CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS

IN CO-OPERATION WITH

MICHIGAN DEPARTMENT OF TRANSPORTATION

AND

FEDERAL HIGHWAY ADMINISTRATION

FEDERAL AID URBAN PROJECT NO. MICHIGAN M 2000 (206)

CONTROL SECTION MU 82400 JOB NO. 19333A

THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION CURRENT STANDARD SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATIONS.

FHWA REGION	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MICH.				
STREET	CITY	COUNTY	TWP	SHEET NO.	TOTAL SHEETS

INDEX OF SHEETS

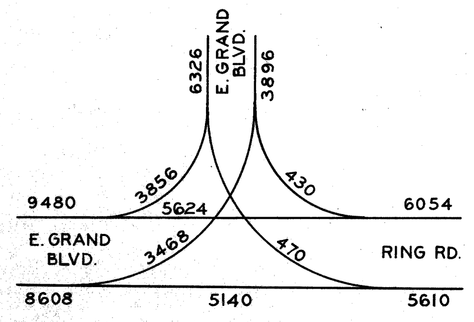
1 TITLE SHEET
2 - 3 TYPICAL CROSS-SECTIONS
4 CONSTRUCTION SEQUENCE
5 - 7 ALIGNMENT
7 - 9 REMOVALS
10 - 15 PLANS & PROFILES
16 DRAINAGE STRUCTURE TABLE
17 - 22 DETAILED GRADES
7 - 23 - 24 UTILITIES
25 - 27 LANDSCAPE PLANS
28 WALL REMOVALS
29 - 31 WATER SYSTEM ALTERATIONS
32 - 36 SPECIAL DETAILS & STANDARDS
37 - 38 QUANTITIES

ELECTRICAL

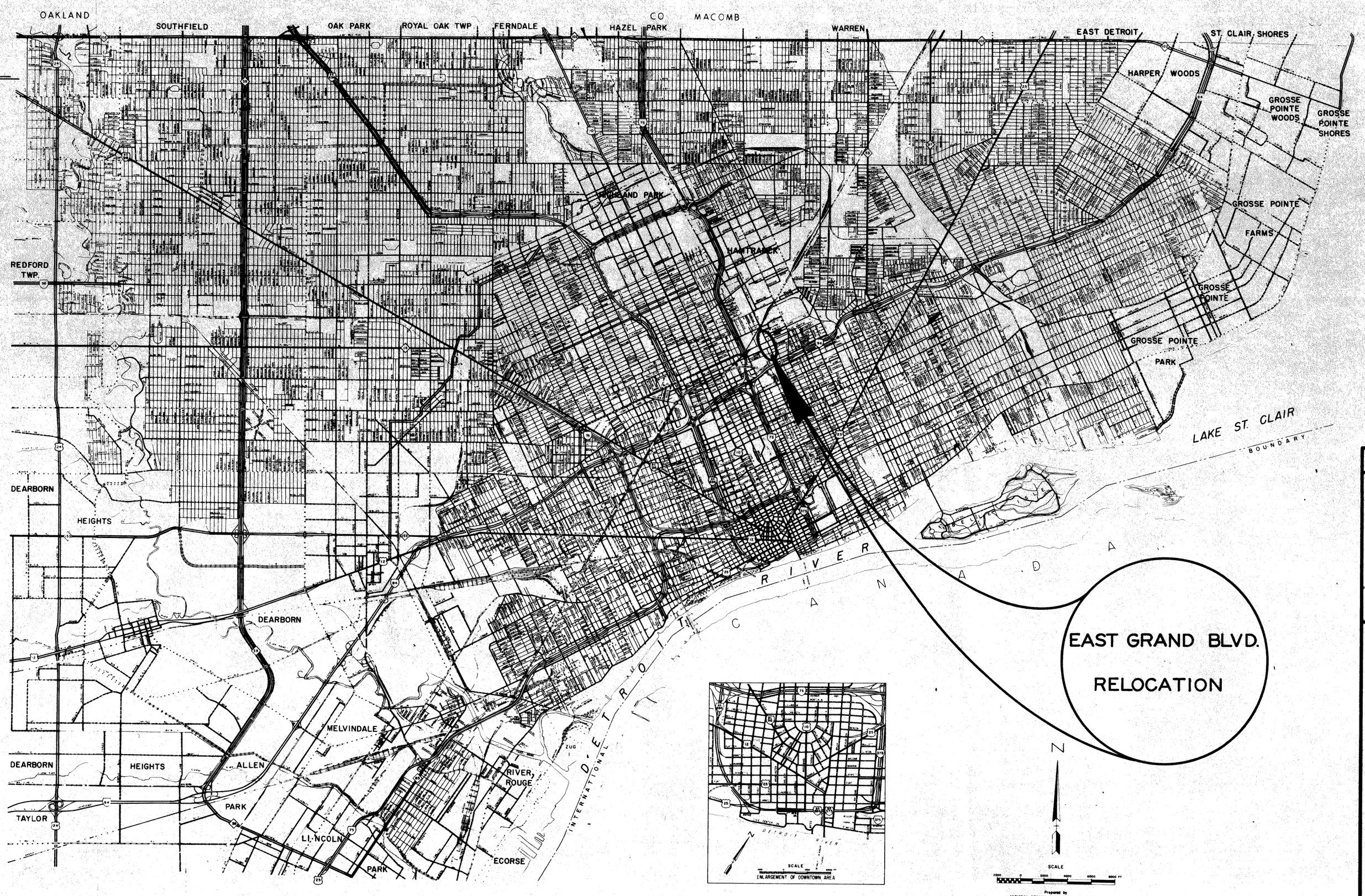
39 ELECTRICAL LEGEND
40 GENERAL INFORMATION
41 - 42 GENERAL PLANS
43 - 49 WIRING DIAGRAMS
50 - 52 TRAFFIC SIGNALS
53 - 54 QUANTITIES
55 - 79 ELECTRICAL DETAILS

STANDARD PLANS

II 28F	II 41D	III 60E
II 29C	II 42C	IV 84B
II 39G	II 43C	V 100A
II 40D	II 45C	VI 125E



PROJECTED TRAFFIC VOLUMES (ADT)



ITEM NO. 867

CONTRACT FOR G., DS., P. & UTILITIES

LOCAL AUTHORITY APPROVAL
CITY OF DETROIT
CITY ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS

APPROVED BY _____ ASSISTANT CITY ENGINEER — 1/11/82 DATE

APPROVED BY _____ CITY ENGINEER — 4/11/82 DATE

PREPARED UNDER SUPERVISION OF

Allen E. Prager — REGISTERED PROFESSIONAL ENGINEER — 09261 REGISTRATION NO.

CITY OF DETROIT
ORGANIZATION

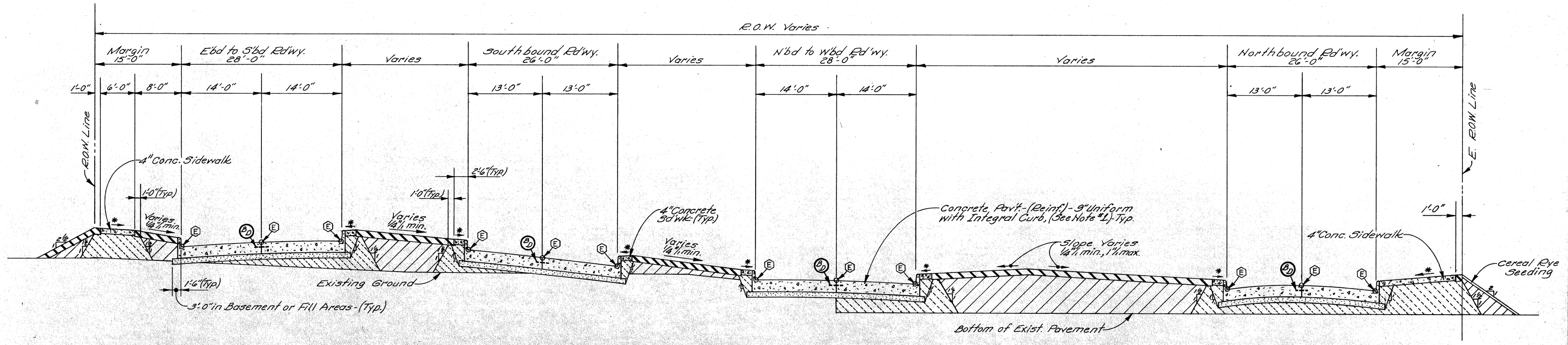
DETROIT, MICHIGAN
ADDRESS

(SEAL) STATE OF MICHIGAN ALLEN E. PRAGER ENGINEER NO. 09261

CONTROL SECTION MU 82400 JOB NO. 19333A

FILE NO. LINE NO. 350 STENCIL		STATE PROJECT	FEDERAL PROJECT	SHEET NO.
				1

Original 7-1-80



*Sidewalk slopes are to be 3/8"/ft. unless the Engineer determines that a minimum slope of 1/4"/ft. or a maximum slope of 3/4"/ft. must be used to meet exist. conditions.

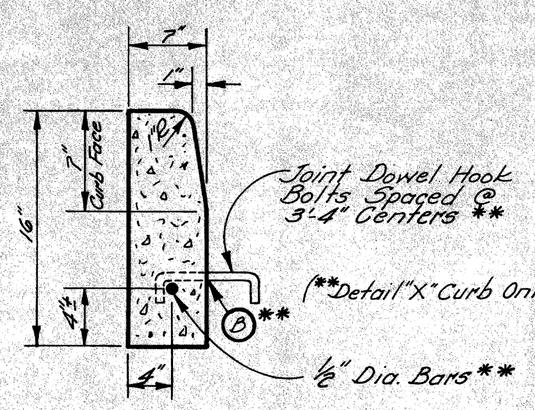
(E) For profiles and roadway elevations, See Sh. No. 20. & Sh. No. 21.

TYPICAL CROSS-SECTION
AT
PROPOSED EAST GRAND BOULEVARD INTERCHANGE

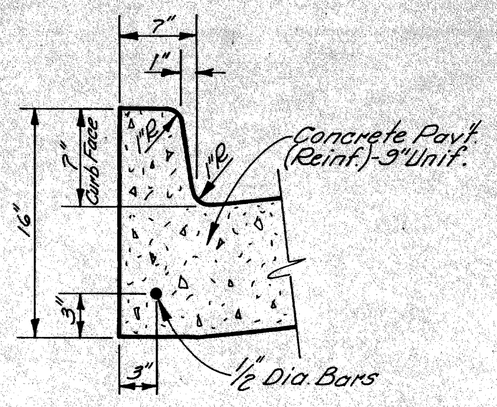
NO SCALE

MISCELLANEOUS QUANTITIES		
Mobilization	1	Lump Sum
On The Job Training	3	Each
Minor Traffic Devices	1	Lump Sum
Field Office	16	Months

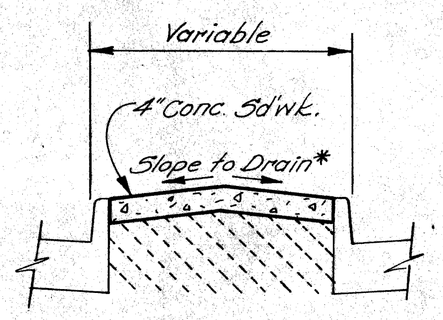
ESTIMATED QUANTITIES FOR USE AT THE DISCRETION OF THE ENGINEER		
Removing Old Pavement (Patching)	100	Sq. Yds.
Conc. Pav't. Patching, Type F.S. 9" Nonreinforced	100	Sq. Yds.
Basement Cleanout (See Note #4)	4000	Cu. Yds.
Subgrade Undercutting, Type II	1,000	Cu. Yds.
4" Concrete Sidewalk	360	Sq. Ft.
Removing Sidewalk	40	Sq. Yds.
Cleaning Existing Storm Drainage Structures	5	Each
Class "B" Sodding	75	Sq. Yds.
Topsoil Surface - 3"	75	Sq. Yds.
Water	1	Units
Removing Masonry & Concrete Structures	150	Cu. Yds.
Sewer Cleanout	150	Lin. Ft.
Cement	5	Tons
Concrete Curb, Detail "X"	50	Lin. Ft.
Concrete Curb, Detail "Y"	50	Lin. Ft.
Catch Basin "L"	1	Each
12" Sewer C-76-IV Trench Detail 8	30	Lin. Ft.
12" Sewer C-76-IV Trench Detail 9	30	Lin. Ft.
Edge Drains - 6"	300	Lin. Ft.
Removing Drainage Structures	1	Each



CONCRETE CURB
DETAIL "X" & DETAIL "Y"
NO SCALE



INTEGRAL CURB
NO SCALE



CONCRETE MEDIAN
NO SCALE

EARTHWORK LEGEND

- Granular Material Class II (See Note #2.)
- Aggregate Base - Concrete (4" in Place.)
- Selected Excavated Material (Incidental to Paving Costs.)
- Class "B" Sodding (Class "A" Slopes) with 3" Topsoil

JOINT LEGEND

- (B) Longitudinal Bulkhead Joint, according to M.D.O.T. Std. Dwg. II-41D.
- (D) Longitudinal Lane Tie Joint with Tie Bar, according to M.D.O.T. Std. Dwg. II-41D.
- (B/D) Optional, B or D.

