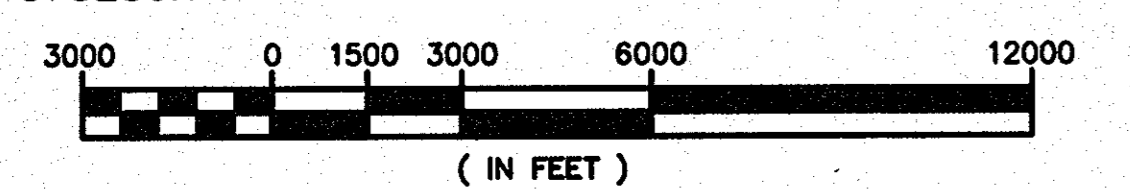


NORTHING 673230.74 EASTING 2210772.68



PORTION TO BE IMPROVED

CUYAHOGA COUNTY

CUY-E105TH STREET(CR 400)/ MLK DRIVE

CLEVELAND, OHIO

PROJECT DESCRIPTION
 MODIFICATION TO THE EXISTING ROADWAY NETWORK THAT INCLUDES MLK DRIVE, E105TH STREET, MOUNT SINAI DRIVE, EAST BOULEVARD, AND JEPHTHA DRIVE. INCLUDING PAVEMENT WIDENING, GEOMETRIC REALIGNMENT, SIGNAL AND LANDSCAPING.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA	11.0 AC
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	0.25 AC
NOTICE OF INTENT EARTH DISTURBED AREA	11.25 AC

2010 SPECIFICATIONS
 THE STANDARD CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, SHALL GOVERN THIS IMPROVEMENT EXCEPT WHEN MODIFIED BY THE PLANS, SPECIAL PROVISIONS, SUPPLEMENTAL SPECIFICATIONS OR PROPOSAL NOTES.

 THIS PROJECT WAS DESIGNED USING CUYAHOGA COUNTY ENGINEER'S DESIGN STANDARDS DATED AUGUST 26 2008.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT AS NOTED ON SHEETS 7-11 AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

DOUGLAS L. DILLON, PE, PS

 CUYAHOGA COUNTY ENGINEER DATE 19 Mar 2012

INDEX OF SHEETS

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CROSS SECTIONS - MT. SINAI DR.	67-70	STREET LIGHTING (8 SHEETS)	

DESIGN DESIGNATION

	MLK DR.	E105TH ST.	MT. SINAI	JEPHTHA	EAST BLVD.
CURRENT ADT (2005)	22959	17039			
DESIGN YEAR ADT (2025)	24720	24944	N/A	N/A	N/A
DESIGN HOURLY VOLUME (DHV)	1824	1961			
DIRECTIONAL DISTRIBUTION (D)	0.60	0.53			
TRUCKS (T) (24 HOUR B&C)	0	0.04			
DESIGN SPEED	30	35	25	25	25
LEGAL SPEED	30	25	25	25	25

DESIGN FUNCTIONAL CLASSIFICATION: MINOR URBAN ARTERIAL

DESIGN EXCEPTIONS

NONE

APPROVED IN THE CITY OF CLEVELAND
 ORDINANCE OF CONSENT NO. 447-08
 PASSED JUNE 9, 2008

UNDERGROUND UTILITIES

TWO (2) WORKING DAYS
BEFORE YOU DIG

CALL 1-800-362-2764 (TOLL FREE)
 OHIO UTILITIES PROTECTION SERVICE
 NON MEMBERS
 MUST BE CALLED DIRECTLY
 - AND -
 CALL 1-800-925-0988 (TOLL FREE)
 OHIO OIL & GAS PRODUCERS
 UNDERGROUND PROTECTION SERVICE

These Plans Prepared by:

