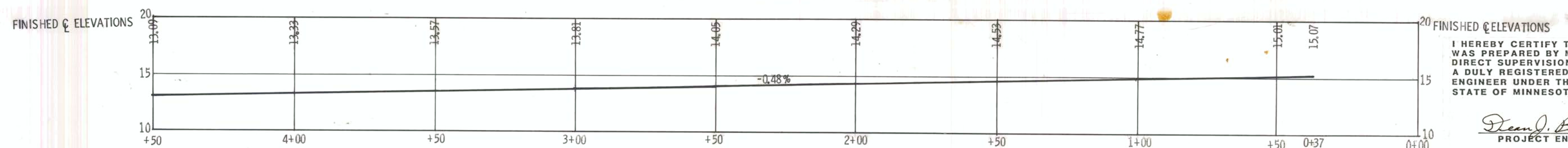
8-26-85 DATE 10758 REG. NO.

DESIGN BY DJB	LAYOUT & TYPICAL SECTION
DRAWN BY RJM	
CHECKED BY DJB	
DATE 8-26-85	SUPERIOR STREET from 19TH AVE. W TO 20TH AVE. W.
SCALE 1/4" = 20' V. 1/4" = 5'	

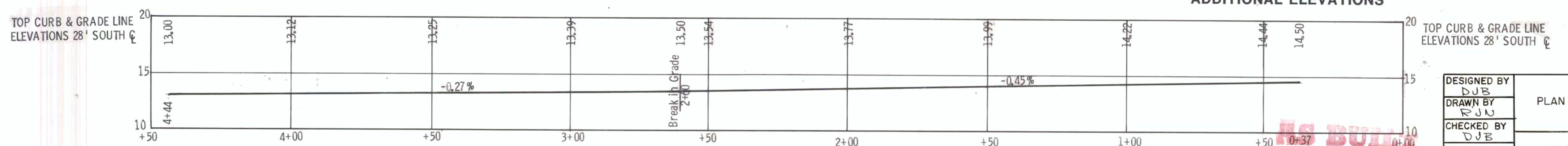
AS BUILT



NORTH SIDE PROFILE



CENTERLINE PROFILE



SOUTH SIDE PROFILE

SEE FILE 4754 FOR STORM SEWER LOCATION AND ELEVATION

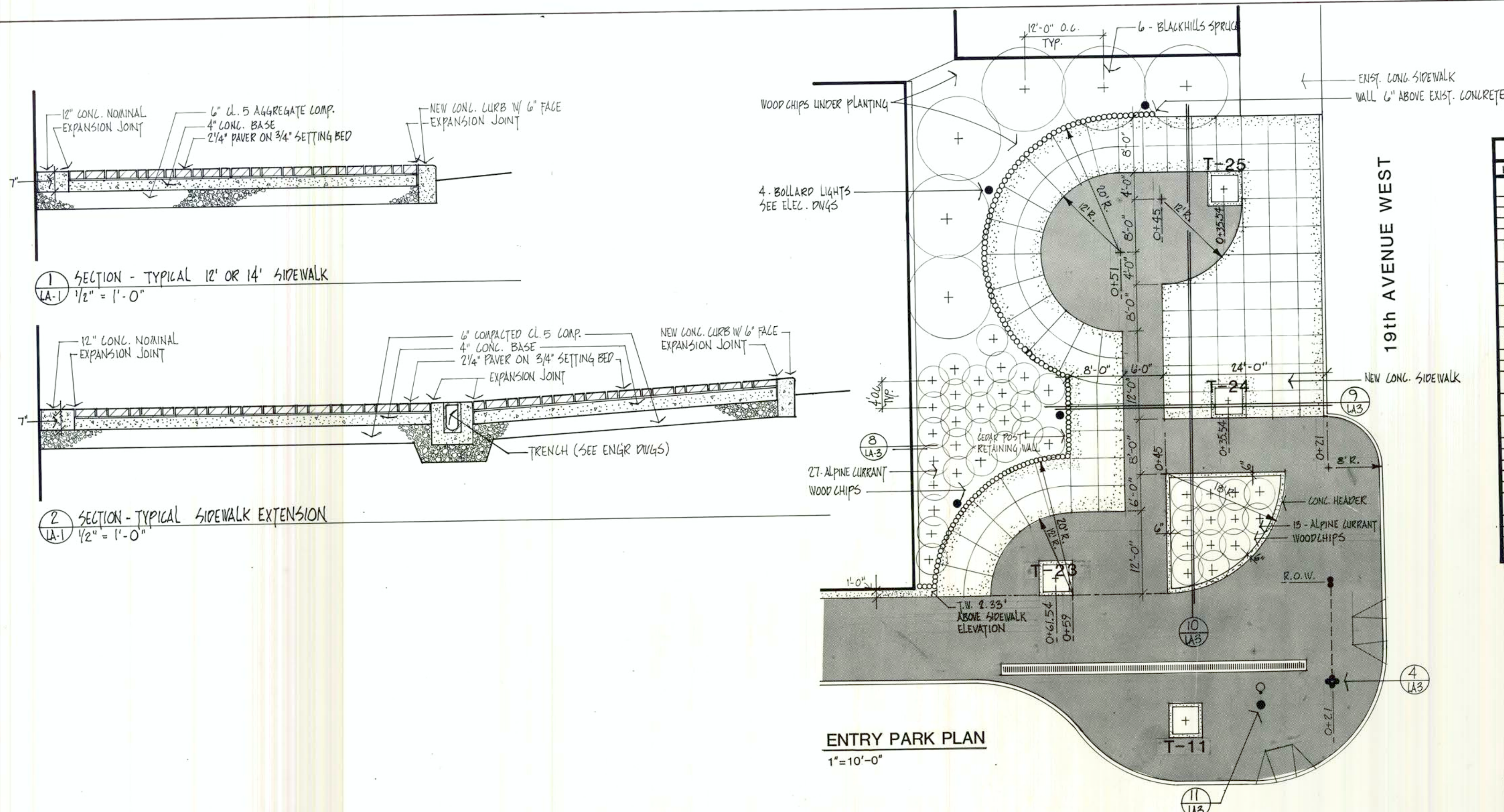
SEE CROSS SECTIONS FOR
ADDITIONAL ELEVATIONS

I HEREBY CERTIFY THAT THIS PLAN
WAS PREPARED BY ME OR UNDER MY
DIRECT SUPERVISION AND THAT I AM
A DULY REGISTERED PROFESSIONAL
ENGINEER UNDER THE LAWS OF THE
STATE OF MINNESOTA

Dean J. Brannen
PROJECT ENGINEER

8-26-85 10758
DATE REG. NO.

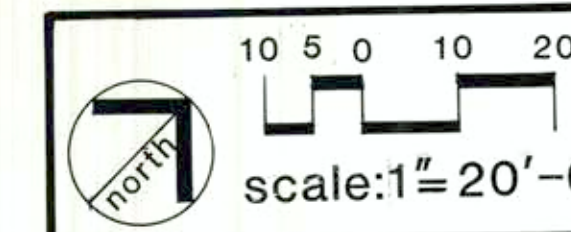
DESIGNED BY DJB	PLAN & PROFILE
DRAWN BY RJM	
CHECKED BY DJB	SUPERIOR STREET FROM 19TH AVE. WEST TO 20TH AVE. WEST
SCALE H-1/2"=20' V-1"=5'	
DATE 8-26-85	



TREE SCHEDULE					
LOCATION	TREE NO.	TYPE	SIZE	DETAIL	NOTES
	T-1	EXISTING		7/LA-2	TREE GUARD REQ'D.
	T-2	EXISTING		10/LA-2	TREE GUARD REQ'D.
	T-3	EXISTING		10/LA-2	TREE GUARD REQ'D.
	T-4	EXISTING		10/LA-2	TREE GUARD REQ'D.
	T-5	EXISTING		10/LA-2	TREE GUARD REQ'D.
2 + 63 NORTH	T-6	TILIA CORDATA "GREENSPIRE"	B & B	10/LA-2	TREE GUARD REQ'D.
		GREENSPIRE LINDEN	3" CAL.		
2 + 08 NORTH	T-7	MALLIS "RED SPLENDOR"	B & B	9/LA-2	4x4 TREE GRATE
		RED SPLENDOR CRABAPPLE	2" CAL.		NO GUARD REQ'D.
1 + 53 NORTH	T-8	ACER PLATANOIDES "COLUMNARE"	B & B	8/LA-2	TREE GUARD REQ'D.
		COLUMNAR MAPLE	3" CAL.		
1 + 13 NORTH	T-9	ACER PLATANOIDES "COLUMNARE"	B & B	8/LA-2	TREE GUARD REQ'D.
		COLUMNAR MAPLE	3" CAL.		
0 + 83 NORTH	T-10	ACER PLATANOIDES "COLUMNARE"	B & B	8/LA-2	TREE GUARD REQ'D.
		COLUMNAR MAPLE	3" CAL.		
	T-11	EXISTING		7/LA-2	NO GUARD REQ'D.
	T-12	EXISTING		7/LA-2	NO GUARD REQ'D.
3 + 83 SOUTH	T-13	ACER PLATANOIDES "COLUMNARE"	B & B	8/LA-2	TREE GUARD REQ'D.
		COLUMNAR MAPLE	3" CAL.		
3 + 53 SOUTH	T-14	ACER PLATANOIDES "COLUMNARE"	B & B	8/LA-2	TREE GUARD REQ'D.
		COLUMNAR MAPLE	3" CAL.		
3 + 13 SOUTH	T-15	ACER PLATANOIDES "COLUMNARE"	B & B	8/LA-2	TREE GUARD REQ'D.
		COLUMNAR MAPLE	3" CAL.		
	T-16	EXISTING		7/LA-2	TREE GUARD REQ'D.
	T-17	EXISTING		7/LA-2	TREE GUARD REQ'D.
	T-18	EXISTING		10/LA-2	TREE GUARD REQ'D.
	T-19	EXISTING		10/LA-2	TREE GUARD REQ'D.
	T-20	EXISTING		10/LA-2	TREE GUARD REQ'D.
0 + 53 SOUTH	T-21	TILIA CORDATA "GREENSPIRE"	B & B	10/LA-2	REMOVE EXIST. LINDEN
		GREENSPIRE LINDEN	3" CAL.		TREE GUARD REQ'D.
	T-22	EXISTING		7/LA-2	TREE GUARD REQ'D.
0+61.54 NORTH	T-23	TRANSPLANTED GREEN ASH		7/LA-2	FROM PROJECT LIMITS
0+35.54 NORTH	T-24	TRANSPLANTED GREEN ASH		7/LA-2	FROM PROJECT LIMITS
0+35.54 NORTH	T-25	TRANSPLANTED GREEN ASH		7/LA-2	FROM PROJECT LIMITS

ENTRY PARK PLAN
1"=10'-0"

LEGEND	
H	HANDICAPPED SIGN
•	BOLLARD
○	TRASH RECEPTACLE
•	LIGHT STANDARD
•	NEW
•	RELOCATE EXIST
=====	TRENCH DRAIN
=====	CURB
=====	BRICK PAVERS
=====	CONCRETE
=====	HANDICAPPED RAMP
=====	4'X4' TREE GRATE
=====	3'X6' TREE GRATE
-----	ELECTRICAL CONDUIT



I hereby certify that this plan, specification, or report was prepared by me, or under my direct supervision, and that I am a duly registered ARCHITECT under the laws of the State of Minnesota.
Date: 8/26/85 Reg. No. 11846

