

CONSTRUCTION PLAN OF HICKORY TERRACE SUBDIVISION

A SUBDIVISION LOCATED IN PART OF THE
NE 1/4, SECTION 30, T41N, R5E OF THE
3RD. P.M.

CITY OF SYCAMORE
DEKALB COUNTY, ILLINOIS
2003

INDEX OF SHEETS

- 1) COVER SHEET
- 2) GENERAL NOTES
- 3-4) SCHEDULE OF QUANTITIES
- 5) GRADING PLAN
- 6) DETENTION BASIN PLAN
- 7) TOWNHOUSE UTILITY & LAYOUT PLAN
- 8) TOWNHOUSE GRADING PLAN
- 9-25) PLAN AND PROFILE
- 26) OFFSITE STORM SEWER
- 27) SPILLWAY DETAILS
- 26-35) CROSS SECTIONS
- 36) INTERSECTION DETAILS
- 37) MISCELLANEOUS DETAILS
- 38) WATERMAIN DETAILS
- 39) SANITARY SEWER DETAILS

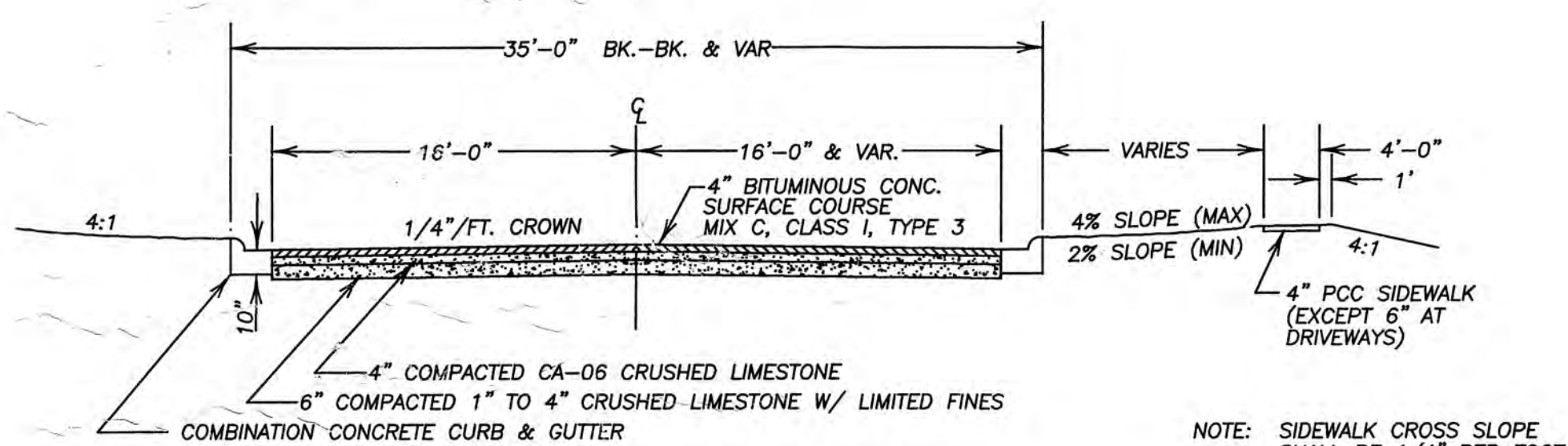
OWNER/DEVELOPER: SANDERSON BROTHERS
P.O. BOX 352
SYCAMORE, ILLINOIS 60178

ENGINEER: WENDLER ENGINEERING SERVICES, INC.
698 TIMBER CREEK ROAD
DIXON, ILLINOIS 61021

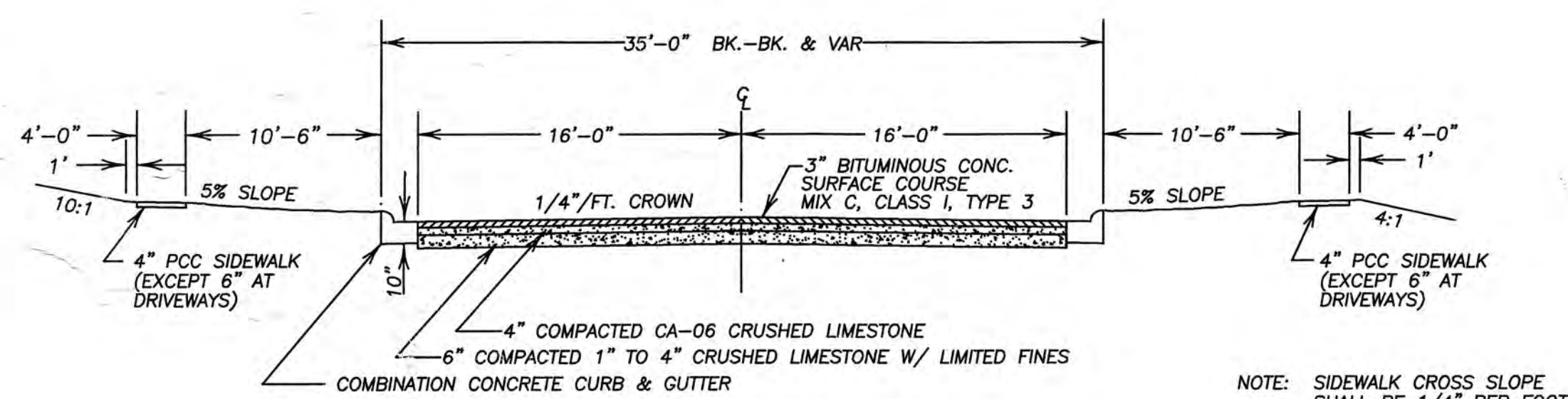
SURVEYOR/PLANNER: WILLIAM E. HANNA SURVEYORS
508 PINE STREET
DEKALB, ILLINOIS

SUMMARY OF QUANTITIES

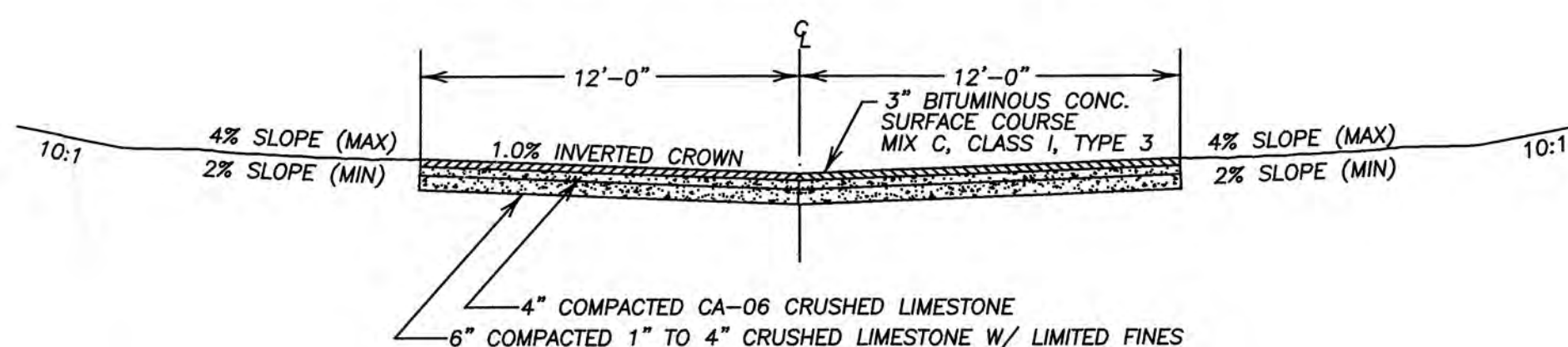
DESCRIPTION	UNIT	QUANTITIES
EARTH EXCAVATION	CU. YD.	30448
CONCRETE CURB & GUTTER, TY. B6.12	FOOT	9622
AGGREGATE BASE COURSE, 4" CA-6	TON	4525
AGGREGATE BASE COURSE, 6" CRUSHED LIMESTONE	TON	7232
BITUMINOUS SURFACE COURSE, 3"	TON	3140
SIDEWALK, 5" P.C.C.	SQ. FT.	26164
RIP RAP RR-4 W/ CONCRETE	SQ. YD.	15
SANITARY MANHOLE, 4' DIAMETER	EACH	21
SANITARY SEWER, 8"	LIN FT	557
SANITARY SEWER, 10"	LIN FT	4152
SANITARY SEWER, 12"	LIN FT	50
6" PVC SDR 26 SANITARY SERVICE	LIN FT	2572
STORM SEWER, 12", TY. 1	LIN FT	2503
STORM SEWER, 12", TY. 2	LIN FT	38
STORM SEWER, 15", TY. 1	LIN FT	1290
STORM SEWER, 15", TY. 2	LIN FT	532
STORM SEWER, 18", TY. 1	LIN FT	830
STORM SEWER, 18", TY. 2	LIN FT	284
STORM SEWER, 21", TY. 2	LIN FT	361
STORM SEWER, 24", TY. 1	LIN FT	47
STORM SEWER, 24", TY. 2	LIN FT	1257
STORM SEWER, 27", TY. 2	LIN FT	267
STORM SEWER, 30", TY. 2	LIN FT	224
STORM SEWER, 36", TY. 1	LIN FT	346
12" PRC FLARED END SECTION W/ GRATING & TOE WALL	EACH	1
15" PRC FLARED END SECTION W/ GRATING & TOE WALL	EACH	3
18" PRC FLARED END SECTION W/ GRATING & TOE WALL	EACH	1
24" PRC FLARED END SECTION W/ GRATING & TOE WALL	EACH	1
30" PRC FLARED END SECTION W/ GRATING & TOE WALL	EACH	1
36" PRC FLARED END SECTION W/ GRATING & TOE WALL	EACH	1
DRAIN TILE, 6" PVC SDR 26	LIN FT	1529
DRAIN TILE 4" PVC SDR 26	LIN FT	753
CLEANOUT	EACH	3
CONNECT TO EXIST. WATERMAIN	EACH	1
1" COPPER TYPE K WATER SERVICE	LIN FT	2963
WATERMAIN, 6"	LIN FT	1769
WATERMAIN, 8"	LIN FT	1919
WATERMAIN, 10"	LIN FT	3200
FIRE HYDRANT COMPLETE	EACH	19
6" GATE VALVE	EACH	6
8" GATE VALVE	EACH	5
10" GATE VALVE	EACH	4
VALVE VAULT, 4' DIA.	EACH	11
VALVE VAULT, 5' DIA.	EACH	4
WATERMAIN ENCASEMENT	LIN FT	120
STORM MANHOLE - 4'	EACH	14
STORM MANHOLE - 5'	EACH	17
CATCH BASIN, TY. C	EACH	5
CATCH BASIN, 2'x3'	EACH	15
CATCH BASIN - 4'	EACH	11
CATCH BASIN - 5'	EACH	1
INLET TY. A	EACH	14
CONTROL MANHOLE	EACH	1
TRENCH BACKFILL	CU YD	5712.5
REMOVAL & DISPOSAL OF UNSUITABLE MATERIAL	CU YD	500
SUB-BASE GRANULAR MATERIAL, 1"-4"	CU YD	500



**FREED ROAD
TYPICAL CROSS SECTION**

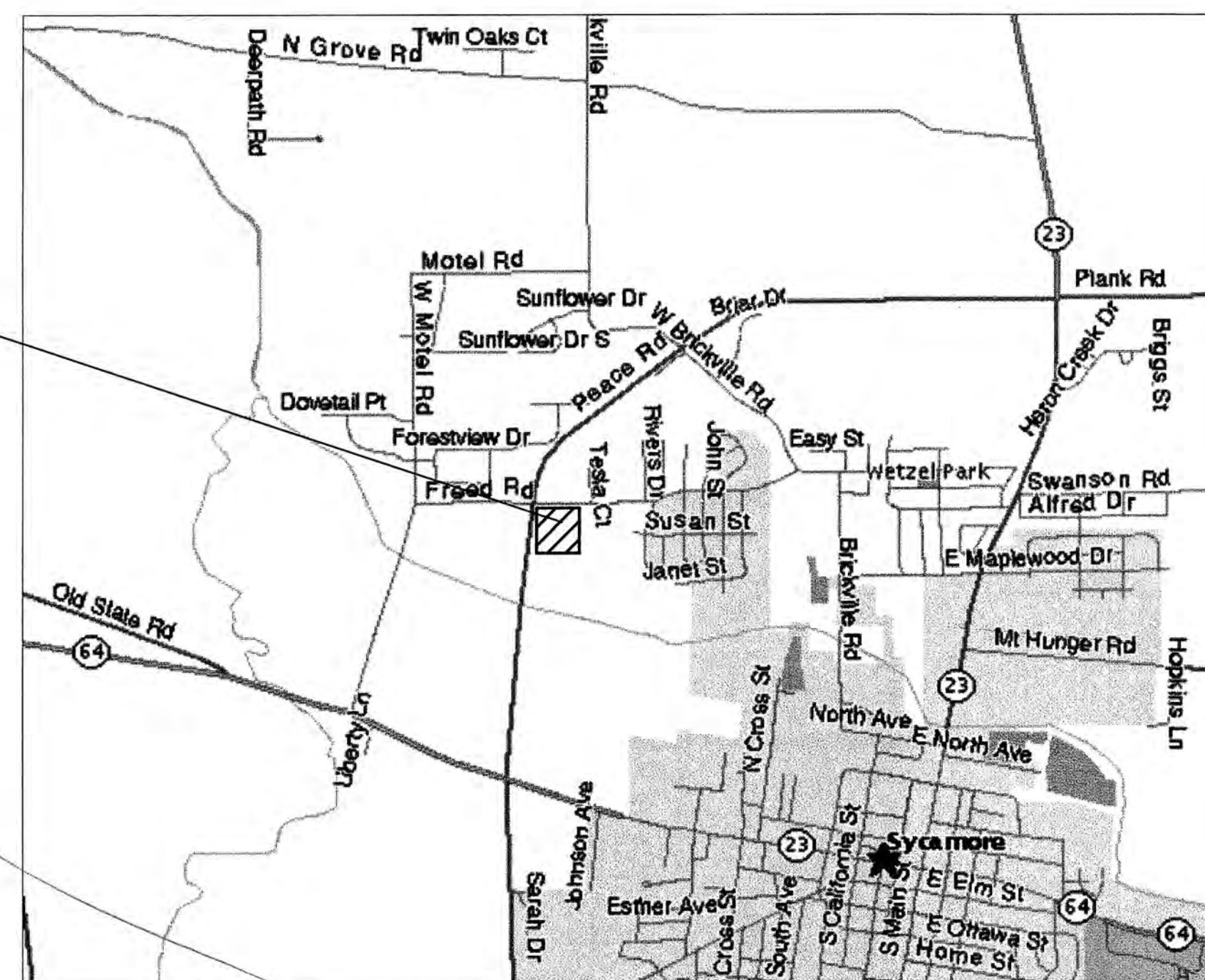


**PUBLIC STREET
TYPICAL CROSS SECTION**



**TOWNHOUSE DEVELOPMENT
TYPICAL STREET CROSS SECTION**

PROJECT
LOCATION



LOCATION MAP

(N.T.S.)

