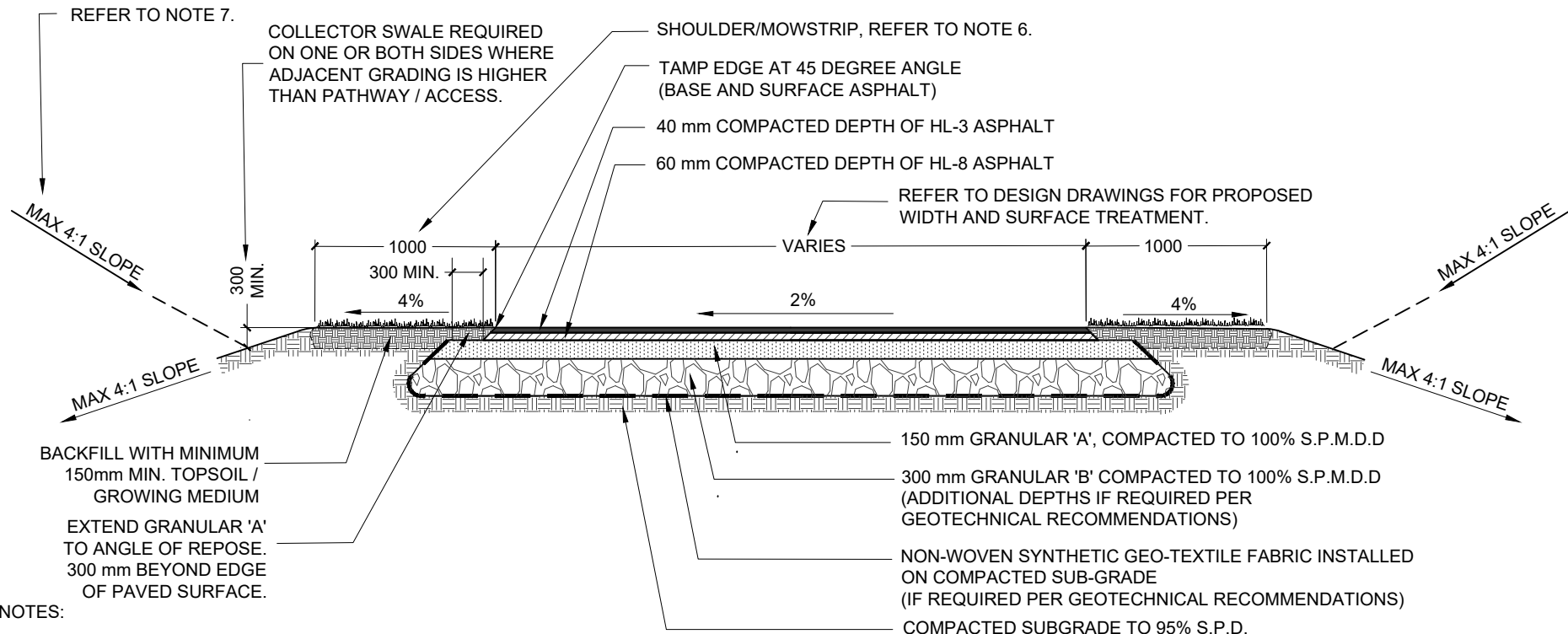


File Location: H:ENGINEERCommonDevelopmentEngineering Manual 2018\Details



**NOTES:**

1. GEOTECHNICAL RECOMMENDATION IS REQUIRED. PROVIDE ADDITIONAL GRANULAR MATERIAL, TESTING, AND REPORTING RECOMMENDATIONS. RECOMMENDATION FOR ASPHALT MIX DESIGN TO BE APPROVED BY CITY.
2. WHEN A STONEDUST PATHWAY IS SPECIFIED, REPLACE ASPHALT WITH 50mm DEPTH OF STONEDUST COMPACTED TO 100% S.P.D.D.
3. ENSURE POSITIVE DRAINAGE ON ASPHALT OR STONEDUST SURFACE. WATER MUST NOT BE COLLECTED AND CONVEYED ALONG ASPHALT OR STONEDUST SURFACE.
4. PATH / TRAIL / ACCESS WIDTH IS DEPENDENT ON VEHICLE ACCESS AND WINTER MAINTENANCE REQUIREMENTS.
5. REFER TO OPSS 1150 AND OPSS 501.
6. MOWSTRIP TREATMENT TO BE APPROPRIATE FOR ADJACENT/SITE CONDITIONS. IE. SOD IN MANICURED AREAS, PARKS AND BOULEVARDS AND / 'LOW MOW' SEED MIX IN AREAS WHICH DO REQUIRE REGULAR MAINTENANCE. NATIVE SEED MIX REQUIRED WHERE ADJACENT TO NATURALIZED AREAS.
7. SIDE SLOPES TO BE MAX. 4:1 IN MANICURED AND MAINTAINED AREAS. MAX. 3:1 IS PERMITTED IN NATURALIZED AREAS.
8. THE CROSS SECTION MAY BE REVISED TO HAVE A CROWNED CENTERLINE AS REQUIRED FOR SITE SPECIFIC CONDITIONS.

