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	LANDGOARE OREOIFICATIONS (DERMODY & ASSOCIATES)

* City of O'Fallon Construction work hours per City Ordinance 3429 as shown in Section 500.420 of the Municipal Code of the City of O'Fallon are as follows:

October 1 through May 31 7:00 A.M. To 7:00 P.M. Monday Through Sunday June 1 Through September 30 6:00 A.M. To 8:00 P.M. Monday Through Friday 7:00 A.M. to 8:00 P.M. Saturday and Sunday

* The area of this phase of development is 0.83 Acres The area of land disturbance is 0.83 Acres Number of proposed lots is 1 Building setback information. Front 25 Feet Side None Rear None

* The estimated sanitary flow in gallons per day is * Tree preservation calculations (See Landscape Plan)



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located in the field prior to any grading, excavation or Clayton Engineering Company. Any modifications to this construction of improvements. These provisions shall in drawing shall release said The Clayton Engineering Company. no way absolve any party from complying with the the Engineer and/or Surveyor whose seal appears hereon from Inderground Facility Safety and Damage Prevention Act. any liability resulting from said unauthorized modifications.

Benchmarks

PROJECT BENCHMARK (NAVD88) GPS OBSERVATIONS PER MISSOURI DEPARTMENT OF TRANSPORTATION (MODOT) GPS NETWORK SYSTEM, MISSOURI EAST (2401) STATE PLANE COORDINATE SYSTEM.

SITE BENCHMARK (NAVD88):

SQUARE CUT ON SOUTH SIDE OF CONCRETE LIGHT POLE BASE OFF NORTHEAST BOUNDARY LINE AS SHOWN ON THESE PLANS. ELEVATION =552.94' (NAVD88)

BASIS OF BEARINGS: PLAT BOOK 40 PAGE 289

Legal Description

LOT 3A OF "RESUBDIVISION OF LOT 3 OF KEATON CROSSING" AS RECORDED IN PLAT BOOK 40 PAGE 289 OF THE ST. CHARLES COUNTY RECORDS AND DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHERN MOST CORNER OF SAID LOT 3A ON THE NORTHWEST LINE OF MISSOURI STATE HIGHWAY "K" (VARIABLE WIDTH) AND NORTHEAST LINE OF KEATON CORPORATE PARKWAY (50-FEET WIDE);

THENCE ALONG SAID NORTHEAST LINE OF KEATON CORPORATE PARKWAY (50-FEET WIDE) NORTH 50 DEGREES 05 MINUTES 35 SECONDS WEST A DISTANCE OF 212.37 FEET TO A POINT OF CURVATURE;

THENCE NORTHERLY ALONG A CURVE TO THE RIGHT WITH AN ARC LENGTH OF 83.22 FEET, A RADIUS OF 53.00 FEET, WITH A CHORD BEARING OF NORTH 05 DEGREES 06 MINUTES 31 SECONDS WEST AND A CHORD LENGTH OF 74.93 FEET TO THE SOUTHEAST LINE OF KEATON CROSSING BOULEVARD (50-FEET WIDE);

THENCE ALONG SAID SOUTHEAST LINE OF KEATON CROSSING BOULEVARD (50-FEET WIDE) THE FOLLOWING COURSES AND DISTANCES:

NORTH 39 DEGREES 52 MINUTES 32 SECONDS EAST A DISTANCE OF 66.25 FEET TO A POINT OF CURVATURE;

NORTHEASTERLY ALONG THE ARC OF A CURVE TO THE LEFT WITH AN ARC LENGTH OF 2.33 FEET, A RADIUS OF 175.00 FEET, WITH A CHORD BEARING OF NORTH 39 DEGREES 29 MINUTES 41 SECONDS EAST AND A CHORD LENGTH OF 2.33 FEET TO THE LINE COMMON TO LOTS 3A AND 3B OF THE AFORESAID "RESUBDIVISION OF LOT 3 OF KEATON CROSSING";

THENCE ALONG SAID LINE COMMON TO LOTS 3A AND 3B SOUTH 60 DEGREES 12 MINUTES 12 SECONDS EAST A DISTANCE OF 247.31 FEET TO THE AFORESAID NORTHWEST LINE OF MISSOURI STATE HIGHWAY "K" (VARIABLE WIDTH);

THENCE ALONG SAID NORTHWEST LINE OF MISSOURI STATE HIGHWAY "K" (VARIABLE WIDTH) THE FOLLOWING COURSES AND DISTANCES:

SOUTH 29 DEGREES 47 MINUTES 48 SECONDS WEST A DISTANCE OF 52.96 FEET;

0.83 ACRES.

SOUTH 18 DEGREES 29 MINUTES 12 SECONDS WEST A DISTANCE OF 13.55 FEET TO THE POINT OF BEGINNING AND HAVING AN AREA OF 36,075 SQUARE FEET OR