BENCHMARK:

BM "A" 60D NAIL IN S. FACE OF POWER POLE AT NE CORNER
OF BRENTWOOD RD. AND FREED ROAD 600± WEST OF
PEACE RD. & FREED RD.
ELEV. = 837.00

DESIGN NOTE: THE DESIGN OF THE IMPROVEMENTS INCLUDED WITH THESE PLANS
ARE BASED UPON FIELD SURVEY INFORMATION PROVIDED BY OTHERS.
WENDLER ENGINEERING SERVICES, INC. MAKES NO WARRANTIES, EXPRESSED
OR IMPLIED, FOR ERRORS CAUSED BY WORK OR INFORMATION PROVIDED BY OTHERS.

PLANS PREPARED BY:

WENDLER ENGINEERING SERVICES, INC.

DIXON, ILLINOIS

SYCAMORE, ILLINOIS

PRINCETON, ILLINOIS

STERLING, ILLINOIS

REVISED 02/02/2005
REVISED 11/02/2004
REVISED 07/15/2004
REVISED 07/08/2004

© WENDLER ENGINEERING SERVICES, INC. 2003

- 1.) ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY 1, 2002 BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION, THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS AND THE ORDINANCES OF THE CITY OF SYCAMORE, AND ALL SPECIFICATIONS AND REGULATIONS THEY REFER TO.
- 2.) THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS AND BE FAMILIAR WITH THE UTILITY LAYOUT OF THIS PROJECT AND STANDARD CONSTRUCTION PROCEDURES AND PRACTICES IN THE CITY OF SYCAMORE PRIOR TO BIDDING.
- 3.) THE AGGREGATE BASE COURSE SHALL BE CA-06 CRUSHED LIMESTONE. THIS MATERIAL SHALL BE PLACED AND COMPACTED TO THE DIMENSION AS SHOWN ON THE PLANS AS PER SECTION 301 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- 4.) THE COARSE AGGREGATE BASE SHALL BE 1" TO 4" CRUSHED LIMESTONE WITH LIMITED FINES AS APPROVED BY THE CITY ENGINEER.
- 5.) ALL CURB RADII SHALL BE 25' TO THE BACK OF THE CURB AT THE INTERSECTION UNLESS OTHERWISE NOTED.
- 6.) BITUMINOUS MATERIALS PRIME COAT FOR THE AGGREGATE BASE SHALL BE MC-30. APPLIED AT A RATE OF 0.35 GALLONS PER SQUARE YARD. THE PRIME COAT TO BE APPLIED PRIOR TO CONSTRUCTING THE FINAL BITUMINOUS SURFACE SHALL BE SS-1 APPLIED AT A RATE OF 0.10 GALLONS PER SQUARE YARD. BIT. CONC. SURFACE COURSE, MIX C-1, TYPE 3 SHALL BE PLACED IN TWO LIFTS FOR THE TOTAL COMPACTED THICKNESS AS SHOWN ON THE TYPICAL SECTION. THE FINAL LIFT SHALL NOT BE CONSTRUCTED UNTIL TWO COMPLETE WINTER SEASONS FOLLOWING COMPLETION OF THE UNDERGROUND UTILITIES.
- 7.) THE 4" PORTLAND CEMENT CONCRETE SIDEWALK SHALL BE CONSTRUCTED ACCORDING TO ALL APPLICABLE ARTICLES OF SECTION 424 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JAN. 1, 2002. THE CROSS SLOPE SHALL BE 1/4" PER FOOT. CONTRACTION JOINTS SHALL BE TROWELED 1/2" DEEP AT 4' INTERVALS. EXPANSION JOINTS, 3/4" THICK, SHALL BE CONSTRUCTED AT NOT MORE THAN 200' INTERVALS. SIDEWALK CONSTRUCTION SHALL BE COMPLETED IN CONJUNCTION WITH THE DEVELOPMENT OF EACH INDIVIDUAL LOT.
- 8.) SIDEWALK RAMPS FOR THE HANDICAPPED CONFORMING TO ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD 424001-01 SHALL BE CONSTRUCTED AT ALL INTERSECTIONS.
- 9.) ALL SIDEWALKS SHALL BE 4' WIDE AND 4" THICK EXCEPT AT DRIVES WHERE THE SIDEWALK SHALL BE 6" THICK.
- 10.) ALL UNDERGROUND INSTALLATIONS OF FLEXIBLE THERMOPLASTIC PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN THE LATEST VERSION OF ASTM D2321. THE PIPE SHALL BE BEDDED TRUE TO LINE AND GRADE WITH UNIFORM AND CONTINUOUS SUPPORT FROM A FIRM BASE. BLOCKING SHALL NOT BE USED TO BRING THE PIPE TO GRADE. BACKFILL MATERIAL SHALL BE PROPERLY PLACED AND COMPACTED TO PROVIDE LATERAL SUPPORT AGAINST DEFLECTION IN THE PIPE DIAMETER. CRUSHED LIMESTONE, CA-07 SHALL BE USED FOR BEDDING, HAUNCHING AND INITIAL BACKFILL TO A MINIMUM OF 12" ABOVE THE TOP OF THE PIPE. THE FINAL BACKFILL MAY BE FROM THE EXCAVATED MATERIAL BUT IT SHALL BE COMPACTED TO MINIMUM 85% OF STANDARD PROCTOR DENSITY. WHERE THE EXCAVATED MATERIAL IS UNSUITABLE FOR FINAL BACKFILL, AS DETERMINED BY THE ENGINEER, THE CONTRACTOR SHALL FURNISH ADDITIONAL SATISFACTORY GRANULAR BACKFILL MATERIAL. THIS ADDITIONAL GRANULAR BACKFILL FURNISHED FROM THE SITE SOURCE AND THE DISPOSAL OF UNSATISFACTORY MATERIALS UNDER THESE CIRCUMSTANCES SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR TRENCH BACKFILL IN ACCORDANCE WITH STANDARD DRAWING NO. 2 IN THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION, IN ILLINOIS. SUITABLE FINAL BACKFILL COLLECTED ON SITE SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE BID PER FOOT OF CONDUIT CONSTRUCTED OF THE SIZE SPECIFIED. BEDDING, HAUNCHING, AND INITIAL BACKFILL SHALL NOT BE MEASURED FOR SEPARATE PAYMENT, BUT SHALL BE INCLUDED AS PART OF THE RESPECTIVE UNIT BID PRICES PER FOOT OF CONDUIT CONSTRUCTION OF THE SIZE SPECIFIED.
- 11.) BEDDING, HAUNCHING, AND FINAL BACKFILL SHALL BE IN ACCORDANCE WITH SECTION 20-2.20 AND SECTION 20-2.21 OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS FOR ALL STORM SEWERS, CULVERTS, WATERMAIN, TILE AND SANITARY SEWERS REGARDLESS OF PIPE MATERIAL BEING USED. BEDDING AND HAUNCHING MATERIAL IS NOT REQUIRED WHERE RIGID PIPE MATERIALS ARE USED FOR WATERMAINS OR FORCE MAINS. THE FINAL BACKFILL FOR TRENCHES AND EXCAVATION MADE IN EXISTING OR UNDER PROPOSED PAVEMENTS, AND FOR ALL TRENCHES OUTSIDE OF EXISTING OR PROPOSED PAVEMENTS WHERE THE INNER EDGE OF THE TRENCH IS WITHIN TWO (2) FEET OF THE EDGE OF PAVEMENT, CURB, GUTTER, CURB AND GUTTER, STABILIZED SHOULDER OR SIDEWALK MAY BE MADE FROM THE EXCAVATED MATERIAL FROM THE TRENCH PROVIDED IT IS COMPACTED TO A MINIMUM 85% OF STANDARD PROCTOR DENSITY. WHERE THE EXCAVATED MATERIAL IS UNSUITABLE FOR FINAL BACKFILL, AS DETERMINED BY THE ENGINEER, THE CONTRACTOR SHALL FURNISH ADDITIONAL SATISFACTORY GRANULAR BACKFILL MATERIAL. THIS ADDITIONAL GRANULAR BACKFILL FURNISHED FROM AN OFF SITE SOURCE AND THE DISPOSAL OF UNSATISFACTORY MATERIALS UNDER THESE CIRCUMSTANCES SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR TRENCH BACKFILL IN ACCORDANCE WITH STANDARD DRAWING NO. 2 IN THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION, IN ILLINOIS. SUITABLE FINAL BACKFILL COLLECTED ON SITE SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE BID PER FOOT OF CONDUIT CONSTRUCTED OF THE SIZE SPECIFIED. BEDDING, HAUNCHING, AND INITIAL BACKFILL SHALL NOT BE MEASURED FOR SEPARATE PAYMENT, BUT SHALL BE INCLUDED AS PART OF THE RESPECTIVE UNIT BID PRICES PER FOOT OF CONDUIT CONSTRUCTION OF THE SIZE SPECIFIED.
- 12.) THE COMPACTION TESTING OVER THE UTILITY TRENCHES, IF REQUIRED, SHALL BE PAID FOR BY THE DEVELOPER. THE TESTS SHALL BE PERFORMED AT THE LOCATIONS APPROVED BY THE ENGINEER. THOSE AREAS FAILING TO PASS THE COMPACTION REQUIREMENT SHALL BE EXCAVATED AND RE-COMPACTED IN LAYERS OR ALTERNATIVELY, IT SHALL BE EXCAVATED AND FILLED WITH GRANULAR BACKFILL IN ACCORDANCE WITH THESE SPECIFICATIONS.

- 13.) ALL WORK ON THE STREETS, WATER SYSTEM, STORM SEWER SYSTEM AND SANITARY SEWER SYSTEM SHALL BE DONE IN ACCORDANCE WITH THE STANDARDS IN THE PLANS AND SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO PROVIDE THE OWNER WITH A COMPLETE WORKABLE SYSTEM COMPLYING WITH ALL APPLICABLE CODES AND ACCEPTED BY THE CITY OF SYCAMORE.
- 14.) ALL CONNECTIONS TO EXISTING UTILITIES, WATER, STORM SEWER AND SANITARY SEWER SHALL BE MADE AS REQUIRED AND CONSIDERED TO BE PART OF THE COST OF THAT UTILITY BEING CONSTRUCTED.
- 15.) THE EARTH REMOVED AND NOT USED FOR BACKFILLING OF THE UTILITY IN THE ROADWAY AND NOT NEEDED TO COMPLETE THE PROJECT SHALL BE DISPOSED OF ON THE LOTS BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER, WITHOUT ADDITIONAL COMPENSATION, IT BEING UNDERSTOOD THAT THE COST OF PERFORMING SUCH WORK IS INCLUDED IN THE CONTRACT UNIT PRICE FOR THE UTILITY BEING INSTALLED.
- 16.) THE CONTRACTOR SHALL LOCATE AND VERIFY THE SIZE AND LOCATION OF THE EXISTING UTILITIES.
- 17.) ALL WATERMAIN PIPE SHALL BE CLASS 53, DUCTILE IRON, WITH PUSH-ON COMPRESSION GASKET JOINTS. THE PIPE SHALL CONFORM TO ANSI A21.51 (AWWA C-151). THE PIPE SHALL BE CEMENT LINED PER ANSI A21.4 (AWWA C104).
- 18.) ALL WATERMAIN PIPE FITTINGS SHALL BE MECHANICAL JOINT DUCTILE IRON CONFORMING TO ANSI A21-10 (AWWA C-110 AND ANSI 21.11 (AWWA C-111).
- 19.) ALL VALVES AND BENDS SHALL BE RESTRAINED WITH MEGA LUGS
- 20.) THE CONTRACTOR MAY DEFLECT THE WATERMAIN FROM A STRAIGHT LINE IN EITHER THE VERTICAL OR HORIZONTAL PLANE OR ALONG LONG RADIUS CURVES IN ACCORDANCE WITH THE A.W.W.A. STANDARD C-600 FOR MAXIMUM DEFLECTION PER PIPE LENGTH AND TYPE. BENDS SHALL BE PROVIDED AS NECESSARY IF THE AMOUNT OF DEFLECTION EXCEEDS THE STANDARDS.
- 21.) ALL WATERMAIN FITTINGS (BENDS, TEES, CAPS, ETC.) SHALL BE INCLUDED IN THE COST OF THE WATERMAIN AS SPECIFIED.
- 22.) ALL WATER SERVICE LINES SHALL BE 1"Ø COPPER TYPE K AND SHALL INCLUDE A SERVICE SHUT OFF BOX COMPLETE. SERVICE SHALL BE STUBBED 2' INTO PROPERTY AND THE TERMINAL END SHALL BE MARKED BY AN 8 FOOT 2 X 4 POST WITH THE END PAINTED BLUE.
- 23.) WATERMAIN SHALL BE LOCATED 12' FROM RIGHT OF WAY ALONG ALL STREETS UNLESS OTHERWISE SPECIFIED.
- 24.) FIRE HYDRANT SHALL BE LOCATED 5' AWAY FROM THE WATERMAIN.
- 25.) ALL WATERMAIN AND SERVICES SHALL BE PRESSURE TREATED AT 150 PSI FOR 1 HOUR WITH ALLOWABLE LEAKAGE BEING AS SET FORTH IN OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, ADOPTED MAY, 1996
- 26.) ALL WATERMAIN SHALL BE DISINFECTED AND TESTED FOR CONTAMINATION PRIOR TO PUTTING THE SYSTEM INTO SERVICE; THIS SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF SYCAMORE AND ILLINOIS ENVIRONMENTAL PROTECTION AGENCY REQUIREMENTS.
- 27.) THE CONTRACTOR SHALL ORDER MANHOLES BASED UPON THE ENGINEERS ACTUAL FIELD SHOTS AT THE TIME OF CONSTRUCTION. DUE TO EXISTING UTILITY LOCATIONS SOME MANHOLE LOCATIONS MAY CHANGE SLIGHTLY THEREBY CHANGING THE RIM ELEVATIONS.
- 28.) PVC SANITARY SEWER PIPE SHALL CONFORM TO ASTM D 3034, TYPE PSM. STANDARD DIMENSION RATIO (SDR) SHALL BE SDR 26 UNLESS OTHERWISE SHOWN ON THE PLANS. SANITARY SEWER FITTINGS SHALL BE HEAVY DUTY PVC, TYPE SDR 26. DUCTILE IRON SANITARY SEWER SHALL MEET THE PIPE AND FITTING SPECIFICATIONS INDICATED IN NOTES 17 & 18 ABOVE.
- 29.) SANITARY SEWER JOINTS SHALL BE FLEXIBLE ELASTOMERIC SEALS PER ASTM D 3212 AND THE BEDDING SHALL BE CLASS 1 BEDDING ASTM D 2321. MISSION COUPLINGS SHALL BE USED TO CONNECT PVC TO DUCTILE IRON SANITARY SEWER MAIN.
- 30.) THE CONTRACTOR SHALL CORE DRILL EACH EXISTING MANHOLE THAT IS BEING CONNECTED TO. LINK SEALS SHALL BE PROVIDED AT THE CONNECTIONS.
- 31.) BACKFILL MATERIAL AROUND THE SANITARY SEWER MANHOLES SHALL BE CA-7 CRUSHED LIMESTONE
- 32.) THE SANITARY SEWER SERVICES SHALL BE PVC SDR 26 - ASTM D2241, 6" IN DIAMETER, STUBBED 6' INTO PROPERTY OR 6' BEYOND ANY STORM SEWER LINE LOCATED BEYOND THE RIGHT-OF-WAY, AS SPECIFIED ON THE PLANS. THE TRANSITION BETWEEN D3034 PIPE AND D2241 PIPE SHALL BE WITH A GASKETED COUPLING.
- 33.) ALL SANITARY SEWER AND SERVICES SHALL BE AIR TESTED AND ALL SANITARY SEWER 8" DIAMETER AND LARGER SHALL BE TELEVIEWED. COST TO BE INCIDENTAL TO COST OF SANITARY SEWER.
- 34.) ALL SANITARY SEWER LINES SHALL BE TESTED FOR DEFLECTION BY USING A MANDREL IN ACCORDANCE WITH THE SPECIFIED PROCEDURE AS OUTLINED IN THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS". COST SHALL BE INCIDENTAL TO COST OF SANITARY SEWER.
- 35.) ALL STORM SEWER SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO ASTM DESIGNATION C 76 FOR THE SIZE AND CLASS SPECIFIED, UNLESS SHOWN ON THE PLANS AS PVC, SDR 26, CLASS 160, ASTM 2241.
- 36.) THE PRECAST REINFORCED CONCRETE FLARED END SECTIONS SHALL BE IN ACCORDANCE WITH STANDARD 542301 INCLUDED IN THE PLANS, EXCEPT THAT A 8" WIDE BY 3'-6" DEEP CAST-IN-PLACE REINFORCED CONCRETE TOE WALL SHALL BE POURED. COST OF TOE WALL SHALL BE INCIDENTAL TO THE END SECTION. ALL END SECTIONS SHALL INCLUDE A METAL GRATE.
- 37.) ALL RCCP STORM SEWER PIPE CAN HAVE MASTIC JOINTS, EXCEPT O-RING JOINTS SHALL BE USED ON THE PIPE WHERE IT CROSSES THE WATERMAINS AND WHERE THE PIPE IS LOCATED ON SIDEYARD LINES - CONTRACTOR SHALL VERIFY ALL LOCATIONS.

