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Estimated Quantities			
Item No.	Description	Quantity	Unit
1	Mobilization	1	LS
2	Silt Fence	590	LF
3	Clearing and Grubbing (Trees and Brush)	0.8	Acres
4	Topsoil Strip and Respread	808	CY
5	Class 10 Excavation (Dike Top Repair)	120	CY
6	Class 10 Excavation (Dike Construction)	2,200	CY
7	Class 10 Excavation (Spillway Construction)	2,140	CY
8	Rip-Rap Armoring (Onsite)	420	CY
9	Macadam	192	Tons
10	Road Stone, 1.5"	70	Tons
11	Seeding, Fertilizing, and Mulching	3.8	Acres
12	NPDES Permit and SWPPP Compliance	1	LS

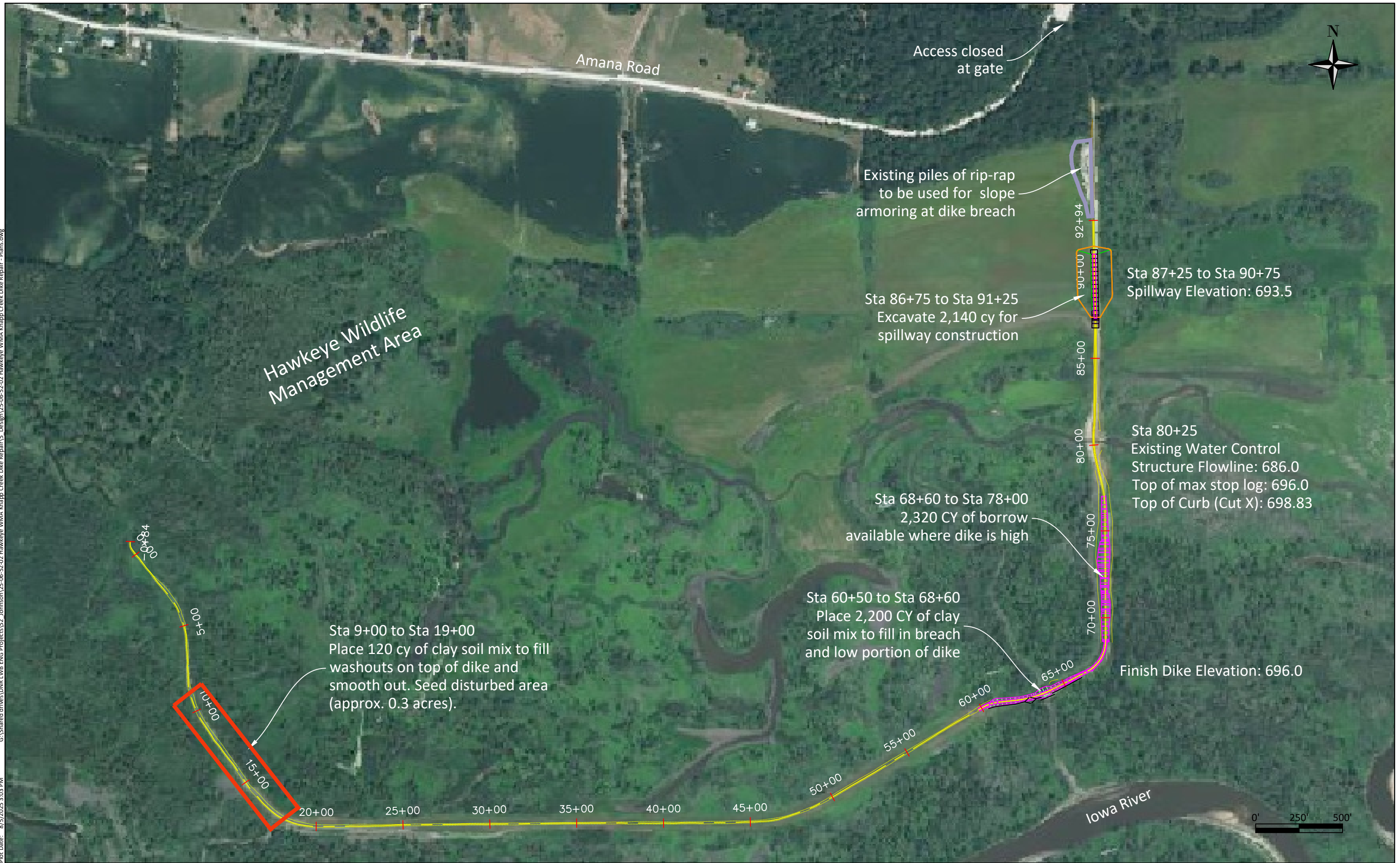
Estimate Reference Information	
1.	Mobilization per Iowa DOT specifications.
2.	Silt fence per Iowa DOT Detail RC-17 and fabric per Specification Section 4196.
3.	Clearing and Grubbing is for removal of the trees and brush within the spillway construction limits. No trees can be downed until after November 1, 2025 due to permitting requirements. Push all brush into piles on the north side of the site.
4.	Topsoil Strip and Respread includes striping 4" of vegetation and topsoil within the proposed dike repair area, storing the material and resspreading as topsoil after final grades.
5 - 7.	Class 10 Excavation per Iowa DOT Specifications Section 2102. Compaction in dike repairs per NRCS Construction Specification IA-23 Earthfill, Method 2 (two complete passes of a tamping-type roller). See plan sheets for more detail.
8.	Rip-rap Armoring includes hauling rip-rap material currently in piles on the north side of the site and placing it along the banks per details shown on Sheet 9. Contractor shall work with Engineer regarding which piles to be used.
11.	Seeding, Fertilizing and Mulching per Iowa DOT Specifications Section 9010 and shall be Type 2 (rural) seed mixture.
12.	NPDES Permit and SWPPP Compliance includes the Contractor obtaining the NPDES Permit, SWPPP and maintaining/inspecting the on-site log.

