

	<u>LEG</u>	END:		
	EXISTING:		PROPOSE	<u>D:</u>
RED DEER RIVER &		DOWNTOWN DIKE &	_	
DIKE ©		RETAINING WALL	_	
PROPERTY LINES	_	EDGE OF PAVEMENT	_	<del></del>
SURVEYED BANK LINES	_	TOP OF SLOPE	_	<del></del>
JERSEY BARRIER	_	TOE OF SLOPE	_	<u> </u>
WATER MAIN		MINOR CONTOURS	_	
GAS MAIN		MAJOR CONTOURS	_	
SANITARY SEWER MAIN	<b>-</b> sss	SWALE	_	<del></del>
STORM SEWER MAIN		STM PIPE	_	
ELECTRICAL LINES	εε	CATCH BASIN	_	_
TELUS LINES		MANHOLE	-	•
FENCE	<del>_</del> xxx	OUTFALL	_	<b>—</b> (
PATHWAY	<del>-</del>			
MANHOLE	- 0			<del></del>
CATCH BASIN		PROPOSED DOWNTOWN DIKE	_	
STREET LIGHT	<del>-</del>	FOOTPRINT		
PEDESTAL	- 🗖	TOP SOIL/ORGANICS STRIPPING LIMITS	S <b>–</b>	
OUTFALL	- — <b>t</b>			
ALBERTA SURVEY CONTROL MARKER	- ASCM No.	TRAIL RECLAMATION	_	
BENCH	-	CONSTRUCTION LAYDOWN	_	
TABLE	- -			
SIGNAGE	_	SPRAY PARK CONSTRUCTION (NOT IN THIS CONTRACT)	_	
PETRIFIED WOOD				
TRASH CAN	_	PR. REINFORCED TURF	-	

Table 1: Flood Frequency Estimates for Red Deer River near Drumheller (NHC 2020)						
Return Period	Naturalized Peak Instanteous Discharge (m³/s)	Regulated Peak Instantaneous Discharge (m³/s)				
1:100	2260	1850				
1:5	807	542				
1:2	448	330				

### **CONSTRUCTION NOTES:**

### **GENERAL:**

- 1. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO PROJECT SPECIFICATIONS, AND RELEVANT ALBERTA TRANSPORTATION CIVIL WORKS MASTER SPECIFICATIONS, UNLESS NOTED OTHERWISE. WHEN A CONFLICT BETWEEN SPECIFICATIONS ARISES, DISCUSS ANY UNCERTAINTIES WITH THE ENGINEER PRIOR TO CONSTRUCTION AND/OR INSTALLATION.
- 2.TOPOGRAPHIC SURVEY IS PROVIDED ON AN AS-IS BASIS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM INDEPENDENT PRE AND POST DISTURBANCE SURVEY FOR THE PURPOSES OF CONSTRUCTION LAYOUT AND QUANTITY RECONCILIATION AS APPLICABLE TO EXECUTE AND RECORD PROGRESS OF THE WORKS.
- 3.ALL AFFECTED RESIDENTS AND BUSINESSES SHALL BE NOTIFIED IN WRITING A MINIMUM OF 7 BUSINESS DAYS PRIOR TO ANY SCHEDULED ACCESS AND/OR SERVICE DISRUPTIONS.
- 4.CONTRACTOR SHALL PREPARE A TRAFFIC MANAGEMENT PLAN AND PEDESTRIAN MANAGEMENT PLAN (I.E. TRAIL DETOUR PLAN) TO ADDRESS CONSTRUCTION IMPACTS.
- 5.DURING CONSTRUCTION, ENSURE ALL OH&S REGULATIONS ARE FOLLOWED, CONTRACTOR SHALL PROVIDE THE ENGINEER WITH ALBERTA OCCUPATIONAL HEALTH AND SAFETY REPORTS, IF APPLICABLE.
- 6.SITE SECURITY IS THE RESPONSIBILITY OF THE PRIME CONTRACTOR. THE ENGINEER IS NOT RESPONSIBLE FOR SECURITY IN, ON, OR ABOUT THE PROJECT SITE, NOR FOR CONTRACTOR COMPLIANCE.
- 7.ENSURE THE CURRENT MUNICIPAL OH&S GROUND DISTURBANCE PRACTICE AND PROCEDURES ARE FOLLOWED. CONTACT ALBERTA ONE CALL FOR EXTERNAL UTILITY LOCATES AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION. 8.CONFIRM ALL EXISTING SERVICES, CONNECTIONS AND CROSSING POINTS AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION ON ANY SUCH ITEM. NOTIFY THE ENGINEER SHOULD CONFLICTS BE FOUND.
- 9. TEMPORARY SIGNAGE AND FENCING MAINTENANCE DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 10. ADJUST ALL EXISTING AND NEW APPURTENANCES TO MEET THE FINAL DESIGN GRADES.
- 11. RESTORE ALL THE AREAS AFFECTED BY CONSTRUCTION WORKS TO THEIR ORIGINAL CONDITION OR BETTER.

## ENVIRONMENTAL:

USE BEST MANAGEMENT PRACTICES (BMP), IN ACCORDANCE WITH ALBERTA BMP GUIDELINES AND REGULATIONS, DURING CONSTRUCTION. ADJUST WORK ACTIVITIES DURING PERIODS OF PRECIPITATION AND/OR SNOWMELT TO MITIGATE AGAINST SEDIMENT RELEASE TO THE STORM DRAIN SYSTEM OR NATURAL WATER BODIES INCLUDING THE RED DEER RIVER. NO MUD TRACKING ON TO NEARBY ROADWAYS IS PERMITTED.

- THE MINIMUM BMP'S TO CONSIDER ARE: • CONTRACTOR SHALL PREPARE AND SUBMIT AN ECO PLAN FOR APPROVAL PRIOR TO CONSTRUCTION. CONTRACTOR TO ADHERE TO ECO PLAN THROUGHOUT CONSTRUCTION.
- ADHERE TO ALL APPLICABLE REGULATORY PERMITS, APPROVALS, AND CONDITIONS.
- INSPECT ALL EQUIPMENT DAILY FOR FLUID LEAKS AND REPAIR AS NEEDED. • ENSURE SPILL PROTECTION MEASURES ARE IN PLACE DURING REFUELLING OF EQUIPMENT.
- KEEP A SPILL KIT ON SITE AT ALL TIMES.
- CONTRACTOR SHALL PROTECT ALL TREES TO REMAIN FROM DAMAGE DURING CONSTRUCTION. NOTIFY THE ENGINEER IMMEDIATELY IF A POSSIBLE CONFLICT IS FOUND.

### • CONTRACTOR TO COMPLETE BIRD NEST AND WILDLIFE SWEEP PRIOR TO REMOVING ANY TREES ON SITE IF REQUIRED BY REGULATORY ACT. ADDITIONAL NEST SWEEPS MAY BE REQUIRED BY PROJECT BIOLOGIST.

- 1.LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES SHOWN ON DRAWINGS ARE APPROXIMATE ONLY. CONTRACTOR IS RESPONSIBLE TO DETERMINE EXACT LOCATION AND ELEVATION PRIOR TO CONSTRUCTION.
- 2.THE CONTRACTOR IS WARNED THAT CONFLICTS WITH EXISTING UTILITY SERVICES MAY EXIST. PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT ALL APPROPRIATE UTILITY COMPANIES FOR LINE LOCATIONS, AND CONTRACTOR SHALL THEN LOCATE ALL UTILITIES (INCLUDING DEPTH). SWEETTECH ENGINEERING CONSULTANTS ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. ANY CONFLICTS WITH THE CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER
- IMMEDIATELY SO THAT MITIGATION OF CONFLICTS WITH THESE EXISTING UTILITIES CAN BE CONSIDERED. 3.ALL EXISTING UTILITIES SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR. UTILITIES THAT ARE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER OR ENGINEER.
- 4.ENSURE ALL EXISTING WATER SYSTEMS REMAIN IN USE DURING CONSTRUCTION.
- 5.IF GAS MAINS ARE PRESENT WITHIN PROJECT AREA, APEX UTILITIES AND OH&S REGULATIONS SHALL BE FOLLOWED. APEX UTILITIES REPRESENTATIVE MAY BE REQUIRED TO BE PRESENT WHEN WORKING ADJACENT TO GAS MAINS (ESPECIALLY HIGH
- 6.IF ATCO ELECTRIC UTILITIES ARE FOUND WITHIN THE PROJECT AREA, THE CONTRACTOR SHALL PROVIDE 72 HOURS NOTICE PRIOR TO EXCAVATION. A REPRESENTATIVE FROM ATCO WILL BE SCHEDULED TO BE PRESENT DURING EXCAVATION.
- 7. WHERE HEAVY WORK IS REQUIRED WITHIN THE EXCAVATION ZONE SURROUNDING UTILITY POLES, AND A POLE HOLD IS REQUIRED, THE CONTRACTOR MUST BE AUTHORIZED AND BE ABLE TO PULL A LIVE LINE PERMIT.

- 1. SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.
- 2.EXISTING GROUND CONTOURS FROM HUNTER WALLACE SURVEYS LTD. RECEIVED ON JANUARY 18TH 2023.
- 3.2019 AERIAL IMAGERY PROVIDED BY DRUMHELLER RESILIENCY AND FLOOD MITIGATION OFFICE.
- 4.PROJECT COORDINATE SYSTEM NAD83-3TM114.
- 5.RED DEER RIVER BANK LINE PROVIDED BY HUNTER WALLACE SURVEYS LTD.
- 6.RIVER STATIONING PROVIDED BY NORTHWEST HYDRAULIC CONSULTANTS. 7.UTILITIES PROVIDED BY DRUMHELLER RESILIENCY AND FLOOD MITIGATION OFFICE.

# **SURVEY CONTROL**

PROJECT HORIZONTAL DATUM IS GRID FOR ALBERTA NAD83, 3 DEGREE ZONE, CENTRE AT 114° WEST (CANA83-3TM114). ALL ELEVATIONS ARE SHOWN IN METRES TO CANADIAN GEODETIC VERTICAL DATUM 1928 (CGVD28) CONFIRMED BY TIES TO ALBERTA SURVEY CONTROL MARKERS (ASCM) IN THE

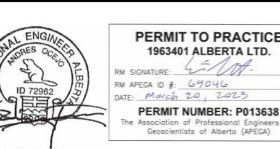
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POINT #	NORTHING	EASTING	ELEV	DESC
371419	5704120.994	89897.383	682.345	ASCN
333930	5704070.443	90098.890	681.449	ASCN
417469	5703757.371	90303.534	684.371	ASCN
639732	5703923.309	90272.646	681.725	ASCN
416636	5704765.602	89475.019	686.227	ASCN

APPROX FB ELEV DWG  © TYP SPMDD OMC C/W W/ PE INV STM	G ABBREVIATIONS  APPROXIMATELY FREEBOARD ELEVATION DRAWING CENTRE LINE TYPICAL STANDARD PROCTOR MAXIMUM DRY DENSITY OPTIMUM MOISTURE CONTENT COMES WITH WITH POLYETHYLENE INVERT STORM	DR ST AVE STA IFT HW RS D PVI BVCS BVCS EVCS EVCS LVC	DRIVE STREET AVENUE STATION ISSUED FOR TENDER HEAD WALL RIVER STATION DIKE STATION POINT OF VERTICAL INFLECTION BEGINNING VERTICAL CURVE STATION BEGINNING VERTICAL CURVE ELEVATION END VERTICAL CURVE ELEVATION END VERTICAL CURVE ELEVATION END VERTICAL CURVE ELEVATION END VERTICAL CURVE ELEVATION
PE INV STM SAN PR.	POLYETHYLENE INVERT STORM SANITARY PROPOSED	BVCE EVCS EVCE	BEGINNING VERTICAL CURVE ELEVATION END VERTICAL CURVE STATION END VERTICAL CURVE ELEVATION
EX. MIN MAX	EXISTING MINIMUM MAXIMUM		
TBD TBC	TO BE DETERMINED TO BE CONFIRMED		

SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.





