



CITY OF ANN ARBOR PROJECT MANAGEMENT

2014 SEWER LINING PROJECT

BID No. 4322, FILE No. 2013019

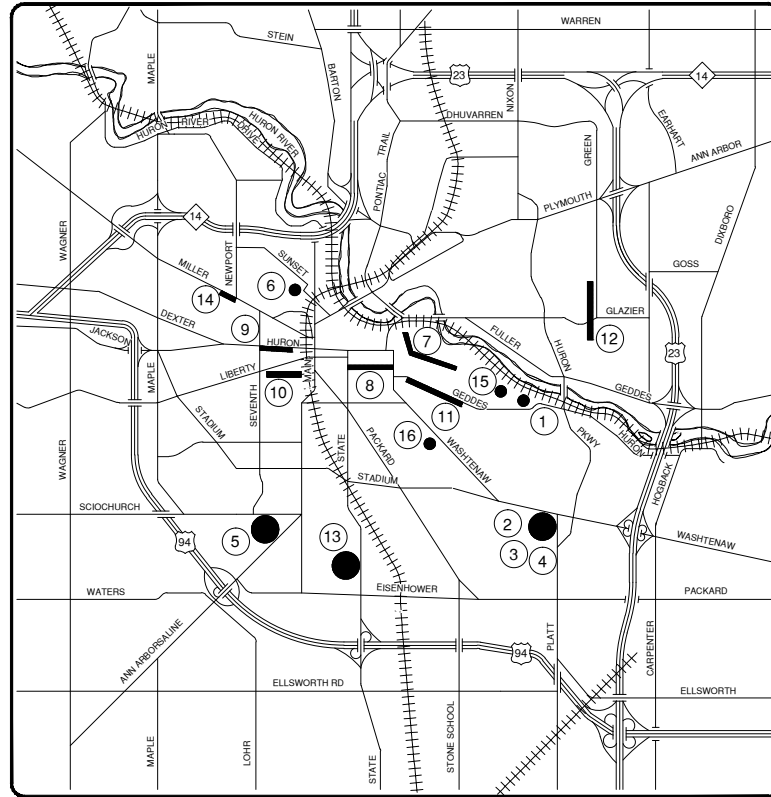
NOTES:

THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE 1994 EDITION OF THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS AND ITS DETAILS WHICH ARE INCLUDED BY REFERENCE. THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT.

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 53, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

THE UNDERGROUND LOCATIONS SHOWN FOR NATURAL GAS (GAS), TELEPHONE (TEL), ELECTRICAL POWER (PWR), CABLE TV (CTV) AND FIBER OPTIC LINES (FIBER) ARE APPROXIMATE. THE CITY OF ANN ARBOR ASSUMES NO RESPONSIBILITY FOR THEIR ACCURATE REPRESENTATION IN THIS DRAWING. MISS DIG MUST BE CONTACTED PRIOR TO CONSTRUCTION TO LOCATE THESE UTILITIES.

SHEET LIST TABLE			
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VICINITY MAP

PROJECT MANAGEMENT SERVICE UNIT	
 <i>Nicholas Hutchinson</i> NICHOLAS HUTCHINSON, P.E. - MI LICENSE No. 46789 CITY ENGINEER	 ENGINEER'S SEAL
03/31/2014	DATE
PREPARED UNDER THE SUPERVISION OF	
 DAVID ARTHUR DYKMAN, P.E. - MI LICENSE No. 52912 PROJECT MANAGER	 ENGINEER'S SEAL
03/31/2014	DATE



NO	ADD DESCRIPTION	AN	MA	LA	TE	PL	OT	DATE	DATE	BY	CHECKED

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-2867
734.769.6410
www.a2gov.org



PROJECT DESCRIPTION AND LIMITS

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

DRAWING No. 2013019 - 1

SHEET No. 1 TO 51

GENERAL NOTES:

- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND FEDERAL CODES, RULES, AND REGULATIONS. OBTAIN ALL NECESSARY LOCAL, STATE, AND FEDERAL PERMITS AND PAY PERMITS FEES FOR THE WORK OR CONFIRM REQUIRED PERMITS HAVE BEEN OBTAINED BY OTHERS PRIOR TO COMMENCING CONSTRUCTION.
- BE RESPONSIBLE AT ALL TIMES FOR THE SITE SAFETY IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE OCCUPATIONAL, HEALTH, AND SAFETY AUTHORITY HAVING JURISDICTION.
- COMPLY WITH CONDITIONS AND REQUIREMENTS OF THE SOIL EROSION AND SEDIMENTATION CONTROL PERMIT, INCLUDING BUT NOT LIMITED TO, CERTIFIED STORMWATER OPERATOR REQUIREMENTS. INSTALL ALL CONTROL MEASURES PRIOR TO COMMENCING CONSTRUCTION.
- PROVIDE TRAFFIC CONTROL BARRICADES, SIGNS, LIGHTS, ETC. IN ACCORDANCE WITH THE LATEST EDITION OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AS NECESSARY FOR THE PROTECTION AND SAFETY OF THE PUBLIC. MAINTAIN THESE DEVICES AT ALL TIMES DURING CONSTRUCTION.
- MAINTAIN A CLEAN WORK AREA. THOROUGHLY CLEAN AND/OR SWEEP STREETS AND ROADWAYS AS REQUIRED BY THE GOVERNING AUTHORITY.
- MAINTAIN ACCESS TO EXISTING DRIVEWAYS AND MAIL BOXES DURING CONSTRUCTION. COORDINATE WITH AUTHORITIES HAVING JURISDICTION. CONDUCT OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES. ANY CLOSURE REQUIRES PERMISSION FROM THE AUTHORITIES HAVING JURISDICTION.
- RESTORE ALL DISTURBED AREAS NOT COVERED BY OTHER SURFACE TREATMENT PER THE DETAILED SPECIFICATION FOR CLEAN-UP & RESTORATION, SPECIAL.
- PROTECT EXISTING SITE IMPROVEMENTS TO REMAIN FROM DAMAGE. RESTORE/REPLACE DAMAGED IMPROVEMENTS TO THE ORIGINAL CONDITION ACCEPTABLE TO PARTIES HAVING JURISDICTION.
- PROTECT TREES TO REMAIN FROM DAMAGE DURING CONSTRUCTION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- DO NOT SCALE DRAWINGS TO DETERMINE DIMENSIONS. REFER DISCREPANCIES TO THE ENGINEER FOR CLARIFICATION.
- THE INFORMATION CONTAINED ON THESE DRAWINGS PERTAINING TO EXISTING CONDITIONS, SUCH AS BUT NOT LIMITED TO, UTILITIES, TOPOGRAPHY, SUBSURFACE CONDITIONS, IS FURNISHED SOLELY AS THE BEST INFORMATION AVAILABLE AND ITS ACCURACY IS NOT GUARANTEED. THE USE OF THIS INFORMATION DOES NOT PROVIDE RELIEF FOR ANY RESPONSIBILITY FOR DAMAGES DUE TO ANY INACCURACIES.
- ALL REMOVED MATERIALS ARE THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. CLEANUP AND DISPOSE OF ALL EXCESS MATERIALS OFF SITE AT A LOCATION DESIGNATED FOR THIS AND IN ACCORDANCE WITH LOCAL REGULATIONS OR AT AN ON SITE LOCATION DESIGNATED BY THE OWNER.
- PROFILE IS BEST INFORMATION AVAILABLE. CONTRACTORS IS RESPONSIBLE TO VERIFY LOCATION AND CONDITION OF PIPES TO BE LINED.
- THE CITY MUST APPROVE THE BYPASS PUMPING/FLOW PLAN FOR EACH LOCATION BEFORE ANY CONSTRUCTION MAY COMMENCE.
- ALL ACTIVE SERVICE LEADS MUST BE CUT OPEN ON THE SAME DAY THE PIPE IS LINED. ABANDONED LEADS SHALL NOT BE OPENED.
- INLET FILTERS SHALL BE PLACED ON THE ANY/ALL INLETS PRIOR TO ANY OPEN-CUT EXCAVATIONS OR DELIVERY OF SAND AND AGGREGATE.
- TRAFFIC CONTROL QUANTITIES ARE NOT PAID SEPARATELY FOR EACH SITE, BUT ARE PAID FOR THE PROJECT IN ITS ENTIRETY. ADDITIONAL DEVICES ABOVE THE CONTRACT QUANTITY WILL NOT BE PAID WITHOUT PRIOR APPROVAL OF THE ENGINEER. CONES ARE INCLUDED IN THE ITEM OF WORK FOR MINOR TRAFFIC CONTROL, MODIFIED, MAXIMUM \$__ AND WILL NOT BE PAID FOR SEPARATELY.
- ALL NO PARKING SIGNS SHALL BE 12" x 12" R8-3A SYMBOLIC SIGNS TOGETHER WITH THE SYMBOLIC "TOW AWAY ZONE", A 12" x 6" R7-201A SIGN. THESE SIGNS WILL BE TREATED NO DIFFERENTLY FROM OTHER CONSTRUCTION SIGNS FOR THIS PROJECT.

APPLICABLE TRAFFIC CONTROL MEASURES BY LOCATION

LOCATION	MAINTAINING TRAFFIC TYPICAL OR FIGURE
APPLEWAY CROSS LOTS SANITARY SEWER	MDOT M0110a, M0140a
BUTTERNUT STREET SANITARY SEWER	MDOT M0140a
NORDMAN ROAD SANITARY SEWER	MDOT M0140a
SPRINGBROOK AVENUE SANITARY SEWER	MDOT M0140a
AUDUBON DRIVE CROSS LOTS SANITARY SEWER	MDOT M0110a, M0140a
HISCOCK STREET STORM SEWER	MDOT M0140a
SOUTHSIDE INTERCEPTOR SANITARY SEWER	N/A
NORTH UNIVERSITY AVENUE STORM SEWER	MDOT M0740a, MMUTCD FIGURE 6H-39
WEST HURON STREET STORM SEWER	MDOT M0250a, M0310a
WEST MADISON STREET SANITARY SEWER	MDOT M0140a
GEDDES AVENUE SANITARY SEWER	MDOT M0140a
PEPPER PIKE ROAD CROSS LOTS SANITARY SEWER	MDOT M0110a, M0140a
SOUTH STATE STREET CROSS LOTS SANITARY SEWER	MDOT M0410a, M0440a, M0460a
MILLER AVENUE SANITARY SEWER	MDOT M0110a, M0140a
PINEVIEW COURT CROSS LOTS SANITARY SEWER	MDOT M0110a
BURNS PARK CROSS LOTS STORM SEWER	MDOT M0110a, M0140a

NOTE: MDOT MAINTAINING TRAFFIC TYPICALS M0020A, M0040A/M0050A APPLY TO ALL LOCATIONS. SEE MAINTENANCE OF TRAFFIC DETAILS SHEETS 3 AND 3A FOR ABOVE TYPICALS OR FIGURES.