WEST END BUSINESS DISTRICT STREETSCAPE RENOVATION 19th AVE WEST to 20th AVE WEST

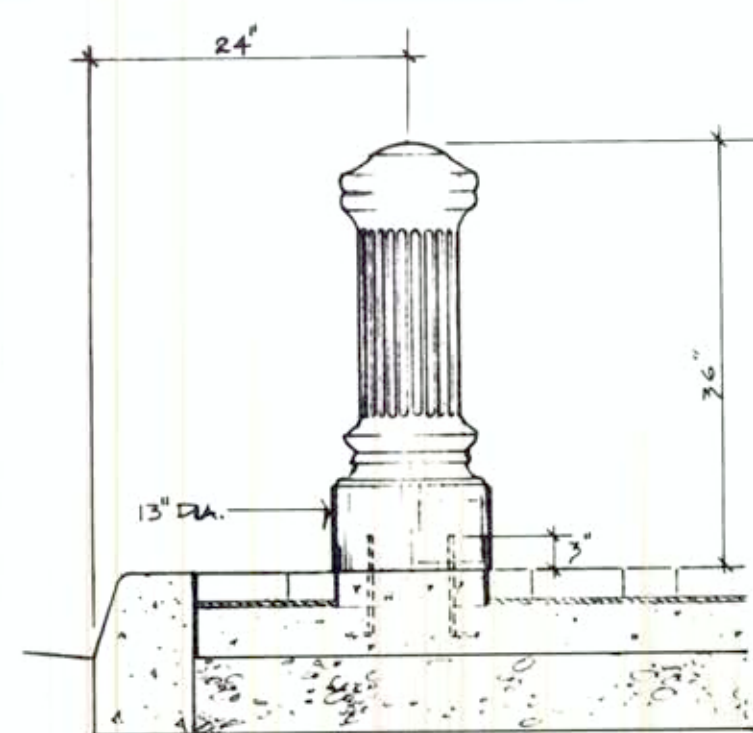
phase WD

project no. 8514
date 8/85
drawn DB
checked JB
revised

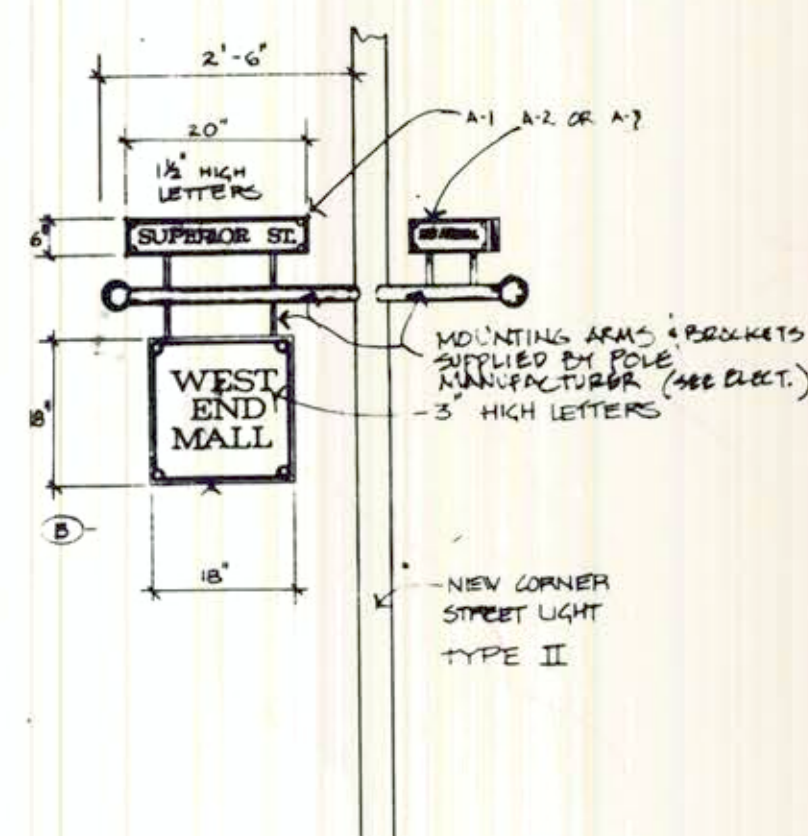
consultants

LA-1
205 board of trade bldg
duluth minn 55802

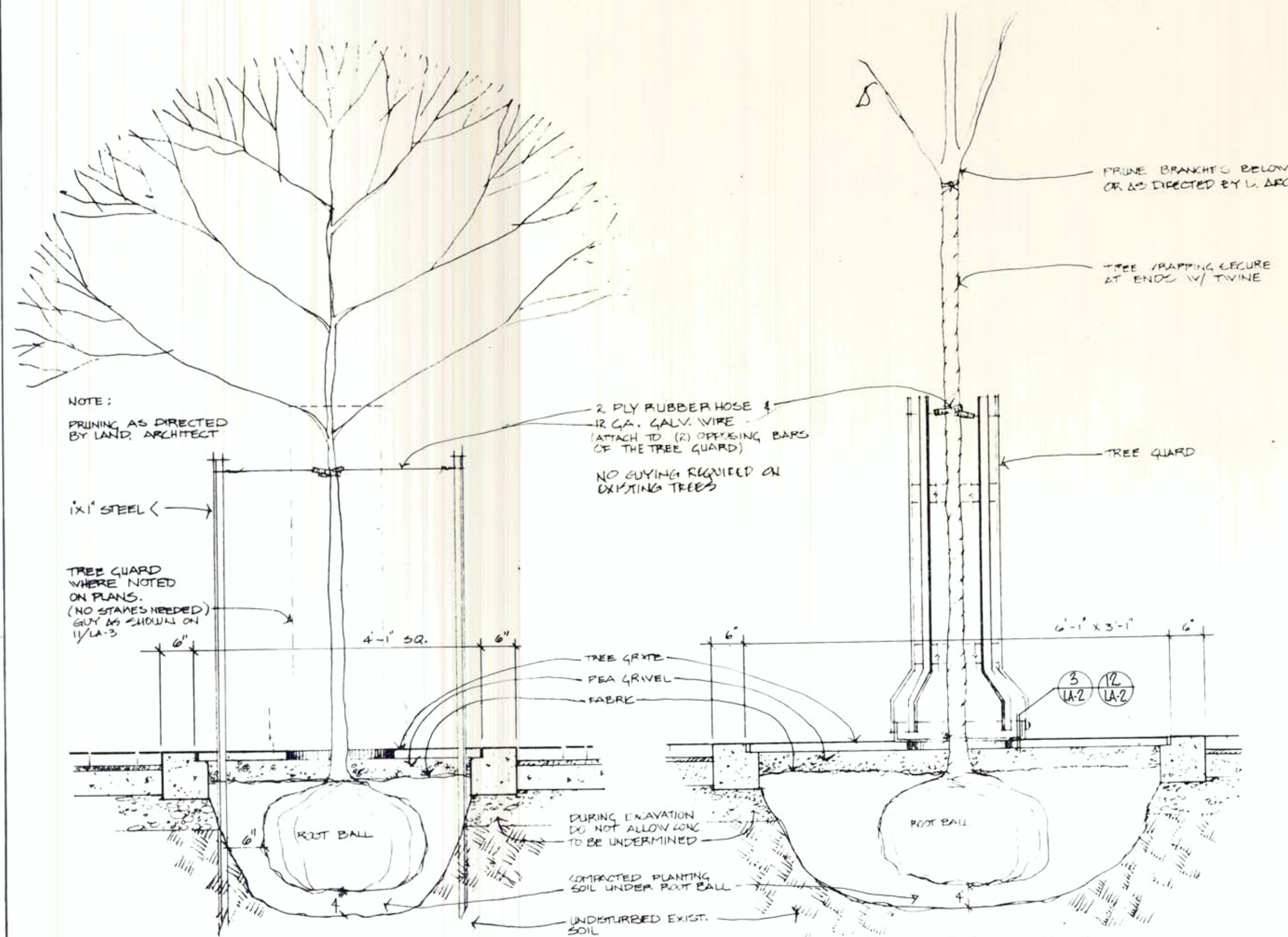
AS BUILT



1 BOLLARD MOUNTING
LA-2 3/4" = 1'-0"

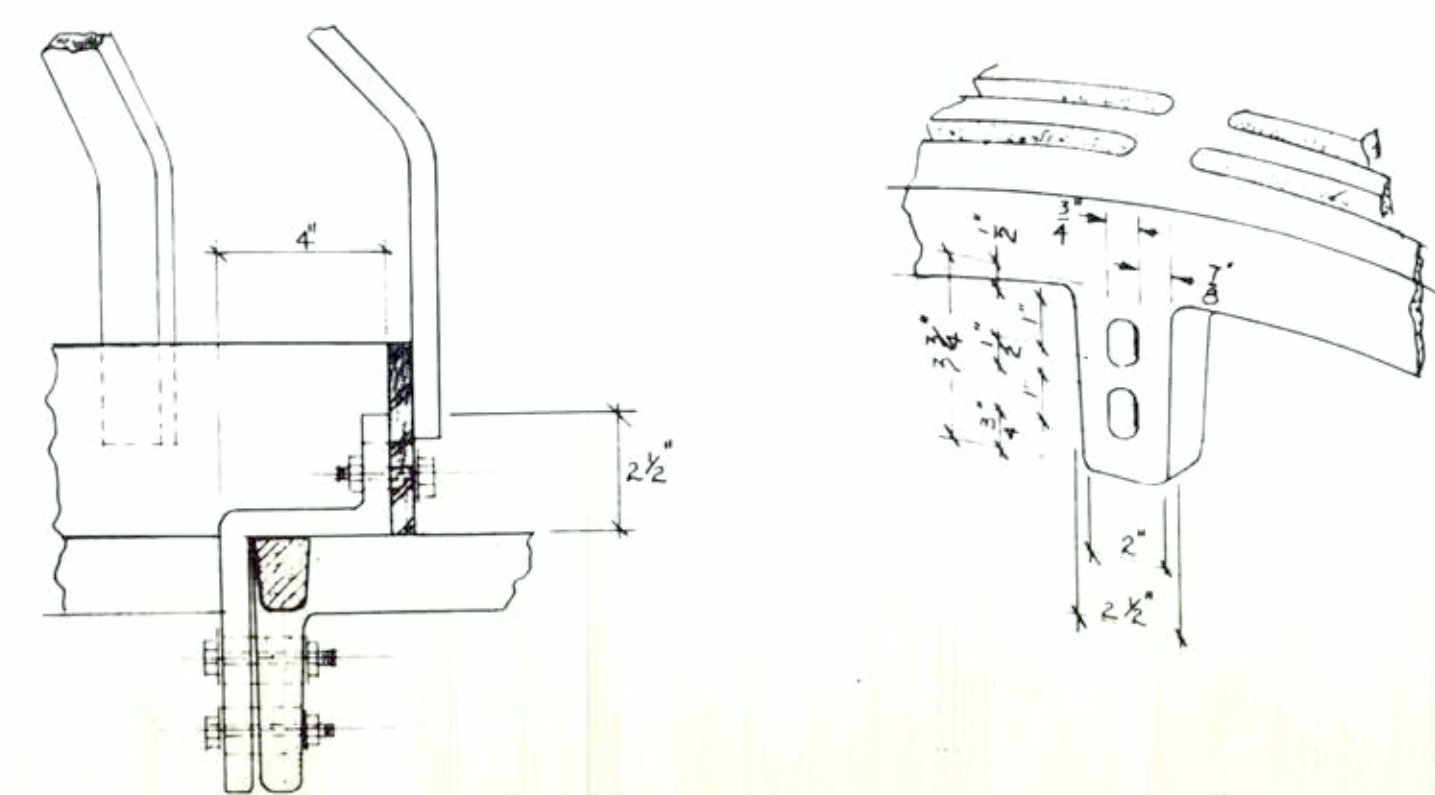


2 SIGNS @ INTERSECTIONS
LA-2 1/2" = 1'-0"



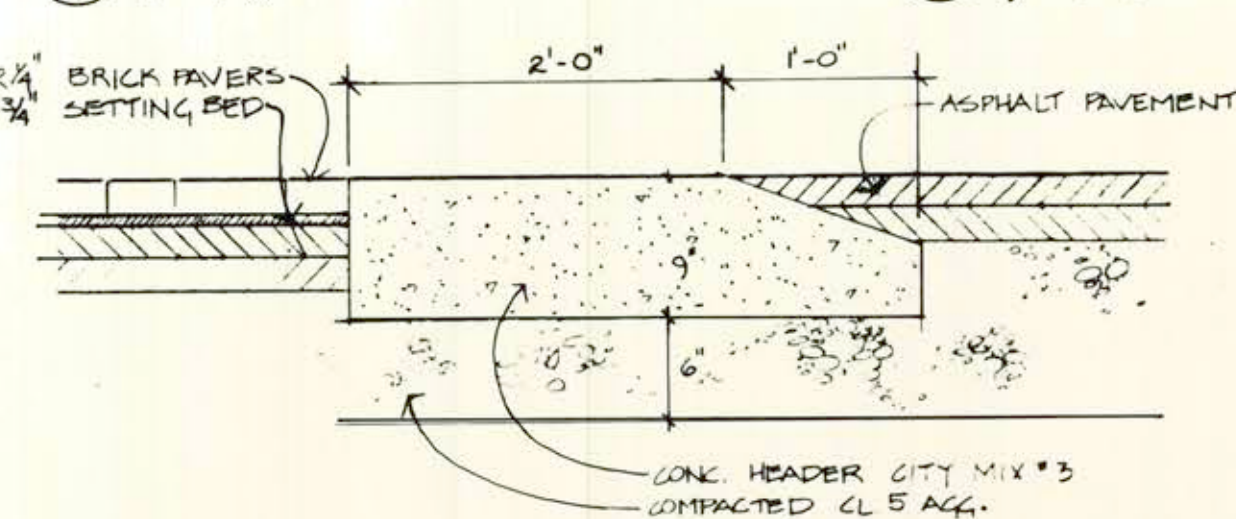
7 TREE GRATE - 4' SQ.
LA-2 3/4" = 1'-0"

8 TREE GRATE / TREE GUARD - 3' x 6'
LA-2 3/4" = 1'-0"

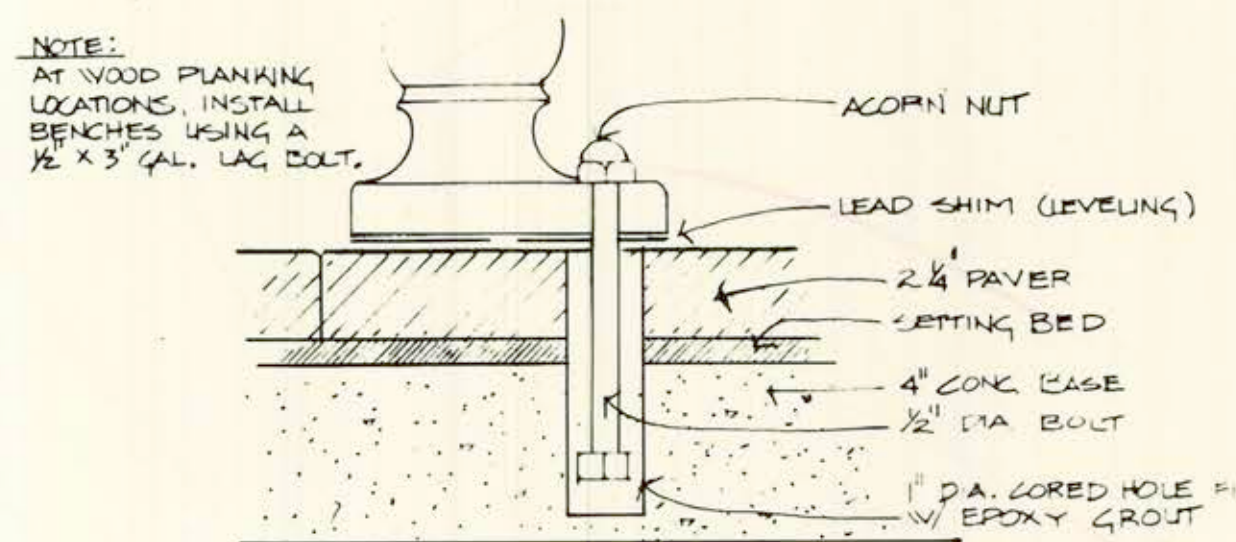


3 TREE GUARD BOLTING DETAIL
LA-2 3/4" = 1'-0"

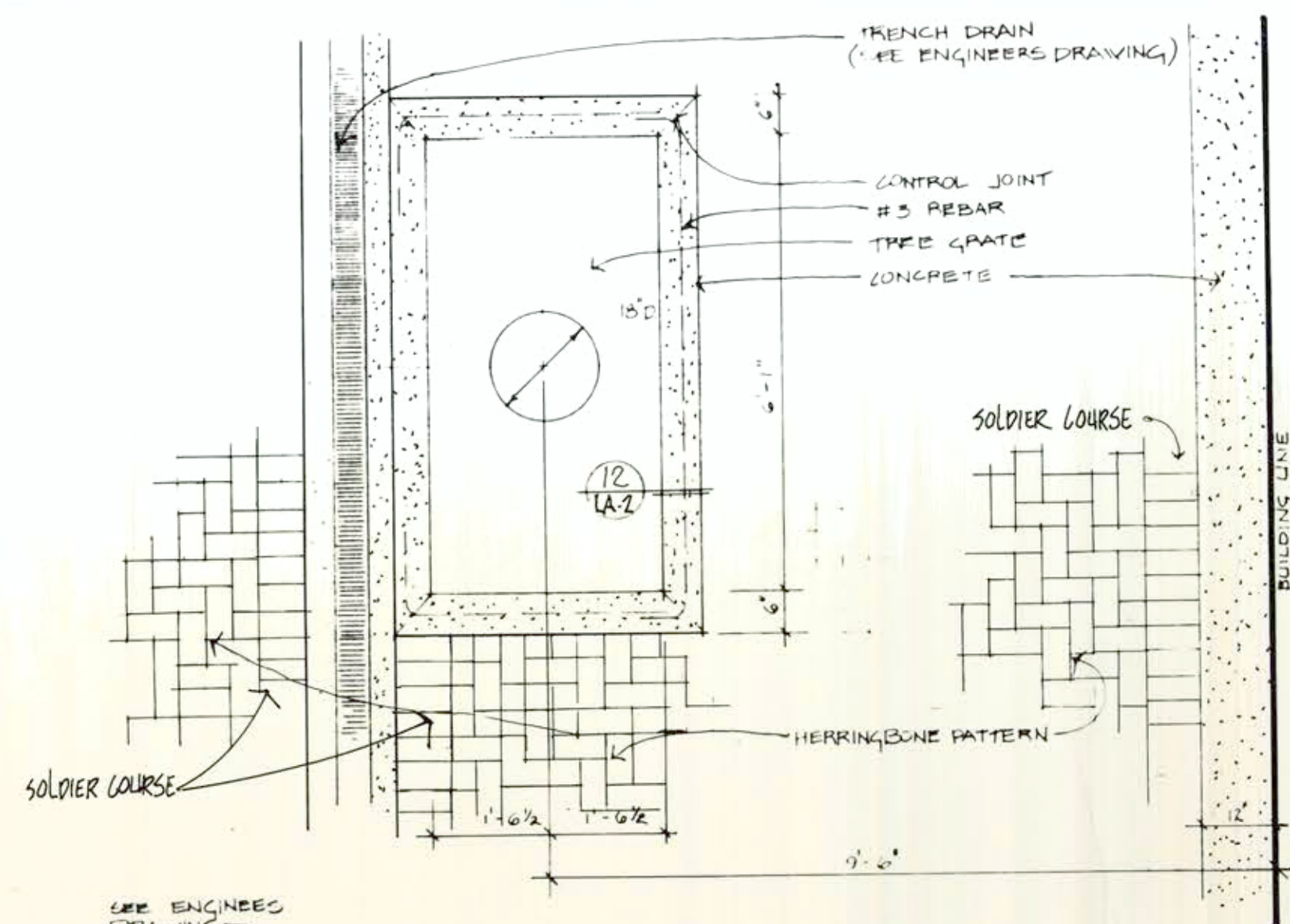
4 TREE GUARD LUG DETAIL
LA-2 3/4" = 1'-0"



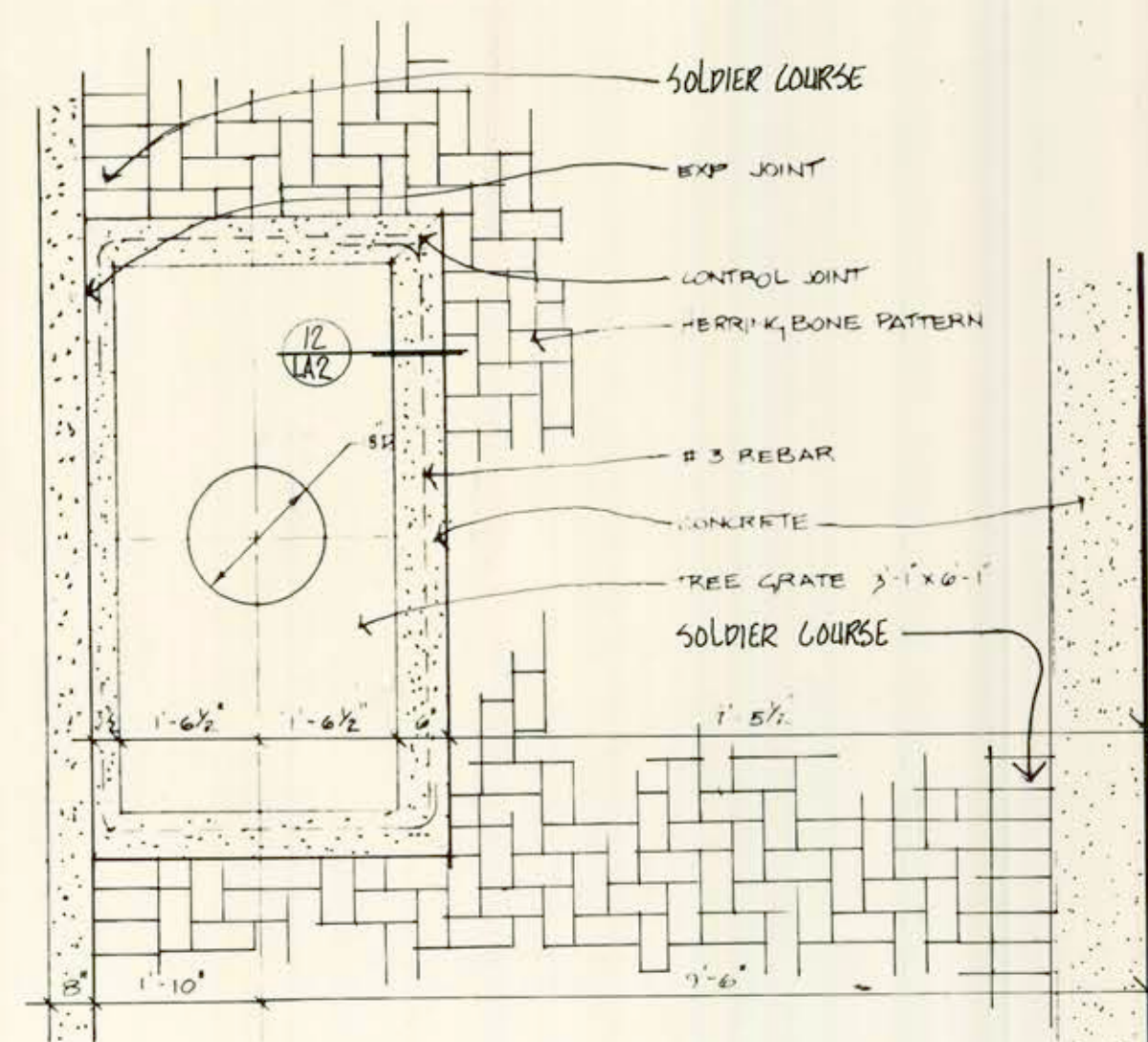
5 BRICK PAVER CROSSWALK
LA-2 1" = 1'-0"



