Dashboard & Navigation

Post-Login Landing (Dashboard)

Primary Actions (cards/buttons):

1. **Design by Types**
2. **Design Check**
3. **Critical & Permissible Stress–Strain Analysis**
4. **Multilayer Linear Elastic Analysis**

Global Nav: Home | New Project | Projects | Reports | Guide

After selection the primary cards take the project details:

Project Name*	Four-Lane NH-65 Upgrade
Client / Concessionaire	ABC Infra Constructions Pvt. Ltd.
Project ID / Code	NH65-BBSR-2025-07
Highway / Road Name	National Highway-65
Chainage From (km)	42+500
Chainage To (km)	67+800
Total Length (km)	25.3
State / Region	Odisha, India
Type of Pavement	Text
Consultant / Designer	XYZ
Remarks / Notes	Widening and strengthening of existing 2-lane to 4-lane divided carriageway with provision for future 6-lane expansion.

Back and Next buttons at the bottom

If Design by Types is selected…

Design by Types (Selector)

Cards (exact labels):

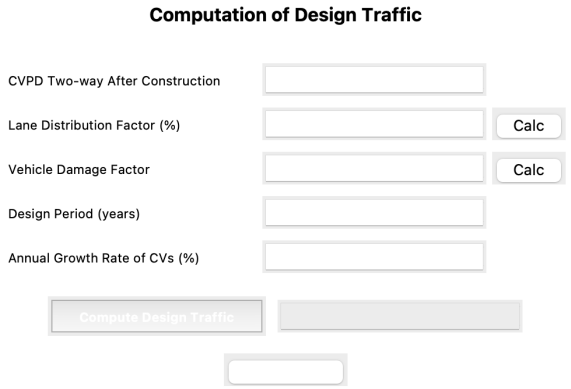
1. Bituminous Surface Course with Granular Base and Sub-base
2. Bituminous Surface Course with CTSB, CTB and Granular Crack Relief Layer (CRL)
3. Bituminous Surface Course with CTSB, CTB and SAMI

4. Bituminous Surface Course with CTSB and Emulsion/Foam Bitumen Stabilised RAP / Virgin Aggregate
5. Bituminous Surface Course with GSB, CTB and Granular Crack Relief Layer (CRL)
6. Bituminous Surface Course with CTSB and Granular Base Course
7. Bituminous Surface Course with Geogrids and/or Geocells in Base and/or Sub-base Course
8. Bituminous Surface Course with CTSB and Reinforced Granular Base Course

Card click → opens the corresponding Type Form (detailed below). Show **Back** and **Next** actions at the bottom of each Type Form; **Next** remains disabled until required fields are valid.

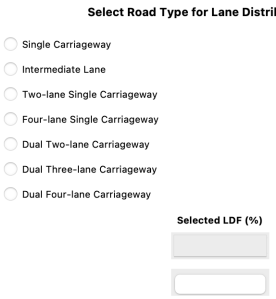
Common UI/UX Conventions (applies to all Type Forms)

- **Field types & validation**
  - Numeric input: reject non-numeric, allow decimals where relevant, enforce min constraints noted below.
  - Dropdowns: show the specified fixed options.
  - Checkboxes: boolean (1 if checked, 0 if unchecked).
  - Units: always show to the right of the field label (e.g., "(MPa)", "(%)", "(m)", "(Rs/Cumm)").
  - Errors: inline red helper text; disable **Next** when invalid.
- **"Calc" buttons**
  - Appear to the right of the associated field.
  - On click: open a context popup or apply rule-based default as specified.
  - If a popup computes a final value, **write back** into the bound variable and close popup.
- **Design Traffic computation popup** (shared where specified)



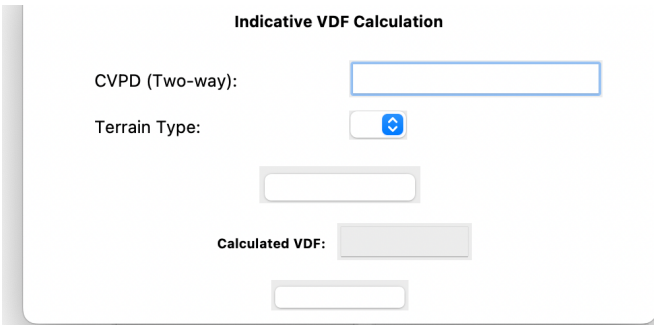
  - **Inputs:**
    - CVPD two-way after construction → cvpd (numeric > 0)
    - Lane Distribution Factor (%) → ldf (as percent; convert to fraction internally)

- **Helper popup** “Select Road Type for Lane Distribution Factor” (radio):



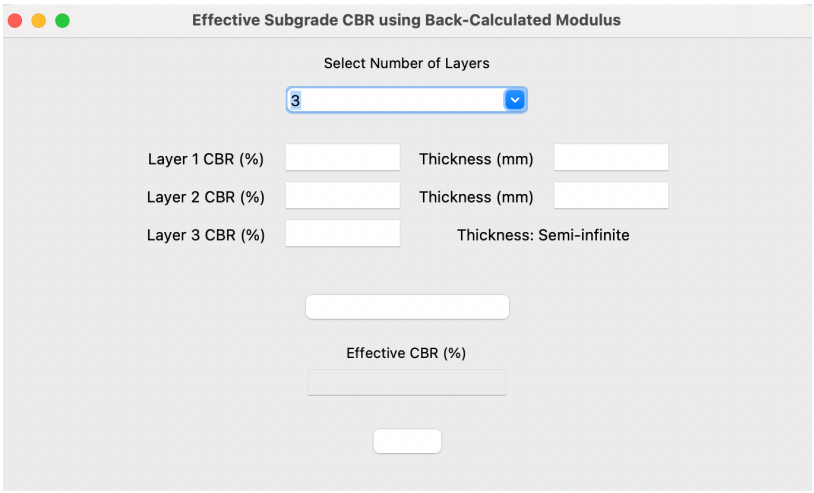
  -
    - Single Carriageway = 100%
    - Intermediate Lane = 75%
    - Two-lane Single Carriageway = 50%
    - Four-lane Single Carriageway = 40%
    - Dual Two-lane Carriageway = 75%
    - Dual Three-lane Carriageway = 60%
    - Dual Four-lane Carriageway = 45%
  - **Store ldf = selected_value / 100.**
- Vehicle Damage Factor → vdf (numeric > 0). Provide an **“Indicative VDF Calculation”** helper popup

Initial (Two-Way) Traffic Volume in Terms of Commercial Vehicles Per Day	Terrain	
	Rolling/Plain	Hilly
0-150	1.7	0.6
150-1500	3.9	1.7
More than 1500	5.0	2.8



  - Design Period (years) → ndp (numeric > 0)
  - Annual Growth Rate of CVs (%) → r/100 (enter %; store r = %/100, e.g., 5% → 0.05)
- **Compute & write back:**
  Design_Traffic = 365 * (((1 + r)^ndp) - 1) * cvpd * ldf * vdf / r
- Show computed MSA and return it to the parent form’s Design_Traffic.

- **Effective Subgrade CBR popup** (where specified)

