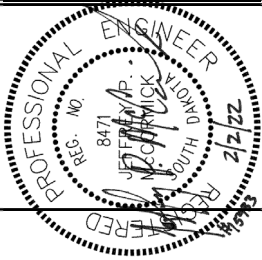


Certificate
 I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of South Dakota.



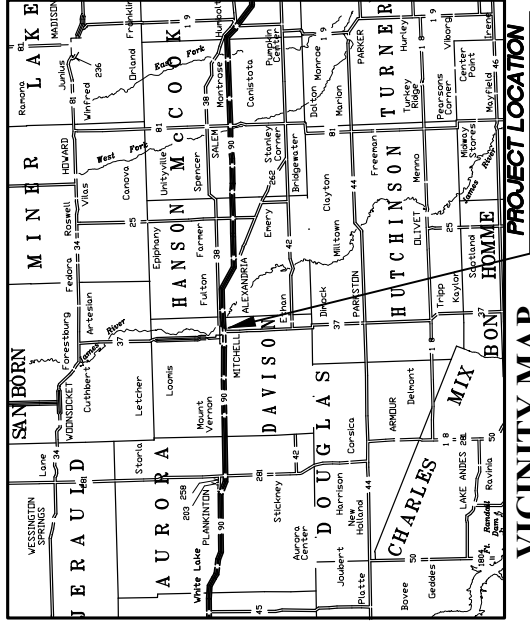
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Drawn By:	MD
Checked By:	JPM
Date:	2/2/2022
Project No.:	15633
File Name:	15633 - Westwood Proj. Addition

Project Name:
CJM Consulting
Westwood First Addition
 Located in:
Mitchell, South Dakota

Sheet Name:
CovET

Sheet Number:	1	Total Sheets:	17
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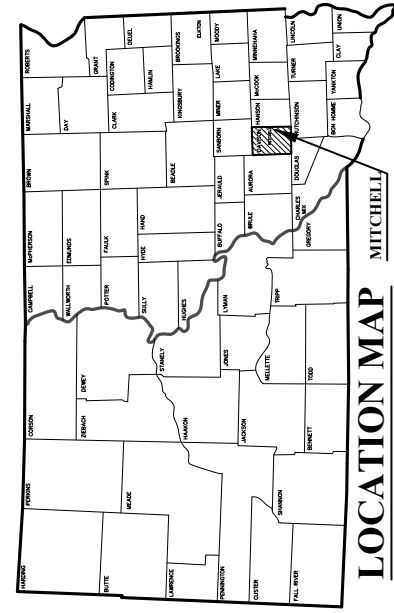
WESTWOOD FIRST ADDITION GRADING IMPROVEMENTS



VICINITY MAP
 PROJECT LOCATION

INDEX OF SHEETS

- 1 Cover Sheet
- 2 Overall Layout
- 3-6 Plan and Profile
- 7-16 Cross Sections
- 17 Typical Section

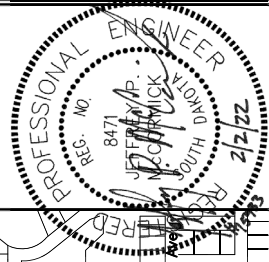


LOCATION MAP
 MITCHELL

LEGEND

- ⊕ = Existing Fire Hydrant
- ⊗ = Existing Water Valve
- ⊙ = Existing Curb Stop
- ⊕ = Existing Sanitary Sewer Manhole
- ⊙ = Existing Storm Sewer Manhole
- ⊕ = Existing Storm Inlet
- ⊕ = Existing Telephone Pedestal
- ⊕ = Existing Light Pole
- ⊕ = Existing Sign
- ⊕ = Existing Deciduous Tree
- ⊕ = Existing Coniferous Tree
- ⊕ = Existing Shrub
- ⊕ = Existing Mailbox
- ⊕ = Existing Power Pole
- = Existing Underground Gas Line
- = Existing Underground Telephone Line
- = Existing Underground Electric Line
- = Existing Underground Fiber Optic Line
- = Existing Water Line
- = Existing Sanitary Sewer Line
- = Existing Storm Sewer Line
- = Existing Overhead Electric
- = Existing Fence
- = Existing Contour
- = Proposed Contour

Certificate
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Plan Horiz. Scale:	None
Drawn By:	MD
Checked By:	JPM
Date:	2/2/2022
Project No.:	15633
File Name:	15633 - Westwood Proj. Addition

Project Name:
CJM Consulting Westwood First Addition
 Located in:
Mitchell, South Dakota

Sheet Name:
Location

Sheet Number: **2**
 Total Sheets: **17**

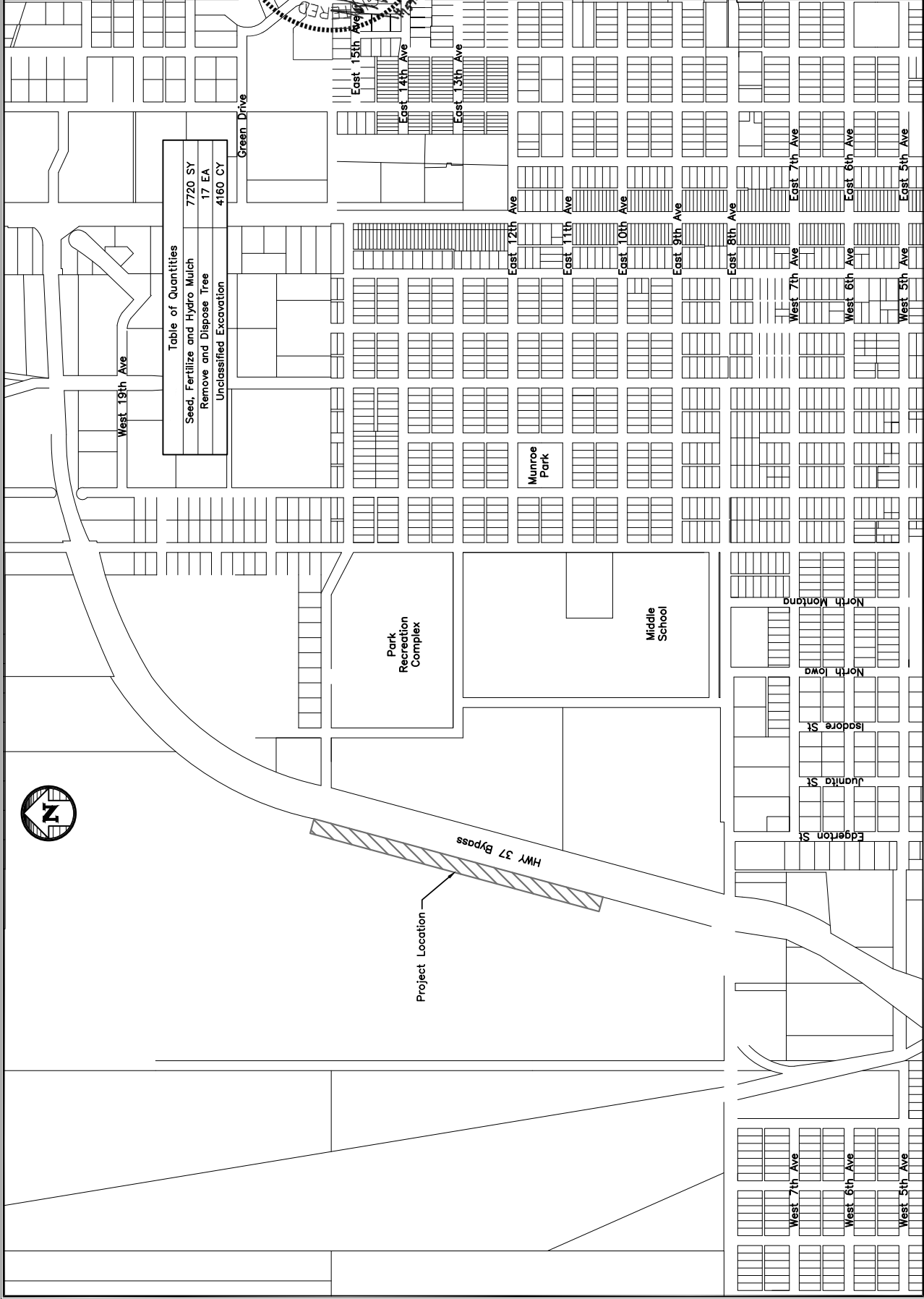


Table of Quantities	
Seed, Fertilize and Hydro Mulch	7720 SY
Remove and Dispose Tree	17 EA
Unclassified Excavation	4180 CY



Project Location

Hwy 37 Bypass

Park Recreation Complex

Middle School

Munroe Park

North Montana
 North Iowa
 Isadore St
 Junita St
 Edgerton St

West 7th Ave
 West 6th Ave
 West 5th Ave

West 19th Ave

Green Drive

East 15th Ave
 East 14th Ave
 East 13th Ave

East 12th Ave
 East 11th Ave
 East 10th Ave
 East 9th Ave
 East 8th Ave
 East 7th Ave
 East 6th Ave
 East 5th Ave

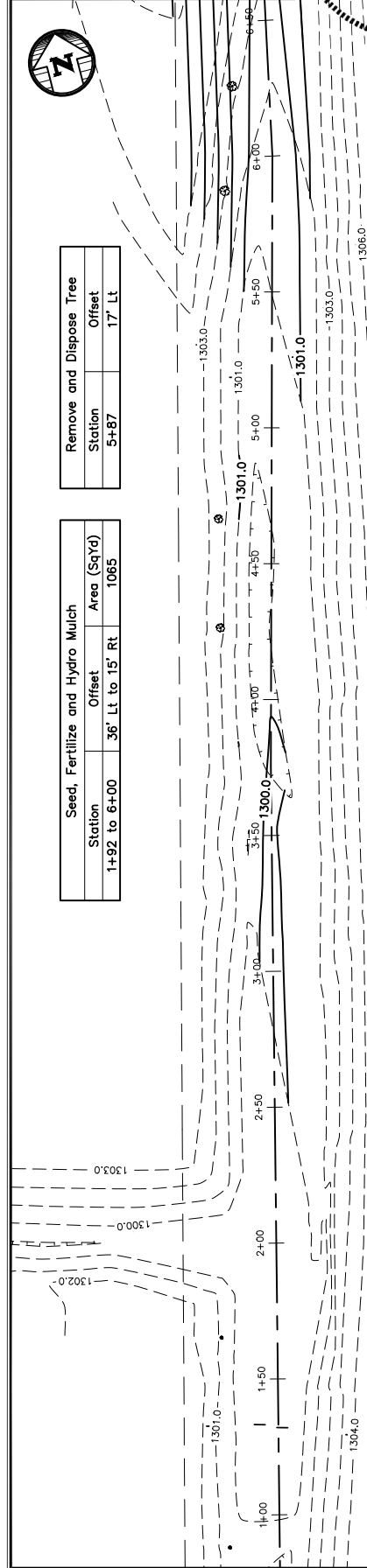
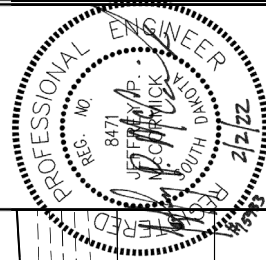


