

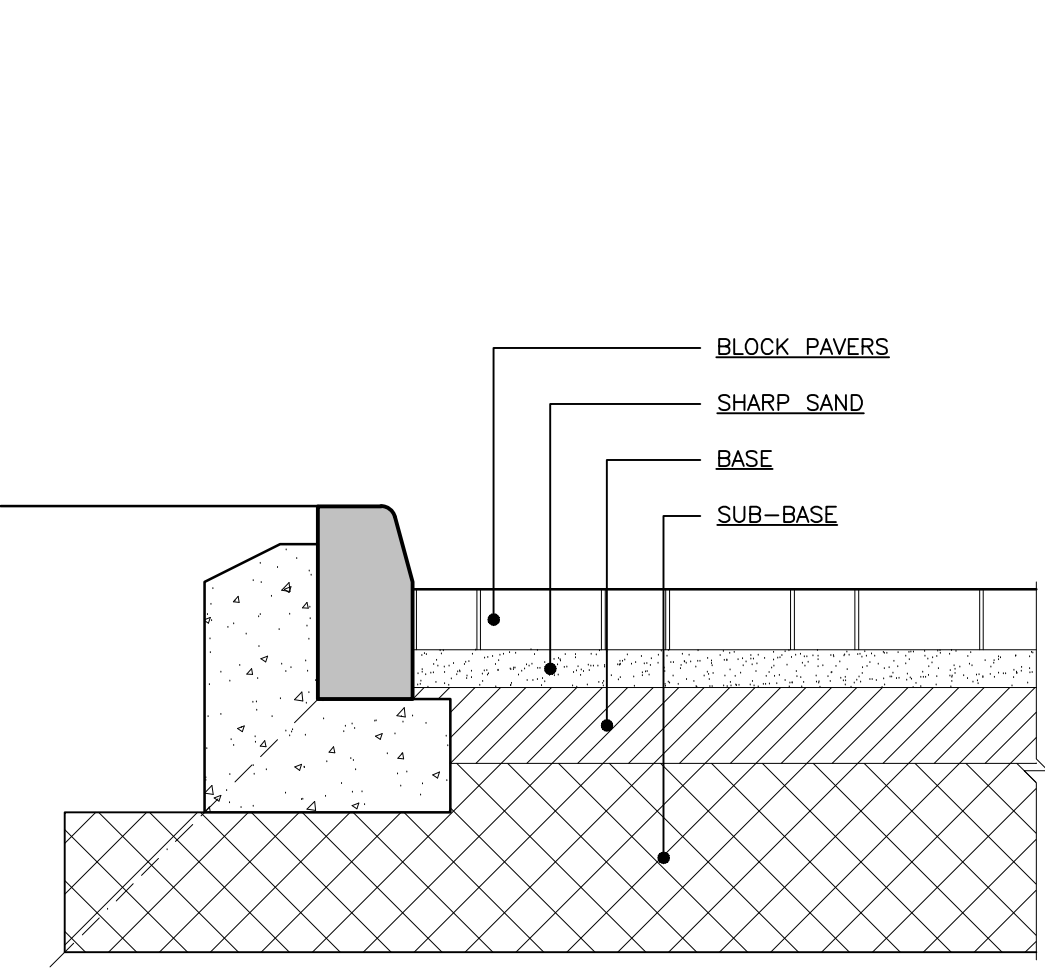
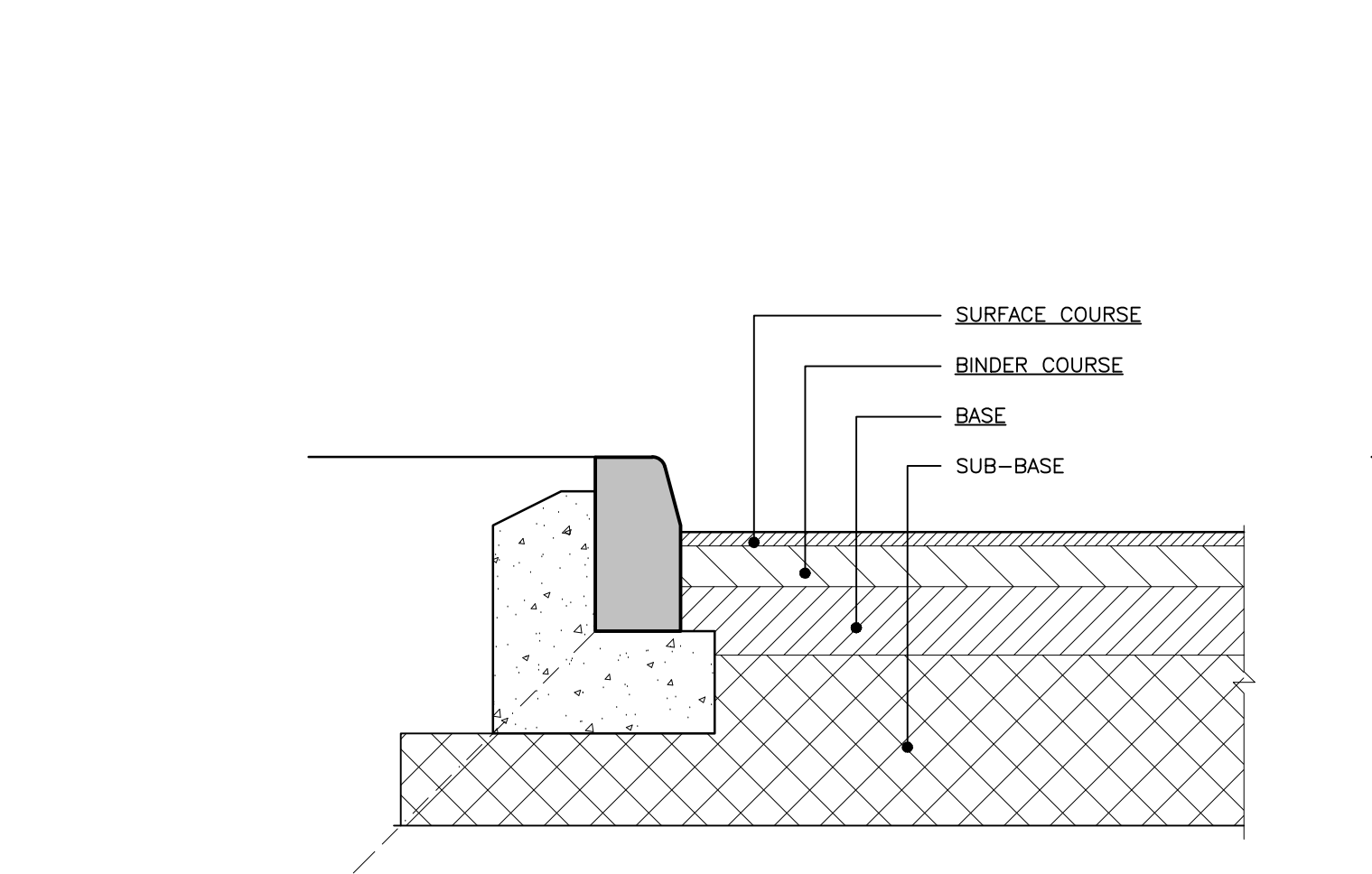
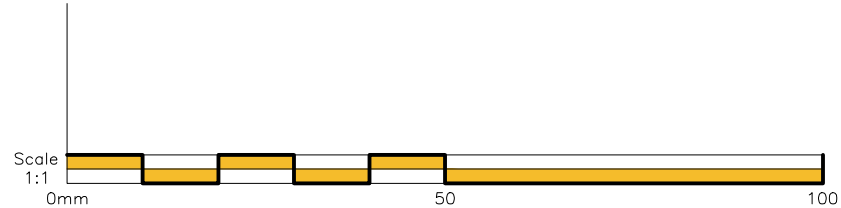


