

GENERAL NOTES

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The Contractor shall cooperate with the Delaware County Sanitary Engineer and shall provide all necessary equipment to perform all testing.

All sanitary sewer lines installed on this project using PVC pipe will be subject to deflection testing by pulling an approved Mandrel. Acceptable deflection versus time criteria are located in Section 5.5 of the Delaware County Standard Plans and Specifications for Construction of Sanitary Facilities.

Sewer trenches shall be de-watered to 2" below bell of pipe prior to installation of pipe.

Any field tile disturbed during construction shall be replaced as directed by the County, with ABS pipe spanning the trench. The trench shall be filled with compacted granular material.

Roof drains, foundation drains and other clean water connections to the Sanitary Sewer are prohibited on this project.

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All Sewer lines will be subject to deflection testing by pulling an approved Mandrel equal in diameter to 95% of the pipe after pipe is backfilled and a sufficient amount of the time is allowed for weight transfer of the backfill to the pipe and bedding.

The Contractor and Sub-Contractor shall be solely responsible for complying with all Federal, State and Local Safety Requirements, together with exercising precautions at all times for the protection of persons (including employees) and property. It is also the sole responsibility of the Contractor and Sub-Contractor to initiate, maintain and supervise all safety requirements, precautions and programs in connection with the work.

The Contractor shall provide and install wye poles at all wye locations as constructed. Wye pole shall extend above existing or proposed grade whichever is higher a minimum of 2'-0".

6" Service Risers shall be installed where depth from Wye fitting to the existing or proposed surface elevation exceeds 10 feet. Top of Riser shall be 9 feet below existing or proposed surface elevation, whichever is higher.

The cost for all compacted backfill shall be included in the price bid for the various items.

Finished grade at sanitary sewer manholes shall be six inches (6") below the top of casting to avoid unnecessary infiltration into the sanitary sewer system.

No connection shall be made to the receiving sanitary sewer system until this project has been fully installed, tested and approved.

All traffic control devices shall be furnished, erected, maintained and removed by the Contractor in accordance with the "Ohio Manual of Traffic Control Devices for Construction and Maintenance Operations", copies of which are available from the Ohio Department of Transportation, Bureau of Traffic, 1980 W. Broad Street, Columbus, Ohio 43223.

EXISTING UTILITIES:

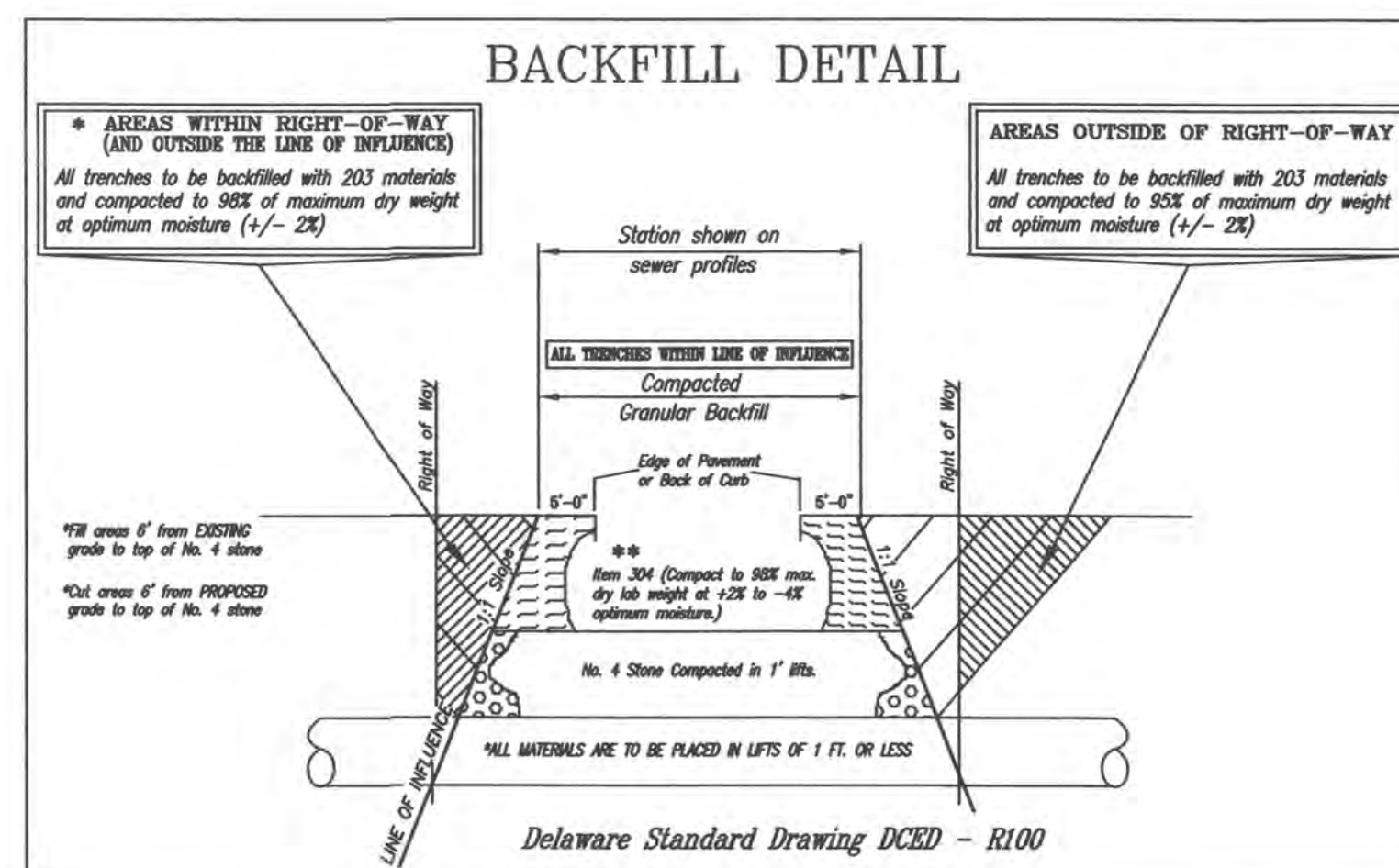
The identity and location of the existing underground utility facilities known to be located in the construction area have been shown on the plans as accurately as provided by the Owner of the underground utility. Delaware County and/or the Engineer assume no responsibility as to the accuracy of the underground facilities shown on the plans.

Support, protection and restoration of all existing utilities and appurtenances shall be the responsibility of the Contractor. The cost of this work shall be included in the price bid for the various items.

The Contractor shall cause notice to be given to the Registered Underground Utility Protection Protection Services (Telephone 800-362-2764 - toll free) and the Owner's of underground utility facilities shown on the plans who are not members of a registered Underground Protection Service in accordance with Section 153.64 of the Revised Code. The above mentioned notice shall be given at least 48 hours prior to start of construction.

The following utilities and Owners are located within the work limits of this project and do not subscribe to a registered underground utility protection service:

UTILITY	CONTACTING AGENT	TELEPHONE
Storm Sewers	Delaware County Engineer 50 Channing Street Delaware, Ohio 43015	(740) 833-2400
Sanitary Sewers	Delaware County San. Eng. 50 Channing Street Delaware, Ohio 43015	(740) 833-2240



DELAWARE COUNTY, OHIO NORTHSTAR SANITARY SEWER IMPROVEMENT 2005

FARM LOTS NOS. 1, 2 & 3
SECTION 2, TOWNSHIP 4, RANGE 17
UNITED STATES MILITARY LANDS
TOWNSHIP OF BERKSHIRE, COUNTY OF DELAWARE, STATE OF OHIO



BENCHMARKS (NAVD 1988)

- B.M. #1** Brass Tablet set in concrete and stamped "97-179". Located approximately 82' East of the North Galena Road and Wilson Road intersection and 14' South of Wilson Road. Elev. = 949.9
- B.M. #2** Brass Tablet set in concrete and stamped "97-136". Located approximately 0.4 miles East of the North Galena Road and Wilson Road intersection and 15' South of Wilson Road. Elev. = 943.4
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LOCATION MAP 1"=1000'

SEE INDEX MAP SHEETS 2&3

STANDARD DRAWINGS

Standard Drawings listed on these plans, as shown in the "Preliminary Standard Plans and Specifications for Construction of Sanitary Facilities in Delaware County, Ohio, shall be considered a part thereof:

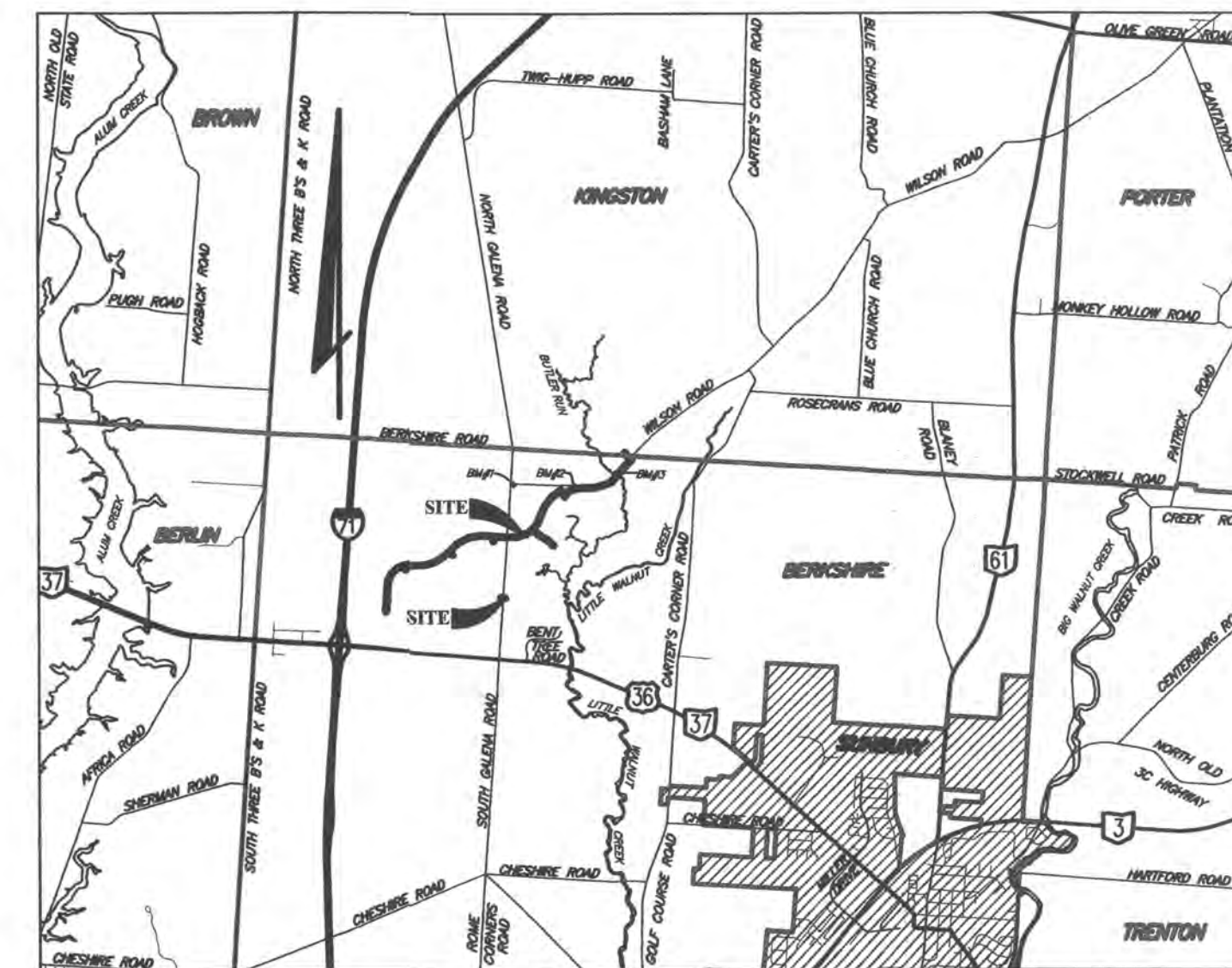
1	6	19
2	12	20
3	13	23
5	16	24

Delaware County Engineer
DCED-1441

OWNER/DEVELOPER

Northstar Land LLC
41 South High Street, Suite 1010
Columbus, Ohio 43215
Tele: (614) 221-4286
Fax: (614) 221-7069