GENERAL NOTES

1. The proposed curb shall be Integral Curb (See detail this sheet) with Concrete Curb Detail "X" as an alternate. Regardless of construction method, the proposed curb shall be paid for as "Concrete Pav't. (Reinf.)-9" Uniform with Integral Curb."
2. Granular Mat'l. Class II which is used for backfill other than that required for "Basement Cleanout," shall be paid for as "Embankment-Granular Mat'l. Class II."
3. It is estimated that approx. 1000 cu. yds of Subgrade Undercutting Type II will be required for this contract.
4. Basements shown on the plans have been properly cleaned out & backfilled under a prior Central Industrial Contract. other basements, the locations of which are not known might have to be cleaned out & backfilled to specifications. A quantity of "Basement Cleanout" has been included for this & other areas as determined by the Engineer.

COOR'D	DESCRIPTION	DR'N	CK'D	AP'VD	DATE
REVISIONS LOCATED BY COORDINATES ON SHEET					

REFERENCE DRAWINGS

DESIGNED BY
DRAWN BY MAP
TRACED BY
CHECKED BY RP/NB

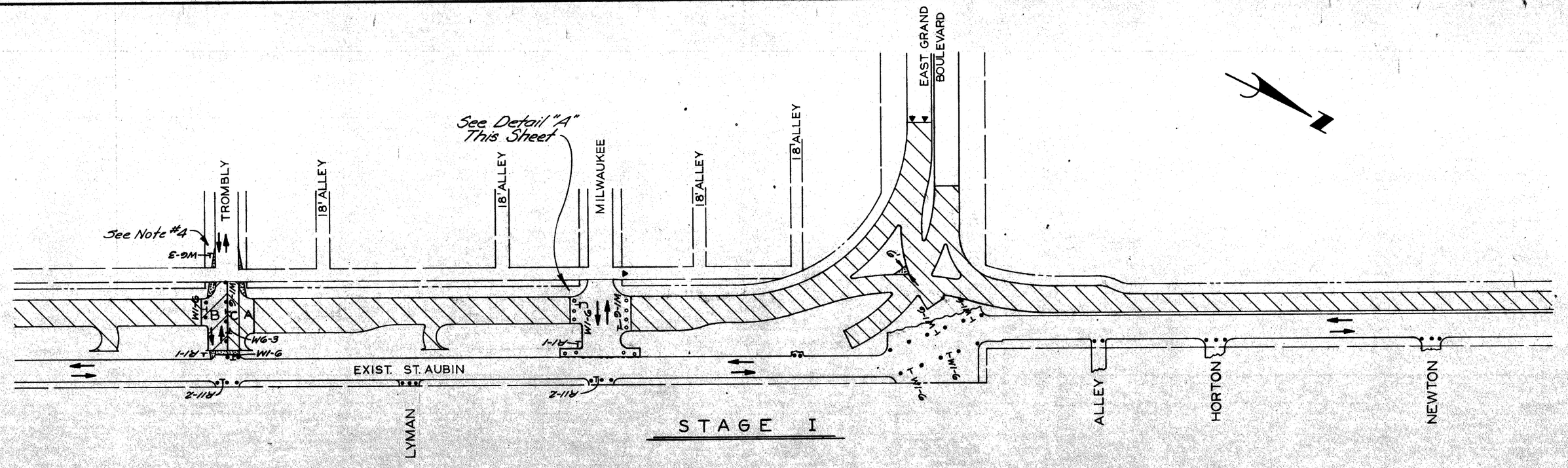
APPROVED:
ENGINEER OF STREETS
HIGHWAY ENGINEER

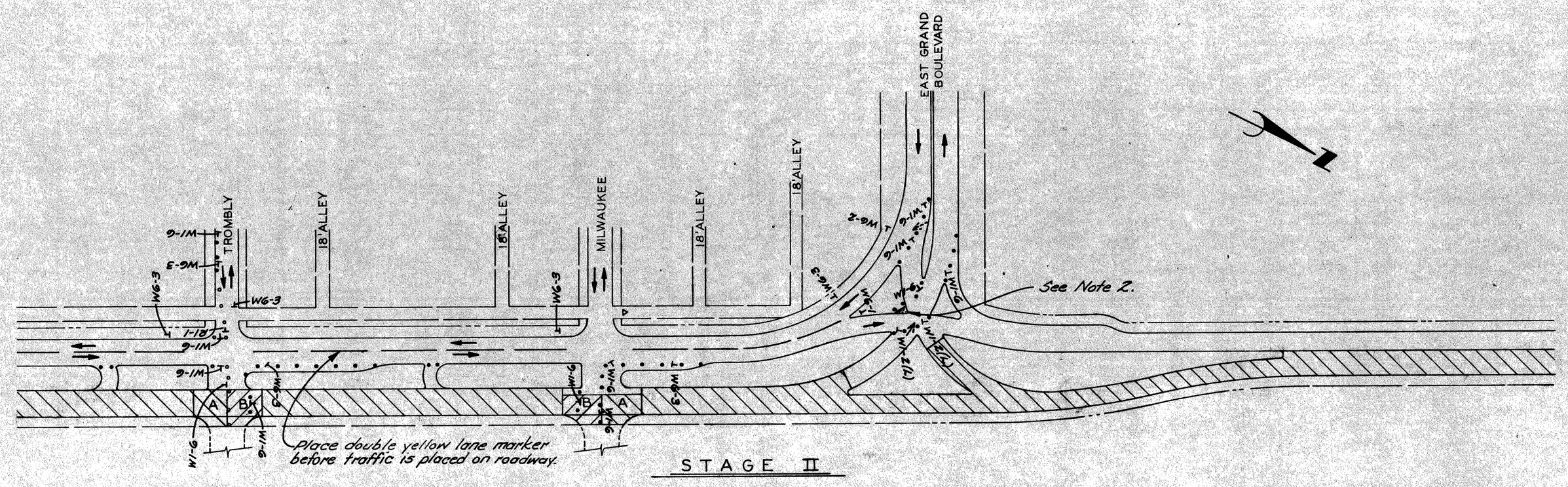
CITY OF DETROIT
CITY ENGINEERING DIVISION - D.P.W.
BUREAUS OF STREETS AND HIGHWAYS

EAST GRAND BOULEVARD RELOCATION

TYPICAL CROSS-SECTIONS

SHEET 2 OF 79 SHEETS
CONTRACT NO. 19333A
ASSIGNMENT NO.
DATE Jan., 1982

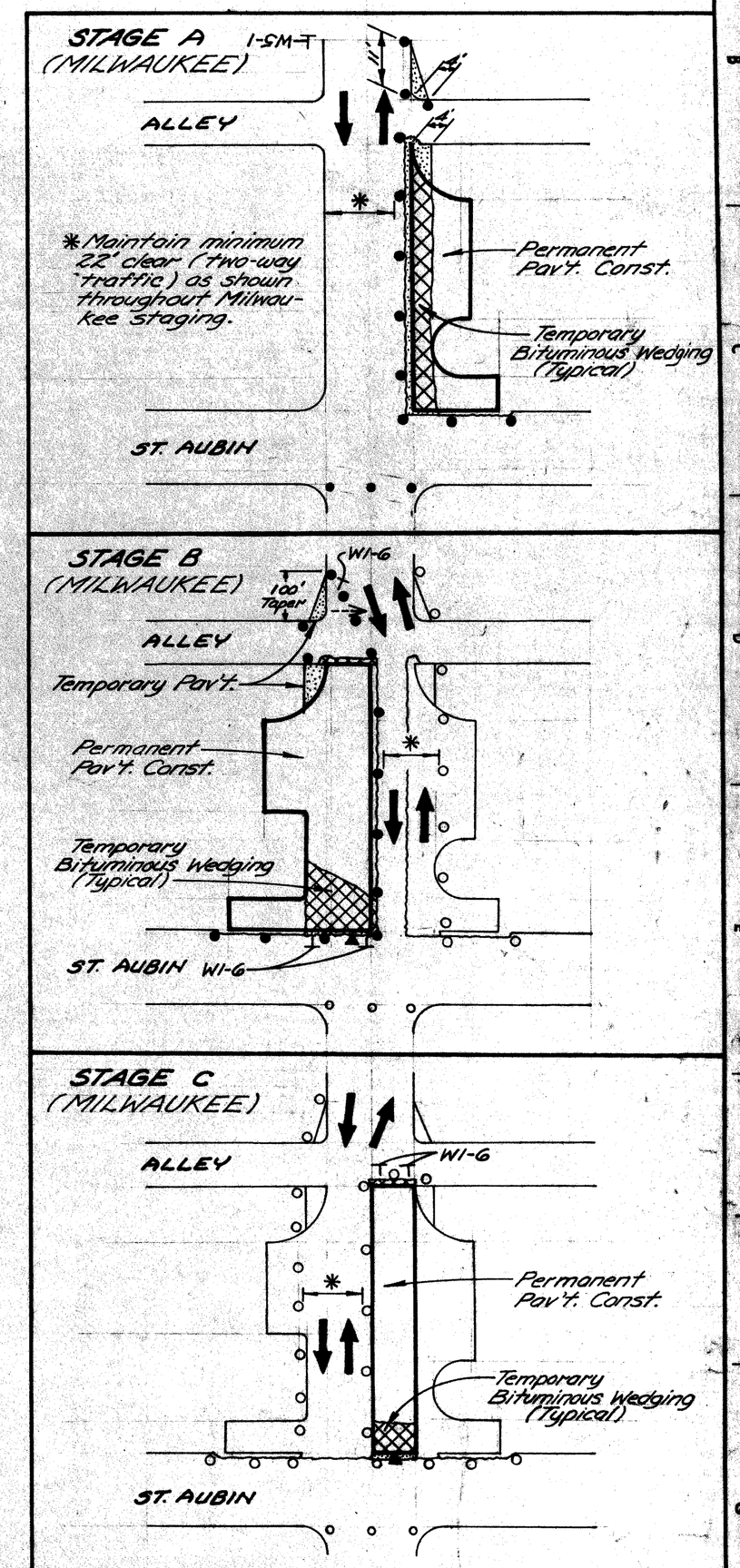




SCALE: 1" = 100'

LEGEND

- Permanent Pavt. Construction (Sub-Stage "A")
- Permanent Pavt. Construction (Sub-Stage "B")
- Temporary Concrete Pavt. - Nonreinforced: 7"
- Sign, Type B, Temporary
- Barricade, Type II, Lighted
- Barricade, Type II, Lighted (Placed Previously)
- Barricade, Type III, Lighted
- Barricade, Type III, Lighted (Placed Previously)
- Lighted Arrow, Type "A"



DETAIL 'A'
MILWAUKEE STAGING
1" = 40'

NOTES:

1. Construct Milwaukee intersection (Detail "A" shown at right) prior to taking traffic off of existing East Grand Boulevard in Stage I (above).
2. See Proposal for additional Detour Roadways and signing around the Construction Area.
3. After completing Stage II (above) and switching traffic to its final, permanent location, remove the temporary pavement and construct the curb.
4. Shape Trombly similar to the Milwaukee Staging - (Detail 'A' this sheet)

COORD	DESCRIPTION	DR'N	CK'D	AP'VD	DATE

REVISIONS LOCATED BY COORDINATES ON SHEET

REFERENCE DRAWINGS

DESIGNED BY
DRAWN BY MAP
TRACED BY
CHECKED BY RP/WB

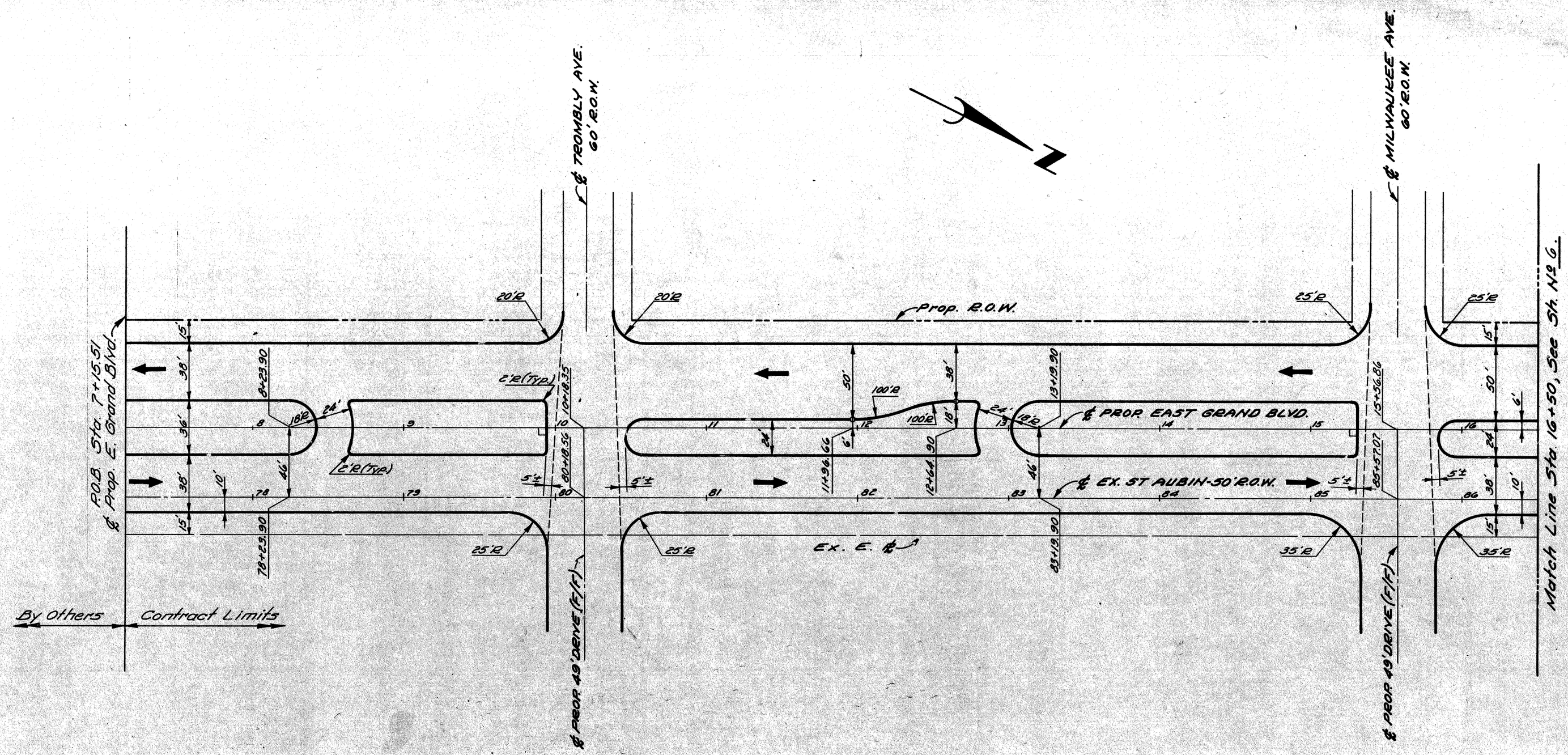
APPROVED:
ENGINEER OF STREETS
Allen Rogers
HIGHWAY ENGINEER