Z&H FOODS INC. POPEYES L.K. -O'FALLON, MO -SITE CONSTRUCTION PLANS



A TRACT OF LAND BEING LOT 3A A RESUBDIVISION OF LOT 3 OF KEATON CROSSING IN U.S. SURVEY 1669, TOWNSHIP 46 NORTH, RANGE 3 EAST, OF THE FIFTH PRINCIPAL MERIDIAN

CITY OF O'FALLON, ST. CHARLES COUNTY, MISSOURI

AS BUILT PLANS

SOUTH 35 DEGREES 30 MINUTES 26 SECONDS WEST A DISTANCE OF 100.50 FEET;

ABBRE	VIATIONS
AI	- Area Inlet
Asph	- Asphalt
ATG	- Adjust to Grade
B/B	- Back to Back
BW	- Base of Wall
CB	- Catch Basin
ChP	Cord Pooring
CL or €	- Centerline
CMP	 Corrugated Metal Pipe
Co	- Cleanout
Conc	- Concrete
CTV	- Cable Television
DB	- Deed Book
DCB	- Double Catch Basin
	- Drop EL from North
	- Diop FE Itom Notur
E	- Electric
F/F	- Face to Face
FES	 Flared End Section
FF	- Finish Floor
FG	- Finish Grade
FL	- Flow Line
GB	- Grade Break
GI	- Grate Inlet
Gr MH	- Grate Manhole
	- Length of Curve
	Manhala
IN/F	- Now or Formerly
N.I.C.	- Not in Contract
OHE	- Overhead Electric
OHE&T	 Overhead Electric & Telepho
PB	- Plat Book
PG	- Page
PL	- Property Line
PVC	- Polyvinyl Chloride Pipe
R	- Radius
RD	- Roof Drain
R/W	- Right of Way
RCP	- Reinforced Concrete Pine
	To Bo Domovod
	- To be Removed
IBR&R	- To Be Removed & Replaced
IBRei	- To Be Relocated
тс	- Top of Curb
TF	 Top of Foundation
TG	- Top of Ground
TP	 Top of Pavement
TW	- Top of Wall
Тур	- Typical
UGE	- Underground Electric
UGEO	- Underground Fiber Optic
LIGT	- Underground Telephone
	- Lise in Place
011	

- Vitrified Clay Pipe

- Water Service

VCP

W.M. W.V. G.M. G. + 500.00

Gas Meter Or Valve	е
Utility Pole w/ Guy	Wires
Handicap Parking \$	Space
Direction Of Traffic	
	_
	<u>P</u>
Contour	
Spot Elevation	
Sanitary Sewer	

- Area Ligh

Fire Hvdrant

- Double Area Light

Doorway Entranc

rainage Flov

Water Meter Or Valv

Connection (Proposed

Legend

500

ROPOSED	EXISTING	
ullet	0	Clean Out
	0	Catch Basin/Curb Inlet/Area
••	00	Double Catch Basin/Curb Ir
	\circledast	Nyloplast Yard Drain
	\bigtriangleup	Faucet
" † • †	ŀŶ	Fire Hydrant
Δ	\square	Flared End Section
		Grated Inlet
+	- 수 -	Light Standard
ightarrow	0	Manhole
▲	٩	Sign
ý	ş	Utility Pole
¥	ø	Valve or Meter
⊡∙₽		Twin Light Pole

Single Light Pol

Conditions of Approval From Planning and Zoning

ON FEBRUARY 6, 2020, THE PLANNING AND ZONING COMMISSION APPROVED AN AMENDED SITE PLAN AND CONDITIONAL USE PERMIT FOR (20-000372) REQUEST FOR CONSIDERATION AND MOTION FOR ACTION ON AN AMENDED SITE PLAN FOR 6674 KEATON CORPORATE PARKWAY - ADVANTAGE HOLDINGS 3A, LLC, PROPERTY OWNER -PROPOSED USE: RESTAURANT {WARD 2).

THE APPROVAL IS CONDITIONAL UPON THE FOLLOWING STAFF RECOMMENDATIONS BEING MET:

- 1. A TRAFFIC STUDY WAS PREVIOUSLY REQUIRED FOR THE SITE PLAN. THE APPLICANT SHALL REVIEW WITH THE CITY'S TRAFFIC CONSULTANT WHETHER ANY UPDATES ARE NEEDED TO THAT STUDY AND ADHERE TO THE STUDY'S FINDINGS.
- THE RIGHT IN/RIGHT OUT ENTRANCE WILL NEED TO SUPPORTED AND ACCEPTABLE ACCORDING THE TRAFFIC STUDY AS ACCEPTED BY THE CITY'S TRAFFIC ENGINEER.
- IF SUPPORTED THE ENTRANCE WILL NEED TO BE RECONFIGURED IN A MANNER THAT WOULD RESTRICT LEFT TURN MOVEMENTS. TOE CONFIGURATION SHOWN ON THE SUBMITTAL IS NOT ACCEPTABLE
- 4. THIS DEVELOPMENT WILL BE REQUIRED TO CONTRIBUTE \$1,500.23 TO THE HIGHWAY K RIGHT TURN LANE ON TO KEATON CORPORATE BLVD.
- SHOW THE EXISTING SIDEWALK CONNECTIONS AND TRAIL LOCATIONS. CLARIFY THE DRIVE AISLE CONNECTION TO THE ADJACENT PROPERTY TO THE NORTH.
- PROVIDE THE REVISED SITE DEVELOPMENT DETAILS.
- PROVIDE A PHOTOMETRIC LIGHTING PLAN.
- ASPHALT PAVEMENT IS TO HAVE A MINIMUM 8" ROCK BASE. REVIEW THE FLOW OF TRAFFIC ON THE EASTERN SIDE OF THE BUILDING. STAFF 10 RECOMMENDS A TWO-WAY DRIVE AISLE.