General Information	
1.	Verify actual locations and elevations with DNR Engineer.
2.	All work shall conform to and be performed in accordance with all applicable codes and ordinances.
3.	The contractor shall visit the site and inspect the project area and thoroughly familiarize themselves with the actual job conditions prior to bidding and the start of work. Failure to visit the project site shall not relieve the contractor from performing the work in accordance to the plans, specification, special provisions and contract.
4.	The contractor shall verify, at the site, all dimensions and conditions shown on the plans and shall notify the DNR Engineer of any discrepancies, omissions, and/or conflicts prior to proceeding with the work.
5.	It shall be the contractor's responsibility to provide waste areas or disposal sites for excess material (excavated material or broken concrete) which is not desirable to be incorporated into the work involved on this project. No payment for overhaul will be allowed for material hauled to these sites. No material shall be placed within the right-of-way, unless specifically stated in the plans or approved by the DNR Engineer.
6.	The contractor shall not disturb desirable grass areas and desirable trees outside the construction limits. The contractor will not be permitted to park or service vehicles and equipment or use these areas for storage of materials. Storage, parking and service areas will be subject to the approval of the DNR Engineer.
7.	Where utilities and fixtures are shown as Existing on the plans or encountered within the construction area, it shall be the responsibility of the contractor to notify the DNR Engineer of those utilities prior to the beginning of any construction. The contractor shall be afforded access to these facilities for necessary modification of services. Underground facilities, structures and utilities have been plotted from available surveys and records and therefore their locations must be considered approximate only. It is possible there may be others, the existence of which is presently not known or shown. It is the contractor's responsibility to determine their existence and exact location and to avoid damage thereto. No claims for additional compensation will be allowed to the contractor for any interference or delay caused by such work.
8.	The contractor shall shape graded area to maintain surface drainage. All elevations are to finish grade.
9.	The contractor is expected to have materials, equipment, and labor available on a daily basis to install and maintain erosion control features on the project. This may involve seeding, silt fence, rock ditch checks, silt basins or silt dikes.
10.	Construction staking to be done by Iowa DNR with minimum 2-week notice.