CHANGE ORDER SCHEDULE						
Date Approved	Approved	Prepared	Change	Date Prepared	Description of Change	Sht. No.
5-4-06	J.B.	RCH	M	3/9/06	Added storm crossings between 15-16, Revised crossings between 40-41, revised force main crossing elevations, quantities, turn lanes added to plan views. Revised Private Service Connection at MH 38, 11-14 Revised Pipe size & type on runs 1A-5 & 1-40. Revised slope on stub at MH 36.	1345, 7.8, 11-14
11-16-07	J.B.	RCH	A	11/13/07	Future Phase - Future Phase Phase Sewer: 42-43 = Phase B, 28-29 = Phase C, All others = Phase A	4-14



VICINITY MAP 1"=5280'

INDEX OF SHEETS

Title Sheet, General Notes	1
Index Map	2-3
Plan & Profiles	4-14
Tributary Area Maps	15-17A

SEE QUANTITIES SHEET 4

PREPARED BY
EVANS, MECHWART, HAMBLETON & TILTON, INC.
CONSULTING ENGINEERS & SURVEYORS
170 MILL STREET, GAHANNA, OHIO 43230-3036
614-471-5150 • FAX 614-471-4737

Professional Engineer
John C. Wicks
Date 8/26/05

County Commissioner
Phyllis A. Evans
Approved this 24 day of APRIL, 2006

County Commissioner
James D. Ward
Approved this 24 day of APRIL, 2006

County Commissioner
Approved this 24 day of APRIL, 2006

Delaware County Sanitary Engineer
Jack Smeller
Approved this 1st day of December, 2005

Delaware County Engineer
Chris E. Bausen
Approved this 14th day of April, 2006

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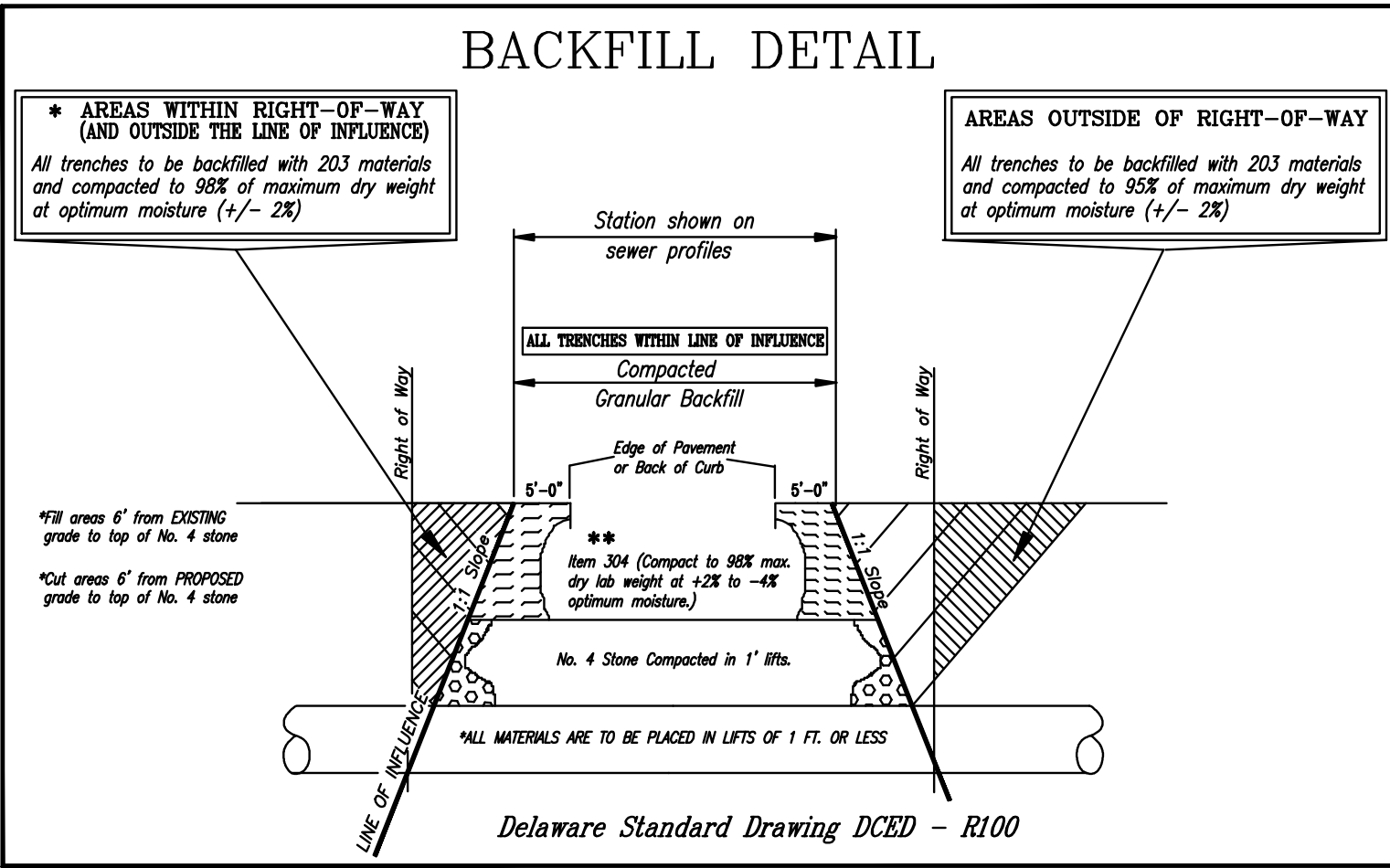
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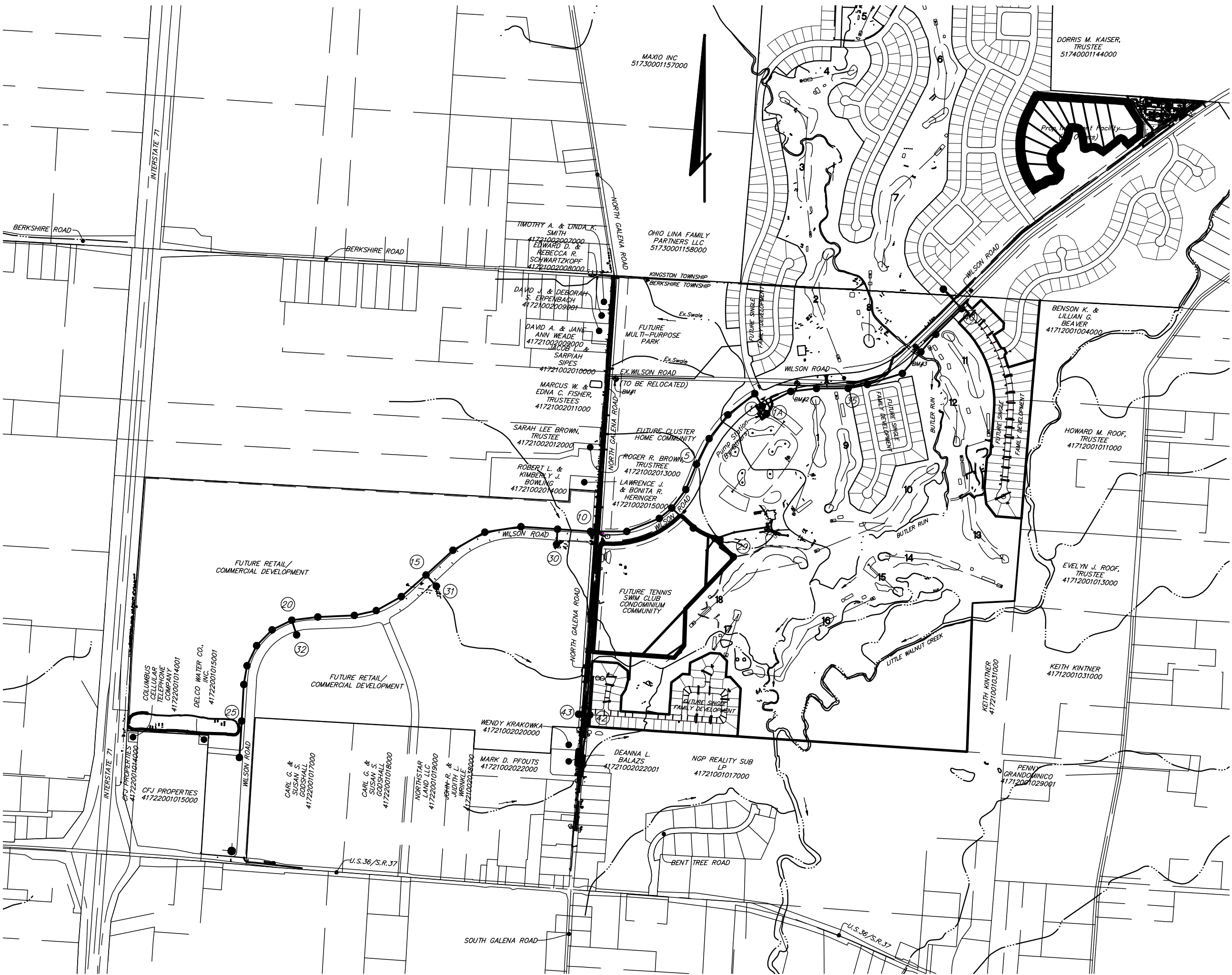
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DELAWARE COUNTY, OHIO
NORTHSTAR
SANITARY SEWER IMPROVEMENT
2005