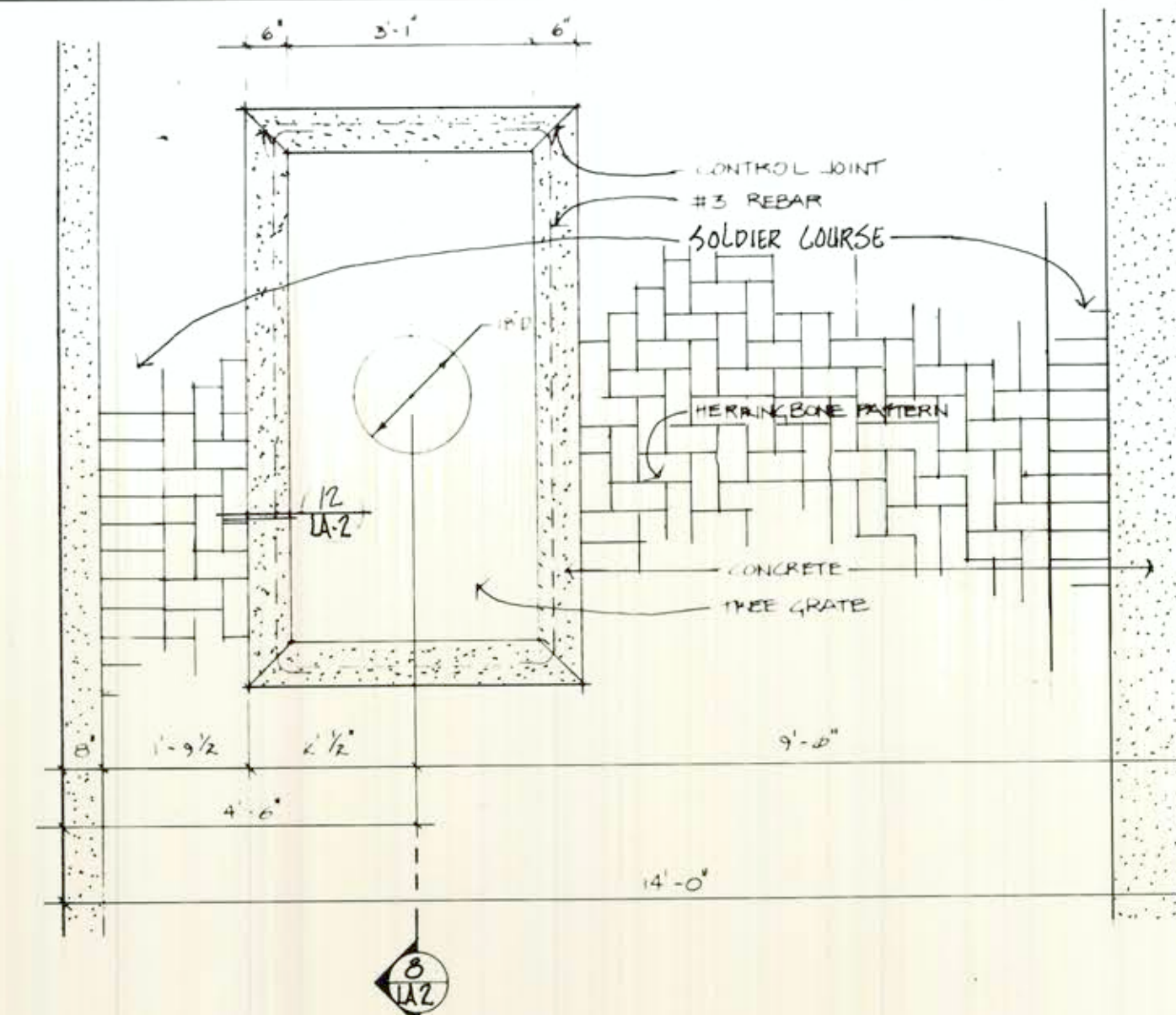
6 BENCH ANCHORING
LA-2



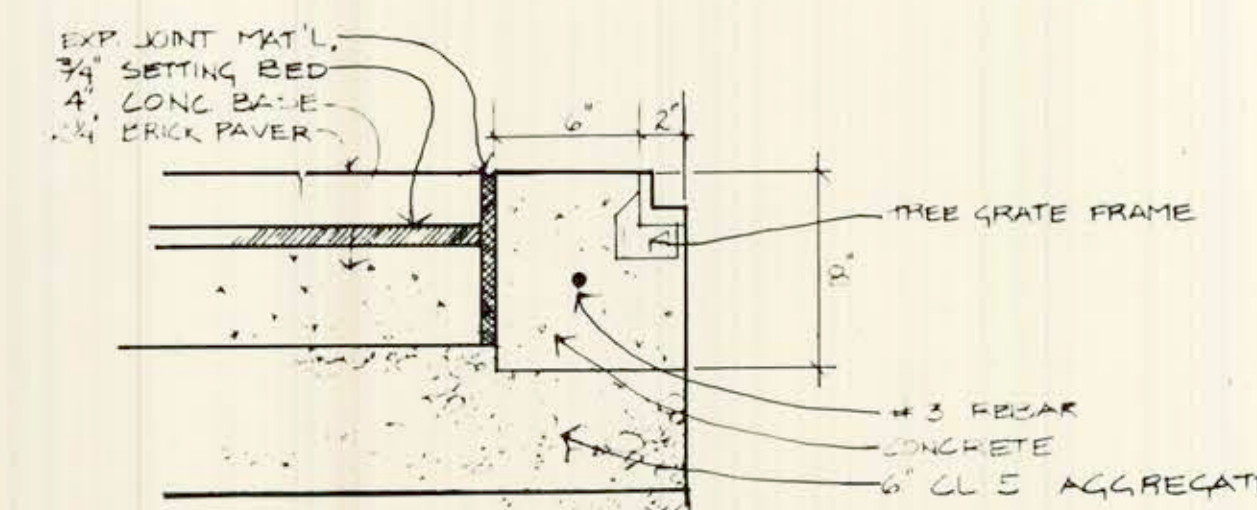
9 TREE GRATE / TRENCH DRAIN PLAN & SECTION
LA-2 1/2" = 1'-0"



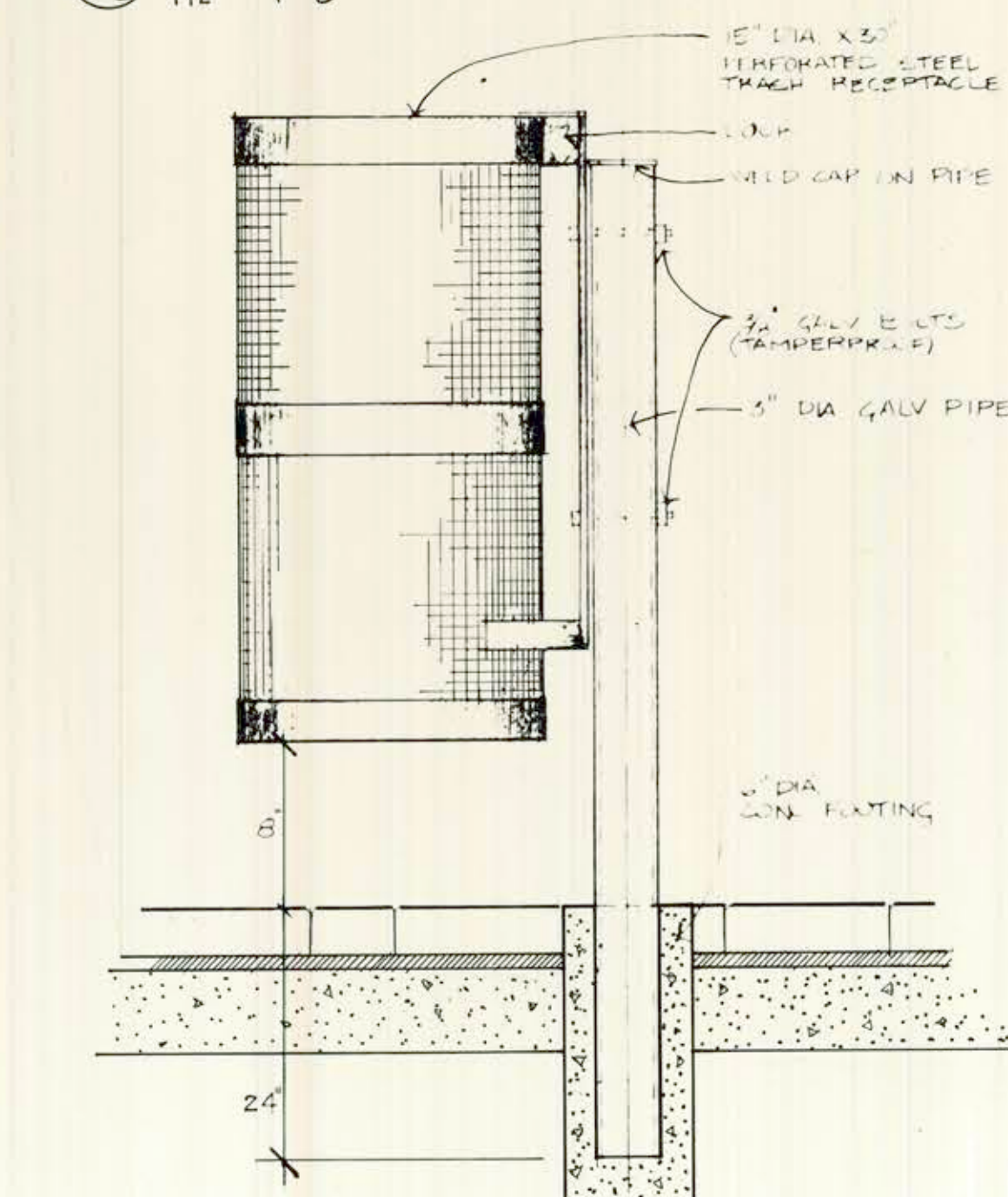
10 TREE GRATE - 3' x 6' (TYP. 12' WALK)
LA-2 1/2" = 1'-0"



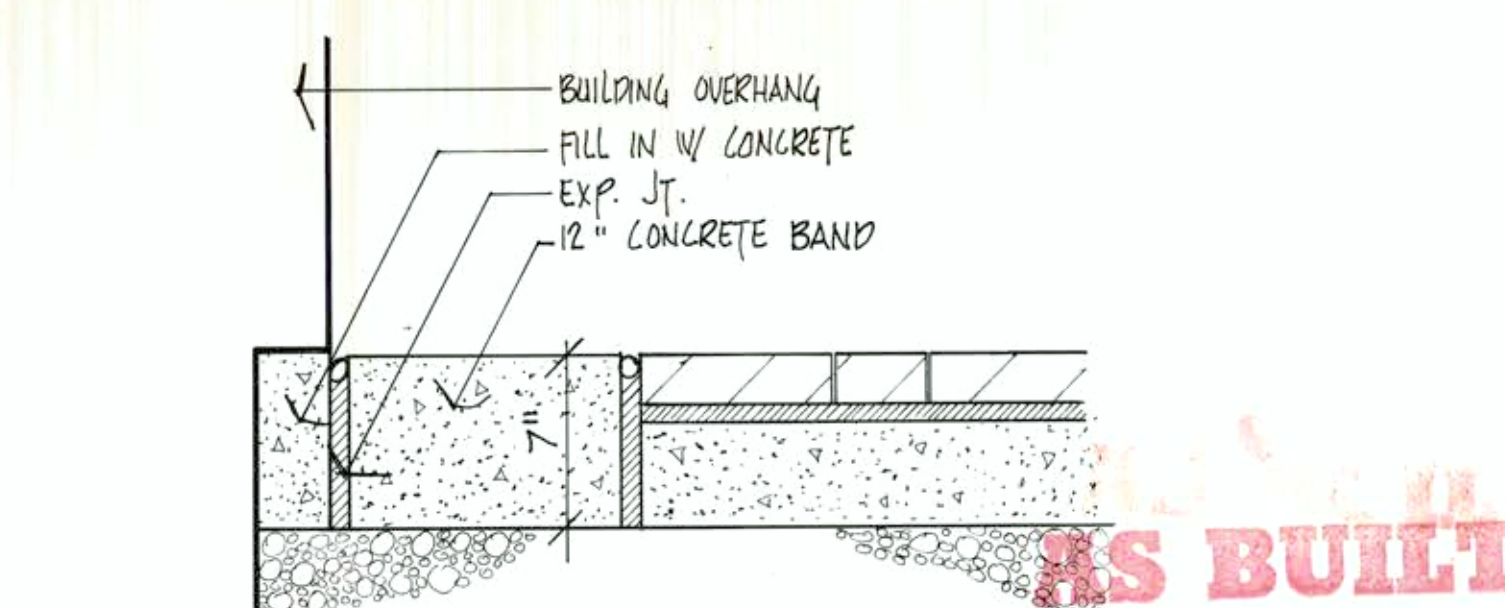
11 TREE GRATE & PAVING PLAN (TYP. 14' SIDE WALK)
LA-2 1/2" = 1'-0"



12 TREE GRATE FRAME SECTION
LA-2 1/2" = 1'-0"



13 TRASH RECEPTACLE MOUNTING DETAIL
LA-2 1/2" = 1'-0"



14 CONC. BAND @ BUILDING OVERHANG
LA-2 1" = 1'-0"

I hereby certify that this plan, specification, or report was prepared by me, or under my direct supervision and that I am a duly registered ARCHITECT under the laws of the State of Minnesota.
Date: 8/14/85 Reg. No. 11816

WEST END BUSINESS DISTRICT STREETSCAPE RENOVATION 19th AVE WEST to 20th AVE WEST

phaseWD

project no. 8514
date 8/85
drawn DB
checked JB
revised

consultants

LA-2
727-8802 partners of architectural concern
205 board of trade bldg Duluth minn 55802 341

I hereby certify that this plan, specification, or report was prepared by me, or under my direct supervision and that I am a duly registered

under the laws of the State of Minnesota.