SPN & Associates
 Engineers - Planners - Surveyors
 2100 North Sambaon Boulevard - P.O. Box 398
 Mitchell, South Dakota 57301-0398
 Phone: (605) 996-7761 - Fax: (605) 996-6015

Remove and Dispose Tree		
Station	Offset	17' Lt
5+87		

Seed, Fertilize and Hydro Mulch		
Station	Offset	Area (SqYd)
1+92 to 6+00	36' Lt to 15' Rt	1065

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Station	Elevation	Grade (%)	Notes
1+00	1299.6		
1+25	1299.9		
1+50	1299.6		
2+00	1299.47		GRADE BREAK STA = 2+00 ELEV = 1299.47
2+25	1299.54		
2+50	1299.60		
2+75	1299.67		
3+00	1299.74		
3+25	1299.81		
3+50	1299.88		
3+75	1299.95		GRADE BREAK STA = 3+75 ELEV = 1299.95
4+00	1300.02		
4+25	1300.09		
4+50	1300.16		
4+75	1300.22		
5+00	1300.29		
5+25	1300.36		
5+50	1300.43		
5+75	1300.50		
6+00	1300.57		GRADE BREAK STA = 6+00 ELEV = 1300.57
6+25	1300.64		

Sheet Number:	3	Total Sheets:	17
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Sheet Name:
 Plan and Profile

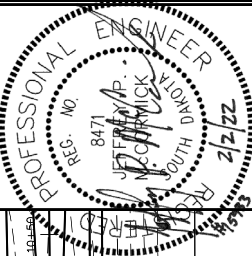
Project Name:
CJM Consulting
Westwood First Addition
 Located in:
Mitchell, South Dakota

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Plan Vert. Scale:	1" = 20'
Drawn By:	MD
Checked By:	JPM
Date:	2/2/2022
Project No.:	15633
File Name:	15633 - Westwood First Addition



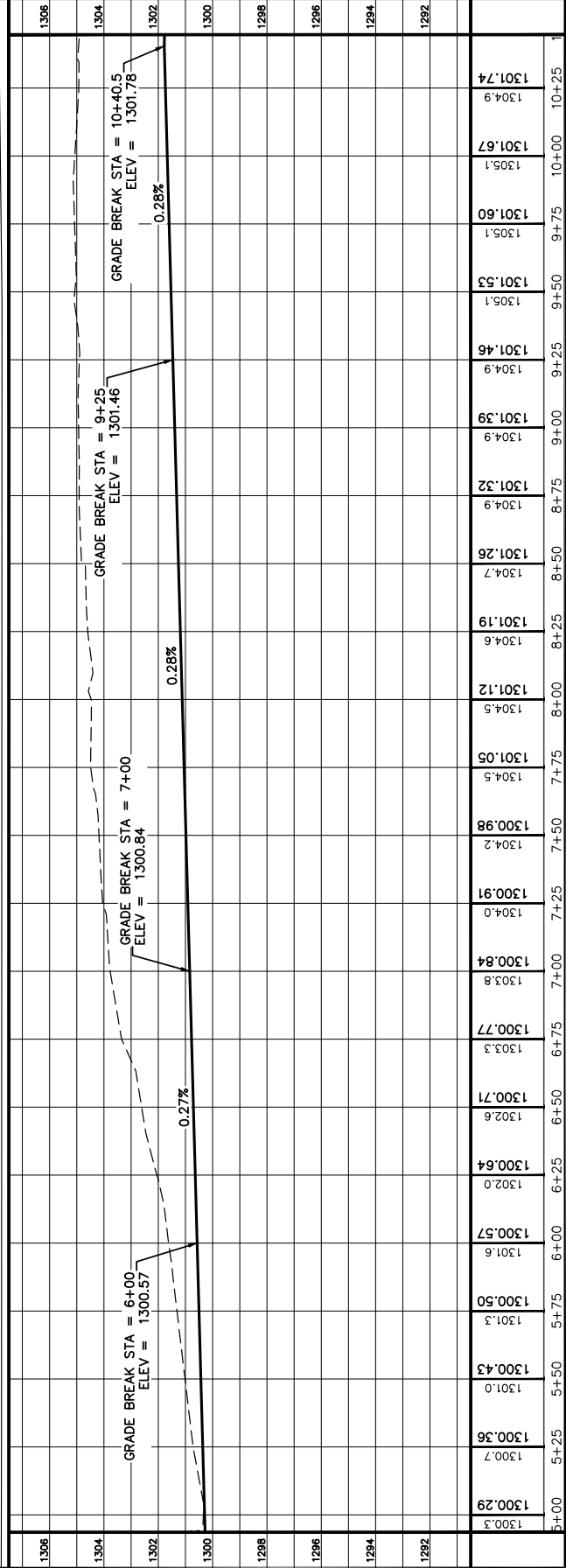
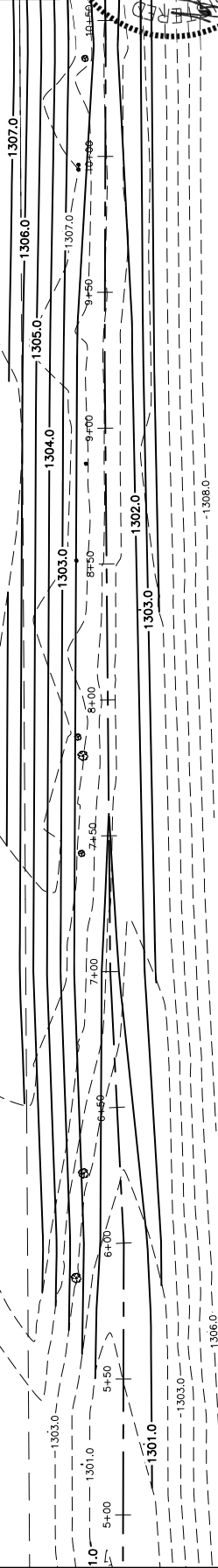
SPN & Associates
 Engineers - Planners - Surveyors
 2100 North Samba Boulevard - P.O. Box 398
 Mitchell, South Dakota 57501-0398
 Phone: (605) 996-7761 - Fax: (605) 996-0015

Certificate
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Station	Offset
6+26	14' Lt
7+44	10' Lt
7+80	9' Lt
7+86	11' Lt
8+51	11' Lt
8+87	7' Lt
9+95	10' Lt
9+97	10' Lt

Station	Offset	Area (SqYd)
6+00 to 10+00	40' Lt to 20' Rt	2535



Plan Horiz. Scale:	1" = 40'
Plan Vert. Scale:	1" = 20'
Drawn By:	MD
Checked By:	JPM
Date:	2/2/2022
Project No.:	15633
File Name:	15633-Westwood Proj. Addition

Project Name:
CJM Consulting Westwood First Addition
 Located in:
Mitchell, South Dakota

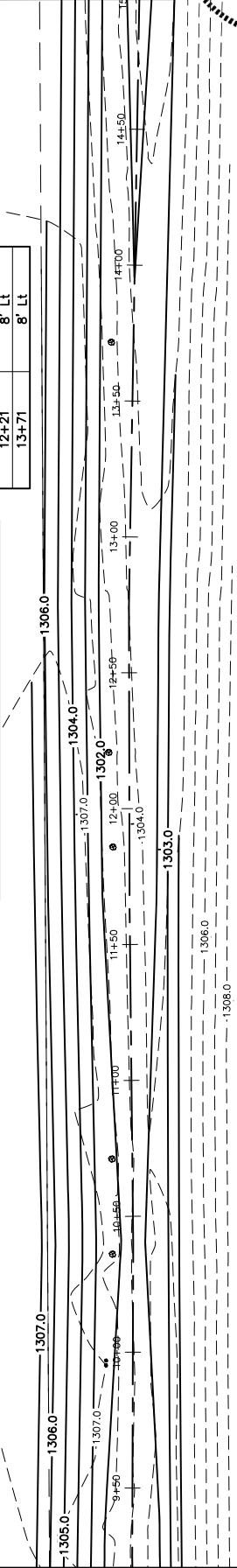
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Plan and Profile

Sheet Number:	4	Total Sheets:	17
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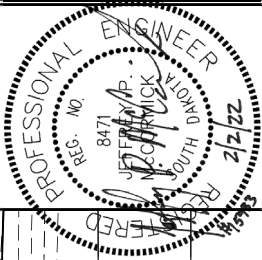


Remove and Dispose Tree	
Station	Offset
10+36	8' Lt
10+71	8' Lt
11+86	8' Lt
12+21	8' Lt
13+71	8' Lt

Seed, Fertilize and Hydro Mulch		
Station	Offset	Area (SqYd)
10+00 to 14+00	39' Lt to 20' Rt	2470



