

GENERAL NOTES

- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS. ALL CONSTRUCTION SHALL BE COMPLETED FOLLOWING CURRENT CITY STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
- CONTRACTOR WILL BE REQUIRED TO PROVIDE NOTICE TO UTILITY COMPANIES A MINIMUM OF SEVENTY-TWO (72) HOURS PRIOR TO ANY EXCAVATION, AS FOLLOWS:
KANSAS ONE-CALL 687-2470
THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:
AT&T 1-800-246-8464
BLACK HILLS ENERGY (GAS) 1-800-694-8989
CITY OF WICHITA WATER & SEWER 1-316-219-8921
CITY OF WICHITA STORMWATER 1-316-268-4090
CITY OF WICHITA TRAFFIC 1-316-268-4034
COX COMMUNICATIONS 1-888-249-3530
KANSAS GAS SERVICE 1-888-482-4950
EVERGY 1-800-544-4857
- UTILITY SERVICE LINES, POLES, ETC. ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR OR UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS, IN THE OPINION OF THE ENGINEER, THAT WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED. ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WILL REQUIRE A KANSAS STATE BOARD OF CULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WILL REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.
- TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE CITY ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.
- THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY ADJUTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS NOTICE PRIOR TO START OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.
- THE ENGINEERING DIVISION SHALL FIELD LOCATE WATER VALVES ONE TIME DURING CONSTRUCTION WHEN REQUESTED BY THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE SUCH FIELD LOCATIONS DURING THE CONSTRUCTION PROCESS. WATER VALVES, VALVE BOXES OR FIRE HYDRANTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE. VALVE BOXES AND WATER METERS WITHIN THE PROJECT LIMITS SHALL BE ADJUSTED TO MATCH FIELD GRADES BY THE CONTRACTOR.
- THE CONTRACTOR SHALL NOTIFY THE CONSULTANT ENGINEER AND DAWNITA REINHARDT AT 650-0740 WITH THE CITY OF WICHITA WITH THE ANTICIPATED CONSTRUCTION START DATE AND NOTIFY THEM OF PROJECT COMPLETION. STAKING AND INSPECTION FOR THIS PROJECT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- IF TRAFFIC WILL BE IMPACTED BY CONSTRUCTION, A TRAFFIC CONTROL PLAN MUST BE SUBMITTED AND APPROVED BY THE CITY TRAFFIC ENGINEER AT traffic@wichita.gov BEFORE CONSTRUCTION CAN BEGIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL MEASURES TO FACILITATE CONSTRUCTION. ALL CONSTRUCTION ZONE MARKINGS AND SIGNAGE SHALL CONFORM TO THE LATEST VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS PUBLISHED BY THE US DEPT. OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION. ALL COSTS ASSOCIATED WITH CONSTRUCTION MARKINGS AND SIGNAGE SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- ALL ELEVATIONS SHOWN ARE NAVD 88.
- ALL AREAS DISTURBED DURING CONSTRUCTION THAT WILL NOT BE UNDER PROPOSED PAVEMENT SHALL BE RESTORED TO MATCH EXISTING CONDITIONS.
- ANY SIDEWALK, DRIVE APPROACH, OR STREET PAVEMENT REMOVED TO CONSTRUCT PROJECT MUST HAVE A PAVEMENT CUT PERMIT AND BE REPLACED BY CITY CONTRACTOR. PERMITS CAN BE OBTAINED BY CALLING 316-268-4501 OR 316-268-4480.
- CITY MAINTENANCE OF STORM SEWER ENDS AT THE LAST STRUCTURE IN THE EASEMENT OR RIGHT-OF-WAY.
- FOLLOW THE LINK BELOW FOR CONSTRUCTION DETAILS ON SPECIFIC CITY OF WICHITA STANDARD DETAILS: <http://www.wichita.gov/PWU/Pages/Regulations.aspx>
- CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.
- EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS COMPANIES AND IS EITHER FROM COMPANY UTILITY DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED.
- A PORTION OF EXCESS EXCAVATED MATERIAL SHALL BE MOUNDED AROUND MANHOLES WHICH EXTEND MORE THAN ONE (1) FOOT ABOVE THE EXISTING GROUND. SUCH MOUND SHALL BE CONSTRUCTED WITH NEW DEVELOPMENT A SIX (6) FOOT DIAMETER FLAT TOP WITH 4 TO 1 SIDE SLOPES DOWN TO THE ORIGINAL GROUND. THE ELEVATION OF THE FLAT TOP OF THE MOUND SHALL BE 0.4 FOOT BELOW THE TOP OF THE MANHOLE.
- GEOTECHNICAL REPORT AVAILABLE UPON REQUEST.
- CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL MANHOLE COVERS.
- THE INSPECTING FIRM SHALL SUBMIT TO THE CITY STORMWATER MAINTENANCE DIVISION A DIGITAL COPY OF THE CCTV INSPECTION OF THE CONDUITS AND STRUCTURES FOLLOWING CONSTRUCTION. THE DIGITAL FILE FORMATION SHALL BE COMPATIBLE WITH THE CITY INPUT TEMPLATE. A COPY OF THE TEMPLATE IS AVAILABLE UPON REQUEST AT 316-268-4090.
- WORK DONE UNDER THIS PROJECT IS SUBJECT TO THE CITY OF WICHITA REQUIREMENTS FOR "CONSTRUCTION OF INFRASTRUCTURE IMPROVEMENTS BY PRIVATE CONTRACT". THE CONTRACTOR SHALL BE FAMILIAR AND COMPLY WITH ALL OF THE REQUIREMENTS, INCLUDING BONDING, INSPECTION, TESTING, NOTIFICATION, PROVIDING AS-BUILT DRAWINGS, PAYING FOR ALL NECESSARY CONNECTIONS, AND/OR STREET REPAIR FEES AND PROVIDING PIPE MATERIAL AND OTHER CERTIFICATIONS.
- DEVELOPER FOR THIS PROJECT IS:
BS GOLF - WICHITA, LLC
4045 E SUNSHINE STE. 200
SPRINGFIELD, MO, 65809
TIM O'REILLY
(417) 851-8700

