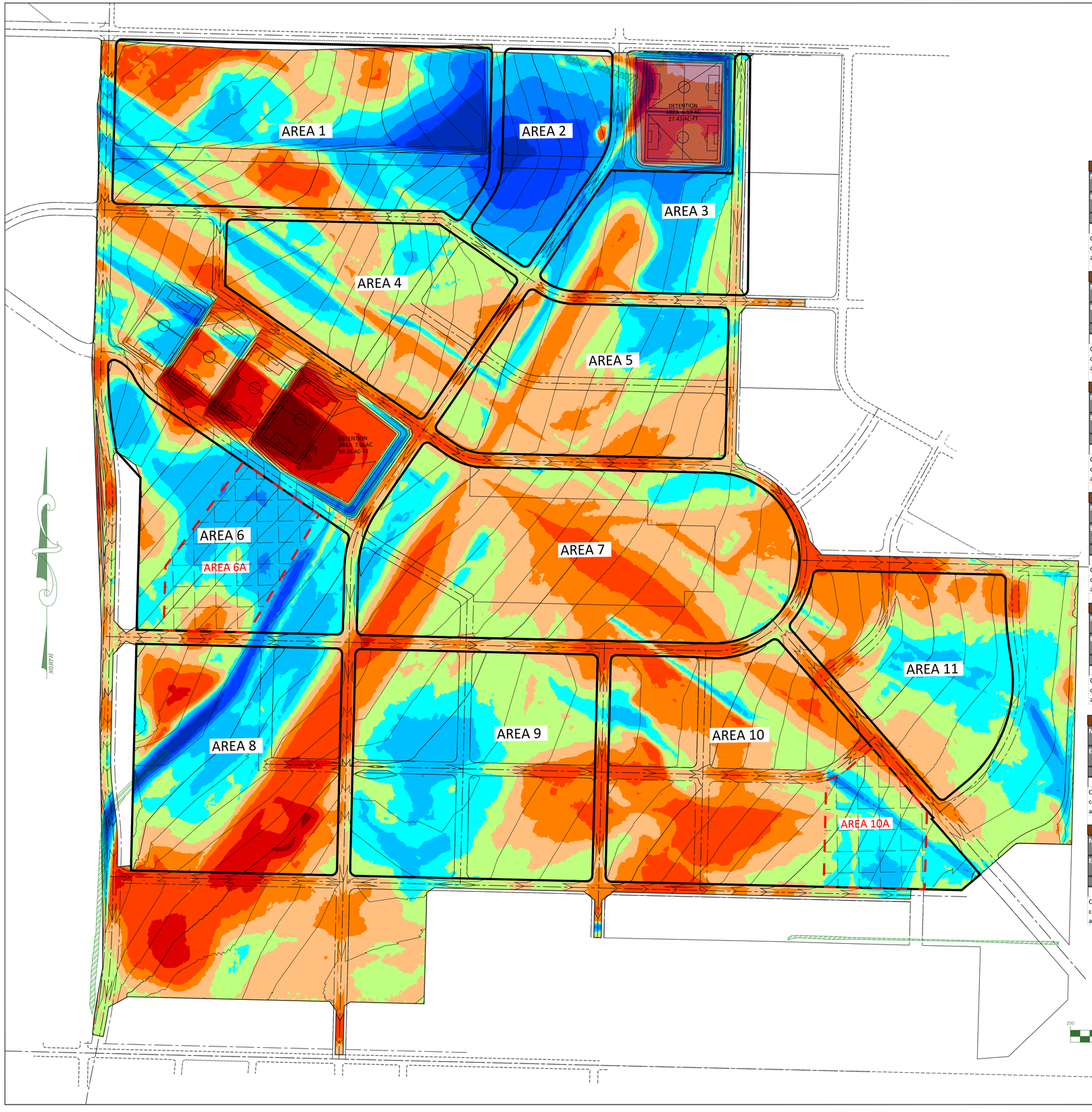
Below is the response to Contractor question #20 from the city of Williston on borrow/waste site information

The proposed borrow site will be from future detention pond 6A which is adjacent to the project on the southside of future 2nd Avenue NW on the north side of the existing property lines for the lots along 26th Street W. This pond is planned to be advertised for bid starting January 18th on QuestCDN, along with the work to complete future 2nd Ave, with the anticipation that the pond will be utilized for borrow. Attached is the draft plan sheet indicating the location and size of the pond. There is approximately 41,000 CY of export from pond 6A.

