

SEE STORM SEWER PLAN SHEETS 10 & 15 FOR RIPRAP INFORMATION.

FLARED END SECTION DET3B
N. 979586.44 E. 2828222.25
W/ STANDARD CONCRETE TOEWALL

FLARED END SECTION DET2E
N. 97952.93 E. 2828231.99
W/ STANDARD CONCRETE TOEWALL

NOTE:
THE 100 YEAR WATER SURFACE ELEVATION WITH
CLOGGED OUTLET STRUCTURE = 977.49- 978.31

48" DIA. ADS HP MANHOLE WITH
30" GRATE DET2B
N. 980352.98 E. 2828263.34

4'x 14' CONCRETE OUTLET STRUCTURE DET1B
N. 980389.78 E. 2828248.55

2 - 48" END SECTIONS DET1A
N. 980416.30 E. 2828345.36

INSTALL 44.4 C.Y. (24' WIDE X
25' LONG X 2' DEEP) STONE
RIPRAP WITH MINIMUM 15"
STONE AND ADDITIONAL
ENERGY DISSIPATORS. PLACE
FILTER FABRIC PRIOR TO
INSTALLATION OF RIPRAP.

100 YEAR WATER SURFACE
ELEVATION = 976.5- 976.82

FLARED END SECTION DET2A
N. 980353.77 E. 2828245.35
W/ STANDARD CONCRETE TOEWALL

100 YEAR WATER SURFACE
ELEVATION = 976.5- 976.82

48" DIA. ADS HP MANHOLE WITH
30" GRATE DET2D
N. 979851.29 E. 2828247.37

48" DIA. ADS HP MANHOLE WITH
30" GRATE DET2C
N. 980102.14 E. 2828255.35

EMERGENCY SPILLWAY = 165' LONG
ELEV. = 977.00 977.51

48" DIA. ADS HP MANHOLE WITH
30" GRATE DET3A
N. 979585.77 E. 2828238.74

CONTOURS SHOWN ARE FROM
ASBUILT SHOTS AND EXSTING TOPO.

GRADE SWALE AS SHOWN, FROM END OF RIP RAP TO THE
EXISTING SWALE. SWALE TO BE APPROXIMATELY 20' WIDE,
2' MAXIMUM DEPTH AND 3 TO 1 SIDE SLOPES. GRADING IS
LIMITED TO THE SOUTH SIDE OF THE PROPERTY LINE.

CENTERLINE EXISTING SWALE

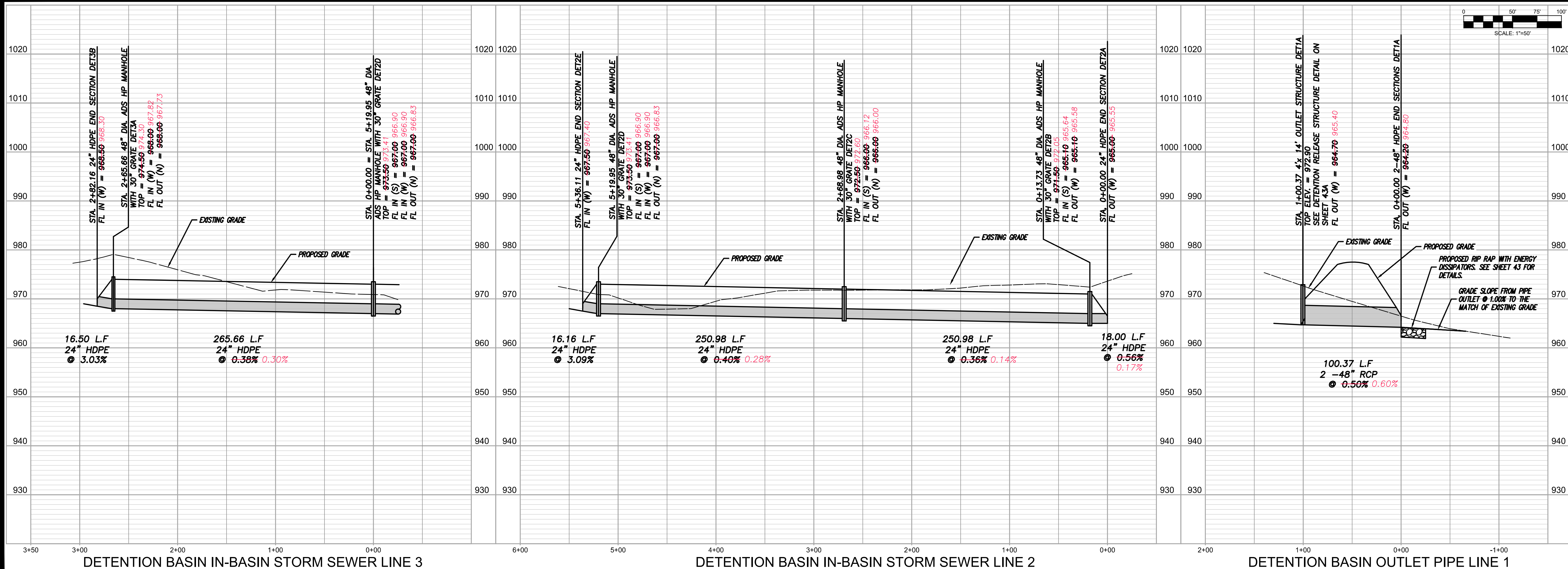
NOTE:

- AREAS TO RECEIVE FILL SHOULD BE STRIPPED OF VEGETATION, TOPSOIL, SOFT SOIL AND DELETERIOUS MATERIALS.
- THE EXPOSED SUBGRADE SHOULD BE PROOFROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK. SOFT AREAS THAT DEVELOP SHOULD BE OVEREXCAVATED AND BACKFILLED WITH COMPACTED CLAY SOIL OR THE AREA MOISTURE CONDITIONED, REWORKED AND COMPACTED.
- NON-ORGANIC, FINE-GRAINED CLAY SOIL SHOULD BE USED FOR FILL.
- SOIL FILL SHOULD BE PLACED IN UNIFORM 8-INCH THICK LIFTS.
- THE FILL SHOULD BE COMPACTED TO AT LEAST 95 PERCENT STANDARD PROCTOR (ASTM D698) MAXIMUM DRY DENSITY AT A MOISTURE CONTENT BETWEEN MINUS 1 TO PLUS 3 PERCENT OF THE OPTIMUM MOISTURE CONTENT.
- DELETERIOUS MATERIAL AND PIECES OF ROCK LARGER THAN 2 INCHES SHOULD NOT BE INCLUDED IN THE FILL.
- THE FILL SHOULD NOT BE PLACED ON SOFT MATERIALS OR FROZEN GROUND. FROZEN SOILS SHOULD NOT BE USED FOR FILL.

1"=10'



Know what's below.
Call before you dig.



AS BUILT PLANS - 10/15/2021

DATE	REVISION	BY	CHKD
10/15/21	1	SW	RAS
07/02/21	2	SW	RAS
04/02/21	3	SW	RAS
07/02/21	4	SW	RAS
08/24/20	5	SW	RAS
07/27/20	6	SW	RAS
11/21/18	7	SW	RAS

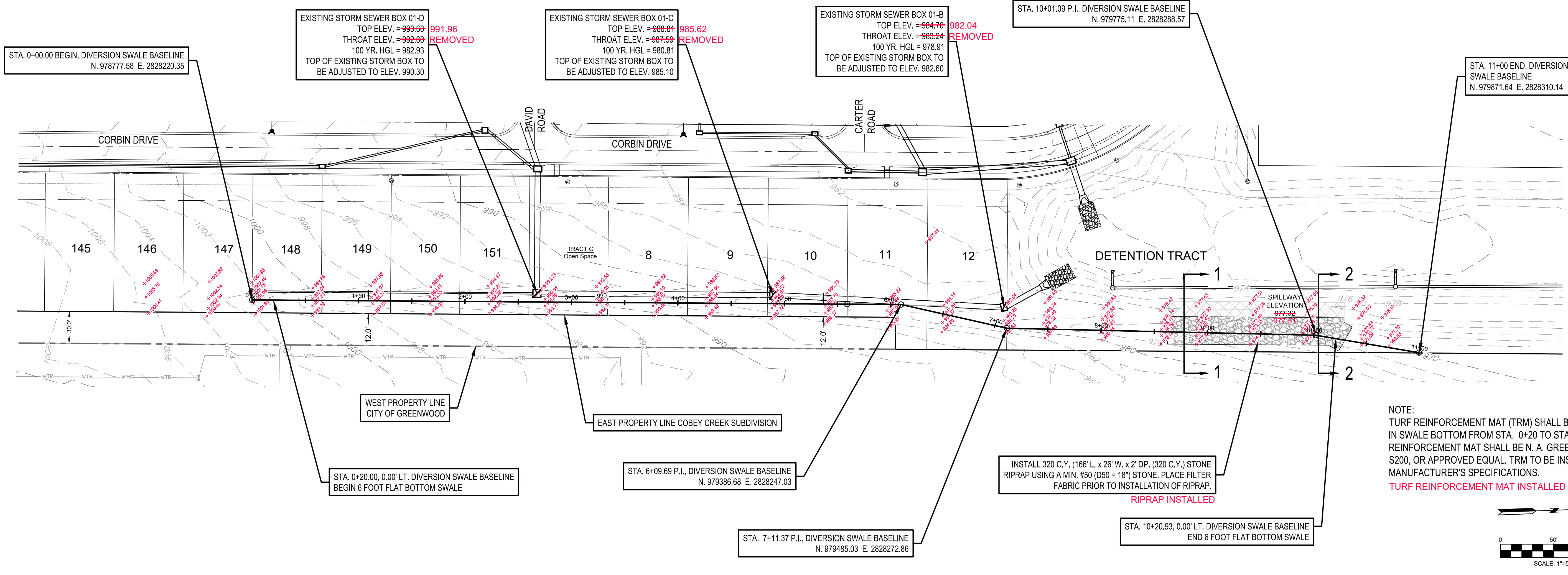


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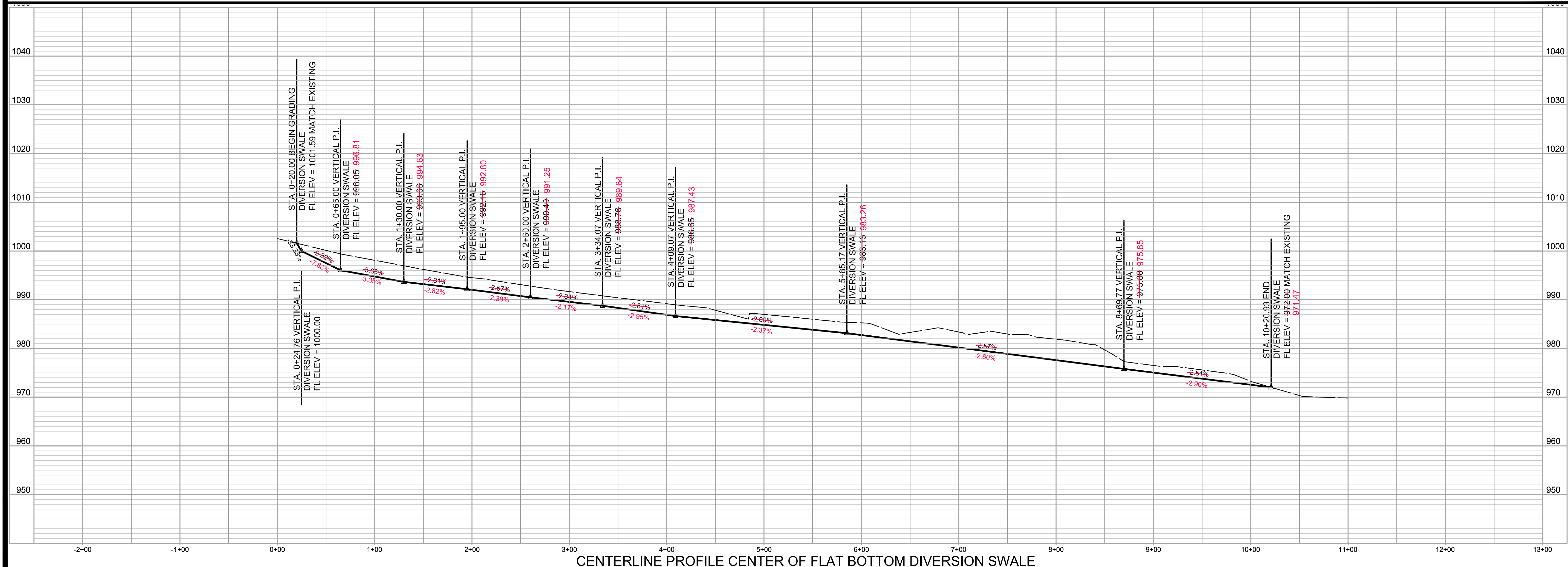
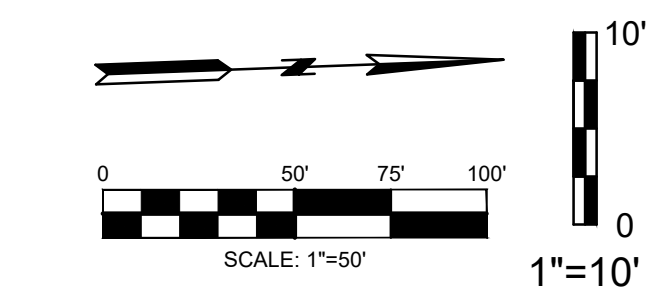
STREET AND STORM SEWER PLANS
NORTH DETENTION BASIN, IN-BASIN STORM
LINE AND OUTLET STRUCTURE
COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I
DRAWING NO.
16-059 Phase I Street Plans
DATE
August 24, 2020
JOB NO.
16-059

30 SHEET OF 53

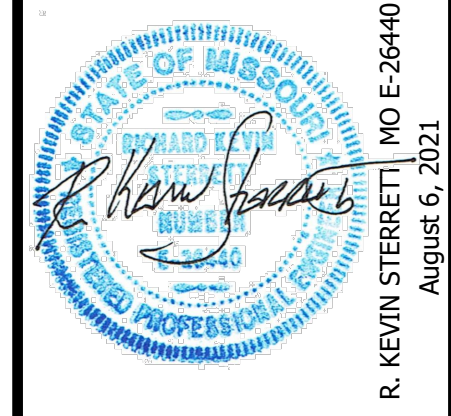


NOTE:
TURF REINFORCEMENT MAT (TRM) SHALL BE INSTALLED
IN SWALE BOTTOM FROM STA. 0+20 TO STA. 8+60. TURF
REINFORCEMENT MAT SHALL BE N. A. GREEN VMAX
S200, OR APPROVED EQUAL. TRM TO BE INSTALLED PER
MANUFACTURER'S SPECIFICATIONS.
TURF REINFORCEMENT MAT INSTALLED



AS BUILT PLANS - 10/15/2021

DATE	REVISION	NO.	BY	CHKD
10/15/21	AS-BUILT		SPW	RAS
08/06/21	PER CITY'S COMMENTS	3	SPW	RAS
03/27/21	PER CITY'S COMMENTS	2	SPW	RAS
03/07/21	PER ACQUIRED DRAINAGE EASEMENT FROM CITY OF GREENWOOD	1	SPW	RAS
12/16/20	SUBMITAL TO CITY OF LEES SUMMIT		SPW	RAS



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STREET AND STORM SEWER PLANS
DIVERSION SWALE
COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

NOTE:
DEPTH OF SWALE IS $\geq$ CALCULATED 100 YEAR SURFACE ELEVATION
PLUS 2 (TWO) FEET. NO MBOE'S WILL BE REQUIRED FOR LOTS
ADJACENT TO SWALE.

Channel Report

Hydroflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

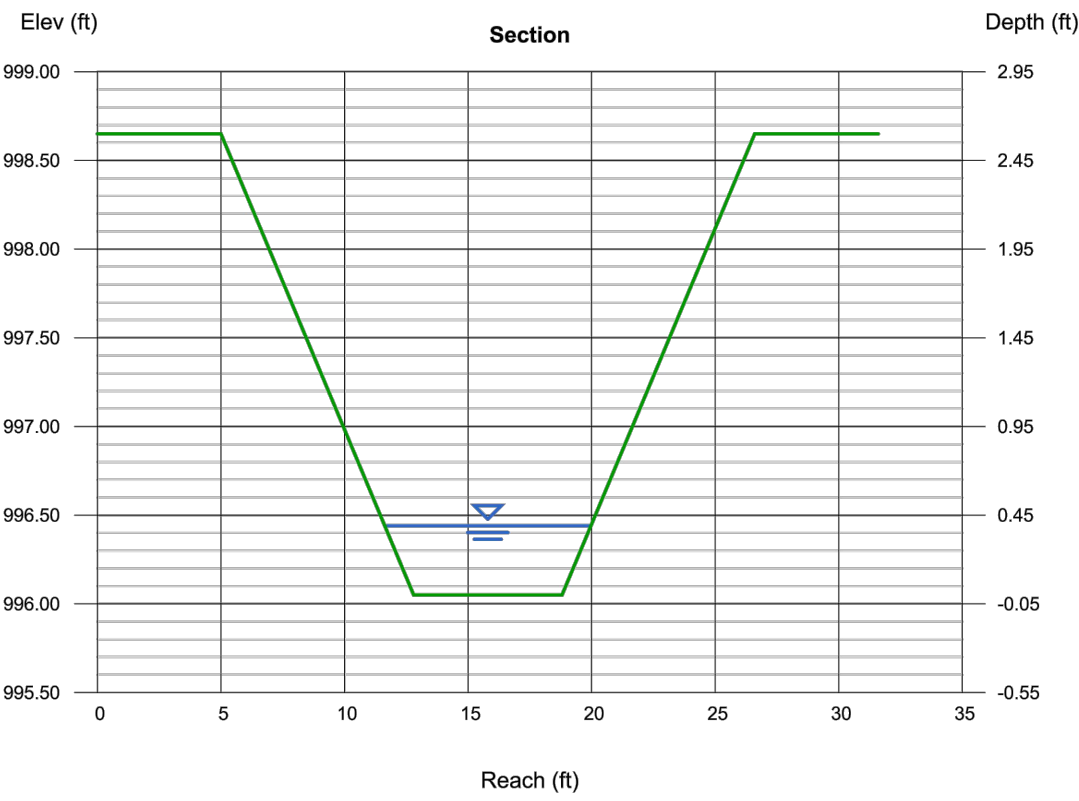
Wednesday, Aug 4 2021

LOT 148 - 149

Trapezoidal
Bottom Width (ft) = 6.00
Side Slopes (Z:1) = 3.00, 3.00
Total Depth (ft) = ~~2.69~~ 2.83
Invert Elev (ft) = 996.05
Slope (%) = 3.68
N-Value = 0.030

Highlighted
Depth (ft) = 0.39
Q (cfs) = 12.43
Area (sqft) = 2.80
Velocity (ft/s) = 4.45
Wetted Perim (ft) = 6.47
Crit Depth, Yc (ft) = 0.48
Top Width (ft) = 8.34
EGL (ft) = 0.70

