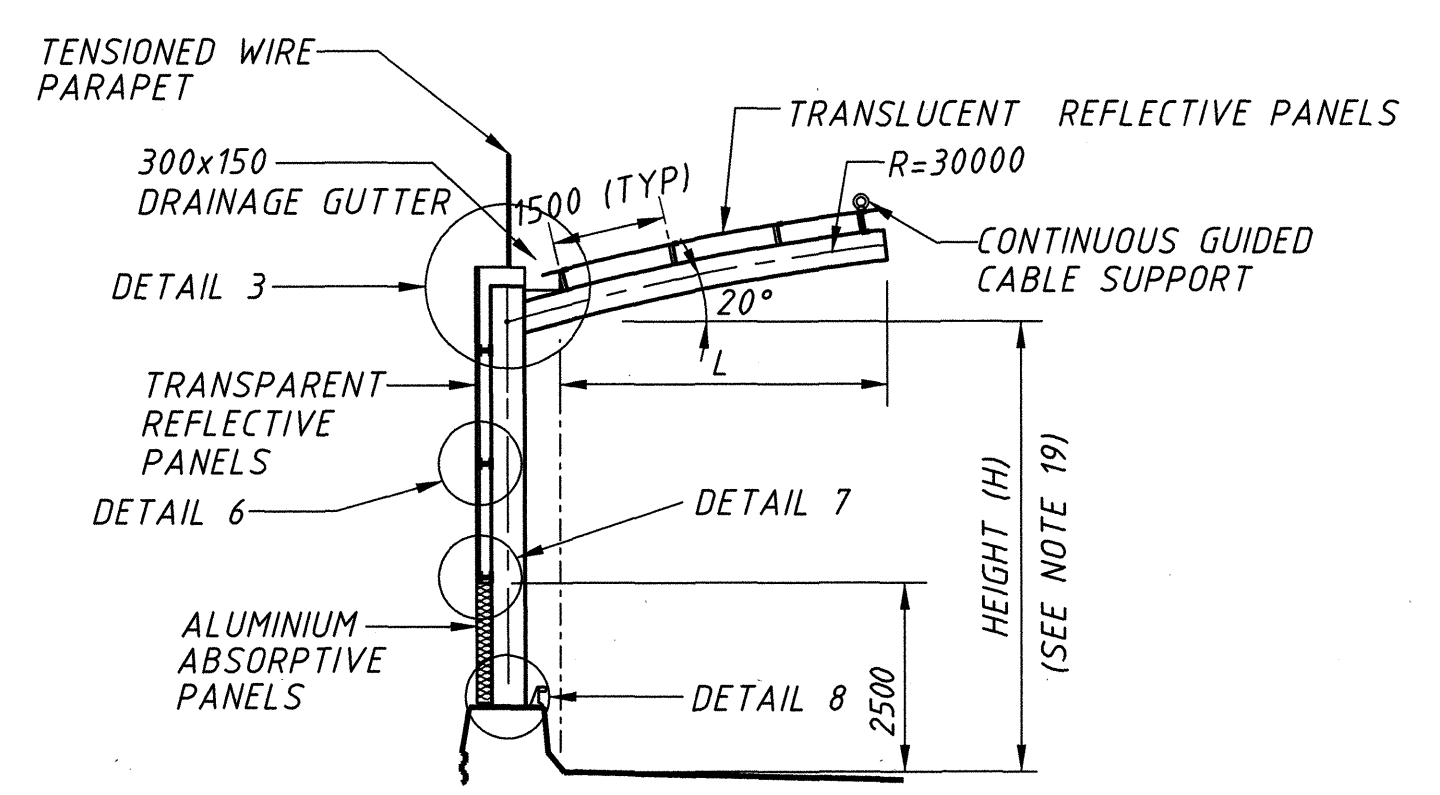
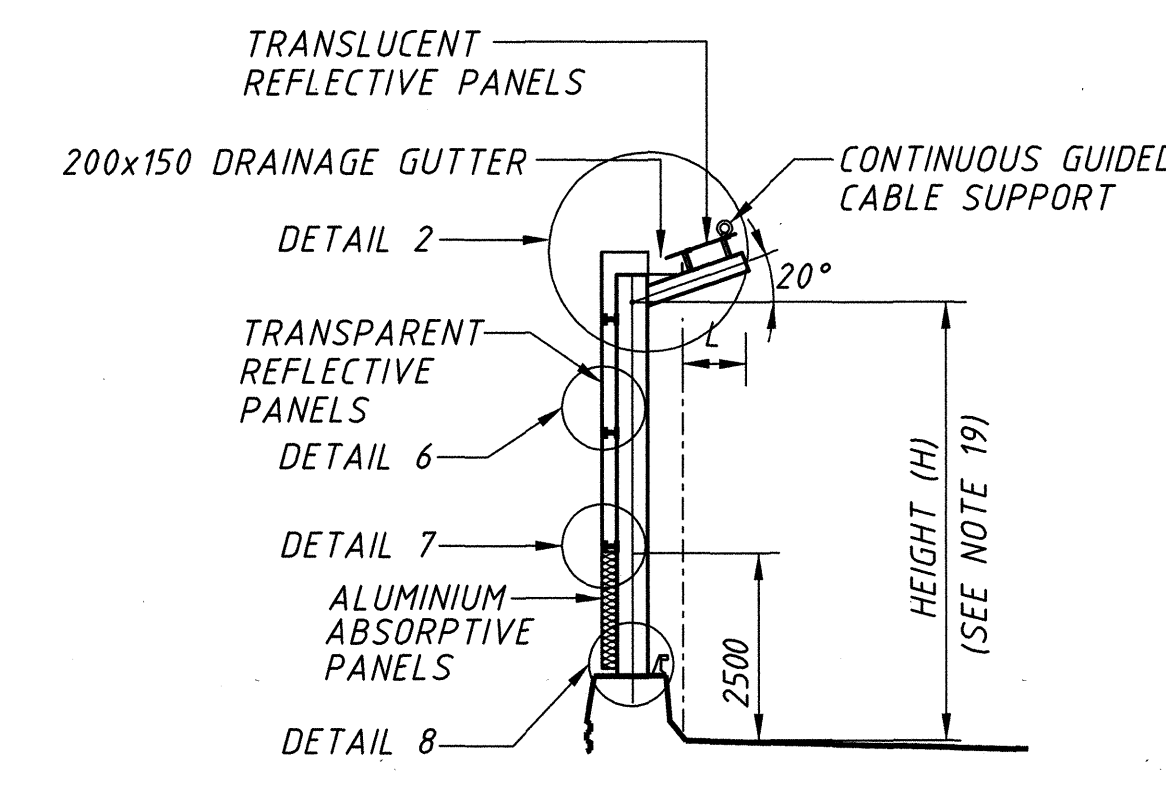