CITY OF DETROIT
CITY ENGINEERING DIVISION · D.P.W.
BUREAUS OF STREETS AND HIGHWAYS

EAST GRAND BOULEVARD RELOCATION

CONSTRUCTION SEQUENCE

SHEET 4 OF 79 SHEETS
CONTRACT NO. 19333 A
ASSIGNMENT NO.
DATE Jan., 1982



COORD	DESCRIPTION	DR'N	CK'D	AP'VD	DATE

REVISIONS LOCATED BY COORDINATES ON SHEET

REFERENCE DRAWINGS

DESIGNED BY

DRAWN BY MAR

TRACED BY

CHECKED BY RP/WB

APPROVED:

ENGINEER OF STREETS

Allen Rogers
HIGHWAY ENGINEER

CITY OF DETROIT
CITY ENGINEERING DIVISION-D.P.W.
BUREAUS OF STREETS AND HIGHWAYS

EAST GRAND BOULEVARD RELOCATION

ALIGNMENT

STA. 7+15.51 TO STA. 16+50

SCALE: 1" = 40'

SHEET 5 OF 79 SHEETS

CONTRACT NO. 19333A

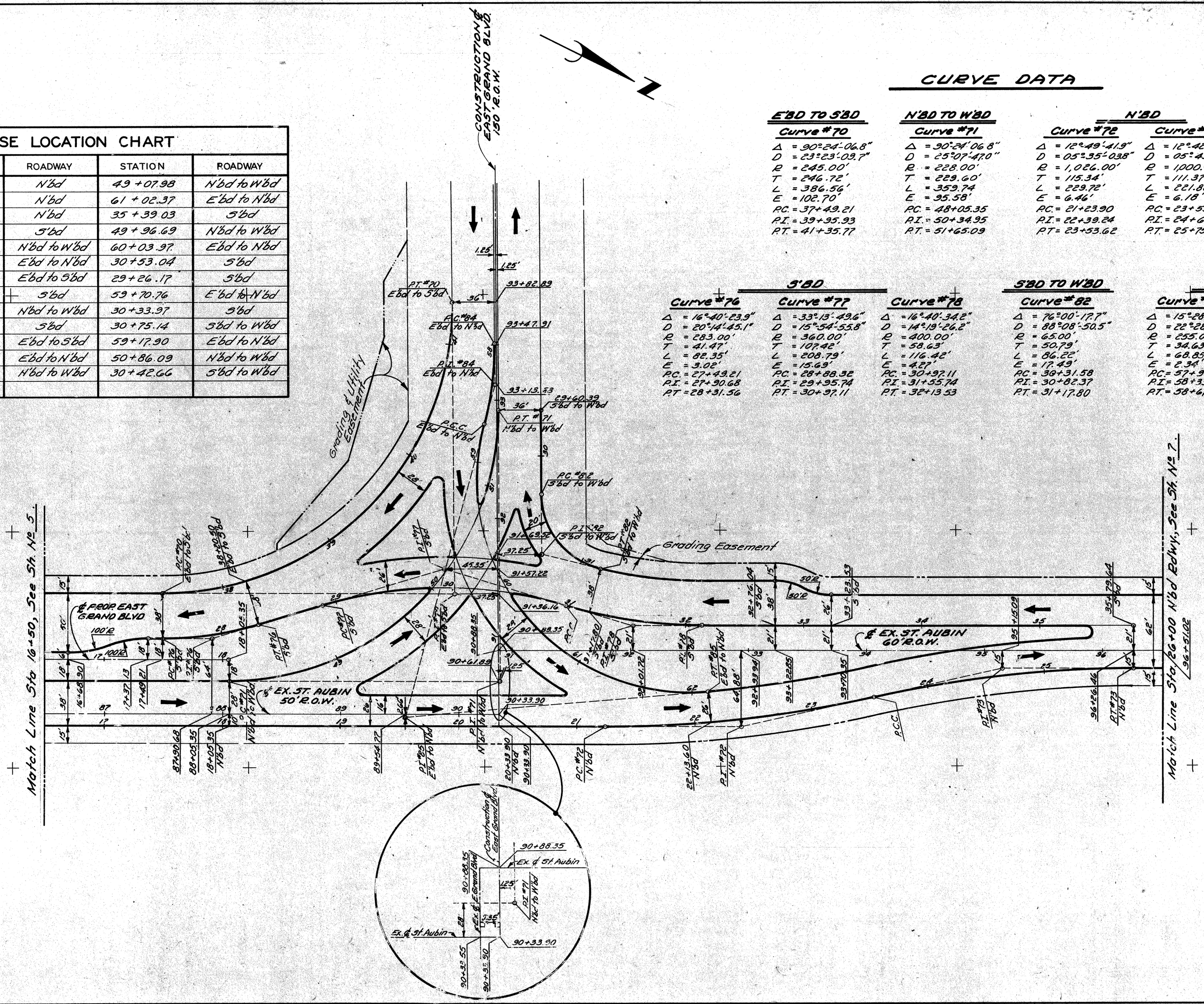
ASSIGNMENT NO.

DATE Jan., 1982

TELEDYNE POST N10135

NOSE LOCATION CHART

RADIUS	STATION	ROADWAY	STATION	ROADWAY
5'	19 + 18.91	N'bd	49 + 07.98	N'bd to W'bd
2'	20 + 89.24	N'bd	61 + 02.37	E'bd to N'bd
5.4'	25 + 36.05	N'bd	35 + 39.03	S'bd
2'	29 + 78.45	S'bd	49 + 96.69	N'bd to W'bd
2'	50 + 15.04	N'bd to W'bd	60 + 03.97	E'bd to N'bd
2'	60 + 21.00	E'bd to N'bd	30 + 53.04	S'bd
2'	39 + 09.28	E'bd to S'bd	29 + 26.17	S'bd
2'	29 + 99.94	S'bd	59 + 70.76	E'bd to N'bd
2'	50 + 50.00	N'bd to W'bd	30 + 33.97	S'bd
5'	30 + 64.10	S'bd	30 + 75.14	S'bd to W'bd
5'	39 + 93.21	E'bd to S'bd	59 + 17.90	E'bd to N'bd
2'	59 + 33.74	E'bd to N'bd	50 + 86.09	N'bd to W'bd
2'	50 + 87.65	N'bd to W'bd	30 + 42.66	S'bd to W'bd



CURVE DATA

E'BD TO S'BD

Curve #70

Δ = 90°24'-06.8"
D = 23°23'-09.7"
R = 245.00'
T = 246.72'
L = 386.56'
E = 102.70'
P.C. = 37+49.21
P.I. = 39+95.93
P.T. = 41+35.77

N'BD TO W'BD

Curve #71

Δ = 90°24'06.8"
D = 25°07'47.0"
R = 228.00'
T = 229.60'
L = 359.74
E = 95.58'
P.C. = 48+05.35
P.I. = 50+34.95
P.T. = 51+65.09

N'BD

Curve #72

Δ = 12°49'-41.9"
D = 05°35'-038"
R = 1,026.00'
T = 115.34'
L = 229.72'
E = 6.46'
P.C. = 21+23.90
P.I. = 22+39.24
P.T. = 23+53.62

Curve #73

Δ = 12°42'-33.4"
D = 05°43'-46.5"
R = 1,000.00
T = 111.37'
L = 221.82'
E = 6.18'
P.C. = 23+53.62
P.I. = 24+64.99
P.T. = 25+75.44

S'BD

Curve #76

Δ = 16°40'-23.9"
D = 20°14'-45.1"
R = 283.00'
T = 41.47'
L = 82.35'
E = 3.02'
P.C. = 27+49.21
P.I. = 27+90.68
P.T = 28+31.56

Curve #77

Δ = 33°13'-49.6"
D = 15°54'-55.8"
R = 360.00'
T = 107.42'
L = 208.79'
E = 15.69'
P.C. = 28+88.32
P.I. = 29+95.74
P.T. = 30+97.11

Curve #78

Δ = 16°40'-34.2"
D = 14°19'-26.2"
R = 400.00'
T = 58.63'
L = 116.42'
E = 4.27'
P.C. = 30+97.11
P.I. = 31+55.74
P.T. = 32+13.53

S'BD TO W'BD

Curve #82

Δ = 76°00'-17.7"
D = 88°08'-50.5"
R = 65.00'
T = 50.79'
L = 86.22'
E = 17.49'
P.C. = 30+31.58
P.I. = 30+82.37
P.T. = 31+17.80

E'BD TO N'BD

Curve #84

Δ = 15°28'-06.7"
D = 22°28'-08.2"
R = 255.00'
T = 34.63'
L = 68.85'
E = 2.34'
P.C. = 57+98.94
P.I. = 58+33.57
P.T. = 58+67.79

Curve #85

Δ = 110°04'-33.4"
D = 31°-49'-51.6"
R = 180.00'
T = 257.43'
L = 345.81'
E = 134.12'
P.C. = 58+67.79
P.I. = 61+25.22
P.T. = 62+13.60

COORD	DESCRIPTION	DR'N	CK'D	APV'D	DATE

REVISIONS LOCATED BY COORDINATES ON SHEET

REFERENCE DRAWINGS

DESIGNED BY
DRAWN BY MAP
TRACED BY
CHECKED BY RP

APPROVED:
ENGINEER OF STREETS
Allen Rieger
HIGHWAY ENGINEER

CITY OF DETROIT
CITY ENGINEERING DIVISION - D. P. W.
BUREAUS OF STREETS AND HIGHWAYS
FOR

EAST GRAND BOULEVARD RELOCATION

ALIGNMENT

STA. 16+50 TO STA. 26+00

SCALE 1" = 40'

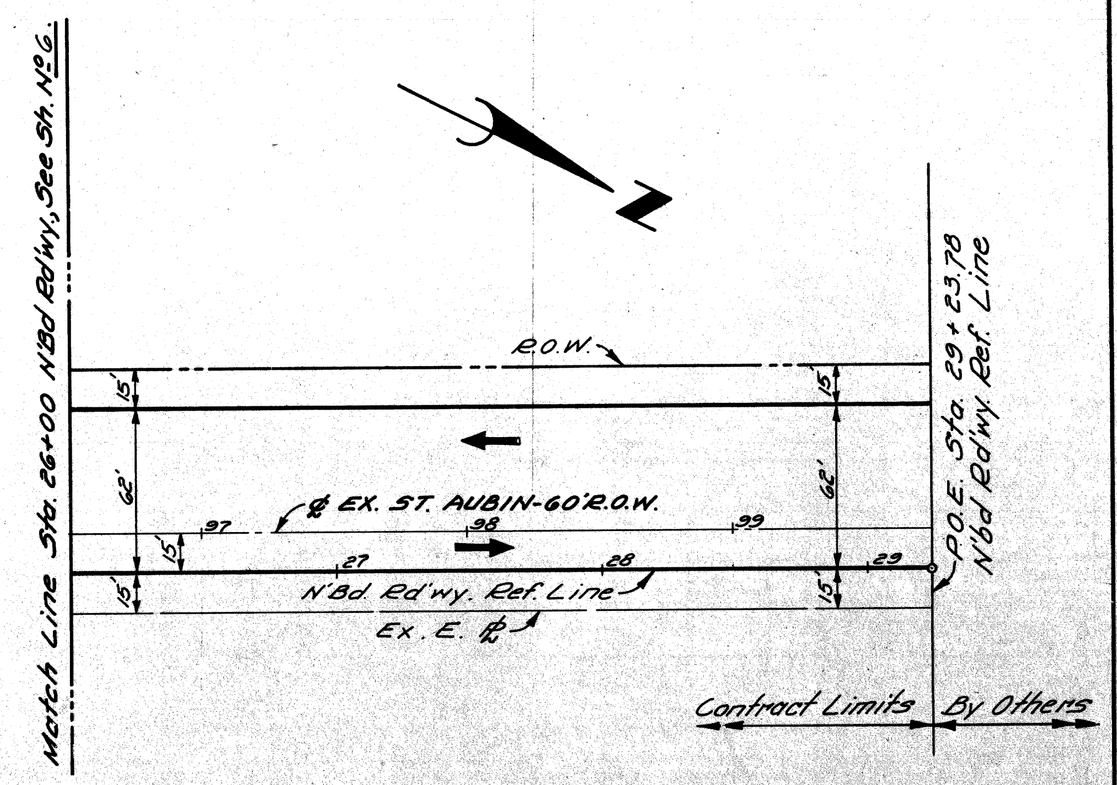
SHEET 6 OF 79 SHEETS

CONTRACT NO. 19333A

ASSIGNMENT NO.