The contractor can utilize either area 2 or 9 for placement of export material from the intersection project from the attached mass grading plan for the Williston Square. Contractor should note that 9th Avenue, 33rd Street, 34th Street, 16th Avenue, 8th Avenue, and 31st Street have been built and have a 4" asphalt on 8" of gravel typical cross section. Any damage to the streets caused by hauling will be the Contractor's responsibility to repair. Access to area 2 can be gained from 42nd street which is approved for 6-ton, 80,000-pound gross truck traffic. Access to area 9 can be gained from future 29th street which is on the north side of the existing tree row. Contractor shall protect existing 9th avenue by installing a blister or other approved method if contractor intends to cross 9th with haul equipment. Traffic shall remain open on both 42nd street and 9th avenue. Temporary closures may be allowed as coordinated with the NDDOT and City of Williston.

Any areas disturbed must have the topsoil stripped and stockpiled prior to placement of export material. Past projects in the area have encountered six to eight inches of topsoil in area 9. Geotechnical bores for area 2 indicate eighteen inches of topsoil in the nearest bore to area 2. The bore logs can be found under the resources tab at www.willistonsquare.com.

Export material shall be laid in a uniform manner consisting of loose lifts not to exceed twelve inches in depth with an even surface to promote positive drainage prior to replacing the topsoil and reseeding the disturbed area. Contractor shall endeavor to utilize the construction equipment and/or haul trucks to provide compaction during the placement of the export material. Contractor shall be responsible for installing and removing the necessary stormwater protection devices, traffic control devices, and all haul roads necessary to access the laydown area(s).



GRAPHIC SCALE

250 0 125 250 500 1000

(IN FEET)
1 inch = 250 ft.

MASS GRADING VOLUME AREA		
Mass Grading Volume	18,266,362	Sq.Ft.
	419.34	Acres
Existing Grade to Finsh Grade	522,715	CY. Cut (-)
	609,464	CY. Fill (+)
Shrinkage 20%	121,893	CY Shrinkage (+)
Total	208,642	Cu.Yd. Eimport

Cut and Fill volumes shown are based on Digital Terrain Modeling computations. Shrinkage volumes shown are estimated. These volumes are approximate based on the information provided.

MASS GRADING VOLUME AREA 1		
Mass Grading Volume AREA 1	1,610,572	Sq.Ft.
	36.97	Acres
Existing Grade to Finsh Grade	25,513	CY. Cut (-)
	111,739	CY. Fill (+)
Shrinkage 20%	22,348	CY Shrinkage (+)
Total	108,574	Cu.Yd. Import

Cut and Fill volumes shown are based on Digital Terrain Modeling computations. Shrinkage volumes shown are estimated. These volumes are approximate based on the information provided.

MASS GRADING VOLUME AREA 2		
Mass Grading Volume AREA 2	507,408	Sq.Ft.
	11.65	Acres
Existing Grade to Finsh Grade	280	CY. Cut (-)
	94,343	CY. Fill (+)
Shrinkage 20%	18,869	CY Shrinkage (+)
Total	112,932	Cu.Yd. Import

Cut and Fill volumes shown are based on Digital Terrain Modeling computations. Shrinkage volumes shown are estimated. These volumes are approximate based on the information provided.

MASS GRADING VOLUME AREA 3		
Mass Grading Volume AREA 3	584,785	Sq.Ft.
	13.42	Acres
Existing Grade to Finsh Grade	4,959	CY. Cut (-)
	33,533	CY. Fill (+)
Shrinkage 20%	6,707	CY Shrinkage (+)
Total	35,281	Cu.Yd. Import

Cut and Fill volumes shown are based on Digital Terrain Modeling computations. Shrinkage volumes shown are estimated. These volumes are approximate based on the information provided.

MASS GRADING VOLUME AREA 4		
Mass Grading Volume AREA 4	960,694	Sq.Ft.
	22.05	Acres
Existing Grade to Finsh Grade	9,233	CY. Cut (-)
	21,340	CY. Fill (+)
Shrinkage 20%	4,268	CY Shrinkage (+)
Total	16,375	Cu.Yd. Import

Cut and Fill volumes shown are based on Digital Terrain Modeling computations. Shrinkage volumes shown are estimated. These volumes are approximate based on the information provided.

MASS GRADING VOLUME AREA 5		
Mass Grading Volume AREA 5	1,036,209	Sq.Ft.
	23.79	Acres
Existing Grade to Finsh Grade	16,179	CY. Cut (-)
	17,279	CY. Fill (+)
Shrinkage 20%	3,456	CY Shrinkage (+)
Total	4,556	Cu.Yd. Import

Cut and Fill volumes shown are based on Digital Terrain Modeling computations. Shrinkage volumes shown are estimated. These volumes are approximate based on the information provided.