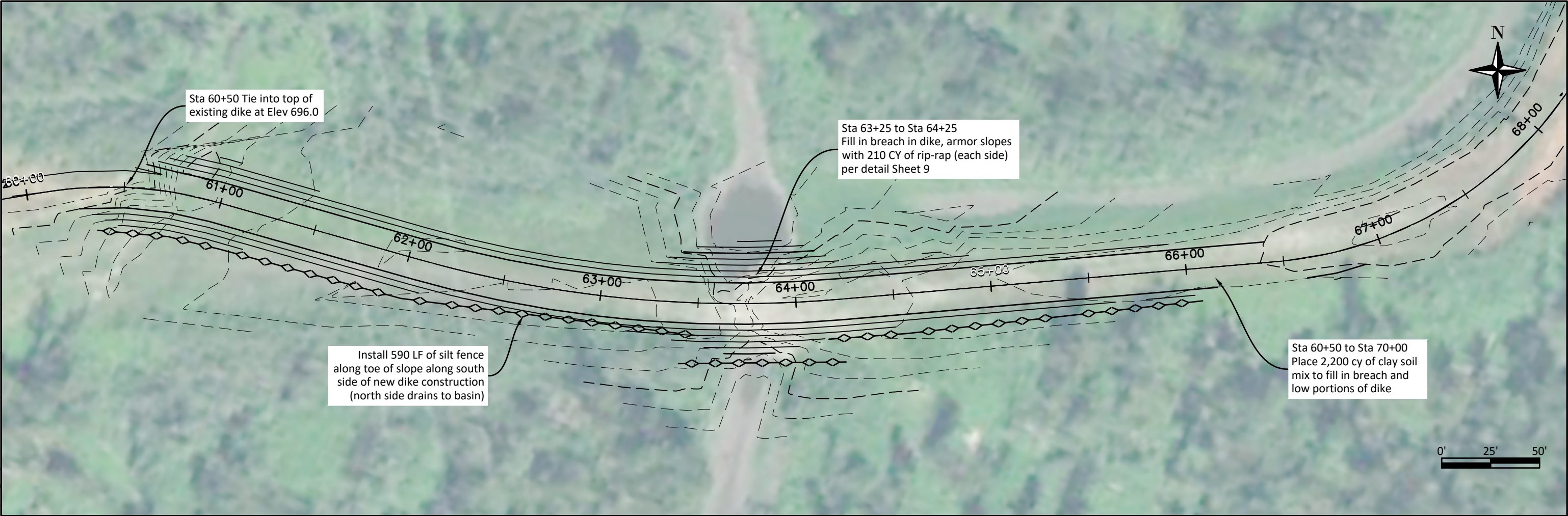


Drawn by: MD	
Revision	Date

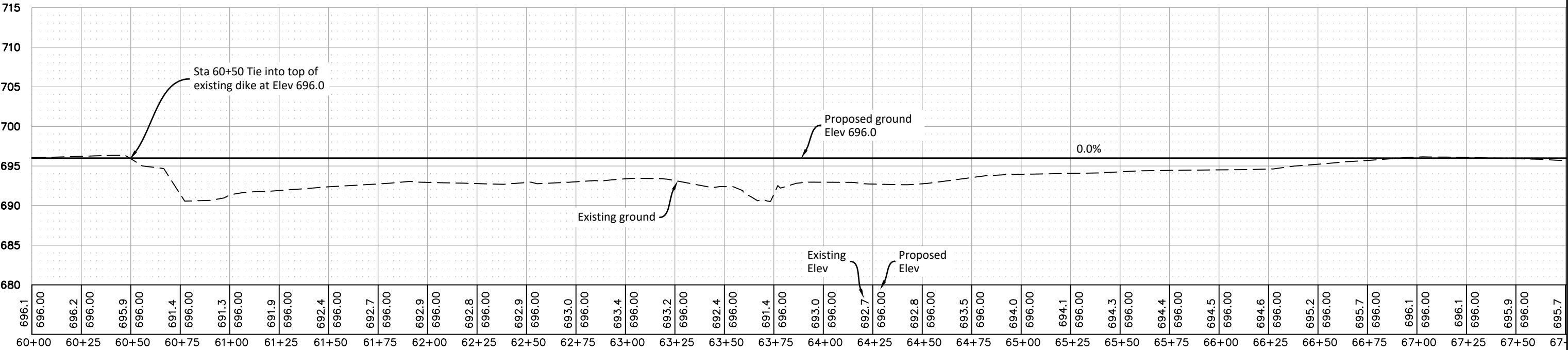
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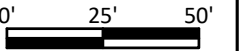
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Knapp Creek Dike Plan

