

# 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)	1-800-494-8989
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	1-800-544-4657

- 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 AGRICULTURE 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 ABUTTING 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 CONTRACTOR AT HIS OWN EXPENSE. VALVE BOXES AND WATER METERS WITHIN THE PROJECT LIMITS SHALL BE ADJUSTED TO MATCH FIELD GRADES BY 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](mailto: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 EDITION 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 AREAS DISTURBED DURING CONSTRUCTION THAT WILL NOT BE UNDER PROPOSED PAVEMENT SHALL BE SEEDED AND MULCHED. COST SHALL BE CONSIDERED SUBSIDIARY TO PROJECT SEEDING.
- 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.
- CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL MANHOLE COVERS.
- ALL STUBS AND PLUGGED PIPES SHALL BE LOCATED WITH GREEN PLASTIC TAPE IN THE SAME MANNER AS RISERS.
- CONNECTING TO EXISTING MANHOLES:  
PRIOR TO LAYING SEWER LINES USING EXISTING STUBS IN EXISTING MANHOLES, THE CONTRACTOR SHALL EXPOSE AND VERIFY THE ELEVATION, GRADE AND ALIGNMENT OF EXISTING STUBS AND NOTIFY THE ENGINEER OF ANY DEVIATION FROM THE PLANS. WHERE CONNECTION TO AN EXISTING MANHOLE THAT DOES NOT HAVE AN EXISTING STUB OR THE STUB IS UNUSABLE DUE TO ELEVATION GRADE OR ALIGNMENT, THE CONTRACTOR SHALL BORE CUT INTO EXISTING MANHOLE WALL TO MAKE CONNECTION USING APPROVED WATER STOP GASKET, AND RESHAPE THE EXISTING MANHOLE INVERT TO PROVIDE SMOOTH FLOW. THE COST TO CONNECTING TO EXISTING MANHOLES IS INCIDENTAL TO THE PROJECT.
- THE CONTRACTOR SHALL PREVENT ANY CONSTRUCTION DEBRIS FROM ENTERING THE EXISTING SANITARY SEWER DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTINUOUS FLOW OF SEWAGE THROUGH CONSTRUCTION. CONTRACTOR'S PROPOSED METHOD FOR MAINTAINING SEWAGE FLOW SHALL BE SUBMITTED AND APPROVED BY THE SEWER MAINTENANCE DIVISION (316-268-4073) PRIOR TO STARTING AND BY-PASSING OF SEWAGE FLOWS.
- ALL TRAFFIC CONTROL DEVICES IN THE WORK ZONE (INCLUDING MARKINGS AND SIGNS) AND THEIR INSTALLATION AND MAINTENANCE SHALL COMPLY WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL TRAFFIC CONTROL DEVICES IN THE TRAVELED WAY OR CLEAR ZONE SHALL BE CRASHWORTHY (NCHRP REPORT 350 OR MASH COMPLIANT).  
[http://safety.fhwa.dot.gov/roadwaydept/policy/guide/road\\_hardware/wzd](http://safety.fhwa.dot.gov/roadwaydept/policy/guide/road_hardware/wzd)
- ALL CONSTRUCTION EQUIPMENT, INCLUDING VEHICLES, MATERIALS, AND DEBRIS, SHALL BE STORED OUTSIDE OF THE CLEAR ZONE. WHERE THIS CANNOT BE ACHIEVED THE CONTRACTOR SHALL PLACE APPROPRIATE SIGNS, OBJECT IDENTIFIERS, AND/OR BARRICADES IN COMPLIANCE WITH MUTCD.
- EXCEPT WHEN REQUIRED FOR SAFETY, TRAFFIC CONTROL SHALL NOT BLOCK ANY LANES OR SIDEWALKS WHEN WORK IS NOT BEING PERFORMED.
- FOLLOW THE LINK BELOW FOR DETAILS ON SPECIFIC CITY OF WICHITA STANDARD DETAILS:  
<http://www.wichita.gov/PWU/Regulations.aspx>
- DEVELOPER FOR THIS PROJECT IS:  
SCHELLENBERG PROPERTIES, LLC  
7926 WEST 21ST STREET  
WICHITA, KANSAS, 67205  
MARVIN L. SCHELLENBERG, MEMBER  
316-721-2153