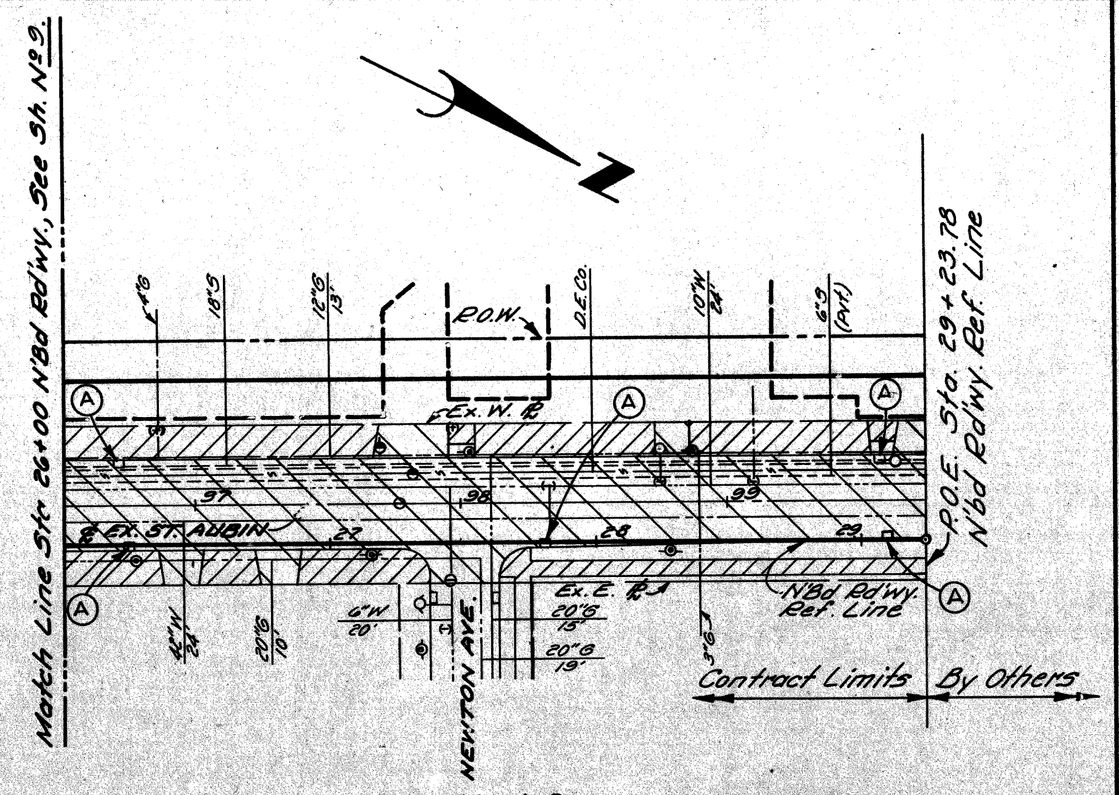
DATE Jan, 1982

TELEDYNE POST IN03155



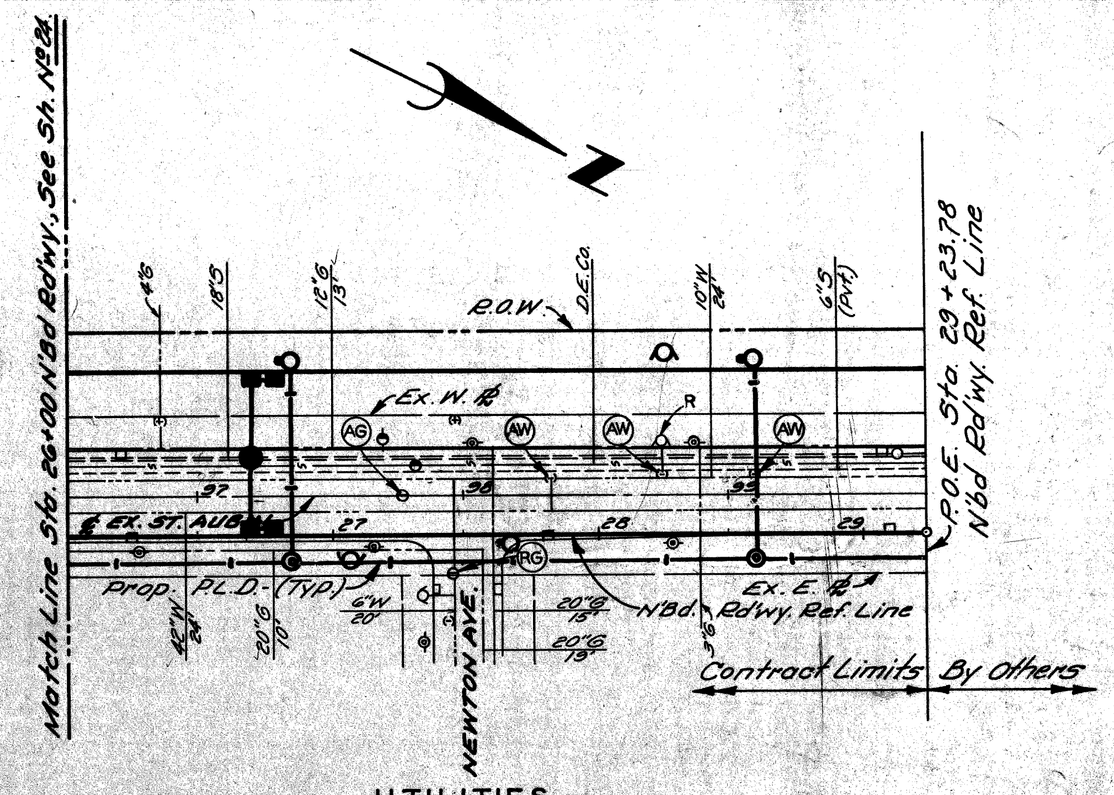
ALIGNMENT

SCALE: 1" = 40'



REMOVALS

SCALE: 1" = 40'



UTILITIES

SCALE: 1" = 40'

REMOVAL LEGEND

- Removing Pavement
- Removing Sidewalk
- Existing Basement
- (A) Abandoning Drainage Structures

CALL MISS DIG
48 HOURS PRIOR TO
CONSTRUCTION 647-7344

NOTES:

1. For Utility Legend; See Sh. No. 36.
2. Locations of existing utility lines are based on the best available records & are not guaranteed for accuracy.

LEGEND

- New Fire Hydrant Location
- R Exist. Fire Hydrant to be removed
- (AG) Adjusting Gatewell Manhole Covers
- (RG) Reconstruct Gatewell Manhole
- (AW) Adjusting Water Shutoffs (See Note #1)

Note #1.
The contractor is required to contact the Detroit Water and Sewerage Department for their determination as to which shut-offs must be adjusted.

FIRE HYDRANT QUANTITIES
(THIS SHEET)

PAY ITEM	QUANTITY
Fire Hydrant	1 Each
Relocate Hydrant-Method I	1 Each
Relocate Hydrant-Method II	1 Each

Note: Final location of fire hydrants shall be determined by the Detroit Fire Department at the time of construction.

COOR'D	DESCRIPTION	DR'N	CK'D	AP'VD	DATE

REVISIONS LOCATED BY COORDINATES ON SHEET

REFERENCE DRAWINGS

DESIGNED BY
DRAWN BY MAP
TRACED BY
CHECKED BY RP/WB

APPROVED:
ENGINEER OF STREETS
Allen Rogers
HIGHWAY ENGINEER

CITY OF DETROIT
CITY ENGINEERING DIVISION - D. P. W.
BUREAUS OF STREETS AND HIGHWAYS

EAST GRAND BOULEVARD RELOCATION

ALIGNMENT - REMOVALS - UTILITIES
STA. 26+00 TO STA. 29+23.78

SHEET 7 OF 79 SHEETS
CONTRACT NO. 19333A
ASSIGNMENT NO.
DATE Jan, 1982

TELEDYNE POST N03155

K&E 10 1153 3-72 448•

FINAL R.O.W.

: One Foot Horizontal Jog in Profile at this point.

W/E-12/13: Profile Along West(W) or East(E) Edge of Twelve (12) or Thirteen (13) Foot Lane

8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00

155 150 145

For Detailed Grades See Sh. No. 17

Approx. Exist. Ground Profile @ Exist. Alley 8' W. of Blvd. P.L.

P.O.T. 7+15.51 149.19
P.V.T. 151.18 7+50
P.V.T. 150.61 9+00
P.V.T. 149.55 9+35
149.90 9+40
-0.50% 50' V.C. -0.50% 70' V.C. -1.80%

TROMBLY

150.22 10+50
P.V.T. 150.72 11+80
P.V.T. 149.96 12+80
+0.60% 60' V.C. -0.80% 20' V.C. -0.40%

Prop. Top of West Curb Southbound Roadway

L.P. 149.13 14+50
P.V.T. 149.16 14+80
15+13 149.29
30' V.C. +0.80%

MILWAUKEE

For Det. Grades See Sh. No. 18

149.44 16+00
L.P. 149.50 16+50
P.V.T. 149.14 16+80
40' V.C. -0.60%

P.O.T. 7+15.51 149.19
P.V.T. 150.78 7+50
P.V.T. 150.29 9+00
9+35 149.40
-0.50% 50' V.C. -0.50% 70' V.C. -1.80%

E-13

149.63 10+50
P.V.T. 150.22 11+80
149.54 Rock
149.50 Forward
P.V.T. 149.38 12+80
+0.60% 60' V.C. -0.80% 20' V.C. -0.40%

E-12

Prop. E. Edge of Pavt. Grade Southbound Roadway

L.P. 149.61 14+50
P.V.T. 149.50 14+80
15+13 149.29
30' V.C. +0.80%

E-13

149.90 16+00
L.P. 149.66 16+50
P.V.T. 149.50 16+80
40' V.C. 0.60%

E-12

P.O.T. 7+15.51 149.19
Prop. W. Edge of Pavt. Grade Northbound Roadway
P.V.T. 149.07 9+50
L.P. 149.10 9+92.57
9+60 149.19
-0.50% 30' V.C. +0.40%

For Detailed Grades See Sh. No. 17

149.71 10+50
P.V.T. 149.13 12+00
P.V.T. 149.67 13+20
+0.40% 40' V.C. -0.40% 20' V.C. -0.40%

For Detailed Grades See Sh. No. 18

14+97 149.97
149.76 16+16
149.90 16+50
+0.40%

P.O.T. 7+15.51 149.19
Prop. Top of East Curb Northbound Roadway
P.V.T. 149.44 9+50
9+60 149.56
-0.50% 30' V.C. +0.40%

TROMBLY

150.08 10+50
P.V.T. 150.52 12+00
40' V.C. +0.40% -0.40%

LYMAN

P.V.T. 150.14 13+20
20' V.C.

Approx. Exist. Ground Profile @ Back of Exist. Walk.

-0.60%

MILWAUKEE

14+97 149.97
149.13 16+16
149.97 16+50
+0.40%

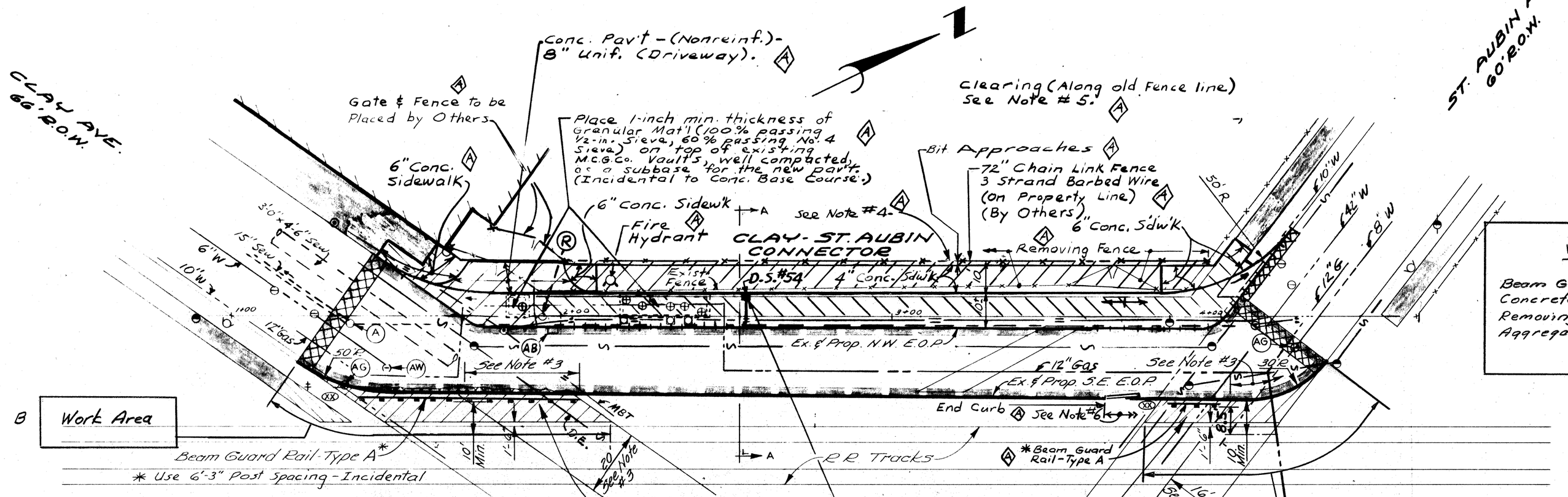
PROFILES
Scale: Hor. 1" = 40'
Vert. 1" = 4'

EAST GRAND BOULEVARD RELOCATION	SHEET 11 OF 79 SHEETS	
PROFILES	CONTRACT No. 19333A	
STA. 7+15.51 TO STA. 16+50	DATE Jan., 1982	

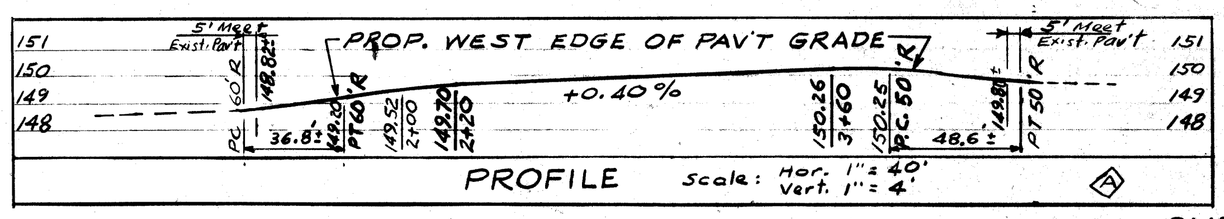
R. CARROLL, INC. 378 1818

P.B.M. #41-C5EA Elev. 148.645(M) - 148.705(R)
N.E. Corner E. Grand Blvd. & DuBois

C.B.M. Elev. 153.14 Arrow on Hydrant
E. Side St. Aubin 200 North of Clay.