HNTB

1100 Superior Avenue, Suite 1330
 Cleveland, OH 44114-2531

ENGINEER'S SEAL

SIGNED: *Matthew J. Wahl*
 DATE: 3-16-2012
 SHEETS: 1-129, 159-168

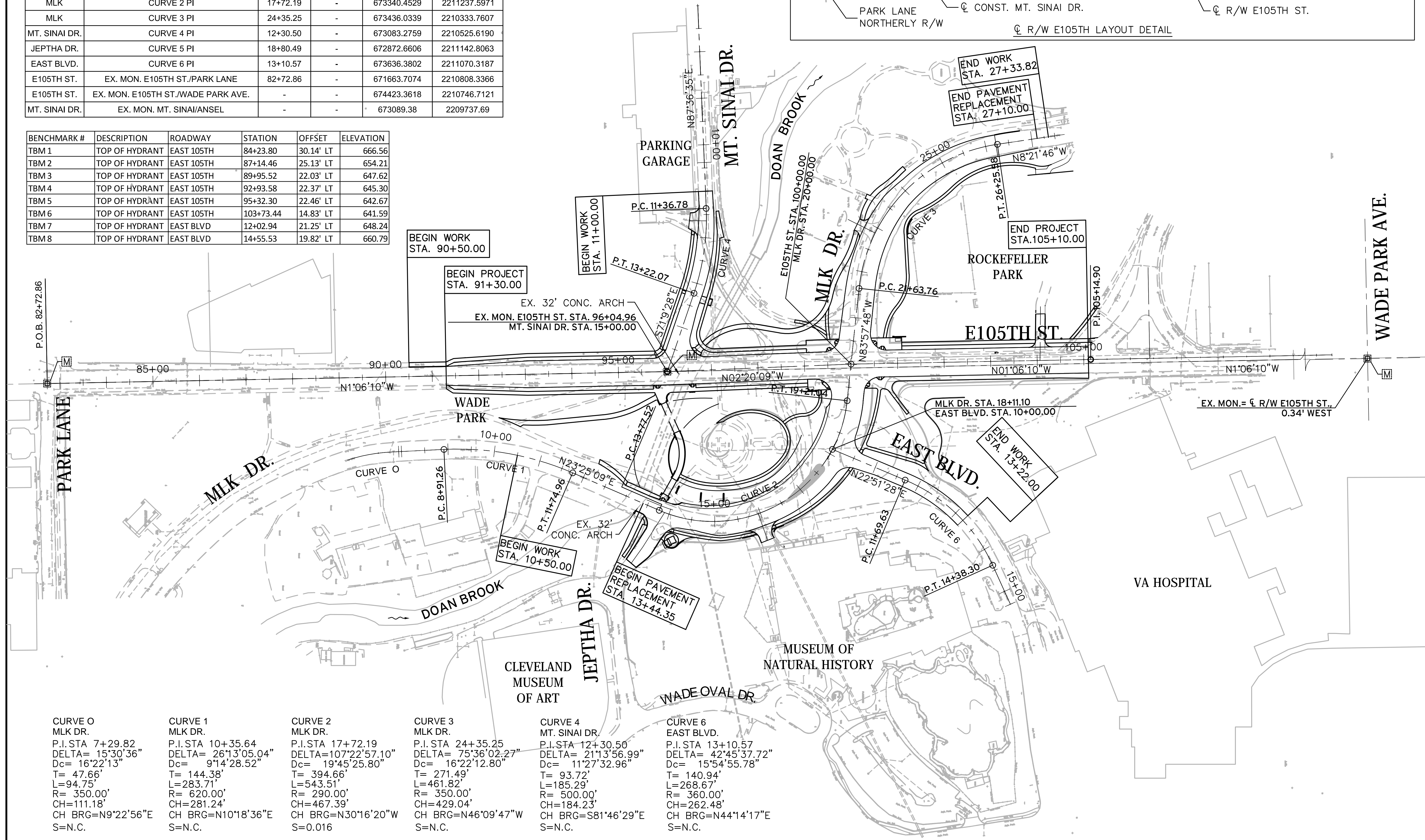
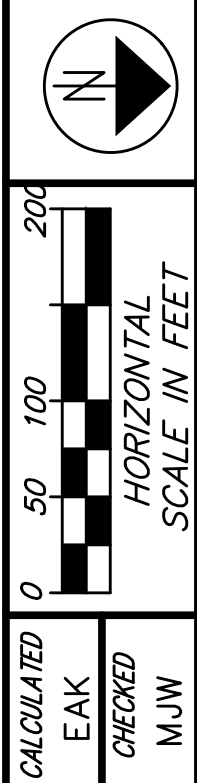
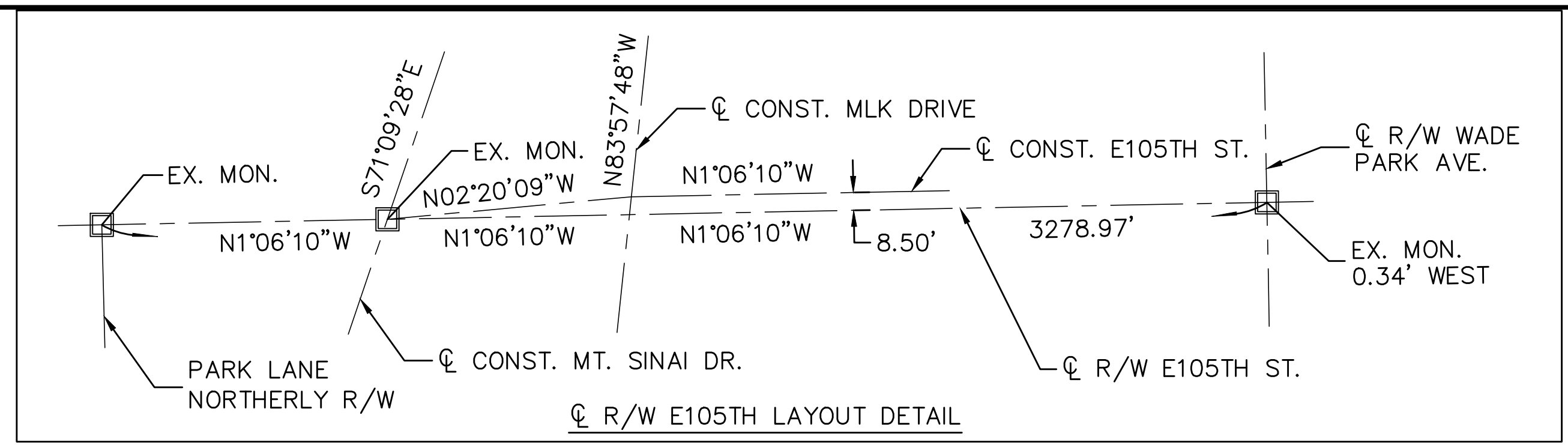
OHIO DEPARTMENT OF TRANSPORTATION STANDARD CONSTRUCTION DRAWINGS						CUYAHOGA COUNTY ENGINEER CONSTRUCTION DRAWINGS				CITY OF CLEVELAND STANDARD DRAWINGS		O.D.O.T. SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
NUMBER	DATE	NUMBER	DATE	NUMBER	DATE	NUMBER	DATE	NUMBER	DATE	NUMBER	DATE	NUMBER	DATE	
BP-2.1	07-18-08	MT-35.10	04-20-01	TC-41.40	07-16-04	BP-2.6C	10-10-08	MD-5C	12-07-99	ASPH 1	07-08-08	800	01-20-12	SEE SECTION 200 OF THE CUYAHOGA COUNTY ENGINEER SPECIFICATION BOOKLET
BP-2.2	07-18-08	MT-95.31	07-17-09	TC-42.20	01-21-11	BP-2.7C	10-10-08	MD-6C	05-31-10	CONC 1	07-08-08	832	05-05-09	
BP-2.5	07-18-08	MT-95.32	07-17-09	TC-52.10	01-19-07	BP-2.8C	10-10-08	MKG-1C	01-26-04	PR 1	04-14-08			
BP-3.1	01-20-12	MT-95.50	04-17-09	TC-52.20	01-19-07	BP-4.1C	05-31-10	MKG-2C	01-26-04	CR 1	04-14-08			
BP-5.1	07-28-00	MT-97.10	10-15-10	TC-81.21	10-21-11	MB-1C	06-16-11	SGN-1C	01-26-04	CD1	04-14-08			
CB-1.1	07-15-05	MT-97.11	10-15-10	TC-82.10	01-21-11	MB-2C	10-10-08	SGN-2C	01-26-04	146ME	07-08-08			
CB-2.3	07-15-05	MT-101.60	04-17-09	TC-83.10	01-19-07	MD-1C	05-31-10	SGN-3C	01-26-04	149ME	07-08-08			
CB-4.2	07-19-02	MT-102.20	04-17-09	TC-83.20	01-21-11	MD-2C	10-29-01	SGN-4C	01-26-04	164ME	07-08-08			
DM-1.1	01-21-11	MT-105.10	01-16-09	TC-85.10	10-16-09	MD-3C	06-16-11	SGN-5C	01-26-04	MH1	07-08-08			
DM-1.2	10-21-05	MT-110.10	01-16-09	TC-85.20	07-15-11			SGN-6C	01-26-04	CB-1	07-08-08			
DM-1.4	07-15-11	MT-120.00	01-16-09					PST-1C	01-26-04	A-503	07-08-08			
DM-4.3	04-17-09	MT-99.20	01-16-09	A-1-69	07-19-02					A-605	07-08-08			
DM-4.4	04-17-09	TC-12.30	01-21-11	HL-30.11	10-16-09									
LA-1.1	1C-15-10	TC-21.20	04-15-11	HL-30.22	04-17-09									
LA-1.2	01-16-09	TC-22.20	01-21-11											
RM-1.1	07-15-11	TC-41.20	01-19-01											

