

THE METROPOLITAN SEWER DISTRICT
OF GREATER CINCINNATI
HAMILTON COUNTY

CONTRACT
DRAWING
PRINTS NOT BEARING THIS STAMP WERE
MADE PRIOR TO ADVERTISING FOR BIDS
AND ARE TO BE CONSIDERED OBSOLETE
FOR CONTRACT PURPOSES.

PROPOSED PROJECT NO. 10370025
KENWOOD HILLS
LOCAL SEWER

NOTES:

MANHOLES: ALL PROPOSED MANHOLES AND DROP MANHOLES SHALL BE TYPE "S". ALL MANHOLES LOCATED OUTSIDE OF ROAD RIGHT-OF-WAY AND OUTSIDE OF MAINTAINED RESIDENTIAL YARDS SHALL HAVE MANHOLE TOPS 18" ABOVE GROUND. THE STANDARD PRECAST MANHOLE BASE WITH FLEXIBLE MANHOLE JOINTS SHALL BE USED WITH P.V.C. PIPE. IF THE CONTRACTOR PROVIDES PRECAST MANHOLES, THE CONTRACTOR SHALL ASSUME ANY RISK OF MAKING FIELD MODIFICATIONS TO THE PRECAST MANHOLES, DUE TO FIELD CONDITIONS

PIPE JOINTS: ALL PROPOSED CONDUIT SHALL HAVE RESILIENT AND FLEXIBLE JOINTS.

HOUSE CONNECTIONS: ALL HOUSE CONNECTIONS SHALL BE TYPE "I" CONDUIT WITH RESILIENT AND FLEXIBLE JOINTS, EITHER P.V.C. OR ABS CONDUIT, SDR35 WITH ASTM D-3212 FLEXIBLE ELASTOMERIC SEALS.

UNDERGROUND STRUCTURES: LOCATION OF UNDERGROUND STRUCTURES ARE NOT GUARANTEED. APPROXIMATE LOCATION OF GAS, WATER & ELECTRIC SERVICE LATERALS ARE SHOWN IN PLAN VIEW ONLY.

OVERHEAD UTILITY LINES: LOCATION OF ABOVEGROUND UTILITY LINES ARE NOT SHOWN ON THE DRAWINGS. CONTRACTOR SHALL VISIT PROJECT SITE PRIOR TO BIDDING TO VERIFY OVERHEAD UTILITIES.

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

THE CONTRACTOR SHALL FURNISH ALL MANHOLE FRAMES AND COVERS.

ALL FENCING DAMAGED BY SEWER CONSTRUCTION SHALL BE REPLACED IN KIND BY THE CONTRACTOR AND ALL ASSOCIATED COSTS SHOULD BE INCLUDED WITH VARIOUS CONTRACT ITEMS.

ALL ATU AND COLLECTOR/STORM TO REMAIN IN SERVICE.

BENCH MARKS:

BM #1:
HAMILTON COUNTY/CITY OF CINCINNATI MONUMENTS
HAMILTON COUNTY 2009, 2012, 2420, 4086, 8031, 8405
CITY OF CINCINNATI MONUMENT 6913

DATUM:

HORIZONTAL: NAD 83
VERTICAL: NGVD 29

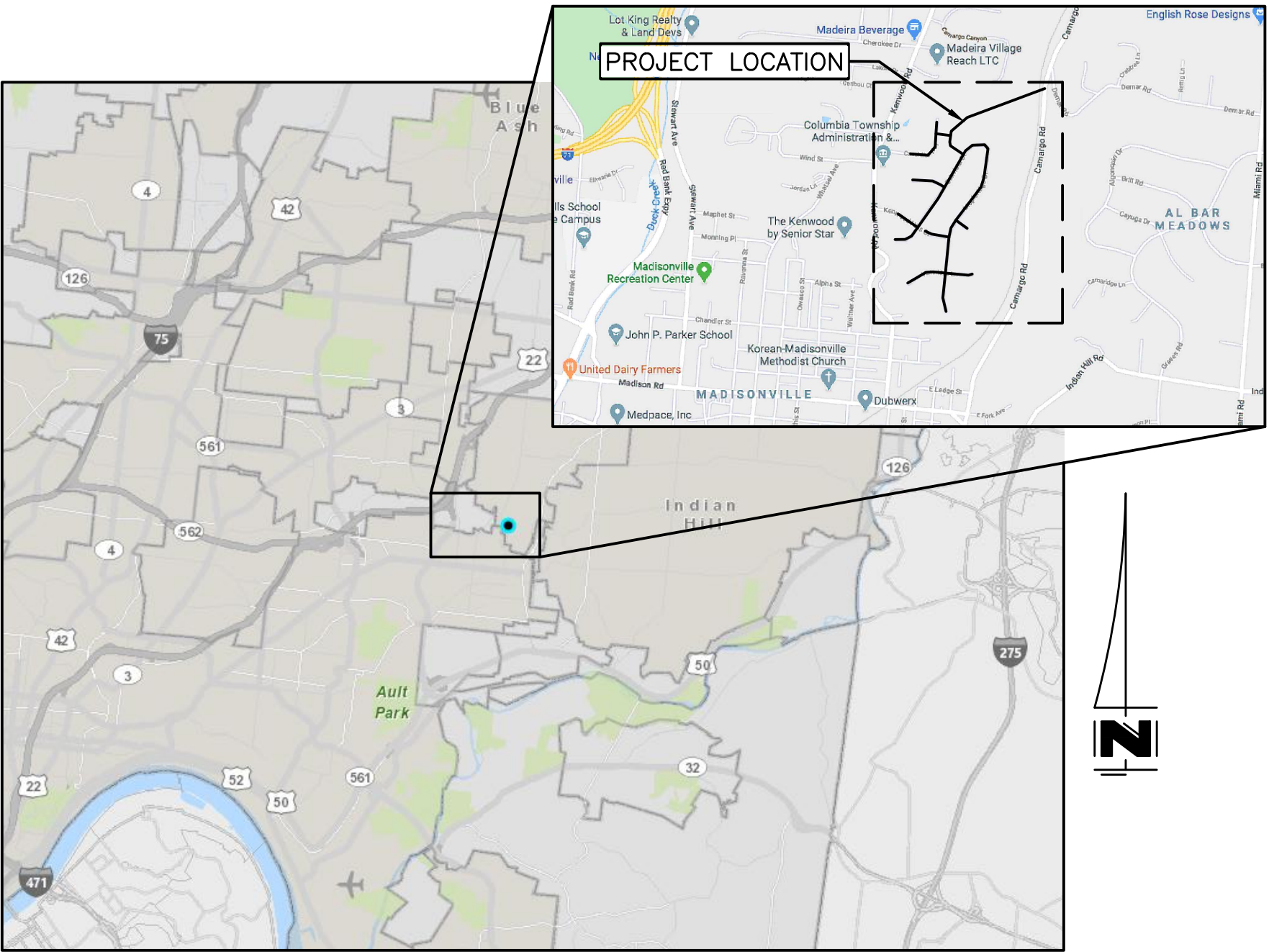
DESIGN EXCEPTION

SLOPE OF 0.40% IS EXCEPTION TO THE MSDGC STANDARD OF 0.70%
0.40% MEETS THE MINIMUM SLOPE FOR THE 10 STATE STANDARDS.

FOR A SERVICE CONNECTION TO A LOW PRESSURE FORCE MAIN THE CONTRACTOR FOLLOW STANDARD DRAWING ACCESSION # 49069 STANDARD BUILDING CONNECTION TO A LOW PRESSURE FORCE MAIN EXCEPT THE CONTRACTOR SHALL DISREGARD THE "5'0" MAX." COVER DIMENSION.

DESIGNED BY:GEW
DRAWN BY:GAU

ACAD DRAWING NAME:MSD-TITLE.DWG



VICINITY MAP

NO SCALE

SUBJECT TO REVISION

STANDARDS:
(SEE MSDGC STANDARD DRAWINGS)

DESCRIPTION

STANDARD DROP MANHOLE	49003
TYPICAL INVERTS	49004
STANDARD CASTINGS FOR MANHOLES	49005
STANDARD CONCRETE COLLARS ON CONDUITS	49031
CONTROL DIMENSIONS FOR TYPICAL TRENCHES FOR CONDUITS	49032
TYPICAL BUILDING SEWERS AND STACKS	49033
STANDARD, (TYPE "S") MANHOLE	49037
STANDARD CONCRETE CRADLE AND ENCASMENT	49044
STANDARD MANHOLE FOR SANITARY CONDUITS ON STEEP SLOPE	49046
MODIFIED, (TYPE "S") MANHOLE	49049
WATERTIGHT MANHOLE	49051
STANDARD PRECAST CONCRETE MANHOLE BASE	49056
TYPICAL INSTALLATION OF BUILDING SEWER LATERAL	49060
LOW PRESSURE FORCE MAIN TYPICAL RECEIVING MANHOLE	49063
STANDARD BUILDING CONNECTION TO A LOW PRESSURE FORCE MAIN	49069
STANDARD SYMBOLS	49072 TO 49076
STANDARD TWO WAY CLEANOUT FOR BUILDING SEWERS	61979
STANDARD CASTINGS OVER TWO WAY CLEANOUT	61979-A
1" TO 2-1/2" LPFM TERMINAL FLUSHING CHAMBER DETAIL	LPFM24
1" TO 2-1/2" LPFM AIR RELIEF CHAMBER	LPFM30

ACCESSION NO.

CONTENTS:

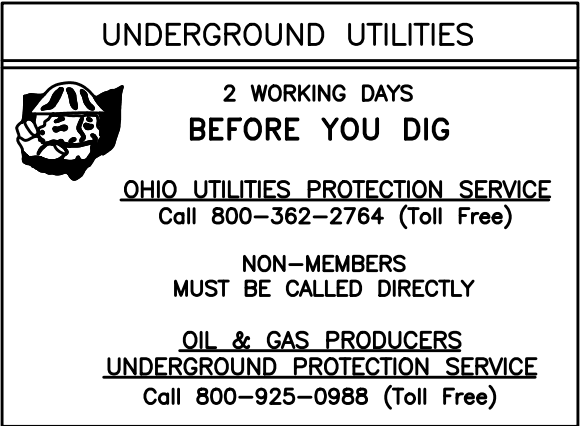
SHEET NO.

1	TITLE SHEET
2	SHEET INDEX
3-31	PLAN AND PROFILES
32-33	PROJECT DETAILS AND CONTACTS
34	RAILROAD EASEMENT

DESCRIPTION



ENGINEERS SEAL



SUBMITTED: *Reese P. Johnson*
CHIEF ENGINEER
APPROVED: *Diana Christy*
DIRECTOR OF SEWERS
DATE: 4/1/2025

ACC. NO. 78230

SHEET 1 OF 34

SS# 5933

LAYOUT CONTROL COORDINATES				
TRAVERSE PT	NORTHING	EASTING	ELEV	DESCRIPTION
PT 1	432134.15	1433863.13	858.29	IPIN T1
PT 3	432041.82	1434660.49	837.37	IPIN T3
PT 5	432628.96	1434704.26	845.82	MAG T5
PT 7	431139.50	1434050.14	855.99	IPIN T7
PT 8	430910.60	1434402.87	868.53	IPIN T8
PT 9	430752.89	1434618.35	863.44	MAG T9
PT 10	430735.97	1434846.55	866.93	MAG T10
PT 11	431006.67	1434986.83	876.79	MAG T11
PT 12	431397.90	1435319.81	878.02	MAG T12
PT 13	431859.78	1435492.04	868.11	MAG T13
PT 14	432174.34	1435422.32	862.16	MAG T14
PT 15	432075.55	1435154.08	845.28	MAG T15
PT 19	430154.77	1434820.62	875.86	MAG T19
PT 51	432918.17	1436389.02	663.67	IPIN T51
PT 52	433348.03	1436490.56	675.51	IPIN T52

CONTRACT
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RECEIVING MANHOLES		
MANHOLE ID.	NORTHING	EASTING
MH #23	430165.70	1434794.48
MH #35	431506.74	1434812.25
MH #37	430897.10	1434376.14
MH #50	432693.03	1435462.43

RECEIVING MANHOLE PER STANDARD DETAIL 49063

TERMINAL FLUSHING MANHOLES		
MANHOLE ID.	NORTHING	EASTING
MH #25	429540.65	1434797.08
MH #40	431624.59	1434284.45
MH #44	430761.00	1434608.44
MH #47	429995.71	1434189.59

TERMINAL AIR RELEASE VALVE AND FLUSHING MANHOLES		
MANHOLE ID.	NORTHING	EASTING
MH #42	431180.71	1433838.73

SEE SHEET 33 FOR TERMINAL AIR RELEASE VALVE
AND FLUSHING MANHOLE DETAIL.

NOTE:

ALL MANHOLES DENOTED AS "RECEIVING"
SHALL BE CONSTRUCTED OF POLYMER
CONCRETE (POLYCRETE, OR EQUAL) OR
RECEIVE A CURED-IN-PLACE LINING.

MANHOLES		
MANHOLE ID.	NORTHING	EASTING
MH #1	433035.08	1436372.22
MH #2	432987.60	1436244.99
MH #3	432834.04	1435836.75
MH #4	432594.39	1435200.61
MH #5	432378.65	1434933.82
MH #6	432310.92	1434925.46
MH #7	432204.60	1434912.33
MH #8	432146.96	1434937.44
MH #9	432021.50	1435123.60
MH #10	432119.77	1435209.24
MH #11	432163.03	1435303.88
MH #12	432165.75	1435434.46
MH #13	432132.94	1435490.47
MH #14	432081.95	1435514.87
MH #15	431862.34	1435480.62
MH #16	431615.14	1435441.78
MH #17	431523.74	1435403.15
MH #18	431270.33	1435204.09
MH #19	430988.65	1434980.05
MH #20	430881.32	1434906.43
MH #21	430717.78	1434870.25
MH #22	430410.90	1434826.40
MH #24	429821.14	1434749.62
MH #26	432335.52	1434699.24
MH #27	432606.68	1434728.35
MH #28	432148.85	1434979.20
MH #29	432047.70	1434625.05
MH #30	432014.43	1434511.64
MH #31	432051.18	1434214.87
MH #32	432084.70	1433944.17
MH #33	431855.70	1435022.60
MH #36	431224.82	1434605.89
MH #38	430750.97	1434272.70
MH #39	430696.14	1434163.75
MH #41	431073.45	1434128.59
MH #43	430848.50	1435156.75
MH #45	430183.43	1434658.93
MH #46	430191.02	1434562.46
MH #48	430124.09	1435113.41
MH #49	430146.53	1435246.75
MH #51	432681.04	1435533.31

* MH 34 NOT USED

REVISIONS			
BY:	DATE:	DESCRIPTION:	



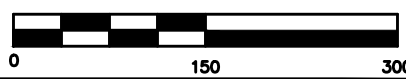
THE METROPOLITAN SEWER DISTRICT
OF GREATER CINCINNATI
HAMILTON COUNTY, OHIO



PROPOSED PROJECT NO. 10370025

FROM THE INT. OF KENWOOD HILLS DR. AND KENWOOD HILLS TO THE CABANA CLUB DR. FROM
THE CUL-DE-SAC OF MAPLE RIDGE DR AND VISTA RIDGE DR TO THE CABANA CLUB DR ALONG
COACHLITE

SCALE: HORIZ. 1"=150'



SHEET INDEX

SHEET INDEX

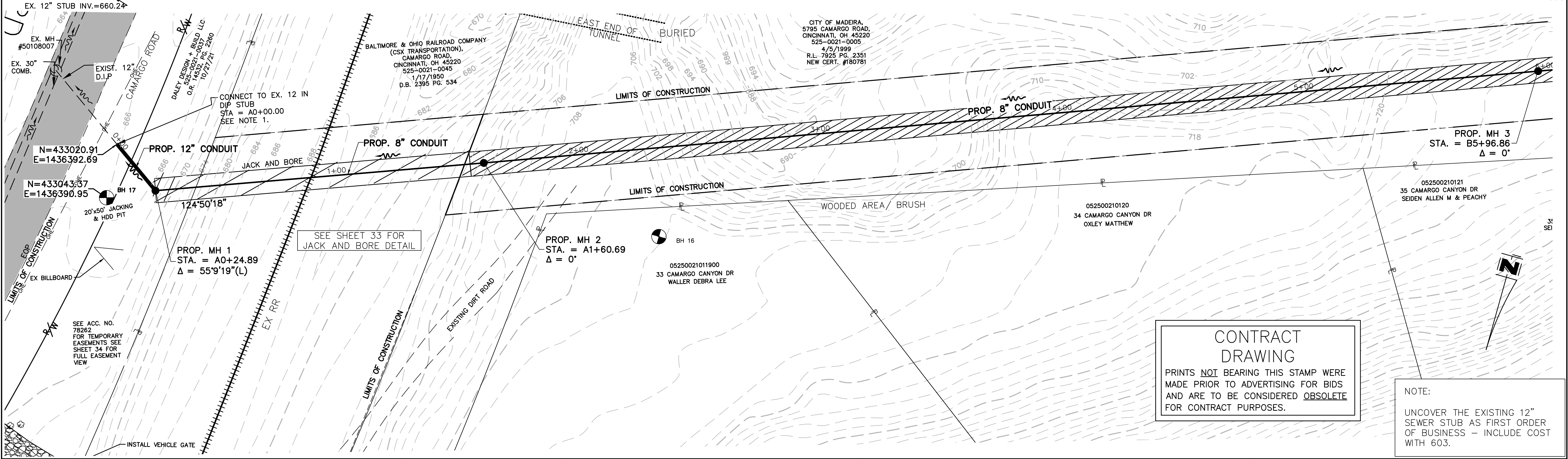
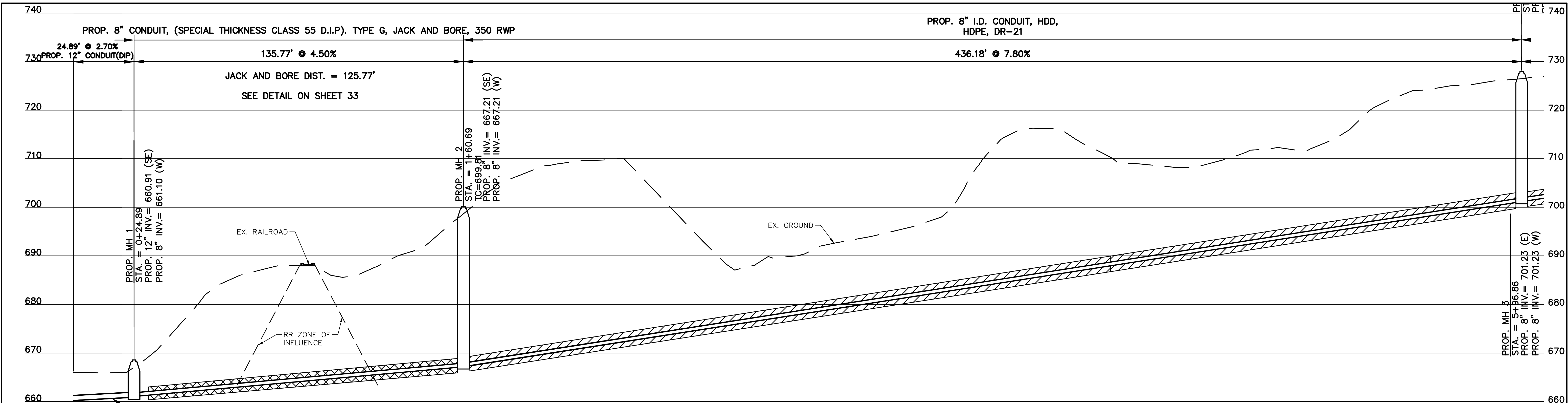
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SHEET 2 OF 34

SS# 5933

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DATE: Mar 19, 2025 - 12:18 PM
PLOT BY: AREND

ACAD DRAWING NAME: KENWOOD HILLS BASEMAP.DWG



**CONTRACT
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PRINTS NOT BEARING THIS STAMP WERE
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NOTE:
UNCOVER THE EXISTING 12"
SEWER STUB AS FIRST ORDER
OF BUSINESS - INCLUDE COST
WITH 603.

REVISIONS			
BY:	DATE:	DESCRIPTION:	



THE METROPOLITAN SEWER DISTRICT
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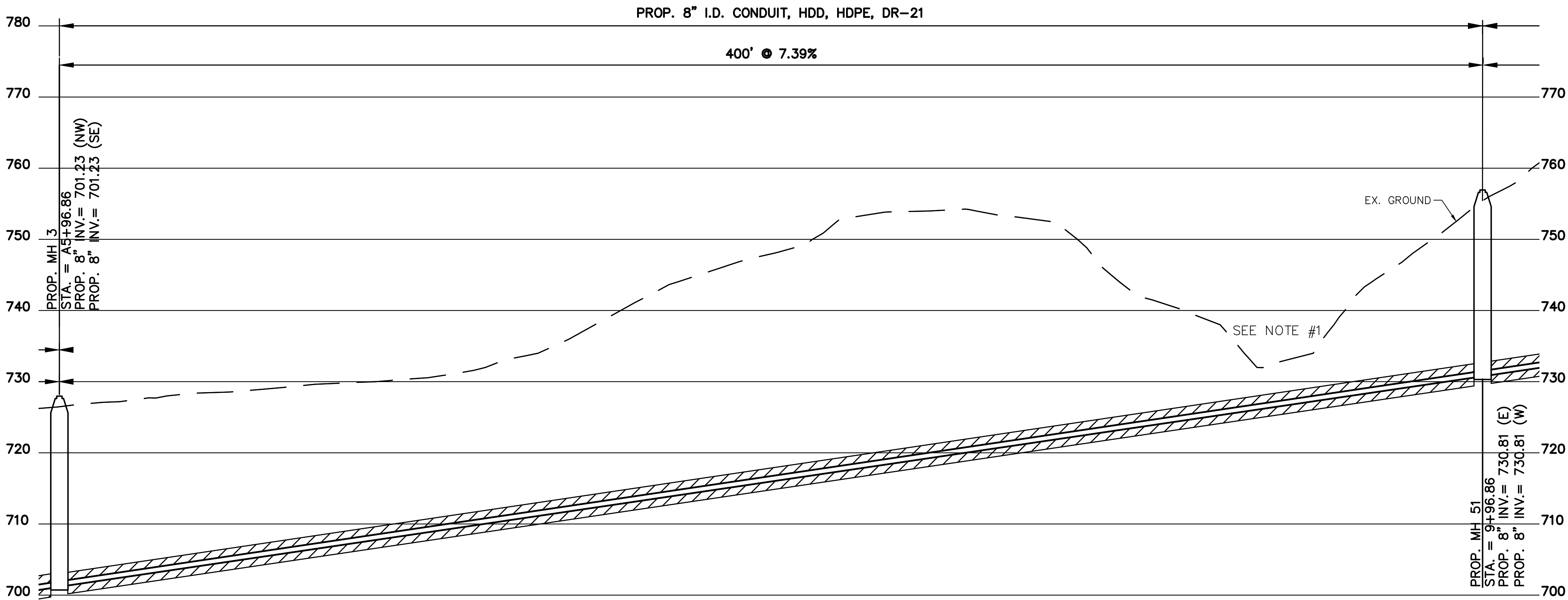
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COACHLITE

SCALE: HORIZ. 1"=20'
VERT. 1"=10'

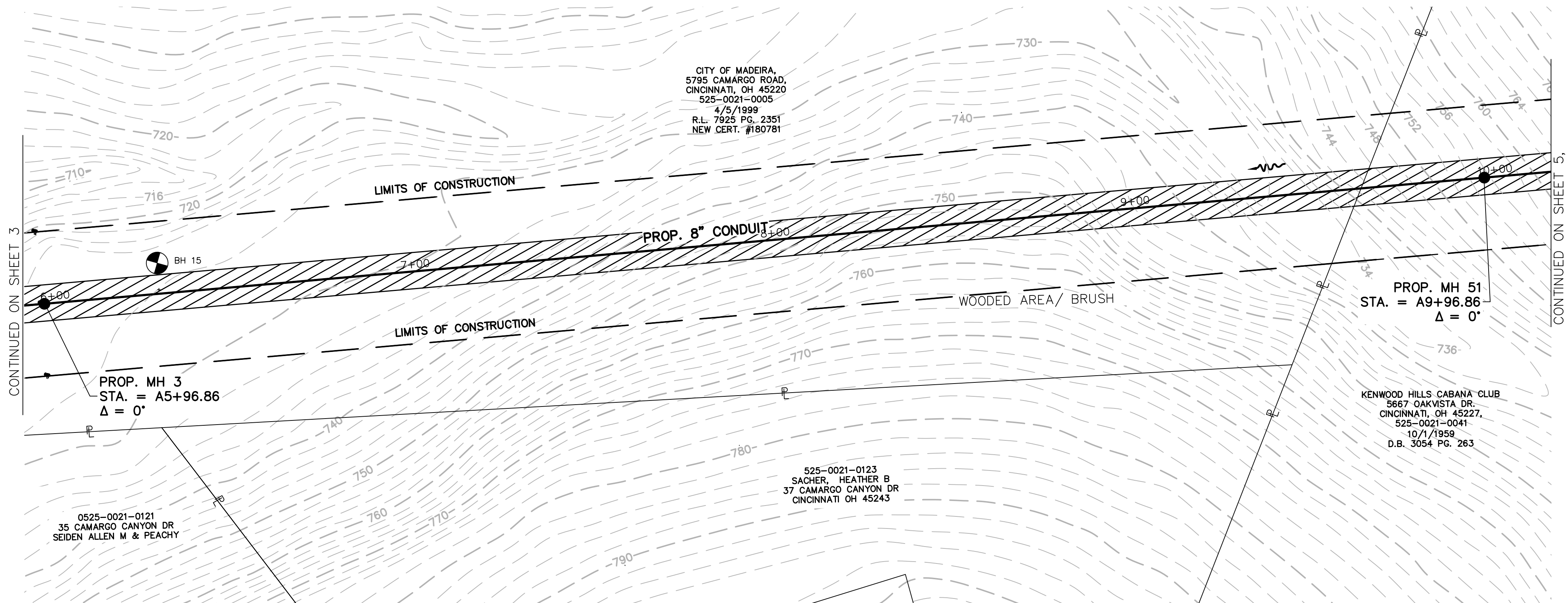
MH 1 TO MH 3

PLAN AND PROFILE



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- NOTES
1. DIRECTIONAL DRILLING
RISK OF FRAC-OUT IN
THIS AREA. CONTRACTOR
TO PROVIDE
MITIGATION/MONITORING
PLAN BEFORE DRILLING IS
STARTED