TABLE 2a: PRIVATE ROAD HAVING FREQUENT USE BY COMMERCIAL VEHICLES				
CONSTRUCTION – ROAD TYPE ⁽¹⁾		ROAD TYPE		FOOTPATH
SUB-BASE	MCHW VOLUME 1 SHW CLAUSE 803 TYPE 1 UNBOUND MIXTURES GRANULAR SUB-BASE MATERIAL TYPE 1 TO TABLE 8/2	BITUMINOUS MIXTURES (ASPHALT)	BLOCK PAVERS	BITUMINOUS MIXTURES
		TABLE 3	WHERE CALIFORNIA BEARING RATIO (CBR) IS 5% OR LESS = 150 ⁽²⁾ WHERE CBR IS GREATER THAN 5% = TABLE 3	225mm ⁽³⁾
BASE (ROAD BASE)	ASPHALT CONCRETE TO BS EN 13108-1 AND PD 6691 UTILISING AGGREGATE TO BS EN 13043 AND PD 6682-2	100mm (AC 32 DENSE BASE 100/150 DES)	N/A	N/A
	CONCRETE DESIGNATION (BS 8500-2:2015+A2:2019 TABLE 6)	N/A	N/A	N/A
BINDER COURSE (BASE COURSE)	ASPHALT CONCRETE TO BS EN 13108-1 AND PD 6691 UTILISING AGGREGATE TO BS EN 13043 AND PD 6682-2	60mm (AC 20 DENSE BIN 100/150 DES)	60mm (AC 20 DENSE BIN 100/150 DES)	60mm (AC 20 DENSE BIN 100/150 DES)
SURFACE COURSE (WEARING COURSE)	STONE MASTIC ASPHALT TO BS EN 13108-5 AND PD 6691 WITH AGGREGATE TO BS EN 13043 AND PD 6692-2	30mm (SMA 10 SURF 40/60)	N/A	20mm (AC 6 DENSE SURF 100/150 DES)
	HOT ROLLED ASPHALT TO BS EN 13108-4 AND PD 6691 UTILISING AGGREGATE TO BS EN 13043 AND PD 6692-2	40mm (HRA 55/10 SURF 40/60 DES)	N/A	N/A
	CONCRETE DESIGNATION (BS 8500-2:2015+A2:2019 TABLE 6)	N/A	N/A	N/A
BEDDING COURSE	COARSE SAND TO BS 7533-3 CATEGORY II OF ANNEX D	N/A	50mm	N/A
PAVERS	BLOCK PAVERS TO BS EN 1338 OF CLASS 2 WEATHERING RESISTANCE AND CLASS 3 ABRASION, AS WELL AS BEING OF LOW POTENTIAL FOR SLIP (REF. TABLE NA.2 OF BS EN 1338) ⁽⁷⁾ .	N/A	80mm	N/A

