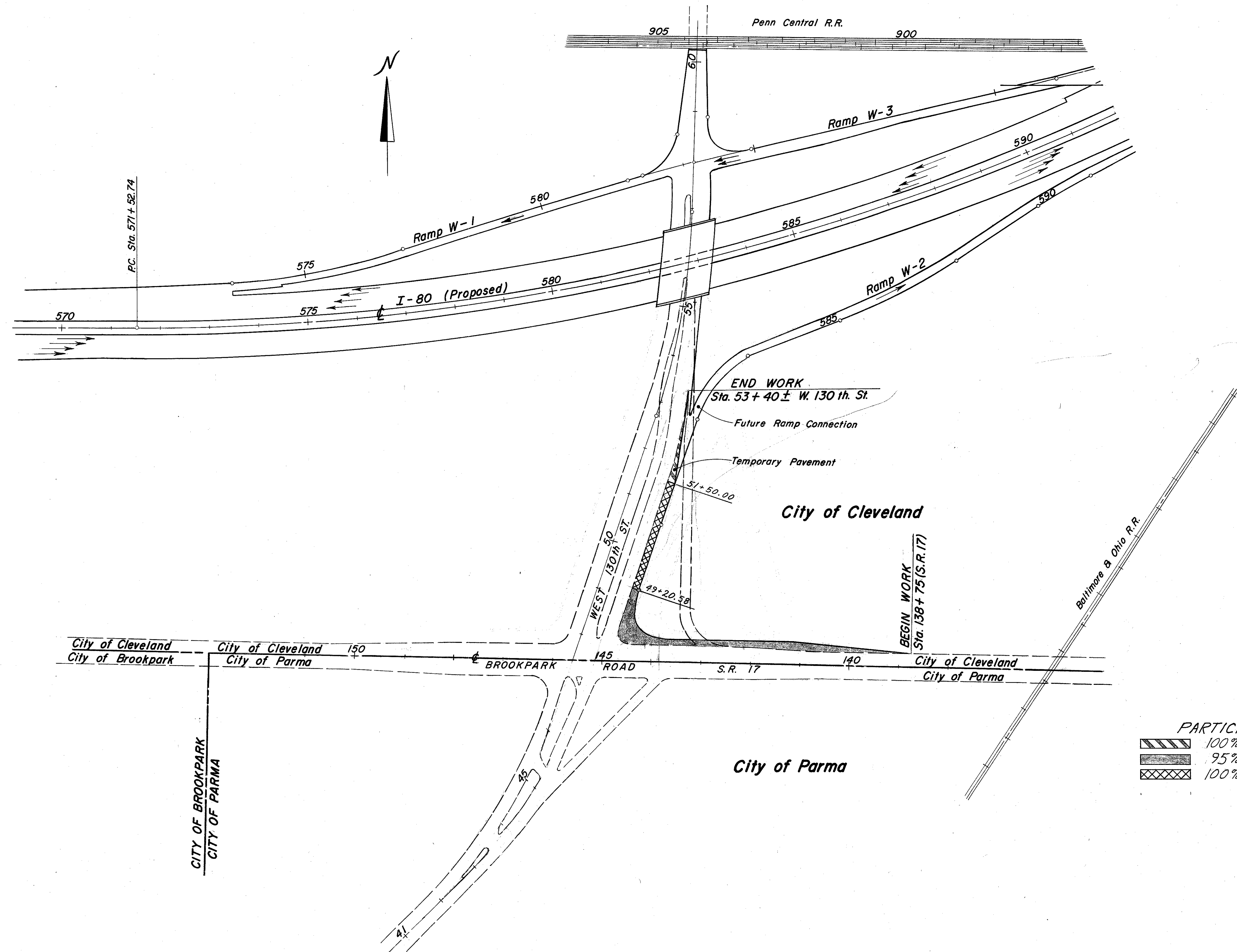


SCHEMATIC PLAN

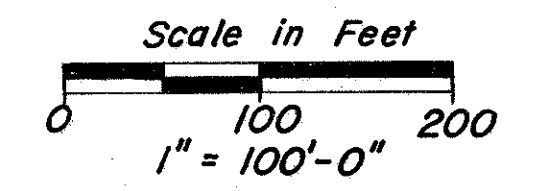
FED. RD. DIVISION	STATE	PROJECT	2 10
2	OHIO		

CUYAHOGA COUNTY
CUY-80-10.57



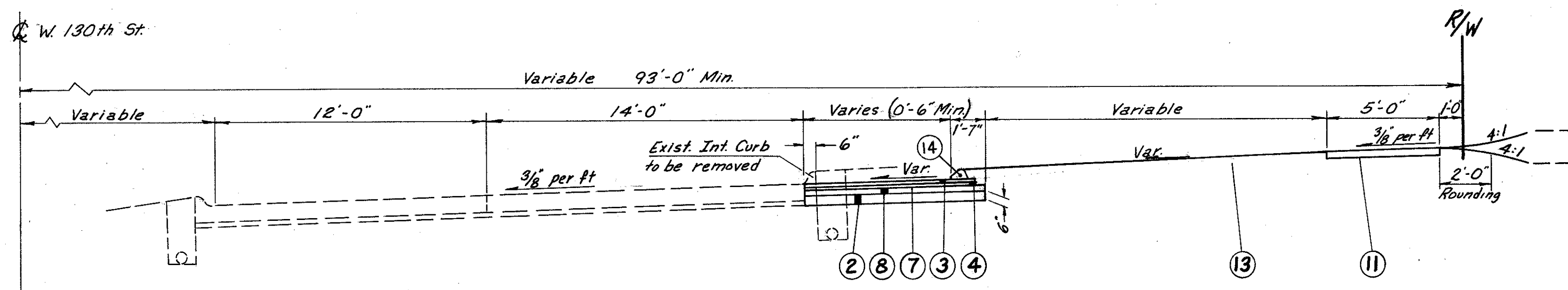
PARTICIPATION

	100% Special
	95% Special & 5% State
	100% County

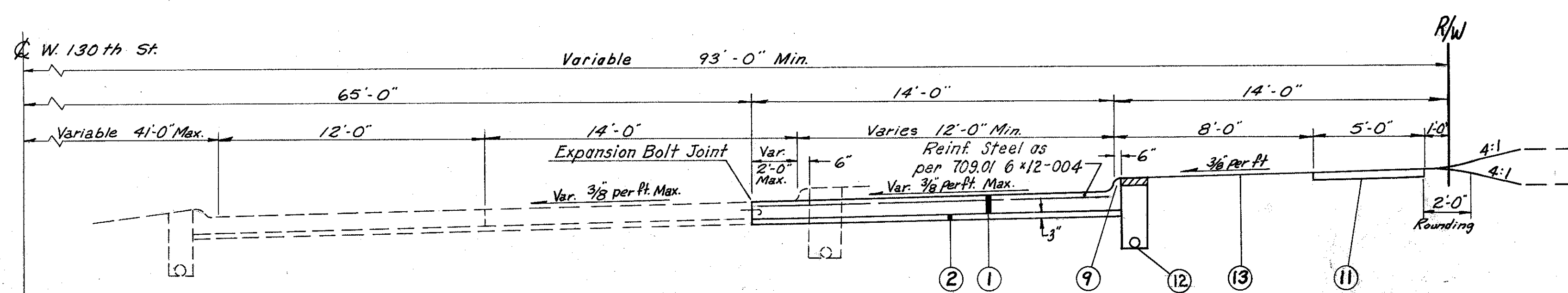


TYPICAL SECTIONS

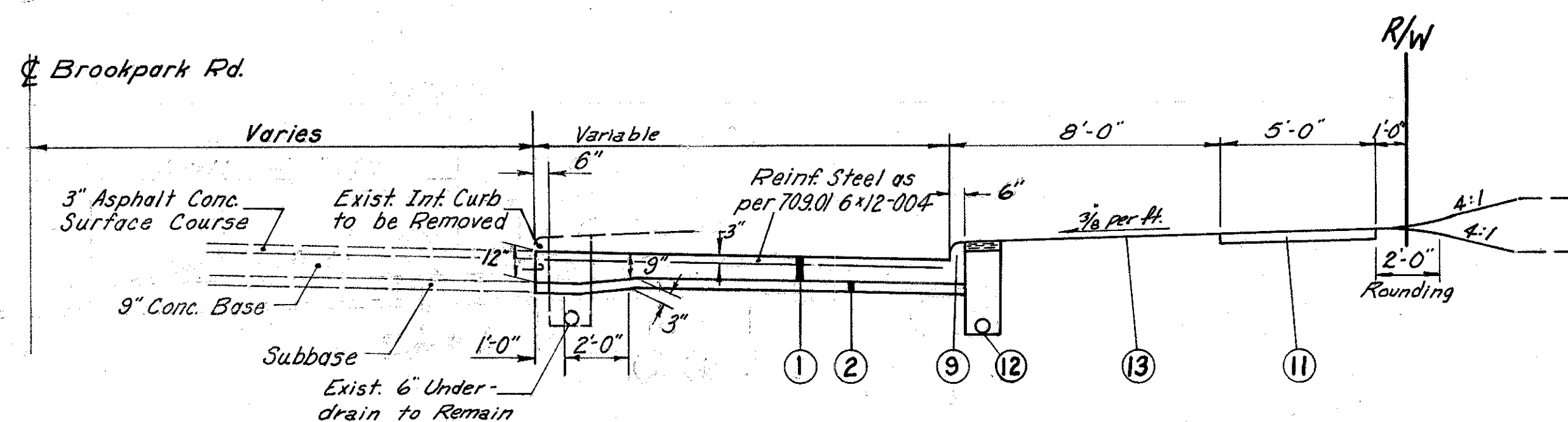
TYPE 45I & TYPE 404



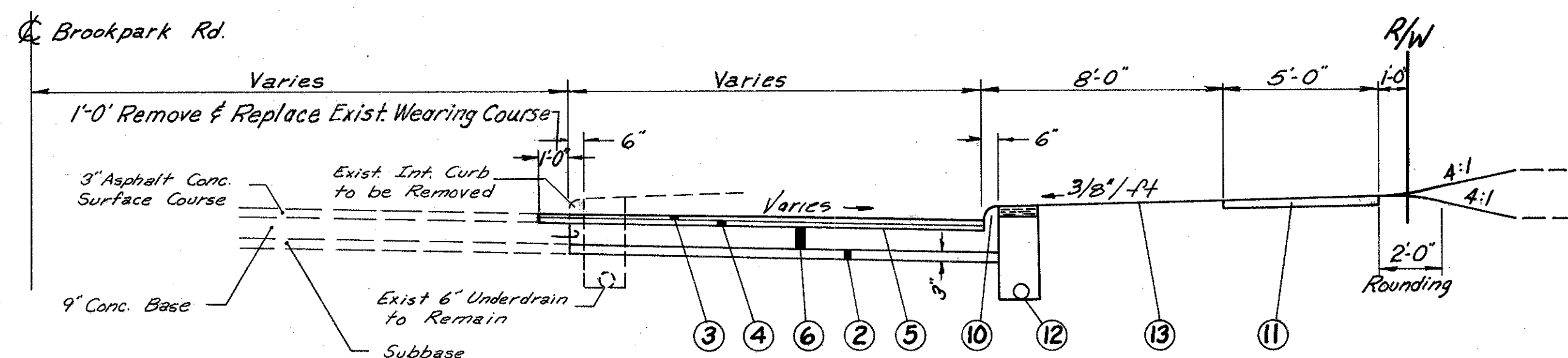
W. 130th St. Widening
Sta. 51+50.00 to 53+40