## SANITARY SEWER TO SERVE

# ESTANCIA SECOND ADDITION

## PHASE 2

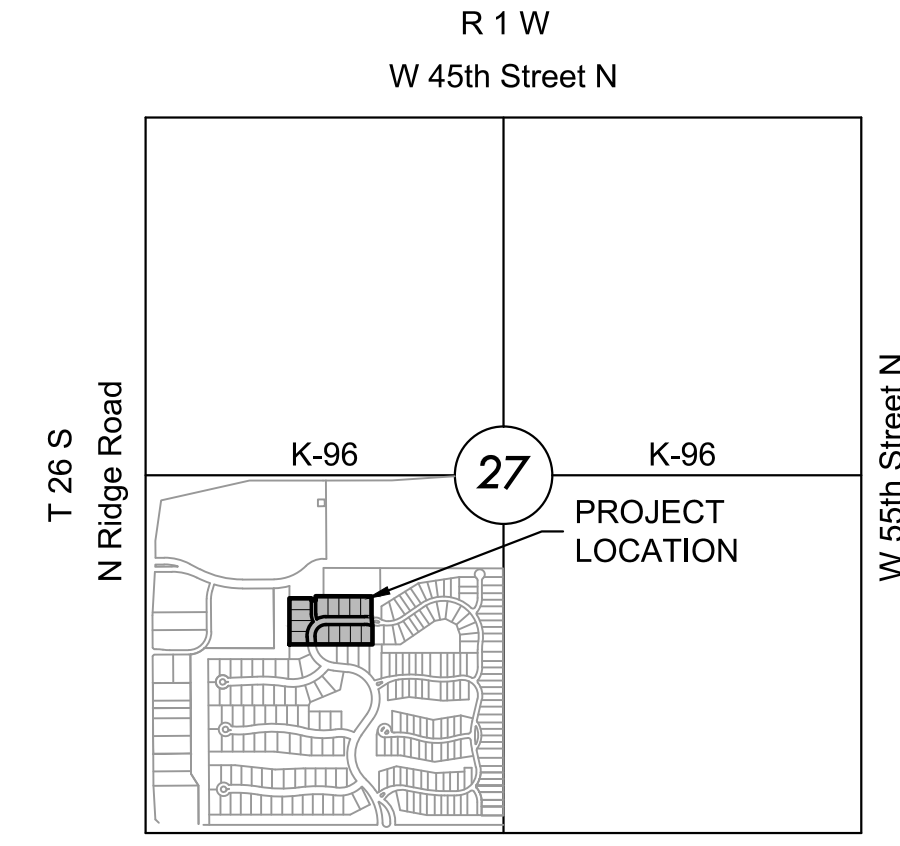
PROJECT NO. 468-2019-014831

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

ORG CODE 47265919

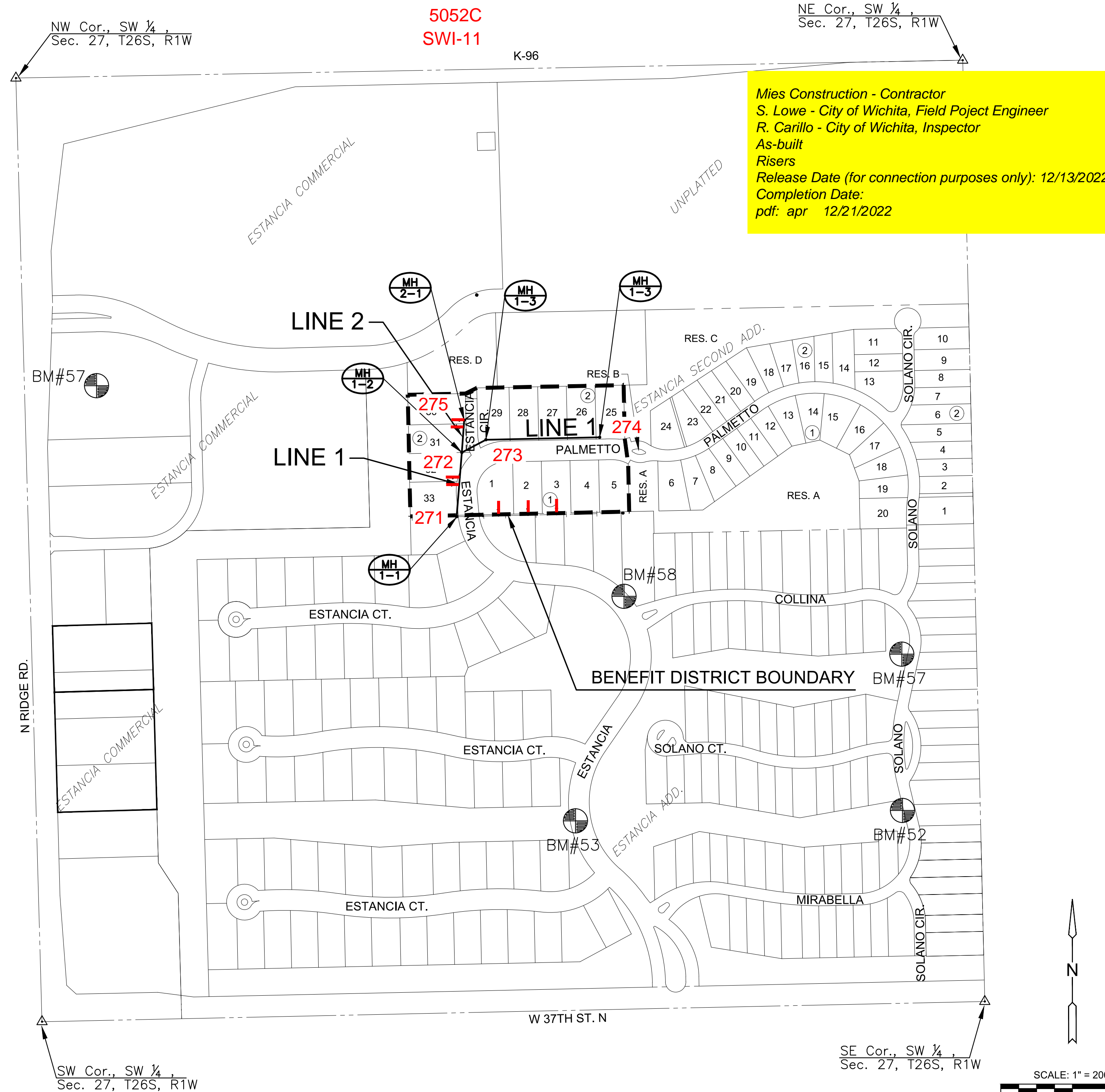
MUNIS NO. E9138

5052C  
SWI-11



### VICINITY MAP

No Scale



Mies Construction - Contractor  
S. Lowe - City of Wichita, Field Project Engineer  
R. Carillo - City of Wichita, Inspector  
As-built  
Risers  
Release Date (for connection purposes only): 12/13/2022  
Completion Date:  
pdf: apr 12/21/2022

### INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
01	TITLE SHEET
02-04	DETAILS
05	LINE 1 & LINE 1A
06	EXIST. SAN. LINE SERVICE RISERS
07	BUBBLE MAP
08-12	BMP SHEETS
13	FINAL PLAT

### BENCHMARKS

**DATUM:**  
THE HORIZONTAL DATUM IS BASED ON THE KANSAS COORDINATE SYSTEM OF 1983(2011), 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.