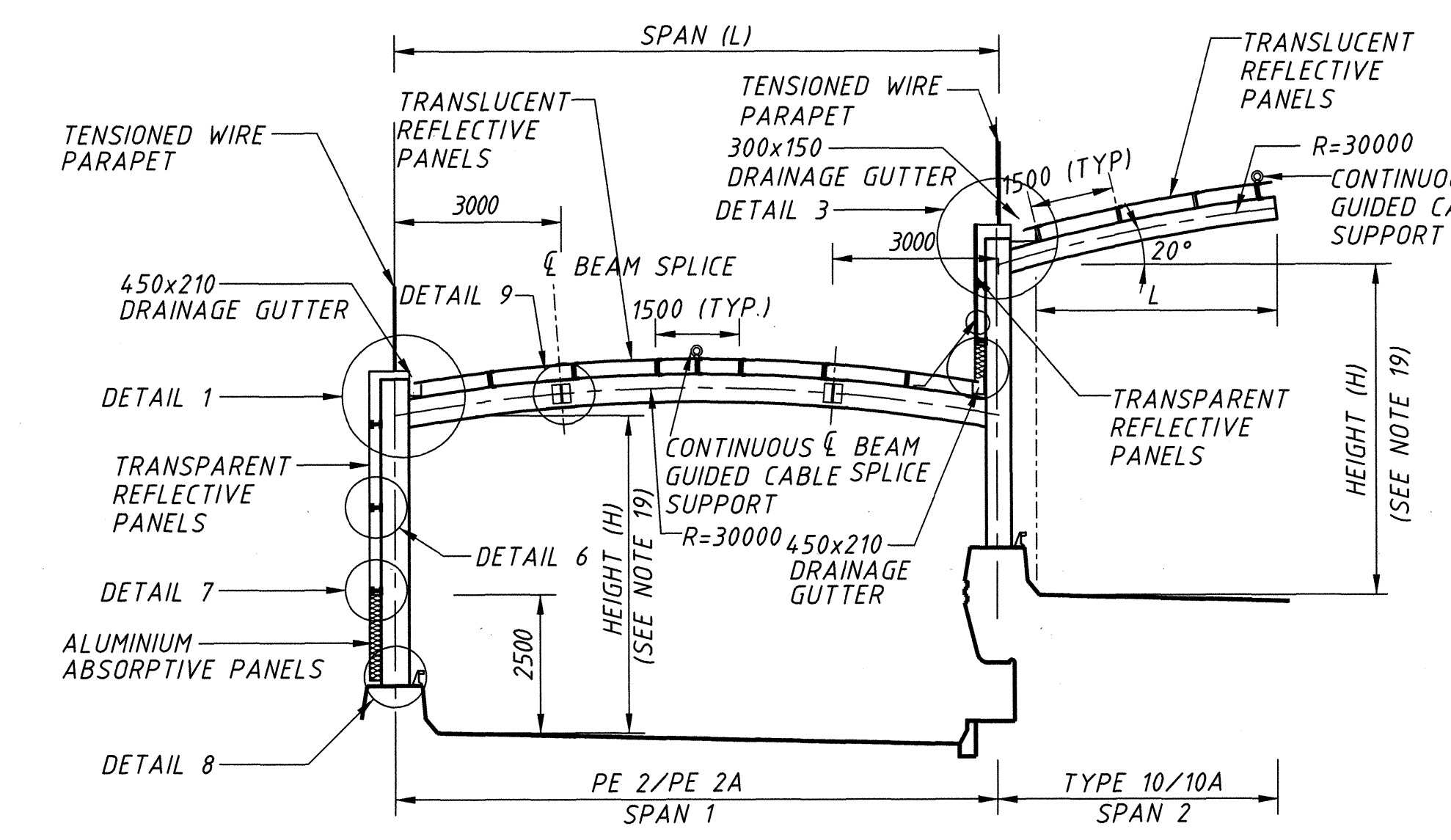
PLAIN BARRIER

NOISE BARRIER TYPE	HEIGHT (H)	COLUMN (RHS)	HOLDING DOWN DETAIL
TYPE 1	3000	200x120x10	TYPE E
TYPE 2	4000	300x200x10	TYPE E
TYPE 3	4500	400x200x10	TYPE D
TYPE 4	5000	400x200x10	TYPE D
TYPE 4A	2500 (MIN.) 4500 (MAX.)	400x200x10	TYPE D
TYPE 5	5500	450x250x10	TYPE C
TYPE 6	5800	500x200x10	TYPE B
TYPE 7	6000	500x200x10	TYPE B



NOISE BARRIER TYPE	HEIGHT (H)	CANTILEVER (L)	COLUMN (RHS)	BEAM (RHS)	HOLDING DOWN DETAIL
TYPE 8	5800	1500	500x300x12.5	250x150x10	TYPE B