Calculations
Compute by:
Known Q (cfs) = 12.43



Channel Report

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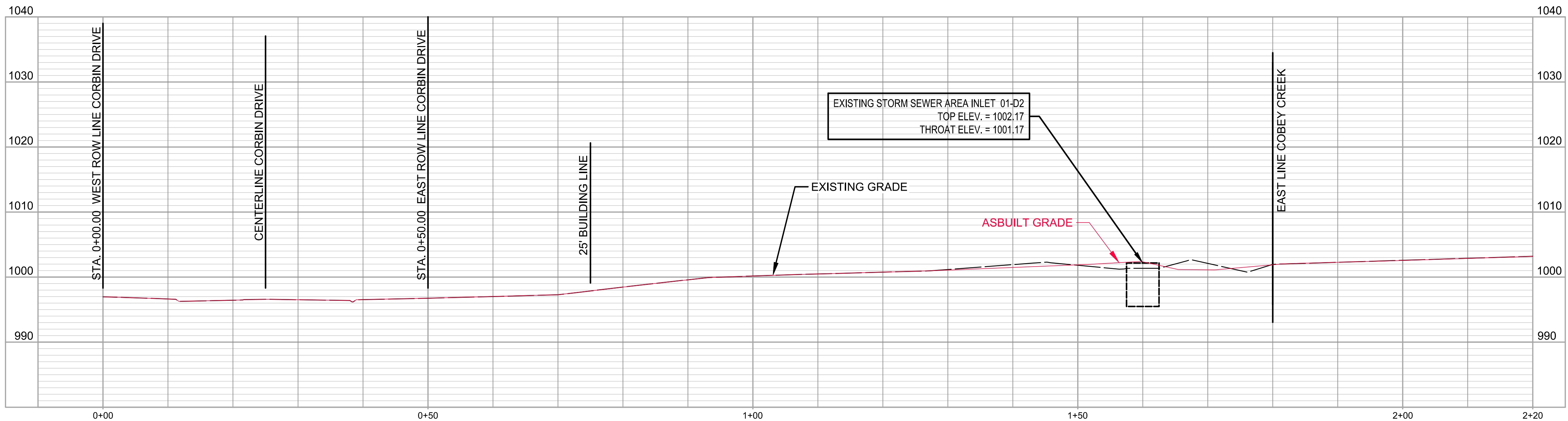
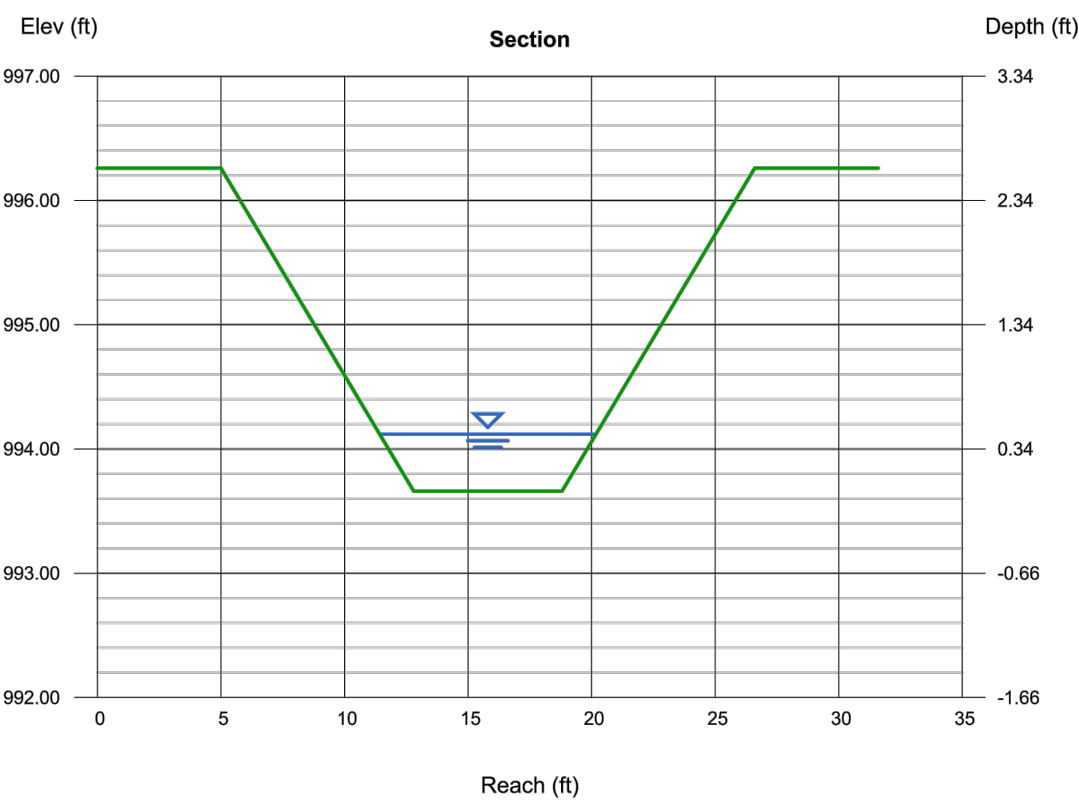
Wednesday, Aug 4 2021

LOT 149 - 150

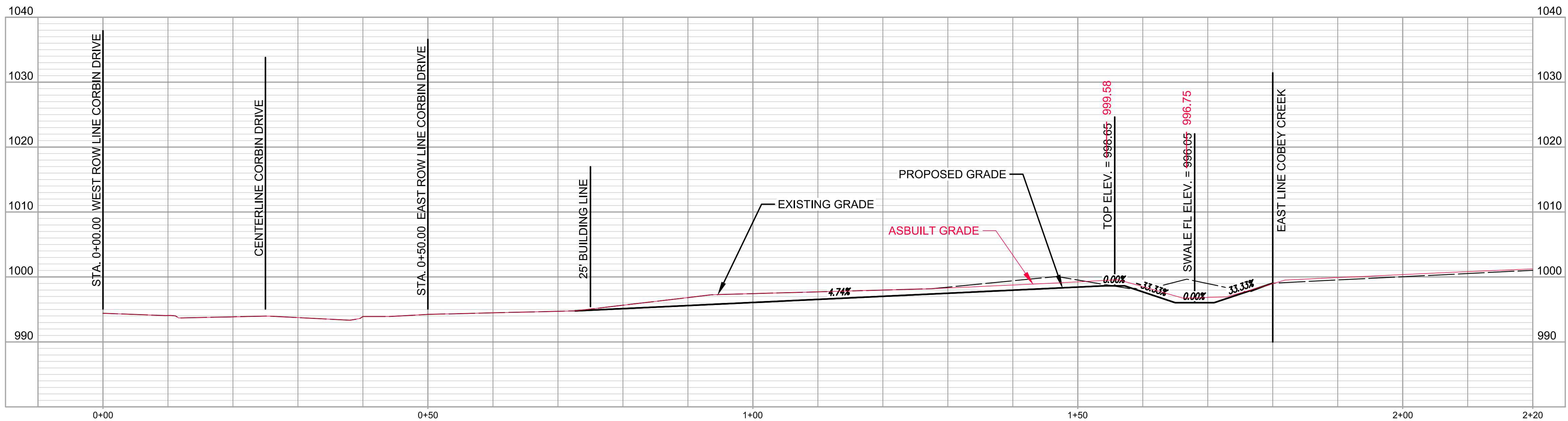
Trapezoidal
Bottom Width (ft) = 6.00
Side Slopes (Z:1) = 3.00, 3.00
Total Depth (ft) = ~~2.69~~ 2.69
Invert Elev (ft) = 993.66
Slope (%) = 3.68
N-Value = 0.030

Highlighted
Depth (ft) = 0.46
Q (cfs) = 16.32
Area (sqft) = 3.39
Velocity (ft/s) = 4.81
Wetted Perim (ft) = 6.91
Crit Depth, Yc (ft) = 0.56
Top Width (ft) = 8.76
EGL (ft) = 0.82

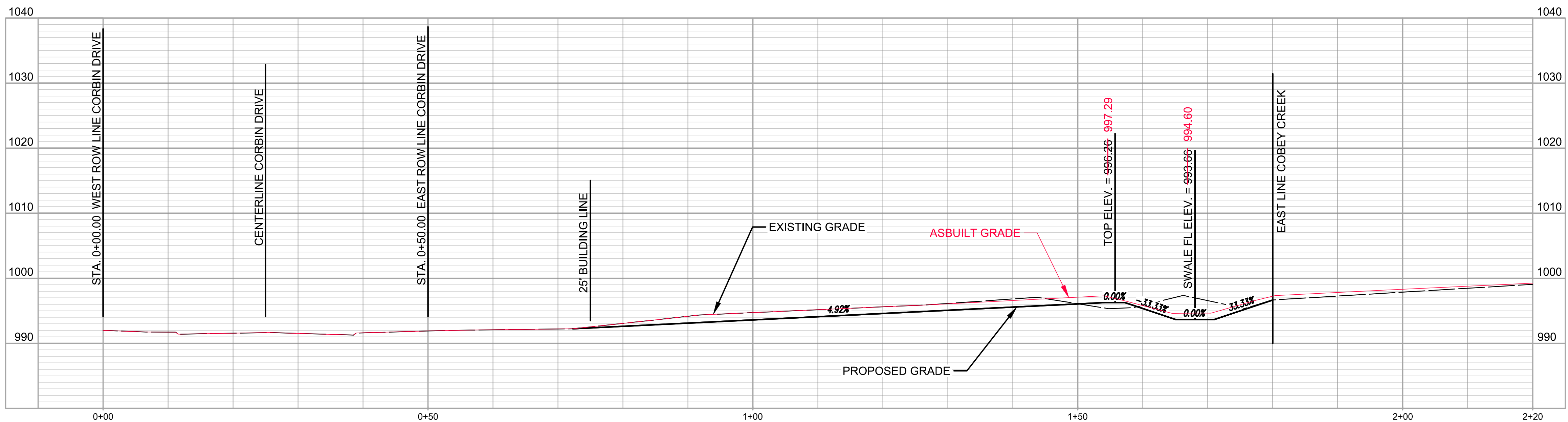
Calculations
Compute by:
Known Q (cfs) = 16.32



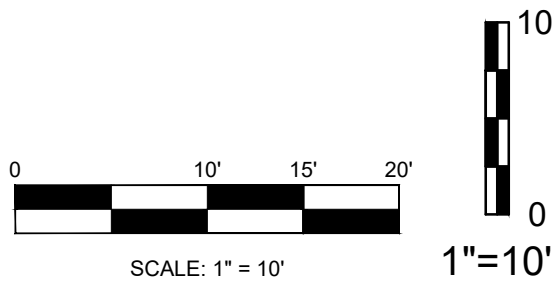
LOT 147 - 148 CROSS SECTION



LOT 148 - 149 CROSS SECTION



LOT 149 - 150 CROSS SECTION



AS BUILT PLANS - 10/15/2021

DATE	REVISION	BY	CHKD
10/15/21	AS-BUILT'S	SPW	RAS
08/06/21	PER CITY'S COMMENTS	SPW	RAS
08/27/21	PER CITY'S COMMENTS	J	RAS
09/07/21	PER ACQUIRED DRAINAGE EASEMENT FROM CITY OF GREENWOOD	SPW	RAS
12/16/20	SUBMITAL TO CITY OF LEES SUMMIT	SPW	RAS



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STREET AND STORM SEWER PLANS
LOT CROSS SECTIONS

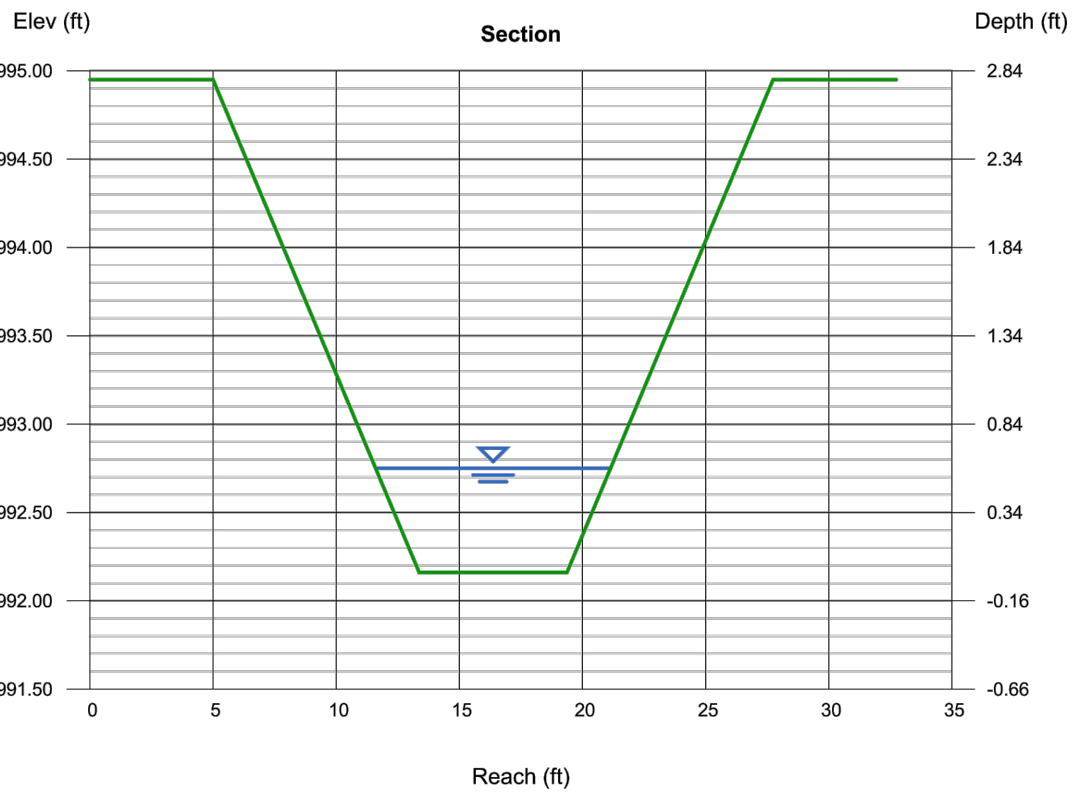
COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I
DRAWING NO.
16-059 Phase I Street Plans
DATE
December 18, 2020
JOB NO.
16-059

32A SHEET OF 53

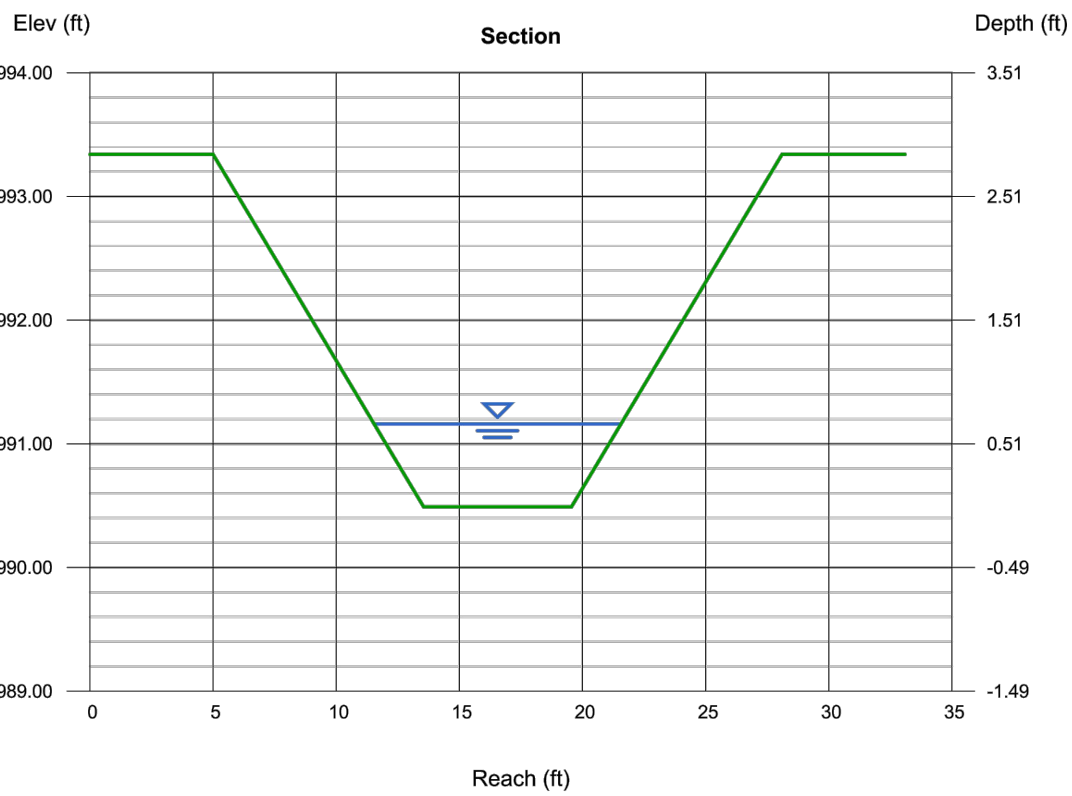
Channel Report

Hydroware Express Extension for AutoCAD® AutoCAD® Civil 3D® by Autodesk, Inc.			
Wednesday, Aug 4 2021			
LOT 150 - 151			
Trapezoidal		Highlighted	
Bottom Width (ft)	= 6.00	Depth (ft)	= 0.59
Side Slopes (z:1)	= 3.00, 3.00	Q (cfs)	= 20.86
Total Depth (ft)	= 2.79 2.64	Area (sqft)	= 4.58
Invert Elev (ft)	= 992.16	Velocity (ft/s)	= 4.55
Slope (%)	= 2.31	Wetted Perim (ft)	= 9.73
N-Value	= 0.030	Crit Depth, Yc (ft)	= 0.65
Calculations		Top Width (ft)	= 9.54
Compute by:		EGL (ft)	= 0.91
Known Q (cfs)			