PRIVATE STORM WATER SEWER
TO SERVE

**GREENWICH COMMONS
PHASE 2**

PROJECT NO. 2023-000804PPD

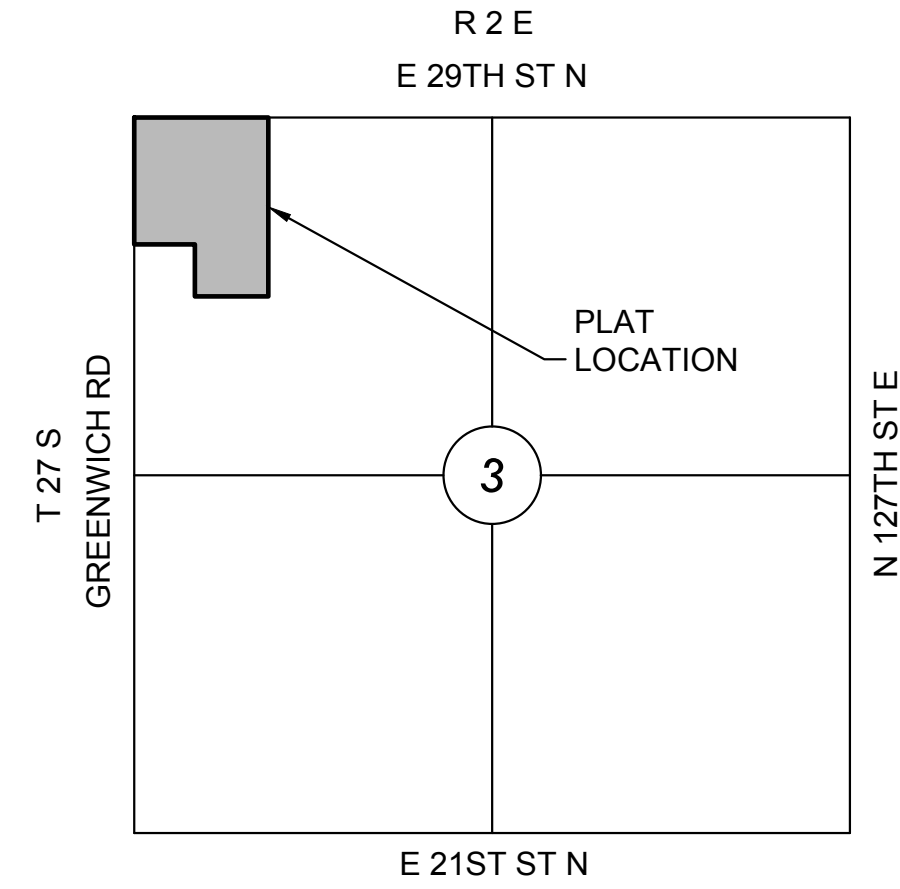
THE CITY OF WICHITA, KANSAS
GARY JANZEN, P.E. - CITY ENGINEER

ORG CODE 56030970

AS BUILTS

Contractor: **Apex**
Project Inspector: **Eric Miner**

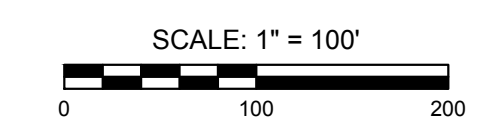
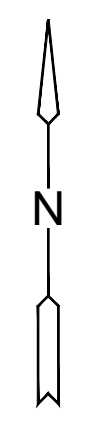
KEMILLER ENGINEERING PA
117 E. Lewis, Wichita, KS 67202 (316) 264-0242



NE Cor., NW ¼,
Sec. 3, T27S, R2E

LEGEND

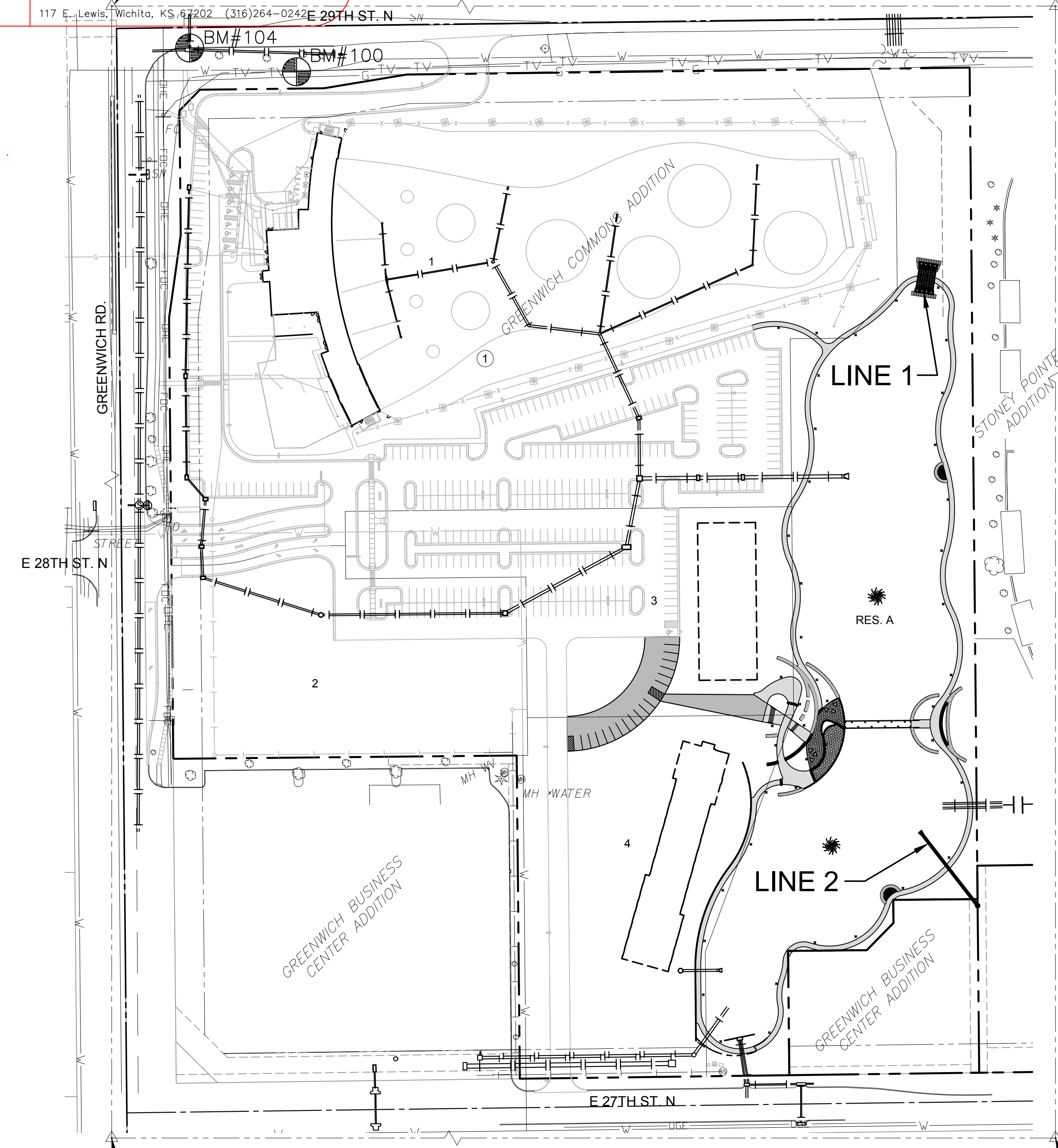
- EXISTING SEWER
- PROPOSED SEWER



VICINITY MAP
No Scale

INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
01	TITLE SHEET
02	PRECAST CONC. MH DETAIL
03	SWS LINE 1
04	SWS LINE 2
05-08	BMP DETAILS (SEE GENERAL NOTE #15 FOR CITY OF WICHITA STANDARD BMP LINK)
C109-C110	GRADING PLANS
09	EROSION CONTROL PLAN



NOTE

All control points shown have elevations established using standard surveying procedures and can be used as temporary benchmarks. When using a control point as a temporary benchmark, it is recommended that cross-checks be made to other control points or benchmarks to confirm elevations prior to use.

