

FRIENDSHIP ACRES No. 1

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GENERAL NOTES:

CONTRACTOR SHALL CHECK DETAIL DRAWINGS FOR MINIMUM GRADE AND BACKFILL REQUIREMENTS

ALL COMBINATION CONCRETE CURB AND GUTTER TO BE MASSILLON STANDARD EXCEPT WHERE VARIATIONS ARE TO BE EXTENDED OR MET - SEE SPECIFICATION BOOK AND PLANS.

EXCAVATION FOR CONCRETE CURB AND GUTTER SHALL BE INCLUDED IN THE COST PER LINEAL FOOT OF SAID CURB AND GUTTER.

ALL CATCH BASINS AND MANHOLES TO BE ADJUSTED TO GRADE WHERE NECESSARY.

ALL CONCRETE TO BE 1:2; 4-6 BAG MIX. 28 DAY - 3000 PSI COMPRESSIVE STRENGTH; MAX. SLUMP TO BE 4".

CONTRACTOR SHALL PAY INSPECTOR(S) AT THE RATE OF TIME AND ONE-HALF OF REGULAR RATE AFTER 4:30 P.M. MONDAY THROUGH FRIDAY. SATURDAYS ALL DAY AT TIME AND ONE-HALF.

ALL MATERIALS USED WILL BE NEW - NO SALVAGED MATERIAL WILL BE ACCEPTED EXCEPT CASTINGS, AS APPROVED.

IF CONTRACTOR EXCAVATES DEEPER THAN NECESSARY FOR CURB AND GUTTER, CONTRACTOR WILL FURNISH ODOT 304 AGGREGATE AND TAMP BEFORE CURB AND GUTTER IS CONSTRUCTED.

IF SUBGRADE IS UNSUITABLE, CONTRACTOR WILL EXCAVATE AND REPLACE SUCH MATERIAL WITH CRUSHER RUN GRAVEL, AT THE DISCRETION OF THE INSPECTOR OR CITY ENGINEER. THIS FILL TO BE PLACED IN 6" LAYERS OR LESS. SAID FILL TO BE COMPACTED TO 95% LABORATORY DRY WEIGHT BEFORE ADDITIONAL LAYERS ARE ADDED. CONTRACTOR WILL BE PAID FOR EXTRA GRAVEL AND EXCAVATION. THIS COMPACTION TO BE DONE BEFORE FORMS ARE PLACED.

ALL EXTRA PAY ITEMS WILL HAVE THE APPROVAL OF THE BOARD OF CONTROL BEFORE EXTRA ITEMS ARE INSTALLED.

CONTRACTOR TO BACKFILL CURB IMMEDIATELY AFTER CURB HAS BEEN IN PLACE FOR 48 HOURS.

CONTRACTOR WILL NOTIFY ENGINEER WHEN HE IS IN NEED OF CONSTRUCTION STAKES AND THIS OFFICE WILL COMPLY WITHIN A PERIOD OF 48 HOURS.

ALL STORM SEWER PIPES WITHIN PAVEMENT LIMITS SHALL BE REINFORCED CONCRETE PIPE (ODOT 706.02) AND SHALL BE TYPE 'B' CONDUIT IN ACCORDANCE WITH ODOT 603 CLASS 'B' BEDDING AND GRANULAR BACKFILL. ALL STORM SEWER OUTSIDE PAVEMENT LIMITS SHALL BE SMOOTH LINED CORRUGATED POLYETHYLENE (ODOT 944) OR REINFORCED CONCRETE PIPE (ODOT 706.02) AND SHALL BE TYPE 'C' CONDUIT IN ACCORDANCE WITH ODOT 603 WITH CLASS 'C' BEDDING AND SUITABLE SOIL BACKFILL.

DOWNSPOUT HEADERS SHALL BE 6" PVC (SDR 21) PIPE (UNLESS OTHERWISE NOTED ON THE PLANS) AND SHALL BE DIRECTLY CONNECTED TO THE STORM SEWER WITH APPROVED TEE OR SADDLE CONNECTIONS. HEADERS SHALL EXTEND 10' INTO THE LOTS.

CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES BEFORE ANY WORK IS BEGUN. THE CITY OF MASSILLON IS NOT RESPONSIBLE FOR ANY LOST TIME DUE TO UTILITY RELOCATION.

MANHOLES AND CATCH BASINS SHALL BE CONSTRUCTED IN CONFORMANCE WITH MASSILLON CITY STANDARDS (FILE NO. M-81) AVAILABLE FROM THE CITY ENGINEER.

CONTRACTOR SHALL CONTACT THE CITY OF MASSILLON ENGINEERING DEPARTMENT (GREG McCUE) AT (330)-830-1722 AT LEAST 2 DAYS PRIOR TO THE INITIATION OF CONSTRUCTION TO SCHEDULE A PRE-CONSTRUCTION MEETING.

STREET LIGHTING IS REQUIRED. DEVELOPER SHALL COORDINATE WITH ELECTRIC UTILITY COMPANY FOR POLE LOCATION AND TYPE. THE DEVELOPER SHALL INSTALL, AT HIS COST, STREET SIGNS REPRESENTING THE NAMES OF ALL STREETS AT ALL INTERSECTIONS. DEVELOPER ALSO RESPONSIBLE FOR STOP SIGNS AND DIRECTIONAL SIGNS AS NECESSARY. ALL SIGNS SHALL CONFORM WITH CITY OF MASSILLON REGULATIONS.

SANITARY SEWER NOTES:

ALL SANITARY SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED ACCORDING TO MASSILLON CITY ENGINEERING DEPARTMENT SPECIFICATIONS IN EFFECT AT THE TIME OF CONSTRUCTION.

ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED.

FIRST FLOOR ELEVATION FOR BUILDING AT THE BUILDING SETBACK LINE SHALL BE A MINIMUM OF 6" ABOVE STREET CENTERLINE GRADE.

MINIMUM COVER OVER ALL SANITARY SEWER MUST BE 4.0 FEET.

ALL SANITARY SEWERS, 8" DIAMETER AND LARGER, MUST PASS INTERNAL TELEVISION INSPECTION. THE CONTRACTOR SHALL PROVIDE COMPLETE INTERNAL INSPECTION VIDEOTAPE TO THE MASSILLON ENGINEERING DEPARTMENT. THE VIDEOTAPE PROCEDURE MUST BE IN ACCORDANCE WITH THE MASSILLON ENGINEERING DEPARTMENT SPECIFICATIONS.

PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL CONTACT AT THE MASSILLON CITY ENGINEERING DEPARTMENT AT (330) 832-1722 TO SCHEDULE A PRE-CONSTRUCTION MEETING. A MINIMUM OF 72 HOURS NOTICE IS REQUIRED TO SCHEDULE THIS MEETING.

SANITARY SEWER MAY BE ANY OF THE FOLLOWING MATERIALS, HOWEVER, THE COMPLETE SYSTEM MUST BE UNIFORM IN PIPE MATERIAL:

A. VCP EXTRA STRENGTH ASTM C-700 WITH COMPRESSION TYPE JOINTS IN CONFORMANCE WITH ASTM C-425.

B. ABS COMPOSITE PIPE ASTM D-2680 WITH CHEMICALLY WELDED PREMIUM JOINTS ASTM D-2680.

C. PVC PIPE ASTM D-3034, SDR 35 MAXIMUM WITH GASKETED PREMIUM JOINTS ASTM D-3212.

LEAKAGE LIMIT TEST TO BE 100 GAL/IN/M/DAY.

MANHOLES AND TRENCHES SHALL BE PER MASSILLON DETAIL DRAWINGS. SANITARY SEWER PIPE TO BE PVC PER ASTM-3034 WITH JOINTS PER ASTM-3212. BEDDING SHALL BE PER ASTM-2321.

MANHOLES TO HAVE AN ECCENTRIC CONE SECTION.

SANITARY SERVICE LATERALS SHALL EXTEND 10' BEYOND THE R/W LINE INTO THE LOT.

SANITARY SEWER TESTING SPECIFICATIONS:

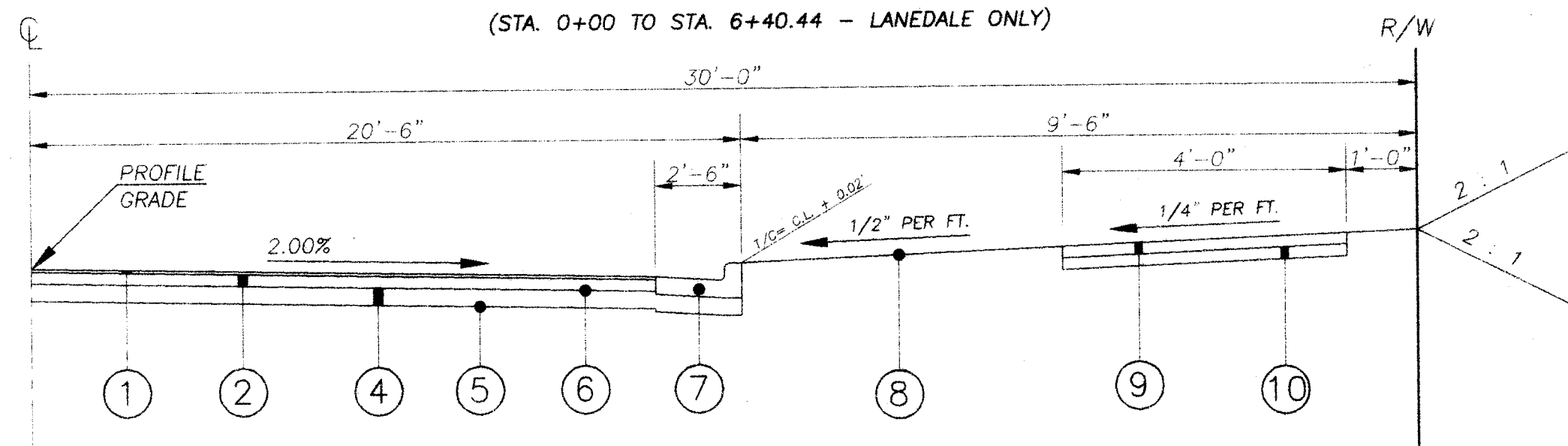
AIR LEAKAGE TEST TO BE PERFORMED ON SEWER LINES AND MANHOLES.

DEFLECTION TESTING TO BE PERFORMED ON ALL FLEXIBLE PIPE AND NO PIPE SHALL EXCEED A DEFLECTION OF 5%.

ALL TESTING SHALL BE IN ACCORDANCE WITH THE CITY OF MASSILLON ENGINEERING DEPARTMENT AND THE OHIO ENVIRONMENTAL PROTECTION AGENCY SPECIFICATIONS.

