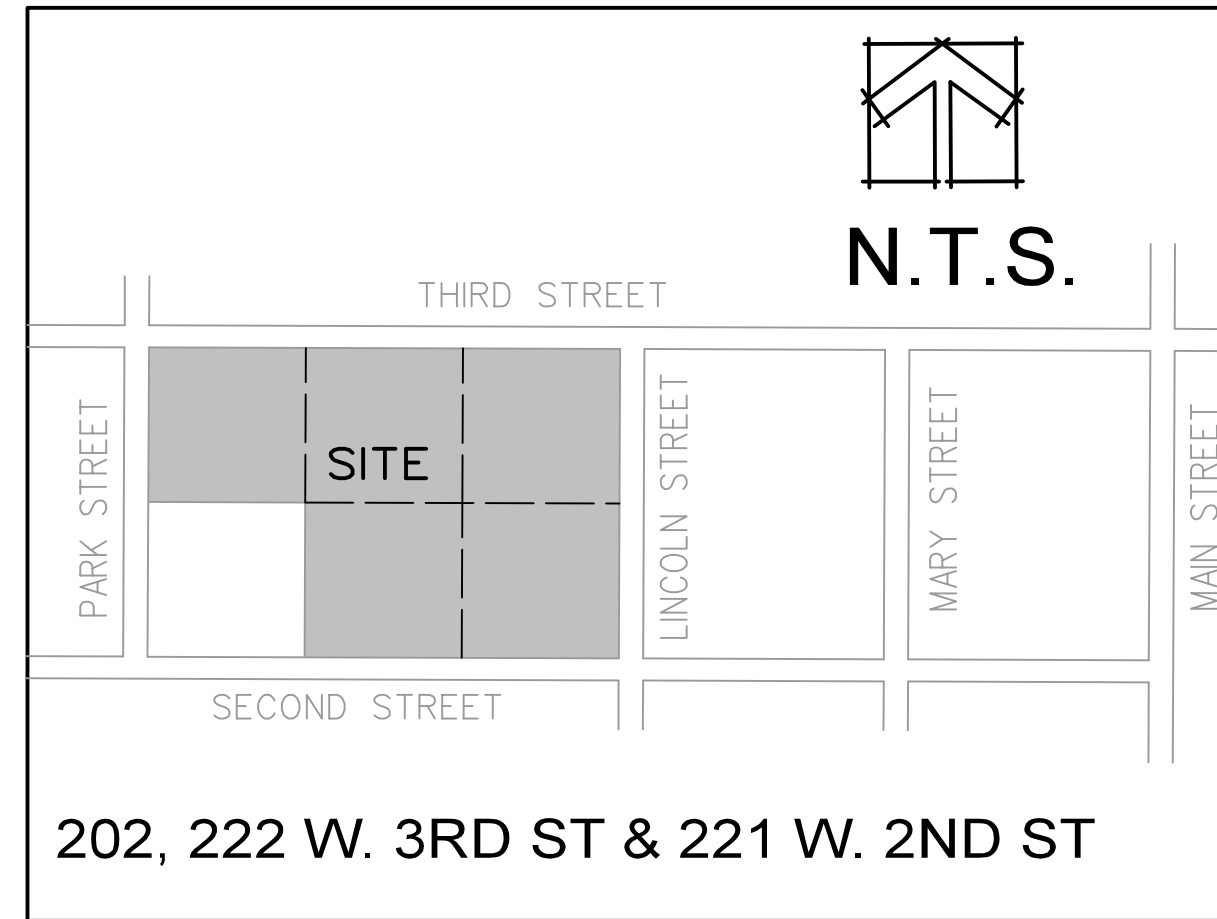


AS-BUILT PLANS



KNIGHTS OF COLUMBUS

IN SERVICE TO ONE. IN SERVICE TO ALL.



Benchmarks:
 NGS Designation – F-149 – Elev. 542.89, standard tablet stamped F 149 1935, top concrete post 40' East of Main Street centerline, 30' North of centerline of main tracks.
 Site Benchmark 1 – Elev. 508.80, top of iron pipe at the Northwest corner of site.
 Site Benchmark 2 – Elev. 516.65, top of iron pipe at the Southwest corner of 221 Second Street.