TABLE 2b: SHARED PARKING AND ASSOCIATED ACCESS AREAS HAVING FREQUENT USE BY COMMERCIAL VEHICLES			
CONSTRUCTION – ROAD TYPE ⁽¹⁾		BITUMINOUS MIXTURES (ASPHALT)	BLOCK PAVERS
SUB-BASE	MCHW VOLUME 1 SERIES 800 ⁽²⁾ CLAUSE 803 TYPE 1 UNBOUND MIXTURES GRANULAR SUB-BASE MATERIAL TYPE 1 TO TABLE 8/2	TABLE 3	TABLE 3
BASE (ROAD BASE)	ASPHALT CONCRETE TO BS EN 13108-1 AND PD 6691 UTILISING AGGREGATE TO BS EN 13043 AND PD 6682-2	80mm (AC 32 DENSE BASE 100/150 DES)	N/A
	CONCRETE DESIGNATION (BS 8500-2:2015+A2:2019 TABLE 6)	100mm GRADE GEN2 ⁽⁴⁾	N/A
BINDER COURSE (BASE COURSE)	ASPHALT CONCRETE TO BS EN 13108-1 AND PD 6691 UTILISING AGGREGATE TO BS EN 13043 AND PD 6682-2	60mm (AC 20 DENSE BIN 100/150 DES)	N/A
SURFACE COURSE (WEARING COURSE)	STONE MASTIC ASPHALT TO BS EN 13108-5 AND PD 6691 WITH AGGREGATE TO BS EN 13043 AND PD 6692-2	30mm (SMA 10 SURF 40/60)	N/A
	HOT ROLLED ASPHALT TO BS EN 13108-4 AND PD 6691 UTILISING AGGREGATE TO BS EN 13043 AND PD 6692-2	N/A	N/A
	CONCRETE DESIGNATION (BS 8500-2:2015+A2:2019 TABLE 6)	N/A	N/A
BEDDING COURSE	SHARP SAND TO BS 7533-3 CATEGORY II OF ANNEX D	N/A	50mm
PAVERS	BLOCK PAVERS TO BS EN 1338 OF CLASS 2 WEATHERING RESISTANCE AND CLASS 3 ABRASION, AS WELL AS BEING OF LOW POTENTIAL FOR SLIP (REF. TABLE NA.2 OF BS EN 1338) ⁽⁷⁾ .	N/A	80mm