- 38.) ALL STREET INLETS SHALL BE "STORMWATER CATCH BASIN" AS SHOWN ON THE MISCELLANEOUS DETAILS SHEET, UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL "FLOW BY" INLETS SHALL HAVE TYPE "L" VANE DRAINAGE GRATES.
- ALL INLETS IN GRASS AREAS SHALL BE INLET TYPE A AS SHOWN ON THE MISCELLANEOUS DETAILS SHEET, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- 39.) ALL STORM SEWER FITTINGS (BENDS, WYES, ETC.) SHALL BE INCLUDED IN THE COST OF THE STORM SEWER AS SPECIFIED.
- 40.) ALL REQUIRED SAWCUTS SHALL BE CONSIDERED INCIDENTAL TO THAT ITEM BEING INSTALLED.
- 41.) ALL STORM SEWER, INCLUDING LATERALS, THAT ARE LESS THAN 4'-0" DEEP FROM EDGE OF PAVEMENT (E.O.P.) TO INVERT (INV) SHALL BE UNDERCUT 12" MINIMUM AND BEDDED WITH CA07 PRIOR TO PLACEMENT OF SPECIFIED PIPE.
- 42.) ALL TOP SOIL SHALL BE REMOVED FROM STREET LIMITS TO A WIDTH OF 37' BEFORE BEGINNING ANY SEWER WORK. COST SHALL BE INCIDENTAL TO THE UTILITIES BEING INSTALLED.
- 43.) THE PRIME CONTRACTOR SHALL REQUEST FROM THE DESIGN ENGINEER A COPY OF THE CONSTRUCTION DRAWINGS WHICH IS TO BE DESIGNATED AND USED SOLELY BY THE CONTRACTOR FOR THE PURPOSE OF RECORDING THE "AS-BUILT" LOCATIONS AND ELEVATIONS OF THE IMPROVEMENTS. PRIOR TO THE BEGINNING OF ANY SITE WORK, THE CONTRACTOR SHALL REQUEST A PRECONSTRUCTION MEETING WITH THE DEVELOPER, THE GOVERNING AGENCY AND THE DESIGN ENGINEER TO DISCUSS THE EXTENT OF WHAT IS REQUIRED TO BE SHOWN ON THE POST CONSTRUCTION PLANS. AT A MINIMUM, THE CONTRACTOR SHALL RETURN THE POST CONSTRUCTION DRAWINGS TO THE DEVELOPER AT THE END OF THE PROJECT WITH THE RECORDED "AS-BUILT" INFORMATION INDICATED ON THE PLANS. THE DEVELOPER WILL RETAIN 5% OF THE TOTAL VALUE OF WORK COMPLETED FROM THE CONTRACTOR'S PAYMENT UNTIL THE CONTRACTOR PROVIDES THE POST CONSTRUCTION PLAN IN ACCORDANCE WITH THESE SPECIFICATIONS AND THEY ARE APPROVED BY THE GOVERNING AGENCY.

THE CONTRACTOR SHALL PROVIDE TO THE DEVELOPER, IN A FORMAT APPROVED BY THE DESIGN ENGINEER AND GOVERNING AGENCY, THE FOLLOWING INFORMATION: (AT A MINIMUM)

- DISTANCES MEASURED FROM LOT CORNERS, AND/OR LOT LINES TO UNDERGROUND UTILITIES INCLUDING, BUT NOT LIMITED TO, WATERMAIN SANITARY SEWERMAIN, STORM SEWER, DRAINAGE TILE, AND THEIR ASSOCIATED TAPS AND SERVICE LATERALS. ALSO WATER VALVES, BENDS, AND FIRE HYDRANTS.
 - DISTANCE FROM PROPERTY LINE TO THE PLUGGED END OF THE WATER, SANITARY SEWER, AND SUMP PUMP LATERALS.
 - ELEVATION OF CAPPED END OF SANITARY SEWER AND SUMP PUMP LATERALS.
 - DISTANCE FROM CENTERLINE TO CENTERLINE OF SANITARY SEWER MANHOLES, STORM SEWER MANHOLES, CATCH BASINS, INLETS, CLEAN-OUTS, OR OTHER STRUCTURES.
- 44.) THE ADJUSTMENT OF CATCH BASINS, MANHOLES, INLETS, DRAINAGE STRUCTURES, AND VALVE VAULTS SHALL BE MADE WITH PRECAST CONCRETE ADJUSTMENT RINGS OR CAST IN PLACE CONCRETE. BRICK MASONRY OR CONCRETE BLOCKS ARE NOT ALLOWED.
 - 45.) THIS PROJECT WILL RESULT IN A DISTURBANCE OF ONE OR MORE ACRES OF TOTAL LAND AREA AND WILL REQUIRE COMPLIANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER PERMIT.
- THE OWNER/DEVELOPER IS THE PERMITTEE AND THE CONTRACTORS AND SUBCONTRACTORS WILL BE REQUIRED TO CERTIFY THAT THEY UNDERSTAND AND WILL COMPLY WITH ALL REQUIREMENTS OF THE PERMIT.
- A STORM WATER POLLUTION PLAN SHALL BE COOPERATIVELY DEVELOPED BY THE PERMITTEE AND CONTRACTOR FOR THIS PROJECT USING GOOD ENGINEERING PRACTICES. THE PLAN SHALL IDENTIFY POTENTIAL SOURCES OF POLLUTION WHICH MAY REASONABLY BE EXPECTED TO AFFECT THE QUALITY OF STORM WATER DISCHARGES. IN ADDITION, THE PLAN SHALL DESCRIBE AND ENSURE THE IMPLEMENTATION OF PRACTICES WHICH WILL BE USED TO REDUCE THE POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH THIS PROJECT AND ASSURE COMPLIANCE WITH THE TERMS AND CONDITIONS OF THE STORM WATER PERMIT. THE PLAN WILL BE SIGNED BY THE ENGINEER AND RETAINED ON-SITE.
- 46.) SANITARY SEWER AND WATERMAIN SEPARATION WILL CONFORM TO SECTION 41-2.01 OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION.
 - 47.) ALL SUMP PUMP DRAIN TILE LINES SHALL BE SDR 26. SERVICE CONNECTIONS TO THE STORM SEWER SHALL BE MADE AT THE BOTTOM OF THE STORM SEWER WITH AN INSERT-A-TEE.

REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

THIS WORK SHALL INCLUDE THE UNDERCUTTING, REMOVING, AND DISPOSAL OF UNSUITABLE MATERIAL AND THE FILLING OF THE EXCAVATED AREA WITH A BREAKER RUN CRUSHED LIMESTONE, "D" QUALITY FOR CORRECTING UNSTABLE SUBGRADE CONDITIONS WITHIN THE ROADWAY AREA. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR REMOVAL AND DISPOSAL OF UNSUITABLE MATERIALS.

THIS MATERIAL MAY BE TAILGATE DUMPED AND PUSHED IN PLACE BY DOZER AND COMPACTED. MAXIMUM LIFTS SHALL BE 15" THICK.

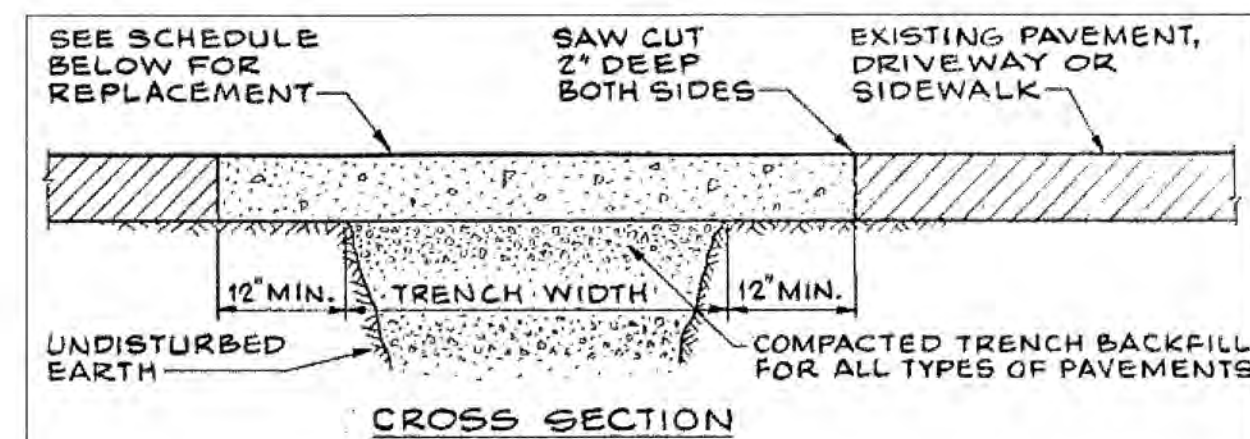
EARTH EXCAVATION

Earth excavation shall consist of the excavation, removal and satisfactory disposal of all materials taken from the site for the construction of roadways, ditches, detention ponds and site grading. Embankment shall be constructed by depositing, placing and compacting earth, stone, gravel or other materials of acceptable quality above the natural ground or other surface. Earth excavation shall not be interpreted to include excavation from borrow pits. The method of removal and placement of the excavated material shall be in accordance with the applicable articles of Sections 202 and 205 of the Standard Specifications for Road and Bridge Construction, adopted Jan. 1, 1997 by the Illinois Department of Transportation, except that embankments will not be measured for payment.

All excess earth excavation material shall be deposited and evenly spread as directed by the engineer on the lots. No compaction factor or allowance for stripping and stockpiling topsoil was considered in the calculations.

SUMMARY OF EARTHWORK QUANTITIES

LOCATION	EARTH EXCAVATION (CU YD)	EMBANKMENT IN PLACE (CU YD)
FREED ROAD	959	355
MAIN STREET	1,255	8,375
LOOP ROAD	68	10,431
TOWNHOUSE ROADS	657	818
DETENTION PONDS	27,509	120
	TOTAL 30,448 CU YD	20,099 CU YD

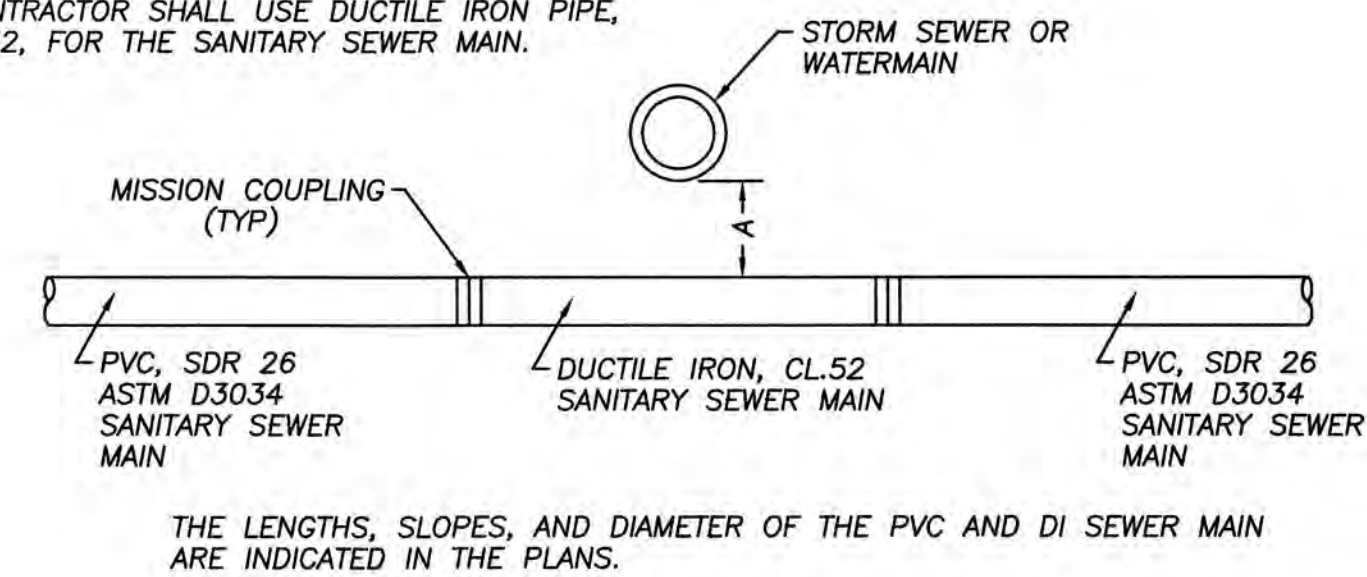


SCHEDULE FOR PAVEMENT, DRIVEWAY & SIDEWALK REPLACEMENT

EXISTING	REPLACEMENT
CONCRETE PAVEMENT	REPLACE WITH SAME THICKNESS OF CONCRETE AS THE EXISTING PAVEMENT WITH 6" x 6" 10 GA. WIRE MESH WITH THE MINIMUM THICKNESS OF CONCRETE BEING 8".
CONCRETE DRIVEWAY	REPLACE WITH SAME THICKNESS OF CONCRETE AS THE EXISTING DRIVEWAY WITH 6" x 6" 10 GA. WIRE MESH WITH THE MINIMUM THICKNESS OF CONCRETE BEING 6".
CONCRETE SIDEWALK	REPLACE WITH SAME THICKNESS OF CONCRETE AS THE EXISTING SIDEWALK WITH MINIMUM THICKNESS OF CONCRETE BEING 4" EXCEPT 6" AT DRIVEWAYS.
PAVEMENTS OR DRIVEWAYS WITH BITUMINOUS SURFACE AND CURB & GUTTER	REPLACE WITH 12" OF COMPACTED #8 CRUSHED STONE BASE AND 2" CLASS I BITUMINOUS SURFACE COURSE.

