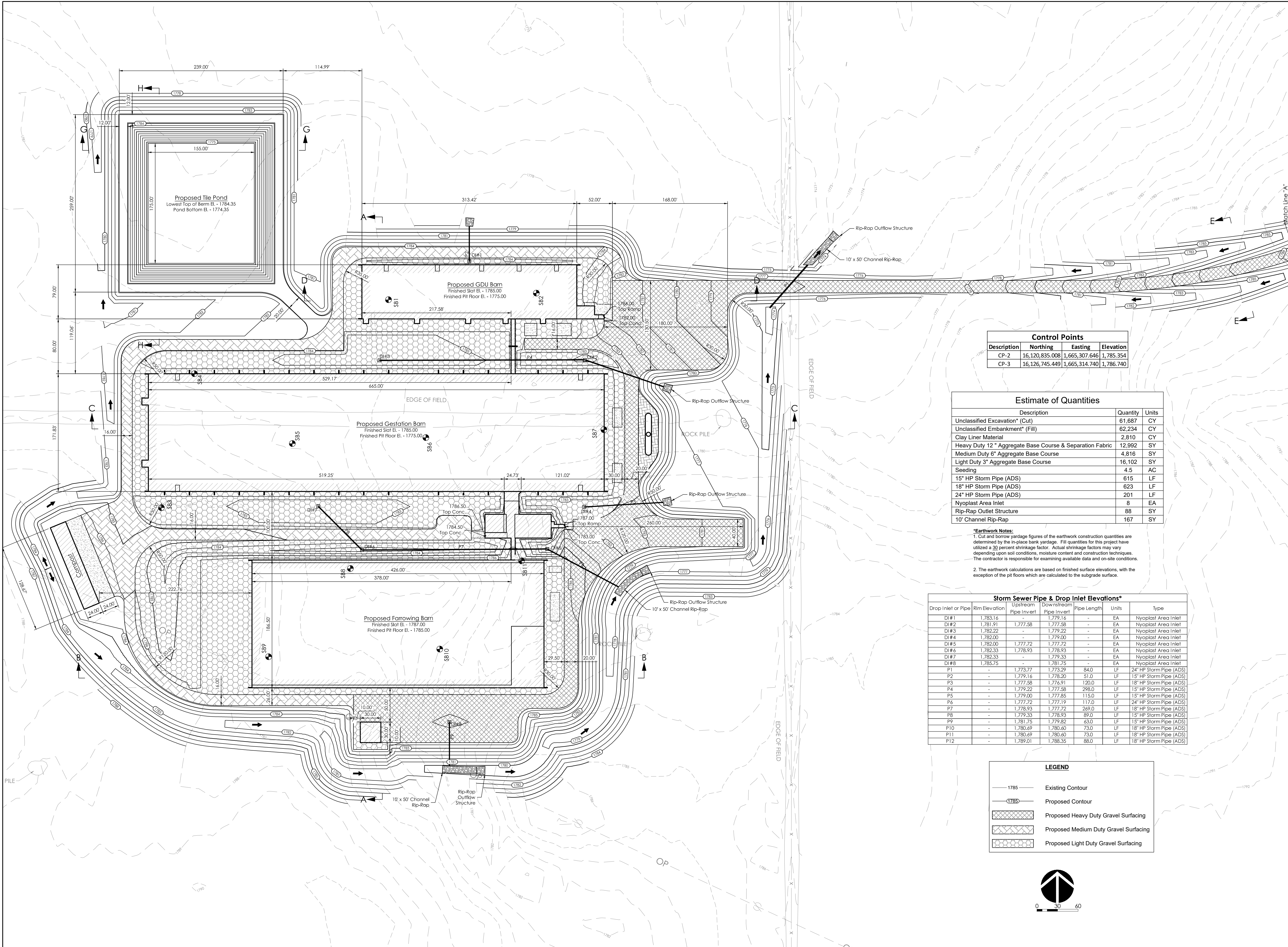




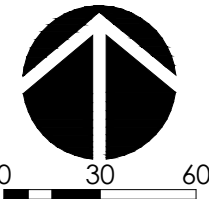
Control Points			
Description	Northing	Easting	Elevation
CP-2	16,120,835.008	1,665,307.646	1,785.354
CP-3	16,126,745.449	1,665,314.740	1,786.740