60' R/W TYPICAL SECTION

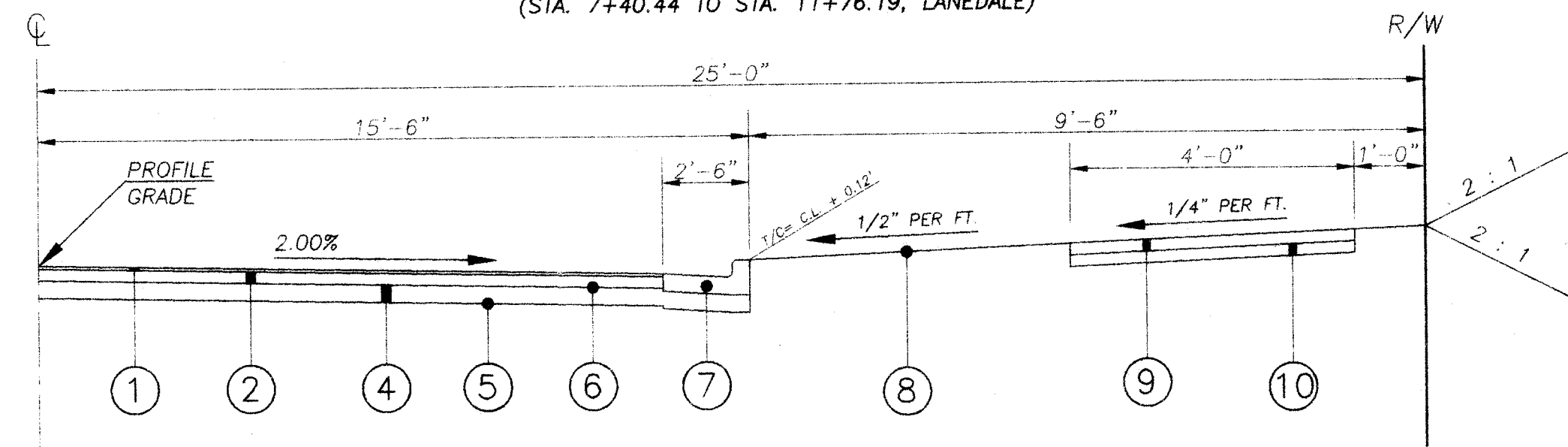
(STA. 0+00 TO STA. 6+40.44 - LANEDALE ONLY)



- ① ITEM 404 1-1/2" ASPHALT CONCRETE SURFACE
- ② ITEM 301 4" BITUMINOUS AGGREGATE BASE
- ④ ITEM 304 6" AGGREGATE BASE (2-3" COURSES)
- ⑤ ITEM 203 COMPACTED SUBGRADE
- ⑥ ITEM 408 BITUMINOUS PRIME COAT
- ⑦ ITEM 609 MASSILLON STANDARD CURB AND GUTTER
- ⑧ ITEM 659 SEEDING AND MULCHING
- ⑨ ITEM 608 4" CONCRETE SIDEWALK (6" AT DRIVES)
- ⑩ ITEM 304 4" AGGREGATE BASE

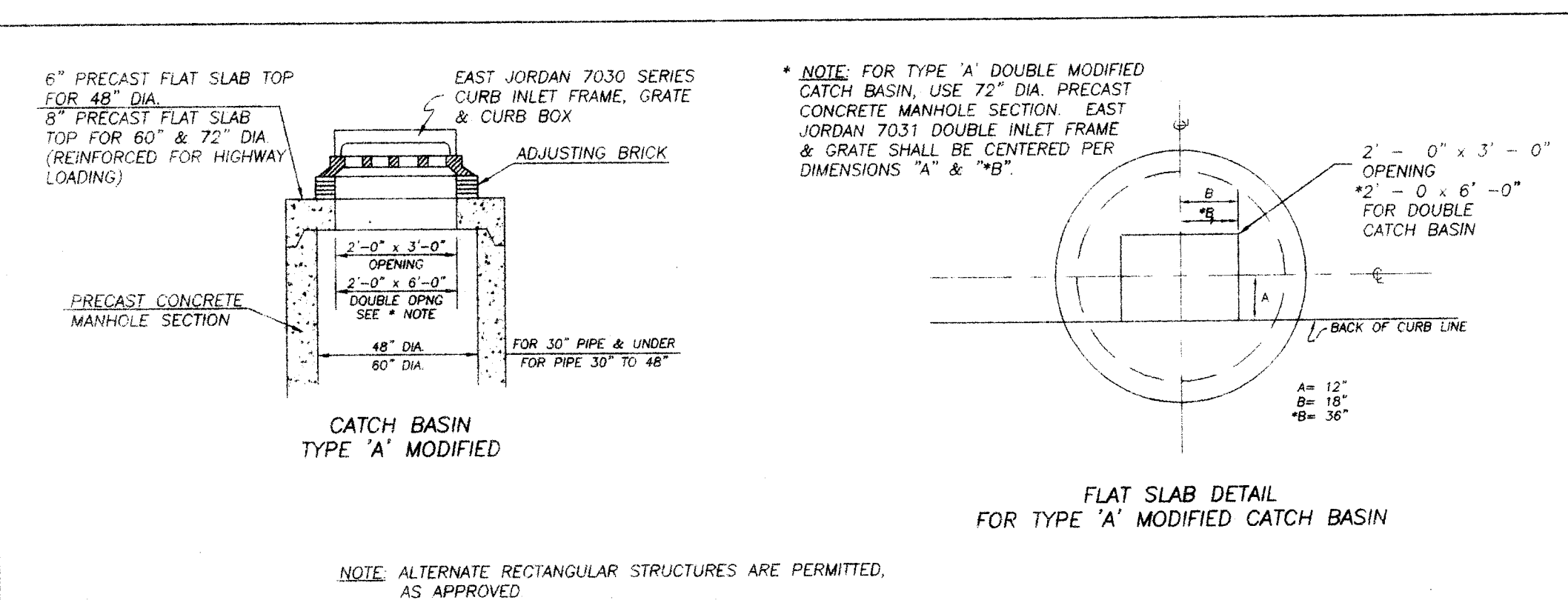
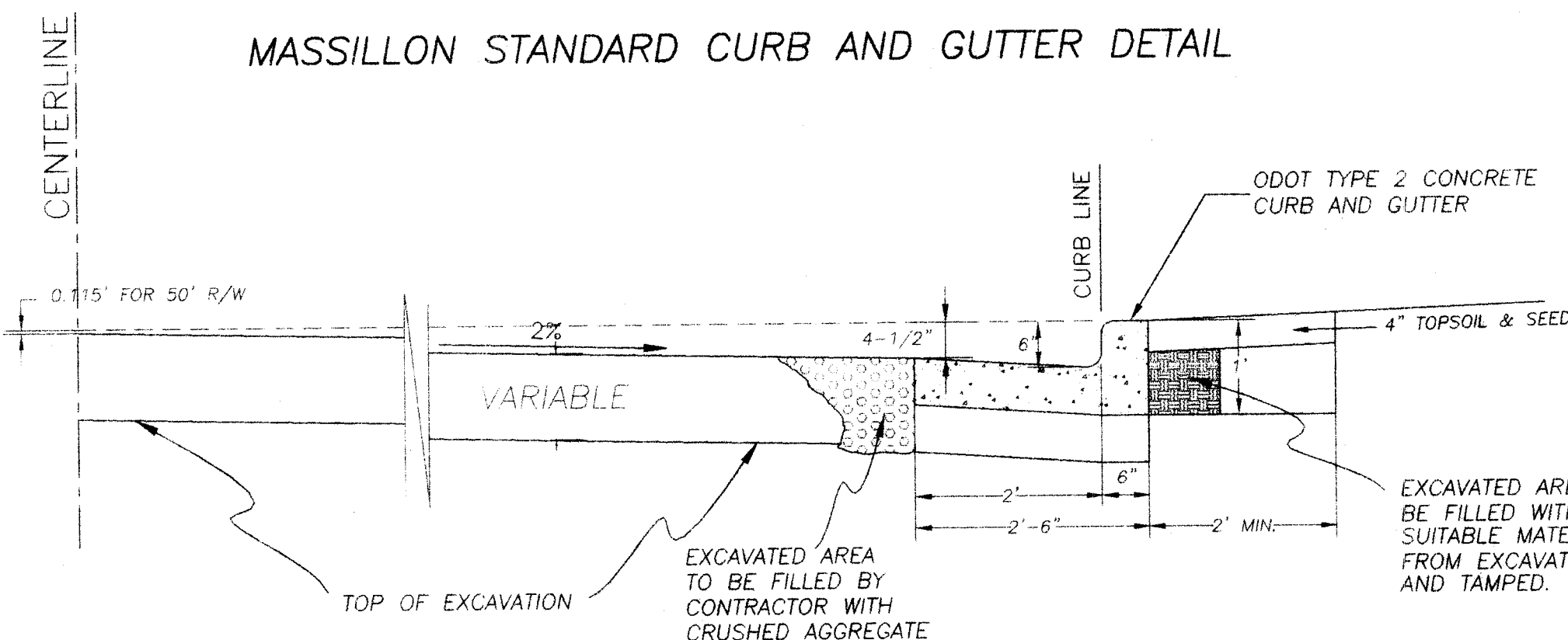
50' R/W TYPICAL SECTION

(STA. 7+40.44 TO STA. 11+76.19, LANEDALE)



- ① ITEM 404 1-1/2" ASPHALT CONCRETE SURFACE
- ② ITEM 301 4" BITUMINOUS AGGREGATE BASE
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- ⑩ ITEM 304 4" AGGREGATE BASE