FINAL ASBUILT MEASUREMENTS

THE EXISTING SEWER LENGTHS, SIZES, FLOW LINES, DEPTH OF STRUCTURES & SEWERS AND LOCATIONS WITH RESPECT TO EXISTING OR PROPOSED CONDITIONS HAVE BEEN MEASURED. THE RESULTS OF THOSE MEASUREMENTS ARE SHOWN ON THIS SET OF FINAL MEASUREMENT PLANS. SINCE THE PROFILE UTILITY LOCATIONS HAVE BEEN PLOTTED FROM INFORMATION PROVIDED BY THE SEWER CONTRACTOR OR OTHER SOURCES, I DISCLAIM ANY RESPONSIBILITY FOR THAT SPECIFIC INFORMATION

10/26/2020





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construction of improvements. These provisions shall in drawing shall release said The Clayton Engineering Company. no way absolve any party from complying with the the Engineer and/or Surveyor whose seal appears hereon from Underground Facility Safety and Damage Prevention Act. any liability resulting from said unauthorized modifications.

RM SEWER STRUCTURES: 5D STANDARD CONSTRUCTION 5CATIONS FOR SEWERS AND 3E FACILITIES LATEST EDITION.	ADDITIONAL UTILITY NO 1. LIMITS OF DISTURB DISTURBANCE AS S WORK AREA WHER 2. ALL DISTURBED AR THESE PROJECT IM DEVELOPMENT. 3. STORM SEWERS AF PROVIDED IN ACCO ACCOUNTS FOR TH 4. THE CONTRACTOR SUPPORT FOR EXIS THE INSTALLATION ANY DAMAGE TO TH CONTRACTOR TO T 5. IT IS THE CONTRAC REQUIRED TO WOR 6. ALL EXISTING UTILI UTILITY INSTALLATI UTILITY COMPANY'S EXISTING UTILITIES THE RESPECTIVE U 7. FLOOD DETENTION BUT THIS IS AN OUT ALREADY BEEN PRO DOWNSTREAM. 8. WATER QUALITY IS THIS IS AN OUTLOT REQUIRED. 9. REFER TO THE "STOC AND "STORMWATER	DTES: ANCE: THE CONTRACTOR SHALL STAY WITHIN T SHOWN ON THE PLANS AND MINIMIZE DISTURBAN EVER POSSIBLE. EAS SHALL EITHER BE PAVED, LANDSCAPED, OR IPROVEMENTS. SEEDING WILL NOT BE PERMITTE RE PROPOSED WITH THESE IMPROVEMENTS. SE' ORDANCE WITH CITY RULES & REGULATIONS THIS IE IMPROVEMENTS SHOWN ON THESE PLANS. IS RESPONSIBLE TO PROVIDE ALL NECESSARY S STING PAVEMENT AND CURBING AT REQUIRED EX OF THE NEW MH 1-3 NEAREST KEATON CROSSIN HE EXISTING PAVEMENT OR STREET SHALL BE RI THE CITY INSPECTOR'S SATISFACTION. TOR'S RESPONSIBILITY TO OBTAIN ANY CITY OR & ALONG THE ROADWAYS. TIES LINES / PIPING, EXPOSED DURING TRENCHIN IONS, SHALL BE SUPPORTED ACCORDING TO THE S STANDARDS AND SPECIFICATIONS. ANY DAMAGE SHALL BE THE CONTRACTOR'S RESPONSIBILITY TILITY COMPANY'S SATISFACTION. IS NOT REQUIRED BY DIFFERENTIAL FLOW OF IN FLOT OF AN OVERALL DEVELOPMENT, SO DETENT OVIDED IN AN EXISTING REGIONAL DETENTION B NOT REQUIRED BY INDIVIDUAL LOT DISTURBANC OF AN OVERALL DEVELOPMENT, SO WATER QUA DRMWATER MANAGEMENT FACILITIES REPORT: COR R MANAGEMENT FACILITIES REPORT: COR	HE LIMITS OF ICE WITHIN THE SODDED FOR ED ON THIS WER DESIGN IS S PROJECT, AND SHORING / KCAVATION FOR IG BOULEVARD. EPAIRED BY THE MODOT PERMITS NG FOR NEW E RESPECTIVE GE TO THESE TO REPAIR TO IDIVIDUAL LOT, TION HAS ASIN CE (<1 AC.), BUT ALITY IS CALCULATIONS"	ENGINEERS • SURVEYORS • PLANNERS ST FOLIS MISSOURF R346	(314) 692-8888 FAX: (314) 692-8888 FAX: (314) 692-8688 claytoneng.com MO Cert. of Authority - Prof. Engineering #000067 & Prof. Surveying #000014 IL Dept. Financial & Prof. Reg. Prof. Design & Engineering Corp. #184.000879
MISSOURI STATE HIGHWAY "K"	 AND "STORMWATER CLAYTON ENGINEE QUALITY CALCULAT RESPECTIVELY. ANY GAS SERVICE, RIGHT-OF-WAY SHA CONTACT MODOTS AND COORDINATE I THIS PROJECT DOE REFER TO LIGHTING THIS PROJECT DOE RESTAURANT HAS/ THE BUILDING, SEE ALL ROOFTOP EQU COMPATIBLE WITH OF THE SCREENED INFORMATION. WATER SERVICE NO DISTRICT NO. 2 WIL NUTS NEEDED TO C RESPONSIBLE FOR TRENCHING, BACKF INSPECTED BY THE WATER DISTRICT. WATER DISTRICT. METER. ALL INSTAL STANDARDS AND S ALL WATER AND FIF DIRECTION. THE CO TO A CHIEVE VERTIG INSTALLATION DEP' CROSSINGS. ADDIT HIGH POINTS IN WA ALL WATER AND FIF SUPPLY DISTRICT N MINIMUM VERTICAL SEWERS SHALL BE SANITARY/STORM S WITH PRIOR APPRO WHEN CLEARANCE OF 42° OF COVER A ADDITIONALLY ALL ANY EXISTING LIGH WIRES, AND/OR UM RELOCATED ARE TO COORDINATE WITH WHO HAVE WIRES OF THE ELECTRICAL PITE 2. CONNECTION TO DCC THE DCSD INSPECT 48-HOUR ADVANCE EXISTING G-INCH SAN AS CLOSE AS POSS DCSD INSPECTION. THE CONTRACTOR SCHEDULING. EXISTING G-INCH SAN AS CLOSE AS POSS DCSD INSPECTION. THE CONTRACTOR IS MANHOLES OR MAIL SOME RECENT CAN ADDITIONALLY ALL ANY EXISTING UTILITIES APPROXIMATELY. T SYSTEM MARKINGS 	R MANAGEMENT FACILITIES: OPERATION & MAINT RING COMPANY, INC. FOR POST CONSTRUCTION IGONS AND MAINTENANCE & OPERATION SCHEDU. WATER SERVICE, ETC. BORINGS, OR EXCAVATIO LL REQUIRE A MODOT UTILITY PERMIT. THE CO SENIOR TRAFFIC SPECIALIST, PAUL GRAHAM AT (WITH THE