CONTROL POINTS

- CP1
N: 1705155.819 E: 1688806.255 EL: xxxxx
Description of control point: N1/4 Corner S3,T27S,R2E
- CP2
N: 1705122.158 E: 1686161.364 EL: xxxxx
Description of control point: NW Corner S3,T27S,R2E
- CP3
N: 1702441.198 E: 1686186.725 EL: xxxxx
Description of control point: W1/4 Corner S3,T27S,R2E
- CP100
N: 1705070.085 E: 1686378.624 EL: 1391.763
Description of control point: Alum Cap

BENCHMARKS

- BM100
N: 1705070.085 E: 1686378.624 EL: 1391.763 (88)
Description of Benchmark: 5/8" rebar with MKEC Aluminum Cap
217 feet East and 52 feet South of Greenwich and 29th St N intersection.
- BM 104
N: 1705098.881 E: 1686249.581 EL: 1388.920 (88)
Description of Benchmark: Square cut front center of curb inlet, 87.5 feet east and 23.5 feet south of intersection Greenwich Rd and 29th St N.

DATUM

The Horizontal Datum is based on the Kansas Coordinate System of 1983, NAD83(2011), EPOCH:2010.0000, South Zone. Coordinates shown have been modified to the ground using a combined adjustment factor of 1.0001200144. State Plane coordinates can be calculated by multiplying the shown values by 0.99988.

All elevations shown are based on the NAVD 88 vertical datum.

Stormwater Certification:
New Development or Redevelopment (Circle One)

Stormwater Permit # SW2011-0049
NOI Permit # KS No. S-WA20-0121, Fed. No. KSR116010

These construction plans were prepared in accordance with the current Stormwater management Regulations as set forth in the City of Wichita's Stormwater Management Ordinance 16.32 and the policies/guidelines presented in the Wichita/Sedgwick County Stormwater Manual.

Site Area (Acres) = 22.20
Disturbed Area (Acres) = 22.0
Water Quality Treatment: 2.7 ac-ft
Downstream Channel Protection: 3.6 ac-ft
Detention: 19.9 ac-ft
The BMP used for this development is regional wet pond

APPROVED AS NOTED
BY WICHITA PUBLIC WORKS ENGINEERING AND STORMWATER DIVISION

Engineering approved by Shawn Mellies on this day the 18th of July, 2023
Storm Water approved by Joe Hickle on this day the 18th of July, 2023

NOTE TO CONTRACTORS

Inspection and testing for this project is to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection to be in accordance with the City of Wichita standard construction engineering practices and certified by a Licensed Professional Engineer in the state of Kansas. No work shall be performed by the Contractor without such inspection, nor shall any work be commenced without written authorization by the City Engineer. All Construction and Materials shall comply with the current City of Wichita Specifications and Standards and Special Provisions. (on file and available at Wichita.gov).

An approved copy of these plans signed by City staff are required on-site.