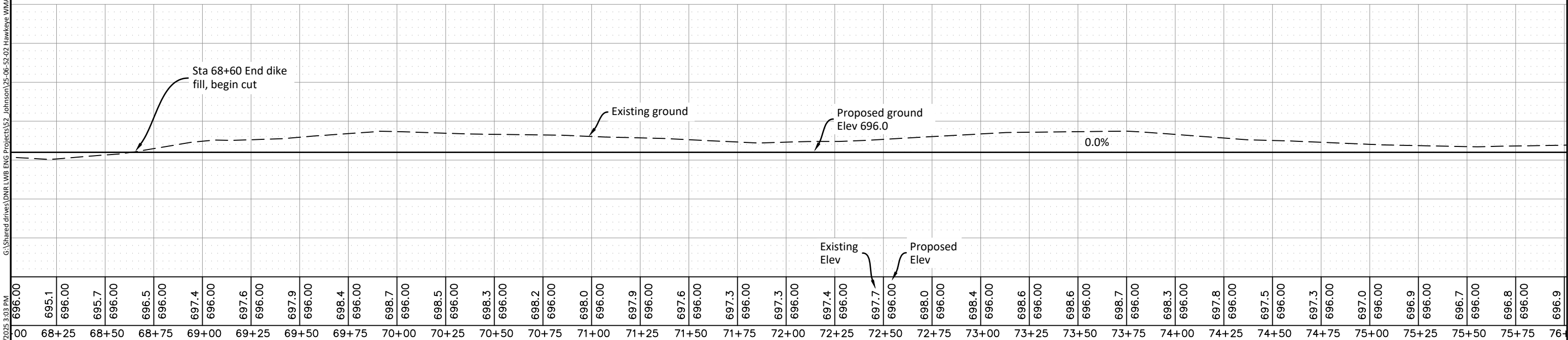


Knapp Creek Dike Profile



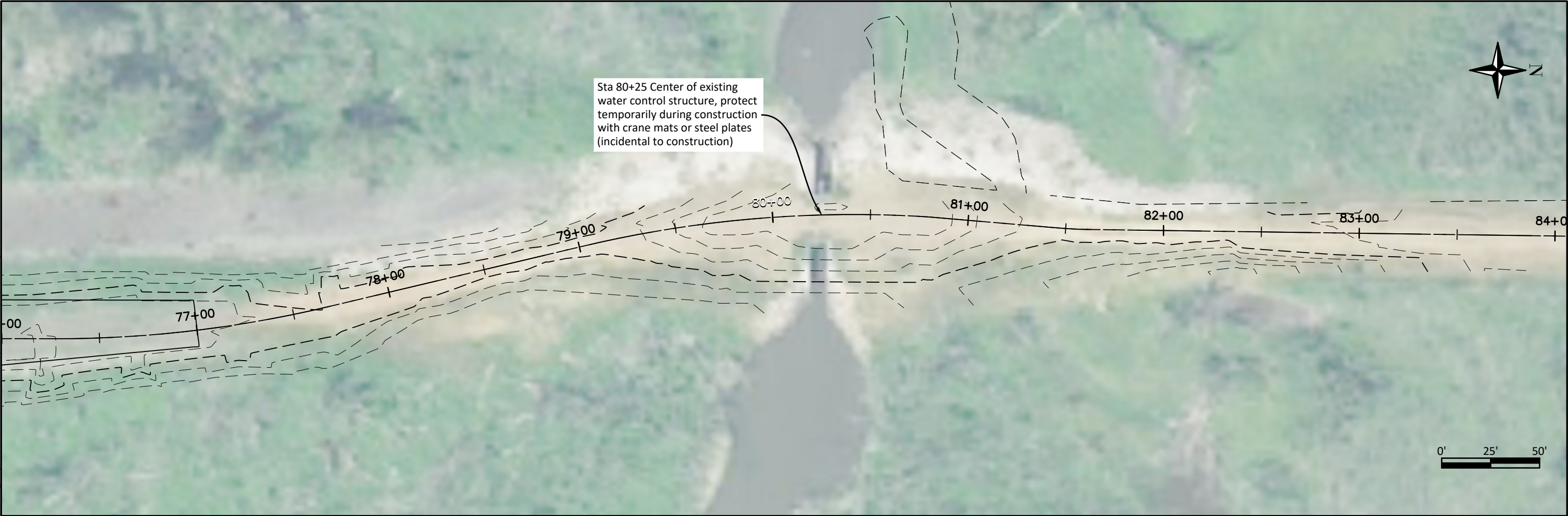


