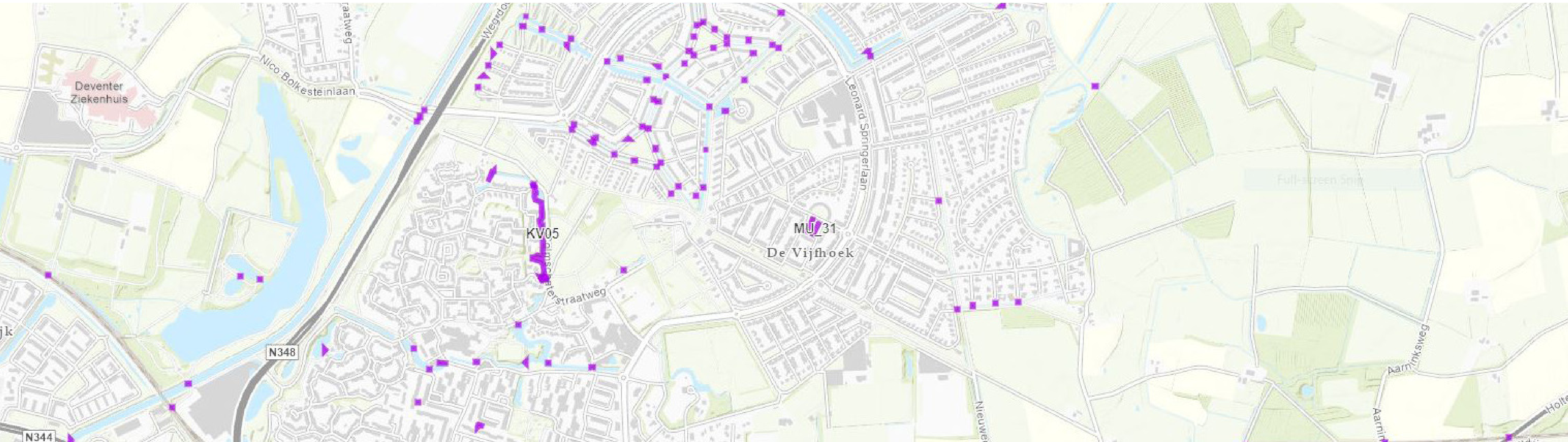


Houten Bruggen 2.0 Gemeente Deventer

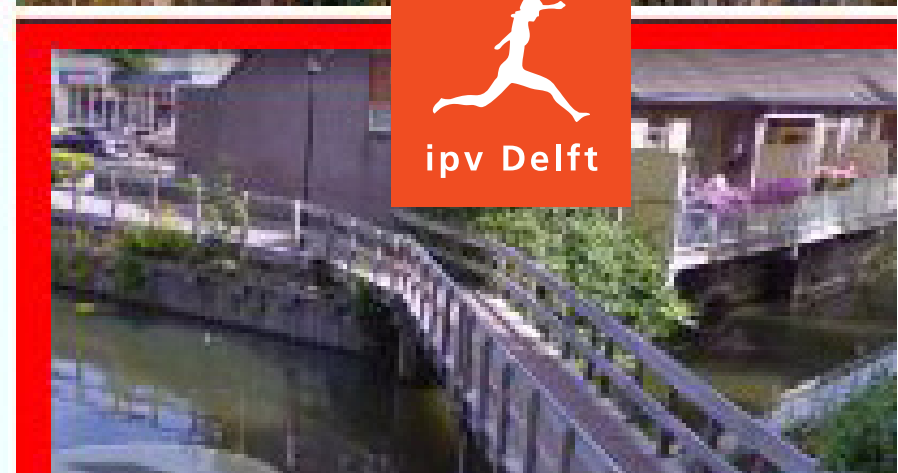
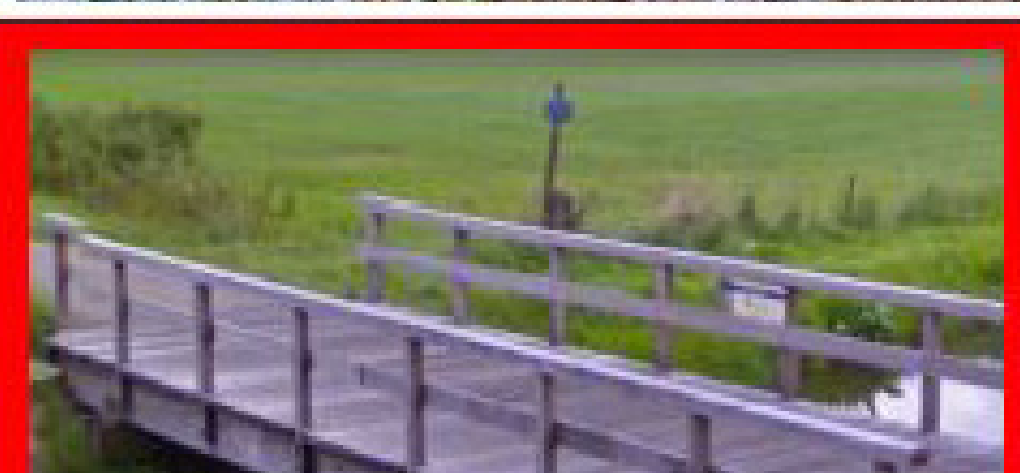
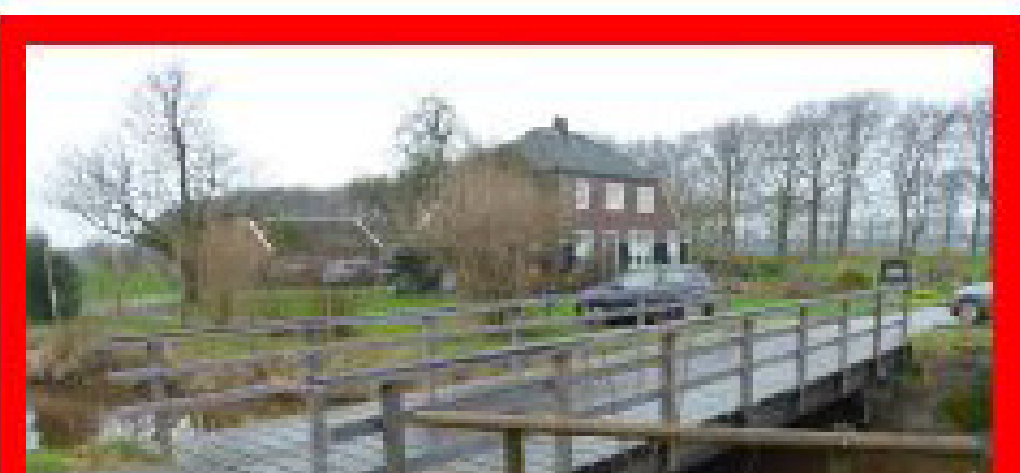
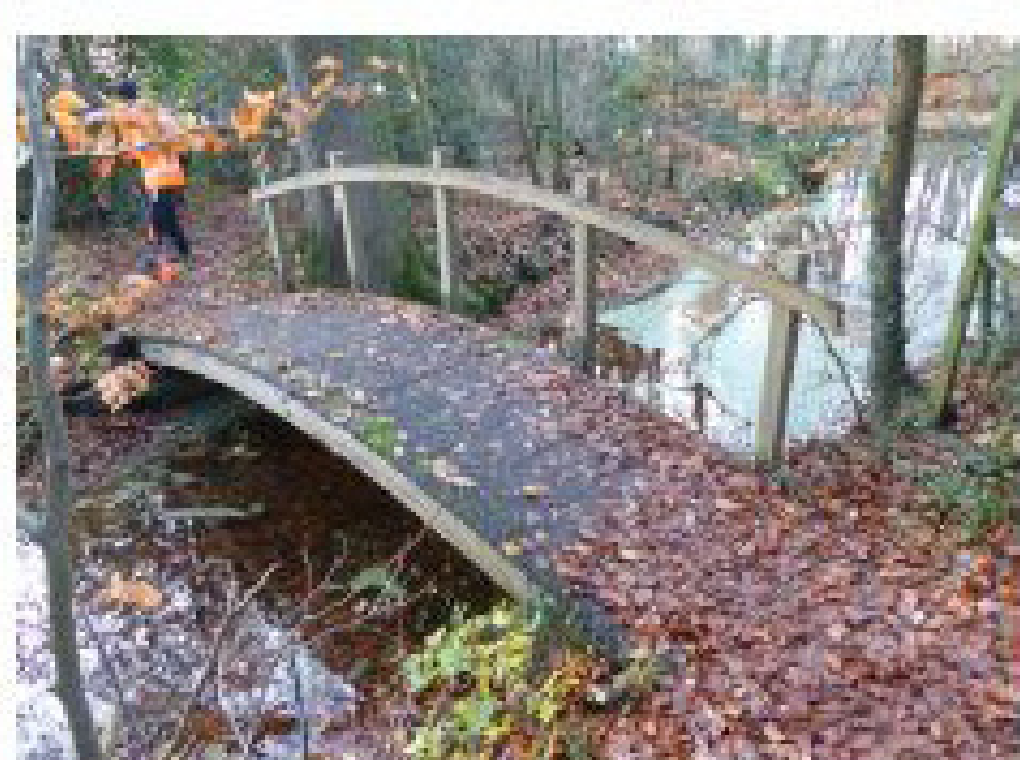
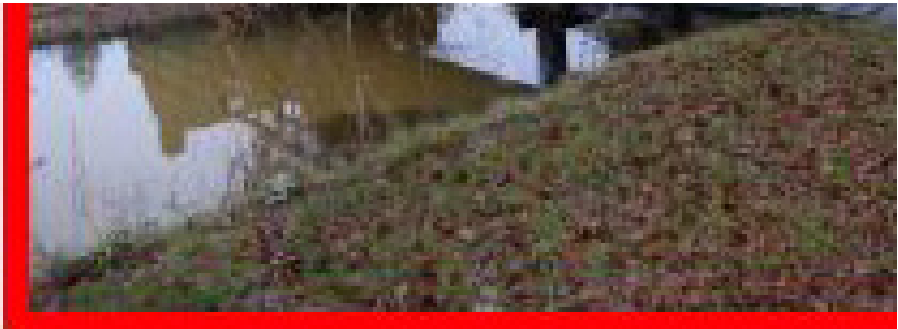
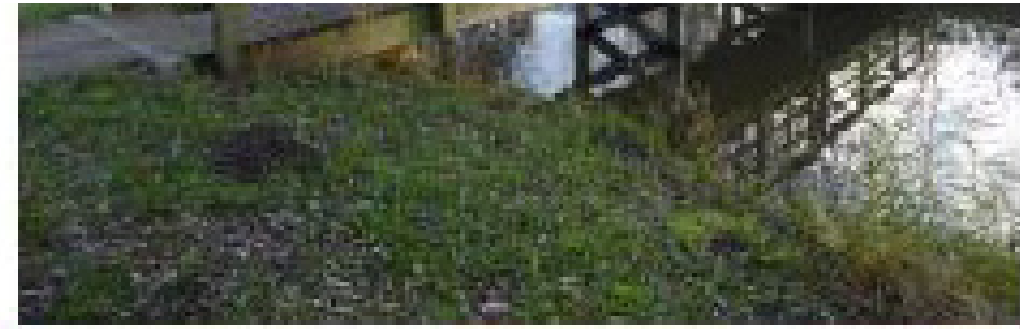


