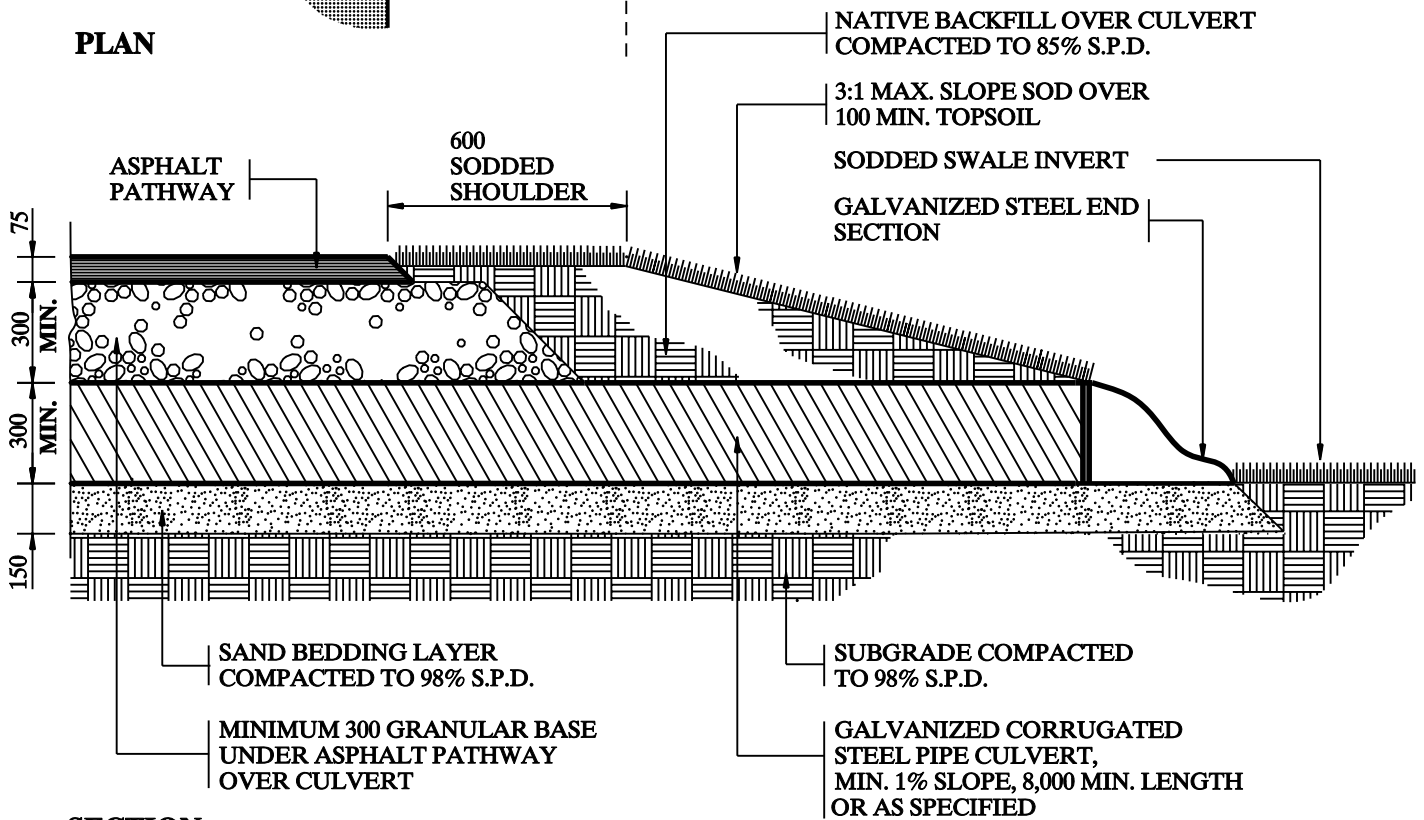


**PLAN**



**SECTION**

**NOTES:**

1. CORRUGATED STEEL PIPE CULVERT SHALL BE GALVANIZED, 1.6mm THICK, COMPLETE WITH PREFABRICATED GALVANIZED STEEL END SECTIONS, WITH COLLAR BOLTS, BURIED BELOW GRADE
2. CULVERT TO BE 300 O.D. MINIMUM SIZE, OR AS SPECIFIED
3. INVERT ELEVATIONS OF CULVERTS MUST MATCH ELEVATIONS OF SWALE CENTER
4. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS STATED OTHERWISE