DRAWING INDEX	
SHEET NO:	SHEET TITLE
C0	COVER SHEET & NOTES
C1	COMMERCIAL NOTES
C2	EXISTING CONDITIONS
C3	DEMOLITION PLAN
C4	SITE PLAN
C5	GRADING PLAN
C6	EXISTING DRAINAGE AREA PLAN
C7	PROPOSED GRADING AREA PLAN
C8	SWPPP PLAN
C9	EROSION DETAILS
C10	STORM SEWER PROFILE
C11	STORM & SANITARY DETAILS
C12	WATER DETAILS 1
C13	WATER DETAILS 2
C14	PAVEMENT DETAILS COMMERCIAL 1
C15	PAVEMENT DETAILS COMMERCIAL 2
C16	CONSTRUCTION DETAILS SHEET 1
C17	CONSTRUCTION DETAILS SHEET 2
C18	TRASH GUARD BMP DETAILS

Legend	
CO	CLEAN OUT
CMP	CORRUGATED METAL PIPE
E.M.	ELECTRIC METER
F.F.	FINISHED FLOOR
⊕	FIRE HYDRANT
Ⓜ	GRATE INLET
Ⓜ	GAS METER
GV	GAS VALVE
G.W.	GUY WIRE
⊗	LIGHT STANDARD
M.H.	MANHOLE
T.P.	TELEPHONE PEDESTAL
U.M.H.	UTILITY MANHOLE
∅	UTILITY POLE
VCP	VITRIFIED CLAY PIPE
RCP	REINFORCED CONCRETE PIPE
Ⓜ	WATER METER
W.V.	WATER VALVE
⦿	YARD LIGHT
-G-	GAS LINE
-OU-	OVERHEAD UTILITIES
-SS-	SANITARY SEWER
-T-	TELEPHONE LINE
-W-	WATER LINE
-X-	FENCE
TBR	TO BE REMOVED
TBR&R	TO BE REMOVED AND REPLACED
UIP	USE IN PLACE
TBR&RBO	TO BE REMOVED AND REPLACED BY OTHERS
TC	TOP OF CURB
G	GUTTER

The existing sewer lengths, sizes, flowlines, depths of structures, sewer structure locations, water valves and hydrant locations have been measured. The results of those measurements are shown on this set of As-Built Plans.

Since the Water line location has been plotted from information provided by the contractor or other sources, I disclaim any responsibility for that specific information.

Note:
 The results of those measurements are shown on this drawing by lining out the planned number and indicating the measured number adjacent to the planned number. All other numbers shown have not been measured or verified.

The location of the sewers were determined by locating the manholes and traversing in a straight line between them.

No hydraulic computations have been done on the measured lines to verify or confirm the capacity, freeboard or design requirements of the sewers.

PROJECT TITLE

**KNIGHTS OF COLUMBUS
 - O'FALLON**

SITE ADDRESS: 202 W 3RD ST, O'FALLON, MO 63366
 PERMIT NO. CSP18-000025

ENGINEERING COMPANY'S INFORMATION

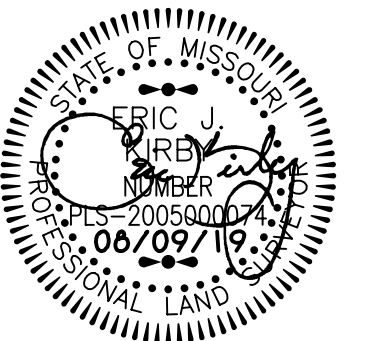
ENGINEERS
 LAND SURVEYING
 TRANSPORTATION
 CONST. MANAGEMENT

VOLZ
 Incorporated

10849 Indian Head Indl. Blvd.
 St. Louis, Missouri 63132
 314.426.6212 Main
 314.890.1250 Fax
 www.volzinc.com
 Authority #203

ORDER # 11344

SURVEYOR'S SIGNATURE BLOCK



Eric J. Kirby
 Professional Land Surveyor
 PLS #2005000074

DEVELOPER / OWNER INFORMATION:

