

USR 422 (CHAGRIN BLVD)  
SLM 8.14=MM 29.96

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

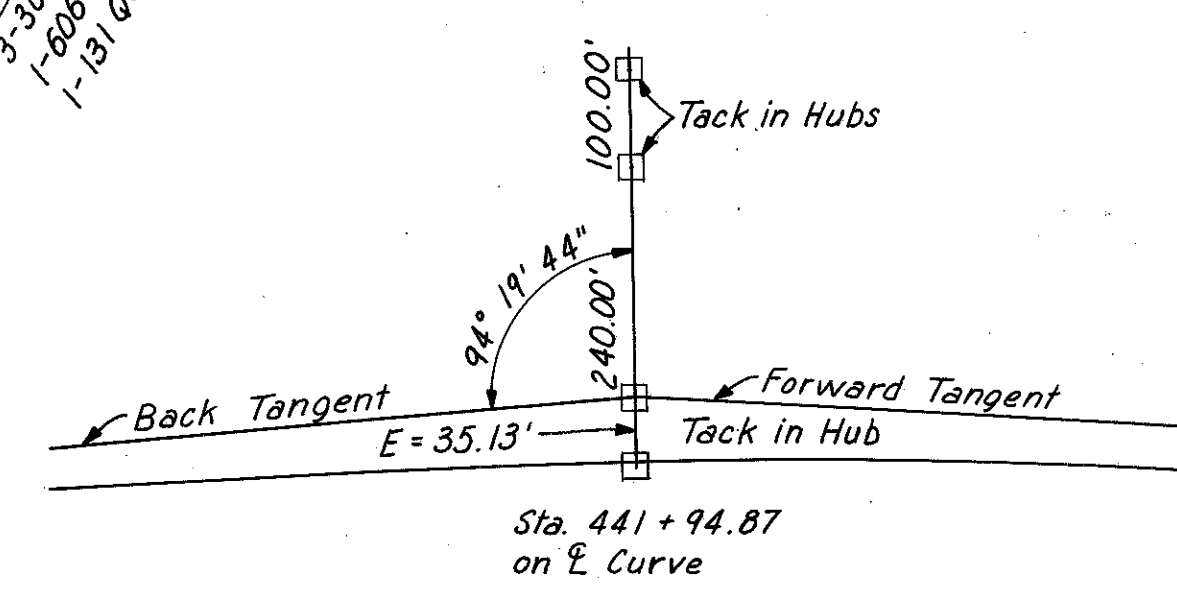
CUYAHOGA COUNTY  
CUY-1-2.20

BENCH MARK 132  
R.R. Spike 15" Catalpa Tree  
150' Rt. Sta. 448+50  
Elev. 1218.521

BENCH MARK 132-A  
Lag Bolt N. Root Twin 6" Cherry  
34.5' Lt. Sta. 449+70  
28' S. of S. Curb Chagrin Blvd.  
Elev. 1213.569

C.R.G.S. BENCH MARK 23  
Monument at Chagrin Blvd.  
and Richmond Roads  
Elev. 1220.48

REFERENCE POINT  
P.I. Sta. 441+96.64



CURVE DATA  
P.I. Sta. 441+96.64  
 $\Delta = 8^\circ 39' 28''$   
 $D = 0^\circ 28' 00''$   
 $R = 12,277.67'$   
 $T = 929.38'$   
 $L = 1853.23'$   
 $E = 35.07'$

REF. NO.	STATION	SIDE	DRAINAGE													
			I-2					I-8					L-10			
			Cl. "B" St. Sew.	Cl. "B" St. Sew. M-6.8	Cl. "B" St. Sew. M-6.8	Cl. "B" St. Sew. M-6.8	Cl. "B" St. Sew. M-6.8	Std. C.B.	Std. C.B.	Std. C.B.	Std. C.B.	Std. No. 1 M.H.		Std. No. 2 M.H.		
From	To	Lin. Ft.	Each		Each		Each		Each		Sq. Yds.					
1-D	440+00	441+75	Rt.													
2-D	441+75	444+75	Rt.		118	58	171			3	1	1	1	.57		
3-D	441+75	444+75	Rt.		294											
4-D	444+75	447+75	Rt.	15		106	324			2	3	1		1	57	
5-D	444+75	447+75	Rt.					292								
7-D	447+75	450+00	Rt.							2				1	24	
8-D	447+75	450+00	Rt.													
Total				15	294	*331	*164	*673	*515	2	3	2	2	1	2	138