MASSILLON STANDARD CURB AND GUTTER DETAIL



APPROVED BY THE MASSILLON CITY ENGINEER

THIS 10th DAY OF MARCH, 1999

James J. Burck
MASSILLON CITY ENGINEER



COOPER & ASSOCIATES, LLP
ENGINEERS & SURVEYORS

BRYAN J. ASHMAN

JEROLD E. GEIB

FRIENDSHIP ACRES - No. 1

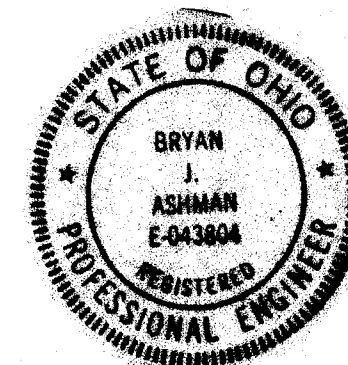
FOR: JACOB GLICK

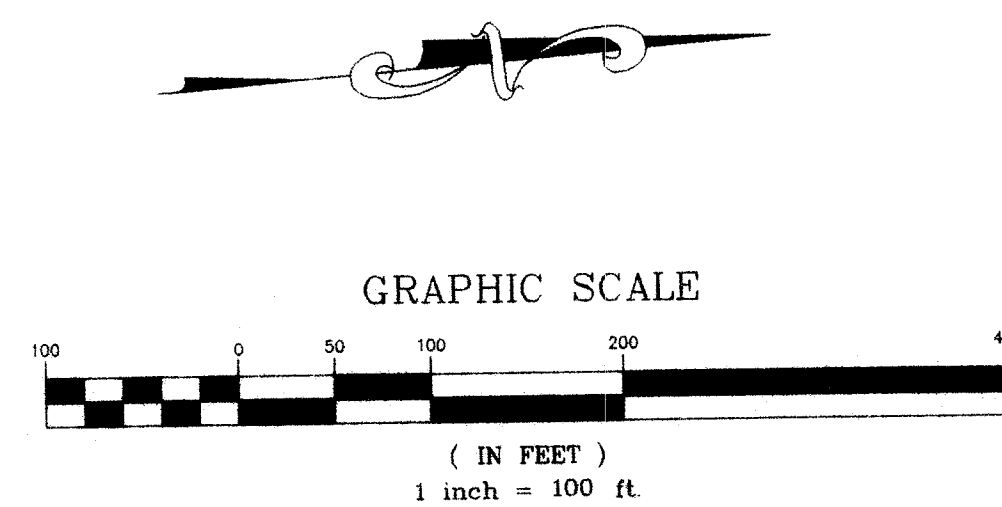
ROADWAY DETAILS AND ESTIMATED QUANTITIES

SURVEYED	PLATTED	FIELD BOOK	DATE	PROJ. #
				97273A

ROADWAY DETAILS AND ESTIMATED QUANTITIES

Estimated Quantities			
Item	Qty.	Unit	Description
Roadway Construction & Earthwork			
203	1826	C.Y.	Roadway Excavation
203	3889	C.Y.	Roadway Embankment
203	8390	S.Y.	Subgrade compaction
404	302	C.Y.	1-1/2" Asphalt concrete surface course
301	804	C.Y.	4" Bituminous aggregate base
304	1398	C.Y.	6" Aggregate base (2-3" courses)
408	2893	GAL	Bituminous prime coat (0.4 gal/s.y.)
609	4109	L.F.	Massillon Standard Curb and Gutter
604	13	EACH	Monuments
659	2445	S.Y.	Seeding and mulching
609	118	L.F.	ODOT Type 6 Concrete Curb
608	17071	S.F.	4" Concrete Sidewalk (NON - PERFORMED BY CONTRACTOR)
304	17071	S.F.	4" Aggregate Base for sidewalk (NON - PERFORMED BY CONTRACTOR)
202	2	EACH	Relocate existing power poles
202	756	S.Y.	Remove existing pavement
202	218	L.F.	Remove existing 6" conc. curb
202	1	EACH	Remove existing catch basin (Plug & abandon sewer)
452	40	S.Y.	Concrete Drive Apron
Waterline			
638	1870	L.F.	8" ductile cast iron water main
638	3	EACH	8"x12" Tee
638	2	EACH	8" Plug & marker
638	2	EACH	8" 45° Bend
638	1	EACH	8"x8" Tee
638	6	EACH	Hydrant Assembly Complete
638	2	EACH	Hydrant Assembly - tee & blind flange (no hydrant)
638	6	EACH	8" Valves w/boxes
638	24	EACH	Curb box w/1" service complete
638	2	EACH	12" 90° Bend
638	50	L.F.	24" Steel Casing Pipe - Bored w/ 12" DCIR
638	4	EACH	12" 11-1/4" Bend
638	2	EACH	12" 45° Bend
638	2374	L.F.	12" Ductile iron water main
638	3	EACH	12" Plug & marker
638	5	EACH	12" Valves w/boxes
638	2	EACH	Curb box w/2" service complete
Sanitary Sewer			
603	1825	L.F.	10" Sanitary sewer pipe
603	513	L.F.	8" Sanitary sewer pipe
603	991	L.F.	6" sanitary sewer pipe (laterals)
603	69.3	V.F.	6" Service stacks
603	2	EACH	8"x6" wyes
604	90.44	V.F.	Sanitary manholes (complete) [7 manholes]
603	1	EACH	8" Plug & marker
603	11.92	V.F.	6" Drop attachment (2 drops)
603	5.34	V.F.	8" Drop attachment (1 drop)
603	3	EACH	10" plug and marker
603	9	EACH	10"x6" Wye
Storm Sewer			
604	9	EACH	Catch Basin Type A
604	4	EACH	Catch Basin Type A' Modified
604	3	EACH	Storm Manhole
604	1	EACH	Catch Basin Type A' - Double
604	3	EACH	ODOT HW-4B (Modified for full headwall)
604	2	EACH	Concrete anti-seepage collars (0.4 c.y. ± each)
604	1	EACH	Core drill exiting storm manhole (15" pipe)
603	790	L.F.	6" PVC Storm Laterals
603	333	L.F.	12" Storm sewer - Type 'B'
603	50	L.F.	12" Storm sewer - Type 'C'
603	374	L.F.	15" Storm Sewer - Type 'B'
603	34	L.F.	15" Storm Sewer - Type 'C'
603	334	L.F.	24" Storm Sewer - Type 'B'
603	856	L.F.	30" Storm Sewer - Type 'B'
603	36	L.F.	36" Storm Sewer - Type 'B'
603	23	L.F.	36" Storm Sewer - Type 'C'
601	11.77	C.Y.	Rock Channel Protection - Type 'C' (Grouted in-place)
603	1	EACH	24" Plug & Marker
203	1830	C.Y.	Retention Basin - Excavation
203	1160	C.Y.	Retention Basin - Embankment (includes 10% compaction factor)
653	1	LUMP	Retention Basin - Seeding & Mulching (3000 S.Y.±)
207	1	LUMP	Erosion control as req'd (complete)





DONALD L. SNYDER, COWC

PROJ# 97273A

UTILITY SCHEMATIC

SEWAGE
APPROVED
AS EVIDENCED BY COPY OF
LETTER OF APPROVAL
HEREIN ATTACHED

SCALE 1" = 100'
VERIFIED
DATE: FEBRUARY 1995
FIELD BOOK No. F.E. 016
SHEET 1

BRAIN
JEROLD E. GIBB

COOPER & ASSOCIATES, LLP
ENGINEERS AND SURVEYORS

PHONE (330) 452-5731
FAX No. (330) 452-9110

**1359 MARKET
AVENUE, NORTH
CANTON, OHIO
44714**

UTILITY SCHEMATIC

A circular professional engineer seal for the State of Ohio. The outer ring contains the text "STATE OF OHIO" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. The inner circle contains the name "BRYAN J. ASHMAN", the license number "E-043804", and the word "REGISTERED" at the bottom.

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PROJ# 97273A

TILITY SCHEMATIC

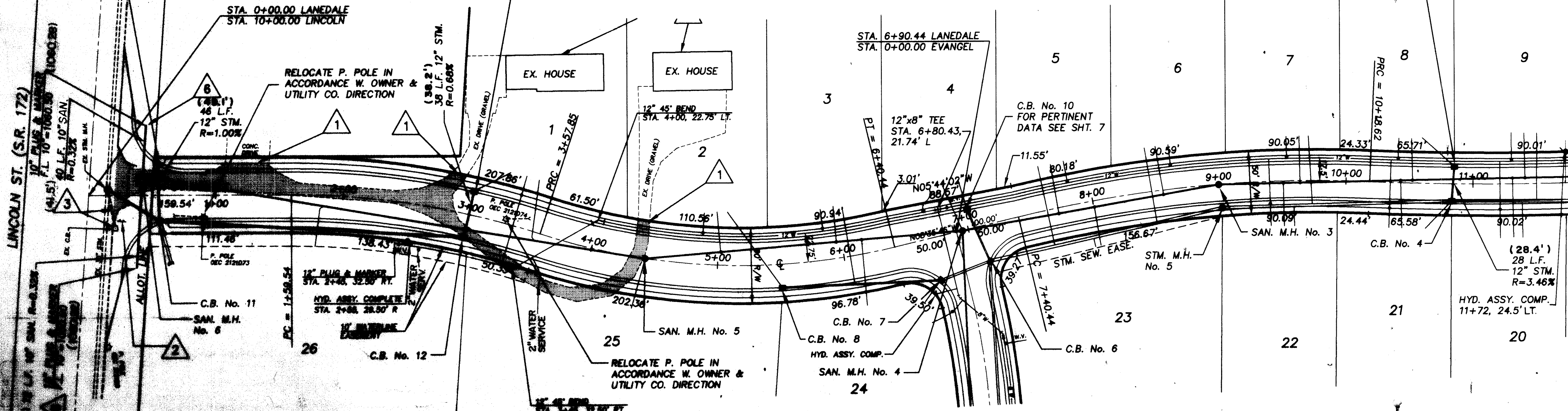
C.B. No. 14: TYPE 'A'
STA. 0+00.00 TO 0+40.00
T/C=1069.31(1068.88)
F.L. 12"(E)=1068.60
(1068.98)

C.B. No. 13: TYPE 'A'
STA. 3+00.00 TO 3+50.00
T/C=1072.64(1072.63)
F.L. 12"(E)=1070.15
(1070.07)

CENTERLINE CURVE DATA
P.R.C. STA. 3+57.85 TO
P.T. STA. 6+40.44
R = 511.46'
L = 282.59'
DELTA = 31°39'22"
CH. BRG. = N 07°13'55" E
T = 145.00'

C.B. No. 9: TYPE 'A'
STA. 10+85.24 TO 15.50'
T/C=1070.82(1070.92)
F.L. 6"(SW)=1068.38
(1068.11)
F.L. 12"(E)=1067.82
(1067.71)

- A MINIMUM 12 INCH VERTICAL AND 4 FOOT HORIZONTAL CLEARANCE MUST BE MAINTAINED BETWEEN THE WATERLINE AND STORM SEWERS.
- A MINIMUM 18 INCH VERTICAL AND 10 FOOT HORIZONTAL CLEARANCE MUST BE MAINTAINED BETWEEN THE WATERLINE AND SANITARY SEWERS.



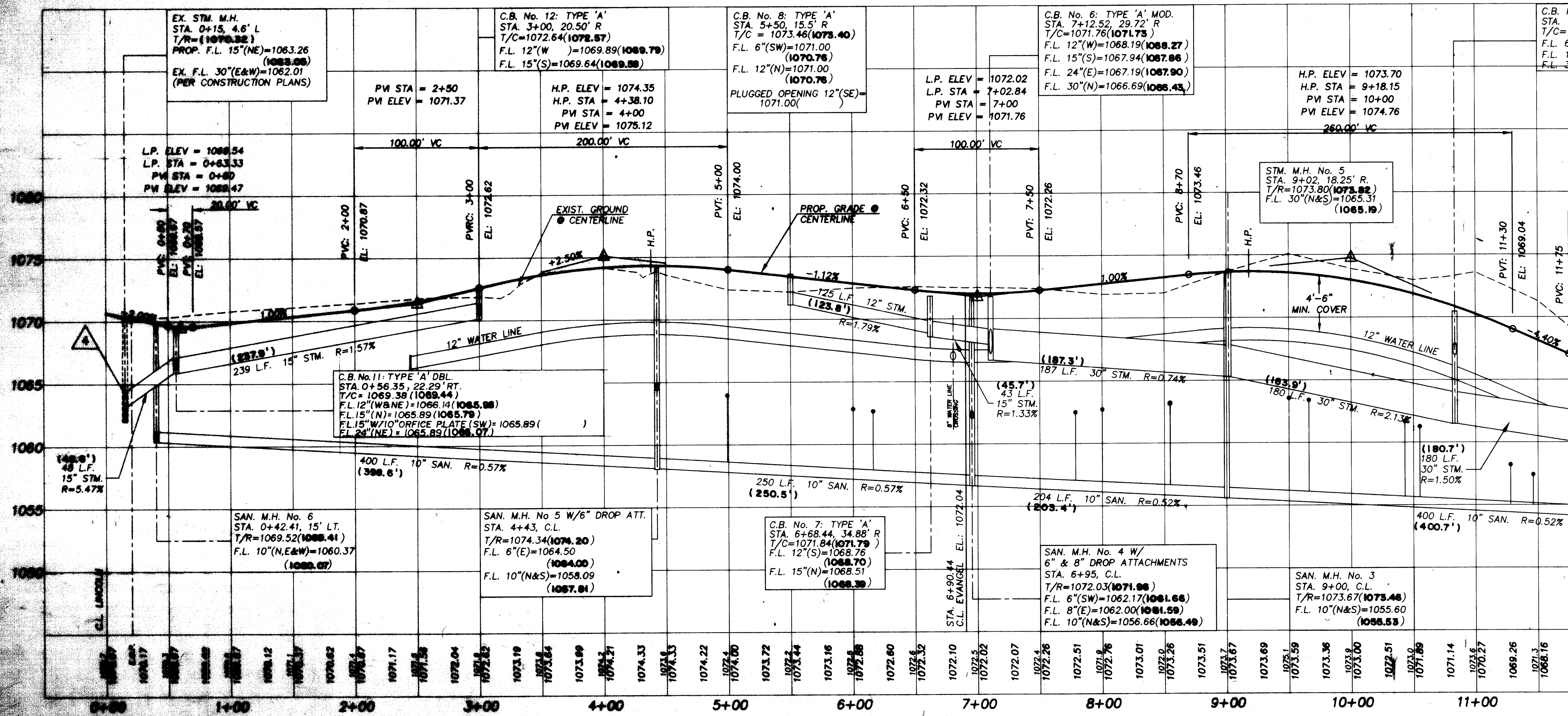
LANE DALE AVE. N.W. - 50' & 60'