MISCELLANEOUS QUANTITIES

THE FOLLOWING ITEMS OF WORK SHALL BE DONE AS THEY APPLY THROUGHOUT THE PROJECT. THE SE ITEMS ARE NOT DETAILED OR INCLUDED ON THE PLAN OR PLAN/PROFILE SHEETS.

Item No.	Item Description	Unit	Estimated Quantity
130	Protective Fencing	LF	280.000
140	Exploratory Excavation (0-10' deep), Trench Detail - Type I Modified	Each	5.000
141	Exploratory Excavation (0-10' deep), Trench Detail - Type IV	Each	5.000
142	Exploratory Excavation (0-10' deep), Trench Detail - Type VI Modified	Each	5.000
200	General Conditions, Modified, Maximum \$75,000	LS	1.000
201	Project Supervision, Modified, Maximum \$30,000	LS	1.000
202	Audiovisual Tape Coverage, Modified	LS	1.000
203	Minor Traffic Control, Modified, Maximum \$20,000	LS	1.000
204	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Each	45.000
205	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Each	45.000
206	Channelizing Device, 42 inch, Furn	Each	50.000
207	Channelizing Device, 42 inch, Oper	Each	50.000
208	Lighted Arrow, Type C, Furn	Each	2.000
209	Lighted Arrow, Type C, Oper	Each	2.000
210	Plastic Drum, High Intensity, Lighted, Furn	Each	200.000
211	Plastic Drum, High Intensity, Lighted, Oper	Each	200.000
212	Sign, Type B, Temp, Prismatic, Furn	SF	3670.000
213	Sign, Type B, Temp, Prismatic, Oper	SF	3670.000
214	"No Parking" Sign	Each	55.000
223	Dr Structure, 24 Inch dia	Each	1.000
224	Remove Concrete Curb or Curb & Gutter - Any Type, Modified	LF	200.000
225	Remove Concrete Sidewalk, Ramp and Drives - Any Thickness, Modified	SF	100.000
226	Aggregate Base	Ton	40.000
227	Hand Patching, Local Street (HMA, 13A)	Ton	50.000
227A	Hand Patching, Minor Street (HMA, 4E3)	Ton	50.000
227B	Hand Patching, Major Street (HMA, 4E10)	Ton	50.000
228	Concrete Curb or Curb & Gutter - Any Type	LF	200.000
229	4" Concrete Sidewalk, Modified	SF	50.000
230	6" Concrete Sidewalk, Ramp, Drive Approach, Modified	SF	50.000
231	6" Concrete Sidewalk, Ramp, Drive Approach, High Early	SF	50.000
232	Concrete Type M Drive Opening, High Early	LF	75.000
233	Adjust Structure Cover, Modified	Each	4.000
234	Inlet Filter, Special	Each	5.000
235	6' Construction Fence	LF	300.000
236	Clean-Up & Restoration, Special	LS	1.000
305-1	8" SDR 26 PVC Sewer, Trench Detail -	LF	100.000
305-2	10" SDR 26 PVC Sewer, Trench Detail - Type I Modified	LF	20.000
305-3	20" SDR 26 PVC Sewer, Trench Detail - Type I Modified	LF	20.000
307-1	8" SDR 26 PVC Sewer, Trench Detail - Type VI Modified	LF	50.000
307-2	10" SDR 26 PVC Sewer, Trench Detail - Type VI Modified	LF	75.000
315-1	12" HDP Sewer, Trench Detail - Type I Modified	LF	20.000
315-2	15" HDP Sewer, Trench Detail - Type I Modified	LF	20.000
315-3	18" HDP Sewer, Trench Detail - Type I Modified	LF	20.000
315-3A	21" HDP Sewer, Trench Detail - Type I Modified	LF	20.000
315-4	24" HDP Sewer, Trench Detail - Type I Modified	LF	20.000
317-1	12" HDP Sewer, Trench Detail - Type VI Modified	LF	20.000
317-2	15" HDP Sewer, Trench Detail - Type VI Modified	LF	20.000
317-5	36" HDP Sewer, Trench Detail - Type VI Modified	LF	20.000
353	4" SDR 35 PVC Service Lead	LF	20.000
360	Type I Manhole (0-10' deep)	Each	2.000
361	Type I Manhole (Add'l depth)	VF	5.000
362	Type II, 5' dia, Manhole (0-10' deep)	Each	1.000
363	Type II, 5' dia, Manhole (Add'l depth)	VF	2.000
364	Type III, 4' dia, Manhole	Each	2.000
563	Structure Covers	LBS	1600.000
564	Reconstruct Structure	Each	10.000
703	Silt Fence	LF	430.000

PERMITS REQUIRED TO BE OBTAINED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF CONSTRUCTION.

PERMIT	ISSUING AUTHORITY
LANE CLOSURE PERMIT	CITY OF ANN ARBOR PROJECT MANAGEMENT UNIT
"NO PARKING" SIGNS PERMIT	CITY OF ANN ARBOR PROJECT MANAGEMENT UNIT
GRADING/SOIL EROSION & SEDIMENTATION CONTROL PERMIT	CITY OF ANN ARBOR CUSTOMER SERVICE
RIGHT-OF-WAY PERMIT	CITY OF ANN ARBOR CUSTOMER SERVICE
* NO COST TO CONTRACTOR	


PERMITS REQUIRED TO BE OBTAINED BY THE CITY OF ANN ARBOR PRIOR TO THE BEGINNING OF CONSTRUCTION.

PERMIT	ISSUING AUTHORITY
M.D.E.Q. WATER MAIN CONSTRUCTION PERMIT	MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
M.D.E.Q. SANITARY SEWER CONSTRUCTION PERMIT	MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

CONTACT INFORMATION


PUBLIC UTILITIES	OWNER	CONTACT
WATER	CITY OF ANN ARBOR FIELD OPERATIONS SERVICE UNIT W.R. WHEELER SERVICE CENTER 4251 STONE SCHOOL ROAD ANN ARBOR, MI 48108	DAN WOODEN (734) 794-6350
SANITARY		MARK COZART (734) 794-6350
STORM		KEVIN ERNST (734) 794-6350
FORESTRY		BILL MEEKS (734) 794-6350
SIGNS SIGNALS STREET LIGHTS		CHUCK FOJTIK (734) 794-6361
PRIVATE UTILITIES	OWNER	CONTACT
GAS	DTE ENERGY 17150 ALLEN ROAD MELVINDALE, MI 48122	JAY WILLIAMS (313) 380-7303
ELECTRIC	DTE ENERGY WESTERN WAYNE SERVICE CENTER 8001 HAGGERTY ROAD BELLEVILLE, MI 48111	CLAY COMBEE (734) 397-4112
CABLE	COMCAST 27800 FRANKLIN ROAD SOUTHFIELD, MI 48034	RON SUTHERLAND (313) 999-8300
PHONE	AT&T 550 S. MAPLE ROAD ANN ARBOR, MI 48103	ANDREW JOHNSON (734) 995-5350
FIBER OPTIC	MCI 2800 N. GLENFILLE ROAD RICHARDSON, TX 75082	DEAN BOYERS (972) 729-6016

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Know what's below.
Call before you dig.

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				DATE	DATE				
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				REV	REV				



**CITY OF ANN ARBOR
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301 EAST HURON STREET
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
2014 SEWER LINING PROJECT