BENCHMARKS AND CONTROL POINTS  
ALL BENCHMARKS CAN BE USED AS CONTROL POINTS

CP#50 5/8" REBAR WITH MKEC ALUMINUM CAP, 1300 FEET EAST OF RIDGE RD, ON THE SOUTH SIDE OF VILLAGE CIR., 80 FEET WEST OF CONCRETE ENTRANCE DRIVE TO FARM HOUSE. 15 FEET SOUTH OF SIDEWALK  
NORTHING = 1711490.124 EASTING = 1624127.580  
ELEV. = 1335.95' NAVD 88

CP#51 5/8" REBAR WITH MKEC ALUMINUM CAP AT NORTHEAST PORTION OF SITE. 13 FEET WEST OF WEST EDGE OF TREE ROW AND 285 FEET NORTH OF NORTH EDGE OF TREE ROW, NORTH OF PLATTED LOT 34, BLOCK 1, ESTANCIA ADDITION.  
NORTHING = 1711268.791 EASTING = 1625517.702  
ELEV. = 1337.04' NAVD 88

CP#56 5/8" REBAR WITH MKEC ALUMINUM CAP, AT NORTHWEST SIDE OF LOT 72, BLOCK 3, ESTANCIA ADDITION, 6 FEET SOUTHWEST OF TOP OF BANK FOR POND.  
NORTHING = 1710879.252 EASTING = 1623983.524  
ELEV. = 1333.39' NAVD 88

BM#58 PKN AND WASHER DRILLED INTO NORTHEAST CORNER OF CURB INLET, EAST SIDE OF ESTANCIA ST., 70 FEET NORTH OF COLLINA ST.  
NORTHING = 1710788.55 EASTING = 1624579.04  
ELEV. = 1333.63' NAVD 88



SANITARY SEWER PLANS FOR  
**ESTANCIA SECOND ADDITION**  
 PHASE 2

©2022  
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.

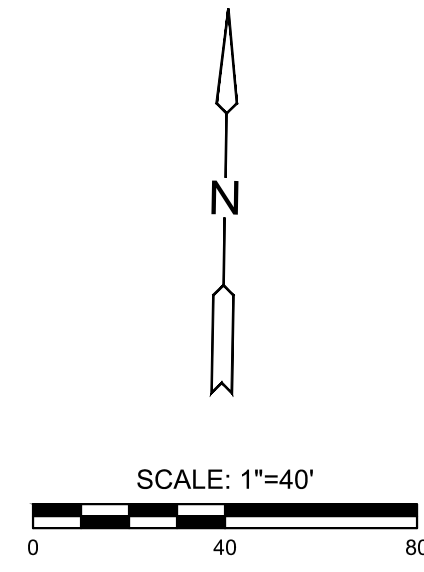
### TITLE SHEET

PROJECT NO.	468-2019-014831	
DATE	07/28/2022	
SCALE	1"=200'	
DESIGNED	DRAWN	CHECKED
SPE	LM	SPE
NO.	REVISION	DATE
SHEET NO.		
01 OF 13		



PLOTTED: Mercury, August 01, 2022 @ 10:13AM

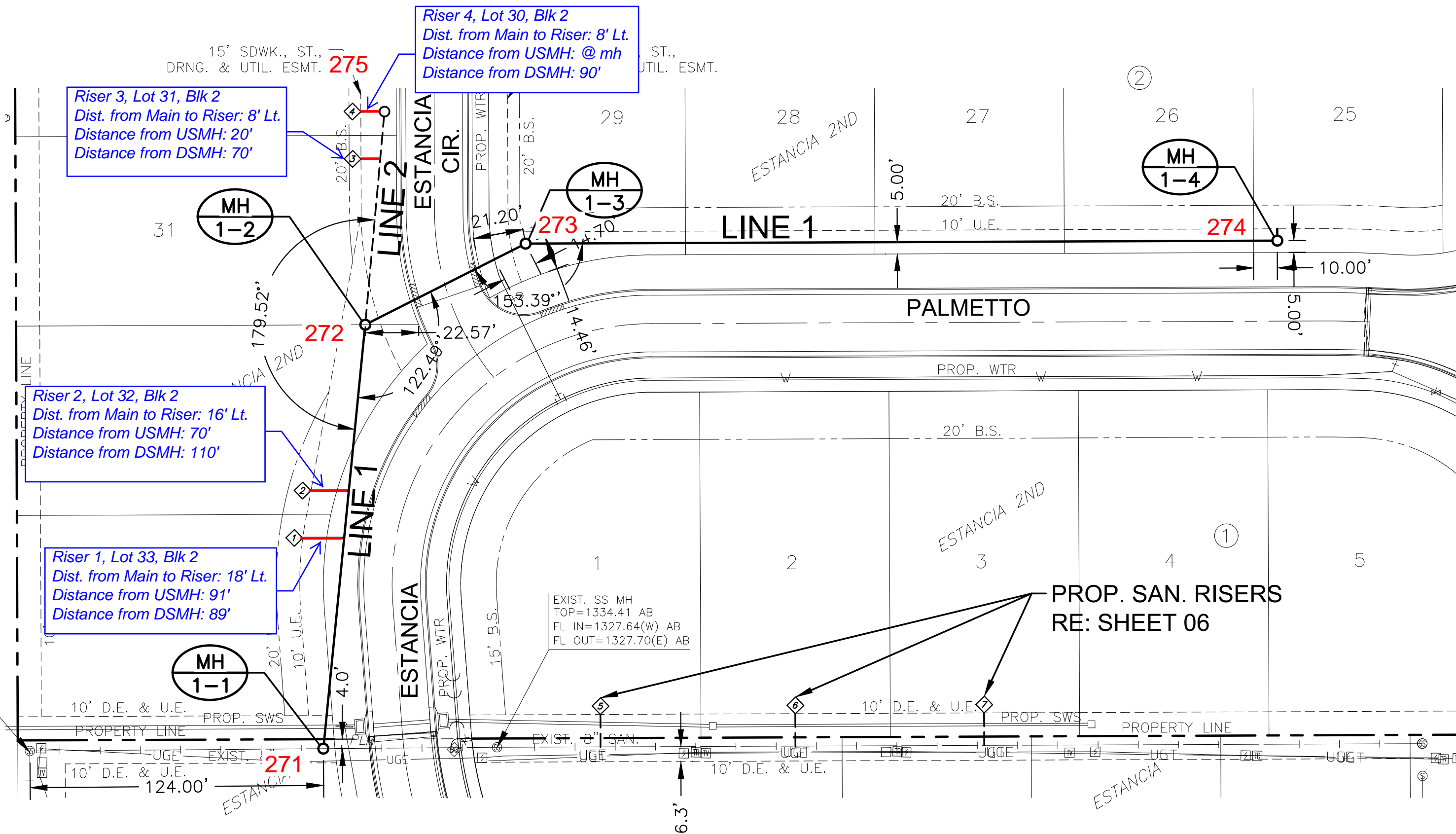
J:\PROJECTS\2019\191010338\_ESTANCIA\_SECOND\_19338\_CAD\SHS\06 CIVIL\SANPH2\19338-05-2206-PH2.DWG