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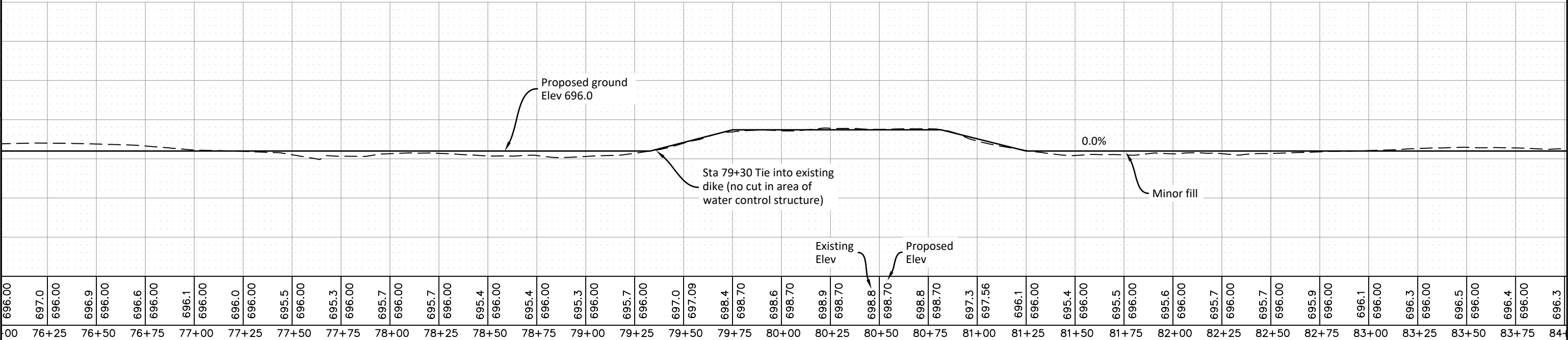