**PLANNING,  
DESIGN &  
DEVELOPMENT  
DEPARTMENT**

**TITLE:**  
**PATHWAY CULVERT  
(PLAN & SECTION)**

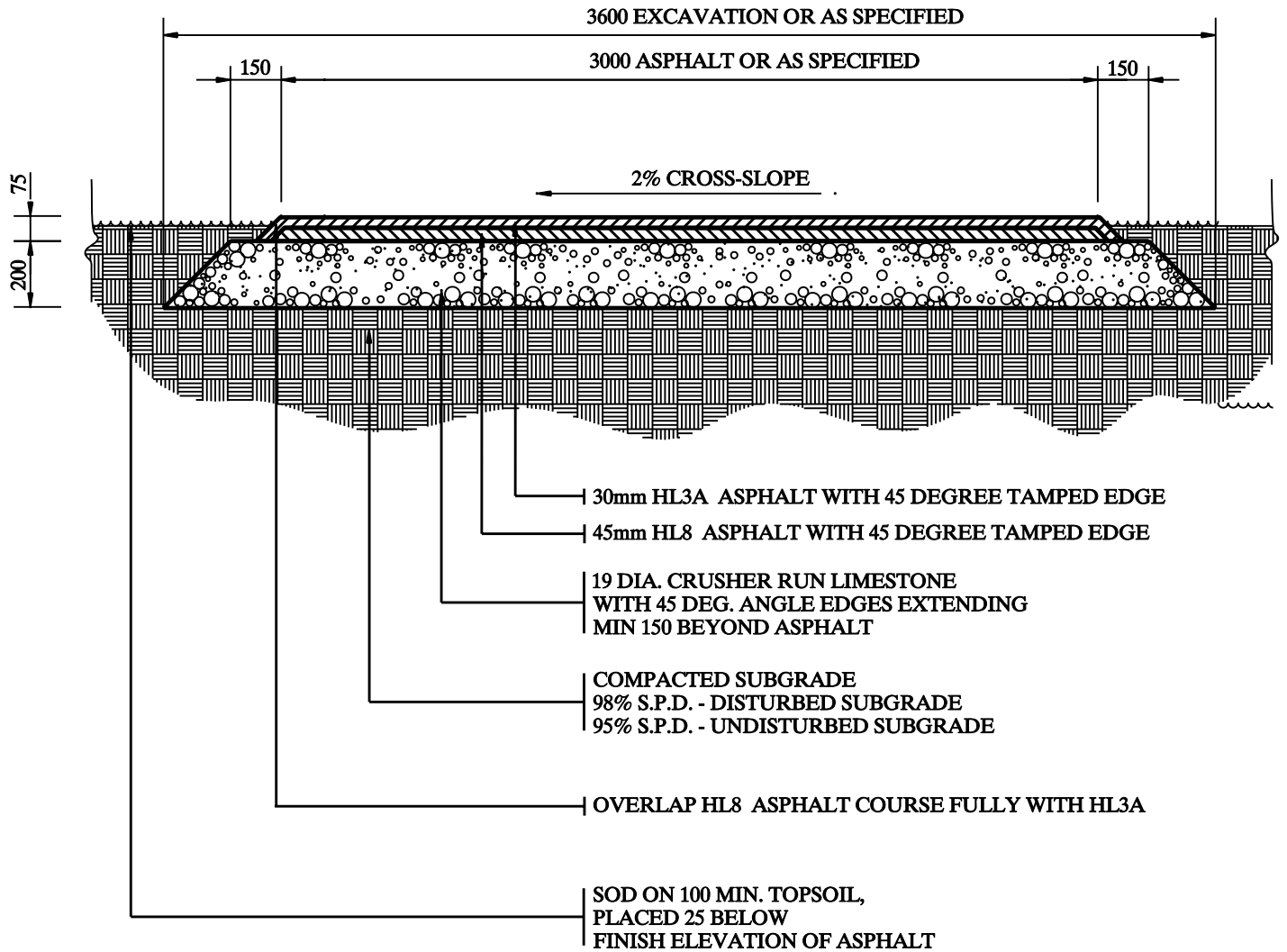
**DRAWING NO.**  
**PDD 510**

**REVIEWED BY:** *S.D. [Signature]*

**SCALE:** N.T.S.

**APPROVED BY:** *[Signature]*

**DATE:** JANUARY 2007



**NOTES:**

**EXCAVATION:** 275 MINIMUM DEPTH, OR AS REQUIRED. CONTRACTOR SHALL CONTACT THE CITY IMMEDIATELY IF UNSUITABLE OR UNSTABLE SUBGRADE IS ENCOUNTERED, SUCH AS EXCESSIVE TOPSOIL, SOFT SPOTS, AND/OR ORGANIC MATTER. METHODS AND/OR MATERIAL MUST BE APPROVED BY THE CITY PRIOR TO COMMENCING WITH WORK. SUBGRADE TO BE CONSOLIDATED AND TESTED TO 98% S.P.D. MIN. REMOVE EXCESS MATERIAL OFF SITE UNLESS OTHERWISE DIRECTED BY THE CITY.

**GRANULAR BASE:** 200 MIN. LAYER OF 19 CRUSHER RUN COMPACTED TO 98% STANDARD PROCTOR DENSITY MIN.

**ASPHALT:** 30 COMPACTED DEPTH OF HOT MIX HL3A ASPHALTIC CONCRETE ON 45 DEPTH OF HL8 ASPHALTIC CONCRETE.

**EDGE TREATMENT:** ASPHALT EDGE TO BE 45 DEGREES, TAMPED TO FORM UNIFORMLY, SMOOTH, CLEAN EDGES, WITHOUT LATERAL DEVIATIONS. SOD TO MEET AND MATCH EXISTING GRADES, WITH SMOOTH TRANSITIONS AT A MAXIMUM SLOPE OF 4:1. ALL SEEDED AND/OR SODDED AREAS SHALL BE 25 BELOW THE FINISH ELEVATION OF ASPHALT. REMOVE EXCESS TOPSOIL AND SOD AS DIRECTED.

**DRAINAGE:** GRADE WALKWAY WITH A 2% CROSS-SLOPE OR AS DIRECTED ON SITE. PONDING WATER ON ASPHALT WALKWAYS WILL NOT BE ACCEPTED.

**SODDING:** ALL DISTURBED AREAS SHALL BE SODDED (AND/OR SEEDED) OVER 100 TOPSOIL (LIGHTLY COMPACTED), MINIMUM WIDTH OF 900 mm. REFER TO PLAN.

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.



