

FOR PLANS AND UTILITIES SYMBOLS SEE
MN/DOT TECHNICAL MANUAL.

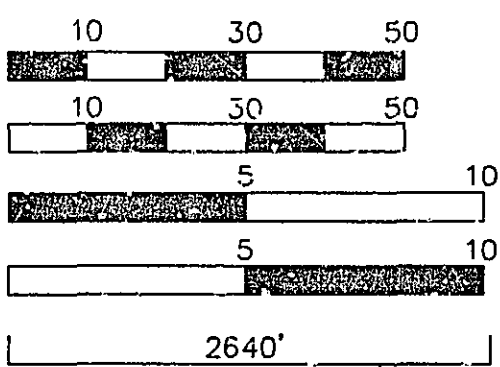
PLAN

PROFILE HORIZ.

PROFILE VERTICAL

CROSS SECTIONS

LAYOUT MAP

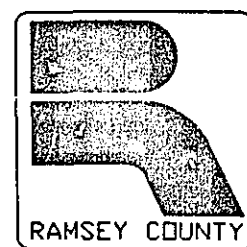


S.A.P. No. 62-619-17

GROSS LENGTH 685 FEET
NET LENGTH 685 MILES
EXCEPTION 0

S.A.P. No. 62-646-10

GROSS LENGTH 5852 FEET
NET LENGTH 5852 MILES
EXCEPTION 0



RAMSEY COUNTY

DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION PLAN FOR GRADING, AGGREGATE BASE,
BITUMINOUS BASE & SURFACING, STORM SEWER,
CONCRETE CURB & GUTTER, MILL BITUMINOUS SURFACE,
RIGHT OF WAY, AND TRAFFIC SIGNALS.

COUNTY ROAD D (S.A.P. 62-619-17)
(M.S.A.P. 187-020-07, 147-020-23,
160-020-11).

BETWEEN: 1-35W AND WILDER STREET

FROM: A POINT 351.7 FEET WEST OF THE SOUTHWEST CORNER OF
SECTION 33, TOWNSHIP 30N, RANGE 23W.

TO: A POINT 333.3 FEET EAST OF THE SOUTHWEST CORNER OF
SECTION 33, TOWNSHIP 30N, RANGE 23W.

CLEVELAND AVE. (S.A.P. 62-646-10)

BETWEEN: COUNTY RD. C (CSAH 23) AND GLEN PAUL AVENUE
FROM: A POINT 36 FEET NORTH OF THE SOUTHWEST CORNER OF
SECTION 4, TOWNSHIP 29N, RANGE 23W.

TO: A POINT 347 FEET NORTH OF THE SOUTHWEST CORNER OF
SECTION 33, TOWNSHIP 30N, RANGE 23W.

INDEX

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27	RIGHT OF WAY PLAN

THIS PLAN CONTAINS 27 SHEETS

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.

Larry K. Fullmer REG. NO. 13501 DATE 4-01-96

RECOMMENDED FOR APPROVAL DATE 4/10/96

APPROVED DATE 4/25/96

APPROVED DATE 5-1-96

APPROVED DATE 4-30-96

APPROVED DATE 5-2-96

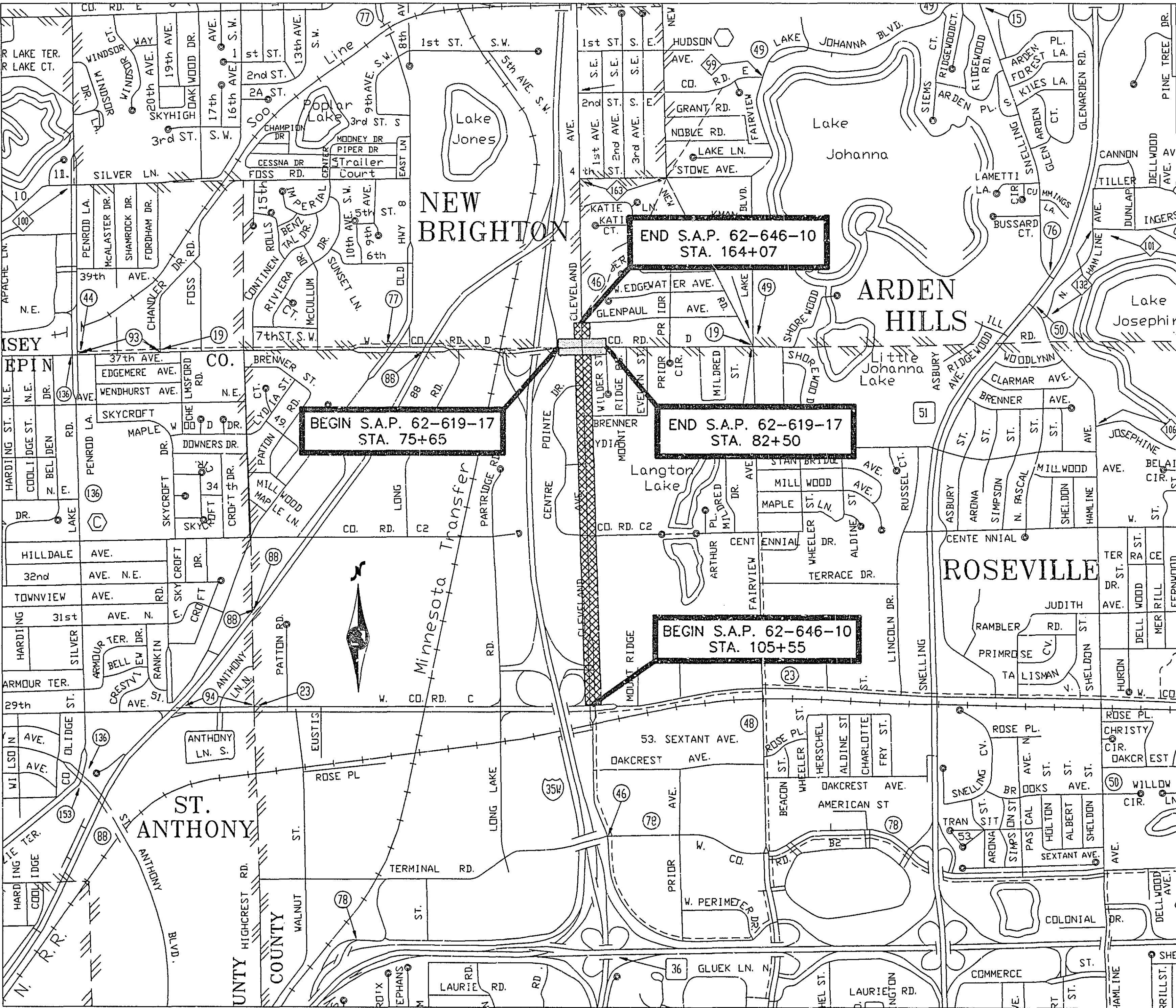
MINNESOTA DEPARTMENT OF TRANSPORTATION

RECOMMENDED FOR APPROVAL DATE

RECOMMENDED FOR APPROVAL DATE

RECOMMENDED FOR APPROVAL DATE

APPROVED DATE 6-6-96



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: J. Stewart
DATE: Dec 1, 1997

DESIGN SQUAD ML-BL-PK-LKF-DS DATE 6-9

DRAWN BY BJ-RC-Hi DATE 6-95

CHECKED BY DATE

-GOVERNING SPECIFICATIONS-

THE 1988 EDITION OF THE MINNESOTA DEPARTMENT
OF TRANSPORTATION "STANDARD SPECIFICATION
FOR CONSTRUCTION" AS AMENDED BY THE 1994
"SUPPLEMENTAL SPECIFICATIONS" SHALL GOVERN.

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL
CONFORM TO THE MMUTCD, INCLUDING FIELD MANUAL
FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS,
APRIL, 1995.

DESIGN DESIGNATION

	COUNTY RD. D	CLEVELAND AVE. (CO RD C TO CO RD D)	CLEVELAND AVE. (CO RD D TO GLENPAUL AVE)
PRESENT ADT (1996)	14,000	7,250	3,800
PROJECTED ADT (2016)	21,000	10,875	5,320
FUNCTIONAL CLASS	HIGH DENSITY ARTERIAL	LOW DENSITY ARTERIAL	LOW DENSITY ARTERIAL
TRAFFIC LANES	4	2	2
PARKING LANES	0	2	2
DESIGN LOAD	9 TON	9 TON	9 TON
STABILOMETER "R" VALUE	70	66 *	66
N18 20 YEAR	2,560,000		2,866,000
DESIGN SPEED	40	40	35

* "R" VALUE 40 BETWEEN STA. 144+00 & STA. 150+00

M.S.A.P. No. 187-020-07, 147-020-23, 160-020-11

S.A.P. No. 62-619-17, 62-646-10 Sheet No. 1 of 27 Sheets

G:\DWGS\CLEVE&D\ESTQUANT 6/3/96

STATEMENT OF ESTIMATED QUANTITIES											
NOTE	ITEM NO.	CONTRACT ITEM	UNIT	TOTAL ESTIMATED QUANTITIES	TOTAL FINAL QUANTITIES	S.A.P. 62-646-10 RAMSEY COUNTY	S.A.P. 62-646-10 25% RAMSEY CTY MSAP 160-020-11 75% ROSEVILLE GROUP 2	100% ARDEN HILLS MSAP 187-020-07	100% NEW BRIGHTON MSAP 147-020-23	S.A.P. 62-619-17 RAMSEY COUNTY	100% ROSEVILLE MSAP 160-020-11
						GROUP 1	ESTIMATED QUANTITIES	GROUP 3	GROUP 4	GROUP 5	GROUP 6
	2021.501	MOBILIZATION	LS	1			0.6			0.4	
	2101.502	CLEARING	TREE	11			6			5	
	2101.507	GRUBBING	TREE	8			3			5	
	2104.501	REMOVE BITUMINOUS CURB	LF	487			487				
	2104.501	REMOVE CURB & GUTTER	LF	945			425			520	
	2104.501	REMOVE CONCRETE PIPE	LF	30			30				
	2104.503	REMOVE CONCRETE SIDEWALK	SF	325						325	
	2104.505	REMOVE CONCRETE DRIVEWAY PAVEMENT	SY	59						59	
	2104.511	SAWING CONCRETE PAVEMENT	LF	30						30	
(1)	2104.513	SAWING BITUMINOUS PAVEMENT	LF	255			128			127	
	2232.501	MILL BIT. SURFACE (3") TYPE FULL WIDTH	SY	38127			38127				
(8)	2105.501	COMMON EXCAVATION (P)	CY	5163			1394			3769	
(7)	2105.525	TOPSOIL BORROW (LV)	CY	220			74			146	
(2)	2130.501	WATER	MGAL	10			3			7	
	2221.502	AGGREGATE SHOULDERING CLASS 2	CY	50			25			25	
(3)	2211.503	AGGREGATE BASE PLACED CLASS 6 (P)	CY	1517			391	50	17	1059	
	2231.501	BITUMINOUS PATCHING MIXTURE	TON	66			66				
	2340.508	TYPE 41 WEARING COURSE MIXTURE	TON	3669			3277	35		357	
(4)	2340.508	TYPE 31 WEARING COURSE MIXTURE	TON	172			86			86	
(5)	2340.510	TYPE 31 BINDER COURSE MIXTURE	TON	3842			3324	35		483	
	2340.514	TYPE 31 BASE COURSE MIXTURE	TON	1303			352			951	
(6)	2357.502	BIT. MATERIAL FOR TACK COAT	GAL	4713			4056			657	
	0563.601	TRAFFIC CONTROL	LS	1			0.5			0.5	
(10)	2502.541	4" PE CORR PERFORATED PIPE DRAIN	LF	1700						1700	
	2506.603	RECONSTRUCT DRAINAGE STRUCTURE	LF	14			14				
	0501.602	TRASH GUARD FOR 15" R.C. PIPE APRON	EACH	1			1				
	2501.515	15" R.C. PIPE APRON	EACH	1			1				
	2503.541	15" R.C. PIPE SEWER DES. 3006 CL V	LF	426			104			322	
	0504.602	ADJUST VALVE BOX	EACH	10			10				
	0504.602	RELOCATE HYDRANT ASSEMBLY	EACH	3						3	
	0504.602	ADJUST GATE VALVE BOX	EACH	2						2	
	0504.602	ADJUST CURB BOX	EACH	7			1			6	
	2506.501	CONST. DRAINAGE STR. DES. 54-4020	LF	5			5				
	2506.501	CONST. DRAINAGE STR. DES. A OR F	LF	6						6	
	2506.501	CONST. DRAINAGE STR. DES. SP - 2	LF	20			9			11	
(12)	2506.602	F & I LP-4 CATCH BASIN TOP	EACH	30			30				
	2506.521	INSTALL CASTING	EACH	2			2				
	2506.522	ADJUST FRAME & RING CASTING	EACH	30			23			7	
	0506.602	GROUT CATCH BASIN OR MANHOLE	EACH	30			30				
	2521.501	4" CONCRETE WALK	SF	900					900		
(9)(11)	2531.501	CONCRETE CURB & GUTTER DESIGN B624	LF	2310			925			963	
	2531.507	6" CONCRETE DRIVEWAY PAVEMENT	SY	60						60	
	0531.602	PEDESTRIAN CURB RAMP	EACH	5						5	
	0564.602	PAVE. MESS. (LEFT ARROW) POLY PREF.	EACH	3			3				
	0564.603	4" DOUBLE SOLID LINE YELLOW - EPOXY	LF	5000			4420			580	
	0564.603	4" SOLID LINE WHITE - EPOXY	LF	640			300			340	
	0564.603	4" BROKEN LINE WHITE - EPOXY	LF	2800			2560			240	
	0564.603	36" SOLID LINE WHITE - POLY PREFORMED	LF	312			150			162	
(13)	2565.511	FULL T. ACT T. CONTROL SIGNAL SYSTEM A	SIG SYS	1						1	
	0565.601	EMERGENCY VEHICLE PRE-EMPTION SYSTEM A	LS	1				0.25	0.25		0.50
	2550.541	PVC LOOP DETECTORS, 6' X 6'	EACH	17			15			2	
	2550.541	PVC LOOP DETECTORS, 6' X 15'	EACH	2			2				
	0545.602	HANDHOLE, TYPE HD	EACH	1						1	
	0565.603	1.25" RIDGID STEEL CONDUIT	LF	200						200	
	2573.502	SILT FENCE HEAVY DUTY	LF	250			50			200	
(7)	2575.505	SODDING, TYPE LAWN	SY	2500			500			2000	
	2575.531	COMM. FERT. ANALYSIS 12-12-12	TON	0.4			0.1			0.3	
	0506.602	CONST MANHOLE (SURVEY)	EACH	1			1				

BASIS FOR ESTIMATED QUANTITIES	
2340.	- BITUMINOUS MIXTURES - 110 LBS. PER SQ. YD. PER INCH OF THICKNESS.
2357.502	- BITUMINOUS MATERIAL FOR TACK COAT ESTIMATED AT 0.05 GAL PER SQ. YD. PER LIFT
2575.531	- COMMERCIAL FERTILIZER: ANALYSIS 12-12-12 ESTIMATED 350 LBS./ACRE

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 LAWS OF THE STATE OF MINNESOTA.

Danny K. Feldman

REG. NO. 15501 DATE 4-01-96

CONSTRUCTION NOTES

- THE CONTRACTOR SHALL COOPERATE WITH RAMSEY COUNTY AS RELATES TO PERPETUATING MONUMENTATION. ADVANCE NOTICE OF ANY DISTURBANCE OF MONUMENTS SHOULD BE MADE TO THE RAMSEY COUNTY SURVEYORS OFFICE AT 266-2620.
- THE CONTRACTOR SHALL OBTAIN FROM THE UTILITY COMPANIES THE EXACT LOCATION OF ANY UNDERGROUND UTILITIES WHICH MAY EXIST WITHIN, OR ADJACENT TO, THE CONSTRUCTION AREA.
- TO MEET CERTAIN CONDITIONS OF PHASING, TRAFFIC CONTROL, ETC., THE CONTRACTOR MAY HAVE TO DOUBLE HANDLE AND STOCKPILE MATERIAL OUTSIDE THE RIGHT-OF-WAY FOR FUTURE USE. ALL COST INCURRED BY THE CONTRACTOR IN EXCAVATING, PLACING, AND TRANSPORTING THIS MATERIAL SHALL BE INCLUDED IN THE PRICE BID FOR ITEM NO. 2105.501 COMMON EXCAVATION.
- PEDESTRIAN CURB RAMPS SHALL BE INSTALLED AT ALL STREET RADII. THE EXACT LOCATION SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- TOP OF "GRADING GRADE" IS DEFINED AS THE TOP OF THE EMBANKMENT MATERIAL OR THE BOTTOM OF THE AGGREGATE BASE COURSE.
- STRIP TOPSOIL FROM ALL AREAS TO BE DISTURBED BY CONSTRUCTION AND STOCKPILE (IF PRACTICAL) FOR REPLACEMENT LATER AS SLOPE DRESSING.
- PROVIDE FOR REMOVAL AND DISPOSAL OF (OUTSIDE THE CONSTRUCTION ZONE) ANY INPLACE SURFACING AND STRUCTURES THAT WILL INTERFERE WITH CONSTRUCTION.
- FROM A SOILS STANDPOINT, TRAFFIC SHALL BE MAINTAINED NO CLOSER THAN AN IMAGINARY 2:1 LINE DRAWN FROM THE BOTTOM OF ANY EXCAVATION INTERSECTING THE SURFACE.
- THE ORDINARY COMPACTION METHOD SHALL BE USED ON THIS PROJECT FOR GRADING AND BASE.
- PROVIDE DRAINAGE OUTLETS FOR ALL SUBCUTS DURING CONSTRUCTION. DITCHES SHOULD BE DEEPER THAN SUBCUT TO PROVIDE OUTLET DRAINAGE.
- PROVIDE A TACK COAT, SPEC. 2357.2A, BETWEEN BITUMINOUS COURSES.
- WHERE THE PROPOSED SUBCUT IS LOCATED UNDER INPLACE BASE AND BITUMINOUS SURFACING OR CONCRETE PAVEMENT, THE ENDS OF SUBCUT SHALL BE VERTICAL FOR THE DEPTH OF THE BITUMINOUS OR CONCRETE AND 2:1 IN AGGREGATE BASE.
- TAPER ENDS OF SUBCUT TO A 20:1 SLOPE UNLESS OTHERWISE RECOMMENDED.
- UNSUITABLE GRADING MATERIAL SHALL CONSIST OF TOPSOIL, OTHER ORGANIC SOIL AND DEBRIS.
- SILT FENCE SHALL BE INSTALLED AT ALL FILL SLOPES AND MAY BE REQUIRED AT OTHER LOCATIONS DURING CONSTRUCTION AS DETERMINED BY THE ENGINEER. (SPEC. 2573, 3886, 1707, 1803.5)
- AREA PROPERTY OWNERS OWN & MAINTAIN UNDERGROUND SPRINKLER SYSTEMS ADJACENT TO EXISTING ROADWAYS & ENTRANCES. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS TO MINIMIZE DAMAGE THERE TO AND INFORM PROPERTY OWNERS WHEN HIS OPERATIONS WILL AFFECT THEIR SPRINKLER SYSTEMS. RELOCATION SHALL BE THE RESPONSIBILITY OF THE OWNER.

QUANTITY NOTES

- | | |
|------|---|
| (1) | INCLUDES 55 LF FOR ENTRANCES |
| (2) | FOR DUST CONTROL |
| (3) | INCLUDES 314 CY FOR ENTRANCES, CONCRETE SIDEWALK, BITUMINOUS PATH AND PARKING AREAS |
| (4) | FOR ENTRANCE AND PARKING AREA CONSTRUCTION |
| (5) | 156 TON ENTRANCES & PARKING AREA |
| (6) | 72 GALLONS ENTRANCES & PARKING AREA |
| (7) | AREAS TO BE TOPSOILED AND SODDED HAVE BEEN INCREASED 10% TO ALLOW FOR ADDITIONAL AREA OF SLOPES |
| (8) | REMOVAL AND DISPOSAL OF EXISTING BITUMINOUS SURFACE IS INCLUDED IN THE PRICE OF COMMON EXCAVATION |
| (9) | DEPRESSED CURB & GUTTER, AS INDICATED AT VARIOUS LOCATIONS ON THE PLANS, SHALL BE PAID FOR AS B624 CURB & GUTTER |
| (10) | PAYMENT OF 4" PERFORATED DRAIN PIPE SHALL INCLUDE FINE FILTER AGGREGATE SPEC 3149 (APPROX. 2.6 CY PER 100 LF OF PIPE) |
| (11) | FOR AREAS OF SETTLED CURB & GUTTER ALONG OVERLAY PORTION OF PROJECT. |
| (12) | REMOVE EXISTING TOP AND INSTALL NEW TOP |
| (13) | INCLUDE TYPE D SIGNS, OVERHEAD MOUNTED |

PROVIDE FOR A UNIFORM TACK COAT BETWEEN ALL COURSES, THE TACK COAT SHALL BE IN ACCORDANCE WITH MN/DOT SPECIFICATION 2357.2A EXCEPT FOR THE FOLLOWING MODIFICATION:

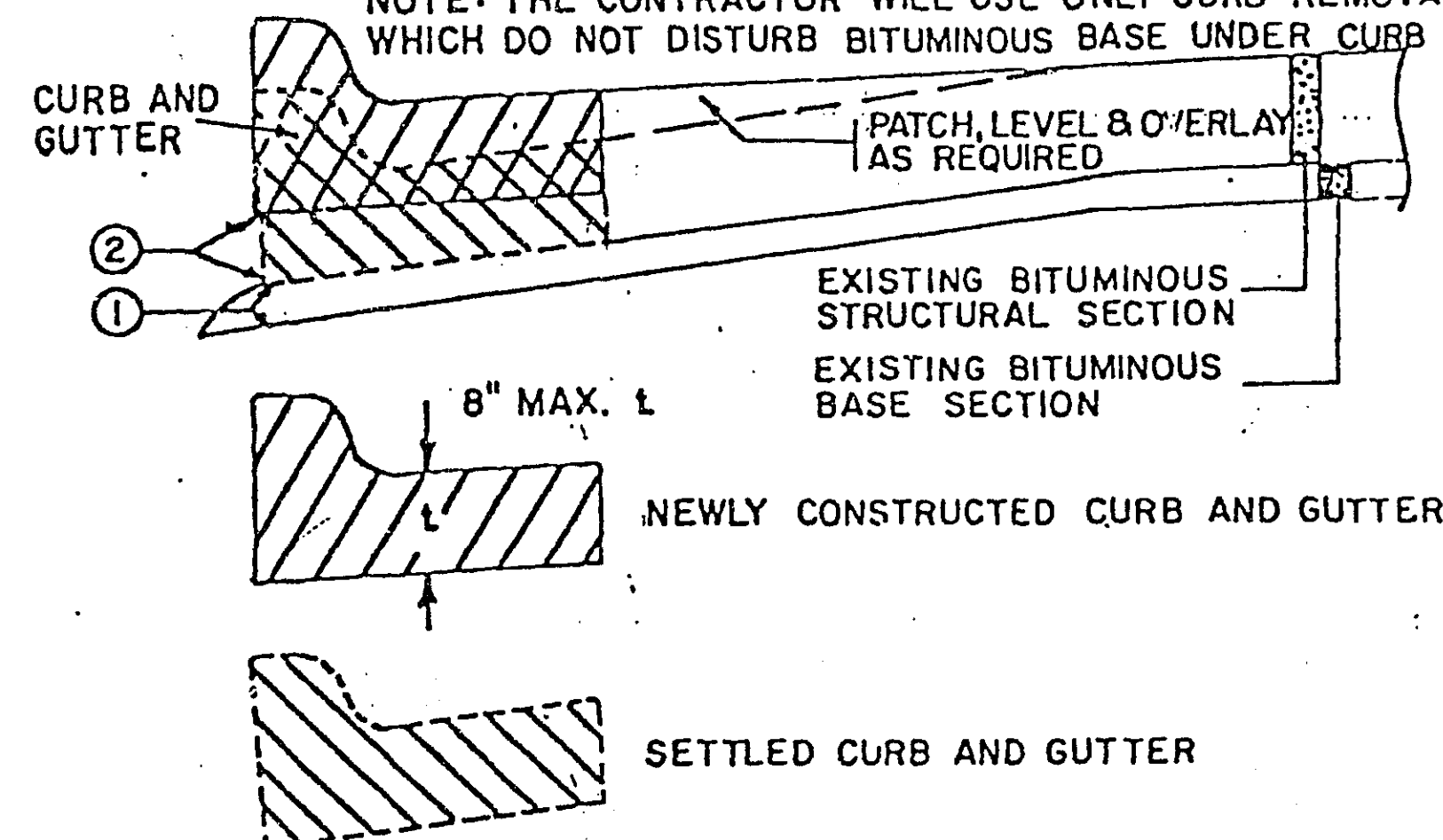
A) THE TACK COAT SHALL BE EMULSIFIED ASPHALT, EITHER CSS-1 OR CSS-1H.