FEDERAL PROJECT NO. E101 (117)
 PID NO. 83005
 CONSTRUCTION PROJECT NO.
 RAILROAD INVOLVEMENT NONE
 CUY-E105TH STREET/MLK DRIVE
 168

DRAWING NAME:
 PLOTTING SCALE:
 PLOT DATE:

LOCATION	DESCRIPTION	STATION 1	STATION 2	COORDINATES	
				NORTH	EAST
E105TH ST.	EX. MON. E105TH/MT. SINAI INTERSECTION	96+04.96	15+00.00	672995.5473	2210782.6991
E105TH ST.	E105TH/MLK INTERSECTION	100+00.00	20+00.00	673390.2610	2210766.5991
MLK	MLK/JEPHTHA INTERSECTION	12+97.33	17+81.23	672904.7181	2211048.8650
MLK	MLK/EAST INTERSECTION	18+11.11	10+00.00	673350.1988	2210949.6793
MLK	CURVE 1 PI	10+35.64	-	672659.9408	2210942.8433
MLK	CURVE 2 PI	17+72.19	-	673340.4529	2211237.5971
MLK	CURVE 3 PI	24+35.25	-	673436.0339	2210333.7607
MT. SINAI DR.	CURVE 4 PI	12+30.50	-	673083.2759	2210525.6190
JEPHTHA DR.	CURVE 5 PI	18+80.49	-	672872.6606	2211142.8063
EAST BLVD.	CURVE 6 PI	13+10.57	-	673636.3802	2211070.3187
E105TH ST.	EX. MON. E105TH ST./PARK LANE	82+72.86	-	671663.7074	2210808.3366
E105TH ST.	EX. MON. E105TH ST./WADE PARK AVE.	-	-	674423.3618	2210746.7121
MT. SINAI DR.	EX. MON. MT. SINAI/ANSEL	-	-	673089.38	2209737.69

BENCHMARK #	DESCRIPTION	ROADWAY	STATION	OFFSET	ELEVATION
TBM 1	TOP OF HYDRANT	EAST 105TH	84+23.80	30.14' LT	666.56
TBM 2	TOP OF HYDRANT	EAST 105TH	87+14.46	25.13' LT	654.21
TBM 3	TOP OF HYDRANT	EAST 105TH	89+95.52	22.03' LT	647.62
TBM 4	TOP OF HYDRANT	EAST 105TH	92+93.58	22.37' LT	645.30
TBM 5	TOP OF HYDRANT	EAST 105TH	95+32.30	22.46' LT	642.67
TBM 6	TOP OF HYDRANT	EAST 105TH	103+73.44	14.83' LT	641.59
TBM 7	TOP OF HYDRANT	EAST BLVD	12+02.94	21.25' LT	648.24
TBM 8	TOP OF HYDRANT	EAST BLVD	14+55.53	19.82' LT	660.79

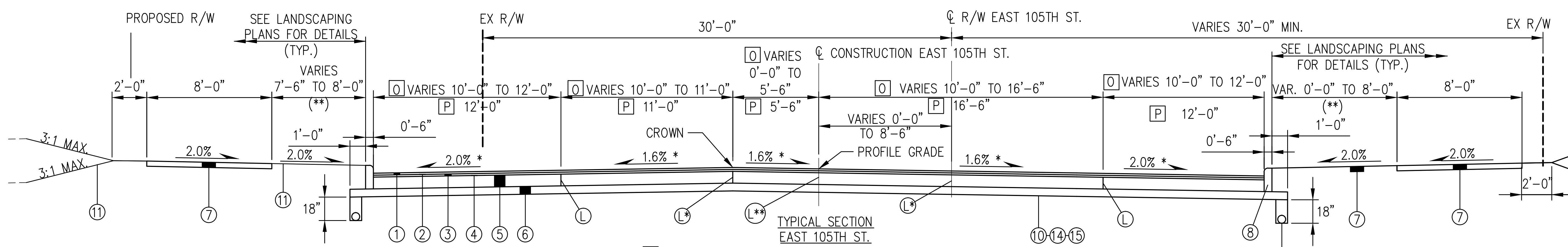


<p>CURVE 0 MLK DR. P.I. STA 7+29.82 DELTA= 15°30'36" Dc= 16°22'13" T= 47.66' L= 94.75' R= 350.00' CH=111.18' CH BRG=N9°22'56"E S=N.C.</p>	<p>CURVE 1 MLK DR. P.I. STA 10+35.64 DELTA= 26°13'05.04" Dc= 9°14'28.52" T= 144.38' L= 283.71' R= 620.00' CH=281.24' CH BRG=N10°18'36"E S=N.C.</p>	<p>CURVE 2 MLK DR. P.I. STA 17+72.19 DELTA= 107°22'57.10" Dc= 19°45'25.80" T= 394.66' L= 543.51' R= 290.00' CH=467.39' CH BRG=N30°16'20"W S=0.016</p>	<p>CURVE 3 MLK DR. P.I. STA 24+35.25 DELTA= 75°36'02.27" Dc= 16°22'12.80" T= 271.49' L= 461.82' R= 350.00' CH=429.04' CH BRG=N46°09'47"W S=N.C.</p>	<p>CURVE 4 MT. SINAI DR. P.I. STA 12+30.50 DELTA= 21°13'56.99" Dc= 11°27'32.96" T= 93.72' L= 185.29' R= 500.00' CH=184.23' CH BRG=S81°46'29"E S=N.C.</p>	<p>CURVE 6 EAST BLVD. P.I. STA 13+10.57 DELTA= 42°45'37.72" Dc= 15°54'55.78" T= 140.94' L= 268.67' R= 360.00' CH=262.48' CH BRG=N44°14'17"E S=N.C.</p>
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SCHEMATIC PLAN