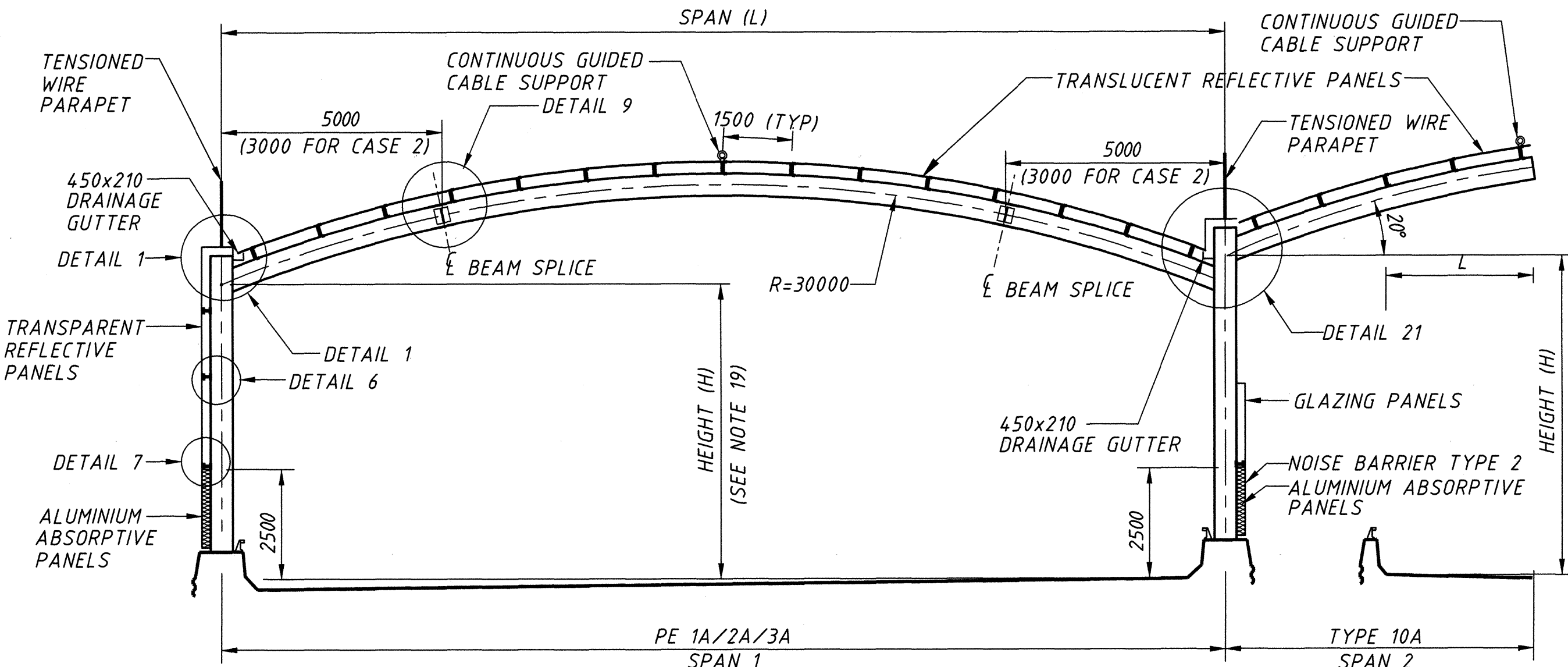
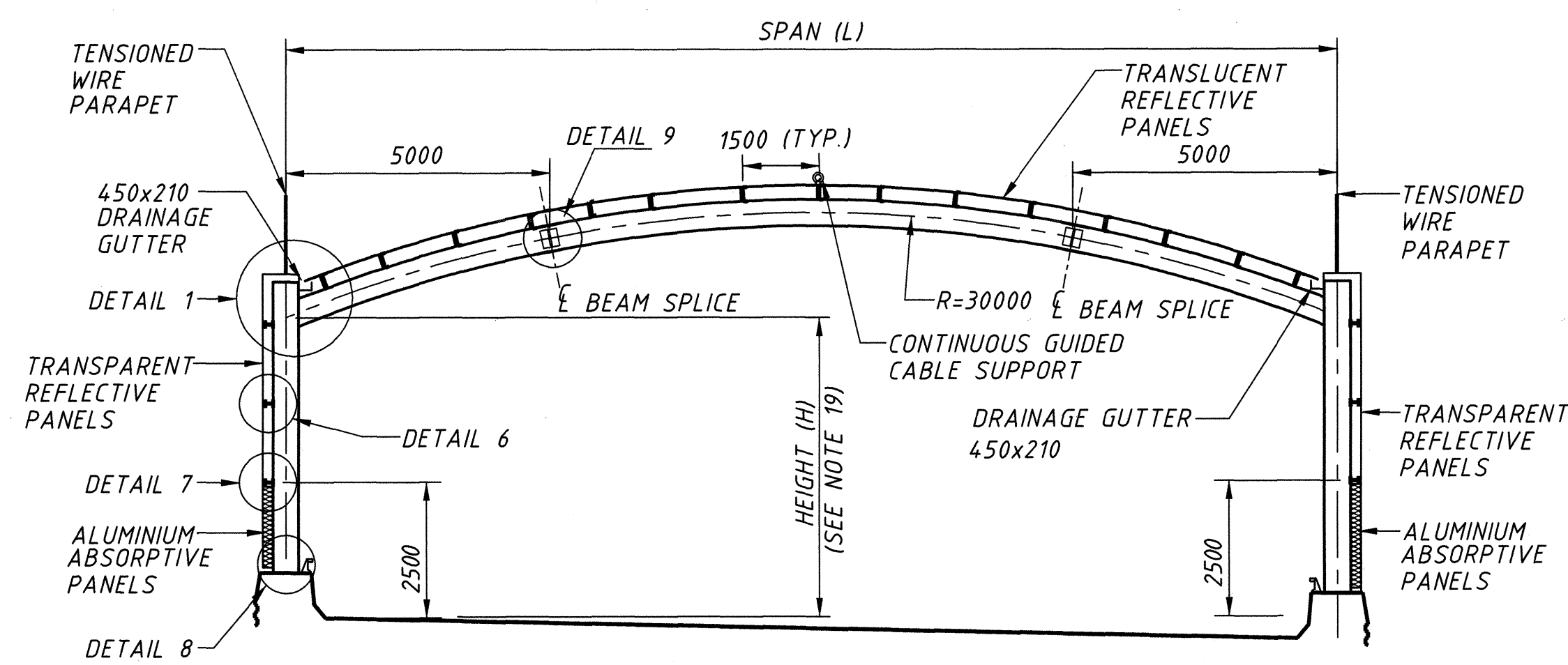
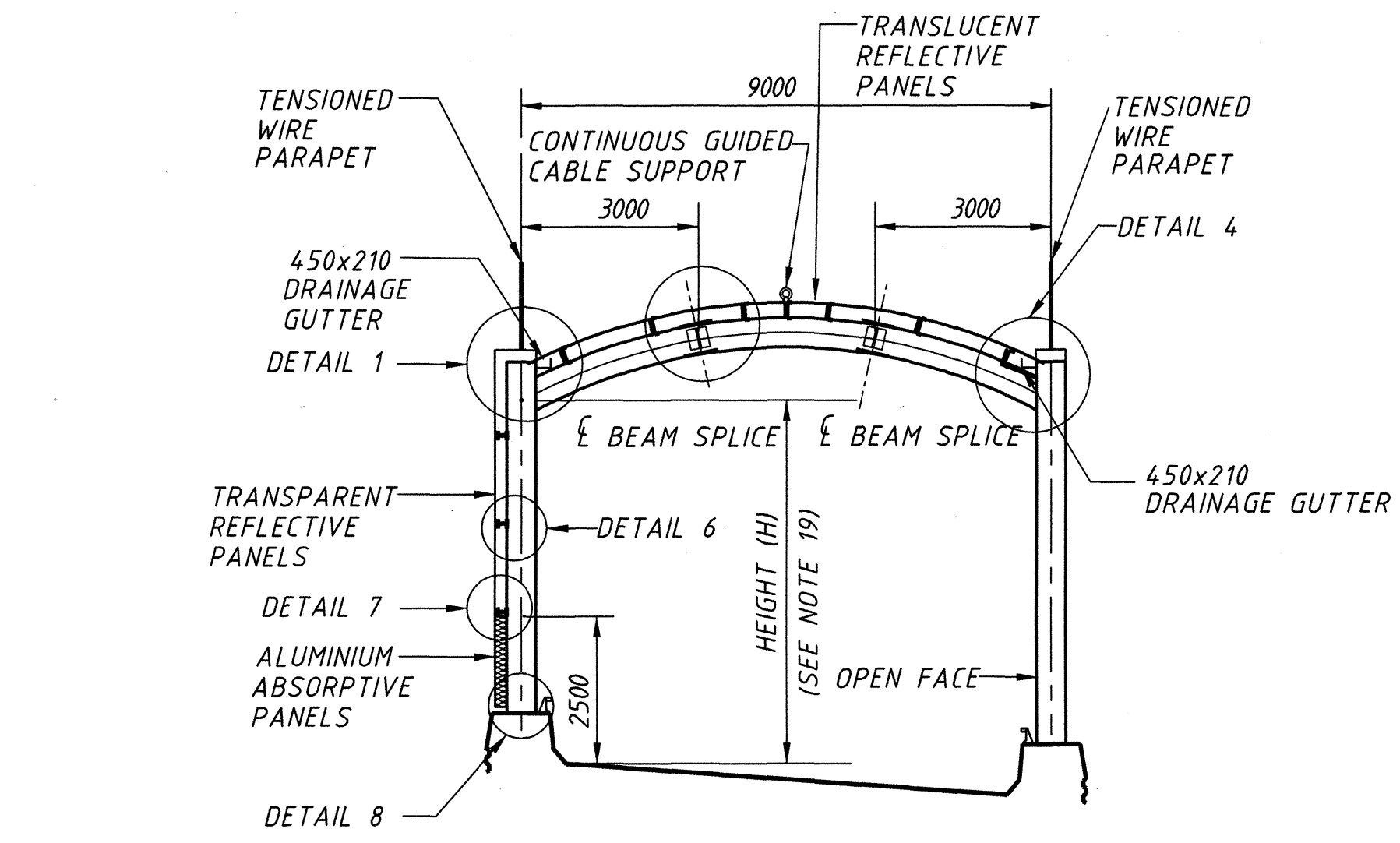
NOISE BARRIER TYPE	HEIGHT (H)	CANTILEVER (L)	COLUMN (RHS)	BEAM (RHS)	HOLDING DOWN DETAIL
TYPE 10	5800	3000	500x300x16	500x300x16	TYPE B
TYPE 11	5800	5000	550x550x22	550x550x22	TYPE A