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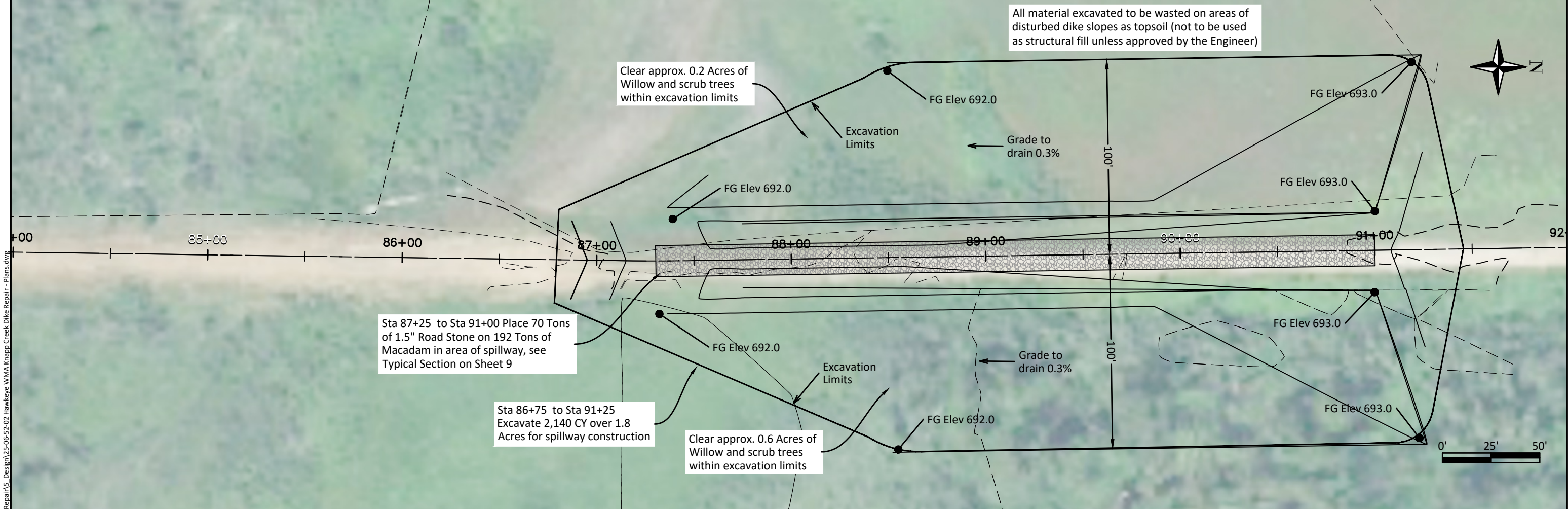
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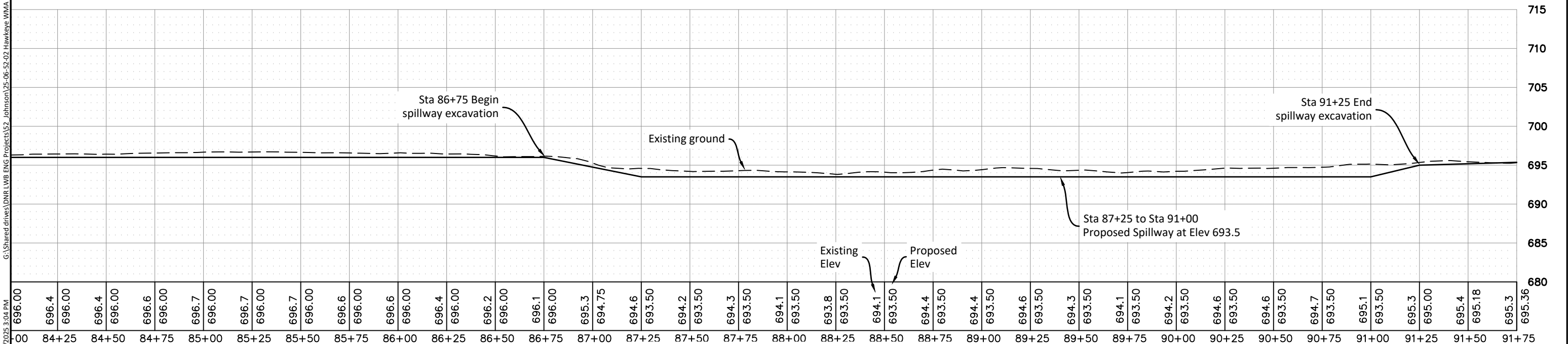
Knapp Creek Dike Plan