DESIGNED BY: GEW	REVISIONS			DESCRIPTION:
	BY:	DATE:		
DRAWN BY: GAU				



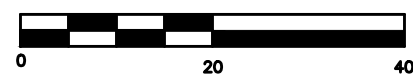
THE METROPOLITAN SEWER DISTRICT
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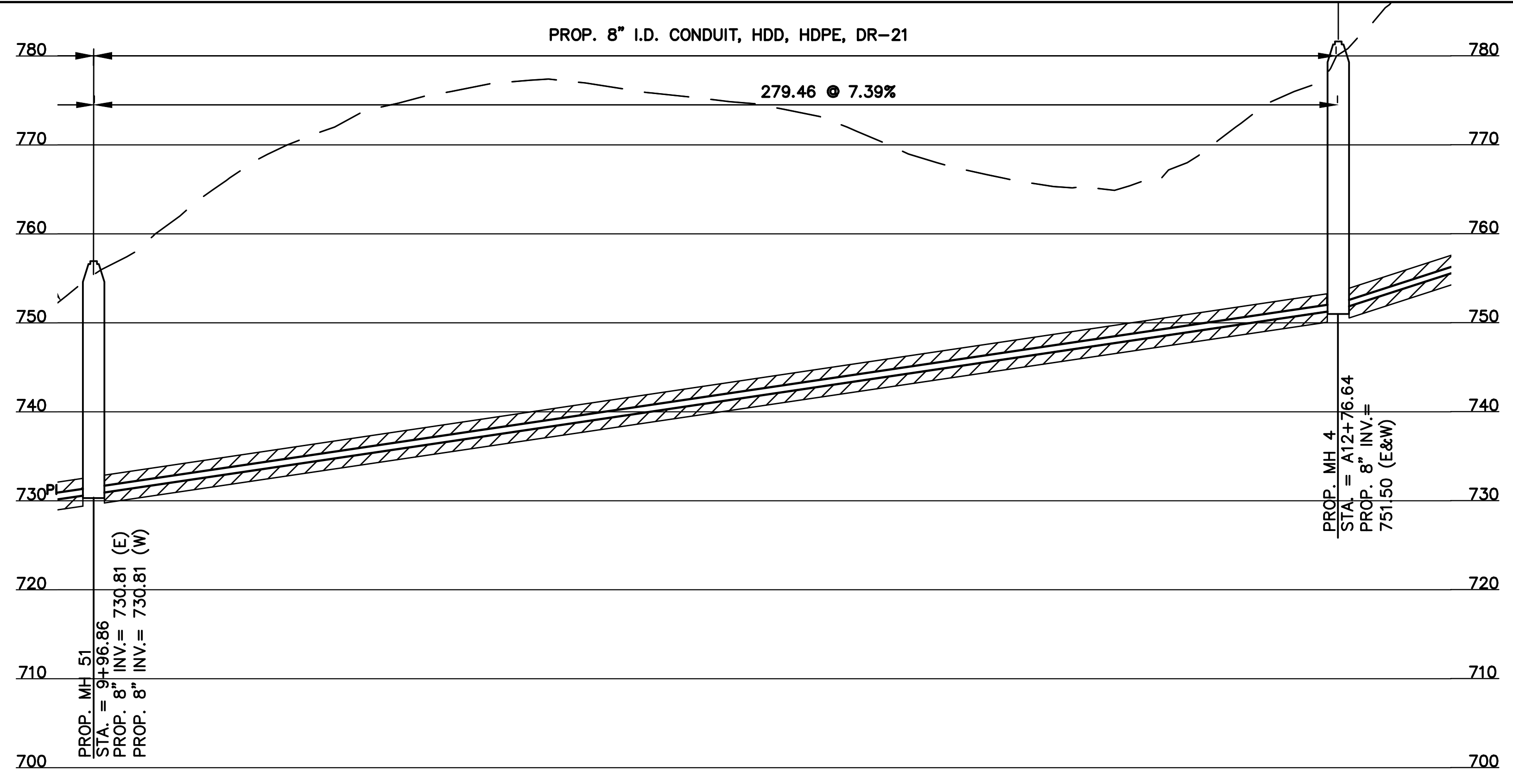
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VERT. 1"=10'



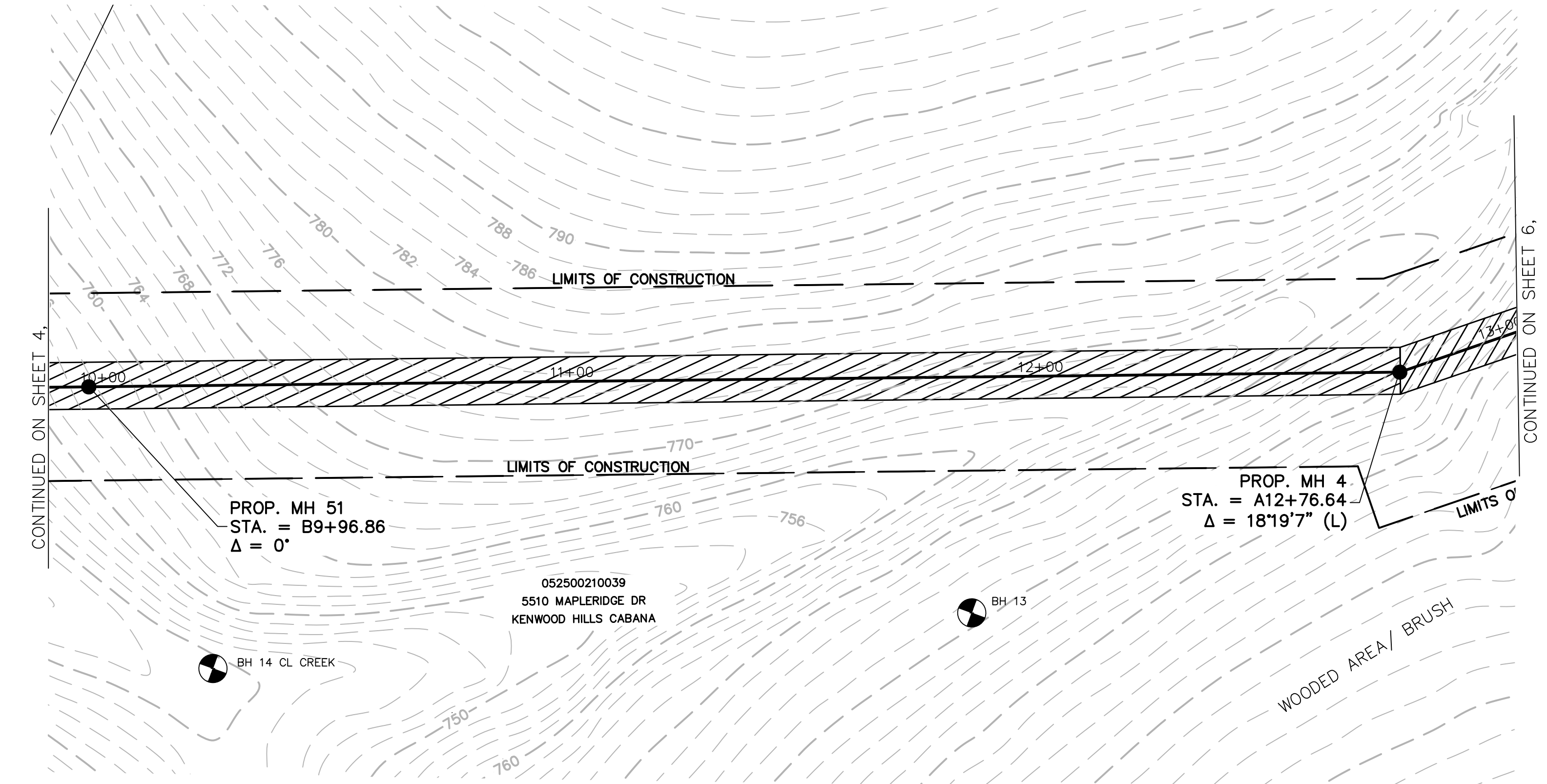
MH 3 TO MH 51

PLAN AND PROFILE

PATH: N:\JOBS\2018\18926 - KENWOOD HILLS LOCAL SEWER WATER\600 CAD\SSA\BASE\KENWOOD HILLS BASEMAP.DWG
DATE: Mar 19, 2025 - 12:15 PM
PLOTTED BY: AREND



CONTRACT
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DESIGNED BY: GEW	REVISIONS		
	BY:	DATE:	DESCRIPTION:
DRAWN BY: GAU			

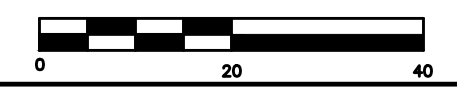


THE METROPOLITAN SEWER DISTRICT
OF GREATER CINCINNATI
HAMILTON COUNTY, OHIO



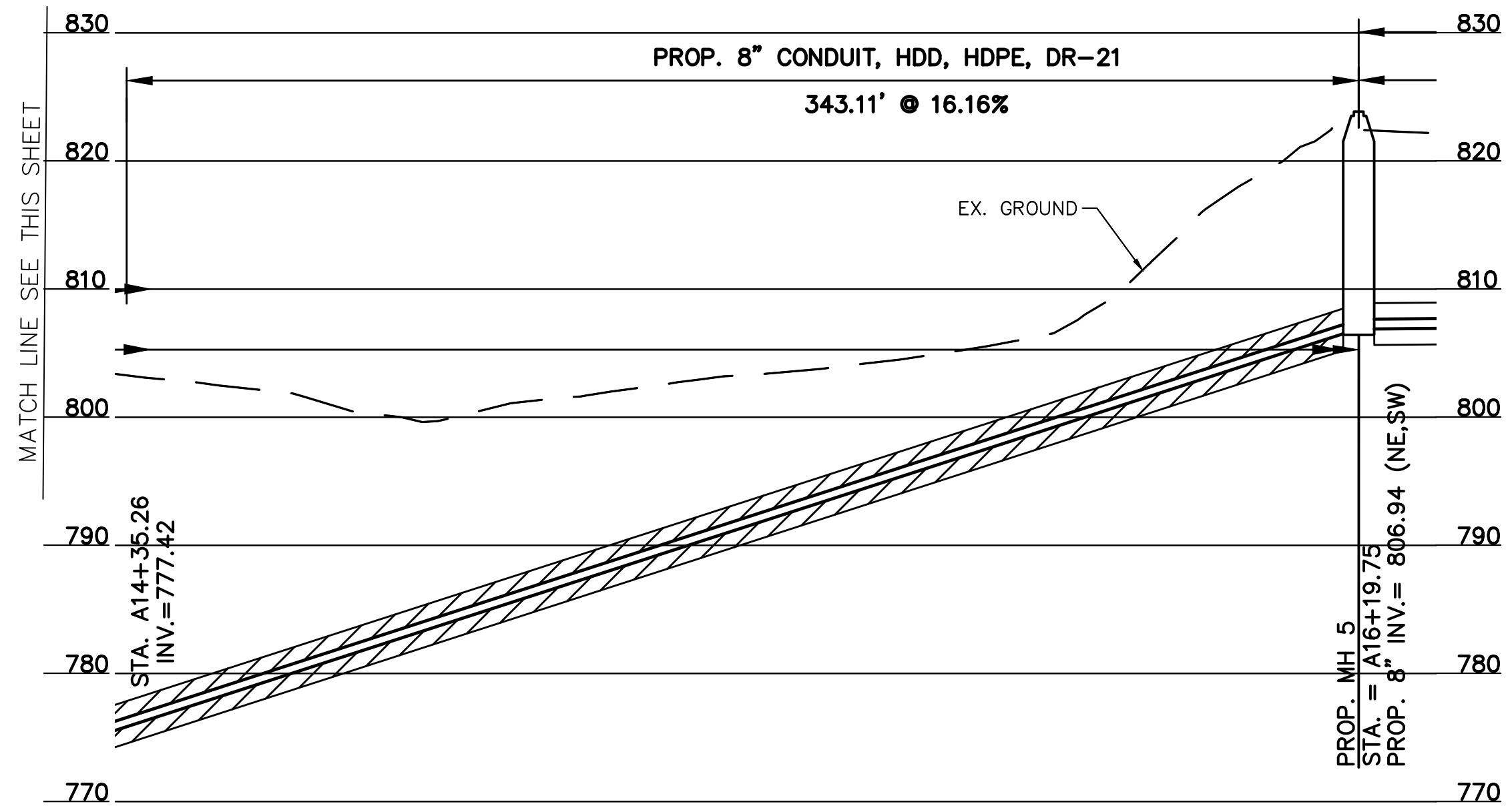
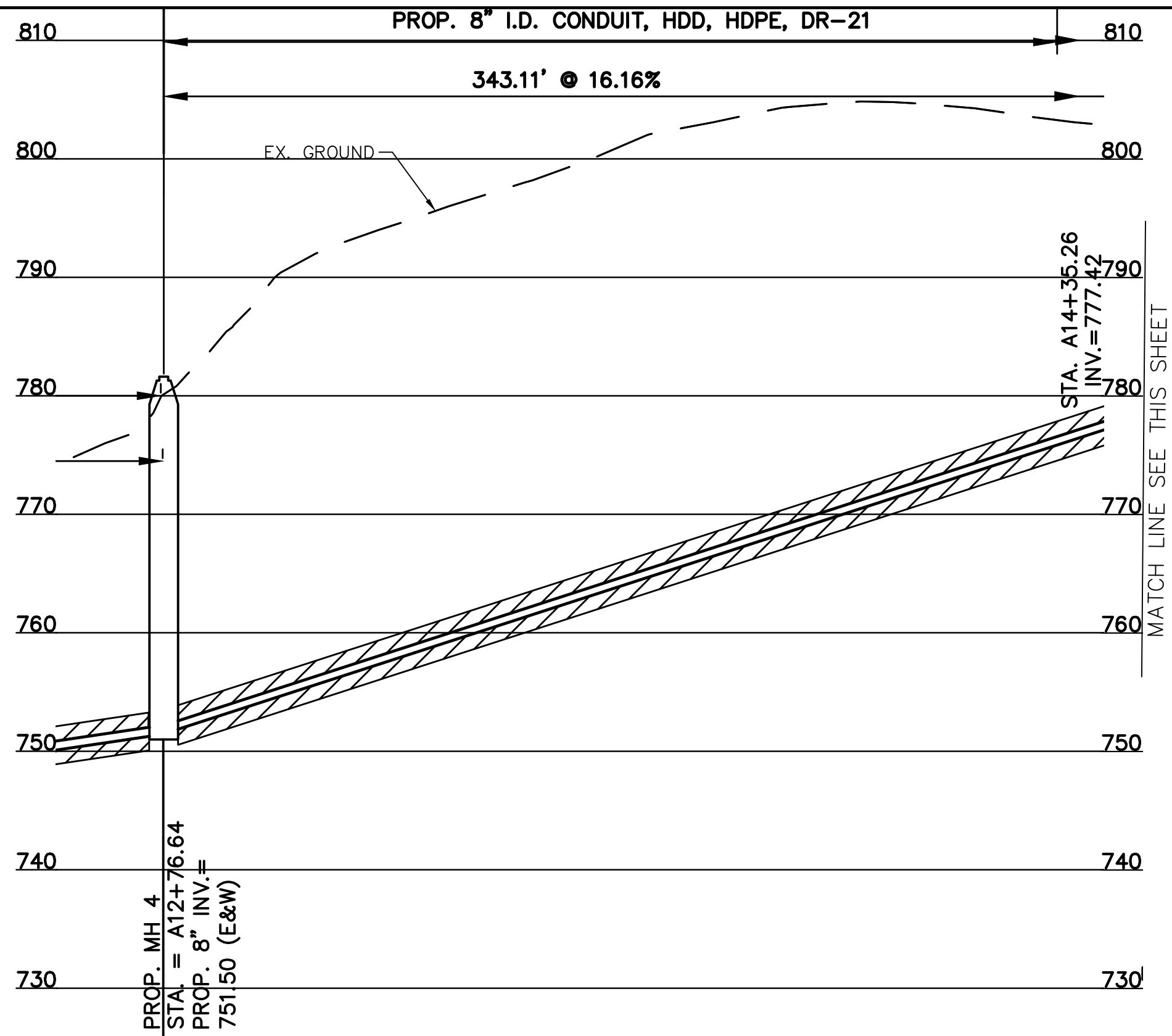
PROPOSED PROJECT NO. 10370025
FROM THE INT. OF KENWOOD HILLS DR. AND KENWOOD HILLS TO THE CABANA CLUB DR. FROM
THE CUL-DE-SAC OF MAPLE RIDGE DR AND VISTA RIDGE DR TO THE CABANA CLUB DR ALONG
COACHLITE

SCALE: HORIZ. 1"=20'
VERT. 1"=10'



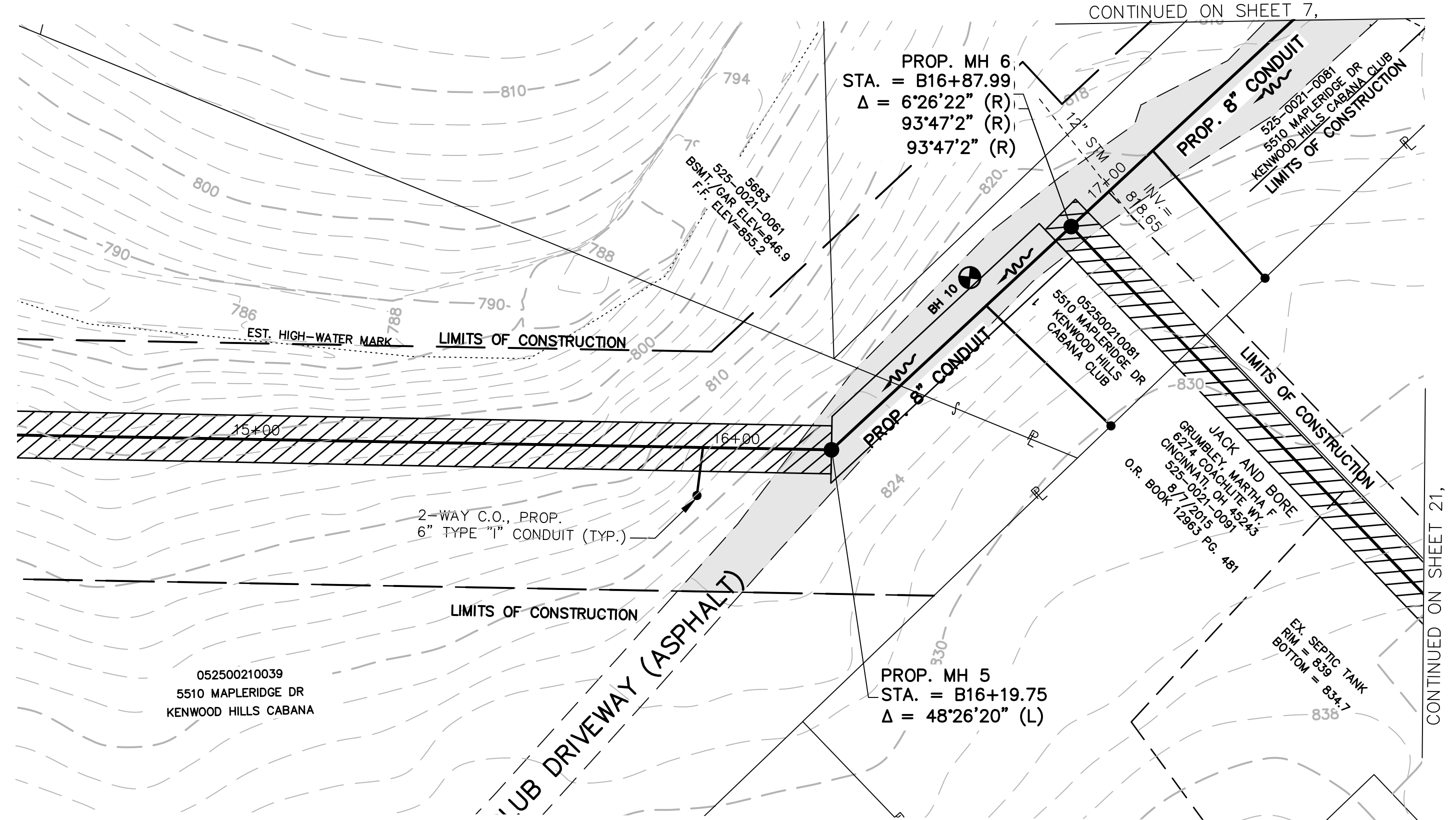
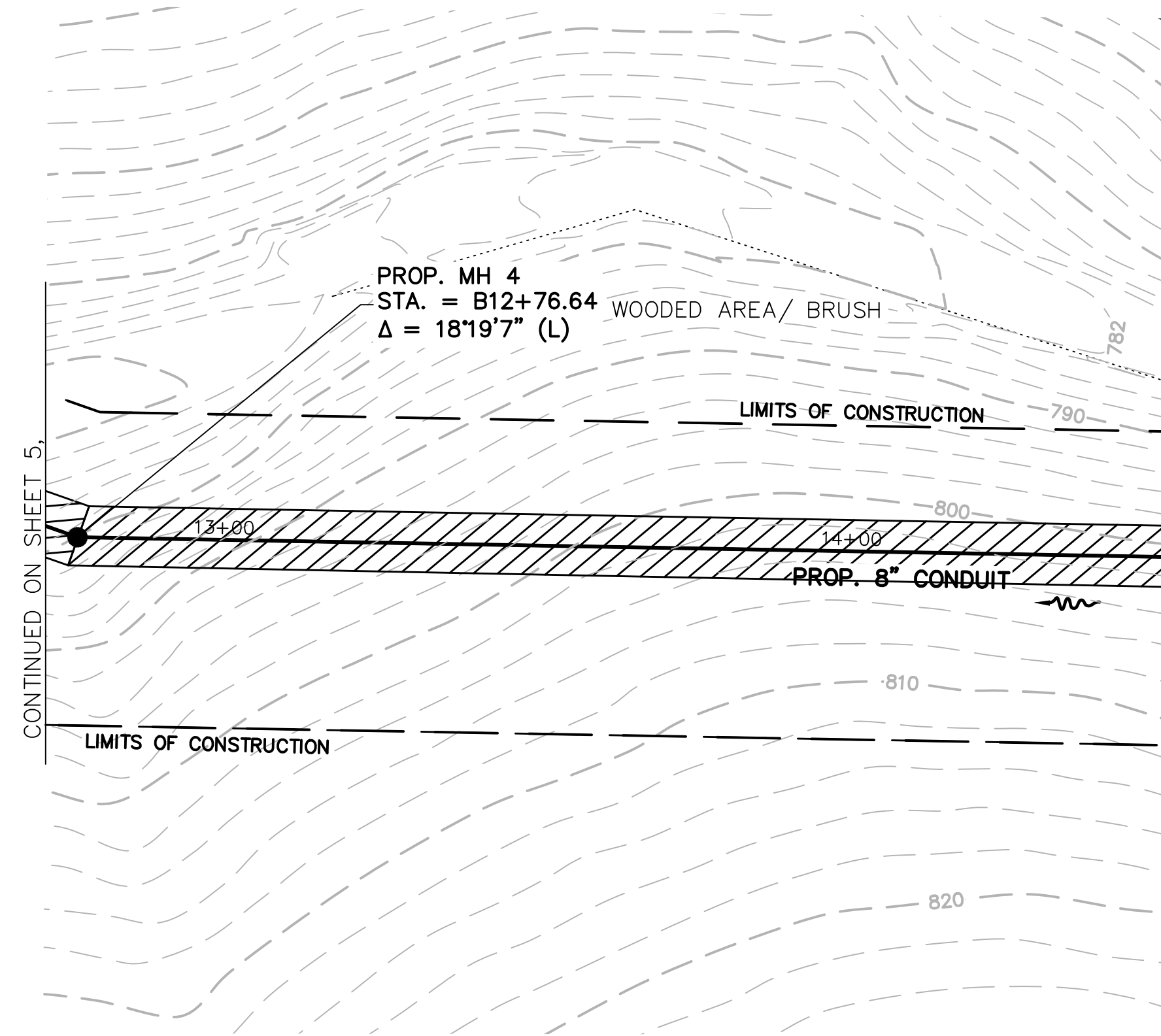
MH 51 TO MH 4

PLAN AND PROFILE



CONTRACT
DRAWING

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REVISIONS			
BY:	DATE:	DESCRIPTION:	
DESIGNED BY: GEW			
DRAWN BY: GAU			