PAVEMENT, DRIVEWAY & SIDEWALK REMOVAL & REPLACEMENT

WHEN THE DISTANCE "A" INDICATED IN THE SKETCH BELOW IS 18" OR LESS WHEN THE UPPER PIPE IS WATERMAIN, OR 12" OR LESS WHEN THE UPPER PIPE IS STORM SEWER, THEN THE CONTRACTOR SHALL USE DUCTILE IRON PIPE, CLASS 52, FOR THE SANITARY SEWER MAIN.



STORM SEWER OR WATERMAIN CROSSING SANITARY SEWER DETAIL

© WENDLER ENGINEERING SERVICES, INC. 2004

REVISION:	DATE:	SURVEYED BY:	JOB NO:	DRAWN BY:	DESIGNED BY:
EPA COMMENTS	07/06/04		203551	BDS	MAG
CITY COMMENTS	11/02/04	BOOK NO:	DRAWING NAME:	DRAWING DATE:	
CITY COMMENTS	02/02/05		NOTES	4/9/04	
TITLE:					
TITLE:					
CLIENT:					

GENERAL NOTES
SANDERSON BROTHERS

WENDLER ENGINEERING SERVICES, INC.

Structural & Civil Engineers—Land Surveying—Environmental Services
Illinois Professional Design Firm No. 184-000848

1968 - 2004
AFTER

36

YEARS,
WE'RE STILL
Turning Ideas
...Into Reality!!!

698 TIMBER CREEK ROAD - P.O. BOX 486 - DIXON, IL 61021 - 815-288-2261
28 E. MARION - SUITE 3 - PRINCETON, IL 61356 - 815-879-4731
1770 WEST STATE ST. - SYCAMORE, IL 60178 - 815-895-5008
804 FREEPORT RD. - STERLING, IL 61081 - (815) 626-4428
E-MAIL: info@wendler.nu

0
SCALE: 1"=

<u>RIP RAP RR-4 W/ CONCRETE</u>	
LOCATION	SQ. YD
OFF SITE	15
TOTAL	15

<u>SANITARY SEWER, 12"</u>	
LOCATION	LIN FT
STA. 502+51 - STA. 503+01	50
TOTAL	50

10" GATE VALVE	
LOCATION	EACH
STA. 28+50	1
STA. 100+46	1
STA. 302+42	1
STA. 306+99	1
TOTAL	4

<u>WATERMAIN CASING</u>	
<u>LOCATION</u>	<u>LIN FT</u>
STA. 103+49	20
STA. 106+08	20
STA. 204+35	20
TOTAL	60

6" WATERMAIN	
STA. 199+80 - STA. 200+34	30
STA. 211+67 - STA. 212+27	33
STA. 399+90 - STA. 400+28	21
STA. 400+62 - STA. 401+03	23
STA. 401+25 - STA. 401+48	13
STA. 401+73 - STA. 402+18	25
STA. 402+43 - STA. 402+88	25
STA. 403+33 - STA. 403+87	30
TOTAL	200

(TOWN/HOUSES)	
STA. 300+25 - STA. 301+65	37
STA. 301+65 - STA. 303+37	80
STA. 303+37 - STA. 304+76	100
STA. 304+76 - STA. 305+84	100
STA. 305+84 - STA. 307+06	143
STA. 307+06 - STA. 204+15	175
STA. 401+36 - STA. 402+65	49
STA. 402+65 - STA. 103+60	37
SUB-TOTAL	721
TOTAL	1293

SCHEDULE OF QUANTITIES

STORM SEWER, 12", TY. 1	
LOCATION	LIN FT
STA. 12+91	46
RT. STA. 12+91 - RT. STA. 100+40	111
STA. 103+25	34
RT. STA. 105+65 - LT. STA. 105+99	53
LT. STA. 105+65 - REAR LOT 5	140
RT. STA. 105+65 - RT. STA. 106+09	47
LT. STA. 109+02 - LT. STA. 109+21	30
LT. STA. 109+21 - REAR LOT 8	145
STA. 109+02	34
STA. 116+93	34
RT. STA. 116+93	6
STA. 119+59	34
RT. STA. 119+59	7
STA. 203+73	34
RT. STA. 203+73	6
STA. 207+50	67
STA. 210+60	34
STA. 300+25 - STA. 301+65	140
STA. 301+65 - STA. 303+37	172
REAR BLDG #1 - LT. STA. 401+15	70
LT. STA. 401+15 - STA. 401+36	40
REAR BLDG #4 - REAR LOT 46	158
REAR LOT 46 - STA. 307+06	117
REAR LOT 28 - REAR LOT 27	173
REAR LOT 27 - REAR LOT 26	207
REAR LOT 26 - REAR LOT 24	170
REAR LOT 24 - REAR LOT 21	279
REAR LOT 28 - DETENTION POND	40
REAR LOT 36	75
TOTAL	2503
STORM SEWER, 12", TY. 2	
LOCATION	LIN FT
RT. STA. 16+20 - LT. STA. 16+20	38
TOTAL	38
STORM SEWER, 15", TY. 1	
LOCATION	LIN FT
RT. STA. 103+25	6
RT. STA. 107+39 - REAR LOT 6	154
RT. STA. 107+39 - RT. STA. 109+02	164
STA. 113+00	34
RT. STA. 113+00	16
REAR LOT 16 - REAR LOT 17	170
RT. STA. 109+02	6
RT. STA. 210+60	6
STA. 303+37 - STA. 304+76	139
STA. 401+36 - STA. 402+65	129
OFFSITE	400
CONTROL M.H. TO DETENTION POND	66
TOTAL	1290
STORM SEWER, 15", TY. 2	
LOCATION	LIN FT
RT. STA. 14+59 - RT. STA. 16+20	161
RT. STA. 100+40 - RT. STA. 14+59	61
RT. STA. 109+02 - RT. STA. 211+64	73
STA. 207+50	34
RT. STA. 210+60 - RT. STA. 211+64	96
STA. 304+76 - STA. 305+84	107
TOTAL	532

STORM SEWER, 18", TY. 1	
LOCATION	LIN FT
RT. STA. 100+40 - RT. STA. 103+25	288
RT. STA. 103+25 - RT. STA. 103+60	40
REAR LOT 14 - REAR LOT 15	170
DETENTION POND	267
STA. 402+65 - RT. STA. 103+60	65
TOTAL	830
STORM SEWER, 18", TY. 2	
LOCATION	LIN FT
RT. STA. 207+50 - RT. STA. 207+51	6
RT. STA. 207+51 - DETENTION POND	158
STA. 305+84 - STA. 307+06	120
TOTAL	284
STORM SEWER, 21", TY. 2	
LOCATION	LIN FT
RT. STA. 118+44 - RT. STA. 119+59	130
RT. STA. 119+59 - RT. STA. 120+23	73
RT. STA. 209+14 - RT. STA. 210+62	158
TOTAL	361
STORM SEWER, 24", TY. 1	
LOCATION	LIN FT
REAR LOT 32 - DETENTION BASIN	47
TOTAL	47
STORM SEWER, 24", TY. 2	
LOCATION	LIN FT
RT. STA. 103+60 - RT. STA. 105+65	216
RT. STA. 105+65 - RT. STA. 201+22	102
RT. STA. 114+52 - RT. STA. 116+93	241
RT. STA. 116+93 - RT. STA. 118+44	157
RT. STA. 201+22 - RT. STA. 203+73	256
RT. STA. 203+73 - RT. STA. 204+15	44
RT. STA. 209+14 - M.H. REAR LOT 32	115
STA. 307+06 - STA. 204+15	126
TOTAL	1257
STORM SEWER, 27", TY. 2	
LOCATION	LIN FT
RT. STA. 114+52 - REAR LOT 14	168
RT. STA. 204+15 - RT. STA. 204+97	99
TOTAL	267
STORM SEWER, 30", TY. 2	
LOCATION	LIN FT
RT. STA. 204+97 - RT. STA. 205+53	74
RT. STA. 205+53 - DETENTION POND	150
TOTAL	224
STORM SEWER, 36", TY. 1	
LOCATION	LIN FT
DETENTION POND - REAR LOT 28	50
REAR LOT 28 - RT. STA. 113+13	140
RT. STA. 113+13 - RT. STA. 113+74	70
RT. STA. 113+74 - RT. STA. 114+52	86
TOTAL	346

12" PRC FLARED END SECTION W/ METAL GRATE	
LOCATION	EACH
DETENTION POND	1
TOTAL	1

15" PRC FLARED END SECTION W/ METAL GRATE	
LOCATION	EACH
DETENTION POND	2
OFFSITE	1
TOTAL	3

18" PRC FLARED END SECTION W/ METAL GRATE	
LOCATION	EACH
DETENTION POND	1
TOTAL	1

24" PRC FLARED END SECTION W/ METAL GRATE	
LOCATION	EACH
DETENTION POND	1
TOTAL	1

30" PRC FLARED END SECTION W/ METAL GRATE	
LOCATION	EACH
DETENTION BASIN	1
TOTAL	1

36" PRC FLARED END SECTION W/ METAL GRATE	
LOCATION	EACH
DETENTION BASIN	1
TOTAL	1

DRAIN TILE, 6" PVC SDR 26	
LOCATION	LIN FT
LT. STA. 101+67 - LT. STA. 103+25	162
LT. STA. 103+25 - LT. STA. 103+87	68
LT. STA. 108+35 - LT. STA. 109+02	80
LT. STA. 110+35 - LT. STA. 113+00	249
RT. STA. 112+47 - RT. STA. 113+13	87
LT. STA. 202+38 - LT. STA. 203+73	141
REAR BLDG. 1	126
REAR BLDG. 2	153
REAR BLDG. 3	208
REAR BLDG. 4	82
REAR BLDG. 4 - REAR BLDG. 5	173
TOTAL	1529

CLEANOUT	
LOCATION	EACH
LT. STA. 103+87	1
RT. STA. 112+47	1
LT. STA. 202+38	1
TOTAL	3

STORM MANHOLE - 4'ø	
LOCATION	EACH
RT. STA. 103+25	1
RT. STA. 16+20	1
RT. STA. 107+39	1
RT. STA. 109+02	1
LT. STA. 109+21	1
RT. STA. 109+93	1
RT. STA. 120+23	1
RT. STA. 207+51	1
RT. STA. 210+62	1
STA. 305+84	1
REAR LOT 15	1
REAR LOT 28	1
LOT 36	1
REAR BLDG 5	1
TOTAL	14

STORM MANHOLE - 5'ø	
LOCATION	EACH
RT. STA. 103+60	1
RT. STA. 113+13	1
RT. STA. 113+74	1
RT. STA. 114+52	1
RT. STA. 116+93	1
RT. STA. 118+44	1
RT. STA. 119+59	1
RT. STA. 201+22	1
RT. STA. 203+73	1
RT. STA. 204+15	1
RT. STA. 204+97	1
RT. STA. 205+53	1
RT. STA. 209+14	1
STA. 307+06	1
REAR LOT 14	1
REAR LOT 28	1
REAR LOT 30	1
TOTAL	17

CATCH BASIN, TY. C	
LOCATION	EACH
LT. STA. 16+20	1
STA. 300+25	1
STA. 301+65	1
REAR BLDG. 1	1
LT. STA. 401+15	1
TOTAL	5

CATCH BASIN, 2'x3'	
LOCATION	EACH
LT. STA. 12+91	1
LT. STA. 103+25	1
RT. STA. 103+25	1
RT. STA. 106+09	1
RT. STA. 109+02	1
LT. STA. 113+00	1
LT. STA. 116+93	1
RT. STA. 116+93	1
LT. STA. 119+59	1
RT. STA. 119+59	1
LT. STA. 203+73	1
RT. STA. 203+73	1
LT. STA. 207+50	1
LT. STA. 210+60	1
RT. STA. 210+60	1
TOTAL	15

CATCH BASIN - 4'ø	
LOCATION	EACH
RT. STA. 12+91	1
RT. STA. 14+59	1
RT. STA. 100+40	1
LT. STA. 105+99	1
LT. STA. 109+02	1
RT. STA. 113+00	1
RT. STA. 207+50	1
STA. 303+37	1
STA. 304+76	1
STA. 401+36	1
STA. 402+65	1
TOTAL	11

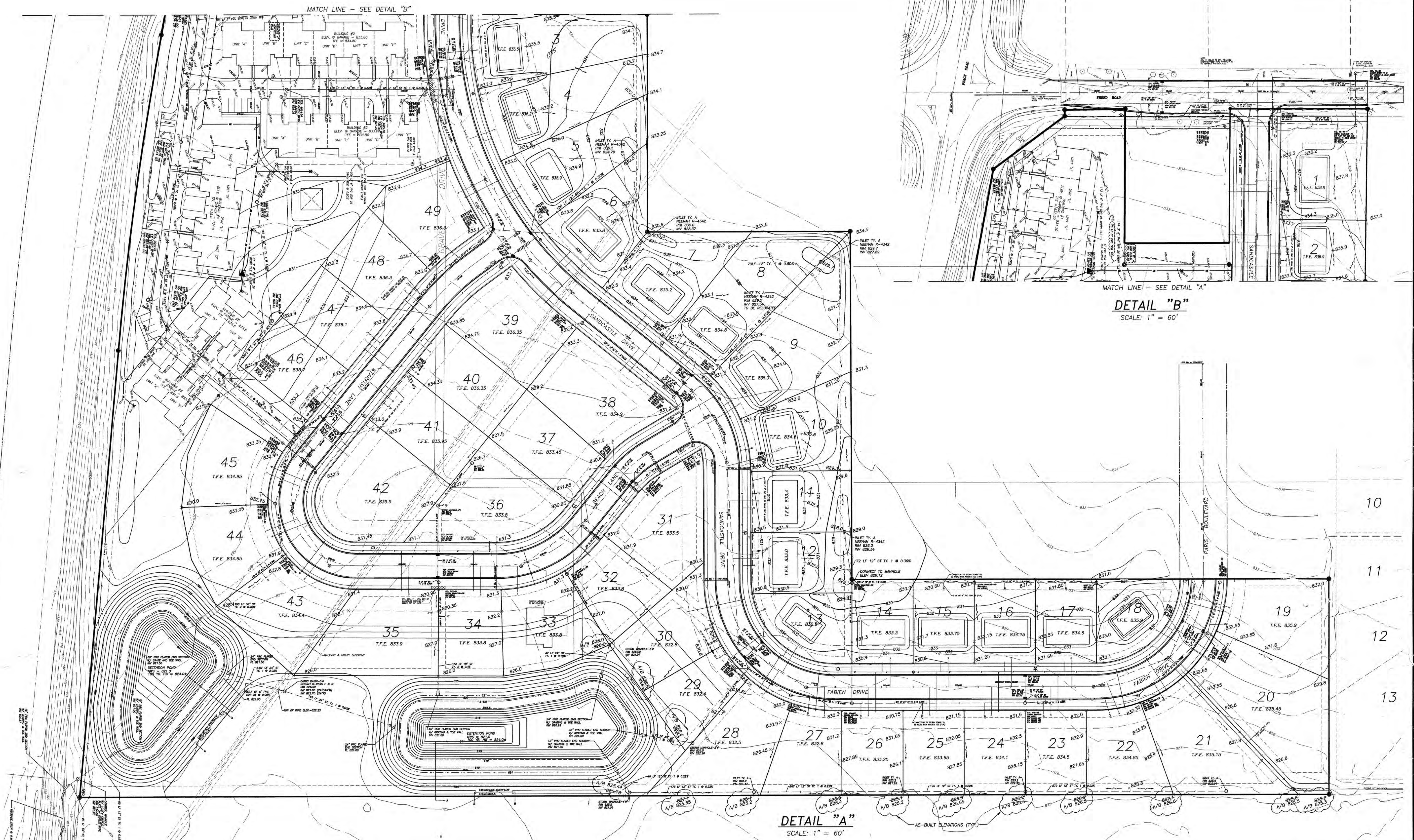
CATCH BASIN - 5'ø	
LOCATION	EACH
RT. STA. 105+65	1
TOTAL	1