B) THE TACK COAT SHALL BE DILUTED WITH WATER IN AN AMOUNT EQUAL TO 30 TO 40 PERCENT OF THE VOLUME OF THE EMULSION. THIS WATER SHALL BE EXCLUDED FROM THE PAY QUANTITIES. THE MATERIAL SHALL BE UNIFORMLY APPLIED AT A RATE OF 0.07 TO 0.10 GALLON PER SQUARE YARD ON MILLED SURFACES, AND .03 TO .05 BETWEEN BITUMINOUS LAYERS.

UNDERGROUND UTILITIES EXIST WITHIN THE PROJECT CONSTRUCTION AREA. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO HAVE ALL UNDERGROUND UTILITIES LOCATED PRIOR TO CONSTRUCTION. ANY STRUCTURES (MANHOLES, CATCH BASINS, GAS/WATER VALVES) DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR.

CURB AND GUTTER TREATMENT DETAIL

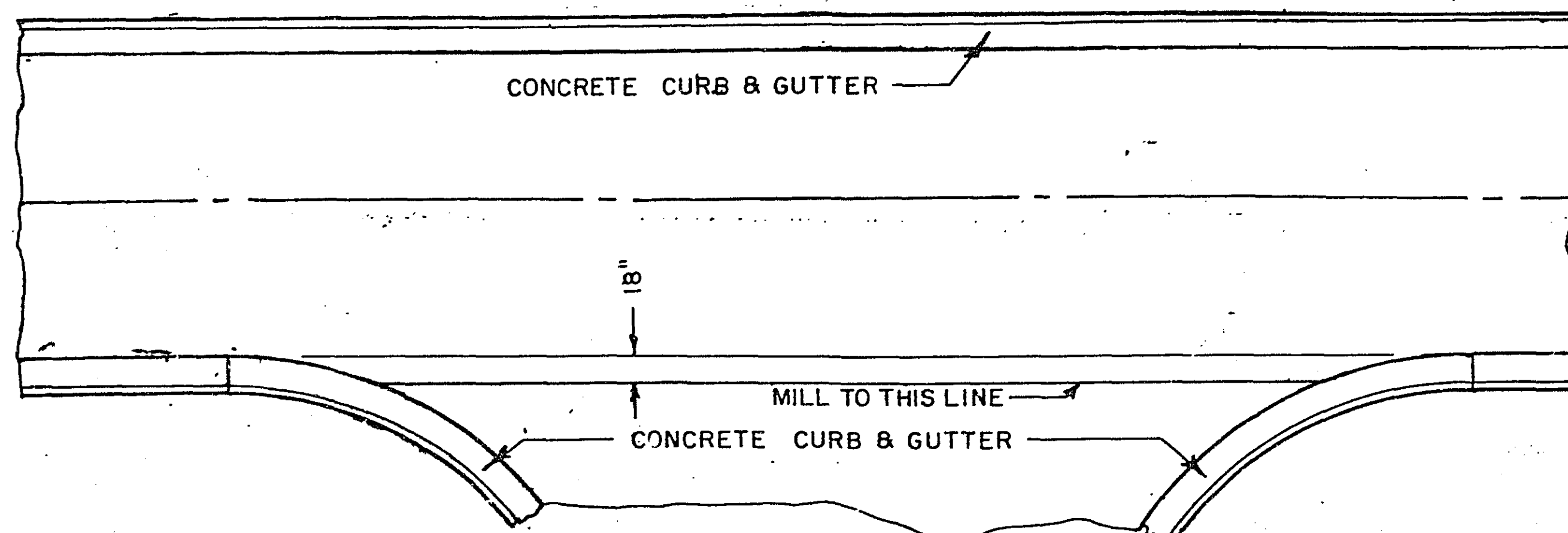
NOTE: THE CONTRACTOR WILL USE ONLY CURB REMOVAL METHODS WHICH DO NOT DISTURB BITUMINOUS BASE UNDER CURB AND GUTTER



① DO NOT REMOVE AGGREGATE BASE UNDER CURB AND GUTTER

② THE CONTRACTOR SHALL PLACE AND COMPACT BITUMINOUS BASE IN THIS AREA AS REQUIRED FOR AN 8" MAXIMUM THICKNESS OF GUTTER. PAYMENT SHALL BE MADE AS ITEM NUMBER 2231.501 BITUMINOUS PATCHING MIXTURE.

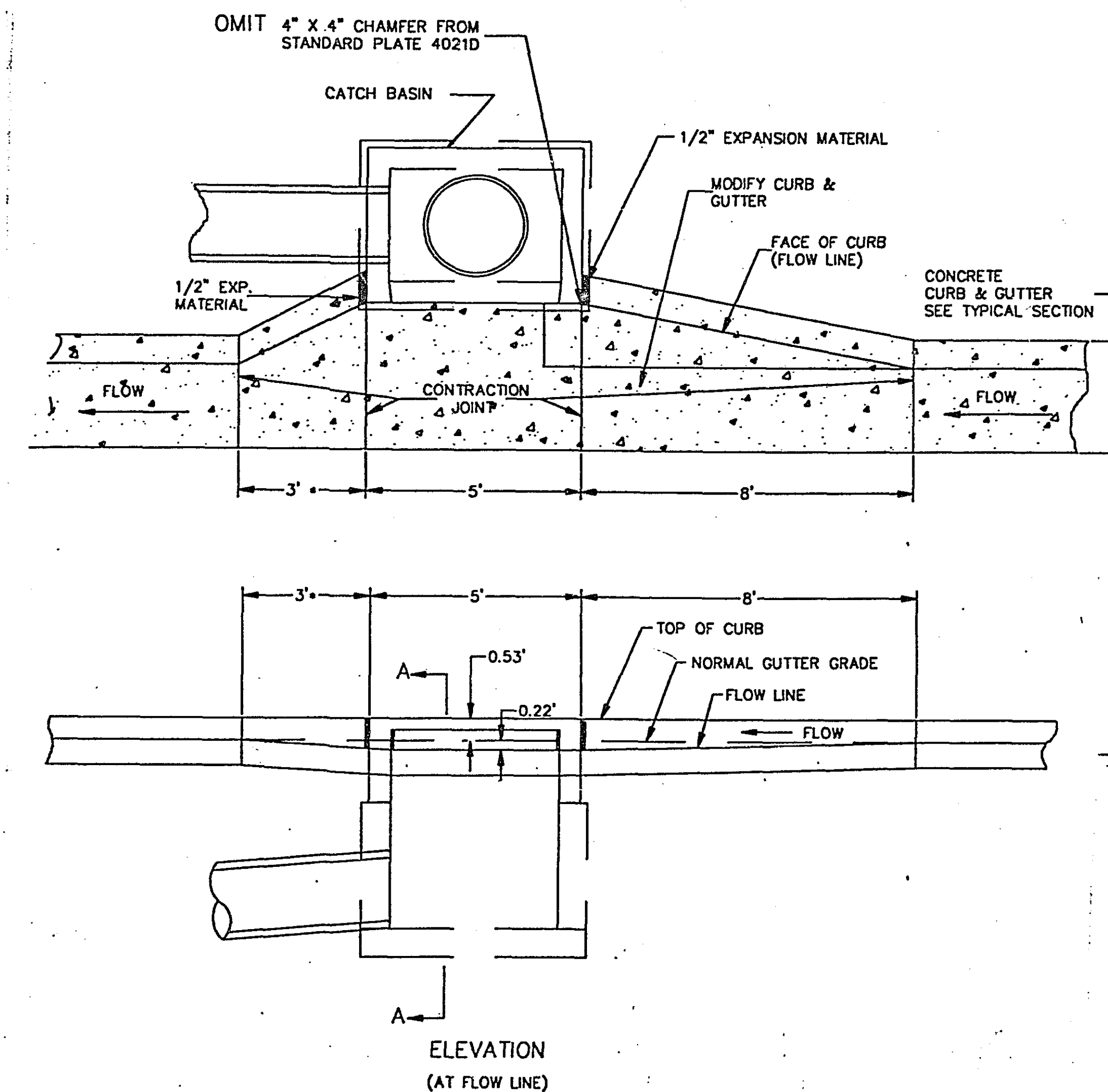
MILLING AT SIDE STREET APPROACHES



CONSTRUCTION NOTES

- (1) REMOVE ALL COLD MIX PATCHES BY MILLING AS DIRECTED.
- (2) BACKFILL BEHIND REPLACED CURB AND GUTTER SECTIONS.
- (3) LOOP DETECTOR SEALANT--SEE SPECIAL PROVISIONS.
- (4) COMPACTION OF ALL BITUMINOUS COURSES SHALL BE BY THE METHOD OF ORDINARY COMPACTION.
- (5) PROTECT IN PLACE CONCRETE STRUCTURES DURING ALL CONSTRUCTION OPERATIONS.
- (6) NO EXTRA COMPENSATION SHALL BE MADE FOR INCREASED OR DECREASED QUANTITIES OF MILLING.
- (7) FINAL LOCATION FOR CURB AND GUTTER REMOVAL AND REPLACEMENT WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- (8) PROVIDE WATER FOR MILLING OPERATIONS; INCLUDE PRICE IN OTHER ITEMS. PERMIT REQUIRED FROM CITY PRIOR TO HYDRANT USE.
- (9) THE CONTRACTOR WILL NOTIFY THE COUNTY BEFORE MILLING OVER LOOP DETECTORS.
- (10) DELIVER THE MILLED BITUMINOUS SURFACING TO THE RAMSEY COUNTY DETENTION PIT STORAGE PIT AREA AT THE INTERSECTION OF KENT STREET AND LARPEUR AVENUE. INCLUDE DELIVERY IN THE PRICE OF OTHER ITEMS.
- (11) THE ROADWAY ADJACENT TO AREAS OF CURB AND GUTTER REPLACEMENT SHALL BE PATCHED WITH BITUMINOUS PATCHING MIXTURE TO WITHIN 3" OF FINISHED GRADE IMMEDIATELY AFTER THE CURB AND GUTTER CONSTRUCTION AND CURE.
- (12) BITUMINOUS MATERIAL FOR TACK COAT AND BITUMINOUS PATCHING MIXTURE SHALL BE USED AS DIRECTED TO PATCH DAMAGED AREAS IN THE ROADWAYS BEFORE OVERLAYING. THE TACK MATERIAL SHALL BE UNIFORMLY APPLIED AT THE RATE OF 0.07 TO 0.10 GALLON PER SQUARE YARD ON MILLED SURFACES, AND AT THE RATE OF 0.03 TO 0.05 GALLON PER SQUARE YARD BETWEEN BITUMINOUS LAYERS.
- (13) THE CONTRACTOR SHALL PROTECT OR REPLACE EXISTING LOOP DETECTORS DURING PAVEMENT REPAIR OPERATIONS AS DIRECTED BY THE ENGINEER; ALL LOOP DETECTORS WILL BE LOCATED BY THE ENGINEER UPON REQUEST AND REPLACED IF DAMAGED BY THE MILLING WITHIN 3 CALENDAR DAYS. NEW LOOP DETECTORS SHALL BE INSTALLED PRIOR TO THE WEARING COURSE MIXTURE.
- (14) ALL HAND HOLES OPENED FOR LOOP DETECTOR TESTING SHALL NOT BE RESEALED PER 2565.
- (15) THE CONTRACTOR SHALL COOPERATE WITH RAMSEY COUNTY AS RELATES TO PERPETUATING MONUMENTATION. ADVANCE NOTICE OF ANY DISTURBANCE OF MONUMENTS SHOULD BE MADE TO THE RAMSEY COUNTY SURVEY OFFICE AT 266-2600.
- (16) PNEUMATIC ROLLER WILL BE REQUIRED FOR LEVELING COURSE MIXTURE CONSTRUCTION.
- (17) ANY TURF AREA DISTURBED BY CONSTRUCTION SHALL BE RE-ESTABLISHED WITH SOD AS DIRECTED BY THE ENGINEER.

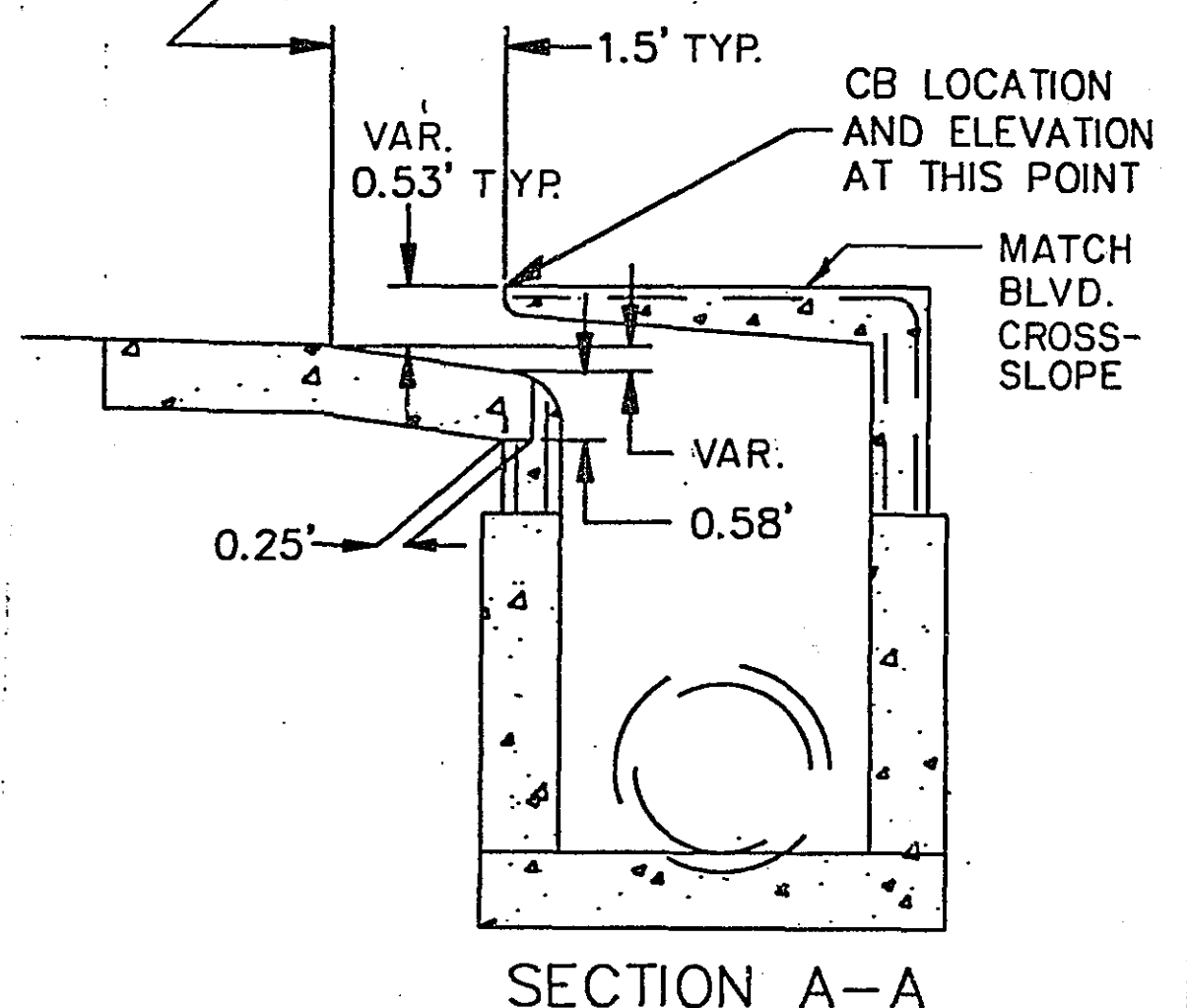
CURB OPENING CATCH BASIN - DESIGN LP (4021) RECONSTRUCT DETAIL (USES MODIFIED DESIGN 4021 CATCH BASIN UNIT)



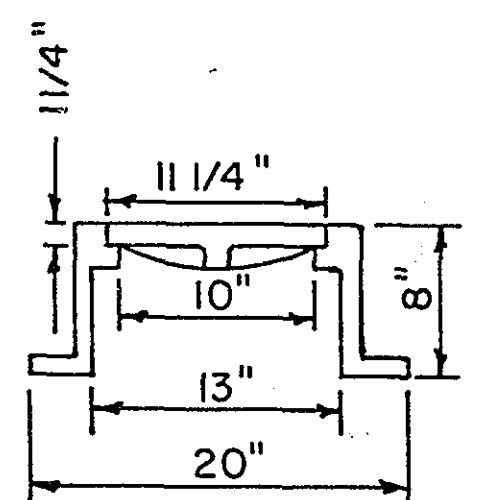
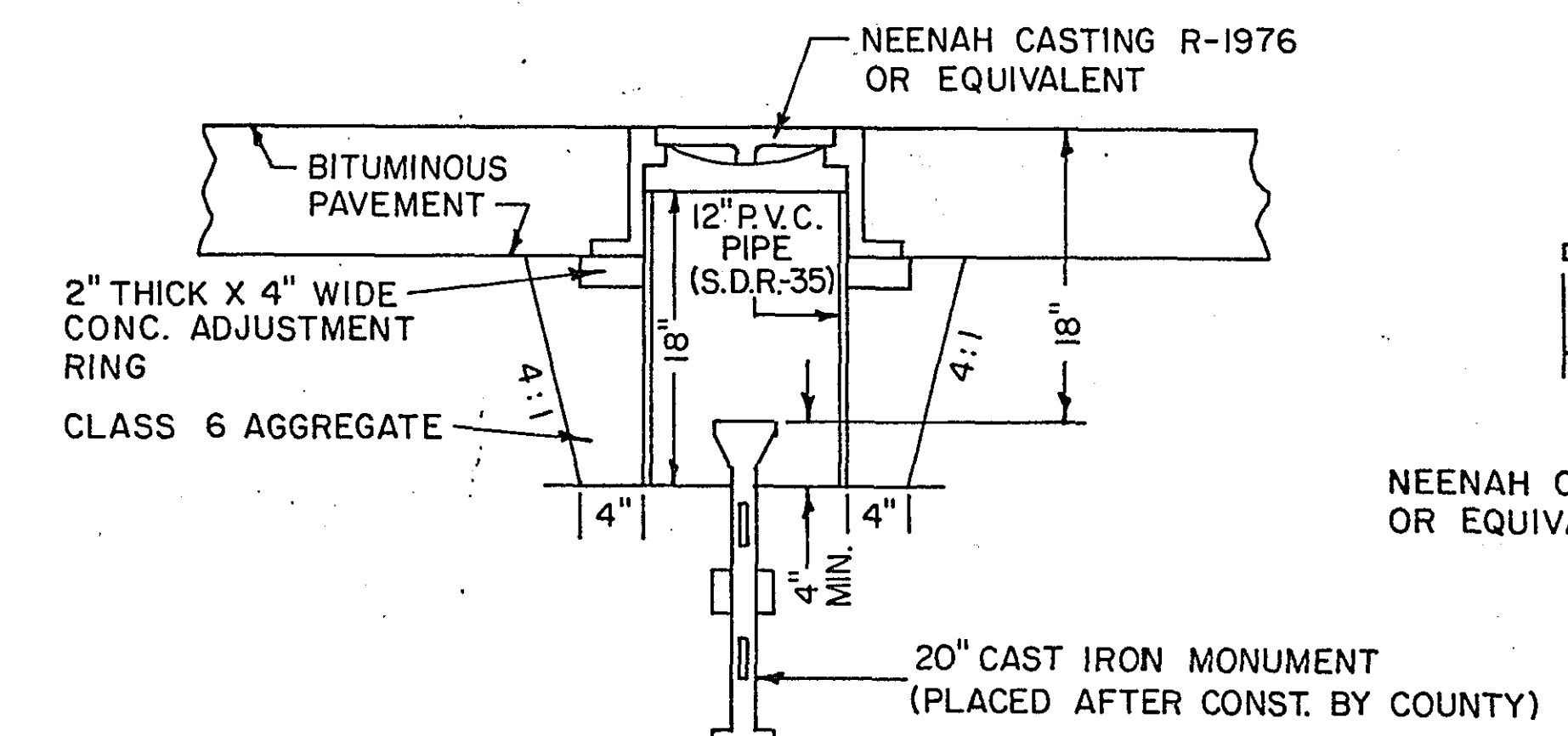
NOTES

1. DIMENSION SHALL BE 8' WHEN STRUCTURE IS INSTALLED AT LOW POINT IN GRADE.
2. CATCH BASIN - DESIGN LP - SEE MN/DOT STD. PL. NO. 4021.
3. TOP OF CATCH BASIN SHALL BE INSTALLED AT SAME SLOPE AS BLVD. GRADES AND TOP OF CURB GRADE EACH SIDE OF STRUCTURE.
4. ELEVATION OF STRUCTURE IS COMPUTED AT LOCATION SHOWN IN SEC. A-A AT C. OF C.B. OPENING.
5. PAID FOR AS ITEM NO. 2506.502 FURNISH AND INSTALL L.P.4 CATCH BASIN TOP

NORMAL GUTTER SLOPE & WIDTH
SEE TYPICAL SECTION



SURVEY MONUMENT MANHOLE (FOR BITUMINOUS PAVEMENT)



WEIGHT = 95 LBS.
NEENAH CASTING R-1976
OR EQUIVALENT

CLEVELAND AVE.			
CONCRETE CURB AND GUTTER			
STATION	LT.	MEDIAN	RT.
114+00 TO 116+00		0	50 L.F.
117+00 TO 118+00		0	10 L.F.
120+00 TO 128+00		0	110 L.F.
129+00 TO 130+00	10 L.F.	0	10 L.F.
141+00 TO 143+00	130 L.F.	0	
145+00 TO 146+00	20 L.F.	0	
149+00 TO 150+00	10 L.F.	0	
154+00 TO 156+00	10 L.F.	0	
SW RADIUS 1-35 RAMP	65 L.F.	0	
TOTAL			425 L.F.

NOTE: THE ABOVE QUANTITIES AND LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS WILL BE STAKED BY THE ENGINEER AT THE TIME OF CONSTRUCTION.

S.A.P. NO. 62-619-17, 62-646-10

SHEET NO. 3 OF 27 SHEETS

28-145
DETAILS

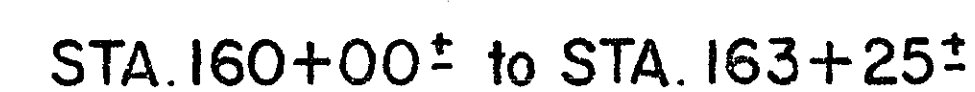
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

Date 7-8-76 Reg. No. 13501

CONST,
C



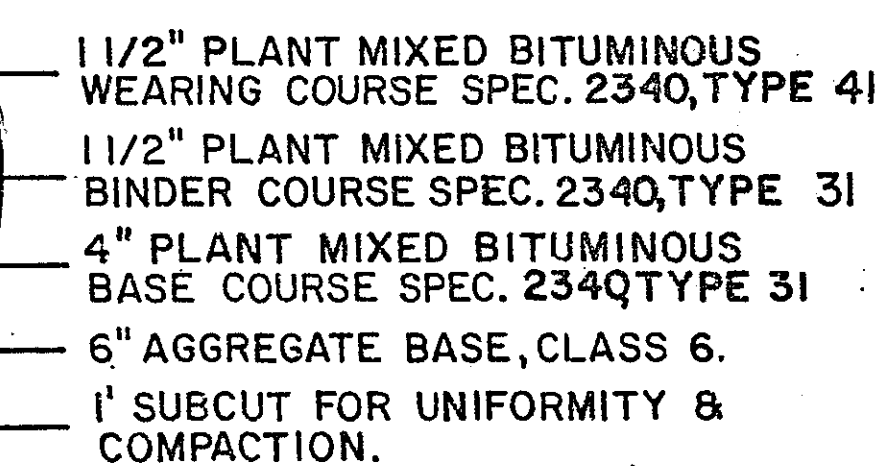
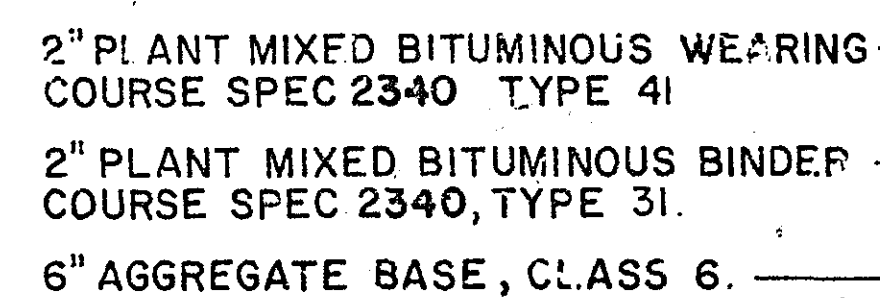
CLEVELAND AVE.