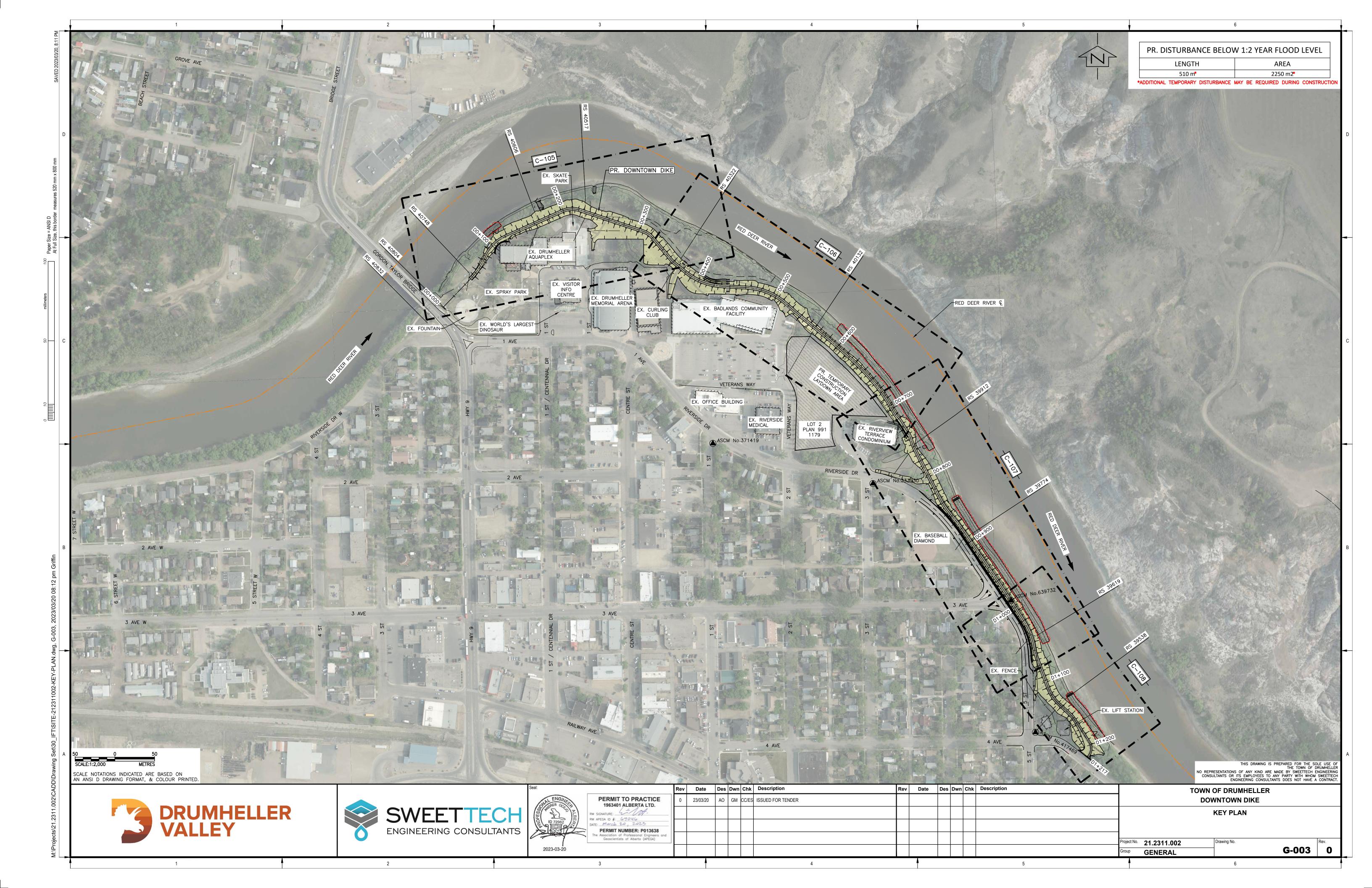


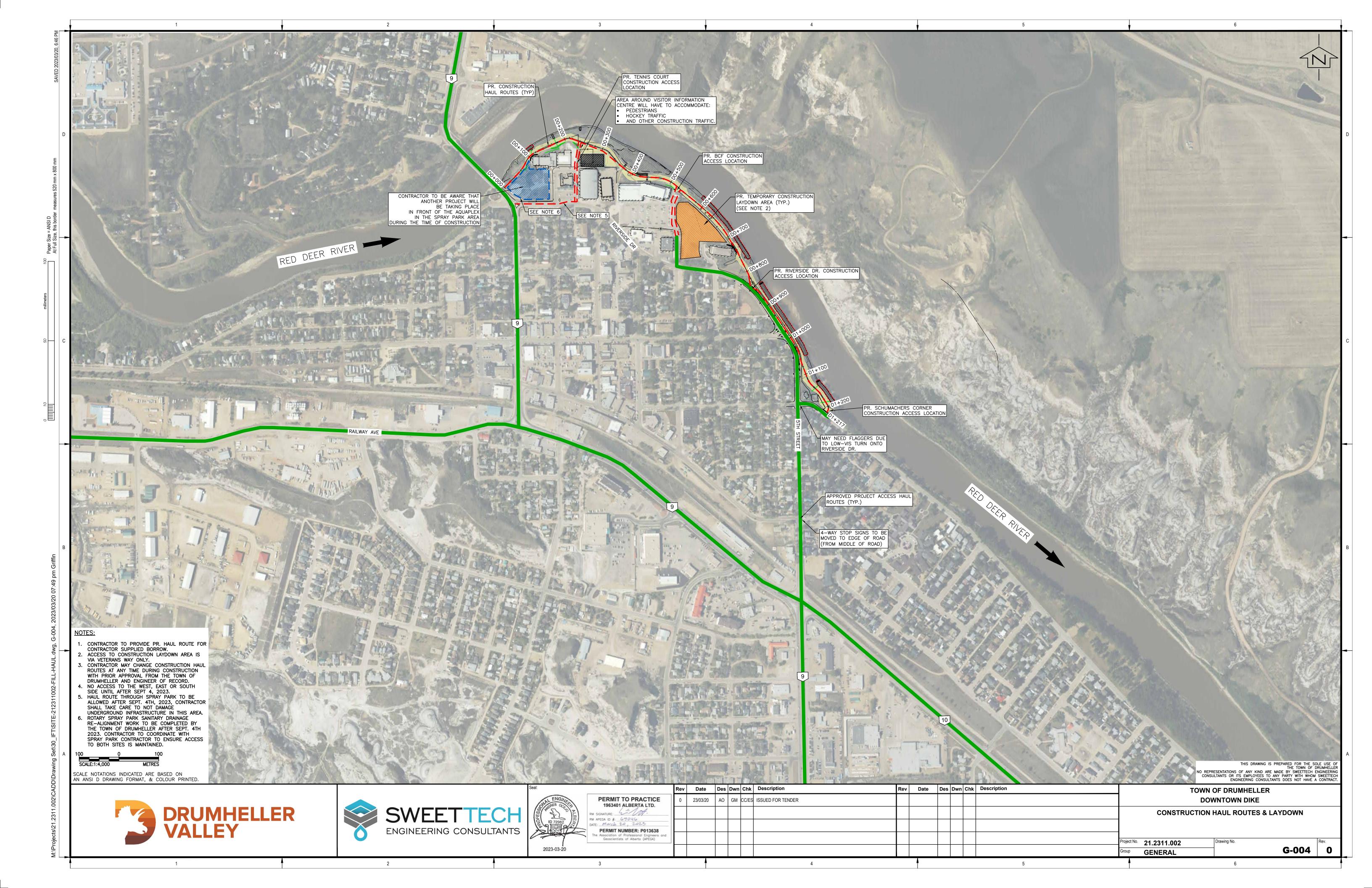
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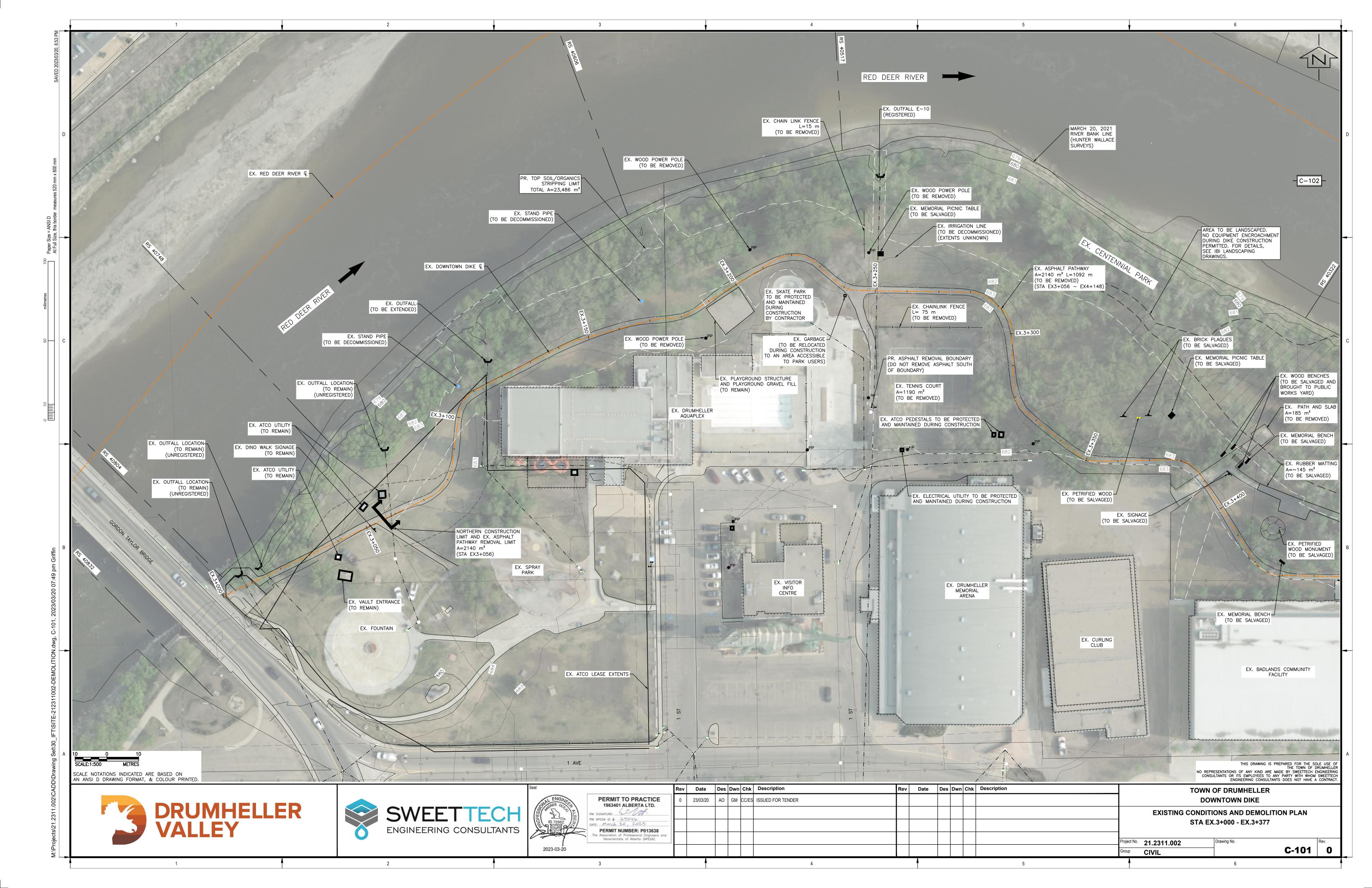
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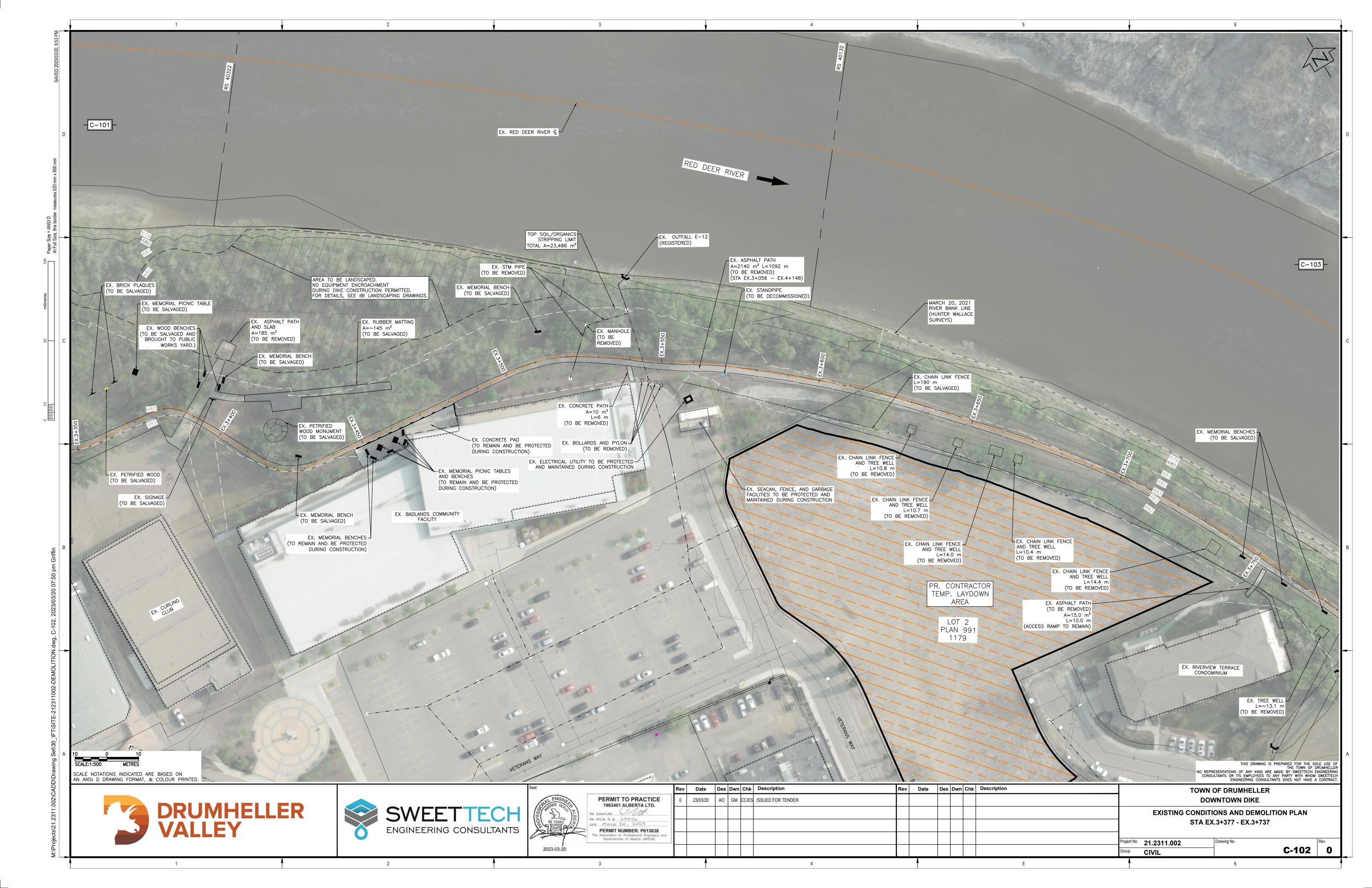
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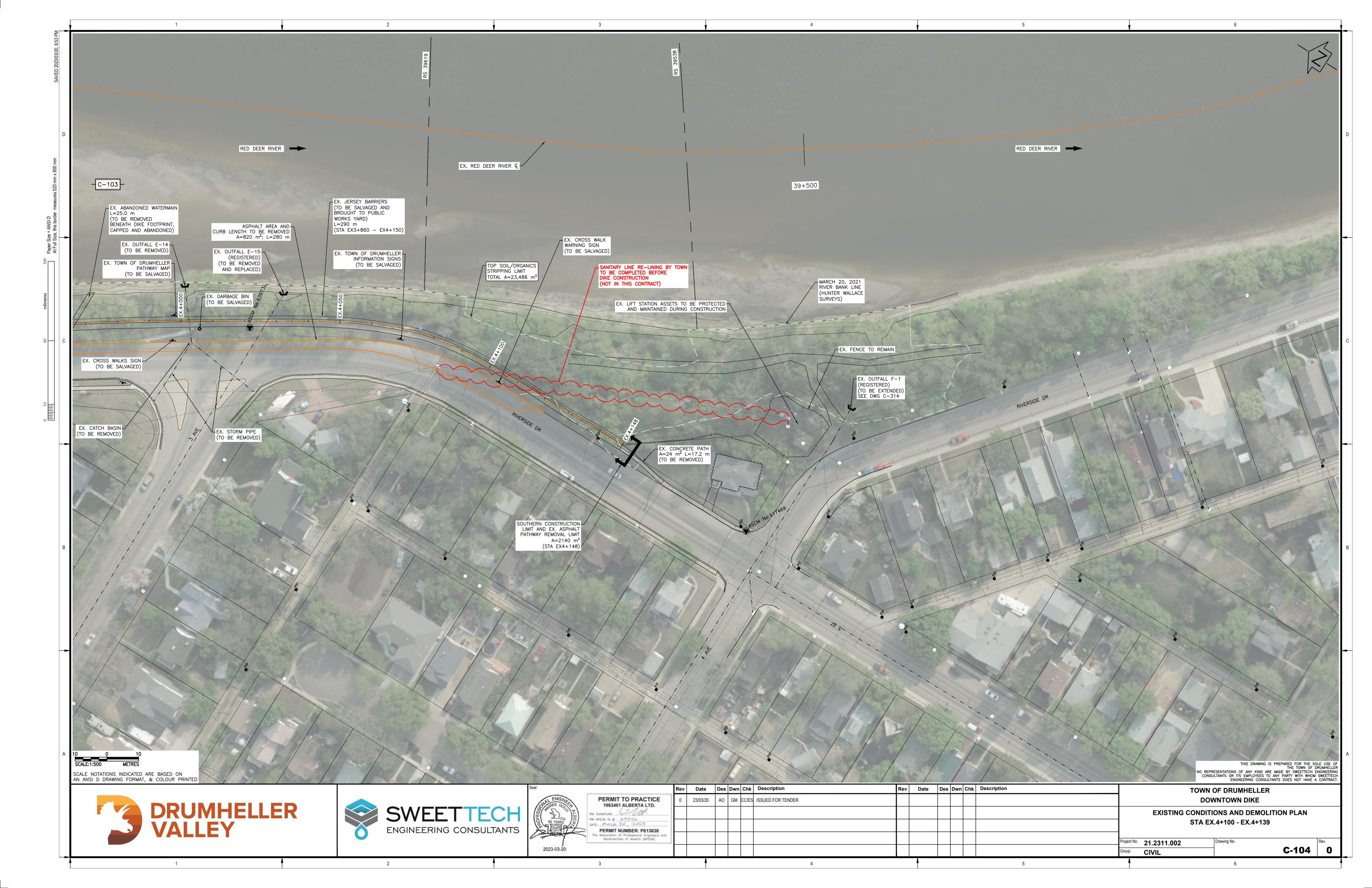