Edmund Biran

Date 3/26/85 Reg. No. 11844

**WEST END BUSINESS DISTRICT
STREETSCAPE RENOVATION**
19th AVE WEST to 20th AVE WEST

phase WD

project no. 8514
date 8/85
drawn DB
checked JB
revised

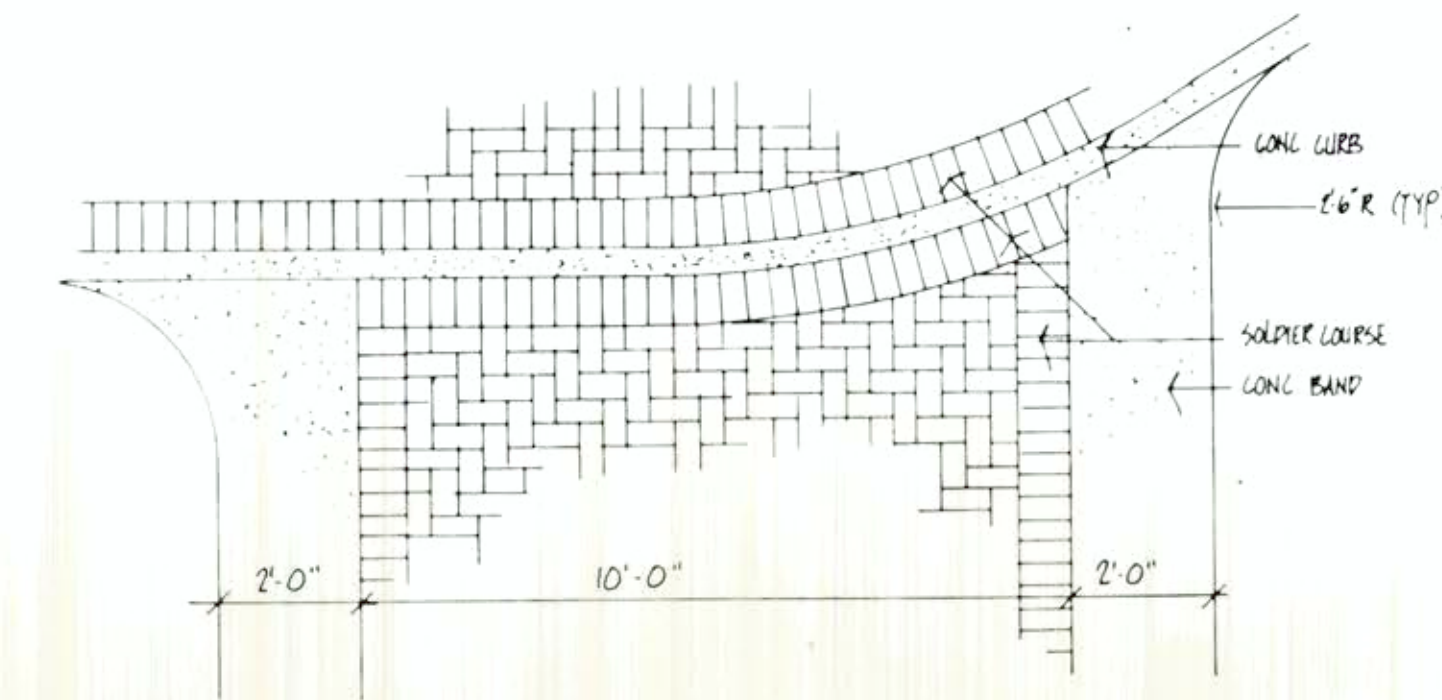
consultants

LA-3

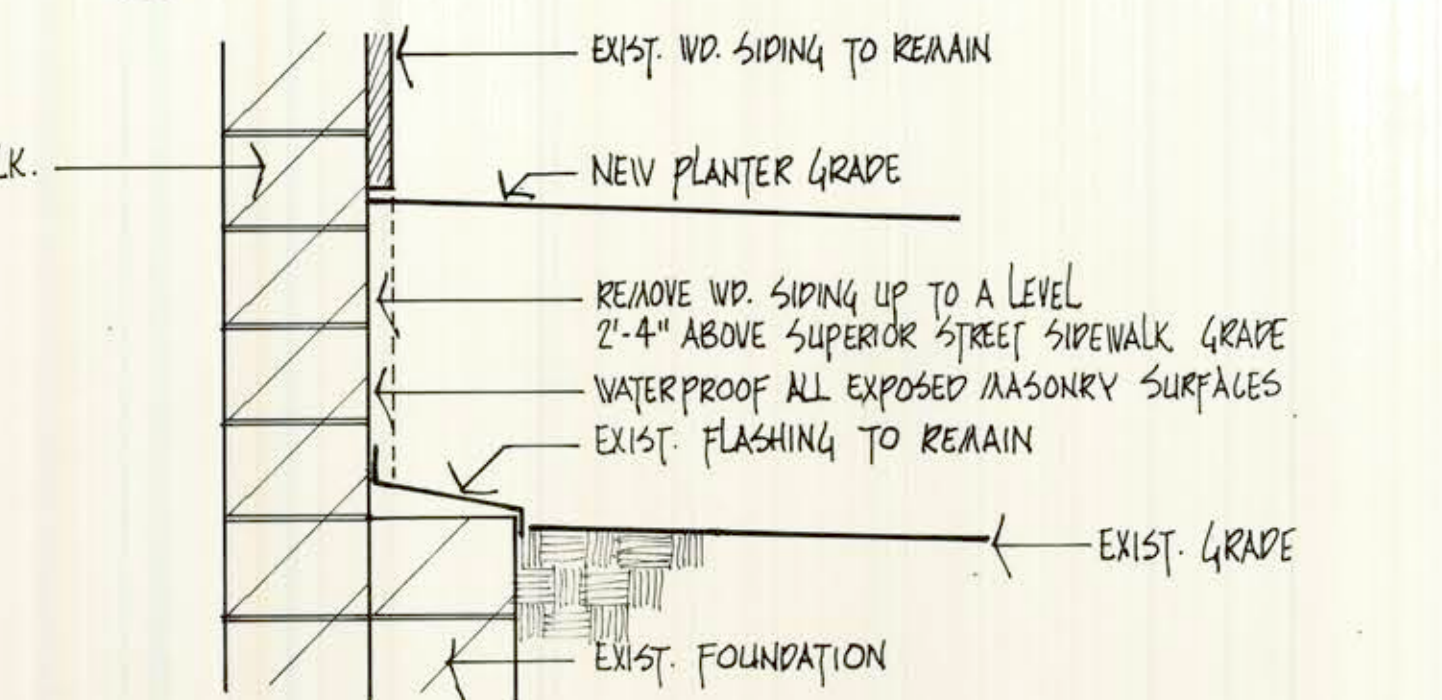
AS BUILT

CITY OF DULUTH PROJECT NO. 8062RS85

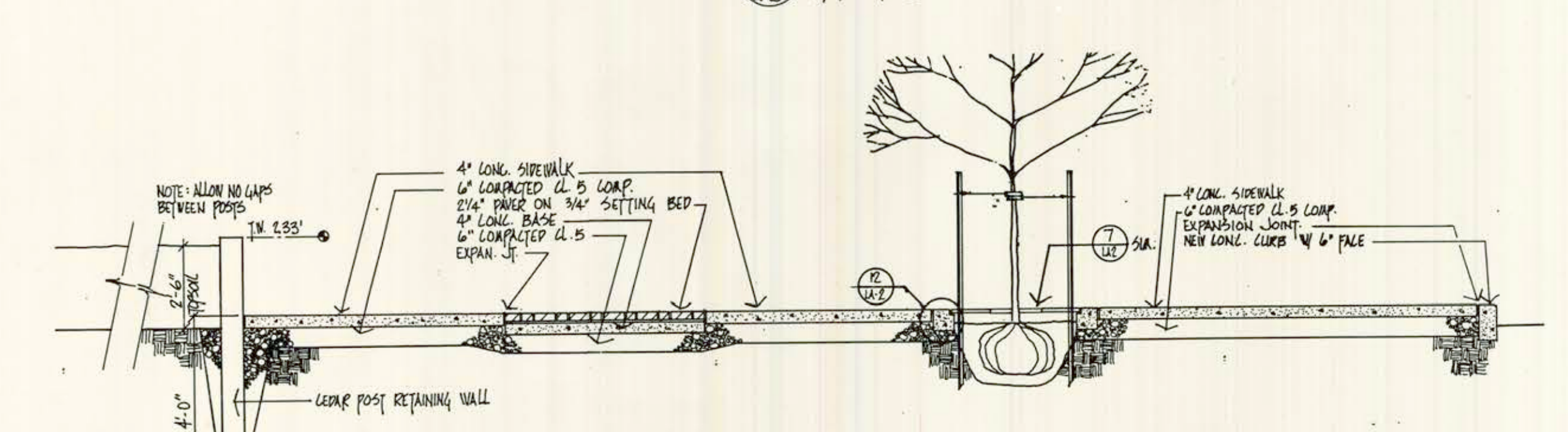
SHEET 9 OF 14



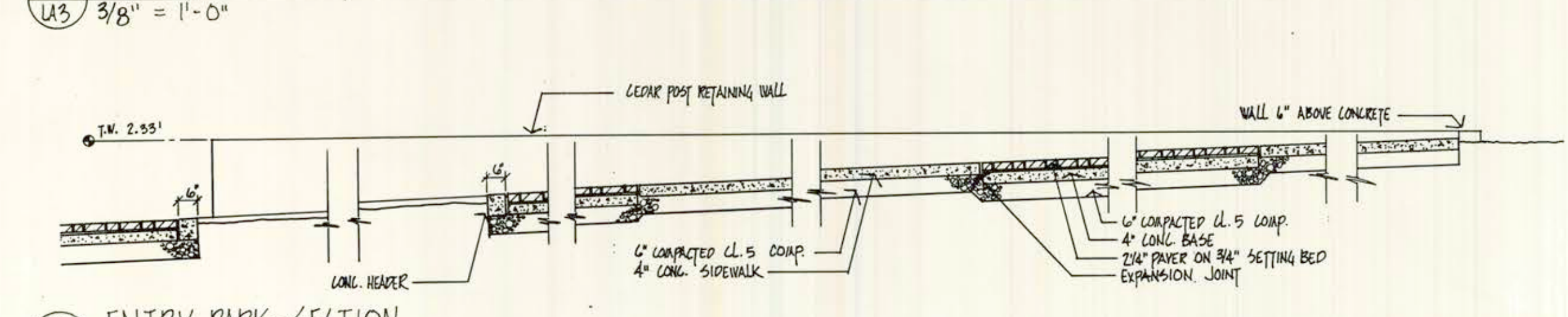
3 CROSS WALK PAVING PATTERN
LA-3 3/8" = 1'-0"



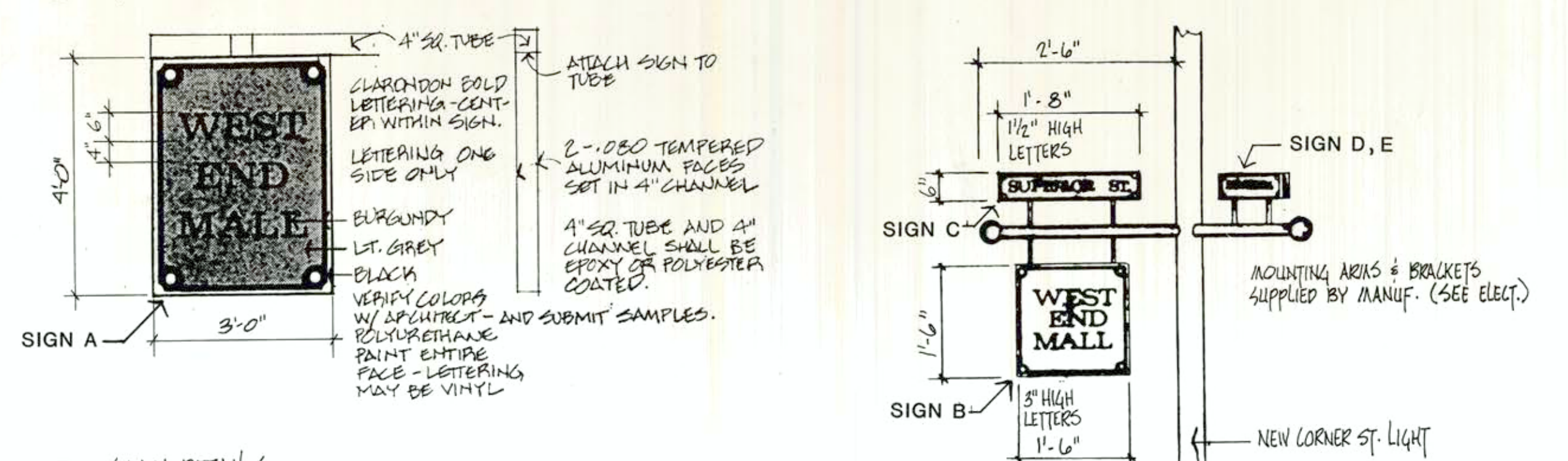
8 WATER PROOFING DETAIL
1A3 $3/4" = 1'-0"$



9 ENTRY PARK - SECTION



10 ENTRY PARK-SECTION
LA-3 $3/8" = 1'-0"$

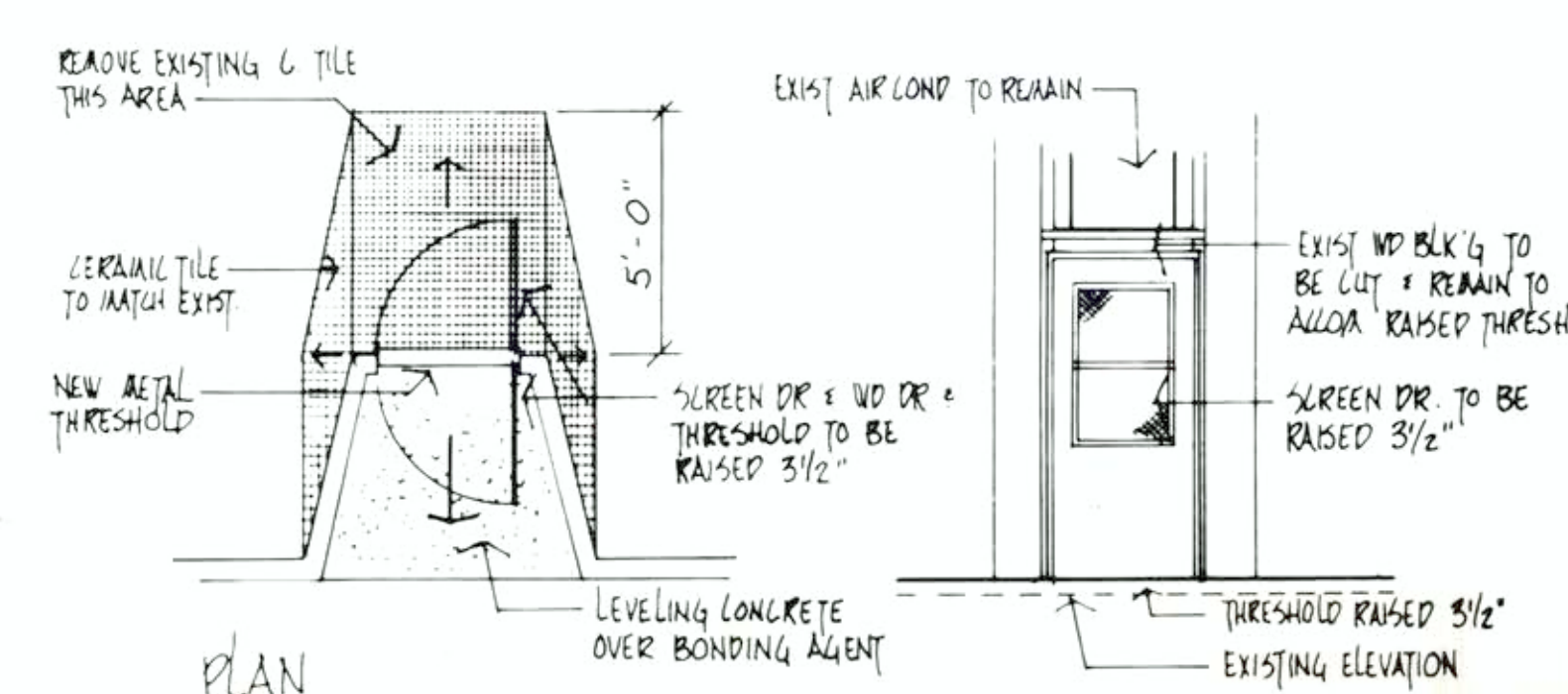


11 SIGN DETAILS
LA-3 NO SCALE

SIGN SCHEDULE			
STYLE	QUANTITY	PRINTING	NOTE
A	1	WEST END MALL	BACKSIDE BLANK
B	1	WEST END MALL	BACKSIDE BLANK
C	4	SUPERIOR STREET	MOUNT (2) TOGETHER
D	2	19TH AVE. WEST	MOUNT (2) TOGETHER
E	2	20TH AVE. WEST	MOUNT (2) TOGETHER

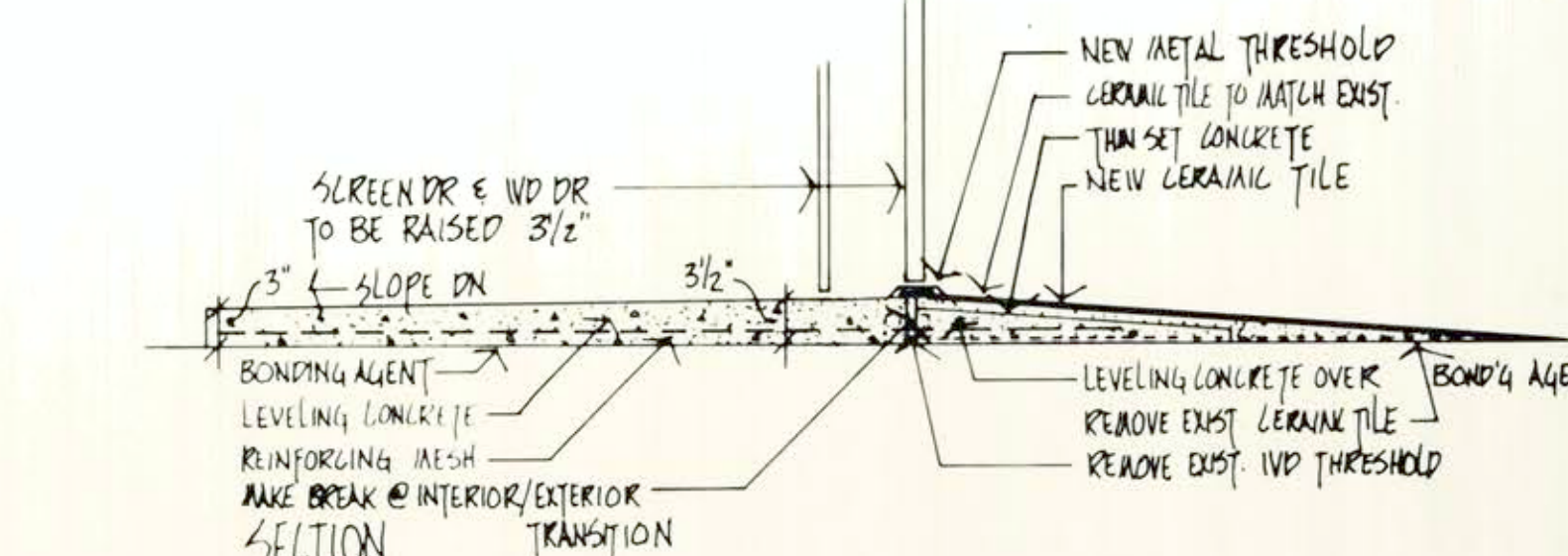
NOTE:

- ALL SIGNS TO HAVE IDENTICAL COLOR BORDER. DESIGN AND COLOR MUST BE APPROVED BY ARCHITECT.
- LETTERING STYLE ON ALL SIGNS TO BE CLARENDON BOLD.
- FACE OF BLANK SIGN TO BE PAINTED LIGHT GRAY.