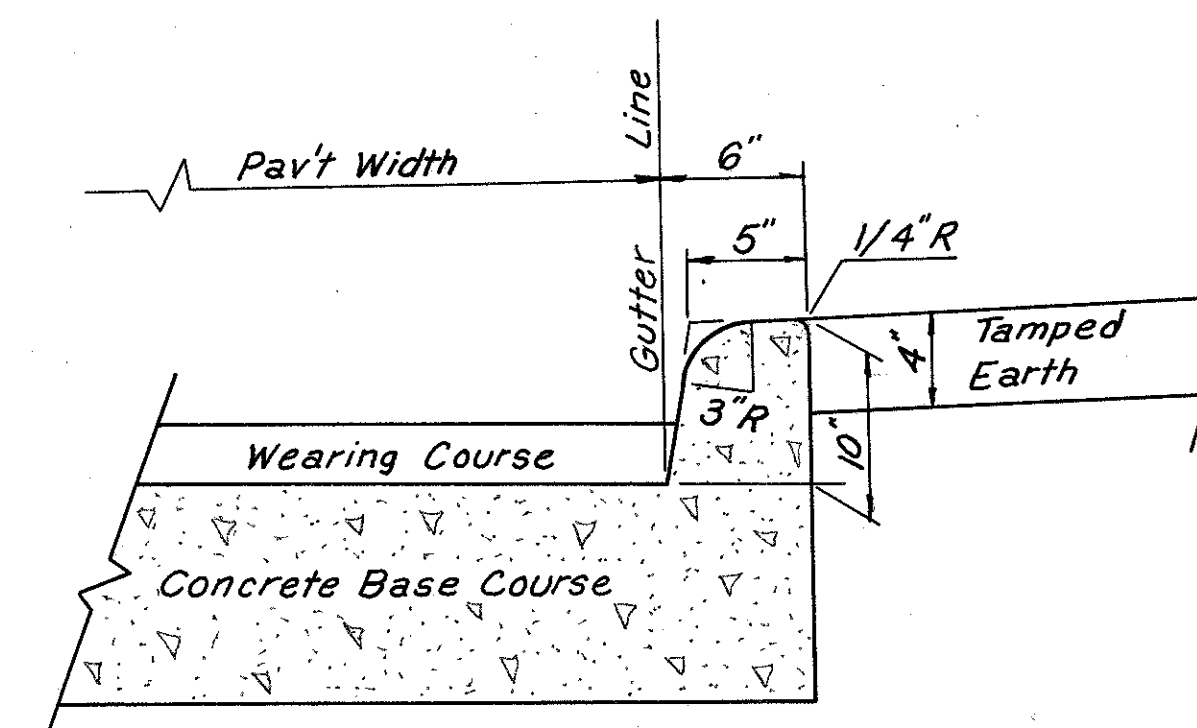
W. 130th St. Widening
Brookpark Rd. to 51+50.00



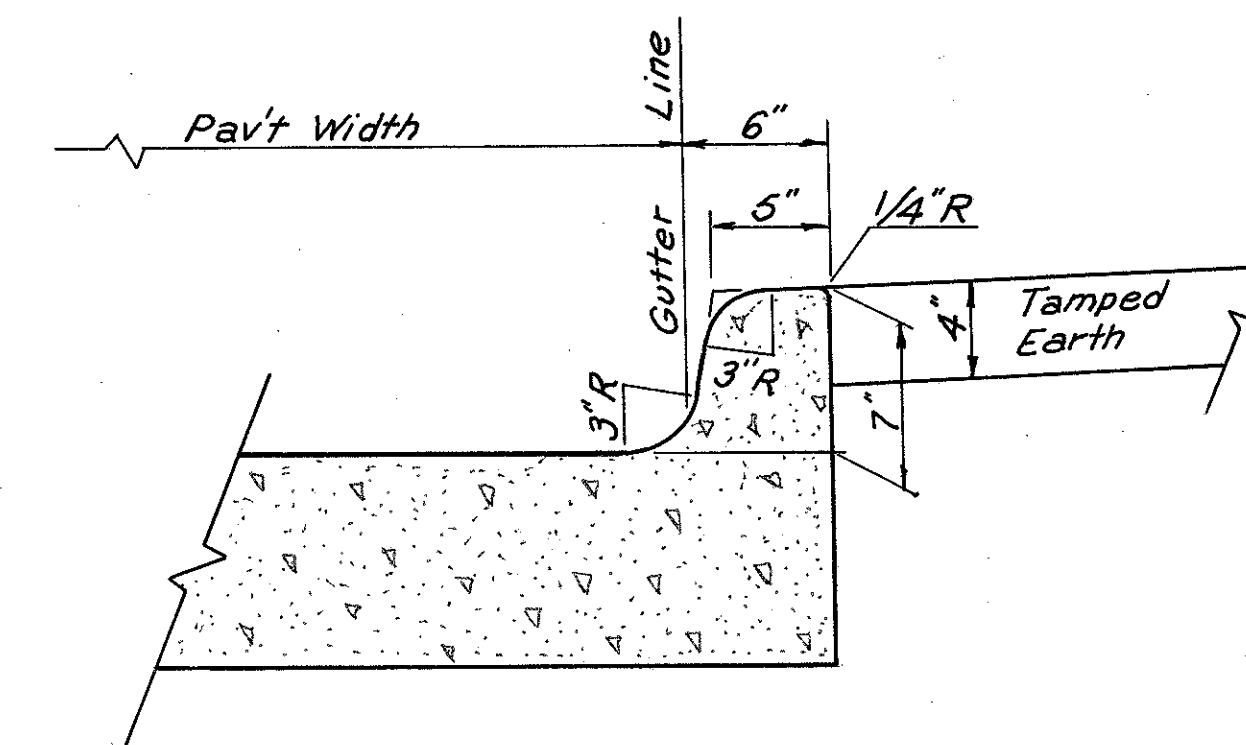
Brookpark Rd. Widening
Sta. 143+85 to W. 130th St.



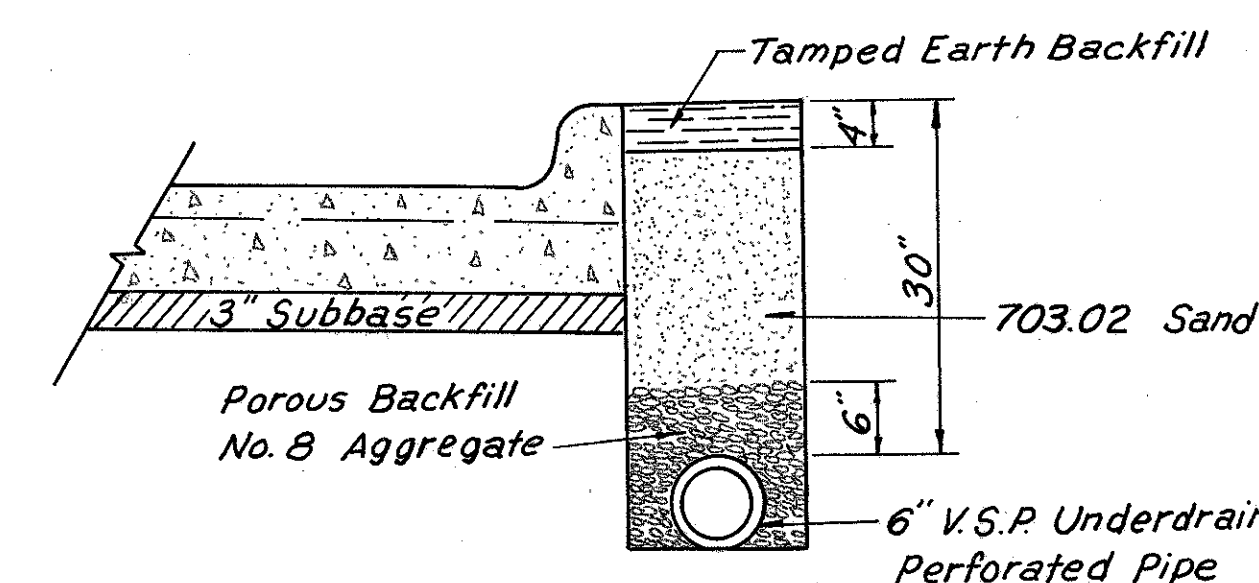
Brookpark Rd. Widening
Sta. 138+75 to Sta. 143+85



DETAIL 6"x10" CONCRETE CURB
TYPE 2-B (MODIFIED)

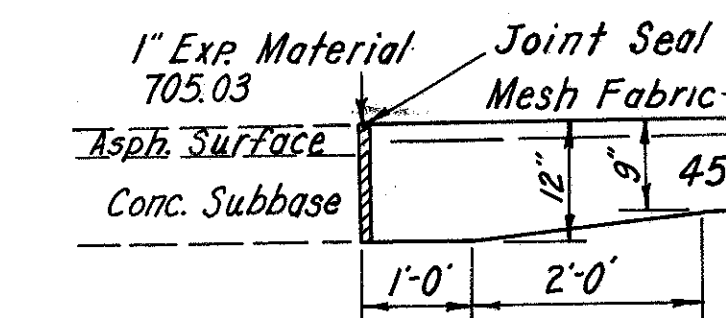


DETAIL 6"x7" CONCRETE CURB
TYPE 2-A (MODIFIED)



CURB & UNDERDRAIN DETAIL
Concrete Curb Type 2-A (Mod.) & 2-B (Mod.)