CUY-E105TH STREET/
MLK DRIVE

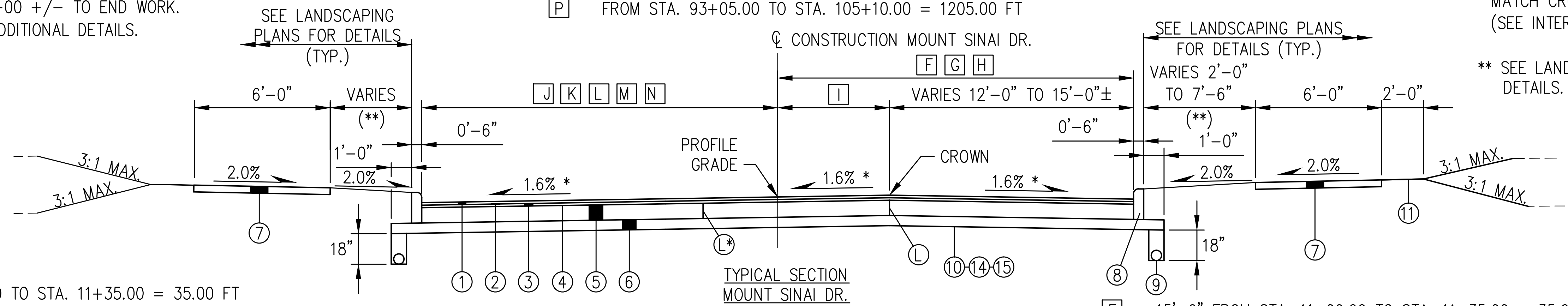
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L*-JOINT LOCATION FROM BEGIN WORK TO 98+00 +/-.
L**- JOINT LOCATION FROM 98+00 +/- TO END WORK.
SEE JOINT LAYOUT PLAN FOR ADDITIONAL DETAILS.

[O] FROM STA. 91+30.00 TO STA. 93+05.00 = 175.00 FT
[P] FROM STA. 93+05.00 TO STA. 105+10.00 = 1205.00 FT

* TRANSITION X-SLOPE TO MATCH CROSSROAD PROFILES (SEE INTERSECTION DETAILS).
** SEE LANDSCAPING PLANS FOR DETAILS.

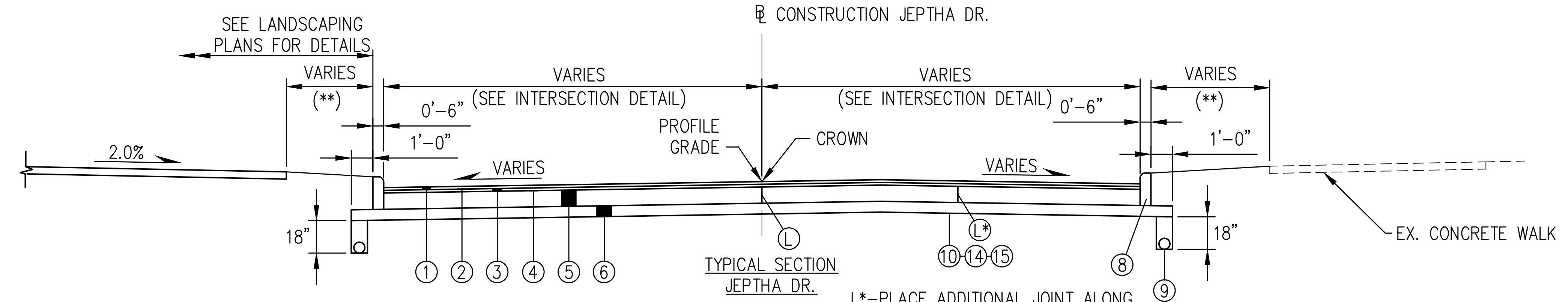


STA. 11+00.00 TO STA. 15+00.00 = 400.00 FT.

[F] 15'-0" FROM STA. 11+00.00 TO STA. 11+35.00 = 35.00 FT
[G] VARIES 15'-0" TO 17'-6" FROM STA. 11+35.00 TO STA. 12+17.50 = 82.50 FT
[H] 17'-6" FROM STA. 12+17.50 TO STA. 15+00.00 = 282.50 FT
[I] VARIES 0'-0" TO 5'-6" FROM STA. 12+00.00 TO STA. 12+50.00 = 50.00 FT

L*-PLACE ADDITIONAL JOINT ALONG CENTER MARKING WHEN NECESSARY

[J] 15'-0" FROM STA. 11+00.00 TO STA. 11+35.00 = 35.00 FT
[K] VARIES 15'-0" TO 17'-6" FROM STA. 11+35.00 TO STA. 12+17.50 = 82.50 FT
[L] 17'-6" FROM STA. 12+17.50 TO STA. 13+56.00 = 138.50 FT
[M] VARIES 17'-6" TO 21'-7" FROM STA. 13+56.00 TO STA. 14+06.00 = 50.00 FT
[N] VARIES 21'-7" MIN. FROM STA. 14+06.00 TO STA. 15+00.00 = 94.00 FT