Vraag



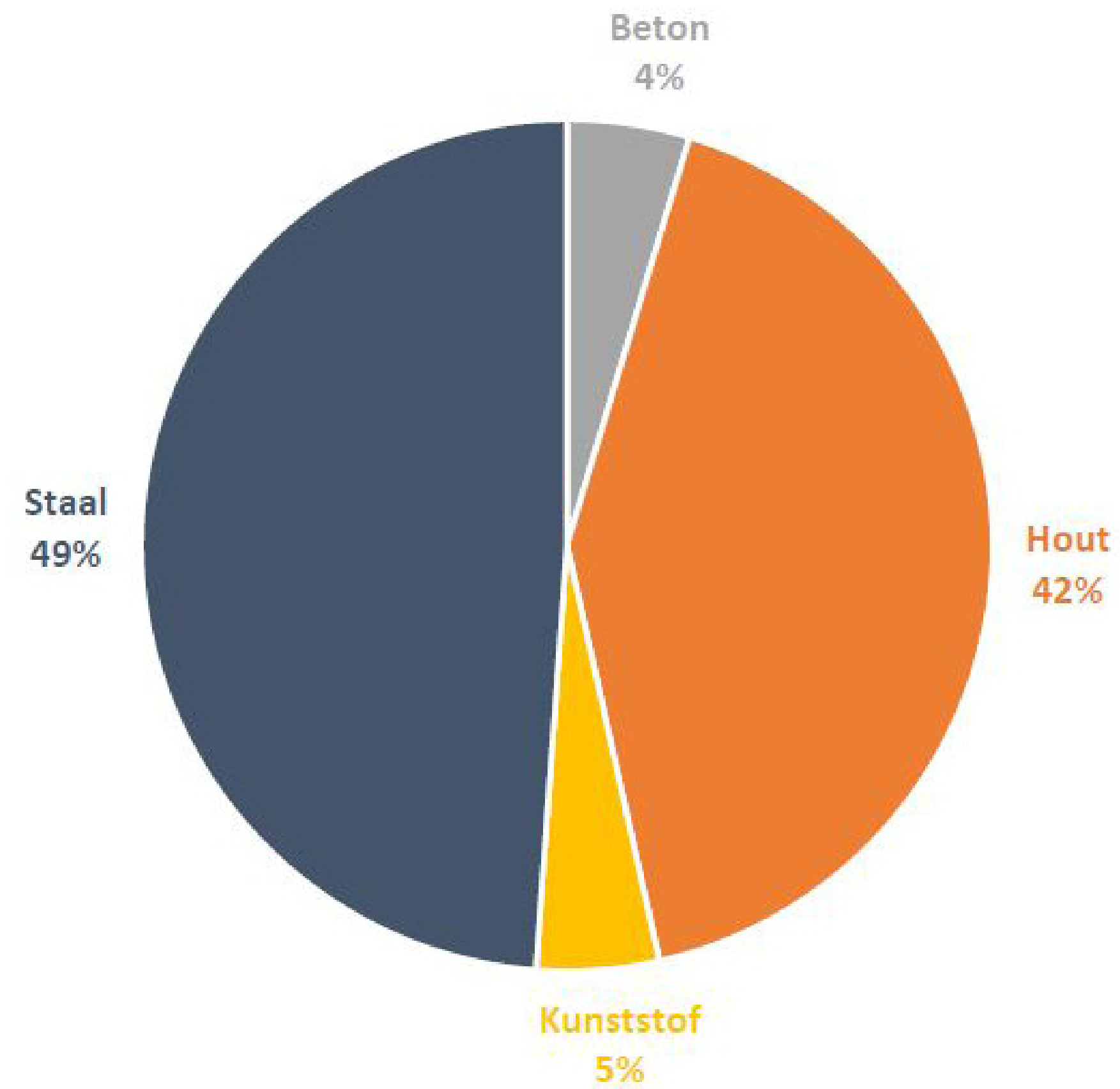
- Vervangingsopgave langzaamverkeersbruggen
- Structurele aanpak
- Kosten, kwaliteit, duurzaamheid en circulariteit