NOTE: 706.08 Perforated Bell & Spigot Vitrified Clay Pipe with perforations in accordance with AASHTO M 65 shall be used for pipe underdrains. In addition, three lugs designed to center and align the pipe and provide a 3/8" gap between pipe lengths shall be provided in the bell end of each pipe.



Thickened Edge Expansion Joint
Sta. 143+85

ITEM	DESCRIPTION
① 451	9" Reinforced Portland Cement Concrete Pavement, as per plan.
② 310	Subbase (703.08 or 703.10) Thickness as Shown.
③ 404	1/2" Asphalt Concrete (Penetration 70-85)
④ 402	1/2" Asphalt Concrete (Penetration 70-85)
⑤ 407	Tack Coat: 702.04 MS-2 or RS-1; or 702.02 RC-70 or RC-250 Applied at 0.10 Gal./sq. yd.
⑥ 305	9" Portland Cement Concrete Base
⑦ 408	Bituminous Prime Coat 702.09 Rt-3 Applied at 0.40 Gal./sq. yd.
⑧ 304	3" Aggregate Base
⑨ 609	Curb, Type 2-A Modified (6"x7") See Detail
⑩ 609	Curb, Type 2-B Modified (6"x10") See Detail
⑪ 608	4" Concrete Walk
⑫ 605	6" Perforated B&S V.C.P. with lugs, See Detail
⑬ 659	Seeding and Mulching to Work Limits plus 2 Feet
⑭ 609	Asphalt Concrete Curb Std Type 1

GENERAL NOTES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

4
10

CUYAHOGA COUNTY
CUY-80-10.57

ITEM 619, FIELD OFFICE

The contractor shall provide a minimum of 150 sq. ft. of floor space for the field office and in addition to the requirements of Item 619, shall provide and maintain sanitary provisions as per 107.06. All the above is included in the lump sum price bid for Item 619, Field Office.

UNDERGROUND UTILITIES

The locations of the underground utilities shown on the plans have been obtained by diligent field checks and searches of available records. It is believed that they are essentially correct, but the State of Ohio does not guarantee their accuracy or completeness.

CONSTRUCTION LAYOUT STAKES

See note in proposal describing the work included in this lump sum pay item.

ELEVATION DATUM

All elevations are based on U. S. G. S. datum.

PAVEMENT ELEVATIONS

Pavement edge elevations where curb is used are at the face of the curb unless otherwise indicated.

DUST CONTROL

1 Ton of 616 Calcium Chloride for dust control & 2 M gallons of water, 616 for dust control are to be used at the direction of and in amounts requested by the engineer for dust control within the limits of the project.

SEEDING

Normal quantities for seeding are calculated for the soil area between lines two (2) feet outside the work limits.

Additional quantities for seeding are calculated for the soil area outside the normal work limits to two (2) feet outside the additional work area need for the removal of the existing W. 130 th. St. Northbound leg.

CONTRACTION JOINT IN PAVEMENT WIDENING

Where new pavement is placed adjacent to existing pavement, contraction joints shall be provided in the new pavement so as to form a continuous joint with that in the existing pavement.

LOCATION AND SIZE OF EXISTING PIPES

The location, type, depth, and size of all existing pipes are shown as near exact as the available information will permit. The state will not be responsible for any variations found during construction.

EXISTING UNDERDRAINS

Where existing underdrains are encountered and no provision has been made for new underdrains, they shall be connected to new inlet with 6 inch Type "F" pipe. A quantity of 50 feet has been provided in the general summary to be used as directed by the engineer for that purpose. The materials shall not be ordered by the contractor unless prior approval is received from the project engineer.

UNINTERRUPTED FLOW

The contractor shall so conduct his operations that the flow of all sewers which are to remain in service will be maintained at all times. Any additional labor or cost involved in maintaining this flow by pumping or by any other approved method found necessary for the completion of this project shall be included in the price bid for the pertinent drainage item.

When working in the area adjacent to existing sewers, the contractor is to proceed with caution in order that no damage is done to the existing sewers. Any damage to existing sewers resulting from the contractor's operations or negligence as determined by the engineer shall immediately be repaired by the contractor at no additional cost to the state.

CONNECTIONS TO EXISTING SEWERS

When the plans provide for proposed drainage pipe to be connected to existing pipes, the contractor shall locate the existing pipe both as to line and grade before laying the proposed sewer. The cost of this operation shall be included in the unit price bid for the pertinent pipe item.

PIPE CUT-OFFS

When bell and spigot pipe is used, any necessary pipe cut-offs will be made at the spigot end of the length of pipe adjacent to the end length. When tongue and groove pipe is used, the length of pipe next to the end length shall be cut and butt joint formed with a concrete collar in accordance with standard construction drawing MC-4.

MANHOLES ADJUSTED TO GRADE

This item consists of adjusting a manhole frame and cover to grade, if such adjustment does not exceed 6 inches down nor 12 inches up. Payment shall be made under item 604, Manhole adjusted to grade.

TRENCH FOR WIDENING

The open trench shall be adequately maintained and protected with temporary guide markers or barricades at all times. Placement of proposed subbase and base material shall follow as closely as possible behind the excavation operations. The length of widening trench which is open at any one time shall be held to a minimum and shall at all times be subject to approval of the Engineer.

PAVEMENT REMOVAL OUTSIDE NORMAL CONSTRUCTION LIMITS

The existing pavement as indicated on the plans shall be removed and disposed of, the old roadway graded to the level of the surrounding ground, the old ditches filled, and the disturbed areas sloped to drain and left in a neat condition ready for seeding. Seeding shall be measured and paid for in accordance with Item 659 Seeding and Mulching. Payment for the above work, except seeding shall be included in the unit price bid for Item 202.

UTILITIES

The Contractor shall notify, at least two working days before breaking ground, all public service corporations having wire, poles pipe, conduits, manholes or other structures which may be affected by this operation, including all structures which are affected and not shown on these plans. He shall conduct his operations in such a manner as to avoid damages to any and all utilities, and all work required for public or private utilities will be done by and at the expense of their respective owners, unless otherwise noted on these plans.

UTILITY OWNERSHIP

Water Lines

Department of Public Utilities
Div. of Water and Heat
1825 Lakeside Avenue
Cleveland, Ohio 44115

East Ohio Gas Company
1201 East 55th. Street
Cleveland, Ohio 44114

Department of Public Service
Room 227 City Hall
601 Lakeside Avenue
Cleveland, Ohio 44114

Ohio Bell Telephone Co.
820 W. Superior
Cleveland, Ohio 44113

Department of Public Safety
Div. of Traffic Engineering & Parking
4160 South Marginal Road
Cleveland, Ohio 44114

Cleveland Electric Illuminating Co.
Illuminating Building, Public Square
Cleveland, Ohio 44113

WATERWORKS

All waterworks within the limits of this project will be performed by The City of Cleveland, Department of Public Utilities, Division of Water and Heat. The contractor shall notify the Division of Water and Heat at least 14 days in advance of the date on which he intends to begin work. The contractor shall coordinate his operations with the waterworks. This work will be performed by agreement with the property owner.

TRAFFIC MAINTENANCE

Two way traffic shall be maintained on existing Brookpark Rd. and West 130 th. St. at all times by the use of the existing pavement.

Written notification shall be given the County Engineer 72 hours prior to restricting traffic flow on W. 130 th. St. and The City of Cleveland Commissioner of Traffic Engineering and Parking.

ITEM 451, 9" REINFORCED PORTLAND CEMENT CONCRETE, AS PER PLAN

JOINTS:

When not shown on the Plans, or provided for elsewhere, joints in the pavement within intersections shall be of the type, and at such locations, as designated by the Engineer.

In those areas where a pavement is being widened using a section consisting of a Portland Cement Concrete Pavement with or without an Asphalt Concrete Surface Course, transverse joints shall be placed in the new cement concrete to match joints in the original concrete, as shown on the Plans and/or as directed by the Engineer.

Contraction Joints.

The location of the joints shall be clearly marked on the forms in such a manner that the center line can be readily determined for the sawing operation. Spacing between successive contraction joints shall not generally exceed 30 feet except where hinge joints are used.

Hinge Joint.

When called for on the plans or in the proposal, two hinge joints shall be sawed into the pavement, at the 1/3 points, between successive contraction joints or between adjacent contraction and expansion joints. Hinge joints shall not be placed as an extension of either a contraction, expansion or construction joints in an adjacent slab, but may be used to extend a longitudinal tied joint of a more or less perpendicular intersection roadway when approved by the Engineer. In order to insure the correct identification of the sawed joint for extension when adjacent or future lanes are placed, a 3" block letter C, for contraction or construction and H for hinge, shall be impressed 1/4" into the finished slab adjacent to and at each end of the joint. If it is not possible to place two successive hinge joints as herein specified, contraction joints shall be used. When hinge joints are used the spacing between successive contraction and/or expansion joints shall not generally exceed 75 feet and the intermediate hinge joint spacing shall not exceed 25 feet except as approved by the Engineer.

Hinge joints shall be constructed in the same manner as contraction joints except that no dowel assembly is required and the reinforcing mesh in the pavement or base shall be carried through the joint. Care shall be taken that the mesh reinforcement is not cut when the joint is being sawed.

Sealing Joints.

Joints shall be sealed in accordance with Item 451. The recommended widths of saw cut and preformed elastic joint sealers are listed in the following table.