DETAIL A



BITUMINOUS PATH DETAIL



COUNTY ROAD D & CLEVELAND AVE.

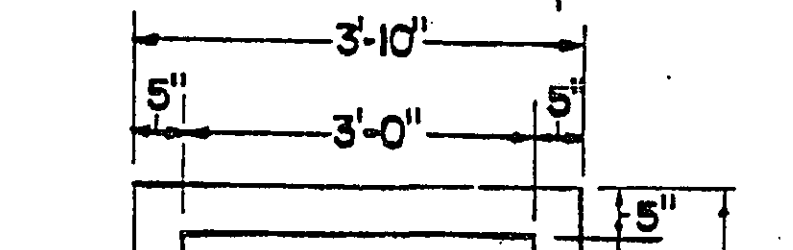
TYPICAL SECTIONS 28-145

S. A.P. NO. 62-619-17

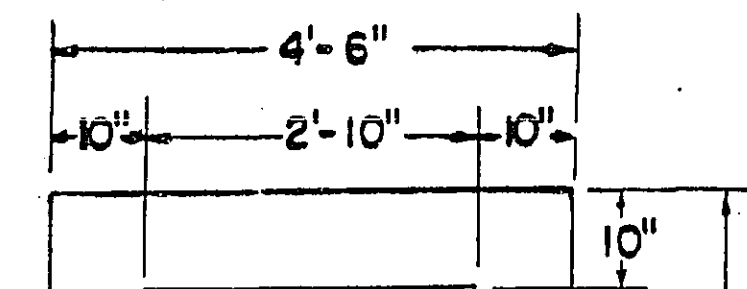
Sheet No. 4 of 27 Sheets

CHART

CATCH BASIN - DESIGN SPECIAL 2



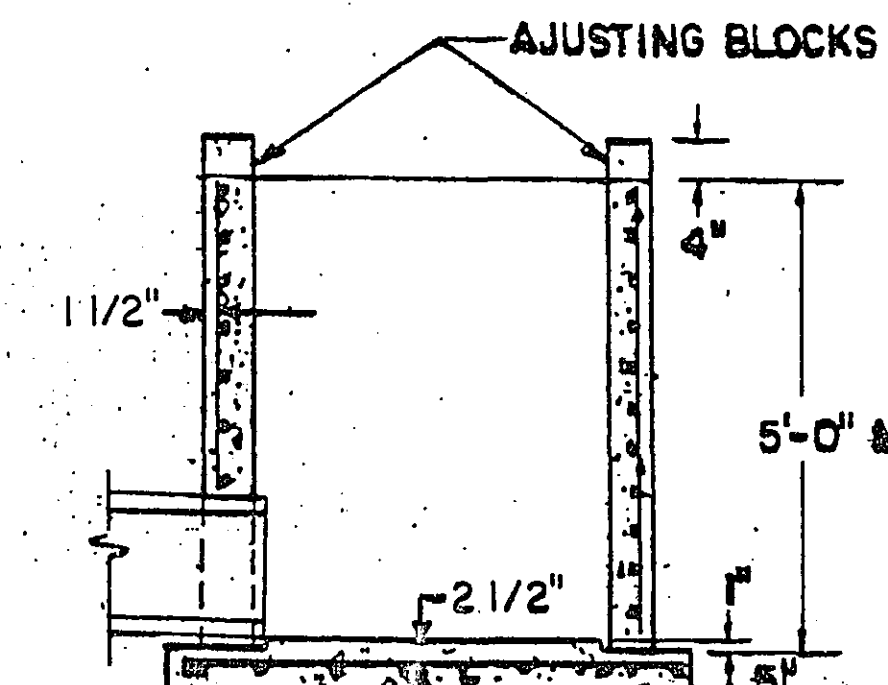
CATCH BASIN PLAN



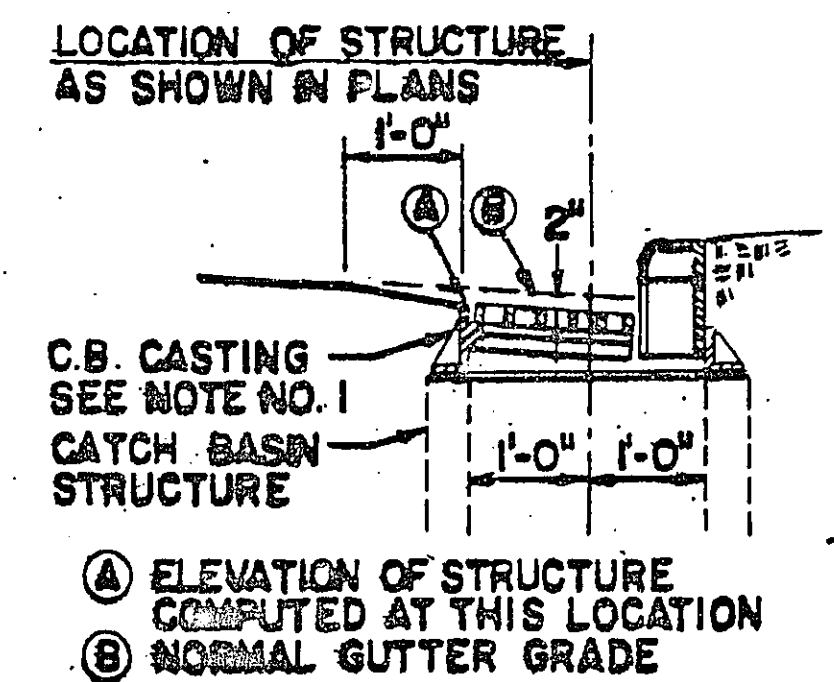
BASE SLAB PLAN

CATCH BASIN PLAN

BASE SLAB PLAN



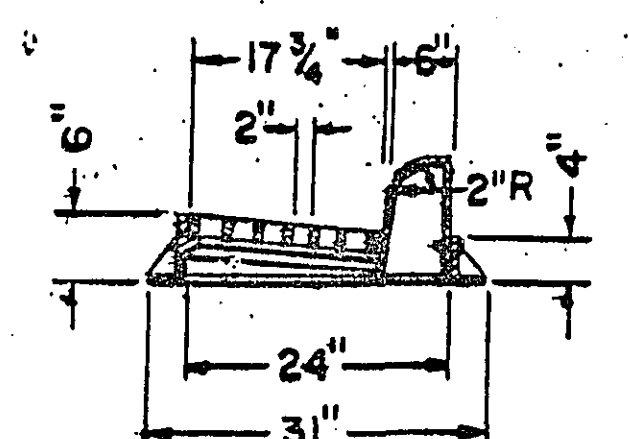
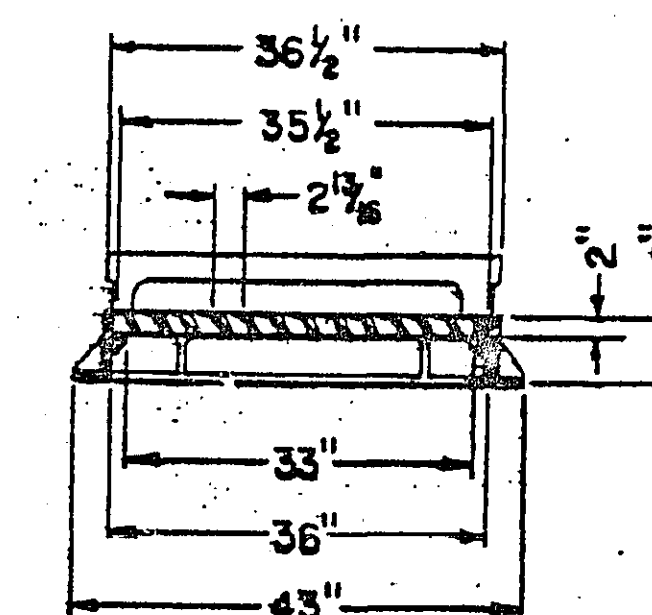
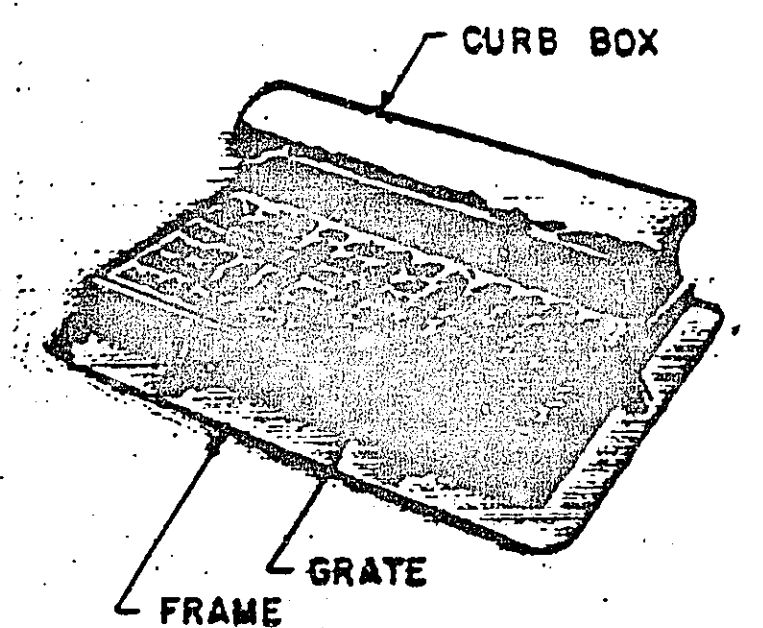
SECTIONAL VIEW
CATCH BASIN & BASE SLAB



INSTALLATION DETAIL

NOTES:

1. MATERIALS: CAST GRAY IRON, CLASS 30, MN/DOT SPEC. REFERENCE 3321
2. CURB BOX HEIGHT SHALL BE ADJUSTABLE 6" TO 9"
3. SEE CATCH BASIN-DESIGN SPECIAL 2 DETAIL FOR CASTING INSTALLATION DETAIL.



1. PIPE CUT-OUTS TO BE LOCATED WHERE REQUIRED.
2. ALTERNATE CAST-IN-PLACE BASE SLAB CAN BE USED.
3. INSTALL AS PER MN/DOT STANDARD PLATE NO. 7111
4. REINFORCING: SINGLE LINE STEEL WIRE FABRIC.
WALL = W3.0 X W3.0 HAVING AN AREA OF NOT LESS THAN .21 SQ. IN. PER FOOT OF HEIGHT.
BASE = W3.0 X W3.0 HAVING AN AREA OF NOT LESS THAN .21 SQ. IN. PER FOOT OF HEIGHT.
5. ALTERNATE CONSTRUCTION - THE CATCH BASIN MAY BE CONSTRUCTED OF BLOCKS OR BRICKS CONFORMING TO THE REQUIREMENTS OF MN/DOT SPEC. 2504 AND AS DIRECTED BY THE ENGINEER.

28-145
DETAILS

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.

Larry K. Zillman
Date 4-01-96 ICR No. 13501

S.A.P NO. 62-619-17

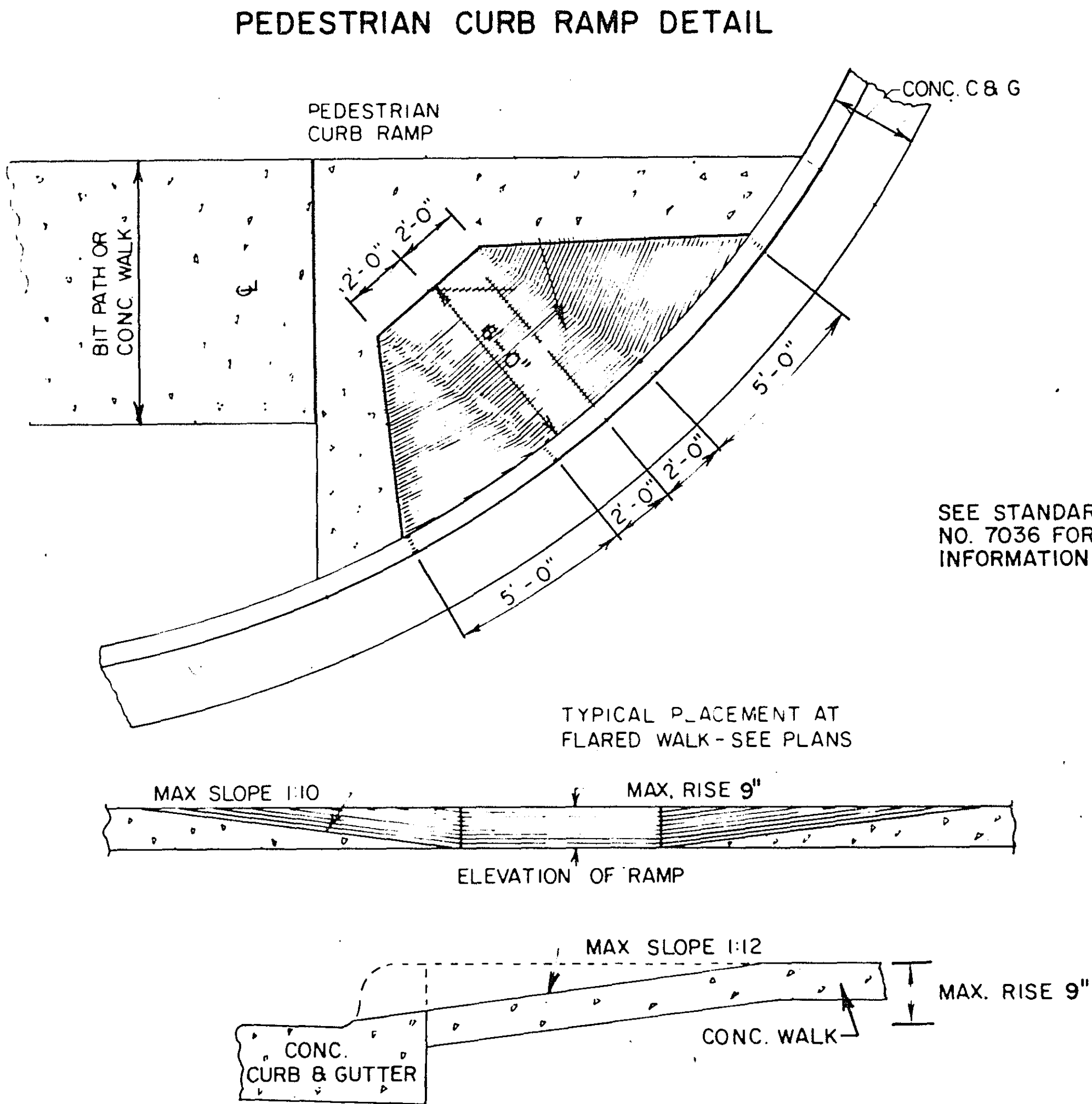
Sheet No. 5 of 27 Sheets

CLEAR & GRUB CHART					
STATION	LOCATION		DESCRIPTION	CLEAR	GRUB
	LT	RT			
COUNTY ROAD D					
77 + 27		45'	6" PINE	1	1
77 + 47		47'	6" PINE	1	1
77 + 65		45'	6" PINE	1	1
77 + 90		44'	4" POPLAR	1	1
78 + 15		38'	4" POPLAR	1	1
CLEVELAND AVE.					
161 + 57		43'	11" COTTON.	1	1
161 + 73		47'	QUAD. 4" BOX.	4	1
161 + 95		46'	13" COTTON.	1	1
TOTALS				11	8

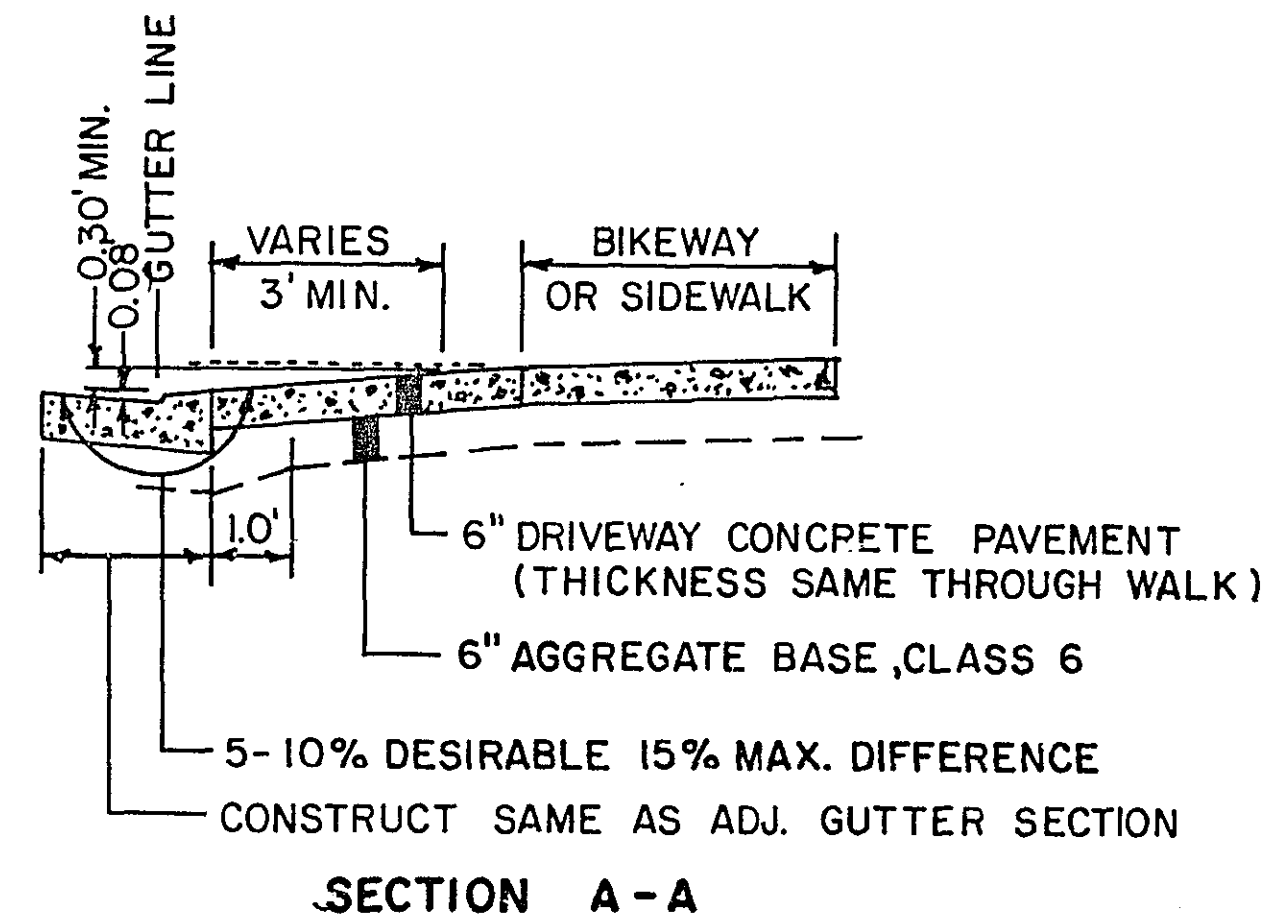
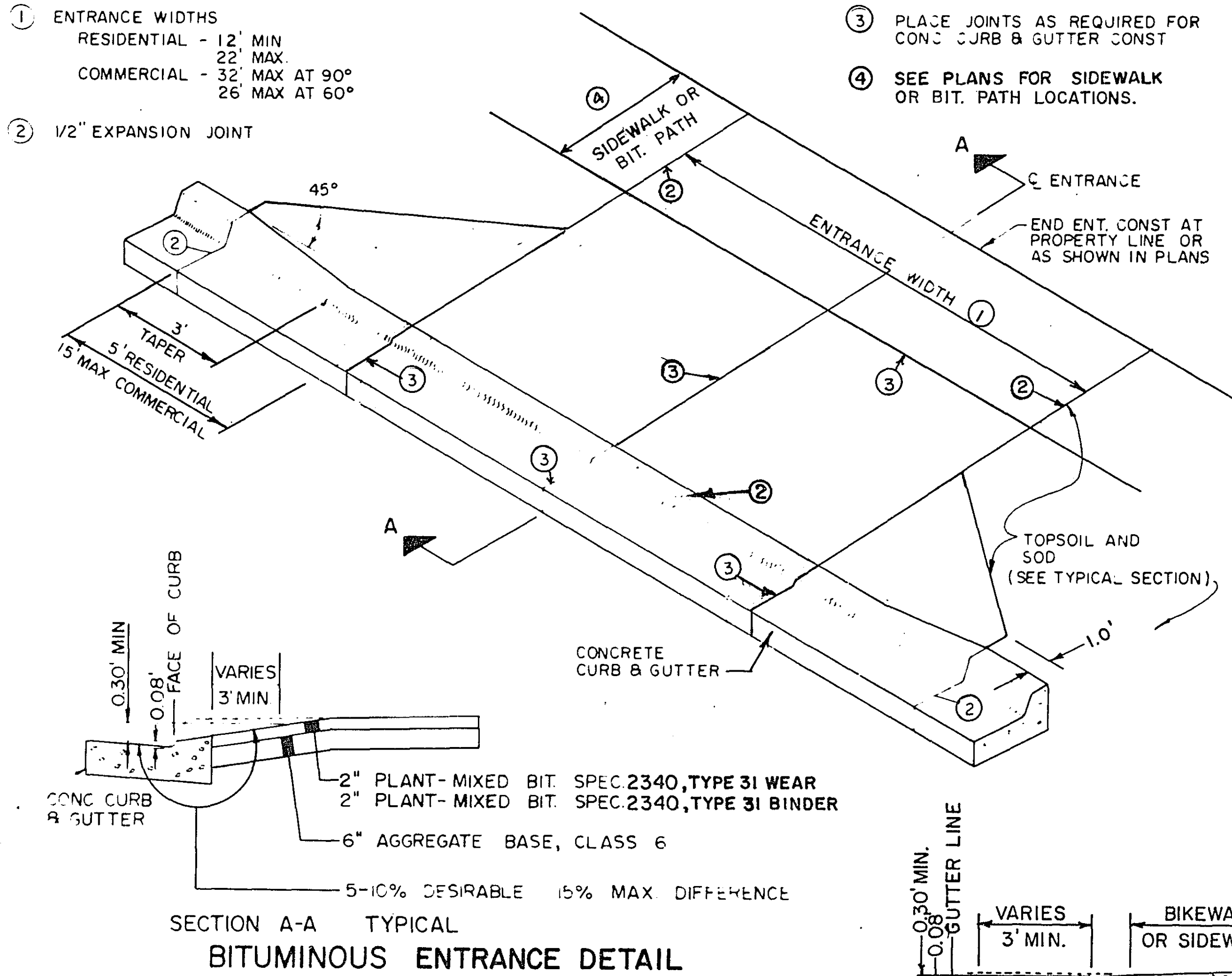
RELOCATE HYDRANT CHART			
FROM STA. 160+11 RT. 39'		TO STA. 159+75 RT. 34'	
FROM STA. 161+03 LT. 36'		TO STA. 160+95 LT. 47'	
FROM STA. 162+05 RT. 41'		TO STA. 162+29 RT. 45'	

REMOVALS & SAWING									
STATION	LOCATION	CONC. C & G	CONC. SDWK	CONC. DRIVEWAY PVMT.	CONC. PIPE	SAWING CONC. PVMT.	SAWING BIT. PVMT.		
COUNTY ROAD D									
1-35W ON RAMP	LT.	10 L.F.							
1-35W OFF RAMP	RT.	40 L.F.	100 S.F.						
76+00 TO 78+60	LT. & RT.	260 L.F.					52 L.F.		
S.W. RAD. D & CLEV.	RT.	55 L.F.							
S.E. RAD. D & CLEV.	RT.	55 L.F.	225 S.F.						
79+80 TO 80+80	RT.	100 L.F.		59 S.Y.		30 L.F.			
81+75	RT.						35 L.F.		
82+50	LT. & RT.						40 L.F.		
CLEVELAND AVE.									
160+00	LT. & RT.						52 L.F.		
163+30	RT.						20 L.F.		
162+63	RT.				30 L.F.				
163+90	LT. & RT.						56 L.F.		
TOTALS		520 L.F.	325 S.F.	59 S.Y.	30 L.F.	30 L.F.	255 L.F.		