TABLE 3: MINIMUM SUB-BASE THICKNESS FOR PAVED AREAS	
CBR VALUES	MINIMUM THICKNESS (mm) OF SUB-BASE (CONSOLIDATED IN ACCORDANCE WITH MCHW VOLUME 1 CLAUSE 801, TABLE 8/1)
LESS THAN 2%	SUBGRADE REQUIRES IMPROVEMENT ⁽²⁾
2-3%	325
3-5%	250
5-7%	150
7-20%	100

NOTES
1. MINIMUM THICKNESS OF SUB-BASE MAY BE CONSIDERED FOR REDUCTION WHEN USING PROPRIETARY GEOGRID, PROVIDED THEY CAN BE ADEQUATELY JUSTIFIED AND DESIGNED BY AN ENGINEER IN ACCORDANCE WITH TECHNICAL REQUIREMENT RS.
2. SPECIALIST ADVICE SHOULD BE SORT TO IMPROVE THE SUBGRADE.

MINIMUM SUB-BASE THICKNESS
THE THICKNESS OF ANY REQUIRED CAPPING LAYER AND THE SUB-BASE SHOULD BE DETERMINED AFTER INVESTIGATIONS AND ON-SITE TESTS HAVE BEEN CARRIED OUT, WITH CONSIDERATION TO THE:
1. CBR VALUE.
2. FROST SUSCEPTIBILITY OF THE SUB-GRADE; WHERE SUSCEPTIBLE TO FROST, A SUITABLE CAPPING LAYER SHOULD BE INCLUDED BELOW THE SUB-BASE TO A SUITABLE DEPTH TO ENSURE THAT THE CONSTRUCTION WILL NOT BE AFFECTED BY FROST HEAVE.
3. GRANULAR SUB-BASES SHOULD BE TESTED AND CERTIFIED AS BEING NON-FROST SUSCEPTIBLE AND NON-PLASTIC.

TABLE 2c: SHARED DRIVES HAVING INFREQUENT USE BY COMMERCIAL VEHICLES					
CONSTRUCTION – ROAD TYPE ⁽¹⁾		BITUMINOUS MIXTURES (ASPHALT)	CONCRETE	BLOCK PAVERS	GRAVEL
SUB-BASE	MCHW VOLUME 1 SERIES 800 ⁽²⁾ CLAUSE 803 TYPE 1 UNBOUND MIXTURES GRANULAR SUB-BASE MATERIAL TYPE 1 TO TABLE 8/2	TABLE 3	TABLE 3	TABLE 3	TABLE 3
BASE (ROAD BASE)	ASPHALT CONCRETE TO BS EN 13108-1 AND PD 6691 UTILISING AGGREGATE TO BS EN 13043 AND PD 6682-2	⁽⁵⁾	N/A	N/A	N/A
	CONCRETE DESIGNATION (BS 8500-2:2015+A2:2019 TABLE 6)	N/A		N/A	
BINDER COURSE (BASE COURSE)	ASPHALT CONCRETE TO BS EN 13108-1 AND PD 6691 UTILISING AGGREGATE TO BS EN 13043 AND PD 6682-2	80mm (AC 20 DENSE BIN 100/150 DES ⁽⁶⁾)	N/A	N/A	N/A
SURFACE COURSE (WEARING COURSE)	STONE MASTIC ASPHALT TO BS EN 13108-5 AND PD 6691 WITH AGGREGATE TO BS EN 13043 AND PD 6692-2	30mm (SMA 10 SURF 40/60)	N/A	N/A	N/A
	HOT ROLLED ASPHALT TO BS EN 13108-4 AND PD 6691 UTILISING AGGREGATE TO BS EN 13043 AND PD 6692-2	40mm (HRA 55/10 SURF 40/60 DES)	N/A	N/A	N/A
	CONCRETE DESIGNATION (BS 8500-2:2015+A2:2019 TABLE 6)	N/A	150mm GRADE PAV2	N/A	N/A
BEDDING COURSE	SHARP SAND TO BS 7533-3 CATEGORY II OF ANNEX D	N/A	N/A	50mm	N/A
PAVERS	BLOCK PAVERS TO BS EN 1338 OF CLASS 2 WEATHERING RESISTANCE AND CLASS 3 ABRASION, AS WELL AS BEING OF LOW POTENTIAL FOR SLIP (REF. TABLE NA.2 OF BS EN 1338) ⁽⁷⁾ .	N/A	N/A	80mm	N/A