INLET TYPE A	
LOCATION	EACH
LT. STA. 101+67	1
LT. STA. 108+35	1
LT. STA. 110+35	1
LT. STA. 202+38	1
REAR LOT 5	1
REAR LOT 7	1
REAR LOT 8	1
REAR LOT 17	1
REAR LOT 21	1
REAR LOT 24	1
REAR LOT 26	1
REAR LOT 28	1
REAR LOT 36	1
REAR BUILDING #4	1
TOTAL	14

CONTROL MANHOLE	
LOCATION	EACH
OFFSITE	1
TOTAL	1

RESIDENTIAL LOT SERVICES					
LOT NUMBER	1" COPPER TYPE K WATER SERVICE (LIN. FT.)	WATER SERVICE TRENCH BACKFILL (CU. YD.)	6" PVC SDR 26 SANITARY SERVICE (LIN. FT.)	SANITARY SERVICE TRENCH BACKFILL (CU. YD.)	DRAINAGE TILE 4" PVC SDR 26 (LIN. FT.)
EXIST. LOT STA. 101+30 RT.	60	20	42	10	0
EXIST. LOT STA. 102+00 RT.	60	20	42	10	0
1	14	0	41	10	5
2	14	0	38	10	5
3	14	0	40	10	5
4	14	0	36	8	5
5	14	0	32	7	29
6	14	0	41	12	29
7	14	0	39	10	5
8	14	0	41	10	5
9	14	0	49	14	5
10	14	0	42	8	5
11	14	0	38	7	5
12	14	0	33	4	5
13	14	0	36	7	5
14	14	0	38	11	5
15	14	0	38	13	5
16	14	0	38	15	5
17	14	0	38	17	5
18	14	0	33	14	5
19	68	24	42	21	19
20	56	20	10	0	24
21	56	20	10	0	24
22	57	20	45	23	23
23	56	20	38	17	17
24	56	20	38	15	17
25	56	20	38	13	17
26	56	20	38	11	17
27	56	20	37	8	20
28	56	20	40	8	5
29	57	20	22	0	5
30	81	20	10	0	5
31	56	20	10	0	16
32	56	20	10	0	5
33	56	20	38	7	5
34	56	20	38	8	5
35	56	20	38	8	5
36	14	0	38	8	5
37	14	0	57	14	31
38	56	20	38	10	28
39	56	20	36	9	0
40	14	0	38	10	5
41	14	0	41	10	5
42	14	0	38	10	5
43	56	20	40	9	5
44	56	20	43	10	5
45	56	20	48	12	20
46	56	20	38	10	16
47	56	20	38	10	16
48	56	20	38	10	16
49	56	20	45	13	12
TOTAL	1937	564	1862	491	536

TOWNHOUSE SERVICES					
	1" COPPER TYPE K WATER SERVICE (LIN. FT.)	WATER SERVICE TRENCH BACKFILL (CU. YD.)	6" PVC SDR 26 SANITARY SERVICE (LIN. FT.)	SANITARY SERVICE TRENCH BACKFILL (CU. YD.)	DRAINAGE TILE 4" PVC SDR 35 (LIN. FT.)
BUILDING #1					
UNIT "A"	45	12.5	18.5	0	8
UNIT "B"	45	12.5	18.5	0	5
UNIT "C"	44	12.5	18.5	0	5
UNIT "D"	44	12.5	18.5	0	5
UNIT "E"	45	12.5	18.5	0	10
UNIT "F"	45	12.5	18.5	0	12
BUILDING #2					
UNIT "A"	18.5	0	44	19	5
UNIT "B"	18.5	0	44	11	5
UNIT "C"	18.5	0	44	11	5
UNIT "D"	18.5	0	44	11	5
UNIT "E"	18.5	0	44	11	8
BUILDING #3					
UNIT "A"	49.5	12.5	24	12	5
UNIT "B"	52	12.5	24	2	5
UNIT "C"	52	12.5	24	2	5
UNIT "D"	54	12.5	24	2	5
UNIT "E"	54	12.5	24	2	8
BUILDING #4					
UNIT "A"	45	12.5	24	0	8
UNIT "B"	45	12.5	24	0	5
UNIT "C"	44	12.5	24	0	5
UNIT "D"	44	12.5	24	0	8
UNIT "E"	45	12.5	18.5	0	5
UNIT "F"	45	12.5	18.5	0	5
BUILDING #5					
UNIT "A"	53	12.5	43	10	5
UNIT "B"	53	12.5	43	10	10
BUILDING #6					
UNIT "A"	15	0	25	2	35
UNIT "B"	15	0	25	2	30
TOTAL	1028	237.5	720	107	217



DETAIL "B"
SCALE: 1" = 60'

DETAIL "A"
SCALE: 1" = 60'

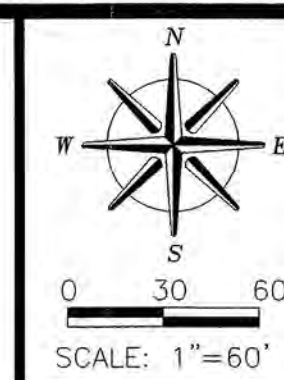
© WENDLER ENGINEERING SERVICES, INC. 2004

WENDLER ENGINEERING SERVICES, INC.

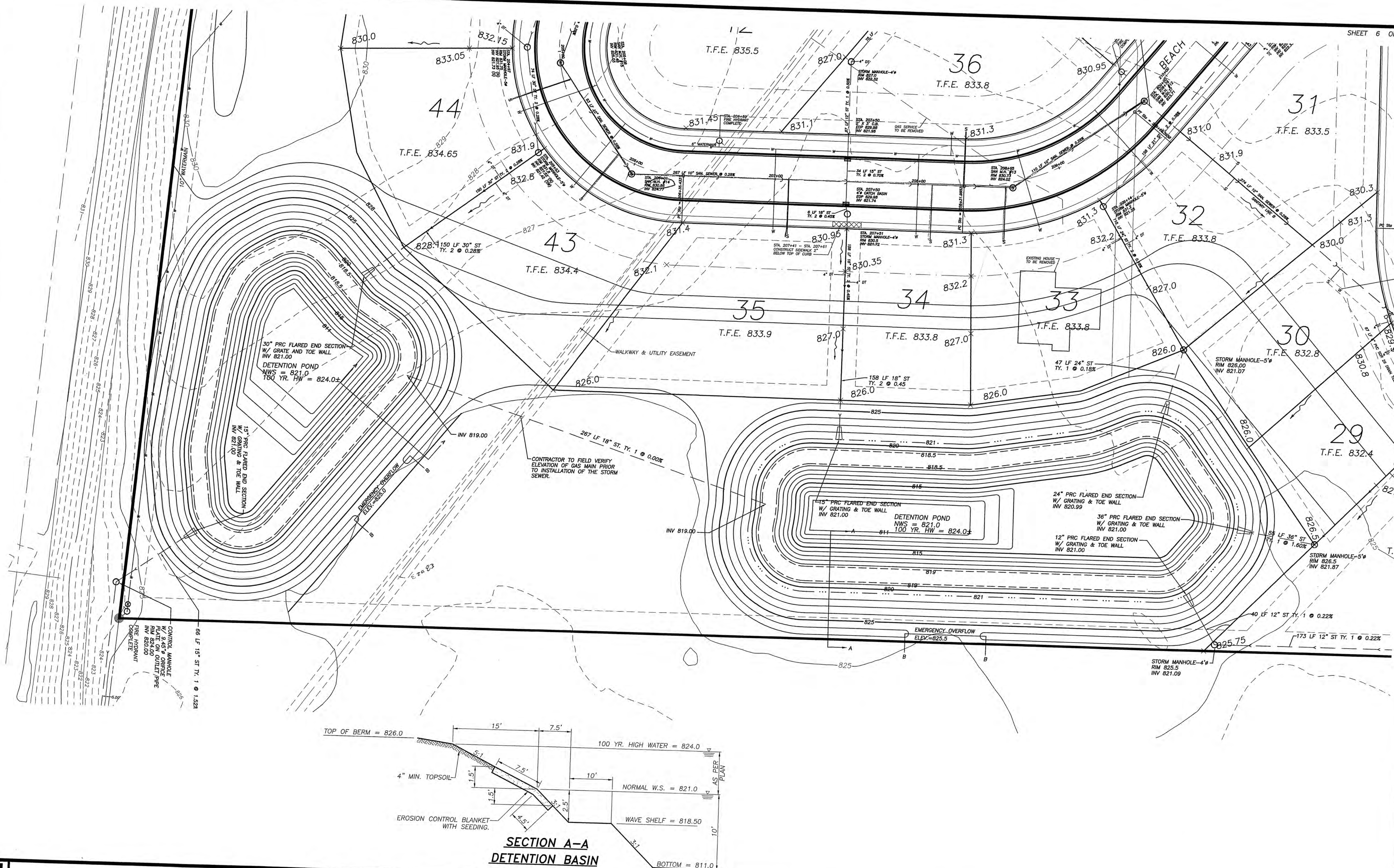
Structural & Civil Engineers—Land Surveying—Environmental Services
Illinois Professional Design Firm No. 184-000848

1968 - 2004
AFTER
36
YEARS.
WE'RE STILL
Turning Ideas...
...Into Reality!!!

698 TIMBER CREEK ROAD - P.O. BOX 486 - DIXON, IL 61021 - 815-288-2261
28 E. MARION - SUITE 3 - PRINCETON, IL 61356 - 815-879-4731
1770 WEST STATE ST. - SYCAMORE, IL 60178 - 815-895-5008
804 FREEPORT RD. - STERLING, IL 61081 - (815) 626-4428
E-MAIL: info@wendler.nu



REVISION	DATE	SURVEYED BY	JOB NO.	DRAWN BY	DESIGNED BY
TEPA COMMENTS	07/09/04		203551	BDS	MAG
STORM SEWER	10/13/04				
CITY COMMENTS	02/02/05				
REVISE GRADING	04/14/05				
REVISE GRADING	06/01/05				
REVISE GRADING	08/01/05				
A/B GRADES	10/10/05				
GRADING PLAN					
SANDERSON BROTHERS					

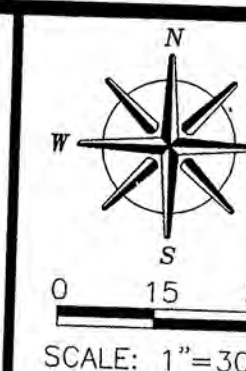


SECTION A-A
DETENTION BASIN

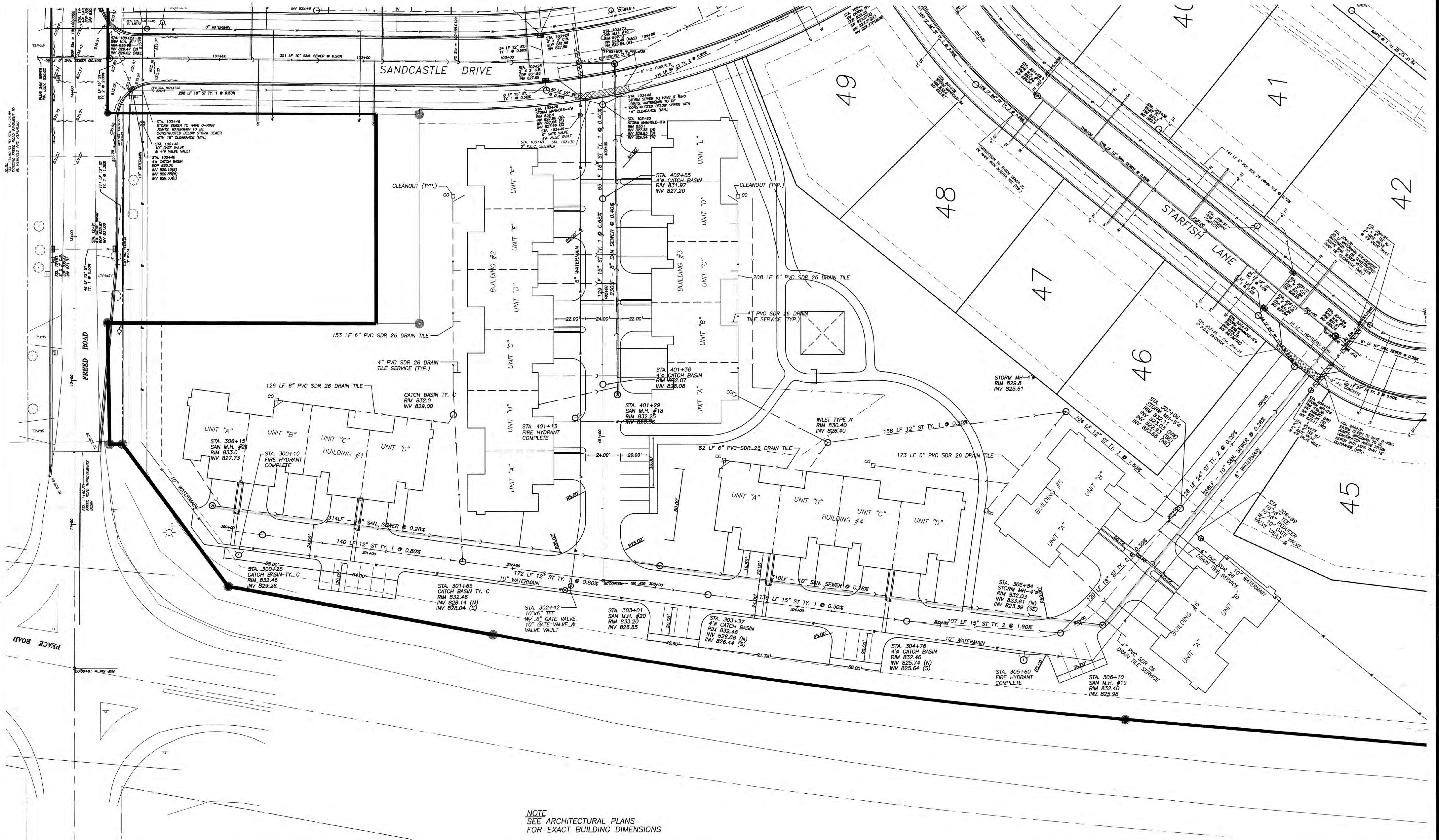
WENDLER ENGINEERING SERVICES, INC.
Structural & Civil Engineers—Land Surveying—Environmental Services
Illinois Professional Design Firm No. 184-000848

