


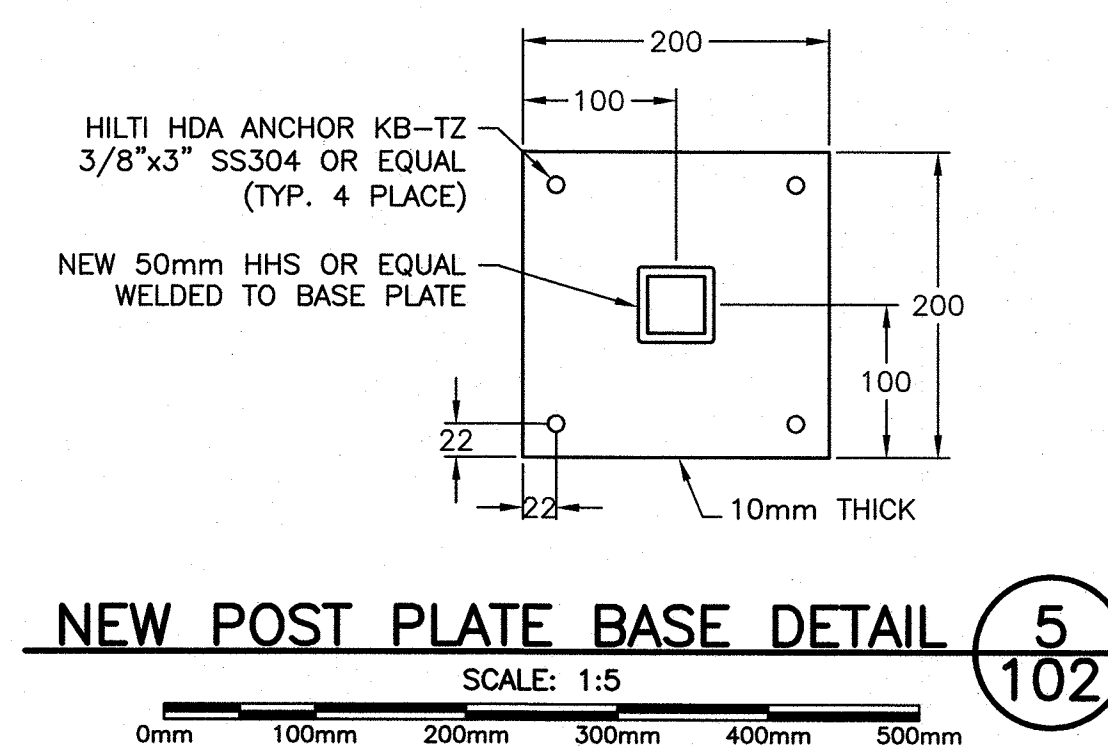
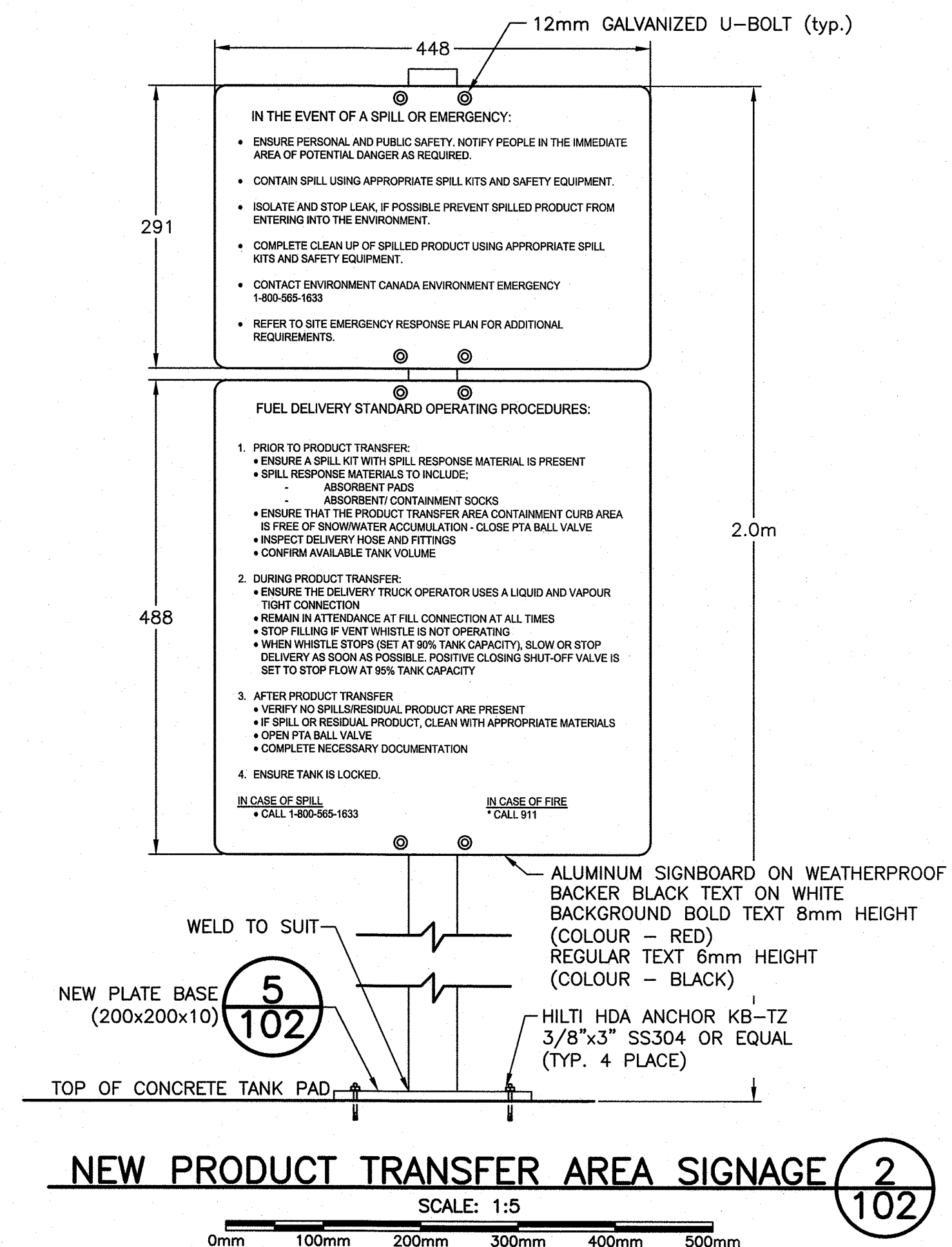