TABLE 2d: PRIVATE AND PARKING AREAS HAVING USE BY CARS AND LIGHT VEHICLES					
CONSTRUCTION – ROAD TYPE ⁽¹⁾		BITUMINOUS MIXTURES (ASPHALT)	CONCRETE	BLOCK PAVERS	GRAVEL
SUB-BASE	MCHW VOLUME 1 SERIES 800 ⁽²⁾ CLAUSE 803 TYPE 1 UNBOUND MIXTURES GRANULAR SUB-BASE MATERIAL TYPE 1 TO TABLE 8/2	TABLE 3	TABLE 3	TABLE 3	TABLE 3
BASE (ROAD BASE)	ASPHALT CONCRETE TO BS EN 13108-1 AND PD 6691 UTILISING AGGREGATE TO BS EN 13043 AND PD 6682-2	N/A	N/A	N/A	N/A
	CONCRETE DESIGNATION (BS 8500-2:2015+A2:2019 TABLE 6)	N/A	N/A	N/A	N/A
BINDER COURSE (BASE COURSE)	ASPHALT CONCRETE TO BS EN 13108-1 AND PD 6691 UTILISING AGGREGATE TO BS EN 13043 AND PD 6682-2	60mm (AC 20 DENSE BIN 100/150 DES)	N/A	N/A	N/A
SURFACE COURSE (WEARING COURSE)	ASPHALT CONCRETE TO BS EN 13108-1 AND PD 6691 UTILISING AGGREGATE TO BS EN 13043 AND PD 6682-2	25mm (AC 6 DENSE SURF 100/150 DES)			
	HOT ROLLED ASPHALT TO BS EN 13108-4 AND PD 6691 UTILISING AGGREGATE TO BS EN 13043 AND PD 6692-2	N/A	N/A	N/A	N/A
	STONE MASTIC ASPHALT TO BS EN 13108-5 AND PD 6691 WITH AGGREGATE TO BS EN 13043 AND PD 6692-2	25mm (SMA 6 SURF 40/60)	N/A	N/A	N/A
	CONCRETE DESIGNATION (BS 8500-2:2015+A2:2019 TABLE 6)	N/A	100mm GRADE PAV1	N/A	N/A
BEDDING COURSE	SHARP SAND TO BS 7533-3 CATEGORY II OF ANNEX D	N/A	N/A	50mm	N/A
PAVERS	BLOCK PAVERS TO BS EN 1338 OF CLASS 2 WEATHERING RESISTANCE AND CLASS 3 ABRASION, AS WELL AS BEING OF LOW POTENTIAL FOR SLIP (REF. TABLE NA.2 OF BS EN 1338) ⁽⁷⁾ .	N/A	N/A	80mm	N/A