**PLANNING,  
DESIGN &  
DEVELOPMENT  
DEPARTMENT**

**TITLE:**  
**TYPICAL ASPHALT PATHWAY  
(3.0 M WIDE)**

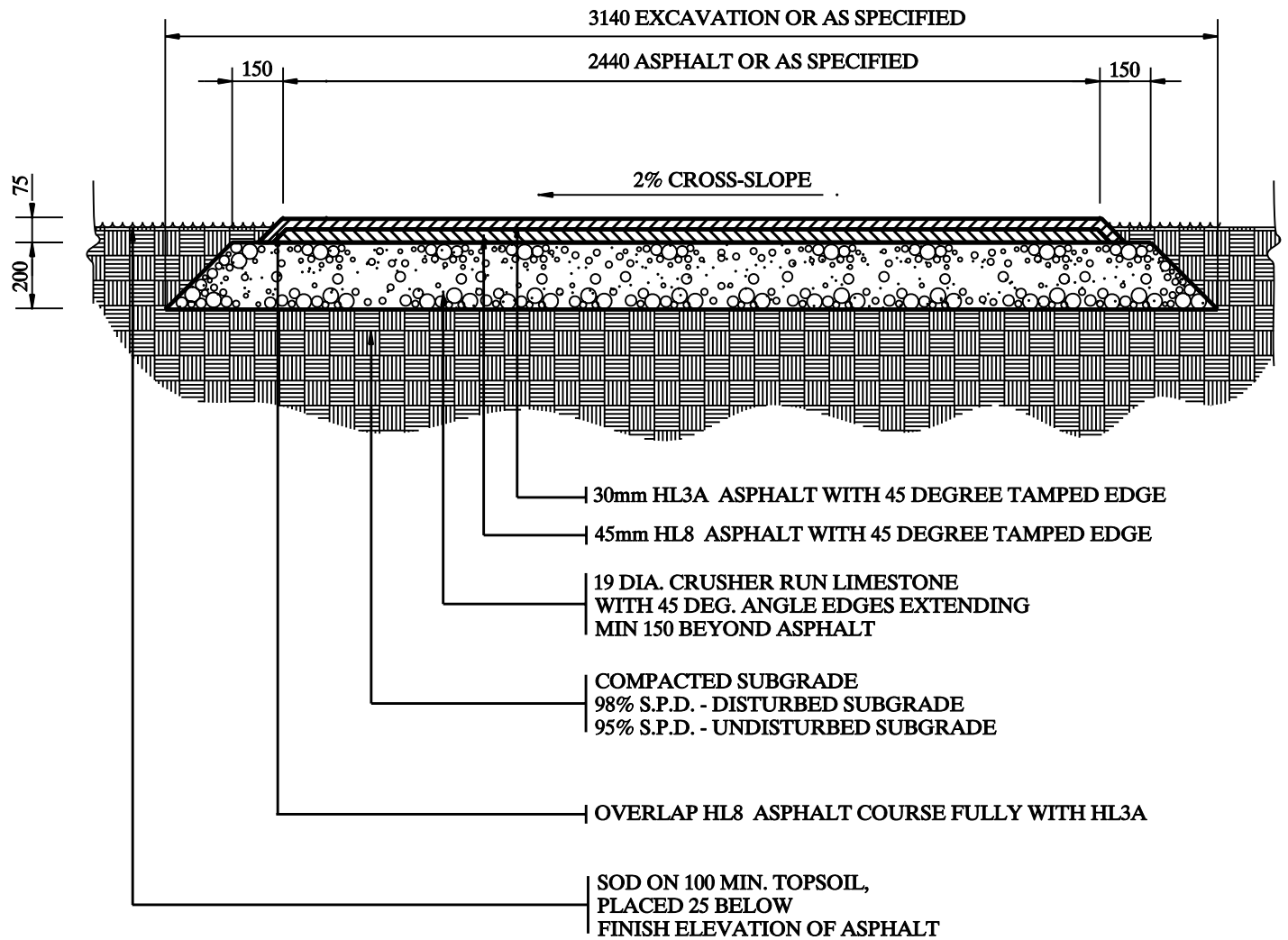
**DRAWING NO.**  
**PDD 511**

**REVIEWED BY:** *SH [Signature]*

**SCALE:** N.T.S.

**APPROVED BY:** *[Signature]*

**DATE:** JANUARY 2007



**NOTES:**

**EXCAVATION:** 275 MINIMUM DEPTH, OR AS REQUIRED. CONTRACTOR SHALL CONTACT THE CITY IMMEDIATELY IF UNSUITABLE OR UNSTABLE SUBGRADE IS ENCOUNTERED, SUCH AS EXCESSIVE TOPSOIL, SOFT SPOTS, AND/OR ORGANIC MATTER. METHODS AND/OR MATERIAL MUST BE APPROVED BY THE CITY PRIOR TO COMMENCING WITH WORK. SUBGRADE TO BE CONSOLIDATED AND TESTED TO 98% S.P.D. MIN. REMOVE EXCESS MATERIAL OFF SITE UNLESS OTHERWISE DIRECTED BY THE CITY.

**GRANULAR BASE:** 200 MIN. LAYER OF 19 CRUSHER RUN COMPACTED TO 98% STANDARD PROCTOR DENSITY MIN.

**ASPHALT:** 30 COMPACTED DEPTH OF HOT MIX HL3A ASPHALTIC CONCRETE ON 45 DEPTH OF HL8 ASPHALTIC CONCRETE.

**EDGE TREATMENT:** ASPHALT EDGE TO BE 45 DEGREES, TAMPED TO FORM UNIFORMLY, SMOOTH, CLEAN EDGES, WITHOUT LATERAL DEVIATIONS. SOD TO MEET AND MATCH EXISTING GRADES, WITH SMOOTH TRANSITIONS AT A MAXIMUM SLOPE OF 4:1. ALL SEEDED AND/OR SODDED AREAS SHALL BE 25 BELOW THE FINISH ELEVATION OF ASPHALT. REMOVE EXCESS TOPSOIL AND SOD AS DIRECTED.

**DRAINAGE:** GRADE WALKWAY WITH A 2% CROSS-SLOPE OR AS DIRECTED ON SITE. PONDING WATER ON ASPHALT WALKWAYS WILL NOT BE ACCEPTED.

**SODDING:** ALL DISTURBED AREAS SHALL BE SODDED (AND/OR SEEDED) OVER 100 TOPSOIL (LIGHTLY COMPACTED), MINIMUM WIDTH OF 900 mm. REFER TO PLAN.

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.



**PLANNING,  
DESIGN &  
DEVELOPMENT  
DEPARTMENT**

**TITLE:**

**TYPICAL ASPHALT PATHWAY  
(2.4 M WIDE)**

**DRAWING NO.**

**PDD 512**

**REVIEWED BY:**

*SH*

**SCALE:**

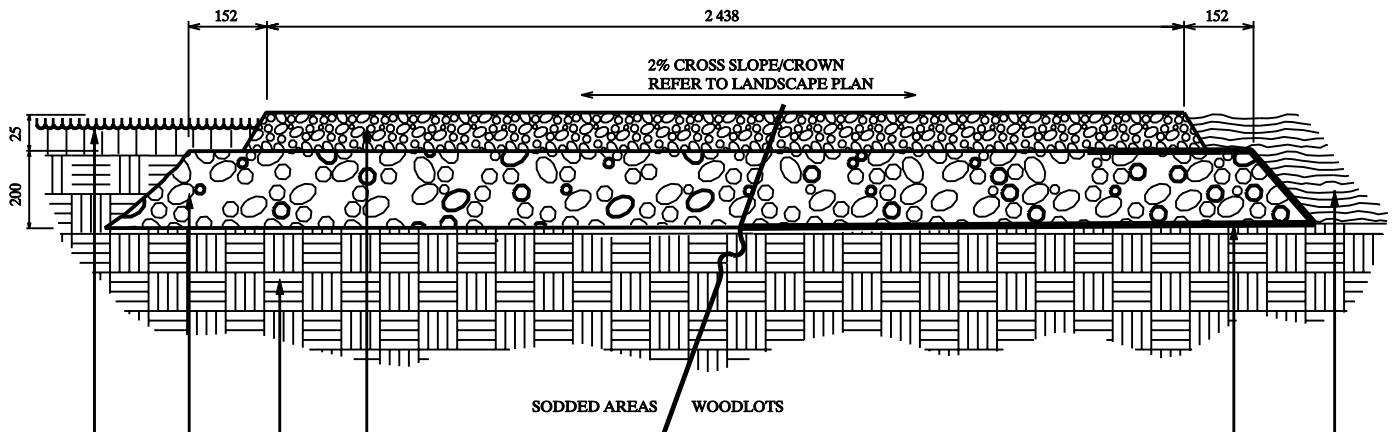
**N.T.S.**

**APPROVED BY:**

*Steve Walsh*

**DATE:**

**JANUARY 2007**



25 MM DEPTH LIMESTONE SCREEN PATHWAY SURFACE  
REFER TO NOTE #3 FOR COMPACTION SPECIFICATIONS.

EXISTING SUBGRADE. RESTORE DISTURBED AREAS  
TO AVOID EXCESSIVE SETTLEMENT.

200 MM. DEPTH - 19 MM. DIA. CRUSHER RUN LIMESTONE  
BASE. COMPACTED TO 85% S.P.D. REFER TO NOTE #3.

ALL DISTURBED TURFED AREAS ADJACENT TO  
PATHWAY SHALL BE TOPSOILED AND RE-SODDED.  
PLACE SOD 25 MM BELOW FINISH GRADE OF PATHWAY.

THROUGH WOODLOTS PROVIDE TERRAFIX 270R FILTER  
FABRIC OR APPROVED ALTERNATE. INSTALL OVER  
EXISTING SUBGRADE AS SHOWN, WRAPPING AROUND  
SIDES OF GRANULAR BASE.

IN WOODLOTS, ALL DISTURBED AREAS ADJACENT TO  
PATHWAY SHALL BE RESTORED WITH SHREDDED BARK  
MULCH (CANADA RED OR GRO BARK) 700-1000 MM WIDE STRIP  
CONTINUOUS ALONG EDGE OF LIMESTONE SCREENINGS  
PATHWAY TO A DEPTH OF 100.