COMBINED NOISE BARRIER FRAME TYPE C  
(FOR LOCATION OF THE COMBINED NOISE BARRIER, SEE DRAWING NO. 63494/1461 TO 1462)

NOISE BARRIER TYPE	SPAN 1	SPAN 2	HEIGHT (H)		SPAN (L)		LEFT COLUMN (RHS)	BEAM (RHS)	HOLDING DOWN DETAIL
			MIN	MAX	MIN	MAX			
CASE 1	PE2	-	5800	-	10900	450x250x16	400x200x16	TYPE A	
	TYPE 10	-	5800	-	3000	700x500x40	700x500x40	TYPE A	
CASE 2	PE2	-	5800	-	10900	450x250x16	400x200x16	TYPE A	
	TYPE 10A	5800	6820	-	3000	700x500x40	700x500x40	TYPE A	

- NOTES:**
- THE WORKS SHALL COMPLY WITH GENERAL SPECIFICATION FOR CIVIL ENGINEERING WORKS (1992 EDITION), UNLESS SPECIFIED OTHERWISE.
  - HOT ROLLED SECTIONS SHALL COMPLY WITH BS4 OR BS4848 AS APPROPRIATE.
  - ALL STEELWORK SHALL BE GRADE 500 TO BS4360 OR GRADE S355J2H TO EN 10210-1.
  - AFTER FABRICATION ALL STRUCTURAL STEEL IS TO BE HOT-DIP GALVANIZED IN ACCORDANCE WITH BS 729 TO THE APPROPRIATE COATING WEIGHT SURFACES SHALL BE PROPERLY PREPARED REMOVING ALL RUST, OIL, PAINT, AND OTHER SURFACE CONTAMINANTS. MILL SCALE AND WELDING SLAG SHALL BE REMOVED BY GRIT BLASTING CUT FACES AND OUTSIDE ARRISSES SHALL BE GROUND SMOOTH. THE SIZES AND POSITION OF ANY VENT HOLES REQUIRED BY THE GALVANIZER, TOGETHER WITH HIS PROPOSED METHOD OF RE-SEALING, SHALL BE NOTIFIED TO THE ENGINEER FOR HIS APPROVAL.
  - WHERE MEMBERS ARE TOO LARGE FOR AVAILABLE GALVANIZING BATHS, SUBASSEMBLIES SHALL BE PREPARED AS ABOVE AND SUBSEQUENT WELDED JOINTS SHALL BE ZINC SPRAYED IN ACCORDANCE WITH BS 2569 TO A MINIMUM THICKNESS OF 0.2mm. TWO COATS OF GOOD QUALITY ZINC-RICH PAINT COMPLYING WITH BS 4652 SHALL THEN BE APPLIED ACROSS THE ENTIRE ZINC-SPRAYED AREAS INCLUDING AT LEAST 25mm OF THE PARENT GALVANIZED COATING ANY DAMAGE TO GALVANIZED COATINGS SHALL BE MADE GOOD IN A SIMILAR WAY TO THE TREATMENT OF WELDED JOINTS, OR, AT THE DISCRETION OF THE ENGINEER, BY THE USE OF LOW MELTING POINT ZINC ALLOY REPAIR RODS MADE SPECIFICALLY FOR THIS PURPOSE RESULTING IN A MINIMUM COATING THICKNESS OF 0.2mm.
  - FASTENERS FOR PURLINS, BRACING AND OTHER SECONDARY MEMBERS SHALL BE GRADE 8.8 150 METRIC PRECISION HEXAGONAL BOLTS TO BS 3692 COMPLETE WITH EITHER A LOCKING NUT OR SPRING WASHER.
  - FASTENERS FOR ALUMINIUM COMPONENTS AND HOLDING DOWN ARRANGEMENTS SHALL BE GRADE A4-80 STAINLESS STEEL TO BS 6105 WITH COMPATIBLE STAINLESS STEEL WASHERS, A NYLON OR OTHER APPROVED PLASTICS WASHER IS TO BE PROVIDED BETWEEN THE SURFACES OF ANY DIFFERENT METAL SUCH AS ALUMINIUM ALLOY, STAINLESS STEEL AND GALVANIZED STEEL.