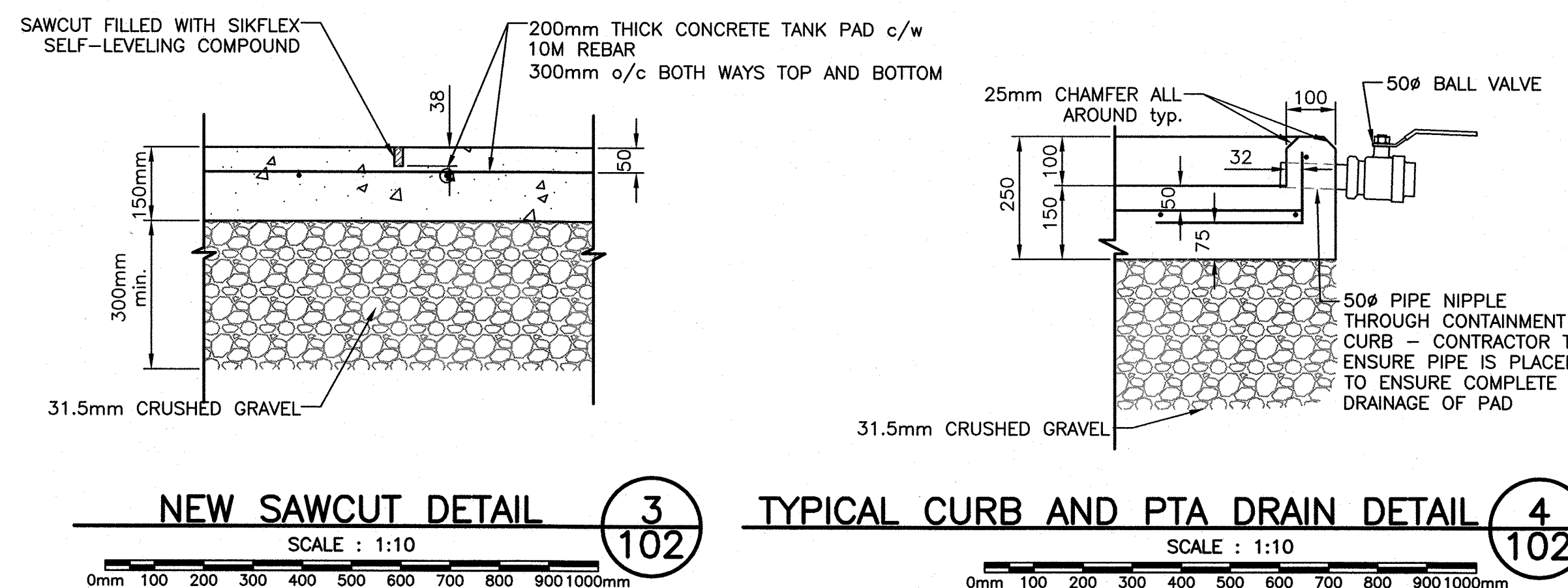
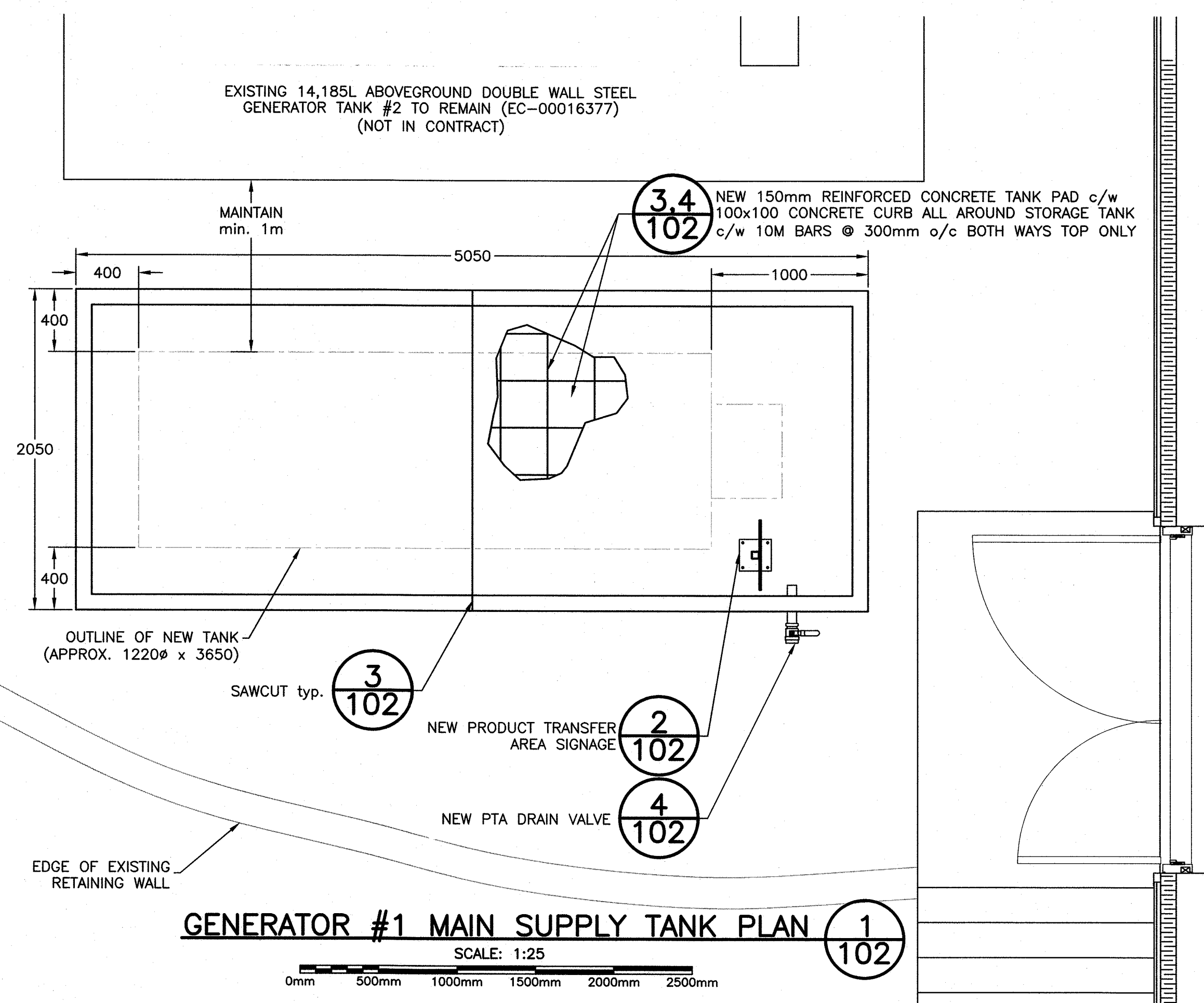
C	ISSUED FOR TENDER	1/03/2017
B	ISSUED FOR 99% REVIEW	11/16/2016
A	ISSUED FOR 66% REVIEW	10/21/2016
revisions		date