SCALE PLAN: #####
DRAWING No. **2013019-2**

SHEET No. **2 OF 51**

NOTES

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 2014 SEWER LINING PROJECT
 APPLEWAY CROSS LOTS
 SANITARY SEWER

SCALE: INTS
 DRAWING No.
 2013019-4A

SHEET No.
 4A OF 51

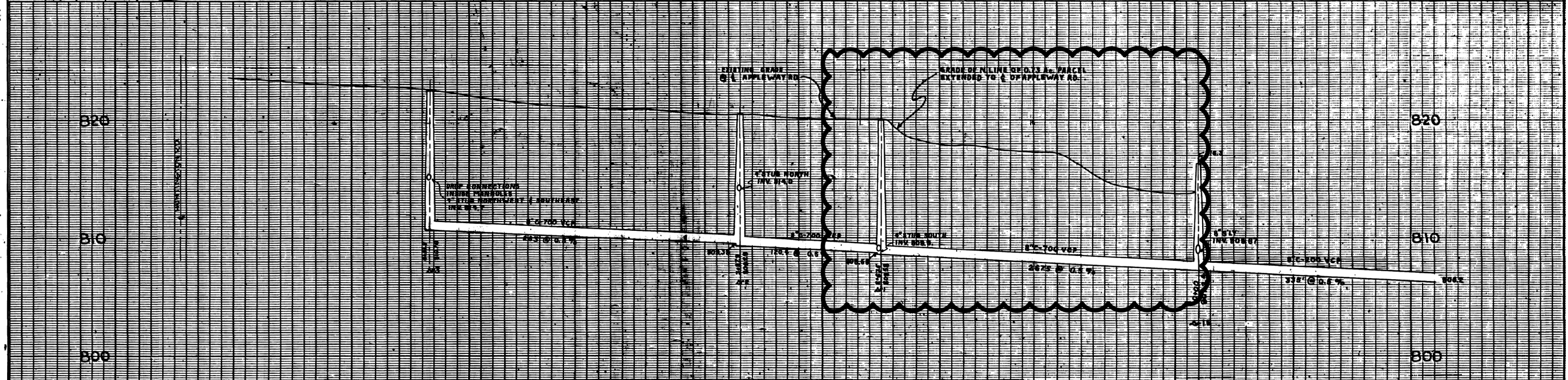
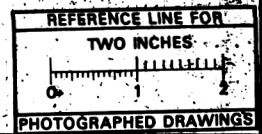
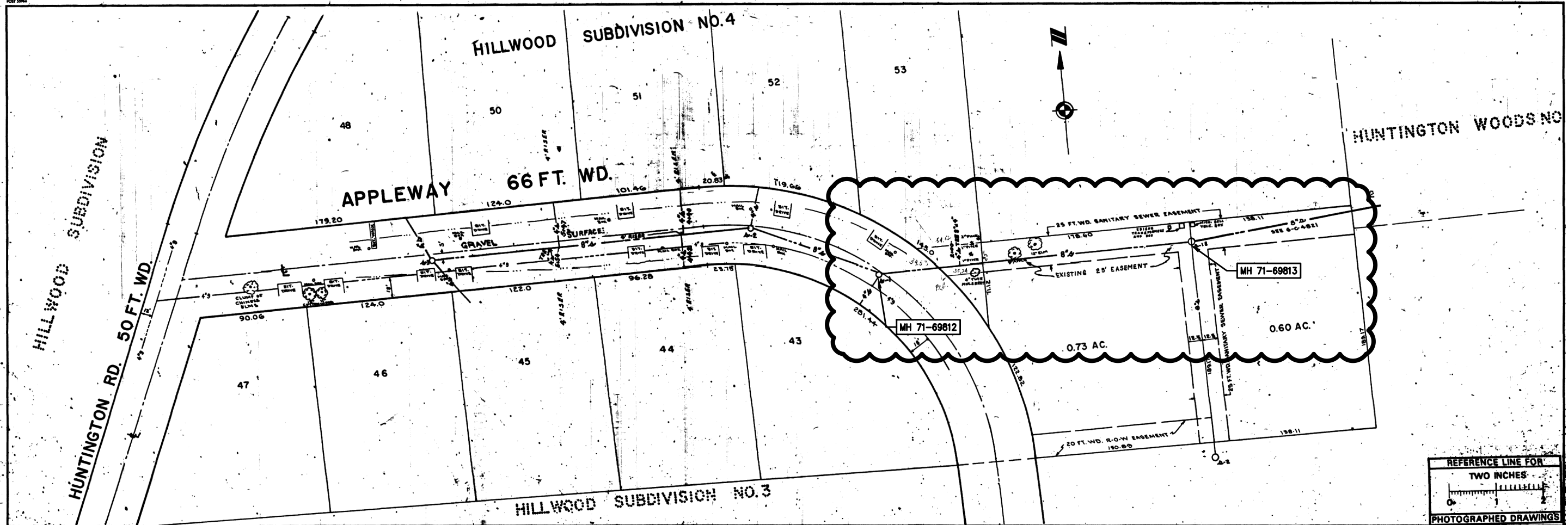
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CITY OF ANN ARBOR
 PUBLIC SERVICE

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Scanned On: 3/7/14
By: WSM

LEGEND:

—○—○—	EXISTING SANITARY	—○—○—	EXISTING STORM	—○—○—	EXISTING GAS
—○—○—	PROPOSED SANITARY	—○—○—	PROPOSED STORM	—○—○—	EXISTING WATER
—	CENTER LINE	---	RIGHT PROPERTY LINE	---	LEFT PROPERTY LINE

REFERENCES: BENCH MARK CITY OF ANN ARBOR BM #15 ELEV. 878.92
 DRAWINGS: 6-C-4821 M.D.P.H. PERMIT NO. 730782
 PROFILES BY: ATWELL-HICKS, INC. FIELD BOOK: 1302-A 37-22
 DATE: 10/19/73

DR. BY CPM	DATE 6/73	SHEET NO.
TR. BY S.S.S.	3/74	INDEX NO. 7548
CH. BY R.T.	3/74	SHELF NO.
REVISIONS	AS BUILT	6-C-5042
3/74		SCALE: HORIZONTAL 1"=40' VERTICAL 1"=4'

SANITARY SEWER CROSS LOTS
 FROM 2-1 TO APPLEWAY
APPLEWAY
 FROM CROSS LOTS TO HUNTINGTON RD. - HILLWOOD SUB.
 FREDRICK A. MAMMEL SUPERINTENDENT OF PUBLIC WORKS

PUBLIC WORKS DEPARTMENT - ANN ARBOR, MICHIGAN	
JOB 28359	DIST.
JOB 942-3	DIST.
JOB	DIST.
JOB	DIST.

APPROVED BY: ATWELL-HICKS, INC. PREPARED BY: 110 N. FIRST ST., ANN ARBOR, MICH.

811 Know what's below. Call before you dig.

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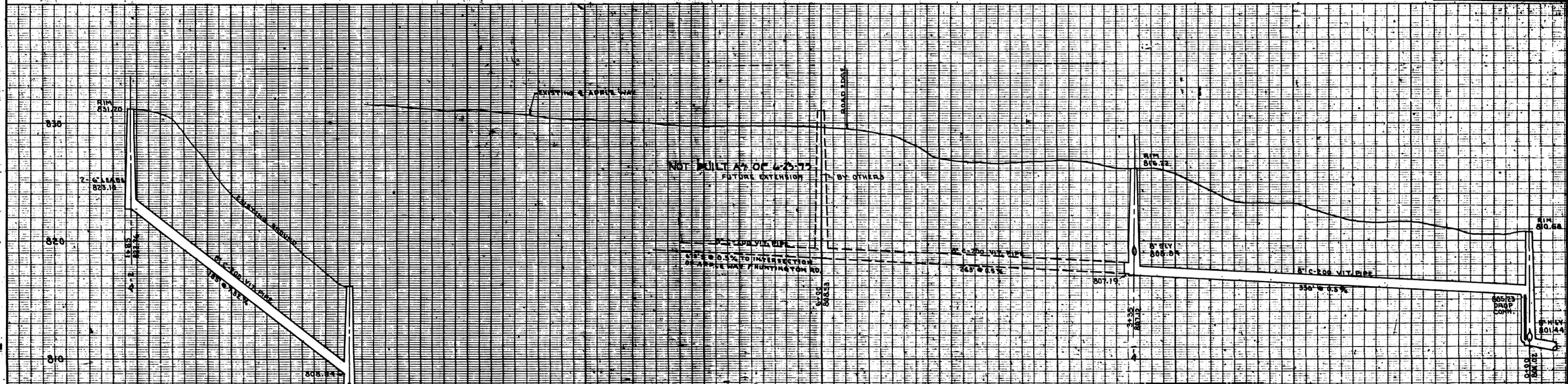
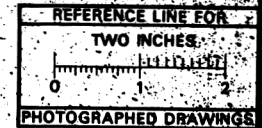
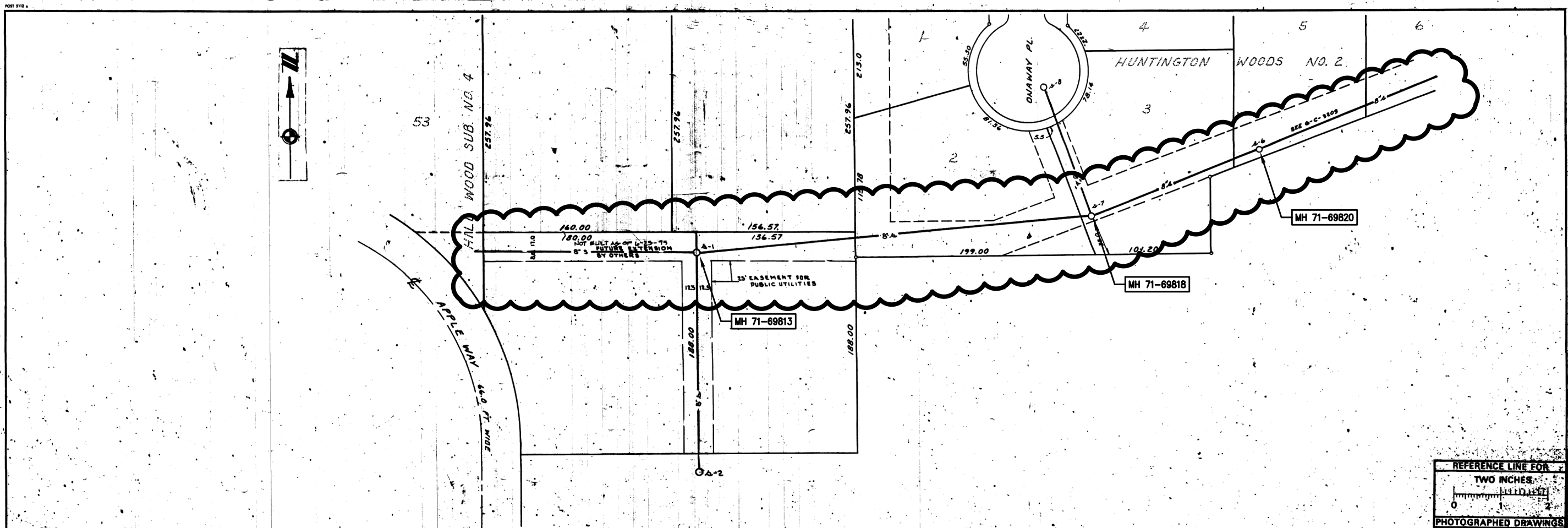
CITY OF ANN ARBOR
 PUBLIC SERVICE
 301 EAST HURON STREET
 ANN ARBOR, MI 48106-1507
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ANN ARBOR MICHIGAN

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 2014 SEWER LINING PROJECT
 APPLEWAY CROSS LOTS
 SANITARY SEWER

SCALE: 1"=40'
 DRAWING NO. 2013019-4
 SHEET NO. 4 OF 51

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 By: [Signature]

LEGEND:

—○—	EXISTING SANITARY	—○—	EXISTING STORM	—○—	EXISTING GAS
—●—	PROPOSED SANITARY	—●—	PROPOSED STORM	—○—	EXISTING WATER
—	CENTER LINE	—	RIGHT PROPERTY LINE	—	
—	LEFT PROPERTY LINE				

REFERENCES: BENCH MARK CITY OF ANN ARBOR, D.M. 19, E.L. 838.92. PROFILES BY ATWELL-HICKS, INC.
 DRAWINGS 6-C-3209 FIELD BOOK 2-302, P. 13-16
 M.D.P.H. PERMIT NO. 710821 12/21/71

DR. BY	DATE	SHEET NO.
TR. BY W.B.M.	12/72	INDEX NO. 7235
CH. BY Z.G.	12/72	SHELF NO.
REVISIONS		
6-C-4821		
SCALE: HORIZONTAL 1"=40'-0"		
VERTICAL 1"=4'-0"		

SANITARY SEWER CROSS LOTS
 FROM MH. S-7 IN HUNTINGTON WOODS NO. 1 TO APPLE WAY
 SUPERINTENDENT OF PUBLIC WORKS
 APPROVED BY: [Signature]

JOB 13-887	DIST.
JOB	DIST.
JOB	DIST.
JOB	DIST.