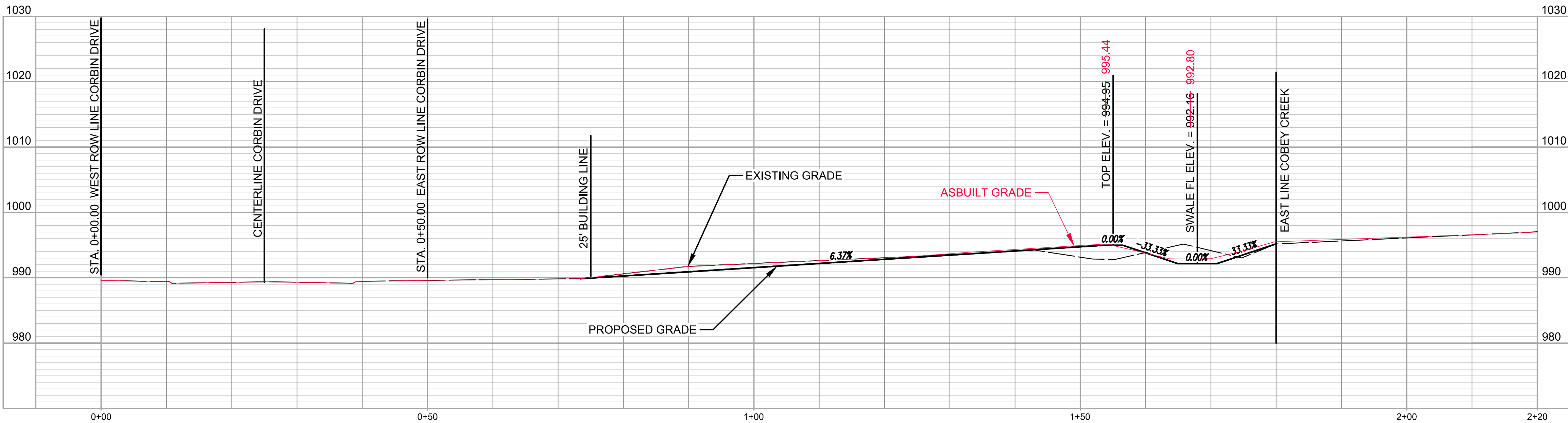
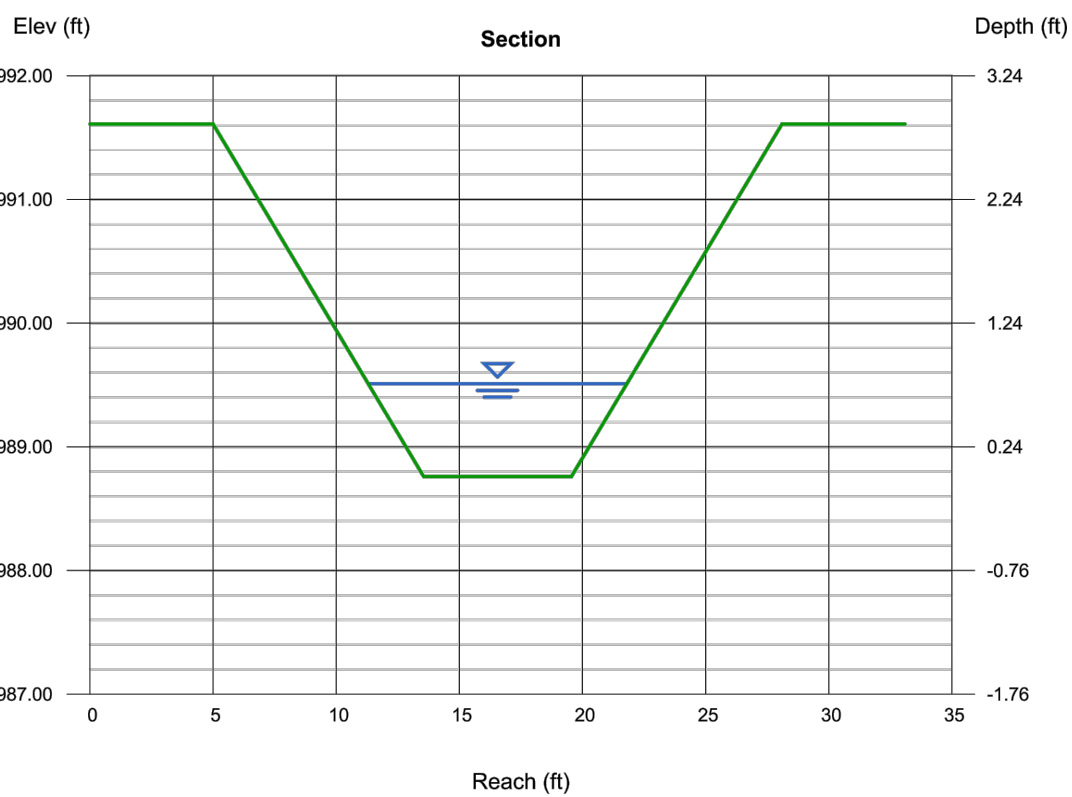
Channel Report

Hydroware Express Extension for AutoCAD® AutoCAD® Civil 3D® by Autodesk, Inc.			
Wednesday, Aug 4 2021			
LOT 151 - OPEN SPACE			
Trapezoidal		Highlighted	
Bottom Width (ft)	= 6.00	Depth (ft)	= 0.67
Side Slopes (z:1)	= 3.00, 3.00	Q (cfs)	= 26.12
Total Depth (ft)	= 2.69 2.69	Area (sqft)	= 5.37
Invert Elev (ft)	= 990.49	Velocity (ft/s)	= 4.87
Slope (%)	= 2.31	Wetted Perim (ft)	= 10.24
N-Value	= 0.030	Crit Depth, Yc (ft)	= 0.74
Calculations		Top Width (ft)	= 10.02
Compute by:		EGL (ft)	= 1.04
Known Q (cfs)			

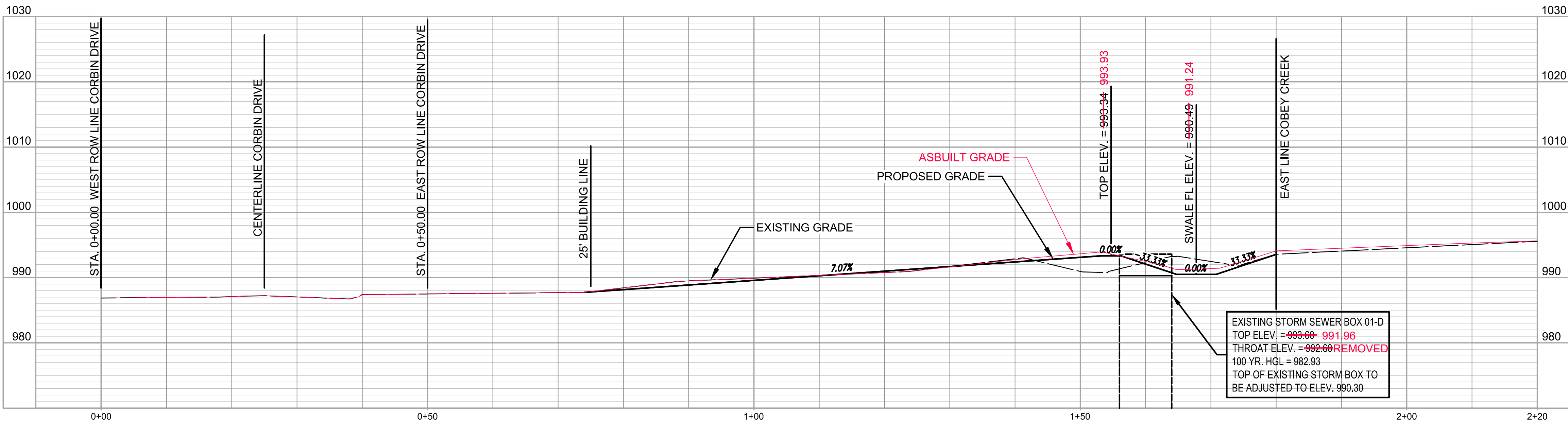


Channel Report

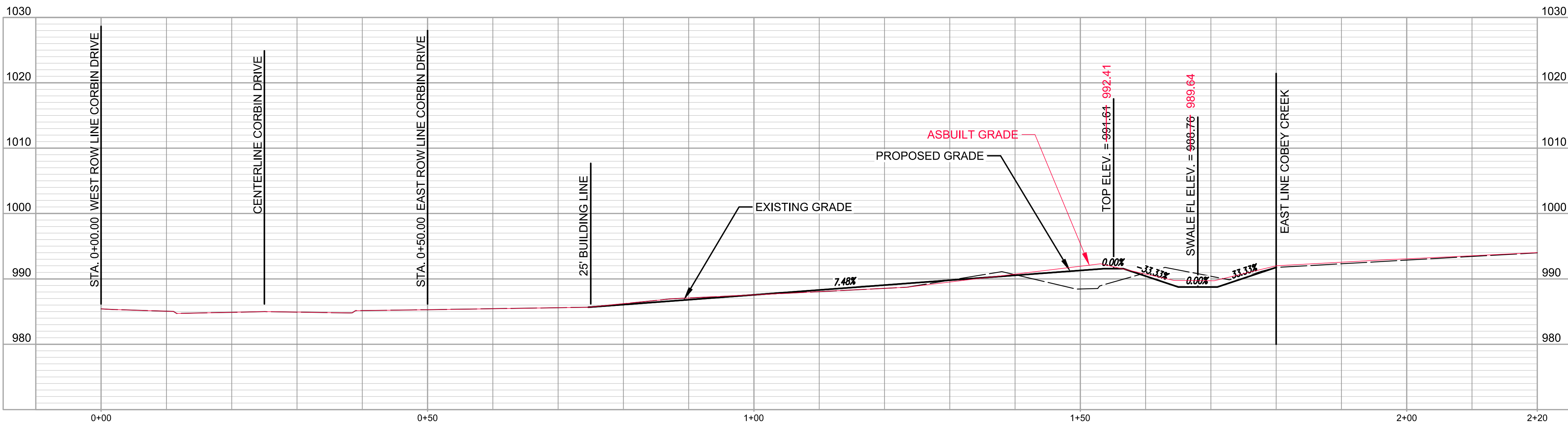
Hydroware Express Extension for AutoCAD® AutoCAD® Civil 3D® by Autodesk, Inc.			
Wednesday, Aug 4 2021			
LOT OPEN SPACE - 8			
Trapezoidal		Highlighted	
Bottom Width (ft)	= 6.00	Depth (ft)	= 0.75
Side Slopes (z:1)	= 3.00, 3.00	Q (cfs)	= 32.04
Total Depth (ft)	= 2.77 2.77	Area (sqft)	= 6.19
Invert Elev (ft)	= 988.76	Velocity (ft/s)	= 5.18
Slope (%)	= 2.34	Wetted Perim (ft)	= 10.74
N-Value	= 0.030	Crit Depth, Yc (ft)	= 0.84
Calculations		Top Width (ft)	= 10.50
Compute by:		EGL (ft)	= 1.17
Known Q (cfs)			



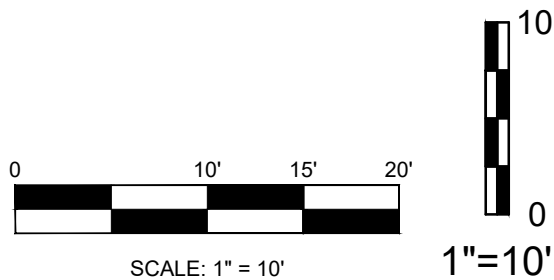
LOT 150 - 151 CROSS SECTION



LOT 151 - OPEN SPACE CROSS SECTION



LOT OPEN SPACE - 8 CROSS SECTION



AS BUILT PLANS - 10/15/2021

DATE	REVISION	NO.	BY	CHKD
10/15/21	AS-BUILT		SPW	RAS
08/02/21	PER CITY'S COMMENTS	3	SPW	RAS
03/27/21	PER CITY'S COMMENTS	2	SPW	RAS
03/07/21	PER ACQUIRED DRAINAGE EASEMENT FROM CITY OF GREENWOOD	1	SPW	RAS
12/16/20	SUBMITAL TO CITY OF LEES SUMMIT		SPW	RAS

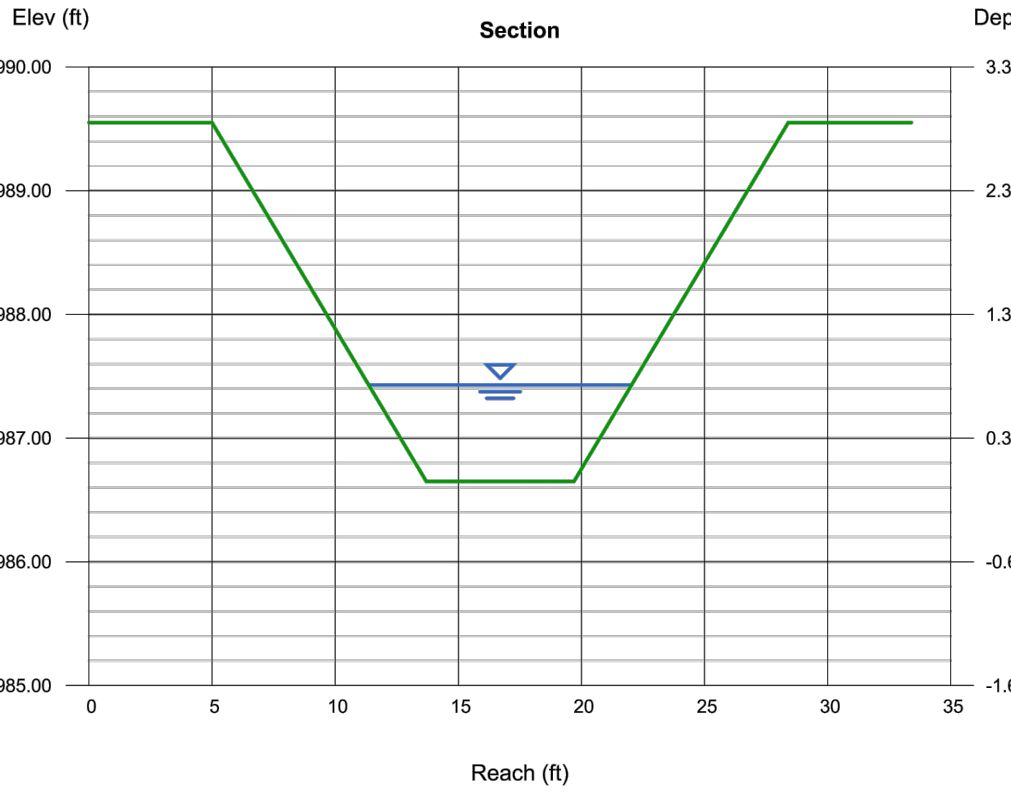


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STREET AND STORM SEWER PLANS
LOT CROSS SECTIONS
COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

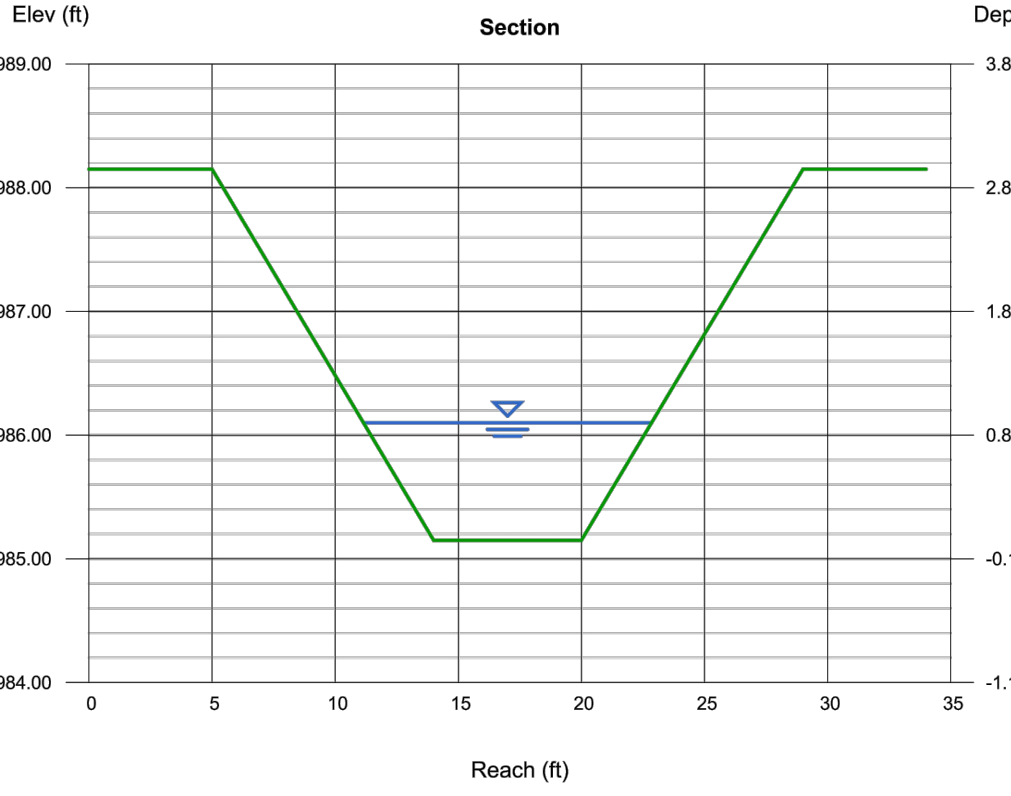
Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.			
Wednesday, Aug 4 2021			
LOT 8 - 9			
Trapezoidal		Highlighted	
Bottom Width (ft)	= 6.00	Depth (ft)	= 0.78
Side Slopes (z:1)	= 3.00, 3.00	Q (cfs)	= 37.76
Total Depth (ft)	= 2.99 2.80	Area (sqft)	= 6.51
Invert Elev (ft)	= 986.65	Velocity (ft/s)	= 5.80
Slope (%)	= 2.81	Wetted Perim (ft)	= 10.93
N-Value	= 0.030	Crit Depth, Yc (ft)	= 0.92
		Top Width (ft)	= 10.68
		EGL (ft)	= 1.30
Calculations			
Compute by:	Known Q		
Known Q (cfs)	= 37.76		