Estimate of Quantities		
Description	Quantity	Units
Unclassified Excavation* (Cut)	61,687	CY
Unclassified Embankment* (Fill)	62,234	CY
Clay Liner Material	2,810	CY
Heavy Duty 12" Aggregate Base Course & Separation Fabric	12,992	SY
Medium Duty 6" Aggregate Base Course	4,816	SY
Light Duty 3" Aggregate Base Course	16,102	SY
Seeding	4.5	AC
15" HP Storm Pipe (ADS)	615	LF
18" HP Storm Pipe (ADS)	623	LF
24" HP Storm Pipe (ADS)	201	LF
Nyoplast Area Inlet	8	EA
Rip-Rap Outlet Structure	88	SY
10' Channel Rip-Rap	167	SY

- *Earthwork Notes:**
1. Cut and borrow yardage figures of the earthwork construction quantities are determined by the in-place bank yardage. Fill quantities for this project have utilized a 30 percent shrinkage factor. Actual shrinkage factors may vary depending upon soil conditions, moisture content and construction techniques. The contractor is responsible for examining available data and on-site conditions.
 2. The earthwork calculations are based on finished surface elevations, with the exception of the pit floors which are calculated to the subgrade surface.

Storm Sewer Pipe & Drop Inlet Elevations*					
Drop Inlet or Pipe	Rim Elevation	Upstream Pipe Invert	Downstream Pipe Invert	Pipe Length	Units
DI#1	1,783.16	-	1,779.16	-	EA
DI#2	1,781.91	1,777.58	1,777.58	-	EA
DI#3	1,782.22	-	1,779.22	-	EA
DI#4	1,782.00	-	1,779.00	-	EA
DI#5	1,782.00	1,777.72	1,777.72	-	EA
DI#6	1,782.33	1,778.93	-	-	EA
DI#7	1,782.33	-	1,779.33	-	EA
DI#8	1,785.75	-	1,781.75	-	EA
P1	-	1,773.77	1,773.29	84.0	LF
P2	-	1,779.16	1,778.20	51.0	LF
P3	-	1,777.58	1,776.91	120.0	LF
P4	-	1,779.22	1,777.58	298.0	LF
P5	-	1,779.00	1,777.85	115.0	LF
P6	-	1,777.72	1,777.19	117.0	LF
P7	-	1,778.93	1,777.72	269.0	LF
P8	-	1,779.33	1,778.93	89.0	LF
P9	-	1,781.75	1,779.82	63.0	LF
P10	-	1,780.69	1,780.60	73.0	LF
P11	-	1,780.69	1,780.60	73.0	LF
P12	-	1,789.01	1,788.35	88.0	LF

LEGEND	
1785	Existing Contour
1785	Proposed Contour
[Hatched Pattern]	Proposed Heavy Duty Gravel Surfacing
[Hatched Pattern]	Proposed Medium Duty Gravel Surfacing
[Hatched Pattern]	Proposed Light Duty Gravel Surfacing



