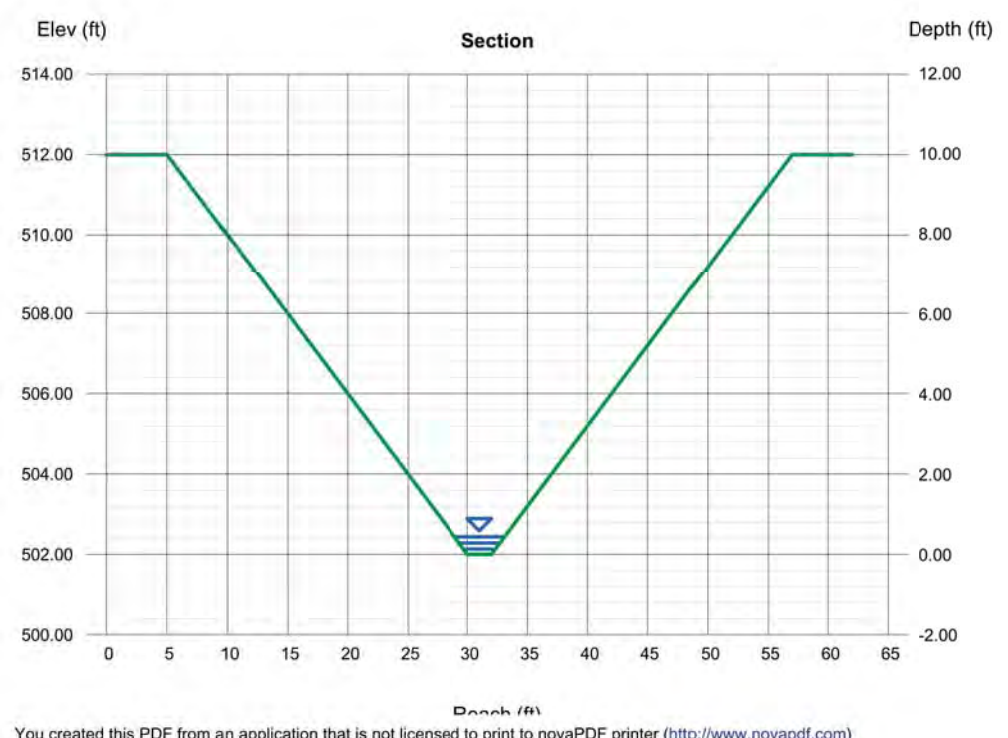


**Channel Report**  
Hydrotech Express Extension for AutoCAD® AutoCAD® Civil 3D® by Autodesk, Inc. Thursday, Sep 28 2017

**EXISTING SECTION A-A**

Trapezoidal Bottom Width (ft)	= 2.00	Highlighted Depth (ft)	= 0.44
Side Slopes (z:1)	= 2.50, 2.50	Q (cfs)	= 5.540
Total Depth (ft)	= 10.00	Area (sqft)	= 1.36
Invert Elev (ft)	= 502.00	Velocity (ft/s)	= 4.06
Slope (%)	= 7.50	Wetted Perim (ft)	= 4.37
N-Value	= 0.045	Crit Depth, Yc (ft)	= 0.51
		Top Width (ft)	= 4.20
		EGL (ft)	= 0.70