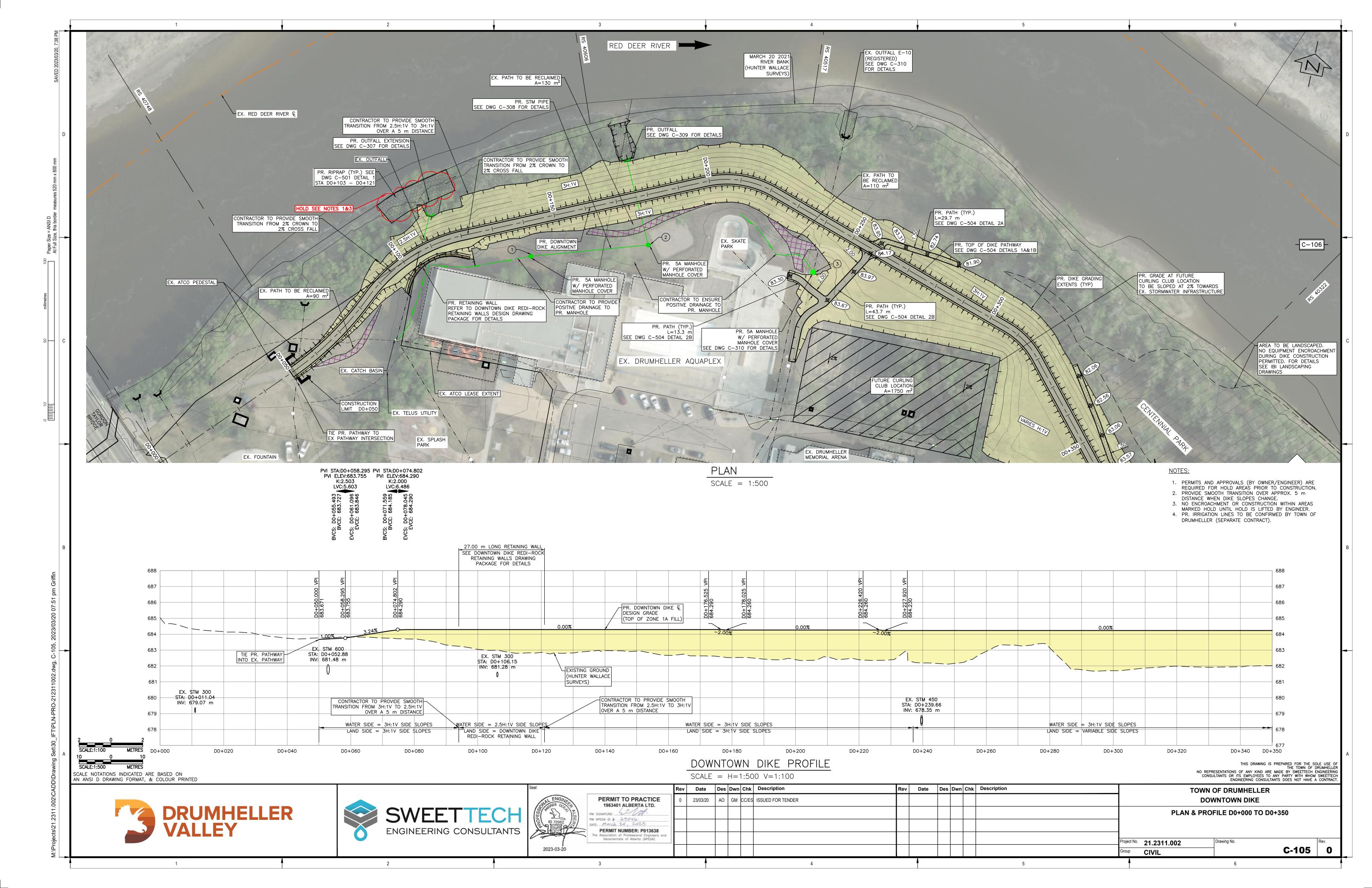


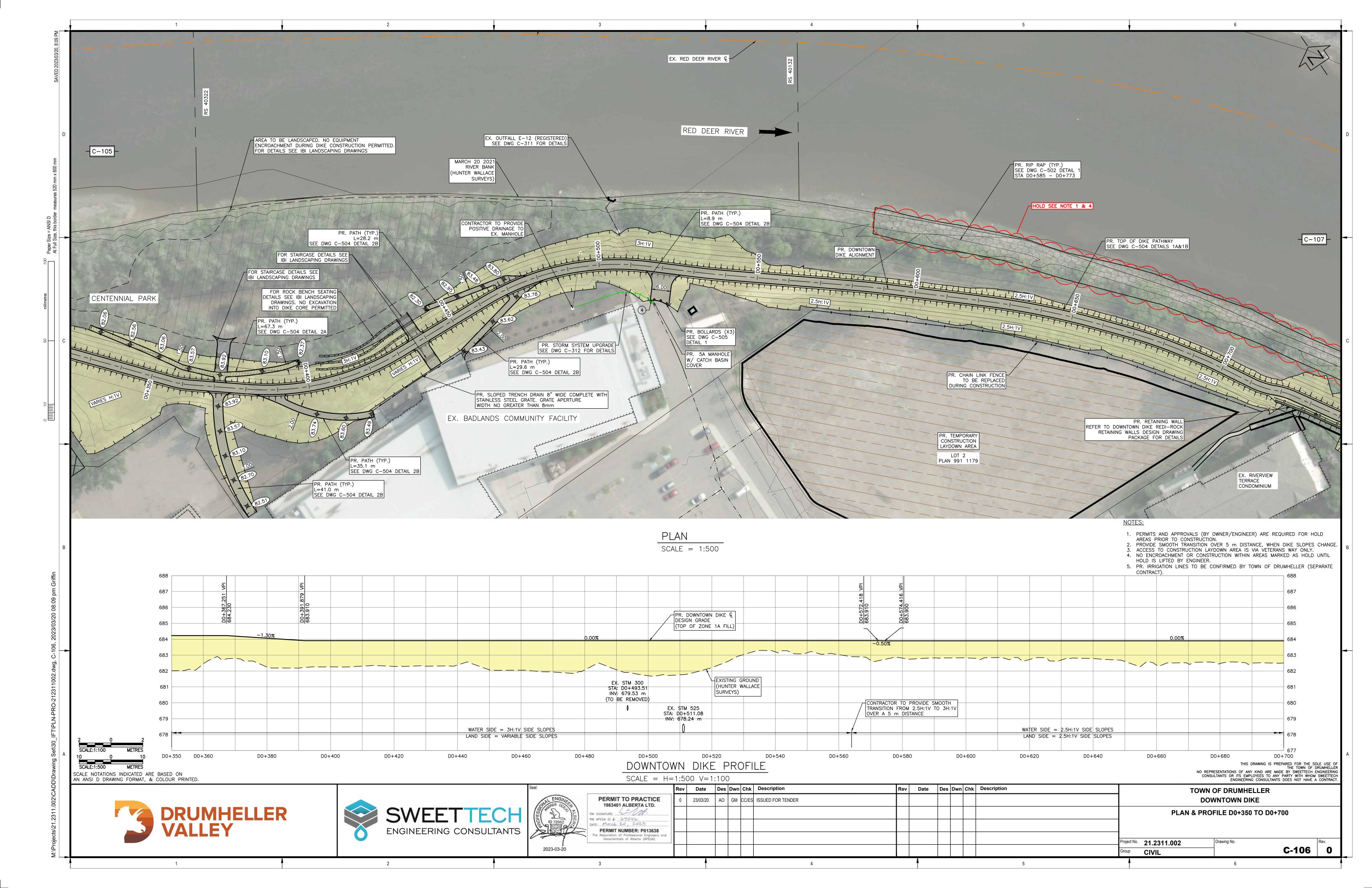


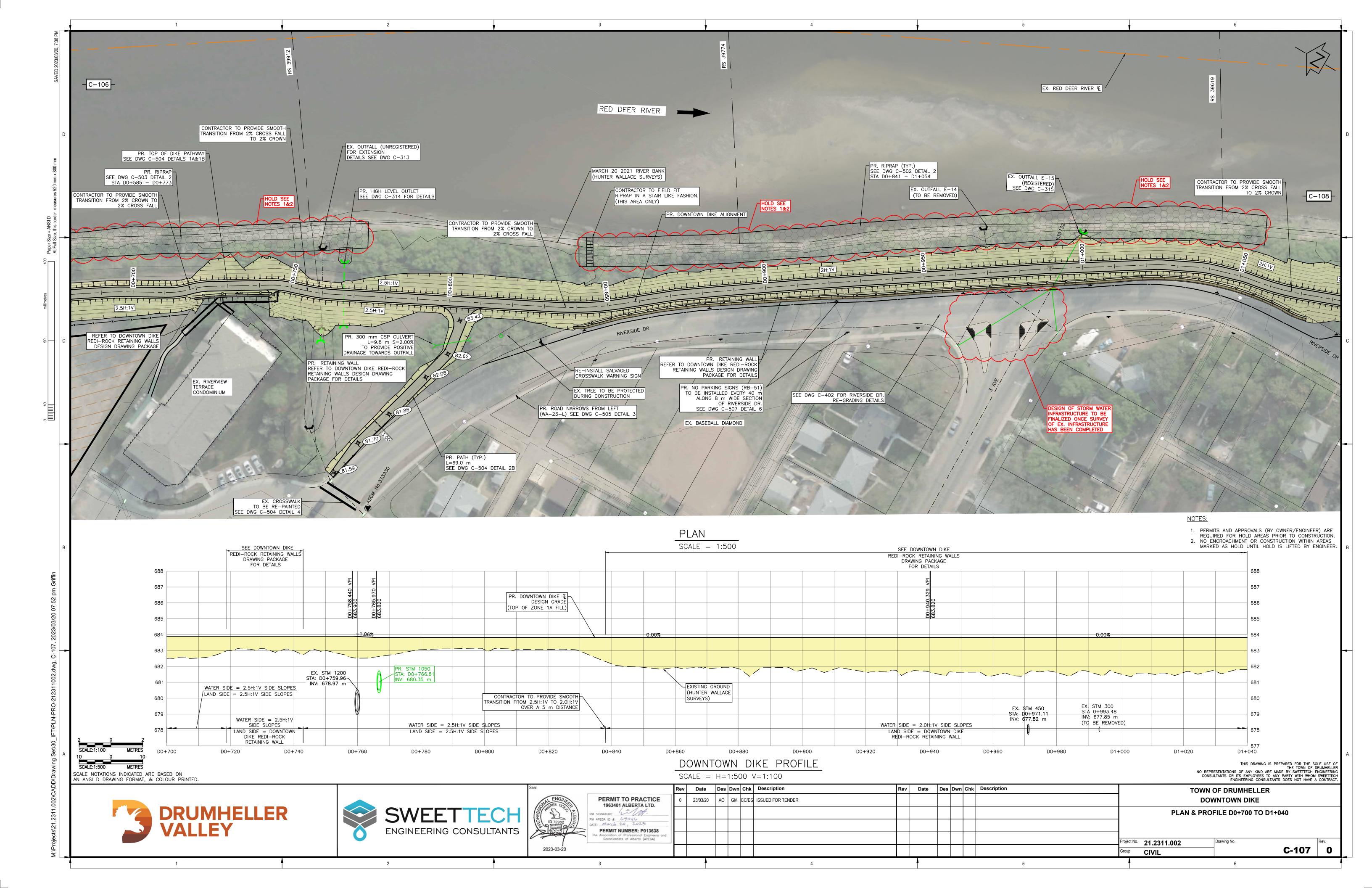


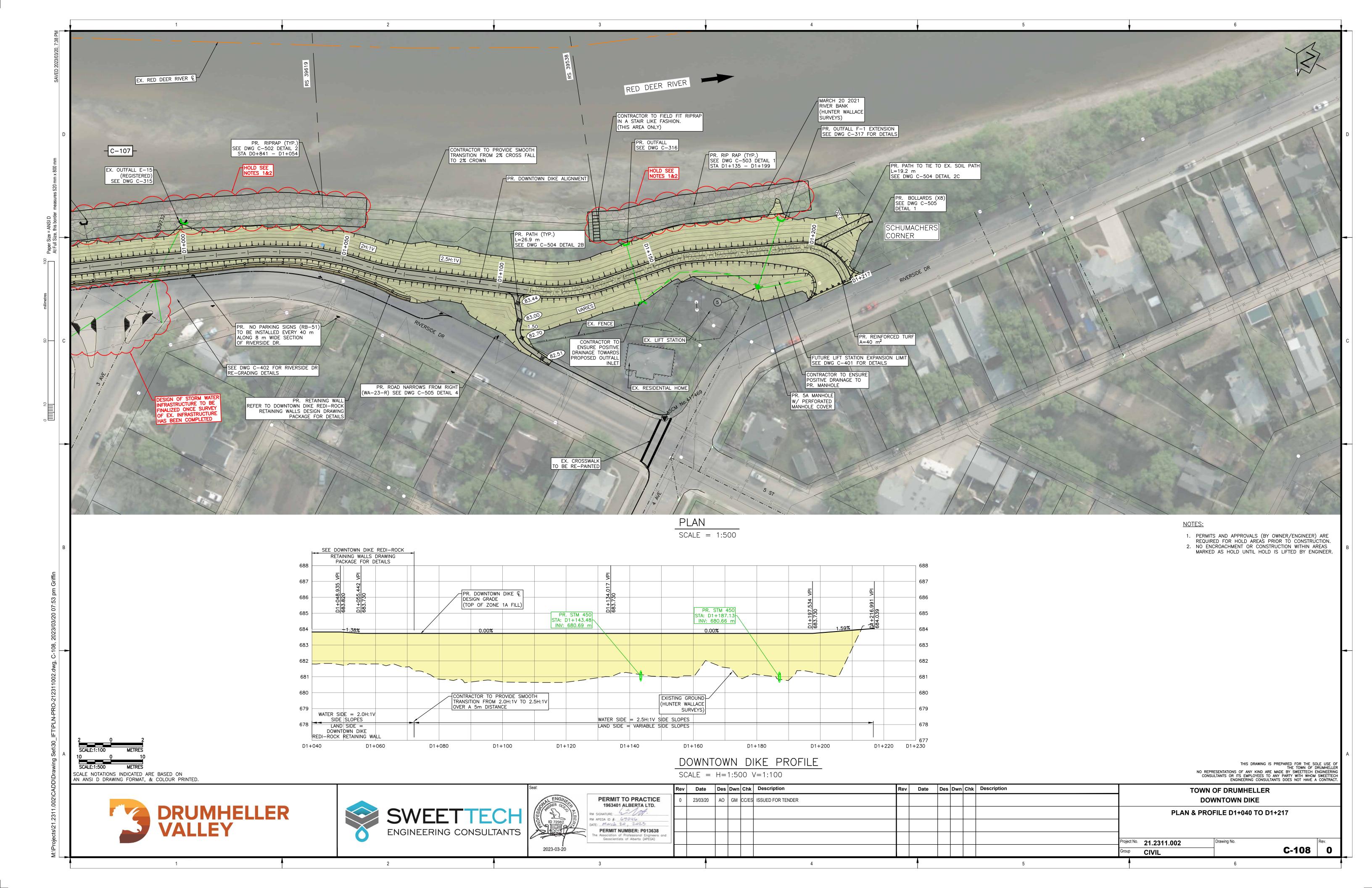


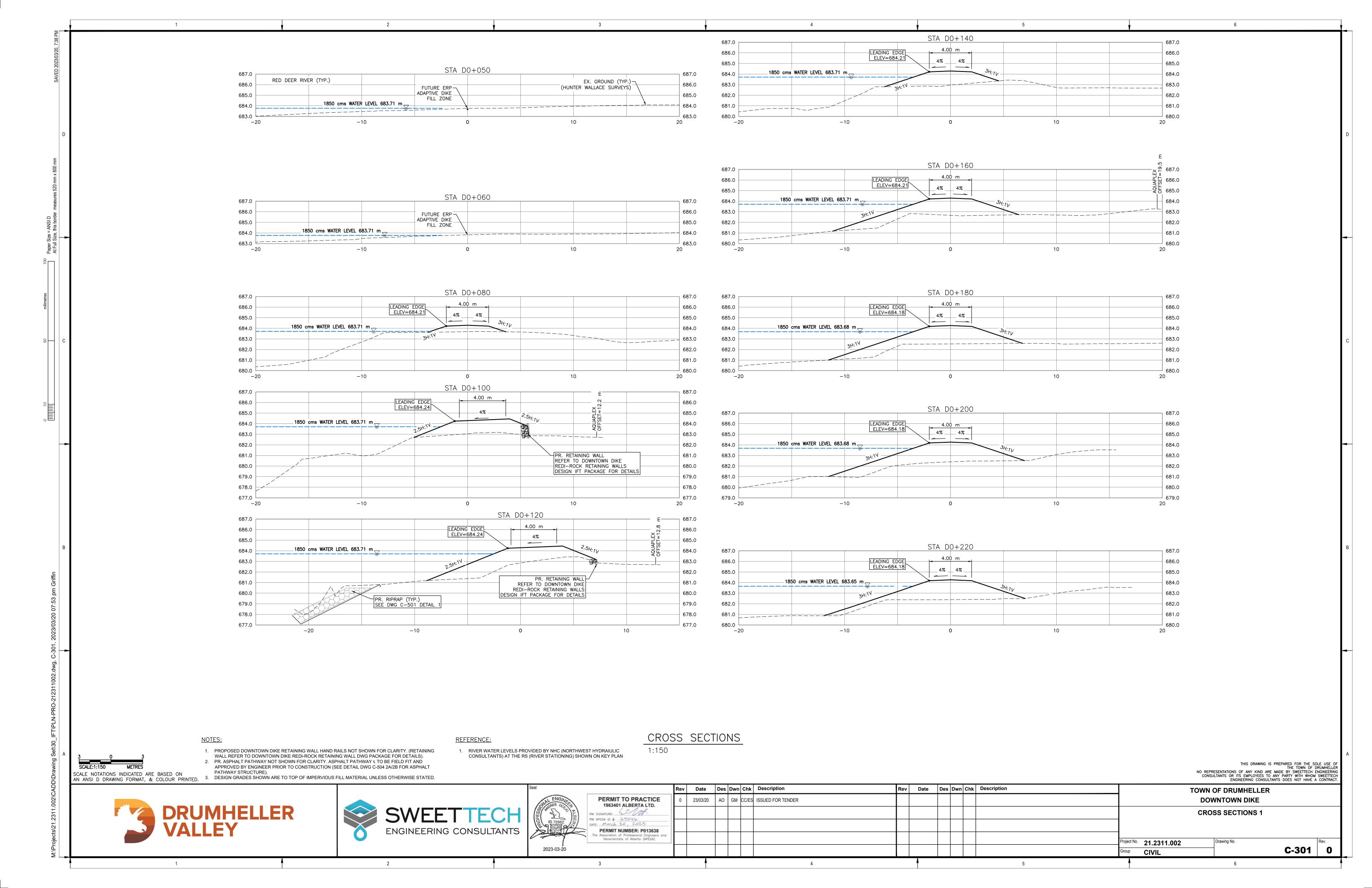


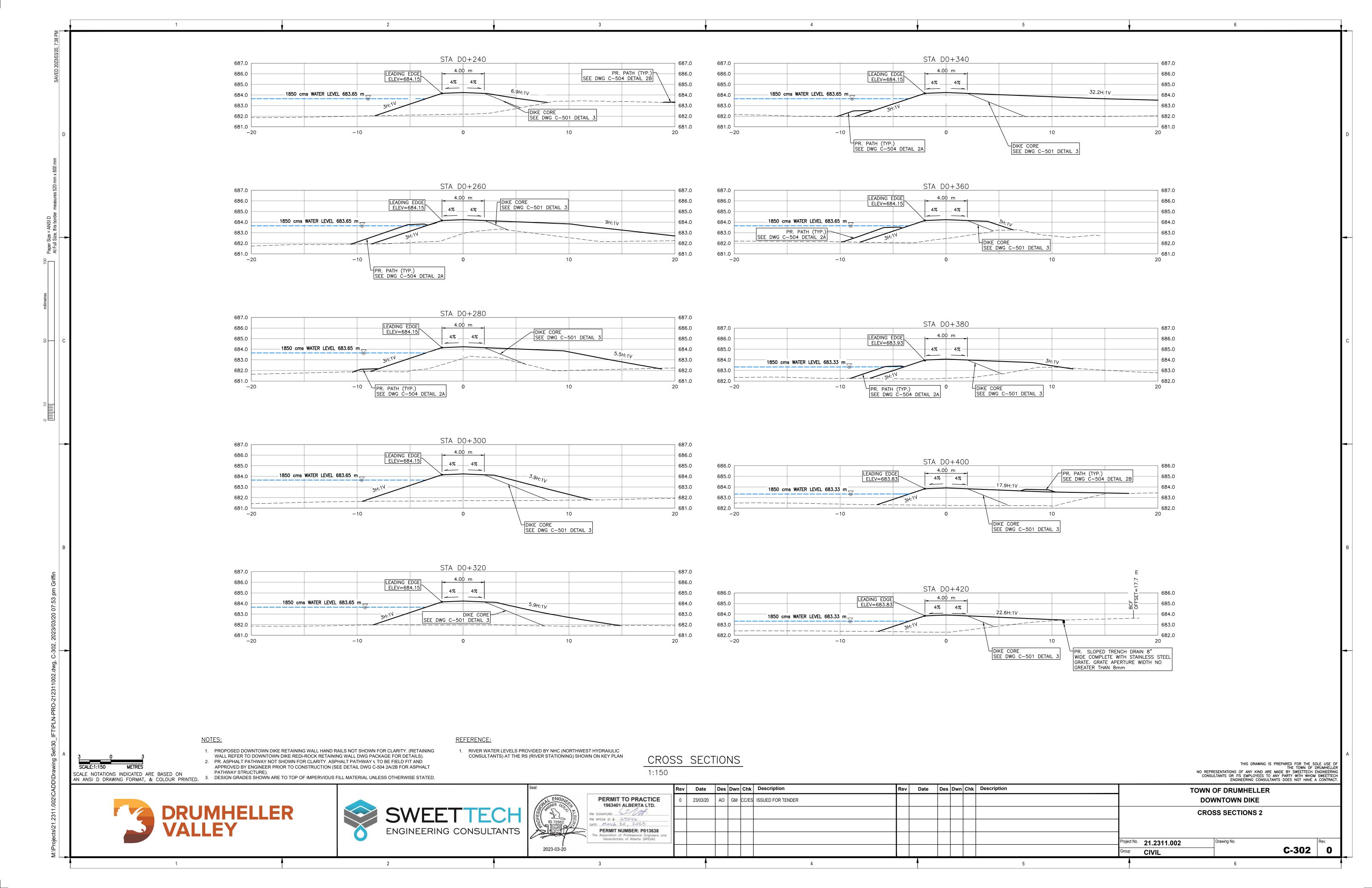


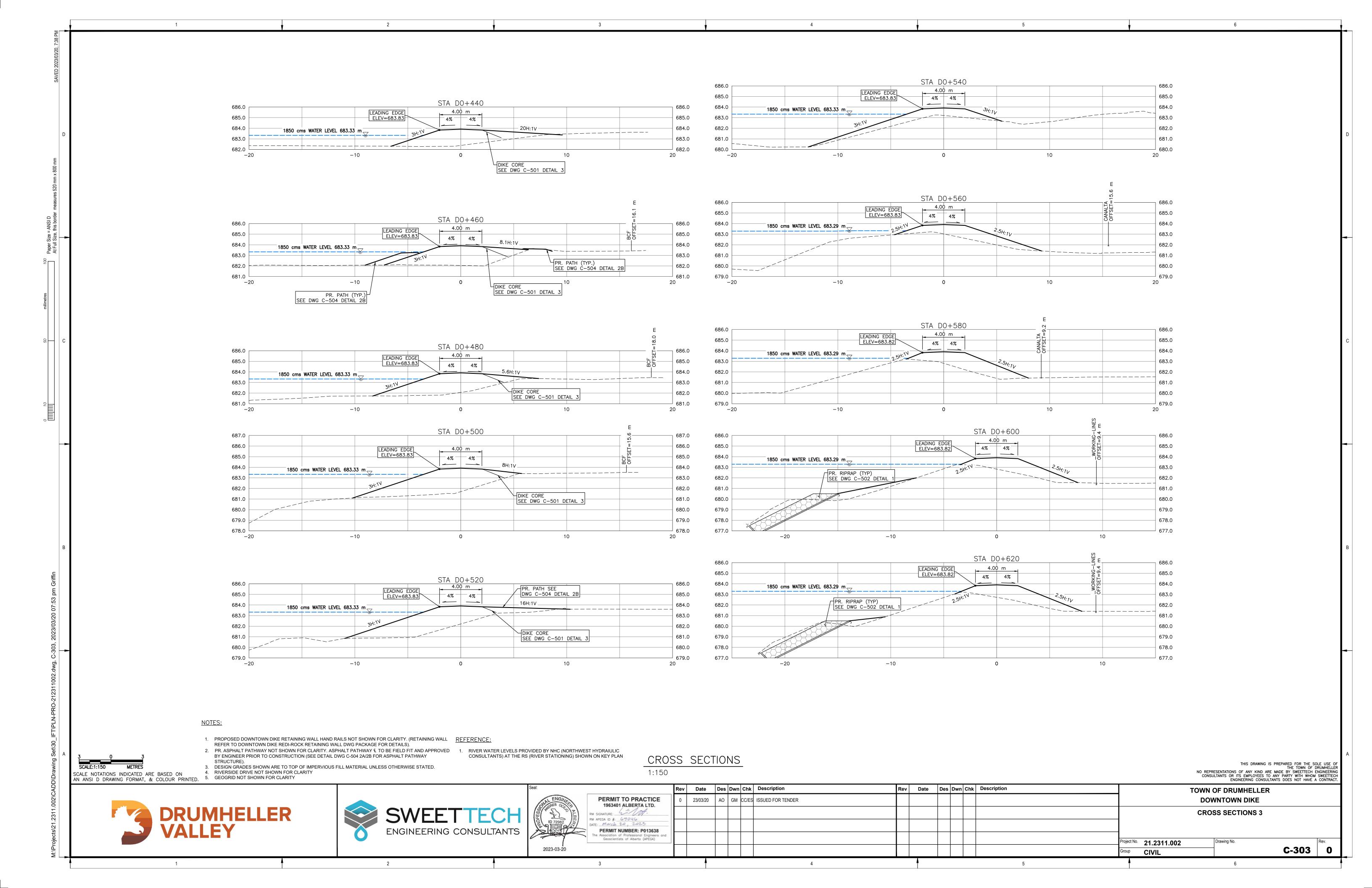


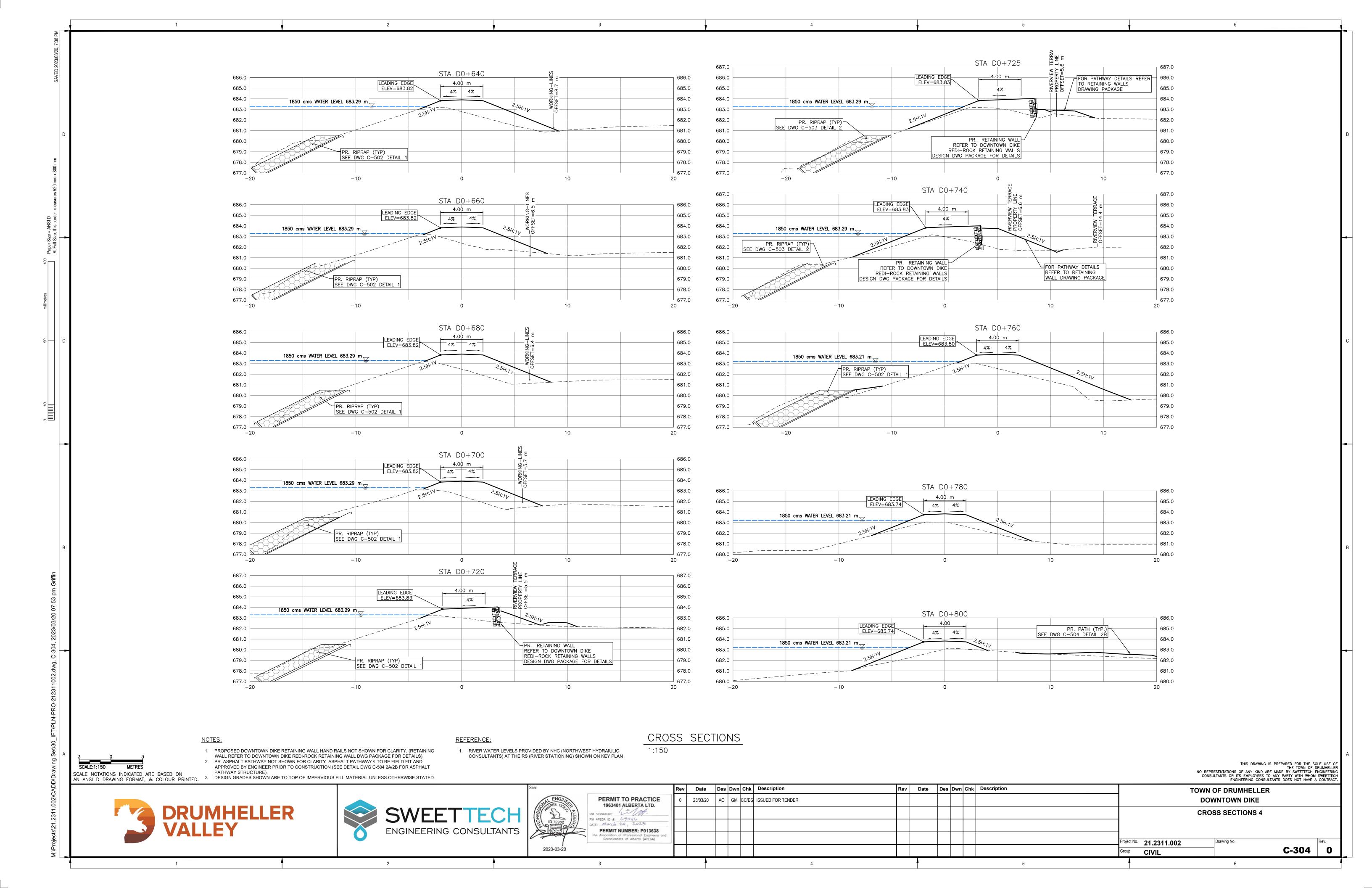