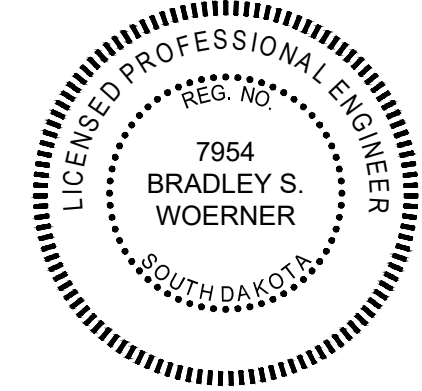
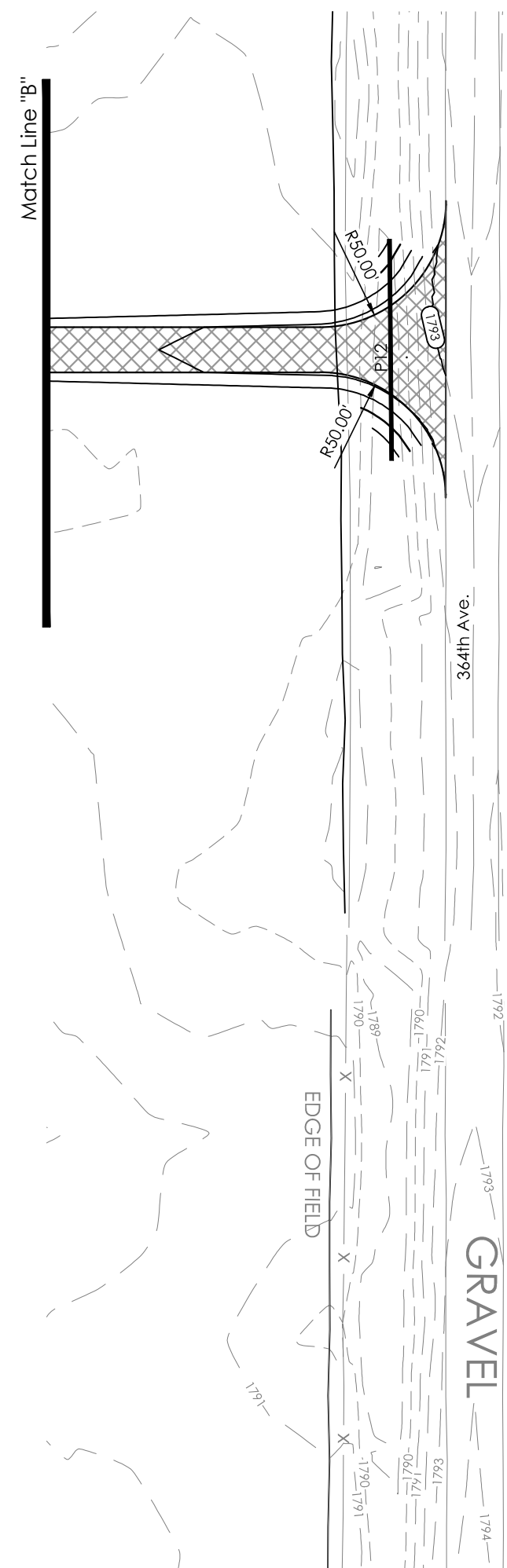
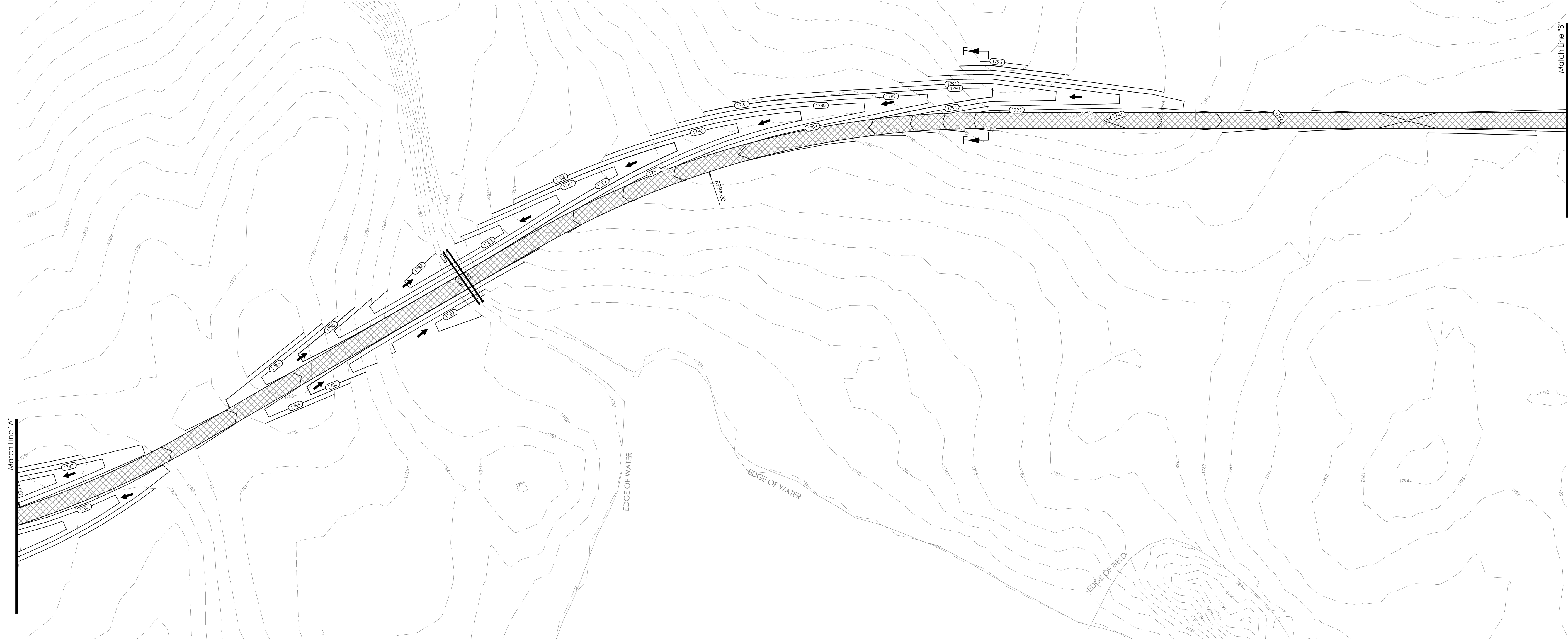
STOCKWELL