**NOTES:**

1. LAYOUT MUST BE APPROVED BY THE CITY PRIOR TO EXCAVATION IN SODDED AREAS. ARRANGE FOR INSPECTION OF EXCAVATION PRIOR TO PLACEMENT OF AGGREGATE.
2. DO NOT EXCAVATE FOR GRANULAR BASE IN WOODLOTS; PROVIDE MINIMAL GRADING ONLY, PRIOR TO PLACING FILTER FABRIC.
3. COMPACT GRANULAR BASE AND LIMESTONE SCREENINGS TO 85% S.P.D (MIN). AREA USING A DUAL DRUM WALK-BEHIND COMPACTOR (MIN).
4. ENSURE THAT PATHWAY GRADES AND CROSS SLOPE MEET AND MATCH NATURAL DRAINAGE PATTERNS.
5. GALVANIZED CSP CULVERTS TO BE INSTALLED IN ALL LOW AREAS, AS PER LAYOUT AND GRADING PLAN(S), REFER TO DWG. NO. 510 FOR DETAILS.
6. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS STATED OTHERWISE



**PLANNING,  
DESIGN &  
DEVELOPMENT  
DEPARTMENT**

**TITLE:**  
**LIMESTONE SCREENINGS PATHWAY  
(THROUGH SODDED AREAS AND WOODLOTS)**

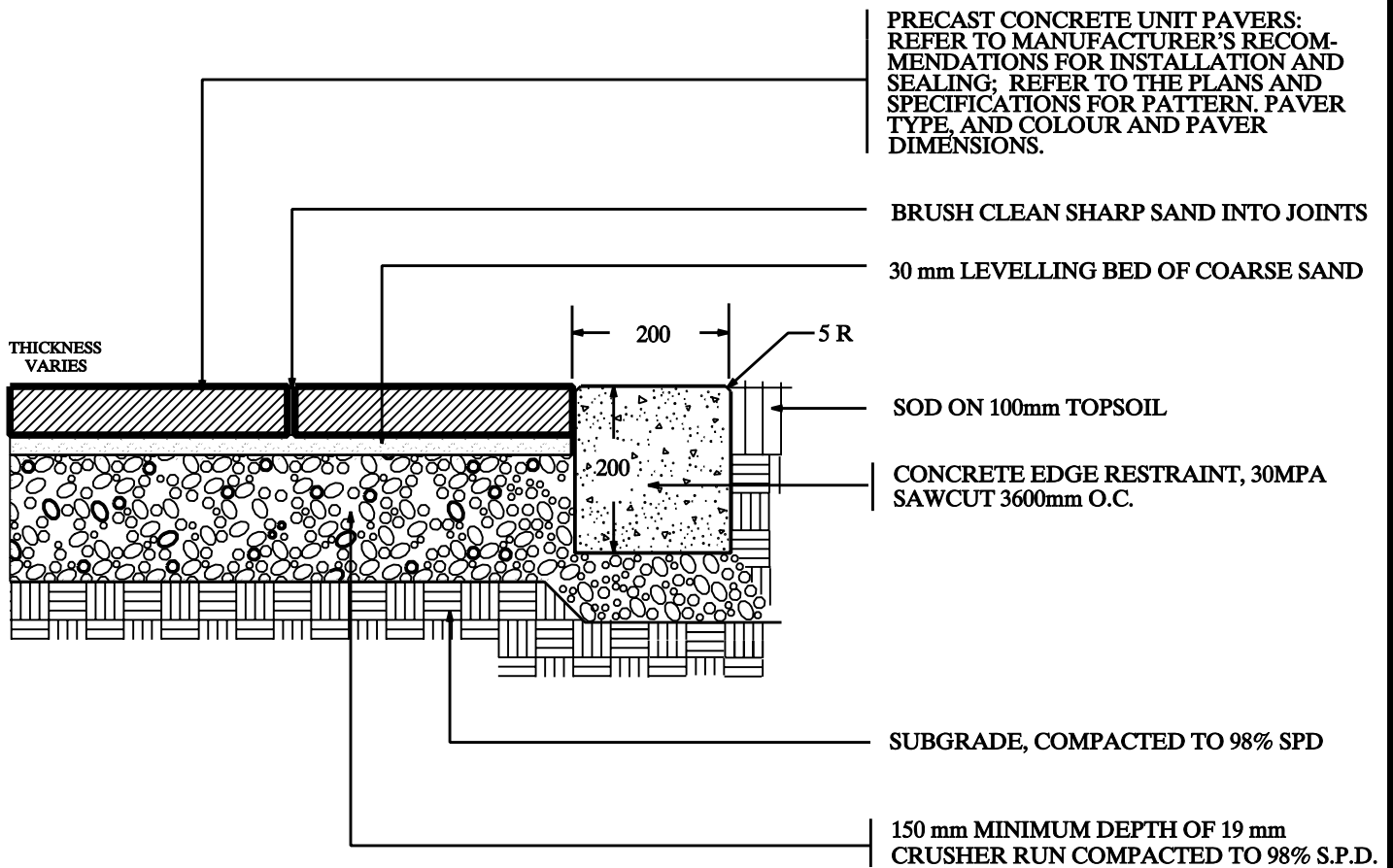
**DRAWING NO.**  
**PDD 513**

**REVIEWED BY:** *SH [Signature]*

**SCALE:** N.T.S.

**APPROVED BY:** *[Signature]*

**DATE:** JANUARY 2007



PRECAST CONCRETE UNIT PAVERS: REFER TO MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION AND SEALING; REFER TO THE PLANS AND SPECIFICATIONS FOR PATTERN, PAVER TYPE, AND COLOUR AND PAVER DIMENSIONS.

BRUSH CLEAN SHARP SAND INTO JOINTS

30 mm LEVELLING BED OF COARSE SAND

SOD ON 100mm TOPSOIL

CONCRETE EDGE RESTRAINT, 30MPA SAWCUT 3600mm O.C.

SUBGRADE, COMPACTED TO 98% SPD

150 mm MINIMUM DEPTH OF 19 mm CRUSHER RUN COMPACTED TO 98% S.P.D.

#### WORKMANSHIP

PAVERS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS WITH TIGHT BUTT JOINTS OF APPROXIMATELY 3 mm, ON A SAND BASE. SAW CUT PAVERS AS REQUIRED. USE AN APPROVED VIBRATORY COMPACTOR IN A CIRCULAR PATTERN. SPRINKLE SAND OVER AREA TO PREVENT CHIPPING FOR HEAVIER VIBRATORY COMPACTION. ALL DAMAGED OR CHIPPED PAVERS MUST BE REPLACED AT THE CONTRACTOR'S COST. BRUSH SAND INTO JOINTS AND SPRINKLE WITH WATER UNTIL JOINTS ARE FILLED.

#### EDGE RESTRAINT

REFER TO SPECIFICATIONS. EDGE RESTRAINT MUST BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO COMMENCING WORK.

#### PREPARATION

EXCAVATE AND REMOVE ALL TOPSOIL AND UNSTABLE MATERIALS OFF SITE. SUBGRADE TO BE GRADED TO SIMILAR CONTOURS AS FINISH GRADE. COMPACT SUBGRADE TO 95% SPD. PLACE 150 mm LAYER OF 19 mm CRUSHER RUN LIMESTONE. COMPACT TO 98 % SPD.

PLACE MAXIMUM 30 mm UNCOMPACTED SAND FOR LEVELLING COURSE.