Analyse areaal

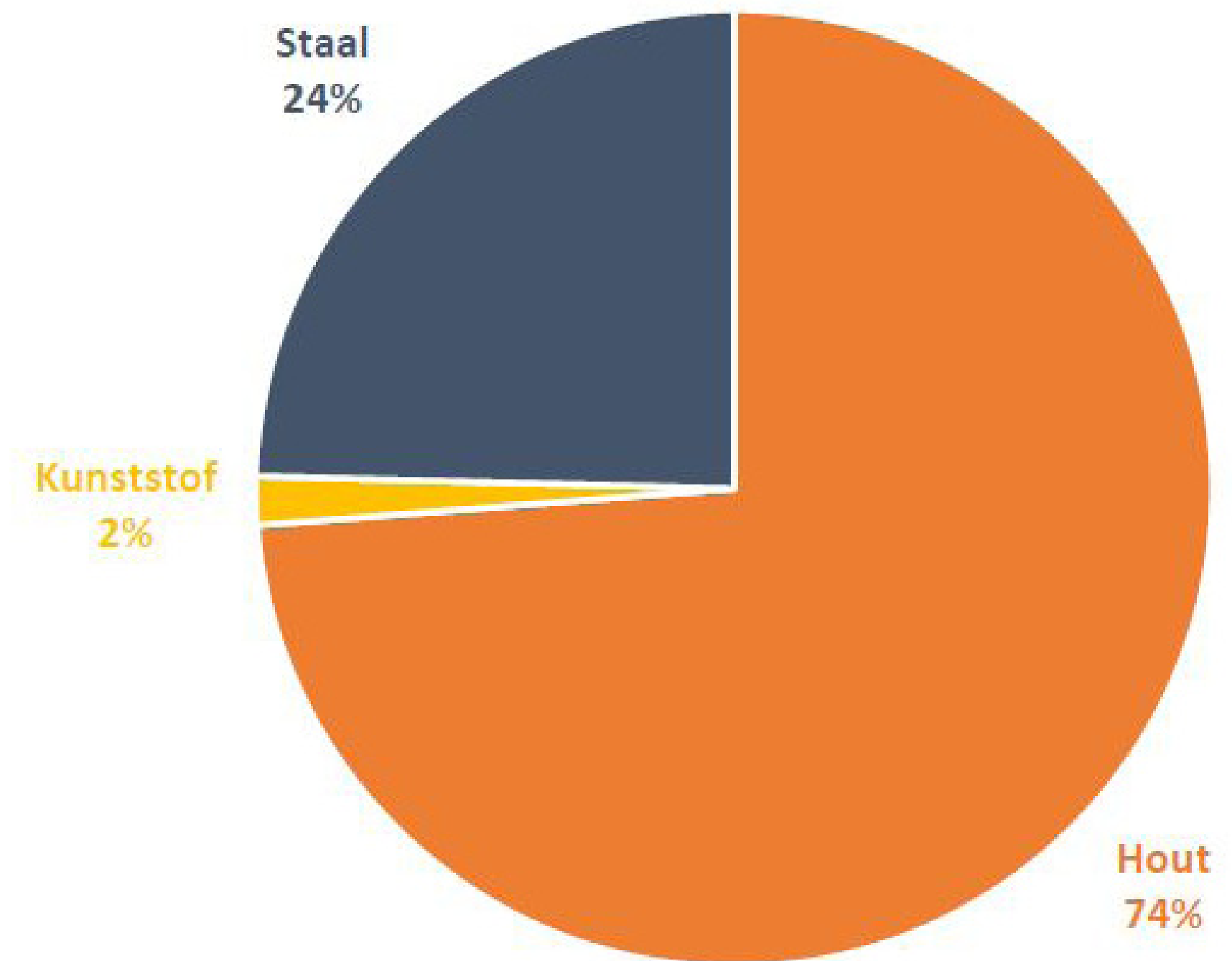


Analyse areaal

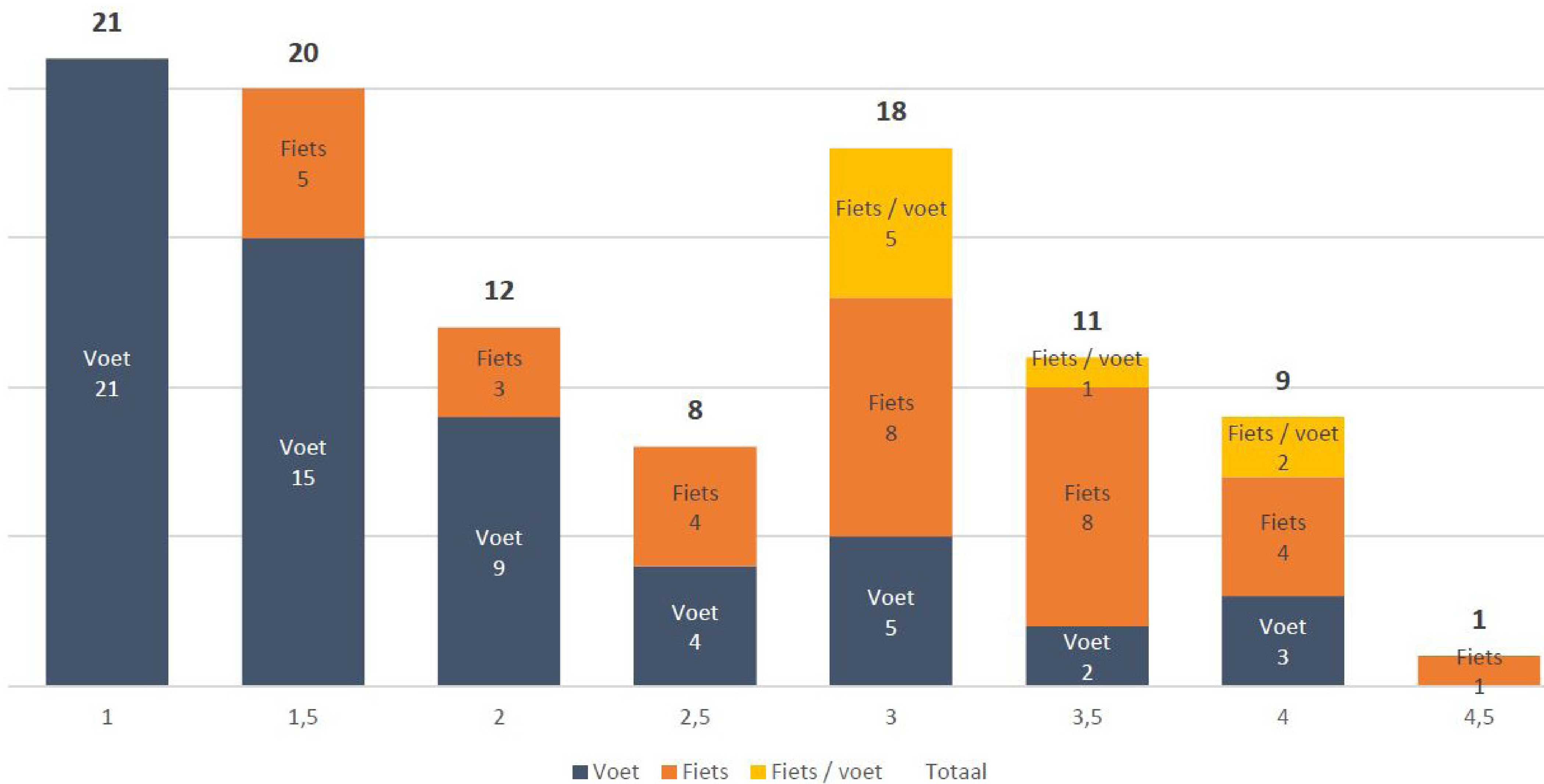
Fietsbruggen



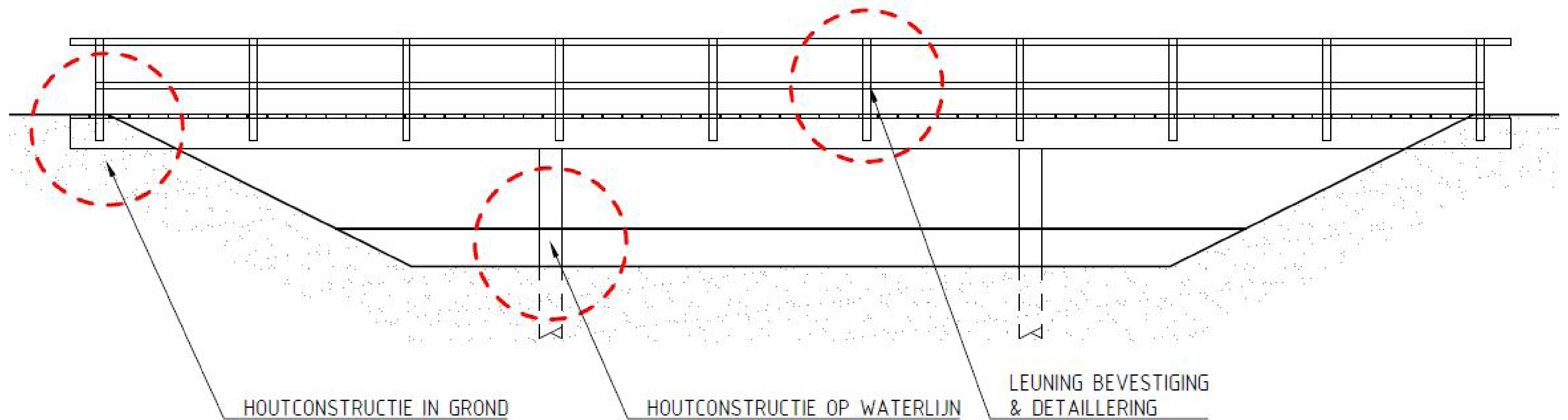
Voetgangersbruggen



Analyse areaal



Analyse houten bruggen



Analyse houten bruggen



Analyse houten bruggen



Analyse houten bruggen

- Onderhoud
- Renovatie waar mogelijk
- Bij slechte staat: vervallen of vervangen

Uitgangspunten vervanging

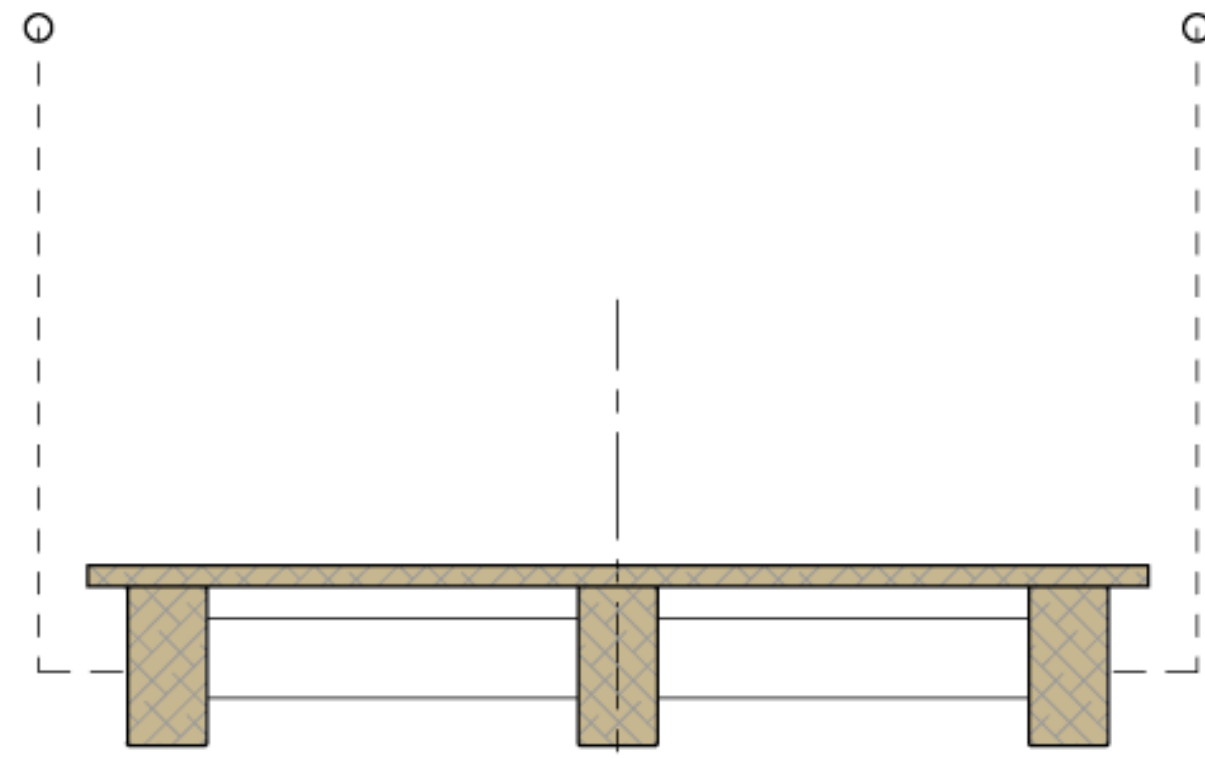
Voetgangersbrug

- Lage belasting (5kN), fundering op staal
- Standardisatie in breedte (1,8m)