Certificate
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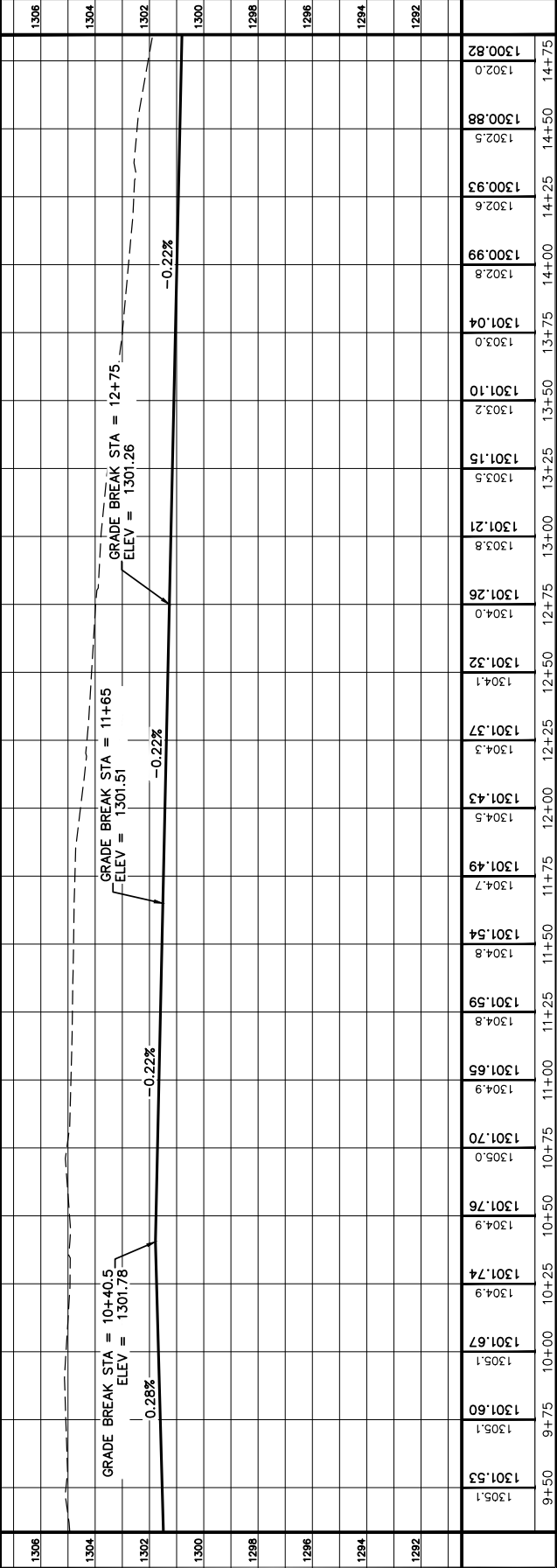


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Plan Vert. Scale:	1" = 20'
Drawn By:	MD
Checked By:	JPM
Date:	2/2/2022
Project No.:	15633
File Name:	15633-Westwood Proj. Addition

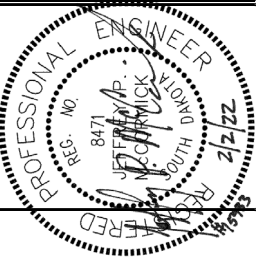
Project Name:
CJM Consulting Westwood First Addition
Located in:
Mitchell, South Dakota

Sheet Name:
Plan and Profile

Sheet Number:	5	Total Sheets:	17
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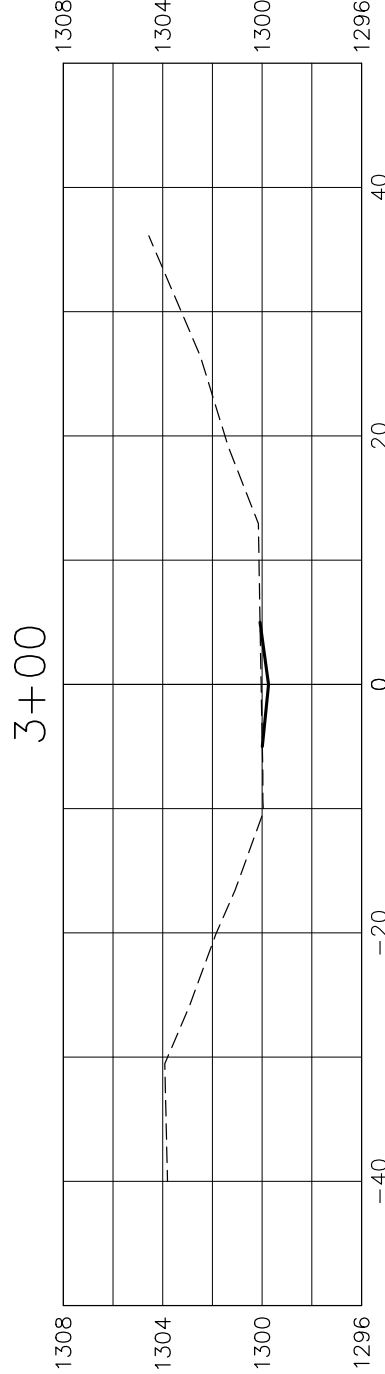
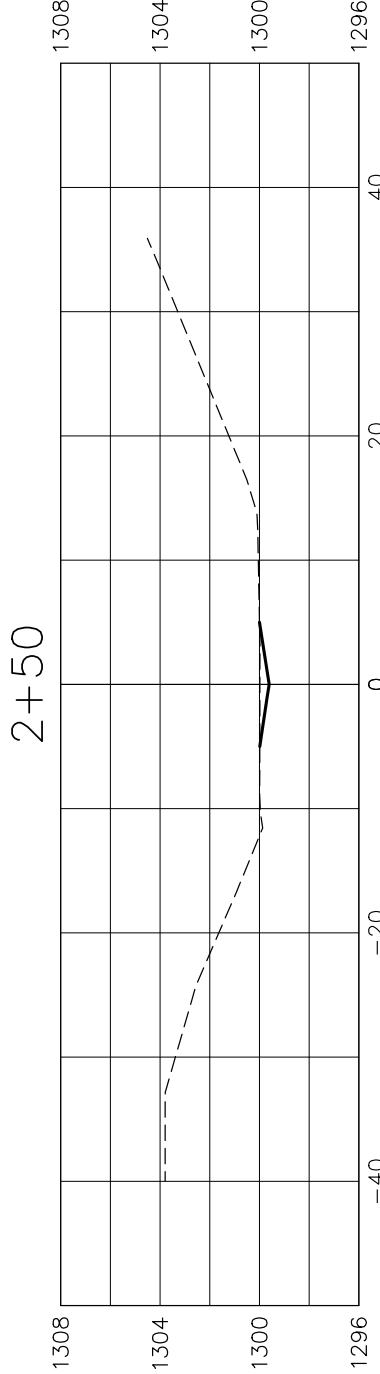
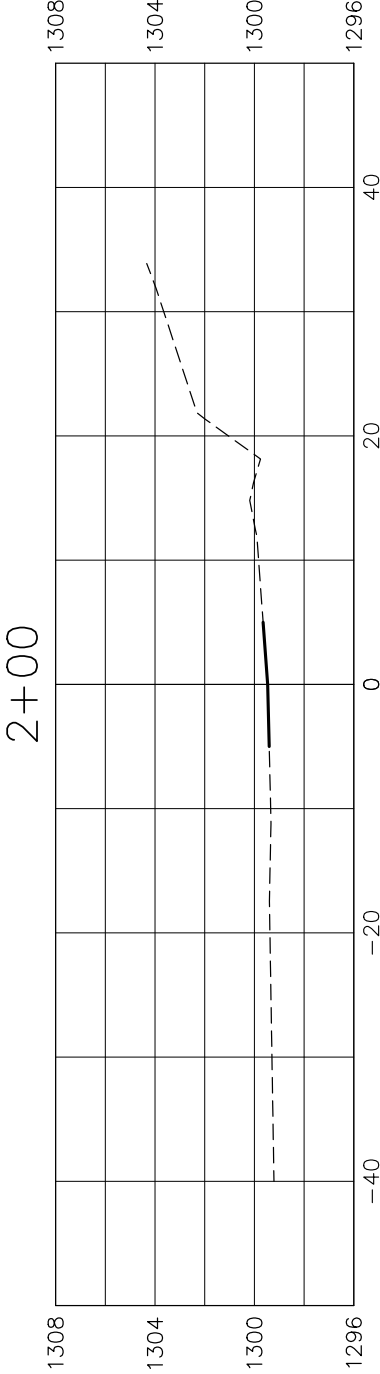


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Plan Vert. Scale:	1" = 5'
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Checked By:	JPM
Date:	2/2/2022
Project No.:	15633
File Name:	15633 - Westwood Proj. Addition

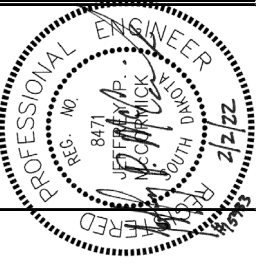
Project Name:
CJM Consulting Westwood First Addition
 Located In:
Mitchell, South Dakota

Sheet Name:
Cross Sections

Sheet Number: **7**
 Total Sheets: **17**



Certificate
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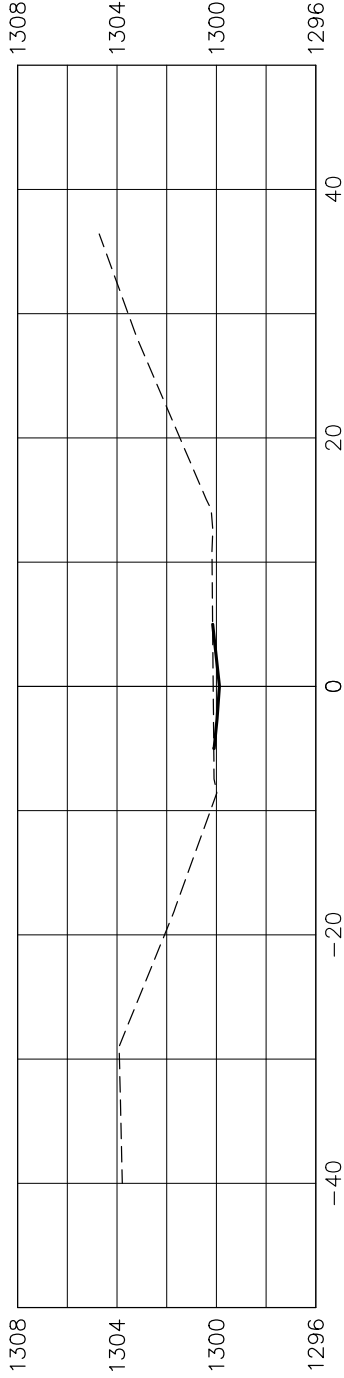
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Checked By:	JPM
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File Name:	15633 - Westwood Proj. Addition

Project Name:
CJM Consulting Westwood First Addition
 Located In:
Mitchell, South Dakota