CENTERLINE CURVE DATA
P.C. STA. 7+40.44 TO
P.R.C. STA. 10+18.62
R = 996.15'
L = 278.18'
DELTA = 16°00'00"
CH. BRG. = N 00°35'46" W
T = 140.00'

CENTERLINE CURVE DATA
P.C. STA. 10+18.62 TO
P.T. STA. 12+78.30
R = 2125.48'
L = 259.68'
DELTA = 07°00'00"
CH. BRG. = N 03°54'14" E
T = 130.00'

KEYNOTES

- CONSTRUCT CONC. DRIVE APRON FROM BACK OF CURB TO R/W LINE TO MATCH EXIST. DRIVEWAY ALIGNMENT. CONTRACTOR TO BLEND ELEVATIONS OF EXISTING DRIVE TO MEET PROPOSED APRON AT R/W LINE
- RELOCATE SIGN (CITY OF MASSILLON CORP. LIMITS) IN ACCORDANCE WITH THE CITY OF MASSILLON SPECIFICATIONS.
- REMOVE EX. CATCH BASIN AND BACKFILL IN ACCORDANCE WITH ODOT 503.10. ABANDON EX. 15" STORM SEWER FROM THE N.E. AS SHOWN AND PLUG ENTRANCE INTO EX. STM. M.H. AS REQUIRED TO ACCOMMODATE THE OPENING FOR THE PROPOSED 15" STM. SEWER FROM THE N.E.
- CORE DRILL EX. STM. M.H. TO ACCOMMODATE FOR PROPOSED 15" STM. SEWER FROM THE N.E.
- CONTRACTOR SHALL MAINTAIN A MEANS OF ACCESS ONTO LINCOLN ST. FROM THE EXISTING HOUSES SHOWN
- CONTRACTOR SHALL NOTIFY DEVELOPER'S ENGINEER TO OBTAIN AN AS-BUILT LOCATION AND FLOWLINE ELEVATION.



MATCH LINE = ALLOTMENT LINE = STA. 11+76.19 SEE SHEET 6

() DENOTES AS-BUILT DIMENSIONS CONTAINED IN FIELD BOOK 537 PAGE 27-35
I HEREBY CERTIFY THAT THESE IMPROVEMENTS HAVE BEEN COMPLETED AS INDICATED BY THE "AS-BUILT" DIMENSIONS SHOWN ON THESE PLANS
THIS ____ DAY OF _____, 19__

BENCHMARK:
R.R. SPIKE SET 1.0' UP N. SIDE OF OHIO EDISON Co. POLE 212108, STA. 11+17.3, 23' LT. LINCOLN ST.
ELEVATION = 1072.58

SCALE: HORIZ. 1"=50' VERT. 1"=5'
DATE: FEBRUARY 1999
FIELD BOOK No. 5167-17
SHEET 5 OF 11

BRYAN J. ASHMAN
JEROLD E. GEIB
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1359 MARKET AVENUE, NORTH CANTON, OHIO 44704
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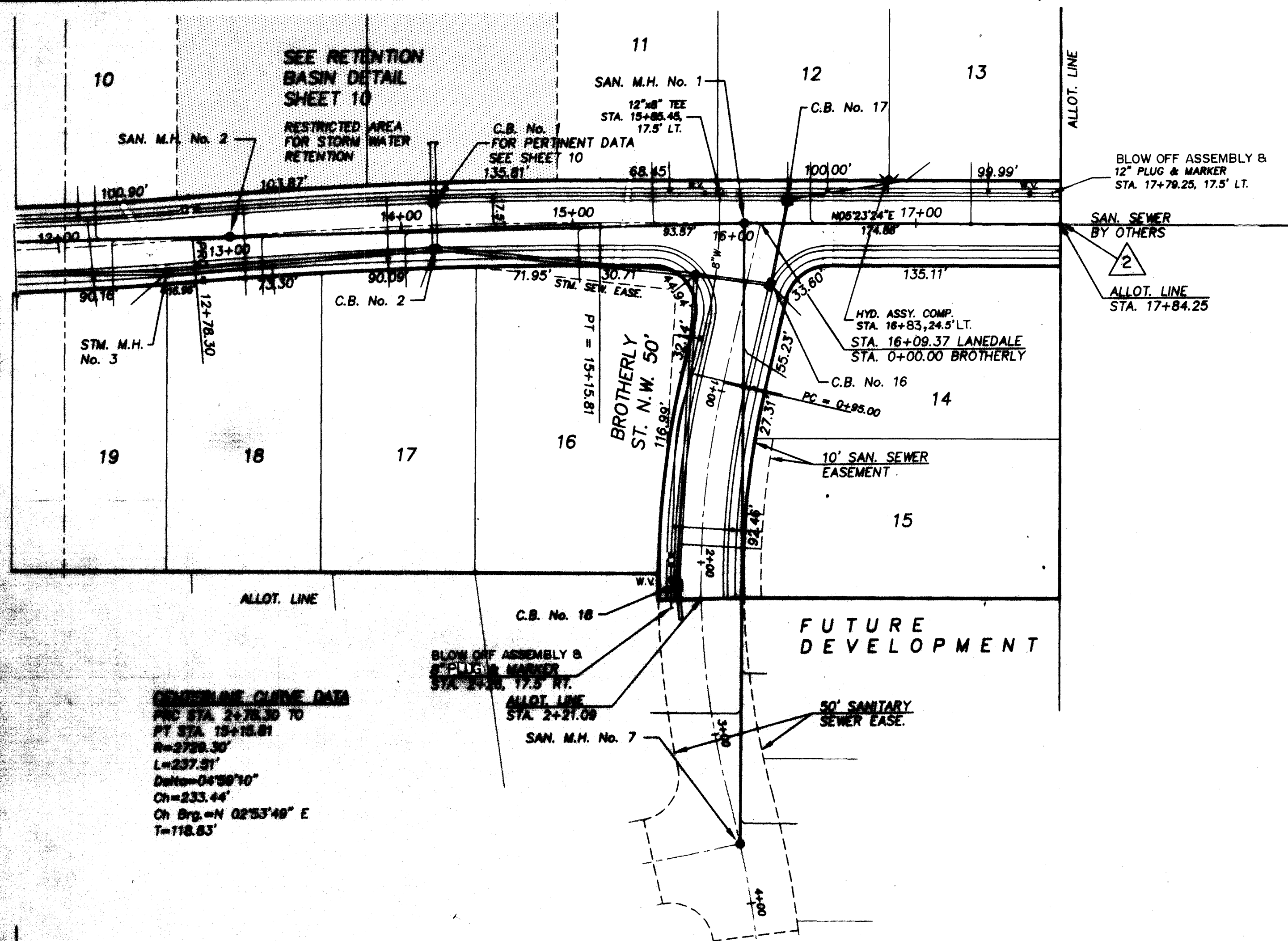
PLAN AND PROFILE
FRIENDSHIP ACRES No. 1
LANE DALE AVE. N.W. - 50' & 60'
FOR: JACOB GLICK

BRYAN J. ASHMAN - REG. ENGR. No. E-043804

NO.	DATE	BY	REVISIONS
1	9/4/99	T.D.	REMOVE 12" STORM
2	5/5/99	T.D.	CONC. COMMENTS
3			DESCRIPTION

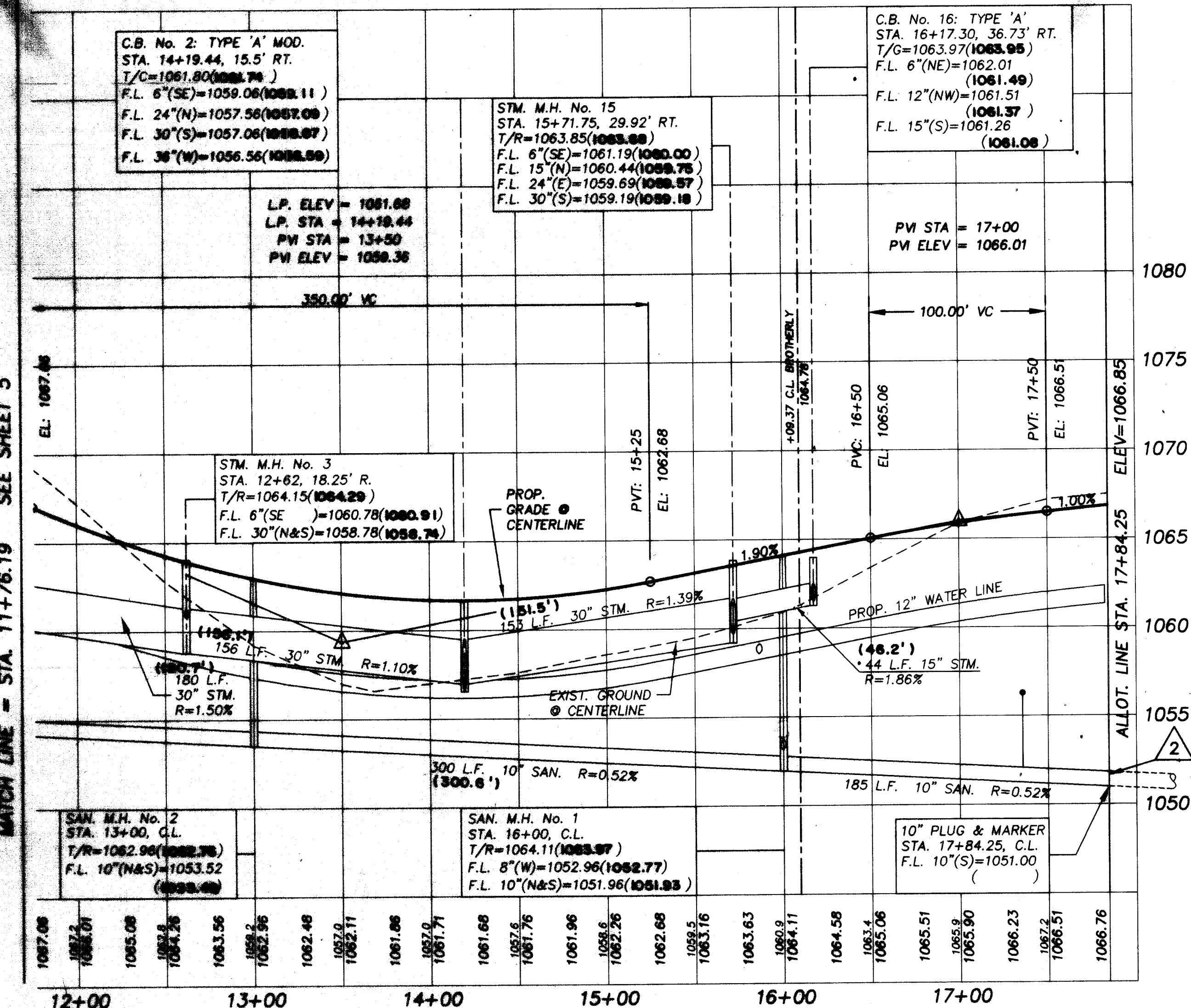
DRAWN BY: M.B.J. - CHK'D BY: [Signature]
PROJ. No. 97273A