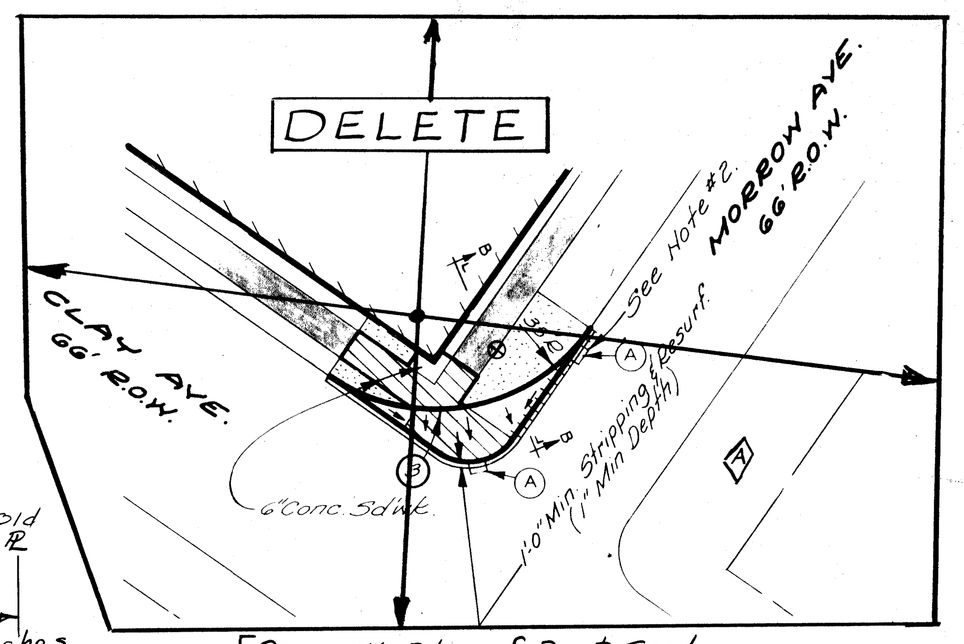
WORK AREA QUANTITIES	
Beam Guard Rail Type A	105 L.F.
Concrete Curb Detail "Y"	145 L.F.
Removing Pavement	120 S.Y.
Aggregate Surface Course	40 C.Y.

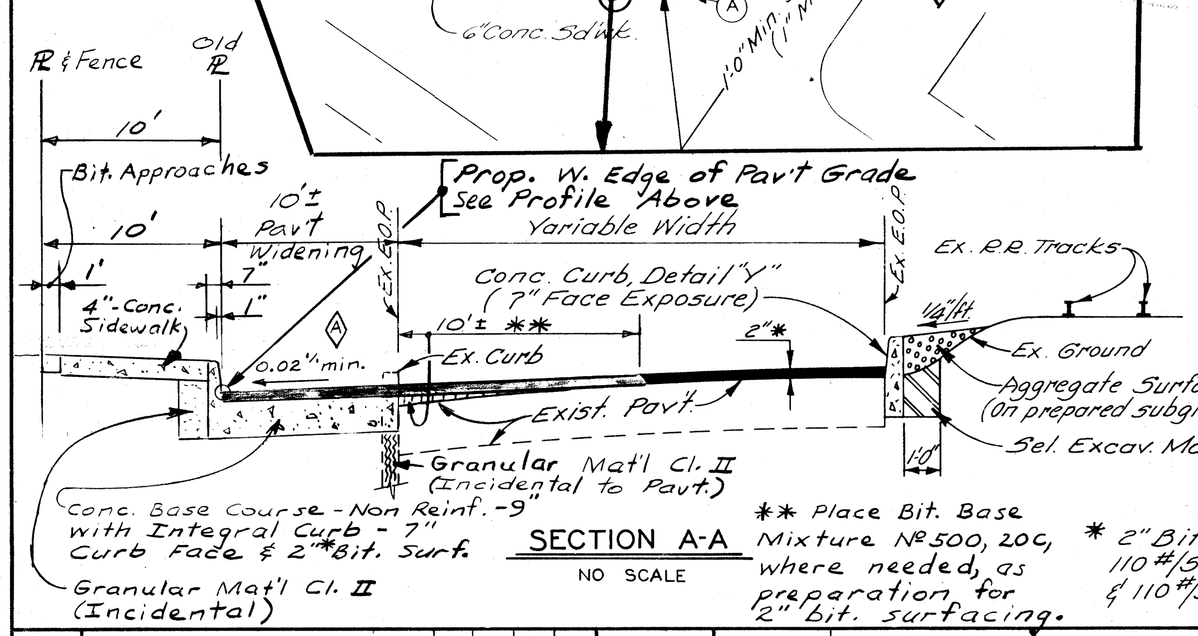


SURFACING LEGEND

- 2" Bituminous Surface **
- Concrete Curb Detail "Y", For Detail, See Sh #2.
- Bitum. on Conc. Base Course - 9" with Int. Curb
- Class "B" Sodding with 3" Topsoil
- Existing Sidewalk or Driveway to Remain
- Existing Building to Remain
- (XX) Existing R.R. Signal and Crossing Gate
- Removing Pavement
- Removing Sidewalk
- Removing Curb
- (3) Sidewalk Ramp, Type 3
- Drainage Flow Arrows
- (A) Adjust Drainage Structure Cover
- (AG) Adjust Gatewell Cover
- (AW) Adjust Water Shutoff
- Removing Bitum. Surf. - Resurface.
- (AB) Abandoning Drainage Structures
- (R) Remove Hydrant - Method II

D.S. #54 @ Sta. 2+56
Catch Basin "B" with Trap & 4' of 12" Sewer, C-76-IV, Trench Detail 9 & 1-12" Sewer Tap.
Approx. C.B. Outlet Elev. 135.1
Approx. Inlet @ 15" Sew. 135.0

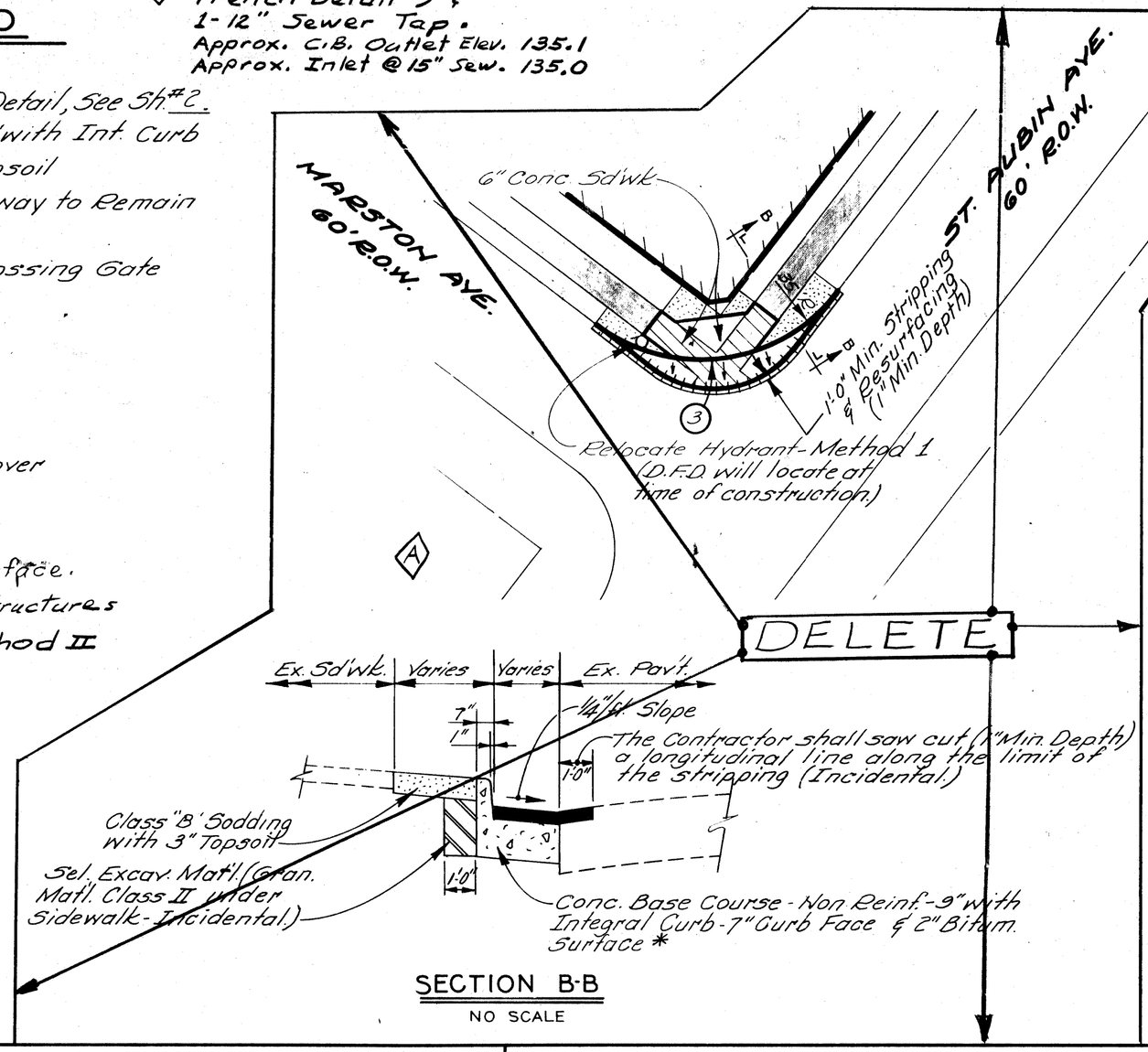




SECTION A-A
NO SCALE

** Place Bit. Base Mixture No. 500, 20C, where needed, as preparation for 2" bit. surfacing.

* 2" Bituminous Surface Consisting Of: 110 #/S.Y. of Bit. Mixture No. 1100 L, 20AA & 110 #/S.Y. of Bit. Mixture No. 1100 T, 20AA



SECTION B-B
NO SCALE

NOTES: (Continued from below).

6. End new curb as shown. Construct 10' of Temporary Curb (symbol ═), 1' offset at northerly end, to remain until R.R. crossing gate is removed. Temp. Curb shall be constructed as directed by the Engineer and will be paid for as "Conc. Curb, Detail "Y"" in Lin. Ft.

NOTES:

1. For Utility Legend, See Sh. No. 36.
2. Removal of the existing curb box and removal and replacement of the C.B. cover, if necessary, shall be incidental to drainage items.
3. Delay curb construction & pavement removal within these limits until R.R. access at the Ring Rd., southeast of the tracks, is available.
4. Sawing Pav't along the new property line shall be paid for in lin. feet.
5. "Clearing" shall be paid for as a Lump Sum. Otherwise, "Clearing" shall be in accordance with Article 2.01 of the Standard Specifications except that removal of debris, such as posts and other misc. items along the old fence line, shall be incidental thereto.