Calculations Compute by: Known Q  
Known Q (cfs) = 5.54

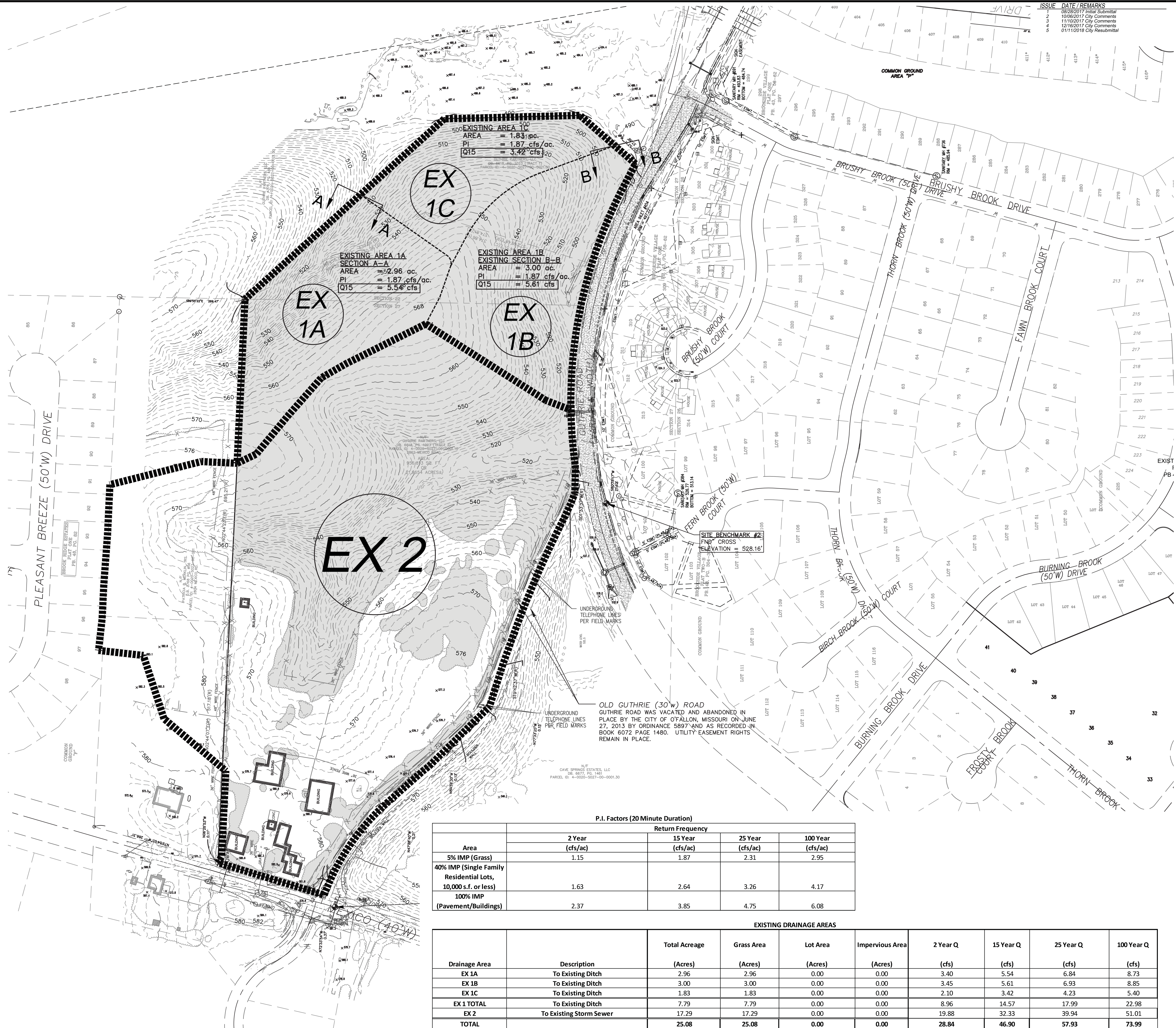
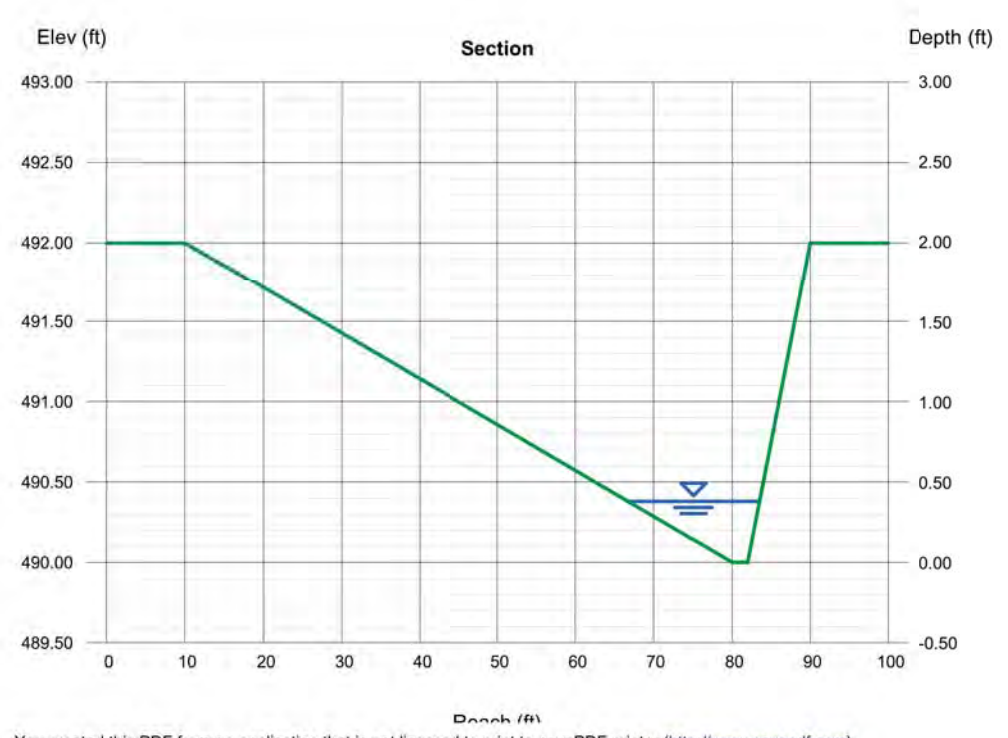