  - HIGH STRENGTH FRICTION GRIP BOLTS, WHERE SPECIFIED, SHALL BE GENERAL GRADE TO BS 4395 WITH STANDARD HARDENED WASHERS OVER THE HOLES IN THE OUTER PILES.
  - FASTENERS OTHER THAN HSPG AND STAINLESS STEEL BOLTS SHALL BE HOT-DIP GALVANIZED TO BS 729, HSPG BOLTS SHALL BE PROTECTED WITH ELECTROPLATED ZINC PLATE FOR THE BOLTS AND CADMIUM PLATE FOR THE NUTS TO BS 3382.
  - THE DIAMETER OF A BOLT HOLE SHALL BE 2mm LARGER THAN THE NOMINAL DIAMETER OF THE BOLT, UNLESS SHOWN OTHERWISE.
  - THE SYMBOLS FOR WELDING ARE IN ACCORDANCE WITH BS 499.
  - BUTT WELDS ARE TO BE COMPLETE PENETRATION WELDS PRODUCED BY METHODS APPROVED BY THE ENGINEER AFTER DEMONSTRATION AT PROCEDURE TRIALS.
  - ALUMINIUM COMPONENTS ARE TO BE FABRICATED FROM ALUMINIUM ALLOY SHEET IN GRADE DESIGNATED 1200 TO BS 1470.
  - GAPS IN FASCIA PANELS SHALL BE SEALED WITH A POLYSULPHIDE POLYURETHANE OR SILICONE SEALANT WHICH MUST BE RECOMMENDED BY THE SEALANT MANUFACTURER AS SUITABLE FOR THE INTENDED APPLICATION AND APPROVED BY THE ENGINEER.
  - THE STEELWORK SHALL BE PAINTED TO SYSTEM II OF CLAUSE 18.4 OF SDM TO COLOURS INDICATED ON DRG 63494/1480.
  - ALL GLAZING PANELS SHALL BE CONSTRUCTED FROM 20mm THICK CLEAR ACRYLIC IN ACCORDANCE WITH PARTICULAR SPECIFICATION CLAUSE.
  - ABSORPTIVE NOISE PANELS SHALL BE A PROPRIETARY CONSTRUCTION OF PROFILED ALUMINIUM SHEET ENCLLOSING 40mm THICK MINERAL WOOL TO PARTICULAR SPECIFICATION CLAUSE.
  - ABSORPTIVE AND REFLECTIVE PANELS, METALLIC FIRE BREAKERS, STEEL SUB-FRAMES, ALUMINIUM SUB-FRAMES, TENSIONED WIRE PARAPETS, PURLINS, DRAINAGE GUTTERS WITH DOWN PIPES, CONTINUOUS GUIDED CABLES, CONTINUOUS GUIDED CABLE SUPPORTS, ACOUSTICAL GASKET PROFILES, CLAMPING BARS, ACOUSTIC SEALING ENCLOSURE PLATES AND SEALANTS AND ANY OTHER ACCESSORIES NECESSARY FOR THE INSTALLATION OF THE NOISE BARRIER PANELS SHALL BE DESIGNED BY THE CONTRACTOR.
  - THE BARRIER HEIGHT(H) IS THE HEIGHT OF THE COLUMN / BEAM SETTING OUT POINT ABOVE A LEVEL PLANE TOUCHING THE HIGH SIDE OF THE CARRIAGEWAY.
  - THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NOS. 63494/1482 TO 1488.
  - NOT USED.
  - FOR LOCATIONS OF 4m WIDE FIRE BREAKER, SEE DRG. NO. 63494/1460 TO 1469.
  - FOR DETAILS OF FIRE BREAKER, SEE DRG. NO. 63494/1484.