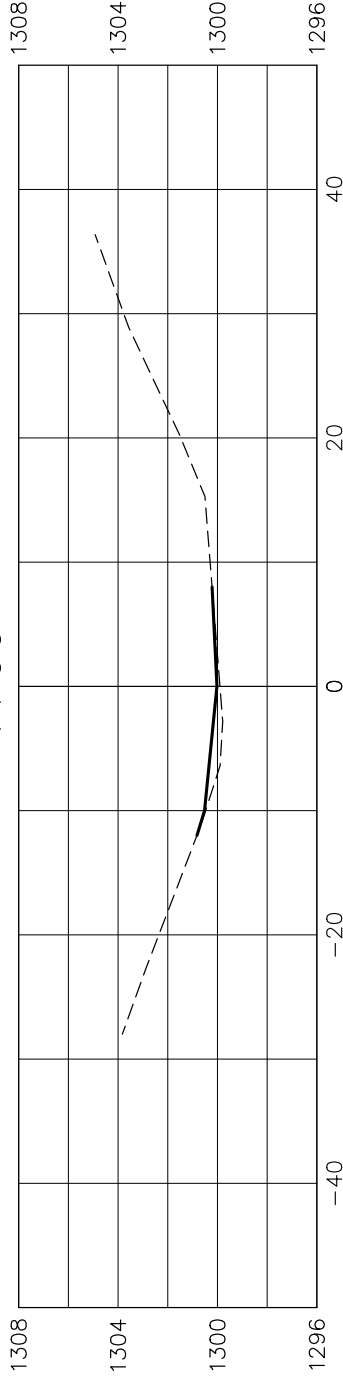
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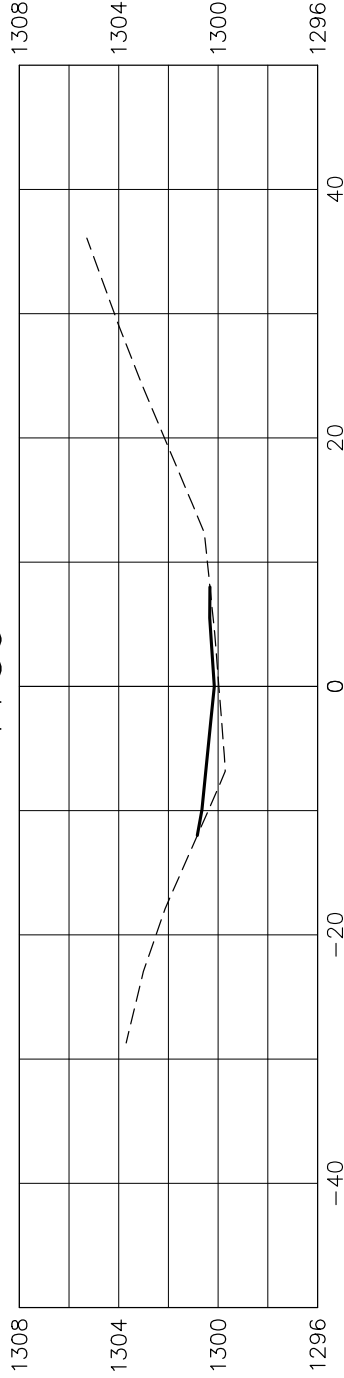
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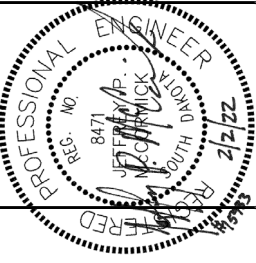
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4+50



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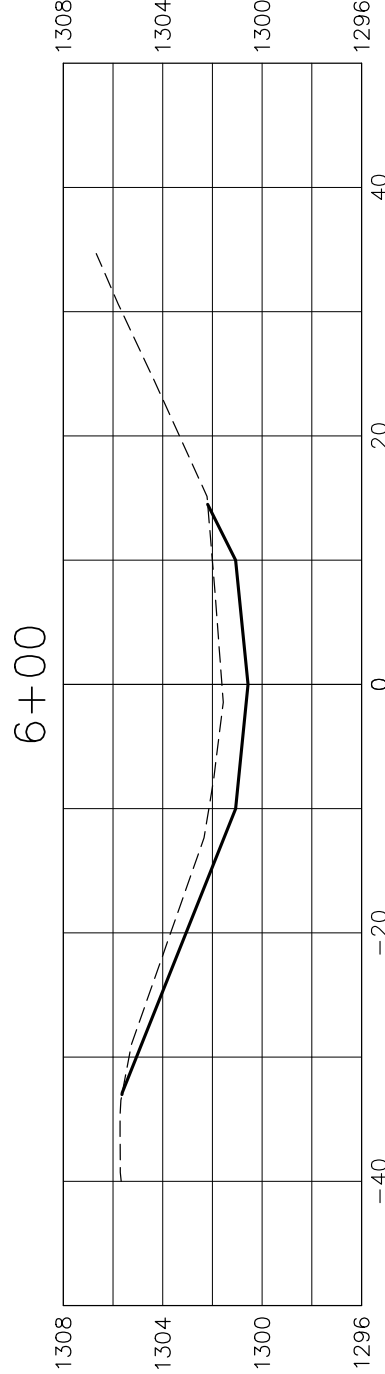
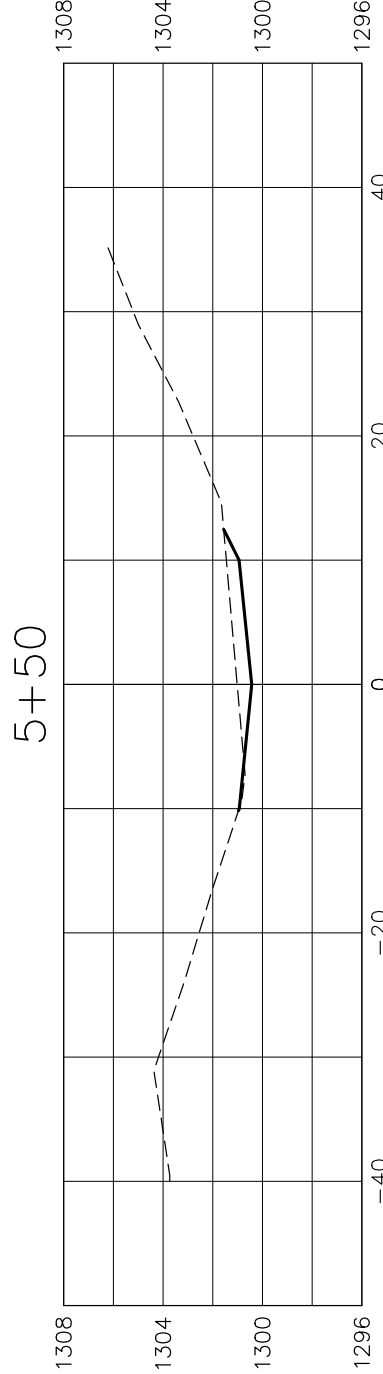
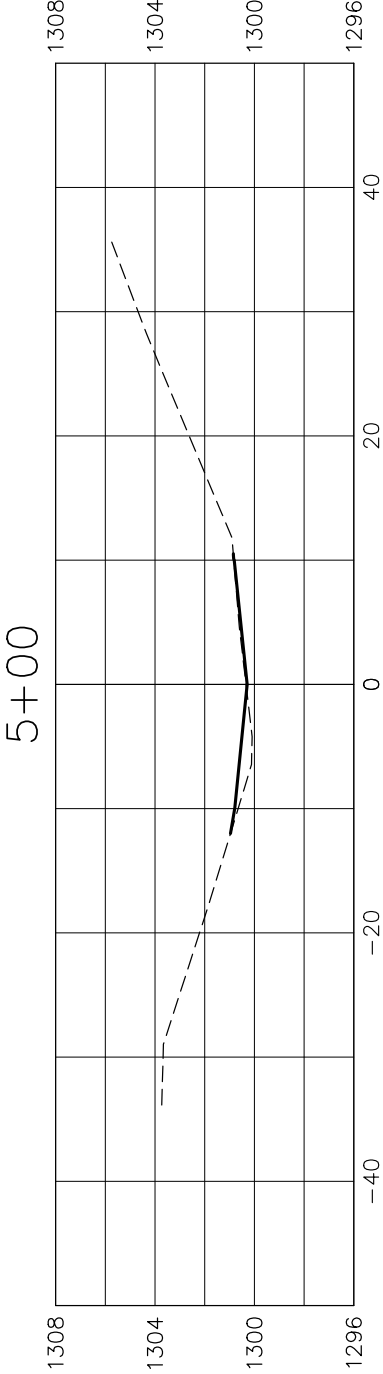


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Plan Vert. Scale:	1" = 5'
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Checked By:	JPM
Date:	2/2/2022
Project No.:	15633
File Name:	15633-Westwood Proj. Addition

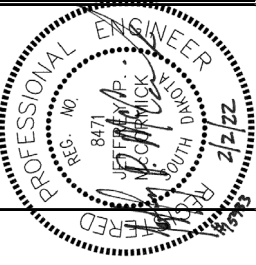
Project Name:
CJM Consulting Westwood First Addition
 Located In:
Mitchell, South Dakota