PREPARED BY ATWELL HICKS, INC.
 APPROVED BY

811 Know what's below. Call Before you dig.

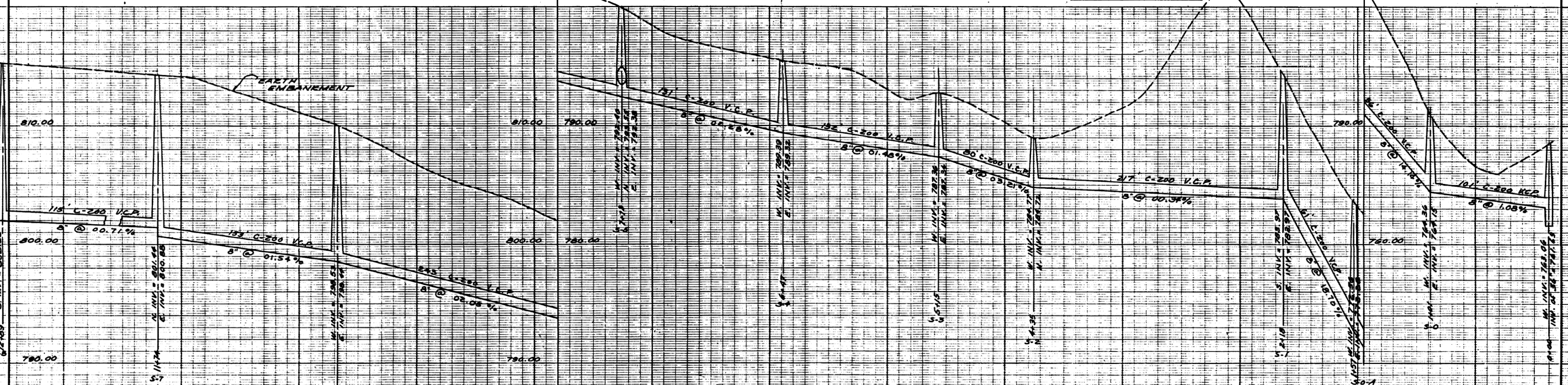
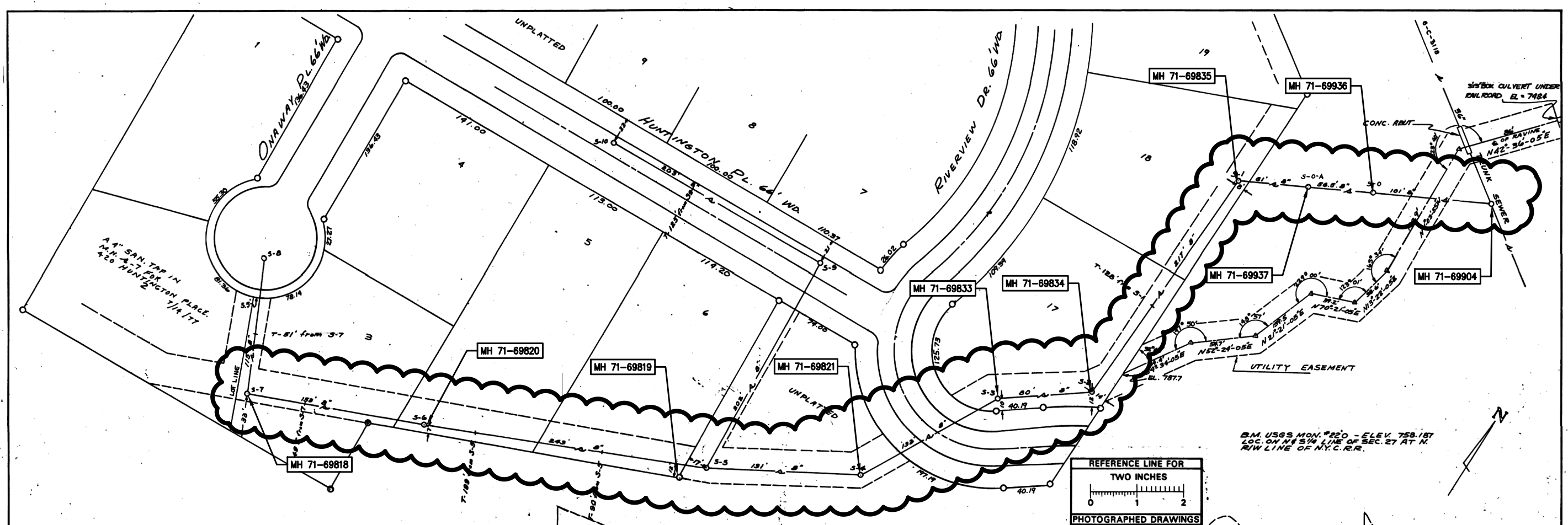
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 PUBLIC SERVICES
 301 EAST HURON STREET
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 2014 SEWER LINING PROJECT
 APPLEWAY CROSS LOTS
 SANITARY SEWER

SCALE: 1"=40'-0"
 DRAWING NO. 2013019-5
 SHEET NO. 5 OF 51

S:\Project Management\Design\2013019\2014 Sewer Lining Project\Plan Production\Primary\2013019S1.dwg Dwg Created: 5-Feb-14 - _o2 standard bw.stb - Plot Date: 29-Apr-14



<p>Digital Status Stamped On: 6-15-05 By: DSK Dispatched: YES Vector: O.C.B.:</p>	<p>DATE: 5/7/14 INDEX NO.: 5285 TR. BY: J.O. REVISIONS:</p>	<p>6-C-3209 SANITARY SEWERS ONAWAY PL. - HUNTINGTON PL. TO EXISTING TRUNK SEWER HUNTINGTON WOODS SUB'N</p>																								
<p>LEGEND:</p> <table border="0"> <tr> <td>—○—</td><td>EXISTING SANITARY</td> <td>—○—</td><td>EXISTING STORM</td> <td>—G—</td><td>EXISTING GAS</td> </tr> <tr> <td>—S—</td><td>PROPOSED SANITARY</td> <td>—R—</td><td>PROPOSED STORM</td> <td>—W—</td><td>EXISTING WATER</td> </tr> <tr> <td>—</td><td>CENTER LINE</td> <td>---</td><td>RIGHT PROPERTY LINE</td> <td></td><td></td> </tr> <tr> <td>---</td><td>LEFT PROPERTY LINE</td> <td></td><td></td> <td></td><td></td> </tr> </table>	—○—	EXISTING SANITARY	—○—	EXISTING STORM	—G—	EXISTING GAS	—S—	PROPOSED SANITARY	—R—	PROPOSED STORM	—W—	EXISTING WATER	—	CENTER LINE	---	RIGHT PROPERTY LINE			---	LEFT PROPERTY LINE					<p>REFERENCES:</p> <p>BENCH MARK: B.M. U.S.G.S. MON. #220 - ELEV. 758.187 LOC. ON N.E. 1/4 LINE OF SEC. 27 AT N. R/W LINE OF N.Y.C.R.R.</p> <p>DRAWINGS: M.D.H. PERMIT NO. 25088 9/28/64</p>	<p>SCALE: HORIZONTAL 1" = 40' VERTICAL 1" = 4'</p> <p>FREDRICK A. MAMMEL SUPERINTENDENT OF PUBLIC WORKS</p> <p>PUBLIC WORKS DEPARTMENT - ANN ARBOR, MICHIGAN</p>
—○—	EXISTING SANITARY	—○—	EXISTING STORM	—G—	EXISTING GAS																					
—S—	PROPOSED SANITARY	—R—	PROPOSED STORM	—W—	EXISTING WATER																					
—	CENTER LINE	---	RIGHT PROPERTY LINE																							
---	LEFT PROPERTY LINE																									
<p>JOB 3278</p>	<p>DIST.</p>	<p>PREPARED BY AMERICAN ENG. CO.</p>																								
<p>JOB</p>	<p>DIST.</p>	<p>APPROVED BY</p>																								

ANN ARBOR MICHIGAN


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 ANN ARBOR, MI 48106-1547
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 2014 SEWER LINING PROJECT
 APPELWAY CROSS LOTS
 SANITARY SEWER