COORD	DESCRIPTION	GR'N	CK'D	AP'VD	DATE
B	Street Closure	AEP			8/85
A	Widened Clay - St. Aubin Connector. Deleted Marston & Morrow Corner Work.	RR			6/82

REVISIONS LOCATED BY COORDINATES ON SHEET

REFERENCE DRAWINGS

DESIGNED BY
DRAWN BY MHP
TRACED BY
CHECKED BY AP

APPROVED
ENGINEER OF STREETS
HIGHWAY ENGINEER

CITY OF DETROIT
CITY ENGINEERING DIVISION - D.P.W.
BUREAUS OF STREETS AND HIGHWAYS

EAST GRAND BOULEVARD RELOCATION

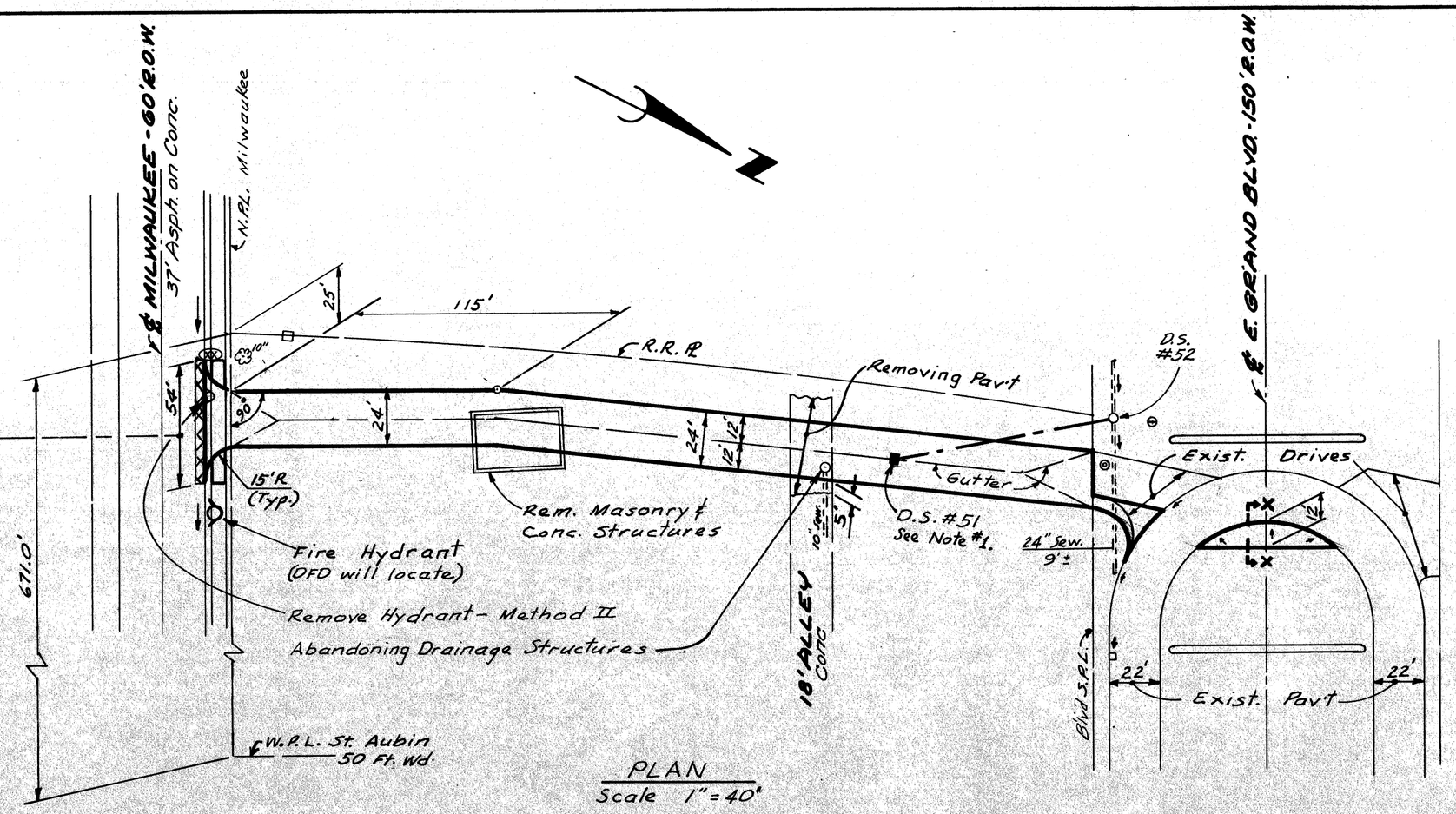
CLAY - ST. AUBIN CONNECTOR

SCALE: 1" = 20'
SHEET 14 OF 79 SHEETS
CONTRACT NO. 19333A
ASSIGNMENT NO.
DATE Jan., 1982

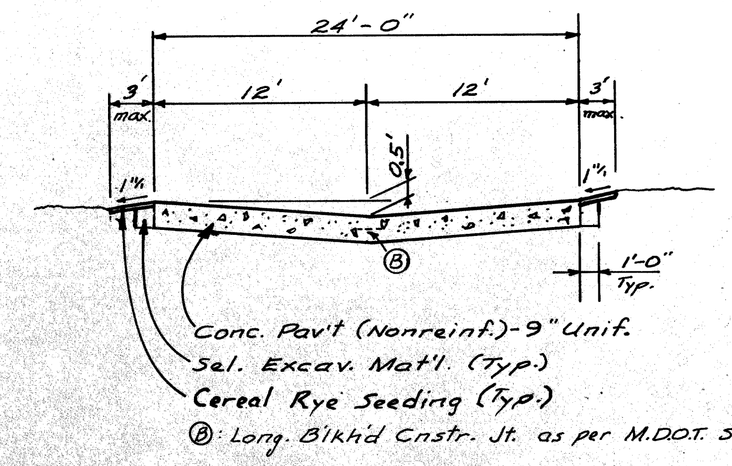
R. CARROLL, INC. 378 1818

C.B.M. Elev. 153.18, Arrow on Hydrant, North Side Milwaukee at prop. Alley.
C.B.M. Elev. 152.43, Arrow on Hydrant, East of prop. Alley on E. Grand Blvd S. Ser. Rd.

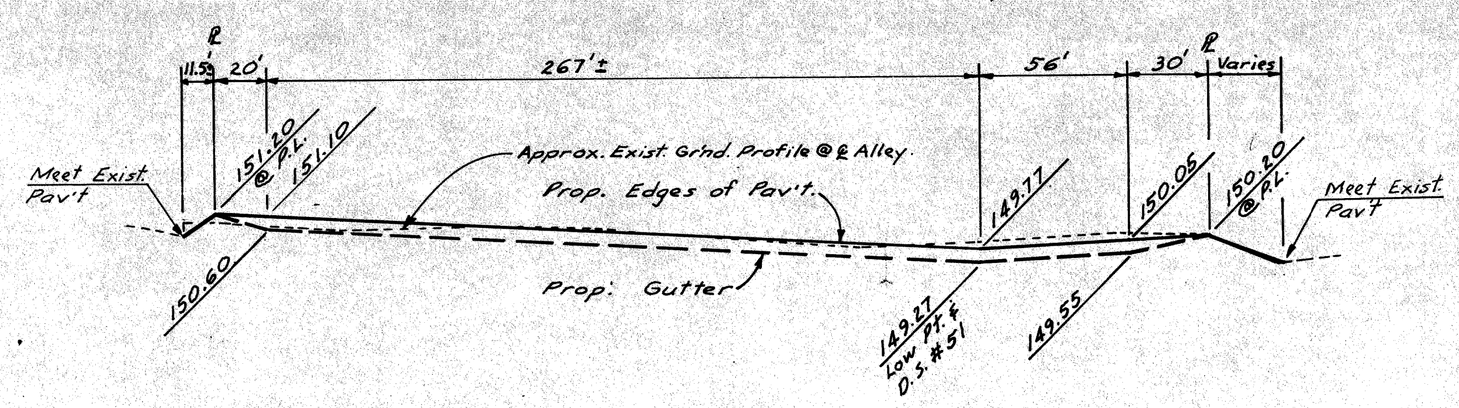
Removing Curb.
Rem. Bit. Surf. (Shown Cross-Hatched) and Bituminous Approaches.
Removing Sidewalk.
Construct: 6" Conc. Sidewalk (Both sides Alley Return.)



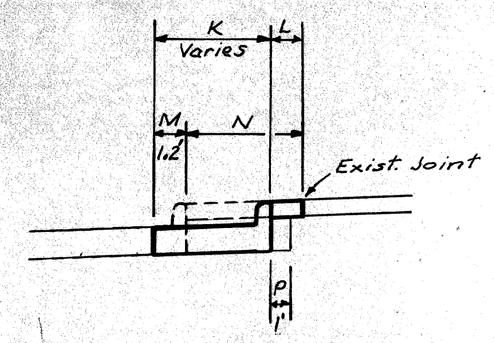
PLAN
Scale 1" = 40'



TYPICAL CROSS-SECTION
INDUSTRIAL ALLEY
No Scale



PROFILE
Scale: Hor. 1" = 40'
Vert. 1" = 4'



K - Construct: Conc. Pav't (Nonreinf.) - 9" Unif. with Integral Curb (Match exist. curb shape - curb face to meet sidewalk).
L - Construct: 6" Conc. Sidewalk.
M - Removing Curb (Integral)
N - Removing Pav't (Rem. Exist. 6" Walk to Joint.)
P - Granular Mat'l Cl. II Backfill (Incidental to pav't construction.)

Note: Slope pav't toward exist. pav't to drain.

SECTION X-X
No Scale

NOTES:
1. See Drainage Structure Table, Sh. #16.