MASS GRADING VOLUME AREA 6A		
Mass Grading Volume AREA 6A	425,901	Sq.Ft.
	9.78	Acres
Existing Grade to Finsh Grade	1,650	CY. Cut (-)
	33,219	CY. Fill (+)
Shrinkage 20%	6,644	CY Shrinkage (+)
Total	38,213	Cu.Yd. Import

Cut and Fill volumes shown are based on Digital Terrain Modeling computations. Shrinkage volumes shown are estimated. These volumes are approximate based on the information provided.

MASS GRADING VOLUME AREA 10A		
Mass Grading Volume AREA 10A	310,458	Sq.Ft.
	7.13	Acres
Existing Grade to Finsh Grade	656	CY. Cut (-)
	14,439	CY. Fill (+)
Shrinkage 20%	2,888	CY Shrinkage (+)
Total	16,671	Cu.Yd. Import

Cut and Fill volumes shown are based on Digital Terrain Modeling computations. Shrinkage volumes shown are estimated. These volumes are approximate based on the information provided.

MASS GRADING VOLUME AREA 6		
Mass Grading Volume AREA 6	1,010,260	Sq.Ft.
	23.19	Acres
Existing Grade to Finsh Grade	3,727	CY. Cut (-)
	73,922	CY. Fill (+)
Shrinkage 20%	14,784	CY Shrinkage (+)
Total	84,979	Cu.Yd. Import

Cut and Fill volumes shown are based on Digital Terrain Modeling computations. Shrinkage volumes shown are estimated. These volumes are approximate based on the information provided.

MASS GRADING VOLUME AREA 7		
Mass Grading Volume AREA 7	1,899,001	Sq.Ft.
	43.60	Acres
Existing Grade to Finsh Grade	55,020	CY. Cut (-)
	16,350	CY. Fill (+)
Shrinkage 20%	3,270	CY Shrinkage (+)
Total	-35,400	Cu.Yd. Export

Cut and Fill volumes shown are based on Digital Terrain Modeling computations. Shrinkage volumes shown are estimated. These volumes are approximate based on the information provided.

MASS GRADING VOLUME AREA 8		
Mass Grading Volume AREA 8	1,249,053	Sq.Ft.
	28.67	Acres
Existing Grade to Finsh Grade	58,995	CY. Cut (-)
	50,454	CY. Fill (+)
Shrinkage 20%	10,091	CY Shrinkage (+)
Total	1,550	Cu.Yd. Import

Cut and Fill volumes shown are based on Digital Terrain Modeling computations. Shrinkage volumes shown are estimated. These volumes are approximate based on the information provided.

MASS GRADING VOLUME AREA 9		
Mass Grading Volume AREA 9	1,469,365	Sq.Ft.
	33.73	Acres
Existing Grade to Finsh Grade	15,999	CY. Cut (-)
	48,782	CY. Fill (+)
Shrinkage 20%	9,756	CY Shrinkage (+)
Total	42,539	Cu.Yd. Import

Cut and Fill volumes shown are based on Digital Terrain Modeling computations. Shrinkage volumes shown are estimated. These volumes are approximate based on the information provided.

MASS GRADING VOLUME AREA 10		
Mass Grading Volume AREA 10	1,750,144	Sq.Ft.
	40.18	Acres
Existing Grade to Finsh Grade	59,250	CY. Cut (-)
	24,786	CY. Fill (+)
Shrinkage 20%	4,957	CY Shrinkage (+)
Total	-29,507	Cu.Yd. Export

Cut and Fill volumes shown are based on Digital Terrain Modeling computations. Shrinkage volumes shown are estimated. These volumes are approximate based on the information provided.

MASS GRADING VOLUME AREA 11		
Mass Grading Volume AREA 11	910,824	Sq.Ft.
	20.91	Acres
Existing Grade to Finsh Grade	15,832	CY. Cut (-)
	18,929	CY. Fill (+)
Shrinkage 20%	3,786	CY Shrinkage (+)
Total	6,883	Cu.Yd. Import

Cut and Fill volumes shown are based on Digital Terrain Modeling computations. Shrinkage volumes shown are estimated. These volumes are approximate based on the information provided.