JOINT SEAL WIDTHS			
Type of joints	Spacing between Jts. (Ft.)	Width of Saw Cut (In.)	Neoprene Comp. Seal Width (In.)
Contraction	60-75	5/16	13/16
Contraction	30	1/4	9/16
Contraction	25' & Less	1/4	7/16
Hinge	--	1/4	7/16

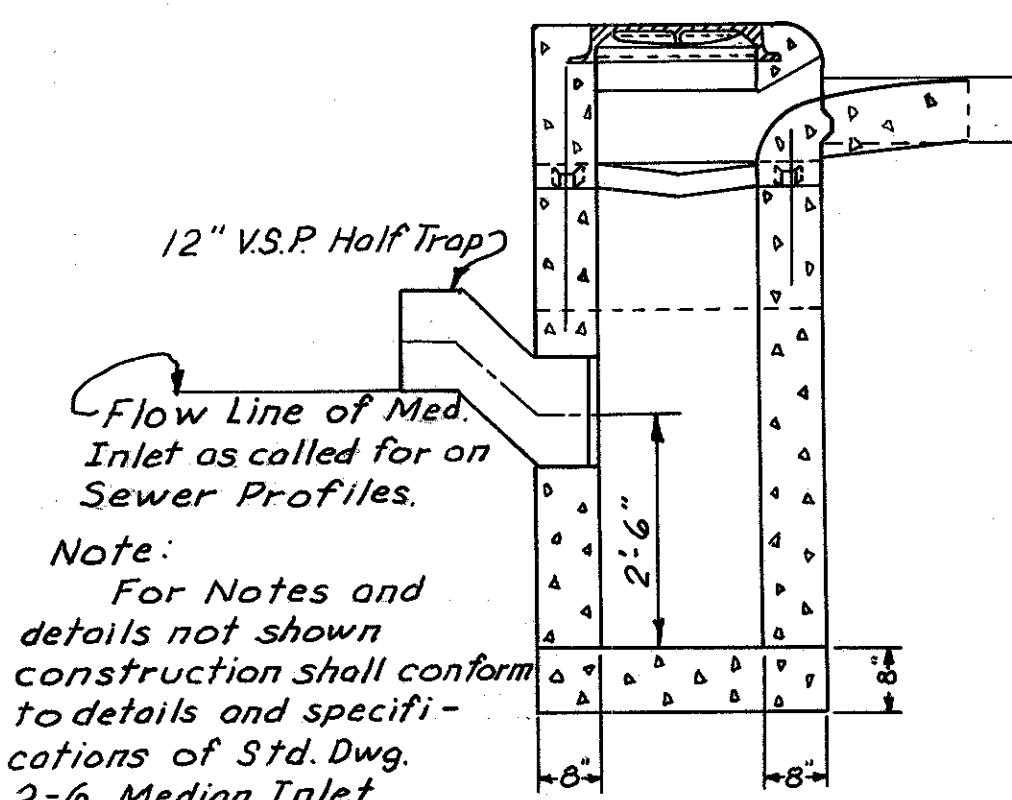
*Hinge joints are used at the 1/3 points.

SURFACE FINISHING:

Unless otherwise specified the surface texture of the pavement shall be a broom finish using a broom of an approved type, not less than 18 inches in width of bass or bassine fiber not more than 5 inches in length. The strokes shall be from edge to edge of the slab, one stroke per width of broom with adjacent strokes slightly overlapped and shall be drawn without "tearing" of the concrete and so as to produce regular corrugation approximately 1/16 inch in depth.

Brooms shall be washed thoroughly at frequent intervals during each day. Any coarse or long bristles which cause irregularities shall be trimmed or removed.

STANDARD NO. 2-6 MEDIAN INLET - MODIFIED

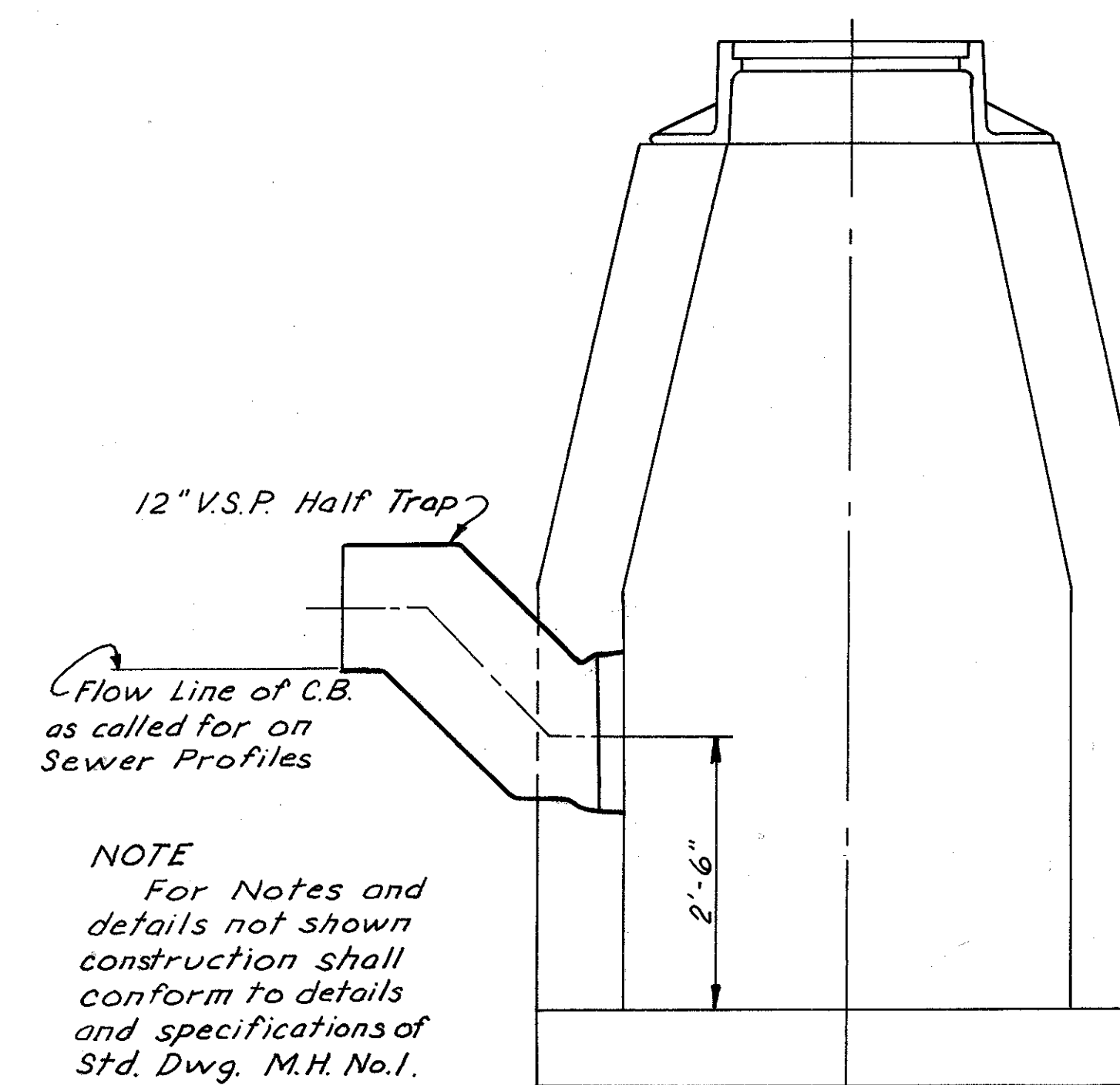


Note: Half Trap to be included in price bid for Std. No 2-6 Median Inlet (Mod.) or as per plan.

Note:
For Notes and details not shown construction shall conform to details and specifications of Std. Dwg. 2-6 Median Inlet.

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

STANDARD NO. 1 M.H. - MODIFIED



Note:
For Notes and details not shown construction shall conform to details and specifications of Std. Dwg. M.H. No. 1.

SECTION "A-A"
Scale: 3/4" = 1'-0"

GENERAL SUMMARY

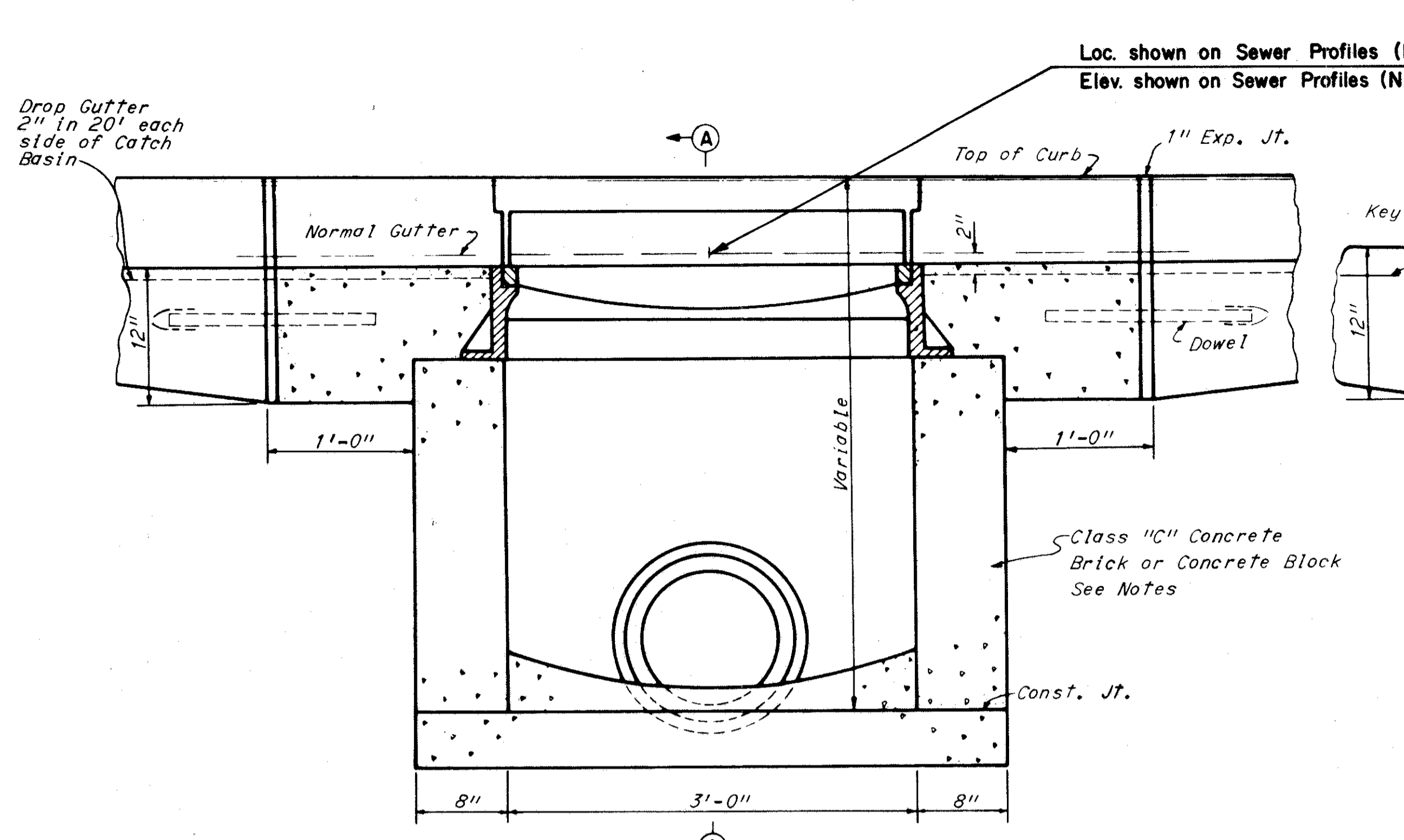
FED. RD. DIVISION	STATE	PROJECT	6 10
2	OHIO		