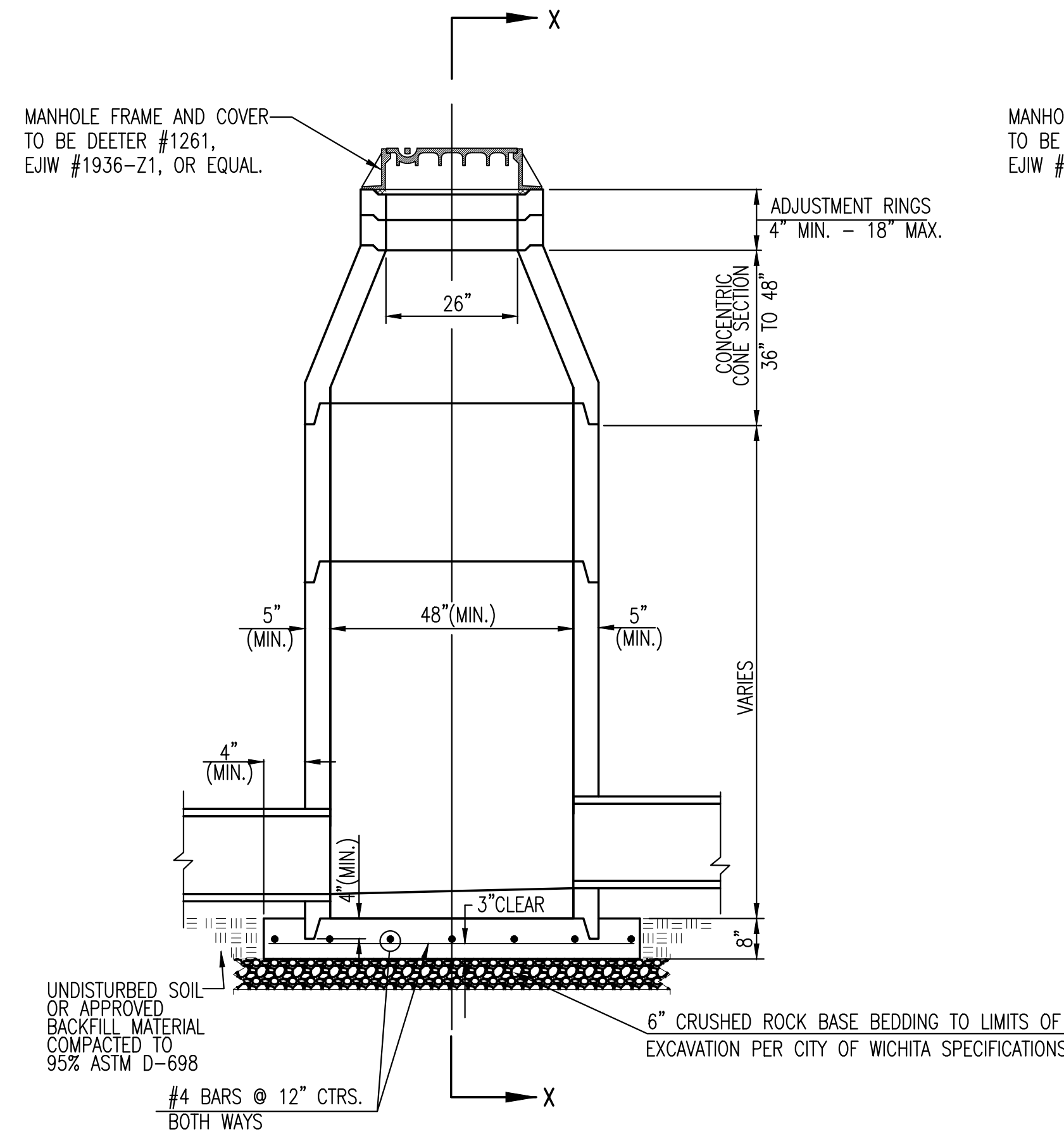


PRIVATE STORMWATER SEWER PLANS FOR
GREENWICH COMMONS
PHASE 2

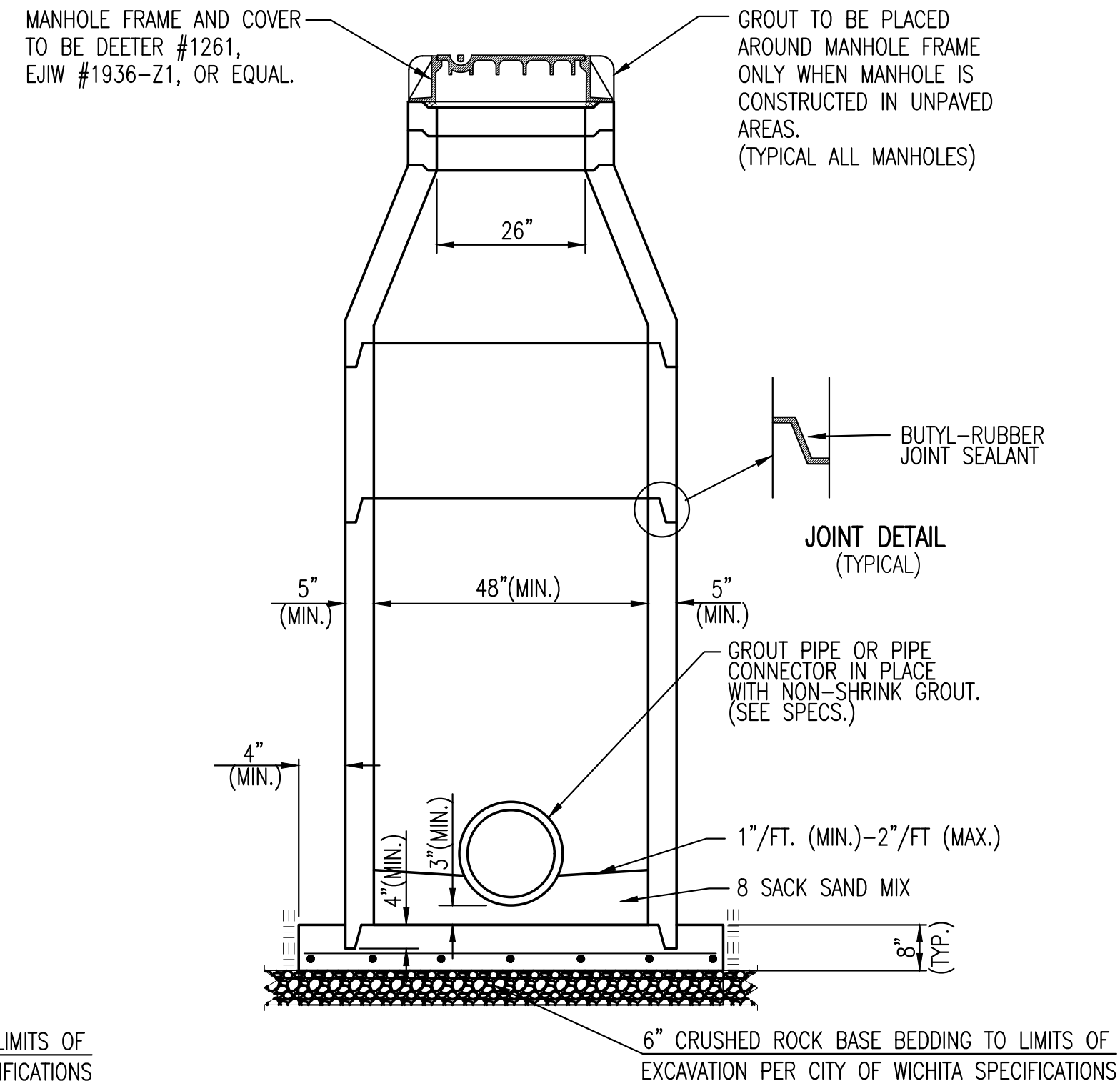
©2023 MKEC Engineering All Rights Reserved
These drawings and their contents, including, but not limited to, all concepts, designs, & ideas are the exclusive property of MKEC Engineering (MKEC), and may not be used or reproduced in any way without the express consent of MKEC.