COORD	DESCRIPTION	DR'N	CK'D	AP'VD	DATE

REVISIONS LOCATED BY COORDINATES ON SHEET

REFERENCE DRAWINGS

DESIGNED BY
DRAWN BY RP
TRACED BY
CHECKED BY WB

APPROVED:
ENGINEER OF STREETS
Allen Rieger
HIGHWAY ENGINEER

CITY OF DETROIT
CITY ENGINEERING DIVISION - D.P.W.
BUREAUS OF STREETS AND HIGHWAYS

EAST GRAND BOULEVARD RELOCATION

INDUSTRIAL ALLEY

SHEET 15 OF 79 SHEETS
CONTRACT NO. 19333A
ASSIGNMENT NO.
DATE Jan., 1982

TSR 250 1-79 693994

DRAINAGE STRUCTURE TABLE

DRAINAGE STRUCTURE NUMBER (D.S.#)	SHEET NUMBER	ROADWAY	STATION	DRAINAGE STRUCTURE TYPE	WITH TRAP (T)	TYPE OF DRAINAGE STRUCTURE COVER	OUTLET SEWER SIZE (IN.)	OUTLET SEWER TYPE [C-76-(?)]	OUTLET ELEVATION	OUTLET SEWER RUNS TO: DRAINAGE STRUCTURE NUMBER	OUTLET SEWER RUNS TO: EXISTING SEWER (SIZE)	OUTLET SEWER RUNS TO: INLET ELEVATION	SEWER LENGTH (FT.)	LENGTH OF TRENCH DETAIL 8 (FT.)	LENGTH OF TRENCH DETAIL 9 (FT.)	SEWER TAP SIZE (IN.)	COMMENTS
1	SHEET #10	Northbound	9+24	C.B."A"	~	D	12"	III	143.0	2	~	142.8	5	~	5	~	
2		Northbound	9+31.67	C.B."B"	T	D	12"	III	140.8	3	~	140.6	42	~	42	12"	Connections shown from DS #2 & DS #5 are temp-
3		Northbound	9+70±	Ex. S.M.H.	~	~	Ex. 3'-0"x4'-0"	~	133.1±F	~	~	~	~	~	~	~	orary. Connect to stubs in proposed replace-
4		Southbound	9+80	C.B."A"	~	D	12"	III	143.9	5	~	143.7	31	~	31	~	ment S.M.H. (by others) if available.
5		Southbound	9+80	C.B."B"	T	D	12"	III	140.9	3	~	140.6	61	36	25	~	Passes under Proposed P.L.D.
6		Southbound	10+65	C.B."A"	~	D	12"	III	F	7	~	F	25	25	~	~	Passes under Proposed P.L.D.
7		Northbound	10+76	C.B."B"	T	D	12"	III	F	8	~	F	21	~	21	~	Meet outlet of Ex. C.B. (D.S. #8).
8		Northbound	10+51±	Ex. C.B.	~	~	Ex. 12"	~	F	~	~	~	~	~	~	~	Abandon Existing Catch Basin.
9		Southbound	14+80	C.B."A"	~	D	12"	III	142.3	10	~	142.0	62	16	46	~	
10		Milwaukee	~	C.B."B"	T	D	12"	III	141.8	11	~	141.6	16	~	16	12"	Passes under Proposed P.L.D.
11		Milwaukee	~	Ex. S.M.H.	~	~	Ex. 18"	~	137.7±F	17	~	135.7±F	~	~	~	~	
12		Southbound	16+50	C.B."A"	~	D	12"	III	144.6	13	~	144.1	74	16	58	~	
13		Milwaukee	~	C.B."B"	T	D	12"	III	141.0	11	~	140.8	12	~	12	12"	Passes under Proposed P.L.D.
14		Southbound	14+80	C.B."A"	~	D	12"	III	142.0	15	~	141.7	42	42	~	~	Passes under Proposed P.L.D.
15		Northbound	15+02	C.B."B"	T	D	12"	III	141.5	17	~	141.2	51	~	51	~	
16		Northbound	14+94	C.B."A"	~	D	12"	III	142.4	15	~	142.2	5	~	5	~	Depth of water cushion = 24".
17		Milwaukee	~	M.H.-Drop	~	A	Ex. 18"	~	135.7±F	~	~	~	~	~	~	~	Build M.H. directly on Existing 18" Sewer.
18		Southbound	16+50	C.B."A"	~	D	12"	III	142.0	20	~	141.7	44	44	~	~	Passes under Proposed P.L.D.
19		Northbound	16+19	C.B."A"	~	D	12"	III	142.6	20	~	142.4	5	~	5	~	
20		Northbound	16+11	C.B."B"	T	D	12"	III	140.9	17	~	140.6	46	~	46	~	
21		N'bd-W'bd.	48+70	C.B."B"	T	D	12"	III	143.0	22	~	142.8	22	~	22	12"	
22		N'bd-W'bd.	18+42±	Ex. S.M.H.	~	~	Ex. 12"	~	137.2±F	~	~	~	~	~	~	~	
23		N'bd-W'bd.	49+35	C.B."B"	T	D	12"	III	142.0	24	~	141.8	22	22	~	12"	Passes under Proposed P.L.D.
24		N'bd-Island	19+67±	Ex. S.M.H.	~	~	Ex. 24"	~	137.6±F	~	~	~	~	~	~	~	
25		Northbound	20+63	C.B."A"	~	D	12"	III	140.4	26	~	140.2	21	~	21	~	
26		Northbound	20+63	C.B."B"	T	D	12"	III	140.0	27	~	139.7	45	~	45	12"	
27		Northbound	20+11±	Ex. S.M.H.	~	~	Ex. 3'-0"x4'-0"	~	134.0±F	~	~	~	~	~	~	~	
28		E'bd-N'bd.	60+88	C.B."B"	T	D	12"	III	141.5	29	~	141.3	15	~	15	12"	
29		E'bd-N'bd.	20+95±	Ex. S.M.H.	~	~	Ex. 24"	~	136.0±	~	~	~	~	~	~	~	
30		Northbound	21+50	C.B."A"	~	D	12"	III	141.3	31	~	141.0	45	~	45	~	
31		E'bd-N'bd.	61+25	C.B."B"	T	D	12"	III	140.1	29	~	139.9	28	~	28	12"	
32	SHEET #12	E'bd-S'bd.	39+43	C.B."A"	~	D	12"	III	146.2	33	~	146.0	5	~	5	~	
33		E'bd-S'bd.	39+35	C.B."B"	T	D	12"	III	142.2	34	~	141.8	69	19	50	~	Passes under Proposed P.L.D.
34		Southbound	29+70±	M.H.-Drop	~	A	Ex. 24"	~	137.7±F	24	~	~	~	~	~	~	Build M.H. directly on Existing 24" Sewer.
35		Southbound	29+75	C.B."B"	T	D	12"	III	144.6	34	~	144.4	1	~	1	~	Depth of water cushion = 30".
36		E'bd-N'bd.	59+20	C.B."A"	~	D	12"	III	146.7	37	~	146.4	50	~	50	~	Passes over Existing 12" Sewer.
37		E'bd-N'bd.	59+60	C.B."B"	T	D	12"	III	146.2	34	~	145.9	35	14	21	~	
38		S'bd-W'bd.	30+60	C.B."A"	~	D	12"	III	144.9	39	~	144.6	45	~	45	~	Passes under Proposed P.L.D.
39		N'bd-W'bd.	50+55	C.B."B"	T	D	12"	III	139.3	34	~	139.0	61	~	61	~	
40		S. Ser. Dr.	~	C.B."B"	T	D	12"	III	139.3±F	~	Ex. 24" Sew.	139.1±F	2	~	2	12"	
41		N. Ser. Dr.	~	C.B."B"	T	D	12"	III	143.6	42	~	143.4	4	~	4	~	
42		N. Ser. Dr.	~	M.H.-Std.	~	A	Ex. 12"	~	143.0±F	~	~	~	~	~	~	~	Build M.H. directly on Existing 12" Sewer.
43		Southbound	32+20	C.B."A"	~	D	12"	III	143.1	44	~	142.9	31	~	31	~	
44		Southbound	32+20	C.B."B"	T	D	12"	III	140.6	45	~	140.4	13	13	~	~	
45		Median	32+20	M.H.-Drop	~	A	Ex. 24"	~	136.4±F	29	~	~	~	~	~	~	Build M.H. directly on Existing 24" Sewer.
46	SHEET #13	Southbound	26+78	C.B."A"	~	D	12"	III	143.8	47	~	143.6	5	~	5	~	Depth of water cushion = 12".
47		Southbound	26+70	C.B."B"	T	D	12"	III	142.8	48	~	142.6	25	~	25	~	
48		Northbound	26+70	M.H.-Drop	~	A	Ex. 18"	~	138.2±F	~	~	~	~	~	~	~	Build M.H. directly on Existing 18" Sewer.
49		Northbound	26+78	C.B."A"	~	D	12"	III	143.8	50	~	143.6	5	~	5	~	Depth of water cushion = 12".
50		Northbound	26+70	C.B."B"	T	D	12"	III	138.7±F	48	~	138.5±F	21	~	21	~	
51	15	Ind. Alley	~	C.B."B"	T	D	12"	III	144.0	52	~	143.5	89	49	40	12"	
52	15	Blvd. Ser. Rd.	~	Ex. S.M.H.	~	~	Ex. 24"	~	F	~	~	~	~	~	~	~	
53	12	S. Ser. Dr.	94+30	M.H.-Drop	~	A	Ex. 24"	~	138.3±F	34	Ex. 24" Sew.	137.7±F	~	~	~	~	Build M.H. directly on Existing 24" Sewer.

COOR'D	DESCRIPTION	DR'N	CK'D	AP'VD	DATE

REVISIONS LOCATED BY COORDINATES ON SHEET

REFERENCE DRAWINGS

DESIGNED BY R.B.P./W.B.
DRAWN BY W.B.
TRACED BY
CHECKED BY RP

APPROVED:
ENGINEER OF STREETS
Allen Rogers
HIGHWAY ENGINEER

CITY OF DETROIT
CITY ENGINEERING DIVISION - D.P.W.
BUREAUS OF STREETS AND HIGHWAYS

EAST GRAND BOULEVARD RELOCATION

DRAINAGE STRUCTURE TABLE

SHEET 16 OF 79 SHEETS
CONTRACT NO. 19333A
ASSIGNMENT NO.
DATE Jan., 1982

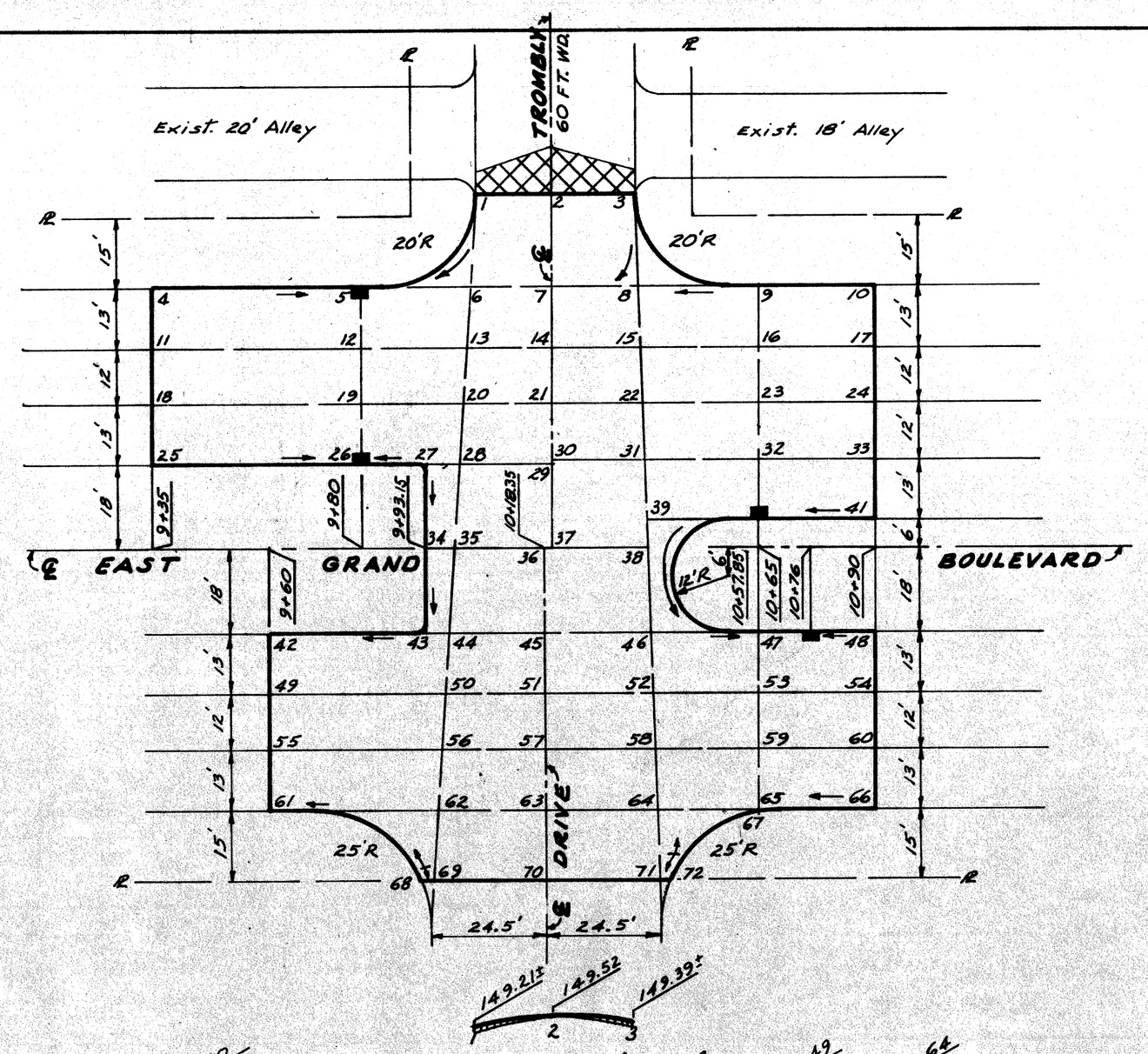
EDOO- 127M 5-68

SCALE	HORIZONTAL	BOOK	LEVEL
	VERTICAL	NO. PG.	DATE
		PAVING COMPLETED	

BEFORE STARTING CONSTRUCTION_____CONTRACTOR MUST CHECK WITH UTILITIES FOR LOCATIONS OF EXISTING STRUCTURES WHETHER OR NOT INDICATED ON PLANS.

NOTE - FOR SYMBOLS (A) ETC., SEE STANDARD DETAIL DRAWING NO. C-4378

BENCH MARKS ELEV.



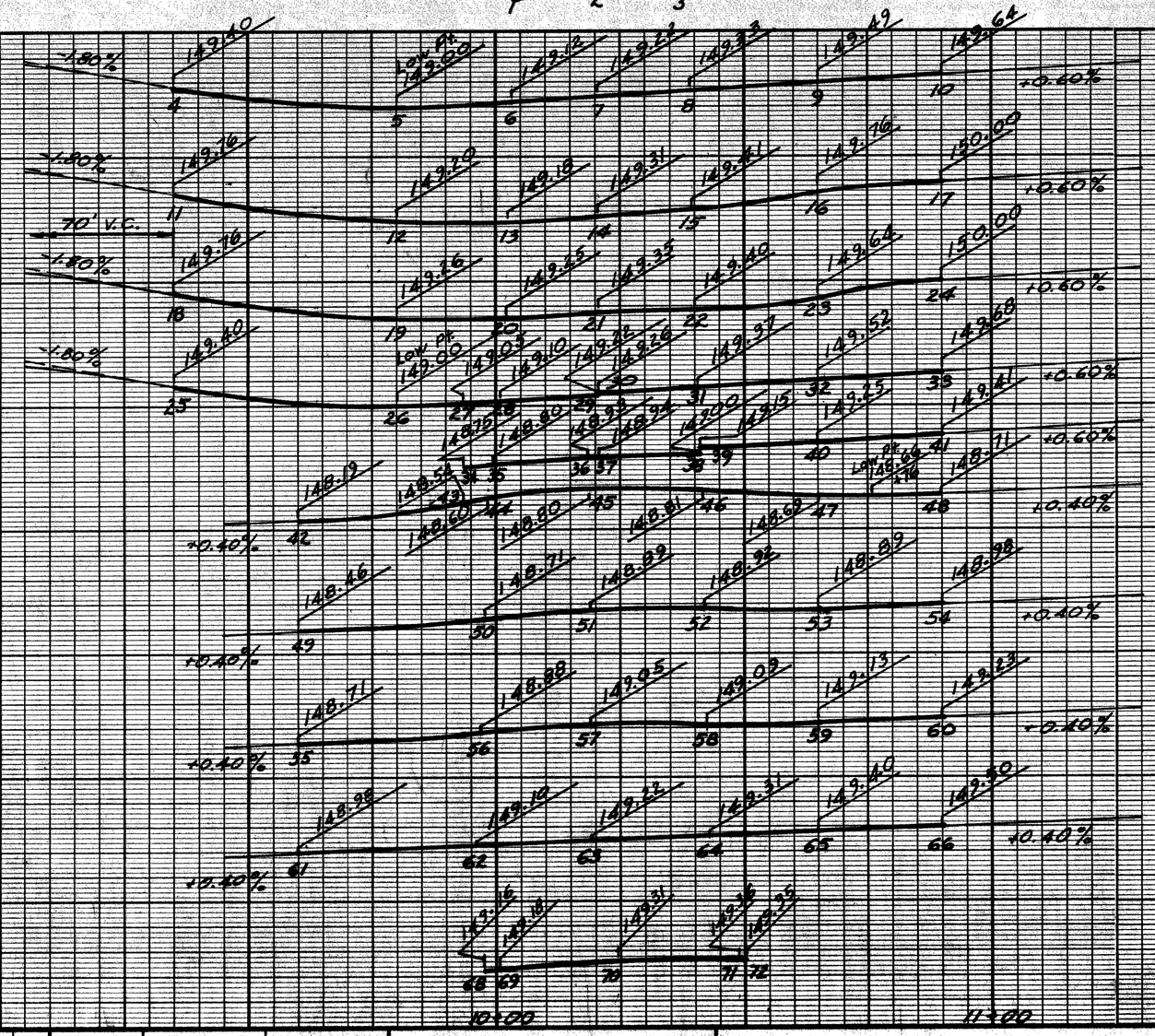
PLAN
Scale: 1" = 20'