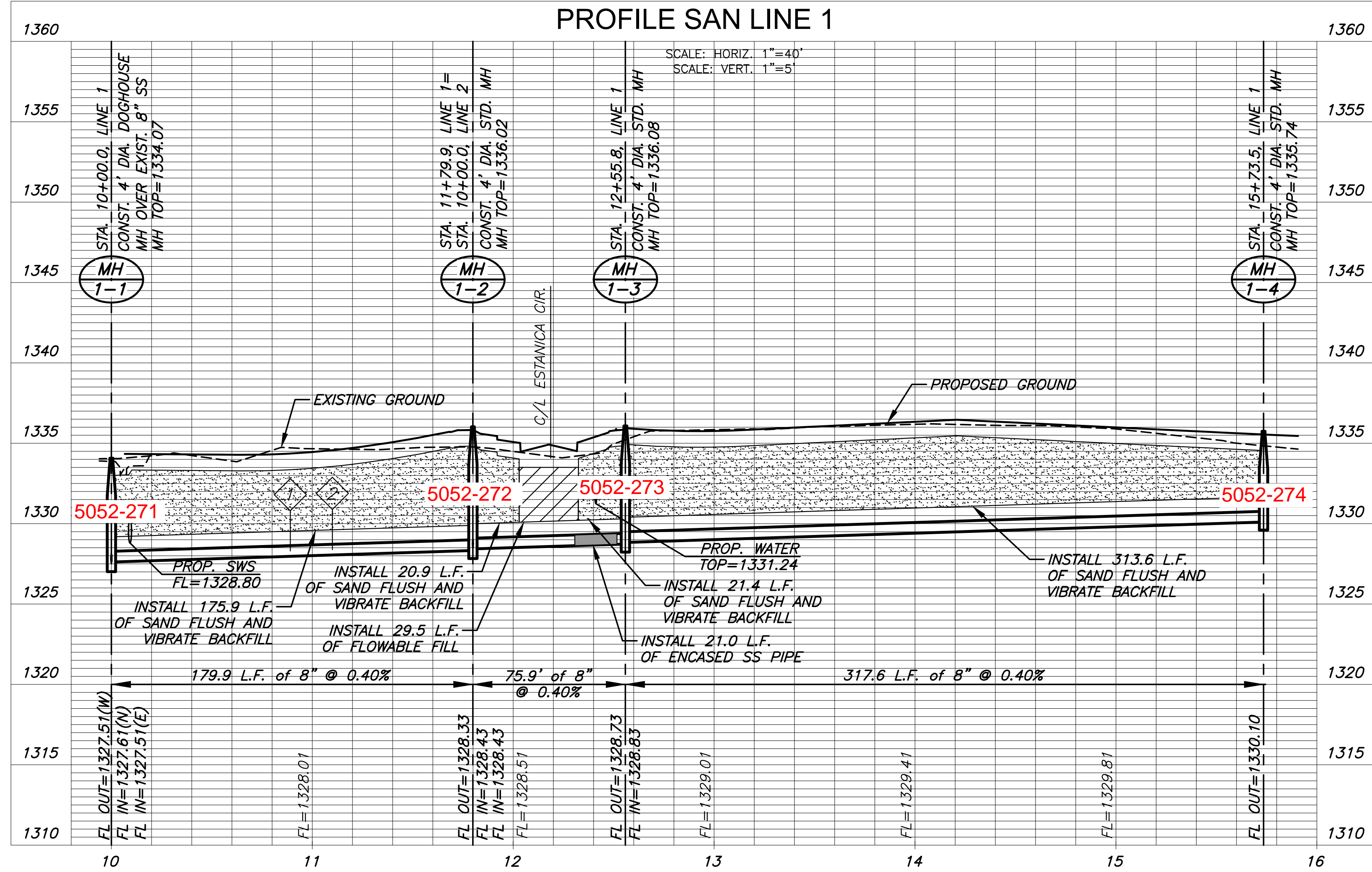
SAND, FLUSH & VIBRATE

EXIST. SS MH  
TOP=1333.35 AB  
FL IN=1326.75(S) AB  
FL OUT=1326.75(E) AB

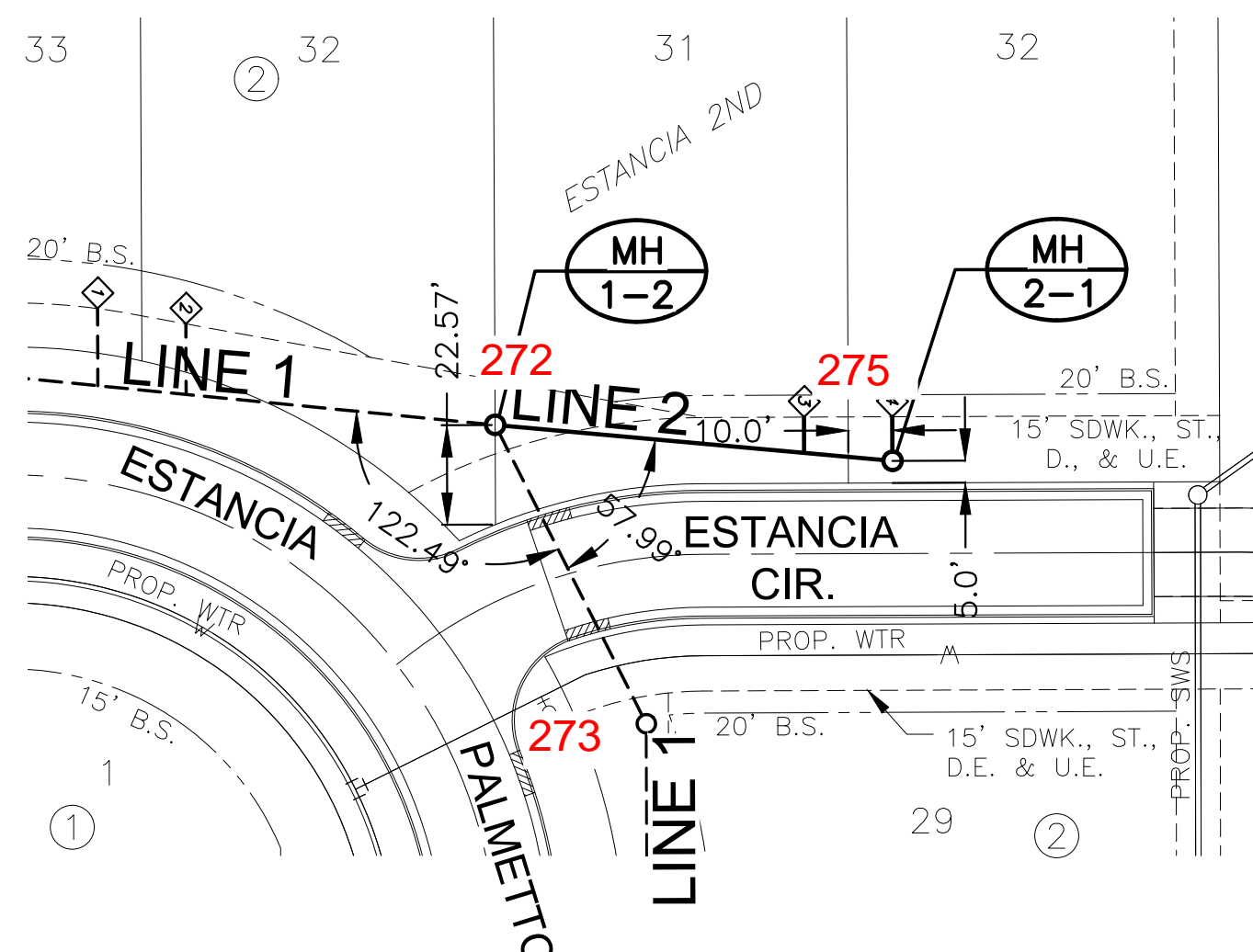
NOTE:  
CONTRACTOR TO VERIFY THE  