MATCH LINE = STA. 11+76.19
SEE SHEET 5



GENERAL CURVE DATA
 P.C. STA. 2+78.30 TO
 P.T. STA. 15+18.61
 R=2738.30'
 L=237.81'
 DELTA=04°59'10"
 CH=233.44'
 CH BRG.=N 02°53'49" E
 T=118.63'

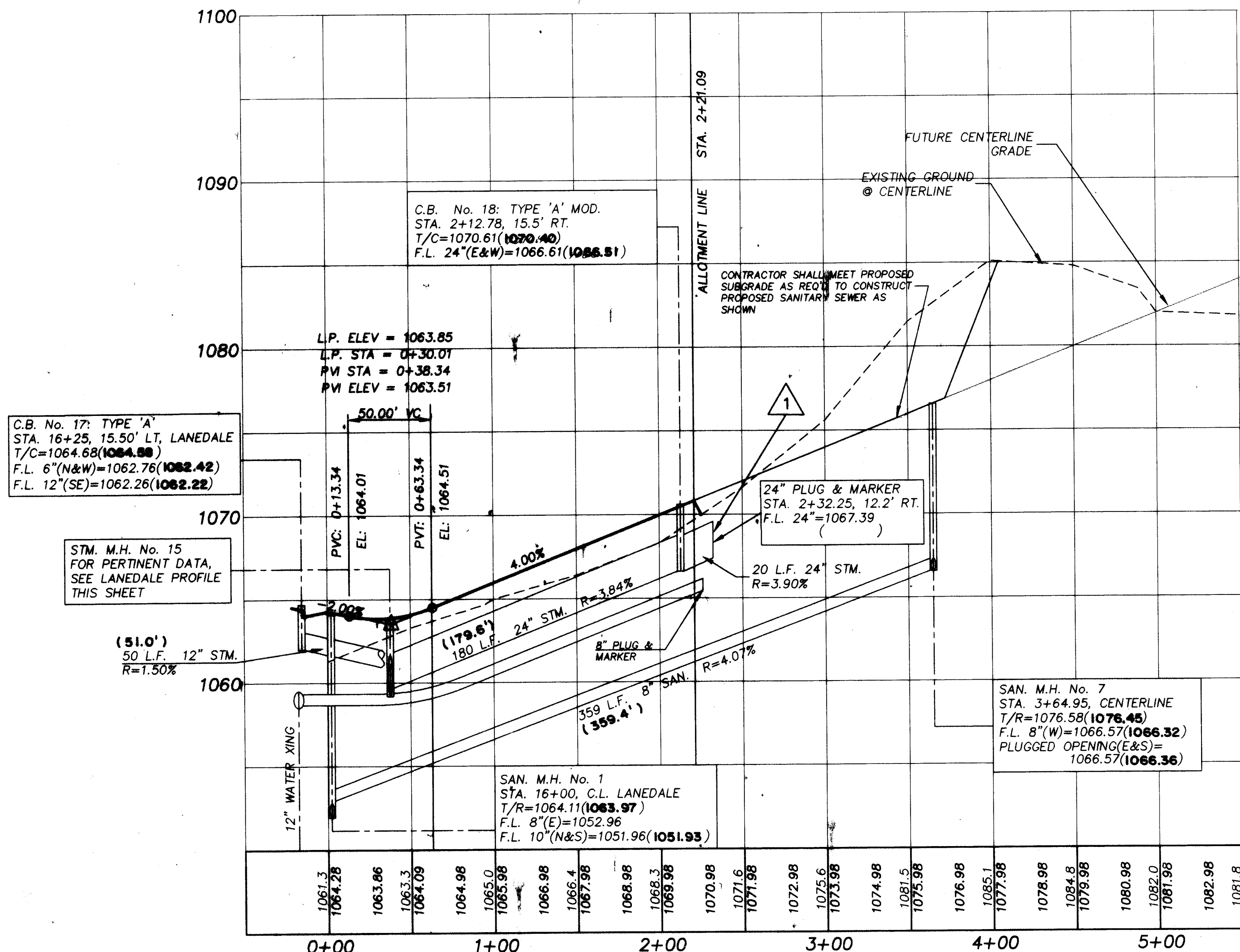
LANEDALE AVE. N.W. - 50'



- A MINIMUM 12 INCH VERTICAL AND 4 FOOT HORIZONTAL CLEARANCE MUST BE MAINTAINED BETWEEN THE WATERLINE AND STORM SEWERS.
- A MINIMUM 18 INCH VERTICAL AND 10 FOOT HORIZONTAL CLEARANCE MUST BE MAINTAINED BETWEEN THE WATERLINE AND SANITARY SEWERS.

BENCHMARK:
 R.R. SPIKE SET 1.0' UP N. SIDE OF OHIO EDISON Co.
 POLE 2121D8, STA. 11+17.3, 23' LT. LINCOLN ST.
 ELEVATION = 1072.58

BROTHERLY ST. N.W. - 50'



KEYNOTES

- CONTRACTOR TO NOTIFY DEVELOPER'S ENGINEER TO OBTAIN AN AS-BUILT LOCATION AND FLOWLINE ELEVATION
- CONTRACTOR SHALL CONSTRUCT SANITARY SEWER TO THE GRADE AND ELEVATION AS SHOWN ON THIS PLAN. EXTENSION OF THIS SEWER INTO AN EXISTING SYSTEM SHALL BE PERFORMED BY OTHERS. NO CONNECTIONS SHALL BE MADE INTO PROPOSED SANITARY SEWER UNTIL SUCH TIME AS THE AFOREMENTIONED SANITARY SEWER EXTENSION HAS BEEN COMPLETED, APPROVED AND SUCCESSFULLY CONNECTED INTO EXISTING SANITARY SEWER SYSTEM.

() Denotes As-Built dimension contained in Field book 537 Page 27-35

I hereby certify that these improvements have been completed as indicated by the "As-Built" dimensions shown on these plans.
 This _____ day of _____ 19____

Bryan J. Ashman : Registered Engineer No. E-043804

PLAN AND PROFILE

FRIENDSHIP ACRES No. 1
 LANEDALE AVE. N.W. - 50'
 BROTHERLY ST. N.W. - 50'

FOR: JACOB GLICK

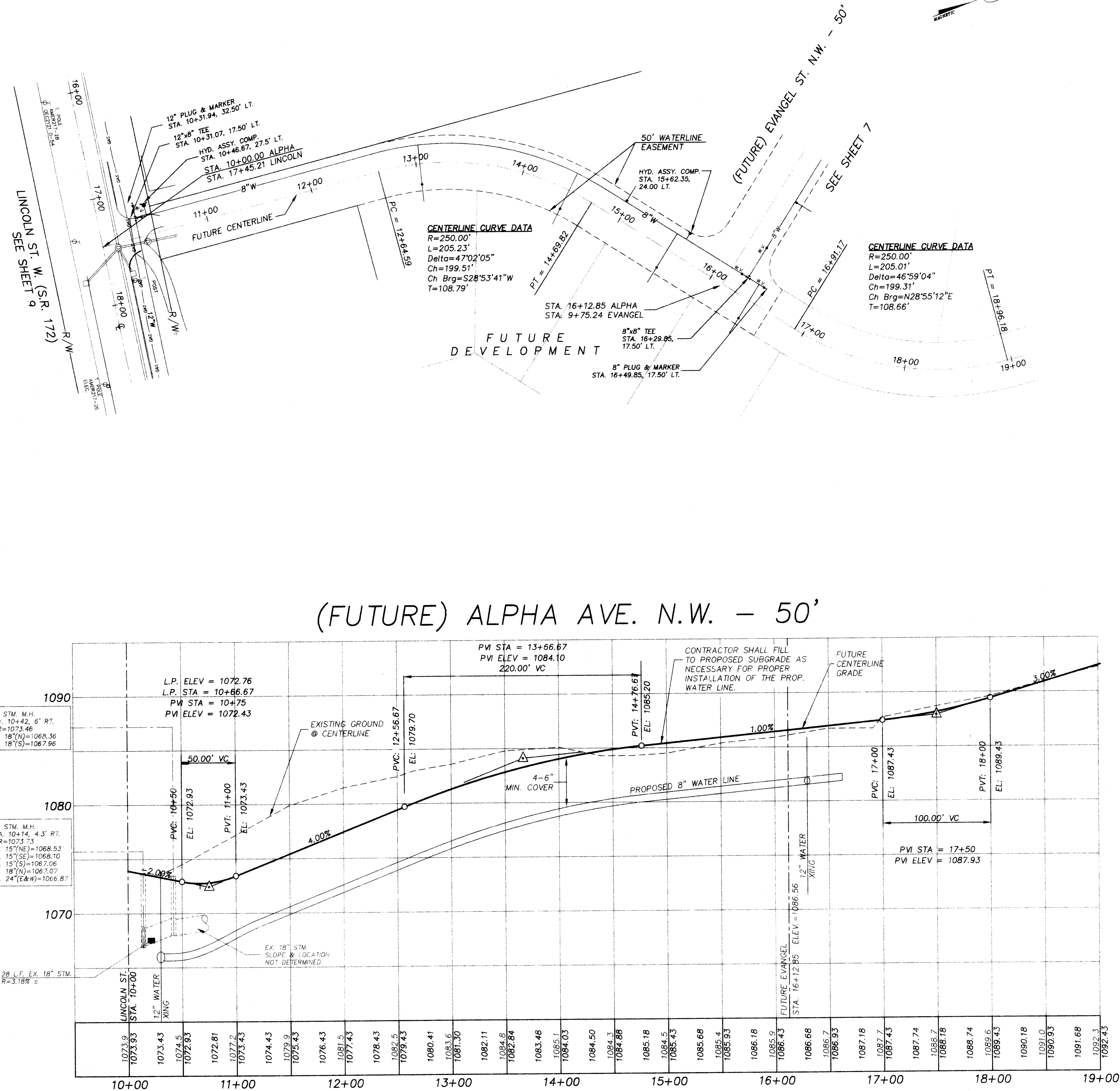
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 FAX (330) 452-9110

BRYAN J. ASHMAN
 JEROLD E. GIBB

DATE: FEBRUARY 1999
 FIELD BOOK No. F.B. 5167-17
 SHEET 6 OF 11

SCALE: HOR. 1"=50' VERT. 1"=5'

92723A



NOTE: ONLY WATER SERVICES WITHIN PHASE 1 ALLOTMENT LINE ARE TO BE INSTALLED AT THIS TIME. WATER SERVICES IN FUTURE PHASES ARE NOT TO BE INSTALLED. CONTRACTOR TO INSTALL TEE AND BLIND FLANGE ONLY (NO HYDRANT) FOR FUTURE HYDRANT AT STA. 15+62.35, 24' LT.