DED. BY A.J.F. DATE 1-26-70 CUYAHOGA COUNTY
 GRD. BY T.R.B. DATE 1-26-70 CUY.-80-10.57

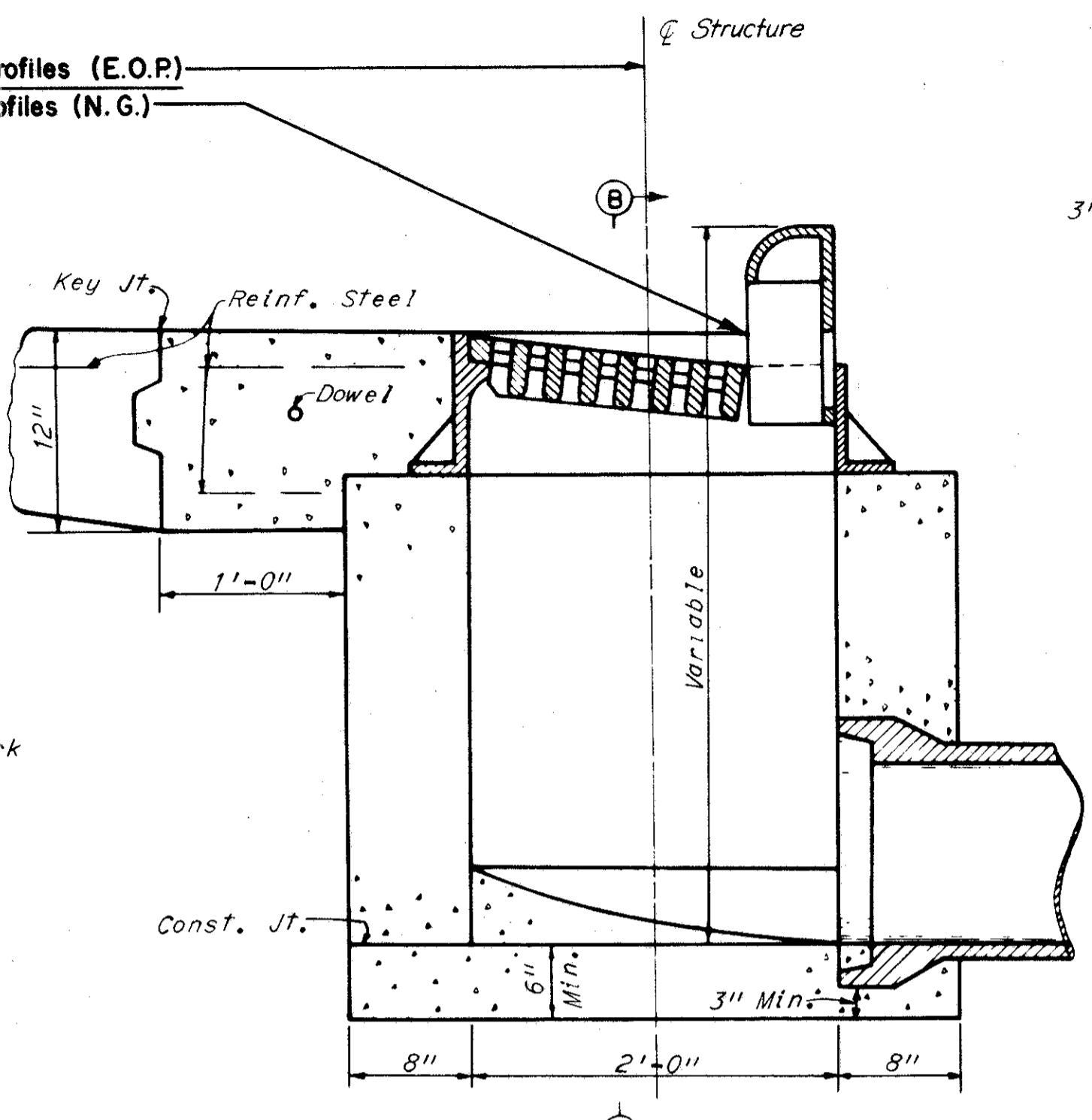
100% Spec. Participation		SHEET NUMBER										GRAND TOTAL	UNIT	ITEM	DESCRIPTION
		CUYAHOGA COUNTY				95% Special and 5% State									
10	Total	9	10	Total	4	8	9	10	Total						
ROADWAY															
	Lump	37	21	Lump 58		7	699	582		Lump 1288	Lump 1346	Lump 201	201	Clearing & Grubbing	
							2280	1040			3320	Sq. Yd. 202	202	Existing Pavement Removed and Disposed of	
							280	304			584	Sq. Ft. 202	202	Existing Sidewalk Removed and Disposed of	
190	190											Lin. Ft. 202	202	Existing Curb Removed	
							1	3	2			Each 202	202	Catch Basin and Inlet Removed or Abandoned	
							14	43				Sq. Yd. 202	202	Existing Wearing Course Removed and Disposed of	
		100	145	245		327	2075			Lump 2402	Lump 2647	Cu. Yd. 203	203	Excavation, Not including Embankment Construction	
		75	135	210							650	Cu. Yd. 203	203	Embankment	
96	96	217	153	370		57	1082				1139	Sq. Yd. 203	203	Subgrade Compaction	
					1						1	Ton 616	616	Calcium Chloride	
					2						2	M. Gal. 616	616	Water	
PAVEMENT															
11	11										11	Cu. Yd. 304	304	Aggregate Base	
						77	615				692	Sq. Yd. 305	305	9" Portland Cement Concrete Base	
22	22	18	13	53		6	90				96	Cu. Yd. 310	310	Subbase, 703.08 or 703.10	
6	6					4	27				31	Cu. Yd. 402	402	Asphalt Concrete (70-85)	
6	6					4	27				31	Cu. Yd. 404	404	Asphalt Concrete (70-85)	
						9	64				73	Gal. 407	407	Tack Coat: 702.04, MS-2 or RS-1; or 702.02, RC-70 or RC-250	
53	53										53	Gal. 408	408	Bituminous Prime Coat: 702.09, RT-2 or RT-3	
		217	153	370			467				467	Sq. Yd. 451	451	9" Reinforced Portland Cement Concrete Pavement	
							2145	1150			3295	Sq. Ft. 608	608	4" Concrete Walk	
		134	95	229			126				126	Lin. Ft. 609	609	Concrete Curb Standard Type 2-A, Modified As Per Plan	
207	207					125	385				510	Lin. Ft. 609	609	Concrete Curb Standard Type 2-B, Modified As Per Plan	
											207	Lin. Ft. 609	609	Asphalt Concrete Curb, Standard Type 1	
DRAINAGE															
10	10				50	10	50				110	Lin. Ft. 603	603	6" Conduit, Type "F"	
						8					8	Lin. Ft. 603	603	12" Conduit, Type "B"	
							232				232	Lin. Ft. 603	603	12" Conduit, Type "C"	
							1				1	Each 604	604	Standard No. 1 Manhole, Modified, As Per Plan	
							1				1	Each 604	604	Standard No. 1 Manhole	
							1				1	Each 604	604	Standard No. 2 Manhole	
						1	1				2	Each 604	604	Special No. 3C Catch Basin	
							1	1			2	Each 604	604	Manhole Adjusted to Grade	
1	1						3				3	Each 604	604	Standard No. 2-G Median Inlet, Mod. As Per Plan	
											1	Each 604	604	Catch Basin Adjusted to Grade	
38	38	134	95	229		113	450				563	Lin. Ft. 605	605	6" Shallow Pipe Underdrain, 706.08 Perforated Bell and Spigot with Inlets, As Per Plan	
EROSION CONTROL															
			0.08	0.08				0.21			0.21	Ton 659	659	Commercial Fertilizer (12-12-12)	
			0.41	0.41				1.07			1.07	Ton 659	659	Agricultural Liming Material	
		224	676	900		256	799	1322			2377	Sq. Yd. 659	659	Seeding and Mulching	
	Lump			Lump						Lump	Lump	Lump 619	619	Field Office	
	Lump			Lump						Lump	Lump	Lump 614	614	Construction Layout Stakes	
	Lump			Lump						Lump	Lump	Lump 614	614	Maintaining Traffic	