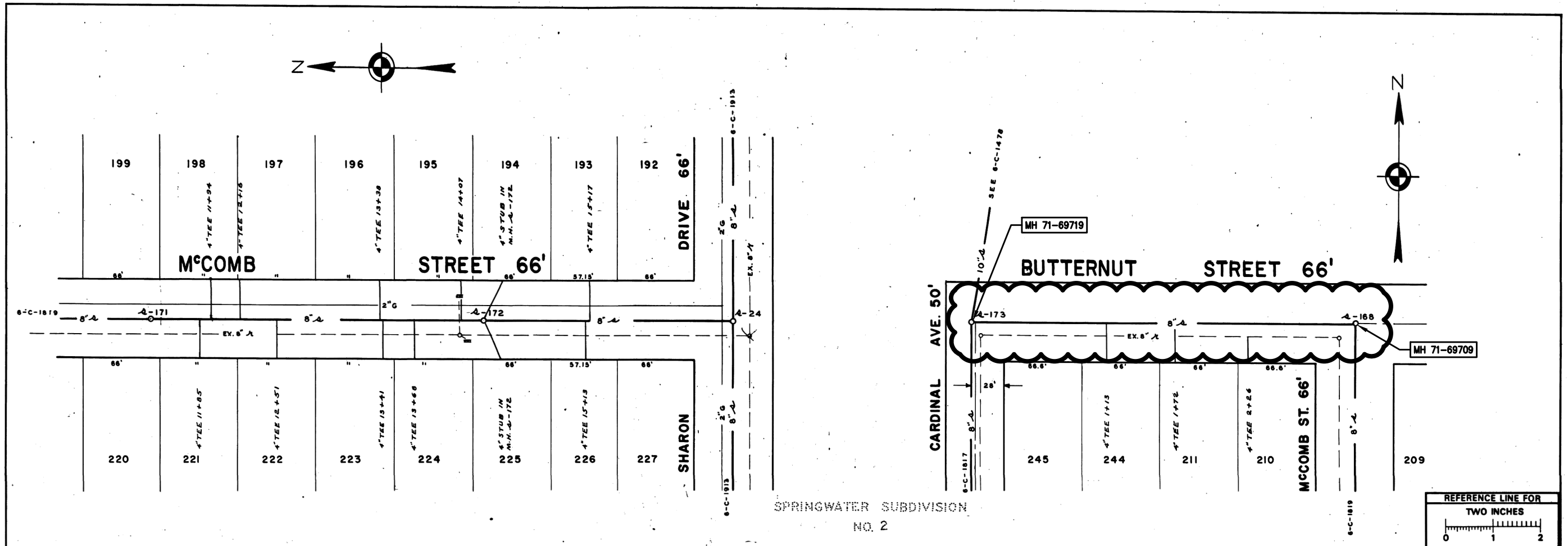
REV.	DESCRIPTION	DATE	DRAWN	CHECKED

SCALE: 1" = 40'
DRAWING NO.: 2013019-6
SHEET NO.: 6 OF 51

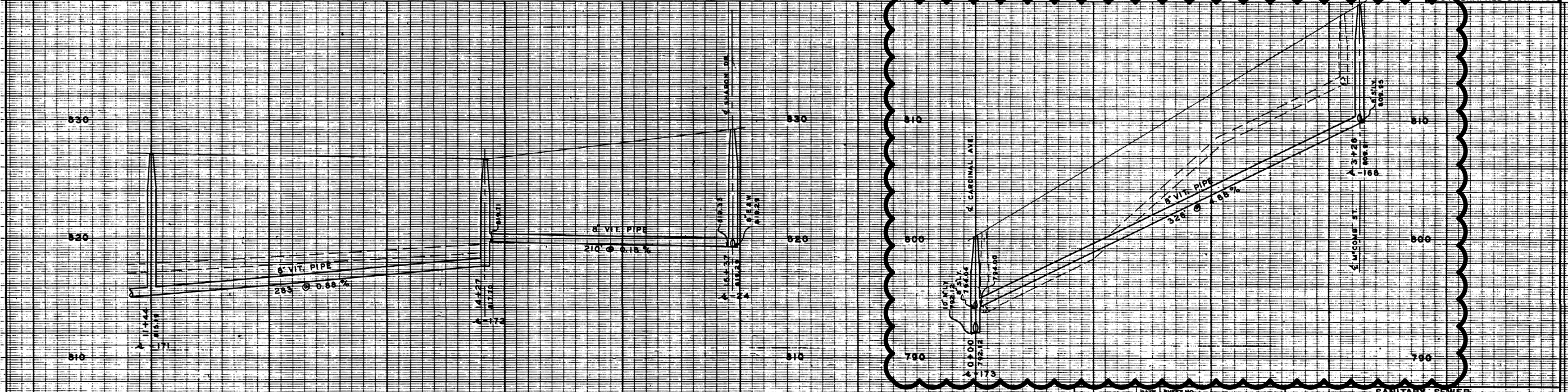
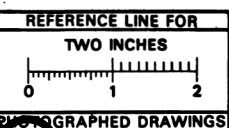


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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR 2014 SEWER LINING PROJECT SPRINGWATER SUBDIVISION (BUTTERNUT ST, NORDMAN RD & SPRINGBROOK AVE) SANITARY SEWER	DESCRIPTION REV.
SCALE: NTS DRAWING No. 2013019-7A	SHEET No. 7A OF 51

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SPRINGWATER SUBDIVISION
NO. 2



DIGITAL STATUS DRAWN BY: S-b-08 IN CHARGE: DATE: 10/13/14 SHEET NO.: 6-C-1820	DATE: 10/13/14 INDEX NO.: 3608 SHELF NO.: SCALE: HORIZONTAL 1" = 40' VERTICAL 1" = 4'	SANITARY SEWER MCCOMB STREET SHARON DR. TO 500' N. BUTTERNUT STREET CARDINAL AVE. TO MCCOMB ST.
---	---	---

LEGEND: UNDERGROUND UTILITIES PROFILES EXISTING SANITARY PROPOSED SANITARY CENTER LINE LEFT PROPERTY LINE EXISTING STORM PROPOSED STORM RIGHT PROPERTY LINE EXISTING GAS EXISTING WATER	REFERENCES: BENCH MARK PROFILES BY DRAWINGS BUILT BY FORMER CITY OF EAST ANN ARBOR IN 1955 M.D.H. PERMIT NO. 11371 1/18/54	JOB _____ DIST. _____ JOB _____ DIST. _____ JOB _____ DIST. _____ PREPARED BY: MCNAMEE, PORTER & SEELEY APPROVED BY:
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811 Know what's below. Call Before you dig.

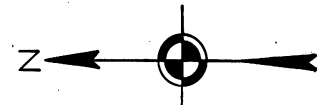
REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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CITY OF ANN ARBOR
PUBLIC SERVICES
2014 SEWER LINING PROJECT
BUTTERNUT STREET
SANITARY SEWER

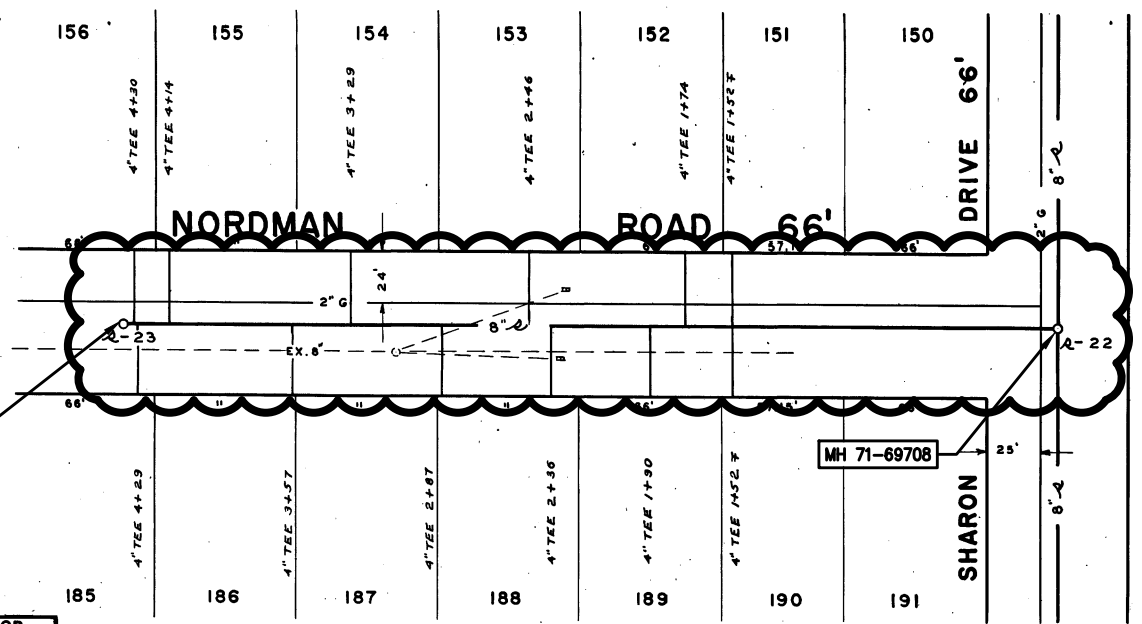
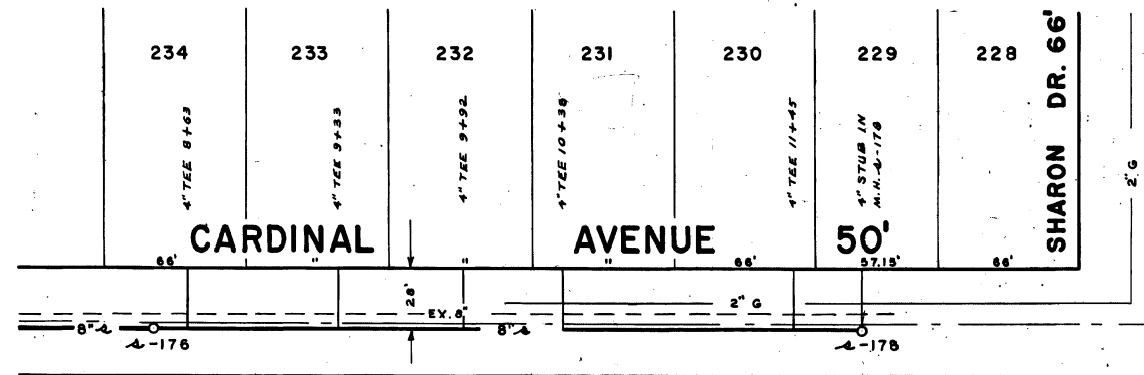
SCALE: 1" = 40'
DRAWING NO.: 2013019-7
SHEET NO.: 7 OF 51

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SPRINGWATER SUBDIVISION NO. 2