TITLE SHEET

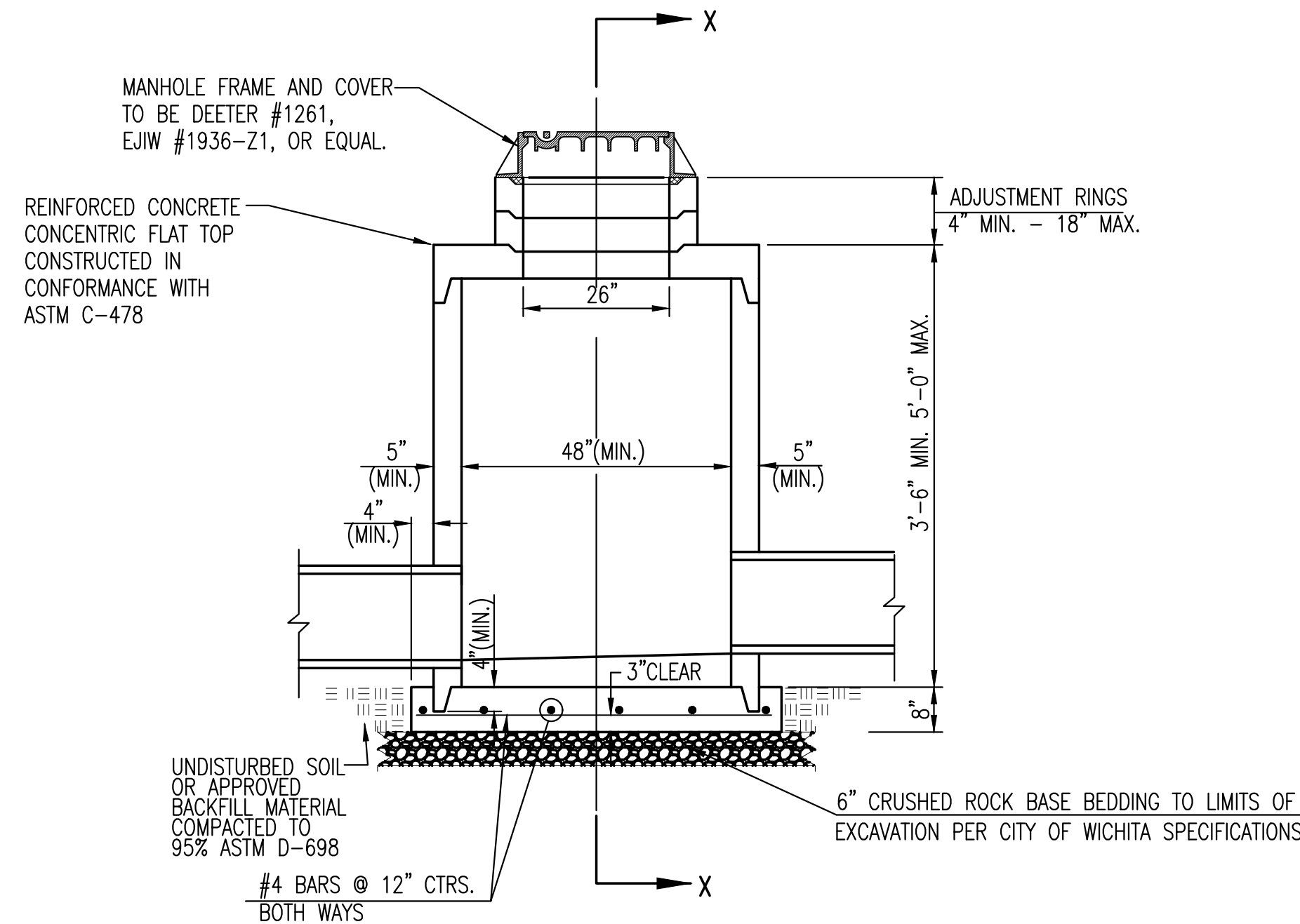
PROJECT NO.	2023-000804PPD	
DATE	06-16-2023	
SCALE	1"=20'	
DESIGNED	DRAWN	CHECKED
CJL	CJL	SPE
NO.	REVISION	DATE
SHEET NO.	01 OF 04	



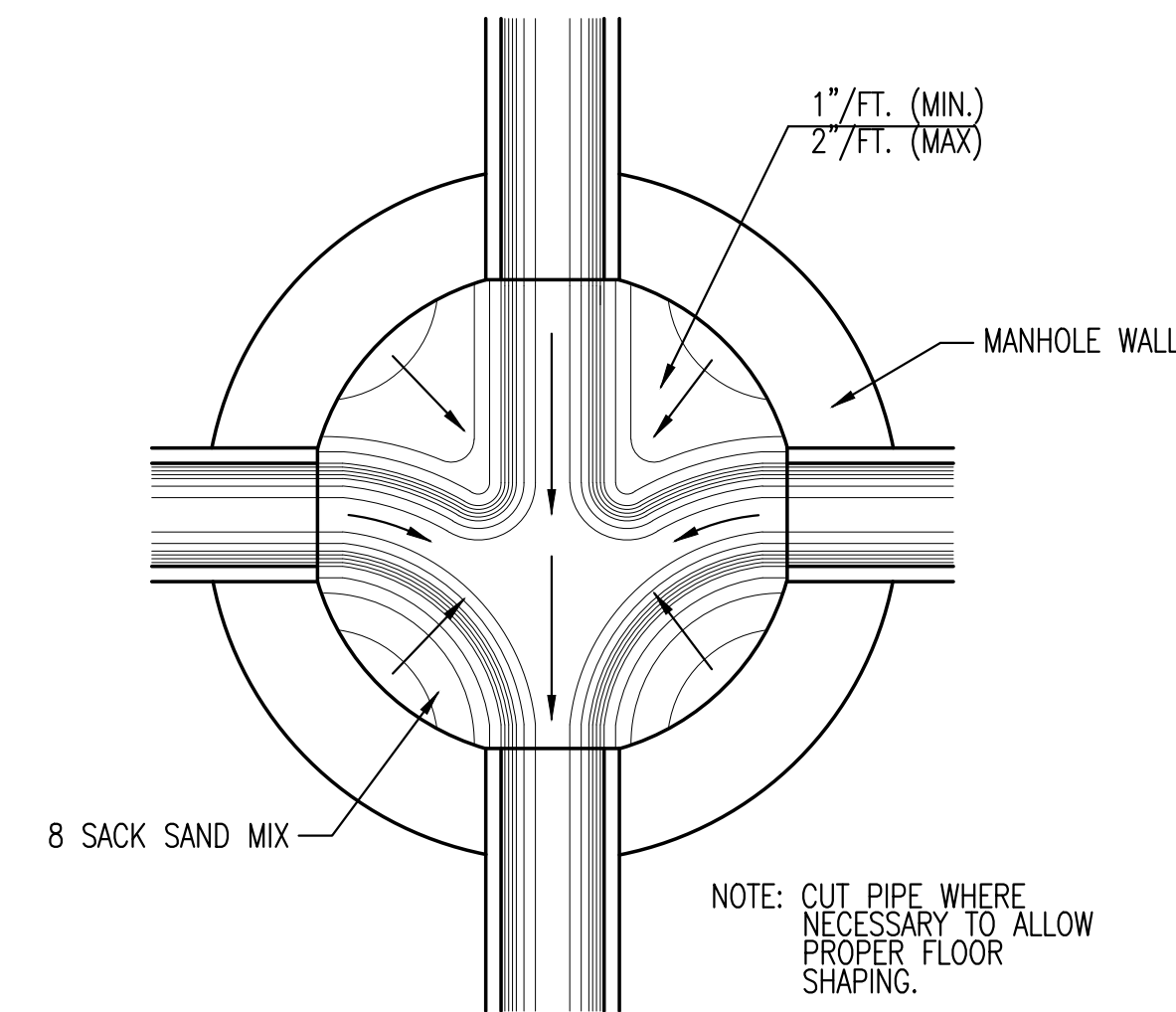
PRECAST STANDARD MANHOLE TYPE "A"



SECTION X-X (TYPICAL)



PRECAST SHALLOW MANHOLE TYPE "B"