() DENOTES AS-BUILT DIMENSIONS CONTAINED IN FIELD BOOK PAGE

I HEREBY CERTIFY THAT THESE IMPROVEMENTS HAVE BEEN COMPLETED AS INDICATED BY THE "AS-BUILT" DIMENSIONS SHOWN ON THESE PLANS

THIS ____ DAY OF _____ 19__

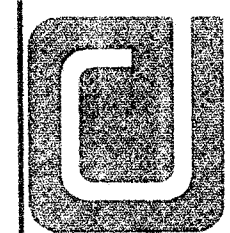
BRYAN J. ASHMAN · REG. ENGR. No. E-043804

BENCHMARK:

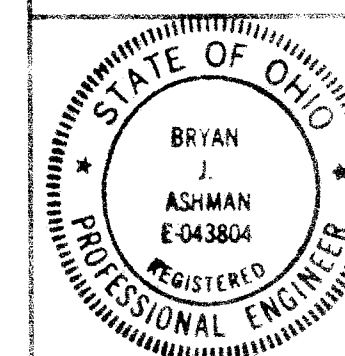
R.R. SPIKE SET 1.0' UP N. SIDE OF OHIO EDISON CO. POLE 2121DB, STA. 11+17.3, 23' LT. LINCOLN ST.
ELEVATION = 1072.58



COOPER & ASSOCIATES, LLP
ENGINEERS AND SURVEYORS

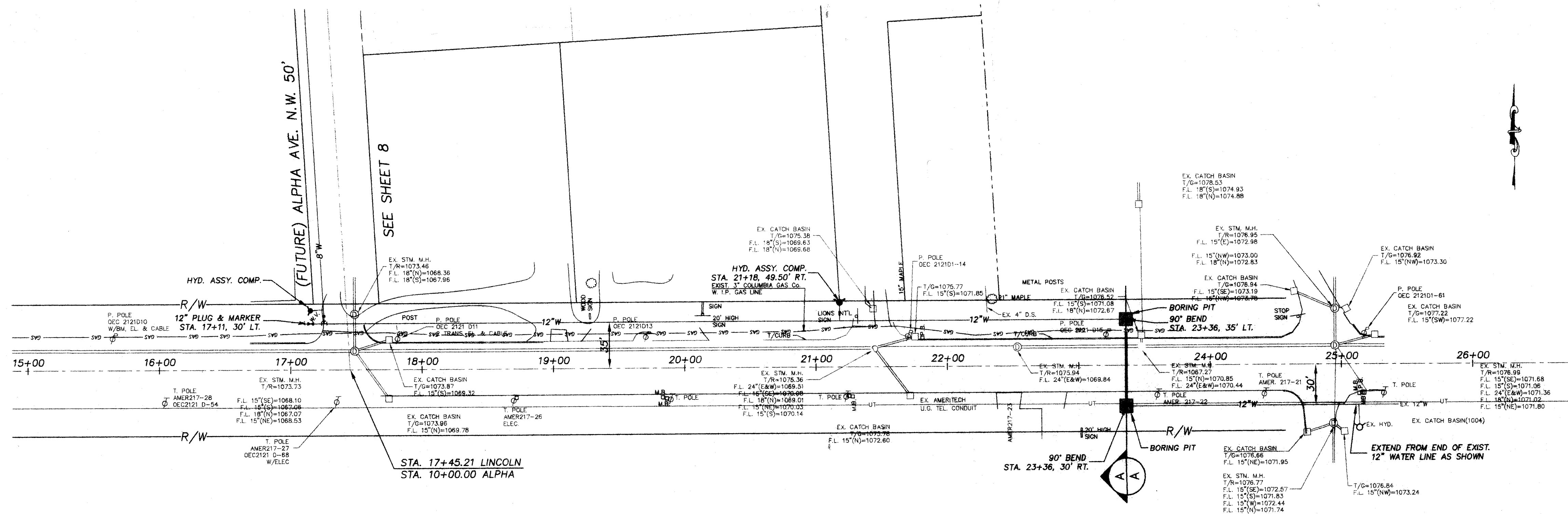


PLAN AND PROFILE
FRIENDSHIP ACRES No. 1
(FUTURE) ALPHA AVE. N.W. 50'

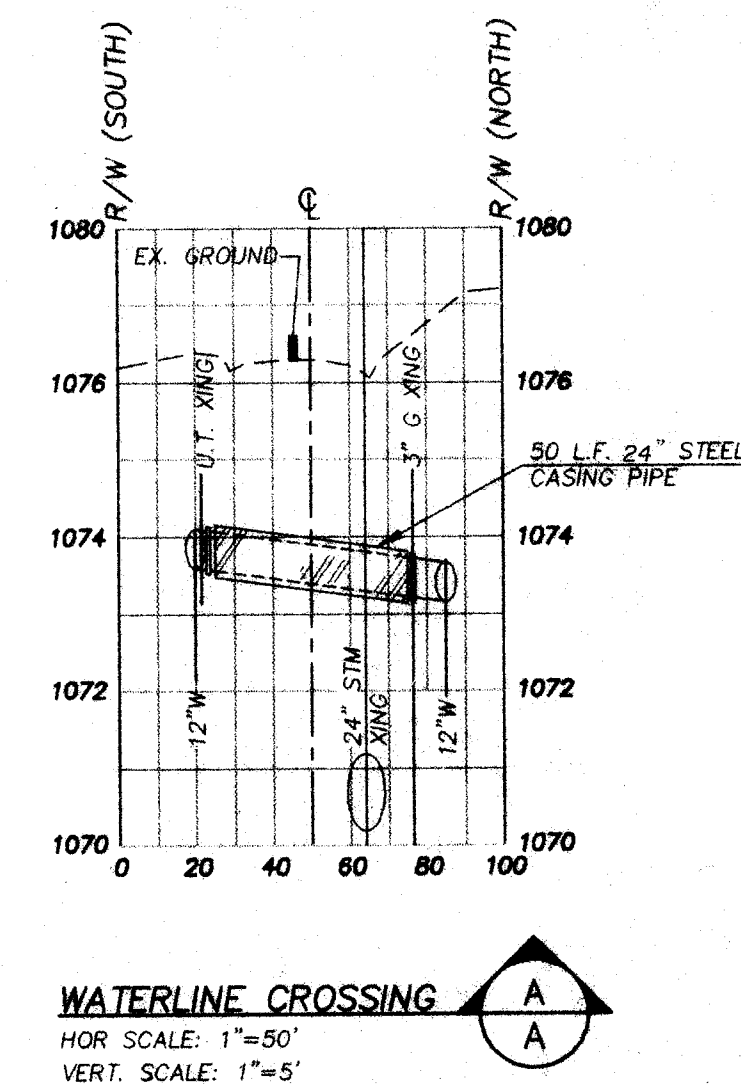
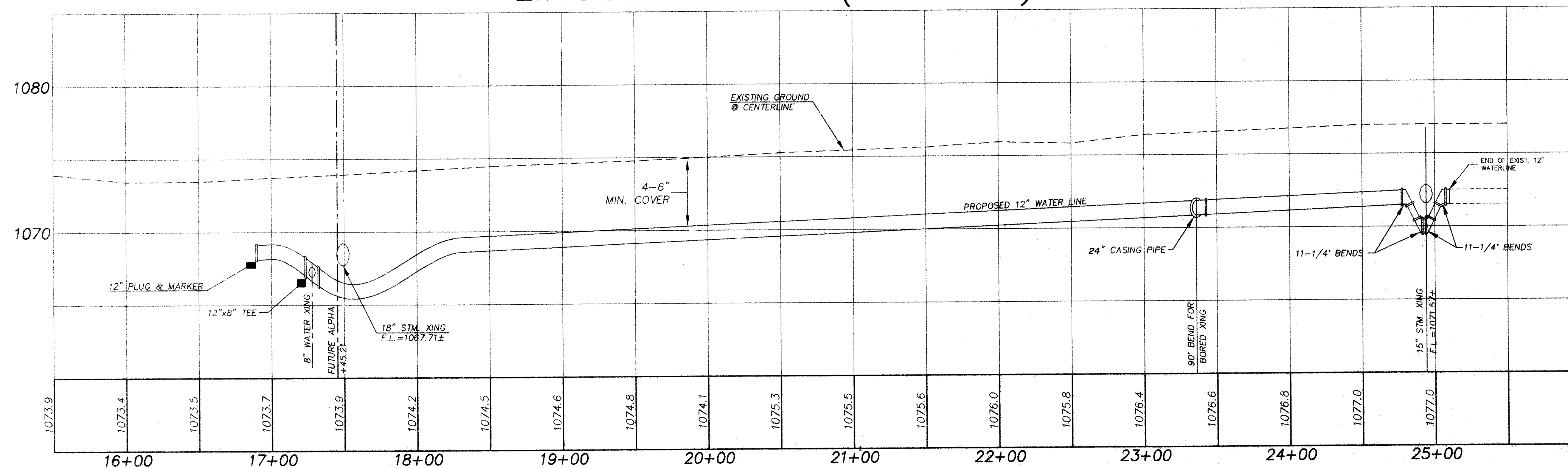


DATE	BY

WATER LINE EXTENSION (S.W. 45-15)



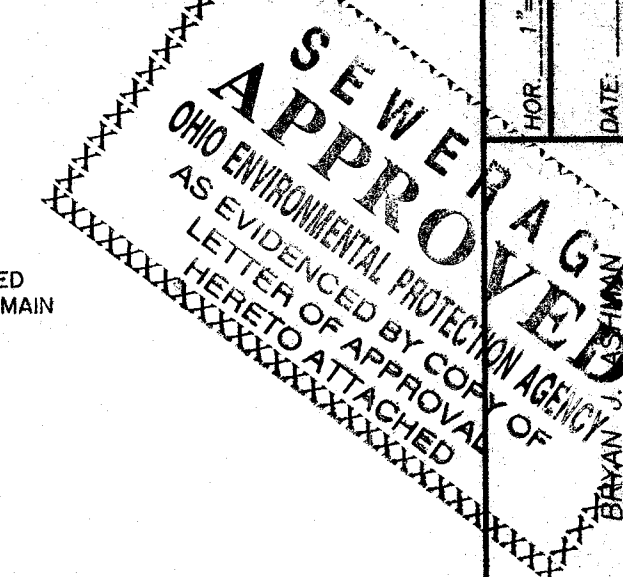
LINCOLN ST. W. (S.R. 172)



WATERLINE CROSSING
HOR. SCALE: 1"=50'
VERT. SCALE: 1"=5'

UTILITY LOCATION NOTE
LOCATION OF ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON FIELD LOCATIONS OF ALL VISIBLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATER AND GAS GATES, ETC., TOGETHER WITH INFORMATIONAL DATA OBTAINED FROM PLANS AND RECORDS SUPPLIED BY VARIOUS UTILITY COMPANIES AND GOVERNMENT AGENCIES. ALL CONTRACTORS SHOULD NOTIFY, IN WRITING, ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES PRIOR TO ANY EXCAVATION WORK OR CALL O.U.P.S. AT 1-800-362-2764.