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

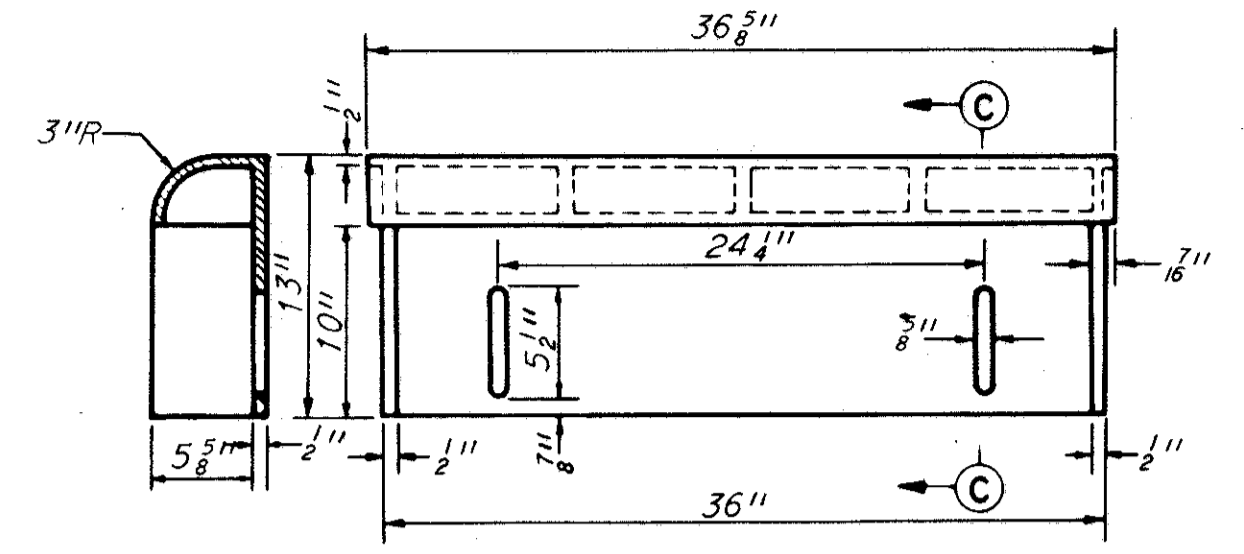
CUYAHOGA COUNTY
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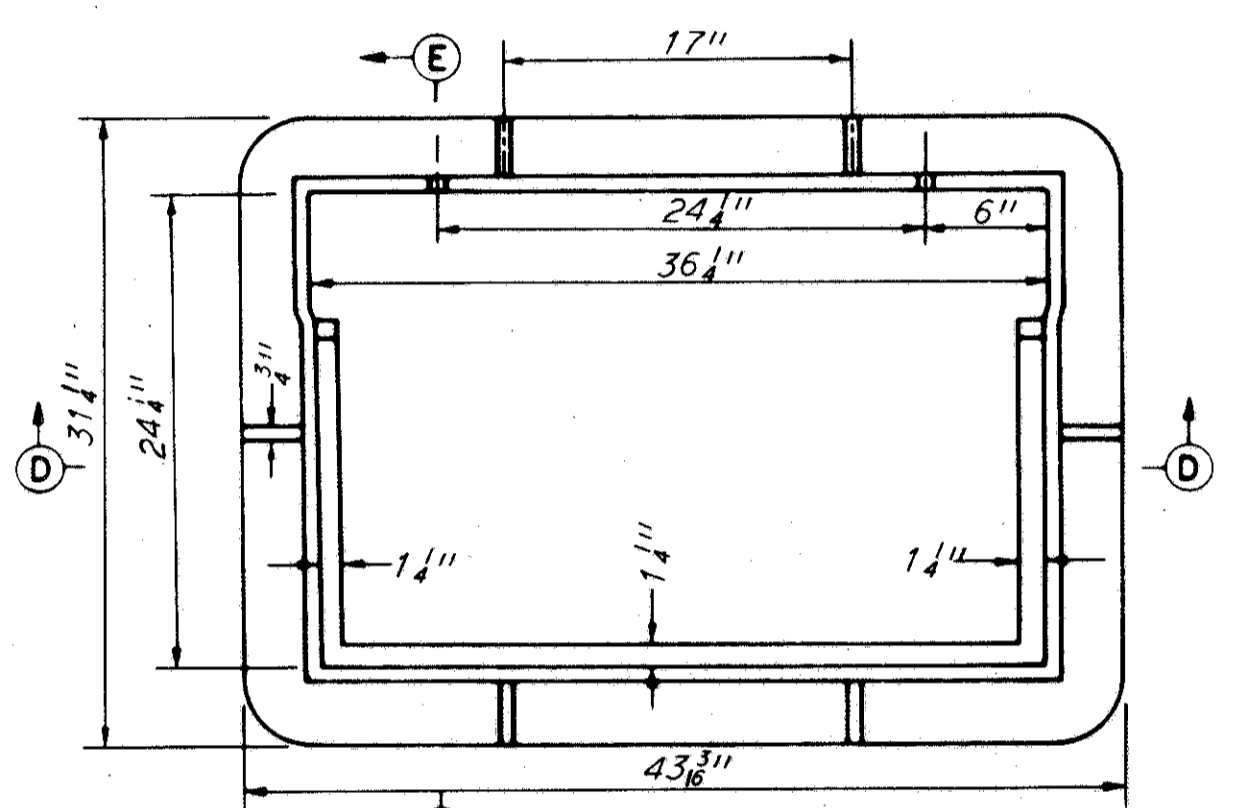
SECTION B-B



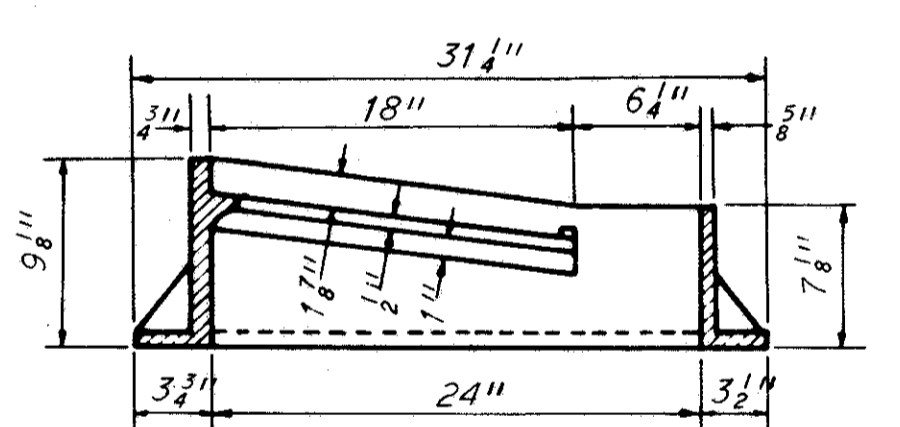
SECTION A-A



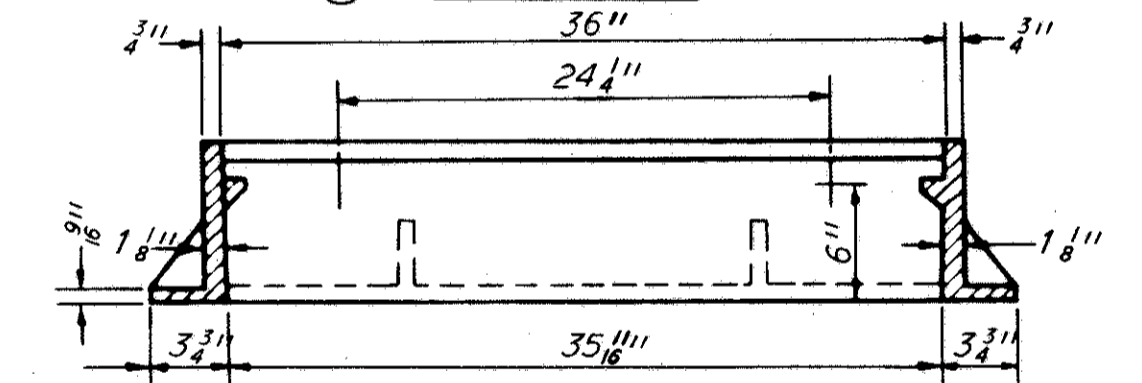
SECTION C-C
ELEVATION
RADIUS CURB BOX



FRAME PLAN



SECTION E-E



SECTION D-D

Castings shall meet the requirements of Item 604. The design shall be essentially the same and equally as strong as those shown hereon.

Weights, minimum

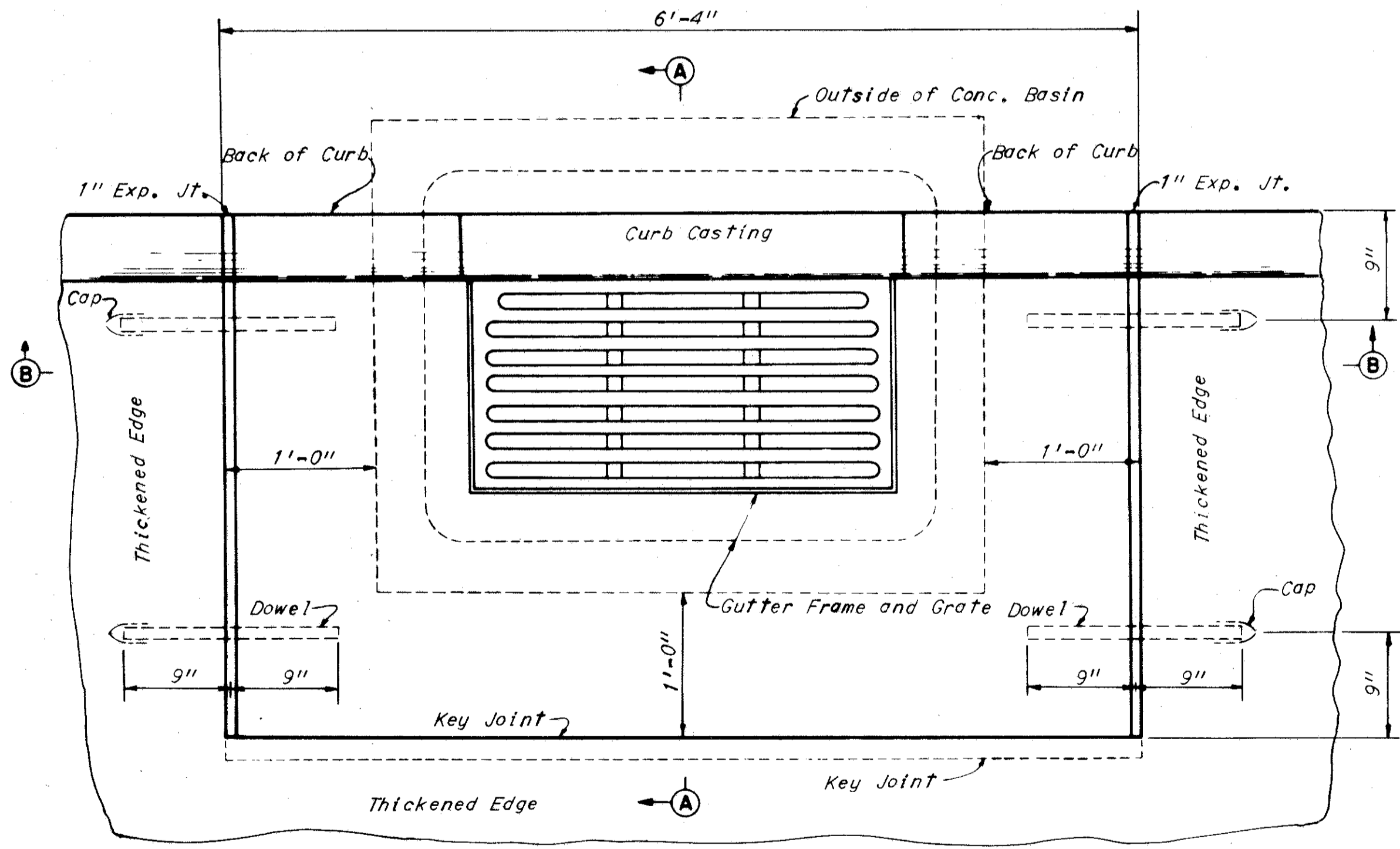
Curb casting	100 pounds
Gutter grate	200 pounds
Gutter frame	300 pounds

Bearing Areas of frame and grate shall be so fitted and finished as to provide a firm and even seat for all portions of the grate in the frame. No projections shall exist on bearing areas of either casting and the grate shall sit in its frame without rocking. Frame and grate shall be fitted, matched and marked before delivery to the project.