1968 - 2004
AFTER
36
YEARS
WE'RE STILL
*"Turning Ideas...
...Into Reality!"*

698 TIMBER CREEK ROAD - P.O. BOX 486 - DIXON, IL 61021 - 815-288-2261
28 E. MARION - SUITE 3 - PRINCETON, IL 61356 - 815-879-4731
1770 WEST STATE ST. - SYCAMORE, IL 60178 - 815-895-5008
804 FREEPORT RD. - STERLING, IL 61081 - (815) 626-4428
E-MAIL: info@wendler.nu



REVISION		DATE	SURVEYED BY	JOB NO.	DRAWN BY	DESIGNED BY
CITY COMMENTS		07/13/2004		203551	BDS	MAG
CITY COMMENTS		02/02/2005	BOOK NO.	DRAWING NAME	DRAWING DATE	
				203551	4/9/04	
		TITLE				
		TITLE				
		DETENTION BASIN PLAN				
		CLIENT				
		SANDERSON BROTHERS				



NOTE
SEE ARCHITECTURAL PLANS
FOR EXACT BUILDING DIMENSIONS

© WENDLER ENGINEERING SERVICES, INC. 2004

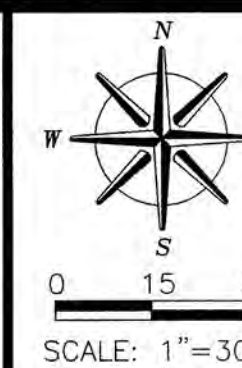


WENDLER ENGINEERING SERVICES, INC.

Structural & Civil Engineers—Land Surveying—Environmental Services
Illinois Professional Design Firm No. 184-000848

1968 - 2004
AFTER
36
YEARS,
WE'RE STILL
"Turning Ideas...
...Into Reality!"

698 TIMBER CREEK ROAD - P.O. BOX 486 - DIXON, IL 61021 - 815-288-2261
28 E. MARION - SUITE 3 - PRINCETON, IL 61356 - 815-879-4731
1770 WEST STATE ST. - SYCAMORE, IL 60178 - 815-895-5008
804 FREEPORT RD. - STERLING, IL 61081 - (815) 626-4428
E-MAIL: info@wendler.nu



REVISION	DATE
IEPA COMMENTS	07/08/04

SURVEYED BY	JOB NO.	DRAWN BY	DESIGNED BY
	203551	BDS	MAG
BOOK NO.	DRAWING NAME	DRAWING DATE	
	203551	4/9/04	
TITLE	TOWNHOUSE		
TITLE	UTILITY & LAYOUT PLAN		
CLIENT	SANDERSON BROTHERS		



© WENDLER ENGINEERING SERVICES, INC. 2004

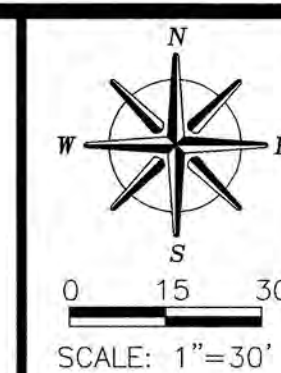


WENDLER ENGINEERING SERVICES, INC.

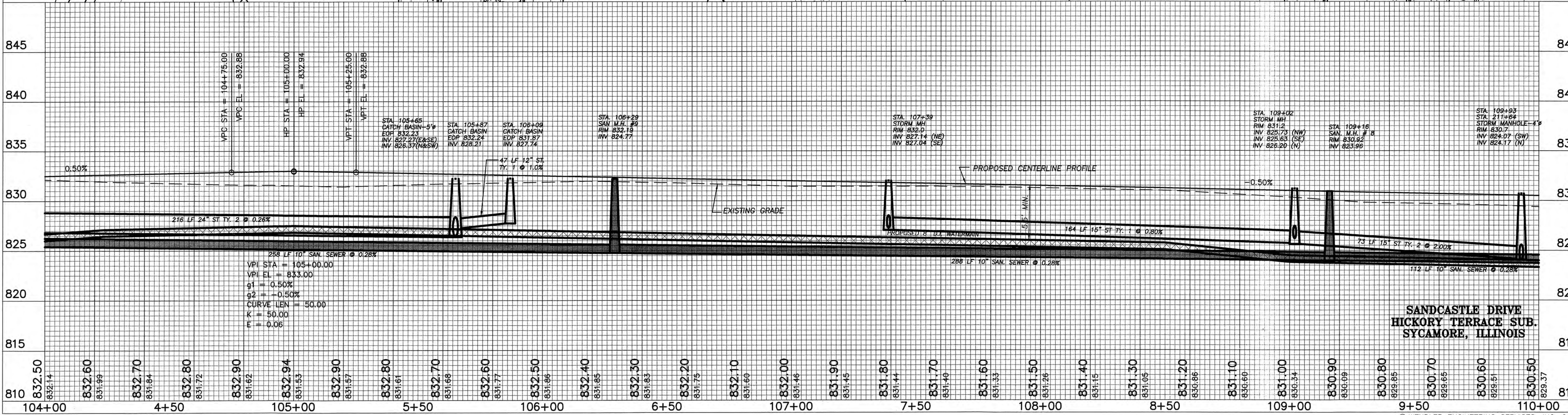
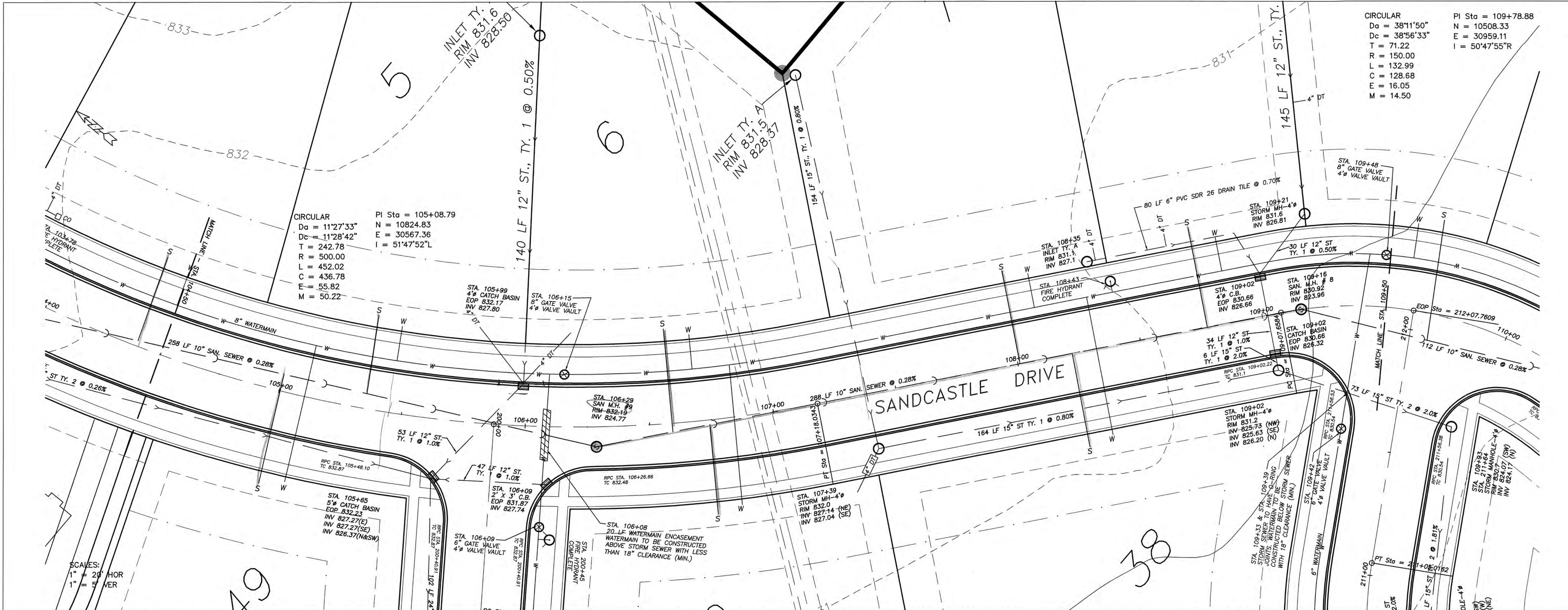
Structural & Civil Engineers—Land Surveying—Environmental Services
Illinois Professional Design Firm No. 184-000848

1968 - 2004
AFTER
36
YEARS.
WE'RE STILL
"Turning Ideas...
Into Reality!"

698 TIMBER CREEK ROAD - P.O. BOX 486 - DIXON, IL 61021 - 815-288-2261
28 E. MARION - SUITE 3 - PRINCETON, IL 61356 - 815-879-4731
1770 WEST STATE ST. - SYCAMORE, IL 60178 - 815-895-5008
804 FREEPORT RD. - STERLING, IL 61081 - (815) 626-4428
E-MAIL: info@wendler.nu



REVISION	DATE	SURVEYED BY	JOB NO.	DRAWN BY	DESIGNED BY
			203551	BDS	MAG
		BOOK NO.	DRAWING NAME	DRAWING DATE	
			203551	4/9/04	
		TITLE	TOWNHOUSE		
		TITLE	GRADING PLAN		
		CLIENT	SANDERSON BROTHERS		



14 of 39

10/13/04

11/02/04

02/02/05

STORM SEWER RELOCATE

SANITARY SEWER

CITY COMMENTS

658 TIMBER CREEK ROAD - P.O. BOX 486 - DIXON, IL 61021 - 815-288-2261
28 E. MARION - SUITE 3 - PRINCETON, IL 61356 - 815-879-4731
1778 WEST STATE ST. - SYCAMORE, IL 60178 - 815-895-3008
804 FREEDOM RD. - STERLING, IL 61081 - (815) 626-4428
E-MAIL: info@wendler.com

WENDLER ENGINEERING SERVICES, INC.

Structural & Civil Engineers-Land Surveying-Environmental Services

Illinois Professional Design Firm No. 184-000848

1968 - 2004

AFTER

36

YEARS.

WE'RE STILL

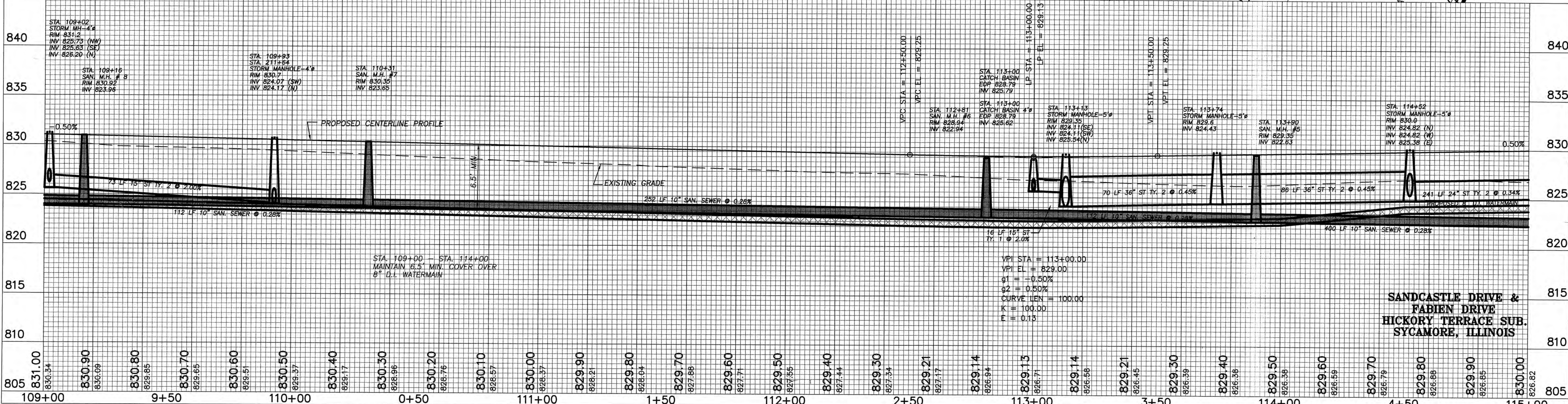
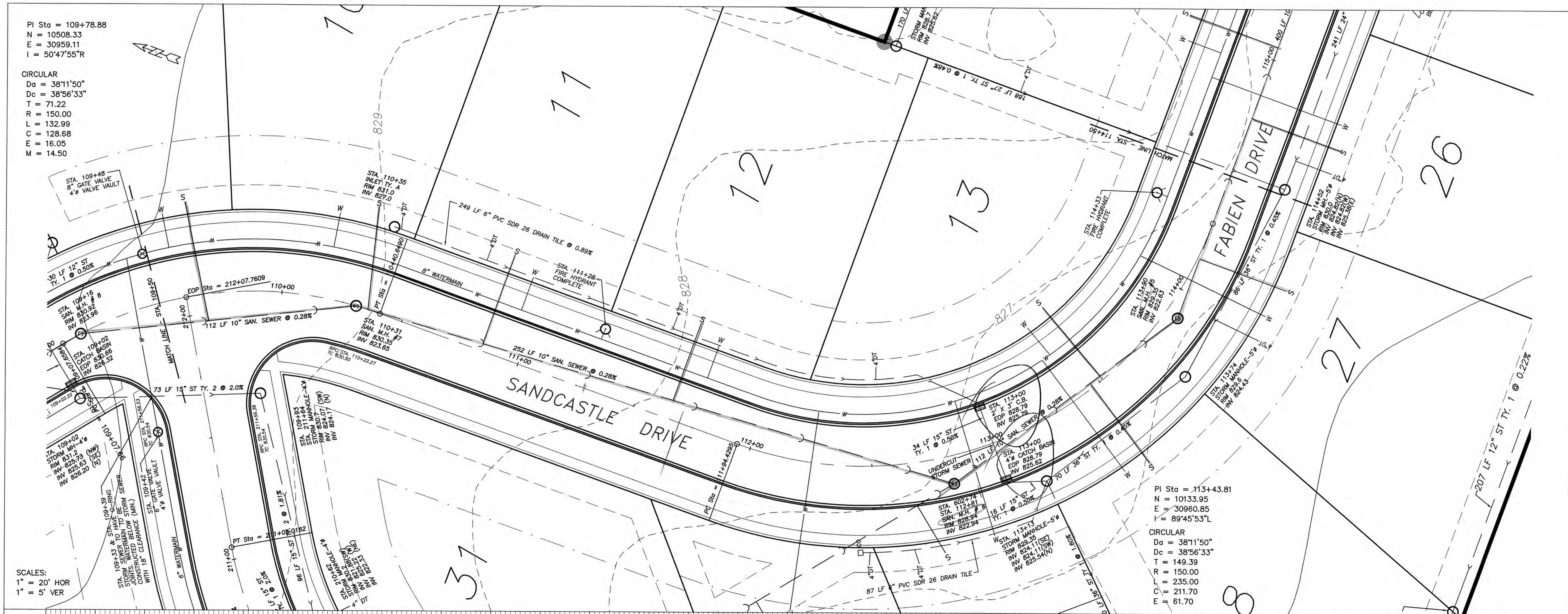
Turning Ideas...