TYPICAL MANHOLE FLOOR SHAPING

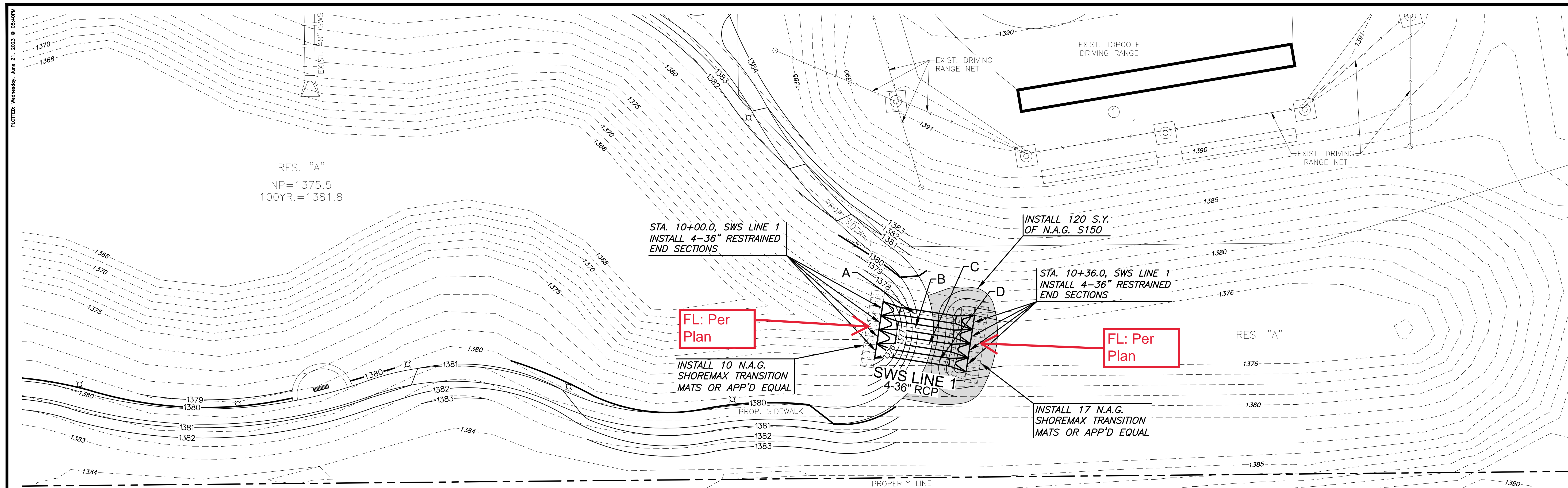
GENERAL NOTES

- IF, IN THE OPINION OF THE ENGINEER, THE MANHOLE SUBGRADE APPEARS UNSTABLE, THE CONTRACTOR WILL HAVE THE OPTION TO COMPACT SUBGRADE AS SHOWN OR INCREASE THE THICKNESS OF THE MANHOLE BASE AS DIRECTED BY THE ENGINEER.
- STEEL REINFORCING WILL BE REQUIRED IN ALL MANHOLE BASES.
- ALL MANHOLE CONSTRUCTION SHALL BE WATER TIGHT.
- TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
- ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISION OF ASTM C-478 AS MODIFIED BY THE SPECIFICATIONS.
- CONCRETE USED FOR MANHOLE CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.
- PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO MANHOLE BASE.
- MANHOLES WITH PIPE SIZES 24" AND LARGER SHALL HAVE 5 FOOT INSIDE DIAMETER (MIN.)
- MANHOLES WITH PRECAST BASES MAY BE USED AT THE CONTRACTORS OPTION. THESE MANHOLES SHALL HAVE AN 8" MINIMUM BASE THICKNESS AND SHALL BE PLACED ON AN 8" MIN. CRUSHED ROCK BASE. PIPES SHALL BE ENCASED WITH CRUSHED ROCK TO AT LEAST 3 FEET FROM THE MANHOLE WALL.
- CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN MANHOLE WALL SHALL BE GROUTED FLUSH TO THE MANHOLE WALL WITH HYDRAULIC CEMENT AFTER THE MANHOLE IS IN PLACE. LIFTING HOLES THRU THE MANHOLE WALL WILL NOT BE ACCEPTED.
- THE ENDS OF ALL PIPES IN MANHOLES SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE MANHOLE WALL.
- MANHOLE INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE MANHOLE WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.
- MANHOLE FRAME AND COVER TO BE DEETER #1261, EJIW #1936-Z1, OR APPROVED EQUAL, SEE SW-303.
- FOR FLAT GRATED INLET APPLICATION, GRATE TO BE DEETER #1933, EJIW #1205 MDI, OR APPROVED EQUAL.
- FOR BEEHIVE GRATE APPLICATION, GRATE TO BE DEETER #4495, EJIW #120545, OR APPROVED EQUAL.

REVISED: MARCH 2015

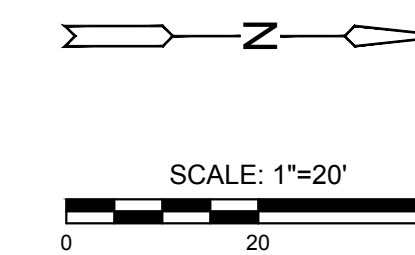
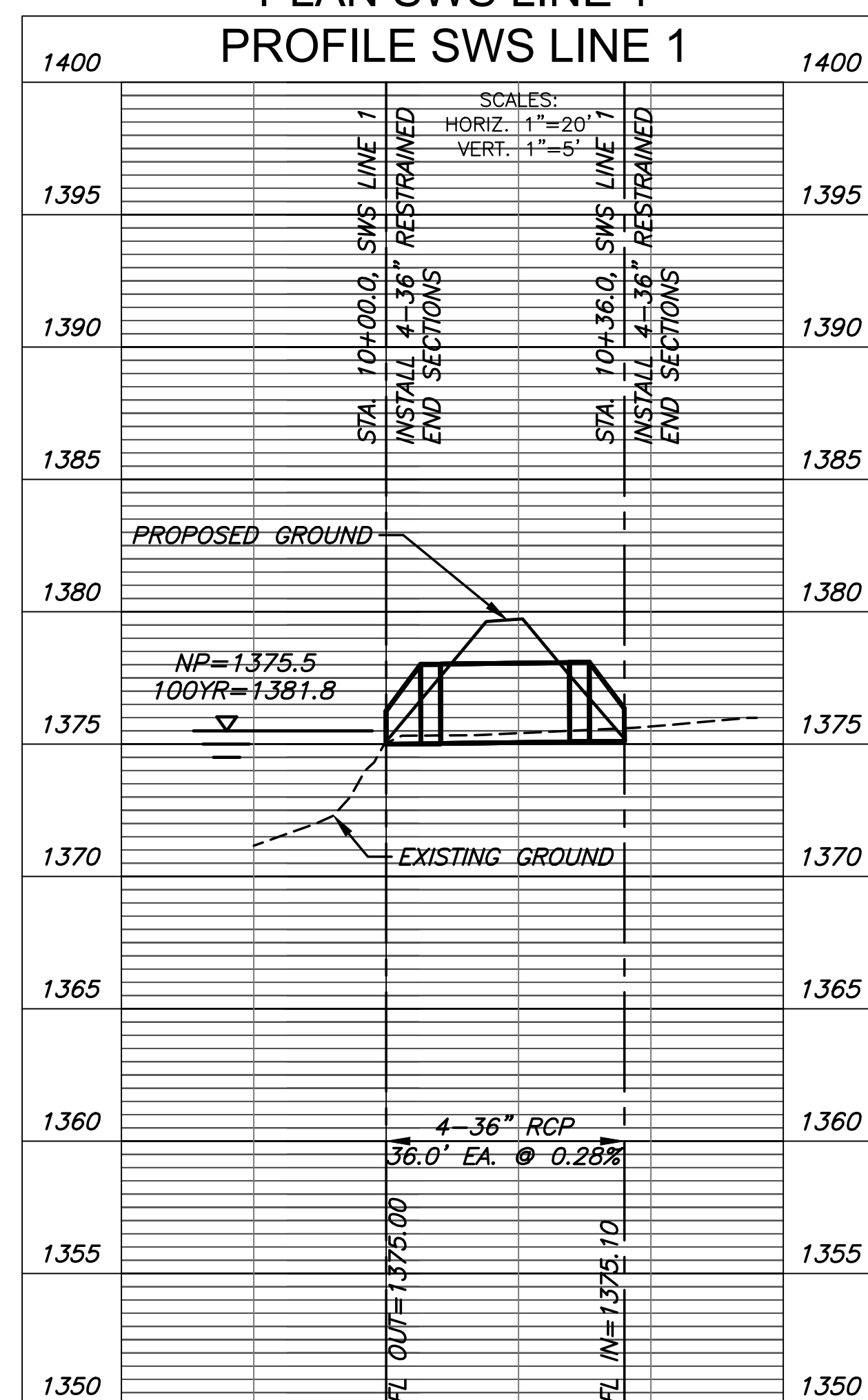
CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