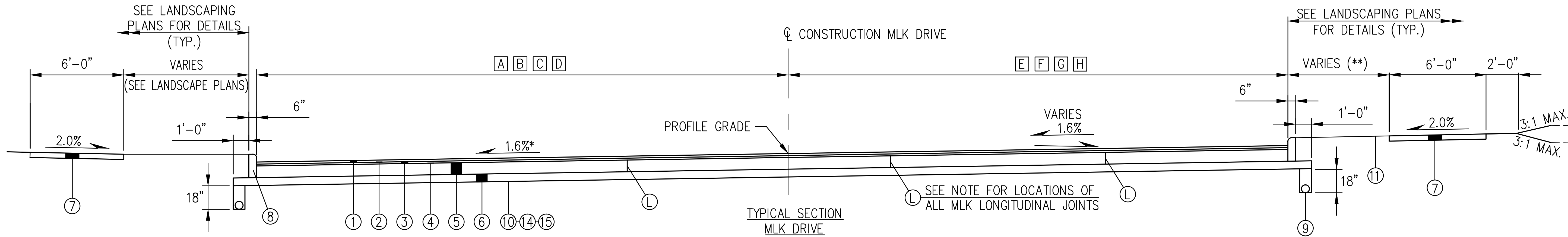
L*-PLACE ADDITIONAL JOINT ALONG CHANNELIZING LINE WHEN NECESSARY

[A] VARIES 15'-0" MIN. FROM STA. 10+00.00 TO STA. 11+05.00 = 105.00 FT
[B] 15'-0" FROM STA. 11+05.00 TO STA. 13+22.00 = 217.00 FT
[C] VARIES 15'-0" MIN. FROM STA. 10+00.00 TO STA. 10+69.17 = 69.17 FT
[D] 15'-0" FROM STA. 10+69.17 TO STA. 13+14.00 = 244.83 FT
[E] VARIES 15'-0" TO 14'-6" ± FROM STA. 13+14.00 TO STA. 13+22.00 = 8.00 FT

STA. 10+00.00 TO STA. 13+22.00 = 322.00 FT.

NOTE: APP = AS PER PLAN

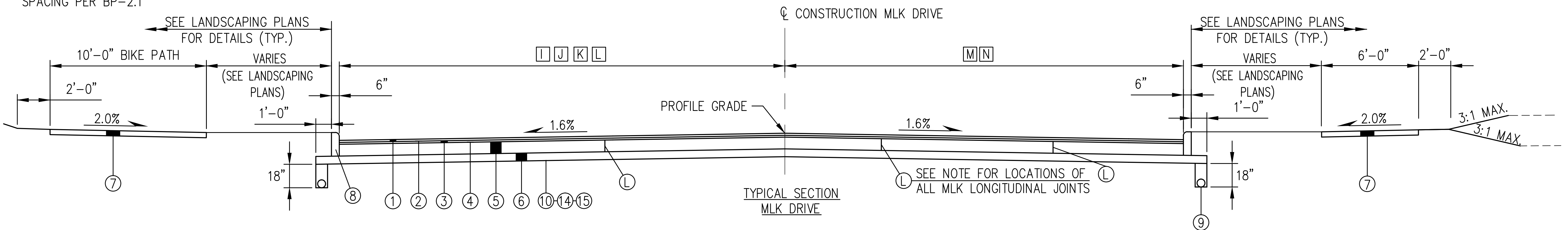
PROPOSED LEGEND	
①	ITEM 448 - 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M, APP
②	ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE
③	ITEM 448 - 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22, APP
④	ITEM 407 - TACK COAT
⑤	ITEM 305 - 9" CONCRETE BASE, APP
⑥	ITEM 304 - 6" AGGREGATE BASE, APP
⑦	ITEM 608 - 4" CONCRETE WALK, APP
⑧	ITEM 609 - CURB, TYPE 6, APP
⑨	ITEM 605 - 6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, APP
⑩	ITEM 204 - SUBGRADE COMPACTION
⑪	ITEM 659 - SEEDING AND MULCHING, APP
⑫	ITEM 452 - 12.5" NON-REINFORCED CONCRETE PAVEMENT, APP
⑬	ITEM 204 - 36" EXCAVATION OF SUBGRADE & GRANULAR MATERIAL, TYPE B (STA. 12+00 TO STA. 13+22)
⑭	ITEM 204 - PROOF ROLLING
⑮	ITEM SPECIAL - SUBGRADE GEOTEXTILE FABRIC
⑯	ITEM 204 - GEOTEXTILE FABRIC
⑰	ITEM 452 - 12.25" NON-REINFORCED CONCRETE PAVEMENT, APP
Ⓛ	LONGITUDINAL JOINT PER BP-2.1



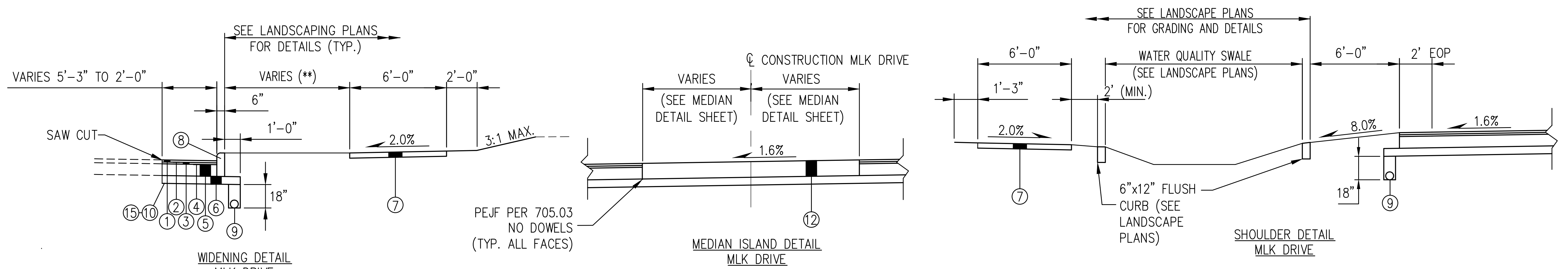
- [A] VARIES 19'-5" TO 23'-0" FROM STA. 13+44.35 TO STA. 14+05.50 = 61.15 FT
- [B] VARIES 23'-0" TO 34'-0" FROM STA. 14+05.50 TO STA. 17+50.00 = 344.50 FT
- [C] 34'-0" FROM STA. 17+50.00 TO STA. 19+21.04 = 171.04 FT
- [D] VARIES 34'-0" TO 28'-7" FROM STA. 19+21.04 TO STA. 21+50.00 = 228.96 FT
- [E] VARIES 20'-9"± TO 21'-4" FROM STA. 13+44.35 TO STA. 14+60.50 = 116.15 FT
- [F] VARIES 21'-4" TO 30'-10" FROM STA. 14+60.50 TO STA. 15+10.50 = 50.00 FT
- [G] VARIES 30'-10" TO 34'-0" FROM STA. 15+10.50 TO STA. 17+50.00 = 239.50 FT
- [H] 34'-0" FROM STA 17+50.00 TO STA. 21+50.00 = 400.00 FT

** SEE LANDSCAPING PLANS FOR DETAILS.
 NOTE: LONGITUDINAL JOINTS FOR MLK DRIVE SHALL BE PLACED ALONG PROP. PAVEMENT MARKINGS LOCATIONS AT 16' MAX. SPACING PER BP-2.1

STA. 13+44.35 TO STA. 21+50.00 = 805.65 FT.
 * TRANSITION X-SLOPE TO MATCH CROSSROAD PROFILES (SEE INTERSECTION DETAILS).