THE METROPOLITAN SEWER DISTRICT
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COACHLITE

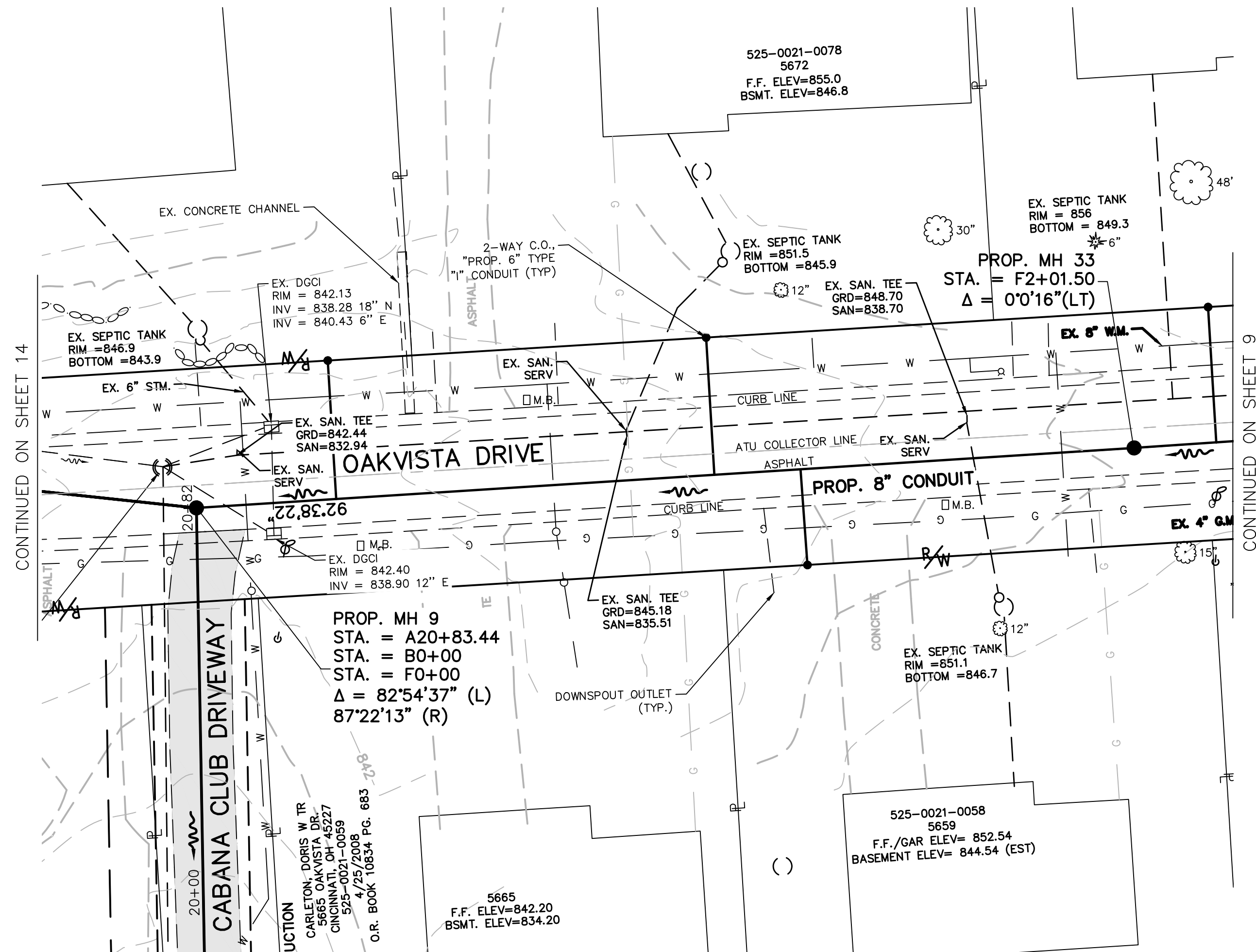
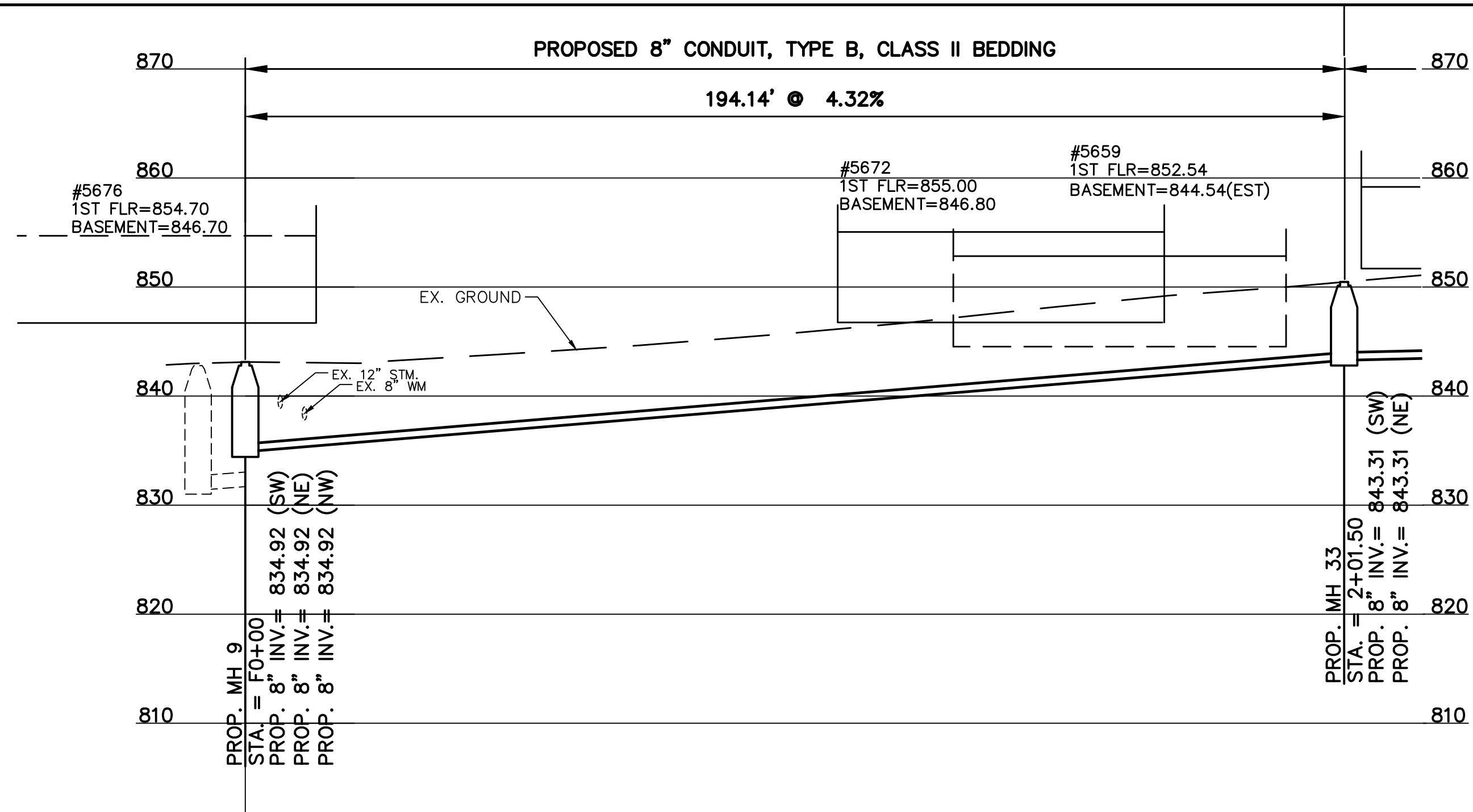
SCALE: HORIZ. 1"=20'
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CABANA CLUB DRIVE

PLAN AND PROFILE

CONTRACT
DRAWING

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NOTE:
OAKVISTA DRIVE REQUIRES
FULL WIDTH MILL AND PAVE.

REVISIONS			
BY:	DATE:	DESCRIPTION:	
DESIGNED BY: GEW			
DRAWN BY: GAU			



THE METROPOLITAN SEWER DISTRICT
OF GREATER CINCINNATI
HAMILTON COUNTY, OHIO



M S D
WASTEWATER
ENGINEERING

PROPOSED PROJECT NO. 10370025

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OAKVISTA DRIVE

PLAN AND PROFILE

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DYNOTEC



MSD
**WASTEWATER
ENGINEERING**

SCALE: HORIZ. 1"=20'
VERT. 1"=10'



SHEET 9 OF 34

SS# 5933

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DYNOTEC

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OAKVISTA DR AT MARGO LANE
PLAN AND PROFILE

PATH: N:\005\2018\18926 - KENWOOD HILLS LOCAL SEWER\WATER\600 CAD\SSA\BASE\KENWOOD HILLS BASEMAP.DWG
DATE: Mar 19, 2025 - 12:17 PM
PLOTTED BY: AREND

DESIGNED BY: GEW			
DRAWN BY: GAU			
BY:	DATE:	REVISIONS	
		DESCRIPTION:	



THE METROPOLITAN SEWER DISTRICT
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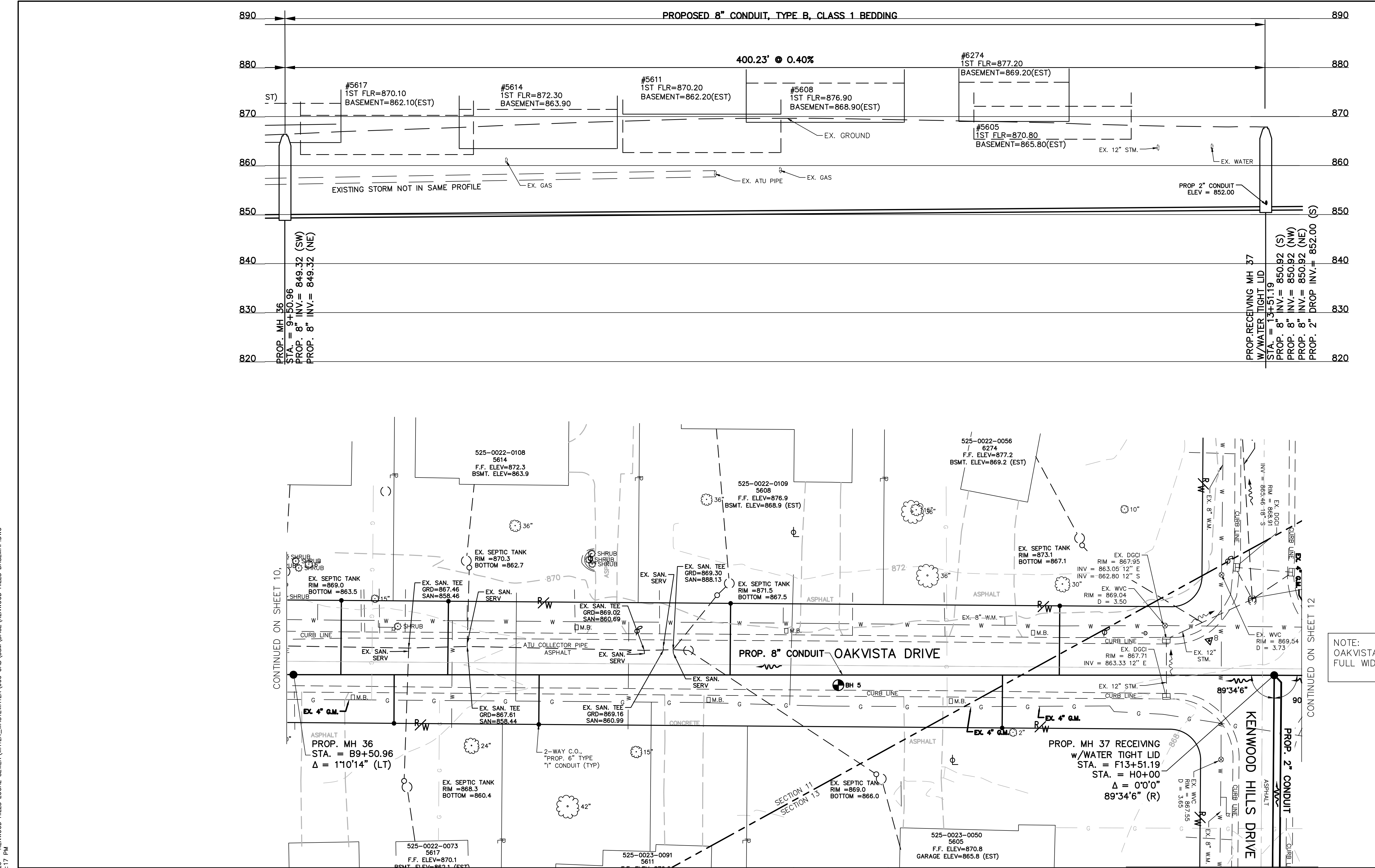
OAKVISTA DR AT MARGO LANE

PLAN AND PROFILE

ACC. NO. 78238a

SHEET 11 OF 34

SS# 5933



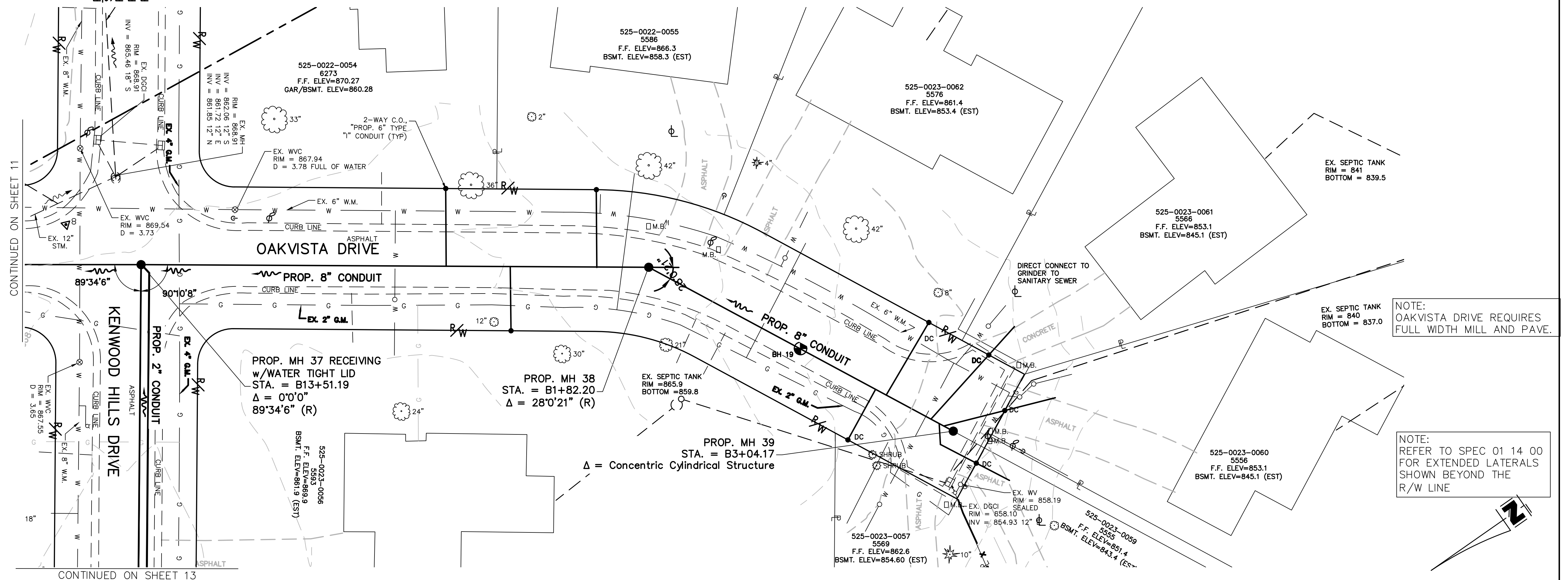
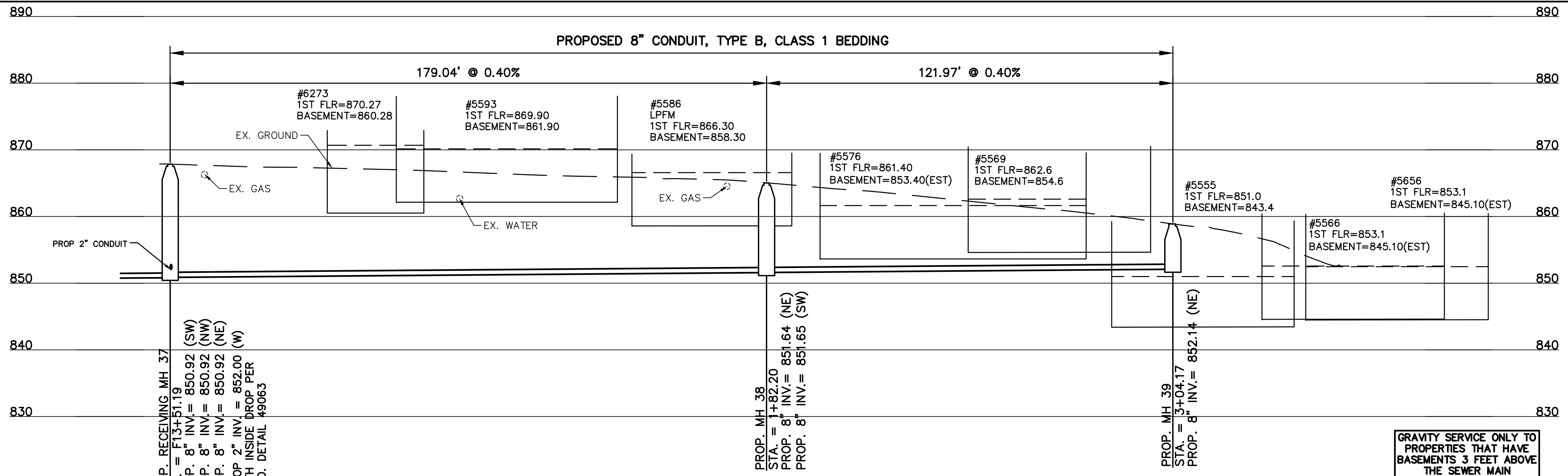
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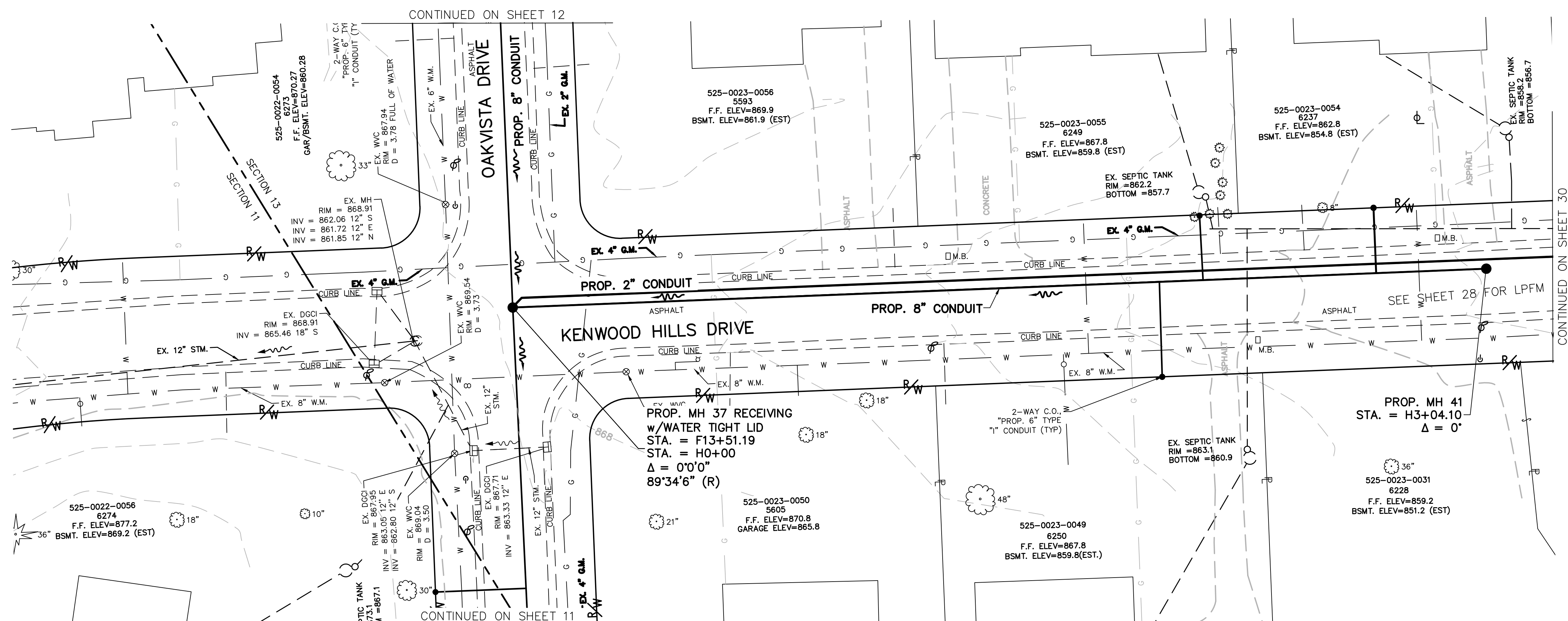
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[illegible]

MSD
WASTEWATER
ENGINEERING

SCALE: HORIZ. 1"=20'
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PLAN AND PROFILE

SHEET 13 OF 34

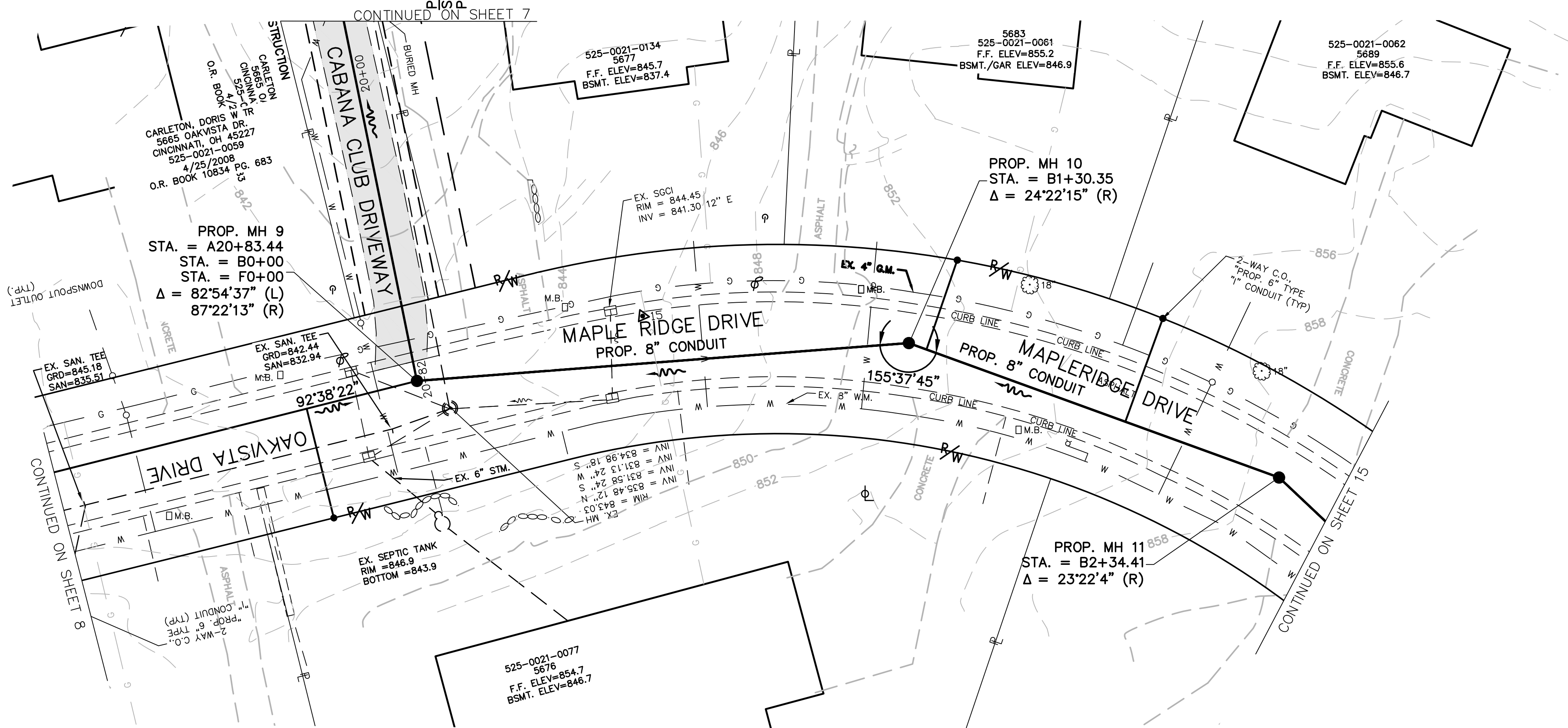
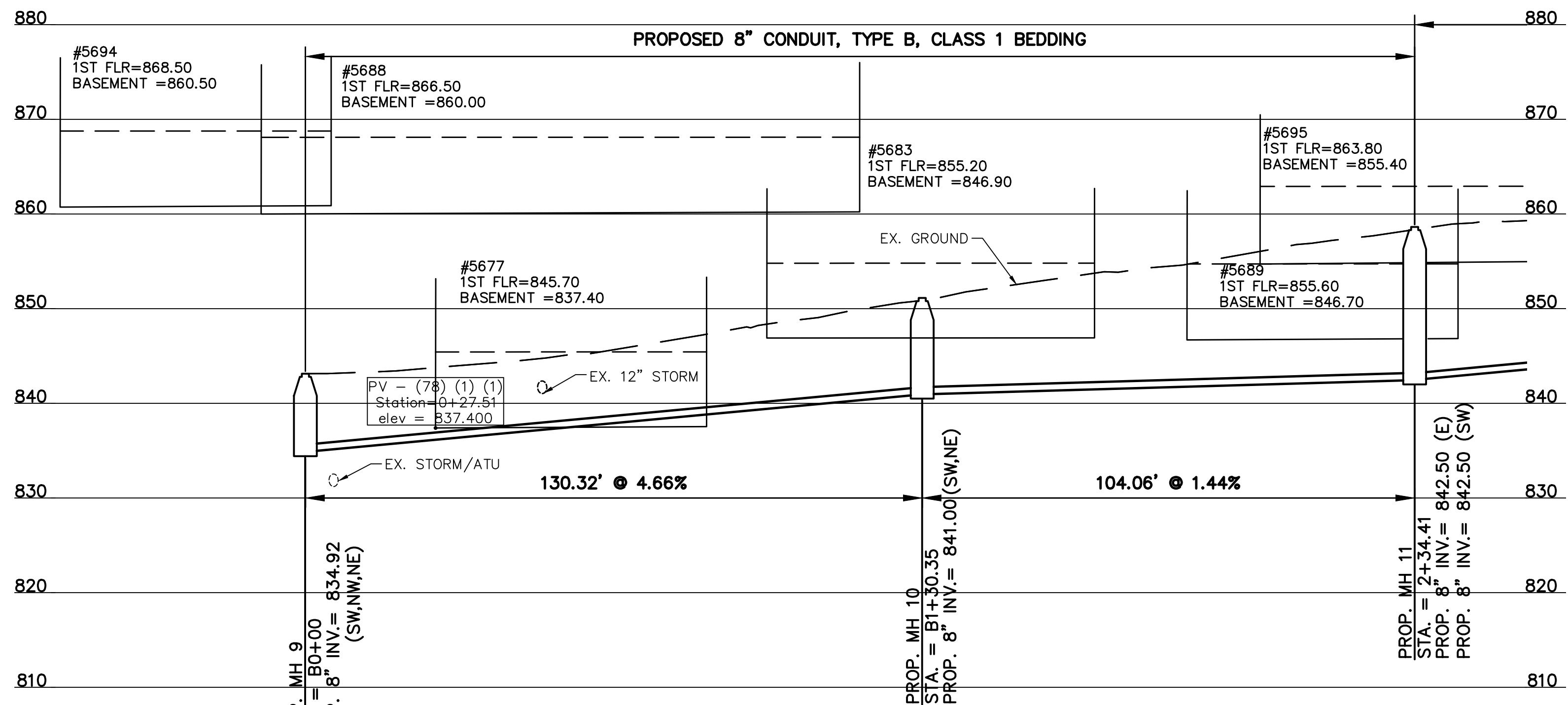
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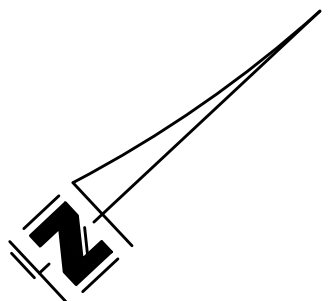
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DESIGNED BY: GEW			
DRAWN BY: GAU			