NOTE
RESTORATION OF EXISTING FEATURES (SIGNS, PAVEMENTS, SEEDING, ETC.) INCLUDED IN CONTRACTORS PRICE BID FOR 12" WATER MAIN



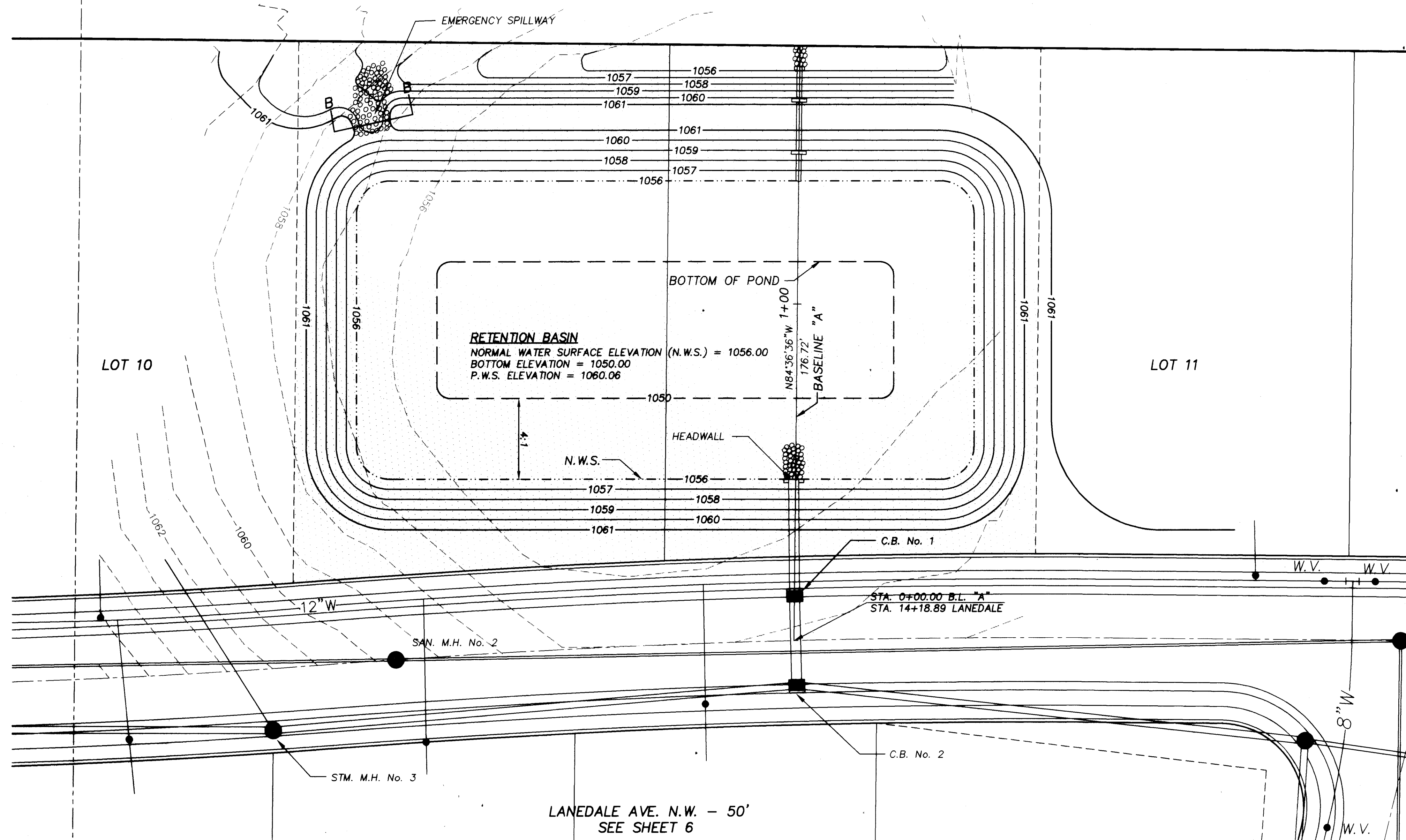
COOPER & ASSOCIATES, LLP
ENGINEERS AND SURVEYORS
1359 MARKET AVENUE, NORTH CANTON, OHIO 44714
PHONE (330) 452-5731
FAX (330) 452-9110

PLAN AND PROFILE
FRIENDSHIP ACRES No. 1
LINCOLN STREET
WATERLINE EXTENSION
FOR: JACOB GLICK

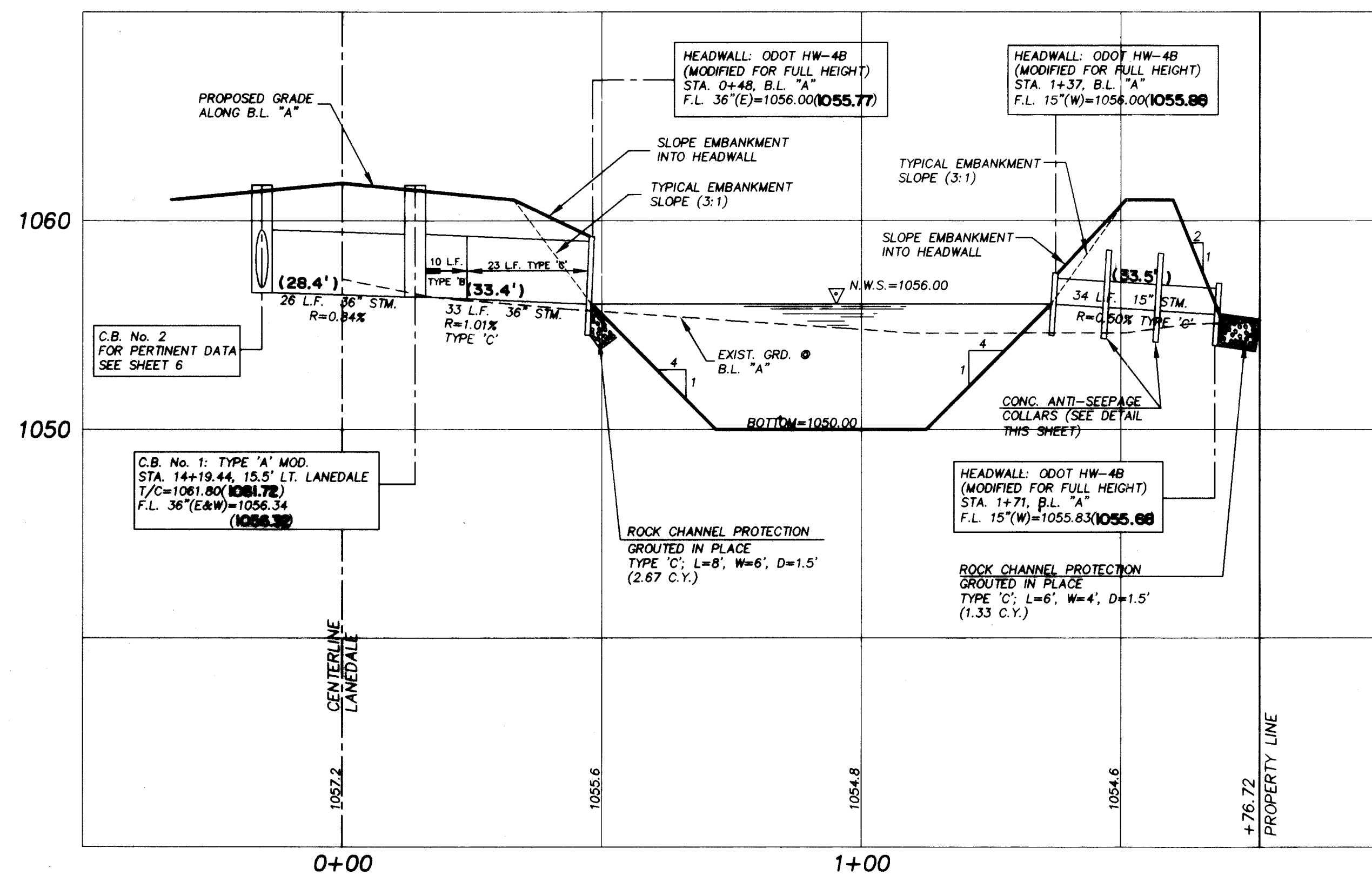
REVISIONS	DATE	BY

DRN BY: M.B.V. CHKD BY: J.E.G.

PROJECT 97273



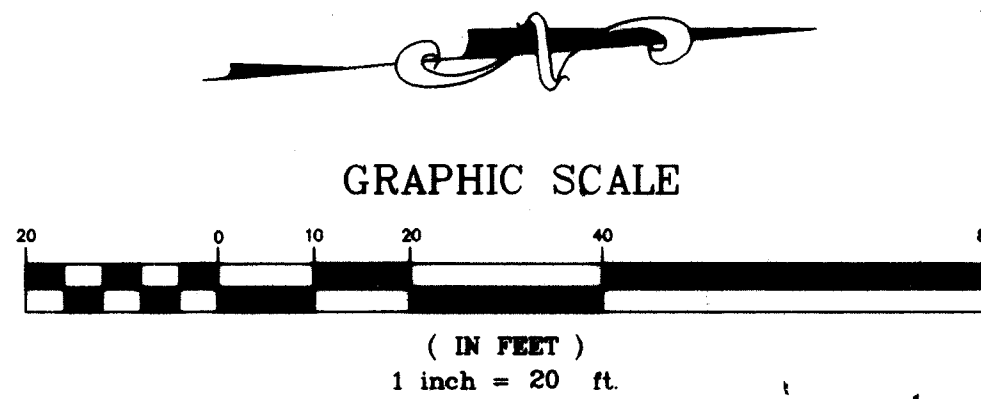
BASELINE "A"



() Denotes As-Built dimension contained in Field book 537 Page 27-35

I hereby certify that these improvements have been completed as indicated by the "As-Built" dimensions shown on these plans.
This _____ day of _____ 19____

Bryan J. Ashman : Registered Engineer No. E-043804



RETENTION BASIN NOTES:

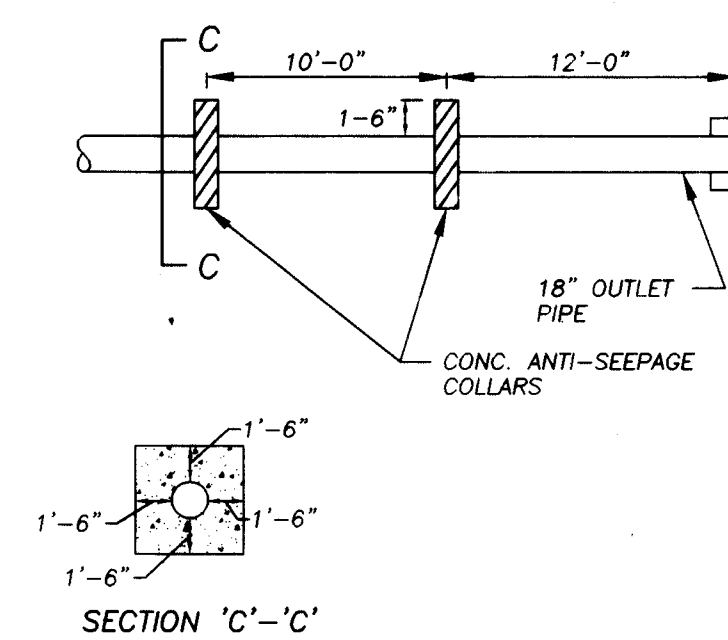
CONTRACTOR SHALL SEED AND MULCH THE EARTH BANKS AND DISTURBED AREAS IN ACCORDANCE WITH ODOT 659 AS SOON AS THE RETENTION BASIN CONSTRUCTION IS COMPLETED.