RESPECTIVE UTILITY COMPANIES. IT IS SENOT PROPOSE ANY IRRIGATION OF THE LANDS A 2,000 GALLON GREASE INTERCEPTOR LOCATED THIS PLAN AND DETAIL ON CS.1. IPMENT SHALL BE SCREENED. SCREENING MATT THE BUILDING MATERIAL, AND AT LEAST EQUAL DIE: 1-1/2" METER AND LINE - THE PUBLIC WATEF L SUPPLY ONLY THE WATER METER, GASKETS A DOMPLETE THE SERVICE INSTALLATION. THE CO PROVIDING THE TAPPING SADDLE AS WELL AS E "ILLING AND INSTALLATION. IT SHALL BE WITNES "WATER DISTRUT. PROVIDE MINIMUM OF 14 WEE TH2" LINES CAN BE TYPE K COPPER ON DISCHAF LATION TO FOLLOW PUBLIC WATER SUPPLY DIS PECIFICATIONS. RE FITTINGS SHOWN ARE FOR HORIZONTAL CHAI NITRACTOR SHALL DETERMINE BEST LOCATIONS. CAL CHANGES IN ALIGNMENT WHILE MAINTAINING THAND OBTAINING PROPER CLEARANCES FROM ION OF AIR RELEASE VALVES MAY BE NECESSAF VALE FITTINGS TO BE THRUST BLOCKED PER F 40. 2 STANDARDS AND SPECIFICATIONS. . CLEARANCE BETWEEN WATER LINES AND SANIT 18-INCHES. CONTRACTOR TO DIP NEW WATER LINES IN ANT POSSIBLE. THE WATER DISTRICT REQUI IND O TAIR RELEASE VALVES MAY BE NECESSAF VAL FROM THE ENGINEER, CONCRETE ENCASE IS NOT POSSIBLE. THE WATER DISTRICT REQUI IND A DAXIMUM OF 72" OF COVER OVER ITS WATT EXISTING VALVES MUST REMAIN OR BE BROUGO. IS CEARANCE BETWEEN WATER LINES AND SANIT 18-INCHES. CONTRACTOR TO DIP NEW WATER LINE ONT POSSIBLE. THE WATER DISTRICT REQUI IND A MAXIMUM OF 72" OF COVER OVER ITS WATT EXISTING VALVES MUST REMAIN OR BE BROUGO. IS DANITARY SEWERS REQUIRES DCSD INSPECT IS NOT POSSIBLE. THE WATER DISTRICT REQUI IND A PARIVIDUES. OVER ITS ANY ADDITIONAL ON THESE POLES, PRIOR TO ANY WORK IN THIS / LANS FOR NEW LOCATIONS AND FURTHER INFOFO IS RESPONSIBLE FOR ALL UTILITY COMPANY CO IS DANITARY SEWERS REQUIRES DCSD INSPECT IS DANITARY SEWERS REQUIRES DCSD INSPECT IS ON PERARTMENT AT 636-	ALDOLATION FENANCE" BY THE BMP WATER JLE, ONS IN THE STATE NTRACTOR SHALL 314) 565-6714, SUGGESTED JJECT IS AILS. SCAPE AREAS. DEXTERIOR OF ERIAL SHALL BE TO THE HEIGHT ANS FOR MORE RSUPPLY ND BOLTS AND NTRACTOR IS SCAVATION, SED AND K NOTICE TO RGE SIDE OF THE TRICT NO. 2 NGES IN S FOR FITTINGS G PROPER 1 UTILITY RY IF ISOLATED BE TRAPPED. PUBLIC WATER TARY/STORM INES UNDER TIVE OPTION AND WATER LINES RES A MINIMUM ER MAINS. IT TO GRADE. & TELEPHONE D AND/OR TRACTOR MUST . COMPANIES AREA. REFER TO RMATION. ORDINATION AND ARE SHOWN URI ONE-CALL TION. CONTACT E INSPECTION. AP LATERAL BACK G REQUIRES G OF SANITARY he following: t sentence and 0 gallons/inch atural c, is, and the mile of line/day,	A T F OLDO INC. 4415 HIGHWAY 6 2 07/27/2020 RKF Revised per cuty, moutor 1, and utility company comments 3UGAR LAND, TX 77478 801-651-1748 UTILITY PLAN	, K O'FALLON, MO O'Fallon, MO 63368 PLOTTED:10/27/2020 7:57 AM
547.01 =544.07	The measurement of leaka as required by the Missouri Section B, Pipe Field Tests after the first sentence the t The vacuum test must b contractor provides doc manhole may be vacuur submit this documentati Section B, Pipe Field Tests Testing - delete the second applies: For exfiltration testing, th line/day when the avera	ge shall not exceed 100 gallons/inch of pipe diameter/r i Department of Natural Resources Specifications. c, Paragraph 4, Manhole Testing, Subparagraph a, Vac following addition applies: the performed prior to backfilling around the manhole un umentation from the precast manhole manufacturer sta m tested after backfilling has taken place. The contract ion prior to backfilling around any manhole. c, Paragraph 4, Manhole Testing, Subparagraph b, Exf d sentence, concerning leakage limits, and the following the allowable leakage limit is 100 gallons/inch of pipe di ige head on the test section is three feet (3') or less.	mile of line/day, exum Testing - aless the ating that the tor must filtration g addition ameter/mile of	1 0	POPEYES L 6674 Keaton Corporate Parkway
DEPTH OF STRUCTURES & SEWERS A SED CONDITIONS HAVE BEEN MEASUR N THIS SET OF FINAL MEASUREMENT F D FROM INFORMATION PROVIDED BY RESPONSIBILITY FOR THAT SPECIFIC Erik J. Staley - Profess (PE-200600 OF M STALE NUMBE PE-200600 ERIK J. STALEY, CLAYTON ENGIN	ND ED. THE PLANS. SINCE THE SEWER INFORMATION. sional Engineer 0132) Solution Solution PE-2006000132	SCALE IN FEET SCALE IN FEET SCALE 1"=20' Note: Caution should be taken in comparing the write graphic scale to ascertain if this plan has been endated as the graphic scale to ascertain if the graphic scale to ascertain the graphi	40' Des Dra Che Dat Pro itten scale to irged or reduced.	signed EJS wn EJS, Ri ecked EJS e May 8, 2 ject Number 20027 eet Number C4.0	<u></u> KF 020