DEPTH AND LOCATION OF EXISTING  
UTILITIES PRIOR TO CONSTRUCTION.



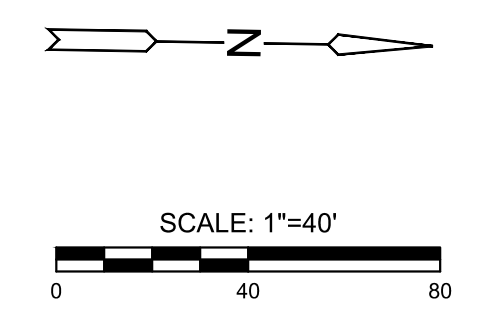
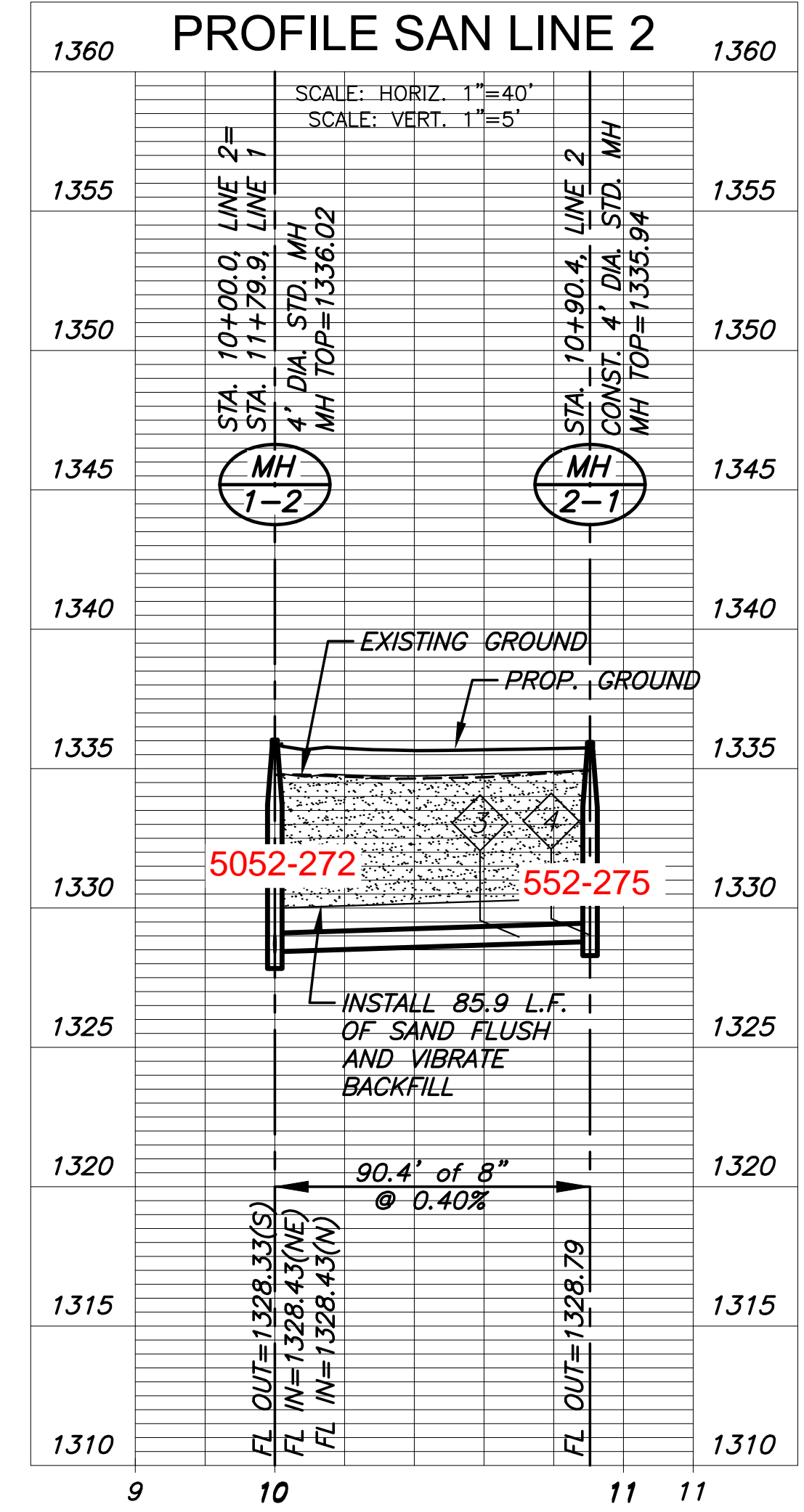
PLAN SAN LINE 1  
PROFILE SAN LINE 1