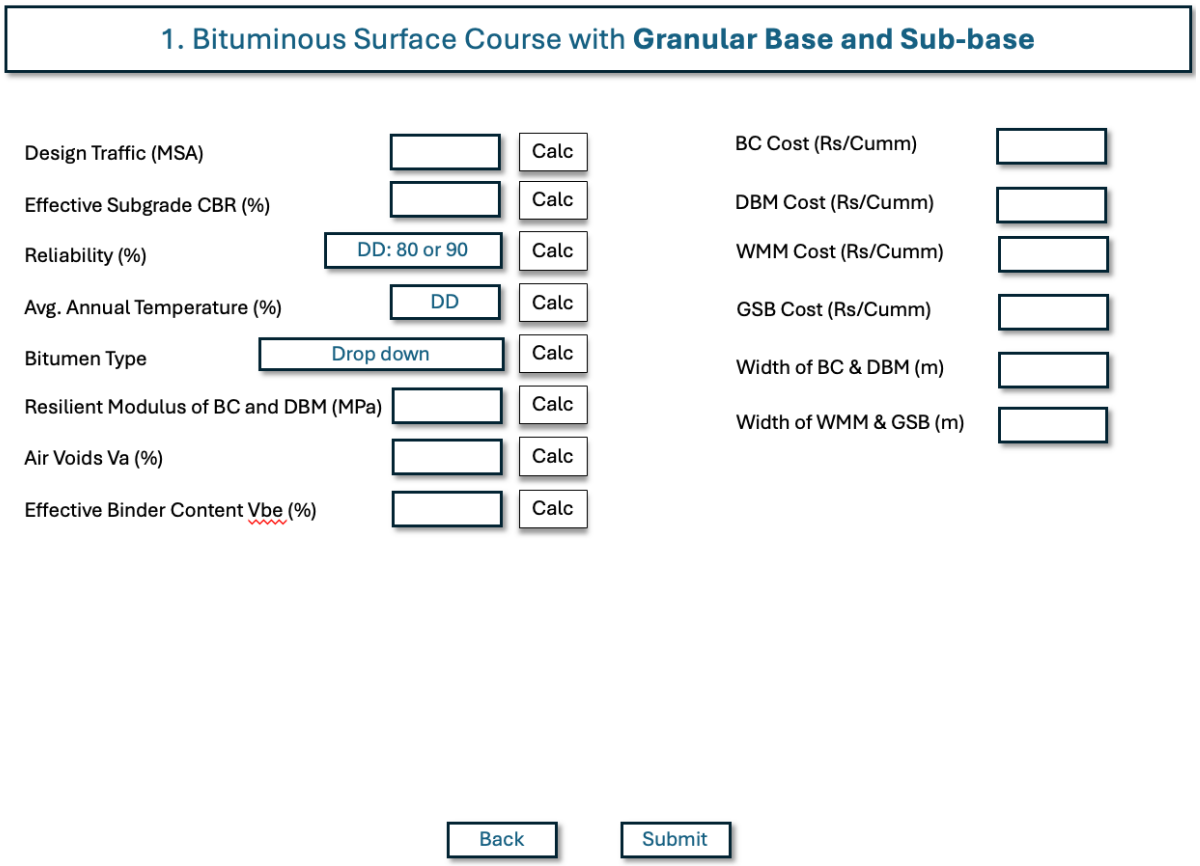


-
    - Inputs:
        - **Number of layers**: integer 2–10.
        - For each layer i (top→bottom):
          “Layer i CBR (%)” (numeric > 0), “Thickness (mm)” (numeric > 0) — **last layer shows “Thickness: Semi-infinite” (no input)**.
          Add **third column**: “Poisson’s Ratio” (numeric 0–0.5 typical).
    - Button: **Compute effective CBR (%)** → write back to Effective_Subgrade_CBR.
- **Defaulting Calcs based on Design_Traffic**
    - Reliability % (Reliability): **80** if Design_Traffic < 20, else **90**.
    - Avg. Annual Pavement Temp (Average_Annual_Pavement_Temp): default **35**.
    - Bitumen Type (VG_grade): **VG30** if <20 MSA, else **VG40**.
    - Air Voids Va:
        - Types 1,4,6,7,8 → **4.5%** if <20 MSA, else **3.5%**
        - Types 2,3,5 → **3.5%** in both cases
    - Effective Binder Vbe:
        - Types 1,4,6,7,8 → **10.5%** if <20 MSA, else **11.5%**
        - Types 2,3,5 → **11.5%** always
- **Costs & Widths defaults**: each Type lists “Set Defaults” checkbox. On check, prefill the shown cost/width values; allow edit after prefill.
- **Footer**: **Back | Next** (Next disabled until required fields valid).

Type Forms

Type 1 — Granular Base & Sub-base

Sections: Common Inputs, Costs & Widths, Footer



Fields (with variables & min constraints):

- Design Traffic (MSA) → Design_Traffic (numeric > 0.1) + **Calc** (popup as above)
- Effective Subgrade CBR (%) → Effective_Subgrade_CBR (numeric > 0.1) + **Calc** (popup for effective CBR)
- Reliability (%) → Reliability (dropdown: 80, 90) + **Calc** (auto-select rule above)
- Avg. Annual Temperature (°C) → Average_Annual_Pavement_Temp (dropdown: 20,25,30,35,40) + **Calc** (default 35)
- Bitumen Type → VG_grade (dropdown: VG10, VG30, VG40, Modified) + **Calc** (rule above)
- Resilient Modulus of BC & DBM (MPa) → BT_Mod (numeric > 100) + **Calc** (table-based; UI table to be plugged)

Mix type	**Average Annual Pavement Temperature °C**				
	20	**25**	**30**	**35**	**40**
BC and DBM for VG10 bitumen	2300	2000	1450	1000	800
BC and DBM for VG30 bitumen	3500	3000	2500	2000	1250
BC and DBM for VG40 bitumen	6000	5000	4000	3000	2000
BC with Modified Bitumen (IRC:SP:53)	5700	3800	2400	1600	1300

- Air Voids Va (%) → Va (numeric) + **Calc** (rule above)
- Effective Binder Content Vbe (%) → Vbe (numeric) + **Calc** (rule above)

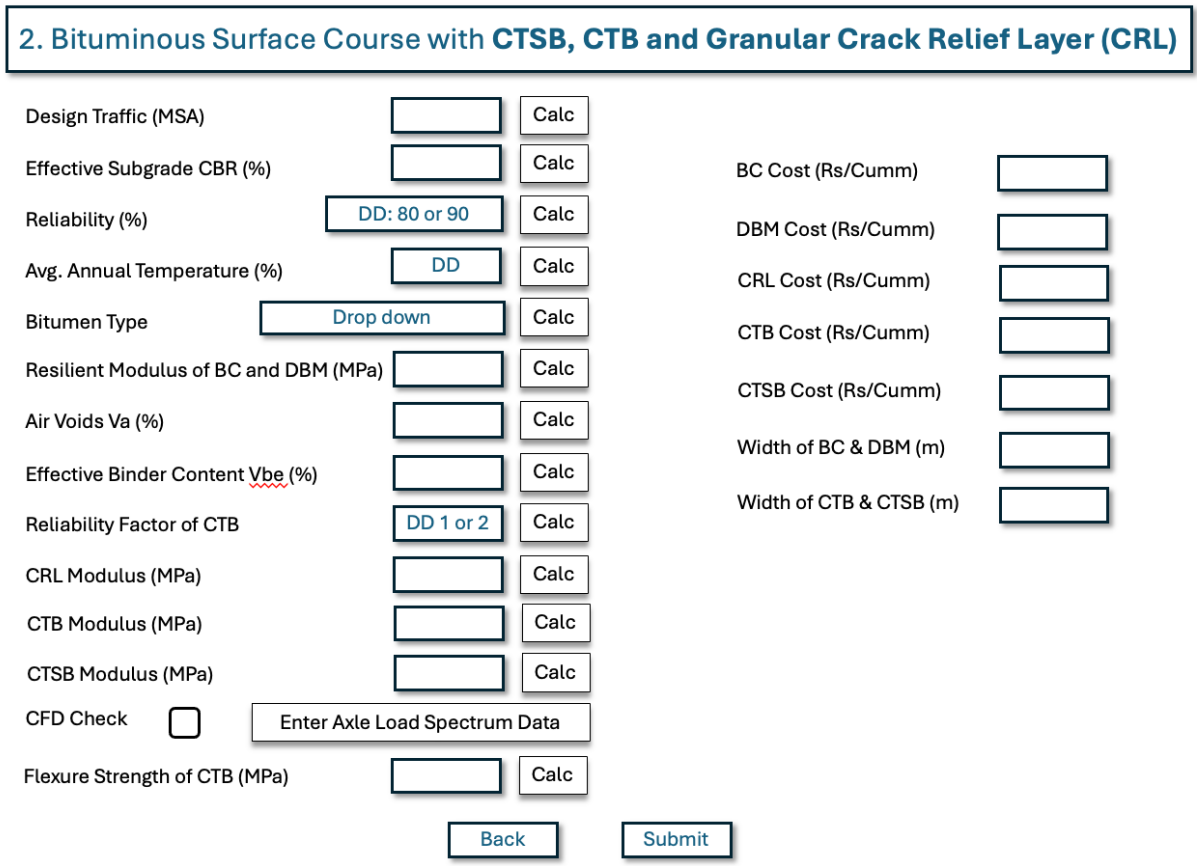
Costs & Widths (with defaults checkbox):

BC_cost, DBM_cost, Base_cost (= WMM), Subbase_cost (= GSB), BC_DBM_width, Base_Subbase_width

Defaults: BC=10000; DBM=9000; WMM=2500; GSB=2000; widths: BC&DBM=3.5 m; WMM&GSB=5 m.