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STR U	UCTURES PR/LWR	FLOWLINES UPR/LWR	SIZE/ ANGLE	LENGTH, CURVED	/ n ?	AREA/ PI	Qadd	Qtotal/ Qfull	ConS/ ReqdS	Yn/ Yc	PARTIAL V/Y	FULL V/Vhead	LOSS F/C	SES V/T	COND U/L	HGL UPR/LWR	UPR STR TOP/FRBD
GIS GIS	I 1-9 I 1-8	546.20 545.04	12" 33°	116.07 N	0.013	0.13 3.69	0.48	0.48 3.57	1.00 0.02	0.25 0.29	0.61 1.14	0.61 0.01	0.27	0.21	ND FP	546.66 546.18	550.07 3.41
GIS GIS	SI 1-8 SI 1-4	545.04 544.45	12" 75°	58.97 N	0.013	0.12 3.67	0.44	0.92 3.57	1.00 0.07	0.35 0.40	1.17 1.66	1.17 0.02	0.04	0.02	FP FP	546.18 546.11	550.00 3.82
GI CI	1-7 1-6	546.87 545.73	12" 18°	113.57 N	0.013	0.19 3.63	0.69	0.69 3.58	1.00 0.04	0.30 0.35	1.23 0.67	0.88 0.01	0.77 0.00	0.26	ND OJ	547.43 546.40	549.97 2.54
CI GIS	1-6 I 1-5	545.73 544.99	12" 67°	74.04 N	0.013	0.12 3.50	0.42	1.11 3.57	1.00 0.10	0.38 0.44	1.41 1.23	1.41 0.03	0.07	0.10 0.00	OC FP	546.40 546.22	550.70 4.30
GIS GIS	SI 1-5 SI 1-4	544.99 544.45	12" 48°	54.00 N	0.013	0.05 3.80	0.19	1.30 3.57	1.00 0.13	0.42 0.48	1.66 1.66	1.66 0.04	0.07	0.02	FP FP	546.22 546.11	549.67 3.45
GIS MH	I 1-4 1-3	544.93 544.46	12" 55°	24.55 N	0.013	0.07 3.86	0.27	2.49 4.94	1.91 0.49	0.50 0.68	3.17 1.22	3.17 0.16	0.25 0.00	0.17 0.02	OF FP	546.11 545.68	549.67 3.56
MH MH	1-3 1-2	544.04 543.76	24" 5°	35.78 N	0.013	1.37 3.56	4.88	7.37 20.07	0.78 0.11	0.84 0.96	2.53 1.74	2.35 0.09	0.04	0.11 0.03	OC OJ	545.68 545.50	549.96 4.28
MH MH	1-2 1-1	543.76 543.46	24" 0°	35.65 N	0.013	0.00 3.50	0.00	7.37 20.81	0.84 0.11	0.82 0.96	2.35 2.00	2.35 0.09	0.04 0.00	0.00 0.01	OC OJ	545.50 545.46	550.48 4.98
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UH LW SIZ ANGI LENGT CURVE ARE H	R - At u R - At E - Sewe E - Down H - Pipe D - Pipe n - Mann A - Uppe I - Rund	upper end of lower end of er size (dia nstream defl e length (ft e is curved? ning's rough er drainage off factor (pipe pipe m or W ection ness f area ((cfs/ac	xH) (deg) actor ac))	PART F Vh	Yn - No Yc - Cr IAL - Co ULL - Co V - Ve Y - De ead - Ve	ormal dep citical of onditions elocity epth (ft) elocity l	oth (ft) depth (ft s at lowe s assuming (fps)) head (ft)) r end o: g full r	f pipe bipe fi	C	OND - Flo FP - OC - ND - CD - OF - OJ -	w cond full open set t set t initi depth open jump	dition pipe chann co nor o cri ally chann chann may o	code flow el flo mal de tical set to set to set t el flo ccur d	at each p w pth depth open char o full pi w but hyd: ownstream	ipe end: nnel pe flow raulic
Qac Qtota Qful Cor	la - Adde 1 - Tota 1 - Pipe	al flowrate al flowrate e full capac struction sl	(CIS) (cfs) city (c	fs) pipe (%)	SES - Ma F - Fr C - Cu V - Ve	iction : iction : irve in pelocities	in pipe (: pipe (ft) s in uppe	ft) ftstruct	ure (ft)	HGL - Hyd TOP - Ele	raulic v. of	grade	e line f uppe	elevation	n (ft) (ft msl)