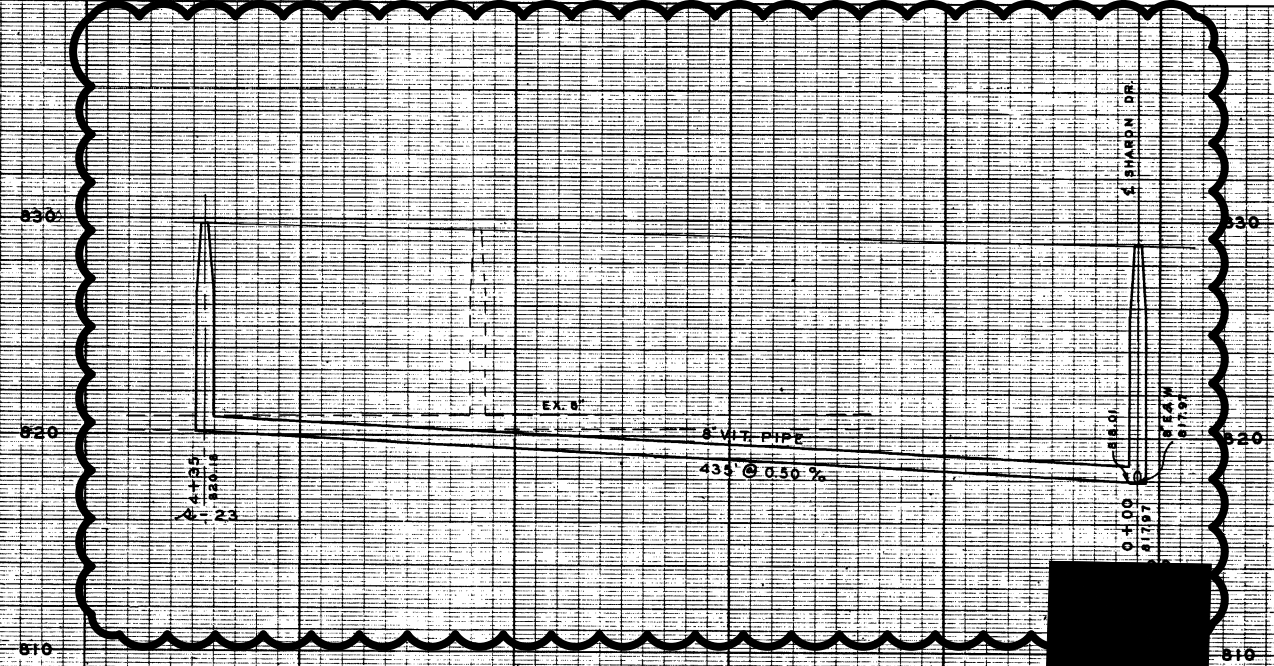
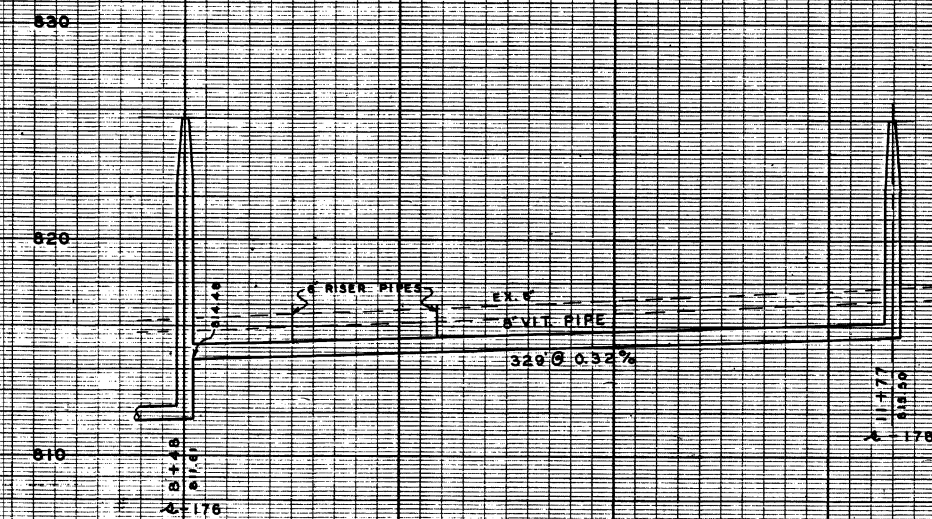
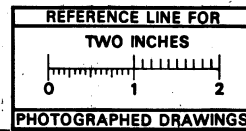
SPRINGWATER SUBDIVISION NO. 2



NOT PLATTED

MH 71-69707

MH 71-69708



DIGITAL STATUS
 SCANNED ON 3-5-05
 BY DOK
 CORRECTED 1/05
 VECTORS
 G.E.N.

DR. BY U.F.S. 10/88 INDEX NO. 3607
 TR. BY SHELF NO.
 CH. BY
 REVISIONS
6-C-1818
 SCALE: HORIZONTAL 1"=40'
 VERTICAL 1"=4'
 FREDRICK A. MAMMEL SUPERINTENDENT OF PUBLIC WORKS

LEGEND:
 UNDERGROUND UTILITIES
 PROFILES
 EXISTING SANITARY
 PROPOSED SANITARY
 EXISTING STORM
 PROPOSED STORM
 EXISTING GAS
 EXISTING WATER
 CENTER LINE
 LEFT PROPERTY LINE
 RIGHT PROPERTY LINE

REFERENCES:
 BENCH MARK
 PROFILES BY
 DRAWINGS
 BUILT BY FORMER CITY OF EAST ANN ARBOR IN 1955

PUBLIC WORKS DEPARTMENT - ANN ARBOR, MICHIGAN
 JOB 607-3626 DIST. 55
 JOB DIST.
 JOB DIST.
 JOB DIST.
 PREPARED BY MCNAMEE, PORTER & SEELEY
 APPROVED BY



REV.	DESCRIPTION	DATE	DRAWN	CHECKED

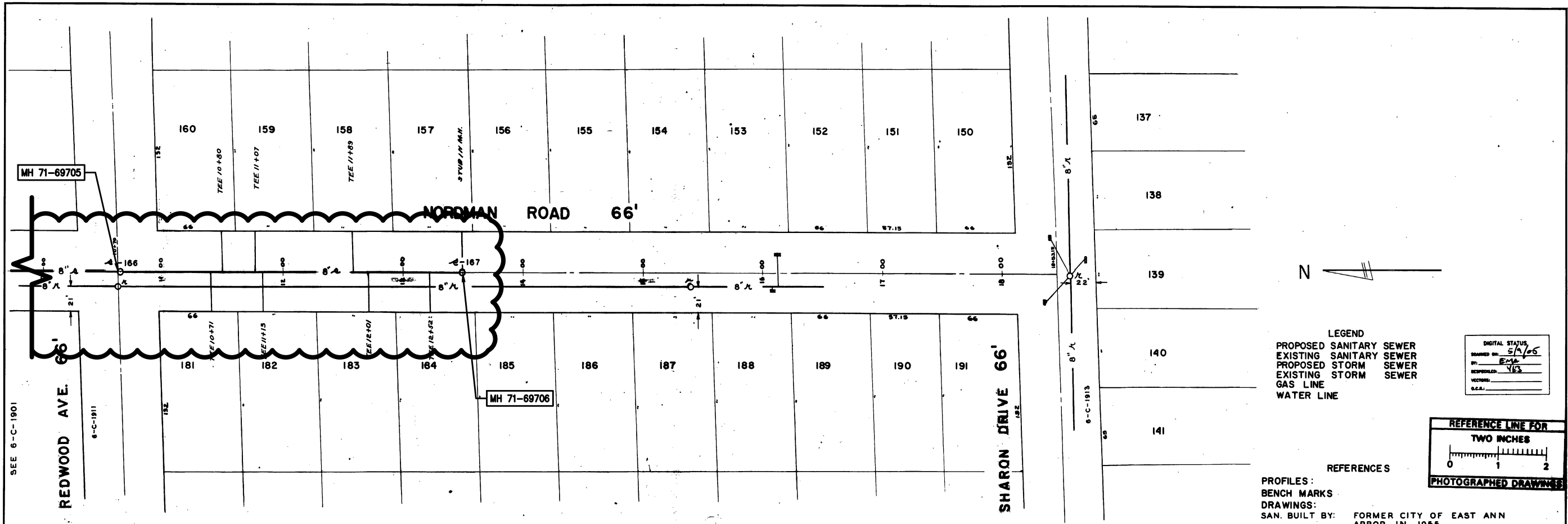
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 ANN ARBOR, MI 48106-1547
 www.a2gov.org



PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 2014 SEWER LINING PROJECT
 NORDMAN ROAD
 SANITARY SEWER

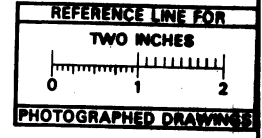
SCALE: NTS
 DRAWING NO.
 2013019-8
 SHEET No.
 8 OF 51

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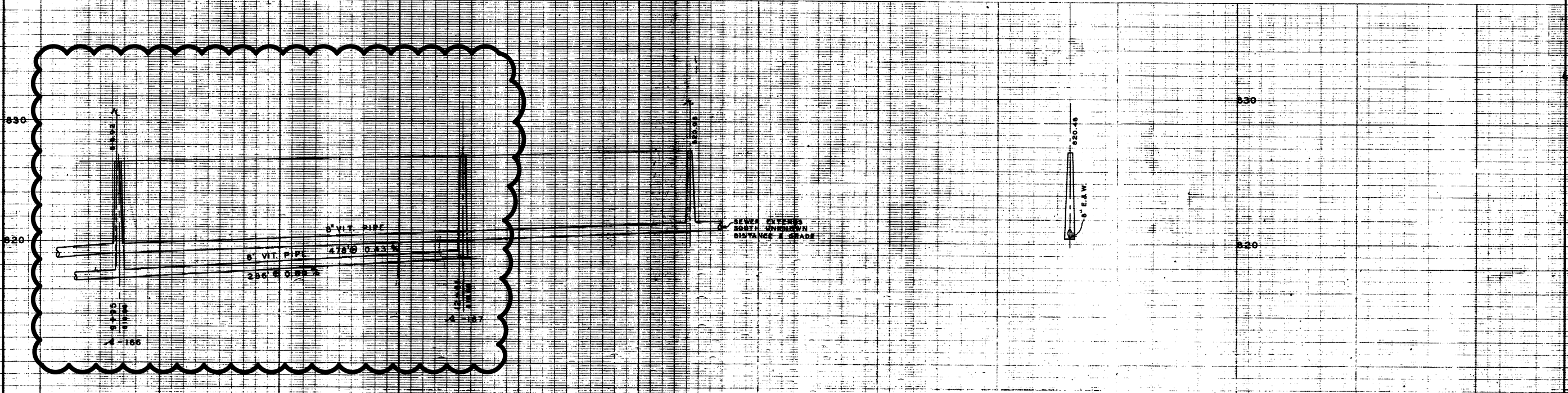


LEGEND
 PROPOSED SANITARY SEWER
 EXISTING SANITARY SEWER
 PROPOSED STORM SEWER
 EXISTING STORM SEWER
 GAS LINE
 WATER LINE

DIGITAL STATUS
 DRAWN BY: S.A./06
 REVISIONS: YES
 VECTORS:
 G.C.A.:




REFERENCES
 PROFILES:
 BENCH MARKS
 DRAWINGS:
 SAN. BUILT BY: FORMER CITY OF EAST ANN ARBOR IN 1955



DATE	SHEET NO.	SANITARY AND STORM SEWER	
DLK 4/27	INDEX NO. 3710	NORDMAN ROAD	
TR. BY L.F.S. 3/89	SHELF NO.	REDWOOD AVENUE TO SHARON DRIVE	
CH. BY	6-C-1902		
REVISIONS	SCALE: HORIZONTAL 1"=40'		
SAN. INK. L.F.S. 12/89	VERTICAL		
CITY ENGINEER'S OFFICE - ANN ARBOR, MICHIGAN			