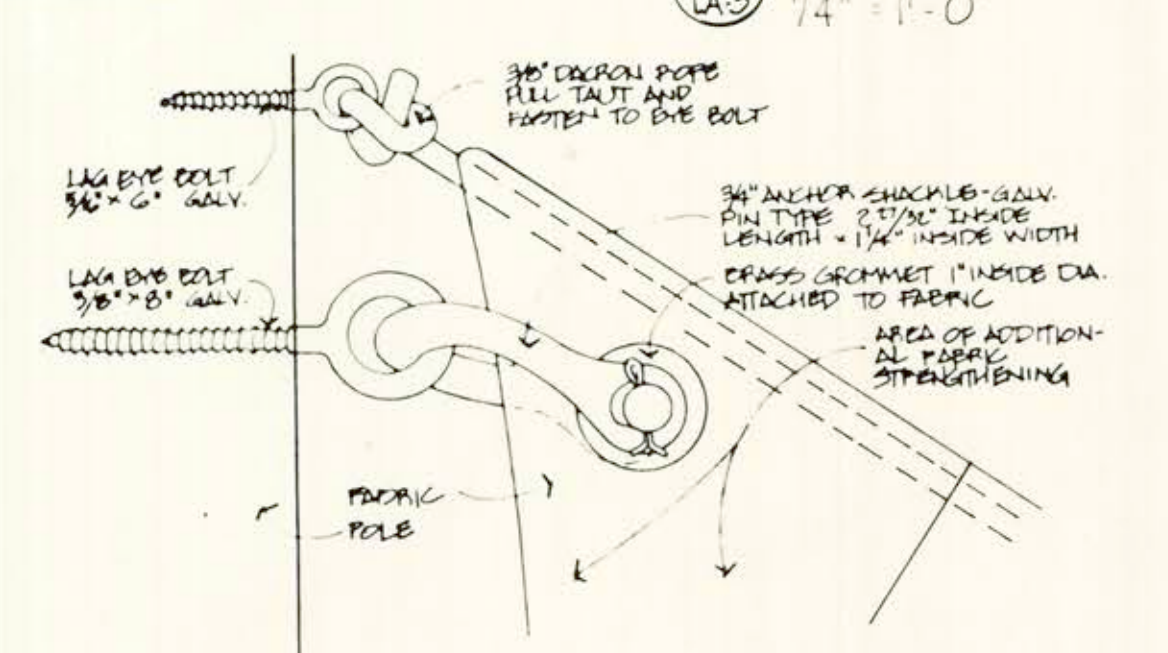


PLAN

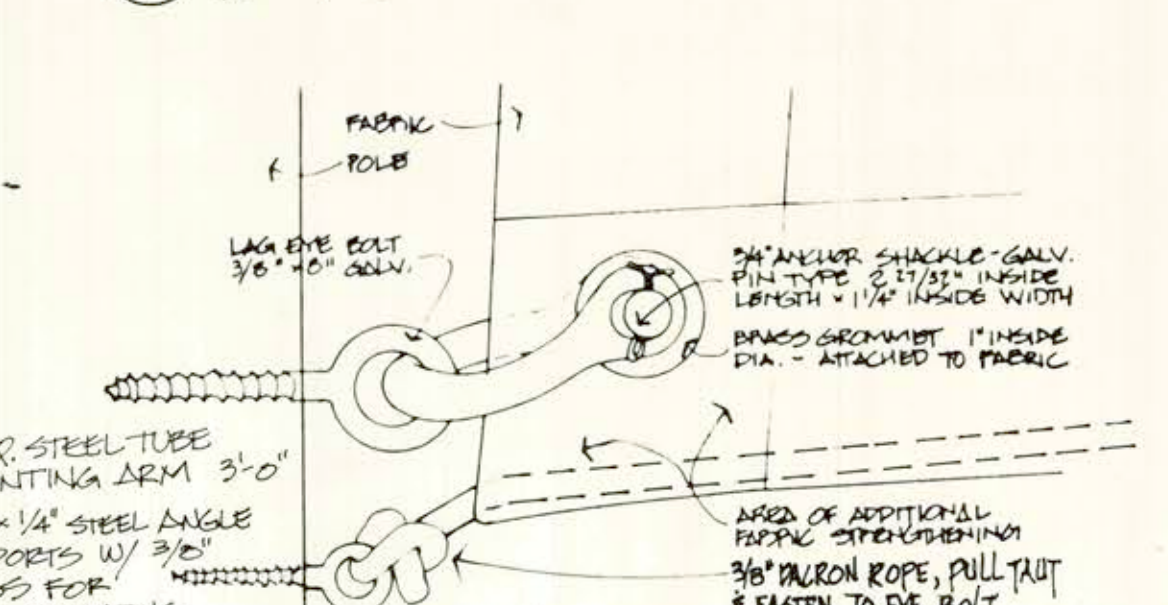
NOTE: REUSE HARDWARE & EXISTING TRIM, PATCH TO MATCH EXIST AS REQUIRED. PATCH JAMB AT EXIST BUTT LOCATIONS



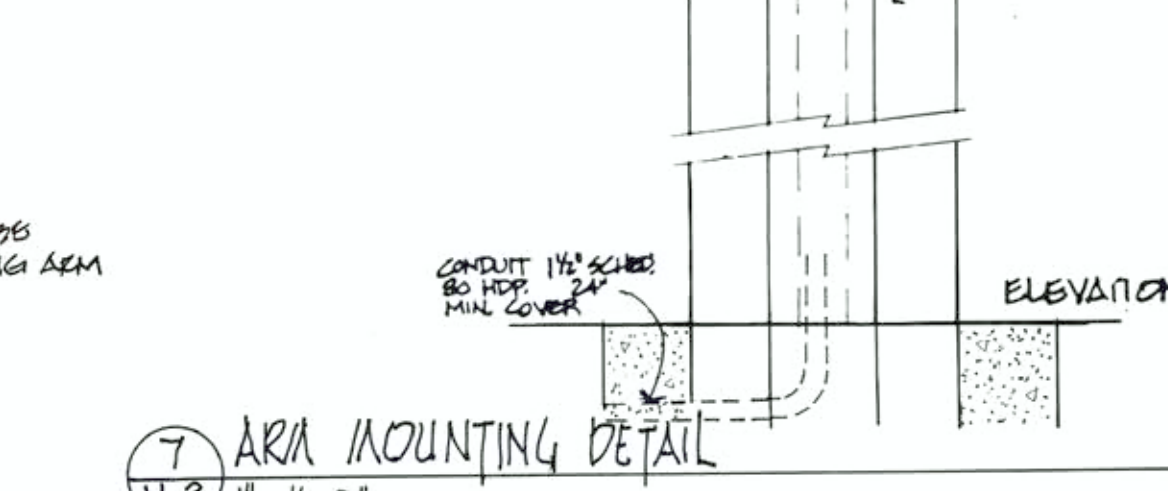
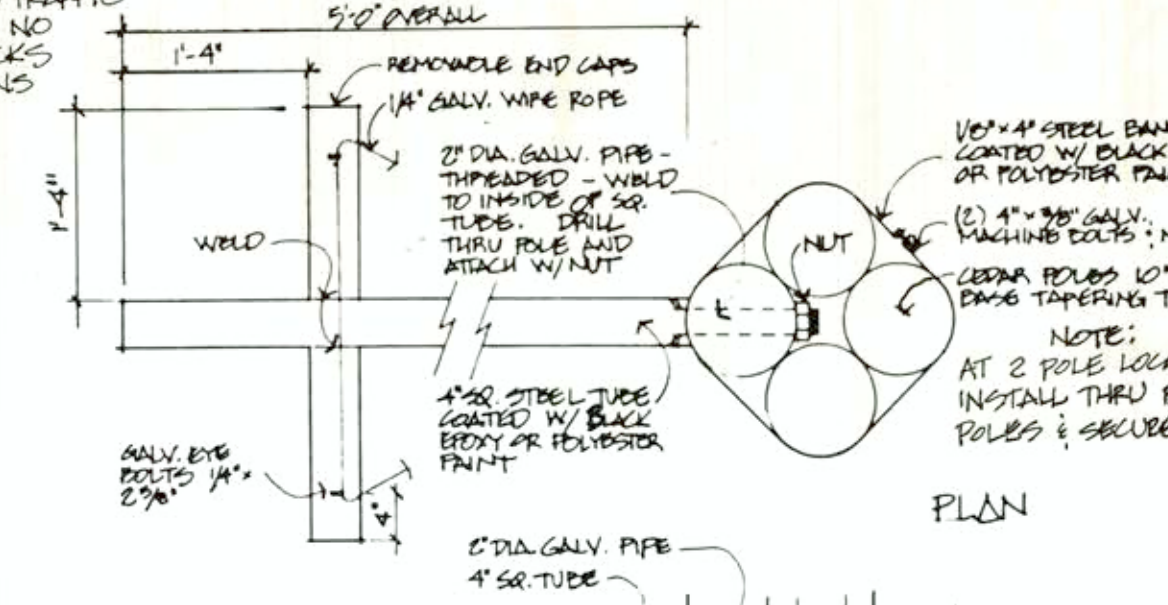
2 ENTRY MODIFICATION - WHITE INN CAFE 1925 W. SUPERIOR ST.



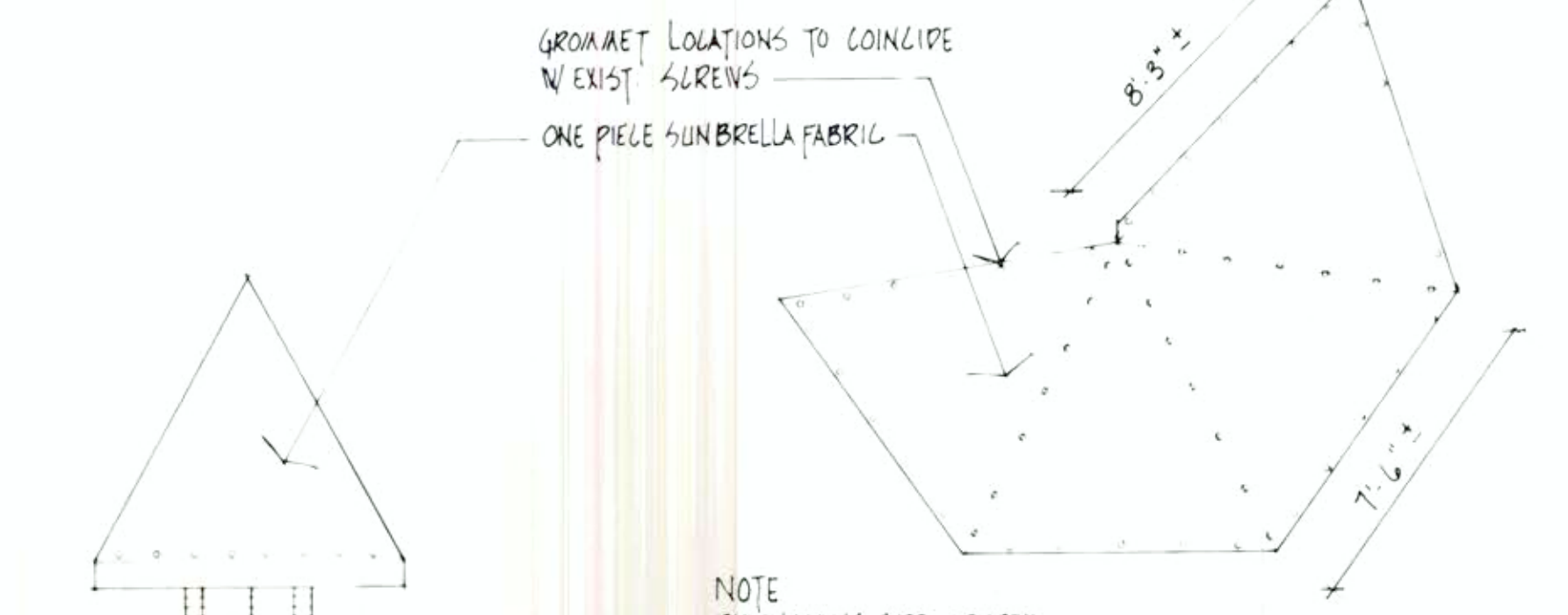
5 FASTENING DETAIL - TOP
LA-3 $\frac{3}{8}'' = 1'-0''$



FASTENING DETAIL - BOTTOM



7 ARM MOUNTING DETAIL

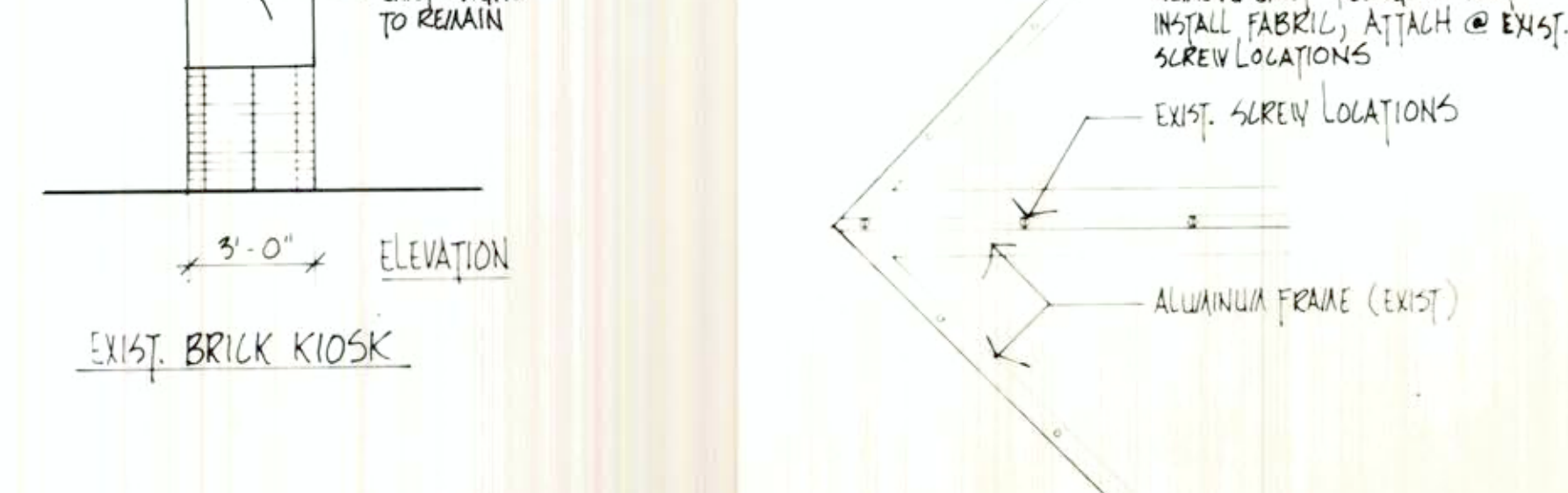


NOTE
DIMENSIONS ARE APPROX.
CONTRACTOR TO VERIFY.