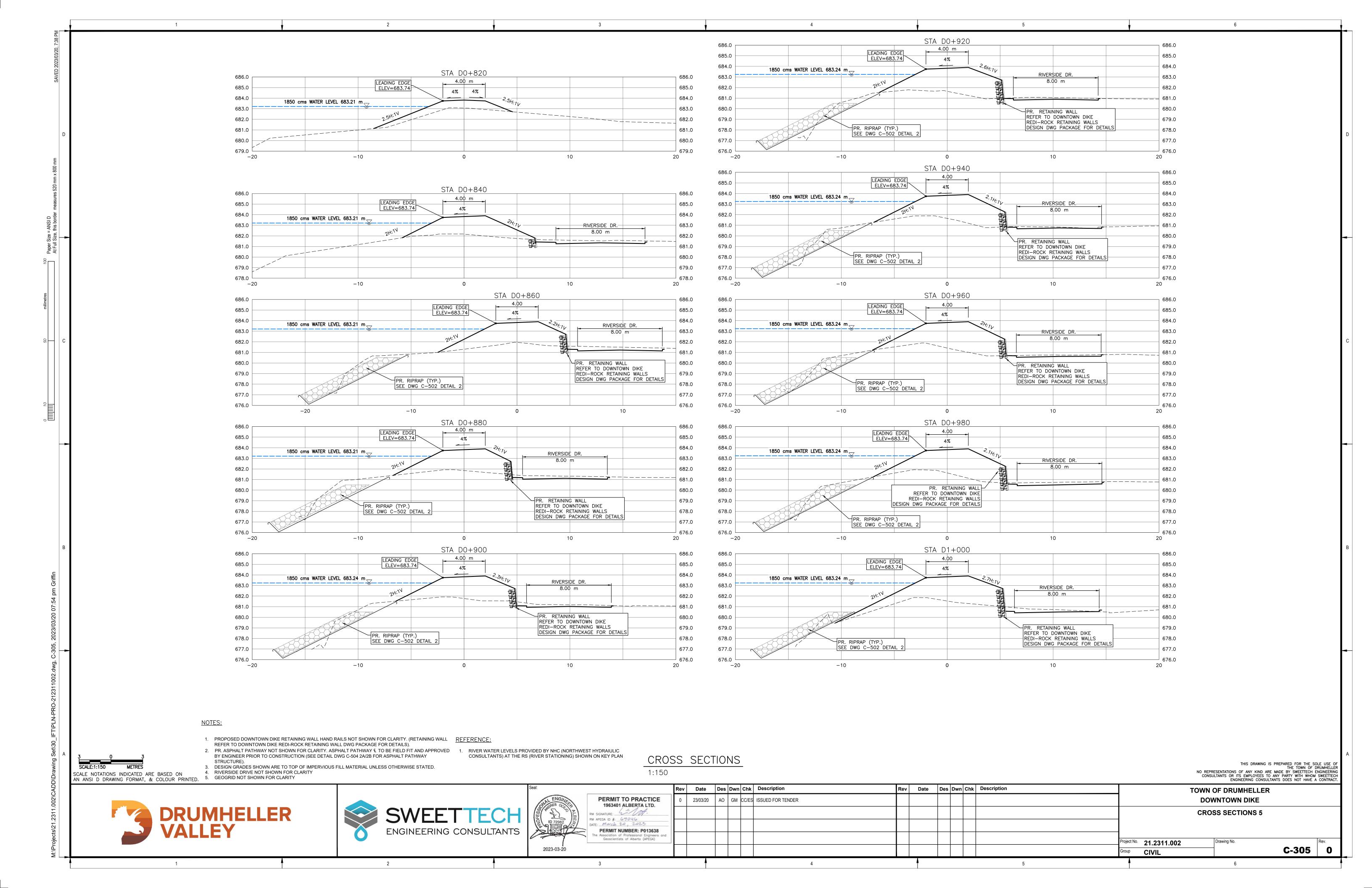


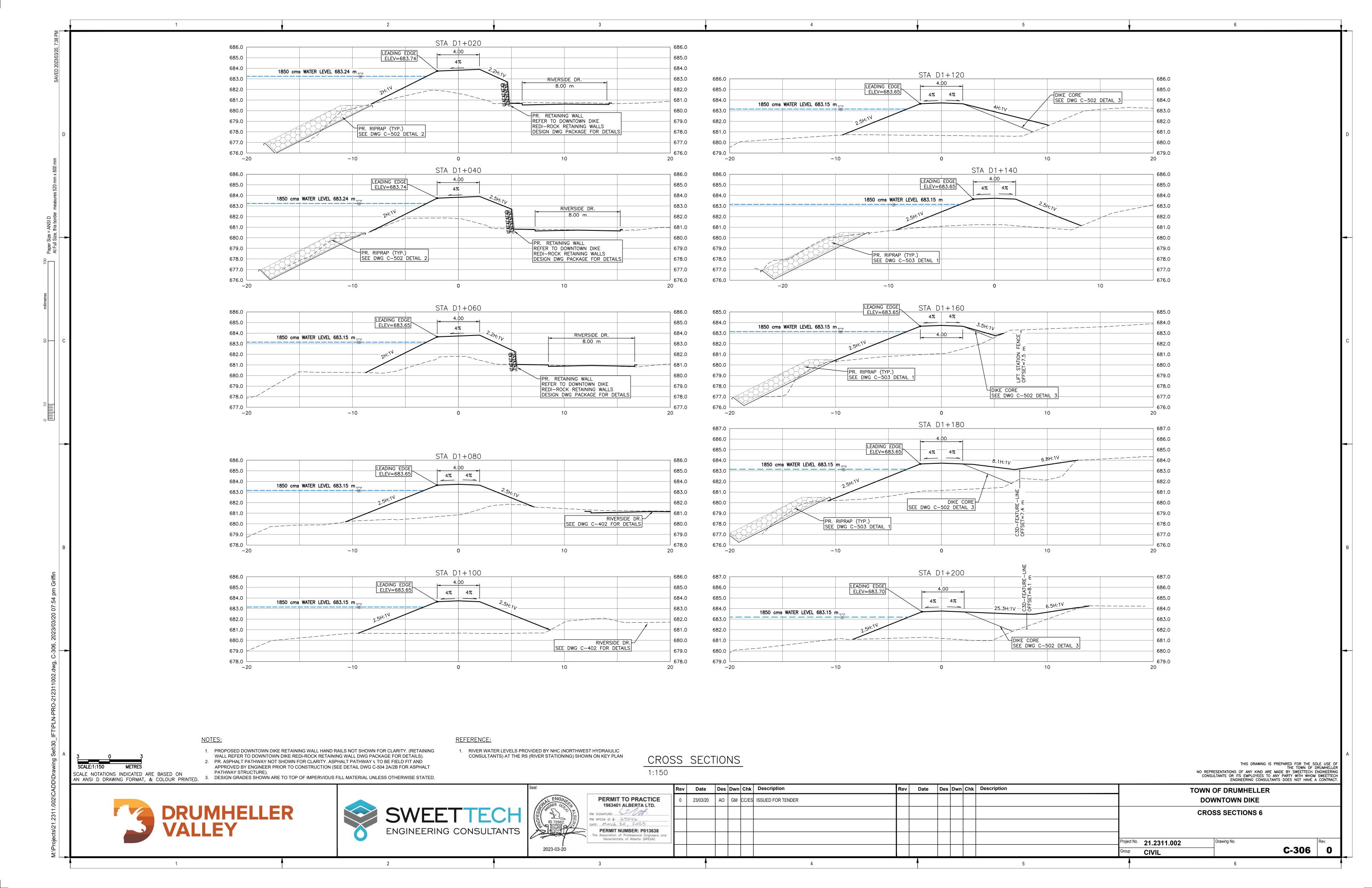


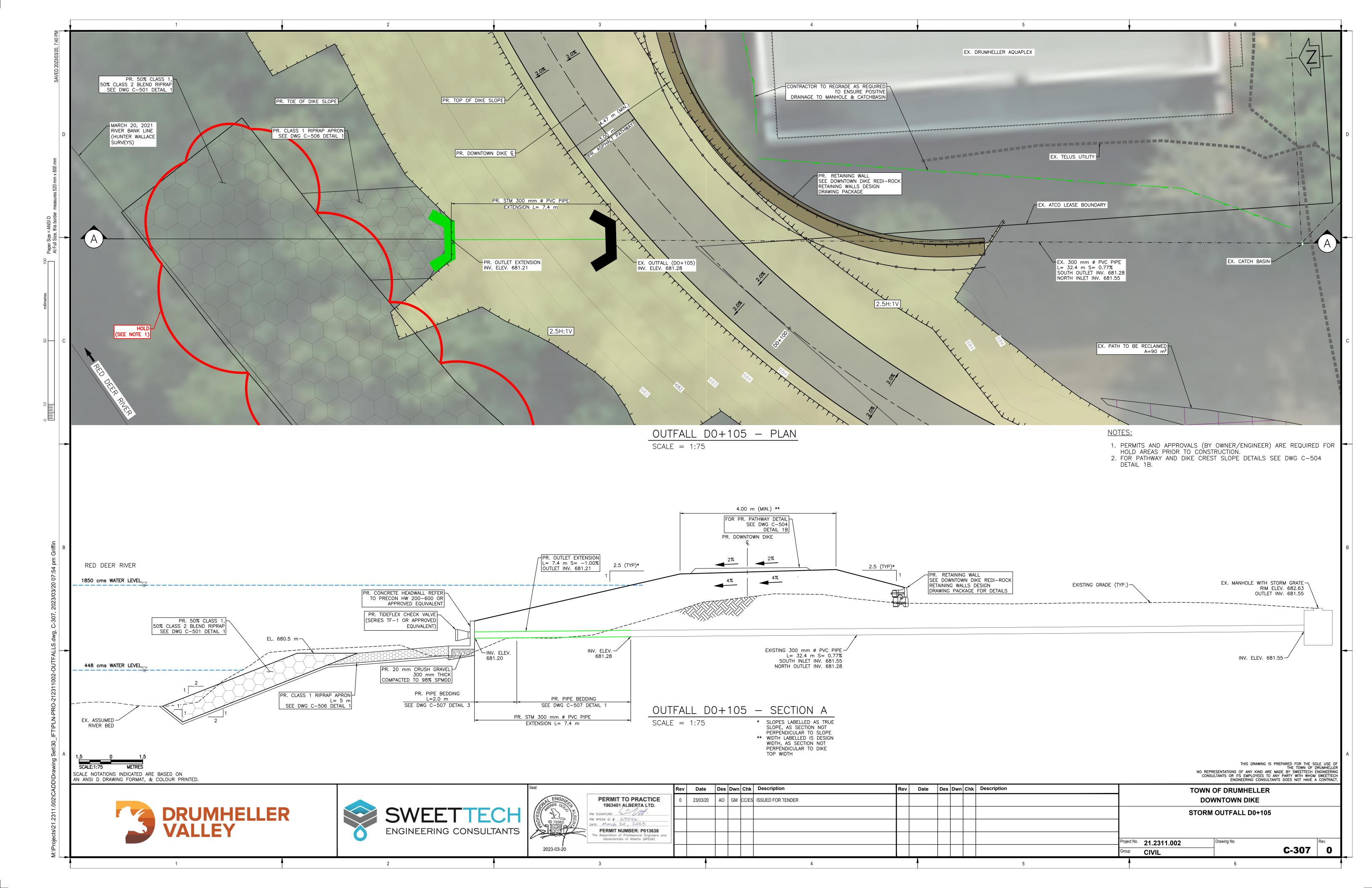


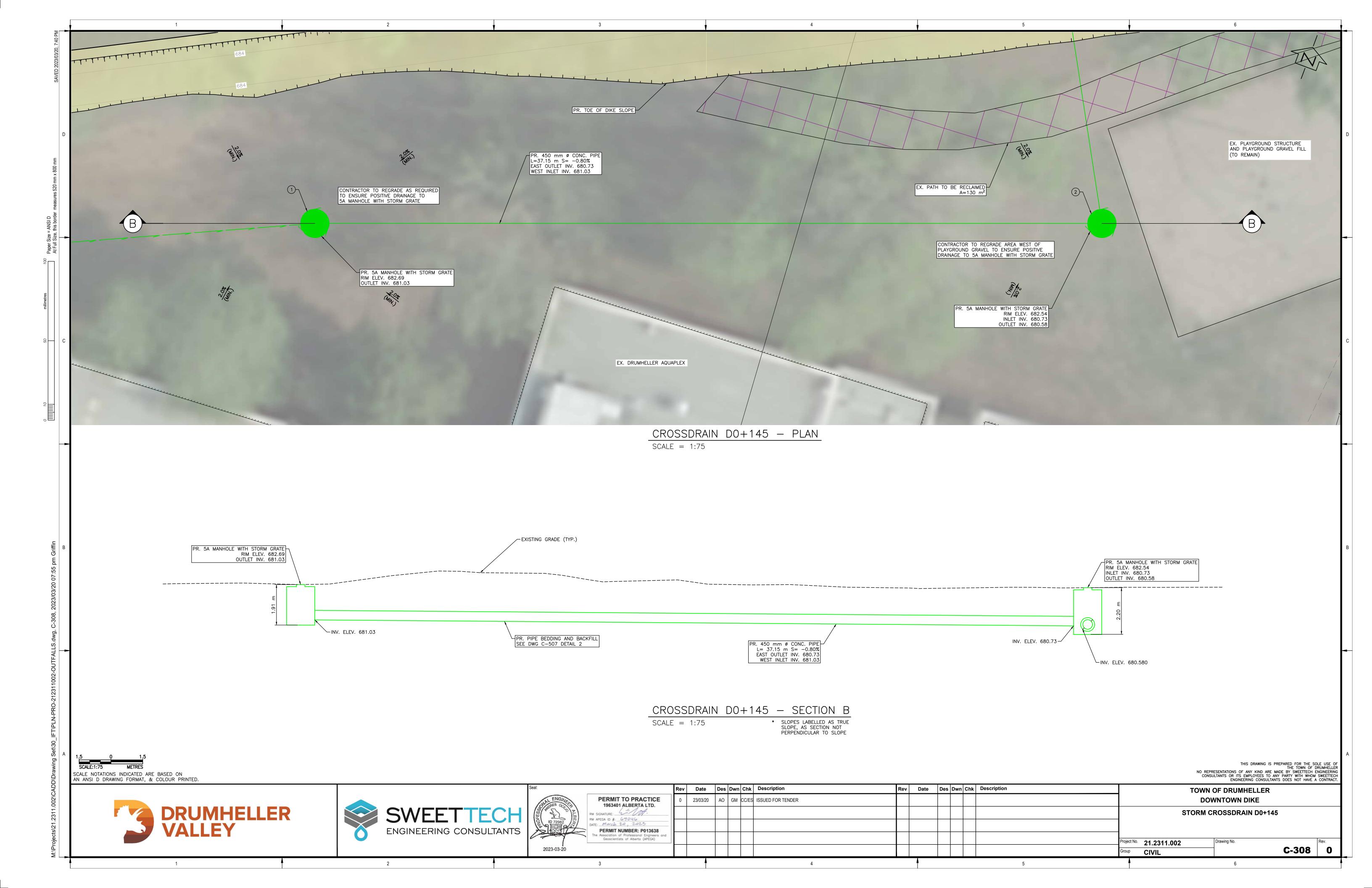


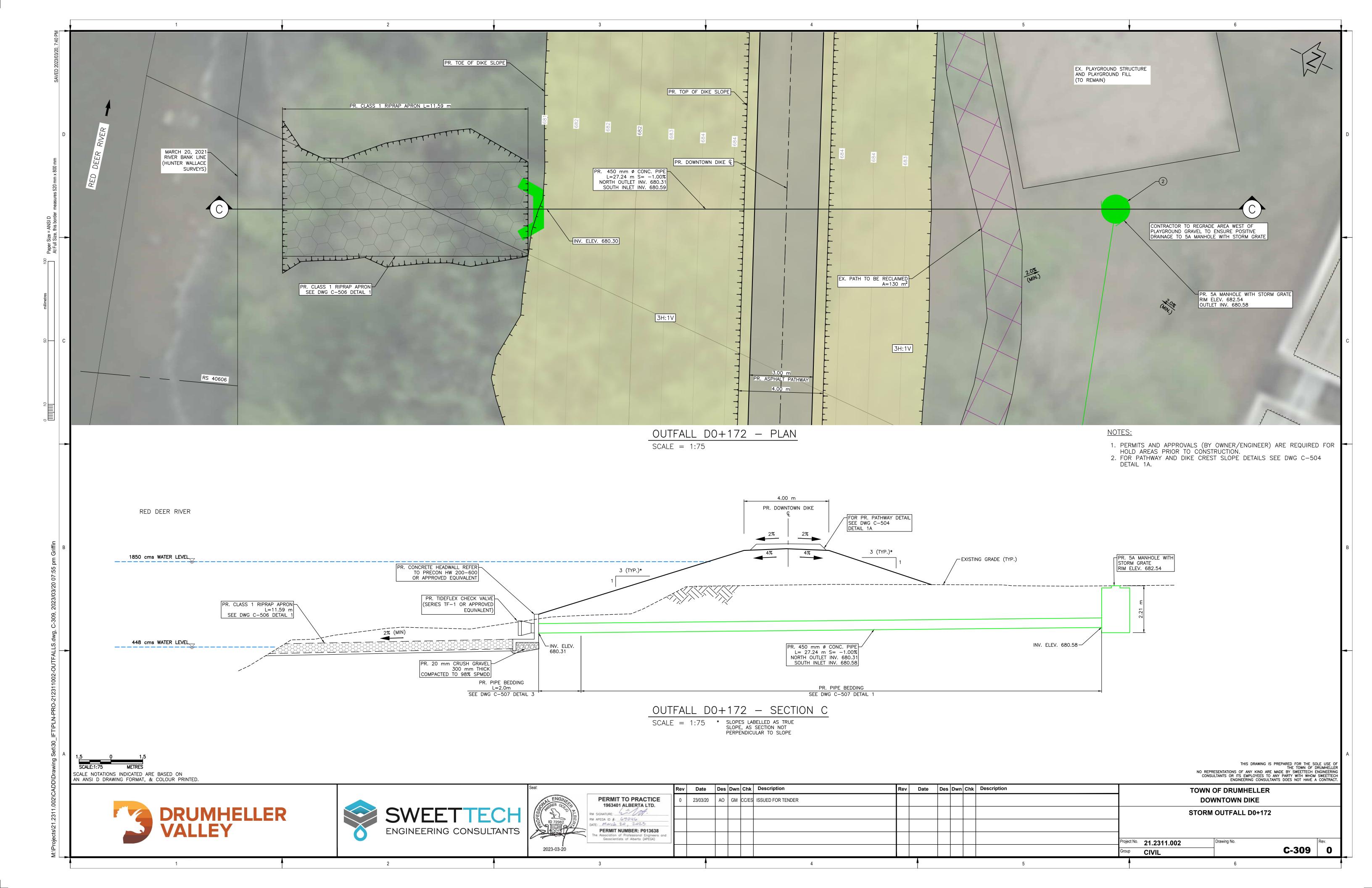


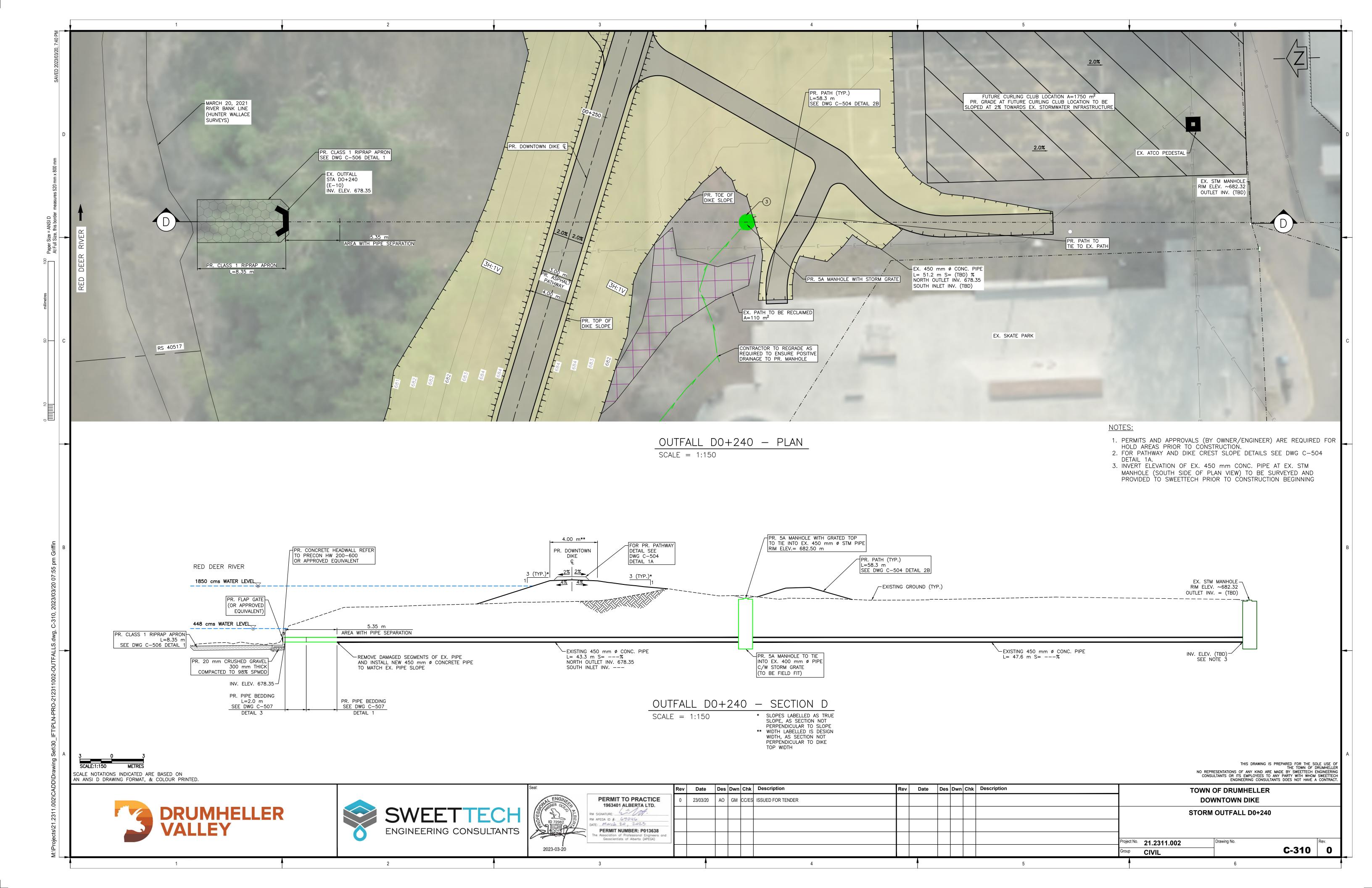


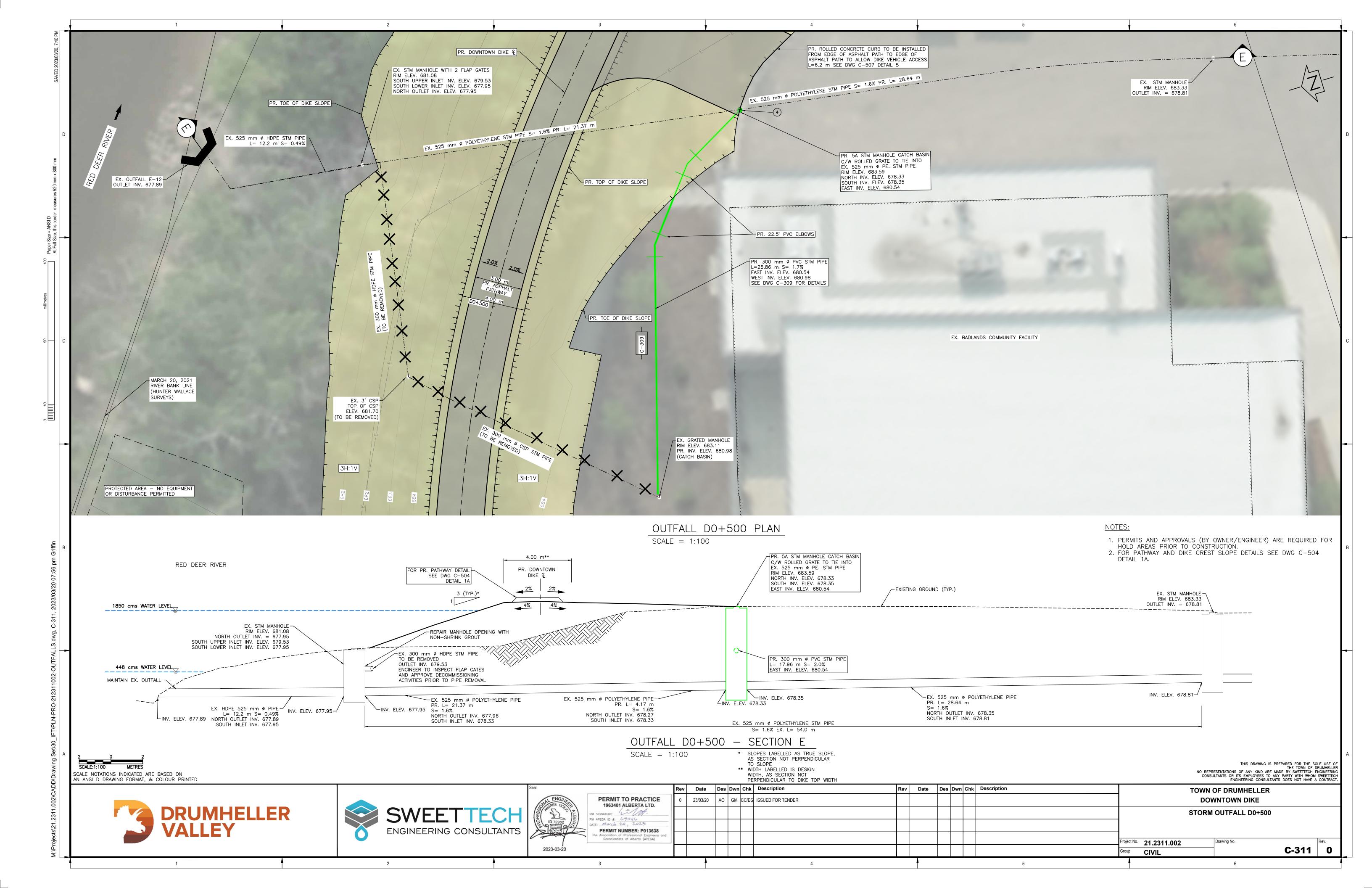