Knights of Columbus - O'Fallon
 202 W. 3rd St.
 O'Fallon, MO 63366

COVER SHEET

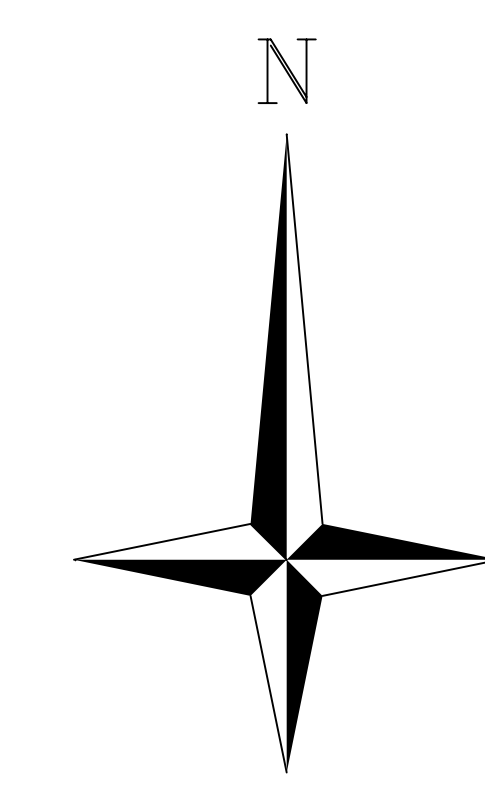
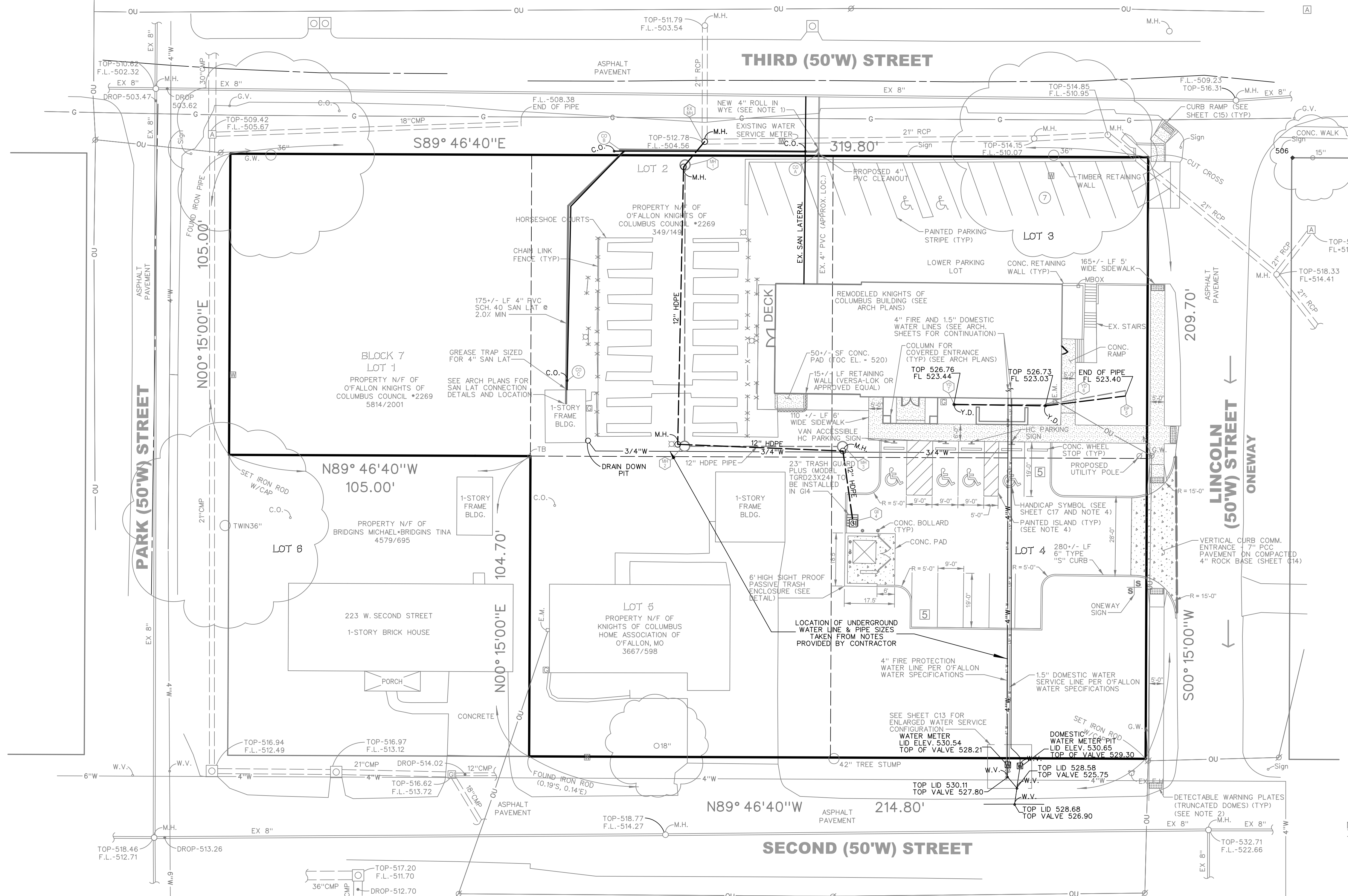
P&Z NO. 17-011060