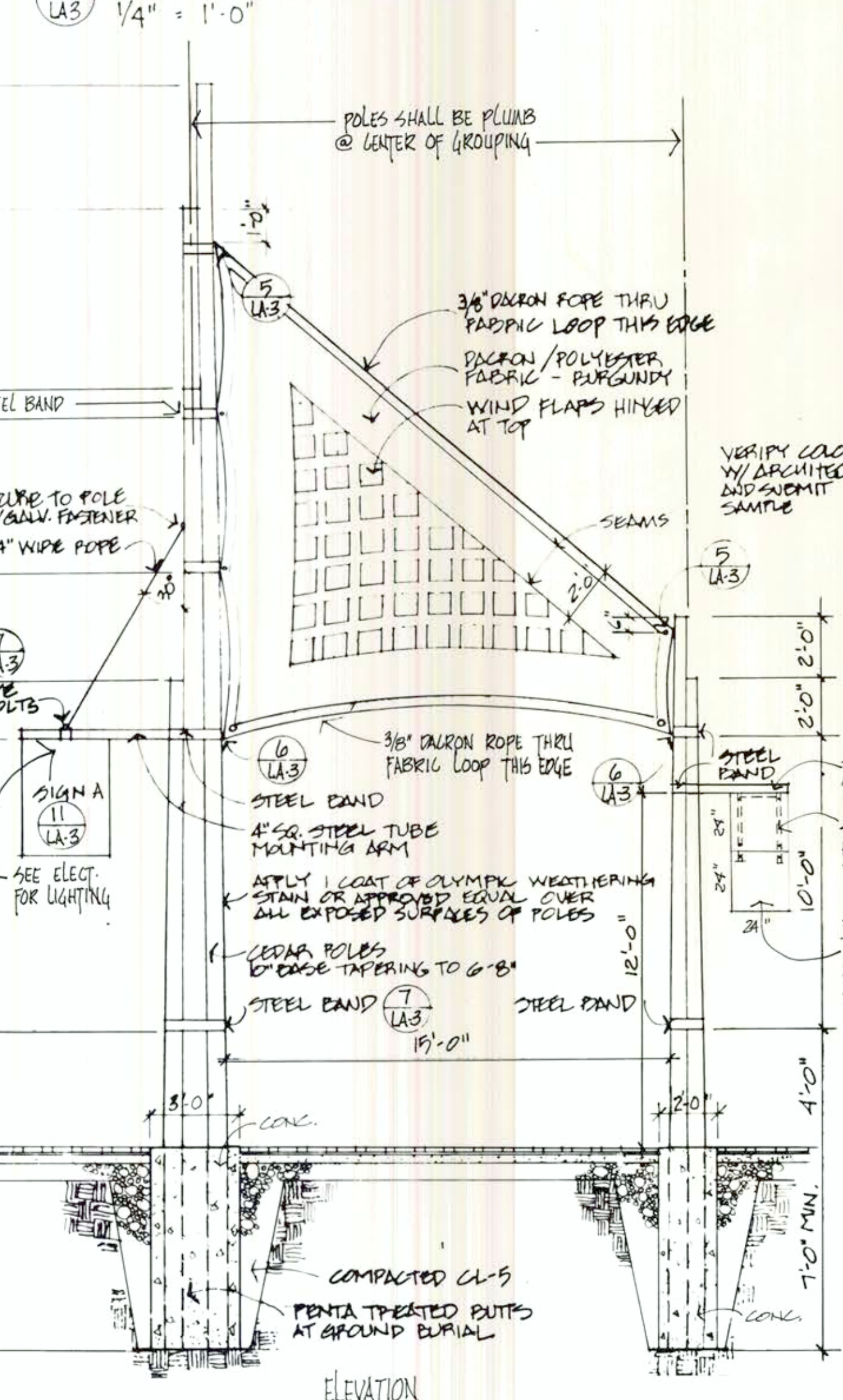
EXIST. SLUGS

REMOVE EXIST. PAVEMENT

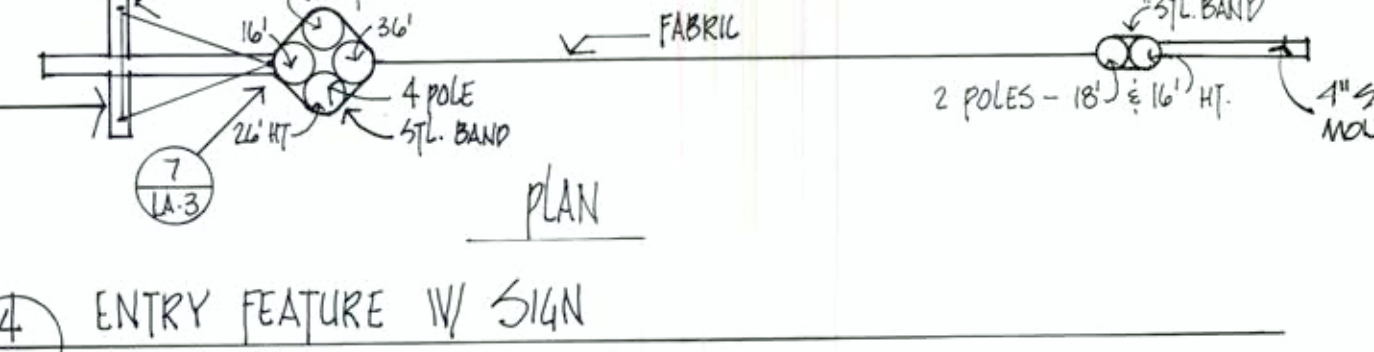
PROPOSED LAYOUT



1 KIOSK FABRIC / FRAME

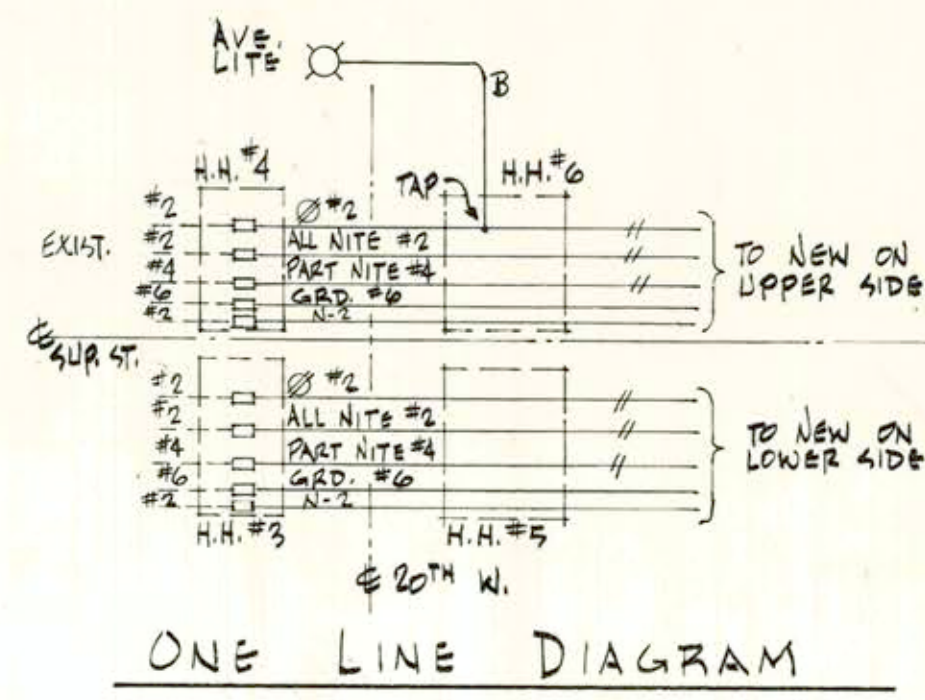
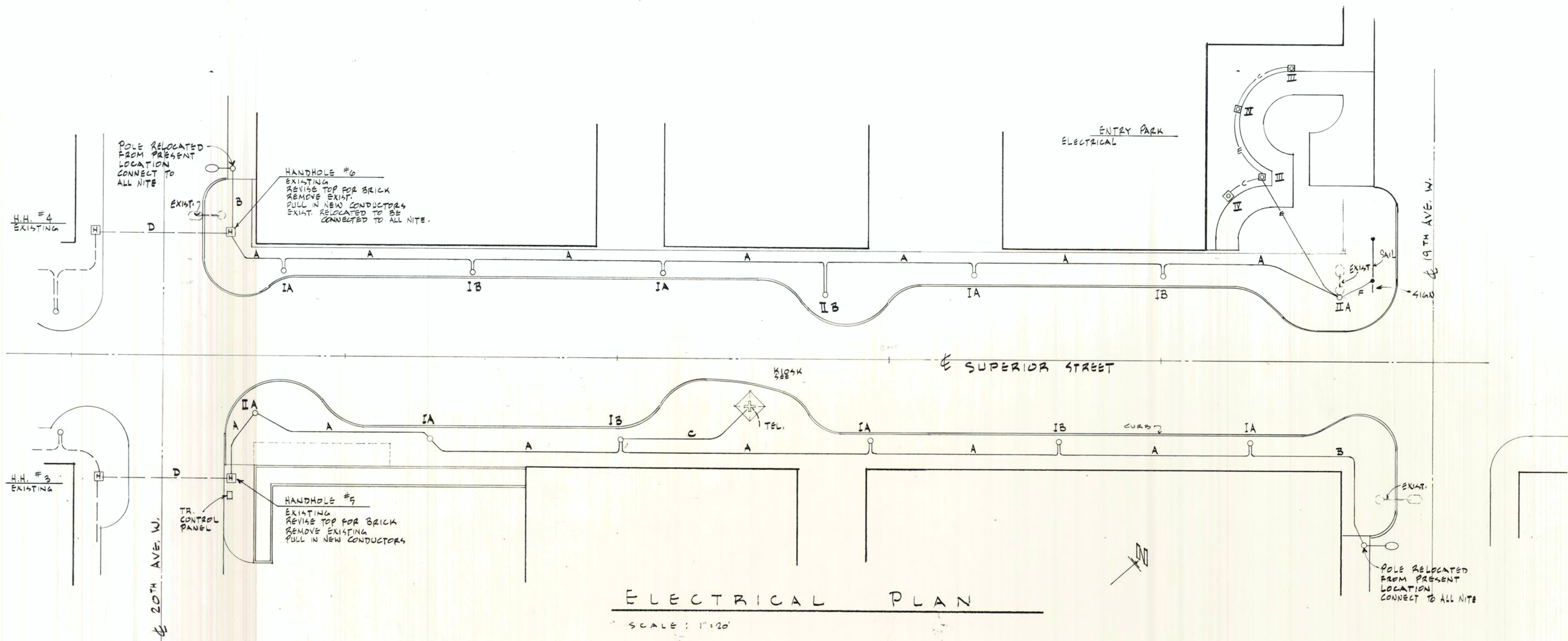


$\frac{1}{4}''$ WIRE ROPE
32' HT.

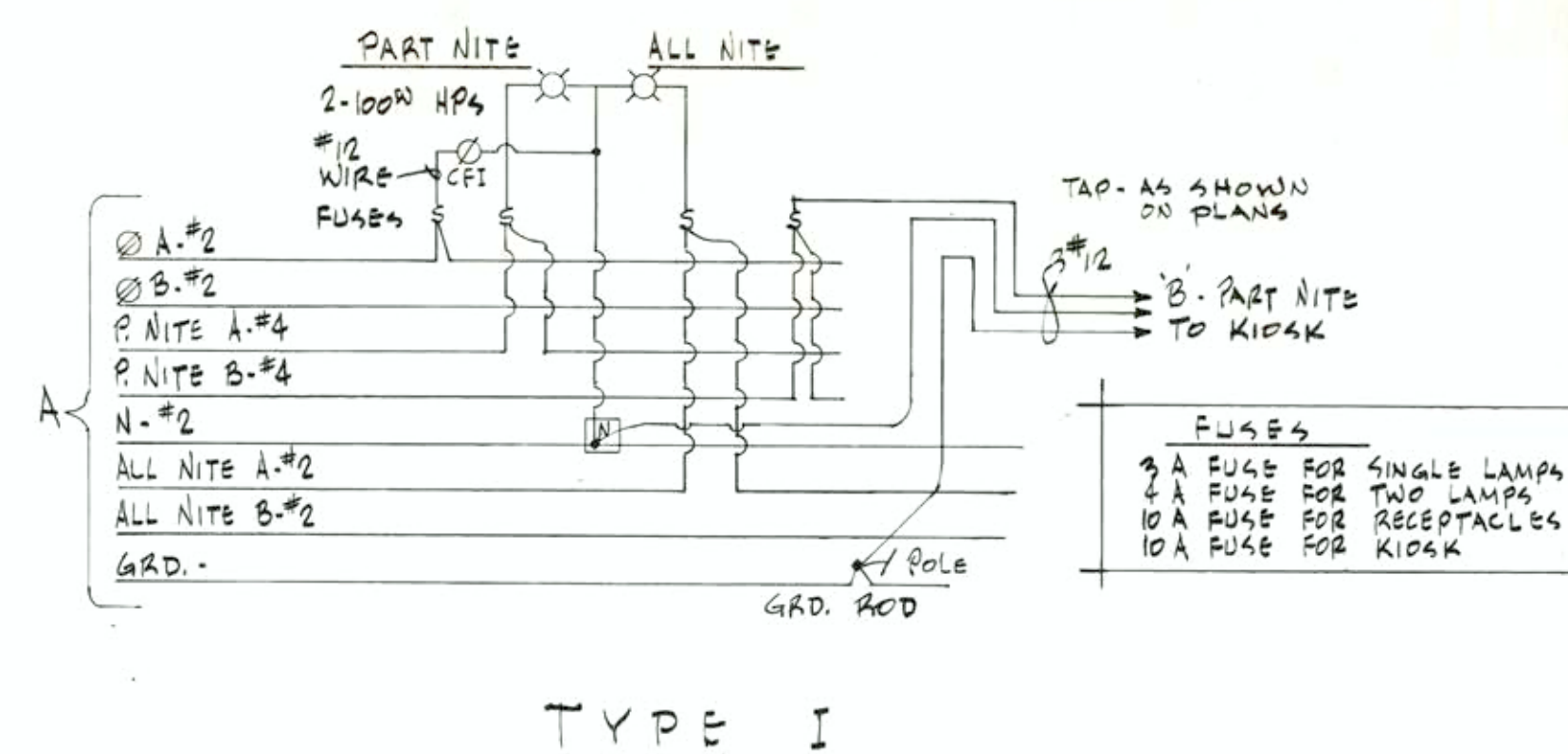
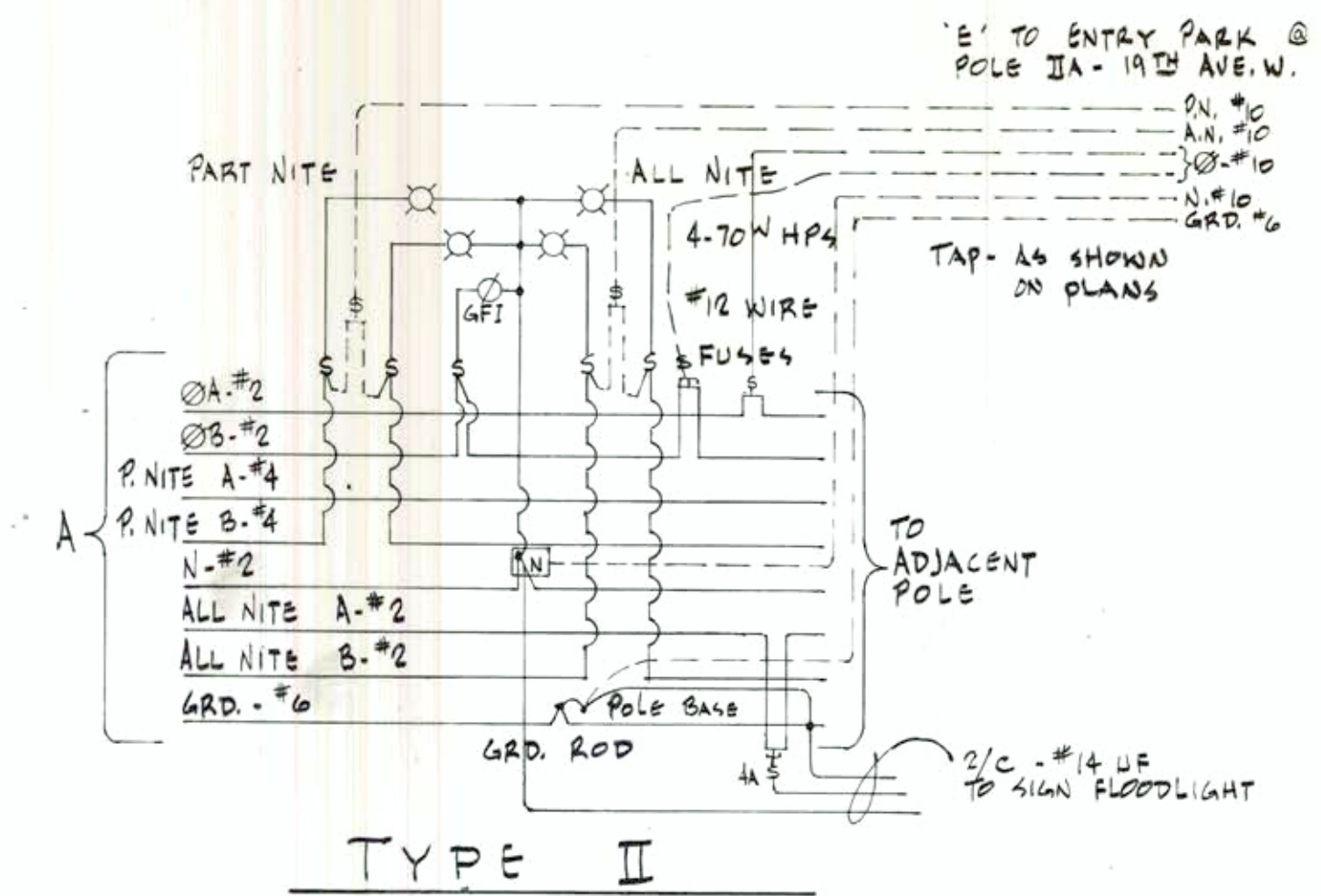