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

**STANDARD DRAWING**

REV 1      MAY 2023

**ASPHALT MULTI-USE-PATH / TRAIL AND MAINTENANCE ACCESS DETAIL**



**CW-501**

1.5m HIGH BLACK VINYL CHAINLINK FENCE INSTALLED 150mm FROM PROPERTY LINE. REFER TO C.O.W. STANDARD DRAWING CW-805.

REFER TO DESIGN DRAWINGS FOR PROPOSED WIDTH AND SURFACE TREATMENT.

VARIABLES

150

150

TAMP EDGE AT 45 DEGREE ANGLE (BASE AND SURFACE ASPHALT)

40 mm COMPACTED DEPTH OF HL-3 ASPHALT

60 mm COMPACTED DEPTH OF HL-8 ASPHALT

1500

2%

150 mm GRANULAR 'A', COMPACTED TO 100% S.P.M.D.D.

300 mm GRANULAR 'B' COMPACTED TO 100% S.P.D. (ADDITIONAL DEPTHS IF REQUIRED PER GEOTECHNICAL RECOMMENDATIONS)

NON-WOVEN SYNTHETIC GEO-TEXTILE FABRIC INSTALLED ON COMPACTED SUB-GRADE (IF REQUIRED PER GEOTECHNICAL RECOMMENDATIONS)

COMPACTED SUBGRADE TO 95% S.P.D.

NOTES:

1. TYPICAL WALKWAY BLOCK IS 3000
2. TYPICAL EMERGENCY ACCESS BLOCK IS 6000
3. GEOTECHNICAL RECOMMENDATION IS REQUIRED. PROVIDE ADDITIONAL GRANULAR MATERIAL, TESTING, AND REPORTING RECOMMENDATIONS. RECOMMENDATION FOR ASPHALT MIX DESIGN TO BE APPROVED BY CITY.
4. ENSURE POSITIVE DRAINAGE ON WALKWAY / ACCESS. SURFACE WATER MUST NOT BE COLLECTED AND CONVEYED ALONG WALKWAY / ACCESS SURFACE.
5. EMERGENCY ACCESS BLOCKS REQUIRE BOLLARD GATES, REFER TO C.O.W. DOUBLE 1.8M BOLLARD GATE DETAIL, STANDARD DRAWING CW-522.
6. REFER TO OPSS 1150 AND OPSS 501.
7. THE CROSS SECTION MAY BE REVISED TO HAVE A CROWNED CENTRELINE AS REQUIRED FOR SITE SPECIFIC CONDITIONS.