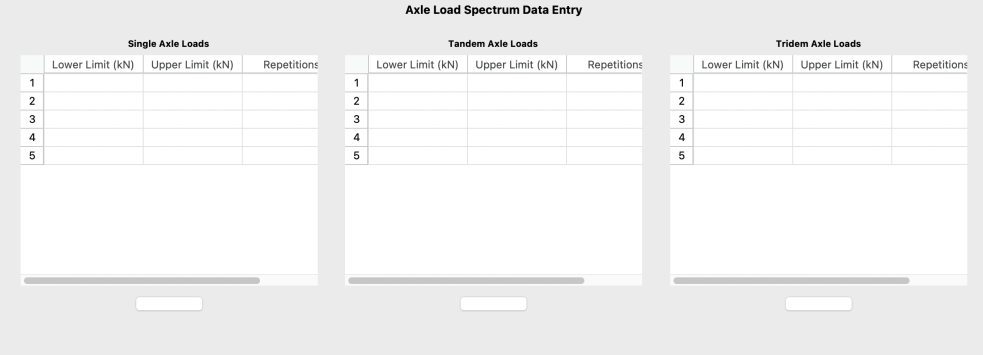
Type 2 — CTSB + CTB + CRL

Common Inputs: same as Type 1.



Type-specific:

- Reliability Factor for CTB (dropdown 1,2) → RF + **Calc** (select 2 if design traffic < 10 MSA, else 1)
- CRL Modulus (MPa) → CRL_Modulus (numeric > 0) + **Calc** (Select: 450 MPa)
- CTB Modulus (MPa) → CTB_Mod (numeric > 0) + **Calc** (Select: 5000 MPa)
- CTSB Modulus (MPa) → CTSB_Mod (numeric > 0) + **Calc** (Select: 600 MPa)
- **CFD Check** (checkbox) → cfdchk (1 if checked, else 0)
    - If checked: enable "Enter Axle Load Spectrum Data" popup (Excel-style paste) for three matrices:
        - Single Axle Loads → SA_M
        - Tandem Axle Loads → TaA_M
        - Tridem Axle Loads → TrA_M
    - Enable "Flexure Strength of CTB (MPa)" → FS_CTB (numeric > 0) + **Calc** (1.4 MPa)

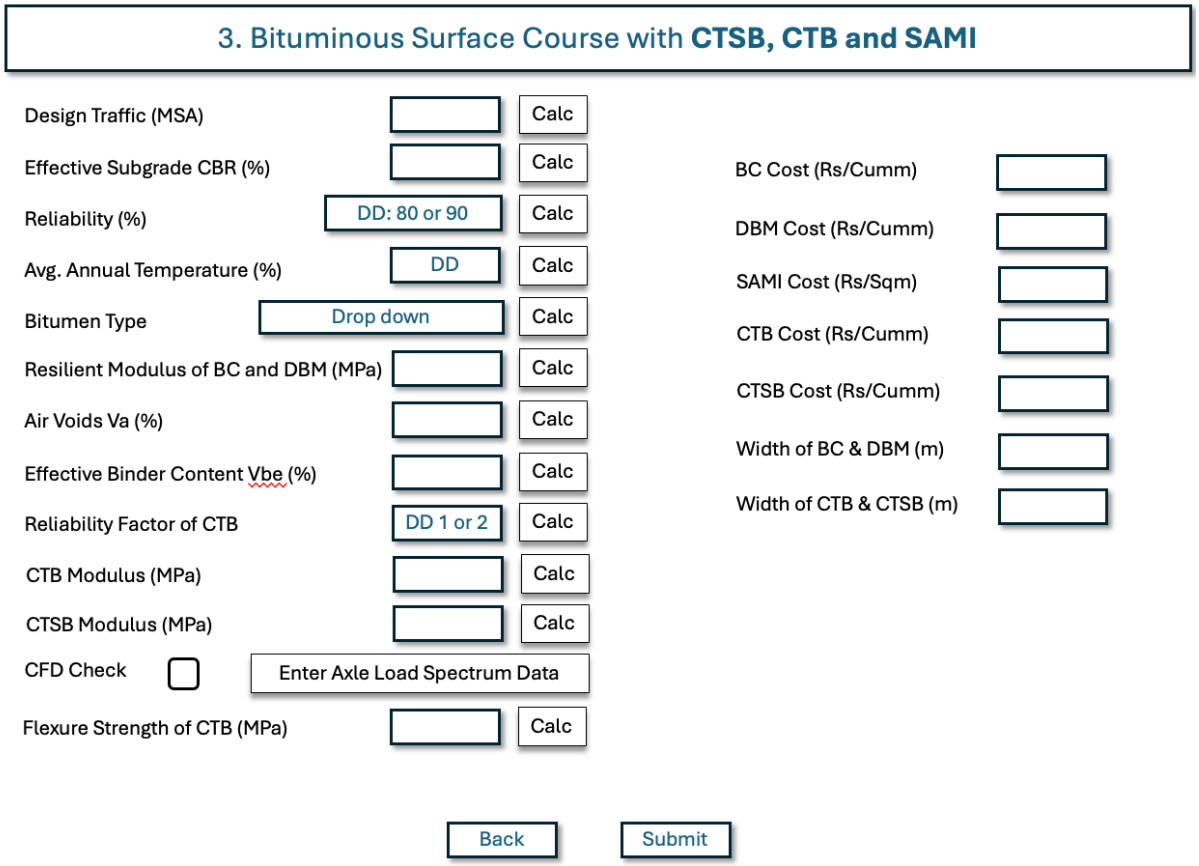


Costs & Widths (defaults checkbox):

BC_cost, DBM_cost, CRL_cost, CTB_cost, CTSB_cost, BC_DBM_width, Base_Subbase_width

Defaults: BC=10000; DBM=9000; CRL=2500; CTB=3500; CTSB=2500; widths: BC&DBM=3.5 m; CTB&CTSB=5 m.

Type 3 — CTSB + CTB + SAMI

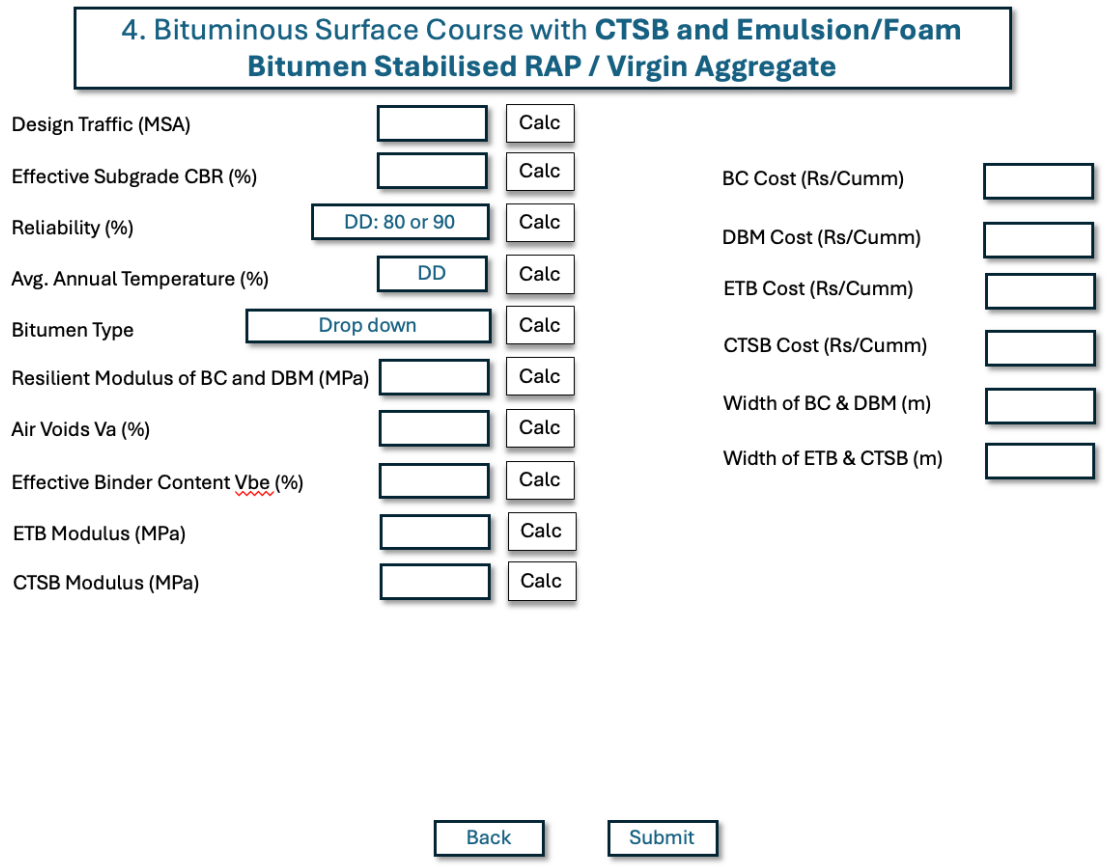


As Type 2 with changes:

- **Remove** CRL Modulus field.
- Replace **CRL Cost (Rs/Cumm)** with **SAMI Cost (Rs/Sqm)** (SAMI_cost), default **100**.
- Keep CFD, Axle Spectrum, FS_CTB behaviors identical to Type 2.