CITY NO.

DATE: 08/09/19

PAGE NO.

C0



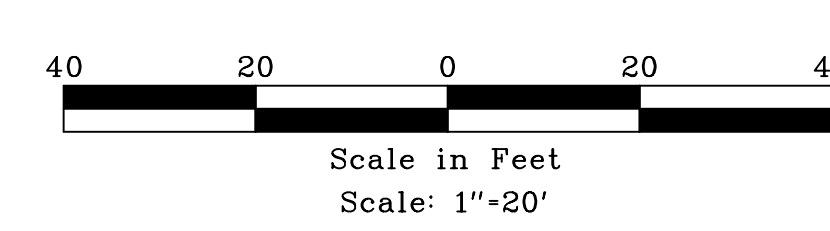
- NOTES:**
- CONTRACTOR TO FIELD VERIFY EXACT ROUTE, SIZE AND LOCATION OF EXISTING SEWER LATERAL, SEWER LATERAL INSTALLATION AND CONNECTION TO BE COMPLETED PER UTILITY COMPANY SPECIFICATIONS.
 - DETECTABLE WARNING PLATES (TRUNCATED DOMES) TO BE INSTALLED AT ALL LOCATIONS WHERE WALKWAYS DIRECT PEDESTRIAN TRAVEL INTO TRAFFIC.
 - ALL CONCRETE TO HAVE MIN. 4,000 P.S.I. COMPRESSIVE STRENGTH IN 28 DAYS.
 - ALL CONCRETE TO HAVE MIN. 4,000 P.S.I. COMPRESSIVE STRENGTH IN 28 DAYS.

UTILITY DISCLAIMER
 THE UNDERGROUND UTILITIES SHOWN HEREIN WERE PLOTTED FROM AVAILABLE INFORMATION AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, OR NONEXISTENCE, SIZE, TYPE, NUMBER, OR LOCATION OF THESE OR OTHER UTILITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITIES IN THE FIELD, SHOWN OR NOT SHOWN, PRIOR TO ANY GRADING, EXCAVATION, OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 519, RSMO.

WORK MISSOURI ONE-CALL 1-800-344-7483

Legend

CO	CLEAN OUT	T.P.	TELEPHONE PEDESTAL	-T-	TELEPHONE LINE
CMP	CORRUGATED METAL PIPE	U.M.H.	UTILITY MANHOLE	-W-	WATER LINE
E.M.	ELECTRIC METER	Ø	UTILITY POLE	-X-	FENCE
F.F.	FINISHED FLOOR	VCP	VITRIFIED CLAY PIPE	TBR	TO BE REMOVED
⊕	FIRE HYDRANT	RCP	REINFORCED CONCRETE PIPE	TBR&R	TO BE REMOVED AND REPLACED
⊠	GRATE INLET	WM	WATER METER	UIP	USE IN PLACE
⊞	GAS METER	W.V.	WATER VALVE	TBR&RBO	TO BE REMOVED AND REPLACED BY OTHERS
GV	GAS VALVE	⊙	YARD LIGHT	TC	TOP OF CURB
G.W.	GUY WIRE	-G-	GAS LINE	G	GUTTER
⊠	LIGHT STANDARD	-OU-	OVERHEAD UTILITIES		
M.H.	MANHOLE	-SS-	SANITARY SEWER		