THE CONTRACTOR SHALL PROVIDE AND CONSTRUCT EROSION CONTROL AT THE INLET AND OUTLET STRUCTURES TO THE SATISFACTION OF THE CITY OF MASSILLON ENGINEER.

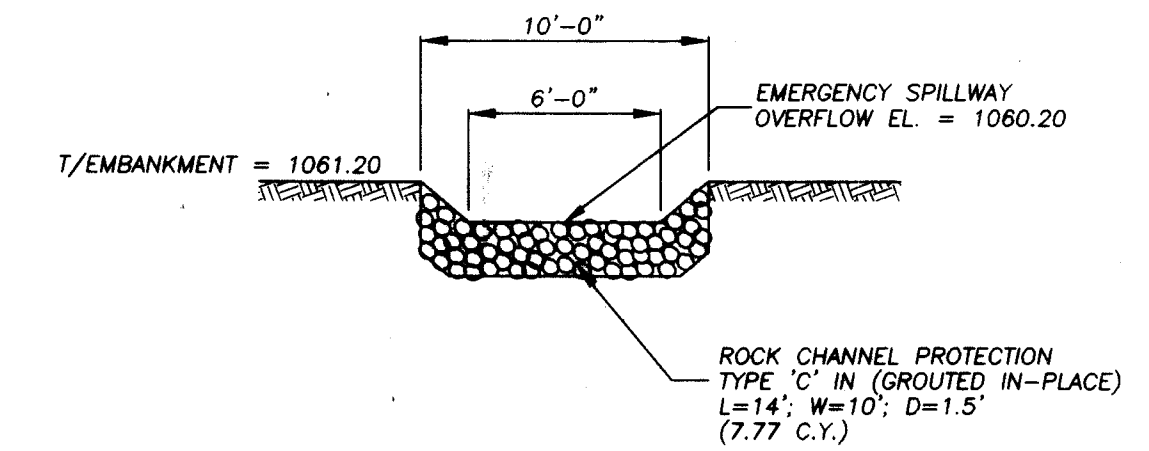
ALL EMBANKMENT CONSTRUCTION SHALL BE IN ACCORDANCE WITH ODOT ITEM 203

BENCHMARK:

R.R. SPIKE SET 1.0' UP N. SIDE OF OHIO EDISON Co. POLE 2121DB, STA. 11+17.3, 23' LT. LINCOLN ST. ELEVATION = 1072.58



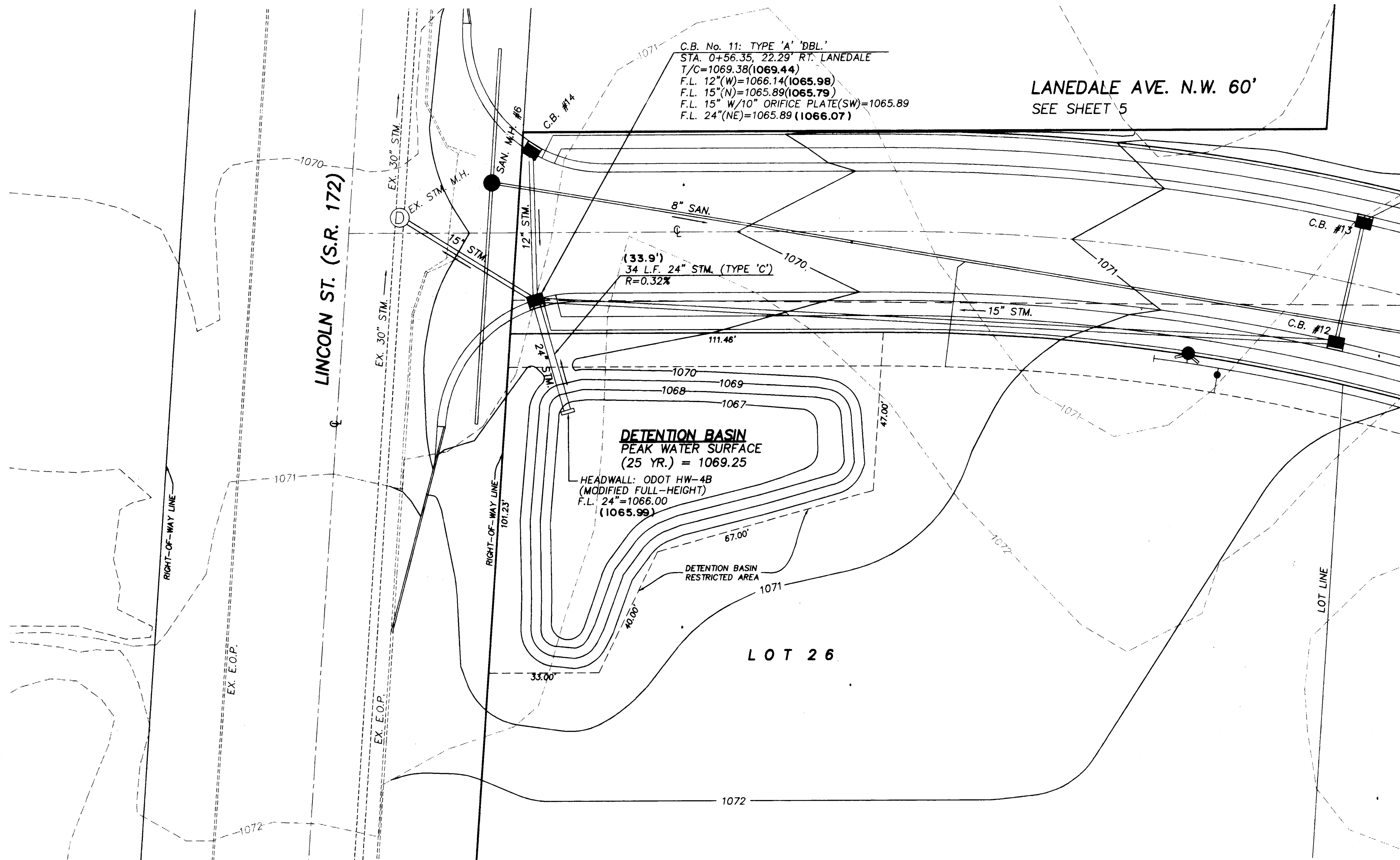
CONCRETE ANTI-SEEPAGE COLLAR DETAIL NOT TO SCALE



SECTION 'B'-'B' NOT TO SCALE

8/24/99 1:47 PM

BENCHMARK:
R.R. SPIKE SET 1.0' UP N. SIDE OF OHIO EDISON Co.
POLE 2121DB, STA. 11+17.3, 23' L.T. LINCOLN ST.
ELEVATION = 1072.58



DETENTION BASIN NOTES:

CONTRACTOR SHALL SEED AND MULCH THE EARTH BANKS AND DISTURBED AREAS IN ACCORDANCE WITH ODOT 659 AS SOON AS THE DETENTION BASIN CONSTRUCTION IS COMPLETED.

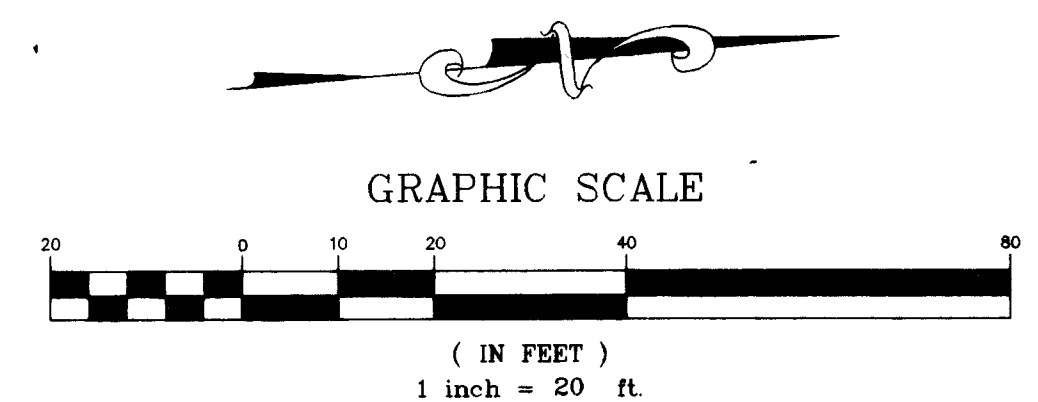
THE CONTRACTOR SHALL PROVIDE AND CONSTRUCT EROSION CONTROL AT THE INLET AND OUTLET STRUCTURES TO THE SATISFACTION OF THE CITY OF MASSILLON ENGINEER.

ALL EMBANKMENT CONSTRUCTION SHALL BE IN ACCORDANCE WITH ODOT ITEM 203

() Denotes As-Built dimension contained in Field book 537 Page 27-35

I hereby certify that these improvements have been completed as indicated by the "As-Built" dimensions shown on these plans.
This _____ day of _____ 19____

Bryan J. Ashman : Registered Engineer No. E-043804



DETENTION BASIN PLAN
FRIENDSHIP ACRES No. 1

FOR: JACOB GLICK



COOPER & ASSOCIATES, LLP
ENGINEERS AND SURVEYORS
1359 MARKET AVENUE, NORTH CANTON, OHIO 44714

BRYAN J. ASHMAN
JEROLD E. GEIB
COOPER & ASSOCIATES, LLP
ENGINEERS AND SURVEYORS
PHONE (330) 452-5731
FAX (330) 452-9110

BRYAN J. ASHMAN
JEROLD E. GEIB

SCALE
HOR. 1"=20' VERT. 1"=5'
DATE: FEBRUARY 1999
FIELD BOOK No. D.C.
SHEET
11 OF 12

PROJ# 97273A

RETENTION BASIN PLAN