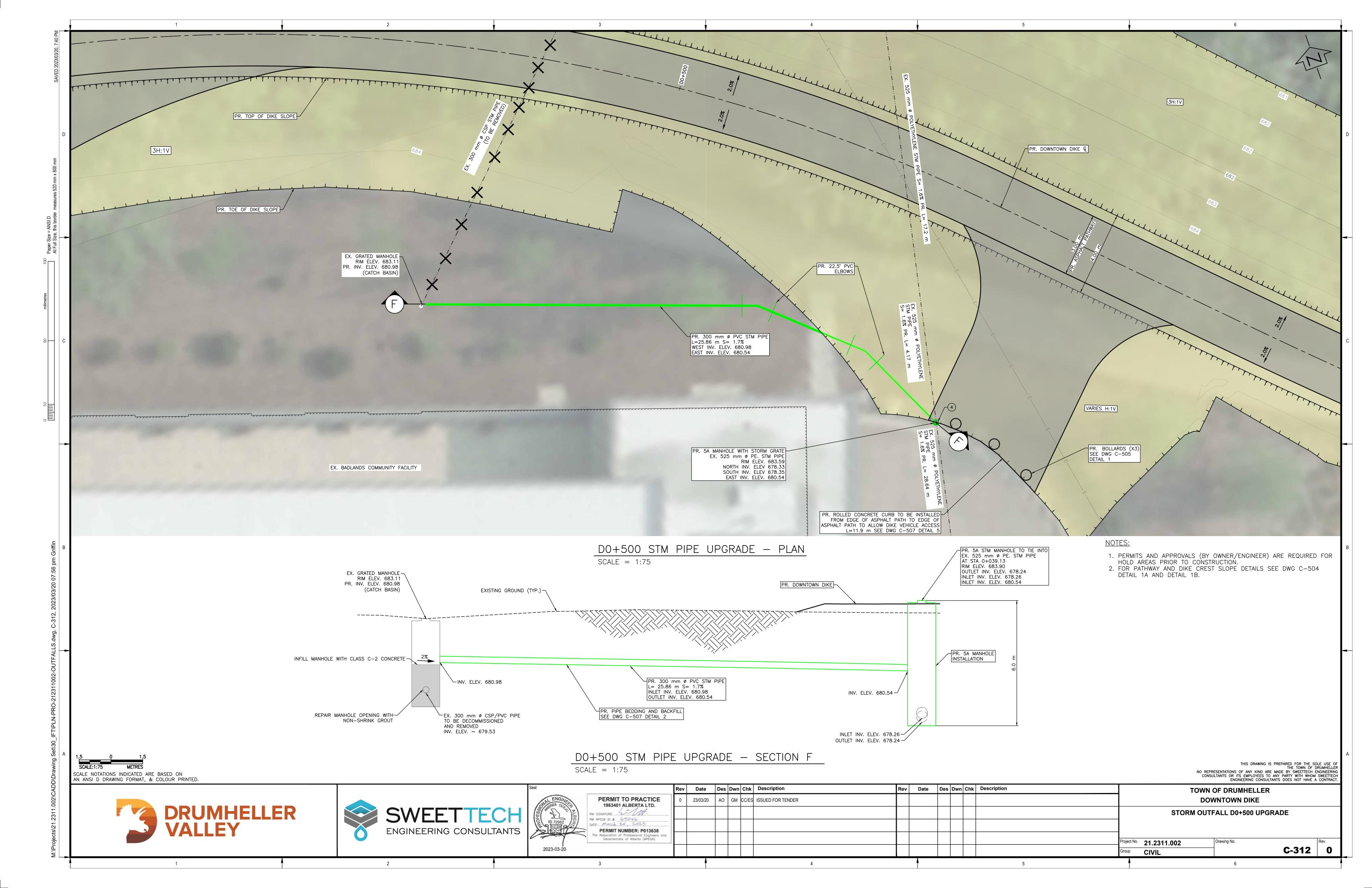


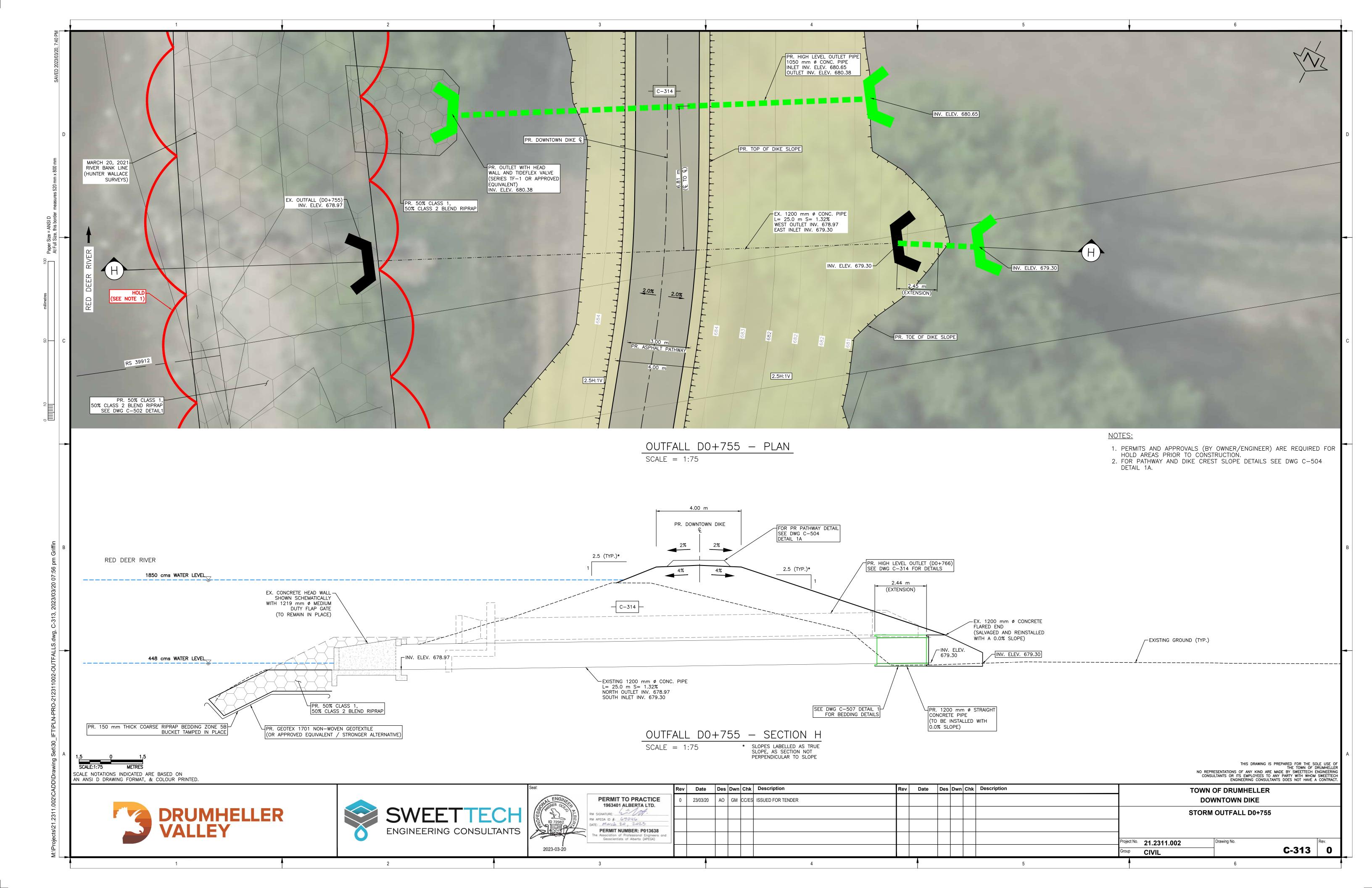


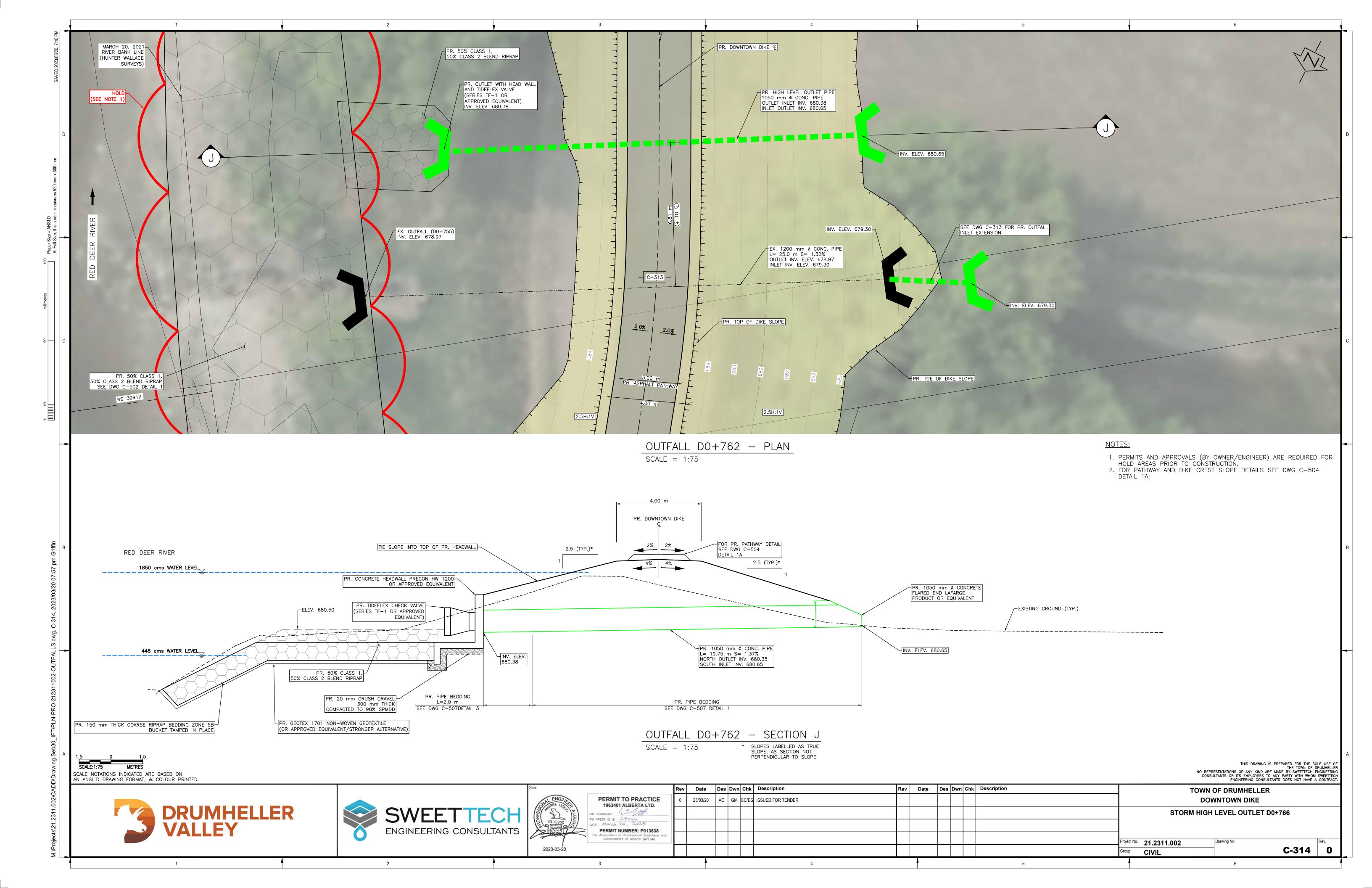


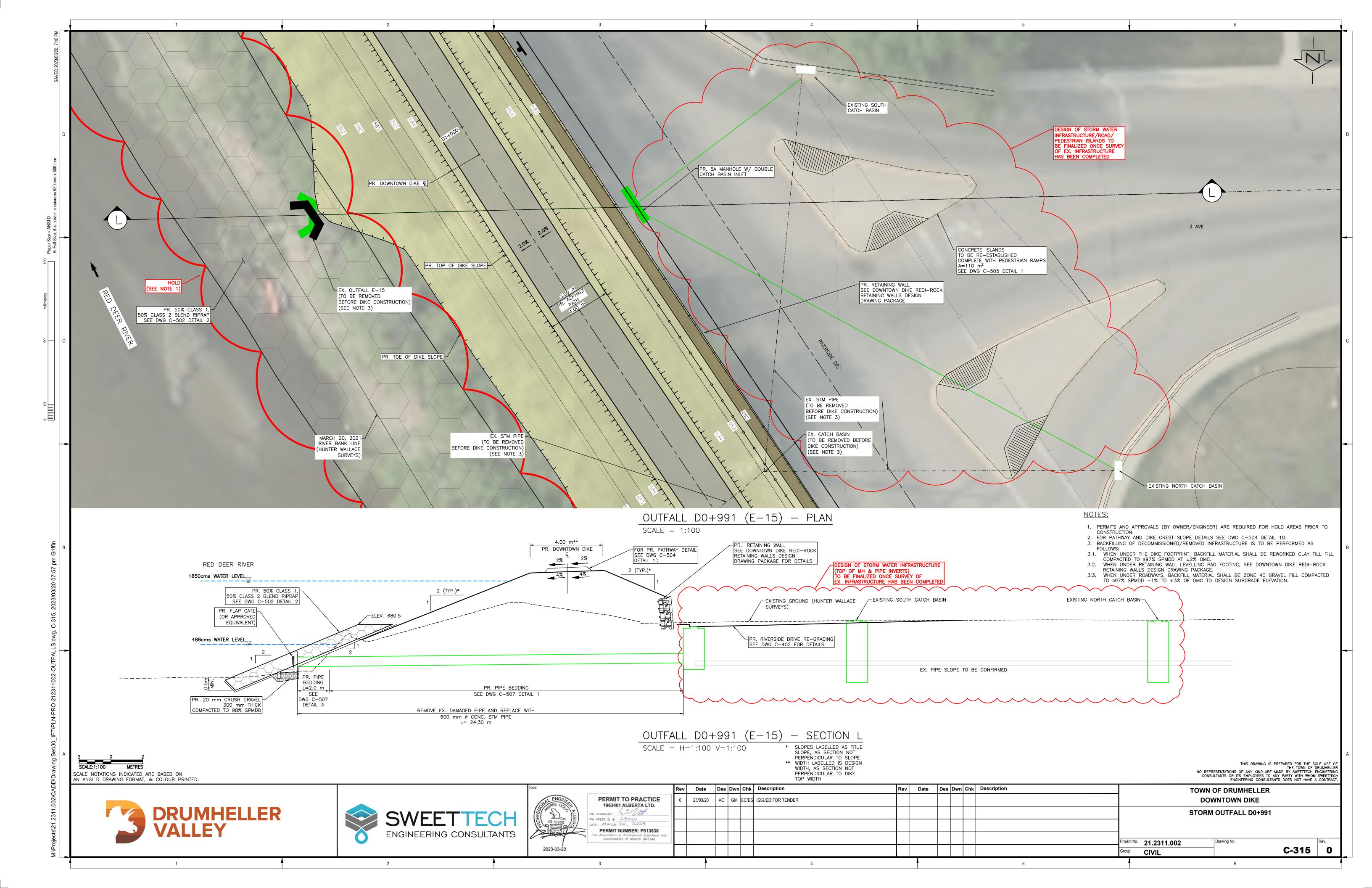


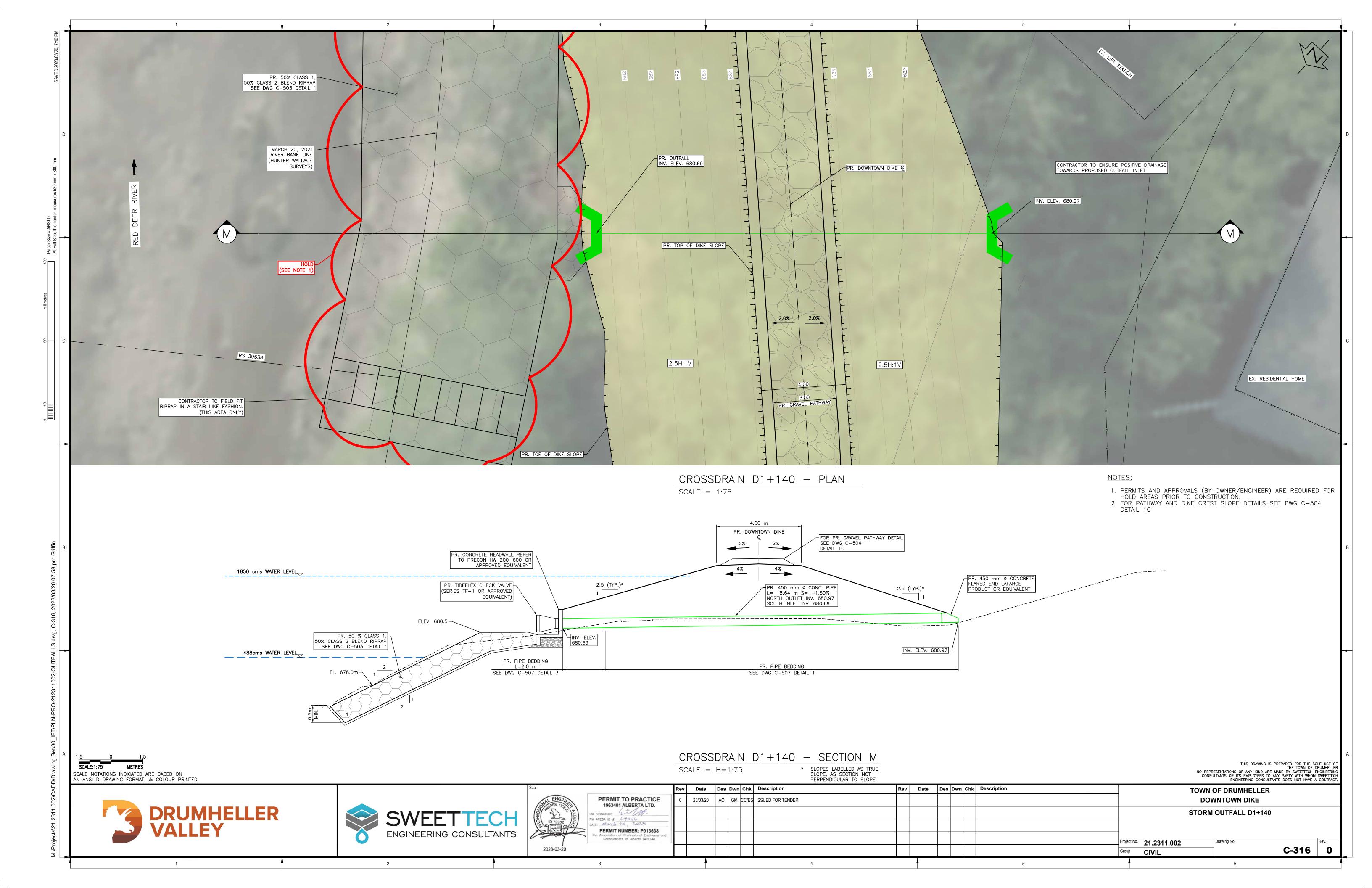


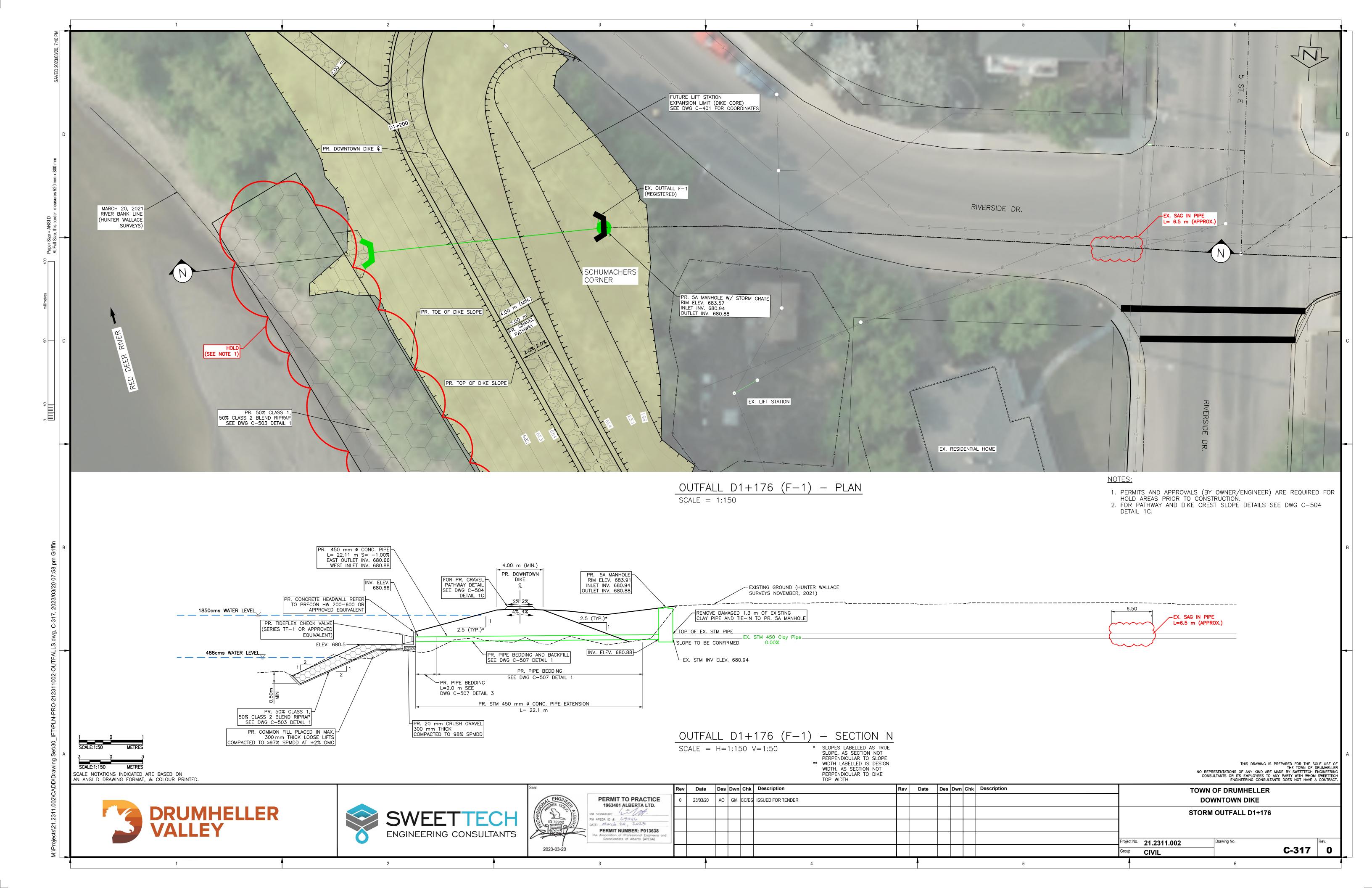


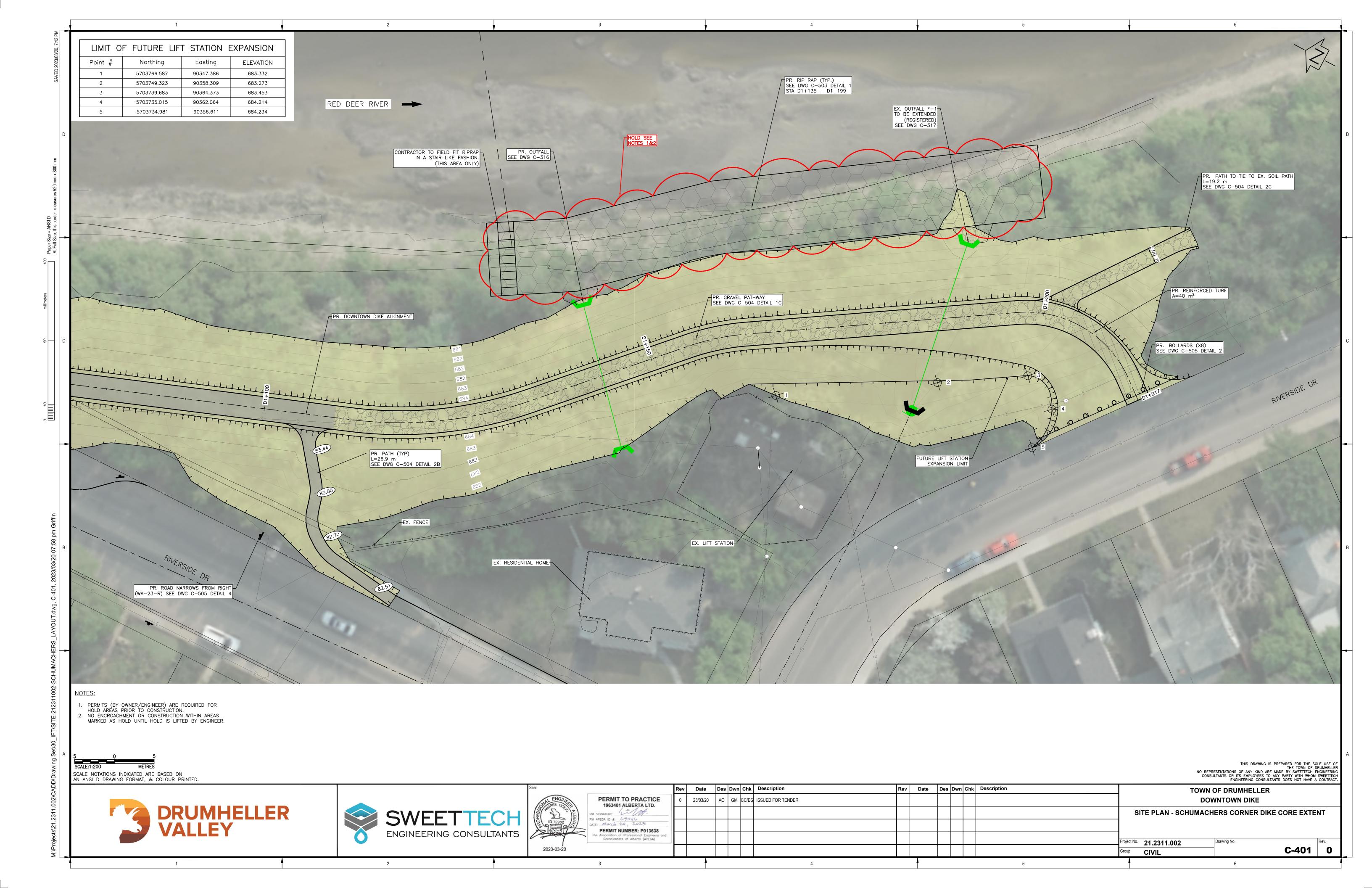


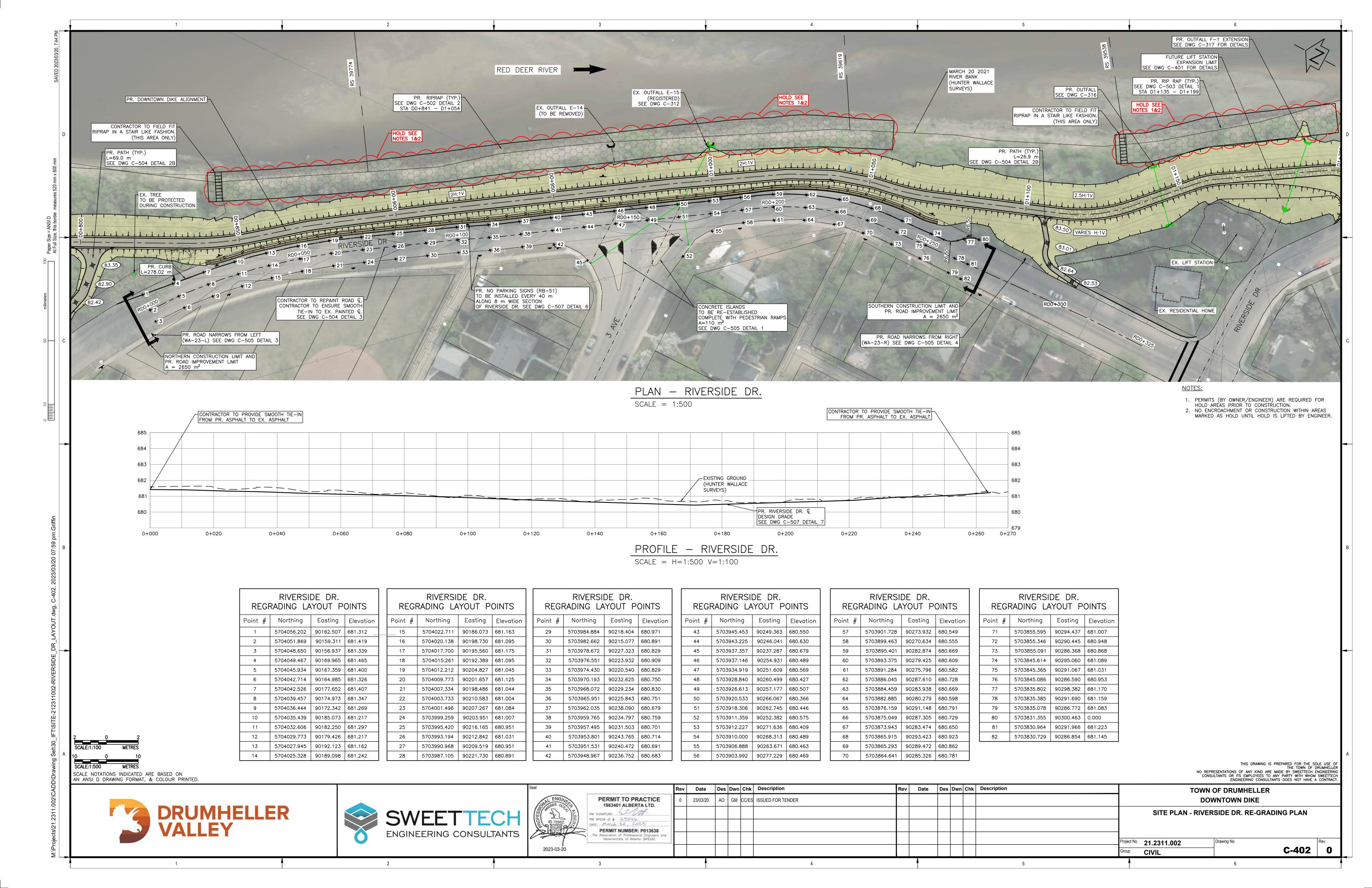