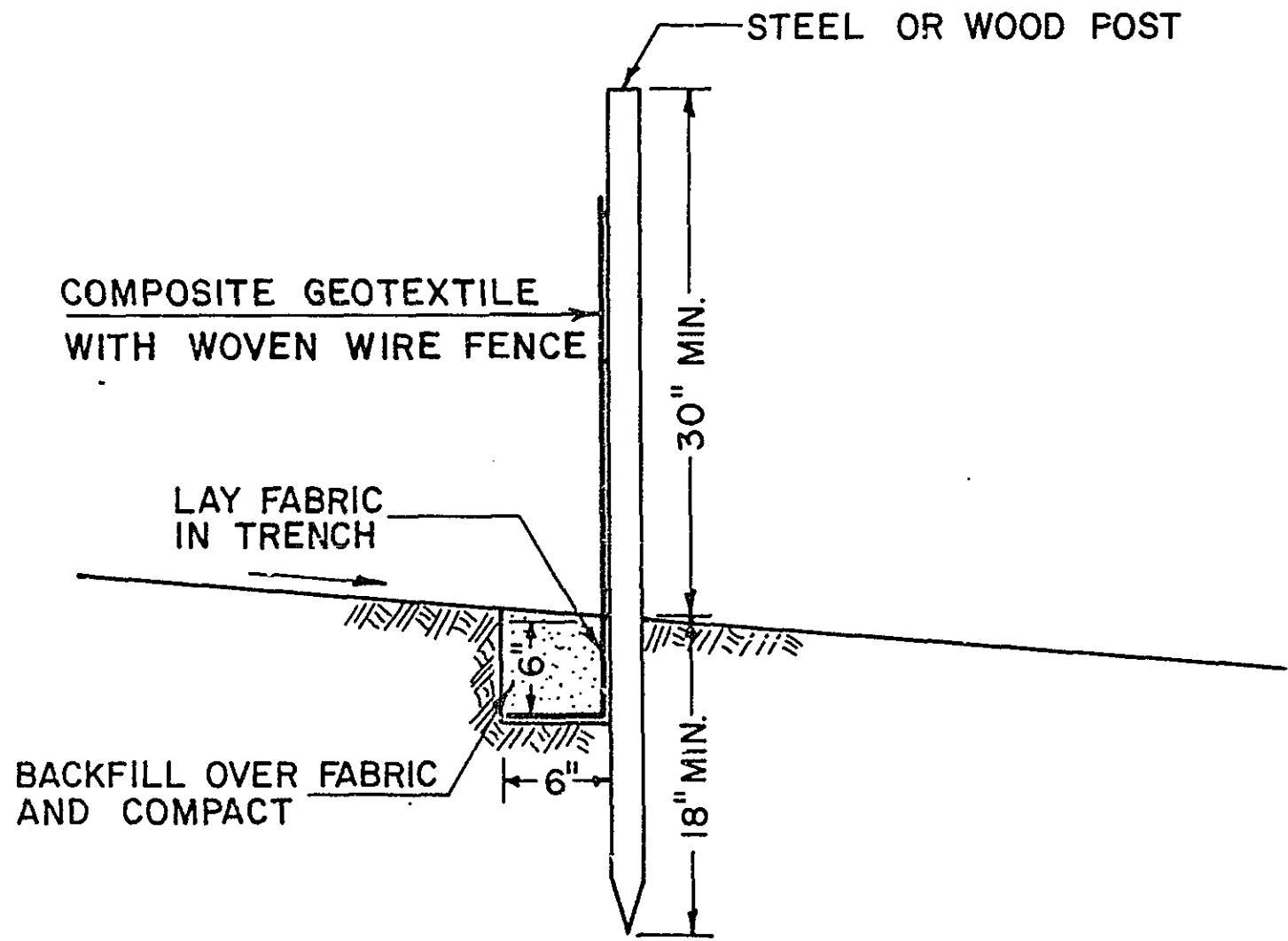
STANDARD DETAIL PLATES	
0005A	SPECIFICATION REFERENCE TO STANDARD PLATES (1988)
3000L	REINFORCED CONCRETE PIPE
3006G	GASKET JOINT FOR R.C. PIPE
4005L	MANHOLE OR CATCH BASIN DESIGN F
4011E	PRECAST CONCRETE BASE
4020G	MANHOLE OR CATCH BASIN
4101C	RING CASTING FOR MANHOLE OR CATCH BASIN
4000J	MANHOLE OR CATCH BASIN DESIGN A
4110E	COVER CASTING FOR MANHOLE
4129F	CATCH BASIN FRAME CASTING
4151B	GRATE CASTING FOR CATCH BASIN
4160D	CURB BOX CASTING FOR CATCH BASIN
4180H	MANHOLE OR CATCH BASIN STEP - TYPE W
7035J	CONCRETE WALK & CURB RETURNS AT ENTRANCES
7036D	PEDESTRIAN CURB RAMP
7100G	CONCRETE CURB & GUTTER DESIGN B
7111H	CURB & GUTTER CONSTRUCTION AT CATCH BASIN
8000I	STANDARD BARRICADES
4010G	CONCRETE SHORT CONE & ADJUSTING RING
4021D	PRECAST CURB OPENING CATCH BASIN
4108F	MANHOLE ADJUSTING RINGS
NOTE: THE ABOVE STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT.	
SEE SHEET NO 21 FOR ADDITIONAL STANDARD PLATES FOR SIGNAL WORK.	



SEE STANDARD PLATE NO. 7036 FOR ADDITIONAL INFORMATION.

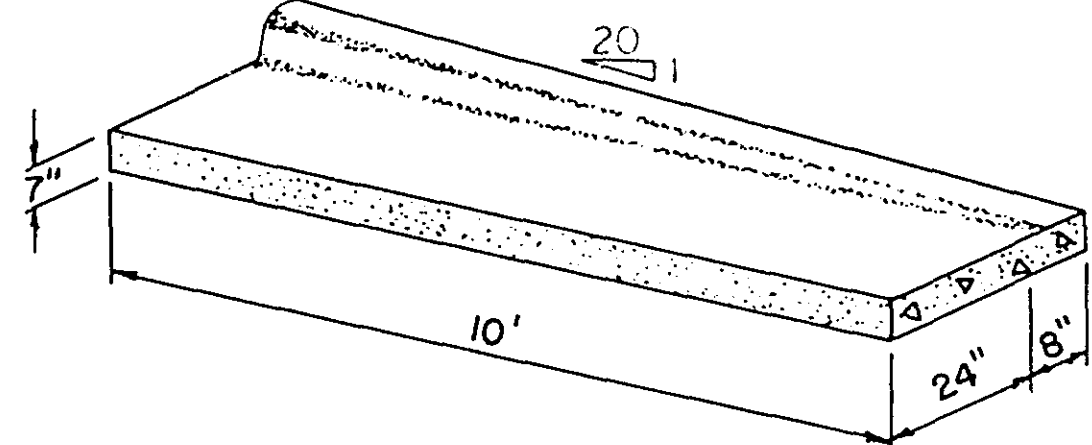


HEAVY DUTY SILT FENCE INSTALLATION



NOTE: SILT FENCE SHALL BE INSTALLED AND PAID FOR IN ACCORDANCE WITH SPEC. 2573

TRANSITION B624 VERTICAL TAPER



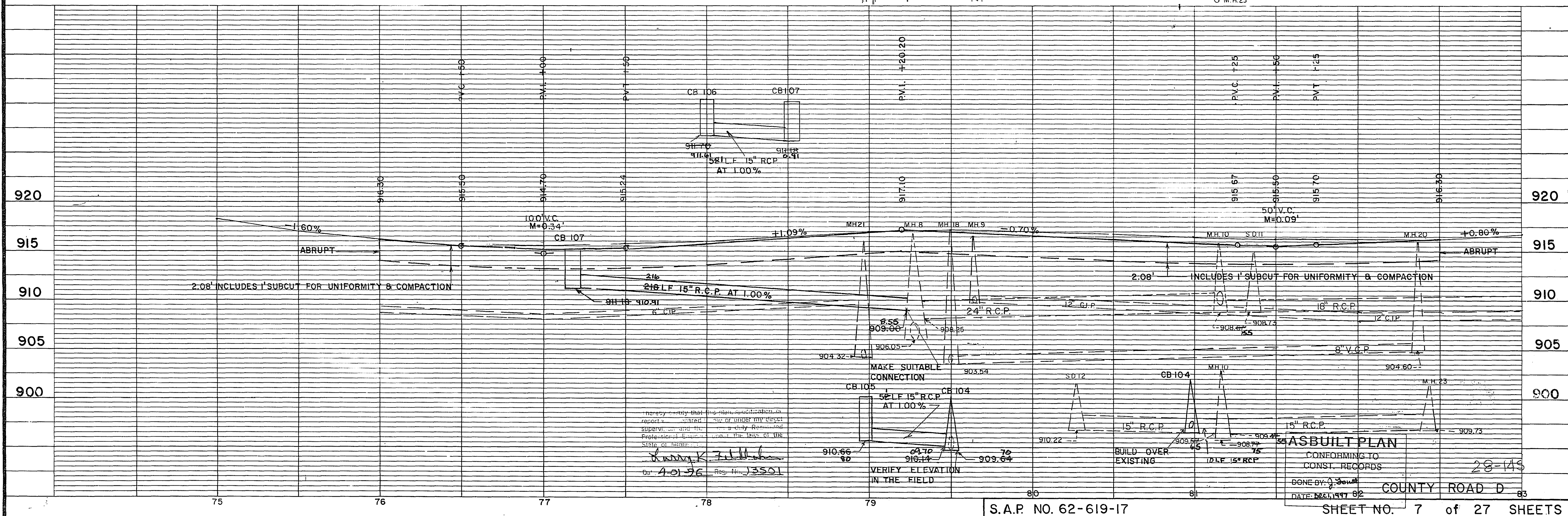
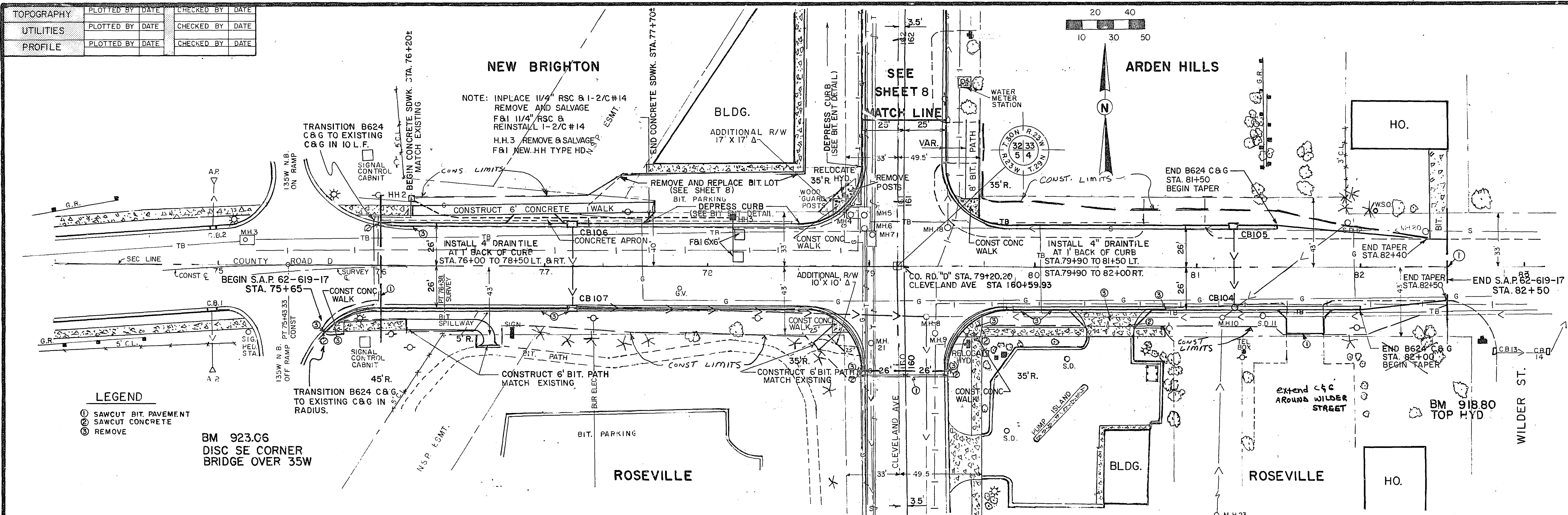
FOR OTHER DIMENSIONS SEE STD. PLATE NO. 7100

TO BE INSTALLED AT: COUNTY ROAD D STA. 81+50 LT. STA. 82+00 RT. CLEVELAND AVE. STA. 162+50 RT. STA. 163+00 LT.

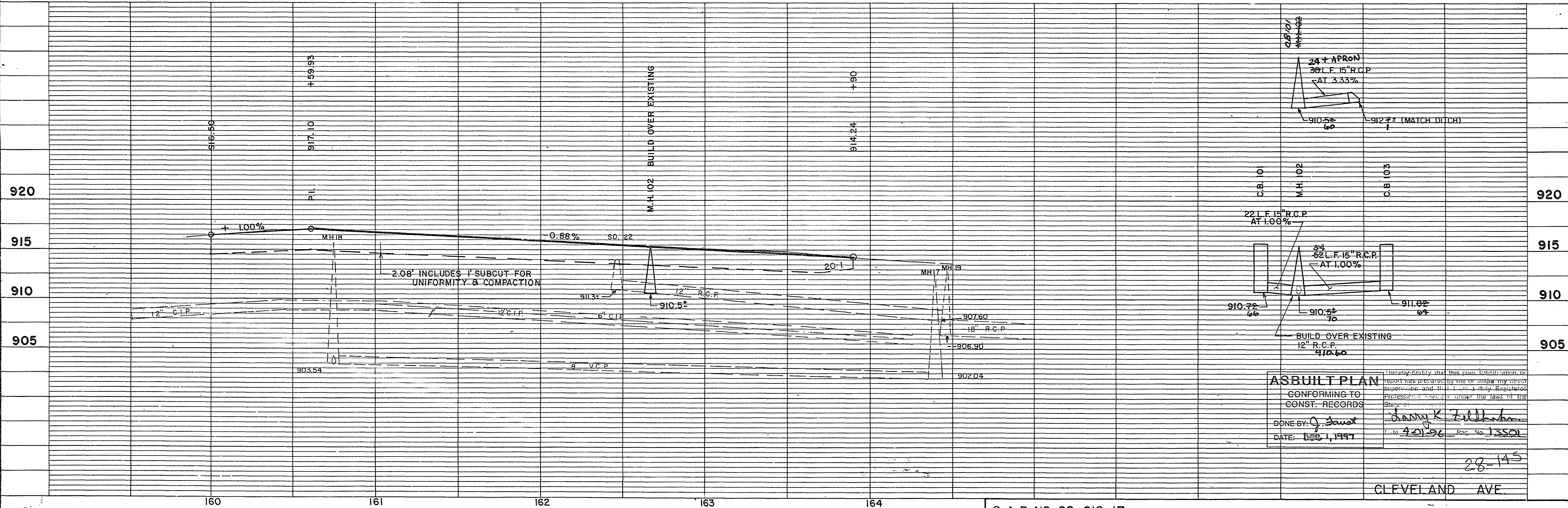
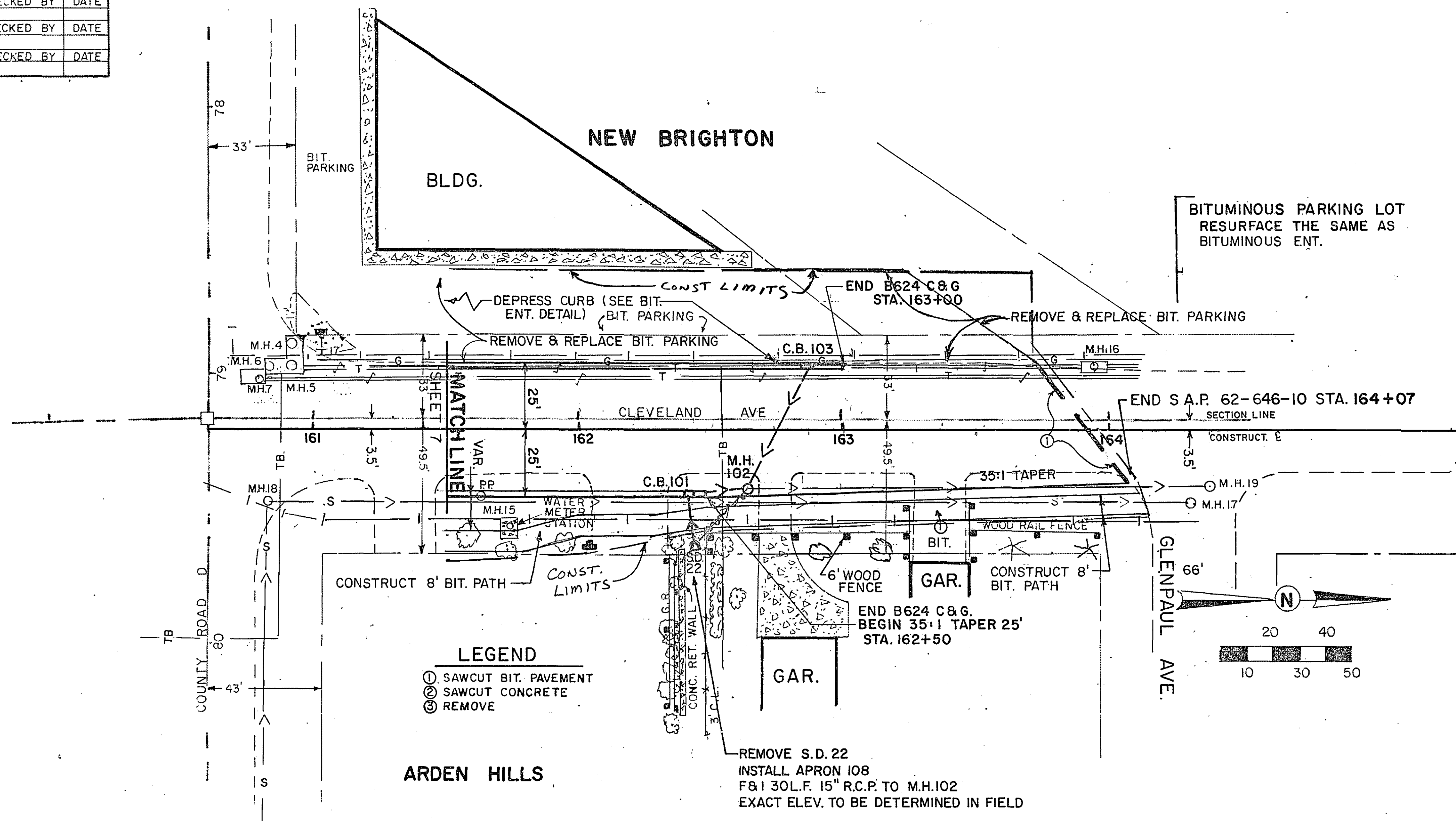
28-145
DETAILS

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.
Anthony K. Fildner
Date 4-01-96 Reg. No. 13501

TOPOGRAPHY	PLOTTED BY	DATE	CHECKED BY	DATE
UTILITIES	PLOTTED BY	DATE	CHECKED BY	DATE
PROFILE	PLOTTED BY	DATE	CHECKED BY	DATE



TOPOGRAPHY	PLOTTED BY	DATE	CHECKED BY	DATE
UTILITIES	PLOTTED BY	DATE	CHECKED BY	DATE
PROFILE	PLOTTED BY	DATE	CHECKED BY	DATE



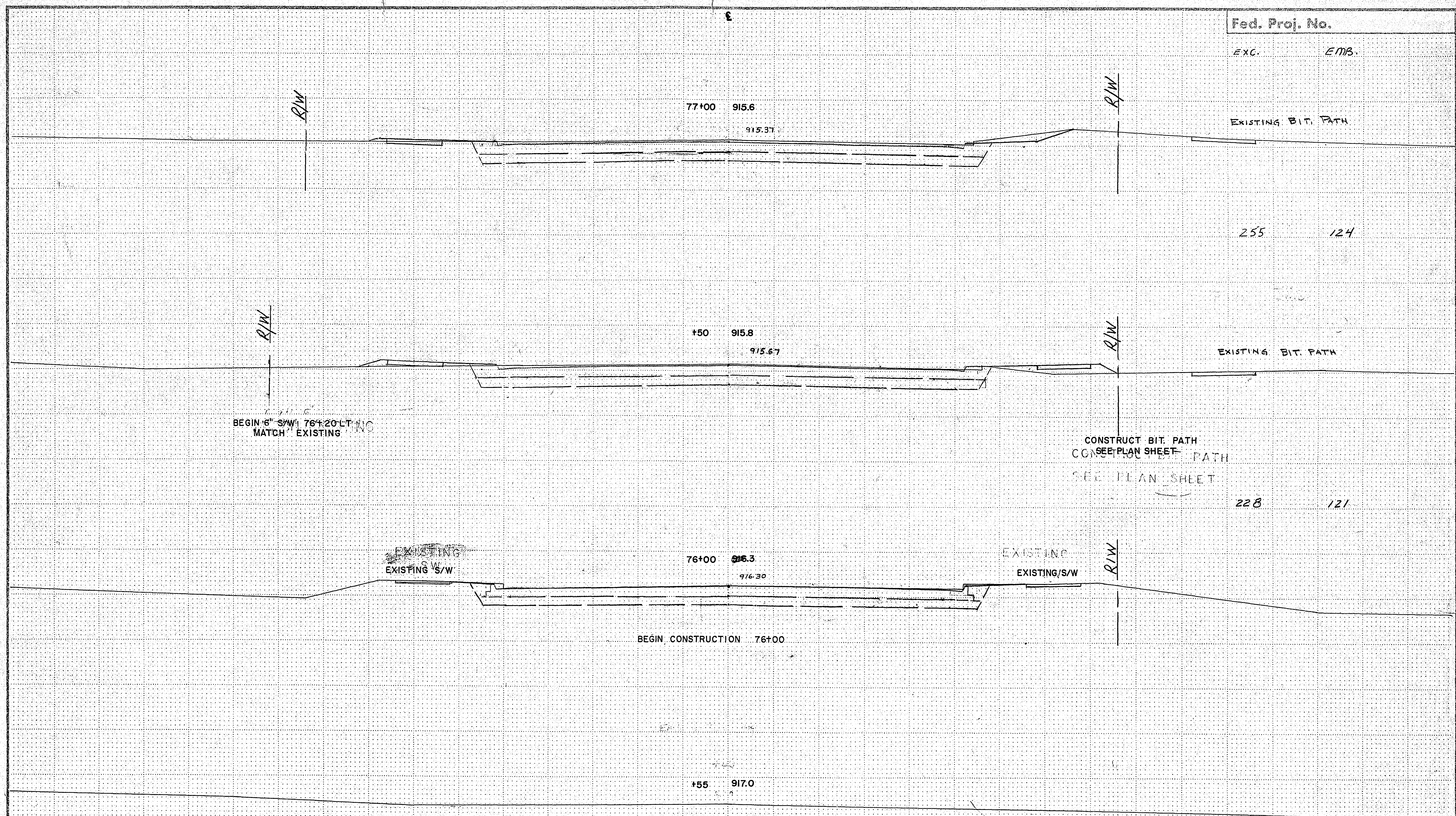
ASBUILT PLAN
 CONFORMING TO
 CONST. RECORDS
 DONE BY: *G. J. Jans*
 DATE: *DEC 1, 1997*

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 *Illinois*.
James K. Zillman
 No. *420196* Exp. No. *13501*

Fed. Proj. No.