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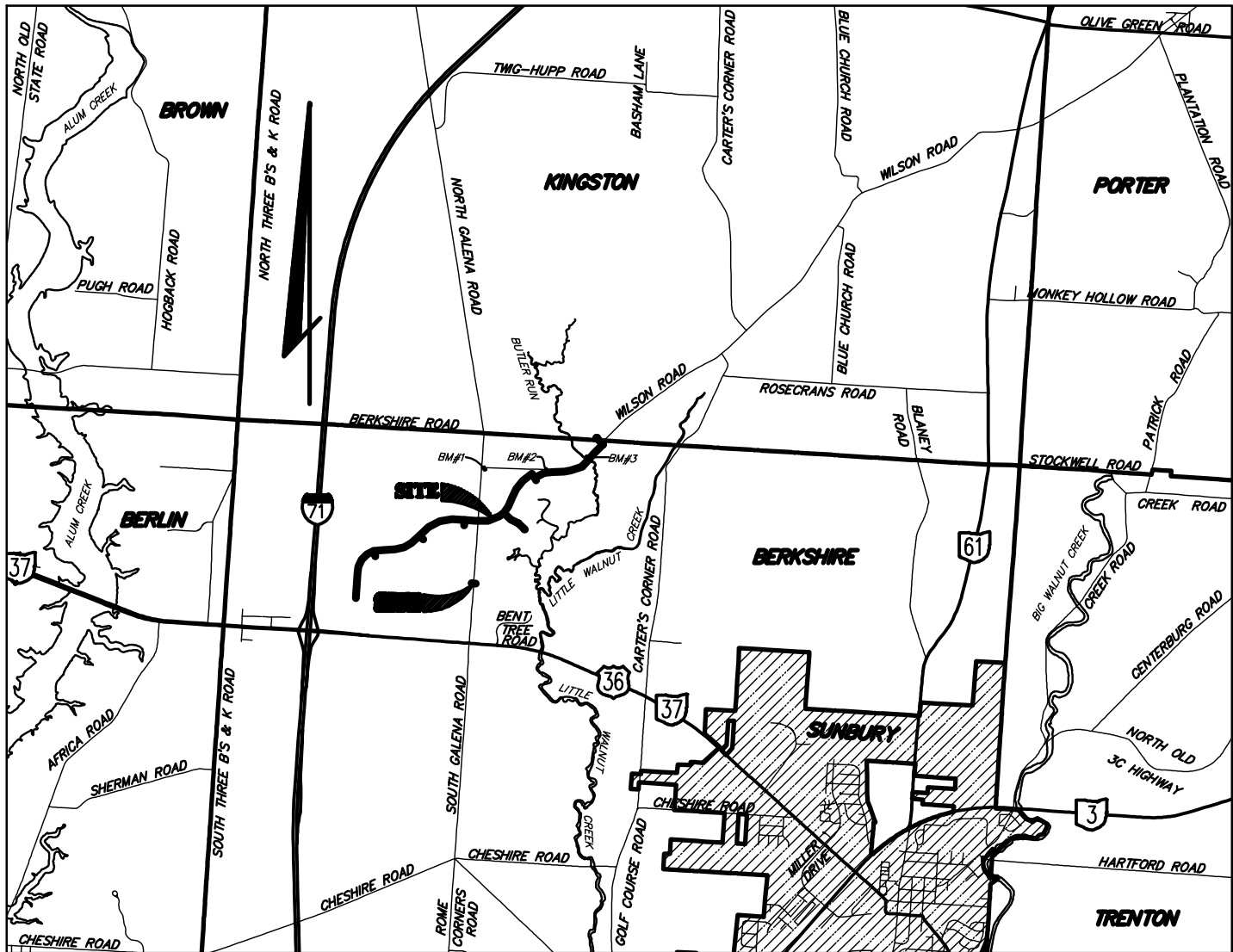
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Delaware County Engineer
DCED-1441

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CHANGE ORDER SCHEDULE					
Date Approved	Approved	Prepared	Change	Date Prepared	Description of Change
					Added storm crossings between 15-16, Revised crossings between 40-41, Revised force main crossing elevations, Quantities, Turn lanes added to plan views. Revised Private Service Connection at M.H. 28, Revised Pipe Size & Type on Runs 1A-5 & 1-40, Revised Slope on stub at M.H. 36. Sheets 1, 2, 4, 5, 7, 8, 11-14 3/9/06
		RCH	2	11/13/07	Phase Sewer: 28-29=Future Phase, 42-43=Future Phase



VICINITY MAP

1"=5280'

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SEE QUANTITIES SHEET 4

PREPARED BY
EVANS, MECHWART, HAMBLETON & TILTON, INC.
CONSULTING ENGINEERS & SURVEYORS
170 MILL STREET, GAHANNA, OHIO 43230-3036
614-471-5150 • FAX 614-471-4737

Professional Engineer

Date

County Commissioner

Approved this _____ day of _____, 2005

County Commissioner

Approved this _____ day of _____, 2005

County Commissioner

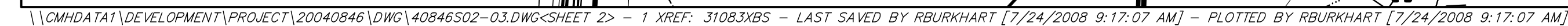
Approved this _____ day of _____, 2005

Delaware County Sanitary Engineer

Approved this _____ day of _____, 2005

Delaware County Engineer

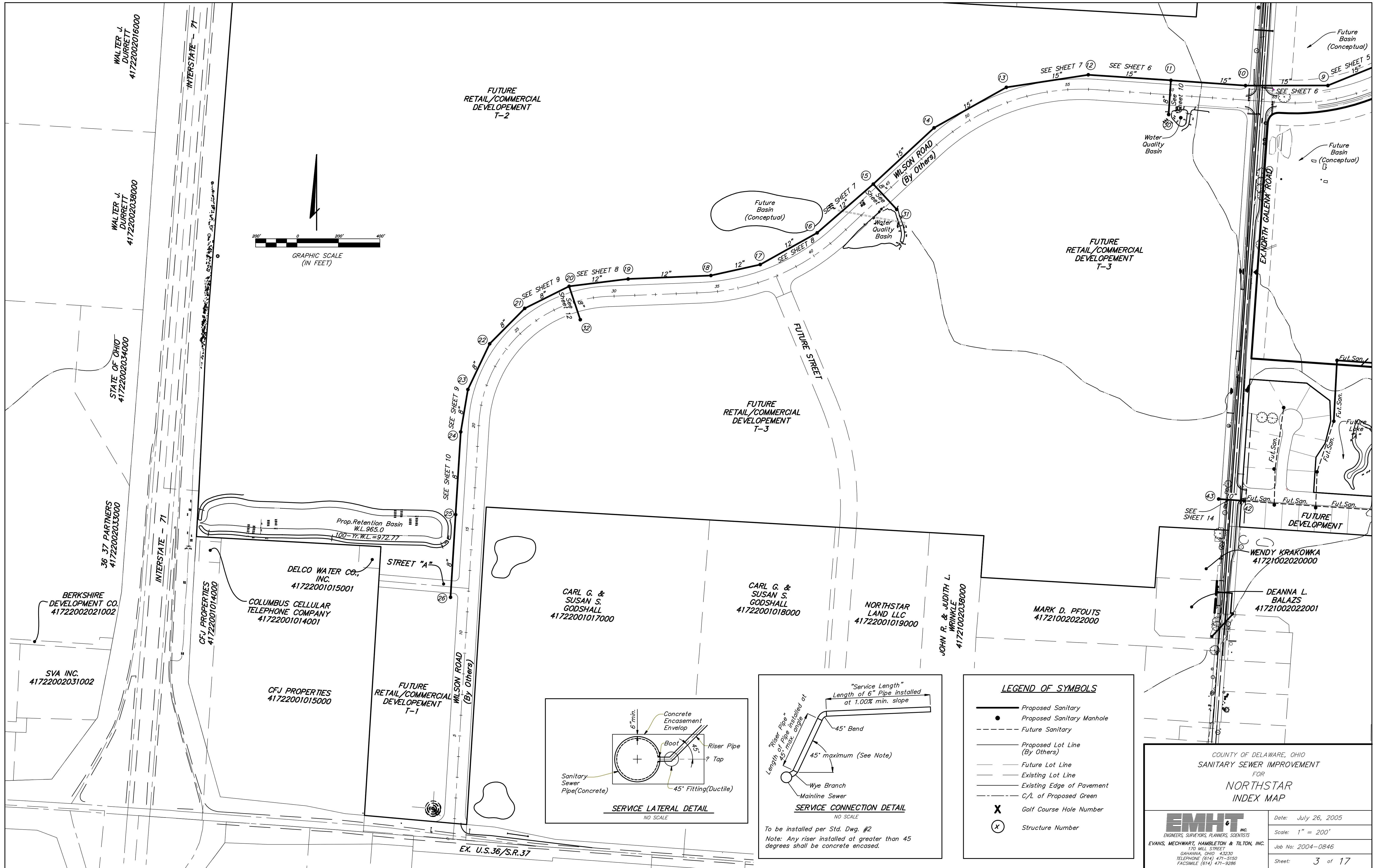
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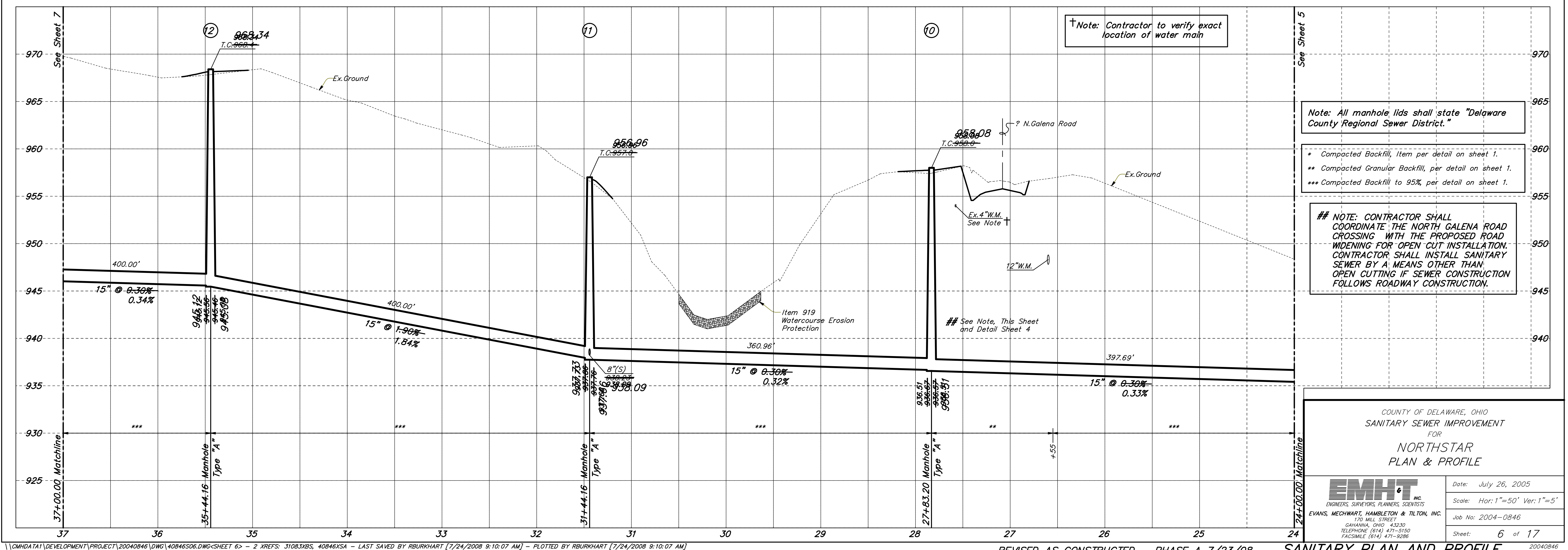
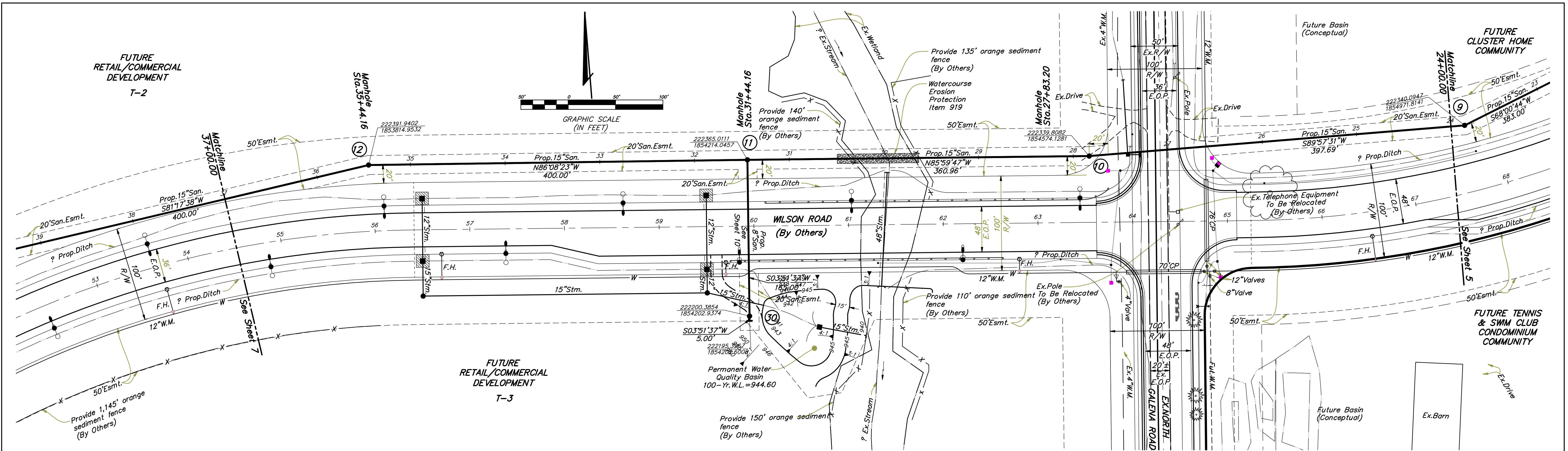