STOCKWELL ENGINEERS, INC.
201 WALNUT STREET
YANKTON, SD 57078
PH: 605.665.8092
FAX: 605.665.0523

7954
BRADLEY S.
WOERNER
SOUTH DAKOTA

PIPESTONE

SYSTEM



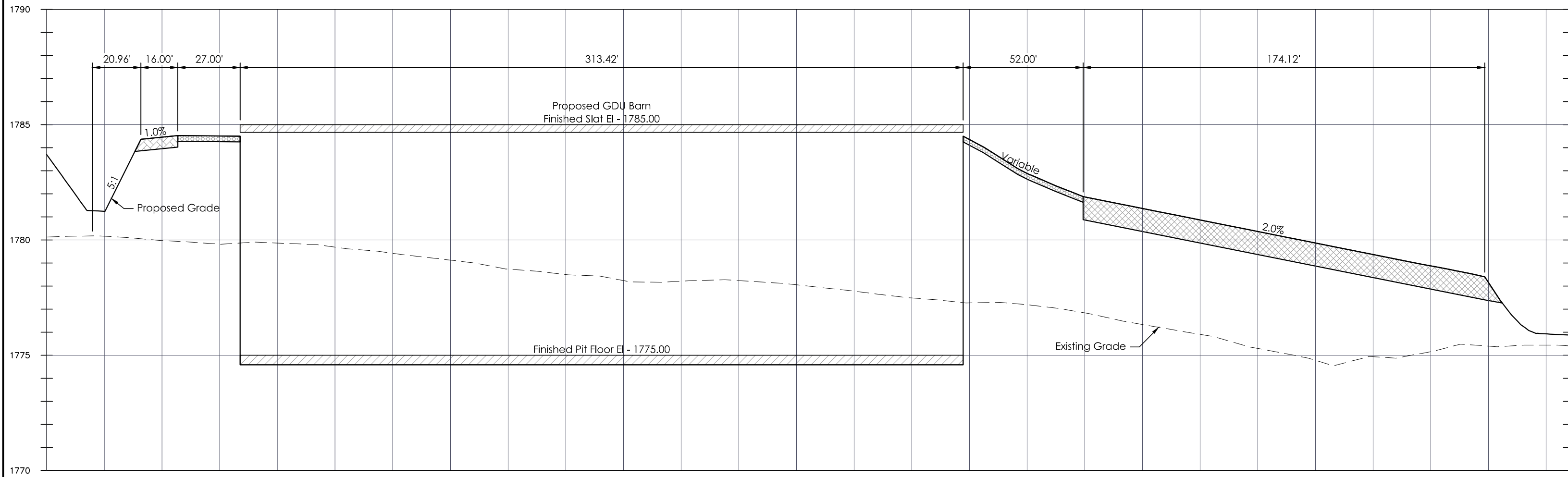
PIPESTONE
SYSTEM

Ratio, LLC
Site Plan
NW 1/4 Section 32, T111N, R67W - Hand County, SD
SEE PROJECT # 19088