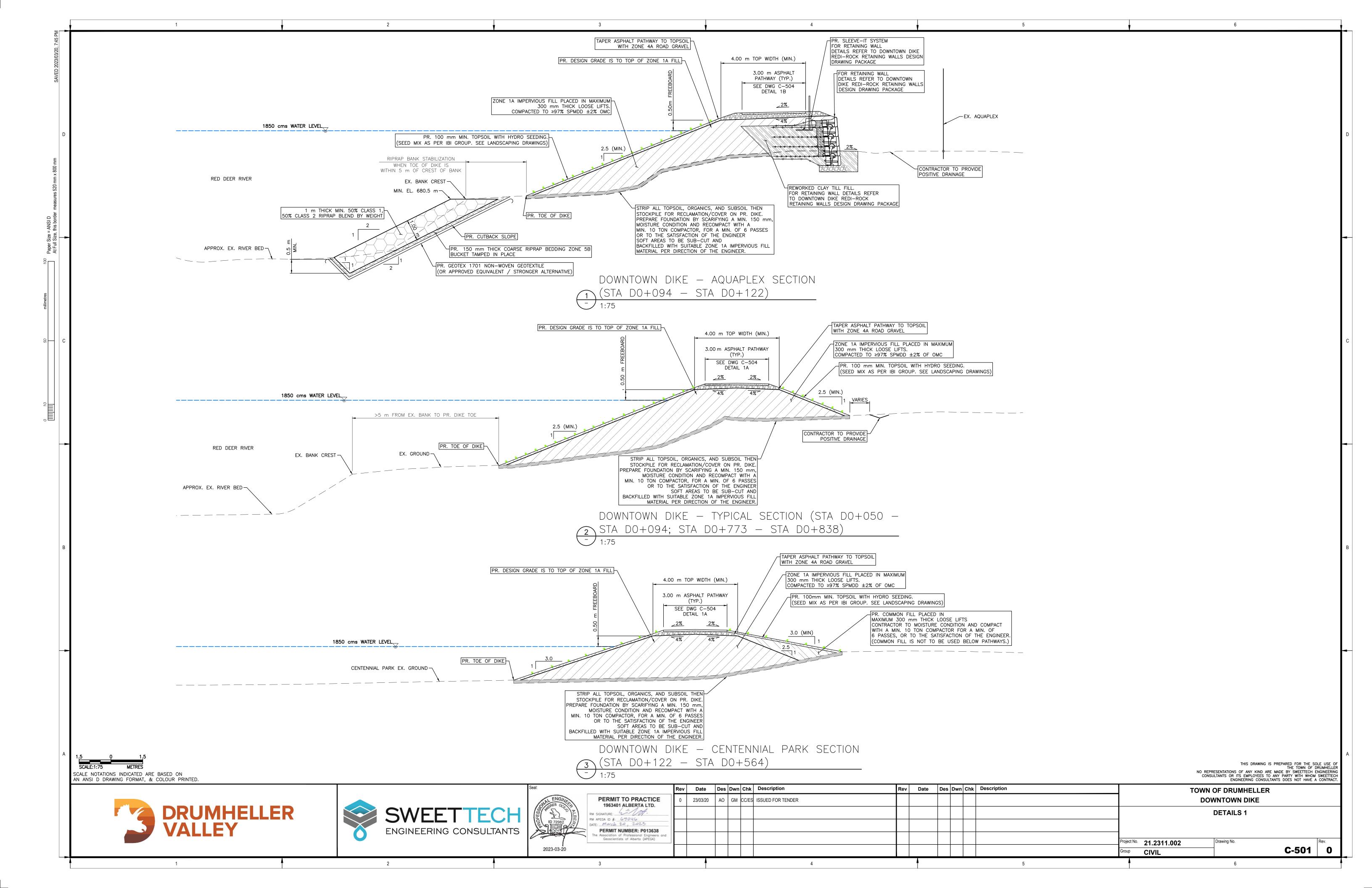


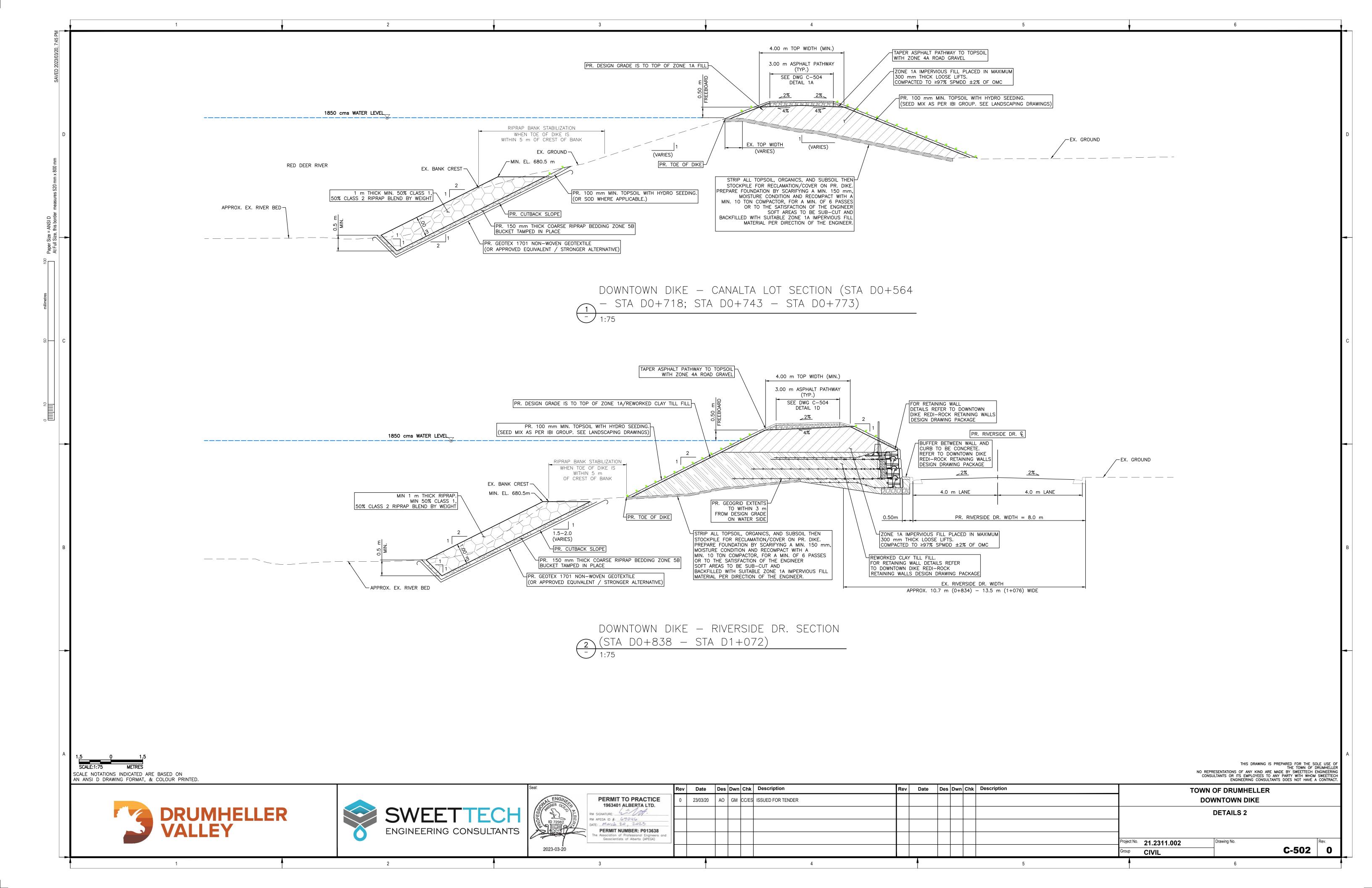


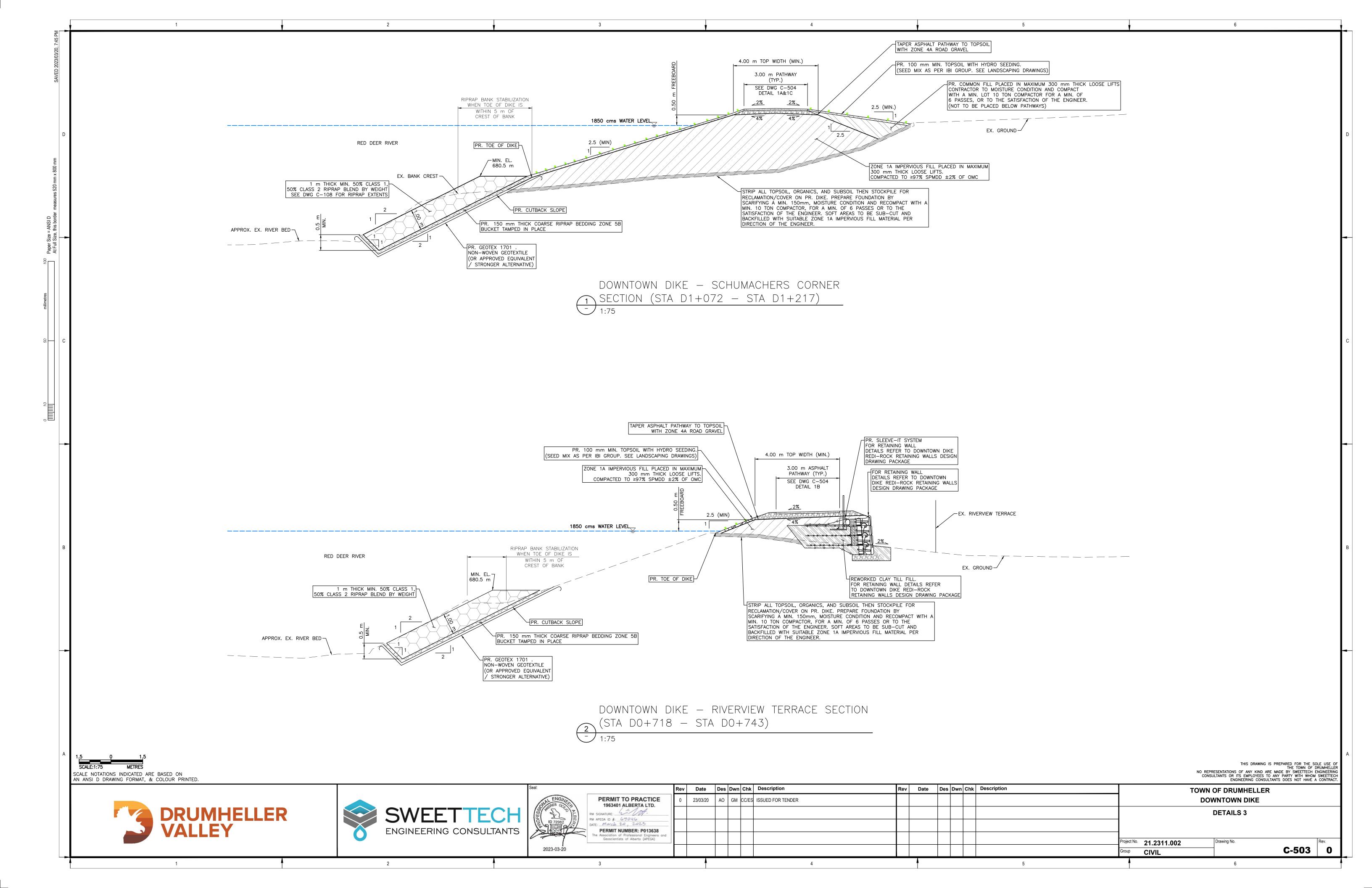


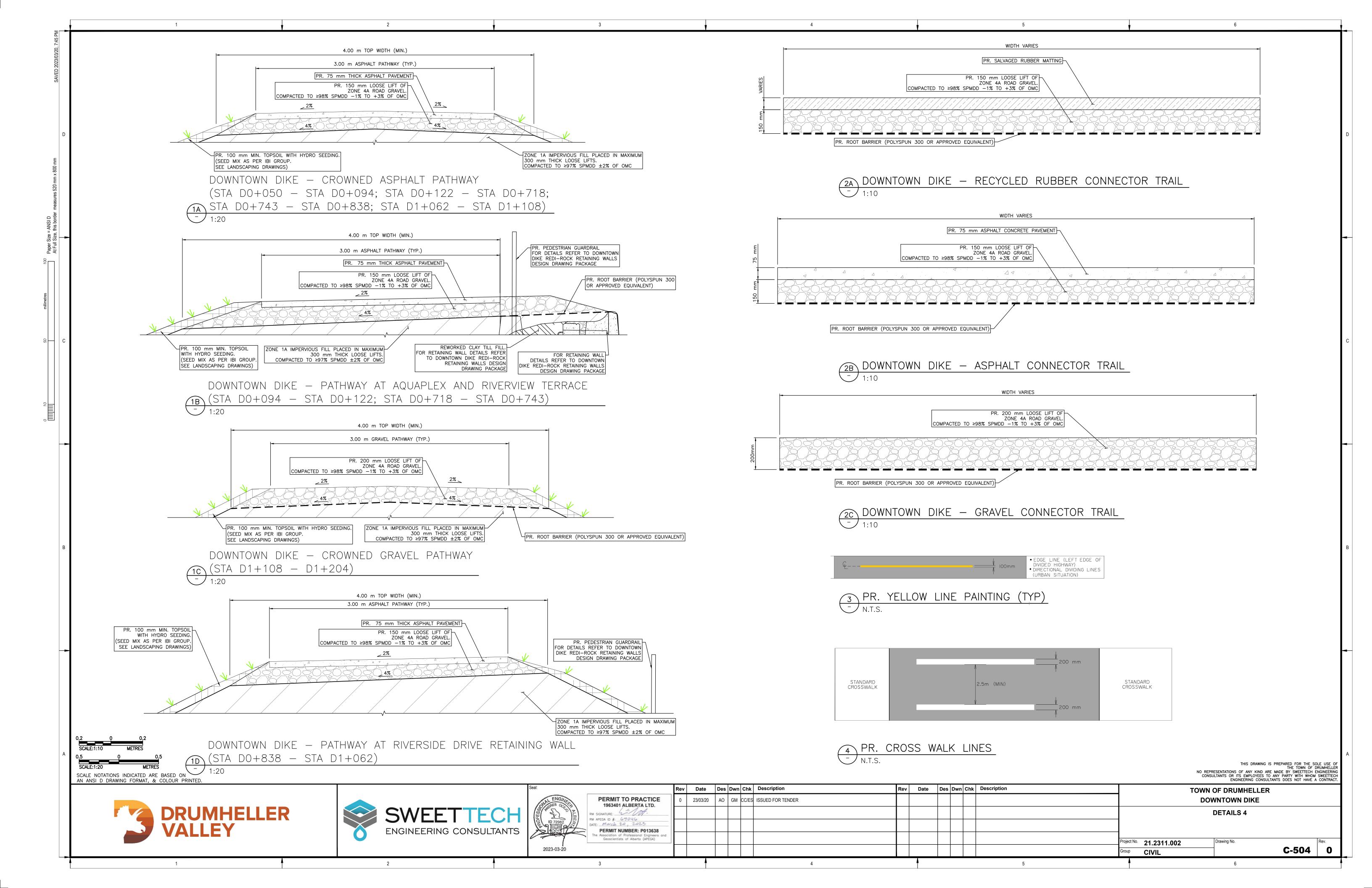




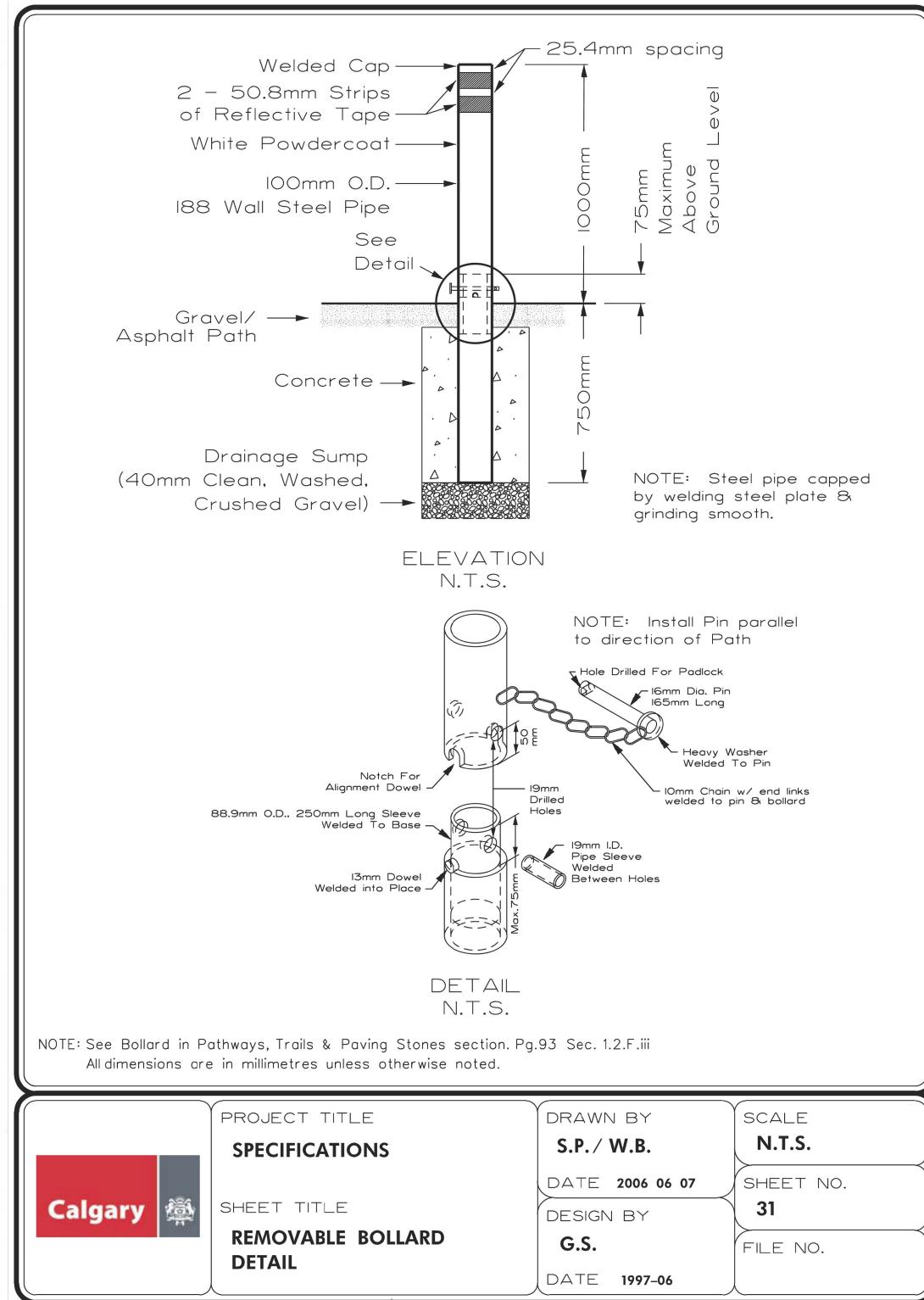








**Detail Sheet 31: Bollards - Removable** 



DIKE ACCESS BOLLARDS

N.T.S.