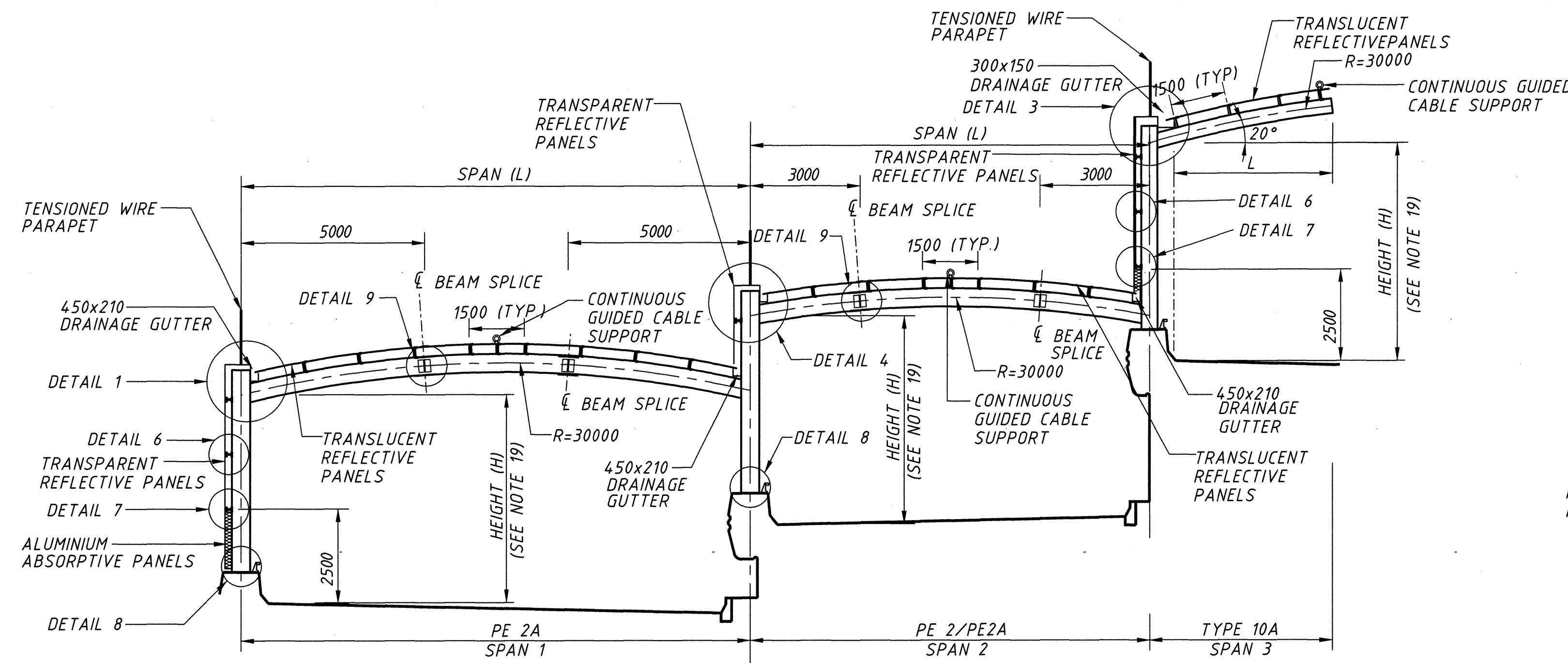


COMBINED NOISE BARRIER FRAME TYPE B  
(FOR LOCATION OF THE COMBINED NOISE BARRIER, SEE DRAWING NO. 63494/1463)

NOISE BARRIER TYPE	SPAN 1	SPAN 2	HEIGHT (H)		SPAN (L)		COLUMN (RHS)		BEAM (RHS)	HOLDING DOWN DETAIL
			MIN	MAX	MIN	MAX	LEFT	RIGHT		
CASE 1	PE 1A	-	6100	9550	22100	26000	500x300x20	600x400x25	500x300x20	TYPE A
	TYPE 10A	7860	8160	-	3000	-	-	-	600x400x25	TYPE A
CASE 2	PE 2A	-	8960	9550	-	10000	500x300x20	600x450x25	500x300x20	TYPE A
	TYPE 10A	7690	8050	-	3000	-	-	-	600x450x25	TYPE A
CASE 3	PE 3A	-	6100	9540	20000	22100	500x300x16	500x300x16	500x300x16	TYPE A
	TYPE 10A	8160	14760	-	3000	-	-	-	500x300x16	TYPE A