Sheet Name:
Cross Sections

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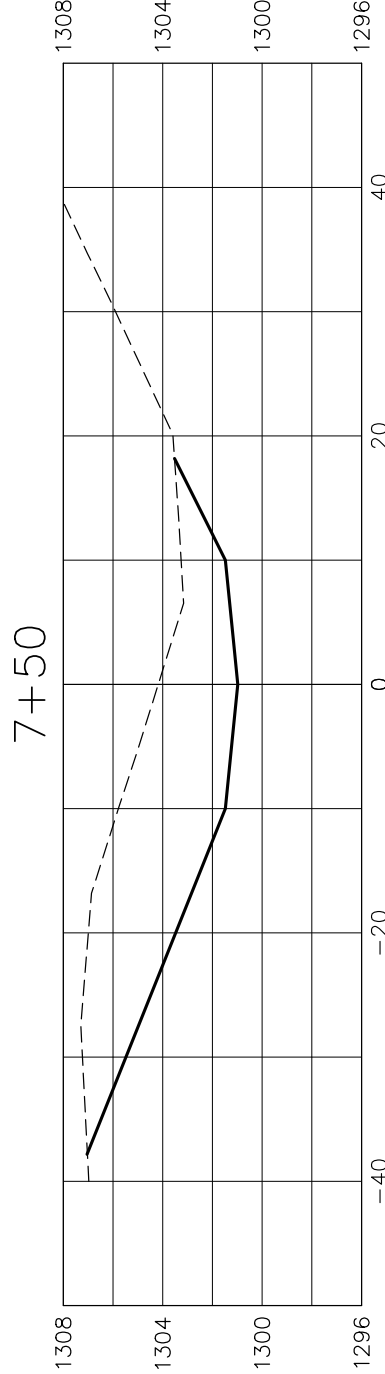
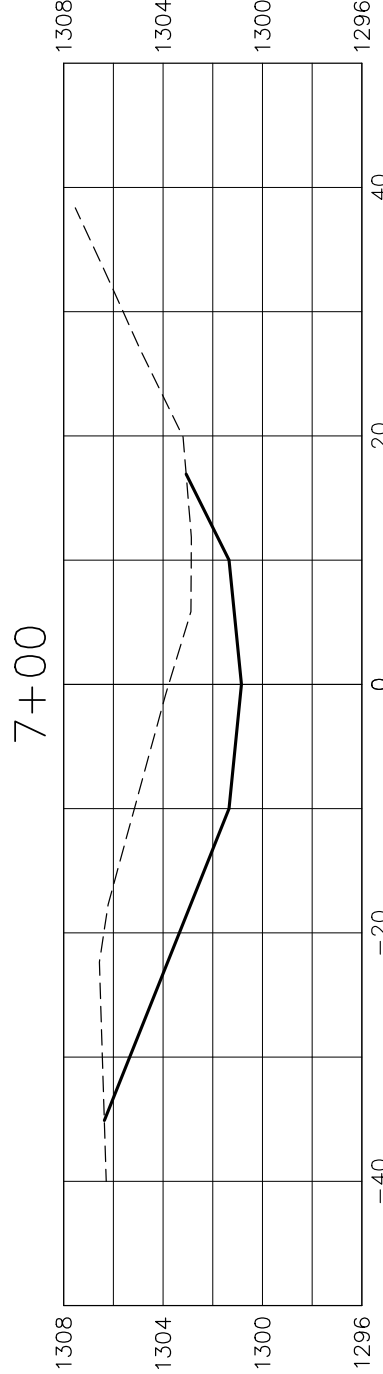
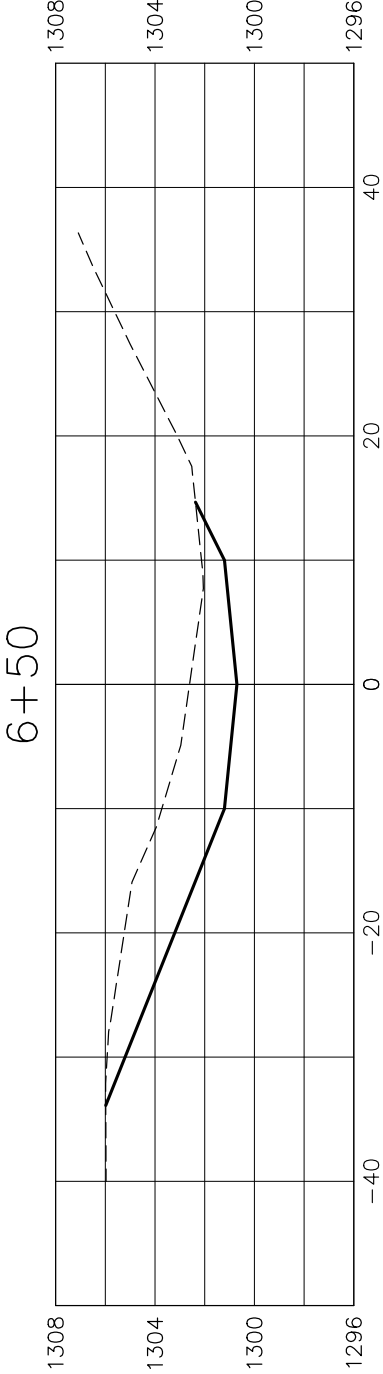


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Date:	2/2/2022
Project No.:	15633
File Name:	15633-Westwood Proj. Addition

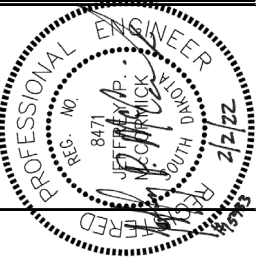
Project Name:
CJM Consulting Westwood First Addition
 Located In:
Mitchell, South Dakota

Sheet Name:
Cross Sections

Sheet Number:	10	Total Sheets:	17
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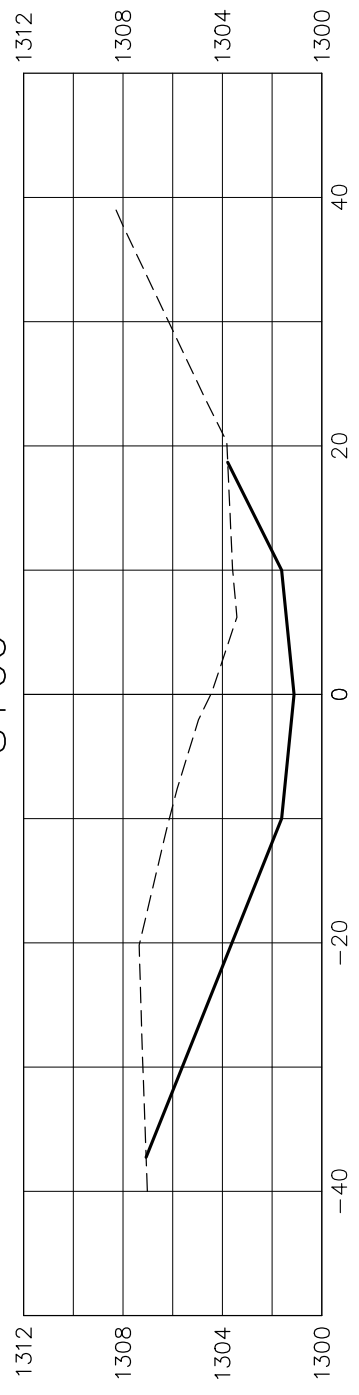
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Date:	2/2/2022
Project No.:	15633
File Name:	15633-Westwood Proj. Addition

Project Name:
CJM Consulting Westwood First Addition
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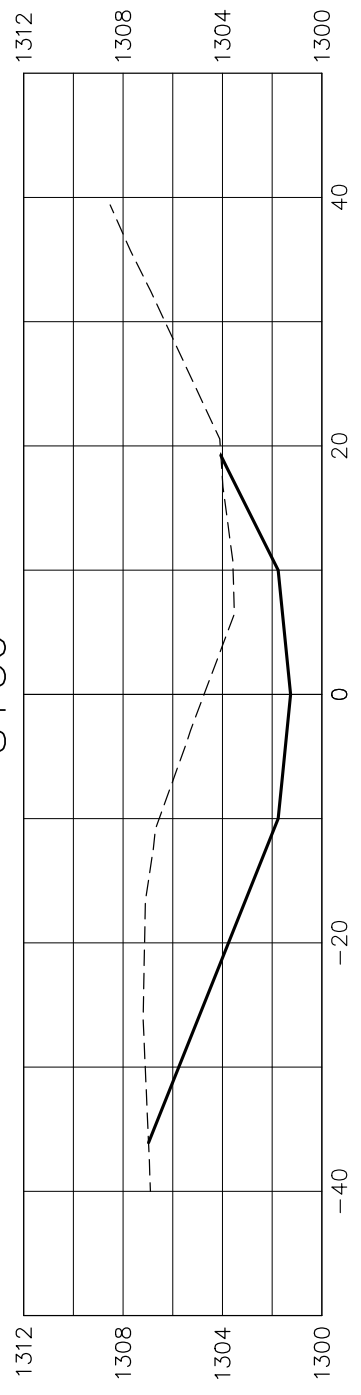
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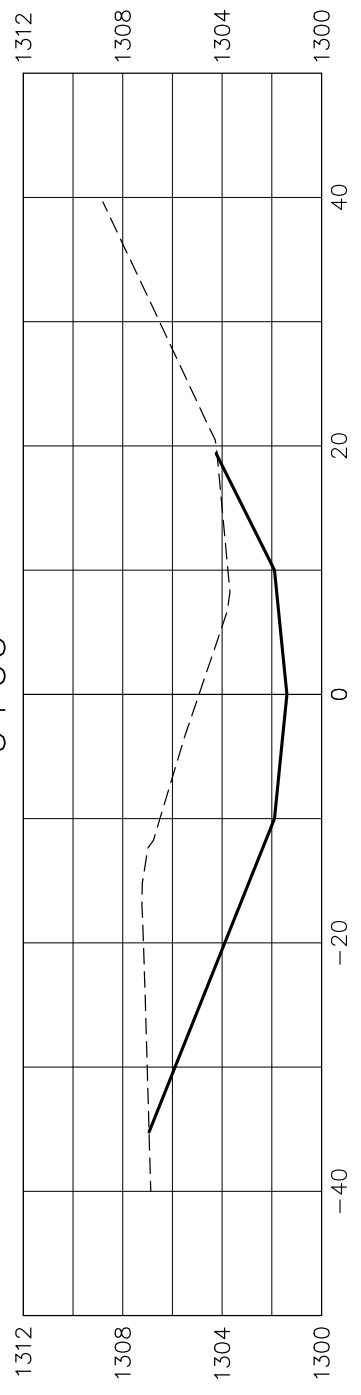
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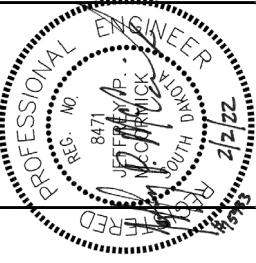
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9+00