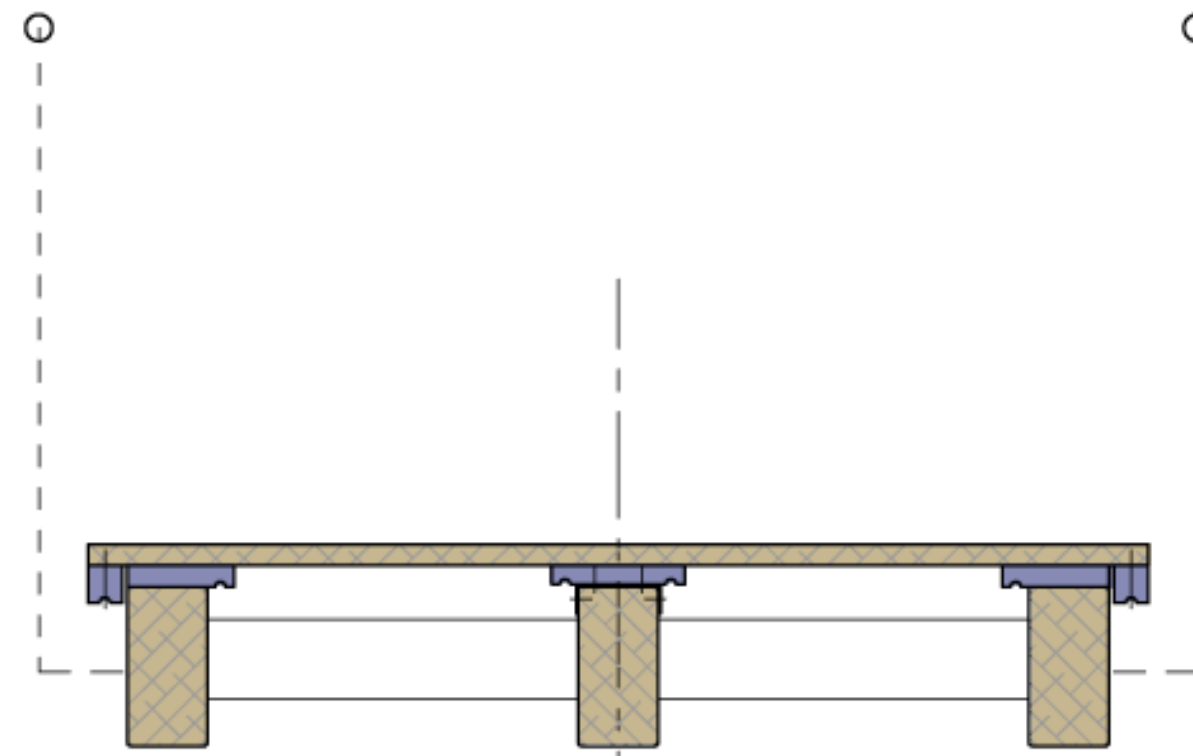
Fietsbrug

- Onbedoeld voertuig (12kN)
- Breedte functieafhankelijk

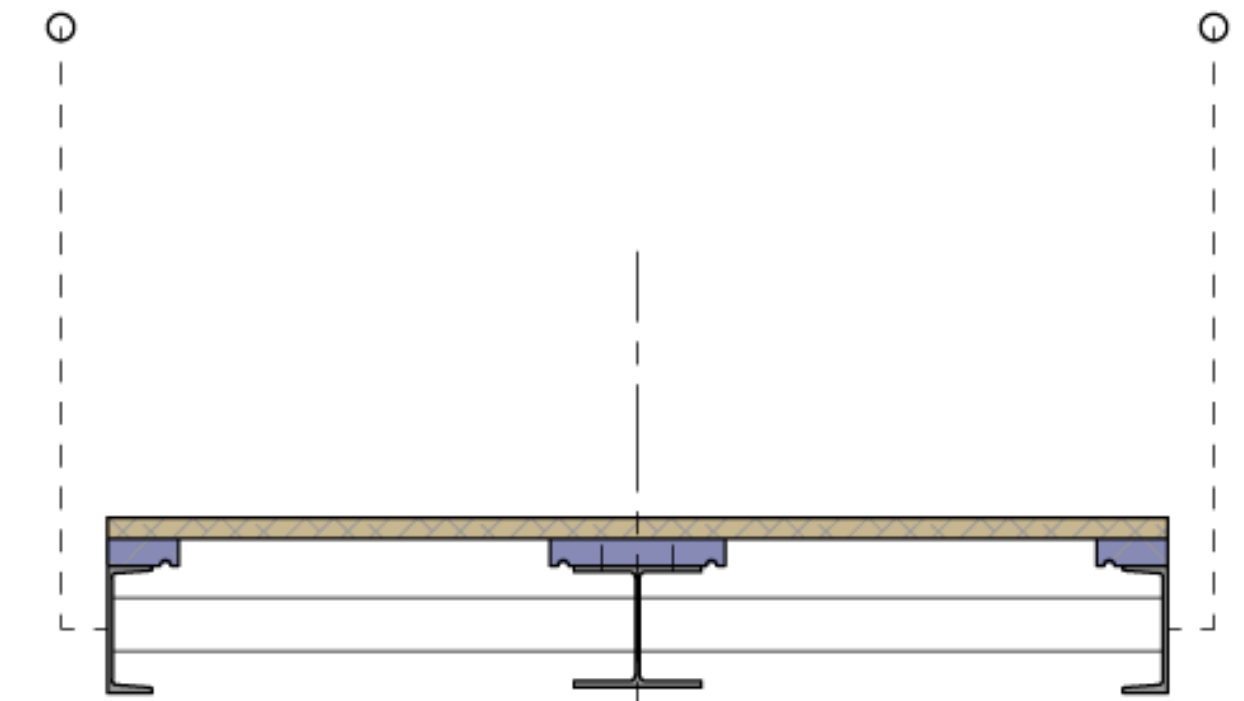
Variantenstudie - voetgangersbrug



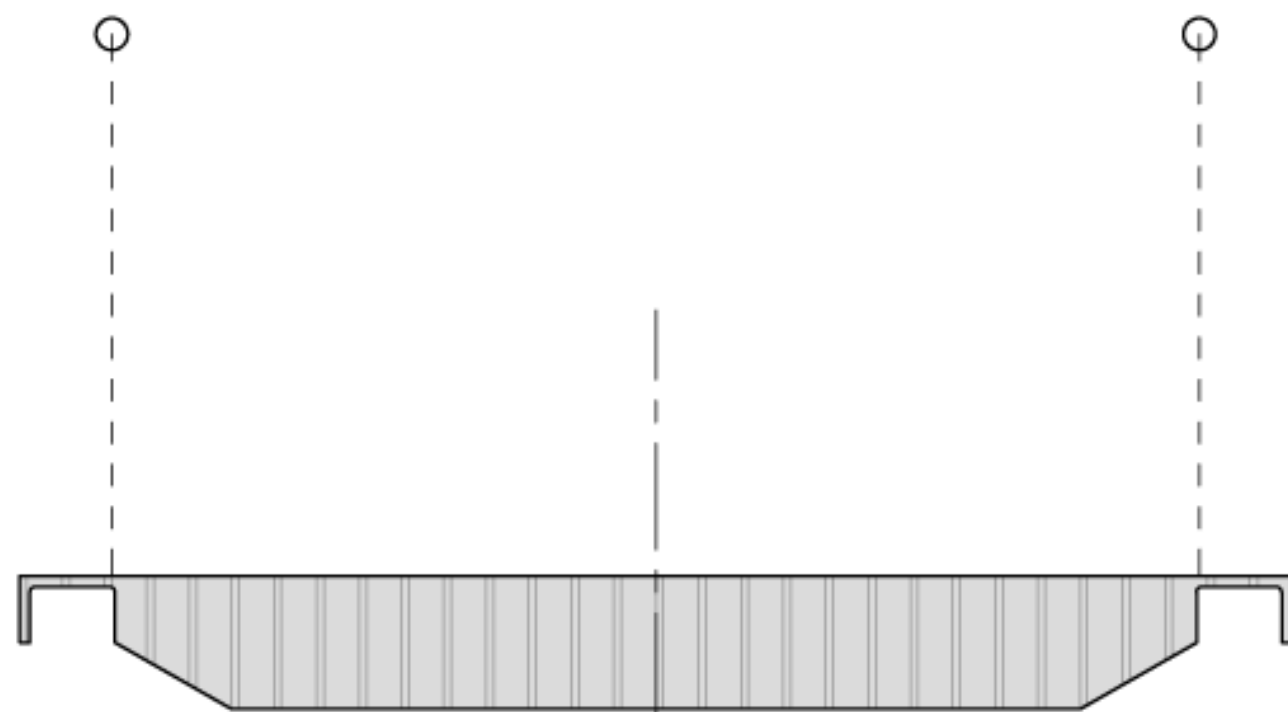
Hout



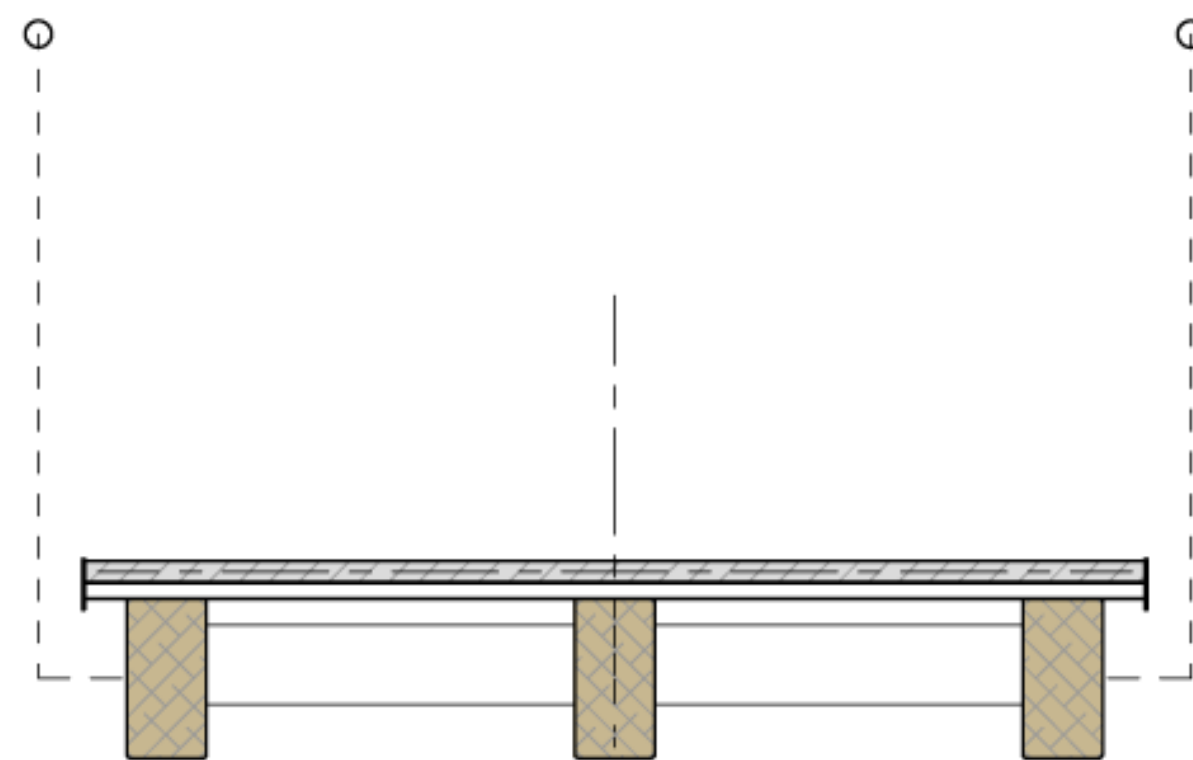
Hout plus



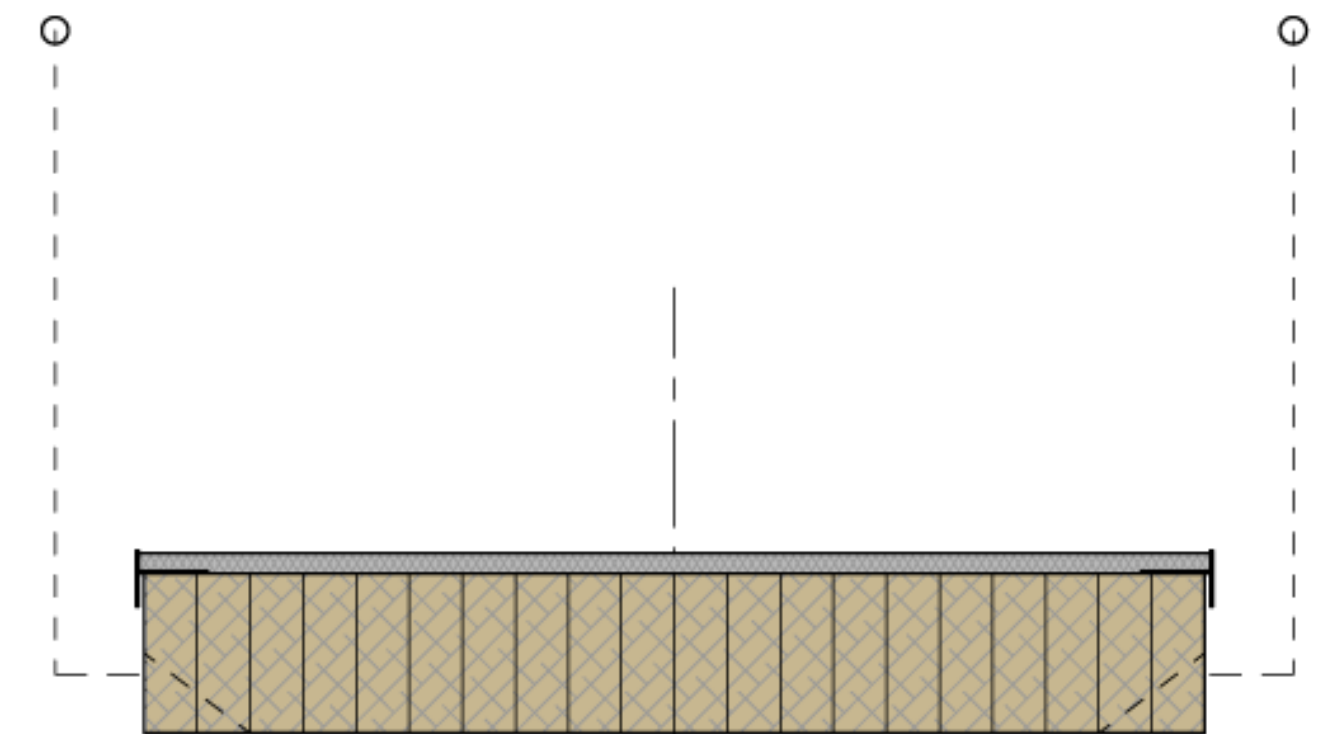