INDEX MAP

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Scale:	1" = 200'
Job No:	2004-0846
Sheet:	2 of 1

2004084





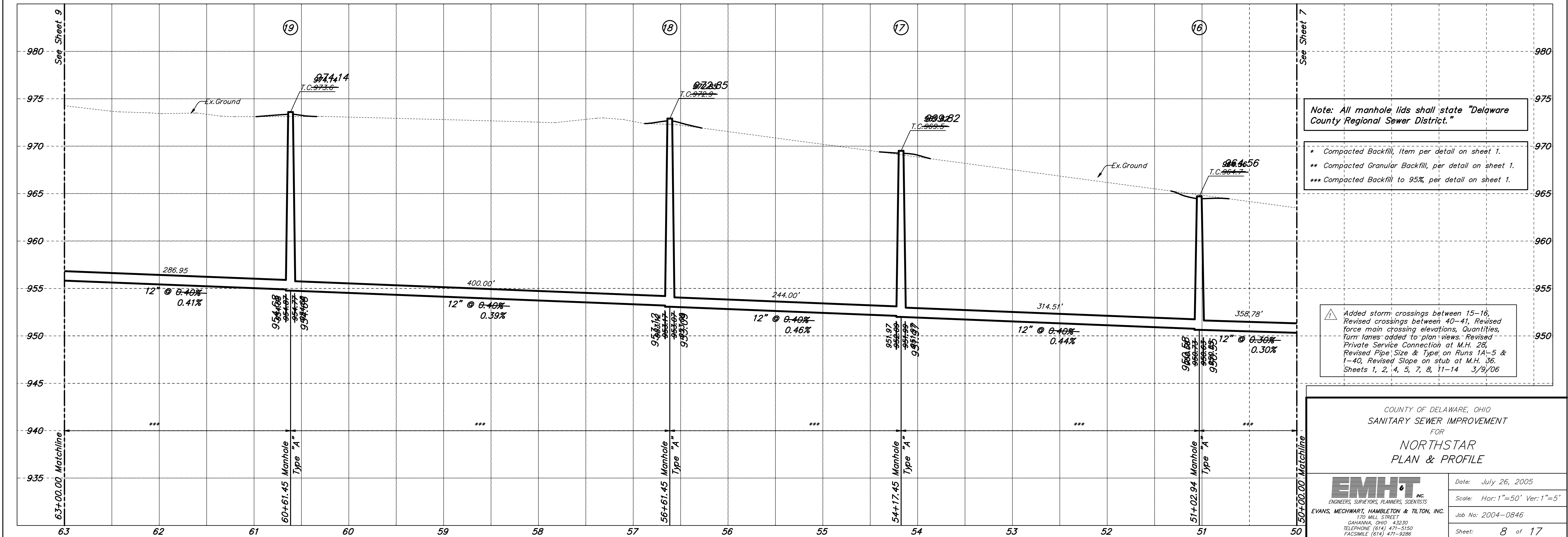
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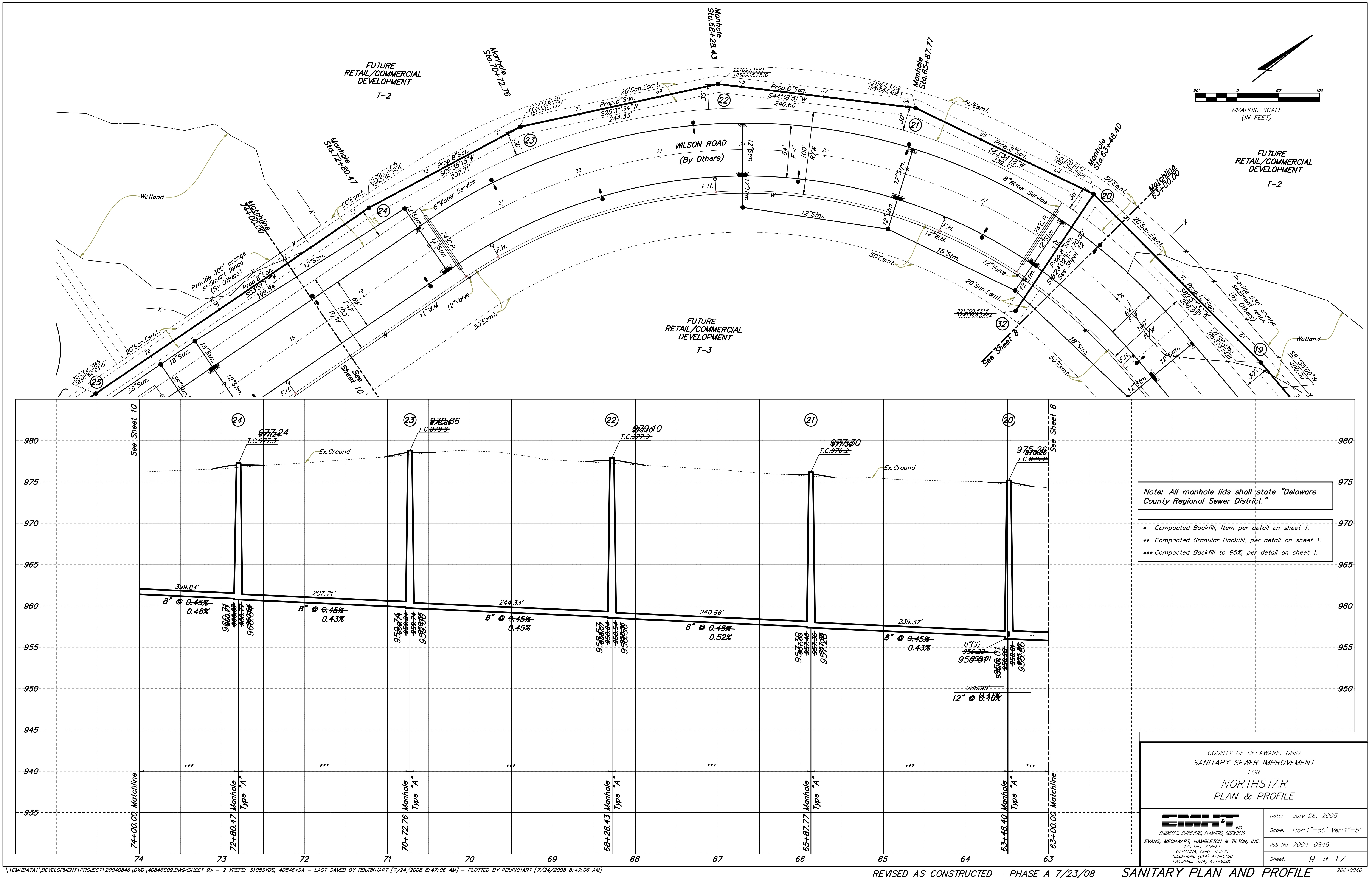
REVISED AS CONSTRUCTED - PHASE A 7/23/08