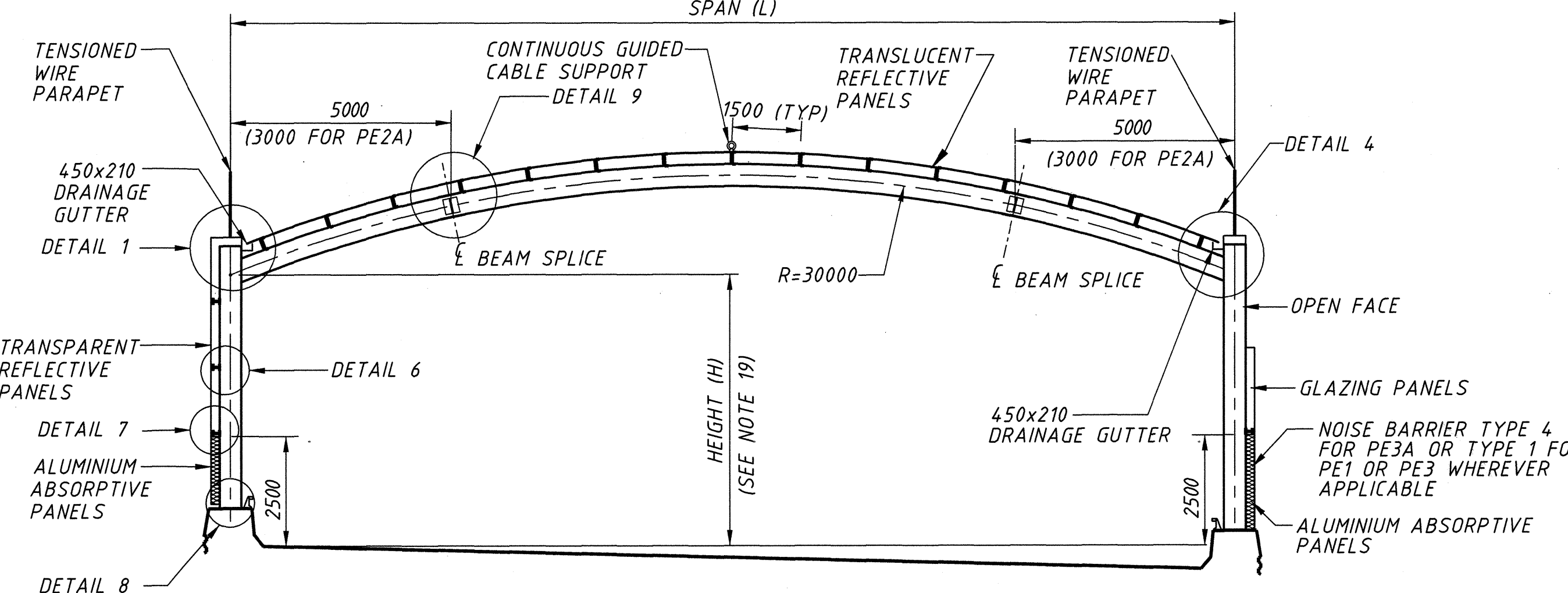
NOISE BARRIER TYPE	HEIGHT (H)	SPAN (L)		COLUMN (RHS)	BEAM (RHS)	HOLDING DOWN DETAIL	
		MIN	MAX				
TYPE 9	-	5800	-	9000	450x250x16	400x200x16	TYPE C

NOISE BARRIER TYPE	HEIGHT (H)	MAXIMUM SPAN (L)	COLUMN (RHS)	BEAM (RHS)	HOLDING DOWN DETAIL
FE 1	5800	20500	500x300x16	450x250x16	TYPE B
FE 1A	5800 (MIN.) 10600 (MAX.)	20000	500x300x16	450x250x16	TYPE B



COMBINED NOISE BARRIER FRAME TYPE A  
(FOR LOCATION OF THE COMBINED NOISE BARRIER, SEE DRAWING NO. 63494/1462)

NOISE BARRIER TYPE	SPAN 1	SPAN 2	SPAN 3	HEIGHT (H)		SPAN (L)		LEFT COLUMN (RHS)	BEAM (RHS)	HOLDING DOWN DETAIL
				MIN	MAX	MIN	MAX			
CASE 1	PE2A	-	-	7010	7460	-	13900	450x250x16	400x200x16	TYPE A
	PE2	-	-	5800	-	10900	450x250x16	400x200x16	TYPE A	
CASE 2	PE2A	-	-	7460	8140	-	13900	450x250x16	400x200x16	TYPE A
	TYPE 10A	6850	9550	-	3000	-	700x500x40	700x500x40	TYPE A	
CASE 3	PE2A	-	-	5800	7300	-	10900	450x250x16	400x200x16	TYPE A
	TYPE 10A	9550	8960	-	3000	-	700x500x40	700x500x40	TYPE A	
CASE 3	PE3A	-	-	7930	8180	16800	20200	450x250x16	400x200x16	TYPE A
	TYPE 10A	8780	9550	-	10300	-	700x500x40	700x500x40	TYPE A	



PARTIAL ENCLOSURE BARRIER

NOISE BARRIER TYPE	HEIGHT (H)	SPAN (L)	COLUMN (RHS)	BEAM (RHS)	HOLDING DOWN DETAIL		
PE 1	-	5800	22100	31000	500x300x16	500x300x16	TYPE A
PE 2	-	5800	-	15500	500x300x16	500x200x16	TYPE B
PE 2A	5800	6990	11000	12600	450x250x16	400x200x16	TYPE C
PE 3	-	5800	15500	22700	500x300x16	500x200x16	TYPE B
PE 3A	5800	10600	-	22700	500x300x16	500x300x16	TYPE A

**Territory Development Department 拓展署**

**NT EAST DEVELOPMENT OFFICE**  
新界東拓展處

**SHA TIN NEW TOWN, STAGE II**

ROAD T3 AND ASSOCIATED ROADWORKS

**NOISE BARRIER STEELWORK DETAILS**

SHEET 1 OF 8

**MAUNSELL CONSULTANTS ASIA LTD.**  
茂盛亞洲工程顧問有限公司

DRG. NO. 63494/1481<sup>1</sup>

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DRAWN BY: HKQ  
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