Staal plus



Composiet

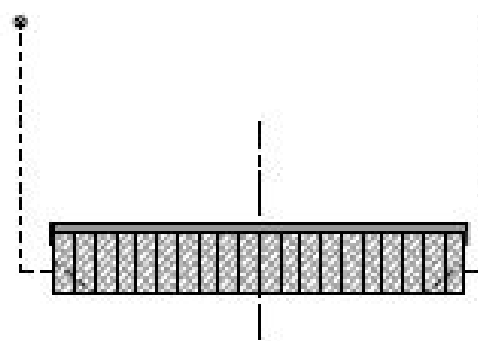
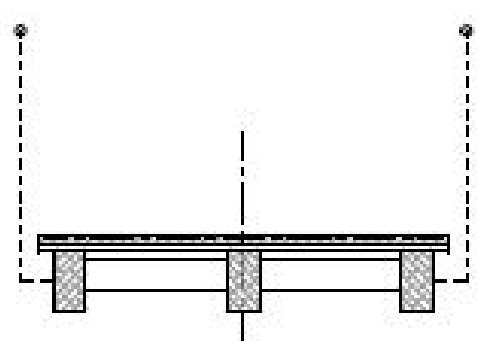
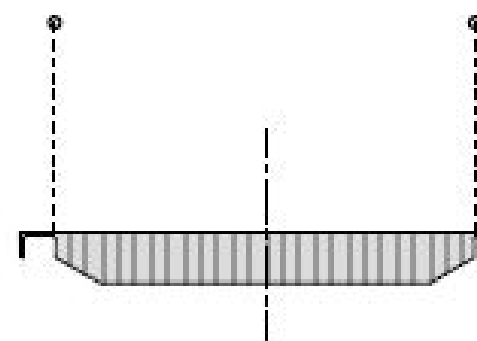
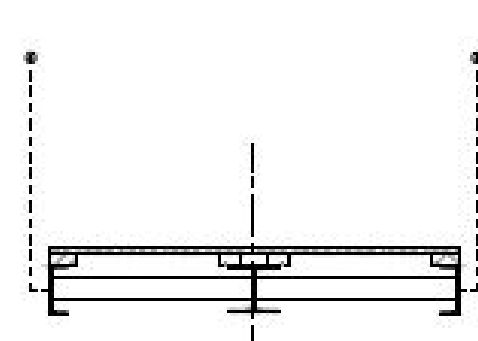
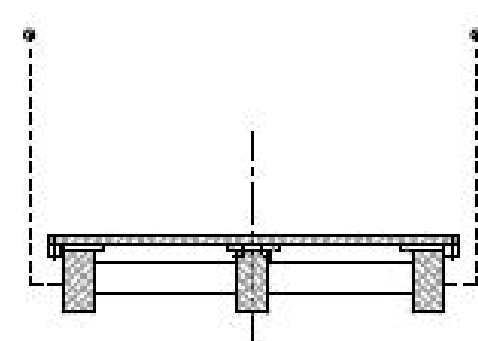
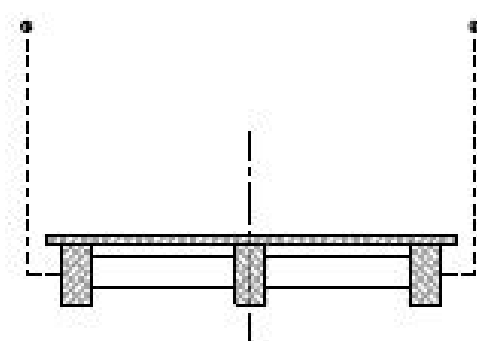
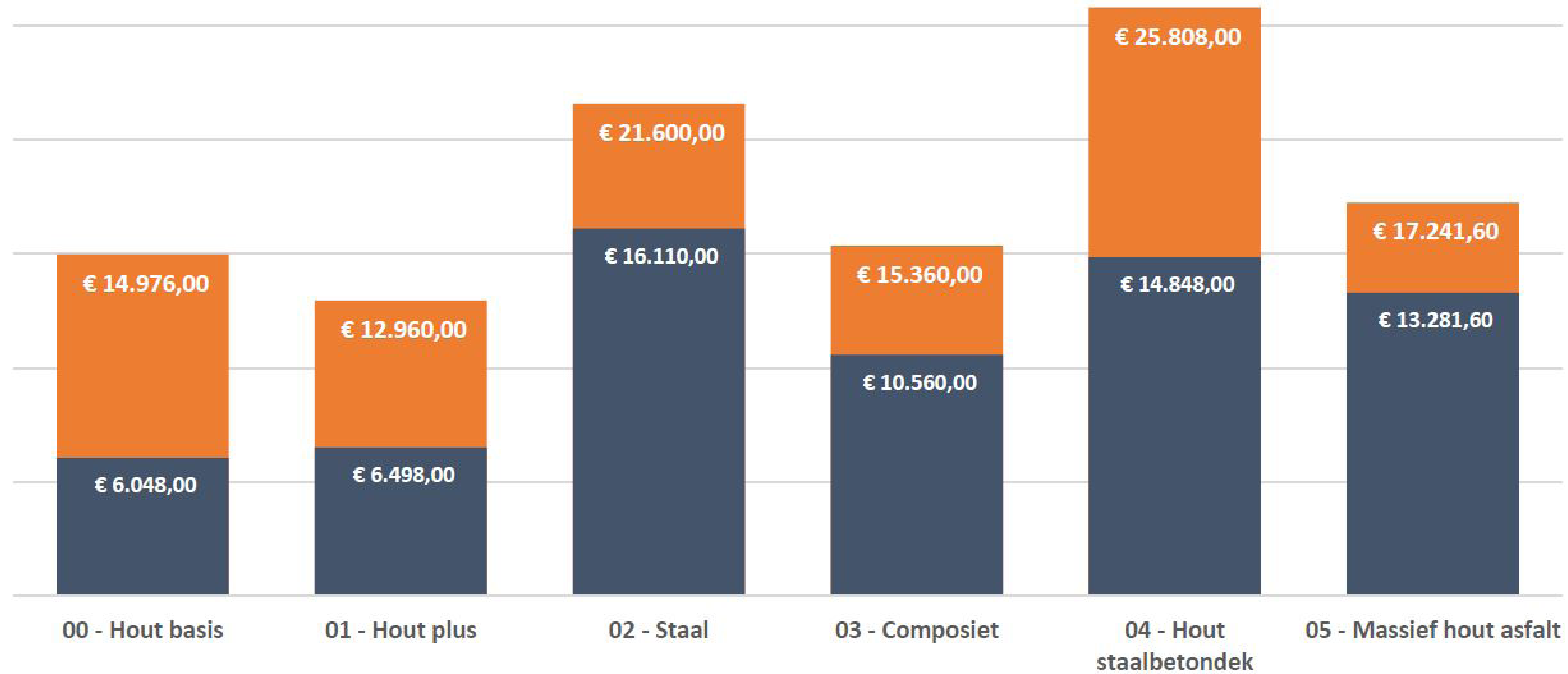