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STRU	CTURES R/LWR	FLOWLINES UPR/LWR	SIZE/ ANGLE	LENGTH, CURVED	/ n ?	AREA/ PI	Qadd	Qtotal/ Qfull	ConS/ ReqdS	Yn/ Yc	PARTIAL V/Y	FULL V/Vhead	LOSS F/C	SES V/T	COND U/L	HGL UPR/LWR	UPR STR TOP/FRBD
GISI GISI	1-9 1-8	546.20 545.04	12" 33°	116.07 N	0.013	0.13 3.69	0.48	0.48 3.57	1.00 0.02	0.25 0.29	0.61	0.61 0.01	0.27	0.21	ND FP	546.66 546.18	550.07 3.41
GISI GISI	1-8 1-4	545.04 544.45	12" 75°	58.97 N	0.013	0.12 3.67	0.44	0.92 3.57	1.00 0.07	0.35 0.40	1.17 1.66	1.17 0.02	0.04 0.00	0.02	FP FP	546.18 546.11	550.00 3.82
GI CI	1-7 1-6	546.87 545.73	12" 18°	113.57 N	0.013	0.19 3.63	0.69	0.69 3.58	1.00 0.04	0.30 0.35	1.23 0.67	0.88 0.01	0.77	0.26	ND OJ	547.43 546.40	549.97 2.54
CI GISI	1-6 1-5	545.73 544.99	12" 67°	74.04 N	0.013	0.12 3.50	0.42	1.11 3.57	1.00 0.10	0.38 0.44	1.41 1.23	1.41 0.03	0.07 0.00	0.10 0.00	OC FP	546.40 546.22	550.70 4.30
GISI GISI	1-5 1-4	544.99 544.45	12" 48°	54.00 N	0.013	0.05 3.80	0.19	1.30 3.57	1.00 0.13	0.42 0.48	1.66 1.66	1.66 0.04	0.07 0.00	0.02 0.02	FP FP	546.22 546.11	549.67 3.45
GISI MH	1-4 1-3	544.93 544.46	12" 55°	24.55 N	0.013	0.07 3.86	0.27	2.49 4.94	1.91 0.49	0.50 0.68	3.17 1.22	3.17 0.16	0.25 0.00	0.17 0.02	OF FP	546.11 545.68	549.67 3.56
MH MH	1-3 1-2	544.04 543.76	24" 5°	35.78 N	0.013	1.37 3.56	4.88	7.37 20.07	0.78 0.11	0.84 0.96	2.53 1.74	2.35 0.09	0.04 0.00	0.11 0.03	OC OJ	545.68 545.50	549.96 4.28
MH MH	1-2 1-1	543.76 543.46	24" 0°	35.65 N	0.013	0.00 3.50	0.00	7.37 20.81	0.84 0.11	0.82 0.96	2.35 2.00	2.35 0.09	0.04	0.00 0.01	OC OJ	545.50 545.46	550.48 4.98
								LEGE	N D								
UPR LWR SIZE ANGLE LENGTH CURVED n AREA PI	- At u - At l - Sewe - Down - Pipe - Pipe - Mann - Uppe - Runc - Addo	pper end of ower end of r size (dia stream defl length (ft is curved? ing's rough r drainage off factor (pipe pipe m or W ection) area (cfs/ac	xH) (deg) actor ac))	PART F Vh	Yn - No Yc - Ci TIAL - Co ULL - Co V - Ve Y - De Lead - Ve	ormal depritical of a condition of a conditin of a condition of a condition of a condition of a	pth (ft) depth (ft s at lowe s assumin (fps)) head (ft) minor bo) r end o g full y	f pipe pipe f.	C	OND - Flo FP - OC - ND - CD - OF - OJ -	w conc full open set t set t initi depth open jump	dition pipe chann co nor co cri ally h then chann may o	code flow el flo mal de tical set to set t el flo ccur d	at each p opth depth open cha o full pi ow but hyd lownstream	ipe end: nnel pe flow raulic
Qadd - Added flowrate (cfs) Qtotal - Total flowrate (cfs) Qfull - Pipe full capacity (cfs) ConS - Construction slope of pipe (%)						F - Friction in pipe (ft) C - Curve in pipe (ft) V - Velocities in upper structure (ft) HGL - Hydraulic grade line elevat TOP - Elev. of top of upper structure						elevatio er struct	n (ft) (ft msl)				
ReqdS	- Mini	mum require	d slop	e (%)		T – Tı	urns in [.]	upper str	ucture	(ft)	F	RBD - Dif	ferenc	ce btw	n uppe	er HGL and	TOP (ft)