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

STANDARD DRAWING

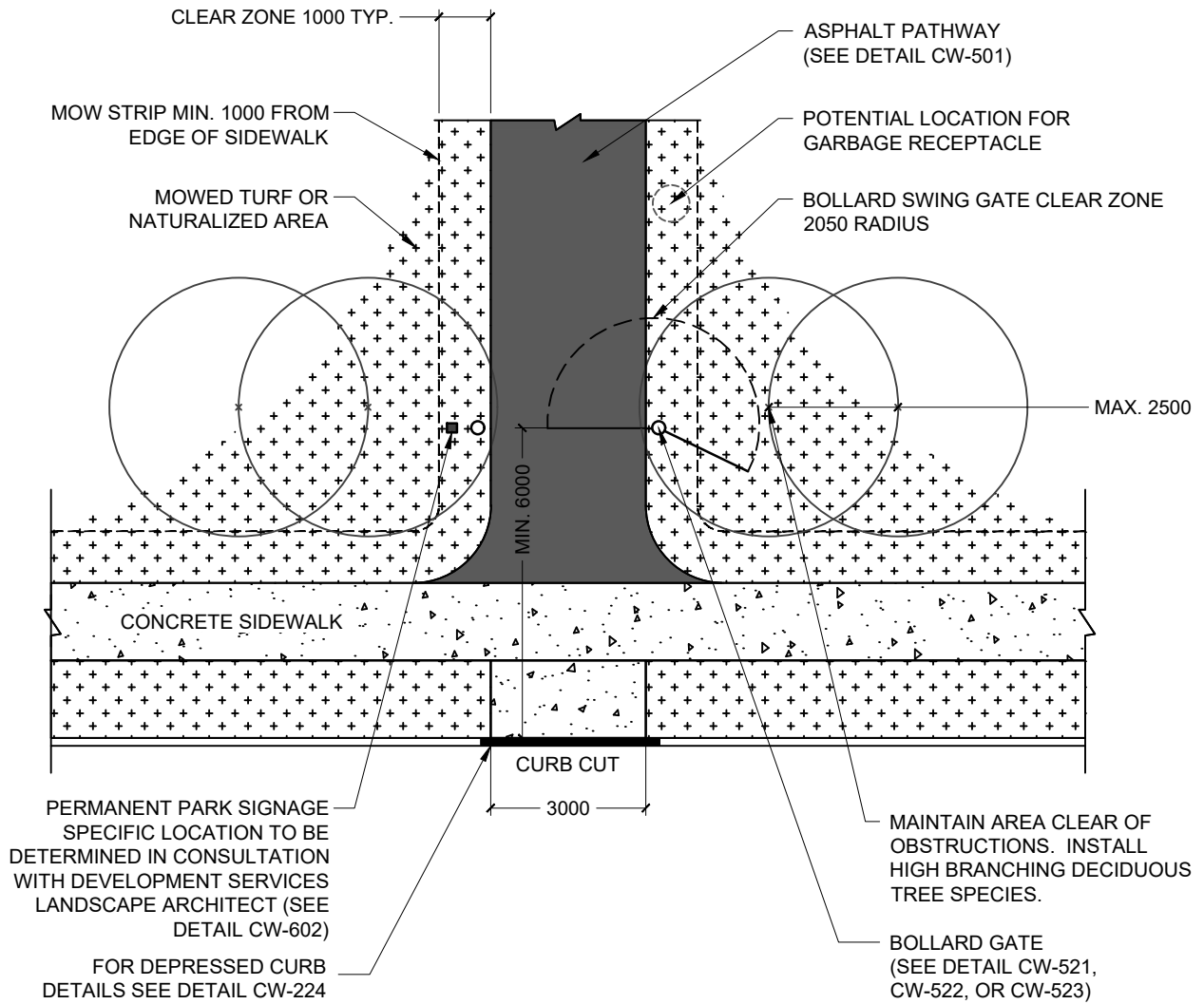
REV 1

MAY 2023

WALKWAY AND ACCESS BLOCK DETAIL



CW-502



**NOTES:**

1. SITE SPECIFICITY MAY REQUIRE ADDITIONAL TRAIL AMENITIES AT THE DISCRETION OF THE DEVELOPMENT SERVICES LANDSCAPE ARCHITECT.