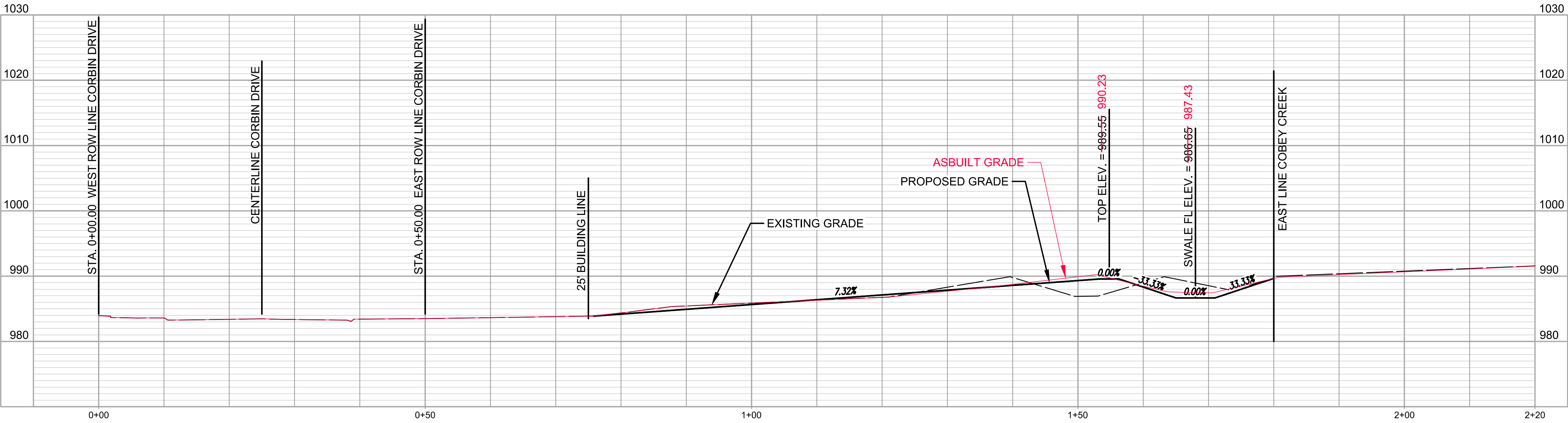
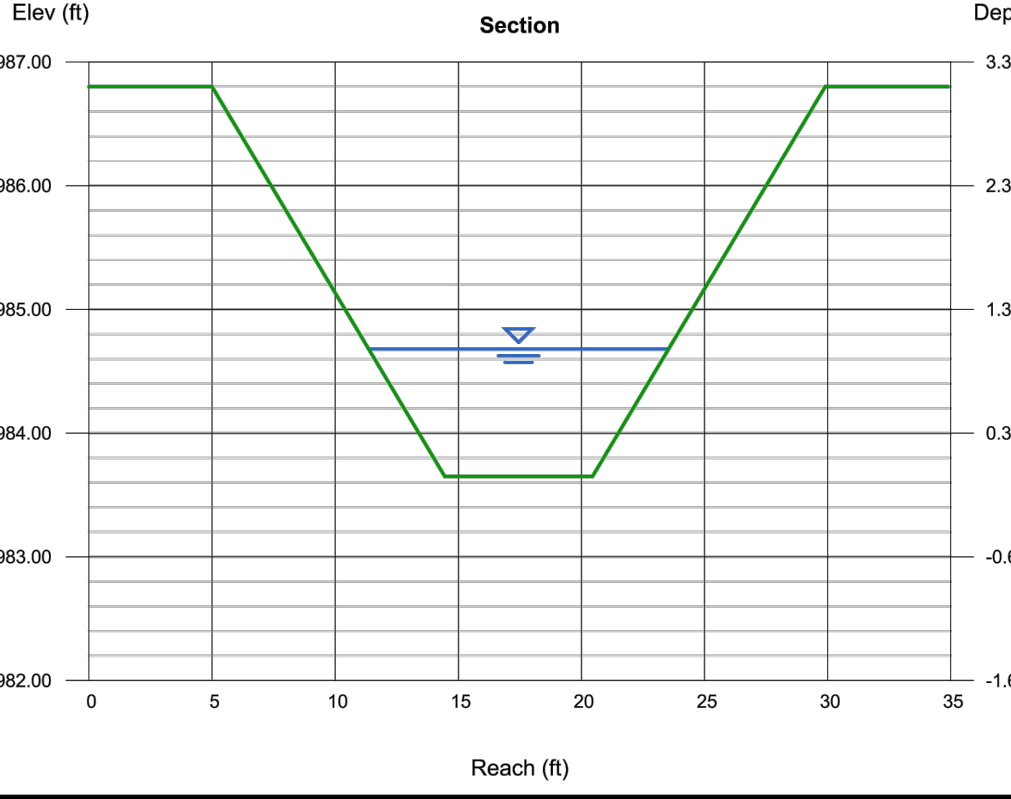
Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.			
Wednesday, Aug 4 2021			
LOT 9 - 10			
Trapezoidal		Highlighted	
Bottom Width (ft)	= 6.00	Depth (ft)	= 0.95
Side Slopes (z:1)	= 3.00, 3.00	Q (cfs)	= 45.86
Total Depth (ft)	= 2.99 3.24	Area (sqft)	= 8.41
Invert Elev (ft)	= 985.15	Velocity (ft/s)	= 5.45
Slope (%)	= 2.00	Wetted Perim (ft)	= 12.01
N-Value	= 0.030	Crit Depth, Yc (ft)	= 1.03
		Top Width (ft)	= 11.70
Calculations			
Compute by:	Known Q		
Known Q (cfs)	= 45.86		

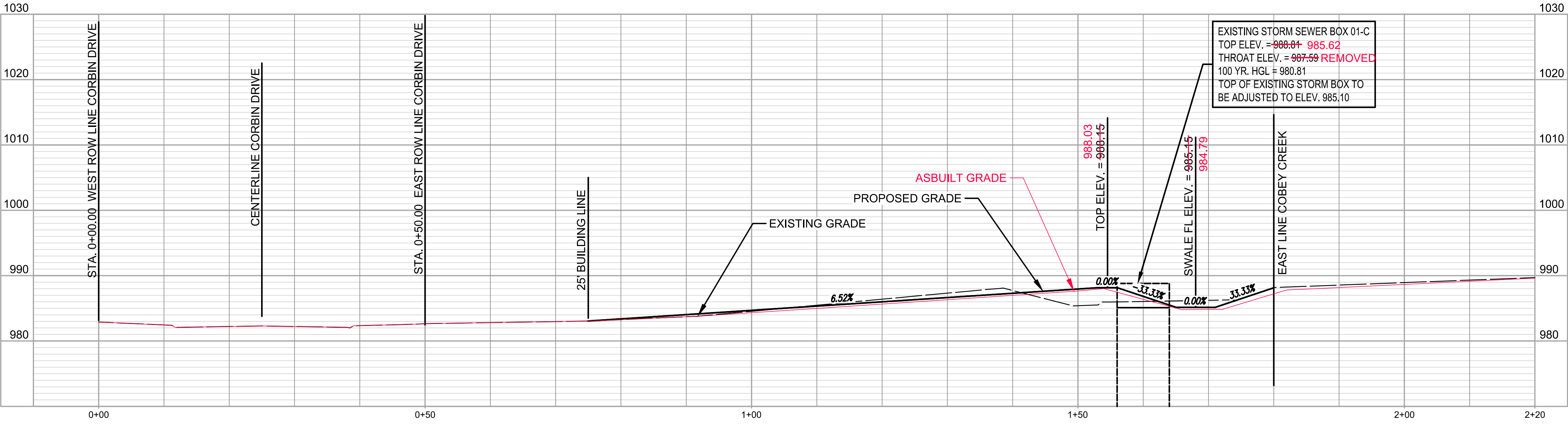


Channel Report

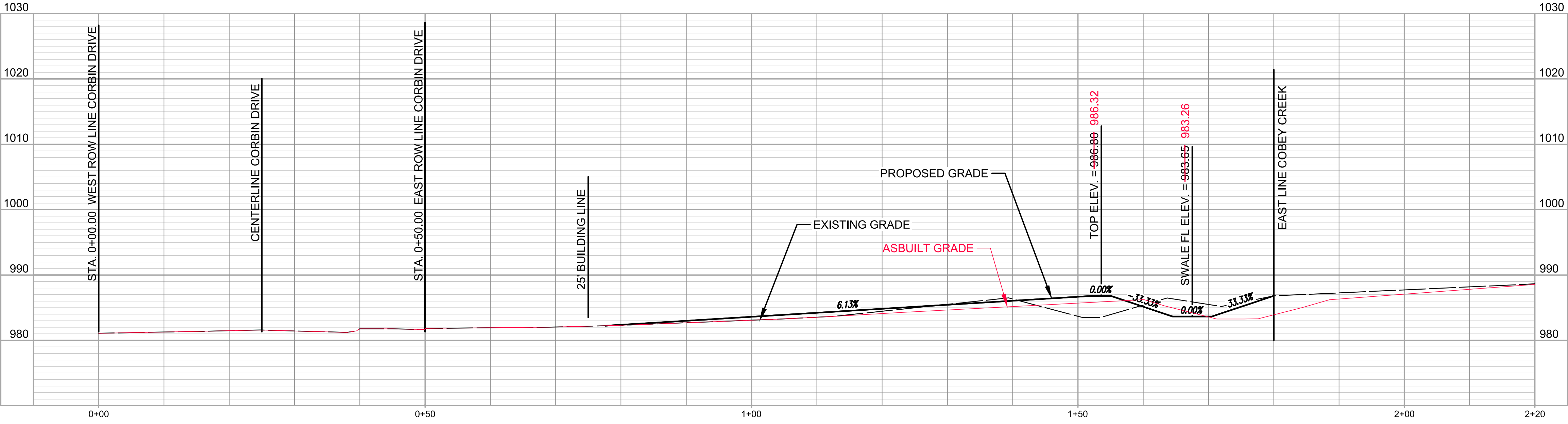
Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.			
Wednesday, Aug 4 2021			
LOT 10 - 11			
Trapezoidal		Highlighted	
Bottom Width (ft)	= 6.00	Depth (ft)	= 1.03
Side Slopes (z:1)	= 3.00, 3.00	Q (cfs)	= 53.82
Total Depth (ft)	= 2.99 3.06	Area (sqft)	= 9.36
Invert Elev (ft)	= 983.65	Velocity (ft/s)	= 5.75
Slope (%)	= 2.00	Wetted Perim (ft)	= 12.51
N-Value	= 0.030	Crit Depth, Yc (ft)	= 1.12
		Top Width (ft)	= 12.18
Calculations			
Compute by:	Known Q		
Known Q (cfs)	= 53.82		



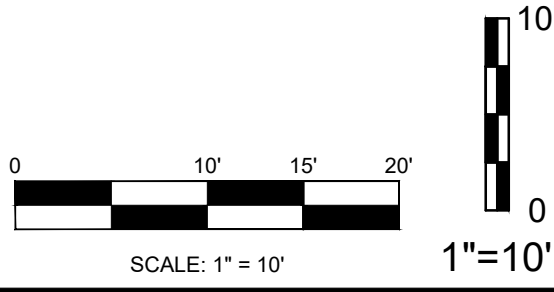
LOT 8 - 9 CROSS SECTION



LOT 9 - 10 CROSS SECTION



LOT 10 - 11 CROSS SECTION



AS BUILT PLANS - 10/15/2021

NO.	BY	DATE	REVISION
1	SPW	10/15/21	AS-BUILT
2	SPW	08/06/21	PER CITY'S COMMENTS
3	SPW	05/27/21	PER CITY'S COMMENTS
4	SPW	03/07/21	PER ACQUIRED DRAINAGE EASEMENT FROM CITY OF GREENWOOD
5	SPW	12/16/20	SUBMITAL TO CITY OF LEES SUMMIT



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STREET AND STORM SEWER PLANS
LOT CROSS SECTIONS
COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

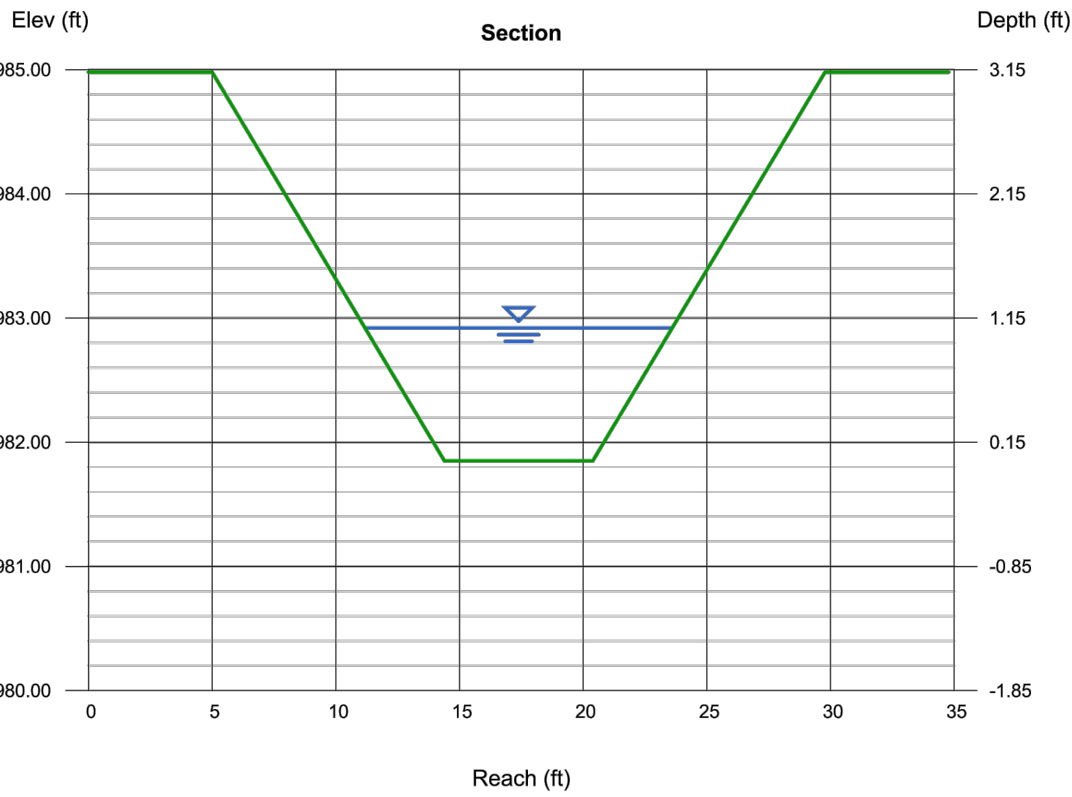
X-REF NO.
16-059 Base Phase I
DRAWING NO.
16-059 Phase I Street Plans
DATE
December 18, 2020
JOB NO.
16-059
32C SHEET OF 53

Channel Report

Hydrow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Wednesday, Aug 4 2021

LOT 11 - 12

Trapezoidal		Highlighted	
Bottom Width (ft)	= 6.00	Depth (ft)	= 1.07
Side Slopes (z:1)	= 3.00, 3.00	Q (cfs)	= 65.53
Total Depth (ft)	= 9.49- 3.35	Area (sqft)	= 9.85
Invert Elev (ft)	= 981.85	Velocity (ft/s)	= 6.65
Slope (%)	= 2.57	Wetted Perim (ft)	= 12.77
N-Value	= 0.030	Crit Depth, Yc (ft)	= 1.25
		Top Width (ft)	= 12.42
		EGL (ft)	= 1.76
Calculations			
Compute by:	Known Q		
Known Q (cfs)	= 65.53		

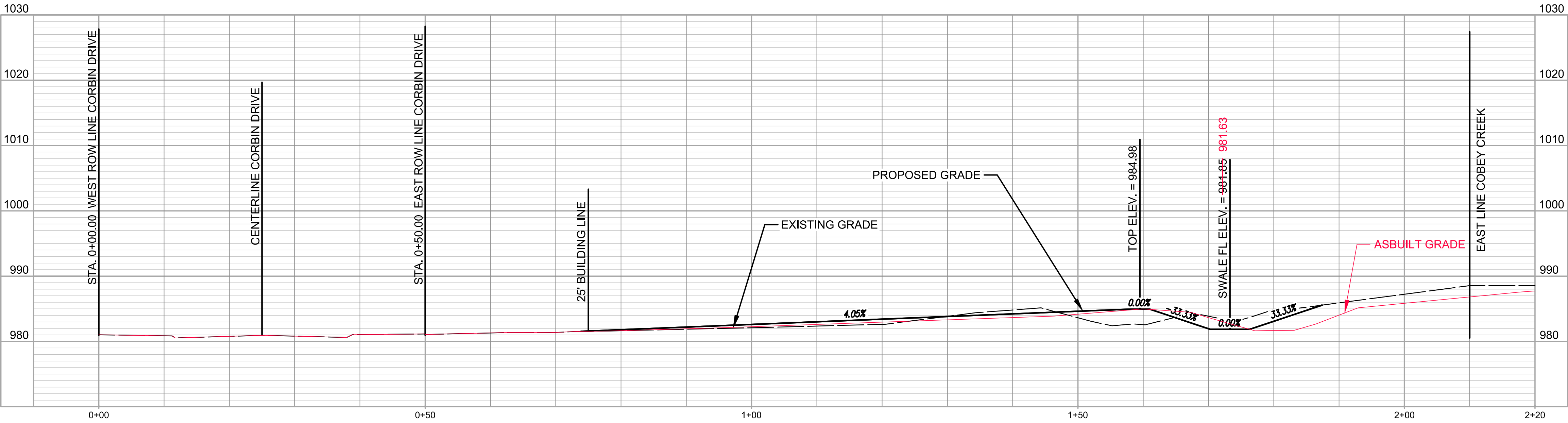
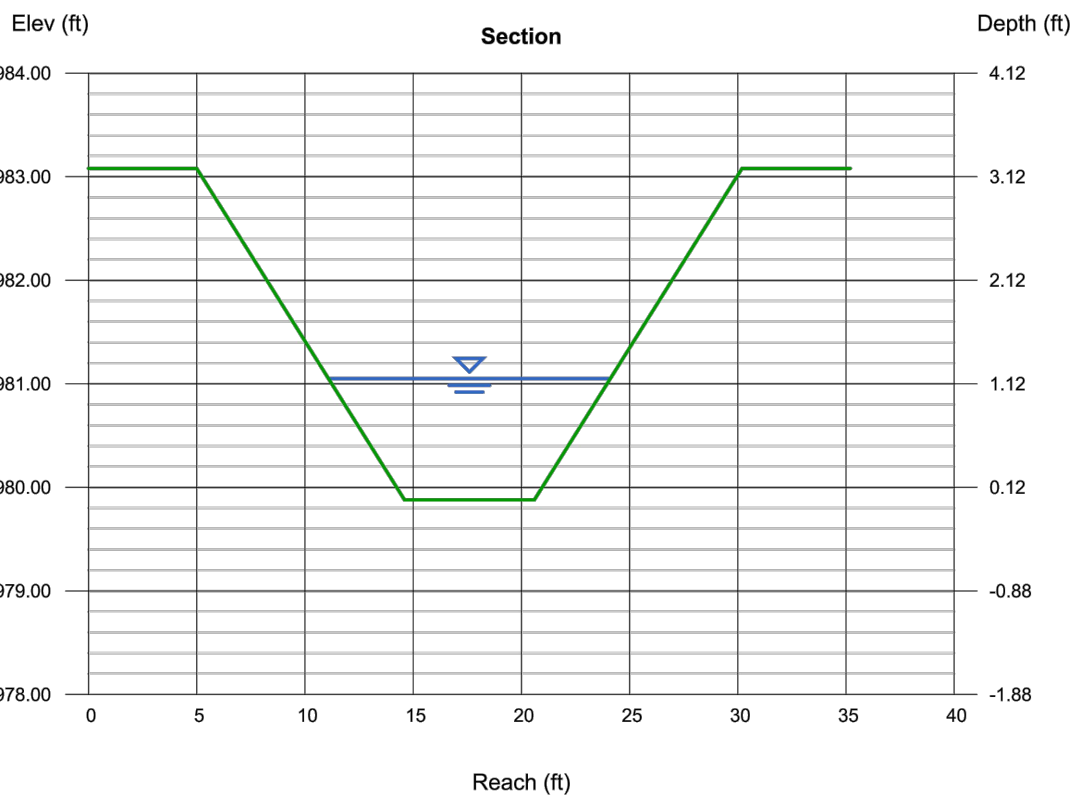