Type 4 — ETB + CTSB

Common Inputs as Type 1.



Type-specific:

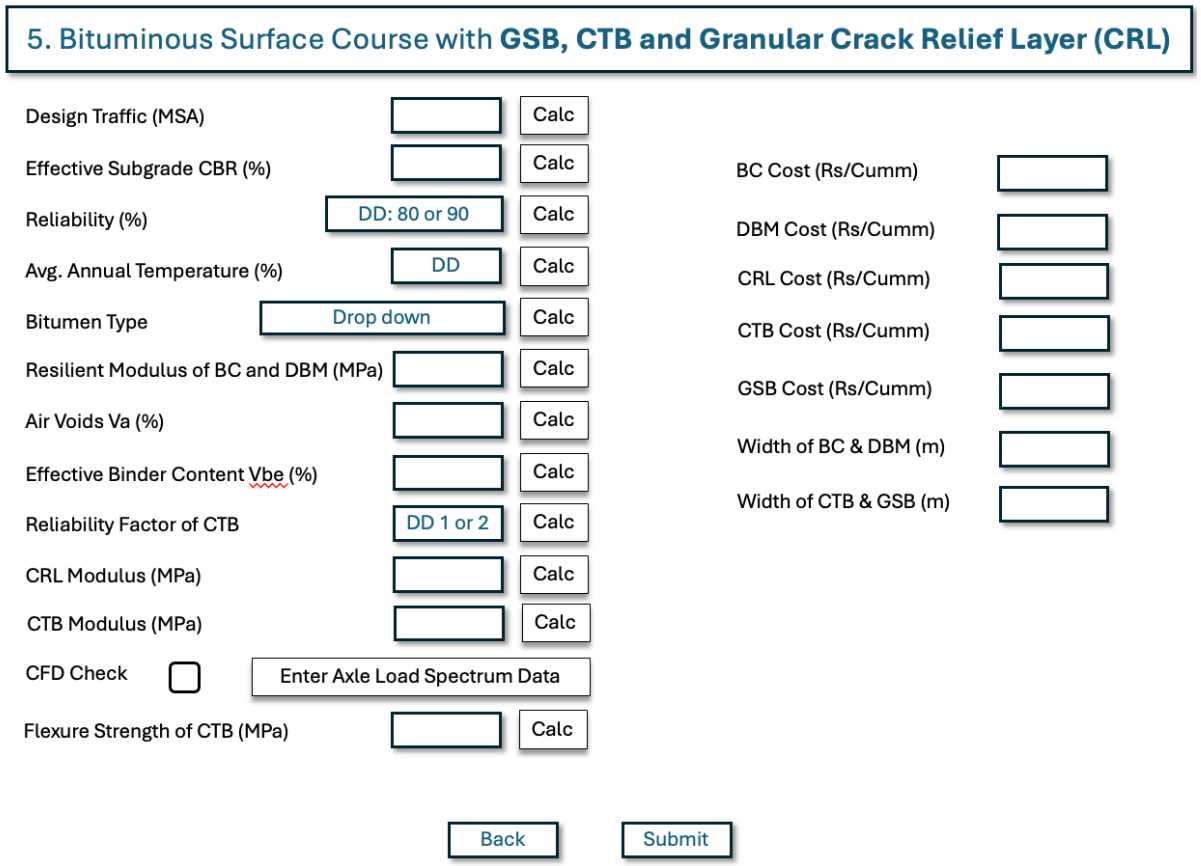
- ETB Modulus (MPa) → ETB_Mod (numeric > 0) + **Calc** (Select: 800 MPa)
- CTSB Modulus (MPa) → CTSB_Mod (numeric > 0) + **Calc** (Select: 600 MPa)

Costs & Widths (defaults checkbox):

BC_cost, DBM_cost, ETB_cost, CTSB_cost, BC_DBM_width, Base_Subbase_width

Defaults: BC=10000; DBM=9000; ETB=4500; CTSB=2500; widths: BC&DBM=3.5 m; ETB&CTSB=5 m.

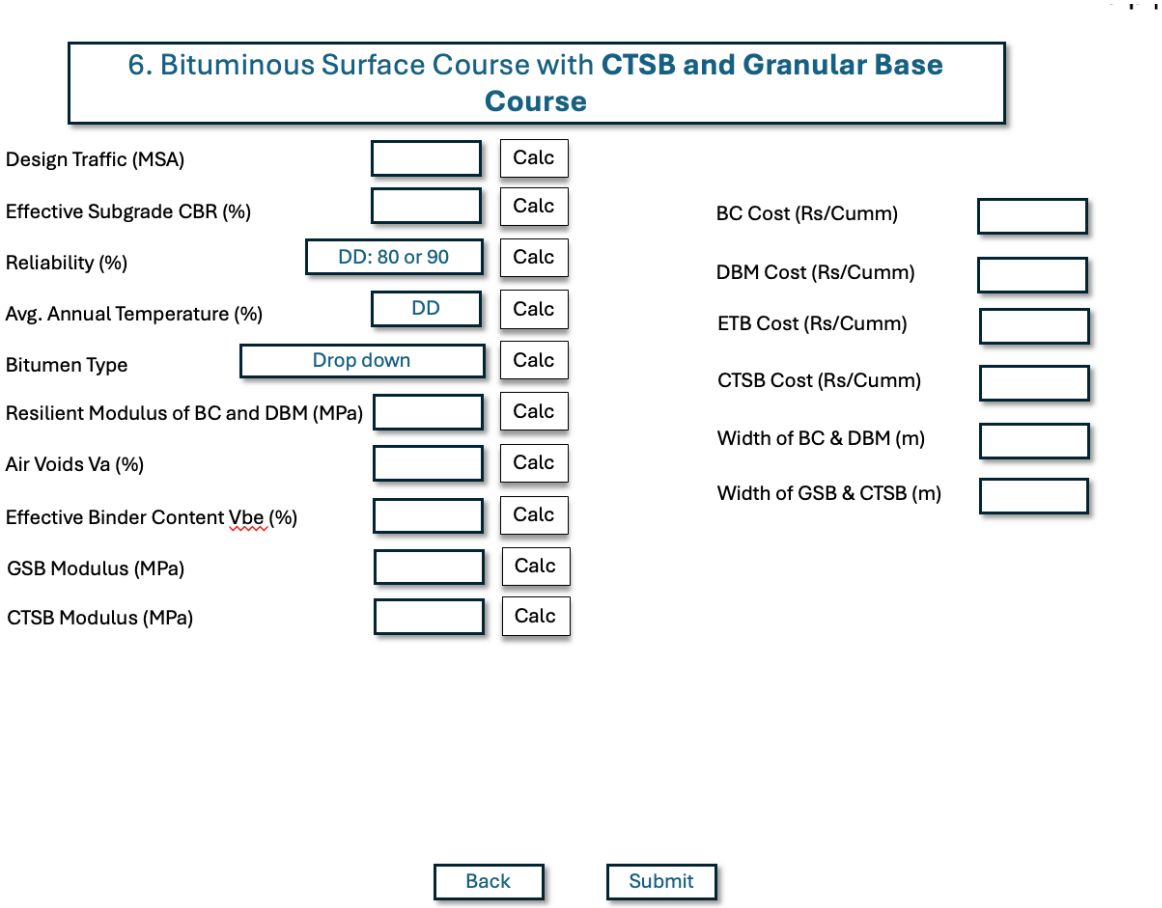
Type 5 — GSB + CTB + CRL



As Type 2 with changes:

- **Remove** CTSB Modulus field.
- Replace **CTSB Cost (Rs/Cumm)** with **GSB Cost (Rs/Cumm)** (default **2000**).
- Replace “CTSB” with “GSB” wherever applicable.
- Width label: **Width of CTB & GSB (m)**.