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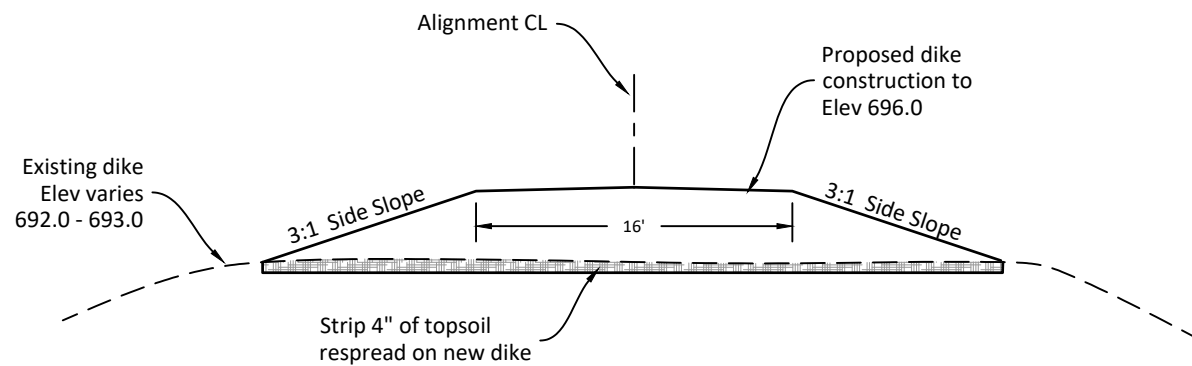