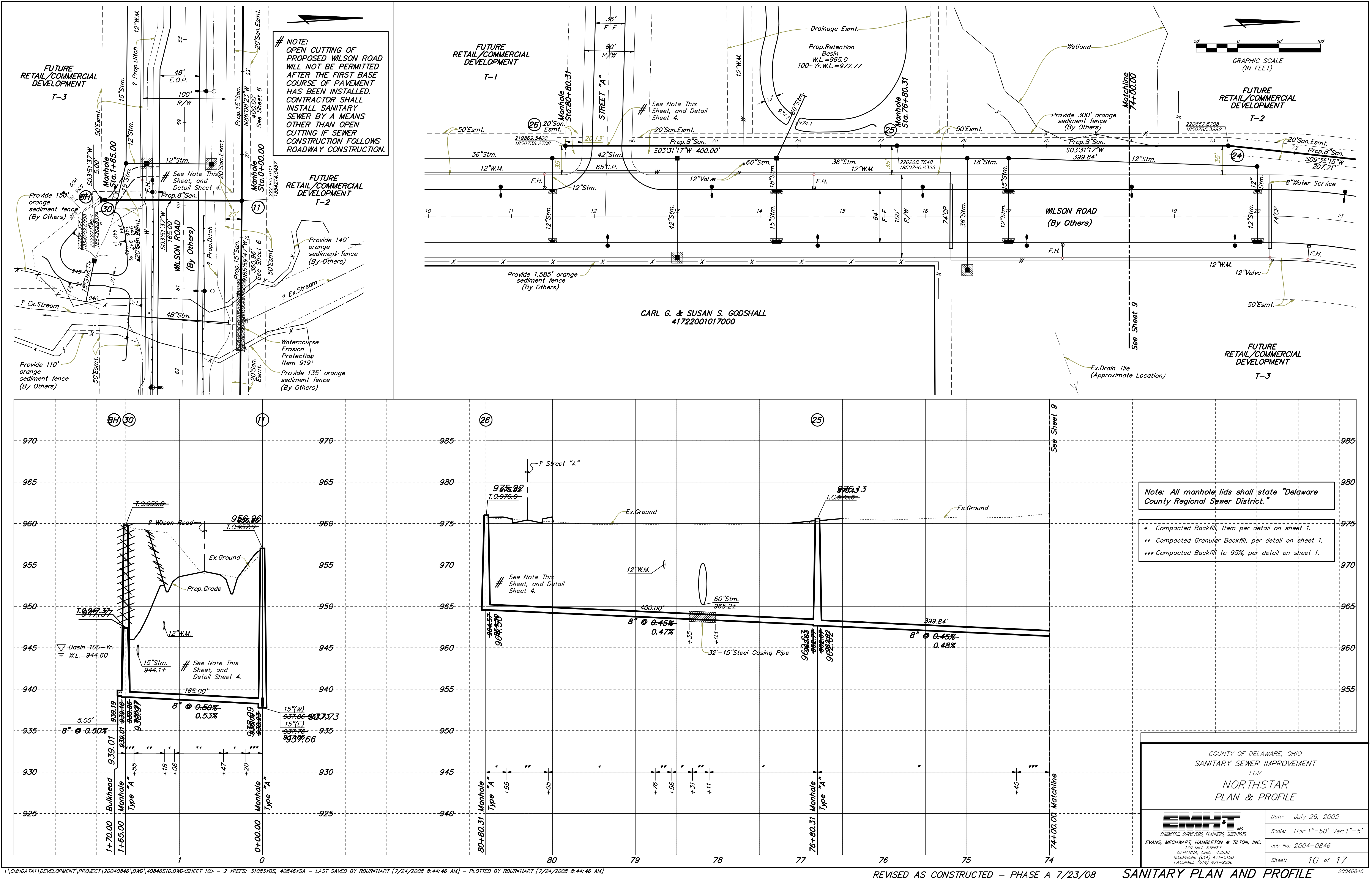
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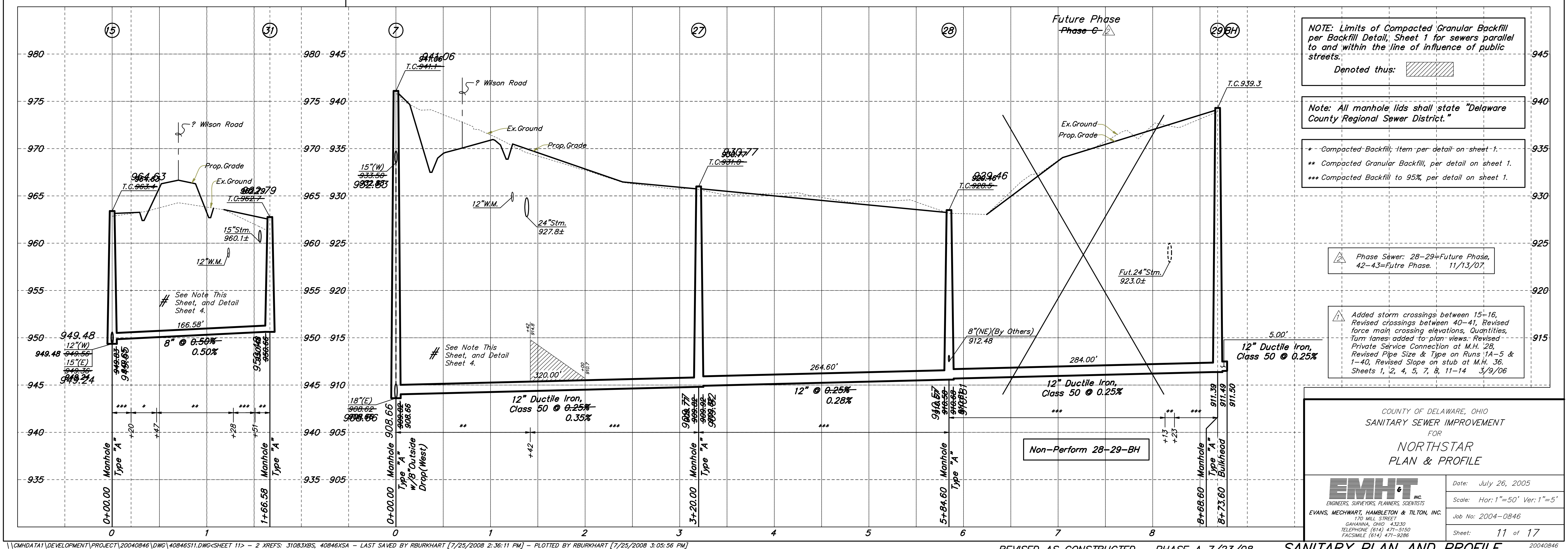
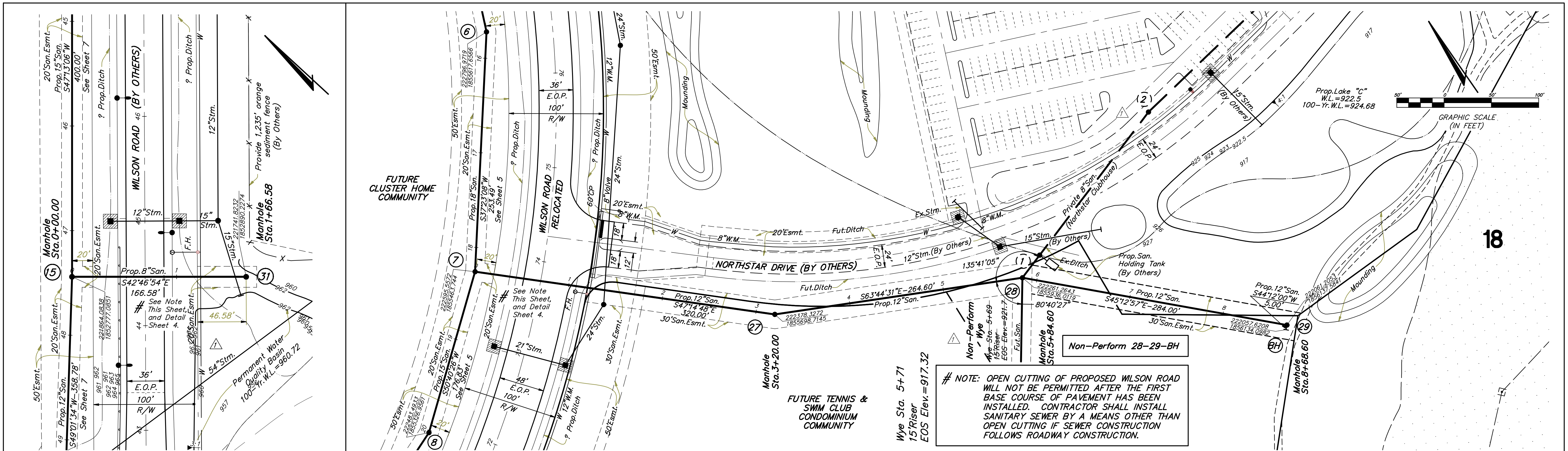
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COUNTY OF DELAWARE, OHIO SANITARY SEWER IMPROVEMENT FOR NORTHSTAR PLAN & PROFILE	
EMHT INC. ENGINEERS, SURVEYORS, PLANNERS, SCIENTISTS EVANS, MECHWART, HAMILTON & TILTON, INC. 170 MILL STREET GAHANNA, OHIO 43230 TELEPHONE (614) 471-5150 FACSIMILE (614) 471-9286	Date: July 26, 2005 Scale: Hor: 1"=50' Ver: 1"=5' Job No: 2004-0846 Sheet: 6 of 17







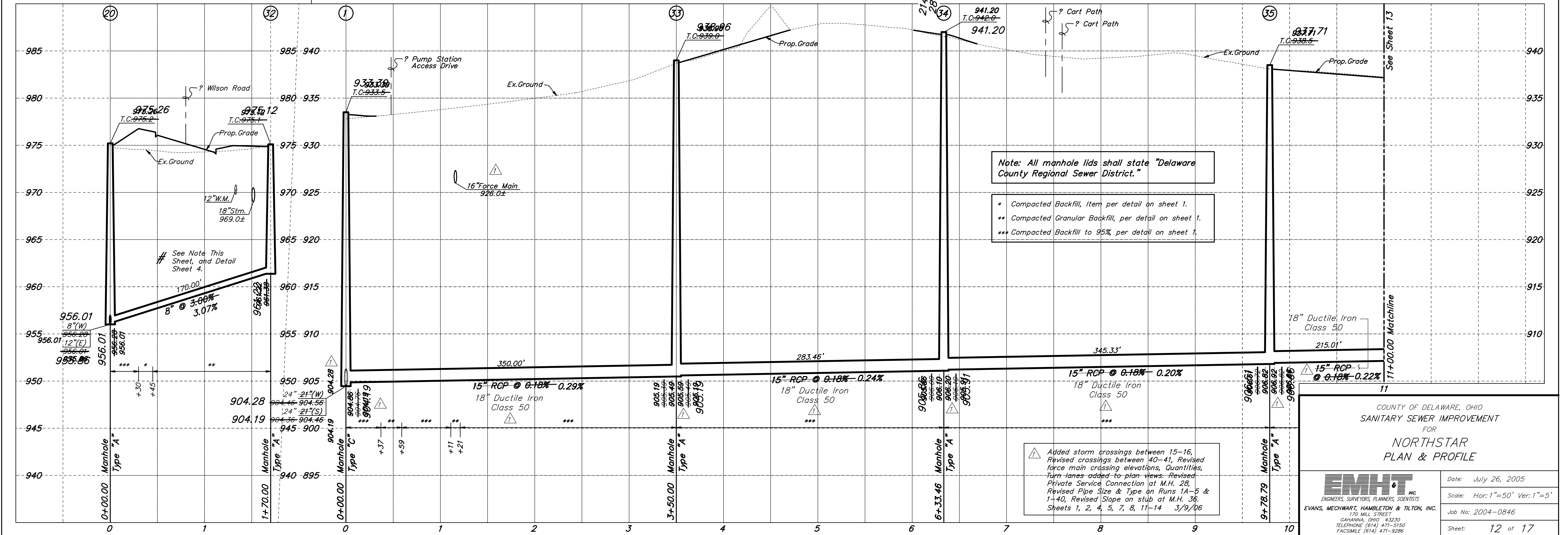
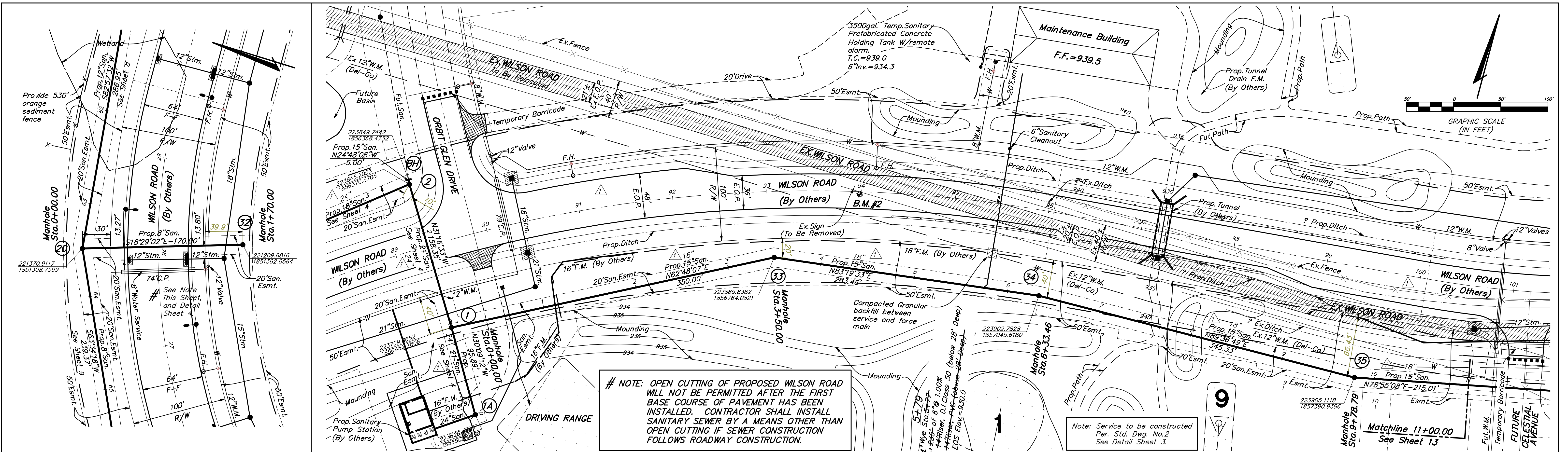