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

**STANDARD DRAWING**

REV 1

MAY 2023

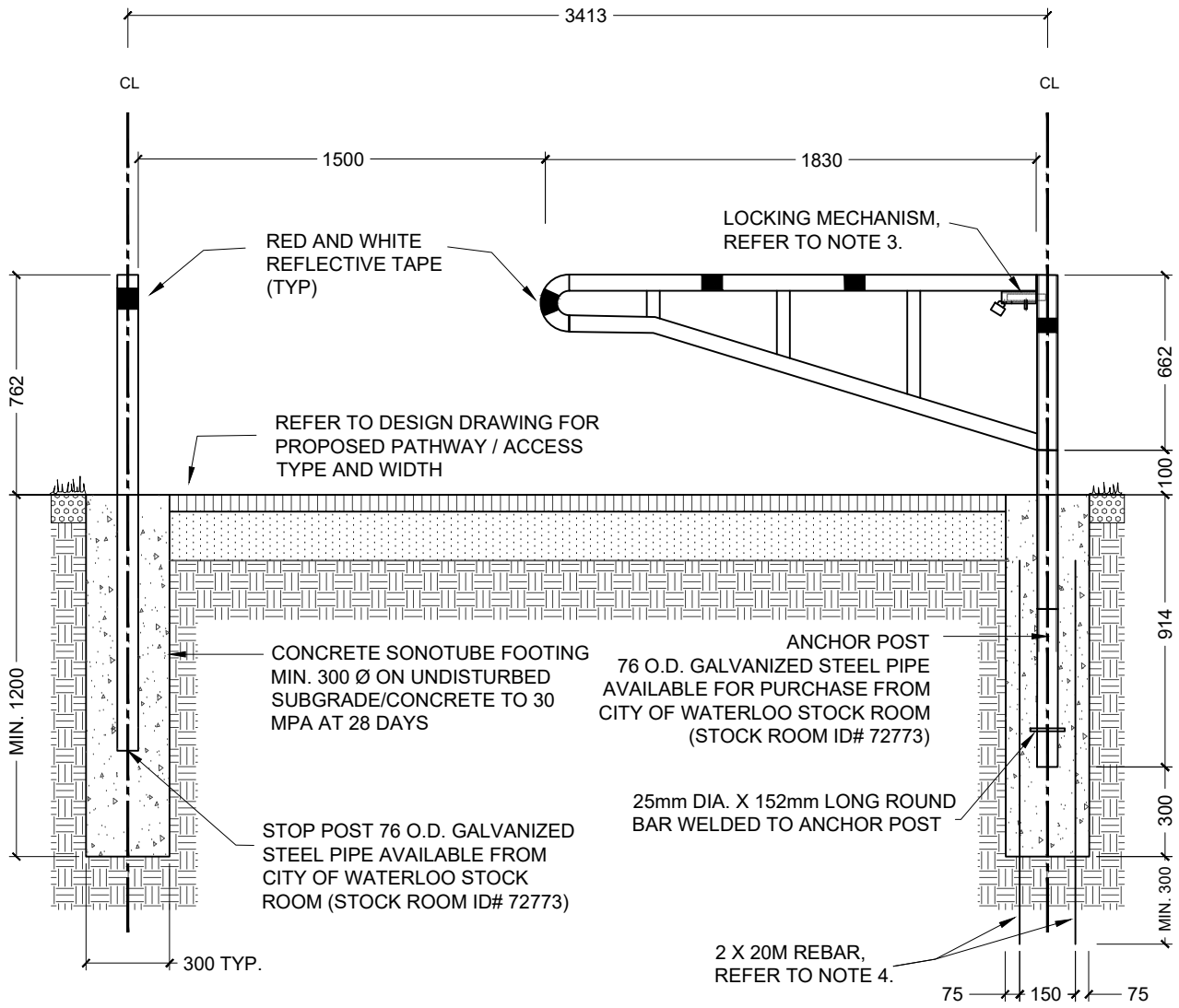
**PARK / OPEN SPACE ACCESS NODE LAYOUT**



**CW-511**

NOTES:

1. BOLLARD GATE, LOCK, AND STOP POST AVAILABLE FOR PURCHASE FROM THE CITY OF WATERLOO STOCK ROOM. PHONE 519-747-8752 TO ORDER.
2. IF THE GATE IS NOT BEING PURCHASED FROM THE CITY, SHOP DRAWINGS OF THE GATE MUST BE SUBMITTED AND APPROVED PRIOR TO FABRICATION.
3. LOCKING MECHANISM TO BE A BARREL AND PIN STILE, COMPLETE WITH AN ABUS PADLOCK.
4. GATE RESTS ON 76 O.D. GALVANIZED POST. SLEEVE INTO 89 O.D. GALVANIZED GATE SLEEVE. BOTH POSTS REQUIRE 300 CONCRETE SONOTUBE FOOTINGS. ANCHOR POST FOOTING REQUIRES 2 X 20M REBAR DRIVEN MIN. 300 BELOW FOOTING TO MITIGATE ROTATION OF SONOTUBE.
5. DO NOT INSTALL GATE ONTO ANCHOR POST UNTIL THE CONCRETE HAS PROPERLY CURED. CLEAN AND REINSTATE AREAS AFFECTED BY WORKS.
6. ALL SWING GATES TO BE INSTALLED ON RIGHT-HAND SIDE AT ENTRY AND AT LEAST 2500 IN FROM SIDEWALK EDGE AND 6000 IN FROM CURB EDGE. GATES TO SWING AWAY FROM ROADWAY
7. CURB CUT REQUIREMENTS AT THE ROAD TO BE CONFIRMED WITH CITY STAFF.
8. FOR MULTI-USE-PATH / TRAIL AND MAINTENANCE ACCESS DETAILS REFER TO THE CITY OF WATERLOO DWG. CW-501
9. NOT FOR WALKWAY BLOCKS.



ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

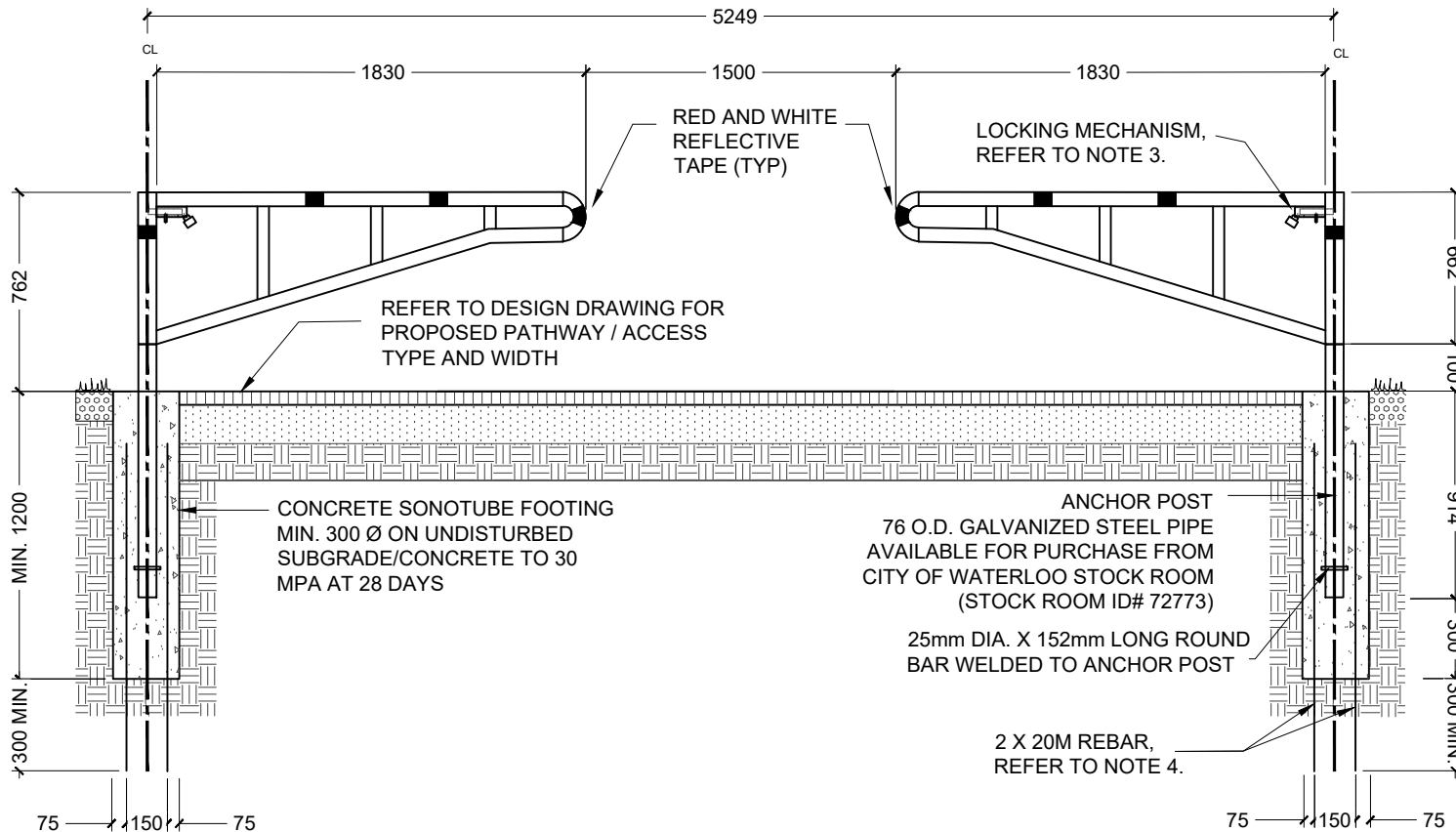
STANDARD DRAWING

REV 1 MAY 2023

SINGLE 1.8m BOLLARD GATE DETAIL  
3.0m & 4.0m WIDE PATHS / TRAILS



CW-521



NOTES:

1. BOLLARD GATE AND LOCK AVAILABLE FOR PURCHASE FROM THE CITY OF WATERLOO STOCK ROOM. PHONE 519-747-8752 TO ORDER.
2. IF THE GATES ARE NOT BEING PURCHASED FROM THE CITY, SHOP DRAWINGS OF THE GATES MUST BE SUBMITTED AND APPROVED PRIOR TO FABRICATION.
3. LOCKING MECHANISM TO BE A BARREL AND PIN STYLE, COMPLETE WITH AN ABUS PADLOCK.
4. GATES REST ON 76 O.D. GALVANIZED POST. SLEEVE INTO 89 O.D. GALVANIZED GATE SLEEVE. BOTH POSTS REQUIRE 300 CONCRETE FOOTINGS. ANCHOR POST FOOTING REQUIRES 2 X 20M REBAR DRIVEN MIN. 300 BELOW FOOTING TO MITIGATE ROTATION OF SONOTUBE.
5. DO NOT INSTALL GATE ONTO ANCHOR POST UNTIL THE CONCRETE HAS PROPERLY CURED. CLEAN AND REINSTATE AREAS AFFECTED BY WORKS.
6. ALL SWING GATES TO BE INSTALLED AT LEAST 2500 IN. FROM SIDEWALK EDGE AND 6000 IN. FROM CURB EDGE. GATES TO SWING AWAY FROM ROADWAY
7. CURB CUT REQUIREMENTS AT THE ROAD TO BE CONFIRMED WITH CITY STAFF.
8. FOR MULTI-USE-PATH / TRAIL AND MAINTENANCE ACCESS DETAILS, REFER TO DWG. CW-501. FOR WALKWAY AND ACCESS BLOCK DETAILS, REFER TO DWG. CW-502