EXC.

EMB.



BEGIN 6" S/W 76+20 LT
MATCH EXISTING

CONSTRUCT BIT. PATH
SEE PLAN SHEET
SEE PLAN SHEET

EXISTING
EXISTING S/W

EXISTING
EXISTING S/W

BEGIN CONSTRUCTION 76+00

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State of Minnesota.

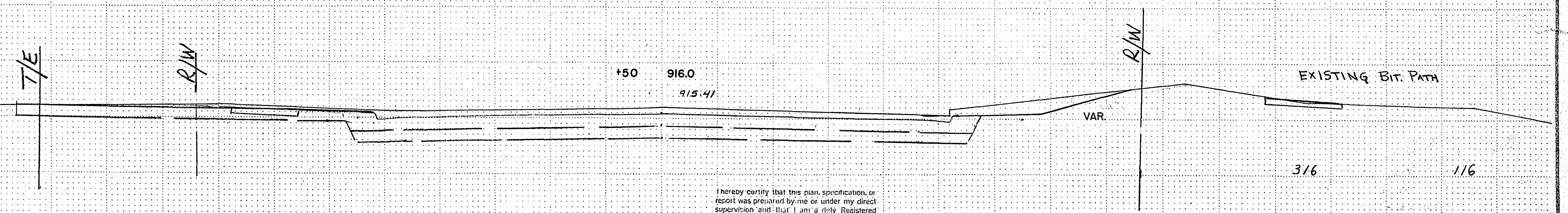
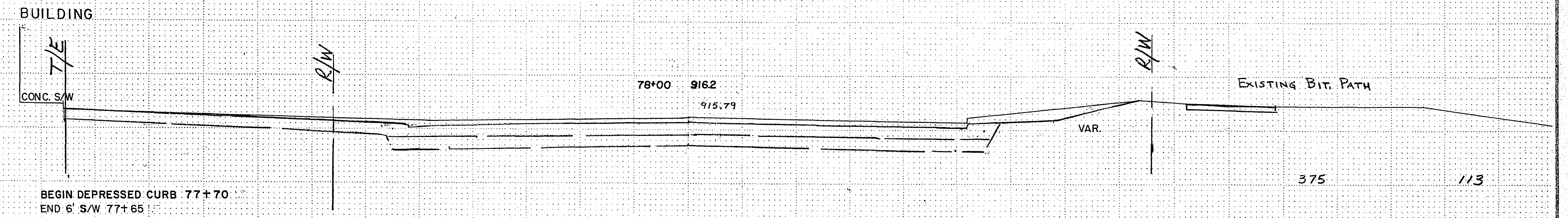
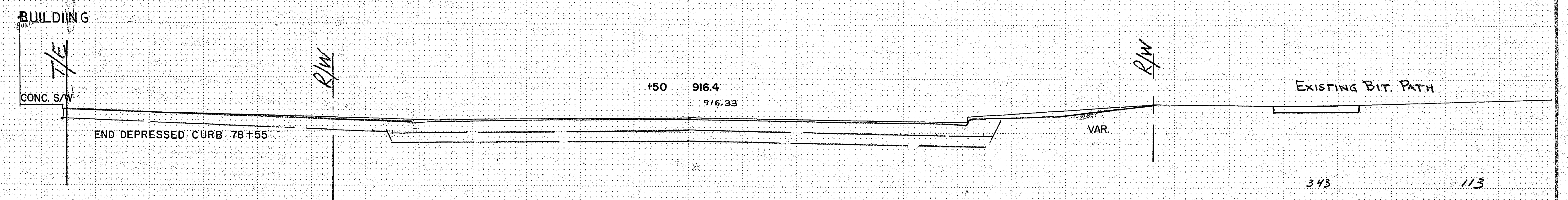
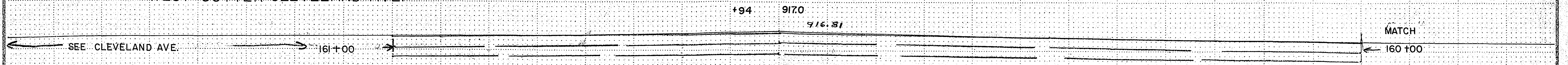
Date _____ Reg. No. _____

COUNTY RD D 28-145

S.A.P. NO. 62-619-17

Sheet No. 9 of 27 Sheets

WEST GUTTER CLEVELAND AVE.



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.
Date _____ Reg. No. _____

EAST GUTTER CLEVELAND AVE.

+47 917.2
916.91

160+00 MATCH

406

179

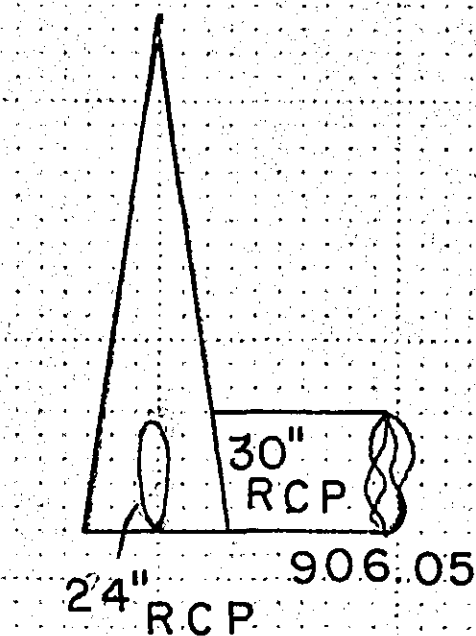
EAST EDGE RD. CLEVELAND AVE.

SEE CLEVELAND AVE.

161+00

+38 917.2
916.97

+33 RT 30'
TC 916.75



CLEVELAND AVE.

+17 917.1
917.06

SEE CLEVELAND AVE.

161+00

160+00 MATCH

79+00 917.1
916.88

SEE CLEVELAND AVE.

161+00

160+00 MATCH

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Date _____ Reg. No. _____

359

149

COUNTY RD D

28-145

S.A.P. NO. 62-619-17

Sheet No. 11 of 27 Sheets

Fed. Proj. No.

EXC

EMB

R/W

+50 916.7
916.20

CONC. ENT.

R/W

272

113

+46 916.7
916.22

30' CONC. ENT.

R/W

R/W

80+00 916.8
916.54

R/W

C&G

336

143

+50 917.2
916.89

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Date _____ Reg. No. _____

COUNTY RD D

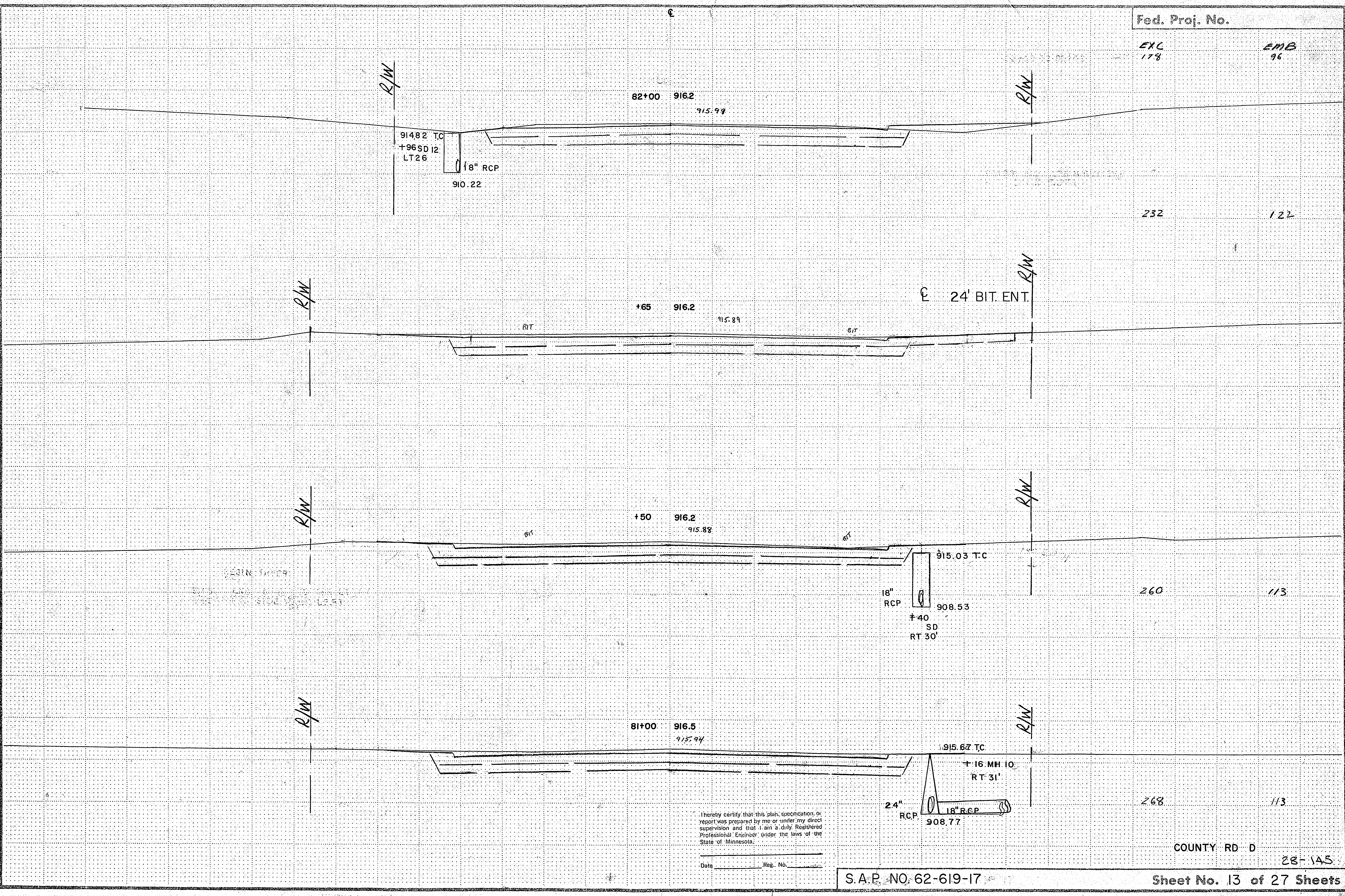
28-145

S.A.P. NO. 62-619-17

Sheet No. 12 of 27 Sheets

EXC
178

EMB
96



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Date _____ Reg. No. _____

S.A.P. NO 62-619-17

COUNTY RD D

28-145

Sheet No. 13 of 27 Sheets

DATE EQUIPMENT JOHN A

Fed. Proj. No.

+14 916.8 EAST GUTTER WILDER STREET

CONC. ENT.

83+00 916.70

+82 916.5 WEST GUTTER WILDER STREET

END CONSTRUCTION STA. 82+50

+50 916.3
916.30

12' BIT. ENT.

CONC. AP.

+46 916.3
916.27

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Date _____ Reg. No. _____

COUNTY RD. D

28-145

S.A.P. NO. 62-619-17

Sheet No. 14 of 27 Sheets

Fed. Proj. No.

EXC.

EMB.

BUILDING

CONC. S/W

R/W

162+00 916.0
915.99

8' BIT. PATH

R/W

249

119

BUILDING

CONC. S/W

R/W

+50 916.5
916.38

8' BIT. PATH

R/W

T/E

301

122

26' GRAVEL ENT.
CLOSE ENT.

+35 916.6
916.50

8' BIT. PATH

R/W

T/E

BEGIN DEPRESSED CURB 161+20

161+00 916.7
916.78

PED. RAMP

BEGIN CONSTRUCTION 160+00

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Date _____ Reg. No. _____

CLEVELAND AVE

28-145

S. A. P. NO. 62-619-17

Sheet No. 15 of 27 Sheets

CON. EQUIPMENT FORM #1

SURVEY

CONST

Fed. Proj. No.

EXC

EMB

+73 915.5

12' CONCRETE ENT.

BUILDING

T/E
CONC. S/W

R/W

+50 915.6

915.60

8' BIT. PATH

R/W

END CURB & GUTTER 162+50

162+50 TO 162+30

218

126

BUILDING

T/E
CONC. S/W

R/W

+43 915.6
915.65

8' BIT. PATH

4' DITCH

INLET
STRUCTURE
912.7 FL

32' GRAVEL ENT.
CLOSE ENT.

162+20 915.9

915.83

8' BIT. PATH

R/W

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State of Minnesota.

Date _____ Reg. No. _____

CLEVELAND AVE.

28-145

S.A.P. NO. 62-619-17

Sheet No. 16 of 27 Sheets

Fed. Proj. No.

EXC

EMB

SURVEY
CONST

164+00 914.1

8' BIT. PATH

139

0

+50 914.8

914.59

8' BIT. PATH

CONC. AP

MATCH EXISTING PARKING AREA 163+50

97

0

+37 914.9

24' BIT. ENT.

914.7

GA.

163+00 915.2

915.03

8' BIT. PATH

CONC.

END CURB & GUTTER 163+00

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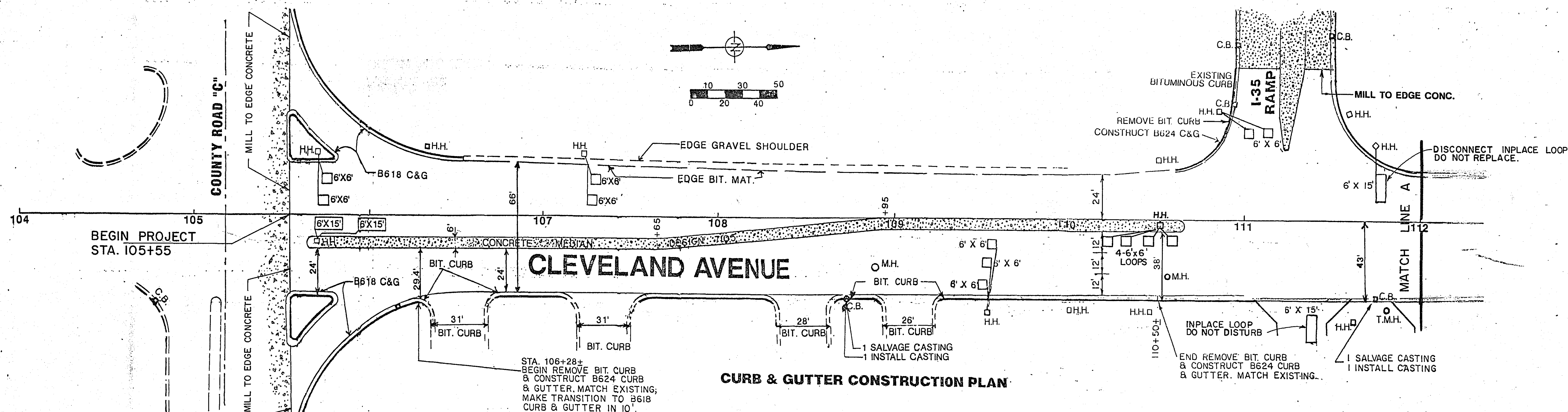
Date _____ Reg. No. _____

217 CLEVELAND AVE. 118

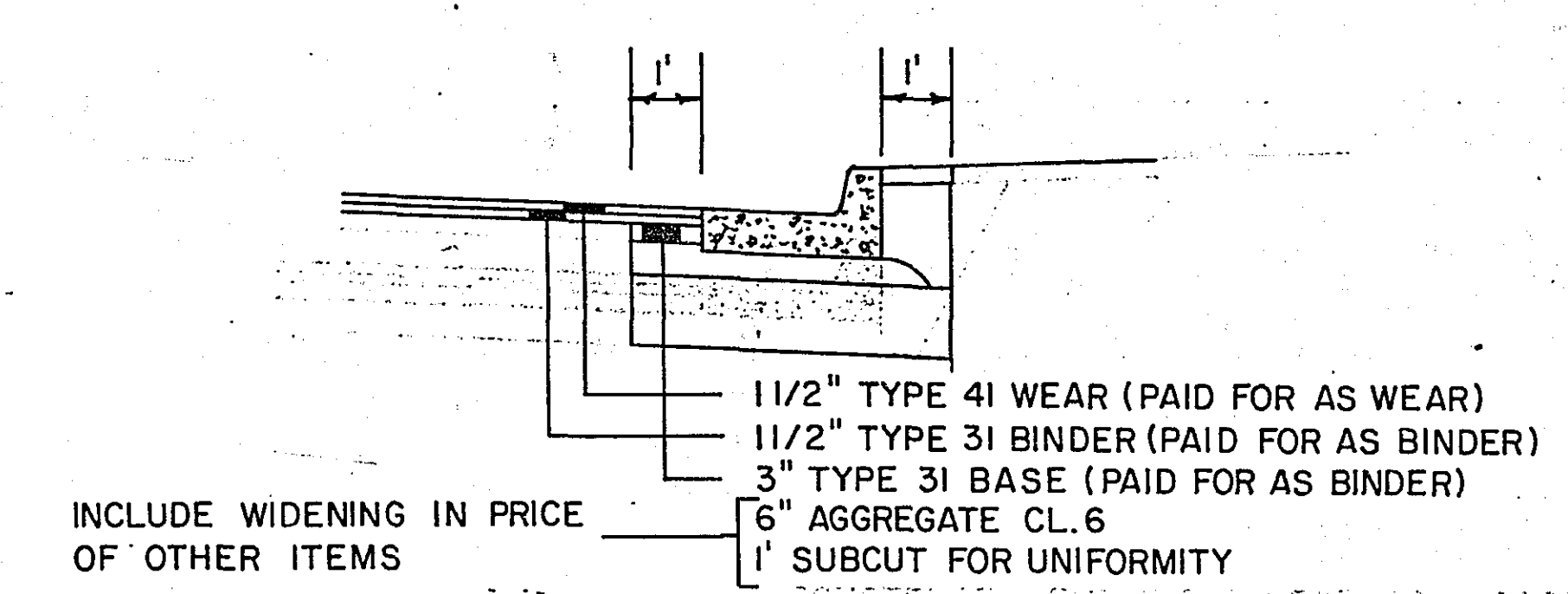
28-145

S.A.P. NO. 62-619-179-17

Sheet No. 17 of 27 Sheets

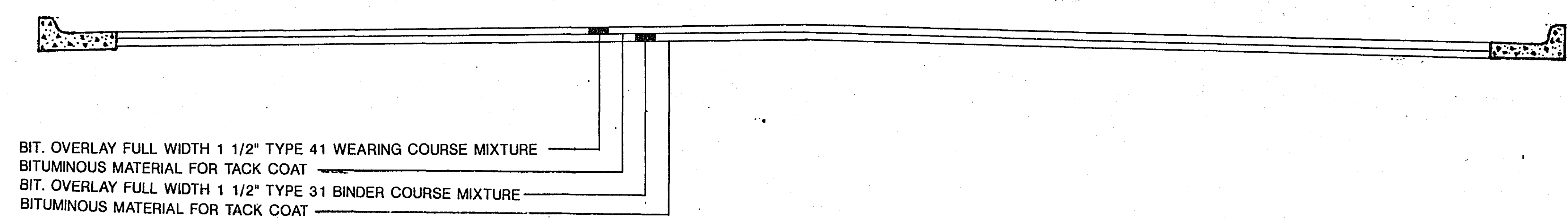


CURB & GUTTER CONSTRUCTION PLAN



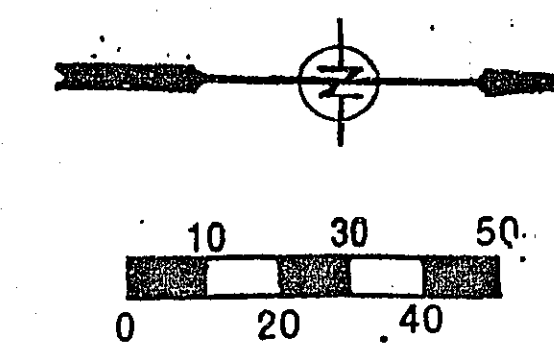
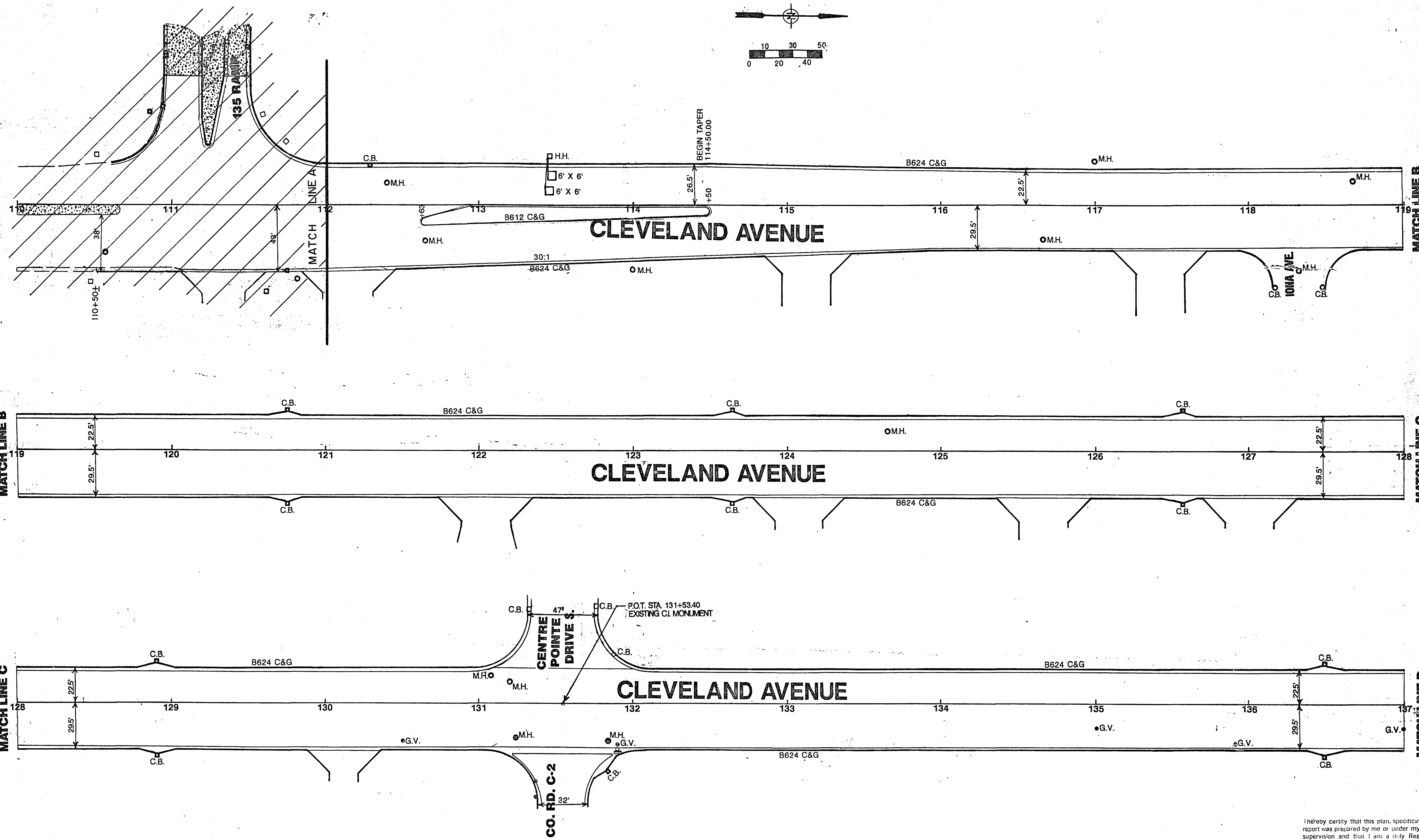
**CURB & GUTTER CONSTRUCTION
STA. 106+28± TO STA. 110+50±**