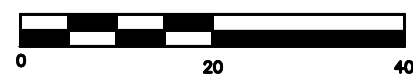
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MAPLERIDGE DRIVE AT NORTH END

PLAN AND PROFILE

ACC. NO. 78241

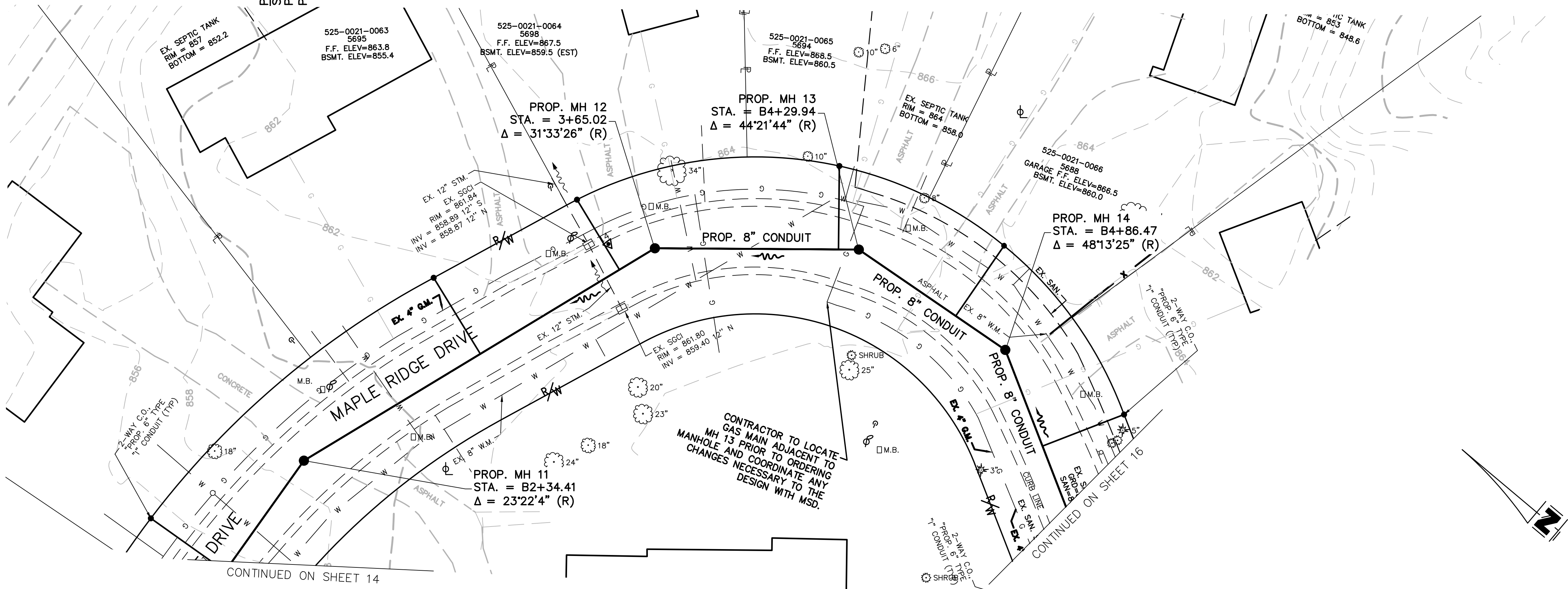
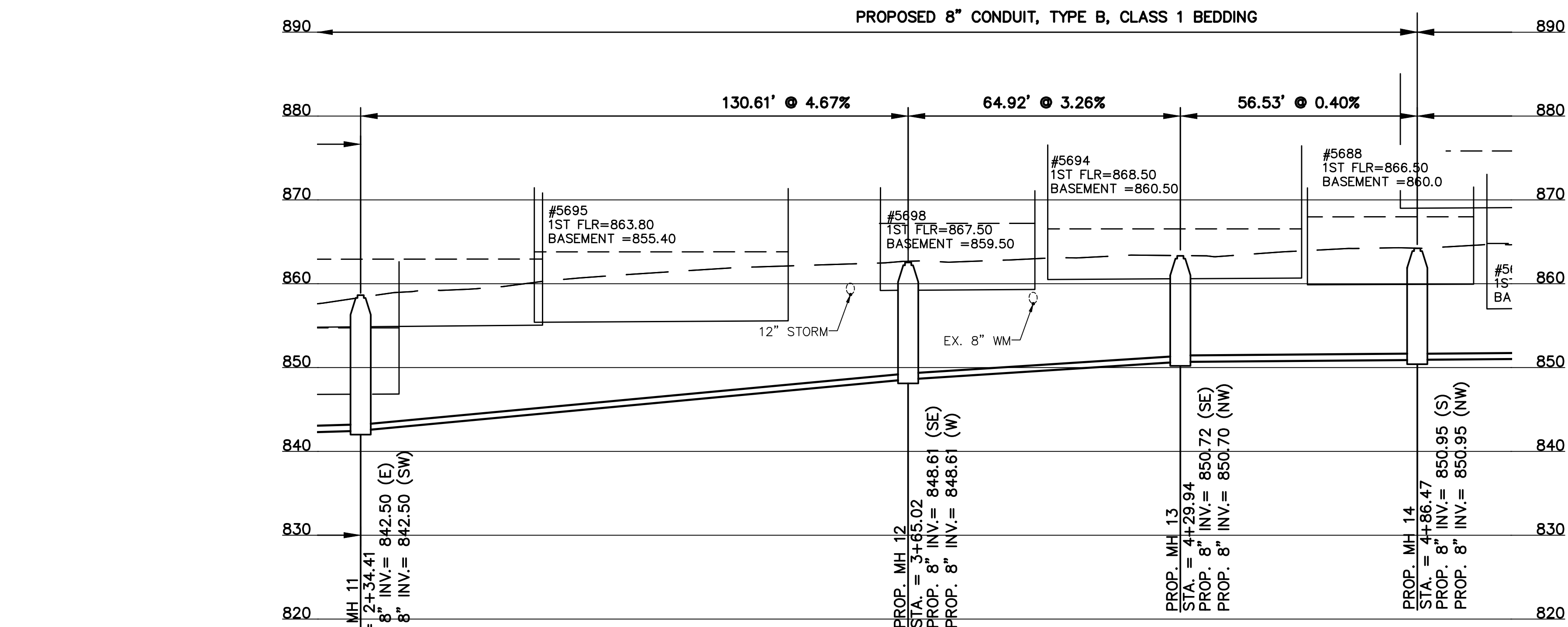
SHEET 14 OF 34

SS# 5933

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REVISIONS			
BY:	DATE:	DESCRIPTION:	



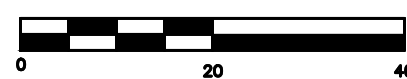
THE METROPOLITAN SEWER DISTRICT
OF GREATER CINCINNATI
HAMILTON COUNTY, OHIO



PROPOSED PROJECT NO. 10370025

FROM THE INT. OF KENWOOD HILLS DR. AND KENWOOD HILLS TO THE CABANA CLUB DR. FROM
THE CUL-DE-SAC OF MAPLE RIDGE DR AND VISTA RIDGE DR TO THE CABANA CLUB DR ALONG
COACHLITE

SCALE: HORIZ. 1"=20'
VERT. 1"=10'



MAPLERIDGE DRIVE AT NORTH END

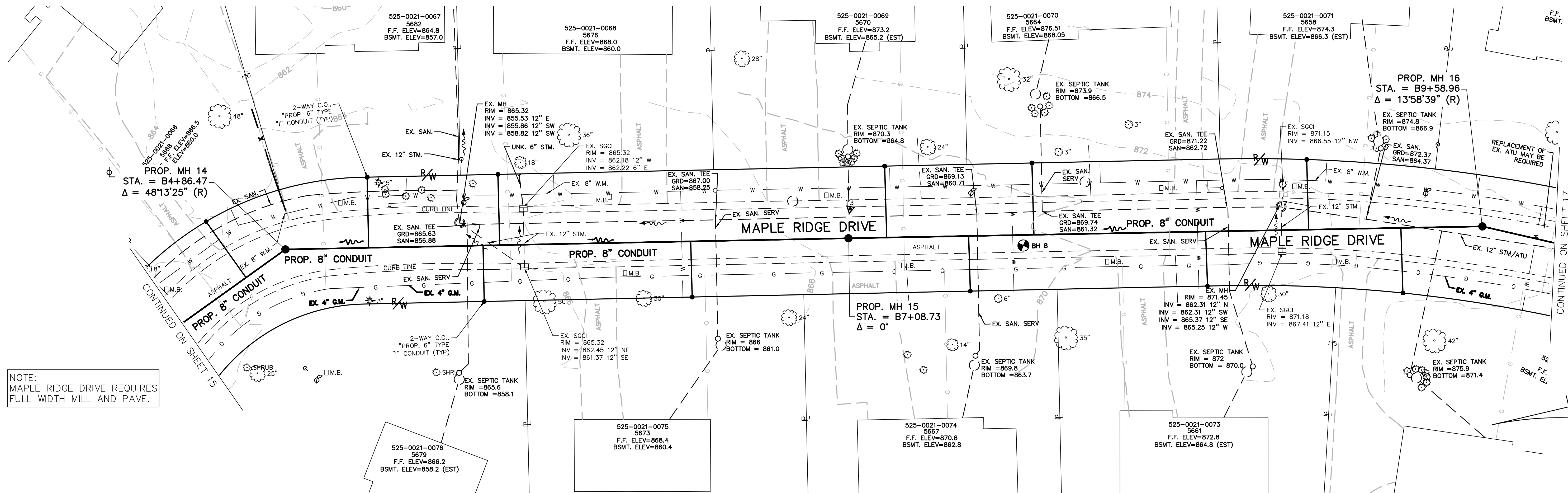
PLAN AND PROFILE

ACC. NO. 78242

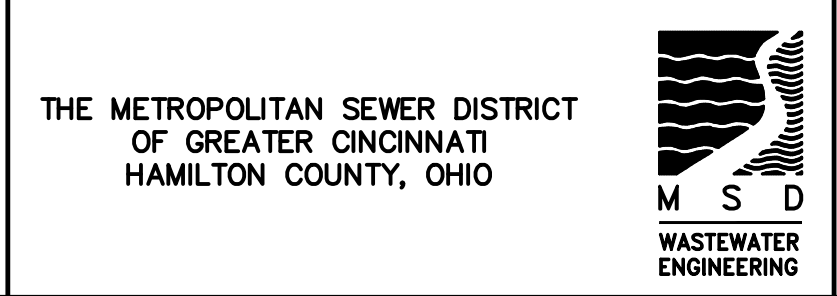
SHEET 15 OF 34

SS# 5933

PRINTS NOT BEARING THIS STAMP WERE
MADE PRIOR TO ADVERTISING FOR BIDS
AND ARE TO BE CONSIDERED OBSOLETE
FOR CONTRACT PURPOSES.



DESIGNED BY: GEW DRAWN BY: GAU	BY:	DATE:	REVISIONS
			DESCRIPTION:



PLAN AND PROFILE

SHEET 16 OF 34

CS# 5933

PATH: N:\JOBS\2018\18926 - KENWOOD HILLS LOCAL SEWER WATER\600 CAD\SSA\BASE\KENWOOD HILLS BASEMAP.DWG
DATE: Mar 19, 2025 - 12:18 PM
PLOT BY: AREND

REVISIONS			
DESIGNED BY:	BY:	DATE:	DESCRIPTION:
GEW			
DRAWN BY:	GAU		



THE METROPOLITAN SEWER DISTRICT
OF GREATER CINCINNATI
HAMILTON COUNTY, OHIO

PROPOSED PROJECT NO. 10370025
FROM THE INT. OF KENWOOD HILLS DR. AND KENWOOD HILLS TO THE CABANA CLUB DR. FROM
THE CUL-DE-SAC OF MAPLE RIDGE DR AND VISTA RIDGE DR TO THE CABANA CLUB DR ALONG
COACHLITE

SCALE: HORIZ. 1"=20'
VERT. 1"=10'

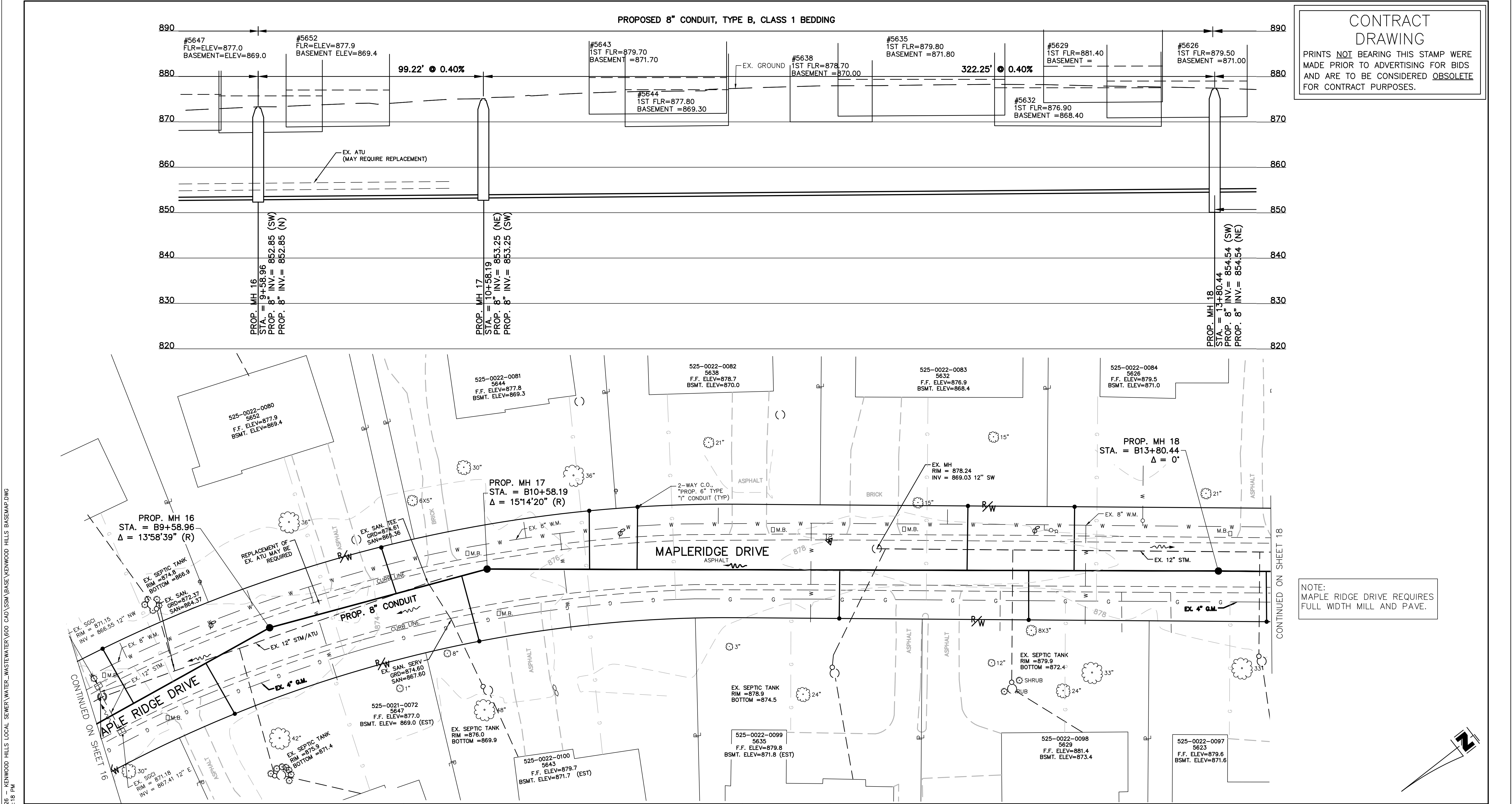
**MAPLERIDGE DRIVE N of
MAPLESPUR**

PLAN AND PROFILE

ACC. NO. 78244

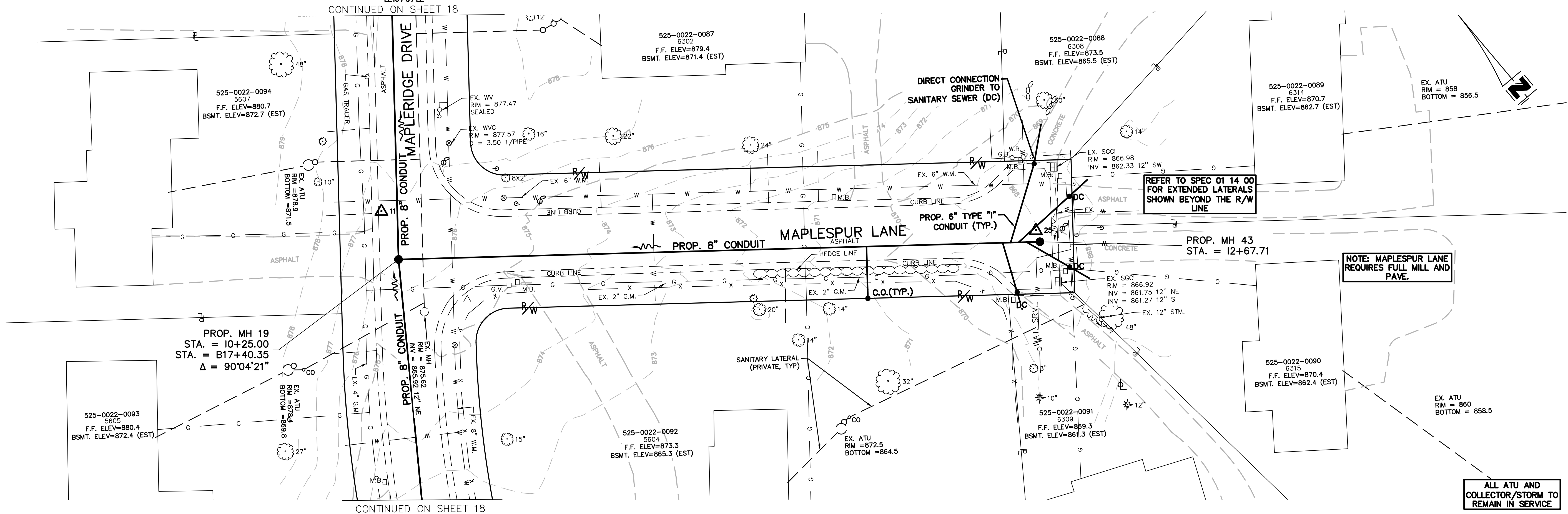
SHEET 17 OF 34

SS# 5933



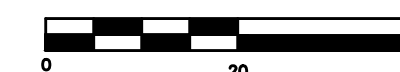
**CONTRACT
DRAWING**

PRINTS NOT BEARING THIS STAMP WERE
MADE PRIOR TO ADVERTISING FOR BIDS
AND ARE TO BE CONSIDERED OBSOLETE
FOR CONTRACT PURPOSES.

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MSD
**WASTEWATER
ENGINEERING**

SCALE: HORIZ. 1"=20'
VERT. 1"=10'

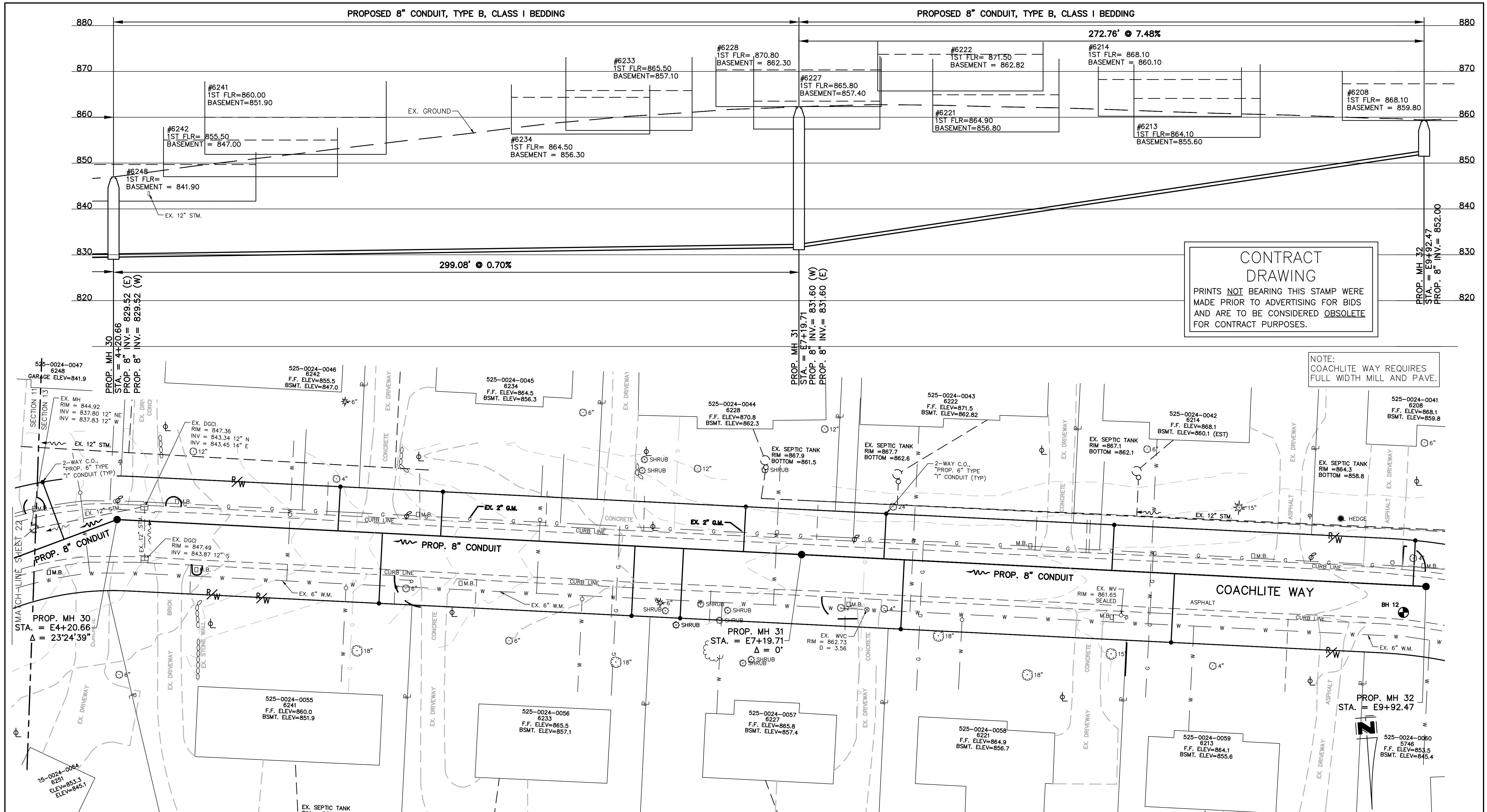


PLAN AND PROFILE

SHEET19 OF 34

SS# 5933

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DATE: Mar 19, 2025 - 12:19 PM
PLOTTED BY: FRIEND



CONTRACT
DRAWING

PRINTS NOT BEARING THIS STAMP WERE
MADE PRIOR TO ADVERTISING FOR BIDS
AND ARE TO BE CONSIDERED OBSOLETE
FOR CONTRACT PURPOSES.

NOTE:
COACHLITE WAY REQUIRES
FULL WIDTH MILL AND PAVE.