Knapp Creek Dike Plan



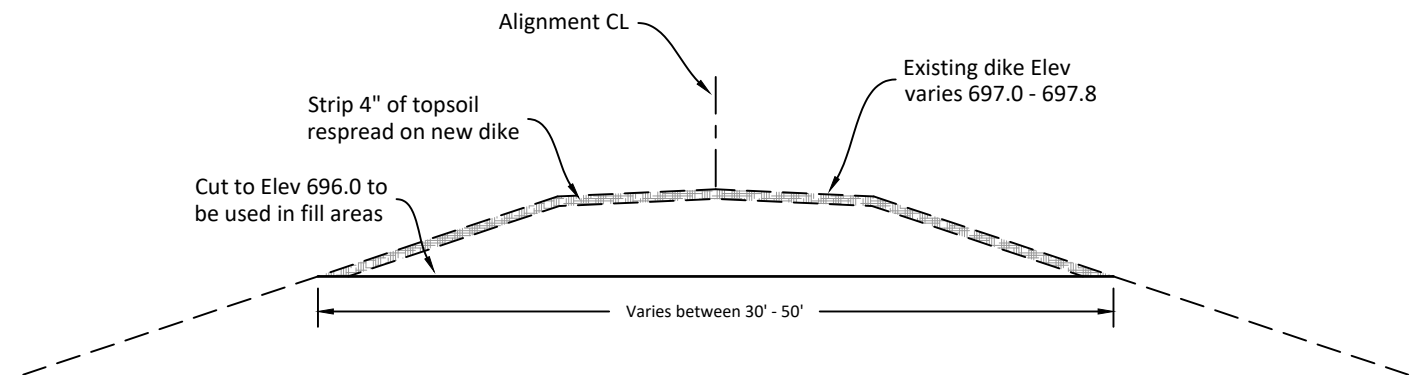
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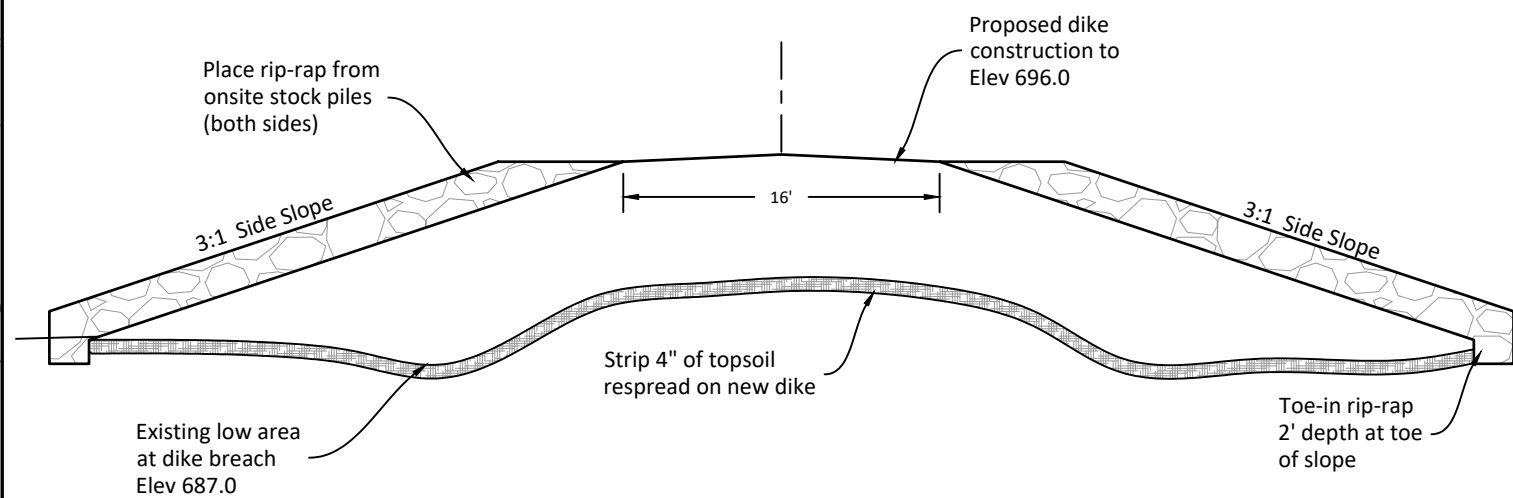
Typical Dike Construction

Sta 60+50 to Sta 63+25 and Sta 64+25 to Sta 68+60



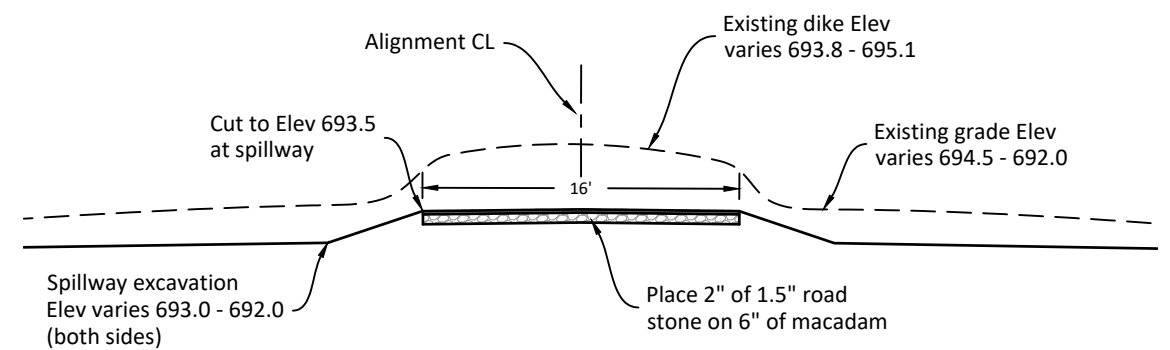
Typical Dike Construction at Cut

Sta 68+60 to Sta 78+00



Typical Dike Construction at Breach

Sta 63+25 to Sta 64+25



Typical Spillway Construction

Sta 87+25 to Sta 91+00