REVISED

#1	03 /23 /18
#2	04 /12 /18
#3	06 /12 /18
#4	08 /09 /18
#5	09 /06 /18

PROJECT TITLE
 KNIGHTS OF COLUMBUS - O'FALLON

ENGINEERING COMPANY'S INFORMATION
VOLZ Incorporated
 ENGINEERS LAND SURVEYING TRANSPORTATION CONST. MANAGEMENT
 10849 Indian Head Ind'l. Blvd.
 St. Louis, Missouri 63132
 314.426.6212 Main 314.890.1250 Fax
 www.volzinc.com Authority #203

ORDER # 11344
 SURVEYOR'S SIGNATURE BLOCK

Eric J. Kirby
 Professional Land Surveyor
 PLS #200500074

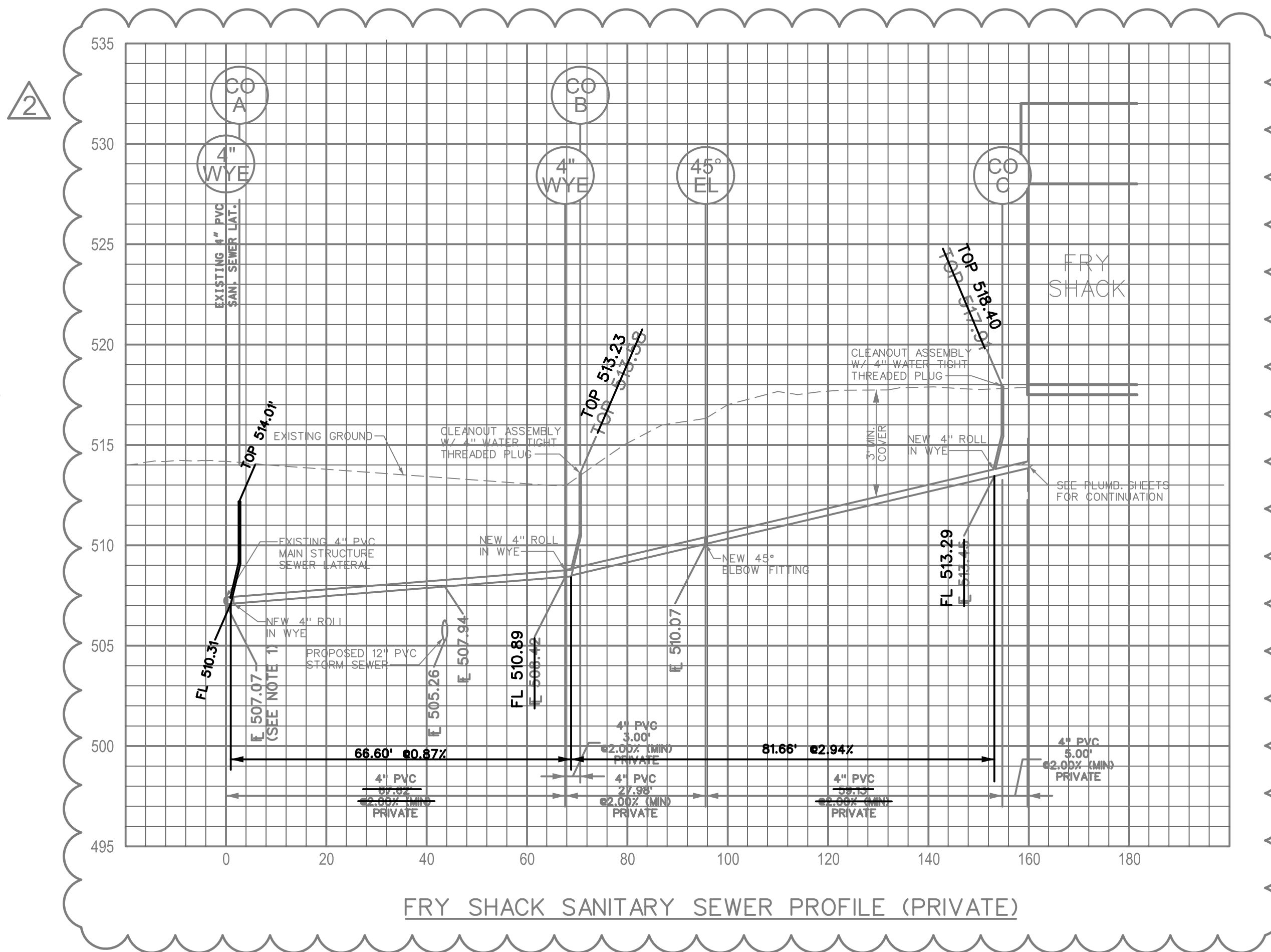
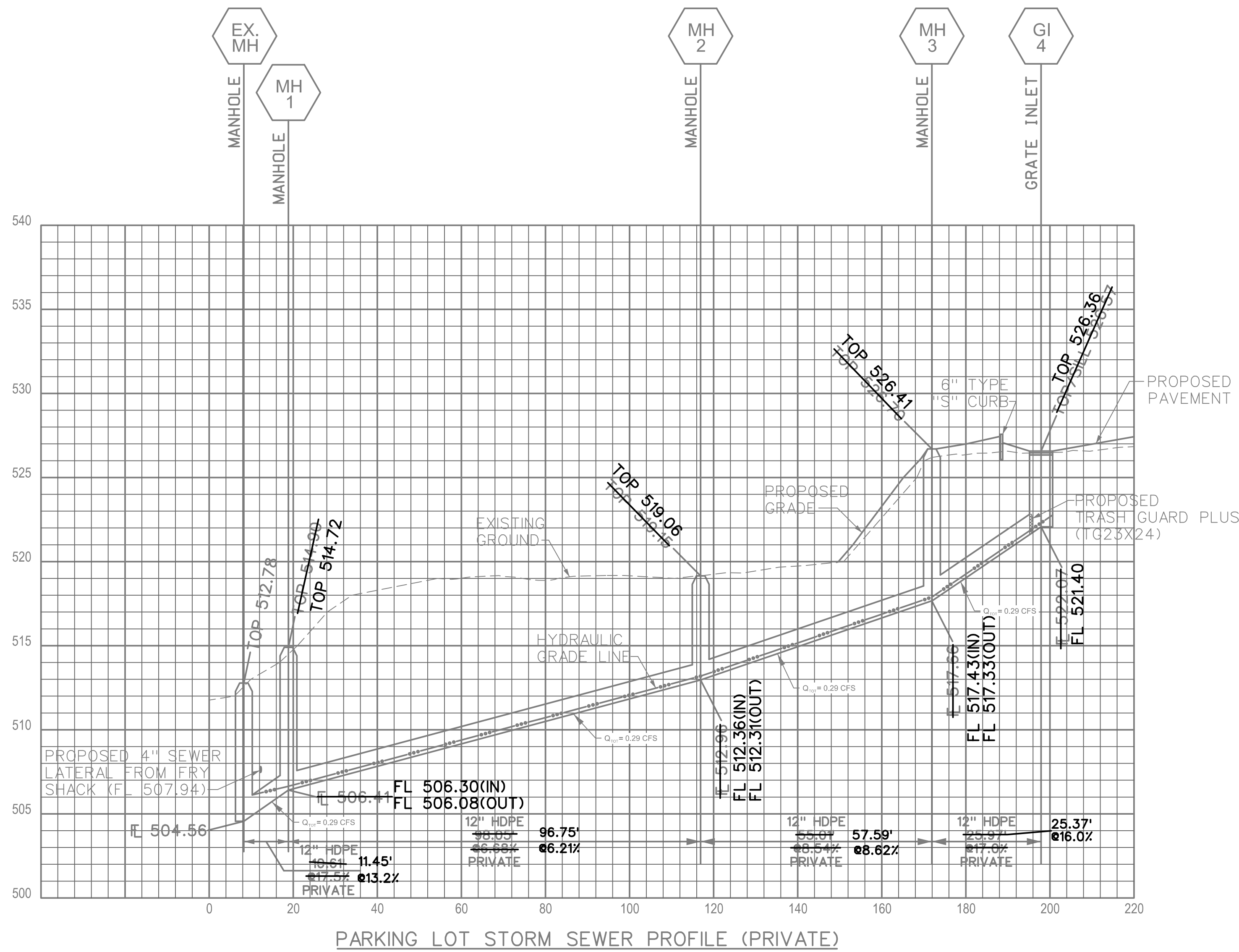
DEVELOPER / OWNER INFORMATION:
 Knights of Columbus - O'Fallon
 202 W. 3rd St.
 O'Fallon, MO 63366

SITE PLAN

P&Z NO. 17-011060
 CITY NO.
 DATE: 08/09/19
 PAGE NO.