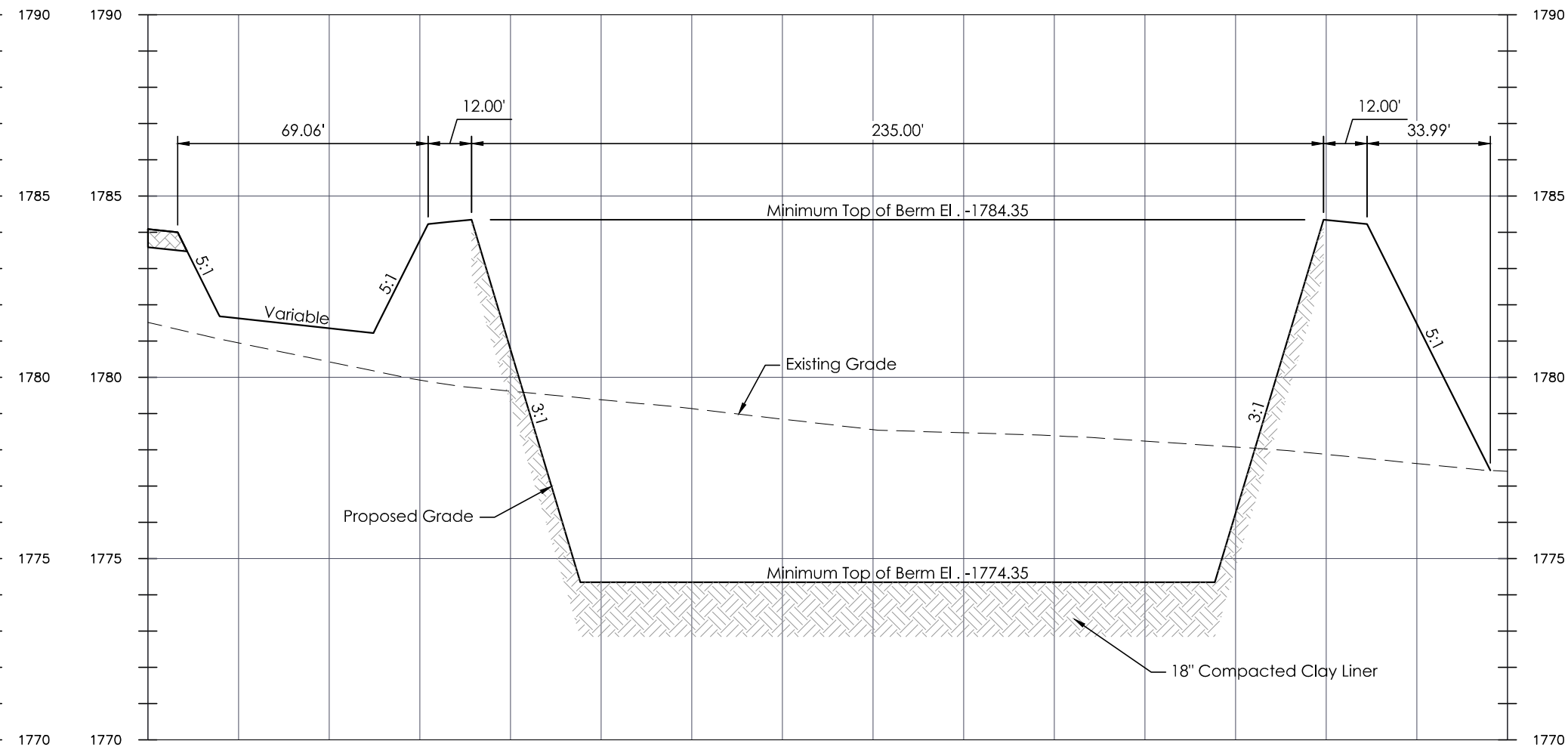
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SITE PLAN