**ROAD NARROWS FROM LEFT** 

**WA-23-T** 

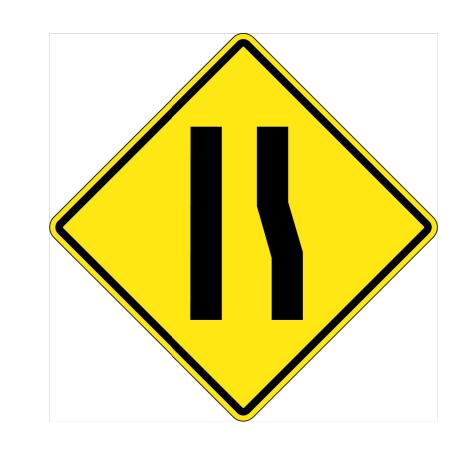


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YELLOW	BLACK	BLACK	Transportation

- ROAD NARROWS FROM LEFT

**ROAD NARROWS FROM RIGHT** 

**WA-23-T** 



SECTION REFERENCE			
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SIGN - ROAD NARROWS FROM RIGHT

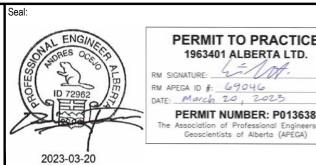
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**TOWN OF DRUMHELLER** 

DRUMHELLER VALLEY





PERMIT TO PRACTICE 1963401 ALBERTA LTD. PERMIT NUMBER: P013638

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DOWNTOWN DIKE **DETAILS 5** 

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