Hout
betondek

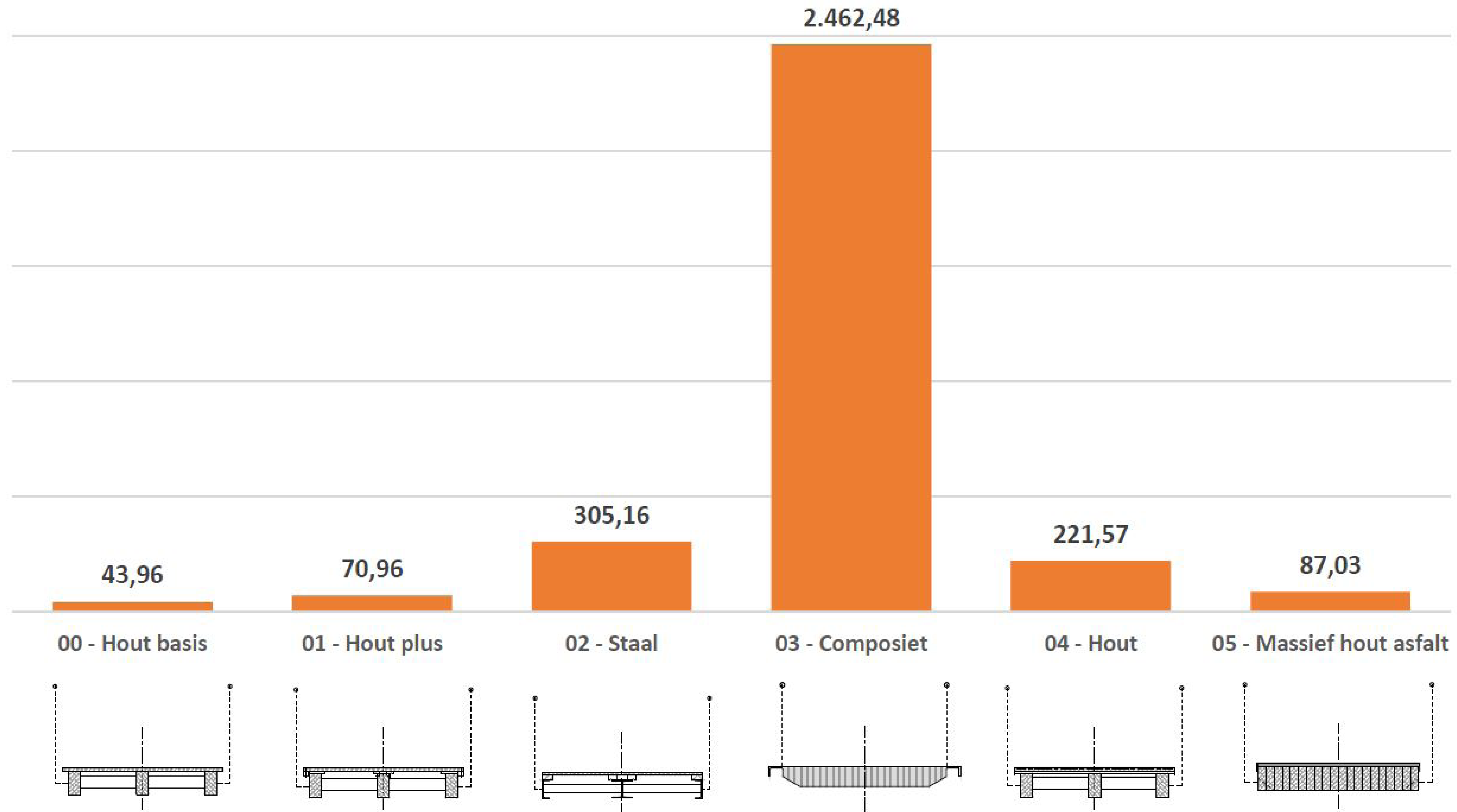


Massief hout
asfalt

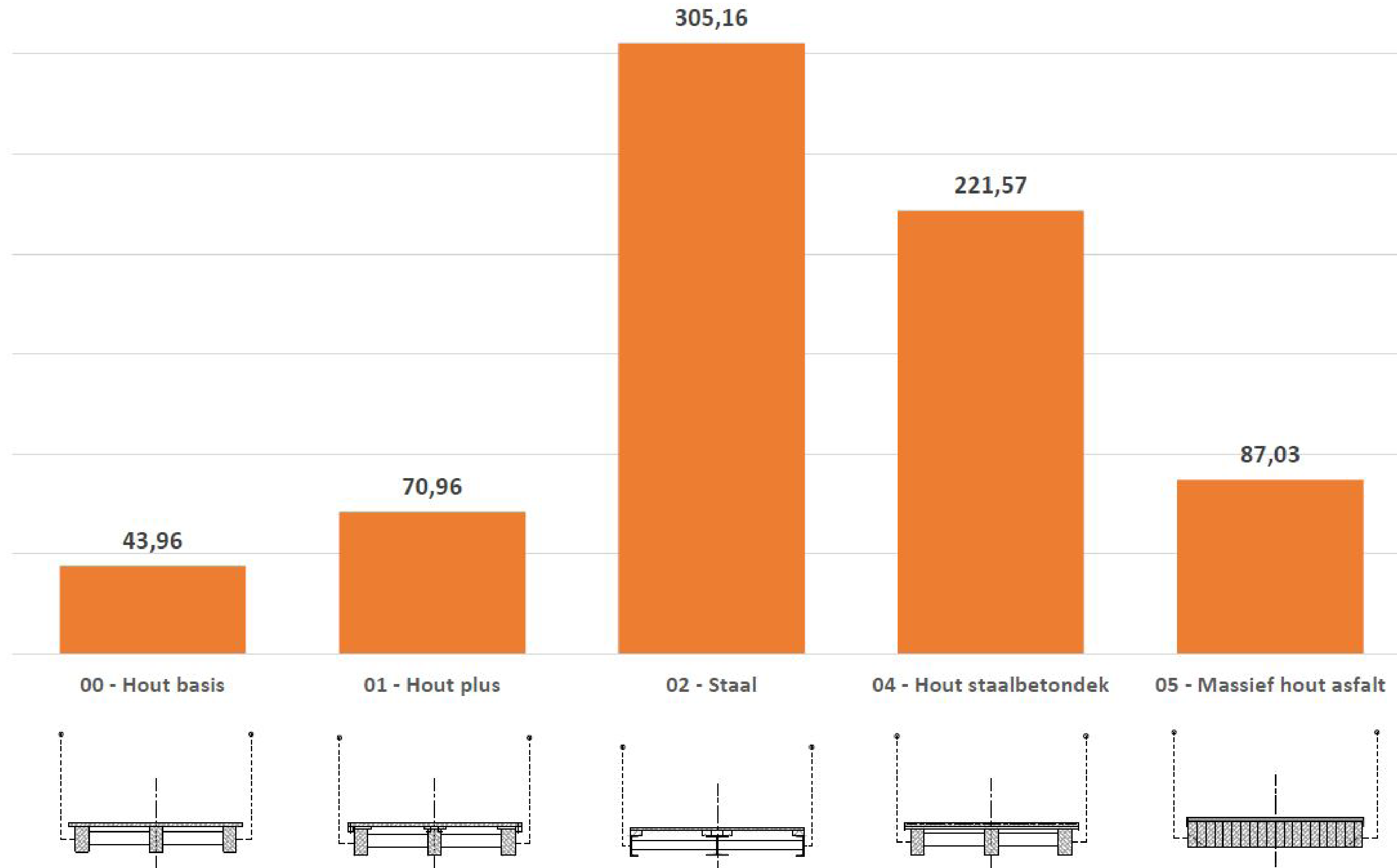
Variantenstudie - kosten



Variantenstudie - MKI score

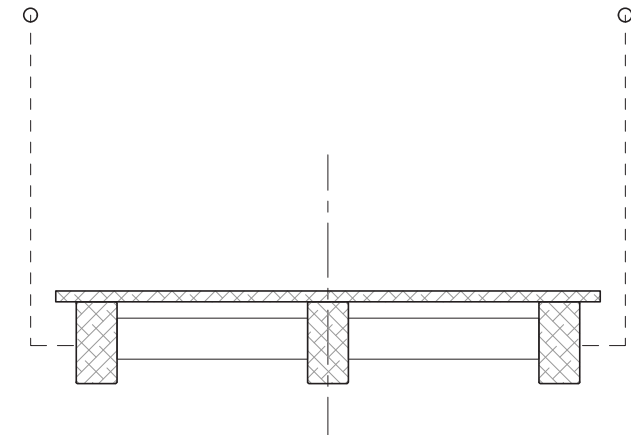


Variantenstudie - MKI score



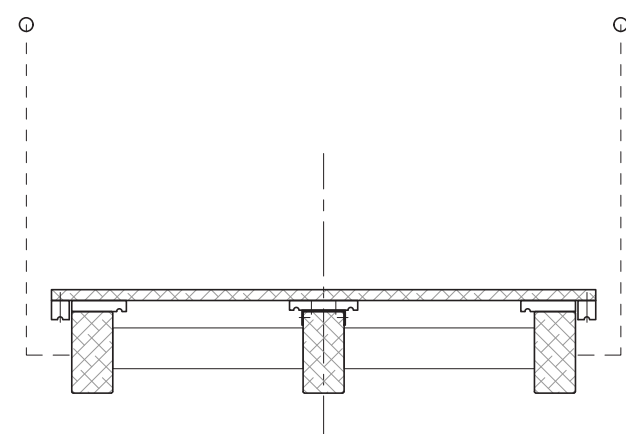
Variantenstudie - criteria

00 - hout basis



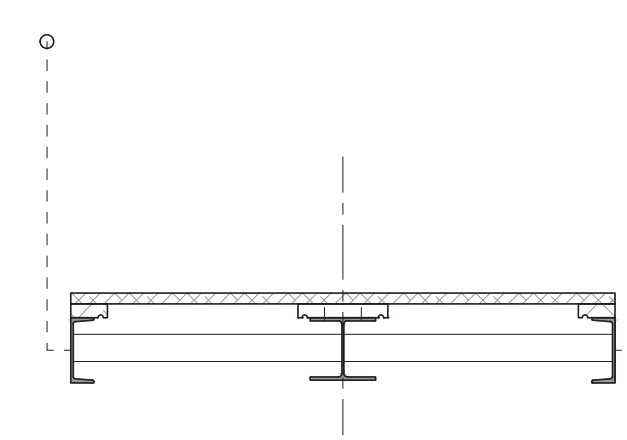
Realisatiekosten	●●●●
Levensduurkosten	●●●●
MKI	●●●●
Gebruikscomfort	●●○○
Circulariteit	●○○○
Beheer	●○○○