4 ENTRY FEATURE W/ SIGN
A-3 1/4" - 1'-0"

NOTE:



CONDUIT SCHEDULE		
A	2 #2 - ALL NITE 2 #2 - 2 CIRCUITS 1 #2 - NEUTRAL 2 #6 - PART NITE 1 #6 - GROUND	2" C.
B	2 #2 - ALL NITE 1 #6 - GROUND	1 1/2" C.
C	1 #12 - PART NITE (# ALL NITE) 1 #12 - NEUTRAL 1 #12 - GROUND	1 1/2" C.
D	REWIRE EXISTING CONDUIT 2 #2 - ALL NITE 2 #2 - 2 CIRCUITS 1 #2 - NEUTRAL 2 #4 - PART NITE 2 #10 - 2 CIRCUITS 1 #10 - ALL NITE 2 #10 - PART NITE 1 #6 - NEUTRAL 1 #6 - GROUND	2" C. EXIST.
E	2 #10 - ALL NITE 2 #10 - PART NITE 1 #6 - NEUTRAL 1 #6 - GROUND	1" C.
F	2/C - 14 UF	3/4" C.



TYPICAL WIRING DIAGRAMS @ TYPE I & II POLES

LEGEND	
---	EXISTING CONDUIT - SEE SCHEDULE
A	NEW CONDUIT - SEE SCHEDULE
IA	0 - LIGHT POLE - TYPE DENOTED
⊙	- RECEPTACLES

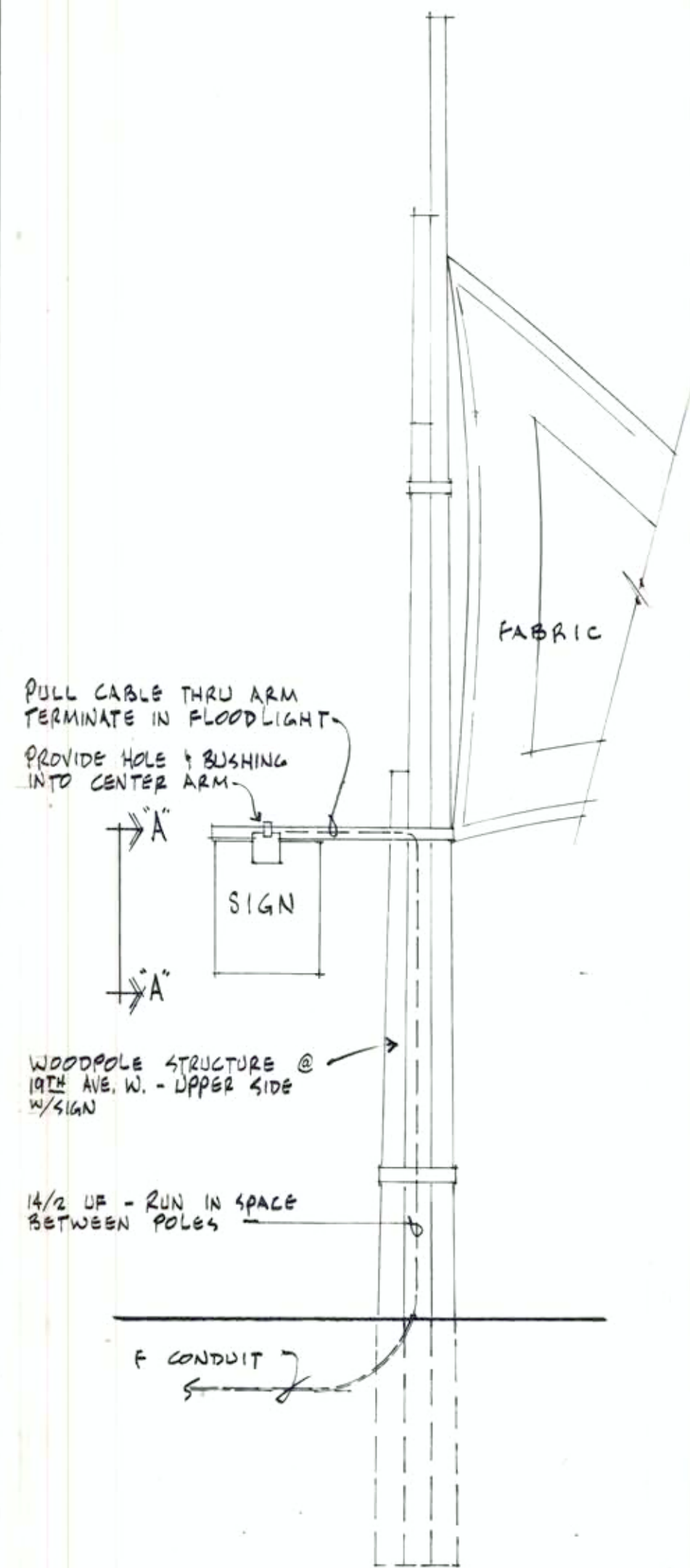
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Wisconsin.
William E. Noland
 19th Ave. W., 85 4998

**WEST END BUSINESS DISTRICT
STREETSCAPE RENOVATION**
 19th AVE WEST to 20th AVE WEST
 phase WD

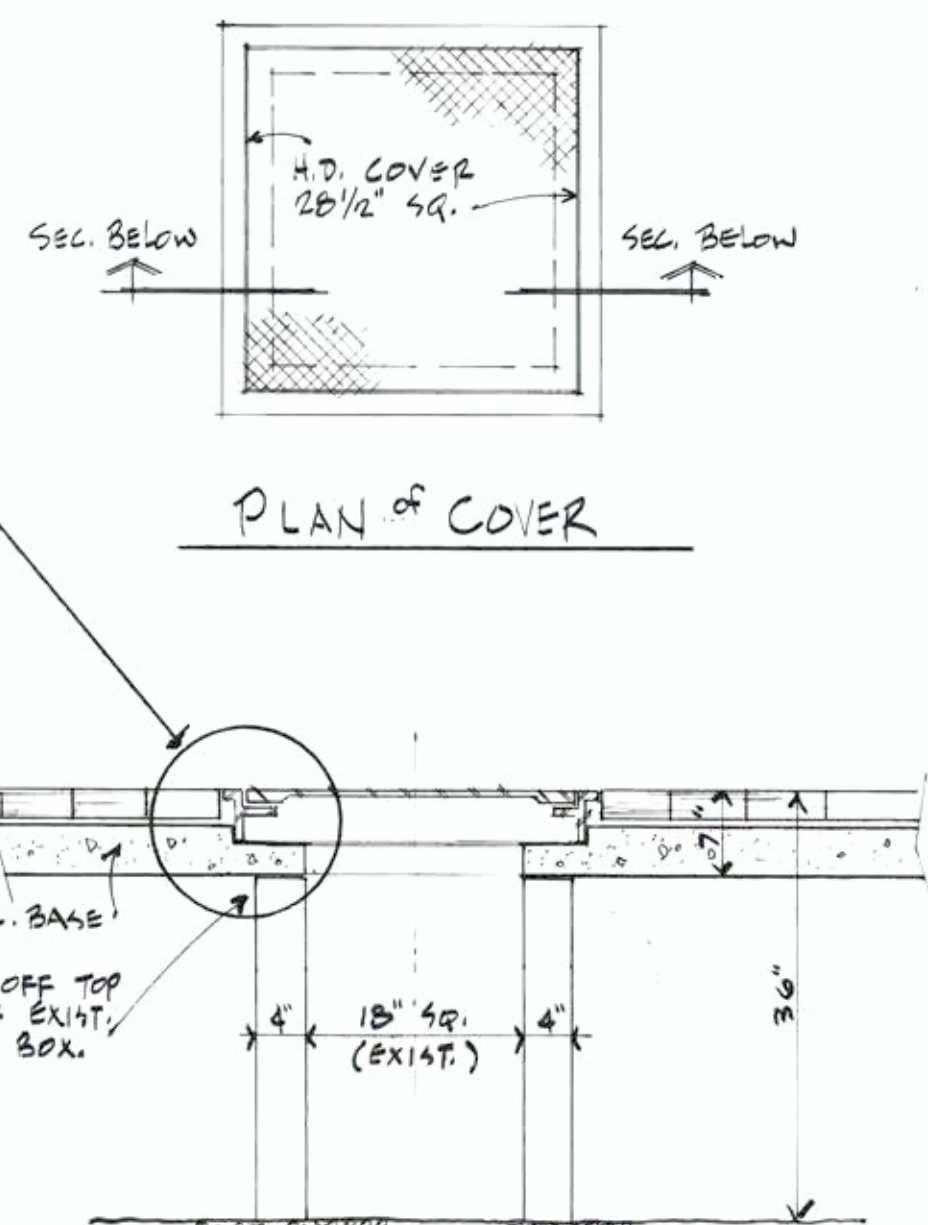
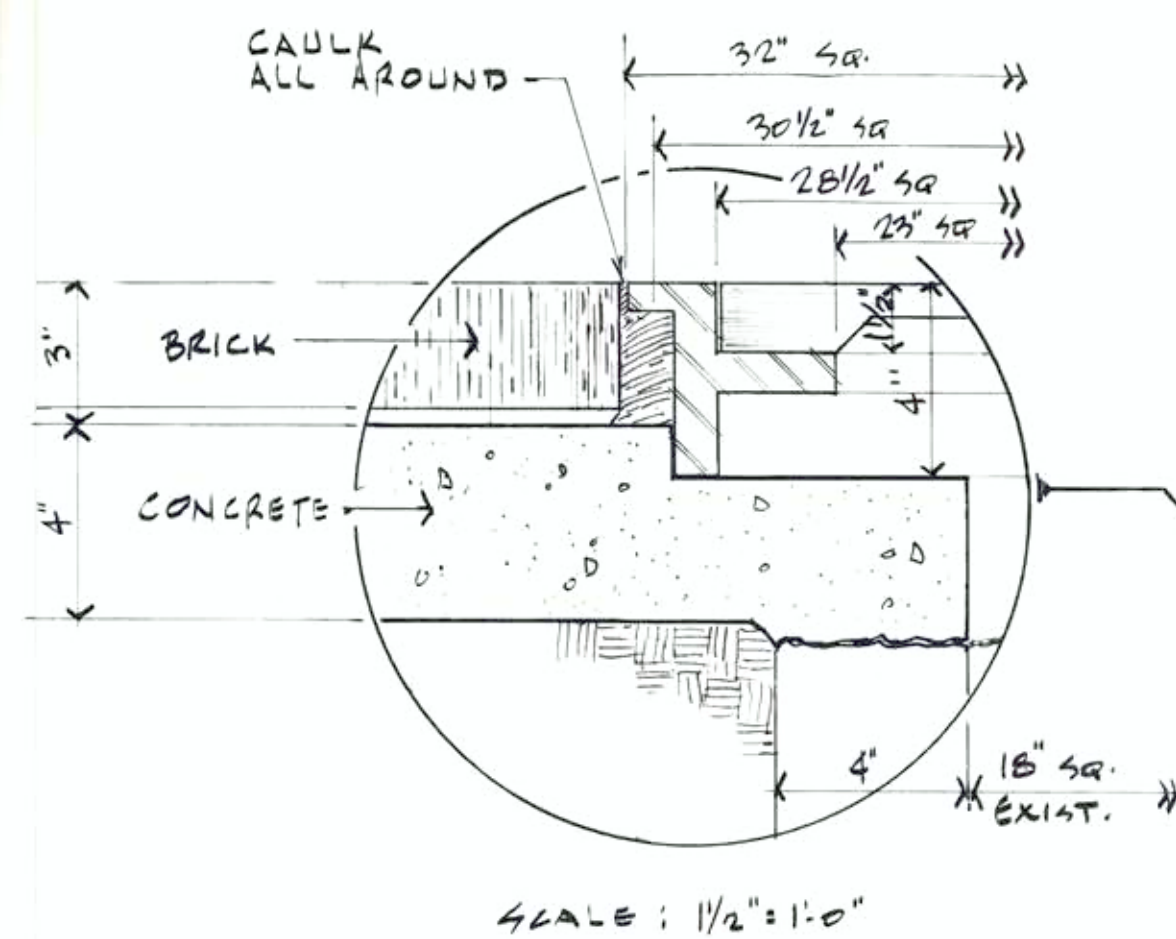
project no.
 date
 drawn *AO*
 checked *JEN*
 revised
 consultants
 SEAWAY
 ENGINEERING CO.
 DULUTH, MINN.

722-8802 partners of architectural concept
 805 Board of Tech. Bldg. South Ninth Street
E-1