M.D.R. PERMIT NO. 11371 1718/54
 FOR OLD STORM SEWERS BUILT BY E.A.A.
 SEE JOB #2451 3-F-356-A


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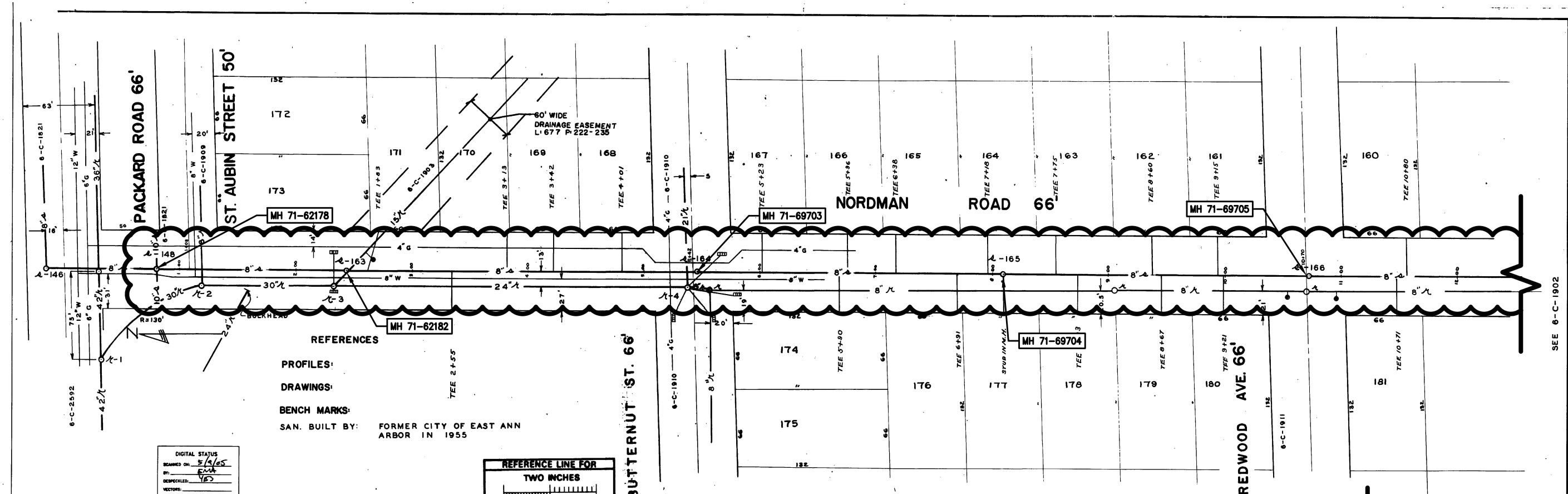
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 2014 SEWER LINING PROJECT
 NORDMAN ROAD
 SANITARY SEWER

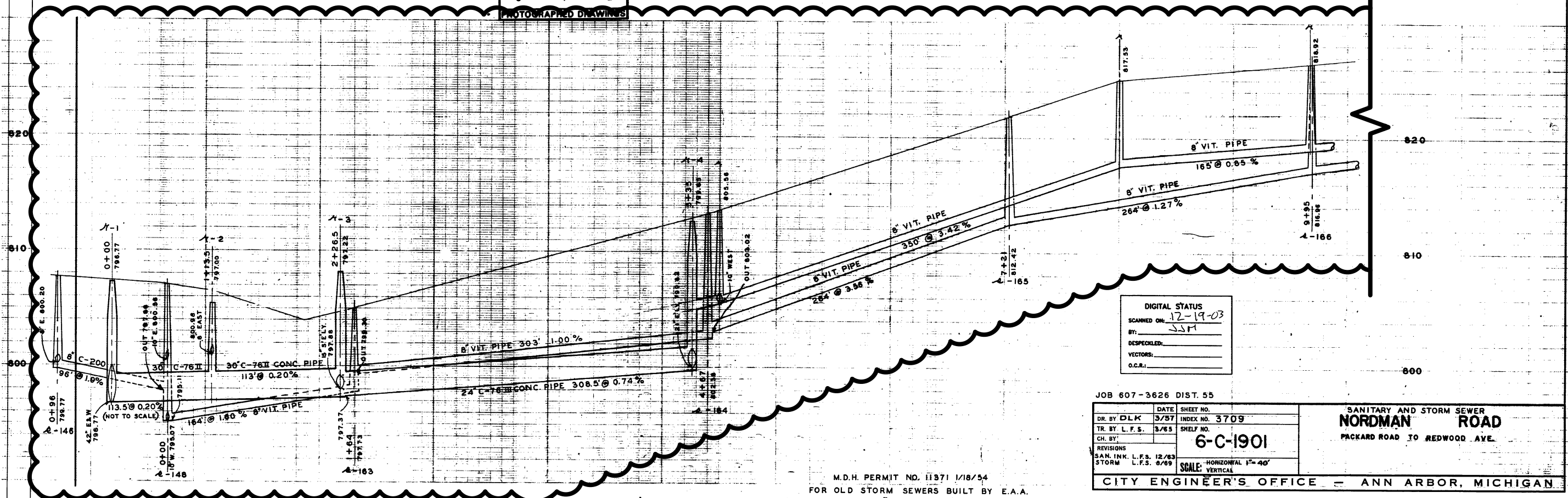
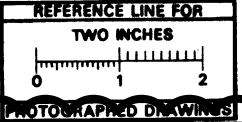
DRAWING No. 2013019-9
 SHEET No. 9 OF 51

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REFERENCES
 PROFILES:
 DRAWINGS:
 BENCH MARKS:
 SAN. BUILT BY: FORMER CITY OF EAST ANN ARBOR IN 1955

DIGITAL STATUS
 SCANNED ON: 2/16/15
 BY: [Signature]
 DESPECKLED: [Signature]
 VECTORS:
 O.C.R.:



DIGITAL STATUS
 SCANNED ON: 12-19-03
 BY: JSM
 DESPECKLED:
 VECTORS:
 O.C.R.:

JOB 607-3626 DIST. 55

DR. BY DLK	DATE 3/57	SHEET NO. 3709
TR. BY L.F.S.	3/65	INDEX NO. SHELF NO.
CH. BY:		6-C-1901
REVISIONS		
SAN. INK. L.F.S. 12/63		
STORM L.F.S. 8/69		

SCALE: HORIZONTAL 1"=40'
 VERTICAL

**SANITARY AND STORM SEWER
 NORDMAN ROAD
 PACKARD ROAD TO REDWOOD AVE.**

CITY ENGINEER'S OFFICE - ANN ARBOR, MICHIGAN

M.D.H. PERMIT NO. 11371 1/18/54
 FOR OLD STORM SEWERS BUILT BY E.A.A.
 SEE JOB# 2451 3-F-356-A

PREPARED BY MCNAMEE, PORTER & SEELEY

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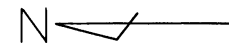
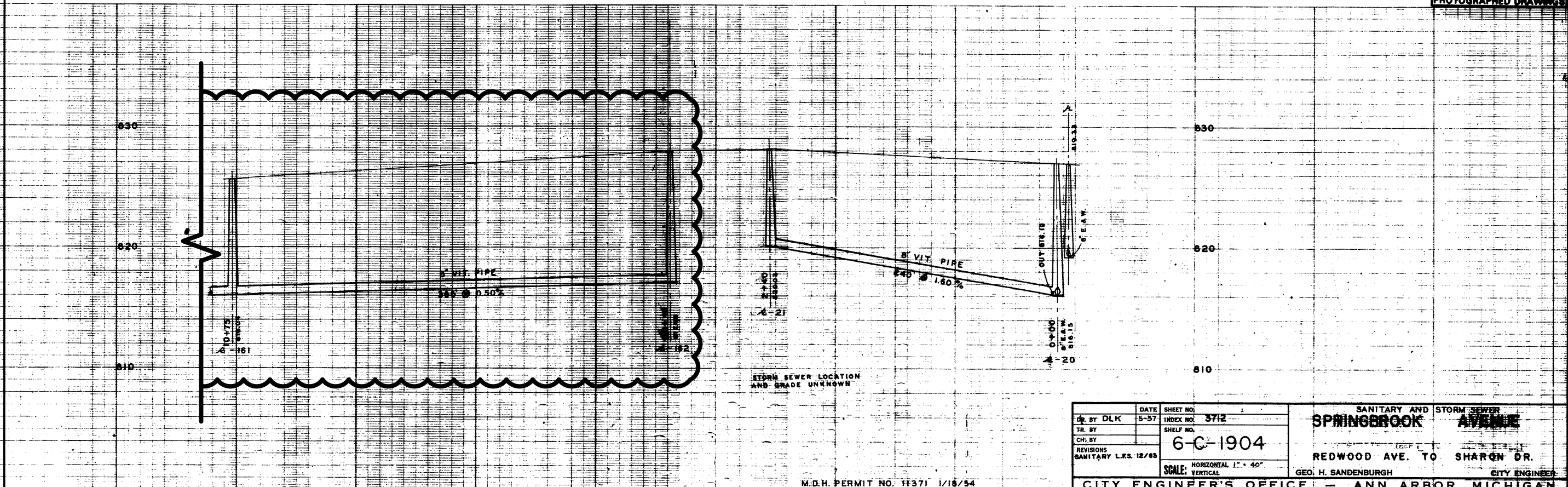
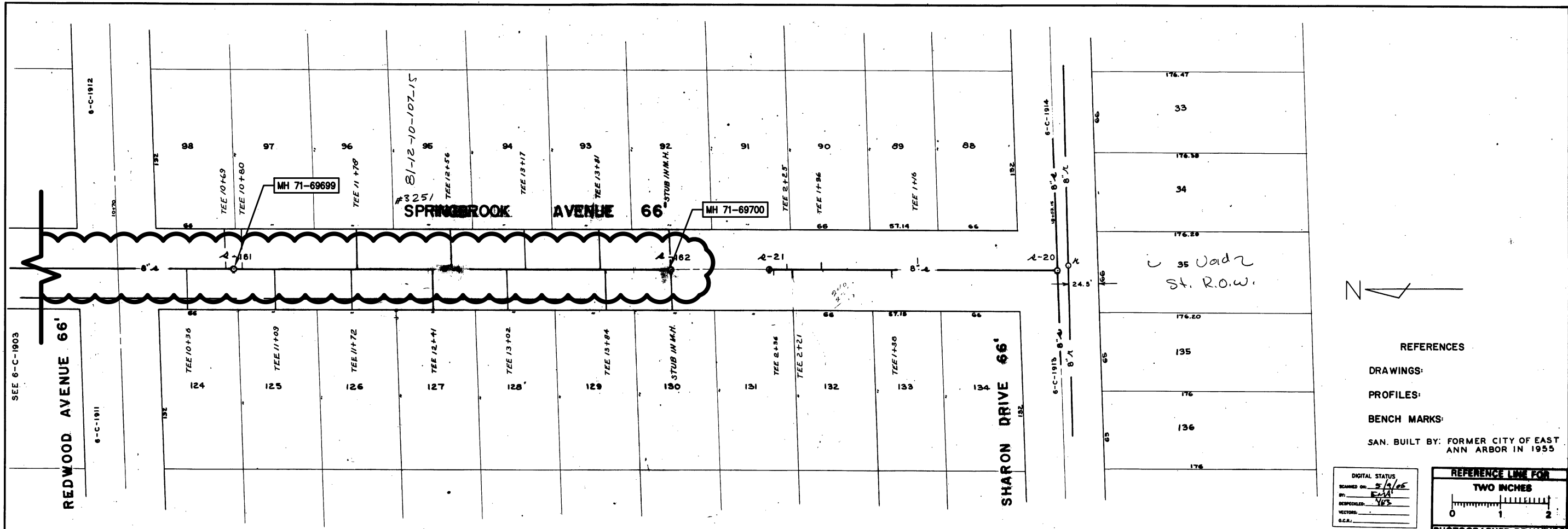
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 ANN ARBOR, MI 48102-2667
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ANN ARBOR MICHIGAN