NOTES

- IN THE FIRST COLUMN, EUROPEAN HARMONISED NAMES FOR THE PAVEMENT LAYERS ARE WITH THE OLD UK DESIGNATIONS INCLUDED IN BRACKETS.
- WHERE A CAPPING LAYER IS SPECIFIED, SUB-BASE THICKNESS CAN BE REDUCED. PAVEMENT DESIGN CD 225 REVISION 1 GIVES GUIDANCE ON CAPPING AND SUB-BASE THICKNESS DESIGN BASED ON CBR VALUES WITH AND WITHOUT A CAPPING LAYER.
- FOR THE MINIMUM THICKNESS OF THE SUB-BASE FOR DIFFERENT CBR VALUES, REFER TO TABLE 3.
- BOND COAT IN ACCORDANCE WITH BS 594987 SHOULD BE APPLIED TO ENSURE EFFECTIVE BONDING OF THE ASPHALT LAYERS.
- BITUMINOUS MIXTURES/ASPHALT CAN BE USED AS A PARTIAL REPLACEMENT OF A FULL THICKNESS GRANULAR SUB-BASE TYPE 1 MATERIAL.
- IF THE BINDER COURSE IS SUBJECTED TO AN EXTENSIVE PERIOD OF TRAFFICKING BEFORE THE SURFACE COURSE IS APPLIED, A RECIPE MIXTURE CONTAINING A HIGHER BITUMEN CONTENT WILL BE MORE DURABLE/RESISTANT TO FRETTING/RAVELLING UNDER TRAFFIC.
- WHERE LAID TO EITHER A 90 OR 45 DEGREE HERRINGBONE PATTERN, THE EDGE PERIMETER SHOULD BE LAID WITH ONE SINGLE ROW OF STRETCHER BOND SET PARALLEL TO THE EDGE RESTRAINT. WHERE BLOCK PAVERS ARE LAID ABUTTING DRAINAGE CHANNELS, GULLEY GRATES, ETC. THE UPPER SURFACE OF THE BLOCK PAVERS SHOULD BE SET 3-6mm ABOVE THE GRATING. MANUFACTURER'S DECLARED VALUE MARKINGS W3 AND S4 ARE ACCEPTABLE. WHERE W3 IS 1.0 kg/m² OR LESS AND S4 IS 45 OR MORE BASED ON 'C SCALE UNIT' (FOR ABRASION, CLASS A2 = MAXIMUM RESULT IS 23mm, CLASS A1 = NO PERFORMANCE DETERMINED).
- A 38mm THICKNESS OF GRADED 15/20mm UNBOUND AGGREGATE TO BS EN 13242 (GRAVEL), WELL ROLLED AND COMPACTED, SHOULD BE USED.
- REFERENCE TO CLAUSES ARE IN RELATION TO THE RELEVANT EUROPEAN AND / OR BRITISH STANDARDS.
- ASPHALT CONTRACTORS SHOULD BE CERTIFIED IN ACCORDANCE WITH THE NATIONAL HIGHWAY SECTOR SCHEMES FOR QUALITY MANAGEMENT IN HIGHWAY WORKS – SCHEME 16.

NOTES

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GENERAL NOTES

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, ENGINEERS AND SPECIALISTS DRAWINGS AND DETAILS.
- ALL FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.
- ANY DISCREPANCIES BETWEEN THIS DRAWING AND OTHER INFORMATION IS TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF THE WORKS ON SITE.
- THE MAIN CONTRACTOR SHALL BE RESPONSIBLE FOR THE SETTING OUT AND ACCURACY OF ALL DIMENSIONS.
- THE CONTRACTOR IS TO ENSURE THE STABILITY AND STRUCTURAL INTEGRITY OF THE EXISTING PROPERTY AT ALL TIMES DURING WORKS AND IS TO BE RESPONSIBLE FOR ALL PROPPING AND SHORING AS REQUIRED.
- MAIN CONTRACTOR TO PROVIDE AND FIX SUITABLE BRACING AND PROPPING FOR ALL ELEMENTS IN THE TEMPORARY CONDITION DURING CONSTRUCTION STAGE, SUCH AS TO ENSURE STRUCTURE STABILITY AT ALL TIMES.
- IT IS THE CONTRACTORS SOLE RESPONSIBILITY FOR ASCERTAINING SAFE DISPOSAL OF ANY OFF-SITE EXCAVATED SPOIL. NO CLAIM RESULTING FROM ABNORMAL TIP REQUIREMENTS WILL BE ENTERTAINED.

KEY TO HEALTH AND SAFETY SYMBOLS

THESE NOTES ARE BASED ON THE USE OF EXPERIENCED AND COMPETENT CONTRACTORS CARRYING OUT THE WORK USING AN APPROVED SAFE METHOD OF WORKING



INDICATES A RESIDUAL RISK REQUIRING A COMPULSORY ACTION



INDICATES A RESIDUAL RISK REQUIRING A PROHIBITIVE ACTION



INDICATES A RESIDUAL RISK AS A WARNING



INDICATES A RESIDUAL RISK FOR INFORMATION

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