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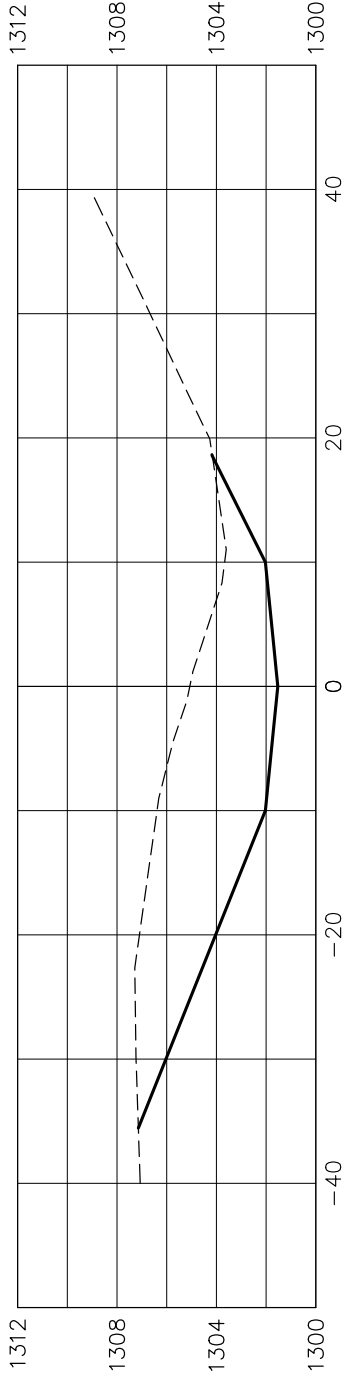
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Project Name:
CJM Consulting Westwood First Addition
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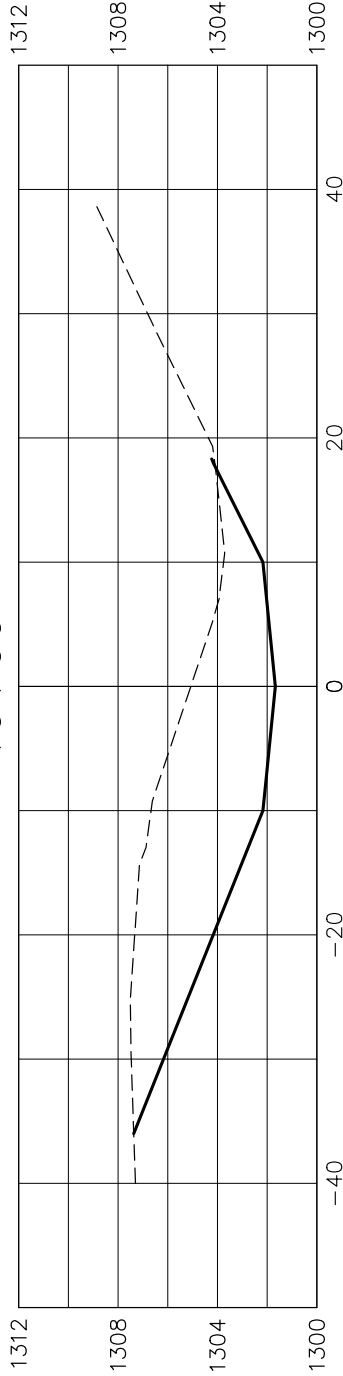
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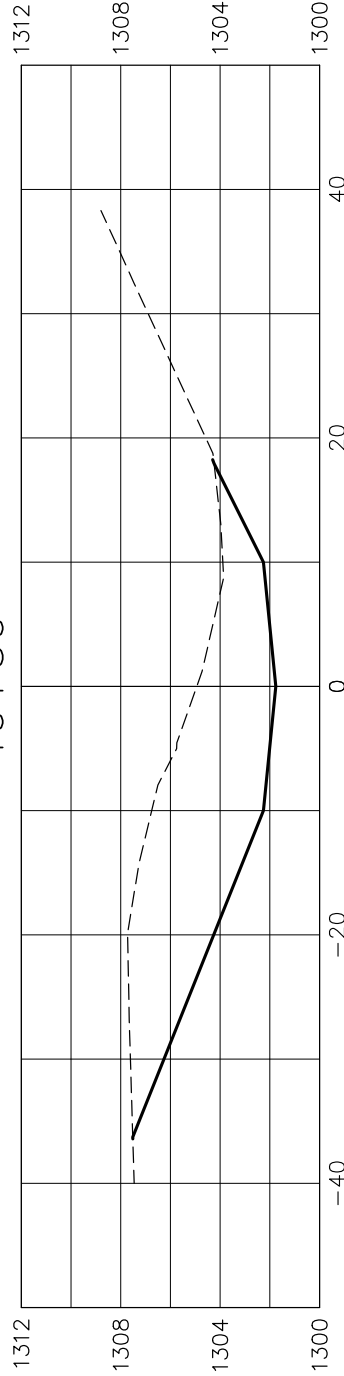
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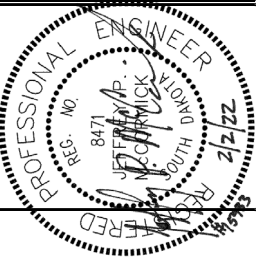
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10+50



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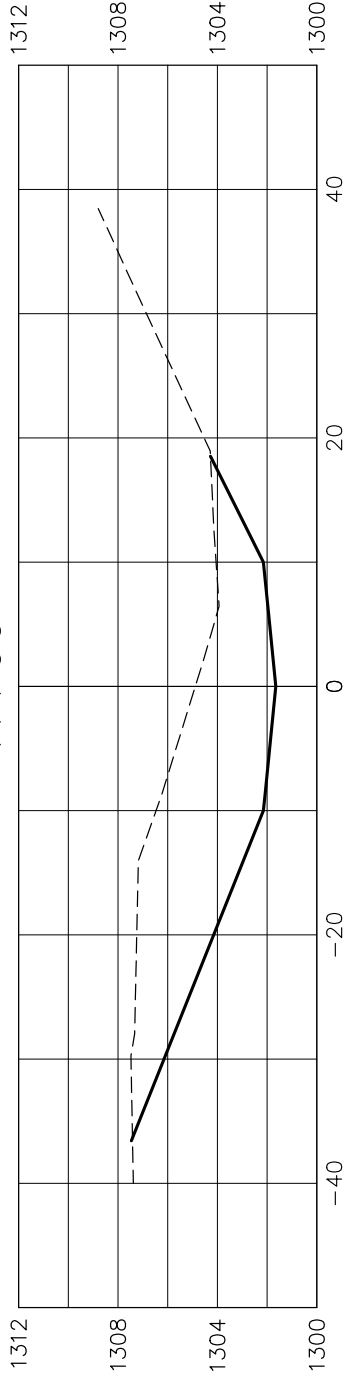
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File Name:	15633 - Westwood Proj. Addition

Project Name:
CJM Consulting Westwood First Addition
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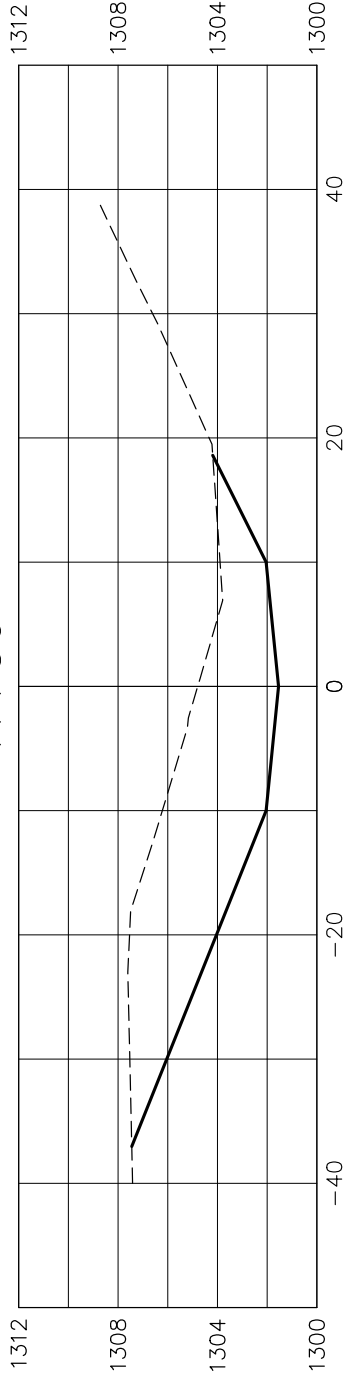
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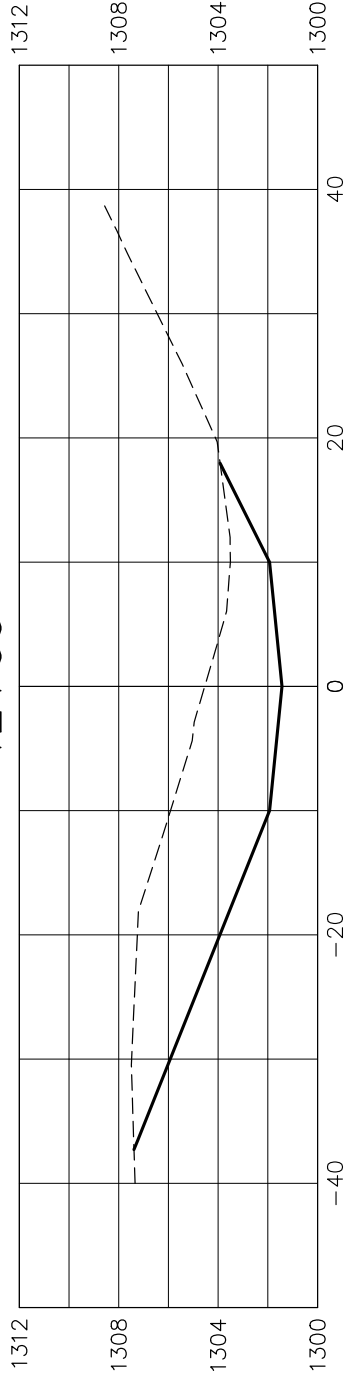
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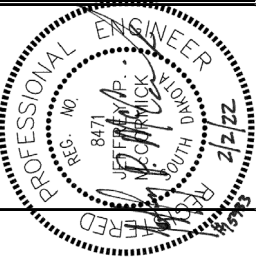
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12+00