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REVISED AS CONSTRUCTED - PHASE A 7/23/08

SANITARY PLAN AND PROFILE

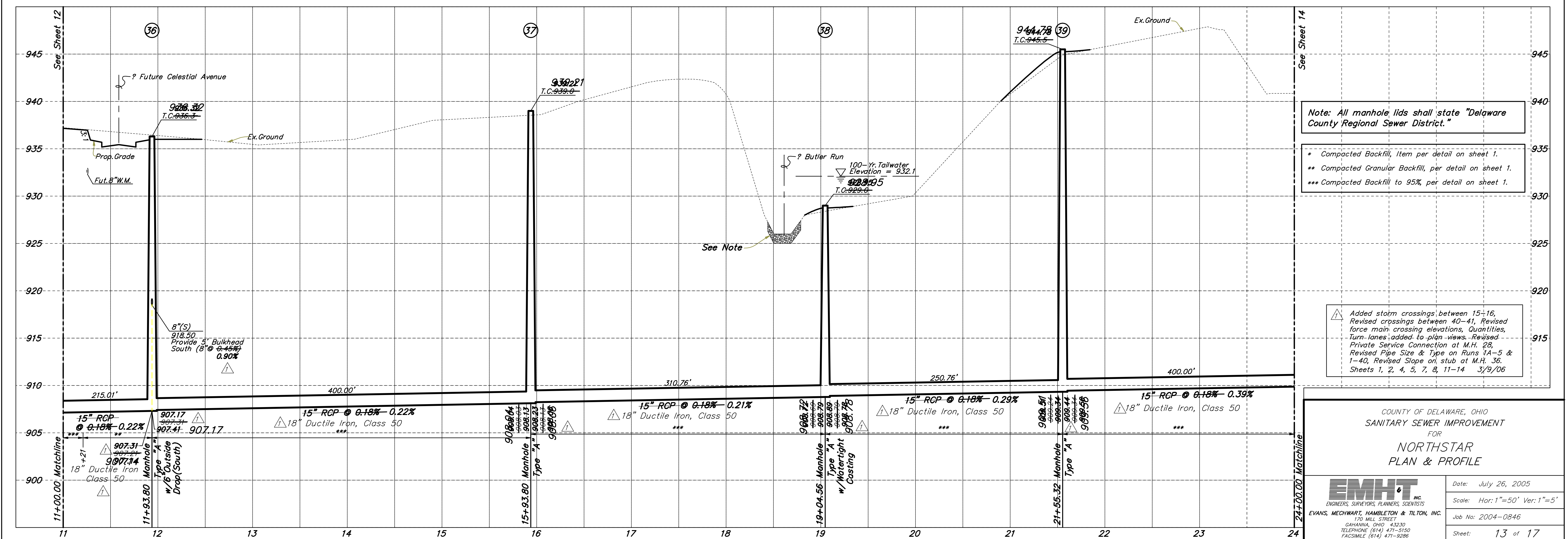
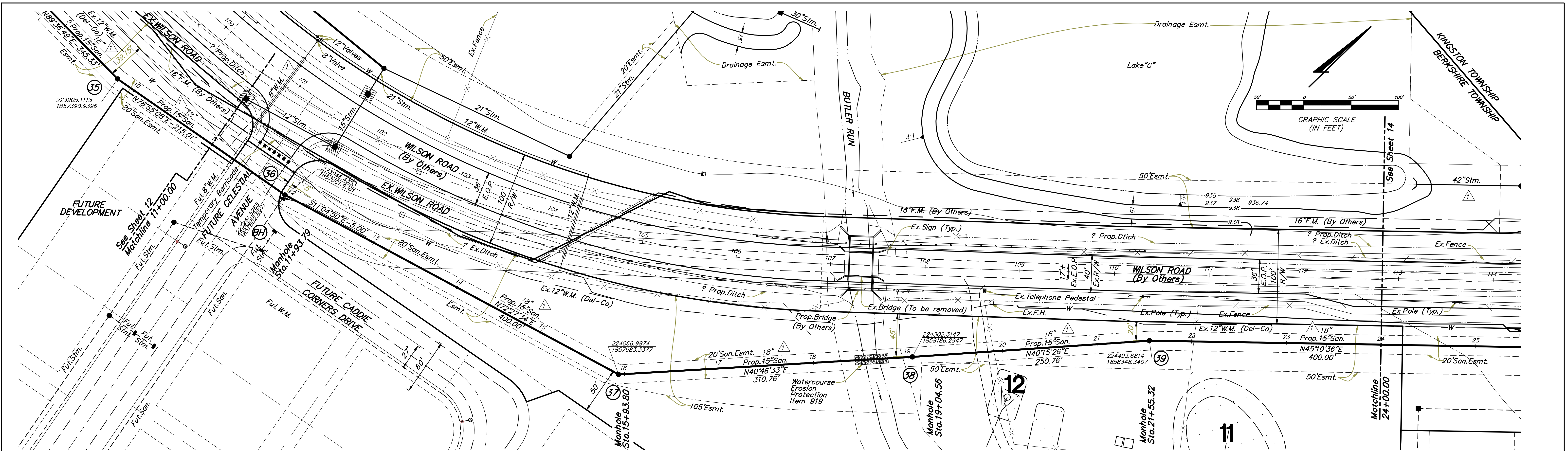
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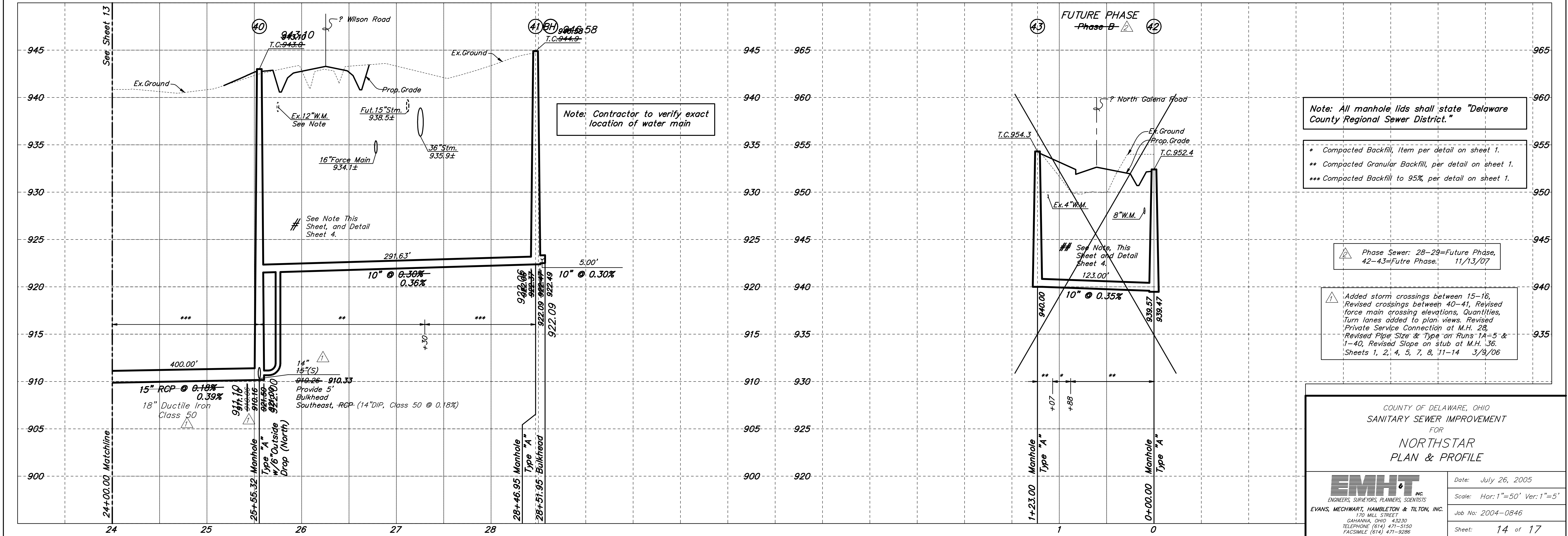
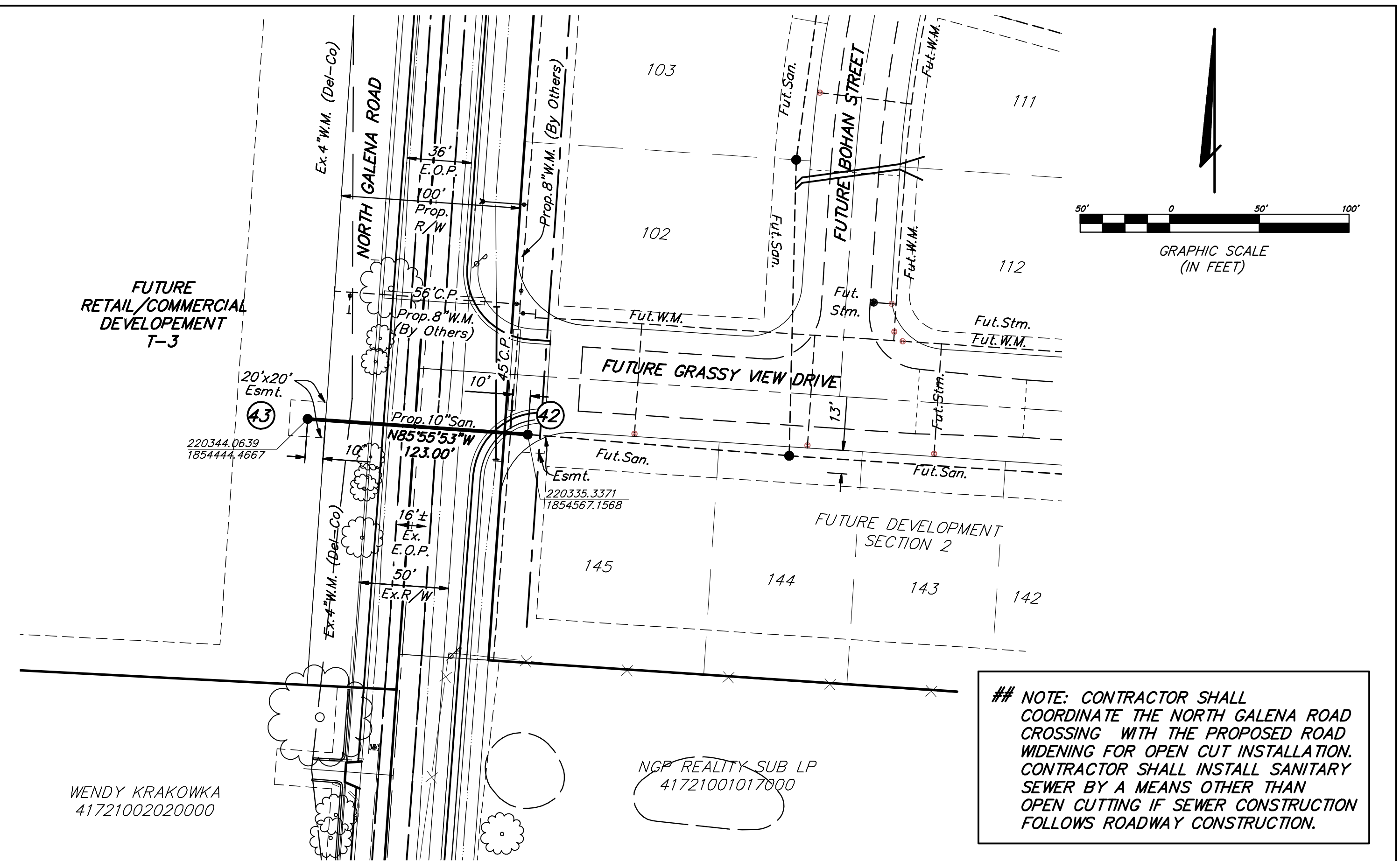
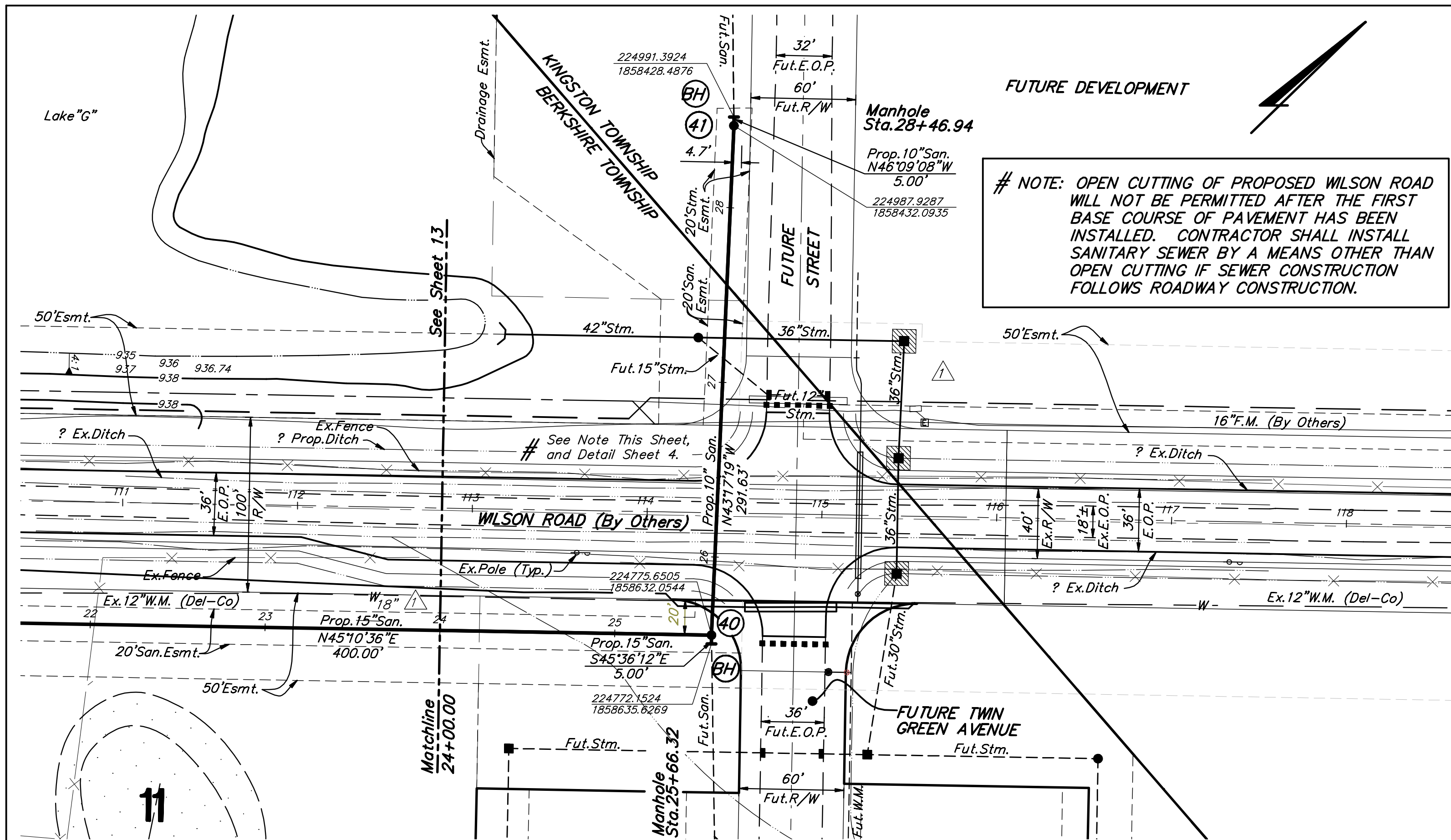
COUNTY OF DELAWARE, OHIO
SANITARY SEWER IMPROVEMENT
FOR
NORTHSTAR
PLAN & PROFILE