Channel Report

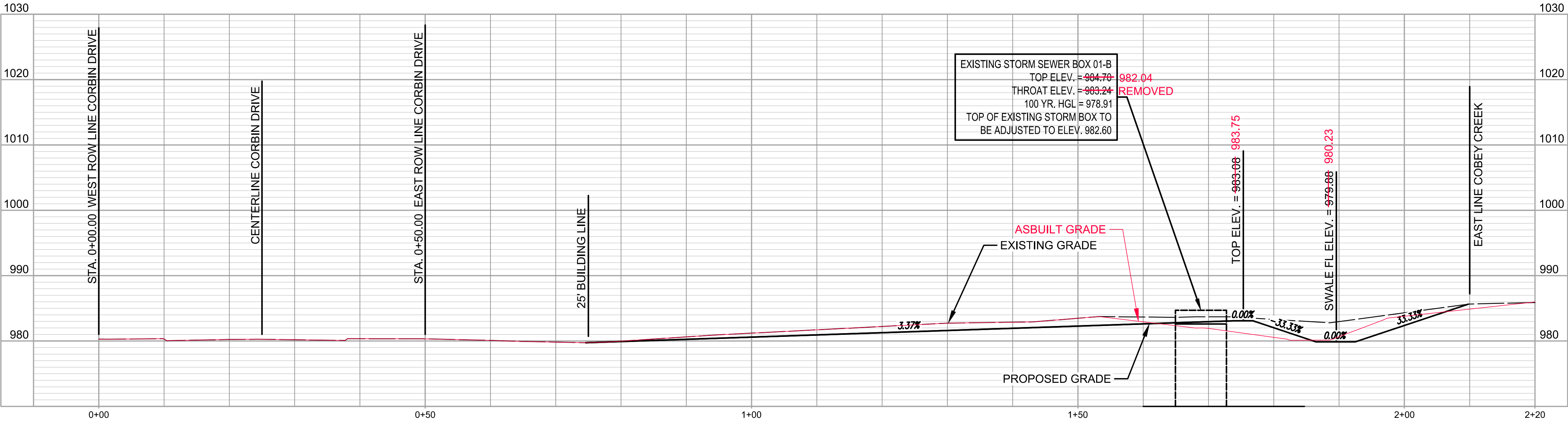
Hydrow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Wednesday, Aug 4 2021

LOT 12 - DETENTION

Trapezoidal		Highlighted	
Bottom Width (ft)	= 6.00	Depth (ft)	= 1.17
Side Slopes (z:1)	= 3.00, 3.00	Q (cfs)	= 76.84
Total Depth (ft)	= 9.39- 3.52	Area (sqft)	= 11.13
Invert Elev (ft)	= 979.88	Velocity (ft/s)	= 6.91
Slope (%)	= 2.57	Wetted Perim (ft)	= 13.40
N-Value	= 0.030	Crit Depth, Yc (ft)	= 1.37
		Top Width (ft)	= 13.02
		EGL (ft)	= 1.91
Calculations			
Compute by:	Known Q		
Known Q (cfs)	= 76.84		



LOT 11 - 12 CROSS SECTION



LOT 12 - DETENTION CROSS SECTION

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10/15/21	AS-BUILT	SPW	RAS
08/06/21	PER CITY'S COMMENTS	SPW	RAS
08/27/21	PER CITY'S COMMENTS	SPW	RAS
09/07/21	PER ACQUIRED DRAINAGE EASEMENT FROM CITY OF GREENWOOD	SPW	RAS
12/16/20	SUBMITAL TO CITY OF LEES SUMMIT	SPW	RAS



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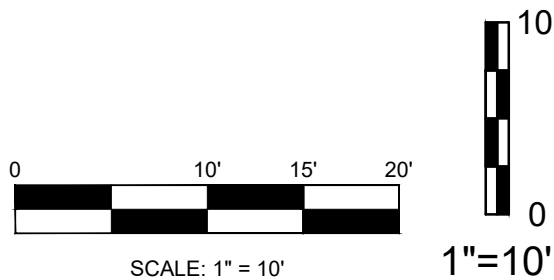
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CORPORATE LICENSE NO. E201000573 (MO.) / E-1738 (KS.) / LS 2019005467

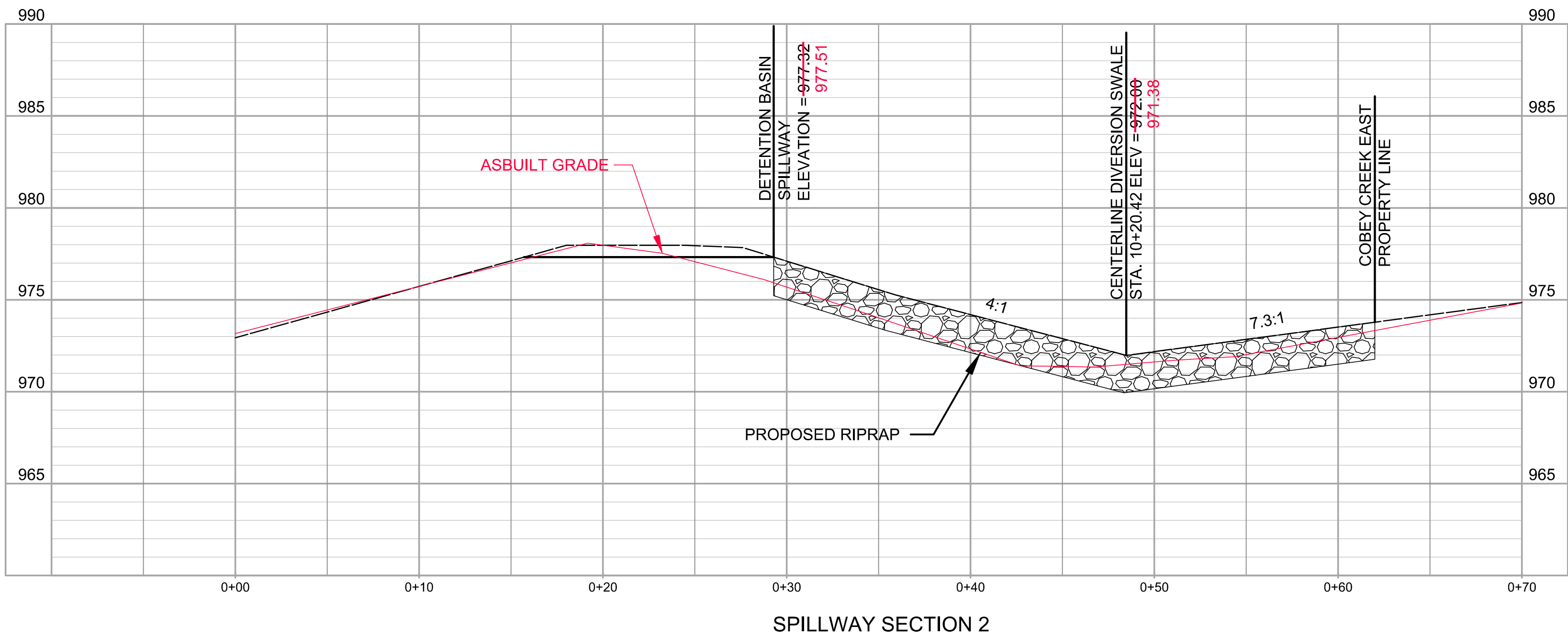
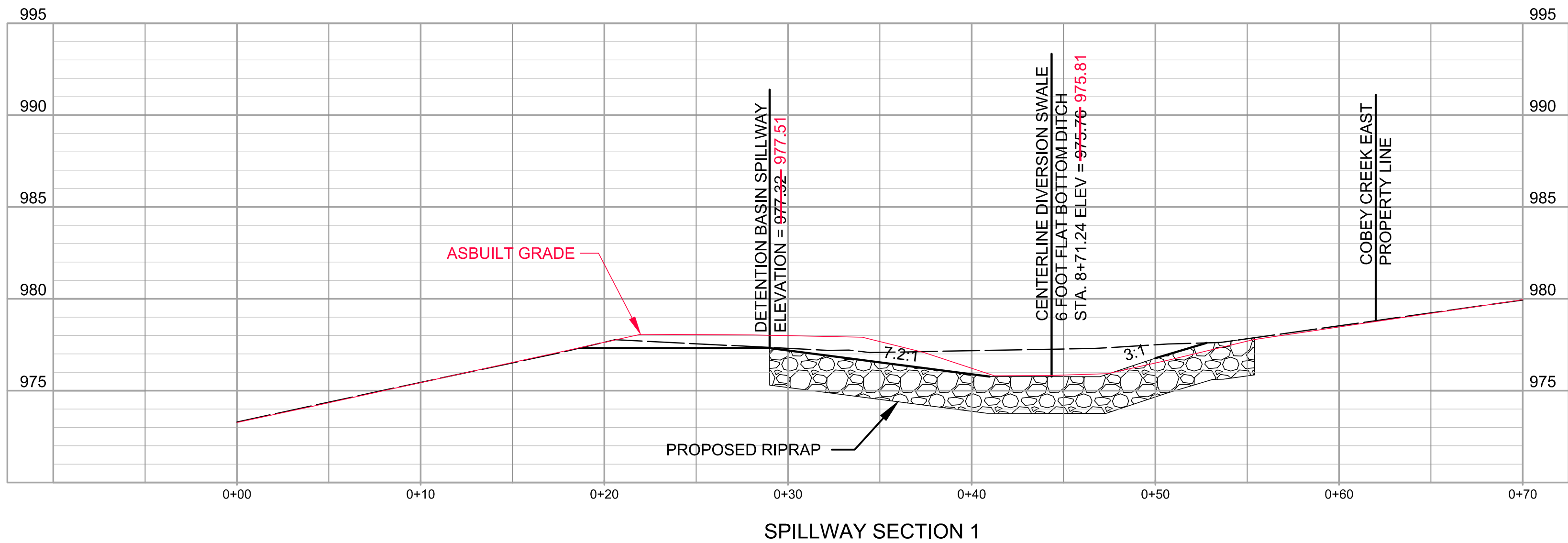
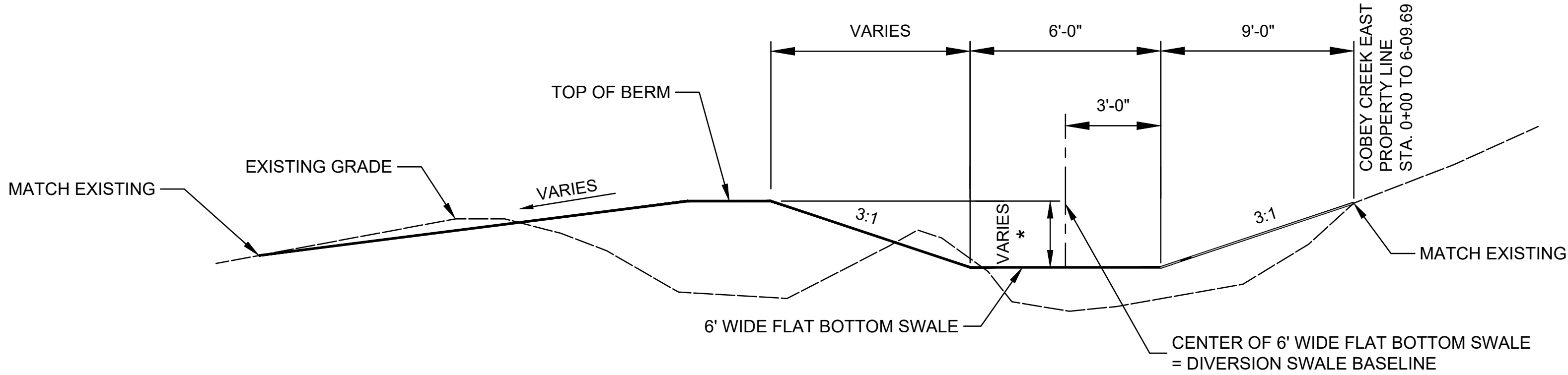
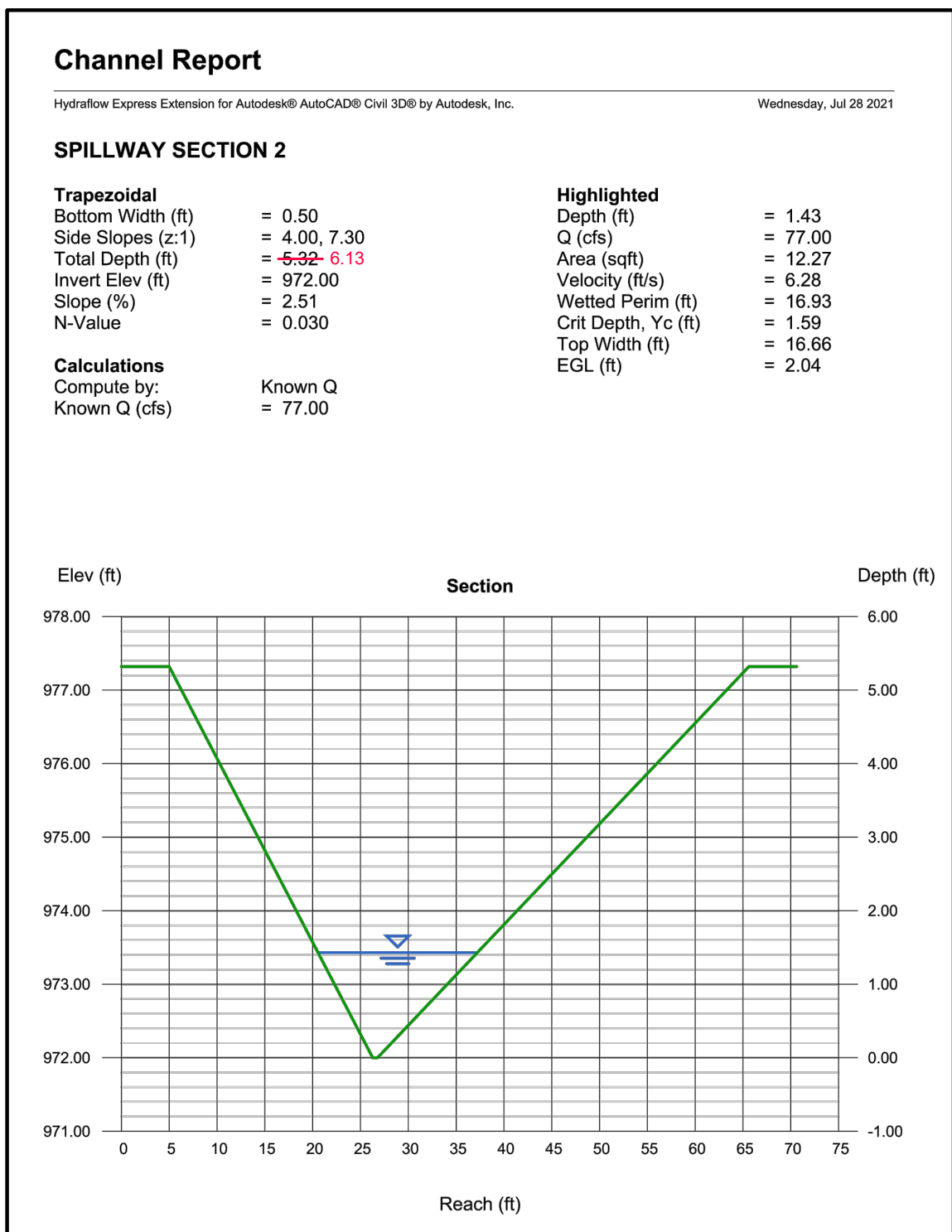
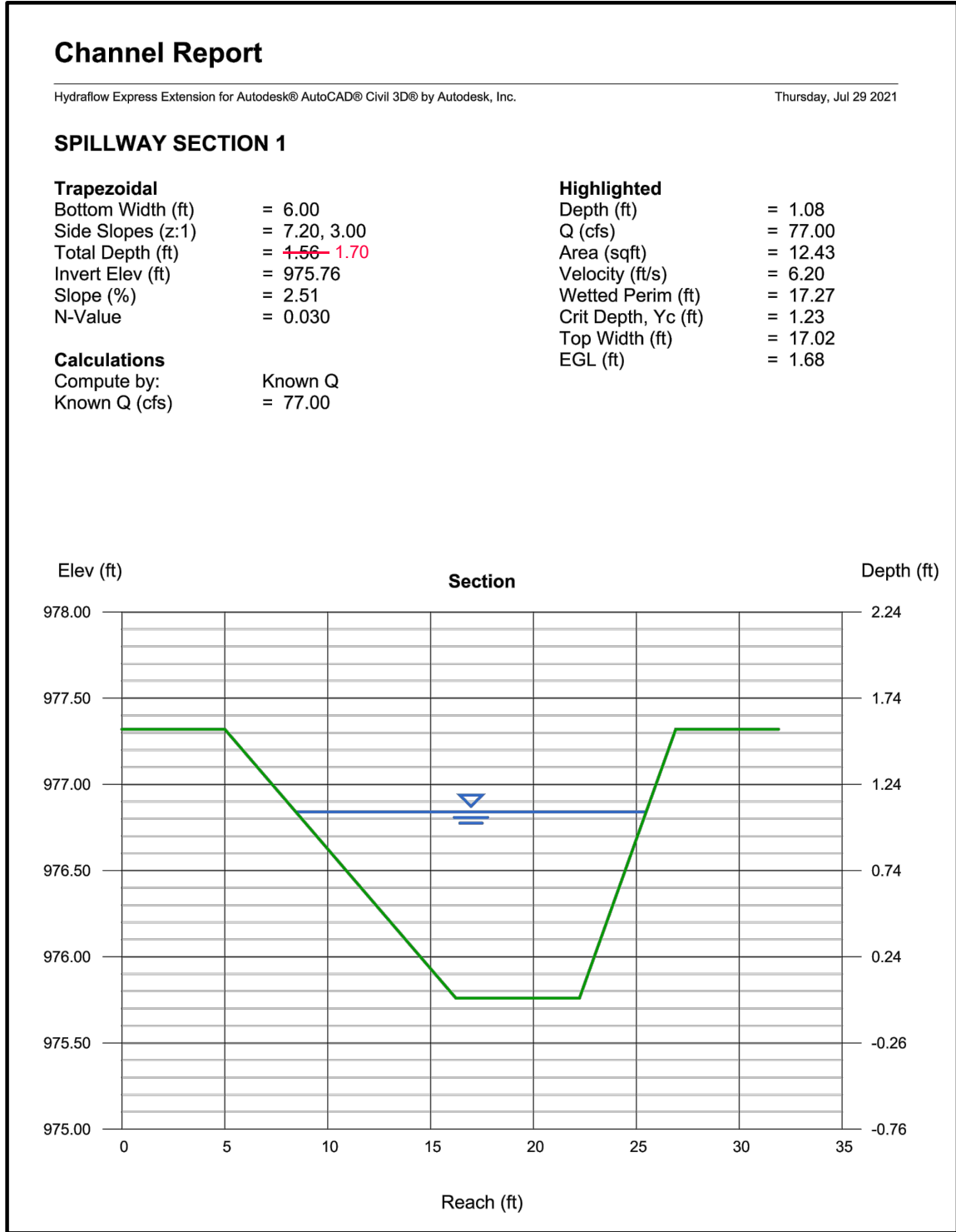
STREET AND STORM SEWER PLANS
LOT CROSS SECTIONS

COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO. 16-059 Base Phase I
DRAWING NO. 16-059 Phase I Street Plans
DATE December 18, 2020
JOB NO. 16-059