REVISIONS			
BY:	DATE:	DESCRIPTION:	
DESIGNED BY: GEW			
DRAWN BY: GAU			



THE METROPOLITAN SEWER DISTRICT
OF GREATER CINCINNATI
HAMILTON COUNTY, OHIO

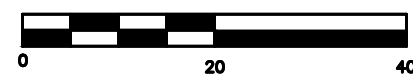


WASTEWATER
ENGINEERING

PROPOSED PROJECT NO. 10370025

FROM THE INT. OF KENWOOD HILLS DR. AND KENWOOD HILLS TO THE CABANA CLUB DR. FROM
THE CUL-DE-SAC OF MAPLE RIDGE DR AND VISTA RIDGE DR TO THE CABANA CLUB DR ALONG
COACHLITE

SCALE: HORIZ. 1"=20'
VERT. 1"=10'



COACHLITE WAY

PLAN AND PROFILE

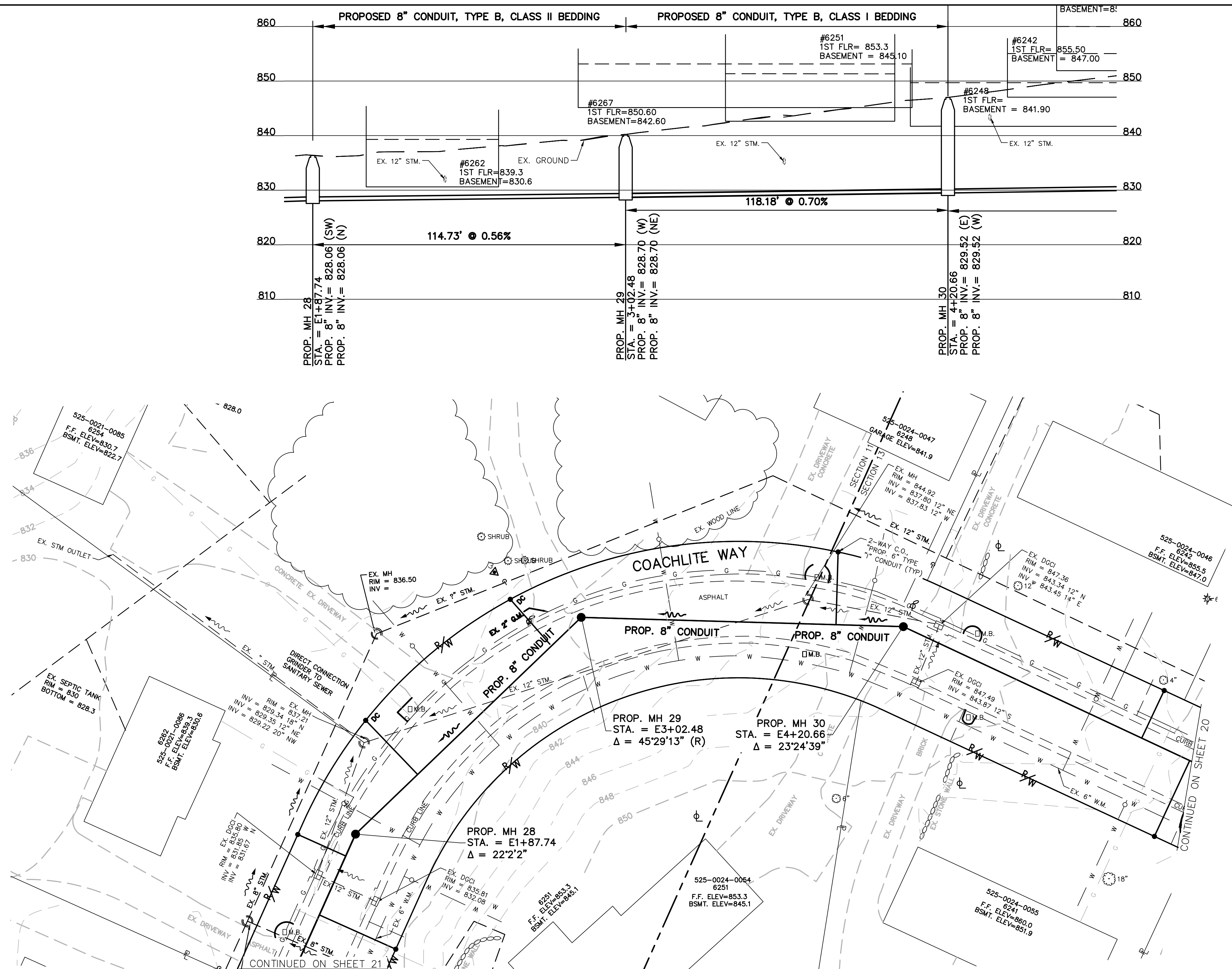
ACC. NO. 78249

SHEET 20 OF 34

SS# 5933

CONTRACT
DRAWING

PRINTS NOT BEARING THIS STAMP WERE
MADE PRIOR TO ADVERTISING FOR BIDS
AND ARE TO BE CONSIDERED OBSOLETE
FOR CONTRACT PURPOSES.



NOTE:
COACHLITE WAY REQUIRES
FULL WIDTH MILL AND PAVE.



REVISIONS			
BY:	DATE:	DESCRIPTION:	
DESIGNED BY: GEW			
DRAWN BY: GAU			



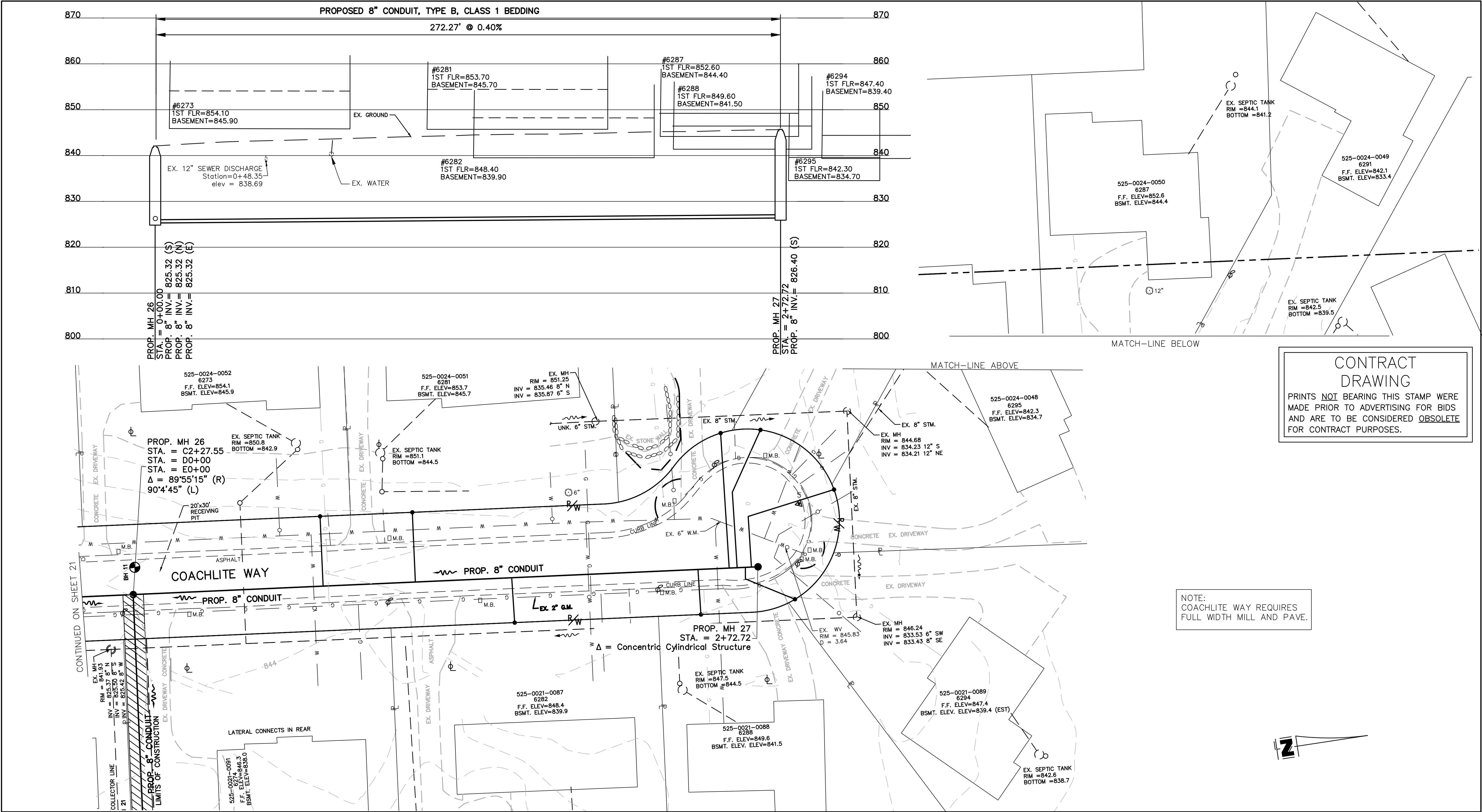
THE METROPOLITAN SEWER DISTRICT
OF GREATER CINCINNATI
HAMILTON COUNTY, OHIO



PROPOSED PROJECT NO. 10370025
FROM THE INT. OF KENWOOD HILLS DR. AND KENWOOD HILLS TO THE CABANA CLUB DR. FROM
THE CUL-DE-SAC OF MAPLE RIDGE DR AND VISTA RIDGE DR TO THE CABANA CLUB DR ALONG
COACHLITE
SCALE: HORIZ. 1"=20'
VERT. 1"=10'

COACHLITE WAY
PLAN AND PROFILE
ACC. NO. 78248
SHEET 22 OF 34
SS# 5933

PATH: N:\JOBS\2018\18926 - KENWOOD HILLS LOCAL SEWER WATER\600 CAD\SSM\BASE\KENWOOD HILLS BASEMAP.DWG
DATE: Mar 19, 2025 - 12:20 PM
PLOT BY: ARIEND



CONTRACT
DRAWING
PRINTS NOT BEARING THIS STAMP WERE
MADE PRIOR TO ADVERTISING FOR BIDS
AND ARE TO BE CONSIDERED OBsolete
FOR CONTRACT PURPOSES.

NOTE:
COACHLITE WAY REQUIRES
FULL WIDTH MILL AND PAVE.

REVISIONS			
BY:	DATE:	DESCRIPTION:	



THE METROPOLITAN SEWER DISTRICT
OF GREATER CINCINNATI
HAMILTON COUNTY, OHIO



WASTEWATER
ENGINEERING

PROPOSED PROJECT NO. 10370025

FROM THE INT. OF KENWOOD HILLS DR. AND KENWOOD HILLS TO THE CABANA CLUB DR. FROM
THE CUL-DE-SAC OF MAPLE RIDGE DR AND VISTA RIDGE DR TO THE CABANA CLUB DR ALONG
COACHLITE

SCALE: HORIZ. 1"=20'
VERT. 1"=10'

COACHLITE WAY

PLAN AND PROFILE

ACC. NO. **78250**

SHEET **23** OF **34**

SS# **5933**

PRINTS NOT BEARING THIS STAMP WERE
MADE PRIOR TO ADVERTISING FOR BIDS
AND ARE TO BE CONSIDERED OBSOLETE
FOR CONTRACT PURPOSES.



**ALL ATU AND
COLLECTOR/STORM TO
REMAIN IN SERVICE**



DYNOTEC
Consultants, LLC

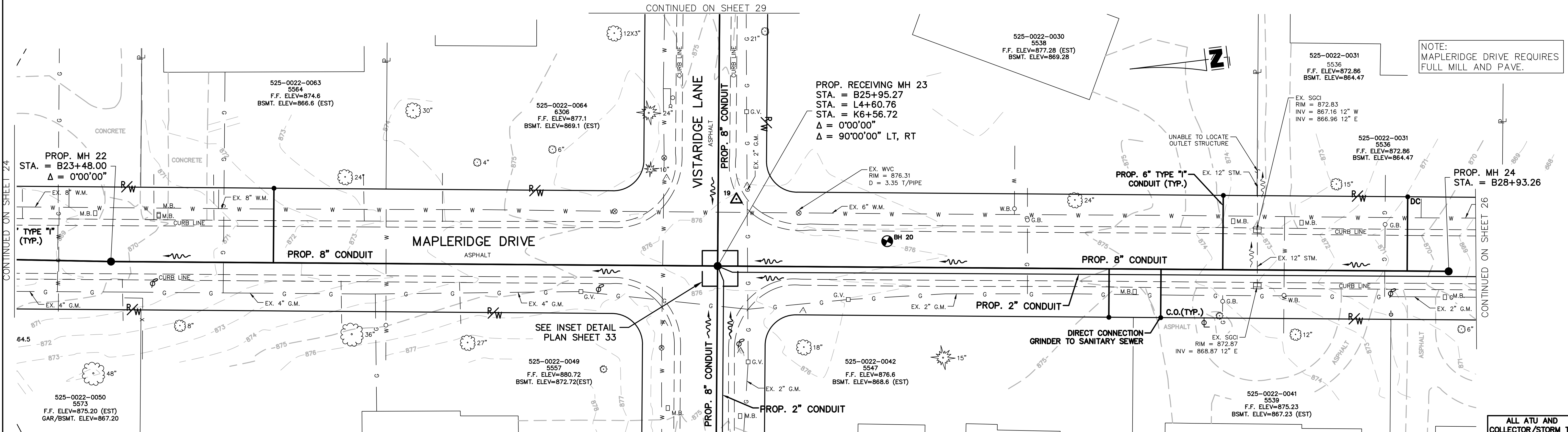
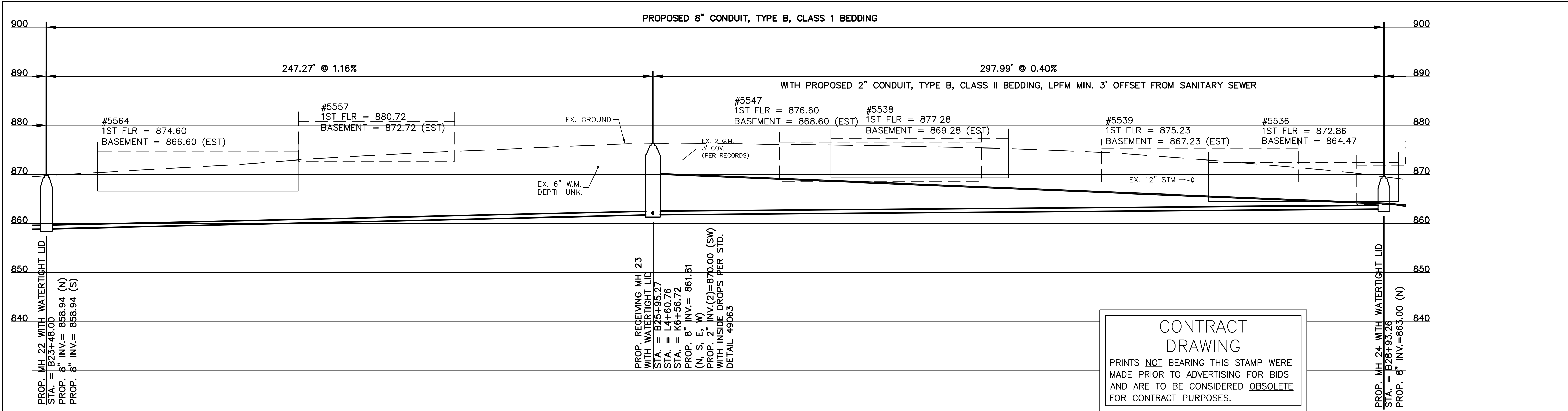


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**WASTEWATER
ENGINEERING**

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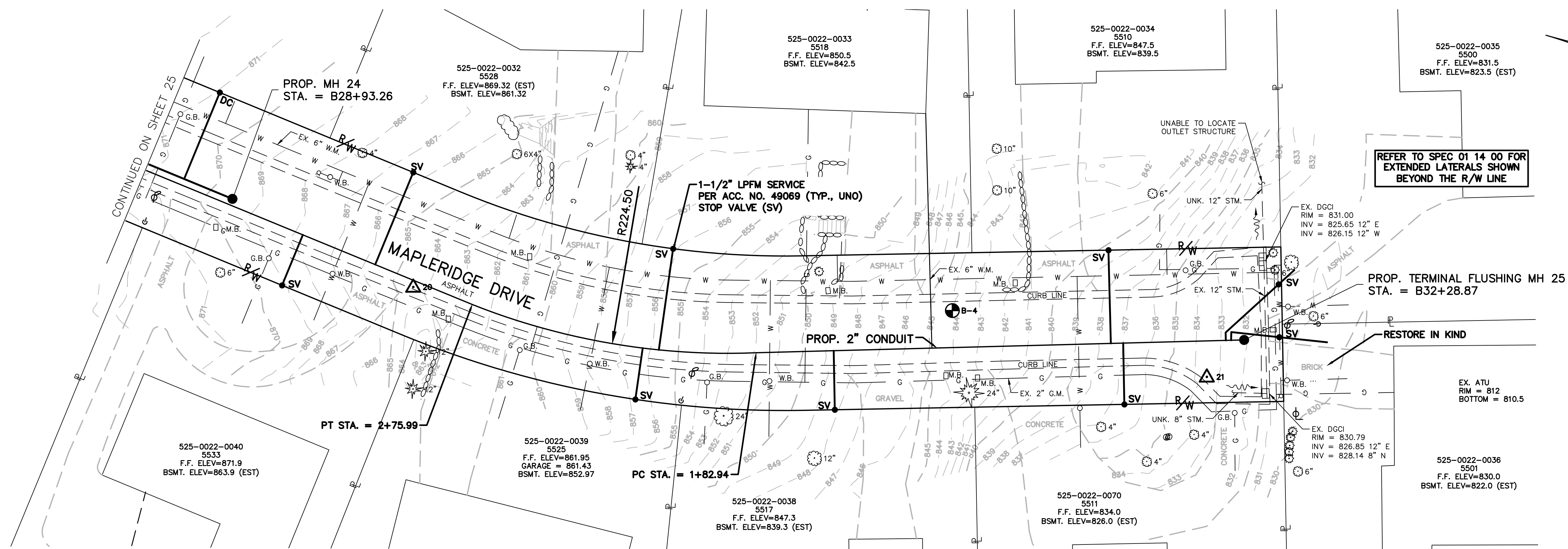
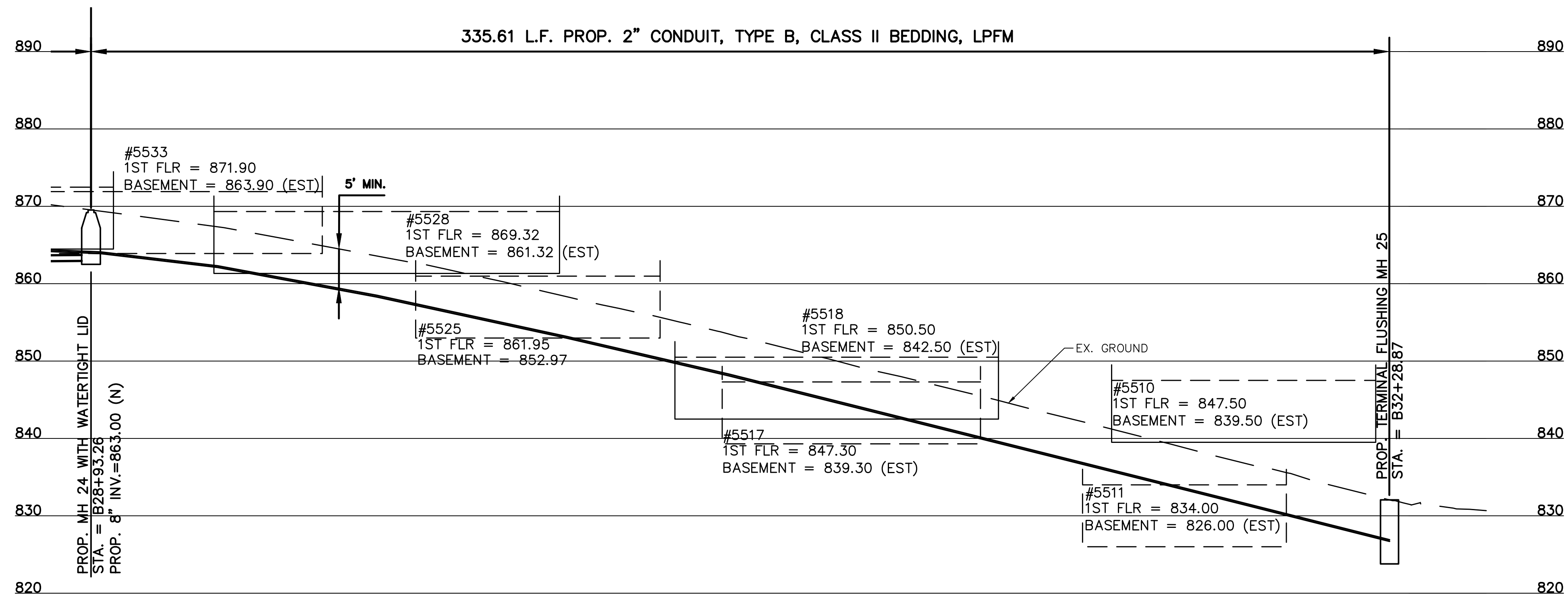
SHEET24 OF 34

SS# 5933



DESIGNED BY: GEW DRAWN BY: GAU	REVISIONS					
	BY:	DATE:	DESCRIPTION:			
			THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI HAMILTON COUNTY, OHIO		PROPOSED PROJECT NO. 10370025 FROM THE INT. OF KENWOOD HILLS DR. AND KENWOOD HILLS TO THE CABANA CLUB DR. FROM THE CUL-DE-SAC OF MAPLE RIDGE DR AND VISTA RIDGE DR TO THE CABANA CLUB DR ALONG COACHLITE SCALE: HORIZ. 1"=20' VERT. 1"=10'	MAPLERIDGE DRIVE PLAN AND PROFILE ACC. NO. 78252
ACAD DRAWING NAME: RA CONSULTANTS KENWOOD.DWG			SHEET 25 OF 34			SS# 5933

PRINTS NOT BEARING THIS STAMP WERE
MADE PRIOR TO ADVERTISING FOR BIDS
AND ARE TO BE CONSIDERED OBSOLETE
FOR CONTRACT PURPOSES.



NOTE:
MAPLERIDGE DRIVE REQUIRES
FULL MILL AND PAVE.

REFER TO SPEC 01 14 00 FOR
EXTENDED LATERALS SHOWN
BEYOND THE R/W LINE

**ALL ATU AND
COLLECTOR/STORM TO
REMAIN IN SERVICE**

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**WASTEWATER
ENGINEERING**

FROM THE INT. OF KENWOOD HILLS DR. AND KENWOOD HILLS TO THE CABANA CLUB DR. FROM
THE CUL-DE-SAC OF MAPLE RIDGE DR AND VISTA RIDGE DR TO THE CABANA CLUB DR ALONG
COACHLITE

SCALE: HORIZ. 1"=20'
VERT. 1"=10'

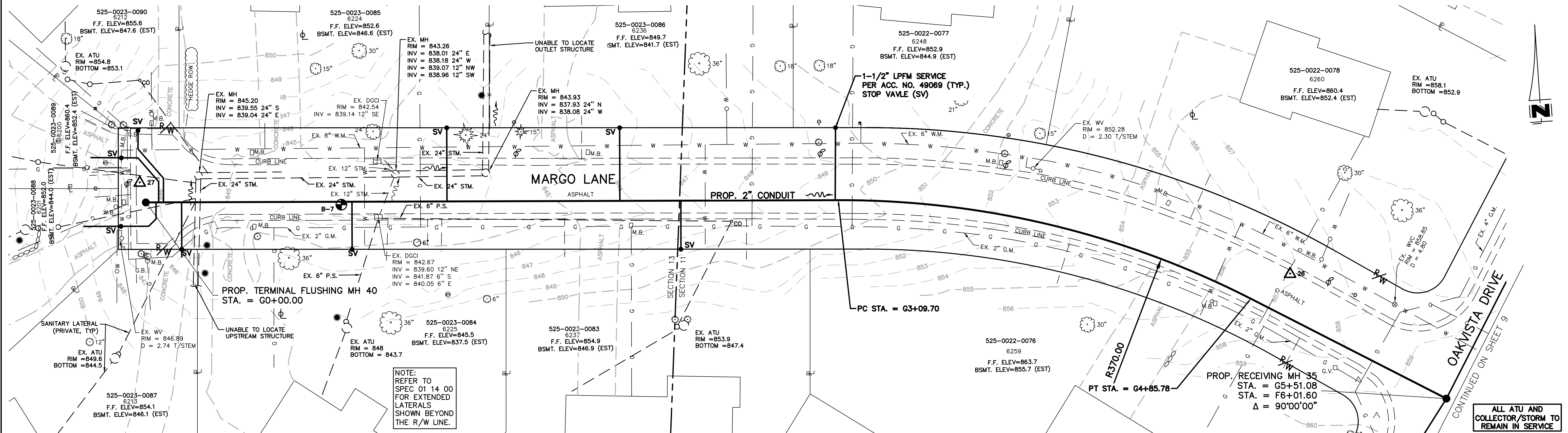
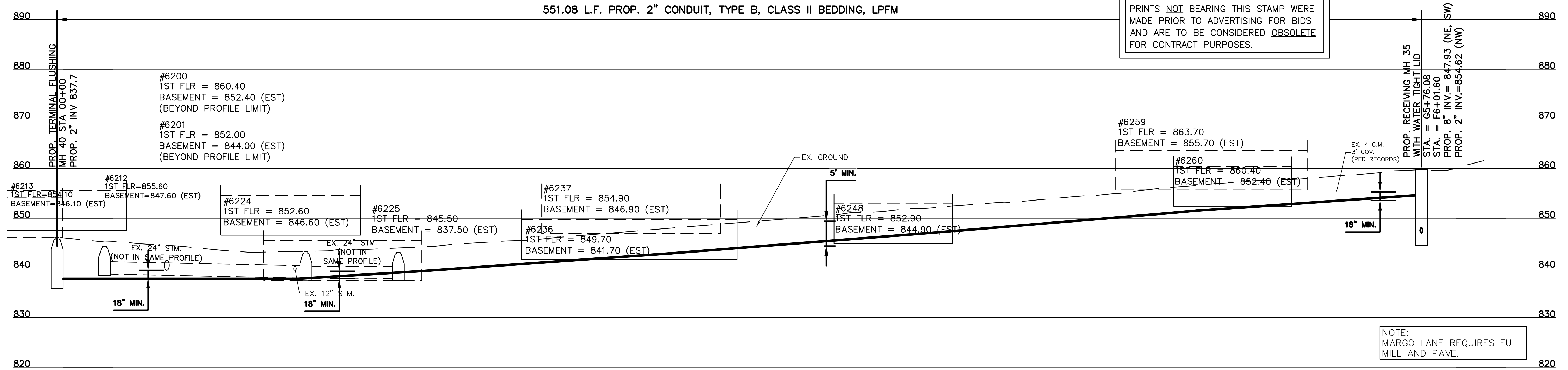


PLAN AND PROFILE

SHEET26 OF 34

SS# 5933

PRINTS NOT BEARING THIS STAMP WERE
MADE PRIOR TO ADVERTISING FOR BIDS
AND ARE TO BE CONSIDERED OBSOLETE
FOR CONTRACT PURPOSES.