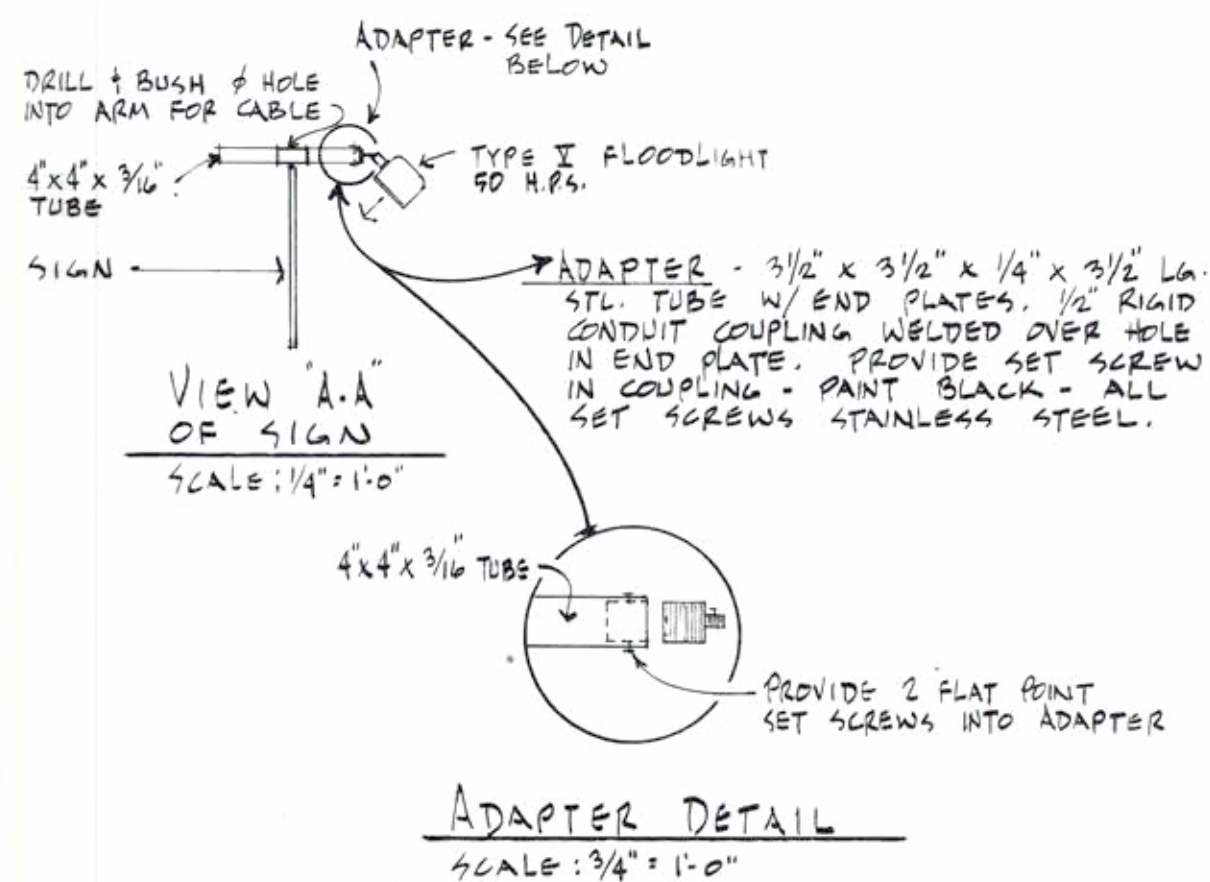
AS BUILT



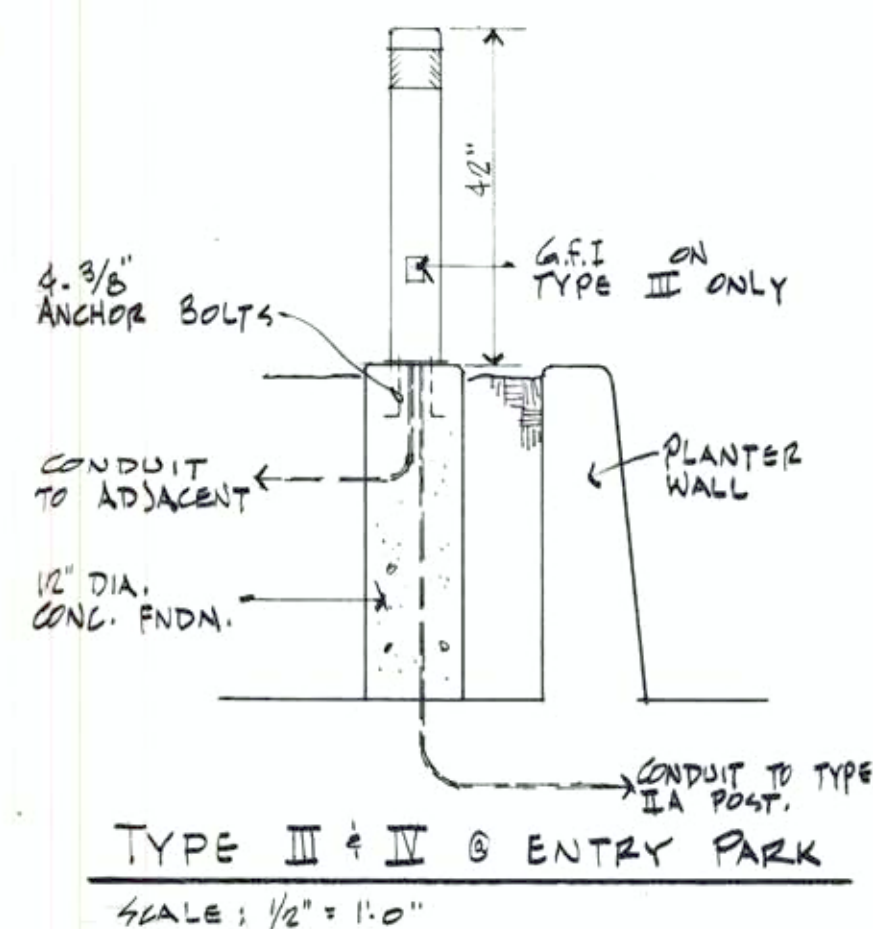
ELEVATION AND DETAILS AT SAIL AND SIGN 19TH AVE. WEST



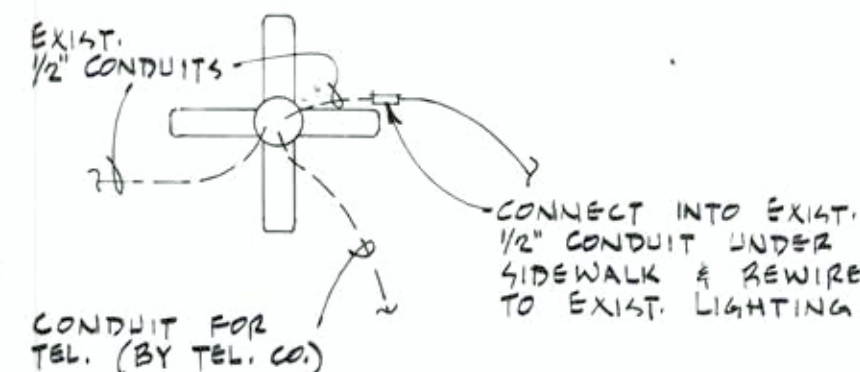
SECTION
PULL BOX
SCALE: 1/4" = 1'-0"



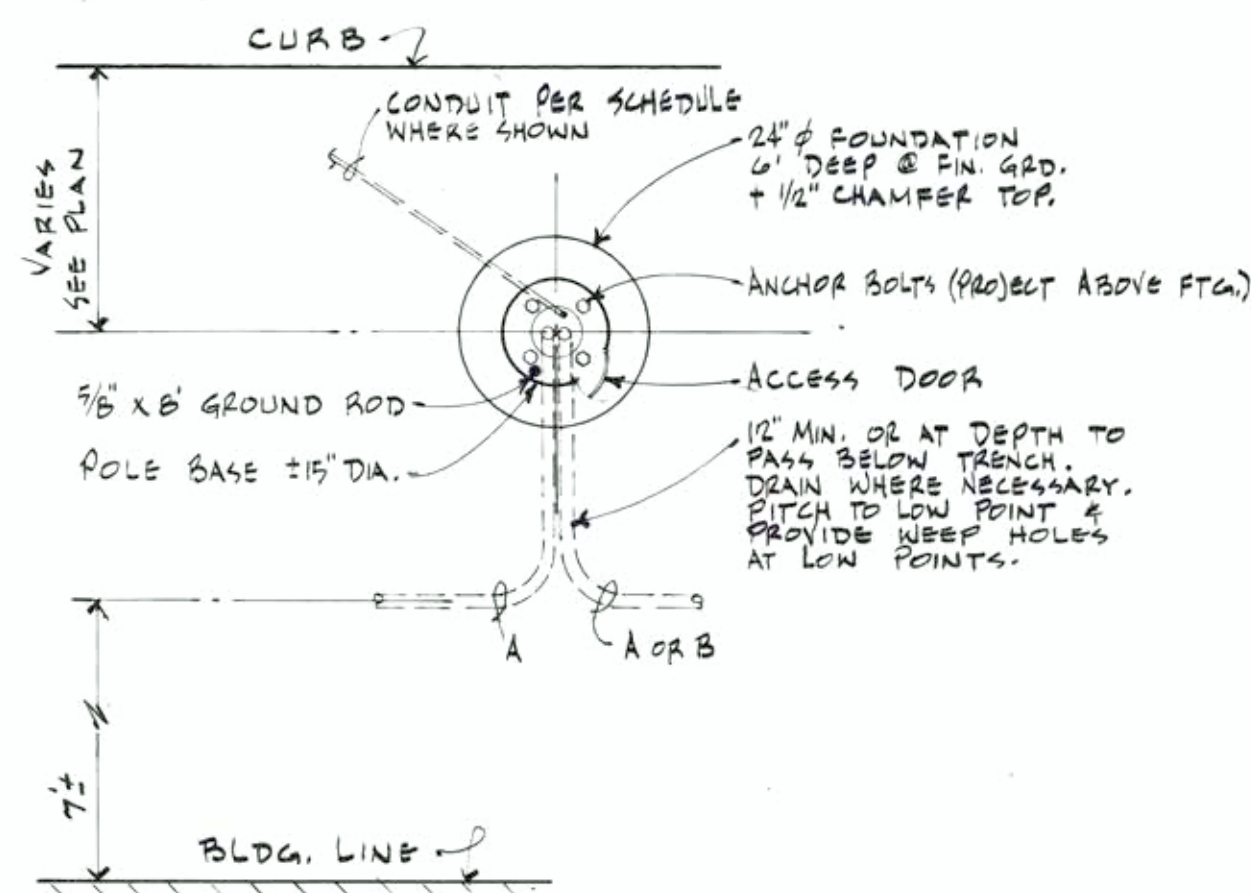
ADAPTER DETAIL
SCALE: 3/4" = 1'-0"



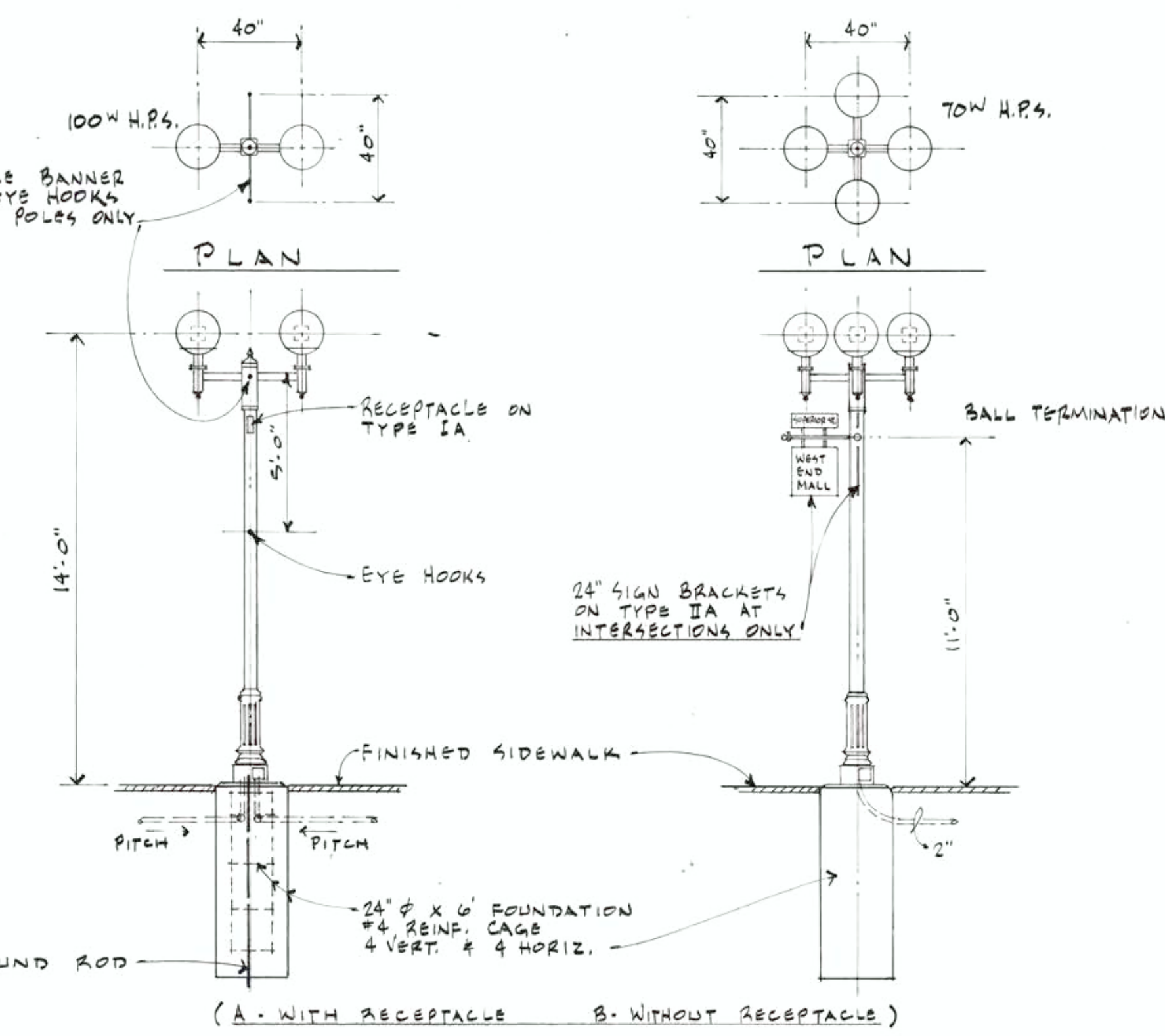
TYPE III & IV @ ENTRY PARK
SCALE: 1/2" = 1'-0"



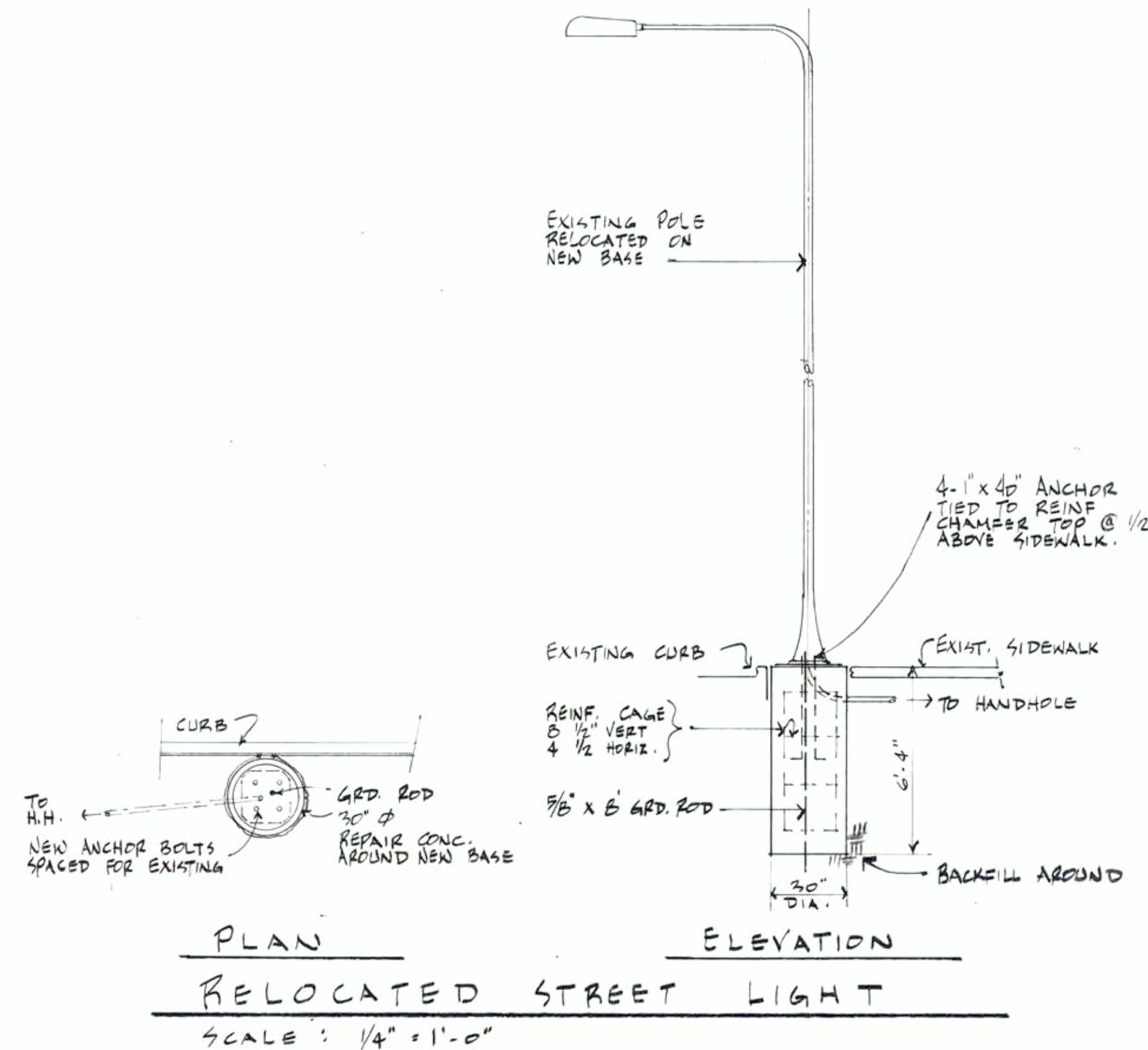
KIOSK PLAN



FOUNDATION PLAN @ POLE TYPE I & TYPE II
SCALE: 1/2" = 1'-0"



TYPE IAB TYPE IIAB
SCALE: 1/4" = 1'-0"



PLAN ELEVATION
RELOCATED STREET LIGHT
SCALE: 1/4" = 1'-0"

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Kevin E. Noland
Date: Aug 26, 2015 Reg. No. 4998

WEST END BUSINESS DISTRICT STREETSCAPE RENOVATION 19th AVE WEST to 20th AVE WEST

phase WD

project no.
date
drawn (20)
checked JEN
revised

consultants

SEAWAY
ENGINEERING CO.
DULUTH, MINN.

727-8302 partners of architectural concern
205 board of trade bldg duluth minn 55802-5131
E-2

AS BUILT