32D SHEET OF 53





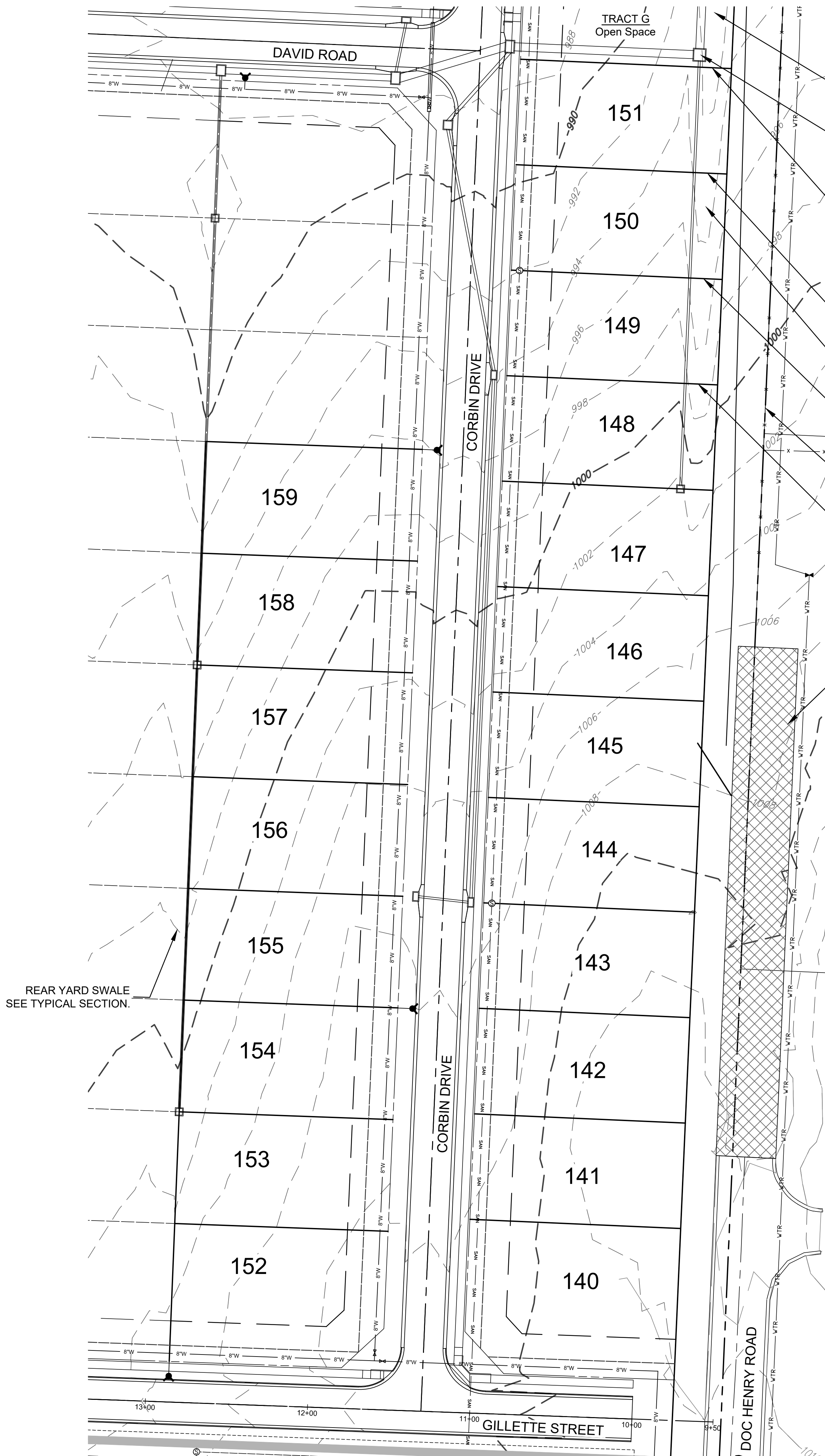
AS BUILT PLANS - 10/15/2021



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1533 Locust Street, Kansas City, Missouri 64108
CORPORATE LICENSE NO. E201000573 (MO.) / E-1736 (KS.) / LS 2019005467

STREET AND STORM SEWER PLANS
SPILLWAY SECTIONS AND SWALE DETAIL
COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I
DRAWING NO.
16-059 Phase I Street Plans
DATE
December 18, 2020
JOB NO.
16-059
32E OF 53



REAR YARD SWALE
SEE TYPICAL SECTION.

SEE SHEET 32E FOR TYPICAL
DIVERSION SWALE SECTION

STORM SEWER BOX TO BE
ADJUSTED. SEE SHEET 32 FOR
MORE INFORMATION.

CENTERLINE 6' F.B. DIVERSION SWALE
FL SWALE = ~~990.49~~ 991.24
WATER SURFACE ELEV. = ~~991.16~~ 991.91

CENTERLINE 6' F.B. DIVERSION SWALE
FL SWALE = ~~992.16~~ 992.80
WATER SURFACE ELEV. = ~~992.75~~ 993.39

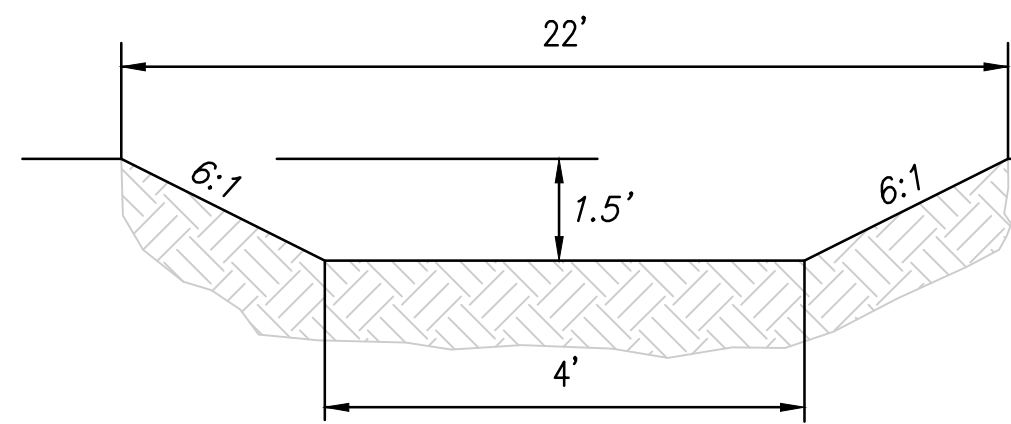
SEE SHEET 32E FOR TYPICAL
DIVERSION SWALE SECTION

CENTERLINE 6' F.B. DIVERSION SWALE
FL SWALE = ~~993.66~~ 994.60
WATER SURFACE ELEV. = ~~994.12~~ 995.06

EXISTING FENCE / HEDGE LINE

CENTERLINE 6' F.B. DIVERSION SWALE
FL SWALE = ~~996.05~~ 996.75
WATER SURFACE ELEV. = ~~996.44~~ 967.14

EXISTING GRADED ROADBED



TYPICAL REAR YARD SWALE DETAIL
(NO SCALE)

SWALE CAPACITY AT 2.0% SLOPE = 125 CFS

100 YEAR WATER DEPTH IN SWALE

LOTS: 1, 2, 18, 19, 20 & 21
DEPTH = 0.28'

LOTS: 22, 23, 24, 25, 152 & 153
DEPTH = 0.24'

LOTS: 3, 4, 5, 6, 7, 13, 14, 15, 16, 17, 154,
155, 156 & 157
DEPTH = 0.31'

LOTS: 26, 27, 28, 29, 30, 158 & 159
DEPTH = 0.34'

NOTE:
FOR TYPICAL REAR YARD SWALE:
REAR LOT CORNER ELEVATION +
DEPTH = 100 YEAR WATER
SURFACE ELEVATION

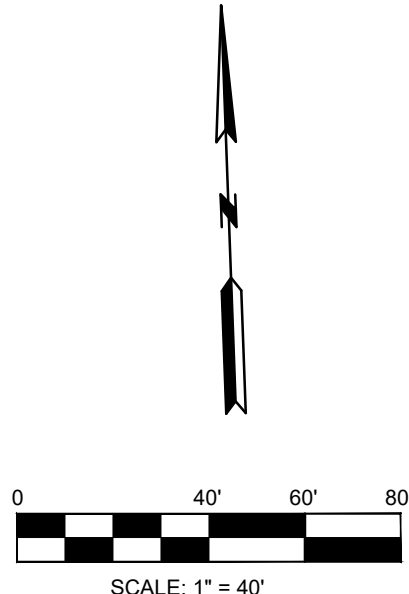
MBOE = 2 FEET PLUS THE 100 YEAR
WATER SURFACE ELEVATION IF IT
IS THE HIGHEST LOT CORNER
ELEVATION

NOTES:

- 1) Corner descriptions are oriented as if standing on the street facing the lot.
- 2) Conventional basement type indicates windows only above finished basement elevation.
- 3) Walkout basement type was determined by subtracting the 70' lot elevation from the 25' B/L elevation. If the resulting elevation difference was greater than 6 feet it was determined that the builder could make the house a walkout by raising the top of foundation as needed. The intent of the designer was not to force these lots to be walkouts, only to suggest it was possible by raising the top of foundation.
- 4) Daylight basement type was determined by top of foundation being 2 feet above, and the back lot corner of the lot being 3 feet below the front right-of-way elevation on the high side of the lot.
- 5) Corner of house elevations based on top of foundation to be 1 foot above the high side front right-of-way elevation.
- 6) As-graded plot plans shall be required for the following lots: 1-30 and 140-159.
- 7) All proposed swales shall be established during Phase I construction and grading.
- 8) MBOEs are allowed to be interpolated from adjoining lot MBOEs where appropriate.

Lot Corner Elevations and MBOEs							ASBUILT Lot Corner Elevations and MBOEs						
LOT	FRONT		REAR		M.B.O.E.	BASEMENT TYPE	LOT	FRONT		REAR		M.B.O.E.	BASEMENT TYPE
No.	LEFT COR	RIGHT COR	LEFT COR	RIGHT COR			No.	LEFT COR	RIGHT COR	LEFT COR	RIGHT COR		
140	1008.0	1008.8	1012.8 E/F	1012.0 E/F	1014.8	CONVENTIONAL	140	1008.1	1008.8	1012.8 E/F	1012.1 E/F	*	CONVENTIONAL
141	1007.2	1008.0	1013.3 E/F	1012.8 E/F	1015.3	CONVENTIONAL	141	1007.3	1008.1	1013.4 E/F	1012.8 E/F	*	CONVENTIONAL
142	1006.5	1007.2	1013.0 E/F	1013.3 E/F	1015.3	CONVENTIONAL	142	1006.4	1007.3	1013.1 E/F	1013.4 E/F	*	CONVENTIONAL
143	1005.6	1006.5	1012.0 E/F	1013.0 E/F	1015.0	DAYLIGHT	143	1005.6	1006.4	1012.1 E/F	1013.1 E/F	*	DAYLIGHT
144	1004.2	1005.6	1009.8 E/F	1012.0 E/F	1014.0	DAYLIGHT	144	1004.1	1005.6	1009.9 E/F	1012.1 E/F	*	DAYLIGHT
145	1002.2	1004.2	1007.0 E/F	1009.8 E/F	1011.8	DAYLIGHT	145	1002.3	1004.1	1007.0 E/F	1009.9 E/F	*	DAYLIGHT
146	999.5	1002.2	1004.6	1007.0 E/F	1009.0	DAYLIGHT	146	999.6	1002.3	1004.6	1006.9	*	DAYLIGHT
147	996.8	999.5	1001.9	1004.6	1006.6	DAYLIGHT*	147	996.8	999.6	1002.0	1004.6	*	DAYLIGHT
148	994.2	996.8	999.0	1001.9	1003.9	DAYLIGHT*	148	994.2	996.8	999.0	1002.0	*	DAYLIGHT
149	991.8	994.2	996.7	999.0	1001.0	DAYLIGHT	149	991.9	994.2	996.7	1000.4	*	DAYLIGHT
150	989.6	991.8	995.1	996.7	998.7	DAYLIGHT	150	989.6	991.9	995.2	996.7	*	DAYLIGHT
151	987.5	989.6	993.5	995.1	997.1	DAYLIGHT	151	987.5	989.6	993.6	995.2	*	DAYLIGHT
							* = NO MBOE REQUIRED FOR LOT						
Lot Corner Elevations and MBOEs							ASBUILT Minimum Building Opening Elevations						
LOT	FRONT		REAR		M.B.O.E.	BASEMENT TYPE	LOT	FRONT		REAR		M.B.O.E.	BASEMENT TYPE
No.	LEFT COR	RIGHT COR	LEFT COR	RIGHT COR			No.	LEFT COR	RIGHT COR	LEFT COR	RIGHT COR		
152	1008.8	1008.1	1004.9	1003.3	1010.8	DAYLIGHT	152	1008.8	1008.1	1005.0	1003.2	*	DAYLIGHT
153	1008.1	1007.3	1003.2	1000.6	1010.1	DAYLIGHT	153	1008.1	1007.4	1003.2	1000.6	*	DAYLIGHT
154	1007.3	1006.5	1000.6	999.0	1009.3	DAYLIGHT	154	1007.4	1006.6	1000.6	999.0	*	DAYLIGHT
155	1006.5	1005.6	999.0	997.9	1008.5	DAYLIGHT	155	1006.6	1005.6	999.0	997.8	*	DAYLIGHT
156	1005.6	1004.1	997.9	996.0	1007.6	DAYLIGHT	156	1005.6	1004.0	997.8	996.0	*	DAYLIGHT
157	1004.1	1001.8	996.0	994.0	1006.1	DAYLIGHT	157	1004.0	1001.9	996.0	994.1	*	DAYLIGHT
158	1001.8	999.0	994.0	992.0	1003.8	DAYLIGHT	158	1001.9	999.0	994.1	992.0	994.1	DAYLIGHT
159	999.0	996.1	992.0	990.3	1001.0	DAYLIGHT	159	999.0	996.2	992.0	990.4	992.4	DAYLIGHT
							* = NO MBOE REQUIRED FOR LOT						

E/F = EXISTING = PROPOSED DAYLIGHT* = MBOE FOR WALKOUT WITH A WALKUP



AS BUILT PLANS - 10/15/2021

DATE	REVISION	NO.	BY	CHKD
10/15/21				
02/27/18	PER CITY COMMENTS		SPW	RAS
02/28/18	PER CITY COMMENTS	2	SPW	RAS
11/21/18	SUBMITAL TO CITY OF LEES SUMMIT	1	SPW	RAS

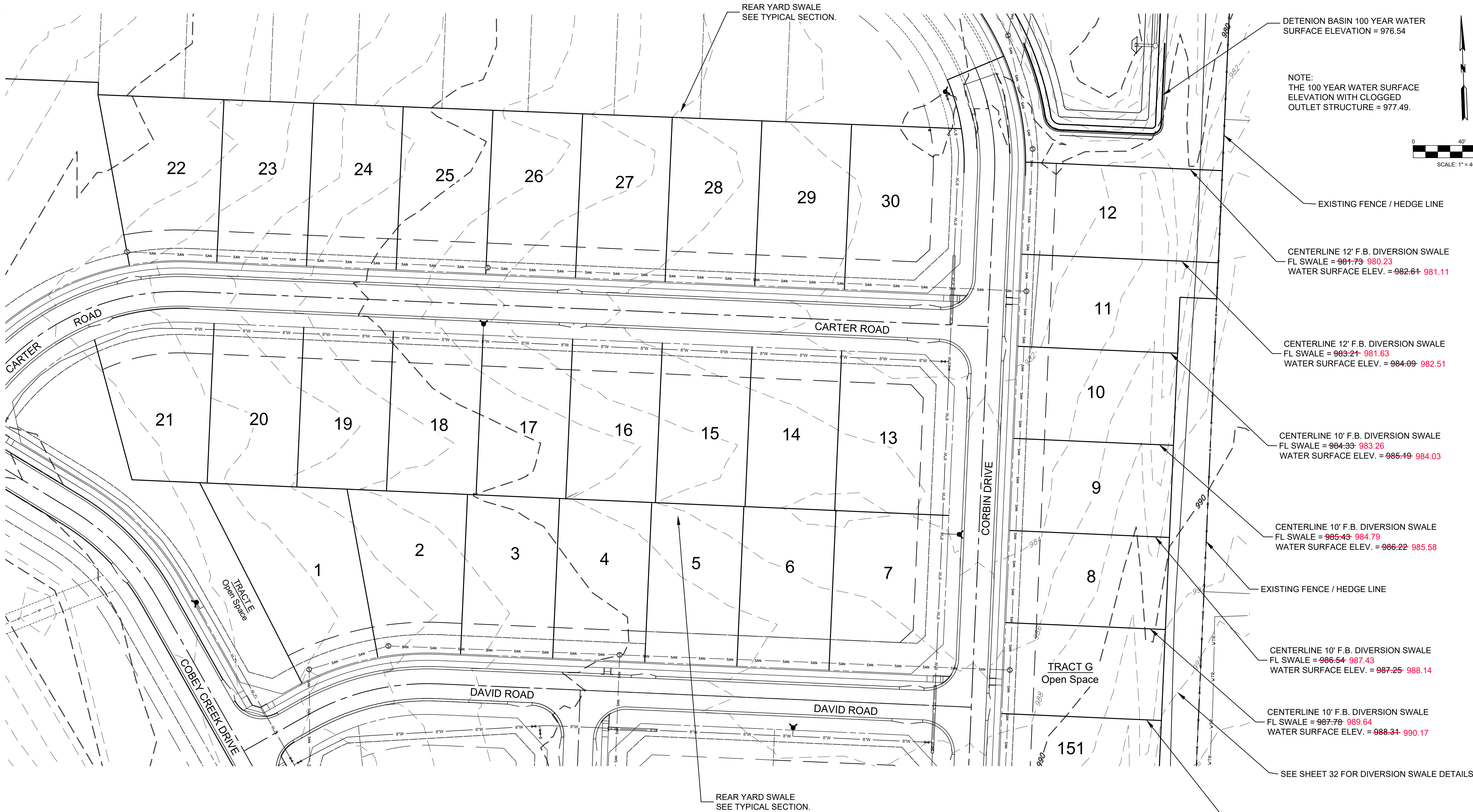


igconsult
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11010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE NO. E201000373 (MO.) / E-1736 (KS.)

STREET AND STORM SEWER PLANS
MASTER DRAINAGE PLAN
LOT AND FOUNDATION DATA - VILLA LOTS
COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO.
16-059 Base Phase I
DRAWING NO.
16-059 Master Drainage
DATE
March 27, 2019
JOB NO.
16-059



SEE SHEET 34A FOR DESIGN AND AS-BUILT
MINIMUM BUILDING OPENING ELEVATION TABLES

NOTES:

- 1) Corner descriptions are oriented as if standing on the street facing the lot.
- 2) Conventional basement type indicates windows only above finished basement elevation.
- 3) Walkout basement type was determined by subtracting the 70' lot elevation from the 25' B/L elevation. If the resulting elevation difference was greater than 6 feet it was determined that the buider could make the house a walkout by raising the top of foundation as needed. The intent of the designer was not to force these lots to be walkouts, only to suggest it was possible by raising the top of foundation.
- 4) Daylight basement type was determined by top of foundation being 2 feet above, and the back lot corner of the lot being 3 feet below the front right-of-way elevation on the high side of the lot.
- 5) Corner of house elevations based on top of foundation to be 1 foot above the high side front right-of-way elevation.
- 6) As-graded plot plans shall be required for the following lots: 1-30 and 140-159.
- 7) All proposed swales shall be established during Phase I construction and grading.
- 8) MBOEs are allowed to be interpolated from adjoining lot MBOEs where appropriate.