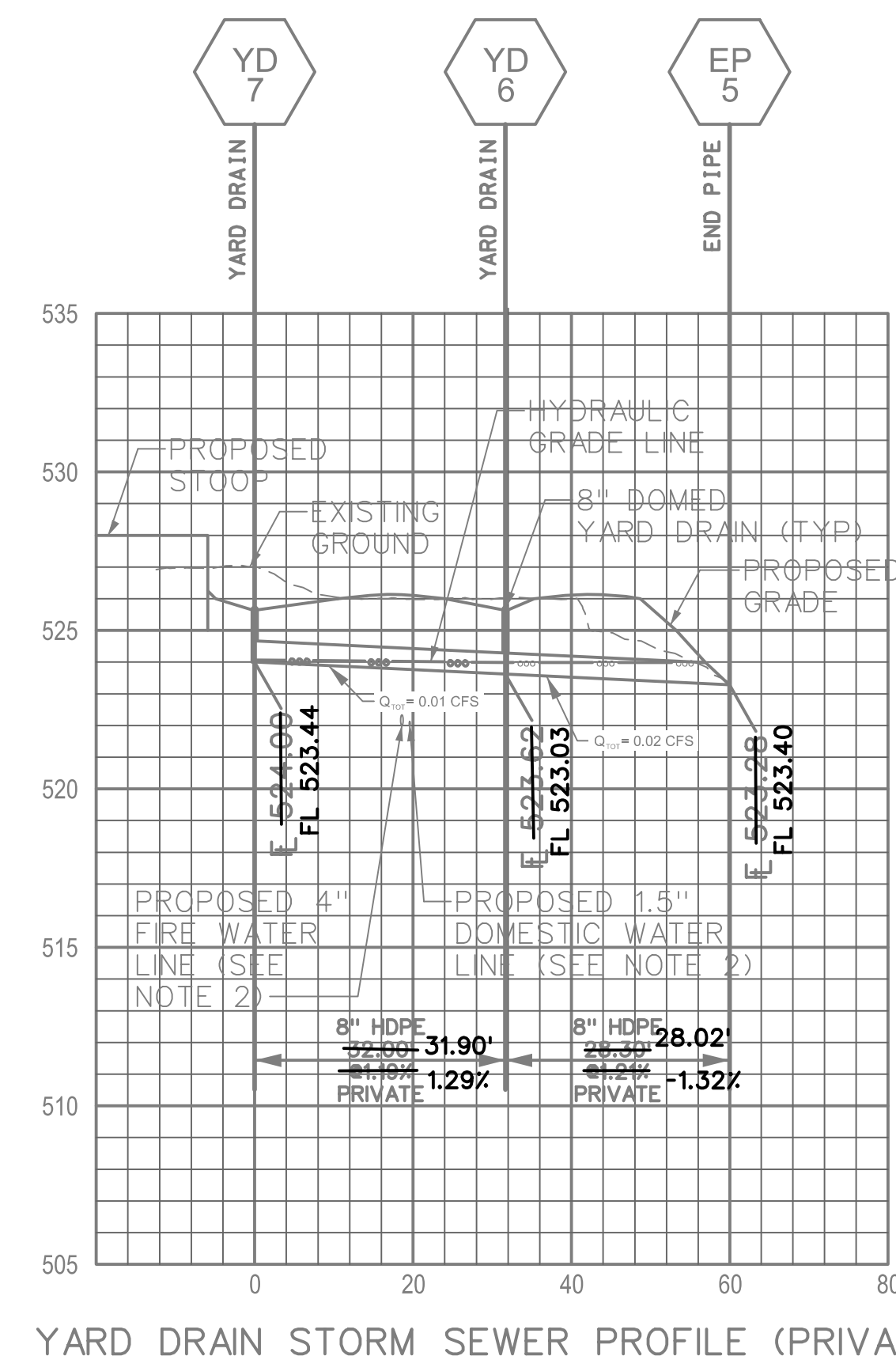
C4

SITE ADDRESS: 202 W 3RD ST, O'FALLON, MO 63366
 PERMIT NO. CSP18-000025



15 Year-20 Minute Storm Calculations																				
LineNo.	LineID	Pipe Length (ft)	Pipe Size (in)	Invert Down (ft)	Invert Up (ft)	Slope (%)	n Value	Top El Down (ft)	Top El Up (ft)	HGL (Down) (ft)	HGL (Up) (ft)	Juntion Loss	Velocity Average (ft/s)	Deflec. Angle (Deg)	Energy Loss (ft)	Known Q (cfs)	Flow Rate (cfs)	Minor Loss (ft)	Capacity (Full) (cfs)	Free-board (ft)
1	EX. MH-MH1	11	12	504.56	506.41	16.82	0.013	512.78	514.90	505.56	506.64	0.43	1.26	130.00	0.03	0.00	0.29	0.03	14.60	8.26
2	MH1-MH2	98	12	506.41	512.96	6.68	0.013	514.90	519.15	506.67	513.19	0.70	1.97	-39.90	0.40	0.00	0.29	0.05	9.21	5.96
3	MH2-MH3	55	12	512.96	517.66	8.55	0.013	519.15	526.70	513.24	517.89	0.66	1.88	-90.00	0.20	0.00	0.29	0.05	10.41	8.81
4	MH3-GI4	26	12	517.66	522.07	16.96	0.013	526.70	526.57	517.94	522.30	0.00	1.90	82.40	0.10	0.29	0.29	0.00	14.67	4.27

15 Year-20 Minute Storm Calculations																				
LineNo.	LineID	Pipe Length (ft)	Pipe Size (in)	Invert Down (ft)	Invert Up (ft)	Slope (%)	n Value	Top El Down (ft)	Top El Up (ft)	HGL (Down) (ft)	HGL (Up) (ft)	Juntion Loss	Velocity Average (ft/s)	Deflec. Angle (Deg)	Energy Loss (ft)	Known Q (cfs)	Flow Rate (cfs)	Minor Loss (ft)	Capacity (Full) (cfs)	Free-board (ft)