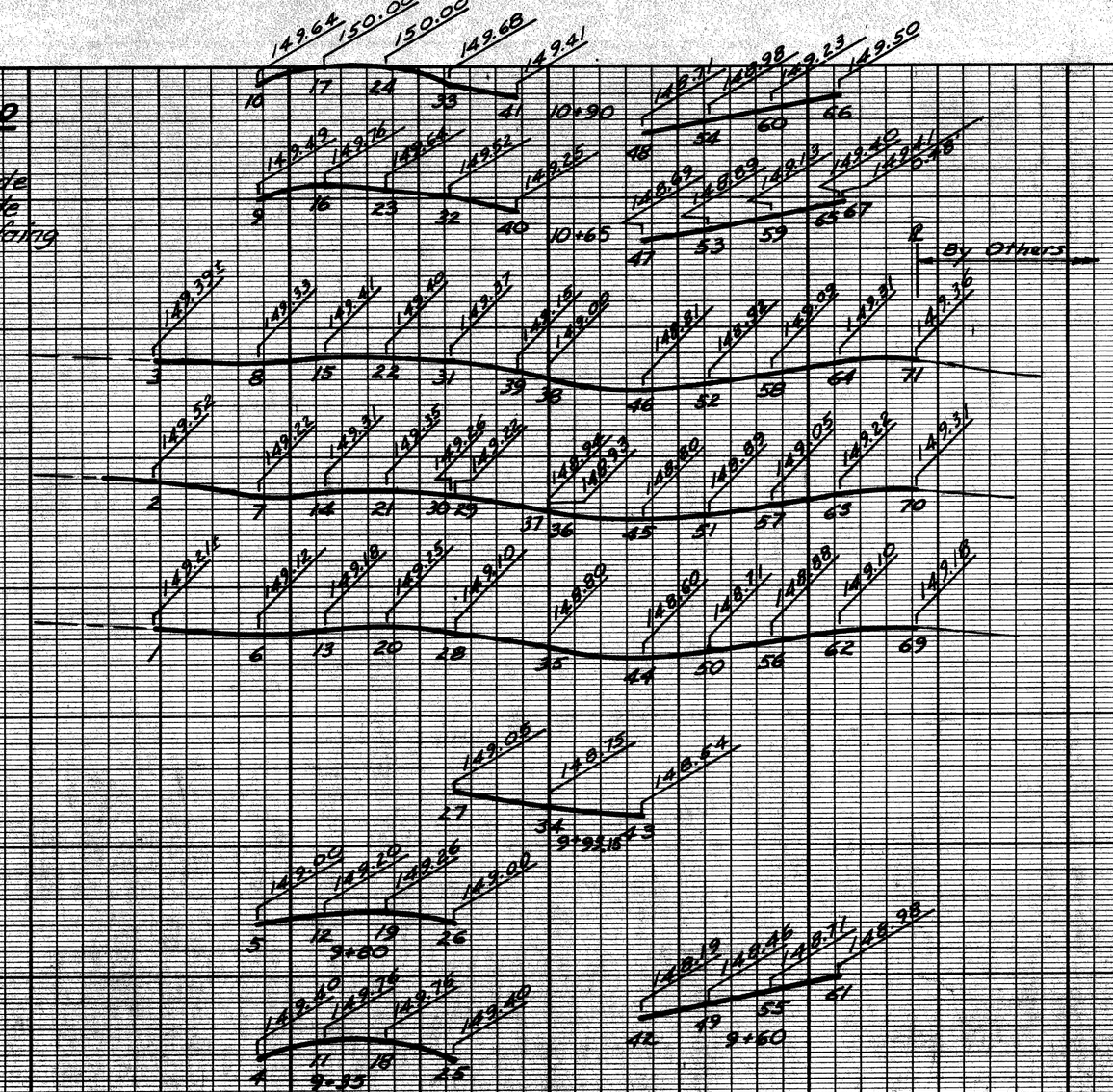
LEGEND

- Stripping & Resurfacing.
- Prop. Catch Basin.
- Prop. Direction of Surface Drainage.
- Outline of Detailed Grade Area.

PROFILE LEGEND

- Detailed Grade
- Prop. Pavt. Grade
- Exist. Pavt. Grade
- Stripping & Resurfacing





PROFILES
Scale
Hor. 1" = 20'
Vert. 1" = 2'

	BY	CHECKED BY
PLAN	RP	WB
GRADE	RP	WB
ESTIMATE		
FINAL	CHECK	REVIEW

APPROVED:
ENGINEER OF STREETS
ASSISTANT ENGINEER HIGHWAY
HEAD CIVIL ENGINEER

DESCRIPTION | DR'N | CK'D | AP'VD | DATE
REVISIONS

CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
CITY ENGINEERS OFFICE

EAST GRAND BOULEVARD RELOCATION

DETAILED GRADES
E. GRAND BLVD. AT TROMBLY

INDEX NO.
TOPO NO.
INDEXED

SHEET 17 OF 79 SHEETS
CONTRACT NO. 19333A
ASSIGNMENT NO.
DATE Jan, 1982

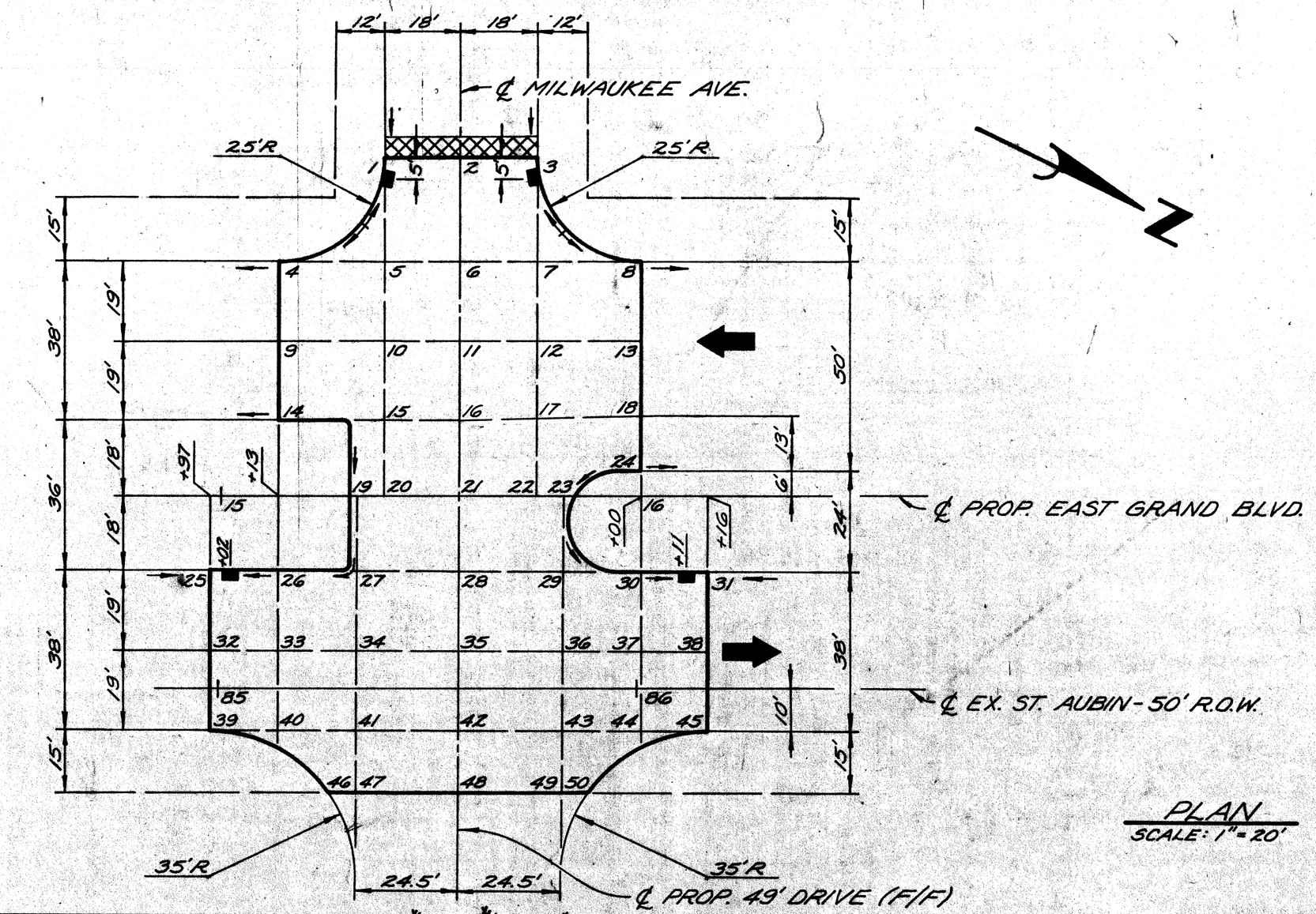
EDCO- 127M 1-79 59771

SCALE	HORIZONTAL	BOOK	LEVEL
	VERTICAL	NO. PG.	DATE
		PAVING COMPLETED	

BEFORE STARTING CONSTRUCTION ——— CONTRACTOR MUST CHECK WITH UTILITIES FOR LOCATIONS OF EXISTING STRUCTURES WHETHER OR NOT INDICATED ON PLANS.

NOTE - FOR SYMBOLS (A) ETC., SEE STANDARD DETAIL DRAWING NO. C-6175

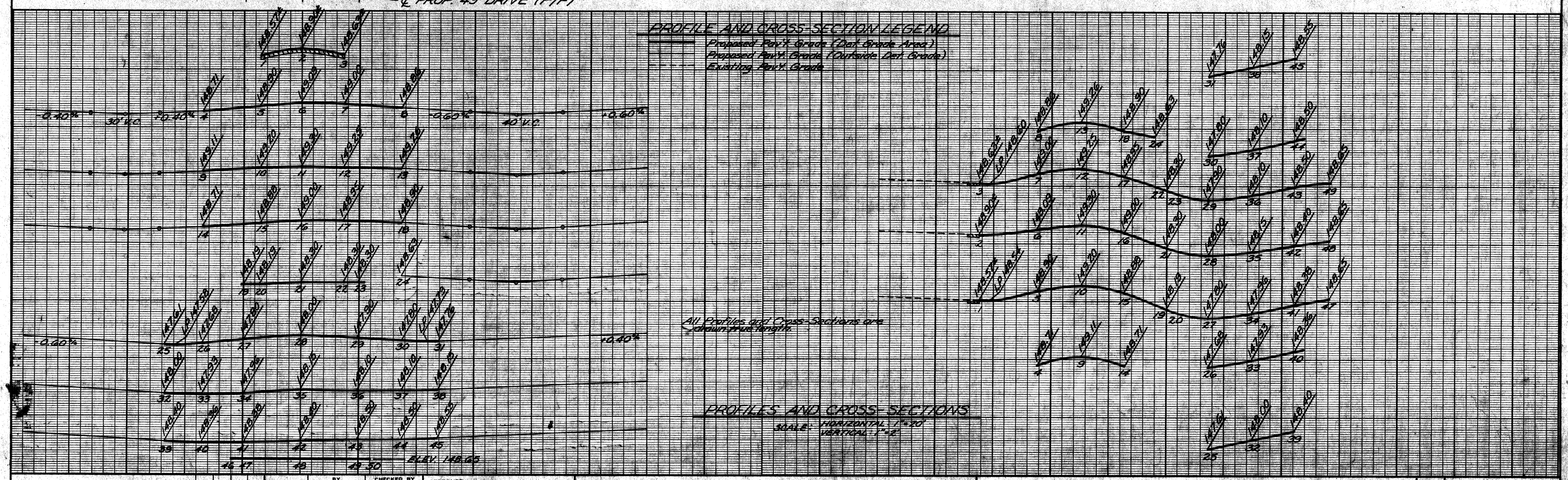
BENCH MARKS ELEV



PLAN
SCALE: 1" = 20'

PLAN LEGEND

- Proposed Catch Basin
- Drainage Flow Arrow
- Strip & Resurface (Bituminous Approaches)
- Detailed Grade Area



PROFILES AND CROSS-SECTIONS
SCALE: HORIZONTAL 1" = 20'
VERTICAL 1" = 2'

DESCRIPTION	DR'N	CH'D	AP'VD	DATE
REVISIONS				

	BY	CHECKED BY
PLAN	W. Bonus	RP
GRADE	W. Bonus	RP
ESTIMATE		
FINAL	CHECK	REVIEW

APPROVED: ENGINEER OF STREETS — HIGHWAY ENGINEER

CITY OF DETROIT
CITY ENGINEERING DIVISION - D.P.W.
BUREAUS OF STREETS AND HIGHWAYS

EAST GRAND BOULEVARD RELOCATION

DETAILED GRADES
E. GRAND BLVD. AT MILWAUKEE

INDEX NO. — TOPO NO. — INDEXED

SHEET 10 OF 79 SHEETS
CONTRACT NO. 19333 A
ASSIGNMENT NO.
DATE Jan., 1982