DESIGNED BY: GEW DRAWN BY: GAU	REVISIONS		
	BY:	DATE:	DESCRIPTION:



THE METROPOLITAN SEWER DISTRICT
OF GREATER CINCINNATI
HAMILTON COUNTY, OHIO



FROM THE INT. OF KENWOOD HILLS DR. AND KENWOOD HILLS TO THE CABANA CLUB DR. FROM
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COACHLITE

SCALE: HORIZ. 1"=20'
VERT. 1"=10'



PLAN AND PROFILE

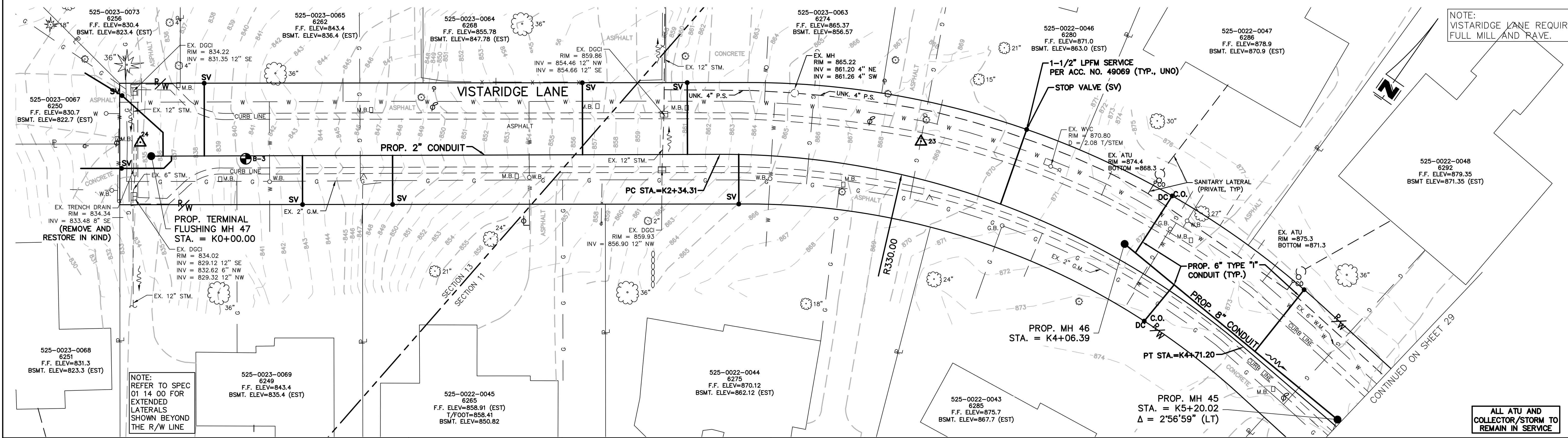
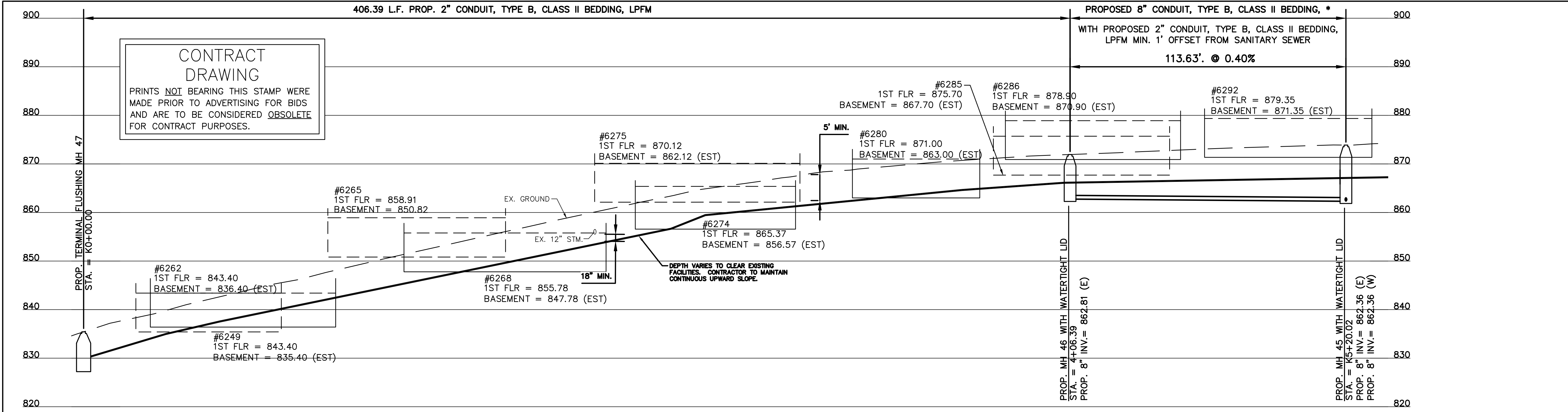
ACC. NO. 78254

SHEET27 OF 34

SS# 5933

ACAD DRAWING NAME: RA CONSULTANTS KENWOOD.DWG

PATH: N:\OBS\2018\18926 - KENWOOD HILLS LOCAL SEWER\WATER_WASTEWATER\600 CAD\BASE\RA CONSULTANTS KENWOOD.DWG
 DATE: Mar 19, 2025 - 12:21 PM
 PLOTTED BY: AFREND



DESIGNED BY: GEW		REVISIONS			THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI HAMILTON COUNTY, OHIO		PROPOSED PROJECT NO. 10370025 FROM THE INT. OF KENWOOD HILLS DR. AND KENWOOD HILLS TO THE CABANA CLUB DR. FROM THE CUL-DE-SAC OF MAPLE RIDGE DR AND VISTA RIDGE DR TO THE CABANA CLUB DR ALONG COACHLITE	VISTA RIDGE LANE PLAN AND PROFILE	ACC. NO. 78255	SHEET 28 OF 34	SS# 5933
BY:	DATE:	DESCRIPTION:									
DRAWN BY: GAU											

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SCALE: HORIZ. 1"=20'
VERT. 1"=10'

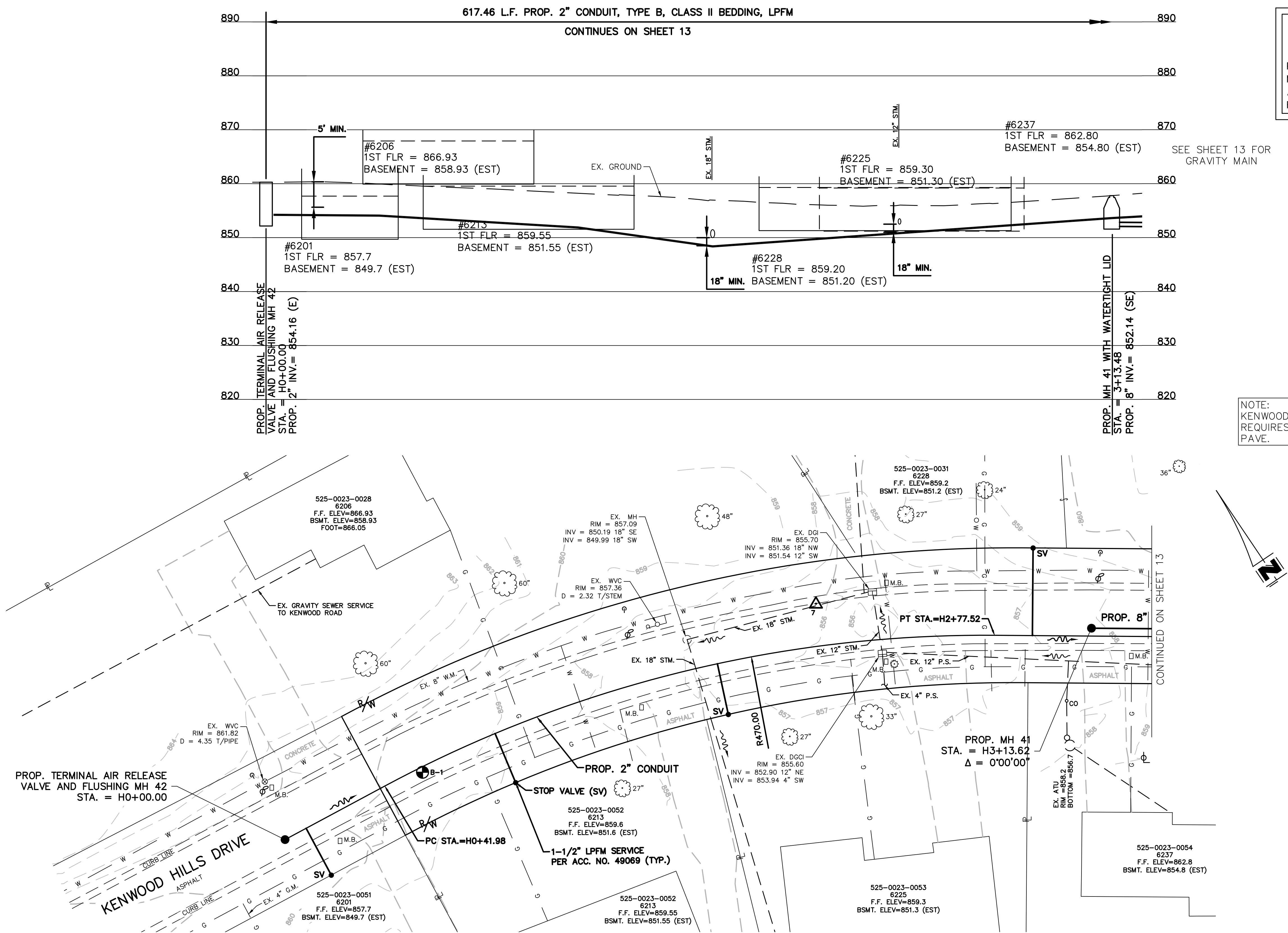
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CONTRACT
DRAWING

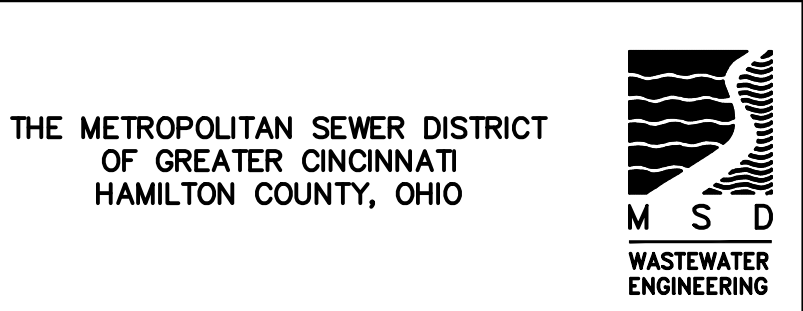
PRINTS NOT BEARING THIS STAMP WERE
MADE PRIOR TO ADVERTISING FOR BIDS
AND ARE TO BE CONSIDERED OBSOLETE
FOR CONTRACT PURPOSES.

SEE SHEET 13 FOR
GRAVITY MAIN

NOTE:
KENWOOD HILLS DRIVE
REQUIRES FULL MILL AND
PAVE.



REVISIONS			
DESIGNED BY:	BY:	DATE:	DESCRIPTION:
GEW			
DRAWN BY:	GAU		



PROPOSED PROJECT NO. 10370025

FROM THE INT. OF KENWOOD HILLS DR. AND KENWOOD HILLS TO THE CABANA CLUB DR. FROM
THE CUL-DE-SAC OF MAPLE RIDGE DR AND VISTA RIDGE DR TO THE CABANA CLUB DR ALONG
COACHLITE

SCALE: HORIZ. 1"=20'
VERT. 1"=10'

KENWOOD HILLS DRIVE

PLAN AND PROFILE

ACC. NO. 78257

SHEET 30 OF 34

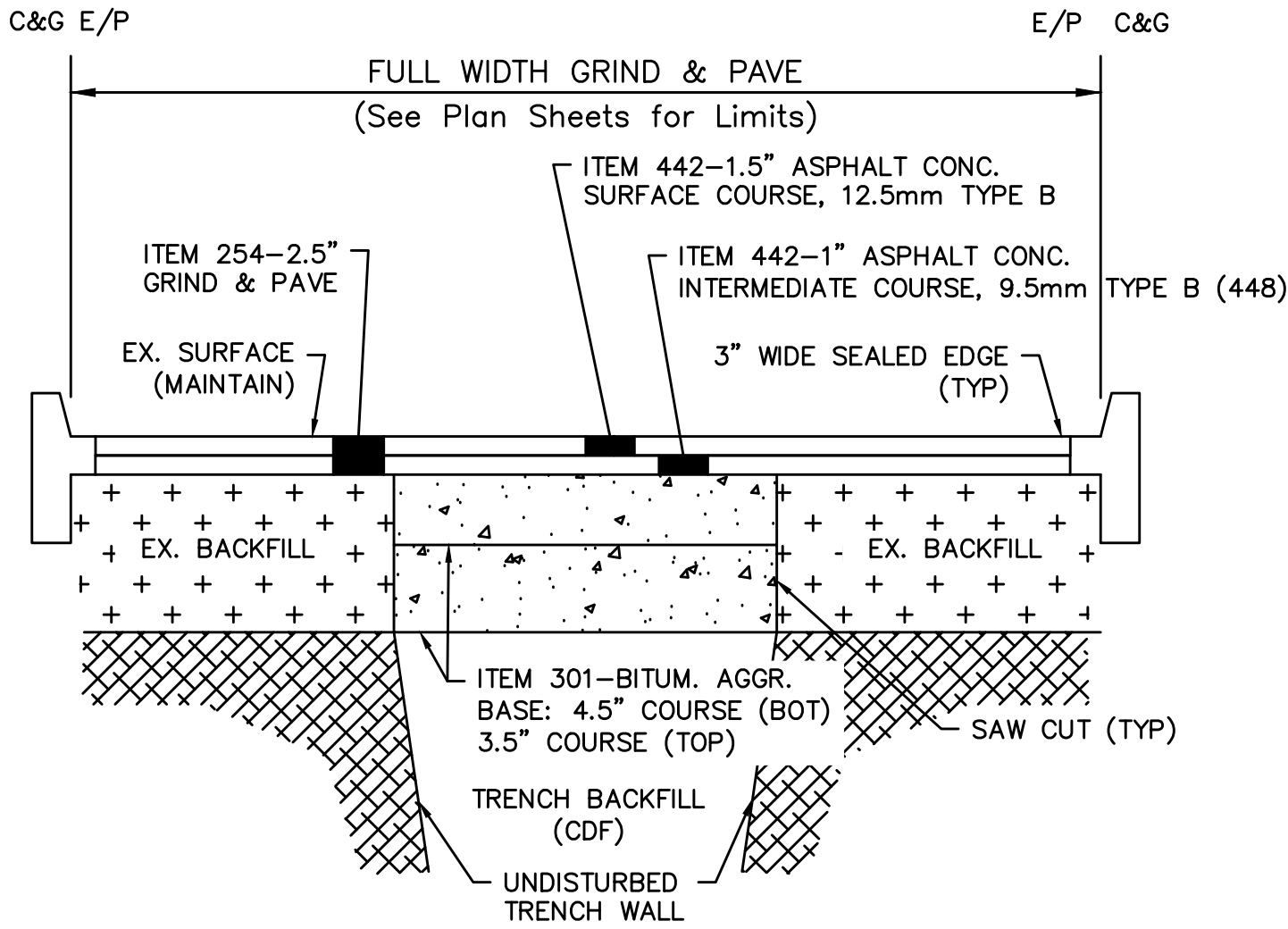
SS# 5933

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S# 5933

PATH: N:\J085\2018\18026 - KENWOOD HILLS LOCAL SEWER\WATER_WASTEWATER\600 CAD\BASE\RA CONSULTANTS KENWOOD.DWG
DATE: Mar 19, 2025 - 12:22 PM
PLOTTED BY: AREND



HCEO ROADWAY NOTES:

- SAW CUT FULL DEPTH PAVEMENT WITH WET DIAMOND BLADE SAW. VERMEER WILL NOT BE PERMITTED.
- VERTICAL FACE OF EXISTING PAVEMENT SHALL BE CLEANED BY COMPRESSED AIR AND WETTED PRIOR TO PLACING CONCRETE.
- PLACE AND COMPACT ASPHALT CONCRETE SURFACE COURSE IN ACCORDANCE WITH ODOT CMS ITEM 401.
- ITEM 702.04-EDGES OF NEW ASPHALT SURFACE COURSE SHALL BE SEALED WITH A UNIFORM 3" WIDTH OF HOT APPLIED ASPHALT BINDER.
- IF THE PROPOSED PAVEMENT WIDTH IS GREATER THAN 3'-0", THE CONTRACTOR HAS THE OPTION TO USE ODOT CMS ITEM 301-ASPHALT CONCRETE BASE.
 - ASPHALT CONCRETE BASE MUST BE PLACED AND COMPACTED IN TWO EQUAL LIFTS, THE TOTAL THICKNESS OF ASPHALT BASE SHALL BE 8".
 - PRIOR TO PLACING THE ASPHALT BASE, ALL VERTICAL SURFACE SHALL BE CLEANED AND COATED WITH BITUMINOUS MATERIAL IN ACCORDANCE WITH ODOT 407.02.
- BUTT JOINTS ARE NECESSARY AT INTERSECTING STREETS.
- ALL CASTING ADJUSTMENTS, REMOVAL OF PAVEMENT MARKERS, AND THE INSTALLATION OF NEW LINE STRIPING AND MARKERS SHALL BE INCLUDED.
- ALL NECESSARY DRIVEWAY ADJUSTMENTS AND SEALING SHALL ALSO BE INCLUDED. THERE WILL BE NO ADDITIONAL COMPENSATION FOR PAVING WORK; ALL COST ASSOCIATED WITH PAVING AND DRIVEWAYS SHOULD BE INCLUDED IN THE BID PRICE UNDER INSTALLATION OF 8" SEWER CONDUIT.

HCEO DRIVEWAY NOTES:

- REGULATED HAMILTON COUNTY ENGINEERS OFFICE DETAILS (SEE HCEO "DRIVEWAY RULES AND REGULATIONS" MANUAL (http://www.hamilton-co.org/engineer/permits_manuals.htm))
- PLATE 13 - TEMPORARY PAVEMENT RESTORATION
 - PLATE 15 - TYPICAL RESTORATION SECTIONS
 - PLATE 30 - TRENCH PLATES

PIPE ALTERNATES
(SEE PROFILE VIEW CONDUIT LABELS)

*	- PVC SDR 35 (ASTM D3034) w/ FLEXIBLE ELASTOMERIC SEALS (ASTM D3212) - DUCTILE IRON PIPE (ASTM A746) w/ PUSH-ON JOINTS (AWWA C111)
LPFM (INSTALLED PER ASTM D3211)	HDPE DR11 (ASTM D3035) IPS w/ BUTT FUSION JOINTS (ASTM F1055) AND MOLDED FITTINGS (ASTM 3261)
	PVC SDR 21 PIPE AND FITTINGS (ASTM D2241) w/ FLEXIBLE ELASTOMERIC SEALS (ASTM D3139); ALL FITTINGS SHALL BE RESTRAINED AND CONFORM TO THE REQUIREMENTS OF SDR21

UTILITY CONTACT INFORMATION

ELECTRIC:	DUKE ENERGY 139 EAST FOURTH STREET, ROOM 467A CINCINNATI, OHIO 45202 MR. CONAN GIBSON (513) 287-4653 conan.gibson@duke-energy.com	SANITARY:	METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI 1600 GEST STREET CINCINNATI, OHIO 45204 MR. DANIEL ANDERSON (513) 582-0475 daniel.anderson@cincinnati-oh.gov
	GAS:		GREATER CINCINNATI WATER WORKS 4747 SPRING GROVE AVENUE CINCINNATI, OHIO 45232 MR. RICK RIESS (513) 591-5058 rick.riess@gcww.cincinnati-oh.gov
TELEPHONE:	DUKE ENERGY 139 EAST FOURTH STREET, ROOM 406A CINCINNATI, OHIO 45202 MR. RICHARD HACKER (513) 287-4653 richard.hacker@duke-energy.com	CABLE:	SPECTRUM/TIME WARNER CABLE 11252 CORNELL PARK DRIVE CINCINNATI, OHIO 45242 MR. JIM O'REILLY (513) 386-5483 Jim.O'Reilly@charter.com
	ALTA FIBER 221 EAST FOURTH STREET, BLDG. 121-900 P.O. BOX 2301 CINCINNATI, OHIO 45201-2301 MR. BRECK COWEN (513) 565-7187 breck.cowen@altafiber.com		

DUKE ENERGY NOTES TO CONTRACTOR:

CONTRACTOR SHALL CONTACT THE COMPANY PRIOR TO EXCAVATION IN THE VICINITY OF ELECTRIC UNDERGROUND FACILITIES OR WHEN WORKING IN CLOSE PROXIMITY OF OVERHEAD ELECTRIC FACILITIES.

- FOR FIELD INSPECTOR TO LOCATE UNDERGROUND ELECTRIC LINES: IN OHIO, CALL "OHIO UTILITIES PROTECTION SERVICE", 1-800-362-2764; IN KENTUCKY, CALL "KENTUCKY DIG SAFELY", 1-800-752-6007. THESE CALLS SHOULD BE MADE AT LEAST 48 HOURS IN ADVANCE, EXCLUDING SATURDAYS, SUNDAYS, AND STATE LEGAL HOLIDAYS.
- FOR NOTIFICATION OF CONSTRUCTION ACTIVITY NEAR ENERGIZED ELECTRIC FACILITIES OR NEEDING A POLE SUPPORTED, CALL (513) 421-9500. WITHIN 2 DAYS A REPRESENTATIVE FROM OUR CONSTRUCTION DIVISION WILL CONTACT THE CUSTOMER AND VERIFY THE LOCATION AND CONDITIONS OF THE JOB SITE. AFTER THIS CONTACT HAS BEEN MADE, A LINE CREW WILL BE OUT TO COVER UP ELECTRIC LINES OR HOLD THE POLE WITHIN 2 TO 3 DAYS.
- FOR ADDITIONAL UNDERGROUND ELECTRIC RECORD INFORMATION CALL (513) 287-2454.
- FOR ELECTRIC ENGINEERING NOTIFICATION, AGREEMENTS AND CORRESPONDENCE, ADDRESS TO: MR. TOM BIRKENHAUER, DUKE ENERGY CORPORATION, DISTRIBUTION DESIGN ENGINEERING, ROOM 467A, 139 E. FOURTH STREET, P.O. BOX 960 CINCINNATI, OHIO 45202-0960

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO ELECTRIC FACILITIES DURING CONSTRUCTION.

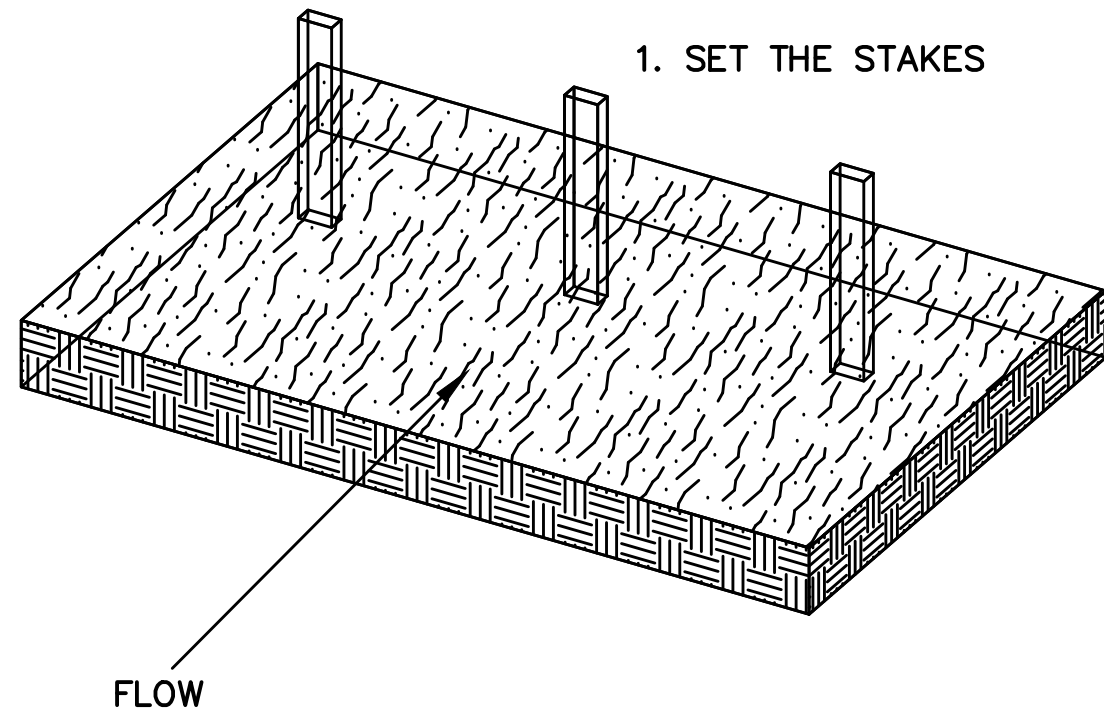
ELECTRIC FACILITIES TO BE KEPT IN SERVICE AT ALL TIMES.

CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORTING EXISTING ELECTRIC FACILITIES AFFECTED BY THE PROPOSED CONSTRUCTION

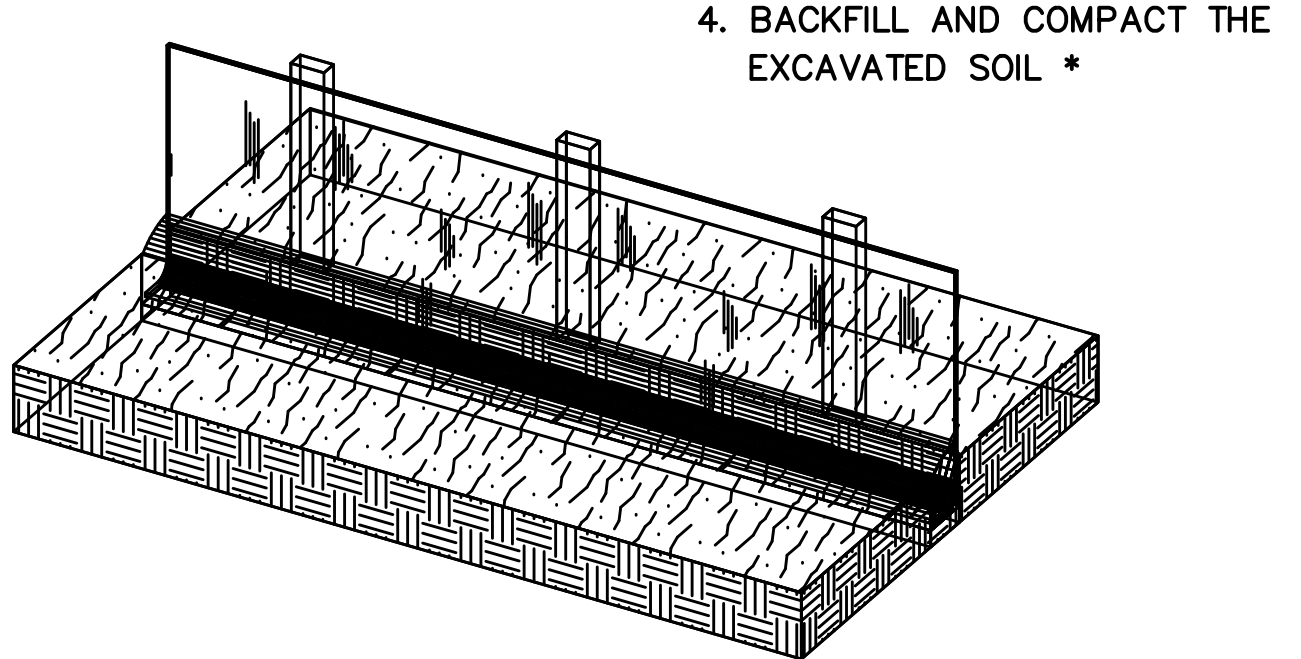
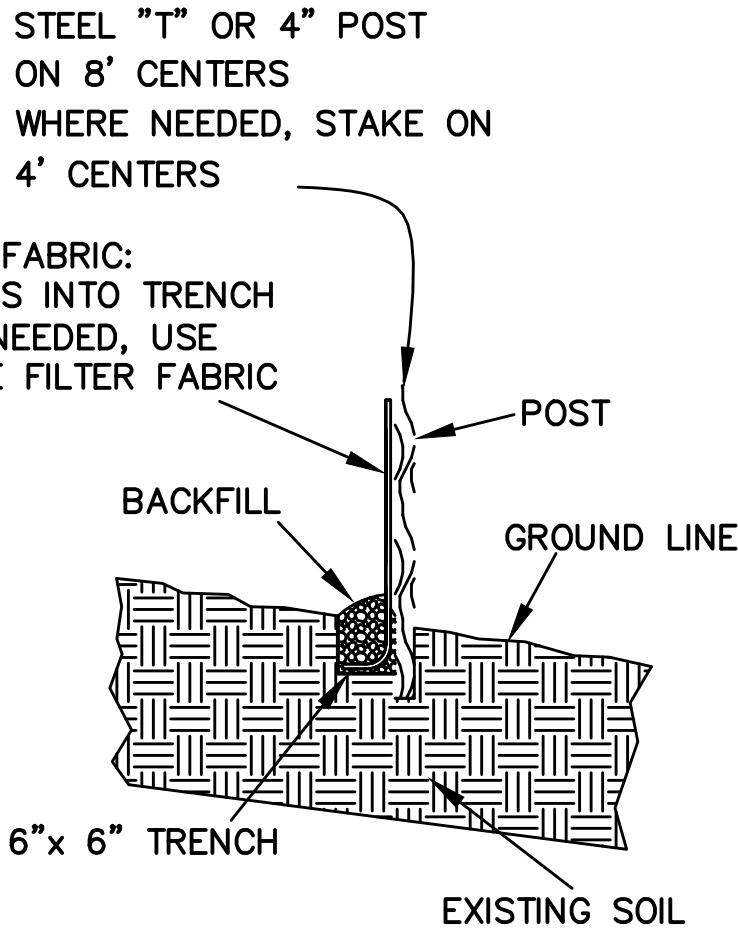
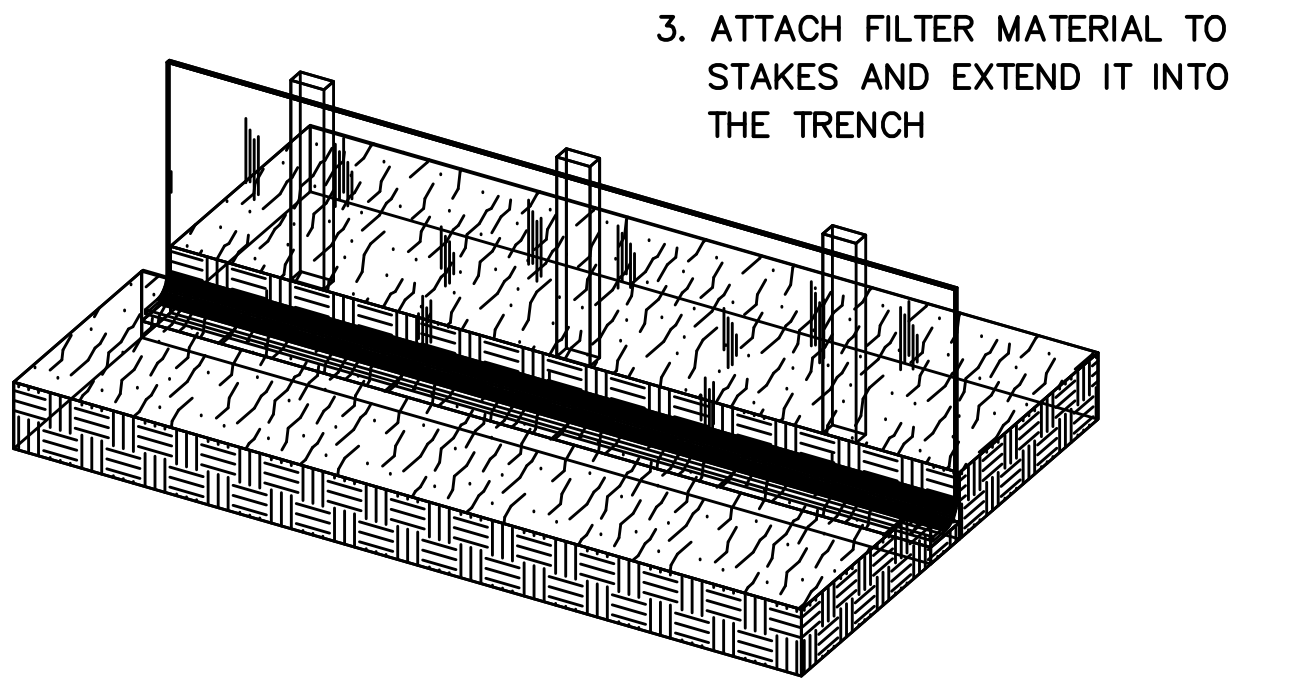
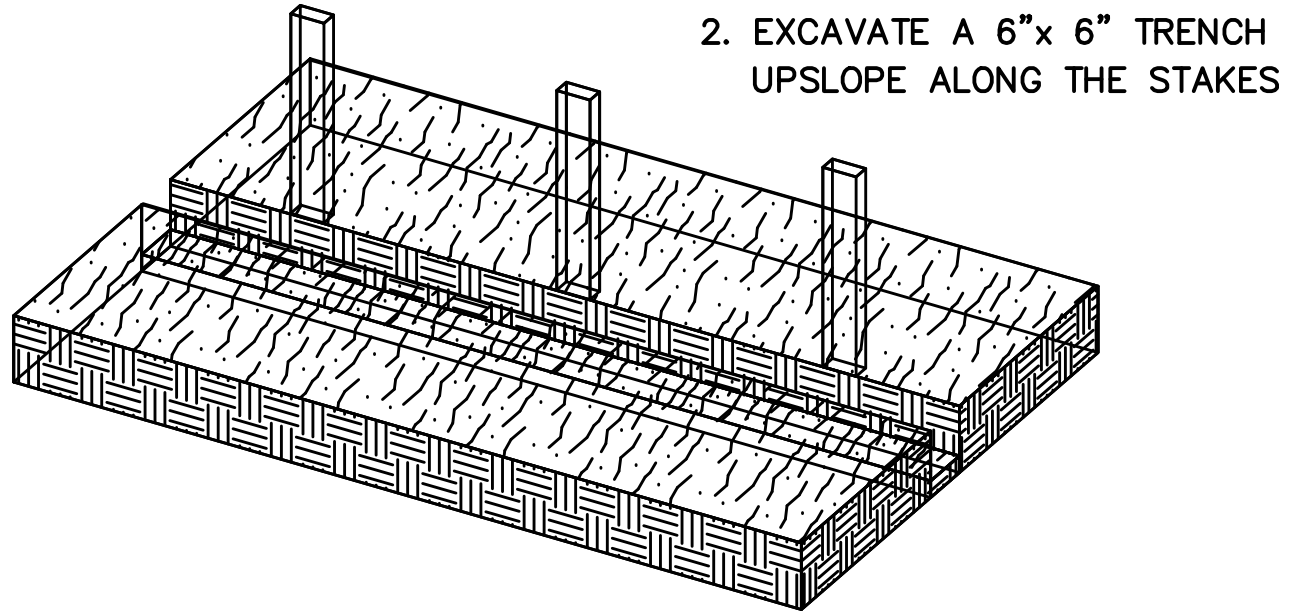
- WHERE HIGH PRESSURE OIL FILLED PIPE TYPE CABLE INSTALLATION ARE EXPOSED OR OTHERWISE INTERFERED WITH BY THE CONTRACTOR, PROTECTION BY THE CONTRACTOR WILL BE REQUIRED AGAINST DAMAGE TO THE COATING OR SURROUNDING THERMAL SAND ENVELOPE.
- WHERE CONCRETE ENCASED CONDUIT SYSTEMS OR DIRECT BURIED CABLE SYSTEMS ARE EXPOSED OR OTHERWISE INTERFERED WITH, THE CONTRACTOR SHALL PROTECT THE SYSTEM AS NECESSARY AGAINST DAMAGE. AS SOON AS FEASIBLE, THE CONTRACTOR SHALL TAKE ADDITIONAL APPROPRIATE STEPS TO PROVIDE PERMANENT MEASURES TO RESTORE SUPPORT. THE METHODS USED SHALL BE BASED ON CONDITIONS TO BE DETERMINED BY THE UTILITY.
- WHERE POLES OR ANCHORS THAT SUPPORT OVERHEAD ELECTRIC FACILITIES ARE EXPOSED OR OTHERWISE INTERFERED WITH, THE CONTRACTOR SHALL PROTECT THEM FROM DAMAGE AND PROVIDE TEMPORARY SUPPORT TO INSURE THE INTEGRITY OF THE SYSTEM. AS SOON AS FEASIBLE, THE CONTRACTOR SHALL TAKE ADDITIONAL APPROPRIATE STEPS TO PROVIDE PERMANENT MEASURES TO RESTORE SUPPORT. THE METHODS USED SHALL BE BASED ON CONDITIONS TO BE DETERMINED BY THE UTILITY.
- WHERE THE DEPTH OF EXCAVATION FOR THE PROPOSED WORK IS GREATER THAN FIVE (5) FEET, THE CONTRACTOR SHALL SHEET AND SHORE THE TRENCH TO CONTINUOUSLY MAINTAIN THE SUPPORT OF ELECTRIC FACILITIES AT LOCATIONS WHERE THE ELECTRIC FACILITIES ARE WITHIN THE ZONE OF INFLUENCE ADJACENT TO THE EXCAVATION AS DETERMINED BY THE NATURAL ANGLE OF RESPONSE OF THE SOIL.
- ALL DAMAGE TO ELECTRIC FACILITIES AND SERVICE REQUIRING ADJUSTMENTS, RELOCATION AND/OR REPAIRS WILL BE MADE AT THE CONTRACTOR'S COST.

CONTRACTOR SHALL NOT BACKFILL EXPOSED ELECTRIC FACILITIES UNTIL THE COMPANY HAS INSPECTED ITS FACILITY OR PERFORMED ANY ADJUSTMENTS AND/OR MAINTENANCE THAT MAY BE REQUIRED.

SHOULD CONTRACTOR DAMAGE ELECTRIC FACILITIES, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DUKE ENERGY CALL CENTER AT (513) 421-9500. CONTRACTOR SHALL KEEP EVERYONE CLEAR OF DAMAGED ELECTRIC FACILITIES UNTIL COMPANY PERSONNEL ARRIVE AT THE WORK SITE.



CONTRACT
DRAWING
PRINTS NOT BEARING THIS STAMP WERE
MADE PRIOR TO ADVERTISING FOR BIDS
AND ARE TO BE CONSIDERED OBSOLETE
FOR CONTRACT PURPOSES.



REINFORCED SILT FENCE INSTALLATION DETAIL
NOT TO SCALE

DESIGNED BY: GEW DRAWN BY: GAU	REVISIONS			DESCRIPTION:
	BY:	DATE:		



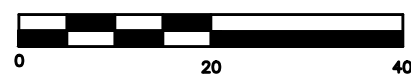
THE METROPOLITAN SEWER DISTRICT
OF GREATER CINCINNATI
HAMILTON COUNTY, OHIO



PROPOSED PROJECT NO. 10370025

FROM THE INT. OF KENWOOD HILLS DR. AND KENWOOD HILLS TO THE CABANA CLUB DR. FROM THE CUL-DE-SAC OF MAPLE RIDGE DR AND VISTA RIDGE DR TO THE CABANA CLUB DR ALONG COACHLITE

SCALE: HORIZ. 1"=20'
VERT. 1"=10'



NOTES & DETAILS

PLAN

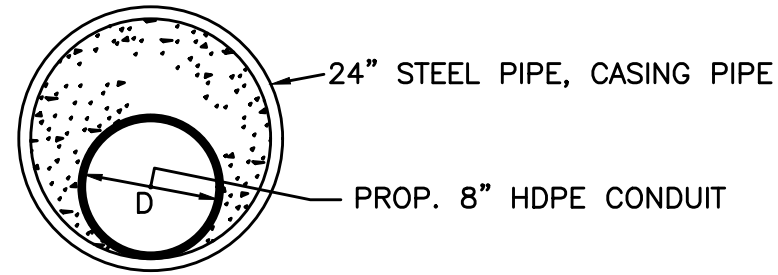
ACC. NO. 78259

SHEET 32 OF 34

SS# 5933

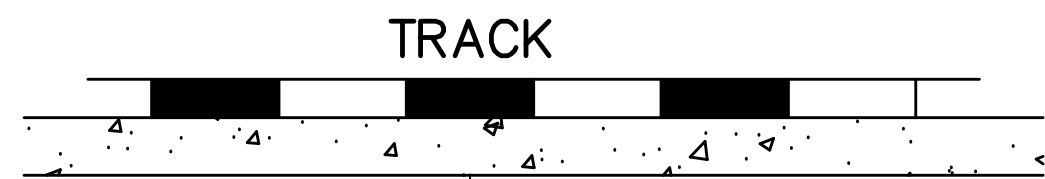
FILL WITH A LEAN (1 TO 8) MIXTURE OF CEMENT AND SAND OR CEMENT, SAND AND PEA GRAVEL RAMMED OR BLOWN INTO PLACE DRY. SOME POSITIVE MEANS TO ASSURE THAT THE SPACE IS COMPLETELY FILLED, FREE OF ANY VOIDS, SHALL BE USED.

PROP. CONDUIT SIZE "D"	MINIMUM STEEL CASING WALL THICKNESS
8"	0.375"



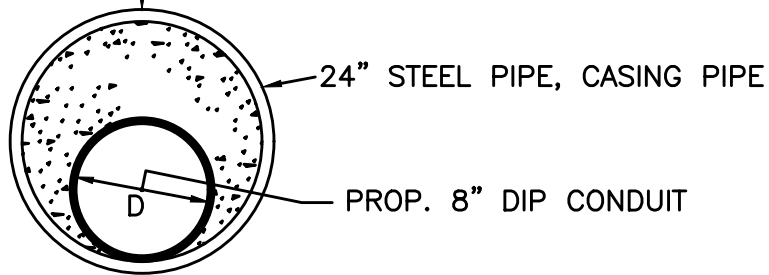
NO SCALE

JACK AND BORE INSTALLATION OF HDPE PIPE DETAIL, BETWEEN COACHLITE WAY AND CABANA CLUB
NOT TO SCALE

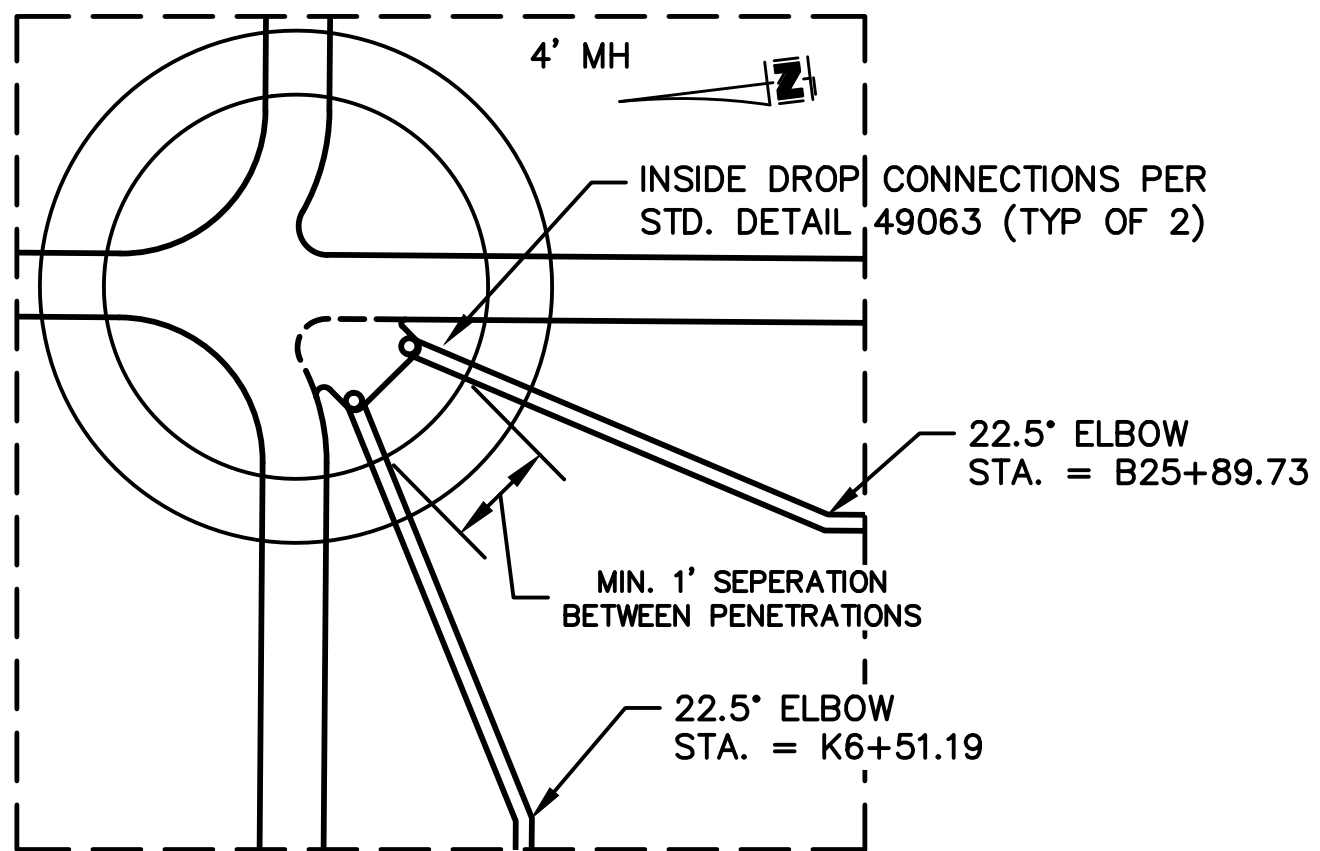


FILL WITH A LEAN (1 TO 8) MIXTURE OF CEMENT AND SAND OR CEMENT, SAND AND PEA GRAVEL RAMMED OR BLOWN INTO PLACE DRY. SOME POSITIVE MEANS TO ASSURE THAT THE SPACE IS COMPLETELY FILLED, FREE OF ANY VOIDS, SHALL BE USED.

PROP. CONDUIT SIZE "D"	MINIMUM STEEL CASING WALL THICKNESS
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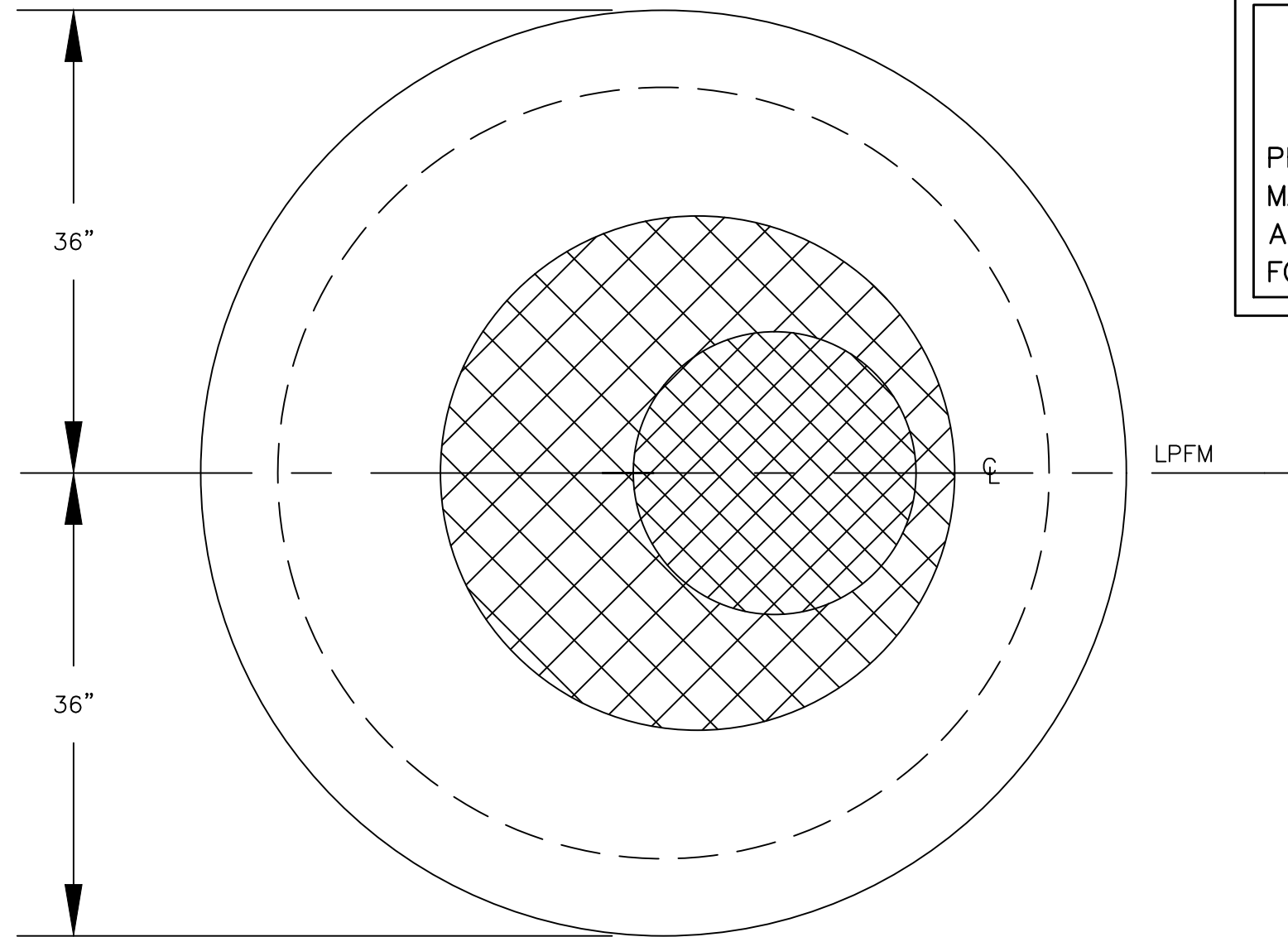
PROPOSED JACK AND BORE INSTALLATION OF DIP PIPE DETAIL RAILROAD SECTION
NOT TO SCALE



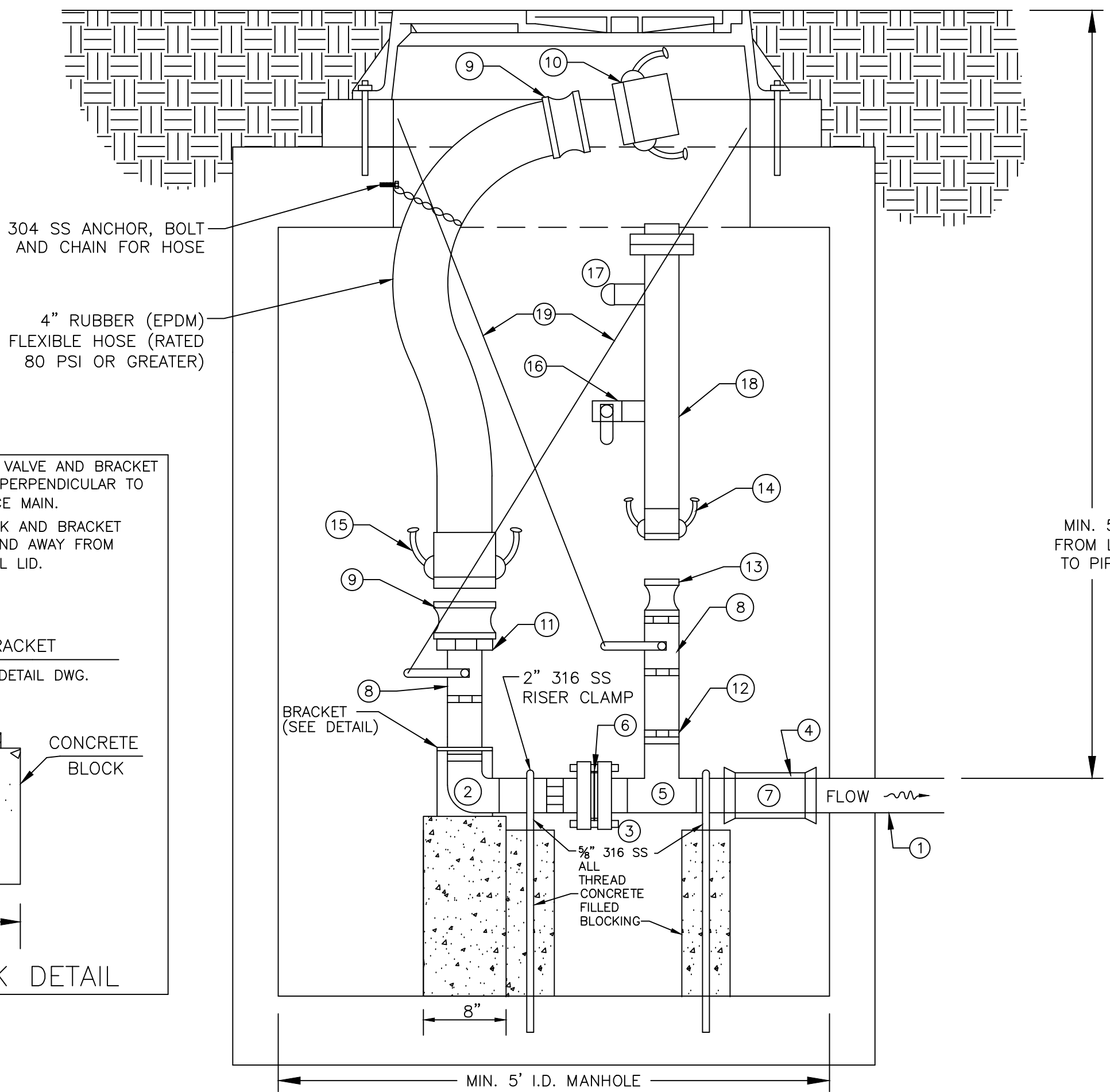
PROP. MH 23 DETAIL PLAN
SCALE: 1"=2'
SEE SHEET 25