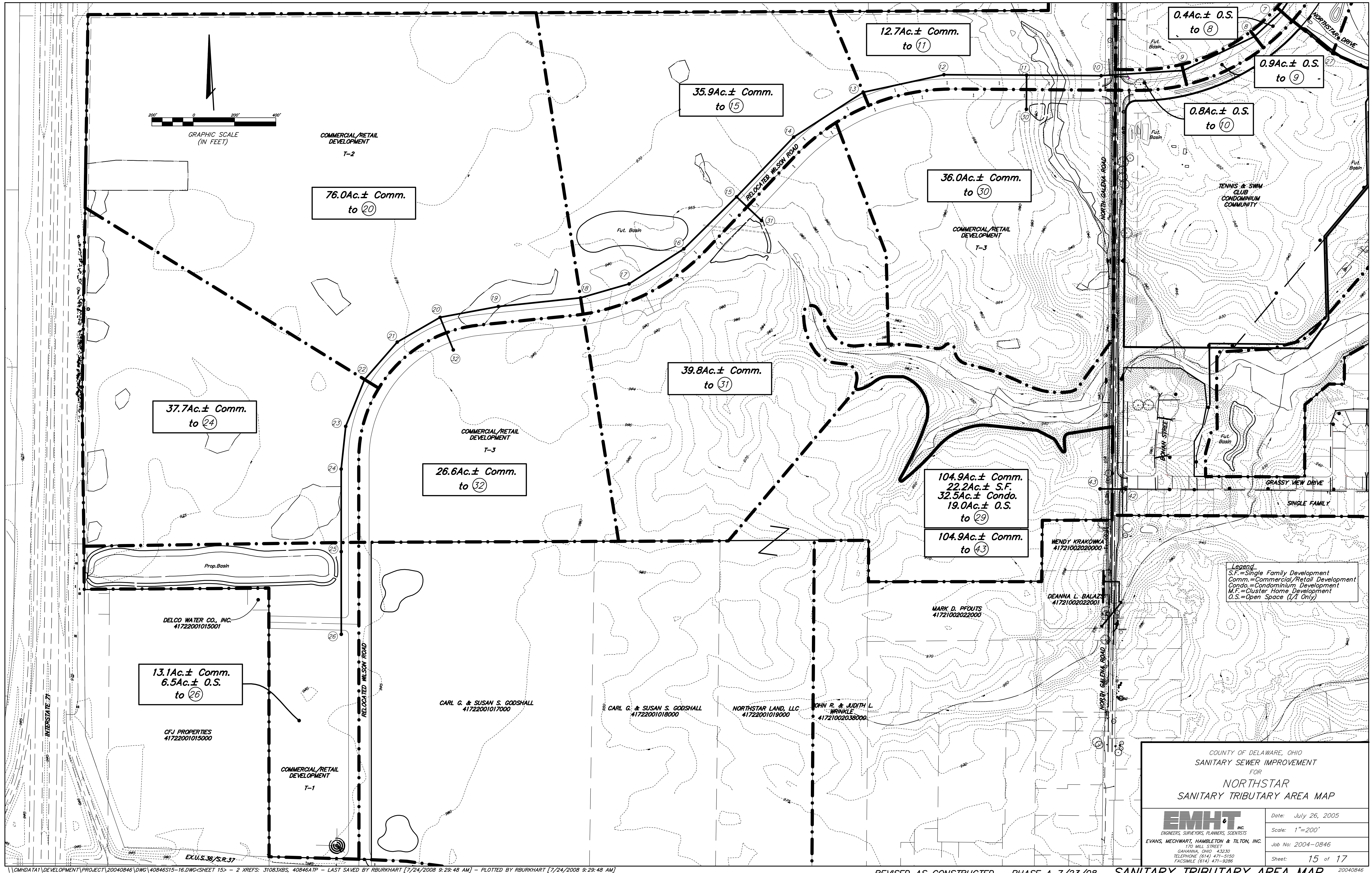
EMHT INC.
ENGINEERS, SURVEYORS, PLANNERS, SCIENTISTS
EVANS, MECHWART, HAMILTON & TILTON, INC.
170 MILL STREET
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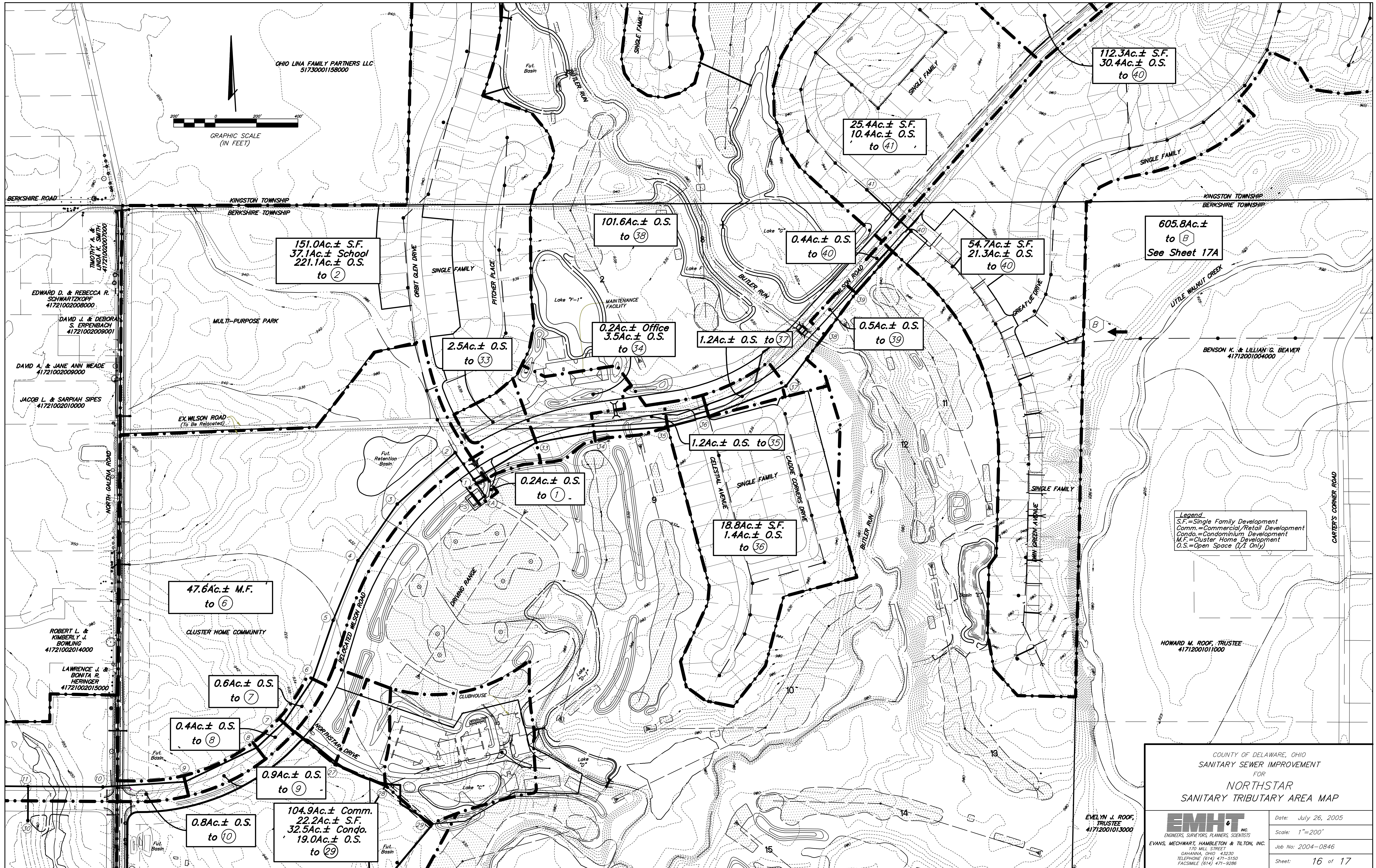
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Scale: Hor: 1"=50' Ver: 1"=5'
Job No: 2004-0846
Sheet: 12 of 17