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

STANDARD DRAWING

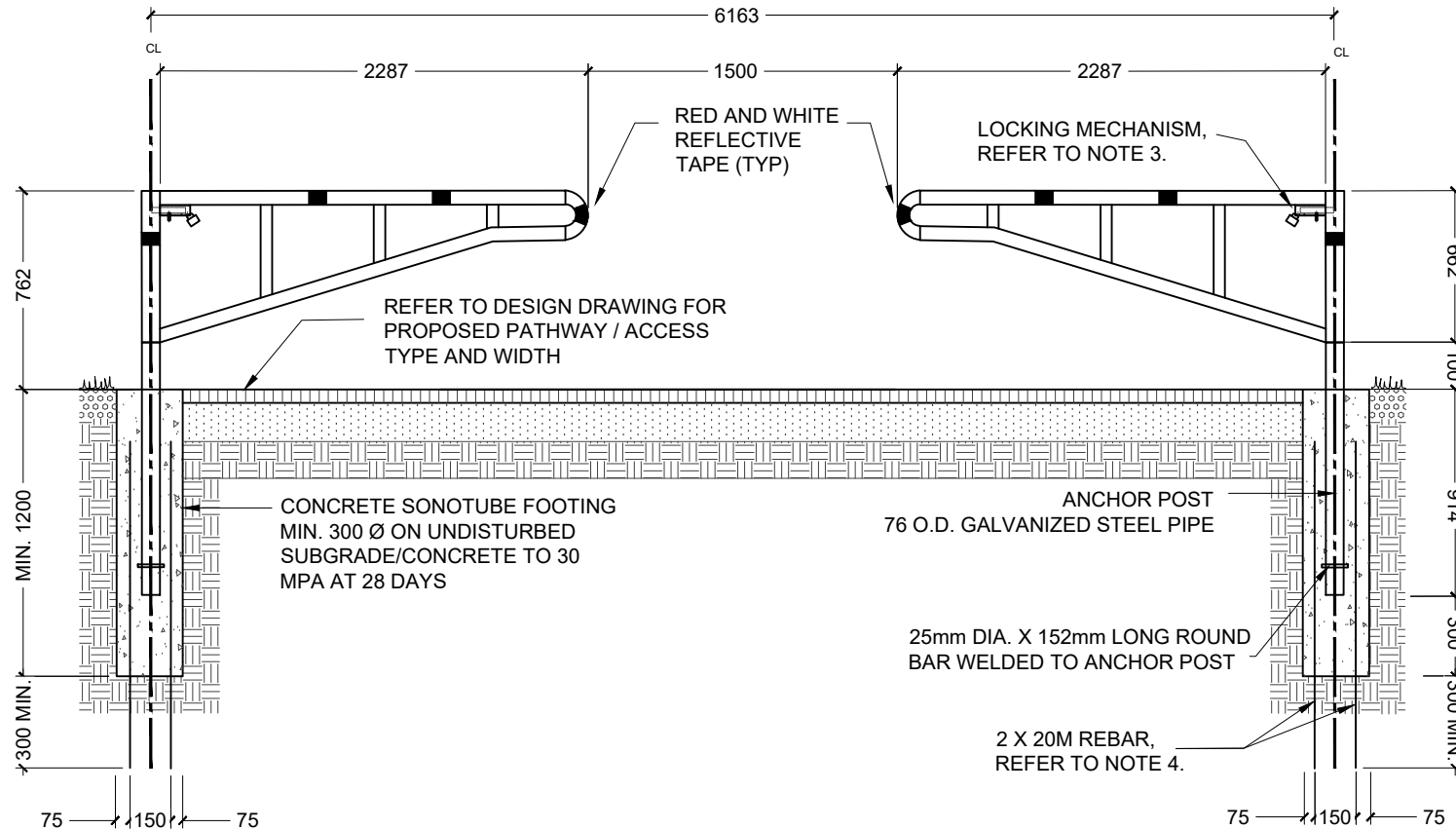
**DOUBLE 1.8m BOLLARD GATE DETAIL**  
**4.0m SWM POND AND 6.0m MUNICIPAL EMERGENCY ACCESS**

REV 1

MAY 2023

THE CITY OF   
**Waterloo**

**CW-522**



NOTES:

1. LOCK AVAILABLE FOR PURCHASE FROM THE CITY OF WATERLOO STOCK ROOM. PHONE 519-747-8752 TO ORDER.
2. SHOP DRAWINGS OF THE GATES MUST BE SUBMITTED AND APPROVED PRIOR TO FABRICATION.
3. LOCKING MECHANISM TO BE A BARREL AND PIN STYLE, COMPLETE WITH AN ABUS PADLOCK.
4. GATES REST ON 76 O.D. GALVANIZED POST. SLEEVE INTO 89 O.D. GALVANIZED GATE SLEEVE. BOTH POSTS REQUIRE 300 CONCRETE FOOTINGS. ANCHOR POST FOOTING REQUIRES 2 X 20M REBAR DRIVEN MIN. 300 BELOW FOOTING TO MITIGATE ROTATION OF SONOTUBE.
5. DO NOT INSTALL GATE ONTO ANCHOR POST UNTIL THE CONCRETE HAS PROPERLY CURED. CLEAN AND REINSTATE AREAS AFFECTED BY WORKS.
6. ALL SWING GATES TO BE INSTALLED AT LEAST 2500 IN. FROM SIDEWALK EDGE AND 6000 IN. FROM CURB EDGE. GATES TO SWING AWAY FROM ROADWAY.
7. PROVIDE A 6000 CURB CUT AT ROAD, CURB CUTS ALONG MAJOR ARTERIAL ROADS TO BE REVIEWED ON A CASE BY CASE BASIS.
8. FOR MULTI-USE-PATH/TRAIL AND MAINTENANCE ACCESS DETAILS, REFER TO DWG. CW-501. FOR WALKWAY AND ACCESS BLOCK DETAILS, REFER TO DWG. CW-502

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

STANDARD DRAWING

**DOUBLE 2.3m BOLLARD GATE DETAIL  
6.0m PATH/TRAIL AND 6.0m OBC EMERGENCY ACCESS**

REV 1

MAY 2023



**CW-523**