MATERIAL LIST - ALL MATERIAL TO BE 316 STAINLESS STEEL

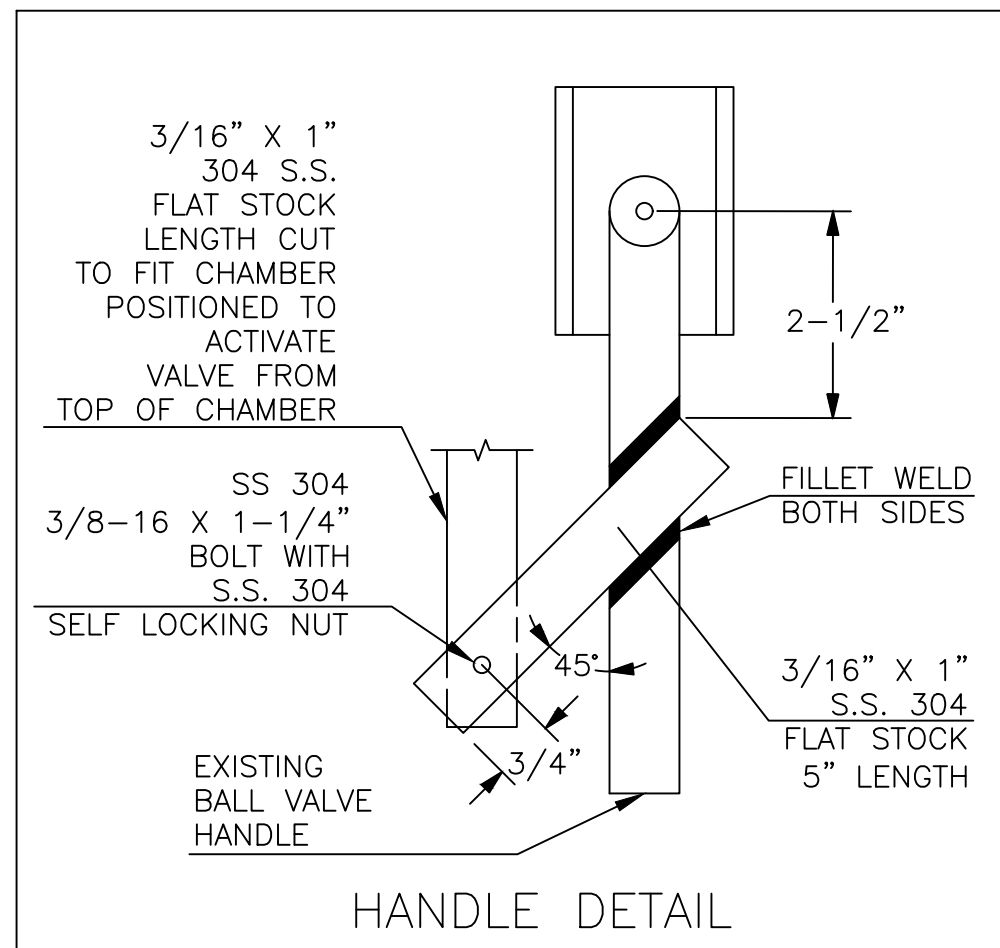
- 2" SCHEDULE 40 PVC SOCKET FEMALE ADAPTER OR HDPE EQUIVALENT
- 2" 90° ELBOW
- FLANGES WITH HEX HEAD CAP SCREW 5/8" x 3-1/2"
18-8 SS WITH 18-8 WASHER AND 18-8 5/8"-11 NYLOCK NUT
- 2" THREADED PIPE CUT TO LENGTH
- 2"x2"x2" TEE
- 1/8" RUBBER GASKET
- ROMAC MODEL #511 EPOXY COATED WITH SS HARDWARE
- 2" FULL PORT BALL VALVE
- 4" MALE CAMLOCK
- 4" DUST CAP
- 2"x4" REDUCER
- 2" NIPPLE
- 2" MALE CAMLOCK
- 2" FEMALE CAMLOCK WITH HITCH PINS INSTALLED IN LOCK POSITION
- 4" FEMALE CAMLOCK WITH HITCH PINS INSTALLED IN LOCK POSITION
- 1" FULL PORT BALL VALVE
- 1" PIPE CAP
- VENT-TECH OR VENT-O-MAT AIR RELEASE VALVE
- VALVE ACTIVATION HANDLES (SEE DETAIL)



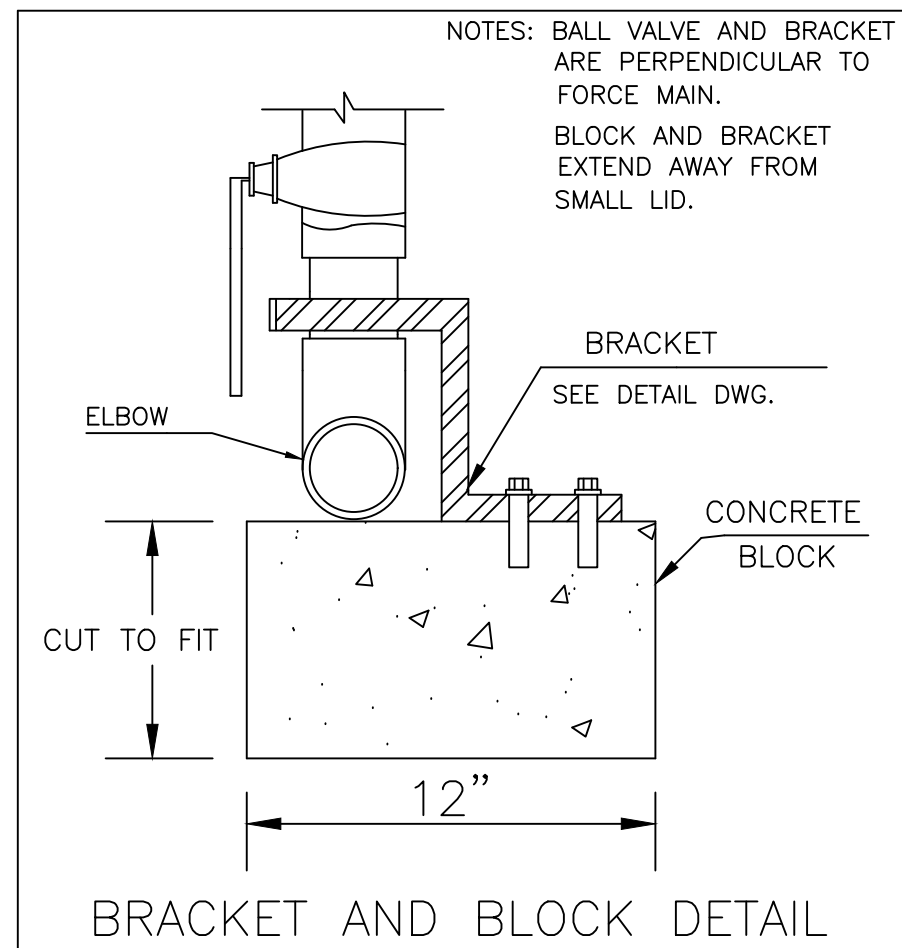
CONTRACT DRAWING
PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.



2 INCH TERMINAL AIR RELEASE VALVE (ARV) AND FLUSHING MANHOLE
NOT TO SCALE

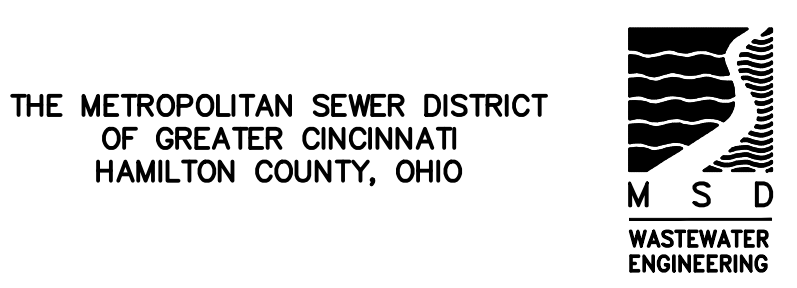


HANDLE DETAIL



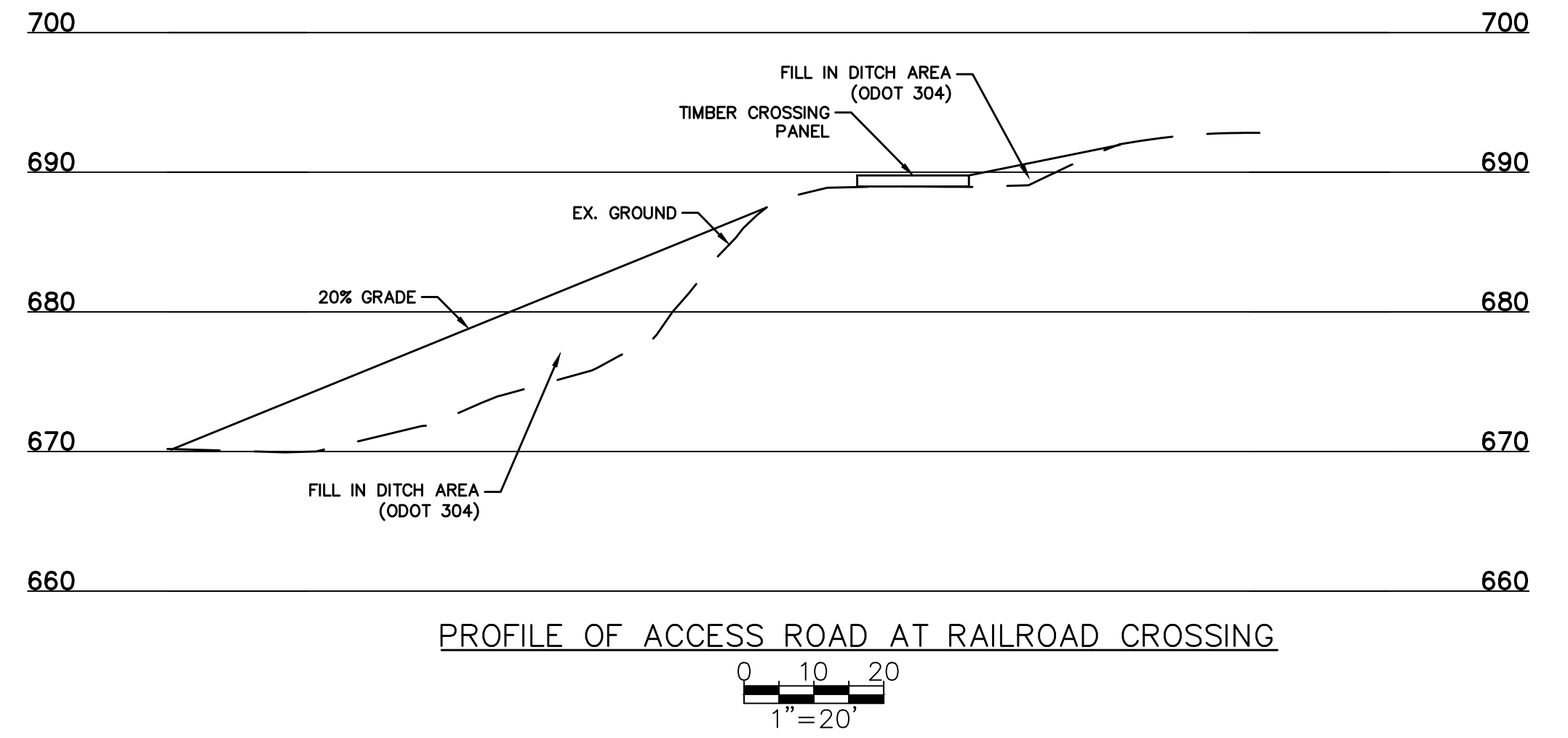
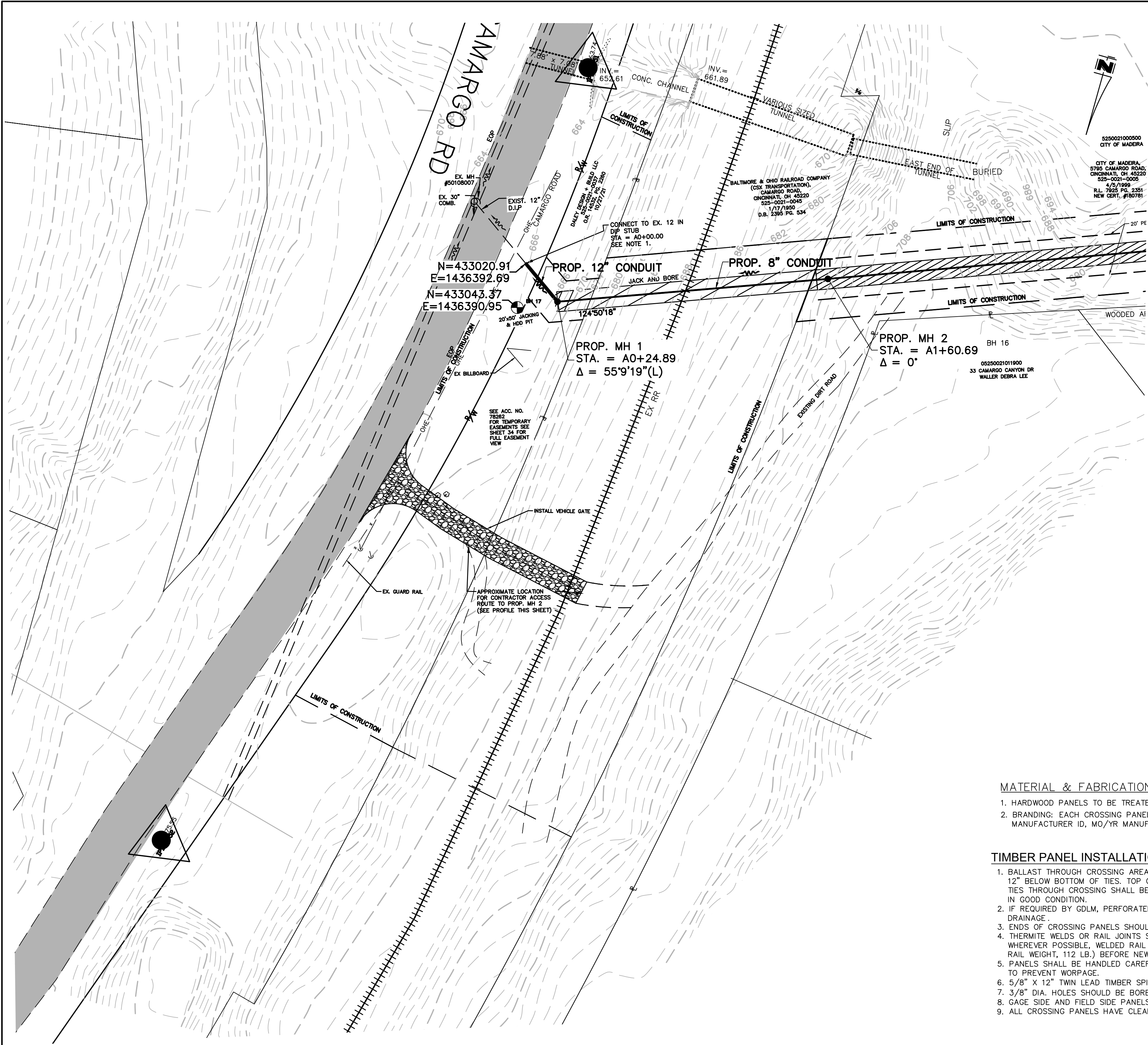
BRACKET AND BLOCK DETAIL

DESIGNED BY: GEW	BY:	DATE:	REVISIONS	DESCRIPTION:
DRAWN BY: GAU				



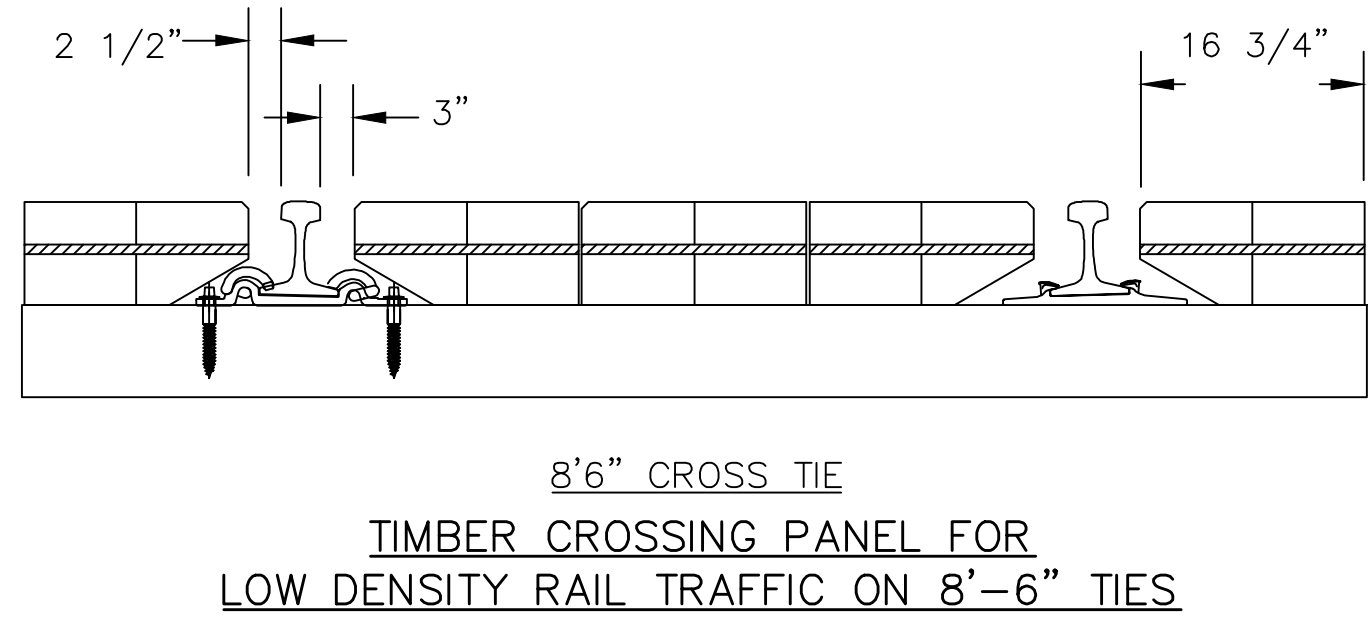
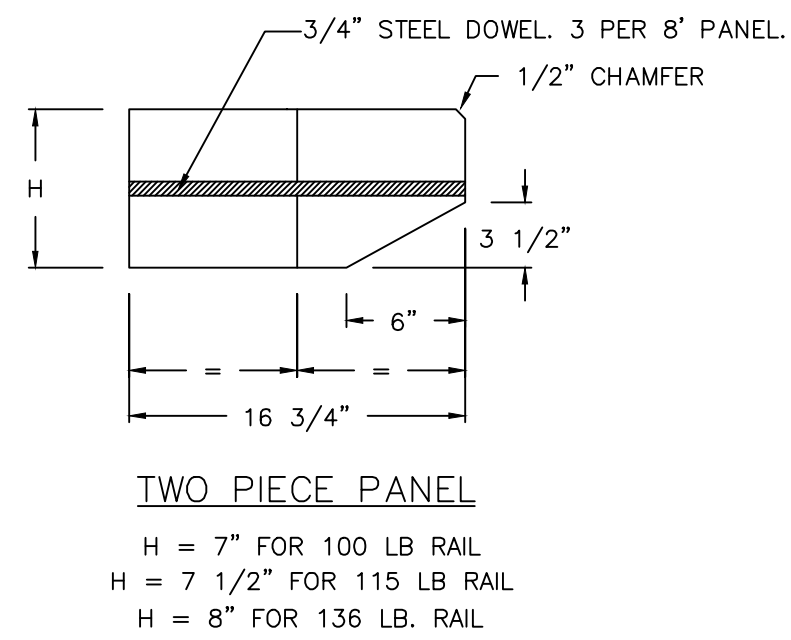
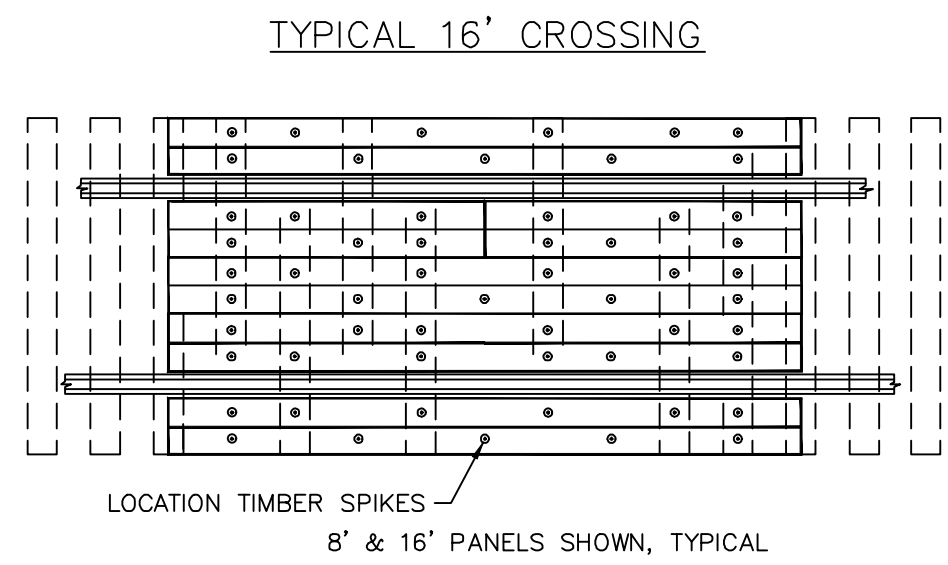
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SCALE: HORIZ. 1"=20'
VERT. 1"=10'

NOTES & DETAILS
PLAN



CONTRACT
DRAWING

PRINTS NOT BEARING THIS STAMP WERE
MADE PRIOR TO ADVERTISING FOR BIDS
AND ARE TO BE CONSIDERED OBSELETE
FOR CONTRACT PURPOSES.



MATERIAL & FABRICATION

1. HARDWOOD PANELS TO BE TREATED MIXED HARDWOOD, FREE OF WANE.
2. BRANDING: EACH CROSSING PANEL SHALL BE IDENTIFIED ON THE END WITH MANUFACTURER ID, MO/YR MANUFACTURED, WEIGHT RAIL.

TIMBER PANEL INSTALLATION

1. BALLAST THROUGH CROSSING AREA SHALL BE CLEAN CRUSHED ROCK BALLAST, 12" BELOW BOTTOM OF TIES. TOP OF BALLAST TO BE 2" BELOW TOP OF TIES. TIES THROUGH CROSSING SHALL BE NO. 5 TREATED HARDWOOD 19 3/16" ON CENTERS, IN GOOD CONDITION.
2. IF REQUIRED BY GDLM, PERFORATED DRAINAGE PIPE RECOMMENDED FOR PROPER DRAINAGE.
3. ENDS OF CROSSING PANELS SHOULD BE CENTERED ON TIE.
4. THERMITE WELDS OR RAIL JOINTS SHOULD BE LOCATED OUTSIDE THE CROSSING. WHEREVER POSSIBLE, WELDED RAIL SHOULD BE RELAYED THROUGH CROSSING (MINIMUM RAIL WEIGHT, 112 LB.) BEFORE NEW TIES AND CROSSING PANELS ARE INSTALLED.
5. PANELS SHALL BE HANDLED CAREFULLY, SLATTED AND STACKED ON LEVEL GROUND TO PREVENT WORKPAGE.
6. 5/8" X 12" TWIN LEAD TIMBER SPIKES FURNISHED SEPARATELY.
7. 3/8" DIA. HOLES SHOULD BE BORED IN FIELD, TO PATTERN SHOWN.
8. GAGE SIDE AND FIELD SIDE PANELS ARE INTERCHANGEABLE.
9. ALL CROSSING PANELS HAVE CLEARANCE FOR PANDROL PLATES AND CLIPS.

DESIGNED BY: GEW	REVISIONS			
	BY:	DATE:	DESCRIPTION:	
DRAWN BY: GAU				



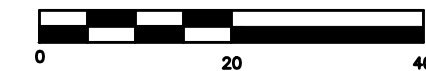
THE METROPOLITAN SEWER DISTRICT
OF GREATER CINCINNATI
HAMILTON COUNTY, OHIO



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THE CUL-DE-SAC OF MAPLE RIDGE DR AND VISTA RIDGE DR TO THE CABANA CLUB DR ALONG
COACHLITE

SCALE HORIZ. 1"=30'



RAILROAD ESMT

PLAN AND PROFILE

ACC. NO. 78261

SHEET 34 OF 34

SS# 5933

ACAD DRAWING NAME: KENWOOD HILLS BASEMAP.DWG

FOR EASEMENT DRAWING SEE ACC. NO. 78262

PATH: N:\0085\2018\18926 - KENWOOD HILLS LOCAL SEWER WATER\600 CAD\SSM\BASE\KENWOOD HILLS BASEMAP.DWG
DATE: Mar 19, 2025 - 12:22 PM
PLOTTED BY: AREND