FULL WIDTH MILLING - 3" AVERAGE DEPTH

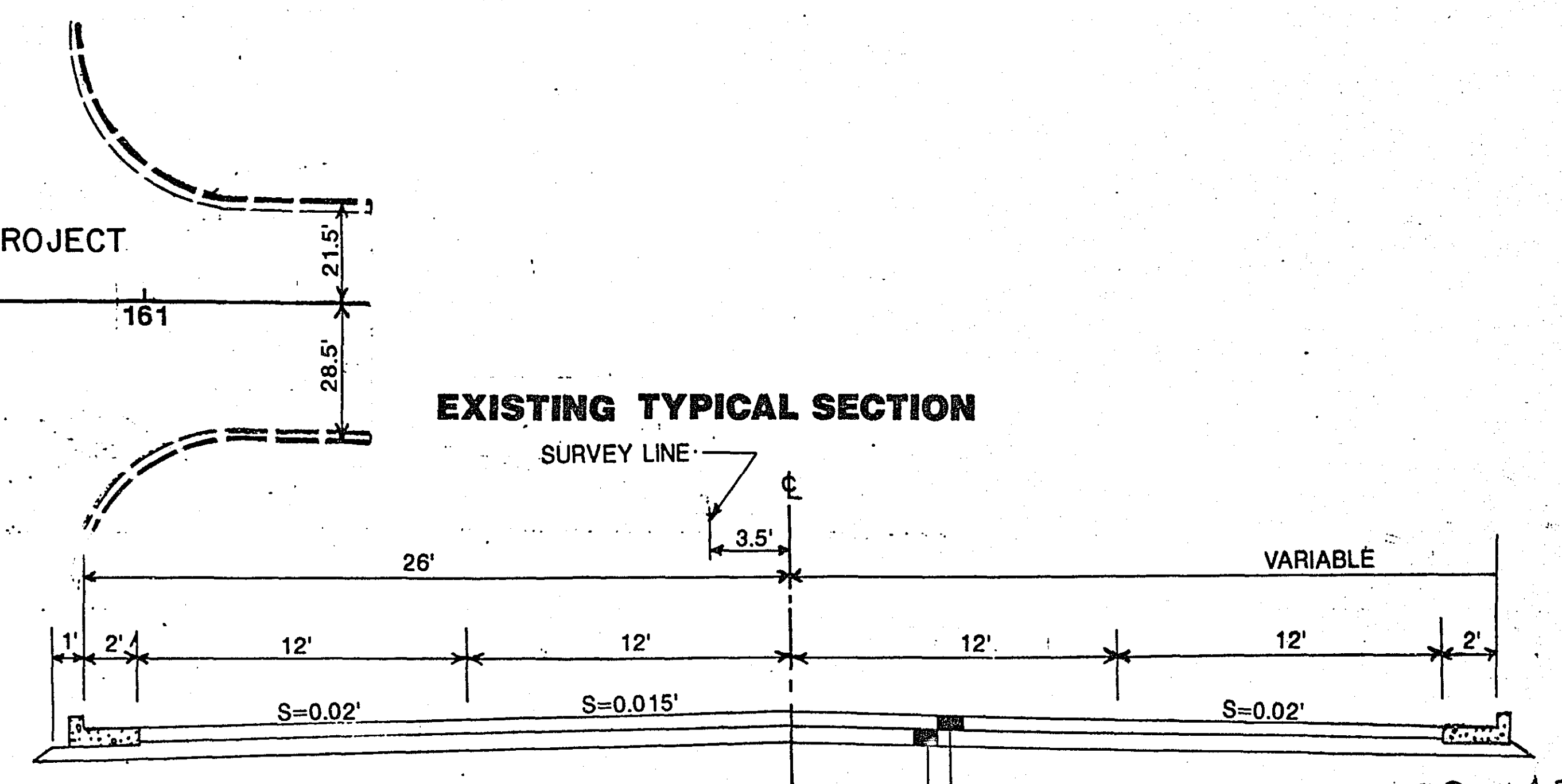
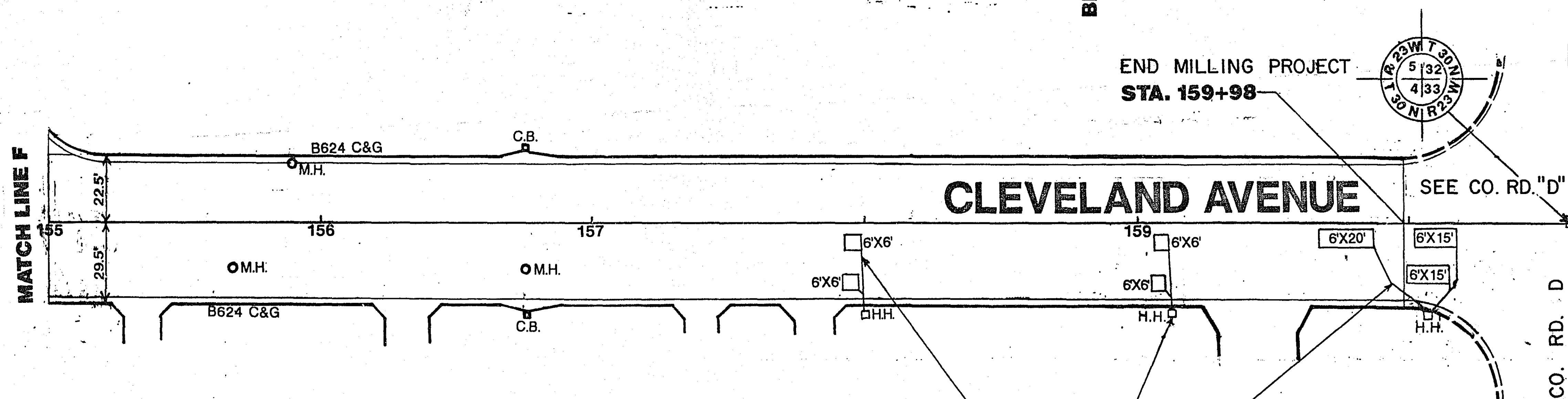
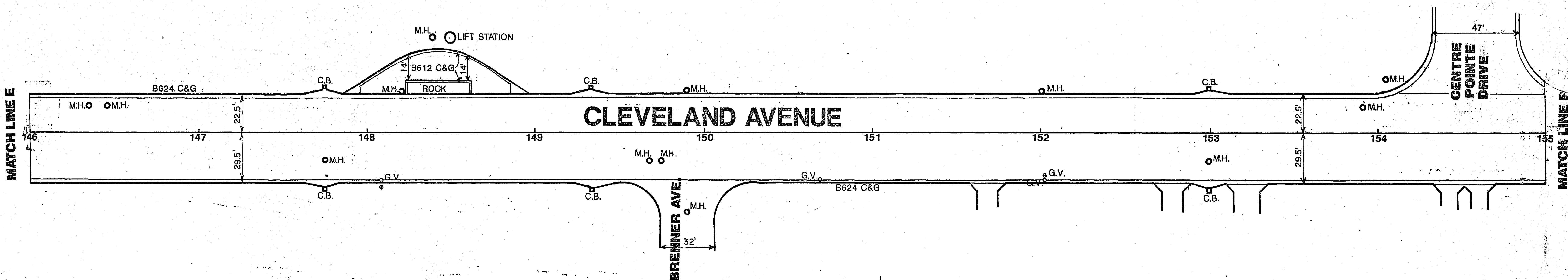
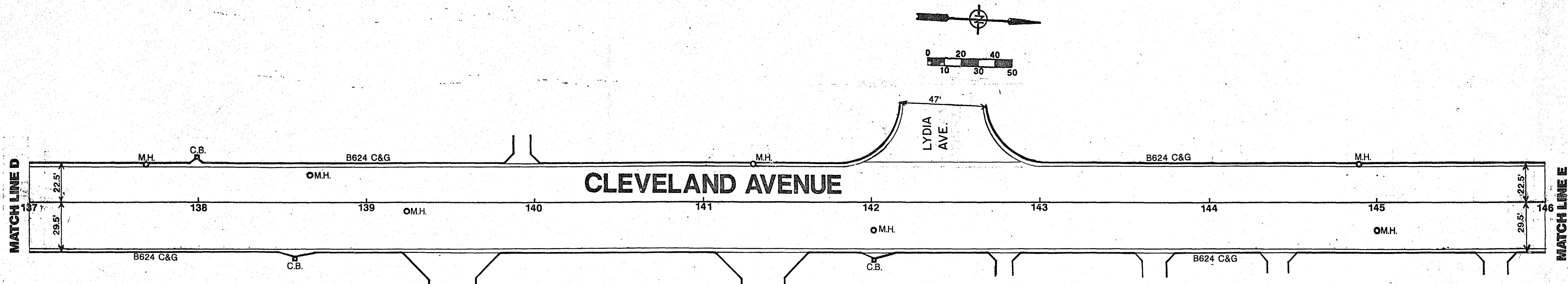


BIT. OVERLAY FULL WIDTH 1 1/2" TYPE 41 WEARING COURSE MIXTURE
BITUMINOUS MATERIAL FOR TACK COAT
BIT. OVERLAY FULL WIDTH 1 1/2" TYPE 31 BINDER COURSE MIXTURE
BITUMINOUS MATERIAL FOR TACK COAT

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.
Harry K. Fuld
Date 4-21-96 Reg. No. 13501



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.
Larry K. Fulk
 Date 4-01-96 Reg. No. 13501



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.
Randy K. Feldman
 Date 4-01-96 Reg. No. 13501

PROPOSED LOOP
 CONSTRUCTION WITH
 SIGNAL SYSTEM A

ORIGINALLY CONSTRUCTED *8" AGGREGATE BASE, CLASS 5
 UNDER S.A.P. 62-646-04 BETWEEN STA. 144+00 AND 150+00

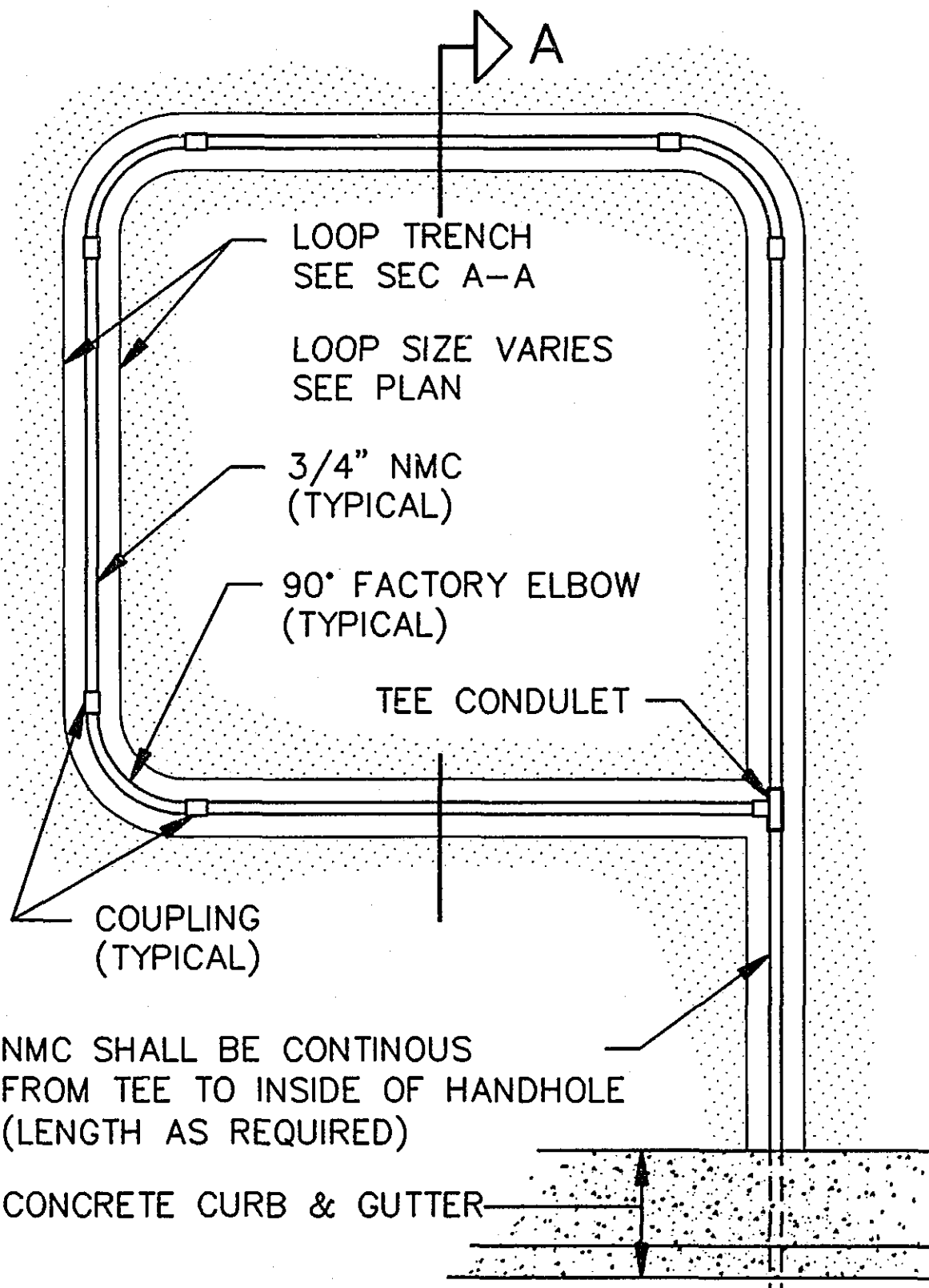
1" PLANT-MIXED BIT, SURFACE SPEC. 2361 WEAR
 2" PLANT-MIXED BIT, SURFACE SPEC. 2341 BINDER
 3" PLANT-MIXED BIT, SURFACE SPEC. 2331 BASE
 6" AGGREGATE BASE, CLASS 5

BITUMINOUS MILL & OVERLAY PLAN

S.A.P. NO. 62-646-10

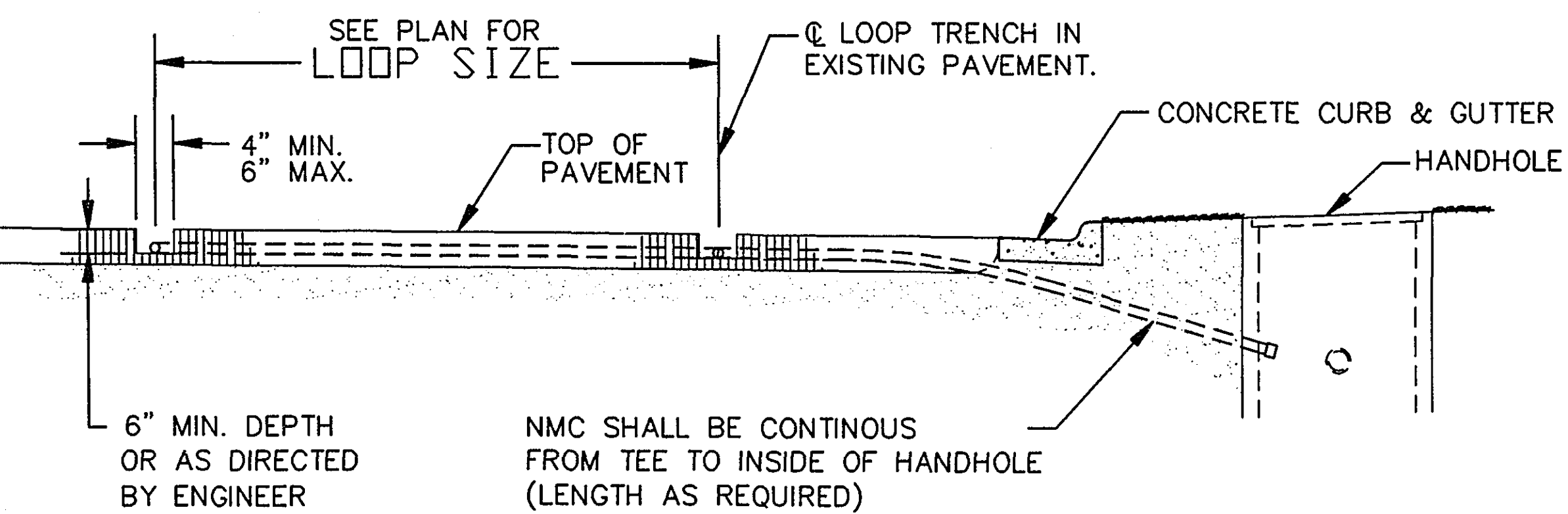
CLEVELAND AVENUE PLAN
 SHEET 20 OF 27 SHEETS

NMC LOOP DETECTOR DETAIL



- NOTES:
1. SEE SPECIAL PROVISIONS FOR REQUIRED CONDUCTORS, SPLICE KITS AND ACCEPTANCE PARAMETERS.
 2. THE NON-METALLIC CONDUIT (NMC) AND FITTINGS SHALL BE SCHEDULE 40 HEAVY WALL RIGID POLYVINYL CHORIDE (PVC), SEE SPEC.
 3. ALL SLACK MUST BE REMOVED FROM LOOP DETECTOR CONDUCTORS WITHIN THE NMC.
 4. LOOP DETECTOR CONDUCTORS (1/C #14) SHALL BE TWISTED THREE TURNS PER FOOT FROM THE NMC TEE CONDULET TO THE HANDHOLE.
 5. ATTACH A FERROUS METAL ITEM TO THE INTERIOR OF THE TEE CONDULET COVER.
 6. ALL CONDUIT SHALL SLOPE TO THE HANDOLE FOR DRAINAGE.
 7. CONDUIT TO THE HANDHOLE MAY BE PLACED WITHIN THE SAME TRENCH.
 8. NO SPLICES ALLOWED IN CONDUIT OR TEE CONDULET.
 9. NUMBER OF TURNS OF LOOP WIRE IN EACH LOOP SHALL BE 4 UNLESS OTHERWISE DIRECTED.

PLAN VIEW



- NOTES:
- THE FOLLOWING NOTES SHALL APPLY WHERE PVC LOOPS ARE INSTALLED IN EXISTING PAVEMENT.
1. ACHIEVE A MINIMUM 50mm VERTICAL EDGE ON ALL CUTS.
 2. AN AIR COMPRESSOR UNIT IS REQUIRED FOR REMOVING ALL LOOSE MATERIAL FROM THE LOOP TRENCH PRIOR TO TACK COAT.
 3. BOTTOM AND EDGES OF LOOP TRENCH SHALL BE THOROUGHLY COVERED WITH TACK. (EMULSIFIED ASPHALT - MN/DOT SPEC. 2357.2A)
 4. USE TYPE 41 WEARING COURSE FOR LOOP TRENCH BACKFILL. (TYPE 41WEA50055X OR Y)
 5. DO NOT USE PETROLEUM DISTILLATES AS A RELEASE AGENT.
 6. COMPACTION SHALL BE OBTAINED BY THE ORDINARY COMPACTION METHOD. A MINIMUM OF TWO LIFTS SHALL BE USED TO EXCLUDE DAMAGE TO PVC.
 7. CREATE AN OVERFILL OF 1/4" TO 1/2" OVER EXISTING PAVEMENT SURFACE.
 8. APPLY A COAT OF TACK OVER THE FINAL ROADWAY SURFACE. IF UNDER TRAFFIC, SPRINKLE WITH SAND TO PREVENT TRACKING AND SPRAYING.

SECTION A-A

ABBREVIATIONS

- | | |
|--------------|--|
| 3-1 (e.g.) | -SIGNAL HEAD, PHASE "3", NO. "1" |
| BL | -BLUE |
| BLK | -BLACK |
| BLK/WH | -BLACK WITH WHITE TRACER |
| BL/BLK | -BLUE WITH WHITE TRACER |
| BR. GR. | -BARE GROUND |
| CH. SW. | -CHECK SWITCH |
| CLR | -CLEAR |
| D2-1 (e.g.) | -DETECTOR, PHASE "2", NO."1" |
| DNL | -DOWNLIGHT |
| DWK | -DON'T WALK |
| EQG | -EQUIPMENT GROUND |
| EVP | -EMERGENCY VEHICLE PRE-EMPTION |
| F&I | -FURNISH AND INSTALL |
| FL | -FLASH/FLASHING |
| G | -GREEN |
| GLTA | -GREEN LEFT TURN ARROW |
| GRN | -GREEN |
| GRTA | -GREEN RIGHT TURN ARROW |
| GR.R. | -GROUND ROD |
| GTHA | -GREEN THROUGH ARROW |
| G/BLK | -GREEN WITH BLACK TRACER |
| HPS | -HIGH PRESSURE SODIUM |
| H.H. | -HANDHOLE |
| IMC | -INTERMEDIATE METAL CONDUIT |
| J.B. | -JUNCTION BOX |
| LTA | -LEFT TURN ARROW |
| LUM | -LUMINAIRE |
| MV | -MERCURY VAPOR |
| NEU | -NEUTRAL |
| NMC | -NON-METALLIC CONDUIT |
| O | -ORANGE |
| O/BLK | -ORANGE WITH BLACK TRACER |
| P1-1 (e.g.) | -PEDESTRIAN INDICATION, PHASE "1", NO. "1" |
| PB | -PUSH BUTTON |
| PB2-1 (e.g.) | -PUSH BUTTON, PHASE "2", NO. "1" |
| PED | -PEDESTRIAN |
| P.E.C. | -PHOTOELECTRIC CELL |
| R | -RED |
| R&S | -REMOVE AND SALVAGE |
| RSC | -RIGID STEEL CONDUIT |
| RTA | -RIGHT TURN ARROW |
| R/BLK | -REN WITH BLACK TRACER |
| SPR | -SPARE |
| STA | -STATION |
| ST. LHT. | -STREET LIGHT |
| SW | -SWITCH |
| SWD | -SWITCHED |
| S.O.P. | -SOURCE OF POWER |
| TDW | -TELEPHONE DROP WIRE |
| WH | -WHITE |
| WH/BLK | -WHITE WITH BLACK TRACER |
| WLK | -WALK |
| YEL | -YELLOW |
| YLTA | -YELLOW LEFT TURN ARROW |
| YRTA | -YELLOW RIGHT TURN ARROW |
| YTHA | -YELLOW THROUGH ARROW |

FOR PLANS AND UTILITIES SYMBOLS SEE MN/DOT TECHNICAL MANUAL.

STANDARD PLATES

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT

PLATE NO.	DESCRIPTION
* 8110 C	TRAFFIC SIGNAL BRACKETING (POLE MOUNTED)
8111 B	TRAFFIC SIGNAL BRACKETING (PEDESTAL MOUNTED)
8112 C	PEDESTAL FOUNDATION
8113 C	MAGNETIC VEHICLE DETECTOR INSTALLATION
* 8115 C	PEDESTRIAN PUSH BUTTON INSTALLATION
* 8117 F	PRECAST CONCRETE HANDHOLE
8118 C	SERVICE EQUIPMENT & POLE, TRAFFIC CONTROL SIGNALS
8119 C	GROUND MOUNTED CABINET FOUNDATION
* 8120 K	POLE FOUNDATION (PA85 & PA90)
* 8121 D	TRANSFORMER BASE WITH POLE BASE PLATE
8222 C	PEDESTAL AND PEDESTAL BASE
* 8123 D	POLE AND MAST ARM (FOR ALL POLE TYPES)
* 8124 D	MAST ARM SIGNAL HEAD MOUNTS
8126 E	PA100 POLE FOUNDATION
8130 D	SAW CUT LOOP DETECTORS

* STANDARD PLATES APPLICABLE TO THIS PROJECT

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.
Daniel E. Sch
Date 4/25/16 Reg. No. 20452

S.A.P. No.