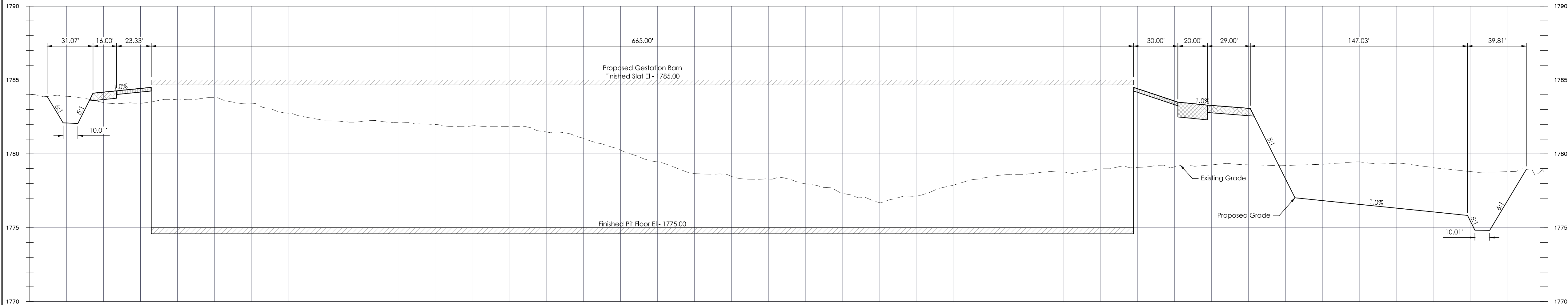
Section D-D



Section H-H



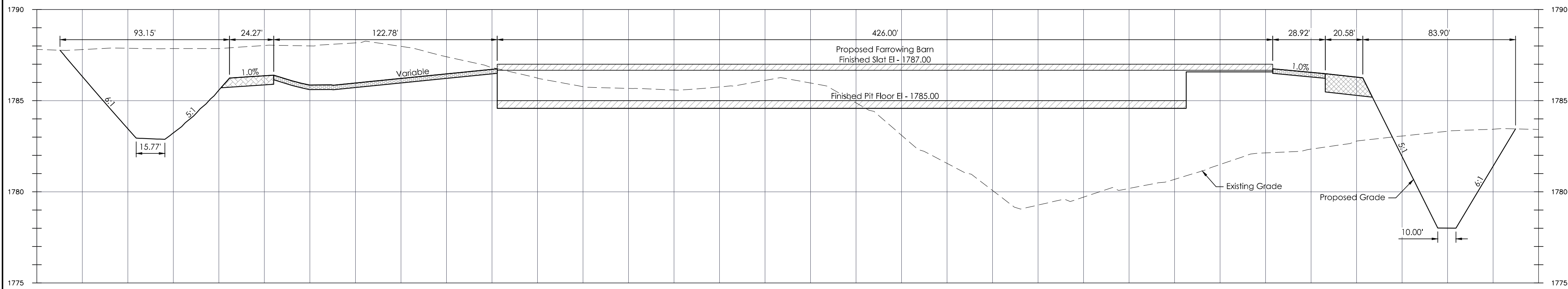
Section C-C



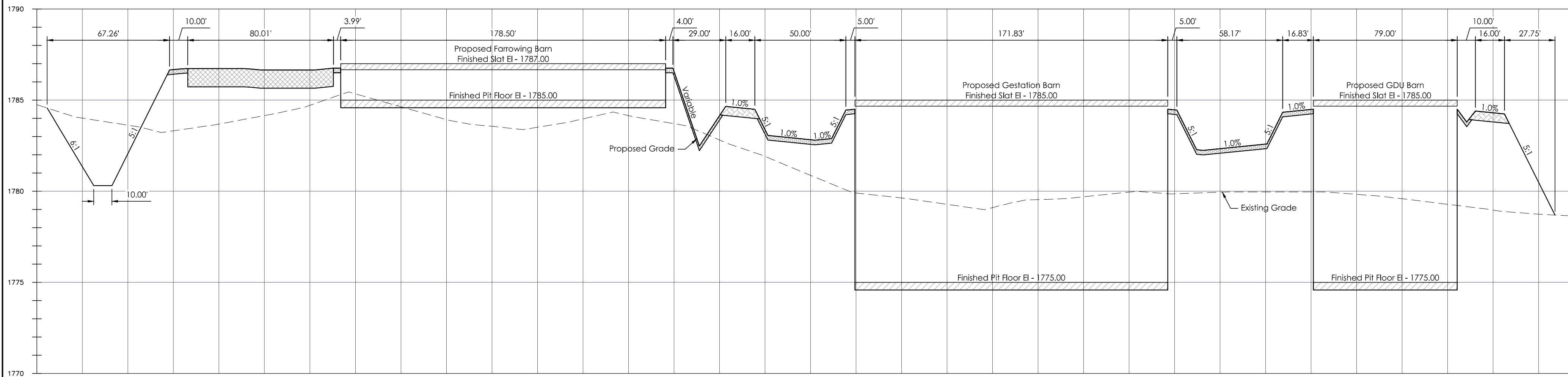
Section View Scales
Horiz. Scale - 1" = 40'
Vert. Scale - 1" = 4'