...Into Reality!

PI Sta = 109+78.88
N = 10508.33
E = 30959.11
I = 50°47'55"R

CIRCULAR
Da = 38°11'50"
Dc = 38°56'33"
T = 71.22
R = 150.00
L = 132.99
C = 128.68
E = 16.05
M = 14.50

SCALES:
1" = 20' HOR
1" = 5' VER



SANDCASTLE DRIVE &
FABIEN DRIVE
HICKORY TERRACE SUB.
SYCAMORE, ILLINOIS

15 OF 39

SHEET NUMBER
DRAWING DATE
4/09/04

DATE
17/02/04
REVISION
02/02/05

DATE
17/02/04
REVISION
02/02/05

DATE
17/02/04
REVISION
02/02/05

DATE
17/02/04
REVISION
02/02/05

DATE
17/02/04
REVISION
02/02/05

DATE
17/02/04
REVISION
02/02/05

DATE
17/02/04
REVISION
02/02/05

DATE
17/02/04
REVISION
02/02/05

DATE
17/02/04
REVISION
02/02/05

DATE
17/02/04
REVISION
02/02/05

DATE
17/02/04
REVISION
02/02/05

DATE
17/02/04
REVISION
02/02/05

DATE
17/02/04
REVISION
02/02/05

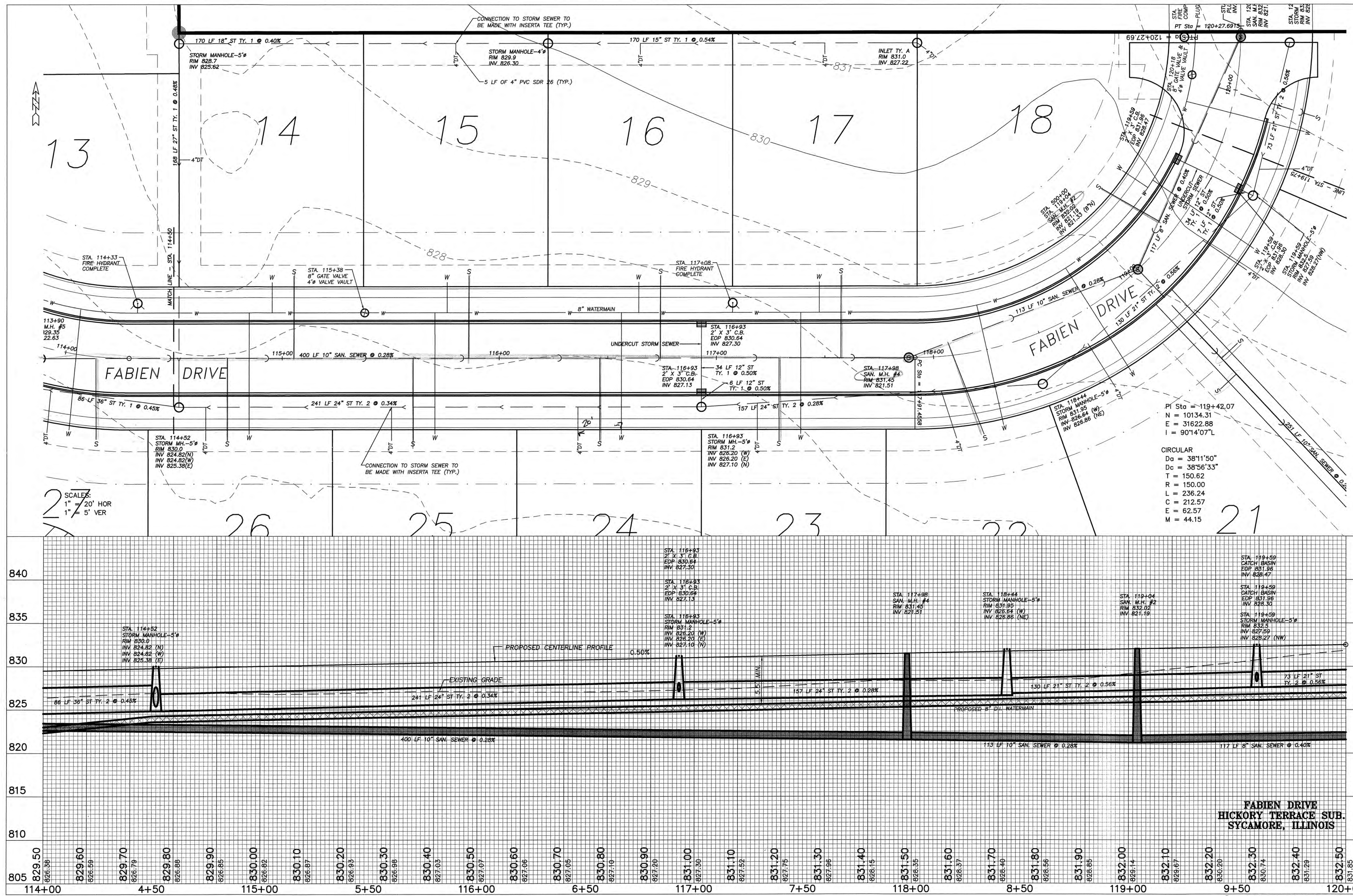
DATE
17/02/04
REVISION
02/02/05

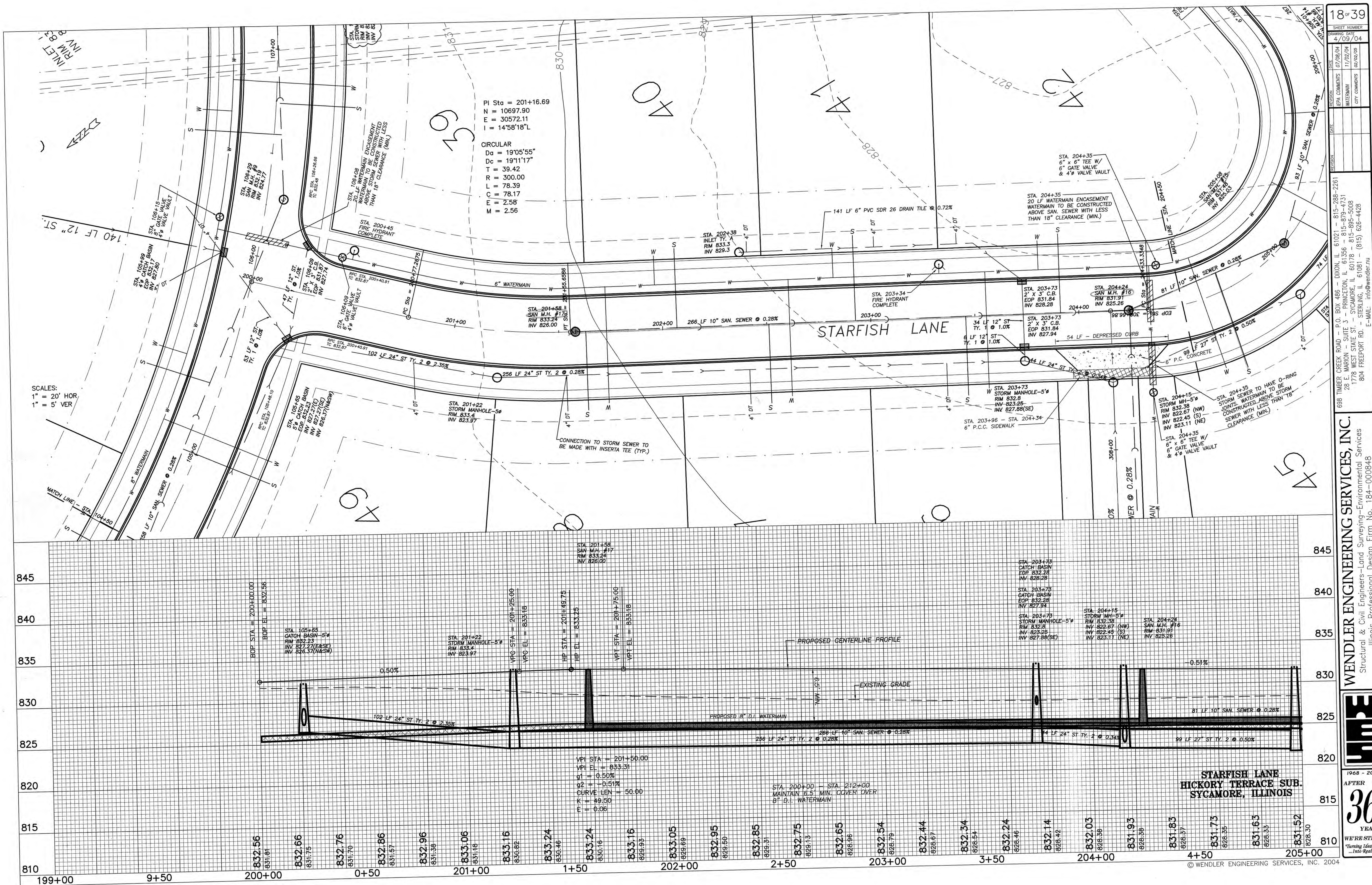
WENDLER ENGINEERING SERVICES, INC.
Structural & Civil Engineers-Land Surveying-Environmental Services
Illinois Professional Design Firm No. 184-000848

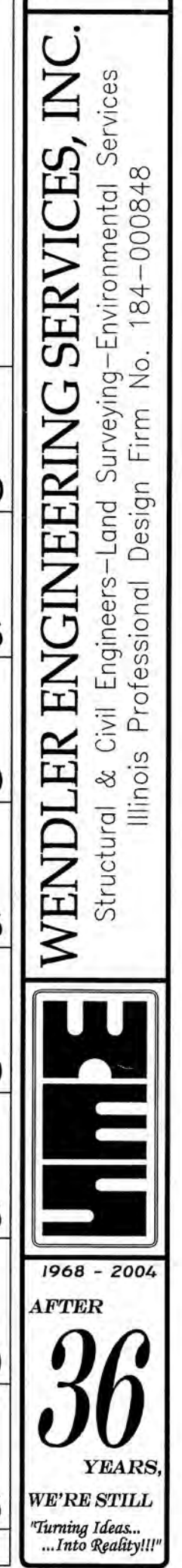
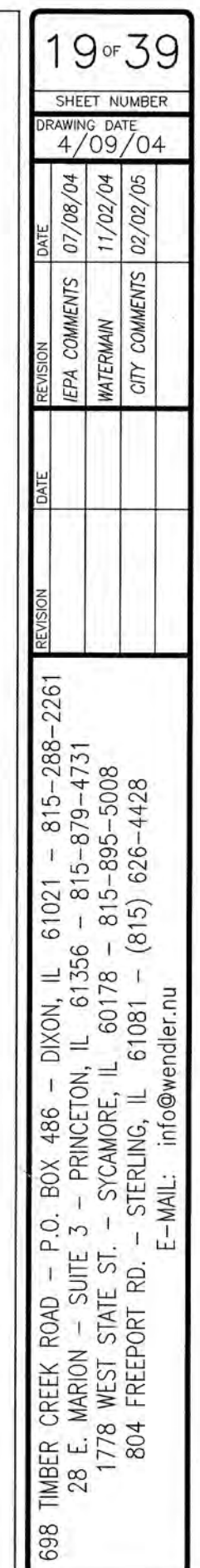
1968 - 2004
AFTER

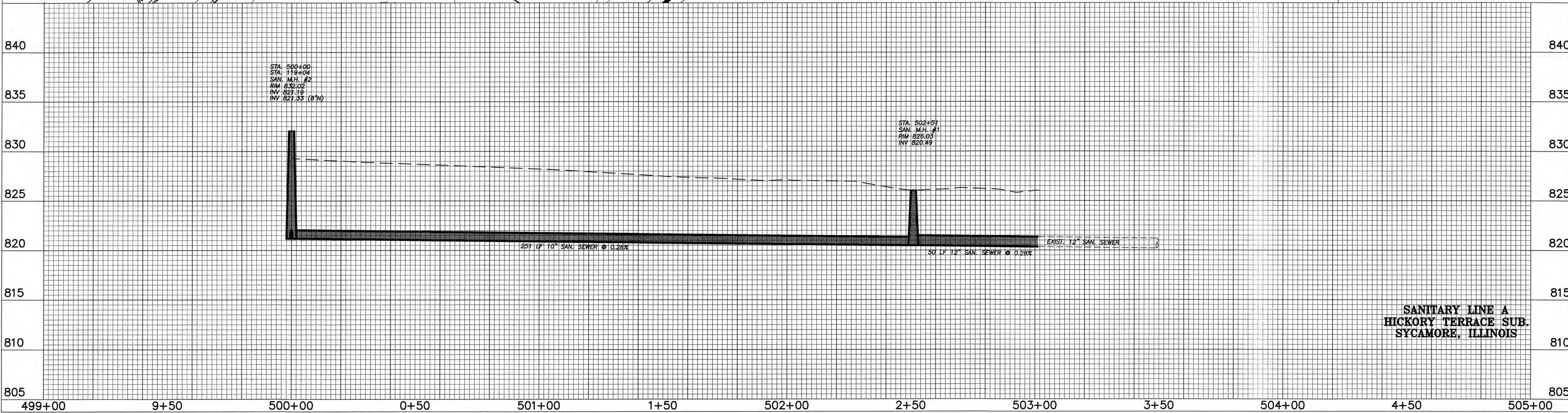
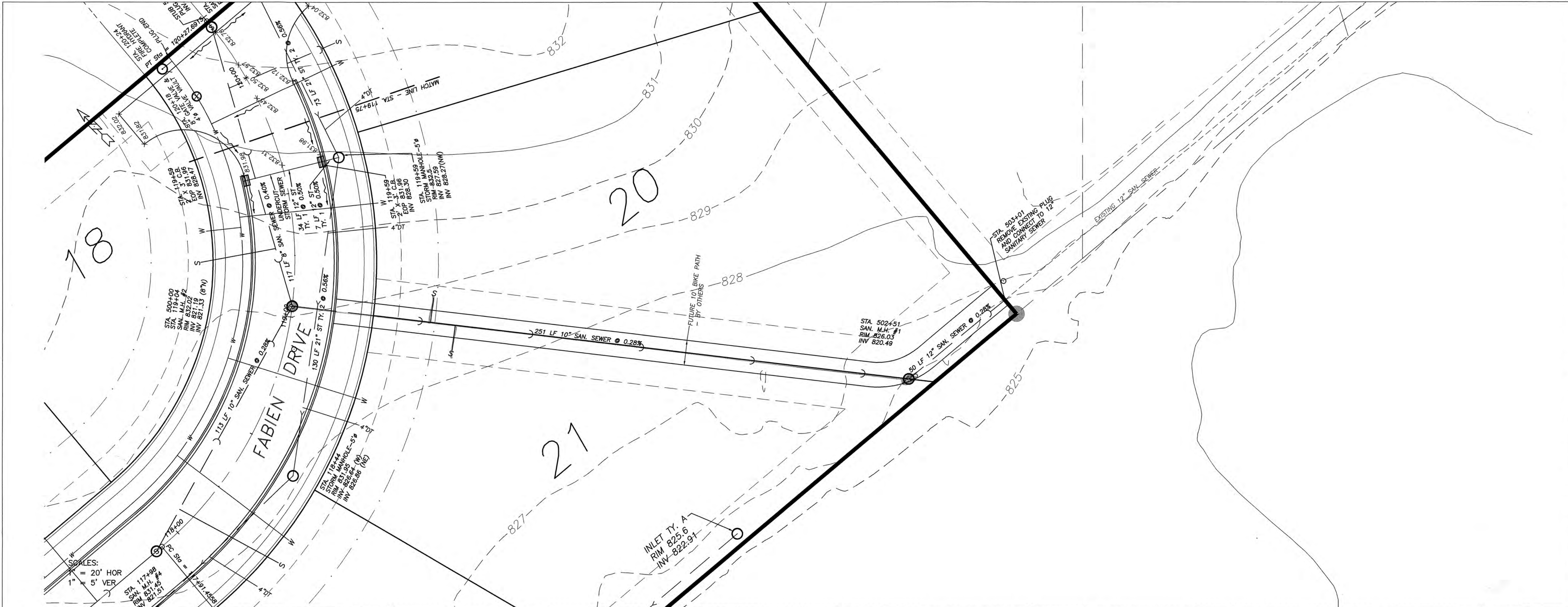
36
YEARS
WE'RE STILL
"Turning Ideas...
...Into Reality!"