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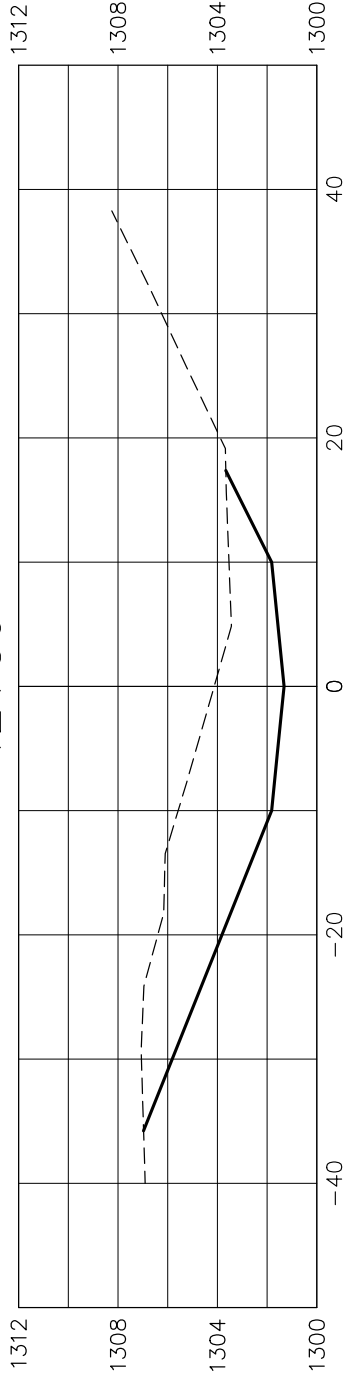
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Date:	2/2/2022
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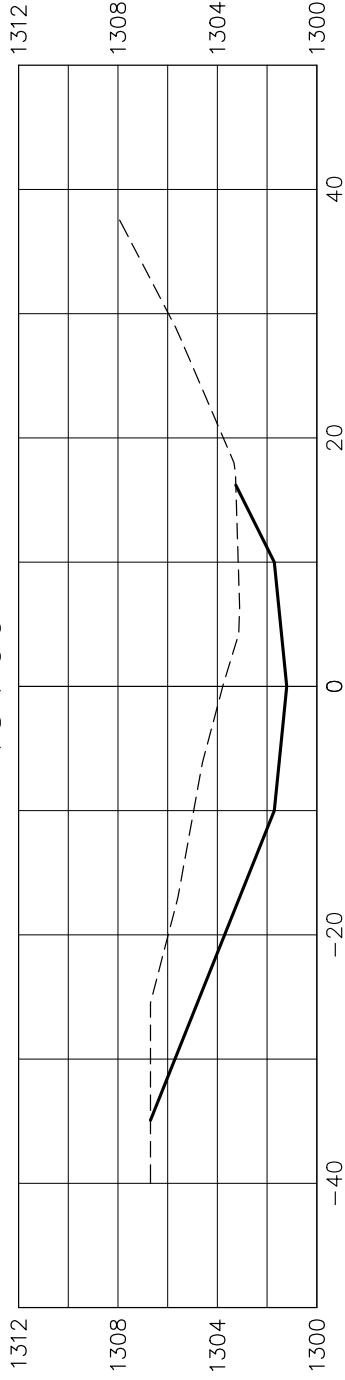
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Cross Sections

Sheet Number:	14	Total Sheets:	17
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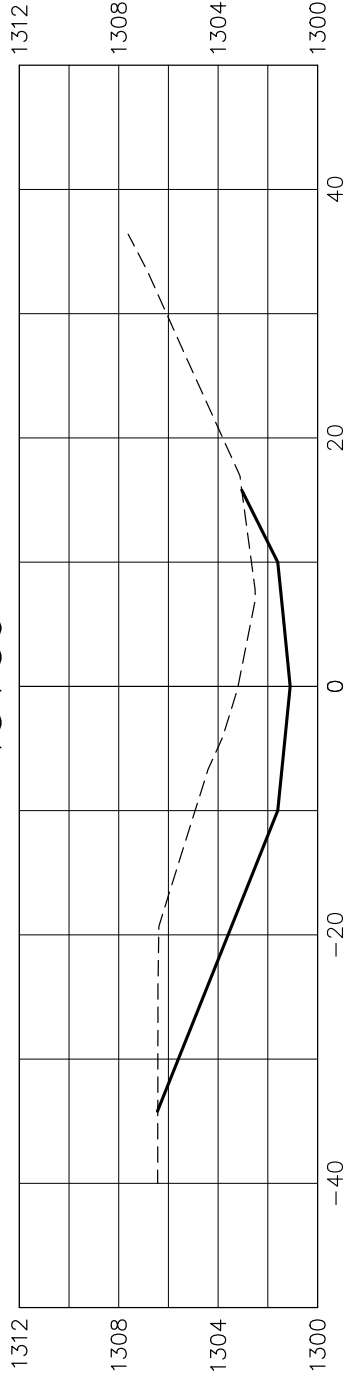
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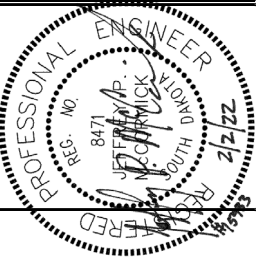
13+00



13+50



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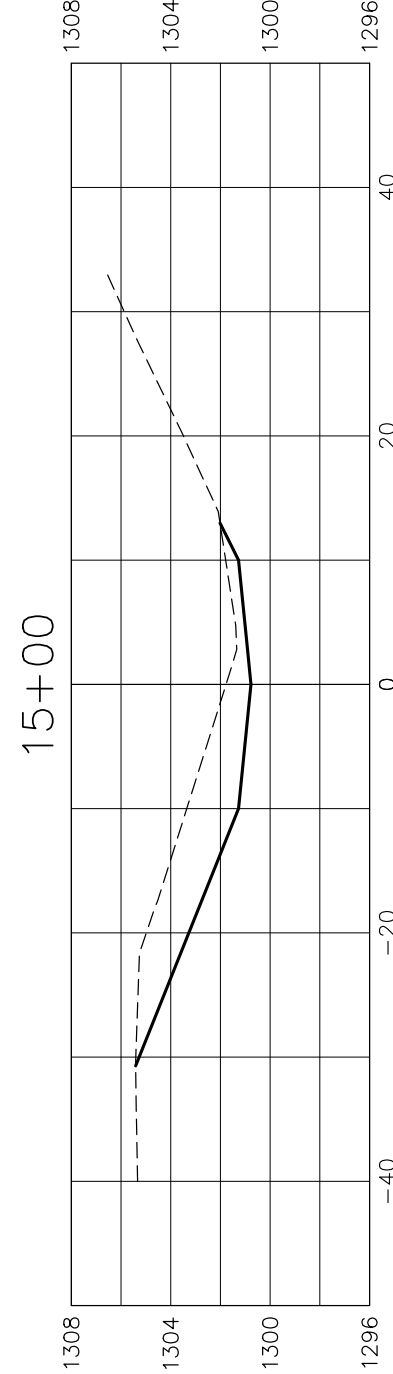
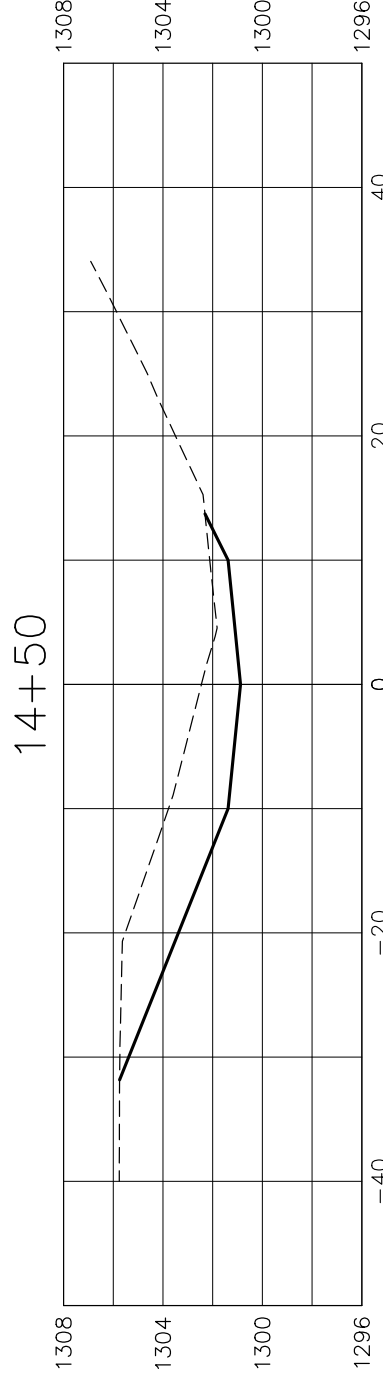
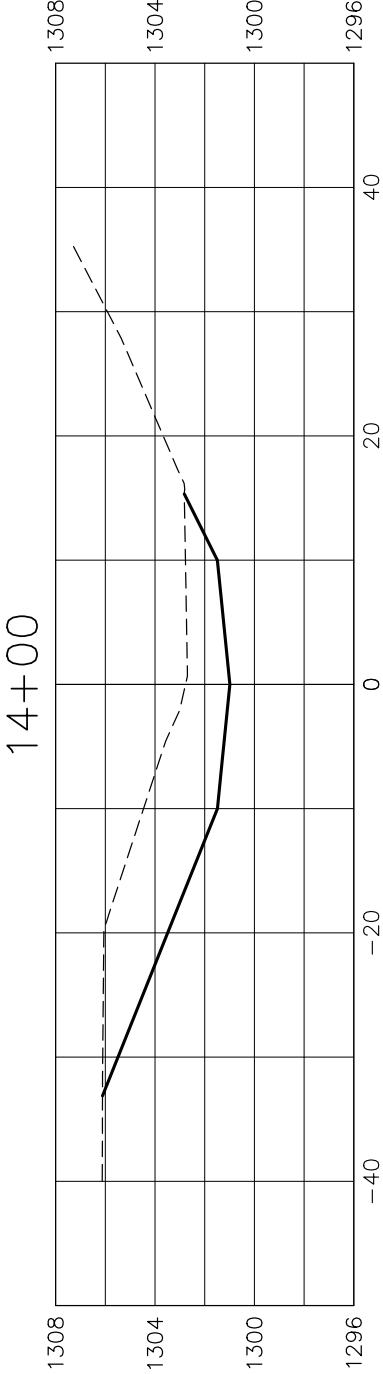


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Plan Vert. Scale:	1" = 5'
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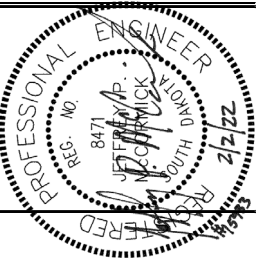
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CJM Consulting Westwood First Addition
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Mitchell, South Dakota

Sheet Name:
Cross Sections

Sheet Number:	15	Total Sheets:	17
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Certificate
 I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of South Dakota.