01 - hout plus



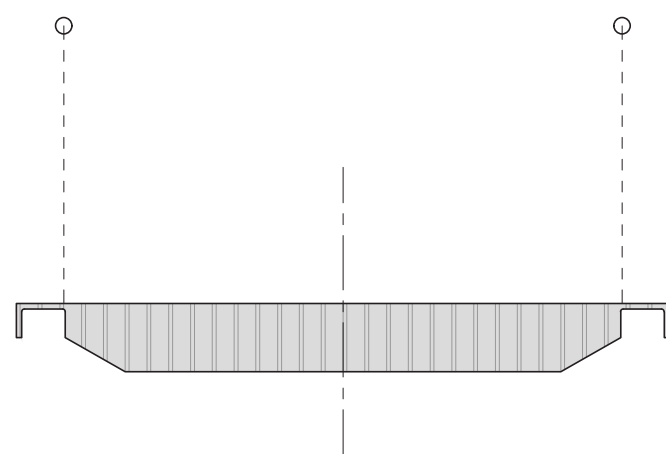
Realisatiekosten	●●●●
Levensduurkosten	●●●●
MKI	●●●○
Gebruikscomfort	●●○○
Circulariteit	●○○○
Beheer	●●○○

02 - staal plus



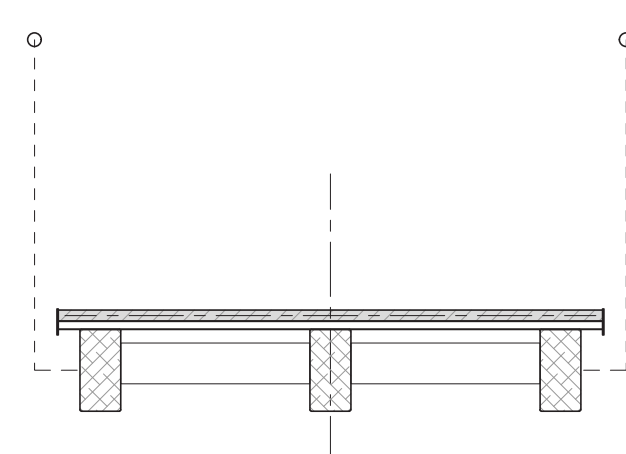
Realisatiekosten	●○○○
Levensduurkosten	●●○○
MKI	●●○○
Gebruikscomfort	●●○○
Circulariteit	●●○○
Beheer	●●○○

03 - composiet



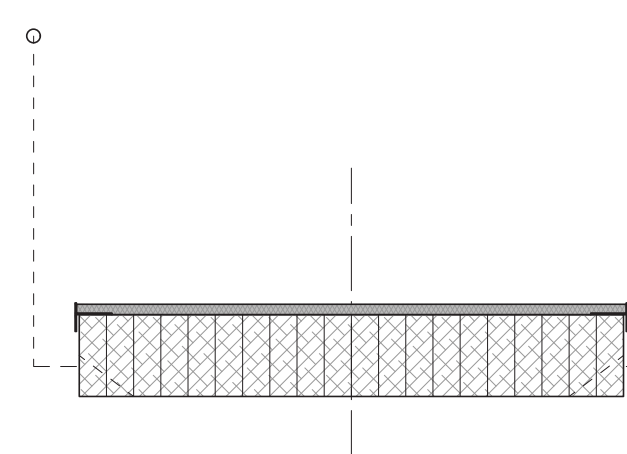
Realisatiekosten	●●●○
Levensduurkosten	●●●●
MKI	○○○○
Gebruikscomfort	●●●○
Circulariteit	●●○○
Beheer	●●●●

04 - hout staalbetondek



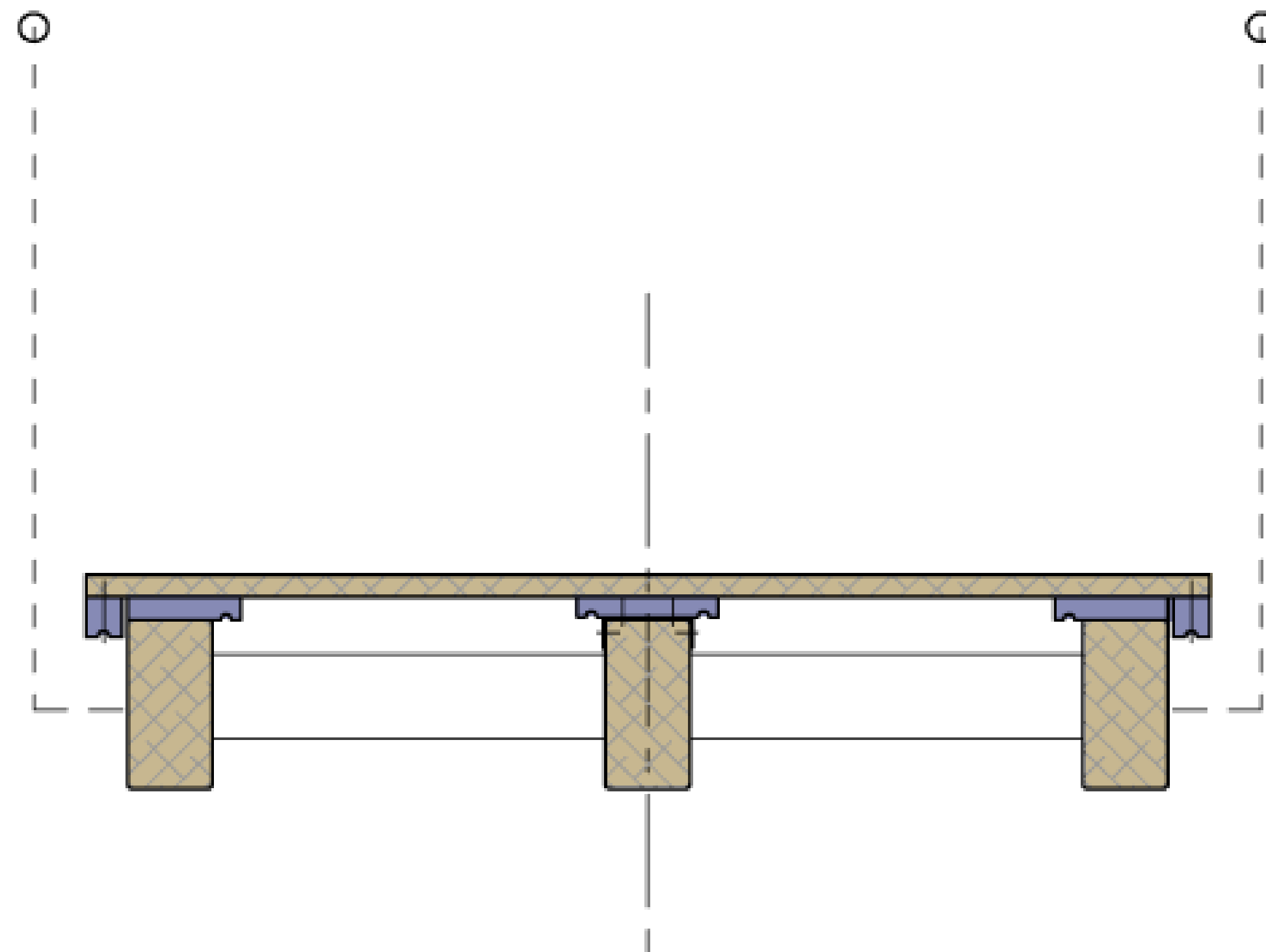
Realisatiekosten	●●●○
Levensduurkosten	●○○○
MKI	●●○○
Gebruikscomfort	●●○○
Circulariteit	●○○○
Beheer	●●○○

05 - massief hout asfalt



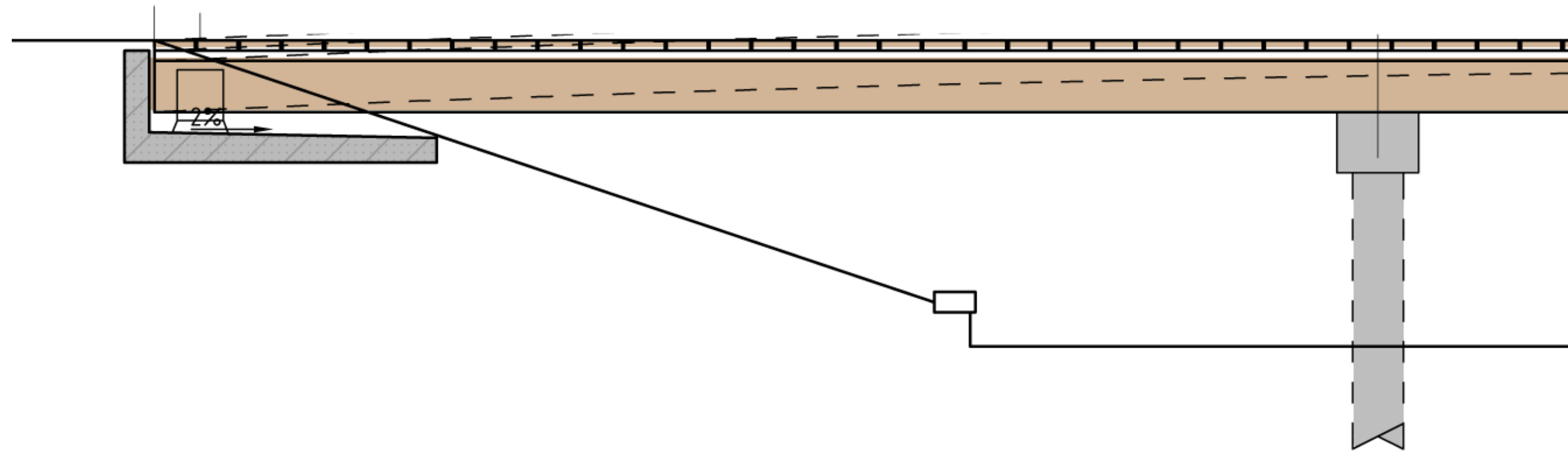
Realisatiekosten	●●●○
Levensduurkosten	●●●○
MKI	●●○○
Gebruikscomfort	●●○○
Circulariteit	●●○○
Beheer	●●○○