project
 PETROLEUM STORAGE SYSTEM UPGRADES
 ST. ANDREWS
 BIOLOGICAL STATION
 ST. ANDREWS, NB

drawing
 dessin

DIESEL GENERATOR #1
 TANK PAD AND PTA CURE
 PLANS, SECTIONS,
 AND DETAILS

designed	ERF	conçu
date		
drawn	JCB	dessiné
date		
approved	ERF	approuvé
date		
Tender	 2017-01-26 Project Manager / Administrateur de projet TPSGC	
project number	R.070007.021	no. du projet
drawing no.	102	no. du dessin



PRODUCT TRANSFER AREA:

THIS DESIGN HAS BEEN DEVELOPED TO MEET THE INTENT OF THE REQUIREMENTS FOR A PRODUCT TRANSFER AREA THROUGH A 'PTA METHOD' APPROACH IN ACCORDANCE WITH THE ENVIRONMENT CANADA COMPLIANCE PROMOTION 'PRODUCT TRANSFER AREA WORKSHOP - INFO SHEET AND SAMPLE WRITE-UPS FOR PRODUCT TRANSFER AREAS', DATED FEBRUARY 3, 2012, AND TANK TIP 13 - SPILL CONTAINMENT AT PRODUCT TRANSFER AREAS DATED 2016. A PTA METHOD IDENTIFIES POTENTIAL ENVIRONMENTAL RISK AND SPILL SCENARIOS AS WELL AS RISK MITIGATION ACTIONS AND SYSTEM SAFETY COMPONENTS ASSOCIATED WITH SPILLS RESULTING FROM PRODUCT TRANSFER INTO A STORAGE TANK SYSTEM. A PTA METHOD MUST ALSO INCLUDE PHYSICAL CONTAINMENT BEYOND CONTAINMENT PROVIDED BY A FILL PIPE SPILL CONTAINMENT BOX.

THE SIGNIFICANT ENVIRONMENTAL RISK ASSOCIATED WITH THIS STORAGE SYSTEM IS THE PROXIMITY TO THE ST. CROIX RIVER. THE MOST LIKELY SPILL SCENARIO WOULD BE AN OVERFILL OCCURRENCE DURING A FUEL DELIVERY. BASED ON A TYPICAL TRUCK FILLING RATE OF 280 L/MIN AND A CONSERVATIVE REACTION TIME TO STOP THE FLOW OF 3 MINUTES, THE ANTICIPATED SPILL SCENARIO (CALCULATED SPILL VOLUME) FOR THIS DESIGN IS 840L.

THE SYSTEM IS DESIGNED WITH THE FOLLOWING MITIGATION COMPONENTS:

- VENT WHISTLE SET AT 90% CAPACITY TANK
- POSITIVE CLOSING OVERFILL PREVENTION DEVICE SET AT 95% TANK CAPACITY
- ENVIRONMENTAL CONCRETE TANK PAD WITH PERIMETER CURB (SIZED TO CONTAIN 965L)
- TANK MANUFACTURER SUPPLIED SPILL CONTAINMENT BOX AT FILL PIPE CONNECTION
- PRODUCT TRANSFER AREA INSTRUCTIONAL SIGNAGE WILL BE POSTED AT FILL PIPE AREA
- EMERGENCY CONTACT SIGNAGE WILL BE POSTED
- A FULLY STOCKED SPILL KIT WILL BE LOCATED AT THE TANK AREA
- AN EMERGENCY RESPONSE PLAN, SPECIFIC TO THE STORAGE SYSTEM, WILL BE POSTED AND STAFF TRAINING