- [I] VARIES 28'-7" TO 26'-0" FROM STA. 21+50.00 TO STA. 22+68.00 = 118.00 FT
- [J] 26'-0" FROM STA. 22+68.00 TO STA. 23+64.00 = 96.00 FT
- [K] VARIES 26'-0" TO 21'-0" FROM STA. 23+64.00 TO STA. 24+14.00 = 50.00 FT
- [L] 21'-0" FROM STA. 24+14.00 TO STA. 26+22.50 = 208.50 FT
- [M] 34'-0" FROM STA. 21+50.00 TO STA. 21+63.76 = 13.76 FT
- [N] VARIES 34'-0" TO 26'-0" FROM 21+63.76 TO 26+22.50 = 458.74 FT



STA. 26+22.50 TO STA. 27+10.00 = 87.50 FT. STA. 15+59.50 TO STA. 17+71.25 = 211.75 FT. STA. 14+00.00 TO STA. 19+25.00 = 525.00 FT.

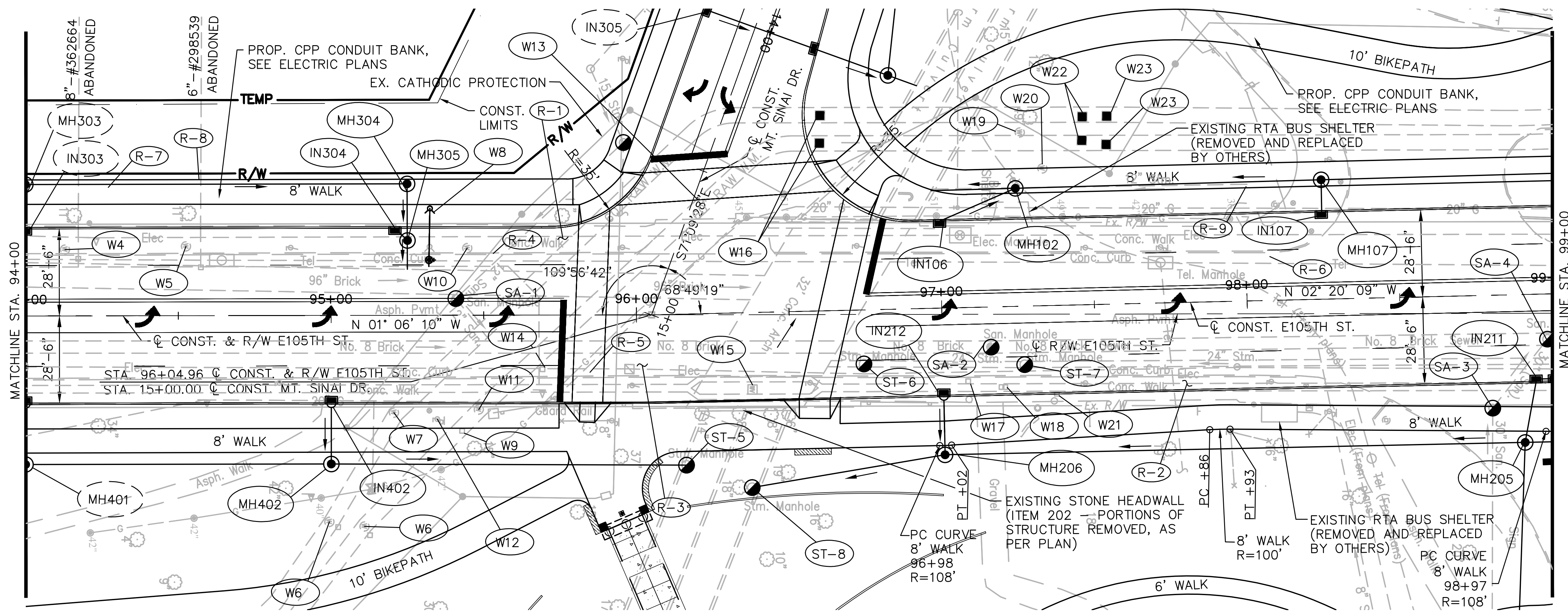
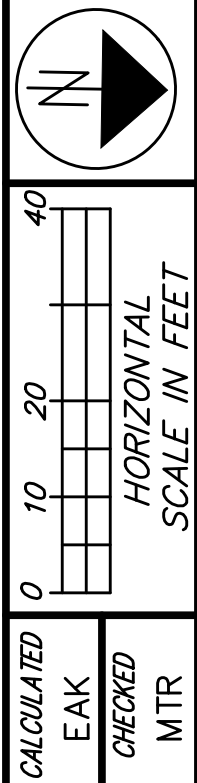
FOR PROPOSED LEGEND, SEE SHEET 5

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8	HORIZONTAL SCALE IN FEET
4	
2	
0	
CALCULATED	MTR
EAK	
CHECKED	

PROPOSED TYPICAL SECTIONS

CUY-E105TH STREET / MLK DRIVE



FOR WALK AND LANDSCAPING DETAILS SEE SHEETS 130-158 FOR SEWER PROFILES SEE SHEETS 45-48, 85, 86 FOR SIGNAL PLANS, SEE SHEETS 127-128 FOR INT. DETAIL SEE SHEETS 75-76