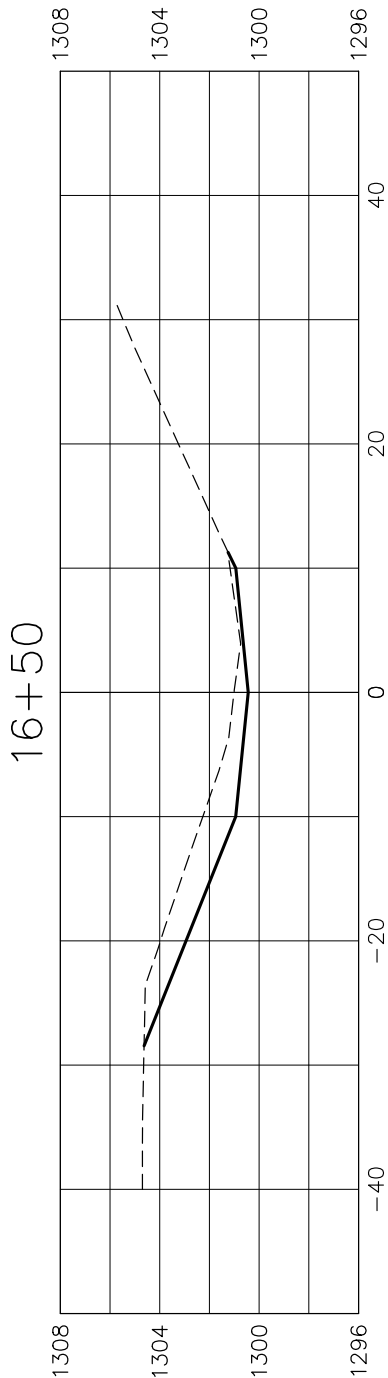
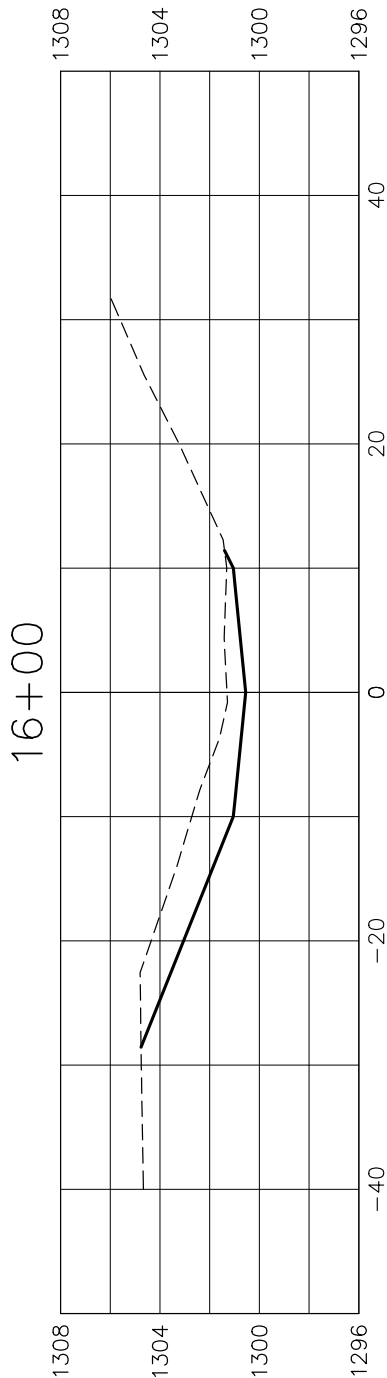
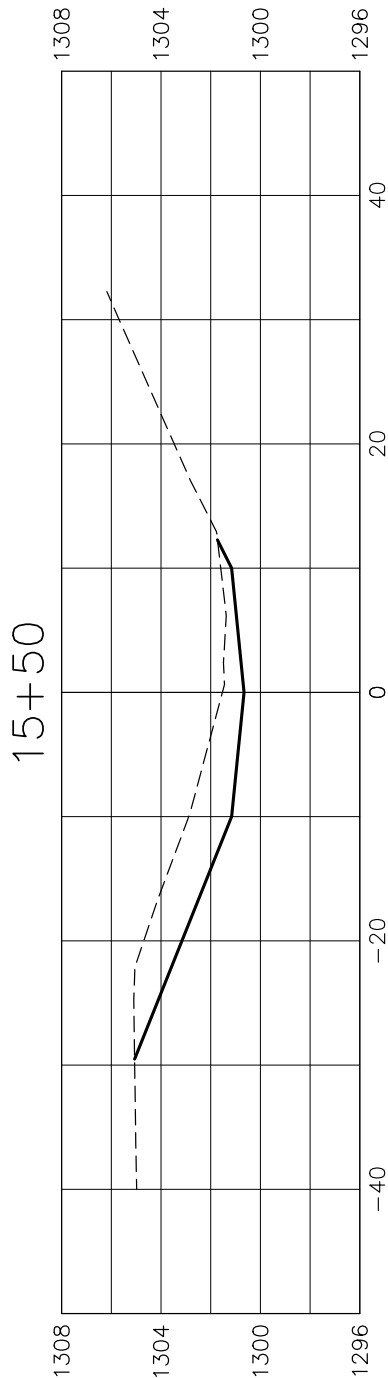


Plan Horiz. Scale:	1" = 10'
Plan Vert. Scale:	1" = 5'
Drawn By:	JMD
Checked By:	JPM
Date:	2/2/2022
Project No.:	15633
File Name:	15633-Westwood Proj. Addition

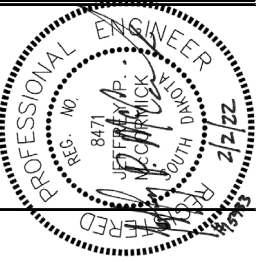
Project Name:
CJM Consulting Westwood First Addition
 Located In:
Mitchell, South Dakota

Sheet Name:
Cross Sections

Sheet Number: **16**
 Total Sheets: **17**



Certificate
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Plan Horiz. Scale:	None
Drawn By:	MD
Checked By:	JPM
Date:	2/2/2022
Project No.:	15633
File Name:	15633 - Westwood Proj. Addition

Project Name:
CJM Consulting
Westwood First Addition
Located in:
Mitchell, South Dakota

Sheet Name:
Typical Section

Sheet Number:	17	Total Sheets:	17
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Seeding and Fertilizing

Quality Assurance

A. All seed shall be tested by a State Seed Lab or a Commercial Seed Testing Lab within eighteen (18) months prior to the planting date. Seed not planted within the eighteen (18) month period shall be retested for dormant seed, hard seed and germination.

Submittals

A. Upon request, prior to the start of seeding operations, the vendor's certified analysis for the grass seed mixture shall be submitted for the Engineer's review. The information submitted shall state botanical and common name of each seed in the mixture; percentage of each by weight; percentage of purity and germination; and weed seed content.

B. Upon request, during the seeding operation, the Contractor shall furnish to the Engineer the tag from each bag of seed planted. Each tag shall contain the following information: Name and address of supplier; Suppliers lot number for each kind of seed in the mixture; Purity, germination and other information required by South Dakota Seed Law for each kind of seed; Pounds of bulk seed of each kind of seed in each bag; Total pounds of bulk seed mixture in each bag; Pounds of pure live seed of each kind of seed in each bag; Total pounds of pure live seed mixture in each bag; and Dormant Seed and Hard Seed.

C. Upon request, the manufacturer's certified analysis and delivery tickets for all commercial fertilizer shall be submitted stating quantity, source and date of delivery.

Measurement and Payment

A. Seeding, fertilizing and mulching of the disturbed areas will be measured on the basis of area, in square yards, actually seeded. Measurement will be to the nearest square yard. Payment shall be on the basis of pounds of seed at the Contract unit price.

B. Temporary seeding or erosion control will not be measured or paid for directly and shall be incidental to the items included in the Bid Form.

Grass Seed

A. Provide fresh, clean, new crop seed, complying with the tolerances for purity and germination established by the Official Seed Analysis of North America and the South Dakota Seed Law. Seed shall not exceed 1% weed content. Provide seed of the grass species and proportions as follows:

Type A Permanent Seed Mixture	Pure Live Seed (PLS) (Pounds/Acre)
Grass Variety	7
Western Wheatgrass	3
Switchgrass	3
Indiangrass	3
Blue Bluestem	3
Canada Wildrye	2

Apply at eighteen pounds of Pure Live Seed (P.L.S.) per acre.

Commercial Fertilizer

A. Commercial fertilizer shall be complete formula, uniform in composition, dry and free flowing, pelleted or granular with 50% of total nitrogen derived from natural organic material in a slowly available form. The fertilizer shall be delivered to the site and stored prior to incorporation, in original, unopened containers, bearing the manufacturer's guaranteed analysis.

B. Fertilizer shall contain the following percentages of available plant nutrients by weight:

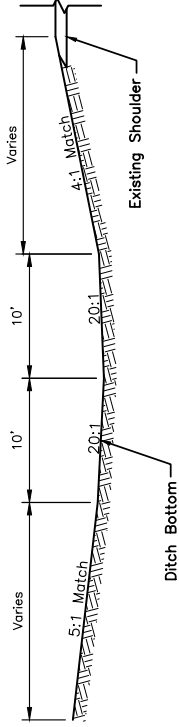
Nitrogen	20% (N)
Phosphoric Acid	10% (P)
Potassium	5% (K)

C. All fertilizer shall conform to the South Dakota Fertilizer Laws and shall be registered with the South Dakota Department of Agriculture.

Hydraulically Applied Mulch

A. Bonded fiber matrix which shall consist of a continuous layer of elongated fiber strands held together by a water resistant bonding agent. The product shall be 100 percent biodegradable and composed of 90 percent wood fiber, 9 percent natural binder and 1 percent organic and mineral activators (all by weight).

B. Fiber mulch shall be hydraulically applied at the rate of 3,000 pounds per acre on all areas seeded and other areas deemed necessary by the engineer. Fiber mulch shall be applied in a separate operation following permanent seeding and fertilizing.



TYPICAL DITCH SECTION

SCALE: NONE