1. Friction losses computed w/ Manning's formula if full pipe flow or back-calculated if open channel flow (simulating flow profile) 2. HGL at upper structure includes structure losses calculated with actual inflowing velocities using iterative procedure 3. Velocity and turn structure loss components only computed for incoming pipes with invert elevations below outlet crown elevation

FINAL ASBUILT MEASUREMENTS

THE EXISTING SEWER LENGTHS, SIZES, FLOW LINES, DEPTH OF STRUCTURES & SEWERS AND LOCATIONS WITH RESPECT TO EXISTING OR PROPOSED CONDITIONS HAVE BEEN MEASURED. THE

DATE:

10/26/2020

	560	
	555	
	550	
YP.	545	
	540	
	535	

LEGEND:

- FL FLOW LINE OF STRUCTURE
- HGL HYDRAULIC GRADE LINE (15-YR STORM*)
- PP POLYPROPYLENE PIPE RCP - REINFORCED CONCRETE PIPE
- T TOP OF STRUCTURE
- TC TOP OF CURB AT STRUCTURE
- TGr TOP OF GRATE TQ - TOTAL FLOW (15-YR STORM*)
- * SEE SHEET C4.2 FOR PROFILE OF STORM SEWER REACH FOR HYDRODYNAMIC
- SEPARATOR UNIT. * TOTAL FLOW, "TQ", SHOWN ON THESE
- PROFILES IS BASED ON THE 15-YR, 20-MIN DESIGN STORM WITH A GROUND SATURATION FACTOR OF 1.1 APPLIED.