**Channel Report**  
Hydrotech Express Extension for AutoCAD® AutoCAD® Civil 3D® by Autodesk, Inc. Thursday, Sep 28 2017

**EXISTING SECTION B-B**

Trapezoidal Bottom Width (ft)	= 2.00	Highlighted Depth (ft)	= 0.38
Side Slopes (z:1)	= 35.00, 4.00	Q (cfs)	= 5.610
Total Depth (ft)	= 2.00	Area (sqft)	= 3.58
Invert Elev (ft)	= 490.00	Velocity (ft/s)	= 1.57
Slope (%)	= 2.00	Wetted Perim (ft)	= 16.87
N-Value	= 0.045	Crit Depth, Yc (ft)	= 0.31
		Top Width (ft)	= 16.82
		EGL (ft)	= 0.42

Calculations Compute by: Known Q  
Known Q (cfs) = 5.61



**P.I. Factors (20 Minute Duration)**

Area	Return Frequency			
	2 Year (cfs/ac)	15 Year (cfs/ac)	25 Year (cfs/ac)	100 Year (cfs/ac)
5% IMP (Grass)	1.15	1.87	2.31	2.95
40% IMP (Single Family Residential Lots, 10,000 s.f. or less)	1.63	2.64	3.26	4.17
100% IMP (Pavement/Buildings)	2.37	3.85	4.75	6.08

**EXISTING DRAINAGE AREAS**

Drainage Area	Description	Total Acreage (Acres)	Grass Area (Acres)	Lot Area (Acres)	Impervious Area (Acres)	2 Year Q (cfs)	15 Year Q (cfs)	25 Year Q (cfs)	100 Year Q (cfs)
EX 1A	To Existing Ditch	2.96	2.96	0.00	0.00	3.40	5.54	6.84	8.73
EX 1B	To Existing Ditch	3.00	3.00	0.00	0.00	3.45	5.61	6.93	8.85
EX 1C	To Existing Ditch	1.83	1.83	0.00	0.00	2.10	3.42	4.23	5.40
EX 1 TOTAL	To Existing Ditch	7.79	7.79	0.00	0.00	8.96	14.57	17.99	22.98
EX 2	To Existing Storm Sewer	17.29	17.29	0.00	0.00	19.88	32.33	39.94	51.01
<b>TOTAL</b>		<b>25.08</b>	<b>25.08</b>	<b>0.00</b>	<b>0.00</b>	<b>28.84</b>	<b>46.90</b>	<b>57.93</b>	<b>73.99</b>

OLD GUTHRIE (30'W) ROAD  
GUTHRIE ROAD WAS VACATED AND ABANDONED IN PLACE BY THE CITY OF FALLON, MISSOURI ON JUNE 27, 2015 BY ORDINANCE 6897 AND AS RECORDED IN BOOK 6072 PAGE 1480. UTILITY EASEMENT RIGHTS REMAIN IN PLACE.

**PROJECT TITLE**  
*Brookview*

**THE STERLING CO.**  
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Corporate Certificate of Authority #001348

Date: 01/11/18  
SEAN ACKLEY  
LICENSE # PE-2009018679  
Civil Engineer

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P+Z No. 17-005894  
City No. 17-008288  
Date: 01/11/18  
Job No. 17-02-041  
Page No. **10.1**