Type 6 — CTSB + Granular Base



Common Inputs as Type 4, with:

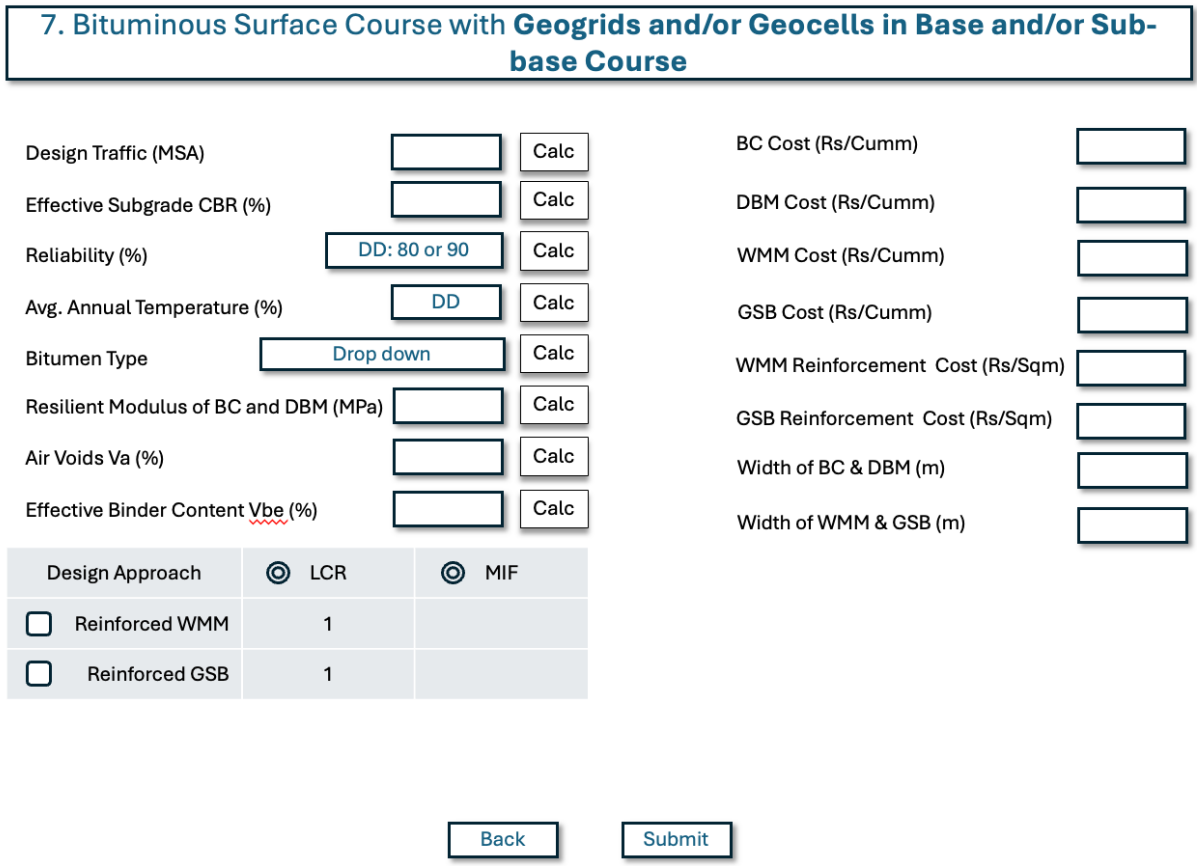
- Replace ETB Modulus with **WMM Modulus (MPa)** → WMM_Mod (numeric > 0) + **Calc** (450 MPa)

Costs & Widths (defaults checkbox):

BC_cost, DBM_cost, WMM_cost, CTSB_cost, BC_DBM_width, Base_Subbase_width

Defaults: BC=10000; DBM=9000; WMM=2500; CTSB=2500; widths: BC&DBM=3.5 m; WMM&CTSB=5 m.

Type 7 — Reinforced WMM/GSB



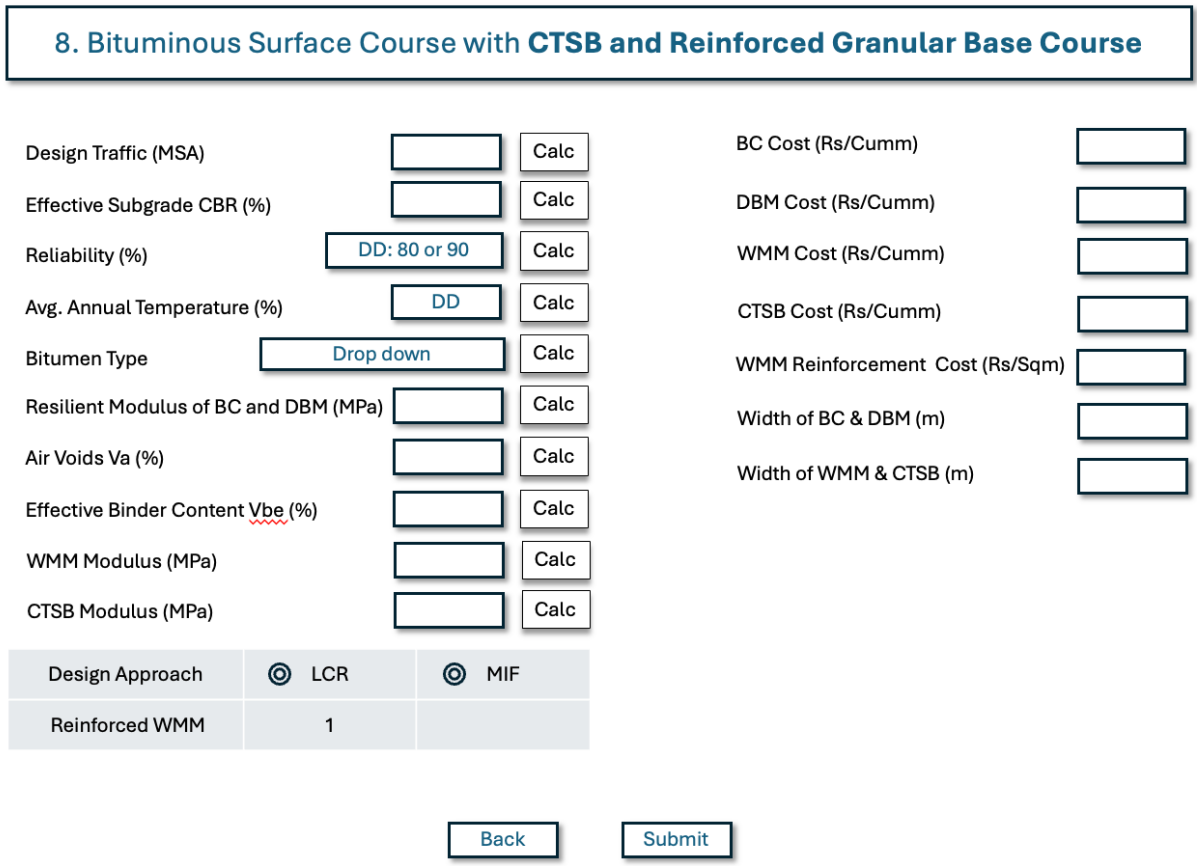
Common Inputs as Type 1.
Reinforcement table & toggles:

Design Approach	LCR	MIF
☐ Reinforced WMM	1	
☐ Reinforced GSB	1	

- Design approach selector: **MIF or LCR** → Rtype (1=MIF, 2=LCR)
- Checkboxes:
  - Reinforced WMM → is_wmm_r (1 if checked)
  - Reinforced GSB → is_gsb_r (1 if checked)
- Numeric fields (enable based on checks):
  - R_Base (≥1) — used if is_wmm_r=1; else default 1
  - R_Subbase (≥1) — used if is_gsb_r=1; else default 1

Costs & Widths (defaults checkbox):
BC_cost, DBM_cost, Base_cost(WMM), Subbase_cost(GSB), wmm_r_cost (Rs/Sqm if is_wmm_r=1), gsb_r_cost (Rs/Sqm if is_gsb_r=1), BC_DBM_width, Base_Subbase_width
Defaults: BC=10000; DBM=9000; WMM=2500; GSB=2000; WMM Reinforcement=80; GSB Reinforcement=80; widths: BC&DBM=3.5 m; WMM&GSB=5 m.ß