PLANNING,  
DESIGN &  
DEVELOPMENT  
DEPARTMENT

TITLE:  
**PRECAST CONCRETE UNIT PAVING  
FOR PATHWAYS (LIGHT DUTY)**

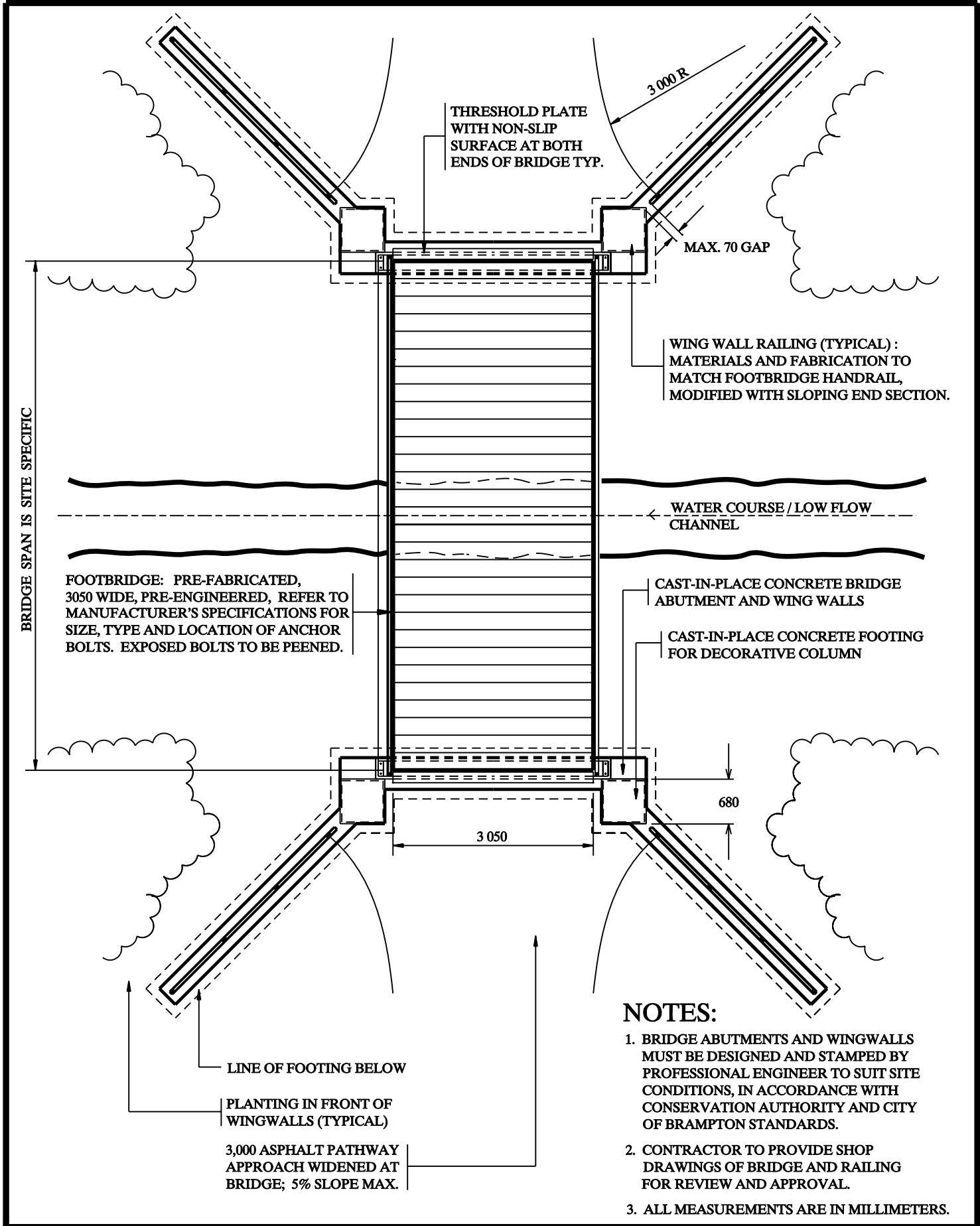
DRAWING NO.  
**PDD 518**

REVIEWED BY: *[Signature]*

SCALE: N.T.S.


APPROVED BY: *[Signature]*

DATE: JANUARY 2007



**NOTES:**

1. BRIDGE ABUTMENTS AND WINGWALLS MUST BE DESIGNED AND STAMPED BY PROFESSIONAL ENGINEER TO SUIT SITE CONDITIONS, IN ACCORDANCE WITH CONSERVATION AUTHORITY AND CITY OF BRAMPTON STANDARDS.
2. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF BRIDGE AND RAILING FOR REVIEW AND APPROVAL.
3. ALL MEASUREMENTS ARE IN MILLIMETERS.

 <p>FLOWER CITY BRAMPTON, CA</p>	<p><b>PLANNING, DESIGN &amp; DEVELOPMENT DEPARTMENT</b></p>	<p>TITLE: <b>FOOTBRIDGE (PLAN)</b></p>	<p>DRAWING NO. <b>PDD 290a</b></p>
		<p>REVIEWED BY: <i>S.D. [signature]</i></p>	<p>SCALE: <b>N.T.S.</b></p>
		<p>APPROVED BY: <i>[signature]</i></p>	<p>DATE: <b>JANUARY 2007</b></p>

DECORATIVE COLUMNS TO BE SUPPLIED BY KNECHT & BERCHTOLD INC. (905-457-4911) OR APPROVED EQUAL.  
 WINGWALL RAILING AND BRIDGE FABRICATION TO BE SUPPLIED BY EAGLE BRIDGE (519-743-4353) OR APPROVED EQUAL.

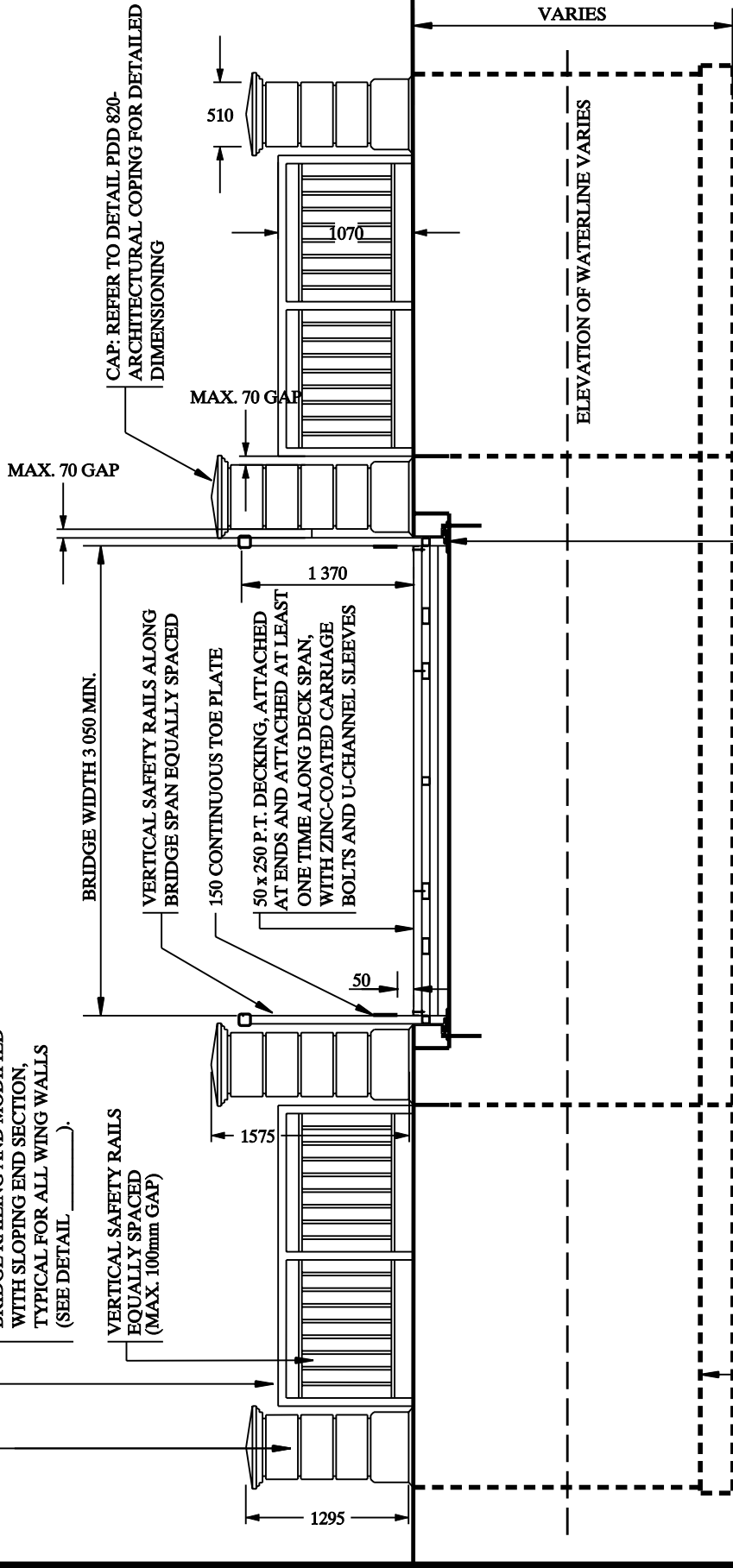
COLUMN: REFER TO DETAIL PDD 290 e- PRECAST DECORATIVE COLUMN FOR DETAILED DIMENSIONING