- Heavy Duty Gravel
- Medium Duty Gravel
- Light Duty Gravel

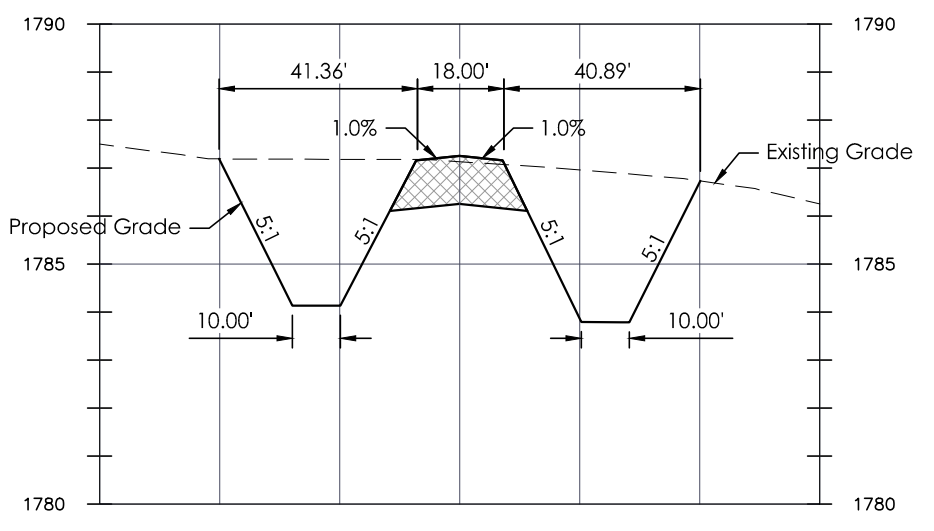
Section B-B



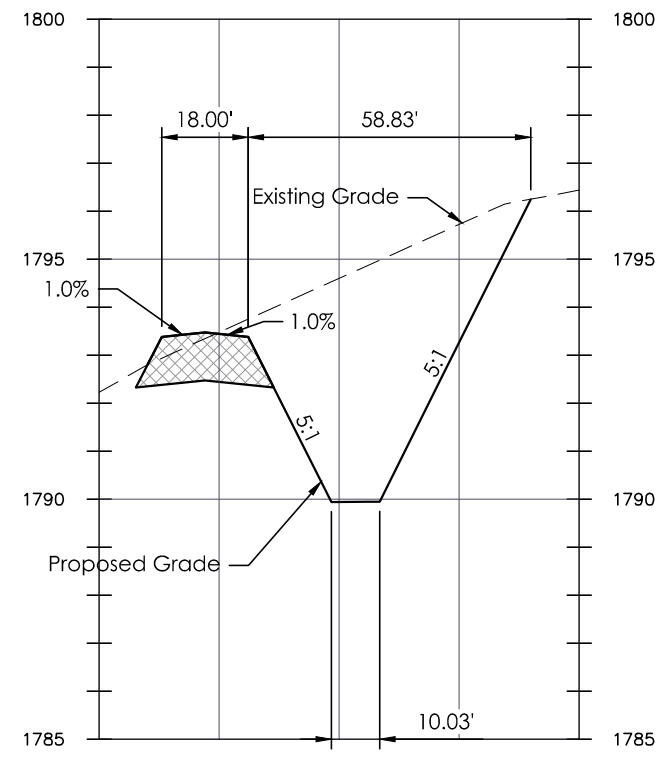
Section A-A



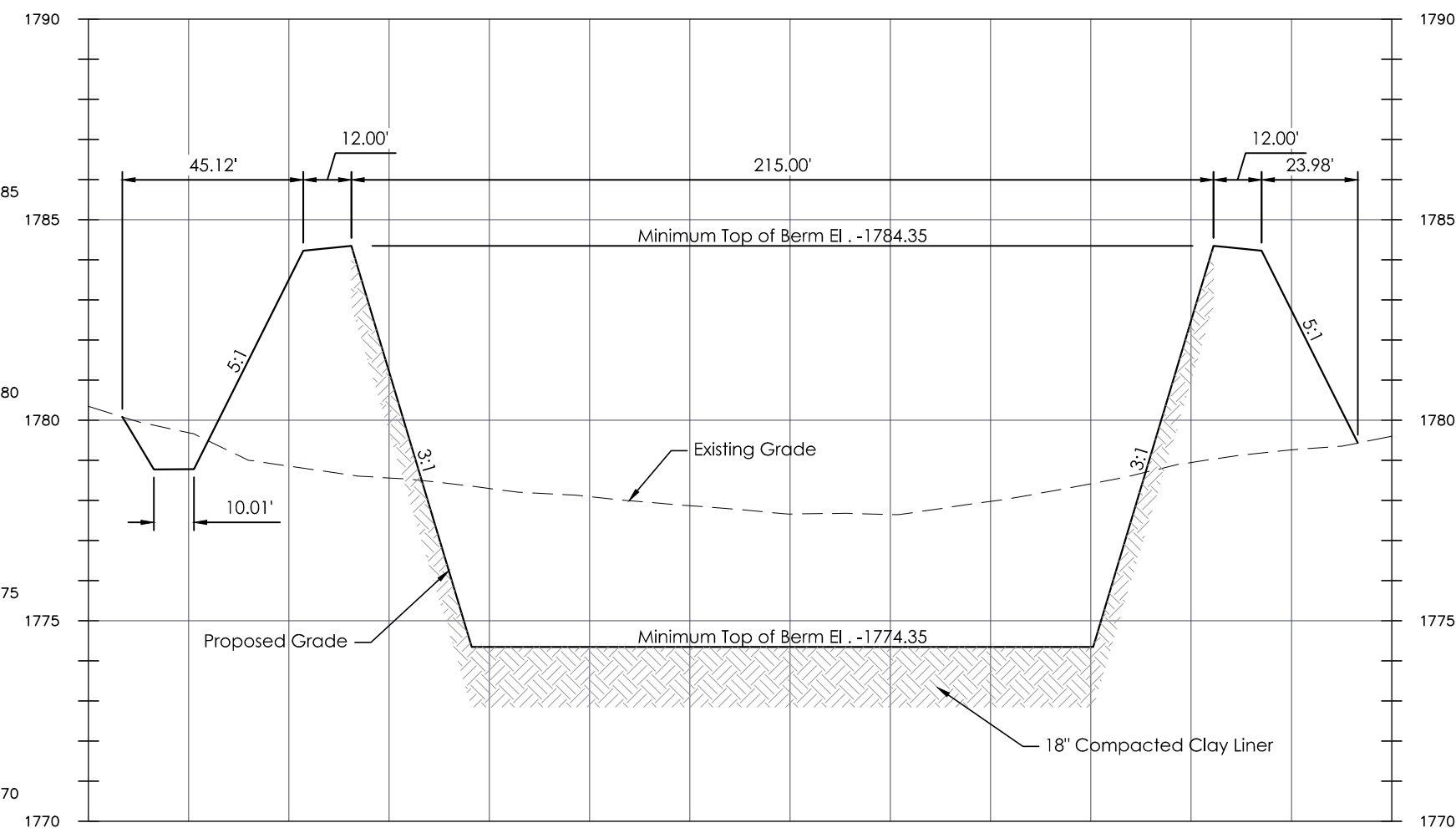
Section E-E



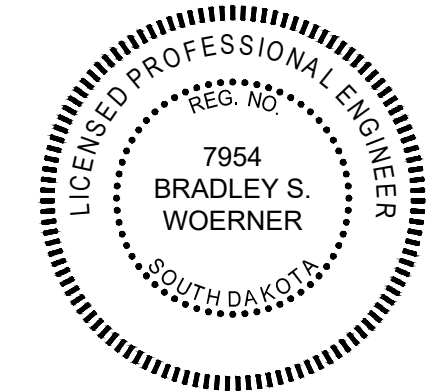
Section F-F



Section G-G



STOCKWELL ENGINEERS, INC.
201 WALNUT STREET
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PIPESTONE
SYSTEM

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NW 1/4 Section 32, T111N, R67W - Hand County, SD
S&P PROJECT # 19088

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TYPICAL SITE
SECTIONS