Type 8 — CTSB + Reinforced Granular Base



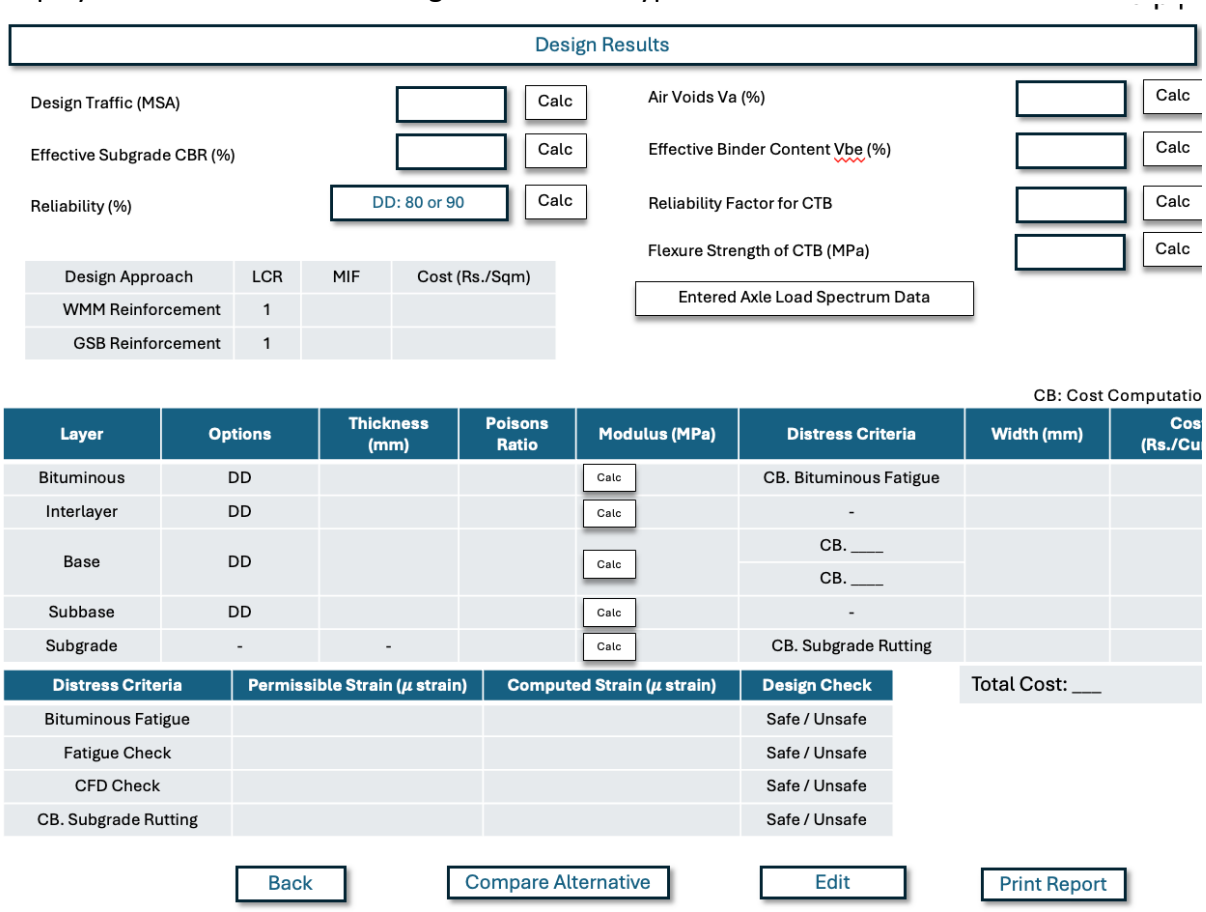
Common Inputs as Type 1.
Design approach: MIF/LCR → Rtype (1/2)
Fixed selections:

- is_wmm_r = 1, is_gsb_r = 0
- R_Base (≥1) user-entered; R_Subbase = 1

Costs & Widths (defaults checkbox):
BC_cost, DBM_cost, Base_cost(WMM), Subbase_cost(GSB), wmm_r_cost (Rs/Sqm), BC_DBM_width, Base_Subbase_width
Defaults: BC=10000; DBM=9000; WMM=2500; GSB=2000; WMM Reinforcement=80; widths: BC&DBM=3.5 m; WMM&GSB=5 m.

After clicking submit, → Get the inputs reviewed from the user by disabling the input fields.

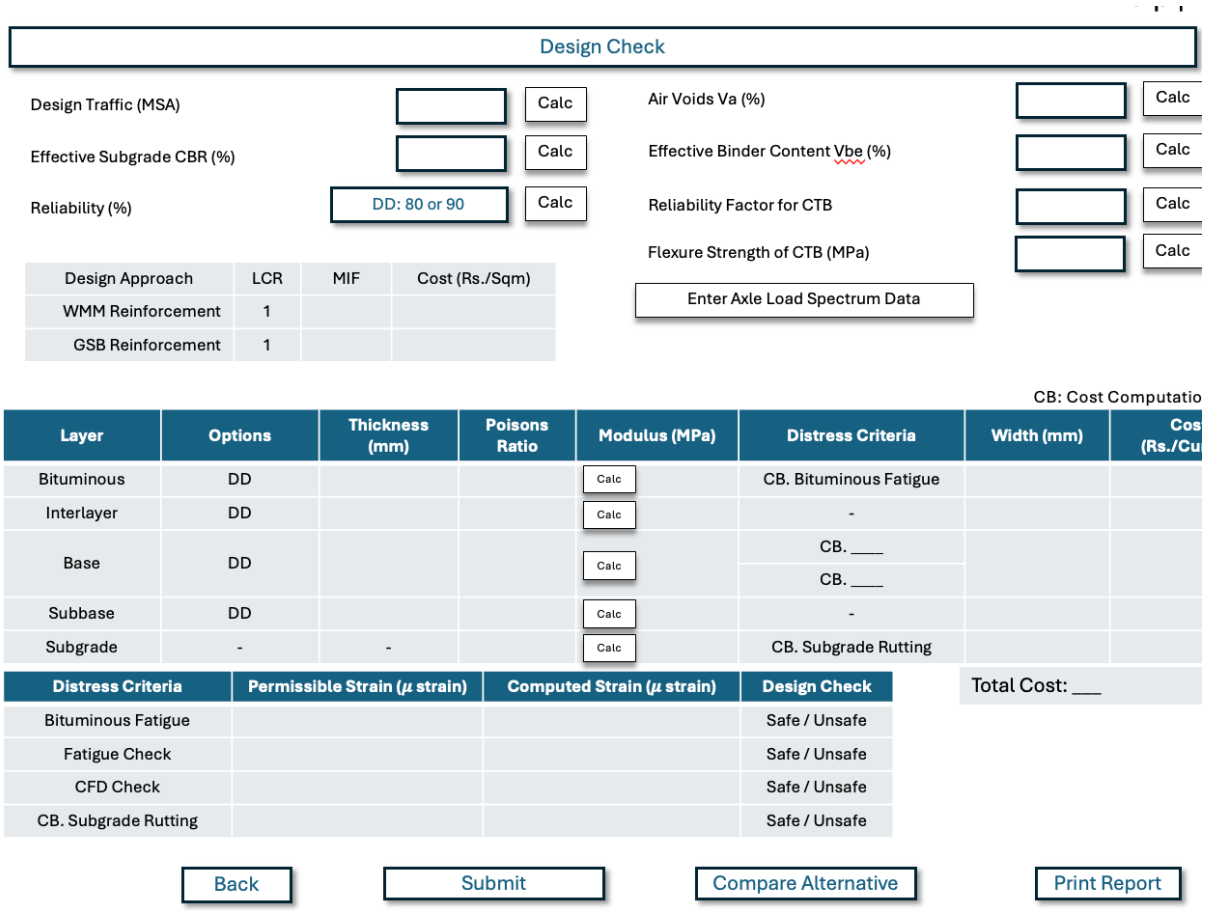
Display the results in the following format for all types:



Edit →will connect this page to design adequacy check

Design Adequacy Check

Editable grid with rows: Bituminous, Interlayer, Base, Subbase, Subgrade.
Columns: Material (DD as listed), Thickness (mm), Poisson's Ratio, Modulus (MPa), Distress Criteria (checkboxes where applicable), Width (m), Cost (Rs/Cumm *or* Rs/Sqm per special case).



Special rules:

1. If **SAMI** chosen in Interlayer → show label "SAMI Cost (Rs/Sqm)" (cost unit switch); disable modulus/thickness when required.
2. Enable CTB Fatigue checkboxes **only** when Base/Subbase material is **CTB** or "Other" (as appropriate).
3. If **CTB Fatigue (Austroads)** is checked, show above-table field: **Reliability Factor for CTB** (RF, dropdown 1/2) with **Calc** (2 if <10 MSA, else 1).
4. If **CTB Fatigue (AASHTO)** is checked, show above-table:
   - **FS of CTB Material (MPa)** → FS_CTB (numeric >0)
   - **Enter Axle Load Spectrum Data** (popup for SA_M, TaA_M, TrA_M)
5. If **Reinforced WMM** or **Reinforced GSB** selected, show inline **design approach (MIF/LCR)** selector and **value** input (≥1), writing to R_Base/R_Subbase.

Calc buttons in "Modulus" column:

- **Bituminous layer**: Open table popup to pick modulus for BC/DBM/Modified/Other.

Mix type	**Average Annual Pavement Temperature °C**				
	20	**25**	**30**	**35**	**40**
BC and DBM for VG10 bitumen	2300	2000	1450	1000	800
BC and DBM for VG30 bitumen	3500	3000	2500	2000	1250
BC and DBM for VG40 bitumen	6000	5000	4000	3000	2000
BC with Modified Bitumen (IRC:SP:53)	5700	3800	2400	1600	1300
BM with VG10 bitumen	500 MPa at 35°C				
BM with VG30 bitumen	700 MPa at 35°C				
RAP treated with 4 per cent bitumen emulsion/ foamed bitumen with 2-2.5 per cent residual bitumen and 1.0 per cent cementitious material.	800 MPa at 35°C				

- **Interlayer**: If AIL selected → set 450 MPa; SAMI/Other/None disabled.
- **Base/Subbase**: Enabled only when (i) Base/Subbase materials are selected, (ii) Base/Subbase thickness entered, and (iii) **Subgrade Modulus** present.