WING WALL RAILING, MATERIALS AND FABRICATION TO MATCH BRIDGE RAILING AND MODIFIED WITH SLOPING END SECTION, TYPICAL FOR ALL WING WALLS (SEE DETAIL \_\_\_\_\_).

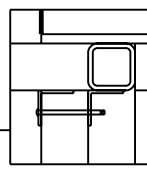
VERTICAL SAFETY RAILS EQUALLY SPACED (MAX. 100mm GAP)

BRIDGE WIDTH 3 050 MIN.  
 VERTICAL SAFETY RAILS ALONG BRIDGE SPAN EQUALLY SPACED

150 CONTINUOUS TOE PLATE  
 50 x 250 P.T. DECKING, ATTACHED AT ENDS AND ATTACHED AT LEAST ONE TIME ALONG DECK SPAN, WITH ZINC-COATED CARRIAGE BOLTS AND U-CHANNEL SLEEVES



\*\*DECORATIVE COLUMNS ARE TO BE INSTALLED REGARDLESS OF WING WALL EXTENT. A SEPARATE FOOTING(S) IS TO BE POURED FOR THE INSTALLATION OF THE DECORATIVE COLUMNS IN THIS ELEVATION\*\*



DETAIL OF RAILING ATTACHMENTS

LINE OF BRIDGE ABUTMENT AND WING WALL FOUNDATION.

SEE SHOP DRAWINGS FOR FURTHER DETAIL RESOLUTION  
 ALL MEASUREMENTS ARE IN MILLIMETERS



PLANNING,  
 DESIGN &  
 DEVELOPMENT  
 DEPARTMENT

TITLE: FOOTBRIDGE (FRONT ELEVATION)		DRAWING NO.
PRIMARY LOCATION		PDD 290b
REVIEWED BY: <i>SH [Signature]</i>	SCALE: N.T.S.	
APPROVED BY: <i>[Signature]</i>	DATE: JANUARY 2007	

DECORATIVE COLUMNS TO BE SUPPLIED BY KNECHT & BERCHTOLD INC. (905-457-4911) OR APPROVED EQUAL.  
 WINGWALL RAILING AND BRIDGE FABRICATION TO BE SUPPLIED BY EAGLE BRIDGE (519-743-4353) OR APPROVED EQUAL.

CAP: REFER TO DETAIL PDD 820- ARCHITECTURAL COPING FOR DETAILED DIMENSIONING  
 COLUMN: REFER TO DETAIL PDD 290 & PRECAST DECORATIVE COLUMN FOR DETAILED DIMENSIONING

1/2 WING WALL RAILING (WITHOUT END COLUMN), MATERIALS AND FABRICATION TO MATCH BRIDGE RAILING AND MODIFIED WITH SLOPING END SECTION, TYPICAL FOR ALL WING WALLS (SEE DETAIL \_\_\_\_\_).

VERTICAL SAFETY RAILS EQUALLY SPACED (MAX. 100mm)

BRIDGE WIDTH 3 050 MIN.  
 VERTICAL SAFETY RAILS ALONG BRIDGE SPAN EQUALLY SPACED  
 150 CONTINUOUS TOE PLATE  
 50 x 250 P.T. DECKING, ATTACHED AT ENDS AND ATTACHED AT LEAST ONE TIME ALONG DECK SPAN, WITH ZINC-COATED CARRIAGE BOLTS AND U-CHANNEL SLEEVES

1200

1575

MAX. 70 GAP

VARIES

CONCRETE FOOTING/ CAISSON MINIMUM 1200mm DEPTH.

ELEVATION OF WATERLINE VARIES

LINE OF BRIDGE ABUTMENT AND WING WALL FOUNDATION.

DETAIL OF DECKING ATTACHMENTS

SEE SHOP DRAWINGS FOR FURTHER DETAIL RESOLUTION  
 ALL MEASUREMENTS ARE IN MILLIMETERS



PLANNING,  
 DESIGN &  
 DEVELOPMENT  
 DEPARTMENT

TITLE: FOOTBRIDGE (FRONT ELEVATION)

DRAWING NO.