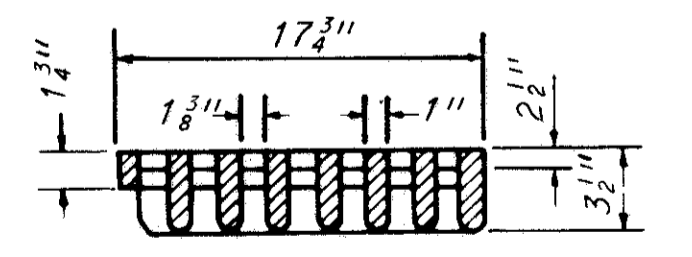
Dowels to be 1 inch round, smooth bars 18 inches long spaced as shown hereon and greased. Concrete cast in place to be Class "C". Brick or Concrete Block side walls, when used in place of concrete, shall be 8 inches minimum in thickness.

Pavement: The portion blocked out of the pavement shall be placed after the casting has been set but shall be paid for as part of the pavement.

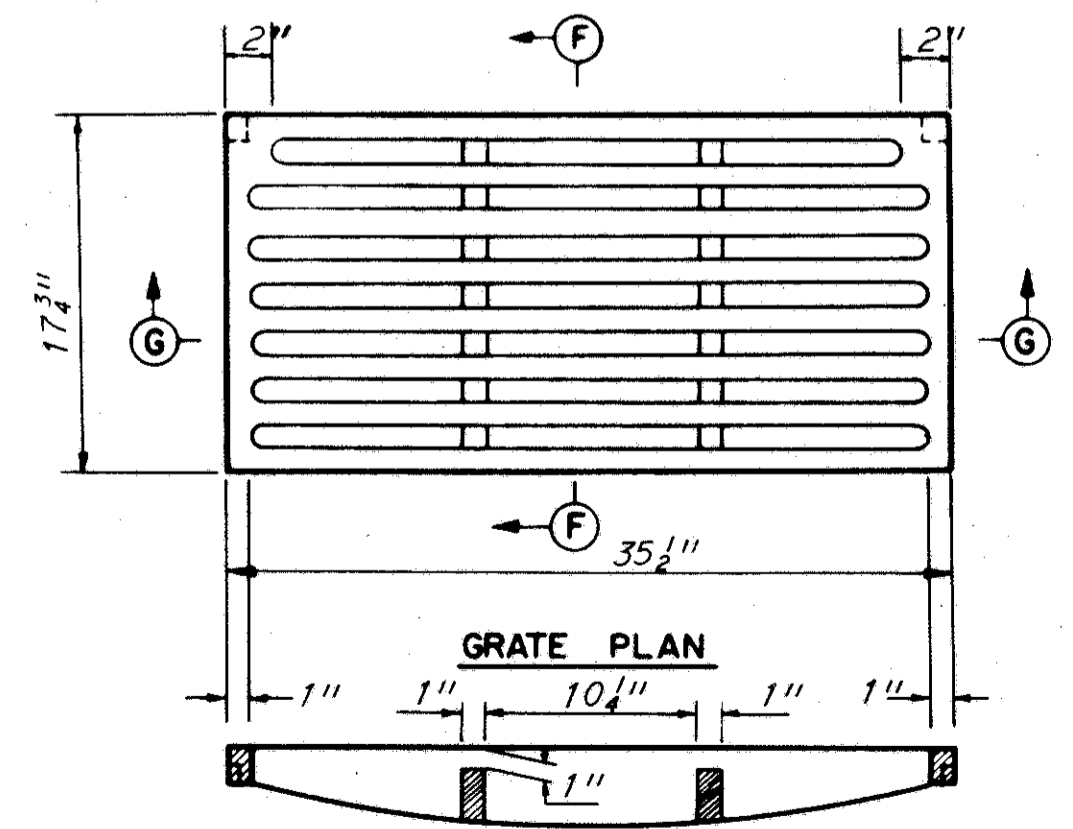
Expansion Joint: The 1" Expansion Material shall be omitted when Asphaltic Concrete Surface is part of the Pavement.



PLAN OF CATCH BASIN &
PAVEMENT JOINTS

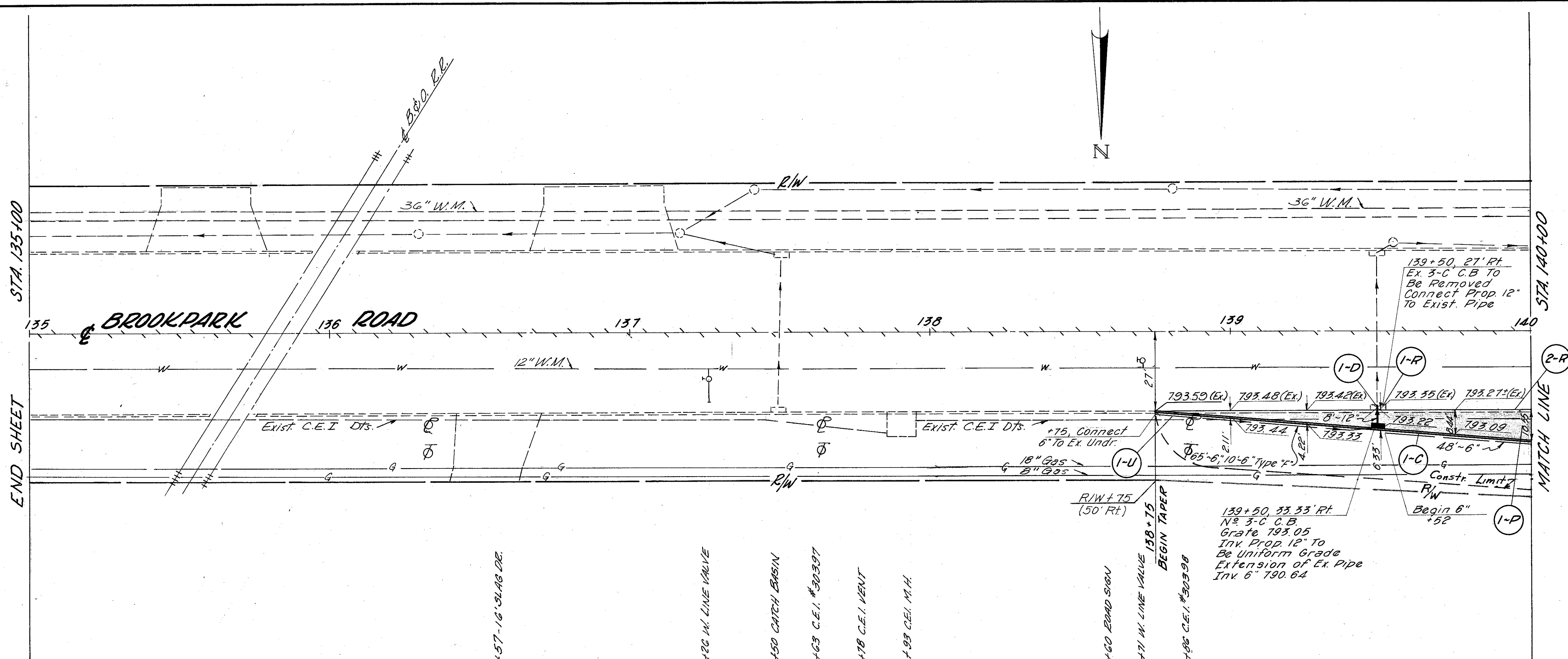


SECTION F-F



SECTION G-G

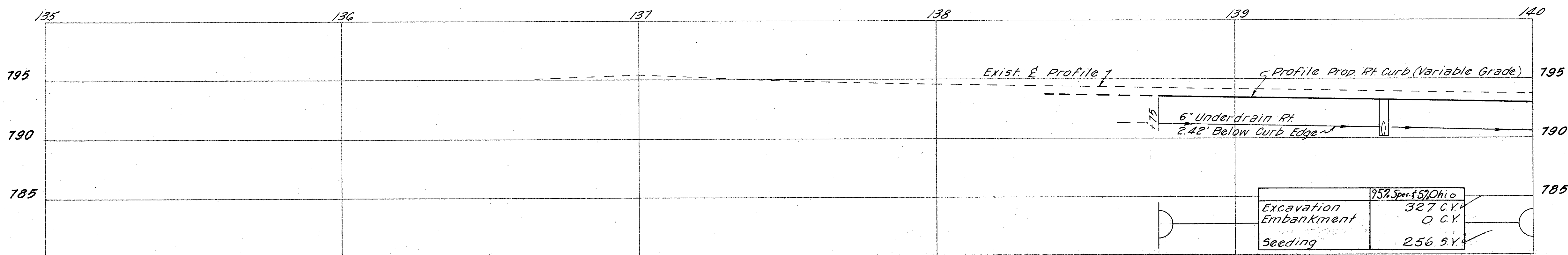
Note: This catch basin is identical with the Cuyahoga County Standard No. 3-C Catch Basin.