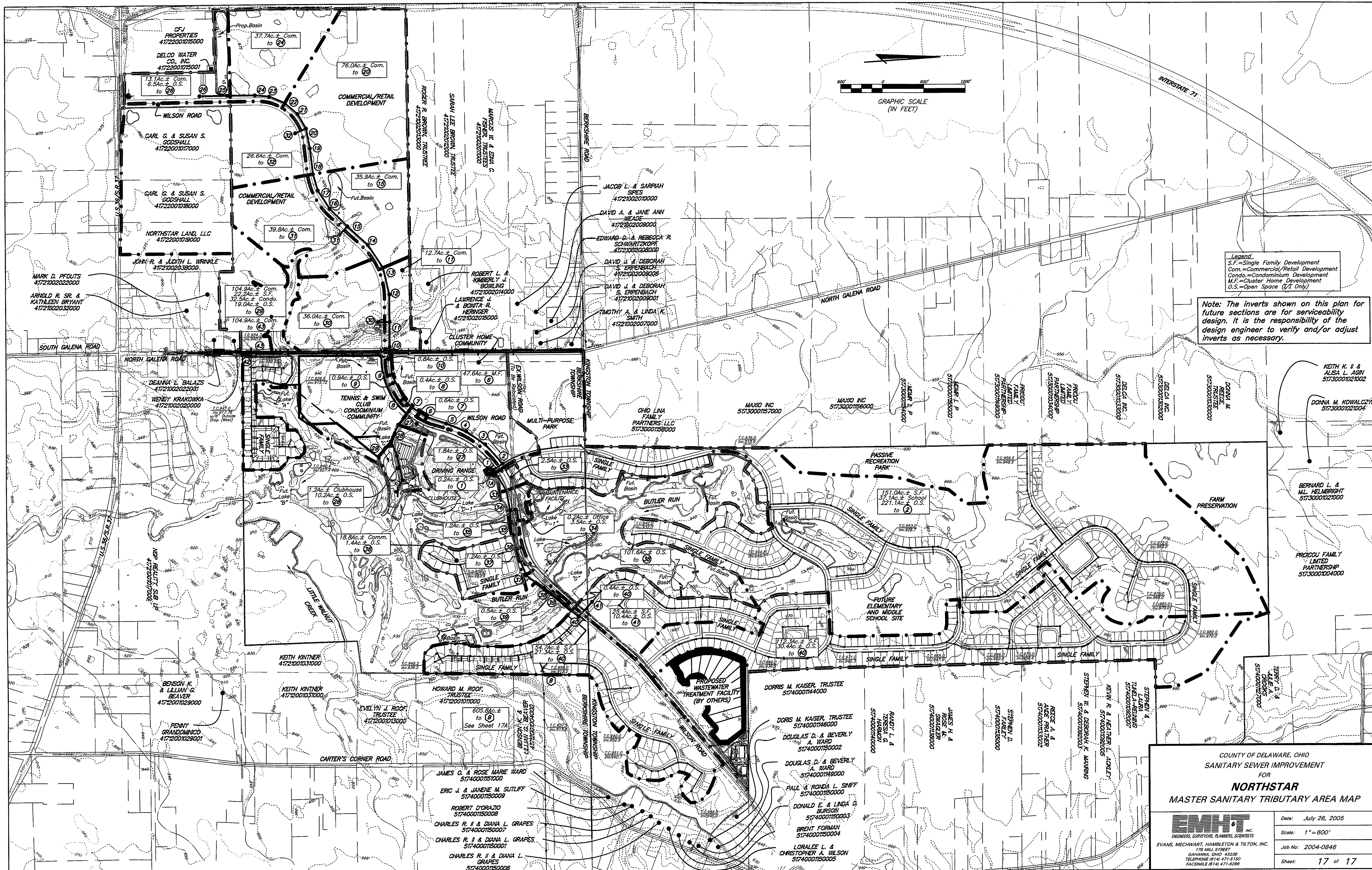


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	Scale: Hor: 1"=50' Ver: 1"=5'
	Job No: 2004-0846
	Sheet: 13 of 17









Legend
S.F.=Single Family Development
Com.=Commercial/Retail Development
Condo.=Condominium Development
M.F.=Multi-Family Development
O.S.=Open Space (1/2 Only)

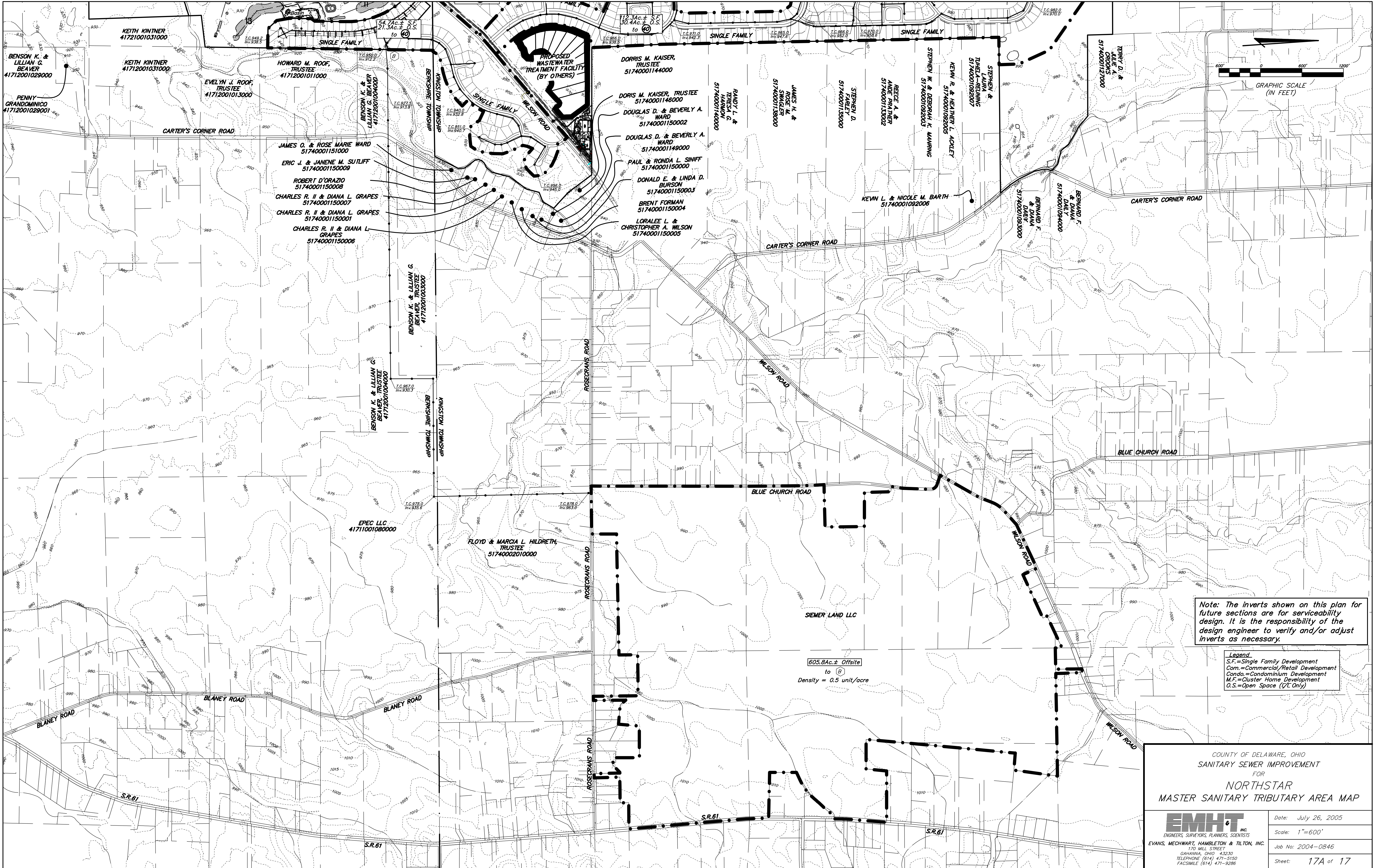
Note: The inverts shown on this plan for future sections are for serviceability design. It is the responsibility of the design engineer to verify and/or adjust inverts as necessary.

COUNTY OF DELAWARE, OHIO
SANITARY SEWER IMPROVEMENT
FOR
NORTHSTAR
MASTER SANITARY TRIBUTARY AREA MAP

ENGINEERS, SURVEYORS, PLANNERS, SCIENTISTS
EVANS, MECHWART, HAMILTON & TILTON, INC.
170 MILL STREET
GAHANNA, OHIO 43230
TELEPHONE (614) 471-5150
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REVISED AS CONSTRUCTED - PHASE A 7/23/08 OFFSITE SANITARY TRIBUTARY AREA MAP 20040846