AS BUILT PLANS - 10/15/2021

DATE	REVISION	BY	CORP
10/15/21	AS-BUILT'S		
03/27/19	PER CITY'S COMMENTS	2	RAS
03/26/19	PER CITY'S COMMENTS	2	RAS
11/27/18	SUBMITAL TO CITY OF LEES SUMMIT	1	RAS
			RAS



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CORPORATE LICENSE NO. E201000373 (MO.) / E-1736 (KS.)

STREET AND STORM SEWER PLANS
MASTER DRAINAGE PLAN
LOT AND FOUNDATION DATA - R-1 LOTS
COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO. 16-059 Base Phase I
DRAWING NO. 16-059 Master Drainage
DATE March 27, 2019
JOB NO. 16-059

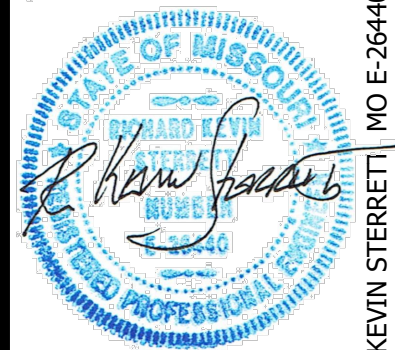
Lot Corner Elevations and MBOEs							ASBUILT Lot Corner Elevations and MBOEs						
LOT	FRONT		REAR		M.B.O.E.	BASEMENT TYPE	LOT	FRONT		REAR		M.B.O.E.	BASEMENT TYPE
No.	LEFT COR	RIGHT COR	LEFT COR	RIGHT COR			No.	LEFT COR	RIGHT COR	LEFT COR	RIGHT COR		
1	995.8	994.1	997.2	992.2	999.5	WALKOUT	1	995.9	994.2	997.2	992.2	*	WALKOUT
2	994.1	992.4	992.2	990.2	996.4	WALKOUT	2	994.2	992.5	992.2	990.2	*	WALKOUT
3	992.4	990.5	990.2	988.1	994.4	WALKOUT	3	992.5	990.6	990.2	988.1	*	WALKOUT
4	990.5	989.2	988.1	986.0	992.5	WALKOUT	4	990.6	989.2	988.1	986.1	*	WALKOUT
5	989.2	988.1	986.0	984.5	991.2	WALKOUT	5	989.2	988.1	986.1	984.5	*	WALKOUT
6	988.1	987.3	984.5	983.2	990.1	WALKOUT	6	988.1	987.4	984.5	983.2	*	WALKOUT
7	987.3	986.7	988.2	983.4	989.3	WALKOUT	7	987.4	986.7	983.2	983.5	*	WALKOUT
8	983.6	985.2	989.7	991.7	993.3	DAYLIGHT*	8	983.5	985.3	989.7	991.8	*	DAYLIGHT*
9	982.5	983.6	988.3	989.7	991.5	DAYLIGHT*	9	982.7	983.5	988.2	989.7	*	DAYLIGHT*
10	981.8	982.5	986.8	988.3	990.3	DAYLIGHT*	10	981.6	982.7	986.8	988.2	*	DAYLIGHT*
11	981.0	981.8	987.3	986.8	988.6	DAYLIGHT	11	981.2	981.6	988.5	986.8	*	DAYLIGHT
12	980.3	981.0	985.8	987.3	987.3	DAYLIGHT*	12	980.3	981.2	985.7	988.5	*	DAYLIGHT*
							* = NO MBOE REQUIRED FOR LOT						

Lot Corner Elevations and MBOEs							ASBUILT Lot Corner Elevations and MBOEs						
LOT	FRONT		REAR		M.B.O.E.	BASEMENT TYPE	LOT	FRONT		REAR		M.B.O.E.	BASEMENT TYPE
No.	LEFT COR	RIGHT COR	LEFT COR	RIGHT COR			No.	LEFT COR	RIGHT COR	LEFT COR	RIGHT COR		
13	981.1	981.8	983.4	983.2	985.7	DAYLIGHT	13	981.1	981.9	983.4	983.3	*	DAYLIGHT
14	981.8	982.7	983.2	984.5	986.8	DAYLIGHT	14	981.9	982.8	983.3	984.5	*	DAYLIGHT
15	982.7	983.6	984.5	985.9	988.2	DAYLIGHT	15	982.8	983.7	984.5	986.0	*	DAYLIGHT
16	983.6	984.5	985.9	987.9	990.2	DAYLIGHT	16	983.7	984.6	986.0	988.0	*	DAYLIGHT
17	984.5	986.4	987.9	990.0	992.3	DAYLIGHT	17	984.6	986.5	988.0	990.0	*	DAYLIGHT
18	986.4	989.1	990.0	991.6	993.9	DAYLIGHT	18	986.5	989.2	990.0	991.7	*	DAYLIGHT
19	989.1	992.3	991.6	993.7	996.0	CONVENTIONAL	19	989.2	992.3	991.7	993.8	*	CONVENTIONAL
20	992.3	994.6	993.7	996.6	998.9	CONVENTIONAL	20	992.3	994.6	993.8	996.5	*	CONVENTIONAL
21	994.6	996.8	996.6	999.1	1001.4	CONVENTIONAL	21	994.6	996.8	996.5	999.1	*	CONVENTIONAL
												* = NO MBOE REQUIRED FOR LOT	

Lot Corner Elevations and MBOEs							ASBUILT Lot Corner Elevations and MBOEs						
LOT	FRONT		REAR		M.B.O.E.	BASEMENT TYPE	LOT	FRONT		REAR		M.B.O.E.	BASEMENT TYPE
No.	LEFT COR	RIGHT COR	LEFT COR	RIGHT COR			No.	LEFT COR	RIGHT COR	LEFT COR	RIGHT COR		
22	995.9	994.6	1000.3	996.7	1002.6	CONVENTIONAL	22	996.6	994.7	1000.4	996.7	*	CONVENTIONAL
23	994.6	992.3	996.7	994.0	999.0	CONVENTIONAL	23	994.7	992.3	996.7	993.9	*	CONVENTIONAL
24	992.3	989.1	994.0	990.8	996.3	WALKOUT	24	992.3	989.0	993.9	990.9	*	WALKOUT
25	989.1	986.4	990.8	988.1	993.1	WALKOUT	25	989.0	986.5	990.9	988.1	*	WALKOUT
26	986.4	984.5	988.1	986.3	990.5	WALKOUT	26	986.5	984.5	988.1	986.2	*	WALKOUT
27	984.5	983.6	986.3	983.9	988.7	WALKOUT	27	984.5	983.7	986.2	984.0	*	WALKOUT
28	983.6	982.7	983.9	982.3	986.3	WALKOUT	28	983.7	982.8	984.0	982.3	*	WALKOUT
29	982.7	981.8	982.3	980.8	984.7	DAYLIGHT*	29	982.8	981.8	982.3	980.7	*	DAYLIGHT*
30	981.8	981.0	980.8	980.3	983.8	DAYLIGHT*	30	981.8	980.9	980.7	980.3	*	DAYLIGHT*
												* = NO MBOE REQUIRED FOR LOT	

E/F = EXISTING = PROPOSED DAYLIGHT = MBOE FOR WALKOUT WITH A WALKUP*

AS BUILT PLANS - 10/15/2021

[illegible]

R. KEVIN STERRETT | MO E-26440
May 7, 2021

g-consult
engineers
Inc planners
111010 Haskell Street, Suite 210, Kansas City, Kansas 66109
CORPORATE LICENSE NO. E201000373 (MO.) / E-1736 (KS.)

STREET AND STORM SEWER PLANS
MASTER DRAINAGE PLAN
LOT AND FOUNDATION DATA - R-1 LOTS
COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

The scruffy dome is made of galvanised steel and is used in stormwater applications to provide a debris and security screen for manholes.

Design Specifications

- The type 1 debris screen is a full height design, suitable for manholes with a 600mm diameter or larger. (Refer to figure 1)
- The type 2 debris screen has a lower height profile making it less noticeable in areas such as parks and gardens. Suitable for manholes with a diameter of 600 mm or larger. (Refer to figure 2)

Installation

- Dome brackets are bolted to the manhole riser with stainless steel bolts.
- The bolts are purchased separately.

Note: The North Island and South Island have different versions of Scruffy Domes with small changes in the bracket design (See photos below). Please contact your local Hynds branch for more information.

North Island Scruffy Dome



South Island Scruffy Dome



Product Code	Manhole (mm)	Type	Riser ID (mm)	A = OD of Grille (mm)	B = Diameter of Inner Ring (mm)	C = Height of Dome (mm)	D = Leg Length (mm)
Type 1 High Profile							
MHD0600S	600	1	610	640	145	300	190
MHD0675S	675	1	686	715	145	300	190
MHD0900S	900	1	914	950	230	500	190
MHD1050S	1050	1	1066	1125	230	665	190
MHD1050S-H*	1050	1	1066	1125	230	665	190
MHD1200S	1200	1	1207	1270	230	635	190
MHD1200S-H*	1200	1	1207	1270	230	635	190
MHD1400S	1400	1	1372	1430	230	715	190
MHD1500S	1500	1	1524	1580	230	790	190
MHD1650S	1650	1	1676	1740	230	870	190
MHD1800S	1800	1	1829	1900	230	950	190
Type 2 Low Profile							
MHD0600S2	600	2	610	640	145	150	190
MHD0675S2	675	2	686	715	145	150	190
MHD0900S2	900	2	914	950	230	170	190
MHD1050S2	1050	2	1066	1125	230	200	190
MHD1050S2HL*	1050	2	1066	1125	230	200	190
MHD1200S2	1200	2	1207	1270	230	360	190
MHD1200S2HL*	1200	2	1207	1270	230	360	190
MHD1400S2	1400	2	1372	1430	230	390	190
MHD1500S2	1500	2	1524	1580	230	435	190
MHD1650S2	1650	2	1676	1740	230	480	190
MHD1800S2	1800	2	1829	1900	230	520	190

Note: Larger sizes 2000, 2300, 2550, 3000mm are available on request
*H - hinged HL - hinged and lockable

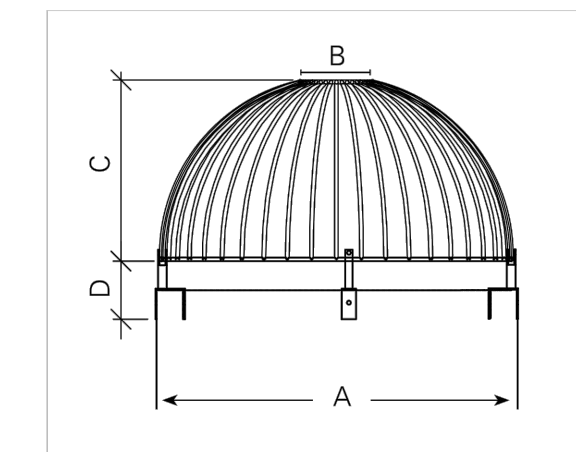


FIG. 1 Dimensions of Type 1 Hynds Scruffy Dome (see table).
Note: Brackets shown here are not supplied. Please see the North Island and South Island Scruffy Domes photos.

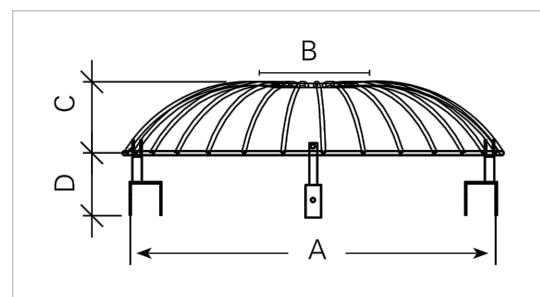
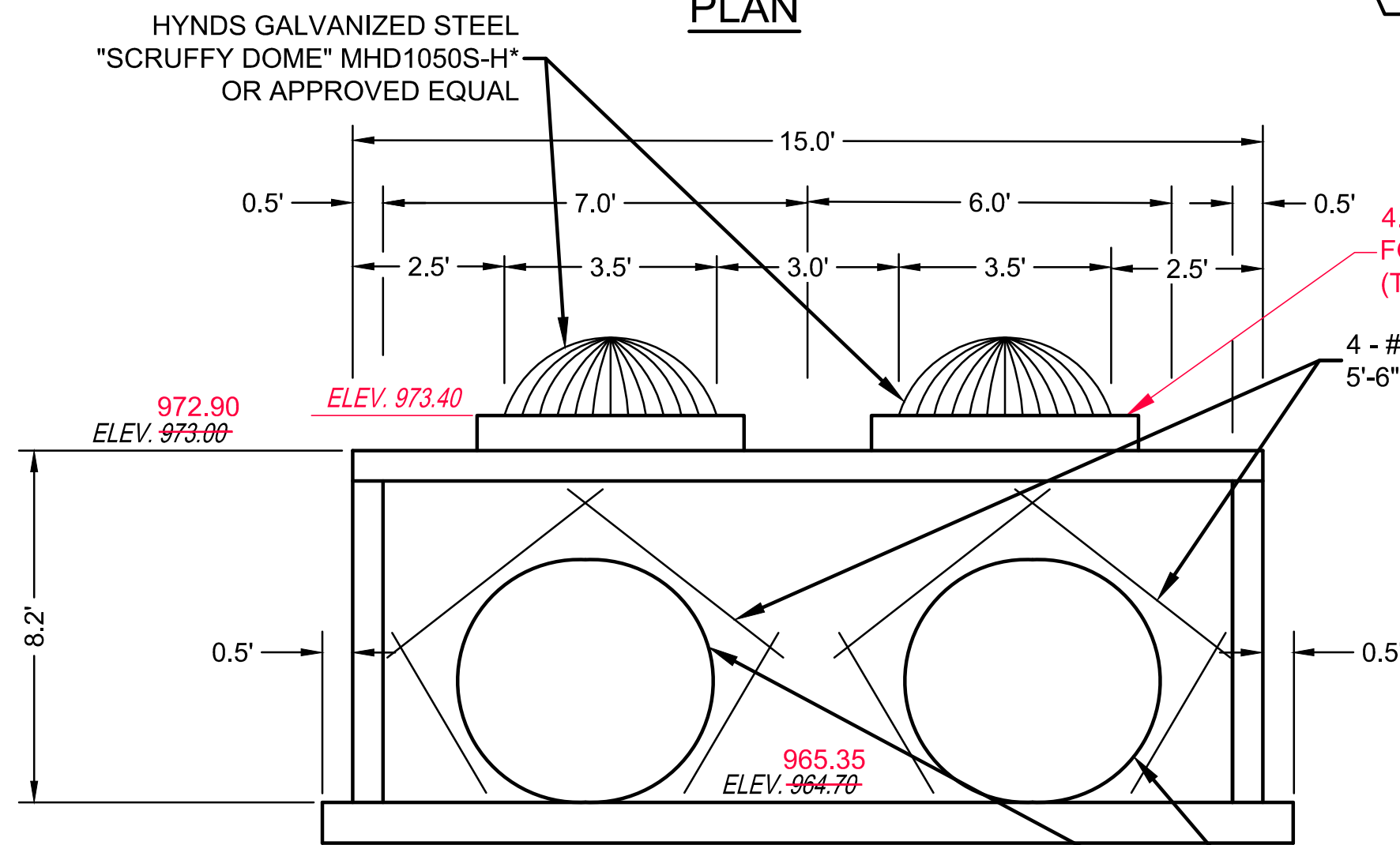
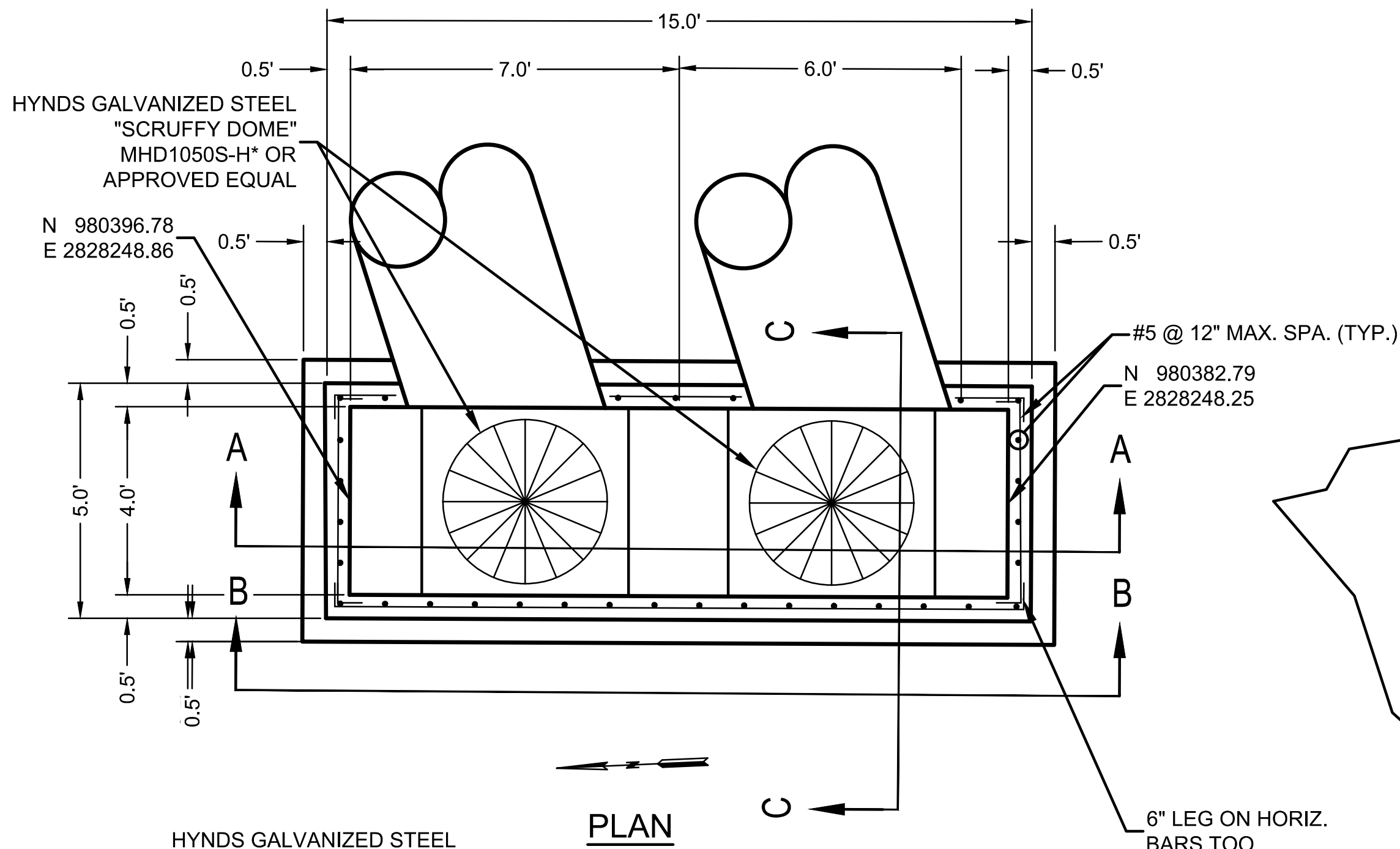
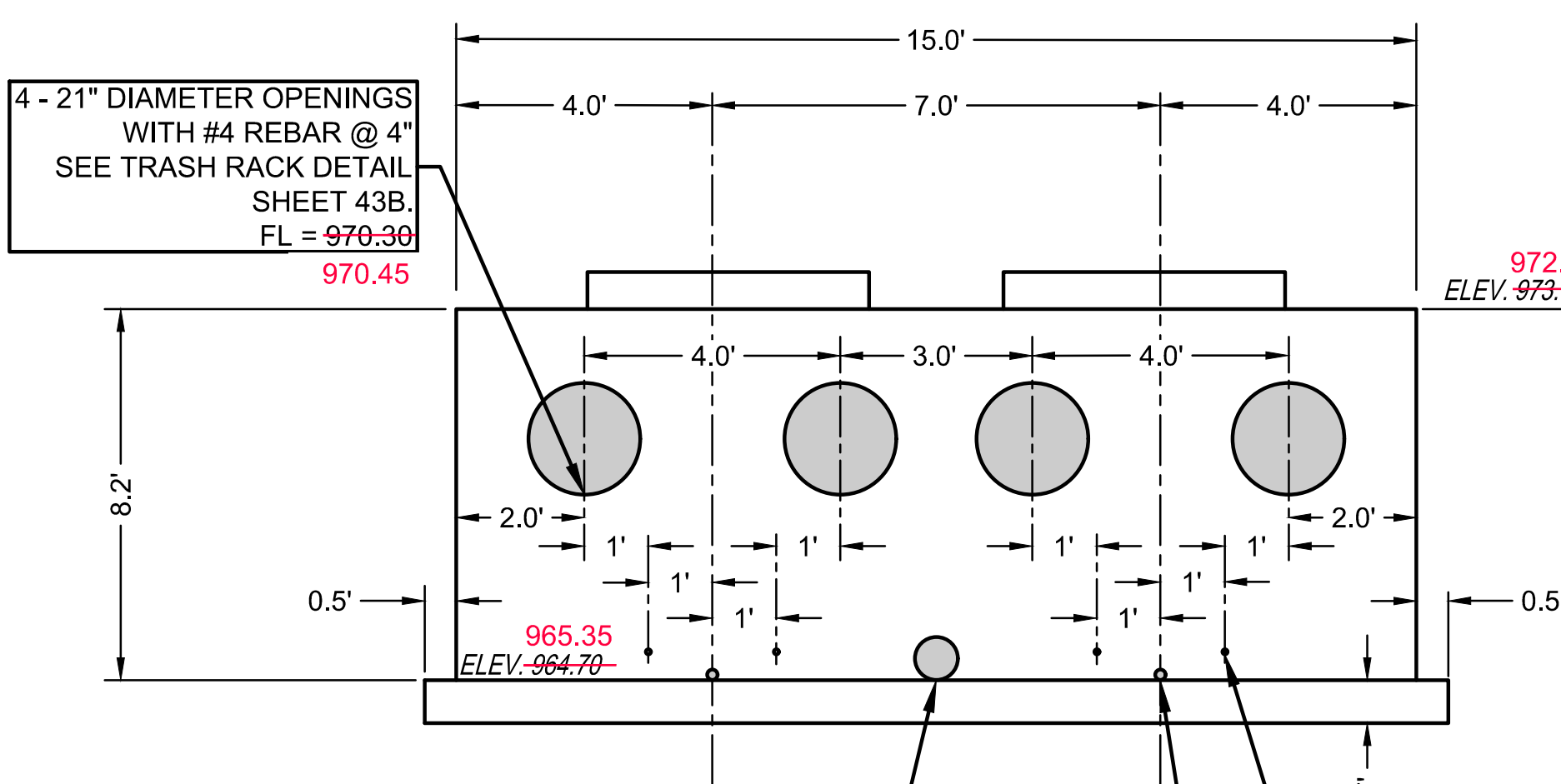