ESTIMATED QUANTITIES		202	203	305	310	402	404	407	603	604	605	609	603	
REF#	SIDE	LOCATION	SY	EA	SY	SY	C.Y.	C.Y.	C.Y.	Gal.	L.F.	EA	L.F.	L.F.
1-D	R	138+75 to 140+00			57	76.7	6.2	4	4	9	8	1	113	125
1-D	R	139+50												
1-U	R													10
1-C														125
1-R														
2-R			7	14										
TOTALS TO GEN. SUM.**			7	14	57	77	6	4	4	9	8	1	113	125

** 9.5% Special / 4.5% State * 706.08 S.S. Bell End Perforated Vitrified Clay Pipe, with lugs.

(2-R) Remove 1'-0" of Exist. Wearing Course, Exist. Curb & 6" of Exist Pav't. Base on the North Side of Brookpark Road From Sta. 138+75 to 140+00.



DATE: T.R.B. DATE: 1-23-70
CHG: DR.H. DATE: 1-24-70

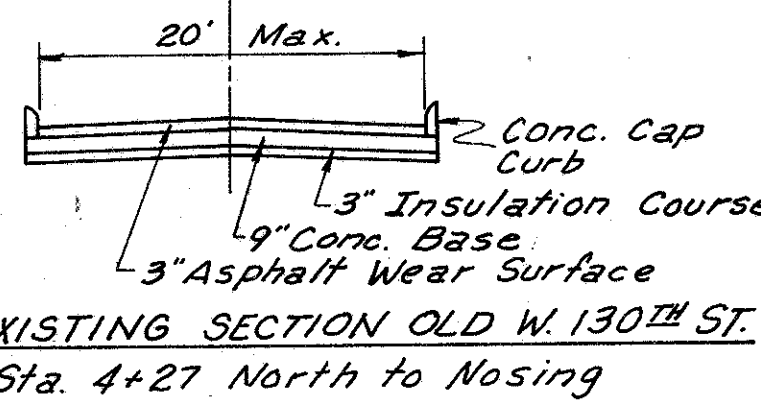
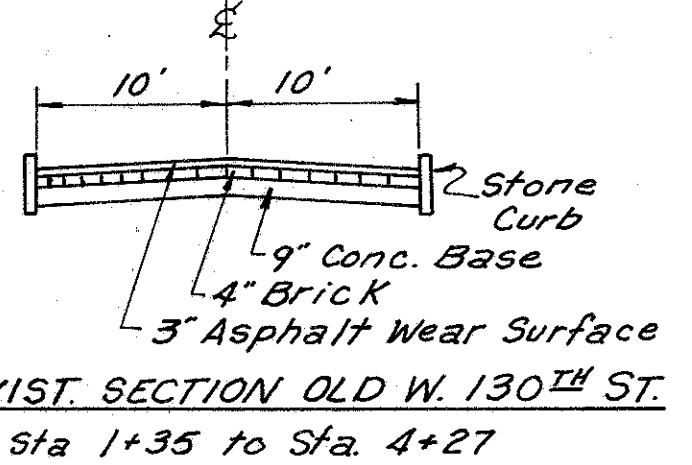
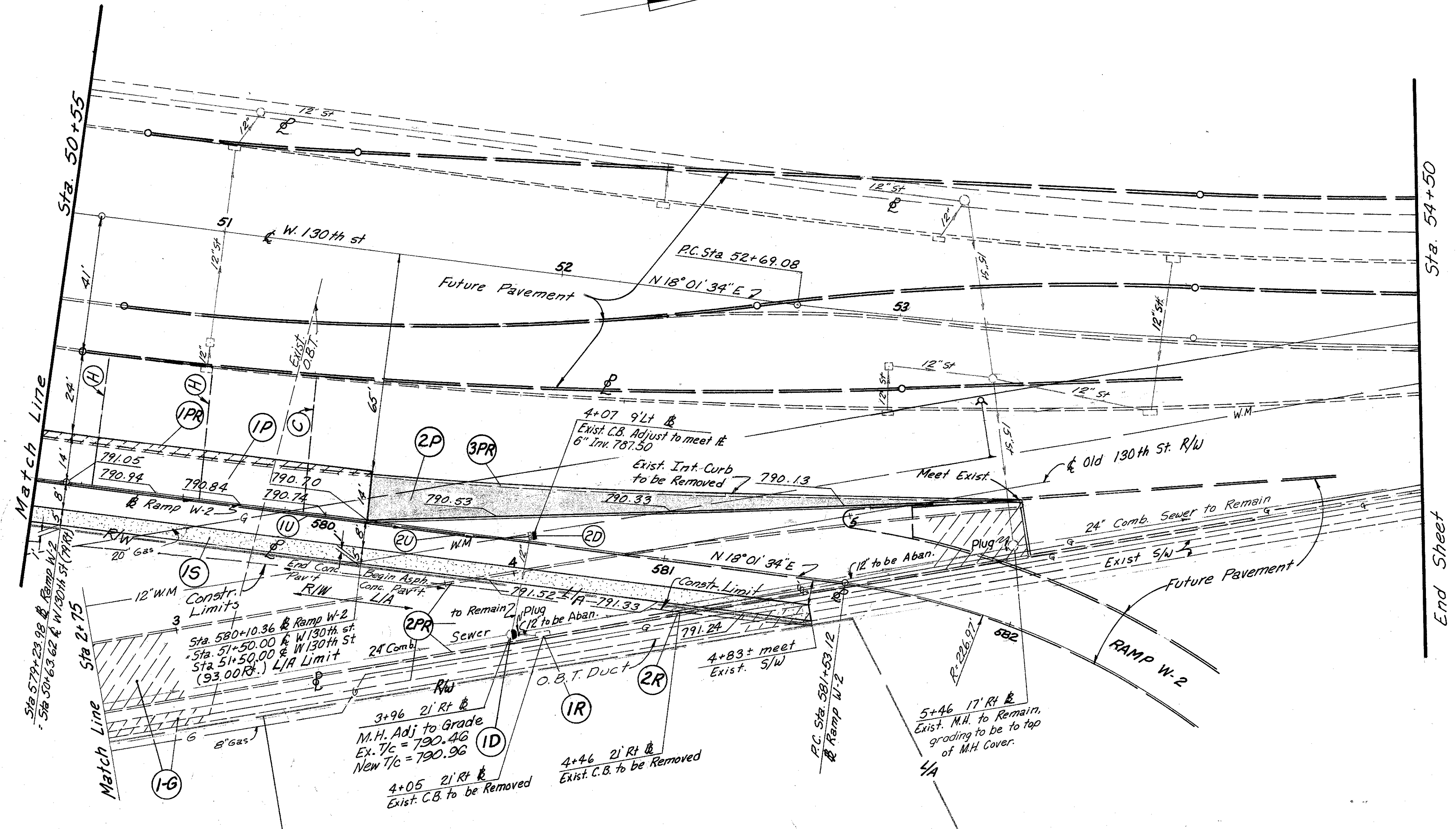
REFERENCE POINT
P.C. Sta. 52+69.08
I.P. in Mon. Box

TBM ELEV. 793.21
S.E. Corner Anchor bolt in name
plate N.E. Corner P.C. R.R. Structure

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

10
10

CUYAHOGA COUNTY
CUY-80-10.57



LEGEND

	4" Concrete Walk
	Removal of Exist. Pav't & Exist. Conc. S/W
	Asphalt Concrete Pav't

Note: For Pavement Joint Legend see Sheet No. 9

Sta. 50+55 to Nosing	CUYAHOGA COUNTY
Excavation	* 145 C.Y.
Embankment	* 135 C.Y.
Seeding	* 676 S.Y.

(1G) Exist. S/W & Pav't Area to be Graded & Resealed	95% Spec. & 5% State
Excavation	-0- C.Y.
Embankment	518 C.Y.
Seeding	1322 S.Y.

Estimated Quantities	202		604		304 310		402		404		605		408		603		451		604		608		609		609		203	
	Exist. Pav'tment Removed & Disposed of	Exist. S/W Removed & Disposed of	Exist. Curb Removed & Disposed of	Exist. Catch Basin Removed	Catch Basin Adjusted to Grade	3" Aggregate Base	Subbase (703.08 or 703.10)	1/2" Asphalt Conc. (70-85)	1/2" Asphalt Conc. (70-85)	6" Shallow Perf. Bituminous Prime Coat	BES 100 with Ulys Prime Coat	6" Conduit Type "F"	9" Reinforced Conc. Parment	Exist. Manhole Adjusted to Grade	4" Concrete Walk	Curb, Type "A" (Mod.) 6"x1"	Asphalt Concrete Curb	Subgrade Compaction	S.Y.	S.F.	L.F.	L.F.	S.Y.	S.F.	L.F.	L.F.	S.Y.	S.F.
1P Rt. 50+55 to 51+50																												
2P Rt. 51+50 to Nose																												
2U Rt. 51+50 to 4+07																												
15 Rt. 50+55 to 4+83 (old)																												
1U Rt. 50+55 to 51+50																												
1PR Rt. 50+55 to 51+50	21																											
2PR Rt. 2+75 to Nose	582	1040	304																									
3PR Rt. 51+50 to Nose			190																									
2D Rt. 4+07																												
1R Rt. 4+05																												
2R Rt. 4+46																												
1D Rt. 3+96																												
100% Special Participation			190		1	11	22		6	6	38	53	10													207	96	
95% Spec. & 5% State Totals	332	1040	304	2																1		1150						
Cuyahoga County Totals	21																											

659 Seeding	
Sheet No.	95% Spec. and 5% State Cuyahoga County
87	256
98	799
109	1,322
Totals	2,377 * 900

659 Commercial Fertilizer
2,377 s.y. x 9 x 201b/1000 s.f. + 2000 lb/ton = 0.21 Ton (95% Spec. & 5% State) (Cuyahoga County)

900 s.y. x 9 x 201b/1000 s.f. + 2000 lb/ton = 0.08 Ton * (Cuyahoga County)

659 Agricultural Liming
2,377 s.y. x 9 x 1001b/1000 s.f. + 2000 lb/ton = 1.07 Ton (95% Spec. & 5% State) (Cuyahoga County)

900 s.y. x 9 x 1001b/1000 s.f. + 2000 lb/ton = 0.41 Ton * (Cuyahoga County)

CALC. BY T.R.B. DATE 2-27-69
CHKD. BY D.R.H. DATE 3-5-69