ELEVATIONS TABLE

Number	Minimum Elevation	Maximum Elevation	Area	Color
1	-15.000	-8.000	83672.65	
2	-8.000	-6.000	129147.51	
3	-6.000	-4.000	536046.46	
4	-4.000	-2.000	3517442.87	
5	-2.000	-1.000	3561058.36	
6	-1.000	0.000	4214950.76	
7	0.000	1.000	3542924.28	
8	1.000	2.000	2088578.57	
9	2.000	4.000	1628455.04	
10	4.000	6.000	447068.64	
11	6.000	8.000	271898.90	
12	8.000	15.000	123689.92	

DATE: 2-15-2021
JOB NUMBER: 5149-17
SCALE: 1"=250'
DRAWN BY: AZ
CHECKED BY: DSH
REVISIONS DATE
FILE NAME: WS Phase 1 Roadway Base.dwg

ALLIANCE CONSULTING
A Planning and Engineering Firm
621 28th Street West
2303 N Coral Canyon Blvd Suite 201 Tel (435) 673-8060 ● Tel (701) 572-8100 Williston, North Dakota 58801
Washington, Utah 84780-0577

WILLISTON SQUARE MASS GRADING
FOR
WILLISTON CITY DEVELOPMENT DEPARTMENT
LOCATED IN SECTION 11
TOWNSHIP 154 NORTH, RANGE 101 WEST 5 P.M.
CITY OF WILLISTON, WILLIAMS COUNTY, NORTH DAKOTA

SHEET
1.0
OF 1 SHEETS

DETENTION POND 6B PHASE 2 POND GRADING		
DP-6B Pond Grading	7,868	Sq.Ft.
	0.18	Acres
Existing Grade to Finsh Grade	**676**	CY. Cut (-)
	-	CY. Fill (+)
Shrinkage 20%	-	CY Shrinkage (+)
Total	**676**	**Cu.Yd. Export**

Cut and Fill volumes shown are based on Digital Terrain Modeling computations. Shrinkage volumes shown are estimated. These volumes are approximate based on the information provided.

DP-6B Existing
BA: 1.59 AC
BB:1871.50
TB: 1879.0
DWS: 1878.0
WSA: 1.46 AC
DC: 6.68 AC-FT

Lower Pond
TP:1871.50
BP: 1867.50
WSA: 0.18 AC

DP-6A
BA: 4.57 AC
BB:1872.0
TB: 1880.0
DWS: 1879.0
WSA: 4.28 AC
DC: 18.46 AC-FT

DETENTION POND 6A GRADING		
DP-6A Grading	260,412	Sq.Ft.
	5.98	Acres
Existing Grade to Finsh Grade	**45,065**	CY. Cut (-)
	1,297	CY. Fill (+)
Shrinkage 20%	**259**	CY Shrinkage (+)
Total	**43,509**	**Cu.Yd. Export**

Cut and Fill volumes shown are based on Digital Terrain Modeling computations. Shrinkage volumes shown are estimated. These volumes are approximate based on the information provided.

Topsoil Removal & Replacement (Approx 8" Thick)	285,000	Sq.Ft.
	7,041	CY. Cut (-)

LEGEND

- EXISTING ASPHALT
- FUTURE NEW ASPHALT
- DETENTION POND
- POND
- EXISTING STORM DRAIN PIPE
- NEW STORM DRAIN PIPE
- STORM DRAIN INLET BOX
- STORM MANHOLE
- CONCRETE
- EXISTING WETLANDS
- EXISTING TREE BREAK
- EXISTING CONTOUR
- DESIGN CONTOUR
- CULVERTS BY OTHERS

NOTE: HWY RE-ALIGNMENT ROADWAY AND UTILITY DESIGN BY NDOT. SEE APPROVED PLANS: PROJECT NO. NHU-SU-CPU-7-002(178)019

Date: 11-18-2024

REVISIONS

No.	Date	by	Description

File Name
Detention Pond 6A And 6B-Phase 2.dwg

ABBREVIATIONS

BA = Basin Area
BB= Bottom Basin Elev
TB = Top Basin Elev
DWS = Detention Water Surface Elev
WSA = Water Surface Area
DC = Detention Capacity
TP = Top Pond Elev
BP: Bottom Pond Elev

GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
1 inch = 60 ft.
If Printed 11x17 use Half Scale

ALLIANCE CONSULTING
A PLANNING AND ENGINEERING FIRM

UTAH
2303 N CORAL CANYON BLVD
SUITE 201,
WASHINGTON, UT 84780
435-673-8060

NORTH DAKOTA
621 26th STREET W.
WILLISTON, ND 58801
701-572-8100

DETENTION POND NO. 6A & 6B OVERALL GRADING

FOR
CITY OF WILLISTON
LOCATED IN SEC 11 & 12
T 154 NORTH, R 101 WEST 5 P.M.
CITY OF WILLISTON, WILLIAMS COUNTY, ND

NOT FOR CONSTRUCTION REVIEW ONLY

Drawn By: AZ	Scale: 1"=60'
Client No. 5150	Project No. 5150

Drawing Sheet
C200

Sheet 6 of 15 Sheets