© WENDLER ENGINEERING SERVICES, INC. 2004









24 of 39

DATE

11/02/04

REVISION

11/02/04

DATE

02/02/05

REVISION

02/02/05

DATE

02/02/05

REVISION

02/02/05

698 TIMBER CREEK ROAD - P.O. BOX 486 - DIXON, IL 61021 - 815-288-2261

28 E. MARION - SUITE 3 - PRINCETON, IL 61356 - 815-379-4731

1778 WEST STATE ST. - SYCAMORE, IL 60178 - 815-895-5008

804 FREEPORT RD. - STERLING, IL 61081 - (815) 626-4428

E-MAIL: info@wendler.net

WENDLER ENGINEERING SERVICES, INC.

Structural & Civil Engineers-Land Surveying-Environmental Services

Illinois Professional Design Firm No. 184-000848

WME

1968 - 2004

AFTER

36

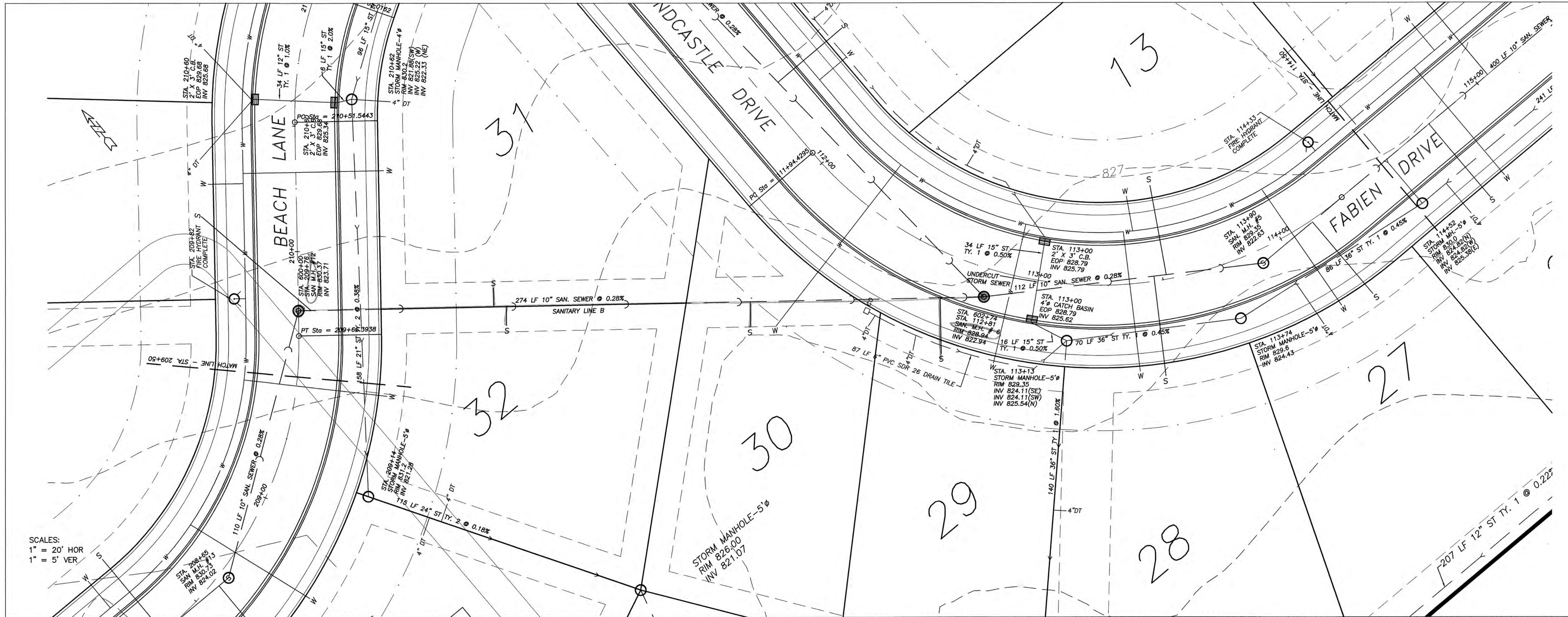
YEARS

WE'RE STILL

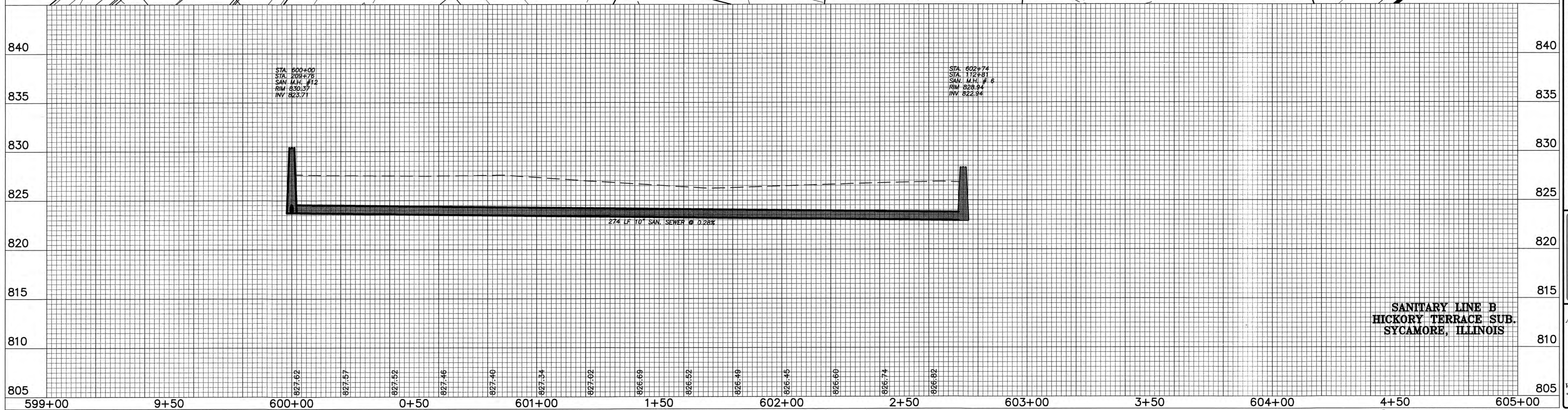
Turning Ideas...

...Into Reality!!!

F:\2005\11\02\04\110204.dwg, 11/02/04 11:02 AM, 11/02/04



SCALES:
1" = 20' HOR
1" = 5' VER



SANITARY LINE B
HICKORY TERRACE SUB.
SYCAMORE, ILLINOIS

© WENDLER ENGINEERING SERVICES, INC. 2004

25 of 39

SHEET NUMBER

DRAWING DATE

4/09/04

DATE

REVISION

DATE

REVISION

DATE

REVISION

CITY COMMENTS

02/28/05

CITY COMMENTS

02/28/05

698 TIMBER CREEK ROAD - P.O. BOX 486 - DIXON, IL 61021 - 815-288-2261

28 E. MARION - SUITE 3 - PRINCETON, IL 61356 - 815-679-4731

1778 WEST STATE ST. - STAMPADE, IL 60178 815-695-5008

804 FREEPORT RD. - STERLING, IL 61081 - (815) 626-4426

E-MAIL: info@wendler.net

WENDLER ENGINEERING SERVICES, INC.

Structural & Civil Engineers-Land Surveying-Environmental Services

Illinois Professional Design Firm No. 184-000848

1968 - 2004

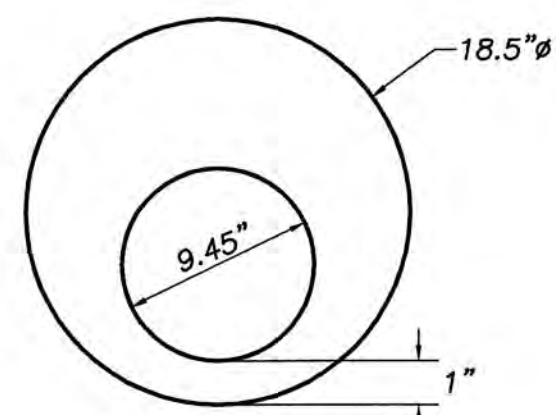
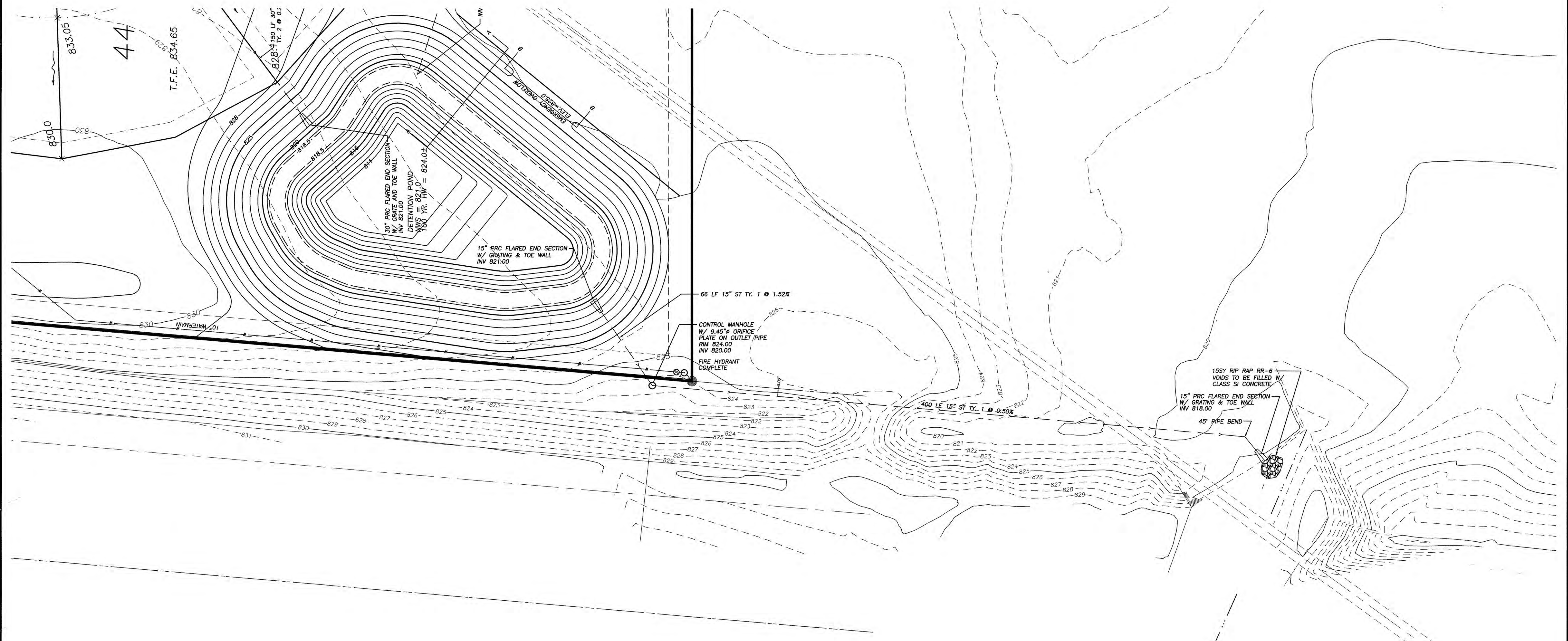
AFTER

36

YEARS.

WE'RE STILL

Turning Ideas... Into Reality!!!



ORIFICE DETAIL

INSTALL 1/4" THICK STEEL ORIFICE PLATE
WITH 9.45"Ø ORIFICE ON 15"Ø OUTLET
PIPE FROM CONTROL MANHOLE

© WENDLER ENGINEERING SERVICES, INC. 2004

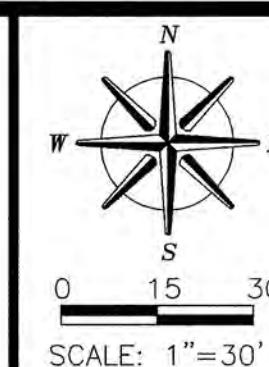


WENDLER ENGINEERING SERVICES, INC.

Structural & Civil Engineers—Land Surveying—Environmental Services
Illinois Professional Design Firm No. 184-000848

1968 - 2004
AFTER
36
YEARS
WE'RE STILL
*"Turning Ideas...
...Into Reality!!!"*

698 TIMBER CREEK ROAD — P.O. BOX 486 — DIXON, IL 61021 — 815-288-2261
28 E. MARION — SUITE 3 — PRINCETON, IL 61356 — 815-879-4731
1770 WEST STATE ST. — SYCAMORE, IL 60178 — 815-895-5008
804 FREEPORT RD. — STERLING, IL 61081 — (815) 626-4428
E-MAIL: info@wendler.nu



REVISION	DATE	SURVEYED BY	JOB NO.	DRAWN BY	DESIGNED BY
CITY REVIEW	02/02/05		203551	BDS	MAG
		BOOK NO.	DRAWING NAME	DRAWING DATE	
			203551	4/9/04	
		TITLE			
		TITLE			
		OFFSITE STORM SEWER			
		CLIENT			
		SANDERSON BROTHERS			