SECONDARY LOCATION

PDD 290c

REVIEWED BY: *SH Daubney*

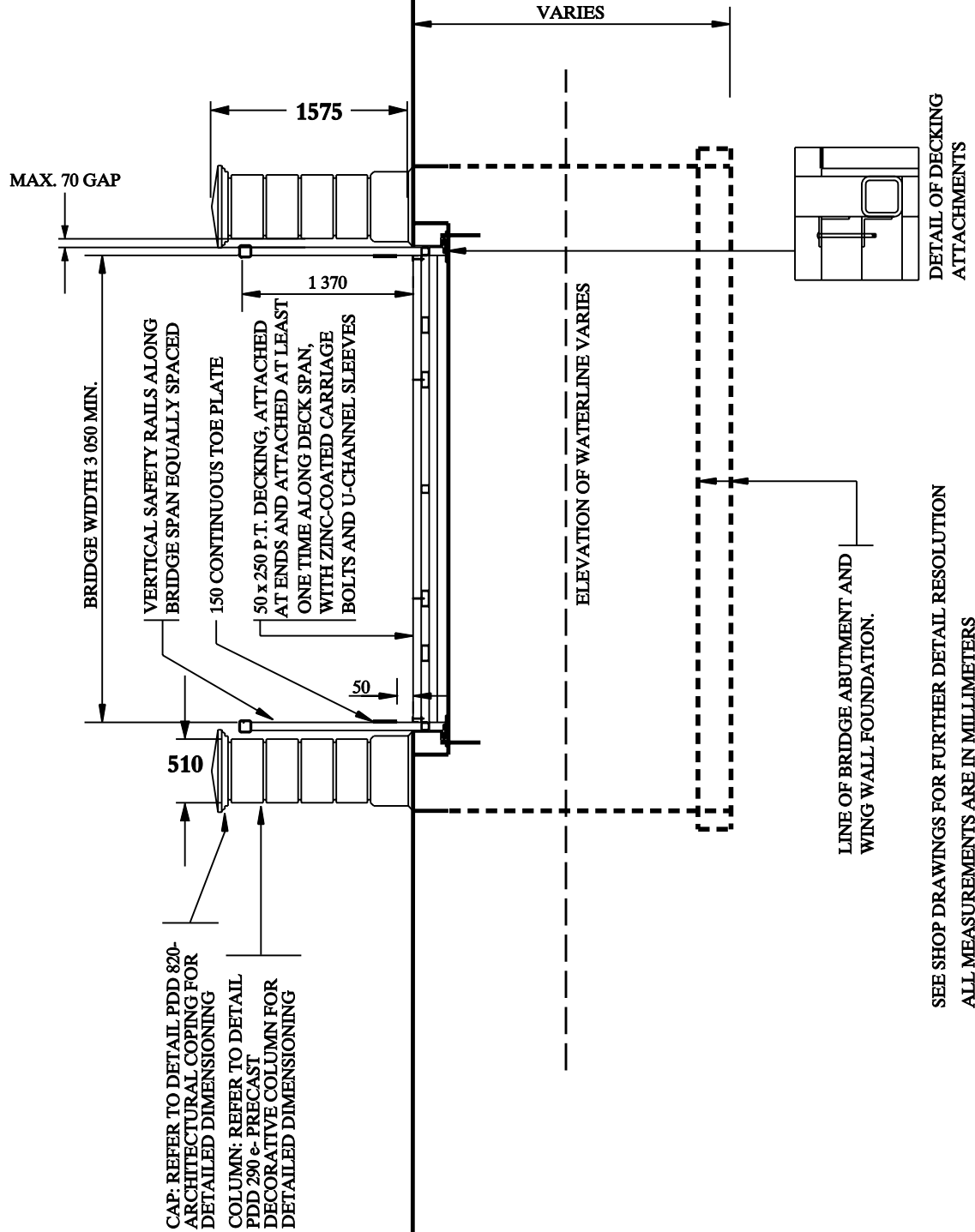
SCALE: N.T.S.

APPROVED BY: *Steve Wald*

DATE: JANUARY 2007

DECORATIVE COLUMNS TO BE SUPPLIED BY  
 KNECHT & BERCHTOLD INC. (905-457-4911)  
 OR APPROVED EQUAL.

WINGWALL RAILING AND BRIDGE FABRICATION  
 TO BE SUPPLIED BY EAGLE BRIDGE (519-743-4355)  
 OR APPROVED EQUAL.



CAP: REFER TO DETAIL PDD 820-  
 ARCHITECTURAL COPING FOR  
 DETAILED DIMENSIONING

COLUMN: REFER TO DETAIL  
 PDD 290 & PRECAST  
 DECORATIVE COLUMN FOR  
 DETAILED DIMENSIONING

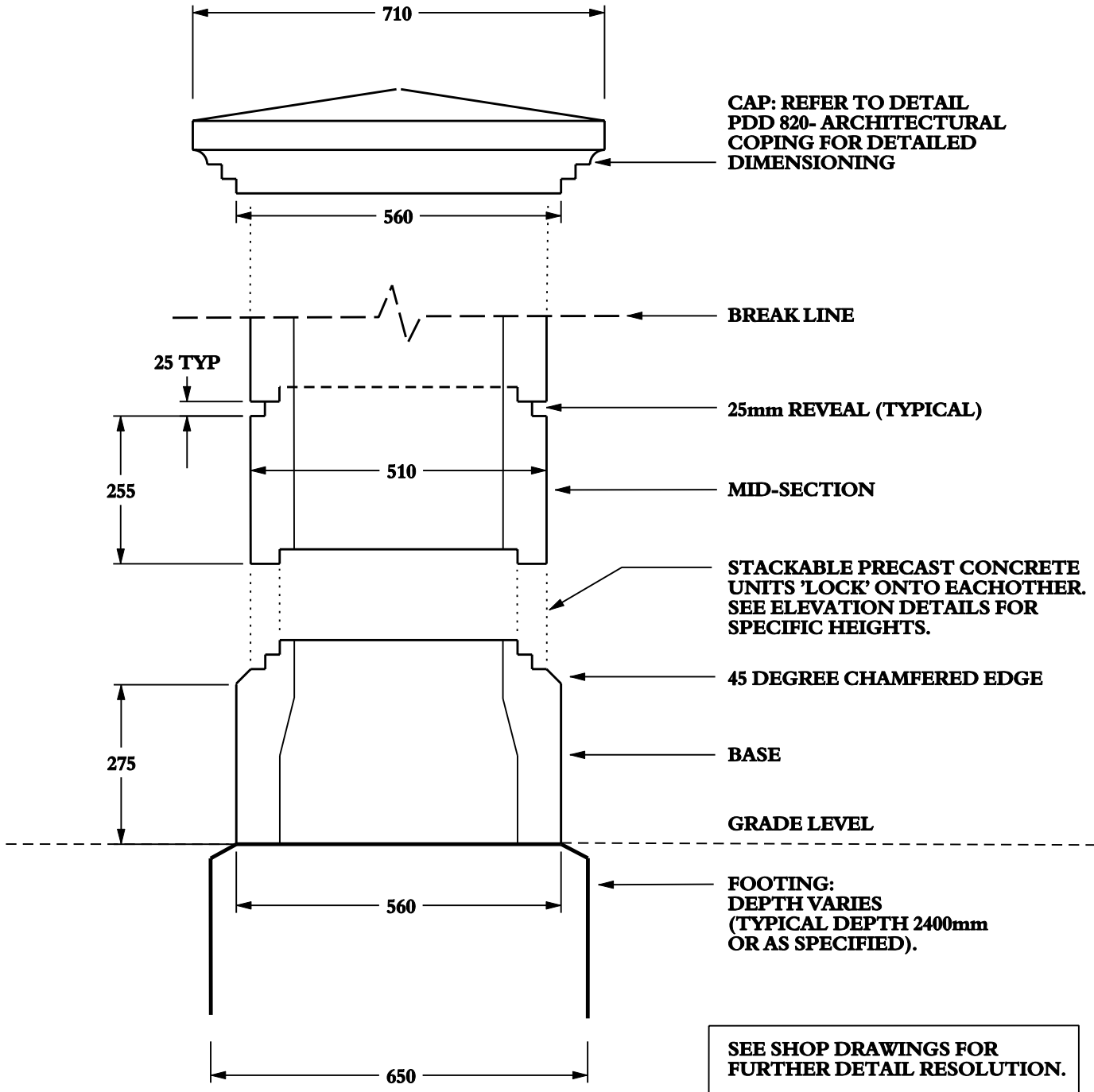
SEE SHOP DRAWINGS FOR FURTHER DETAIL RESOLUTION  
 ALL MEASUREMENTS ARE IN MILLIMETERS  
 GRADING OF VALLEY SLOPE AROUND FOUNDATION 3:1 MAX.