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 2014 SEWER LINING PROJECT
 NORDMAN ROAD
 SANITARY SEWER

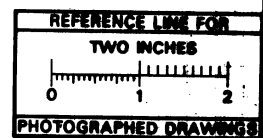
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 DRAWING NO. 2013019-10
 SHEET NO. 10 OF 51

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REFERENCES
 DRAWINGS:
 PROFILES:
 BENCH MARKS:
 SAN. BUILT BY: FORMER CITY OF EAST ANN ARBOR IN 1955

DIGITAL STATUS
 SCANNED ON: 5/1/05
 BY: EJA
 REPRODUCED: YES
 VECTORS:
 O.C.R.:



DR. BY DLK	DATE 5-31	SHEET NO. 3712
TR. BY		INDEX NO.
CH. BY		SHELF NO.
REVISIONS	6-C-1904	
SANITARY L.S. 12/03	SCALE: HORIZONTAL 1" = 40'	
	VERTICAL	

SANITARY AND STORM SEWER
SPRINGBROOK AVENUE
 REDWOOD AVE. TO SHARON DR.
 GEO. H. SANDENBURGH CITY ENGINEER

M.D.H. PERMIT NO. H371 1/16/54
 FOR OLD STORM SEWERS BUILT BY E.A.A.
 SEE JOB #2451 3-F-356-A

CITY ENGINEER'S OFFICE - ANN ARBOR, MICHIGAN

PREPARED BY MCNAMEE, PORTER & SEELEY

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 2014 SEWER LINING PROJECT
 SPRINGBROOK AVENUE
 SANITARY SEWER

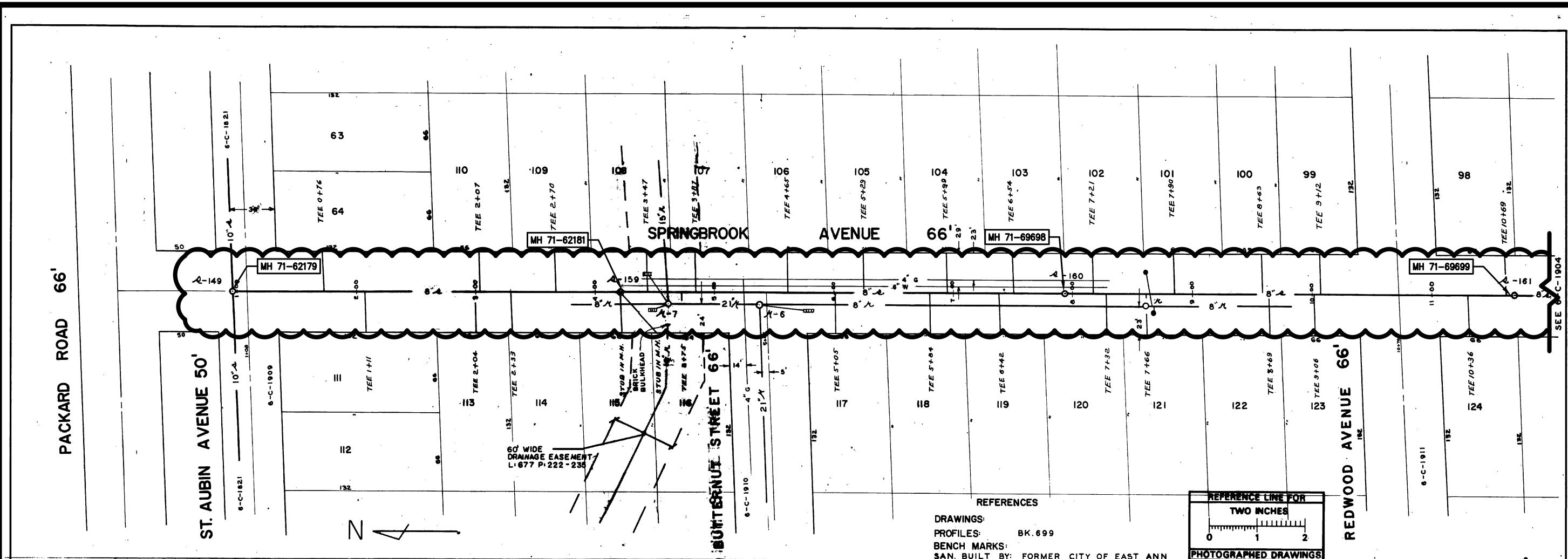
ANN ARBOR MICHIGAN CITY

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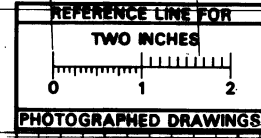
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DRAWING No. 2013019-11
 SHEET No. 11 OF 51

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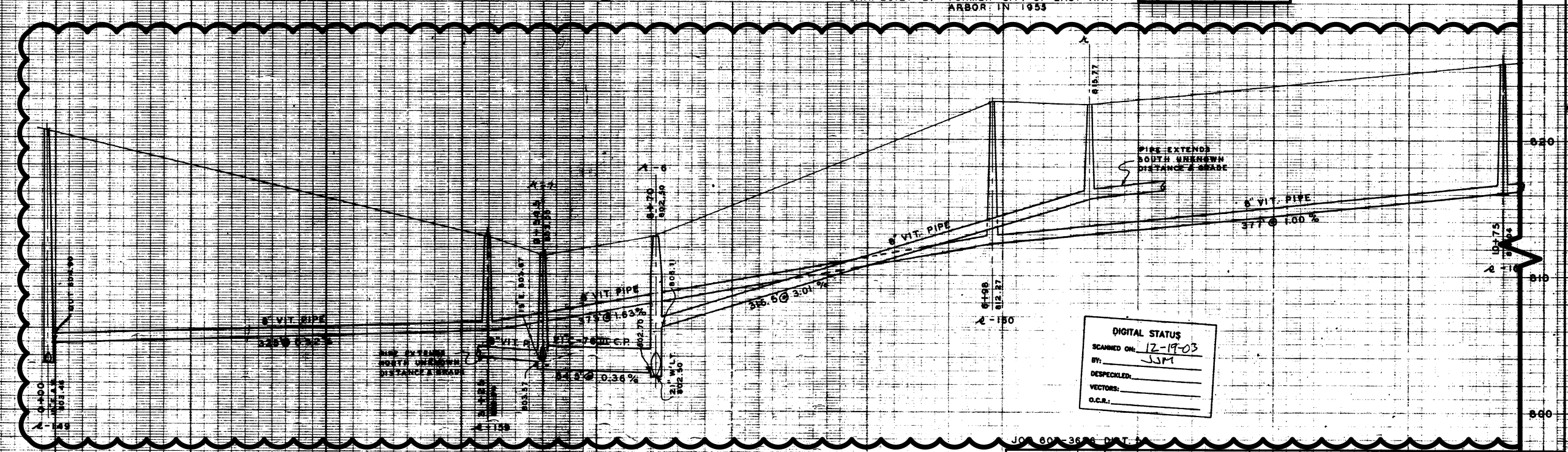


REFERENCES
 DRAWINGS: BK. 699
 PROFILES: BK. 699
 BENCH MARKS:
 SAN. BUILT BY: FORMER CITY OF EAST ANN ARBOR IN 1953



DIGITAL STATUS

SCANNED ON:	12-19-03
BY:	JSM
DESPECKLED:	
VECTORS:	
D.C.R.:	



DIGITAL STATUS

SCANNED ON:	12-19-03
BY:	JSM
DESPECKLED:	
VECTORS:	
D.C.R.:	

DR. BY	D.L.K.	DATE	5/97	SHEET NO.	
TR. BY	L.F.S.	DATE	3/65	INDEX NO.	3711
CH. BY				SHELF NO.	
REVISIONS					
SANITARY L.F.S.	12/68				
STORM L.F.S.	8/69				
SCALE	HORIZONTAL 1"=40'				
	VERTICAL				

STORM AND SANITARY SEWER
SPRINGBROOK AVENUE
 PACKARD ROAD TO REDWOOD AVE

M.D.H. PERMIT NO. 11371 1/18/54
 FOR OLD STORM SEWERS BUILT BY E.A.A.
 SEE JOB #2451 3-F-356-A

PREPARED BY MCNAMEE, PORTER & SEELEY
 GEO. H. SANDENBURGH CITY ENGINEER
 CITY ENGINEER'S OFFICE - ANN ARBOR, MICHIGAN

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 2014 SEWER LINING PROJECT
 SPRINGBROOK AVENUE
 SANITARY SEWER

SCALE: NTS
 DRAWING NO. 2013019-12
 SHEET NO. 12 OF 51

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