S.A.P. No. 62-619-17

DETAILS
SYSTEM A

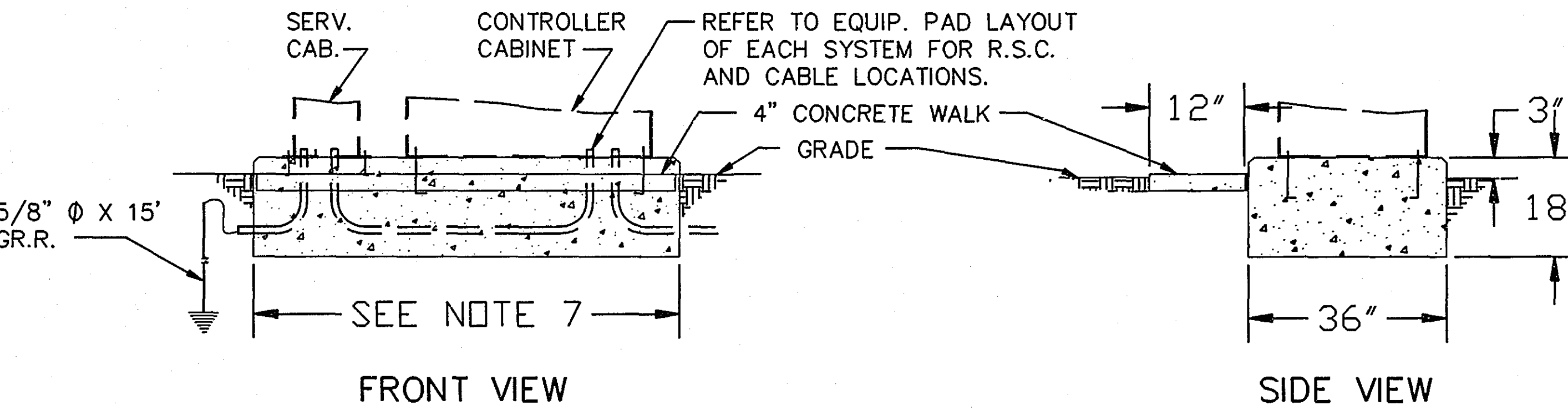
28-145

Sheet No. 21 of 27 Sheets

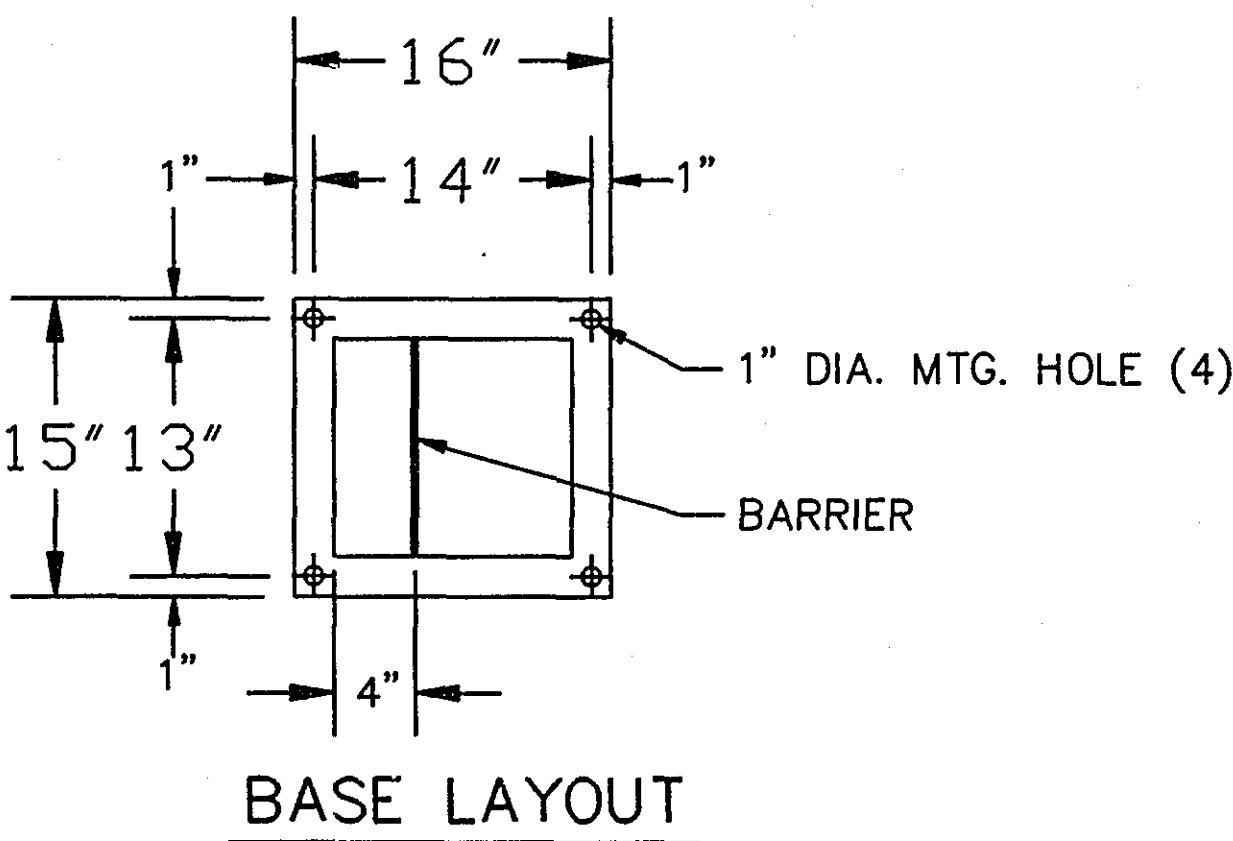
EQUIPMENT PAD FOUNDATION

NOTES:

1. ANCHOR RODS, NUTS AND WASHERS PER MN/DOT 3385 OR APPROVED EQUAL SET AS RECOMMENDED BY CABINET MANUFACTURER (NUMBER, SIZE AND LENGTH OF ANCHOR RODS) SHALL BE AS REQUIRED BY THE CABINET (MANUFACTURER).
2. UPPER PART OF FOUNDATION SHALL BE BEVELED OR CHAMFERED IN A NEAT MANNER AS DIRECTED BY THE ENGINEER IN THE FIELD.
3. TOP OF CONDUITS SHALL BE THREADED AND CAPPED AFTER INSTALLATION (UNTIL CABLES ARE INSTALLED). CONDUIT SHALL PROJECT A MINIMUM OF 2" ABOVE CONCRETE AND SHALL BE LOCATED INSIDE THE CABINET WHERE DIRECTED BY THE ENGINEER BUT SHALL NOT INTERFERE WITH CABINET FUNCTIONS.
4. CONCRETE MIX 3A32 OR EQUAL SHALL BE USED FOR FOUNDATION AND CONCRETE WALK.
5. CONDUITS WHICH HAVE BOTH ENDS TERMINATING WITHIN THE PAD SHALL NOT BE INSTALLED BELOW THE CONCRETE.
6. EXACT LOCATIONS OF CONDUIT WITHIN THE PAD SHALL BE AS DETERMINED BY THE ENGINEER IN THE FIELD.
7. REFER TO EQUIPMENT PAD LAYOUT OF EACH SYSTEM FOR FOUNDATION SIZE, CONDUIT PLACEMENT AND EQUIPMENT TO BE INSTALLED.



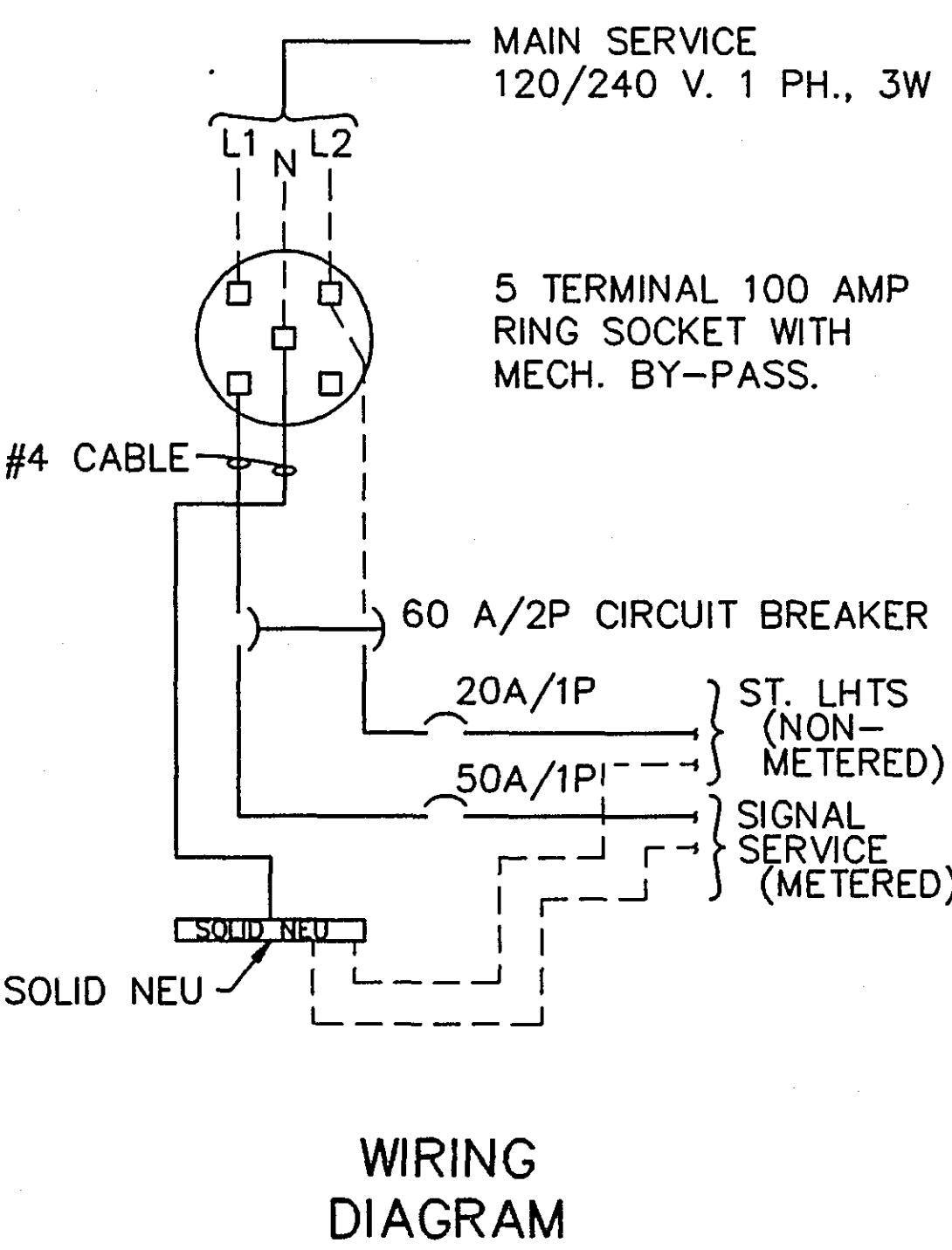
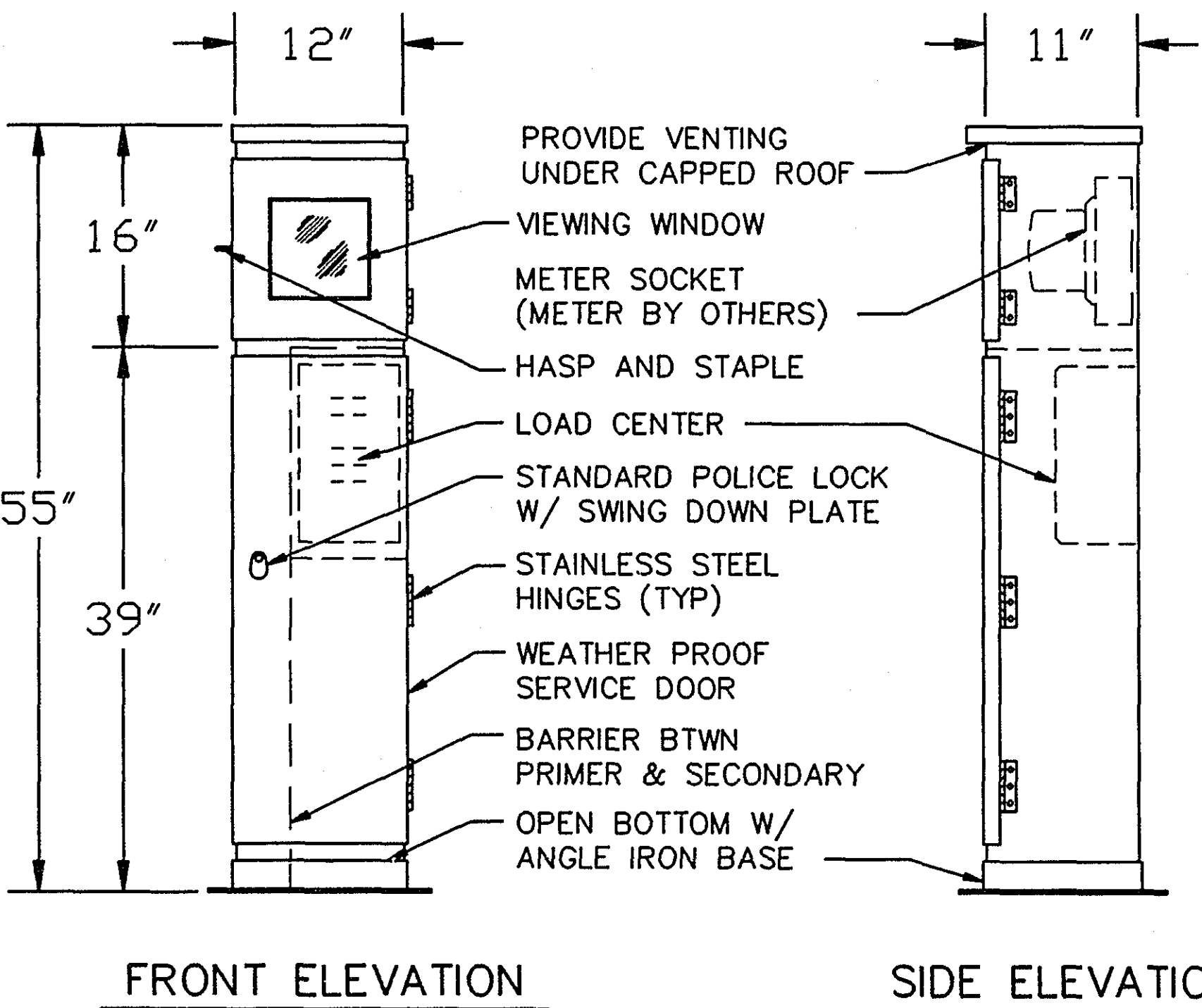
SERVICE CABINET DETAILS



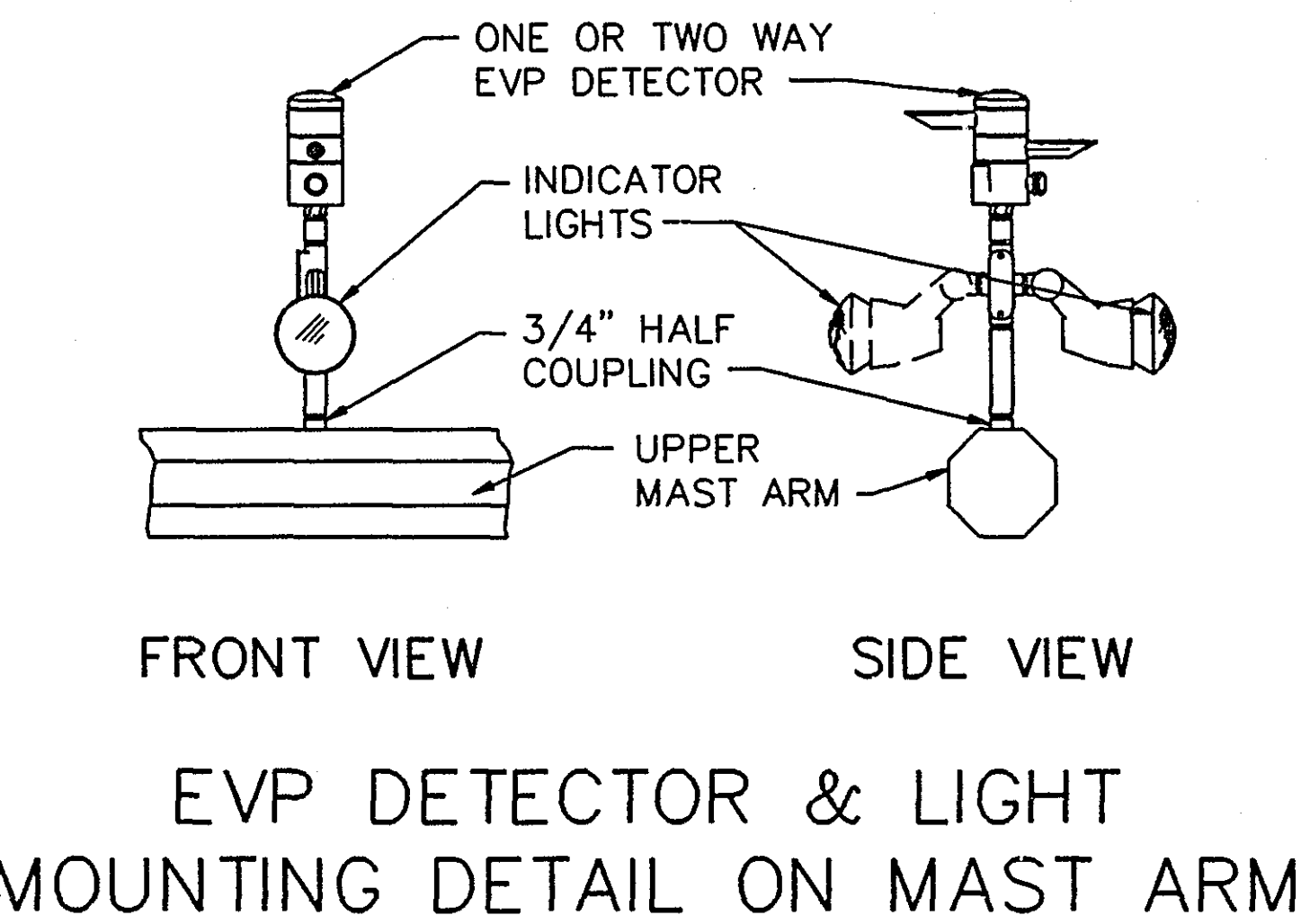
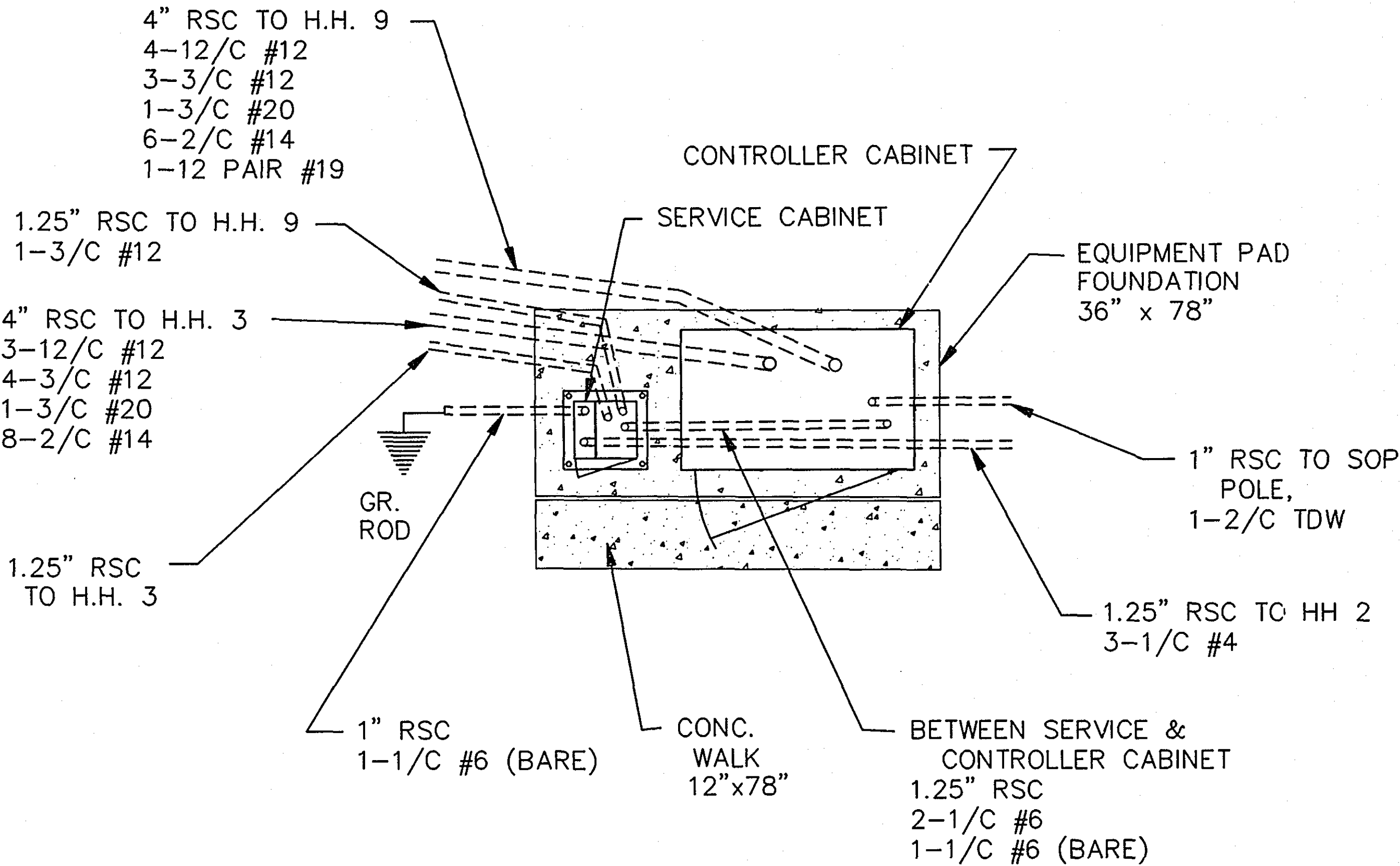
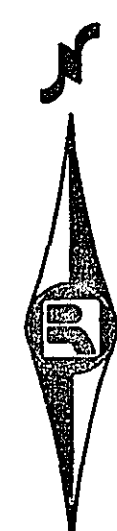
NOTES:

- PEDESTAL SHALL BE FABRICATED FROM 0.125 INCH ALUMINUM WITH WELDED SEAMS FOR USE AS AN OUTDOOR WEATHER PROOF SERVICE.
- DOOR OPENINGS SHALL BE SEALED WITH NEOPRENE GASKET.
- ALL HINGES, HINGE PINS AND LOCKS SHALL BE MADE FROM NON-CORRODING MATERIALS.
- THE VIEWING WINDOW SHALL BE LEXAN MATERIAL - 7" X 7" MIN.
- THE PEDESTAL CABINET SHALL BE PROTECTED INSIDE AND OUT WITH A ANODIC COATING. SEE SPECIAL PROVISIONS.

ANCHOR RODS, NUTS & WASHERS - SEE EQUIPMENT PAD NOTE No. 1.



SERVICE PAD LAYOUT SYSTEM A COUNTY ROAD D & CLEVELAND AVE



EVP DETECTOR & LIGHT
MOUNTING DETAIL ON MAST ARM

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.
Daniel E. Soler
Date 4/25/96 Reg. No. 20052

S.A.P. No.