Base/Subbase modulus rules (summary):

Layer	Material	Thickness (mm)	Poisson's Ratio	Modulus (MPa)	Distress Criteria	Width (m)	Cost (Rs./Cumm)
Bituminous	DD: 1. BC 2. BC + DBM 3. Modified Mix 4. Other	Numeric(>0);	Numeric(>0);	Numeric(>0);	CB: Bituminous Fatigue;	Numeric(>0);	Numeric(>0);
Interlayer	DD: 1. AIL 2. SAMI 3. Other 4. None	Numeric (>0) only for AIL otherwise Disable	Numeric (>0) only for AIL otherwise Disable	Numeric (>0) only for AIL otherwise Disable	-	Numeric (>=0) for AIL and SAMI; Disable for None	Numeric (>=0) for AIL and SAMI; Disable for None
Base	DD: 1. WMM 2. CTB 3. ETB 4. Reinforced WMM 5. Other 6. None	Numeric(>0); Disable if None	Numeric(>0); Disable if None	Numeric(>0); Disable if None	CB: CTB Fatigue (AUSTROADS) CB: CTB Fatigue (AASHTO)	Numeric(>0); Disable if None	Numeric(>0); Disable if None
Subbase	DD: 1. GSB 2. CTSB 3.	Numeric(>0); Disable if None	Numeric(>0); Disable if None	Numeric(>0); Disable if None	-	Numeric(>0); Disable if None	Numeric(>0); Disable if None

	Reinforced GSB 4. Other 5. None						
Subgrade	DD: 1. Compacted Subgrade 2. Stabilized Subgrade 3. Other	Numeric(>0); Disable if Compacted Subgrade Note: Only for cost computation	Numeric(>0);	Numeric(>0);	CB: Subgrade Rutting	Numeric(>=0); Disable if Compacted Subgrade	Numeric(>=0); Disable if Compacted Subgrade

- Use the matrix provided in your spec for Types and combinations (WMM/CTB/ETB/Reinforced WMM vs GSB/CTSB/Reinforced GSB)

Type	Base	Subbase	Base CalC	Subbase Calc
1	WMM	GSB	= 0.2 * Sub_Mod* (thk_base + thk_subbase)^0.45	= 0.2 * Sub_Mod* (thk_base + thk_subbase)^0.45
	WMM	CTSB	Natural Gravel – 300 Crushed Rock – 350	600
	WMM	Reinforced GSB	Base_Mod = 0.2*(Base_Thk).^0.45.* Subbase_1;	Subbase_1 = 0.2*(Subbase_Thk).^0.45.*Subgrade_Mod; if MIF SB_Mod = MIF_v* Subbase_1 if LCR SB_Mod = 10^((0.839 + LCR_v *a3)/0.227)/145.038; a3 = 0.227*(log10(Subbase_1 *145.038)) - 0.839
	CTB	GSB	5000	SB_Mod = 0.2*(Subbase_Thk).^0.45.*Subgrade_Mod;
	CTB	CTSB	5000	600
	CTB	Reinforced GSB	5000	Subbase_1 = 0.2*(Subbase_Thk).^0.45.*Subgrade_Mod; if MIF SB_Mod = MIF_v* Subbase_1 if LCR

				SB_Mod = 10^((0.839 + LCR_v *a3)/0.227)/145.038; a3 = 0.227*(log10(Subbase_1 *145.038)) - 0.839
	ETB	GSB	800	SB_Mod = 0.2*(Subbase_Thk).^0.45.*Subgrade_Mod;
	ETB	CTSB	800	600
	ETB	Reinforced GSB	800	Subbase_1 = 0.2*(Subbase_Thk).^0.45.*Subgrade_Mod; if MIF SB_Mod = MIF_v* Subbase_1 if LCR SB_Mod = 10^((0.839 + LCR_v *a3)/0.227)/145.038; a3 = 0.227*(log10(Subbase_1 *145.038)) - 0.839
	Reinforced WMM	GSB	B_Mod = 0.2*(Base_Thk).^0.45.* SB_Mod; If MIF Base_Mod = B_Mod*MIF_V; If LCR Base_Mod = (10^((0.977 + LCR_v*a2)/0.249))/145.038; a2 = 0.249*(log10(Base_Mod*145.038)) - 0.977;	SB_Mod = 0.2*(Subbase_Thk).^0.45.*Subgrade_Mod;
	Reinforced WMM	CTSB	nE=2; ThicknessE = Subbase_Thk; EE = [SB_Mod Subgrade_Mod]; vE=[0.35 0.35]; EMr = AIO_EffectiveMr(nE,ThicknessE, EE,vE); B_Mod = min(350,0.2*(Base_Thk).^0.45.*EMr); If MIF Base_Mod = B_Mod*MIF_V;	SB_Mod = 600

			If LCR Base_Mod = (10^((0.977 + LCR_v*a2)/0.249))/145.038; a2 = 0.249*(log10(Base_Mod*145.038)) - 0.977;	
	Reinforced WMM	Reinforced GSB	B_Mod = 0.2*(Base_Thk).^0.45.* Subbase_1; If MIF Base_Mod = B_Mod*MIF_V; If LCR Base_Mod = (10^((0.977 + LCR_v*a2)/0.249))/145.038; a2 = 0.249*(log10(Base_Mod*145.038)) - 0.977;	Subbase_1 = 0.2*(Subbase_Thk + Base_Thk).^0.45.*Subgrade_Mod; if MIF SB_Mod = MIF_v* Subbase_1 if LCR SB_Mod = 10^((0.839 + LCR_v *a3)/0.227)/145.038; a3 = 0.227*(log10(Subbase_1 *145.038)) - 0.839

Subgrade modulus (Calc):

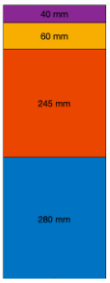
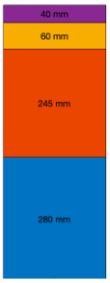
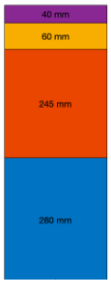
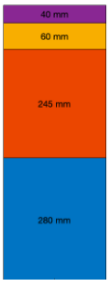
- Given e_cbr (%):
  - If e_cbr ≤ 5 → Subgrade_Mod = 10 * e_cbr
  - Else → Subgrade_Mod = 17.6 * e_cbr^0.76

Minimum thickness alerts:

- **Bituminous:** BC min 30 mm (max 50 for BC alone); BC+DBM total ≥ 80 mm; Modified Mix as per internal rule.
- **Interlayer:** AIL min 100 mm.
- **Base:** WMM ≥150 mm; CTB ≥100 mm; ETB ≥100 mm; Reinforced WMM ≥150 mm.
- **Subbase:** GSB ≥150 mm; CTSB ≥200 mm; Reinforced GSB ≥150 mm.

Compare Design Options

Compare

Design Option 1	Design Option 2	Design Option 3	Design Option 4
			
Cost: XXX lakh Rs/km	Cost: XXX lakh Rs/km	Cost: XXX lakh Rs/km	Cost: XXX lakh Rs/km
Print Report	Print Report	Print Report	Print Report