1	EP5-YD6	28	8	523.28	523.62	1.21	0.013	523.95	525.65	523.95	523.95	0.12	0.17	169.30	0.00	0.02	0.04	0.00	1.33	1.70
2	YD6-YD7	32	8	523.62	524.00	1.19	0.013	525.65	525.65	523.95	524.07	0.00	0.60	11.30	0.10	0.02	0.02	0.00	1.32	1.58



NOTES:

- CONTRACTOR TO FIELD VERIFY EXACT ROUTE, SIZE AND LOCATION OF EXISTING SEWER LATERAL. SEWER LATERAL INSTALLATION AND CONNECTION TO BE COMPLETED PER UTILITY COMPANY SPECIFICATIONS.
- CONTRACTOR TO REFERENCE ARCHITECTURAL PLANS FOR WATER LINE ELEVATIONS ENTERING BUILDING. WATER LINE ELEVATIONS SHOWN FOR REFERENCE ONLY, SUBJECT TO CHANGE PER ARCHITECTURAL INTERIOR CONFIGURATION AS NEEDED.

REVISED

- #1 - 04 /12 /18
- #2 - 06 /12 /18
- #3 - 08 /09 /18

UTILITY DISCLAIMER

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KNIGHTS OF COLUMBUS - O'FALLON

PROJECT TITLE

VOLZ Incorporated

ENGINEERS
LAND PLANNING
LAND SURVEYING
TRANSPORTATION
CONSULT. MANAGEMENT

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St. Louis, Missouri 63132
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ORDER # 11344

ENGINEER SIGNATURE BLOCK

Eric J. Kirby
Professional Land Surveyor
PLS #200500074

DEVELOPER / OWNER INFORMATION:

Knights of Columbus - O'Fallon
202 W. 3rd St.
O'Fallon, MO 63366

STORM & SANITARY SEWER PROFILES

P&Z NO. 17-011060

CITY NO.

DATE: 02/16/2018

PAGE NO.

C10

SITE ADDRESS: 202 W. 3RD ST., O'FALLON, MO 63366
PERMIT NO. CSP18-000025