<p>PRECAST CONCRETE MANHOLE (STORM SEWER)</p> <p>CITY ENGINEER GARY JANZEN, P.E.</p>		
PROJECT NUMBER	OCA NUMBER	DATE
2023-000804PPD	####	06-16-2023
CITY ENGINEER'S OFFICE		SHEET
CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		02 OF 04




NOTE:
CONTRACTOR TO VERIFY THE
DEPTH AND LOCATION OF EXISTING
UTILITIES PRIOR TO CONSTRUCTION.

STORM WATER SEWER POINTS				
Point #	Pipe	Station	Northing	Easting
4001	A	10+00.0	1704804.42	1687128.32
4002	A	10+36.0	1704840.00	1687133.73
4003	B	10+00.0	1704803.59	1687133.83
4004	B	10+36.0	1704839.17	1687139.23
4005	C	10+00.0	1704802.75	1687139.34
4006	C	10+36.0	1704838.33	1687144.74
4007	D	10+00.0	1704801.91	1687144.85
4008	D	10+36.0	1704837.50	1687150.25



AS BUILTS



KEMILLER
ENGINEERING PA

117 E. Lewis,
Wichita, KS 67202

(316)264-0242

©2023
MKEC Engineering
All Rights Reserved
www.mkec.com

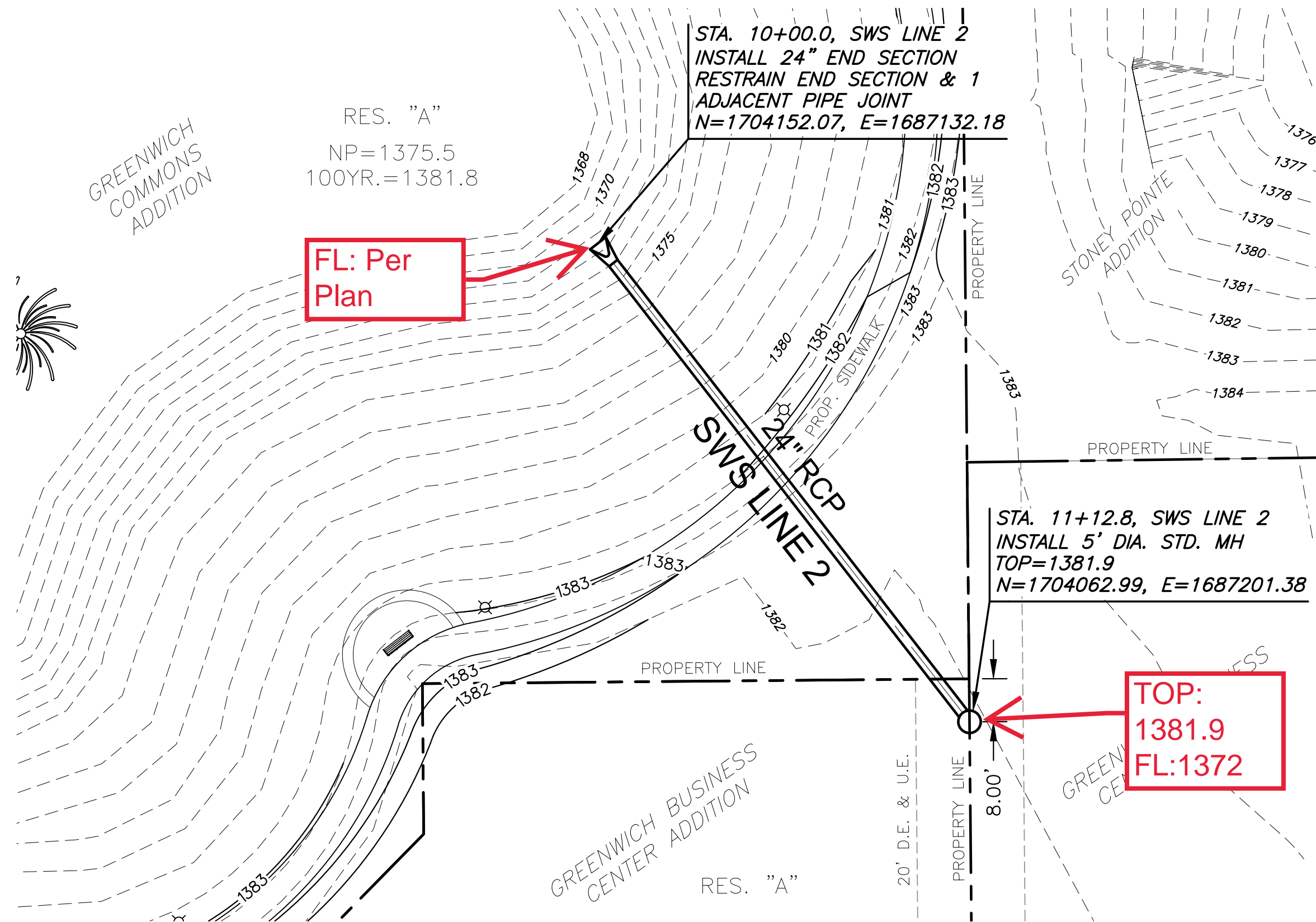
These drawings and their contents, including, but not limited to, all concepts, designs, & ideas are the exclusive property of MKEC Engineering (MKEC), and may not be used or reproduced in any way without the express consent of MKEC.