FIG. 2 Dimensions of Type 2 Hynds Scruffy Dome (see table).
Note: Brackets shown here are not supplied. Please see the North Island and South Island Scruffy Domes photos.



SECTION A-A



SECTION B-B

8" DIAMETER OPENING FOR SKIMMER CONNECTION DURING CONSTRUCTION. SOLID STEEL PLATE TO BE MOUNTED OVER 8" OPENING WITH SEALANT AFTER SITE IS STABILIZED. SEE LAND DISTURBANCE PLANS.
FL = 964.70
965.35

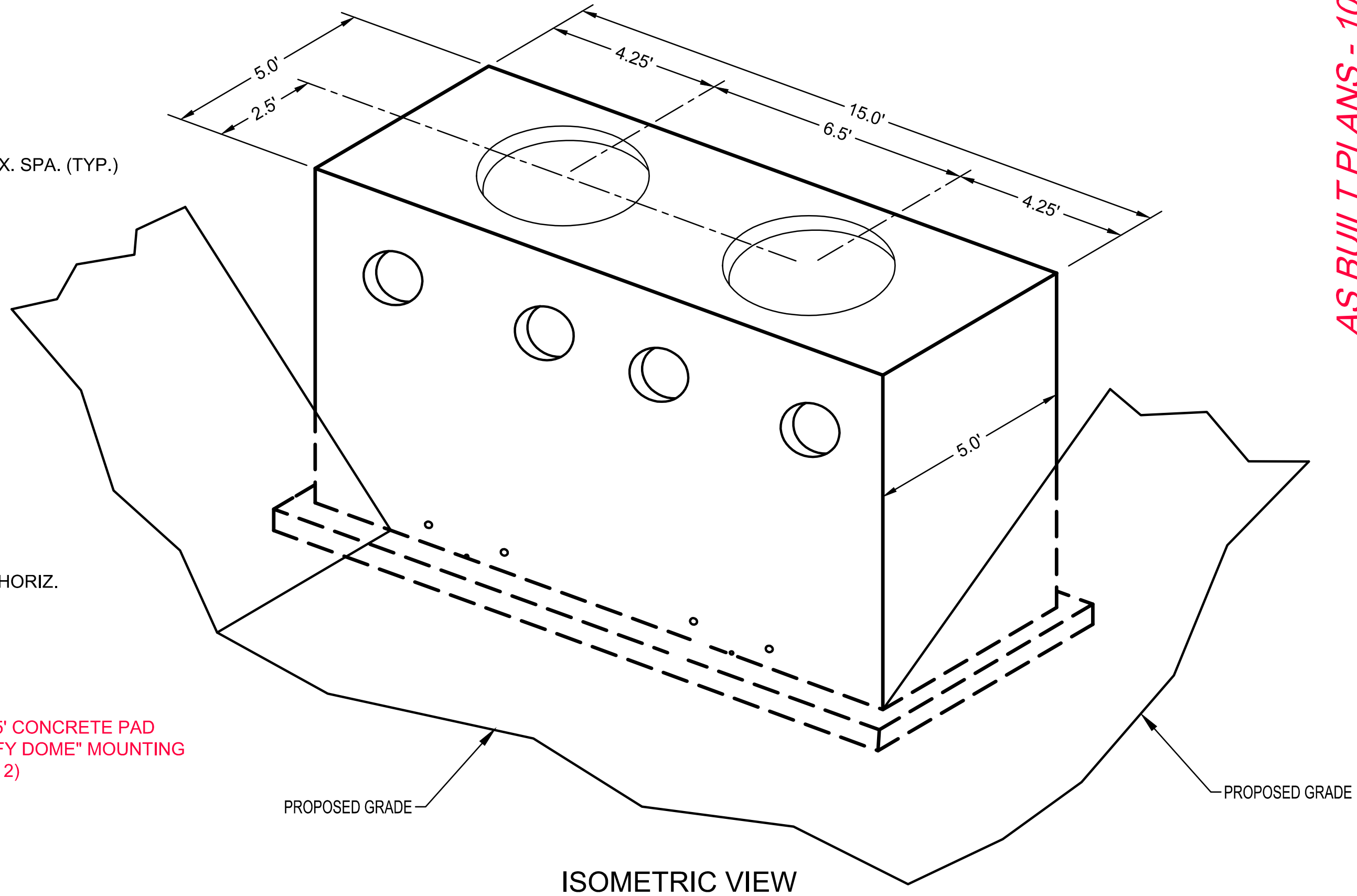
4 - 1" DIAMETER OPENINGS WITH 4" DIAMETER CLEAN ROCK AND 3x3x6 WWF OVER OPENINGS FOR ANTI CLOG MEASURE WITH LARGER ROCK SHOWN ON TOP OF 4" ROCK
FL = 965.10 965.75

2 - 2" DIAMETER OPENINGS WITH 4" DIAMETER CLEAN ROCK AND 3x3x6 WWF OVER OPENINGS FOR ANTI CLOG MEASURE WITH LARGER ROCK SHOWN ON TOP OF 4" ROCK
FL = 964.70 965.35

DETENTION OUTLET STRUCTURE
NOT TO SCALE

NOTE:

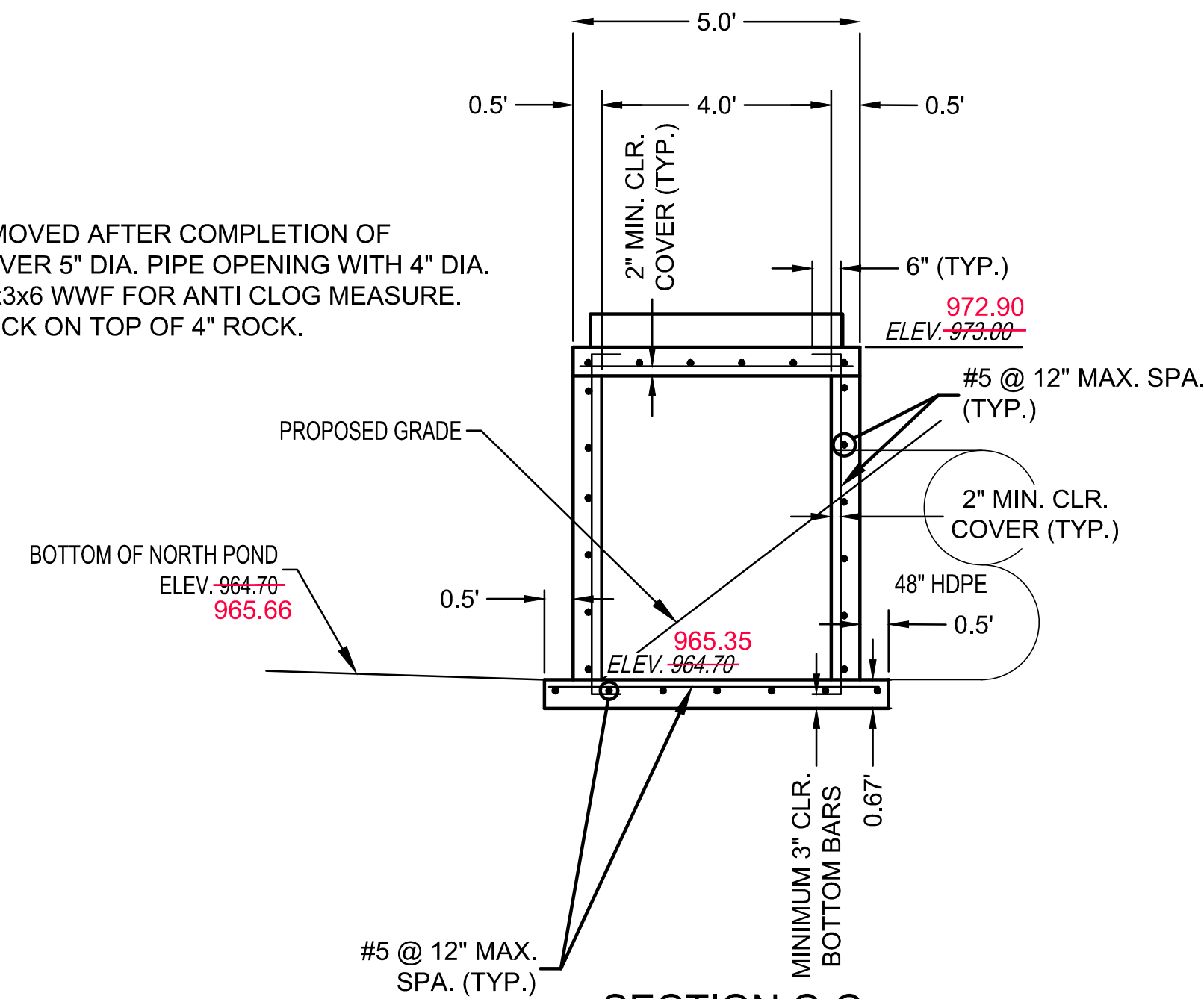
- REINFORCING STEEL FOR ALL WALLS, TOP AND BOTTOM SLABS WILL BE NO. 5 BARS WITH MAXIMUM SPACING OF 12" IN BOTH VERTICAL AND HORIZONTAL DIRECTIONS. BOTTOM SLAB IS 8" THICK. ALL OTHER WALLS AND TOP SLAB ARE 6" THICK. CONCRETE STRENGTH = 4 KSI. REINFORCING STEEL SHALL BE GRADE 60. TYPICAL MINIMUM CONCRETE COVER IS 2", EXCEPT 3" CLEAR COVER IS REQUIRED FOR BARS FROM THE BOTTOM OF THE BOTTOM SLAB. TOP COVER IN THE BOTTOM SLAB IS 1 1/2".
- REINFORCING STEEL EXPOSED AT THE INLET OPENING LOCATIONS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123.



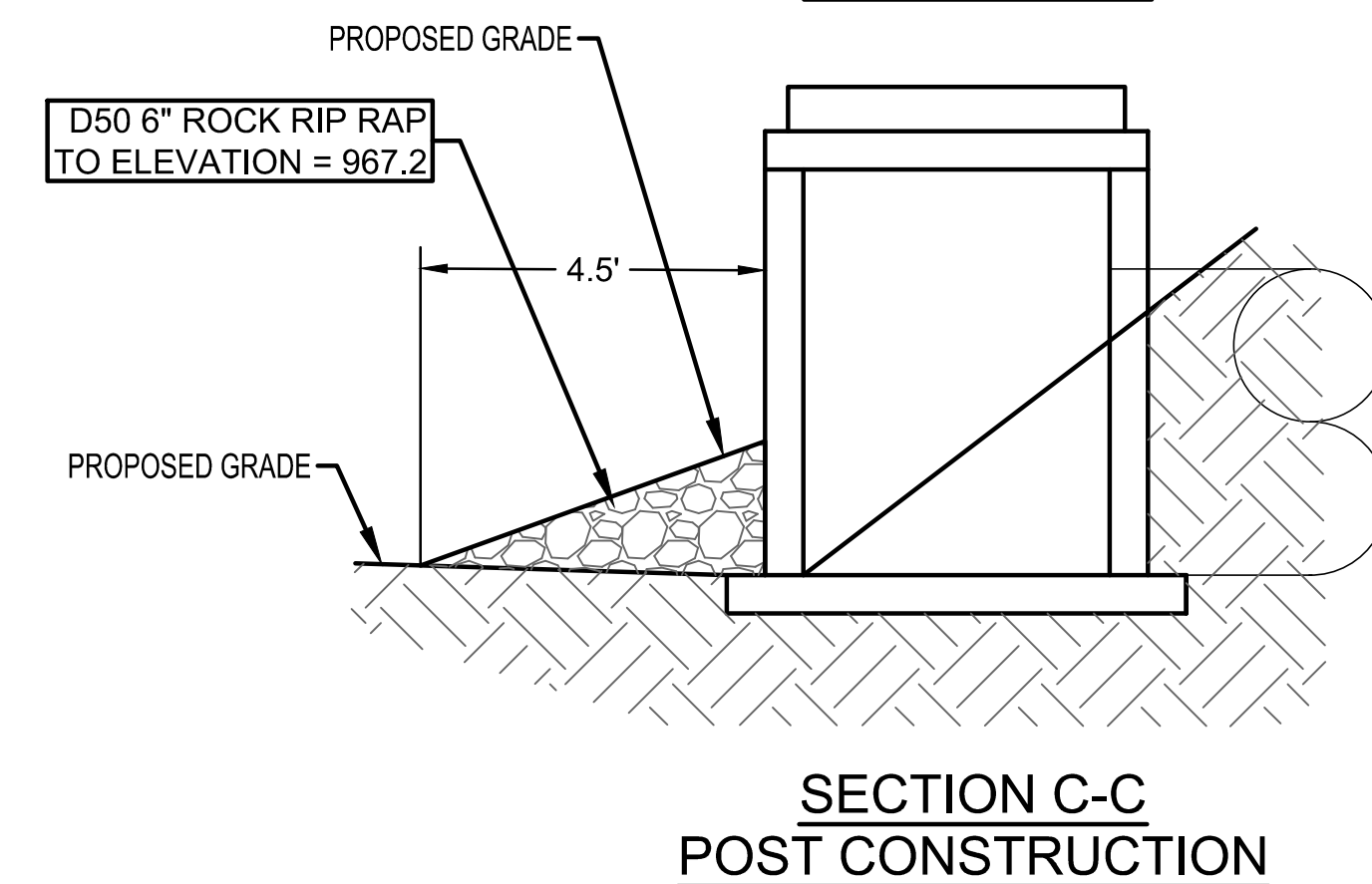
ISOMETRIC VIEW

NOTE:

SKIMMER TO BE REMOVED AFTER COMPLETION OF CONSTRUCTION. COVER 5" DIA. PIPE OPENING WITH 4" DIA. CLEAN ROCK AND 3x3x6 WWF FOR ANTI CLOG MEASURE. INSTALL LARGER ROCK ON TOP OF 4" ROCK.



SECTION C-C



SECTION C-C POST CONSTRUCTION

AS BUILT PLANS - 10/15/2021

NO.	BY	CHKD
3	SPW	RAS
2	SPW	RAS
1	SPW	RAS
8	SPW	RAS
7	SPW	RAS
6	SPW	RAS
5	SPW	RAS
4	SPW	RAS
3	SPW	RAS
2	SPW	RAS
1	SPW	RAS



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CORPORATE LICENSE NO. E201000573 (MO.) / E-1736 (KS.)

STREET AND STORM SEWER PLANS
NORTH DETENTION BASIN
OUTLET STRUCTURE
COBEY CREEK FIRST PLAT
PHASE I
CITY OF LEES SUMMIT, JACKSON COUNTY, MISSOURI

X-REF NO. 16-059 Base Phase I
DRAWING NO. 16-059 Phase I Street Plans
DATE August 24, 2020
SHEET NO. 16-059

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