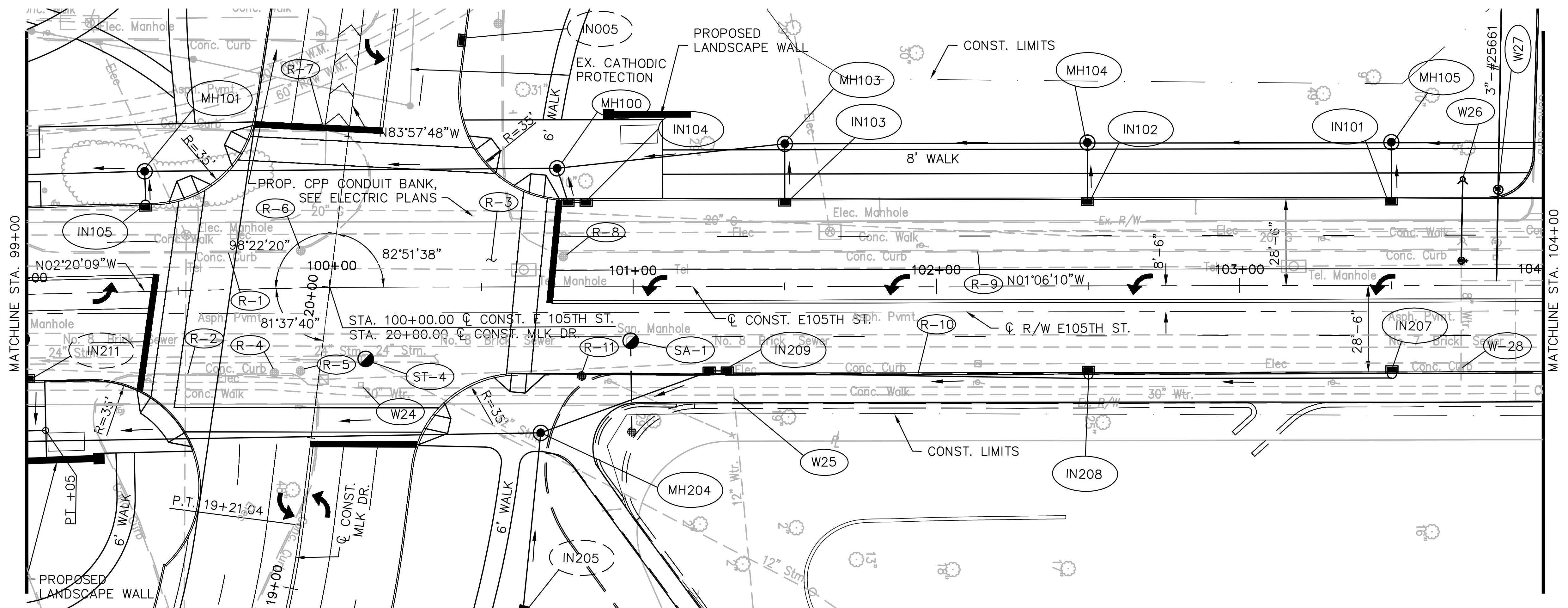
Station	Prop. Profile Grade	Existing Profile Grade
94+00	642.28	641.4
94+10	642.10	641.1
94+20	641.93	640.8
94+30	641.75	640.6
94+40	641.58	640.4
94+50	641.40	640.1
94+60	641.23	639.9
94+70	641.05	639.7
94+80	640.88	639.6
94+90	640.70	639.4
95+00	640.38	639.1
95+10	640.06	638.9
95+20	639.75	638.7
95+30	639.43	638.5
95+40	639.11	638.3
95+50	638.79	638.0
95+60	638.48	637.9
95+70	638.16	637.7
95+80	637.84	637.3
95+90	637.56	637.0
96+00	637.28	636.7
96+10	637.00	636.4
96+20	636.72	636.1
96+30	636.44	635.8
96+40	636.16	635.5
96+50	635.88	635.2
96+60	635.60	634.9
96+70	635.32	634.6
96+80	635.04	634.3
96+90	634.76	634.0
97+00	634.48	633.7
97+10	634.20	633.4
97+20	633.92	633.1
97+30	633.64	632.8
97+40	633.36	632.5
97+50	633.08	632.2
97+60	632.80	631.9
97+70	632.52	631.6
97+80	632.24	631.3
97+90	631.96	631.0
98+00	631.68	630.7
98+10	631.40	630.4
98+20	631.12	630.1
98+30	630.84	629.8
98+40	630.56	629.5
98+50	630.28	629.2
98+60	630.00	628.9
98+70	629.72	628.6
98+80	629.44	628.3
98+90	629.16	628.0
99+00	628.88	627.7

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CUY-E105TH STREET / MLK DRIVE
 PLAN & PROFILE - E105TH STREET
 STA. 94+00 TO STA. 99+00



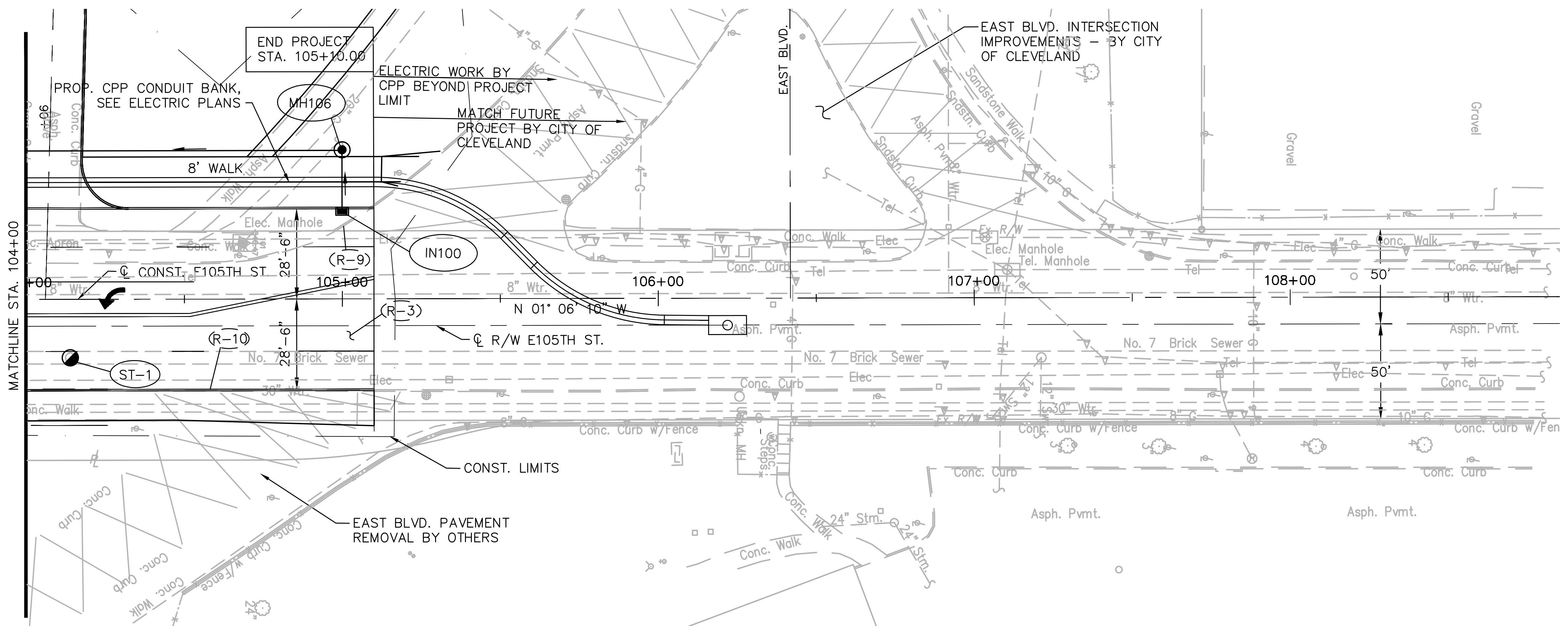
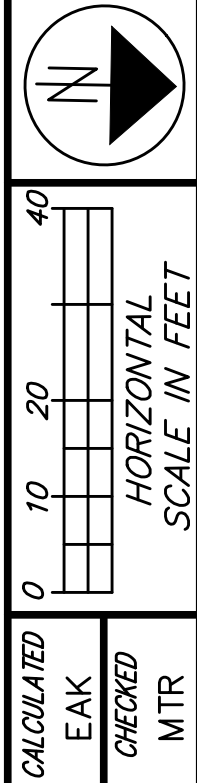
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 PLOT SCALE: 1:2
 PLOT DATE: 1/17/2008 10:31 AM