SWS LINE 1		
PROJECT NO.	2023-000804PPD	
DATE	06-16-2023	
SCALE	1"=20'	
DESIGNED	DRAWN	CHECKED
CJL	CJL	SPE
NO.	REVISION	DATE
SHEET NO.		
03 OF 04		

J:\PROJECTS\2023\12\10\10484_ARCO_TOP_GOLF_WICHITA\02_21\0434 CAD\SHS\05 CIVIL\SW\SPH2\PRD2\1434 GC_PFD.LIN 1.DWG
 PLOTTED: Wednesday, June 21, 2023 @ 08:40PM

PLOTTED: Wednesday, June 21, 2023 @ 05:40PM

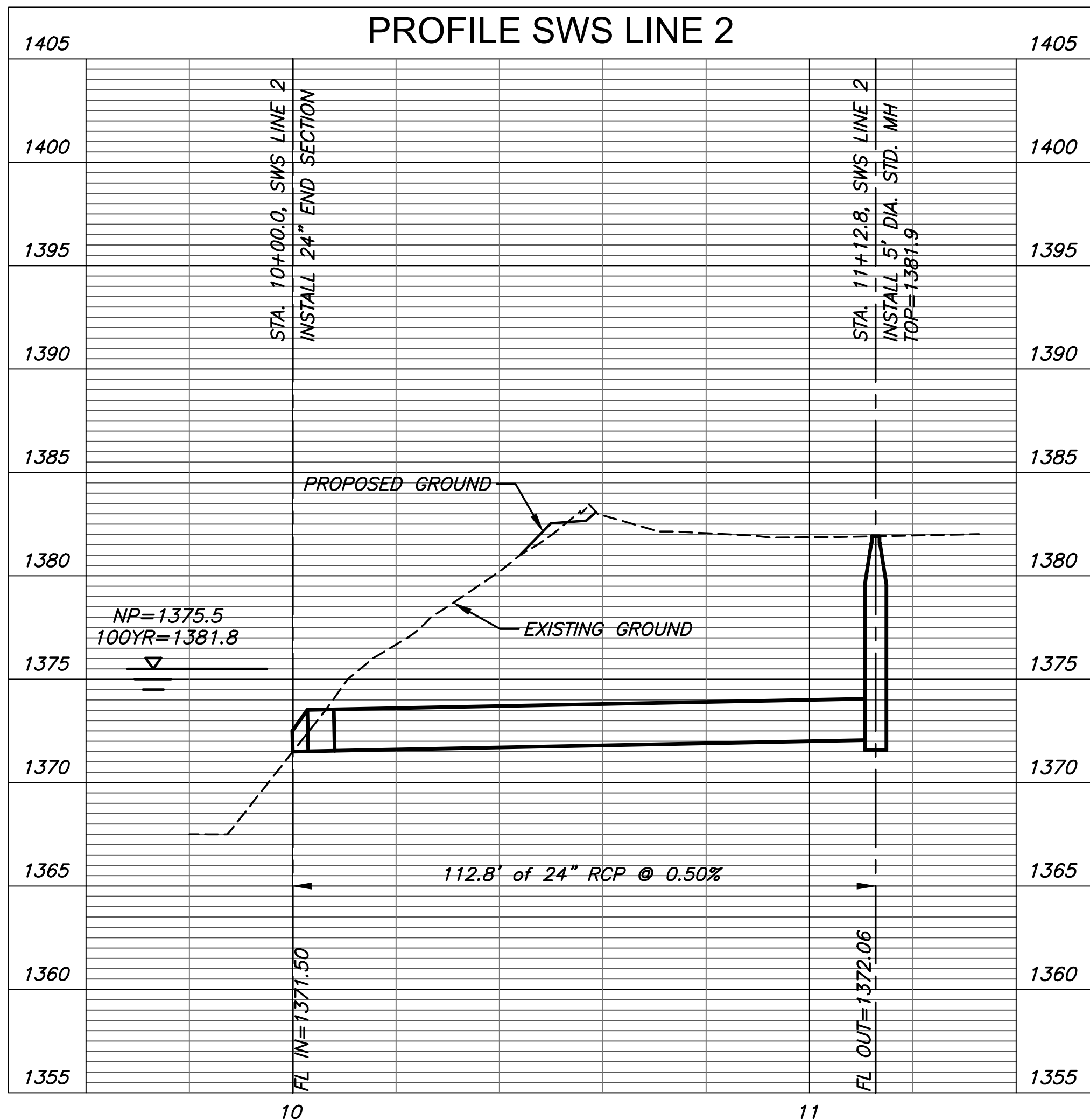
J:\PROJECTS\2023\12\10\10434_ARCO_TOP_GOLF_WICHITA\02_21\0434_CAD\SHS\06_CIVIL\S\WSPH2\PH2\1434_GC_PP\LINE_1.DWG



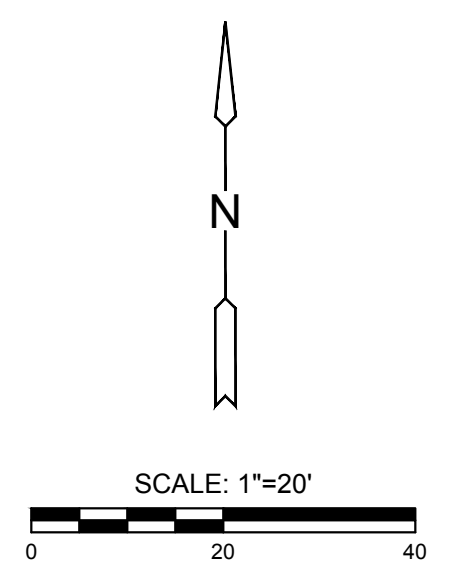
FL: Per Plan

TOP: 1381.9
FL: 1372

PLAN SWS LINE 2
PROFILE SWS LINE 2



NOTE:
CONTRACTOR TO VERIFY THE DEPTH AND LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.



AS BUILTS

117 E. Lewis,
Wichita, KS 67202 (316)264-0242



PRIVATE STORMWATER SEWER PLANS FOR
GREENWICH COMMONS
PHASE 2

©2023
MKEC Engineering
All Rights Reserved
www.mkec.com
These drawings and their contents, including, but not limited to, all concepts, designs, & ideas are the exclusive property of MKEC Engineering (MKEC), and may not be used or reproduced in any way without the express consent of MKEC.

SWS LINE 2

PROJECT NO.	2023-000804PPD
DATE	06-16-2023
SCALE	1"=20'
DESIGNED	CJL
DRAWN	CJL
CHECKED	SPE

NO.	REVISION	DATE