PLANNING,  
 DESIGN &  
 DEVELOPMENT  
 DEPARTMENT

TITLE: <b>FOOTBRIDGE (FRONT ELEVATION)</b>		DRAWING NO.
<b>TERTIARY LOCATION</b>		PDD <b>290d</b>
REVIEWED BY: <i>SH</i>	SCALE: <b>N.T.S.</b>	
APPROVED BY: <i>John Walsh</i>	DATE: <b>JANUARY 2007</b>	

DECORATIVE COLUMNS TO BE SUPPLIED BY KNECHT & BERCHTOLD INC. (905-457-4911) OR APPROVED EQUAL.



CAP: REFER TO DETAIL PDD 820- ARCHITECTURAL COPING FOR DETAILED DIMENSIONING

BREAK LINE

25mm REVEAL (TYPICAL)

MID-SECTION

STACKABLE PRECAST CONCRETE UNITS 'LOCK' ONTO EACH OTHER. SEE ELEVATION DETAILS FOR SPECIFIC HEIGHTS.

45 DEGREE CHAMFERED EDGE

BASE

GRADE LEVEL

FOOTING: DEPTH VARIES (TYPICAL DEPTH 2400mm OR AS SPECIFIED).

SEE SHOP DRAWINGS FOR FURTHER DETAIL RESOLUTION.  
ALL MEASUREMENTS ARE IN MILLIMETERS (mm)



PLANNING,  
DESIGN &  
DEVELOPMENT  
DEPARTMENT

TITLE:

PRECAST DECORATIVE COLUMN

DRAWING NO.

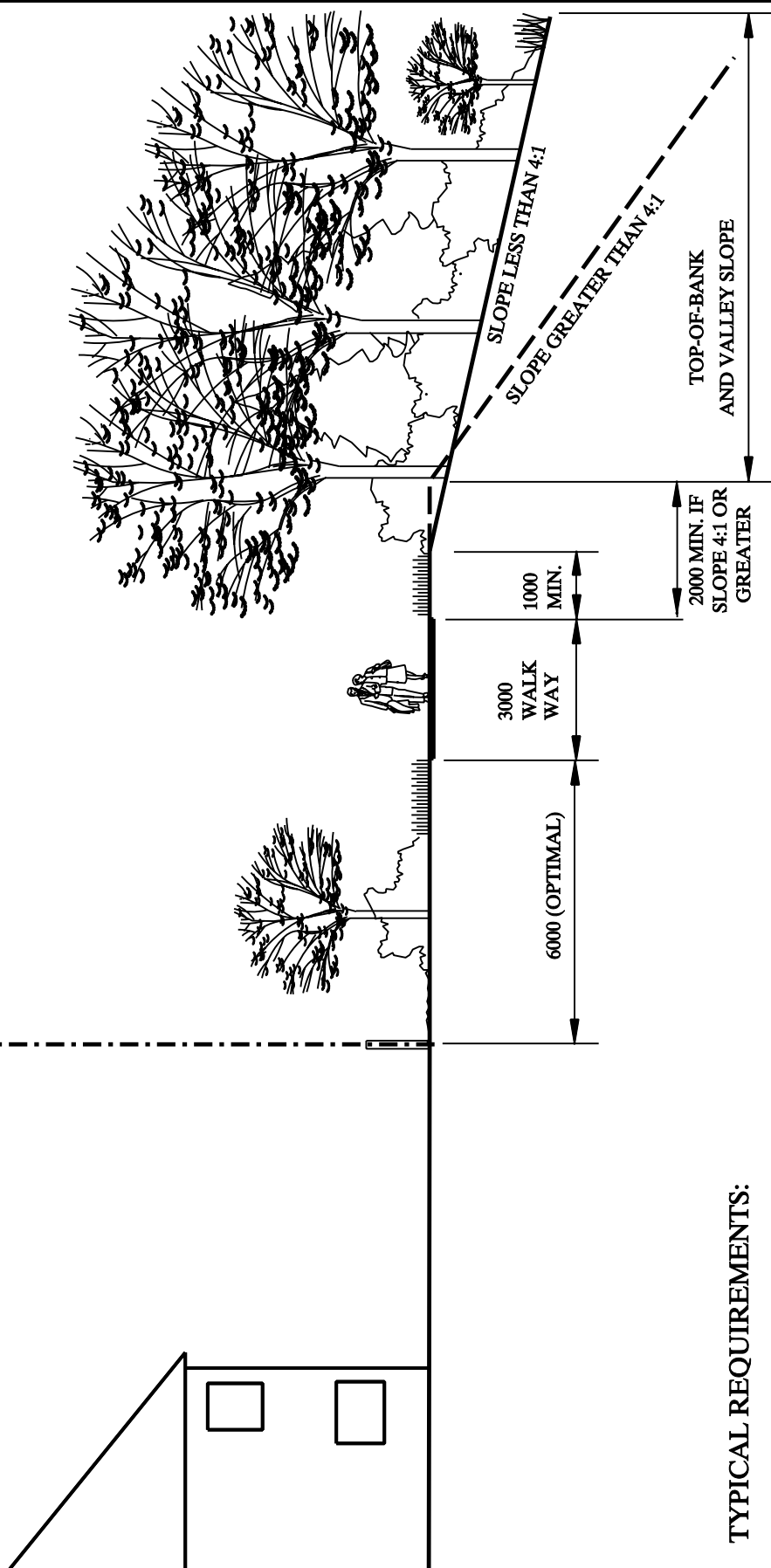
PDD 290e

REVIEWED BY: *SD*

SCALE: N.T.S.

APPROVED BY: *John Walsh*

DATE: JANUARY 2007



**TYPICAL REQUIREMENTS:**

1. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE REPLANTED TO THE CITY'S SATISFACTION
2. FOR WALKWAY CONSTRUCTION SEE DETAIL 511 (TYPICAL ASPHALT WALKWAY)
3. ALL SHRUBS ARE TO BE PLANTED IN CONTINUOUS BEDS. INDIVIDUAL SHRUB BEDS ARE TO BE SEPARATED BY MINIMUM 3.0 M
4. ALL SHRUB BEDS ARE TO HAVE A MINIMUM SETBACK OF 2.0 M FROM WALKWAY EDGE
5. ALL TREES ARE TO HAVE A MINIMUM SETBACK OF 3.0 M FROM WALKWAY EDGE
6. BUFFER WIDTHS OF 3.0 TO 6.0 M BETWEEN RESIDENTIAL LOT LINES AND WALKWAY EDGES REQUIRE THE APPROVAL OF THE CITY OF BRAMPTON AND WILL ONLY BE ENTERAINED FOR SHORT STRETCHES WHERE SEVERE TOPOGRAPHY POSES LIMITATIONS
7. ALL MEASUREMENTS ARE IN MILLIMETERS UNLESS STATED OTHERWISE



**PLANNING,  
DESIGN &  
DEVELOPMENT  
DEPARTMENT**

<b>TITLE:</b> WALKWAY IN VALLEY LAND (OPTIMAL SETBACK REQUIREMENTS)		<b>DRAWING NO.</b> PDD <b>717</b>
<b>REVIEWED BY:</b> <i>S.D. [Signature]</i>	<b>SCALE:</b> N.T.S.	
<b>APPROVED BY:</b> <i>[Signature]</i>	<b>DATE:</b> JANUARY 2007	