NO.	TYPE	LOCATION			STATION	DIRECTION	FOR INFORMATION ONLY	
		LOT NO.	BLOCK NO.	LINE NO.			APPROXIMATE LENGTH	VERTICAL (FT)
1	4" TEE	33	2	1	10+89/LT.		11'	18'
2	4" TEE	32	2	1	11+10/LT.		11'	16'
3	4" TEE	31	2	2	10+70/LT.		11'	8'
4	4" MH CONNECTION	30	2	2	10+90/LT.		11'	8'



PLAN SAN LINE 2  
PROFILE SAN LINE 2



SAND, FLUSH & VIBRATE



SANITARY SEWER PLANS FOR  
**ESTANCIA SECOND ADDITION**  
PHASE 2

©2022  
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.

SAN. LINE 1 & LINE 2

PROJECT NO.	468-2019-014831	
DATE	07/28/2022	
SCALE	1"=40'	
DESIGNED	DRAWN	CHECKED
SPE	LM	SPE

NO.	REVISION	DATE

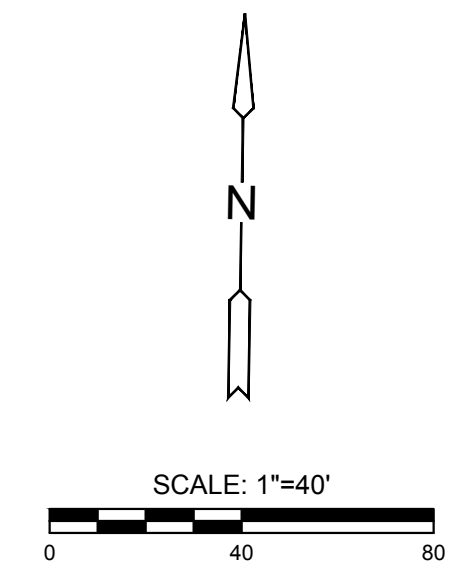
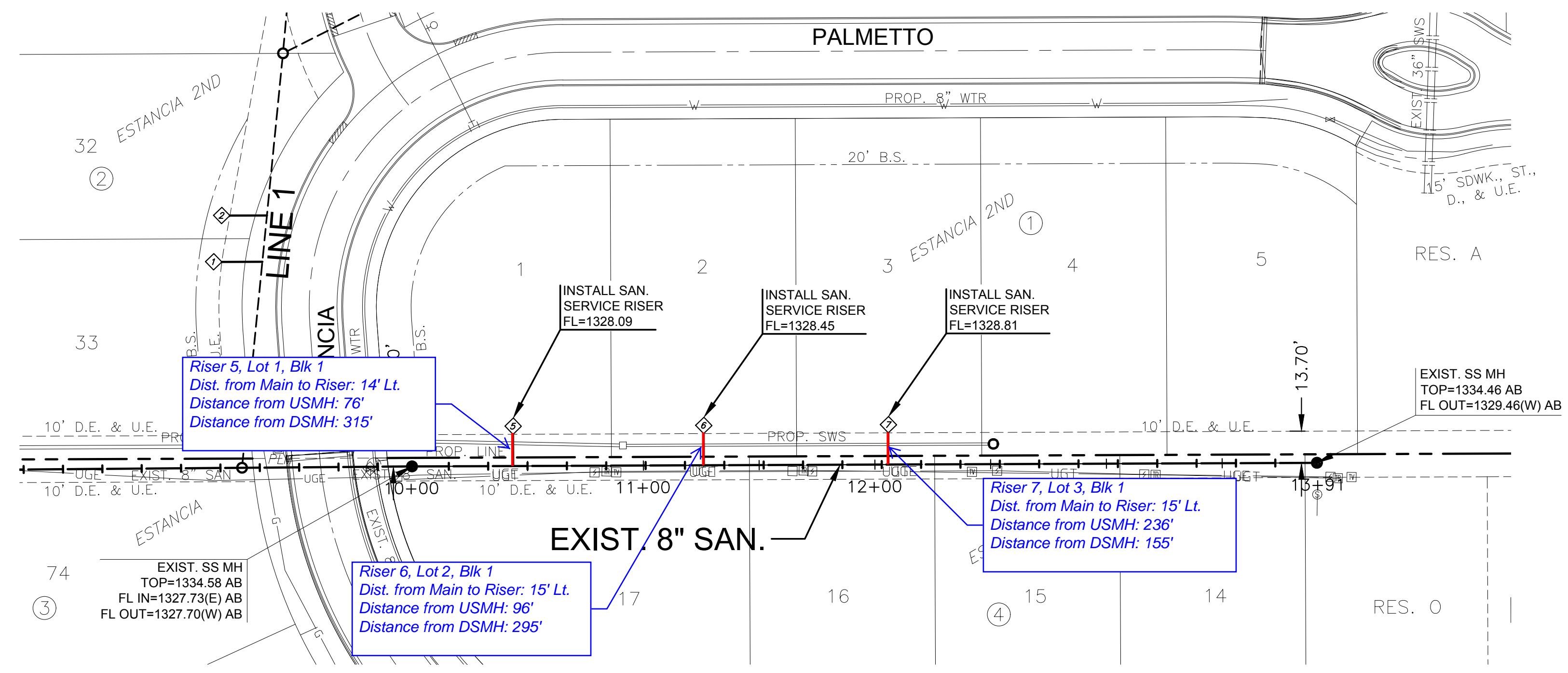
PLOTTED: Thursday, July 28, 2022 @ 09:30AM