FOR INT. DETAILS SEE SHEETS 77, 78
 FOR WALK AND LANDSCAPING DETAILS SEE SHEETS 130-158
 FOR SEWER PROFILES SEE SHEETS 48-51, 86-87
 FOR SIGNAL PLANS SEE SHEETS 122-124

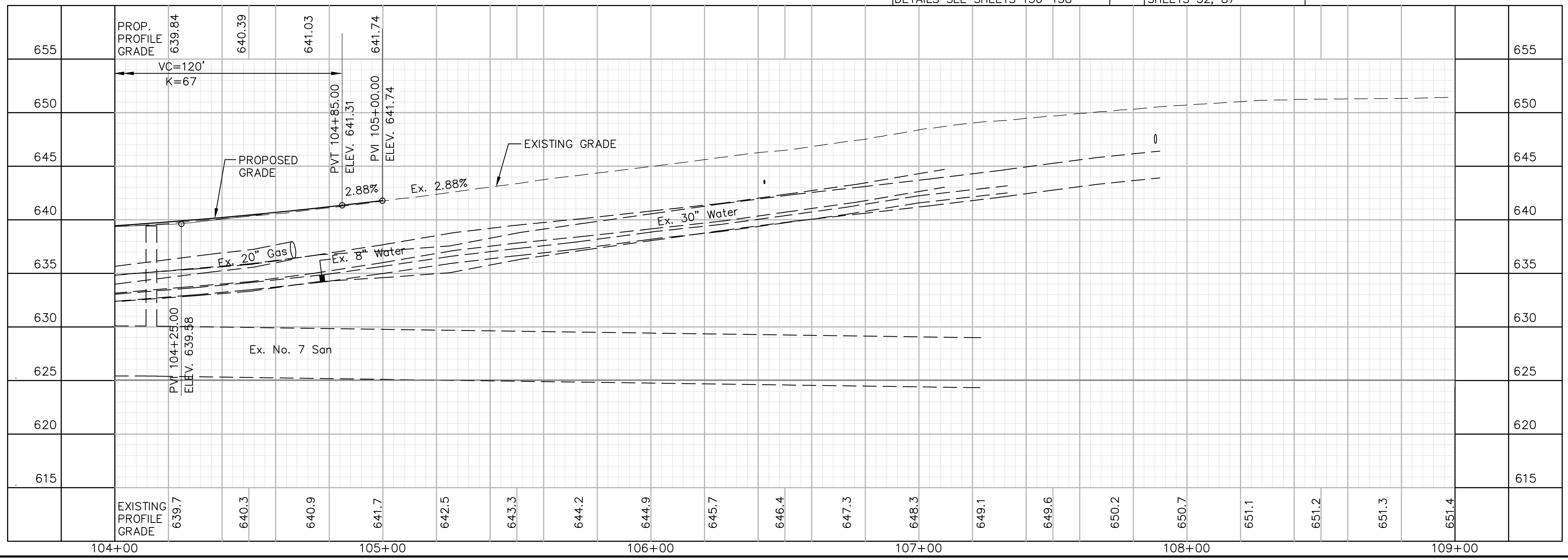
655	PROP. PROFILE GRADE	637.34	637.12	636.90	636.68	636.47	636.31	636.24	636.26	636.36	636.56	636.83	637.10	637.38	637.65	637.93	638.20	638.48	638.75	639.03	639.39	655
650						VC=140' K=71 PVC 100+20.00 ELEV. 636.51 E105TH LOW P.T. STA. 100+82.22, ELEV. 636.23 PVT 101+60.00 ELEV. 636.66														VC=120' K=67 PVC 103+65.00 ELEV. 638.92		650
645																						645
640	PROPOSED GRADE																					640
635																						635
630																						630
625																						625
620																						620
615																						615
	EXISTING PROFILE GRADE	636.6	636.3	636.1	635.8	635.9	635.8	635.7	635.8	636.2	636.6	637.0	637.3	637.6	637.8	637.9	638.0	638.2	638.5	639.0	639.3	
		99+00			100+00				101+00				102+00				103+00				104+00	

CUY-E105TH STREET / MLK DRIVE
 PLAN & PROFILE - E105TH STREET
 STA. 99+00 TO STA. 104+00
 40
 168



FOR WALK AND LANDSCAPING
DETAILS SEE SHEETS 130-158

FOR SEWER PROFILES SEE
SHEETS 52, 87



DRAWING NAME: j:\JOBS\15786\TECHPROD\B3005\cadd\sheet\MLK0400p04 - E105.dwg
 PLOT SCALE: 1:2
 PLOT DATE: 1/17/2008 10:31 AM

CUY-E105TH STREET/
 MLK DRIVE
 PLAN & PROFILE - E105TH STREET
 STA. 104+00 TO END PROJECT