\* Sec. M-6.5(b) or Sec. M-6.8(b)  
\* Sec. M-6.6(b) or Sec. M-6.8(b)

REF. NO.	STATION	SIDE	UNDERDRAINS					
			I-4	I-4	I-5			
			Outlet Pipe M6.4(a) 8"	Pipe Under Drains 6"	60° Bend 6"	90° Bend 6"	Tee 6" x 6"	
From	To	Lin. Ft.	Each					
1-U	440+00	441+75	Lt.	10	170	1		
2-U	440+00	441+75	Lt.	10	170	1		
3-U	440+00	441+75	Rt.	10	170	1		
4-U	440+00	441+00	Rt.		131		1	1
5-U	443+00	450+00	Lt.		700			
6-U	441+70	450+00	Lt.		830			
7-U	441+70	450+00	Rt.		830			
8-U	447+75	450+00	Rt.		222			
9-U	441+70	447+75	Rt.		605			
10-U	430+00	441+75	Rt.	10	98	1		
Total				40	3926	4	1	1

STATION	SIDE	GUARDRAIL	
		I-15	Steel Beam Type (Deep)
		Lin. Ft.	Lin. Ft.
From	To	Lin. Ft.	Lin. Ft.
446+55	448+30	Rt.	175
447+00	448+75	Rt.	175
448+55	450+00	Lt.	145
449+00	450+00	Lt.	100
Total			595

SEE 1994 CUY-271-7.61 PLANS FOR TRANSVERSE STORM SEWERS EXTENSIONS AND RELOCATED TRUNK SEWERS

**PROPOSED STRUCTURE**  
TYPE: Continuous welded girders with reinforced concrete deck and substructure.  
SPANS: 58'-0", 96'-6", 86'-0", 86'-6", 90'-0" & 54'-6"  
ROADWAY: 2 at 27'-0" with 2'-4"-2" sidewalks and 3'-0" raised median.  
LOAD FREQUENCY: CF 2000 Adequate for A.A.-S.H.O. Alternate Loading.  
SKEW: 24° 19' 00" R.F.  
WEARING SURFACE: 1" Monolithic Concrete.  
APPROACH SLABS: AS-1-54 (25' long).  
ALIGNMENT: Tangent.

see sheets 276-283

Note:  
Earthwork for Ramps F-1, F-4, F-4A, S.F. 6 is included in the totals for this sheet. † For Interchange Details See Sheets 45-57. For Sewer Profile See Sheets 257 & 258.

Excavation	4,11,170	Cu. Yds.
Embankment	4,794	Cu. Yds.
Embankment + 18%	5,657	Cu. Yds.

DATE	BY	REVISION
APR 23 1986 <td>E.C.E. <td>1. PLOTTED</td> </td>	E.C.E. <td>1. PLOTTED</td>	1. PLOTTED
	H.J.H. <td>2. RT. OF WAY CHECKED</td>	2. RT. OF WAY CHECKED
	<td>3. NOTE BOOK</td>	3. NOTE BOOK

DATE	BY	REVISION
7-2-82	E.C.E. <td>1. GRADES CHECKED</td>	1. GRADES CHECKED
7-2-82	H.J.H. <td>2. M. NOTED</td>	2. M. NOTED
	<td>3. STRUCTURE NOT REVISIONS CHECKED</td>	3. STRUCTURE NOT REVISIONS CHECKED

HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
CONSULTING ENGINEERS  
KANSAS CITY CLEVELAND NEW YORK