Back

Add Alternative

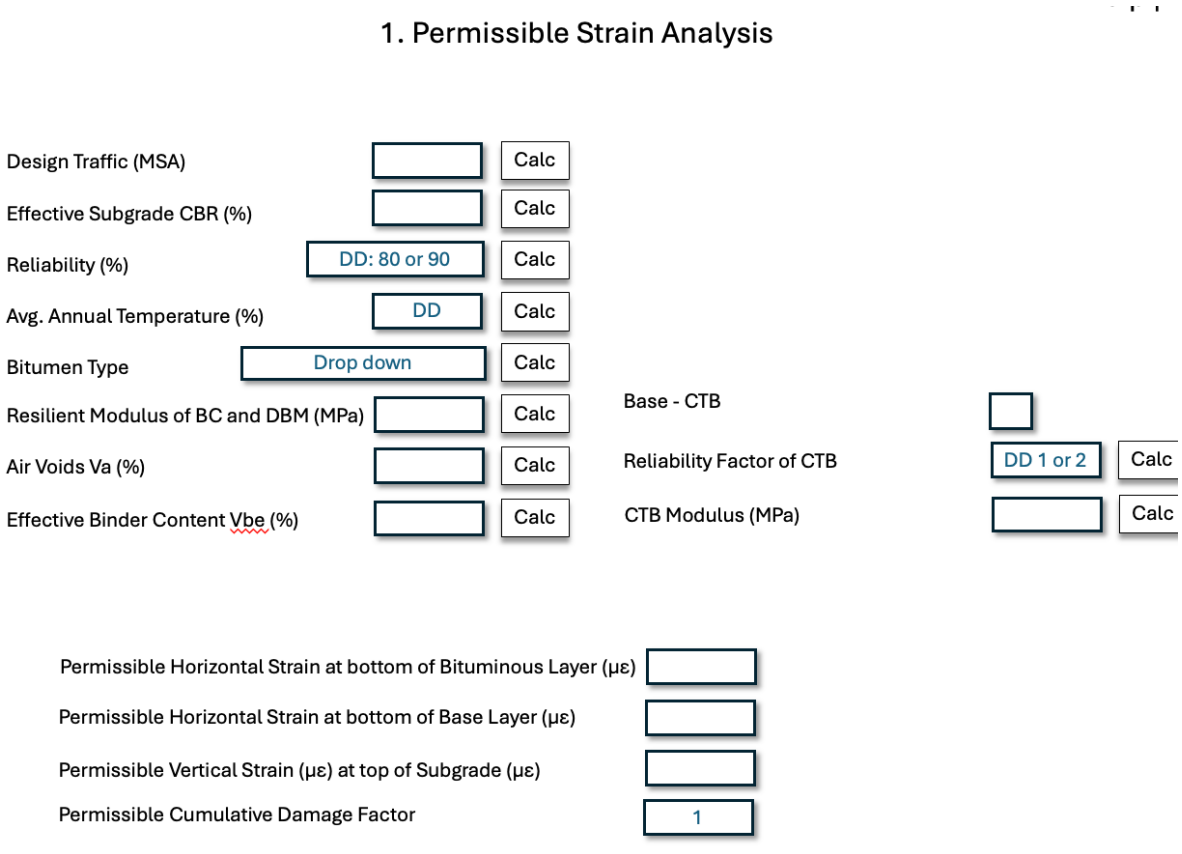
Critical & Permissible Stress–Strain

1) Permissible Strain Analysis (inputs) (Same as common inputs)

- Reuse the **Design Traffic** popup logic & fields → Design_Traffic.
- **Effective Subgrade CBR** popup (multi-layer CBR with ν for each layer) → Effective_Subgrade_CBR. Code → Effective_CBR_Calc
- **Reliability** (Reliability) with Calc rule (80/90).
- **Avg. Annual Temperature** (Average_Annual_Pavement_Temp) with default 35.
- **Bitumen Type** (VG_grade) with Calc rule (VG30/VG40).
- **Resilient Modulus of BC & DBM** (BT_Mod) with Calc table.
- **Air Voids (Va) / Effective Binder (Vbe)** rules as above.
- **Base – CTB (checkbox)**: when checked, enable:
  - RF (1/2 with Calc rule <10 MSA → 2; else 1)
  - CTB_Mod (default 5000 MPa)

Computation (back-end via Permissible_strain_analysis.m):

- Outputs:
  - Permissible Horizontal Strain @ bottom of Bituminous (με)
  - Permissible Horizontal Strain @ bottom of Base (με)
  - Permissible Vertical Strain @ top of Subgrade (με)
  - Permissible Cumulative Damage Factor

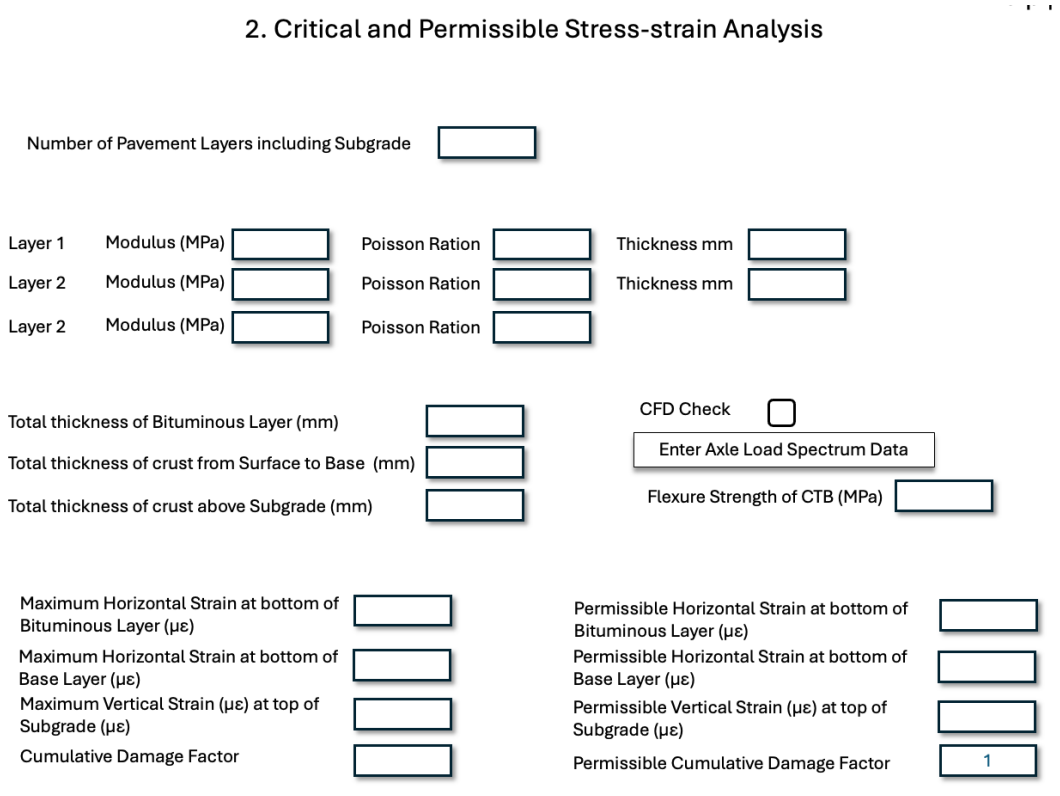


2) Critical & Permissible (combined) Analysis (inputs)

- Dropdown: **Number of Pavement Layers including Subgrade** (1–10).
- Dynamic rows for each layer i:
  - E_i Modulus (MPa), ν_i Poisson's Ratio, t_i Thickness (mm) — **no thickness for last (bottom) layer**.
- Interface positions:
  - Total thickness Bituminous (mm)
  - Total crust Surface→Base (mm)
  - Total crust above Subgrade (mm)
    (All three must coincide with actual layer interfaces; validate.)
- **CFD Check** (checkbox) → cfdchk (enables Axle Spectrum + FS_CTB as in Type 2/3).
- Axle Spectrum popup: SA_M, TaA_M, TrA_M (Excel-style paste).
- FS_CTB (MPa) + **Calc** (1.4 MPa).

Computation (via critical_stress_strain_analysis.m):

- Critical (maximum) strains:
  - Horizontal @ bottom of Bituminous (με)
  - Horizontal @ bottom of Base (με)
  - Vertical @ top of Subgrade (με)
  - Cumulative Damage Factor
- Also show **Permissible values** from "Permissible" page side-by-side.
- **Conditional formatting:** if **Critical > Permissible**, cell = **red**; else **green**.



Multilayer Linear Elastic Analysis

Inputs

- **Number of Pavement Layers including Subgrade** (1–10)
- For each layer i (top→bottom): E_i (MPa), ν_i, t_i (except last)
- **Wheel Load (N)**, **Tire Pressure (MPa)**
- **Wheel-set**: Single=1, Dual=2
- **Number of Analysis Points**: 1–5
    - Point k: **Depth (mm)**, **Radius (mm)**

Submit → run solver and display **table**:

Point Depth (mm) Radius (mm) Sigma z Sigma t Sigma r Tau xz w (defl) εz εt εr

(Units for stresses consistent with solver output; show με for strains where appropriate.)

Multilayer Linear Elastic Analysis

Number of Pavement Layers including Subgrade

Layer 1	Modulus (MPa)		Poisson Ration		Thickness mm
Layer 2	Modulus (MPa)		Poisson Ration		Thickness mm
Layer 2	Modulus (MPa)		Poisson Ration		

Wheel Load (N)

Tire Pressure (MPa)

Wheel-set Single / Dual

Number of Analysis Points

Point 1 Depth (mm) Radius (mm)

Point 2 Depth (mm) Radius (mm)

Point	Depth	Radius	Sigma z	Sigma t	Sigma r	Tao_xz	w	ez	et	er
1										
1										
2										
2										

Submit