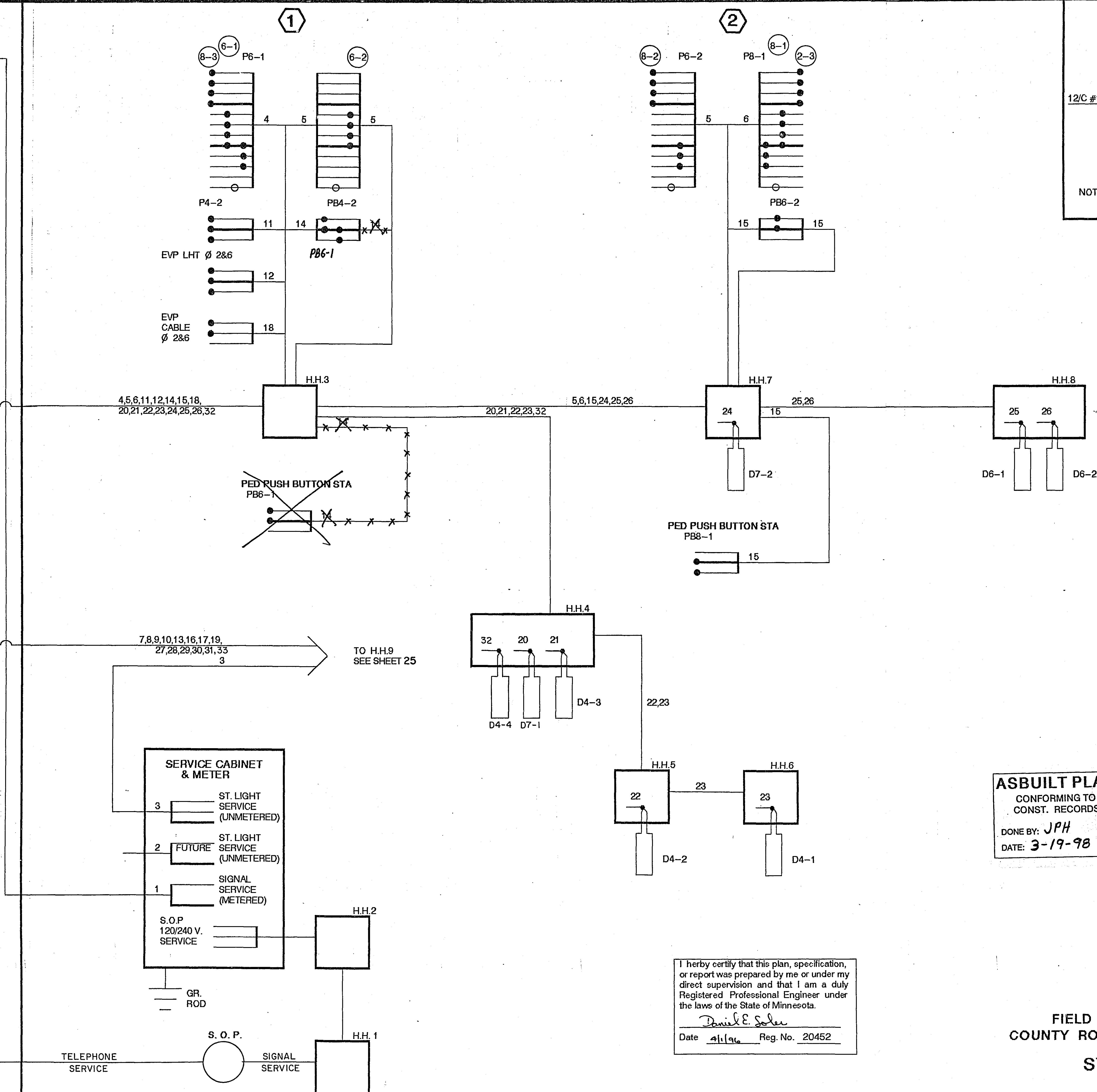
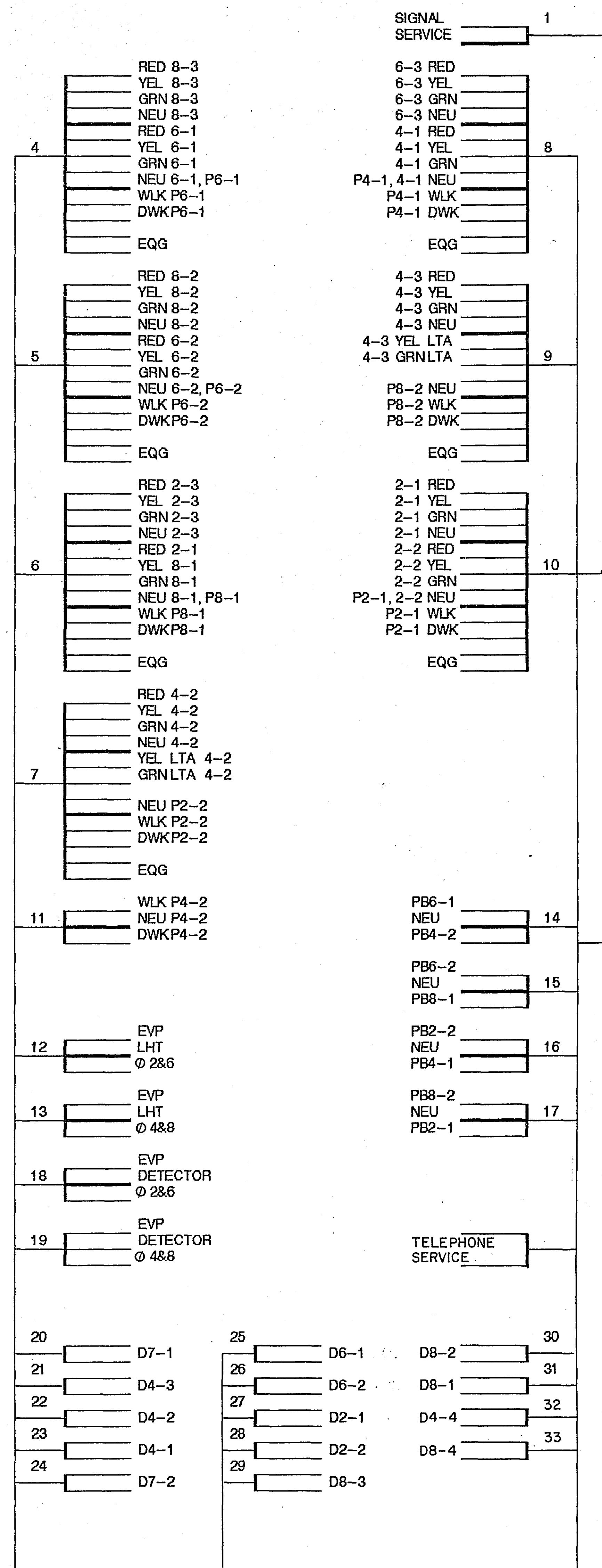
S.A.P. No. 62-619-17

DETAILS
SYSTEM A

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CONTROLLER CABINET



CONDUCTOR COLOR CODING

R	BLK	2-1/C #6
O	WH	-----
BL		2-1/C #10
WH		
R/BLK	R	
O/BLK	WH	3/C #12
BL/BLK	BLK	-----
WH/BLK		
BLK	BLK	2/C #14
BLK/WH	CLEAR	-----
G/BLK		
G	R OR O	
	WH OR YEL	3/C #20
	BL OR BLK	-----

NOTE: ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE.

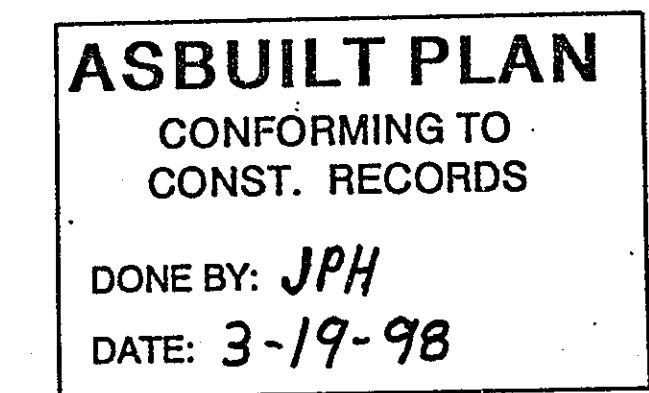
ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: *JPH*
DATE: *3-19-98*

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.

Daniel E. Soler

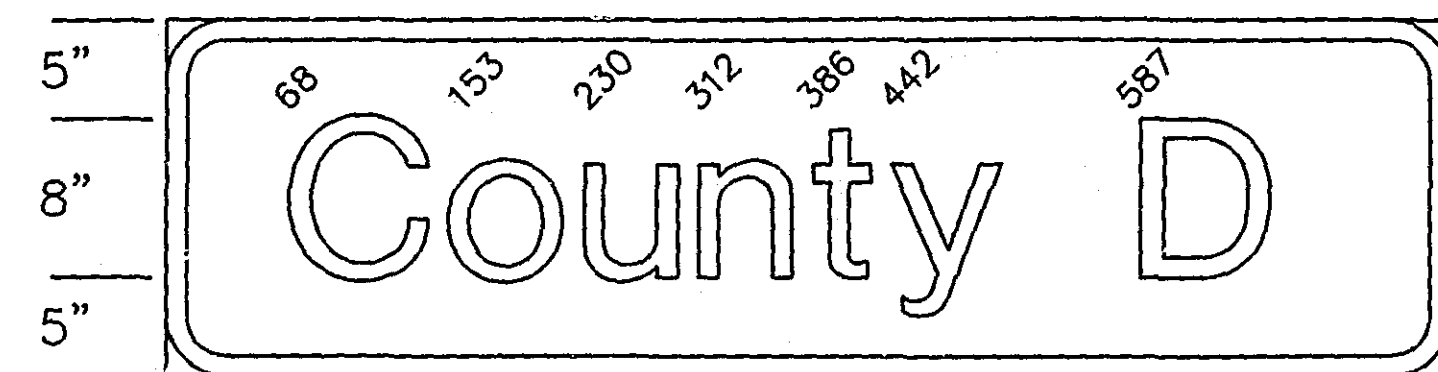
Date 4/1/96 Reg. No. 20452

FIELD WIRING DIAGRAM
COUNTY ROAD D & CLEVELAND AVE
SYSTEM A

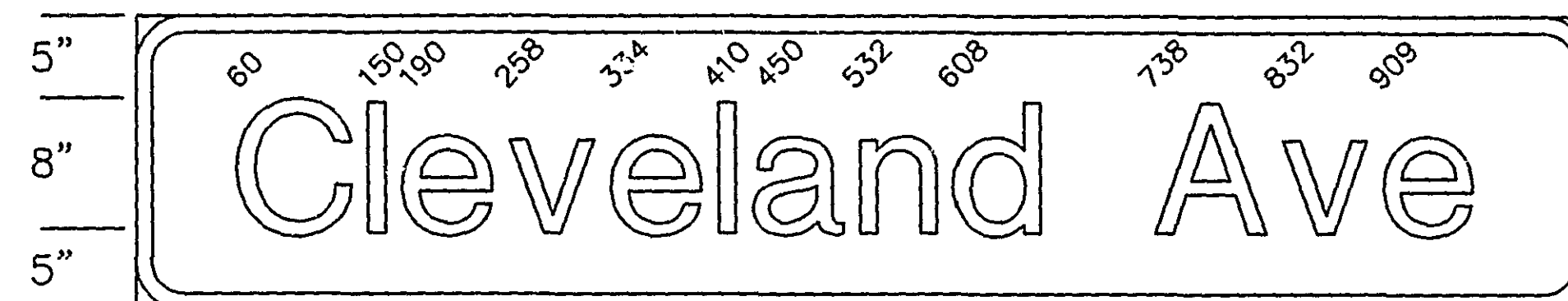


FIELD WIRING DIAGRAM
COUNTY ROAD D & CLEVELAND AVE
SYSTEM A

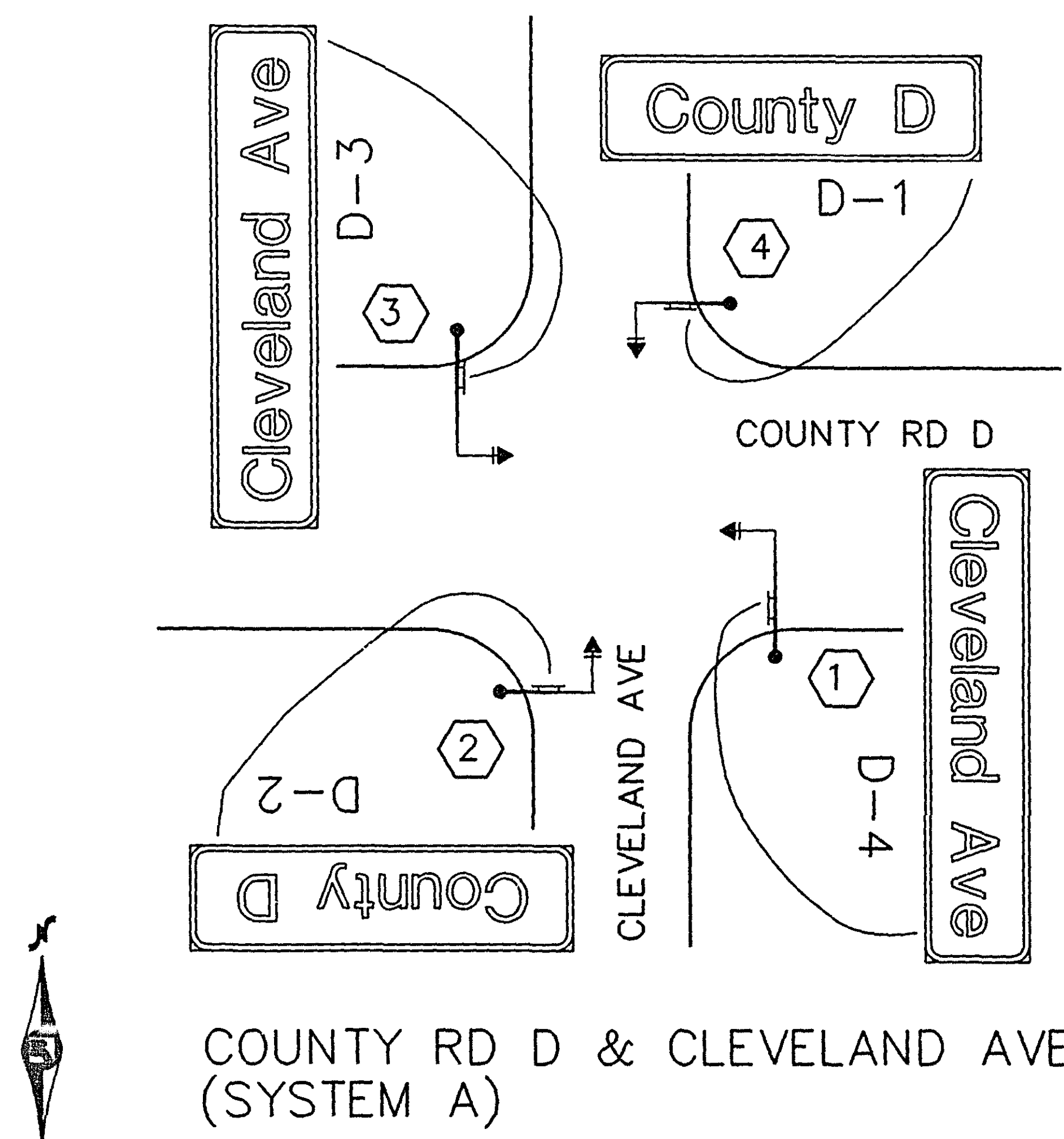
G:\TRAFFIC\SIGPLAN\CRD-CLEV\584010HS.dwg



D-1 & D-2
72" X 18", 3.0 R. 1.0 B
LINE 1 = 58.35" : 8"-6" "E" MOD.

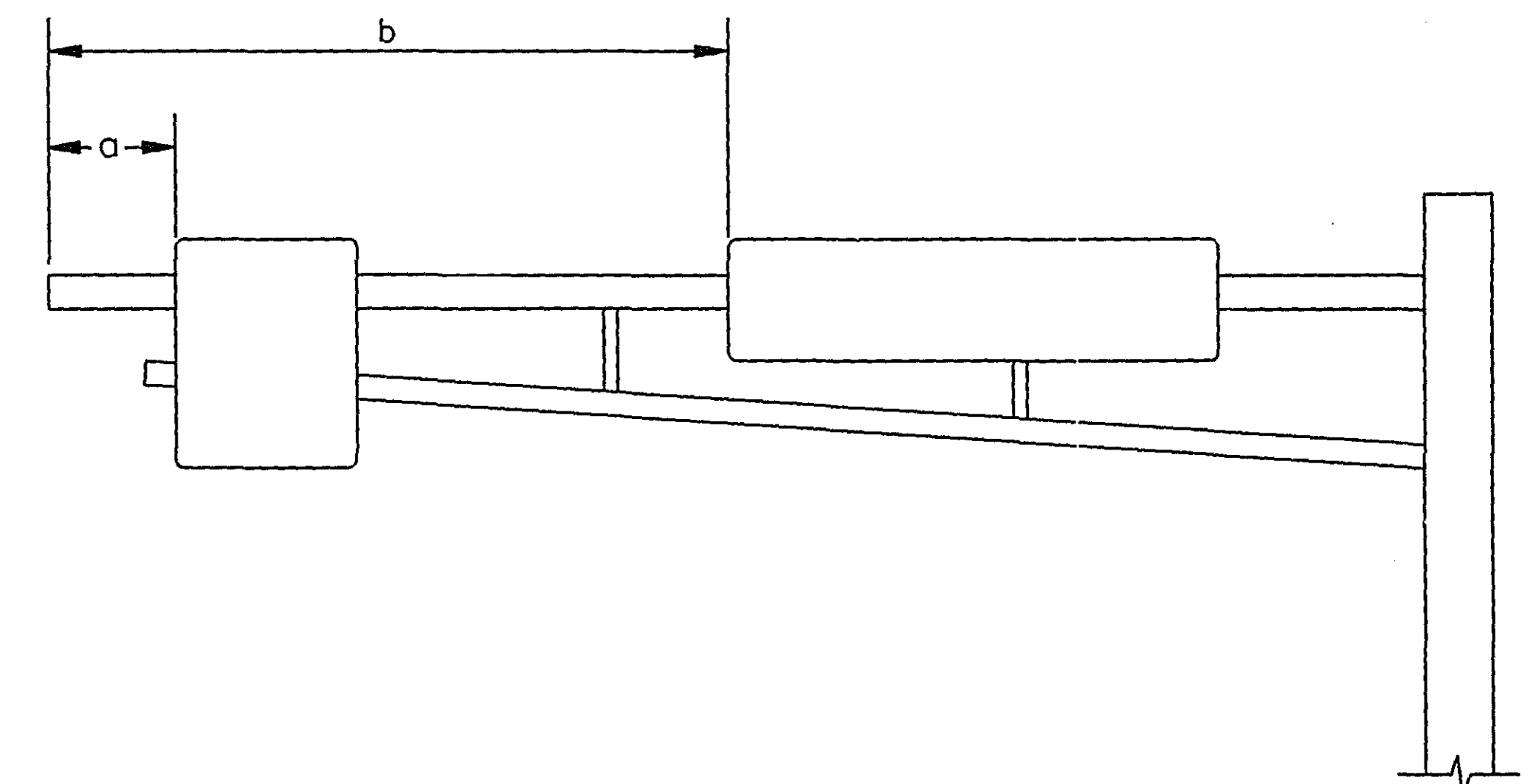


D-3 & D-4
102" X 18", 3.0 R. 1.0 B
LINE 1 = 89.98" : 8"-6" "E" MOD.



TYPE "D" SIGNS - SIGNALS								
SIGN PANEL	SIZE	QUANTITY REQUIRED	BRACKETS PER SIGN	BRACKET SPACING	SQUARE FT. PER SIGN	a	b	MAST ARM POLE NUMBER
D-1	72" x 18"	1	2	42"	9		12'	(A)4
D-2	72" x 18"	1	2	42"	9		12'	(A)2
D-3	102" x 18"	1	3	39"	12.75		10'	(A)3
D-4	102" x 18"	1	3	39"	12.75		10'	(A)1

(A) - SYSTEM A



MAST ARM SIGN DIMENSIONING DETAIL

NOTES:

- COLOR - WHITE LEGEND AND BORDER ON GREEN BACKGROUND, FULLY REFLECTORIZED WITH PRISMATIC LENS REFLECTIVE SHEETING.
- CORNERS EXTENDING BEYOND THE BORDER SHALL NOT BE TRIMMED.
- BOARDERS SHALL BE 1".
- SEE STANDARD SIGN MANUAL FOR ARROW DETAILS
- FOR STRUCTURAL DETAILS, TYPE "D" SIGNS SEE STANDARD SIGNS MANUAL, PAGE 105.
- FOR TYPE "D" STRINGER AND PANEL - JOINT DETAIL, SEE STANDARD SIGNS MANUAL, PAGE 105.
- LETTERING STYLE SHALL BE HIGHWAY GOTHIC CCNFORMING TO MN/DOT STANDARDS.
- THIS OVERHEAD SIGNING SHALL BE INCIDENTAL WORK TO THE CONSTRUCTION OF SYSTEM "A". SEE SPECIAL PROVISIONS.

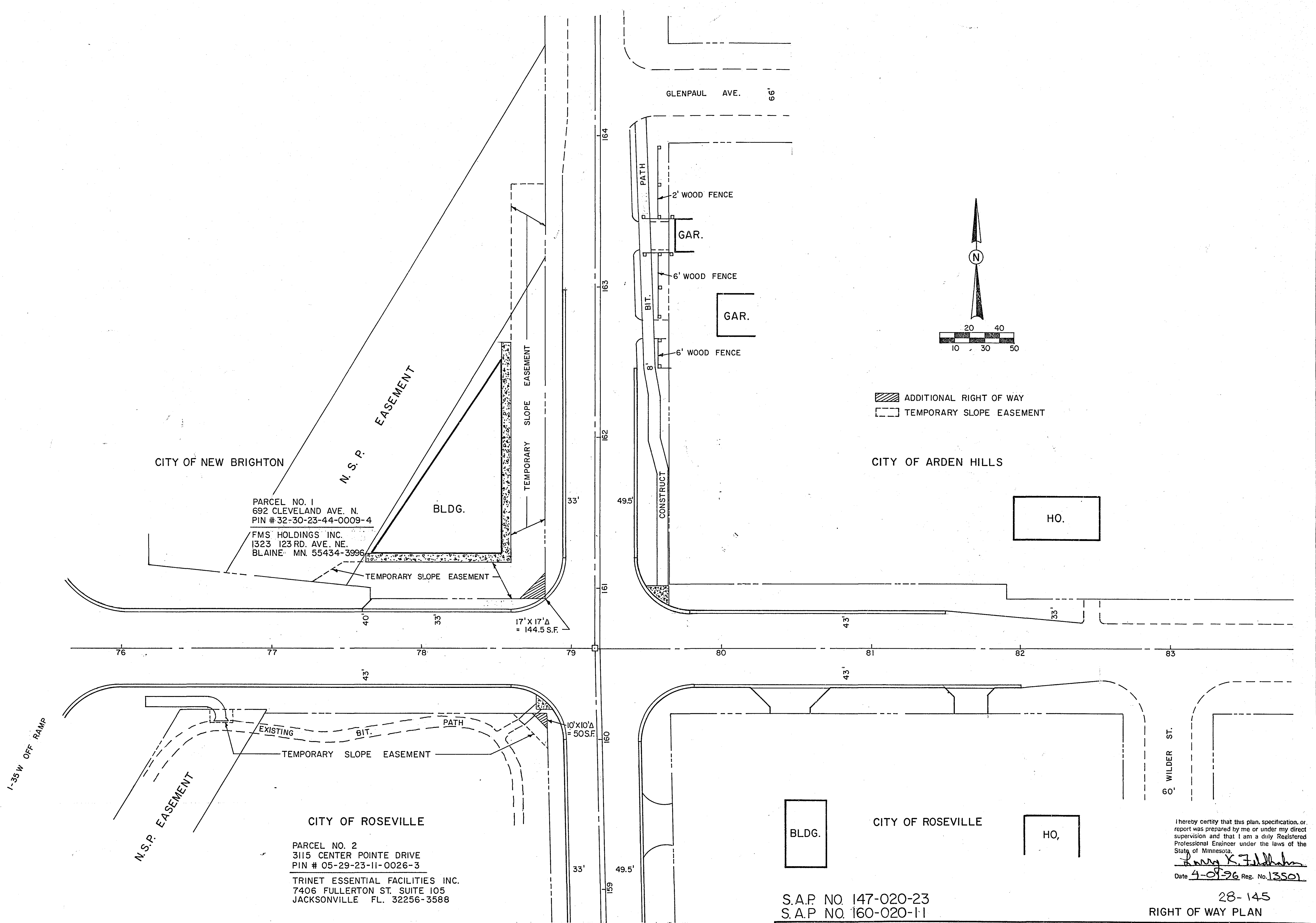
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Daniel G. Selin
Date 4/25/91 Reg. No. 20452

MAST ARM SIGNS
SYSTEM A

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S.A.P. No. 62-619-17

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CITY OF NEW BRIGHTON

PARCEL NO. 1
692 CLEVELAND AVE. N.
PIN #32-30-23-44-0009-4

FMS HOLDINGS INC.
1323 123 RD. AVE. NE.
BLAINE MN. 55434-3996

CITY OF ROSEVILLE

PARCEL NO. 2
3115 CENTER POINTE DRIVE
PIN # 05-29-23-11-0026-3

TRINET ESSENTIAL FACILITIES INC.
7406 FULLERTON ST. SUITE 105
JACKSONVILLE FL. 32256-3588

S.A.P. NO. 147-020-23
S.A.P. NO. 160-020-11
S.A.P. NO. 62-619-17

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.

Henry K. Feldman
Date 4-08-96 Reg. No. 13501