HYDRAULIC CALCULATION NOTE:

- STORM SEWER SYSTEM WITH HDS UNIT ON IT DOES NOT INCLUDE THE HYDRAULIC IMPACT OF THE HDS UNIT ON THE CALCULATIONS. TO BE CONSERVATIVE, THE FLOW CAPACITY OF THE HDS UNIT IS IGNORED, AND THE HYDRAULICS ARE CREATED AS IF THE HDS UNIT IS NOT THERE.
- **GRANULAR BACKFILL NOTE:**
- COMPACTED GRANULAR BACKFILL SHALL BE PLACED UNDER PAVEMENT AND CURB FOR ALL ITEMS REQUIRING TRENCH BACKFILL.
- CONCRETE ENCASEMENT NOTE:
- 1. ENCASE WITH CONCRETE BOTH SANITARY AND STORM SEWER AT CROSSING WHEN STORM SEWER IS WITHIN 18 INCHES ABOVE SANITARY SEWER. ADD CONCRETE CRADLE TO ONLY RCP STORM SEWER AND ENCASE FLEXIBLE STORM SEWER WHEN IT IS MORE THAN 18 INCHES ABOVE SANITARY LINE PER CITY OF O'FALLON.
- EXISTING UTILITY DISCLAIMER:
- 1. EXISTING UTILITIES (UNDERGROUND ELECTRIC, GAS, AND WATER) ARE SHOWN APPROXIMATELY. THESE LOCATIONS WERE PLOTTED FROM MISSOURI ONE-CALL SYSTEM MARKINGS AT THE TIME OF THE SURVEY FIELD WORK. DEPTHS WERE NOT FIELD LOCATED, AND ARE SHOWN AT INDUSTRY STANDARDS.
- EJS RKF Z Q FOODS INC. 5 HIGHWAY 6 478 O'F ю Ņ R H | 415 Z & F 44 SUGA \mathbf{Y} S [L] \succ ρ EJS Designed EJS, RKF Drawn EJS Checked May 8, 2020 Date

System 1 Return Period Rainfall duration Runoff Factor Mult: Starting HGL Elev. Use St. Louis Co./MSD Lo

System Name	=	Storm01								
Description	=	Storm01 -	Onsite	Storm	Sewers	Connecting	to	Ex.	Public	System
Sewer Type	=	Storm								
ystem Number	=	1								
Period (yr)	=	15								
ration (min)	=	20								
r Multiplier	=	1.000								
L Elev. (ft)	=	545.46								
/MSD Losses?	=	Y								

SCALE IN FEET



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Underground facilities, structures & utilities have been plotted from available surveys, records & information, and therefore, do not necessarily reflect the actual existence, nonexistence, size, type, number of, or location of these facilities, structures, & utilities.

The Contractor shall be responsible for verifying the actual location of all underground facilities, structures, & utilities, either shown or not shown on these plans. The underground facilities, structures, & utilities shall be located in the field 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.

The original of this drawing is on file at the office of The Clayton Engineering Company. Any modifications to this drawing shall release said The Clayton Engineering Company. the Engineer and/or Surveyor whose seal appears hereon from any liability resulting from said unauthorized modifications.



IMPORTANT: INSTALLATION OF THE HYDRODYNAMIC SEPARATOR BMP SHALL
ONLY BE PERFORMED WITH THIS BMP KEPT OFFLINE, WITH NO RUNOFFPASSING THROUGH IT. IT CAN NOT BE BROUGHT ONLINE UNTIL THE PAVEMENT
AND GROUND SURFACE, INCLUDING VEGETATION, IS ESTABLISHED OVER THE
AREA THAT DRAINS TO IT. CONSTRUCTION SITE RUNOFF SHALL NOT FLOW INTO
THE BMP. ALL STORMWATER FLOW TO THIS BMP SHALL BE DIVERTED PLUGGED
OR DISCONNECTED AT THE UPSTREAM METERING STRUCTURES OR
TEMPORARY GRADING UNTIL THE CONSTRUCTION SITE IS STABLE AND THE MSD
INSPECTOR PROVIDES APPROVAL TO PLACE THE BMP ONLINE.

<u>BMP Maintenance & Operation Plan</u> The Property Owner's appointed Maintenance Staff shall be responsible for cleaning and maintaining the HydroDynamic Separator Unit.

The specific methods and practices required for the maintenance and operation of these stormwater facilities is explained in the "Stormwater Management Facilities Report: Calculations" dated APRIL 2020, or latest edition, and in the "Stormwater Management Facilities: Operation and Maintenance", dated APRIL 2020, or latest edition, by The Clayton Engineering Company, Inc.

FINAL ASBUILT MEASUREMENTS

THE EXISTING SEWER LENGTHS, SIZES, FLOW LINES, DEPTH OF STRUCTURES & SEWERS AND LOCATIONS WITH RESPECT TO EXISTING OR PROPOSED CONDITIONS HAVE BEEN MEASURED. THE RESULTS OF THOSE MEASUREMENTS ARE SHOWN ON THIS SET OF FINAL MEASUREMENT PLANS. SINCE THE PROFILE UTILITY LOCATIONS HAVE BEEN PLOTTED FROM INFORMATION PROVIDED BY THE SEWER CONTRACTOR OR OTHER SOURCES, I DISCLAIM ANY RESPONSIBILITY FOR THAT SPECIFIC INFORMATION.

DATE:

10/26/2020

ASBUILTS 10/26/20



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C4.2

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