J:\PROJECTS\2019\10\10388\_ESTANCIA\_SECOND\_18338\_CAD\SHOTS\05-2202-PH2.DWG

NO.	TYPE	SEWER SERVICE RISER TABLE					FOR INFORMATION ONLY	
		LOCATION			STATION	DIRECTION	APPROXIMATE LENGTH	
		LOT NO.	BLOCK NO.	LINE NO.			VERTICAL (FT)	HORIZONTAL (FT)
5	4" TEE	1	1	EXIST.	10+76/LT.	N	11'	13.7'
6	4" TEE	2	1	EXIST.	10+96/LT.	N	11'	13.7'
7	4" TEE	3	1	EXIST.	12+36/LT.	N	11'	13.7'



**NOTE:**  
 1. CONTRACTOR TO VERIFY THE DEPTH AND LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.  
 2. CONTRACTOR TO INSTALL SANITARY SEWER RISERS CROSSING SWS LINE 3 ABOVE PROPOSED STORM PIPE. (SEE PAVING & INCIDENTAL DRAINAGE PLANS)



SANITARY SEWER PLANS FOR  
**ESTANCIA SECOND ADDITION**  
 PHASE 2

©2022 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.

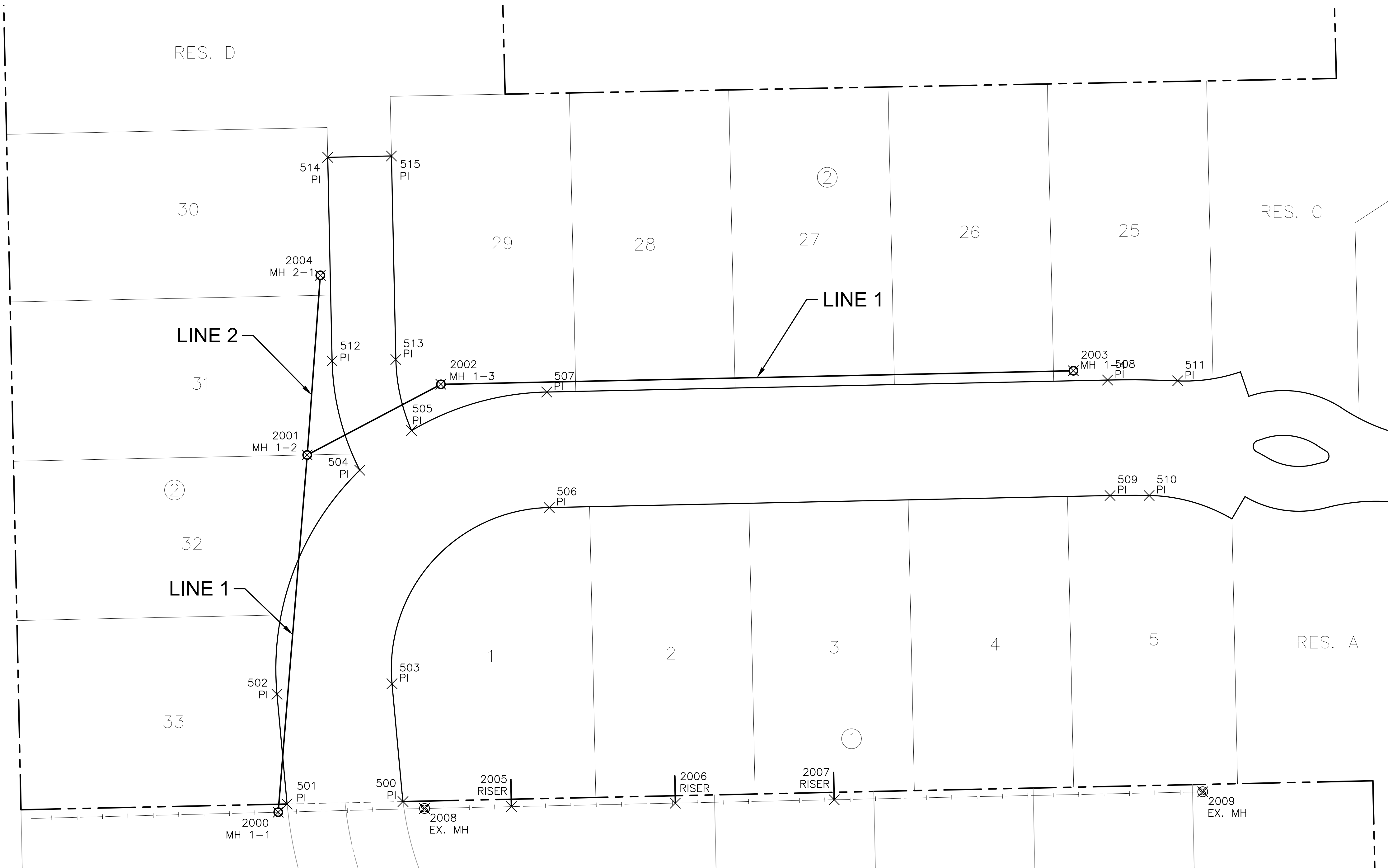
**ADDED SERVICE RISERS**

PROJECT NO.	468-2019-014831
DATE	07/28/2022
SCALE	1"=40'
DESIGNED	CJL
DRAWN	CJL
CHECKED	SPE

NO.	REVISION	DATE

SHEET NO.  
 06 OF 13

J:\PROJECTS\2019\10\10388\_ESTANCIA\_SECOND\_18338\_CAD\SHS\06\_CIVIL\SAN\PH2\19338-05-2500.DWG  
 PLOTTED: Thursday, July 28, 2022 @ 09:30AM



**CONTROL POINTS**

**DATUM:**  
 THE HORIZONTAL DATUM IS BASED ON THE KANSAS COORDINATE SYSTEM OF 1983(2011), 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.

**BENCHMARKS AND CONTROL POINTS**  
 ALL BENCHMARKS CAN BE USED AS CONTROL POINTS

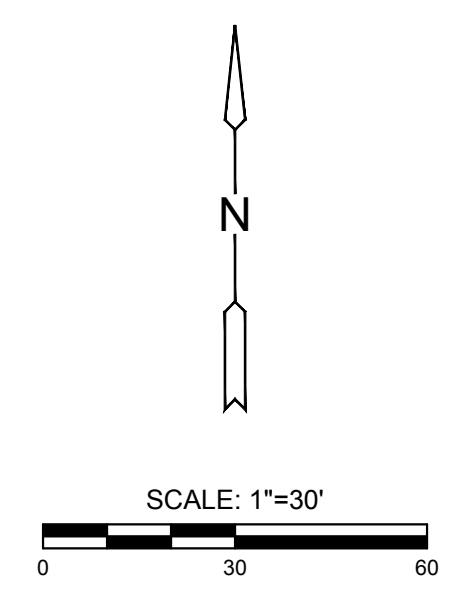
**CP#50** 5/8" REBAR WITH MKEC ALUMINUM CAP, 1300 FEET EAST OF RIDGE RD. ON THE SOUTH SIDE OF VILLAGE CIR., 80 FEET WEST OF CONCRETE ENTRANCE DRIVE TO FARM HOUSE. 15 FEET SOUTH OF SIDEWALK  
 NORTHING = 1711490.124 EASTING = 1624127.580  
 ELEV. = 1335.95' NAVD 88

**CP#51** 5/8" REBAR WITH MKEC ALUMINUM CAP AT NORTHEAST PORTION OF SITE. 13 FEET WEST OF WEST EDGE OF TREE ROW AND 285 FEET NORTH OF NORTH EDGE OF TREE ROW, NORTH OF PLATTED LOT 34, BLOCK 1, ESTANCIA ADDITION.  
 NORTHING = 1711268.791 EASTING = 1625517.702  
 ELEV. = 1337.04' NAVD 88

**CP#56** 5/8" REBAR WITH MKEC ALUMINUM CAP, AT NORTHWEST SIDE OF LOT 72, BLOCK 3, ESTANCIA ADDITION, 6 FEET SOUTHEAST OF TOP OF BANK FOR POND.  
 NORTHING = 1710879.252 EASTING = 1623983.524  
 ELEV. 1333.39' NAVD 88

**BM#58** PKN AND WASHER DRILLED INTO NORTHEAST CORNER OF CURB INLET, EAST SIDE OF ESTANCIA ST., 70 FEET NORTH OF COLLINA ST.  
 NORTHING = 1710768.55 EASTING = 1624579.04  
 ELEV. 1333.63' NAVD 88

**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.



EVERY ATTEMPT HAS BEEN MADE TO INSURE ALL COORDINATE VALUES SHOWN ARE AN ACCURATE AND TRUE REPRESENTATION OF THE CURRENT PLANS. ALL VALUES ARE TO BE CONFIRMED WITH THE FINAL SIGNED PLAN SET BEFORE USE.

PLAT POINTS			
Point #	Northing	Eastng	Desc.
500	1710995.89	1624174.36	PI
501	1710994.65	1624116.16	PI
502	1711049.75	1624111.08	PI
503	1711055.08	1624168.84	PI
504	1711162.24	1624152.66	PI
505	1711182.10	1624178.64	PI
506	1711143.50	1624247.76	PI
507	1711201.49	1624246.52	PI
508	1711207.52	1624528.11	PI
509	1711149.54	1624529.36	PI
510	1711149.55	1624548.96	PI
511	1711207.11	1624563.27	PI
512	1711217.13	1624138.76	PI
513	1711217.82	1624170.75	PI
514	1711319.32	1624136.57	PI
515	1711320.01	1624168.56	PI

SANITARY POINTS			
Point #	Northing	Eastng	Desc.
2000	1710990.56	1624111.70	MH 1-1
2001	1711169.90	1624126.27	MH 1-2
2002	1711205.35	1624193.39	MH 1-3
2003	1711212.16	1624510.95	MH 1-4
2004	1711260.07	1624132.84	MH 2-1
2005	1710993.36	1624228.79	RISER
2006	1710995.12	1624311.12	RISER
2007	1710996.82	1624390.85	RISER
2008	1710992.42	1624185.13	EX. MH
2009	1711000.79	1624575.87	EX. MH



SANITARY SEWER PLANS FOR  
**ESTANCIA SECOND ADDITION**  
 PHASE 2

©2022  
 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.

**BUBBLE MAP**

PROJECT NO.	468-2019-014831	
DATE	07/28/2022	
SCALE	1"=30'	
DESIGNED	DRAWN	CHECKED
LM	CJL	SPE
NO.	REVISION	DATE