Variantenstudie - voetgangersbrug



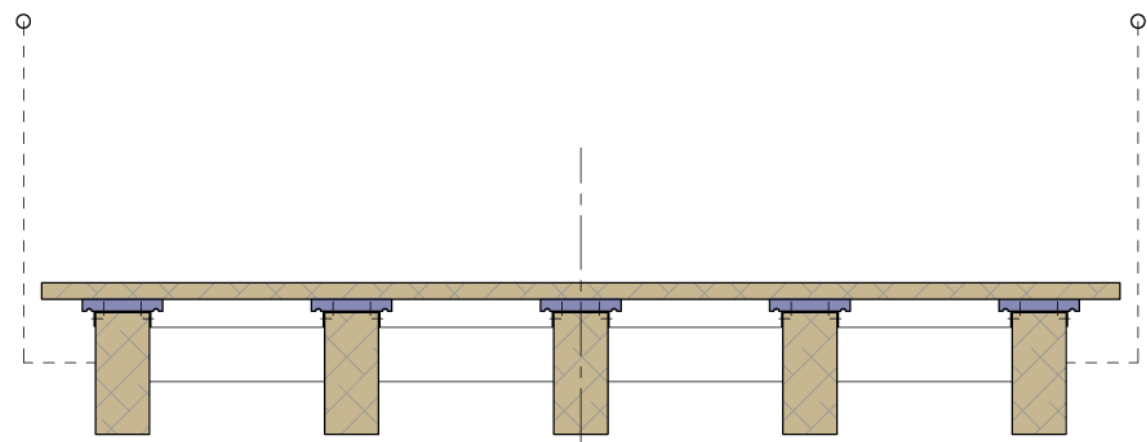
- Afgeschermdde liggers
- Oplegging droog
- robuste steunpunten in watergang

Variantenstudie - voetgangersbrug

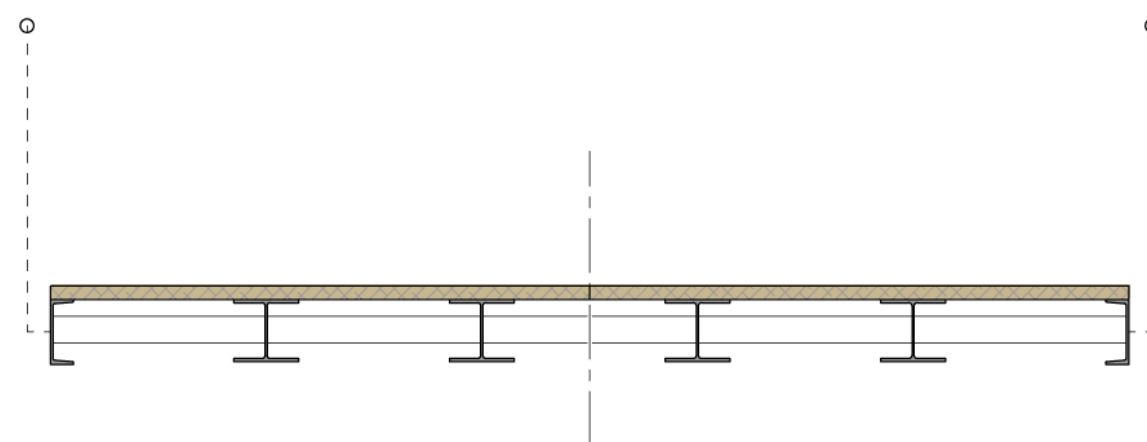


- Afgeschermdde liggers
- Oplegging droog
- robuste steunpunten in watergang

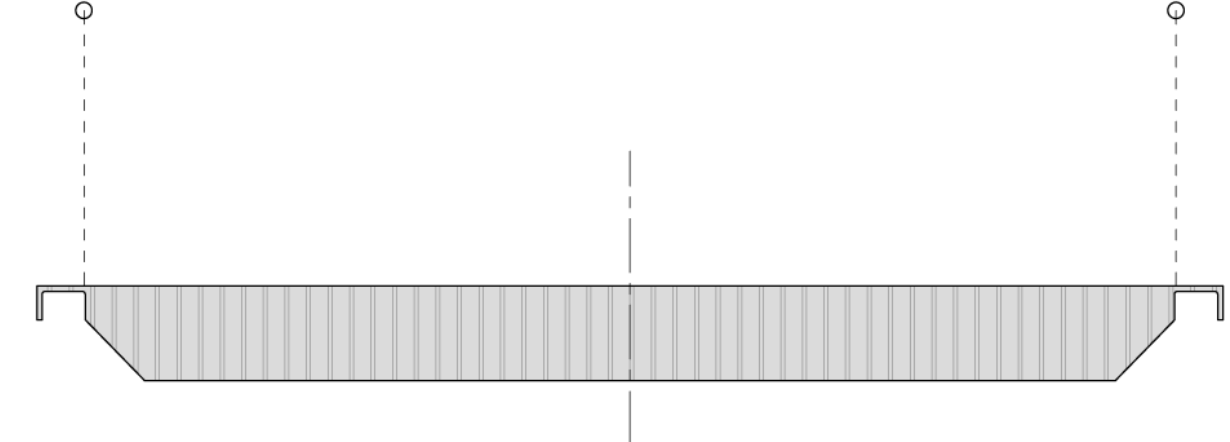
Variantenstudie - fietsbrug



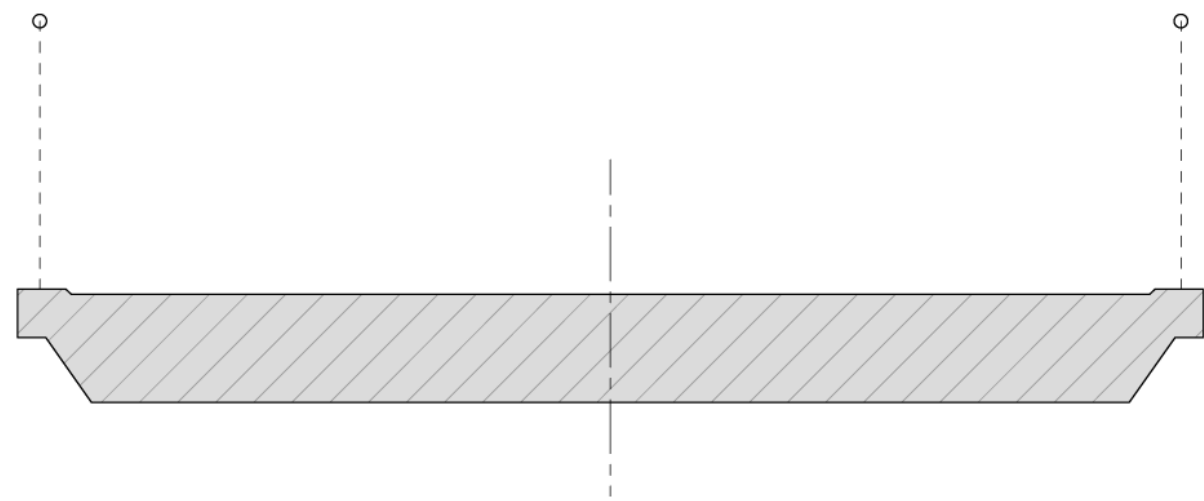
Hout plus



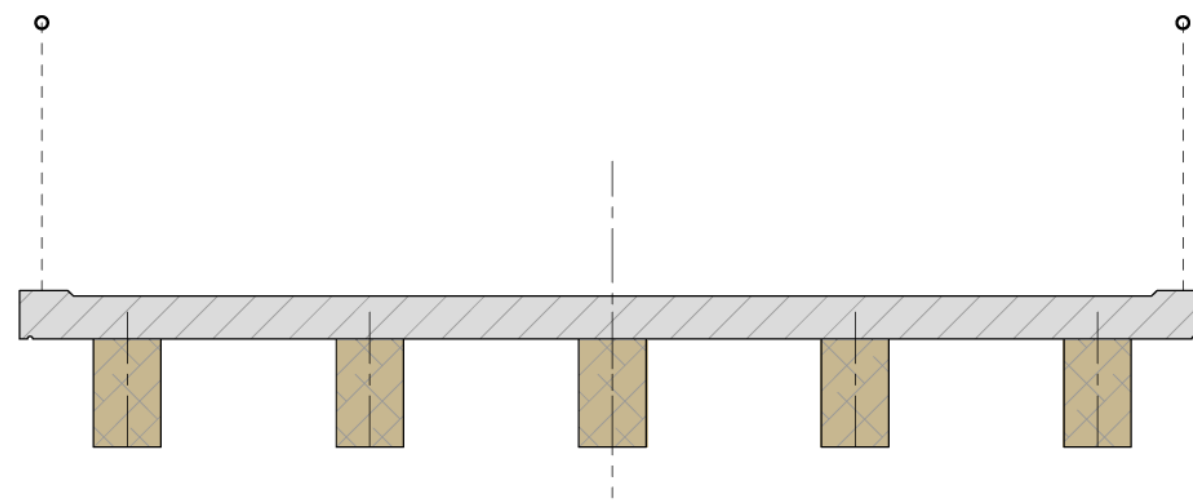
Staal plus



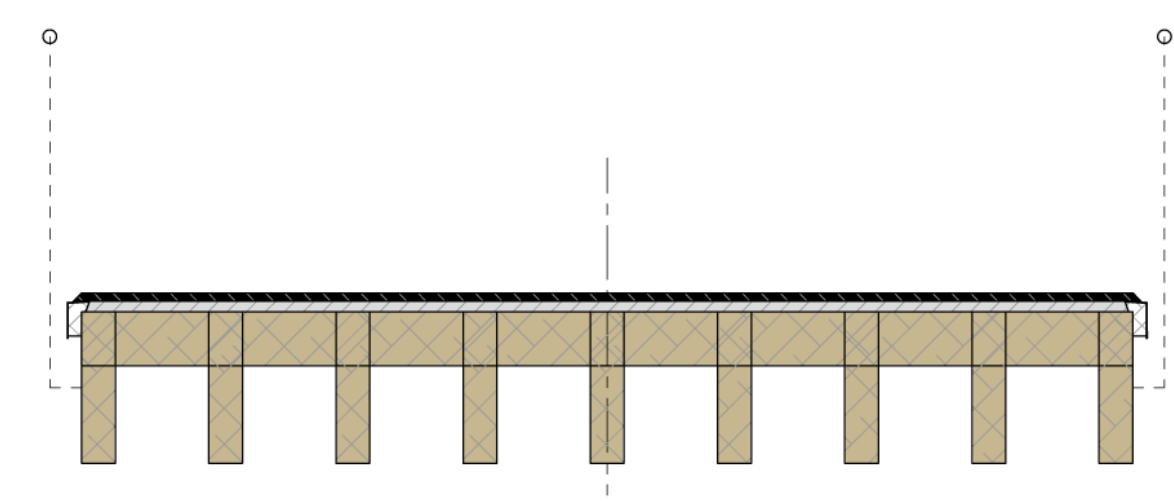
Composiet



Beton

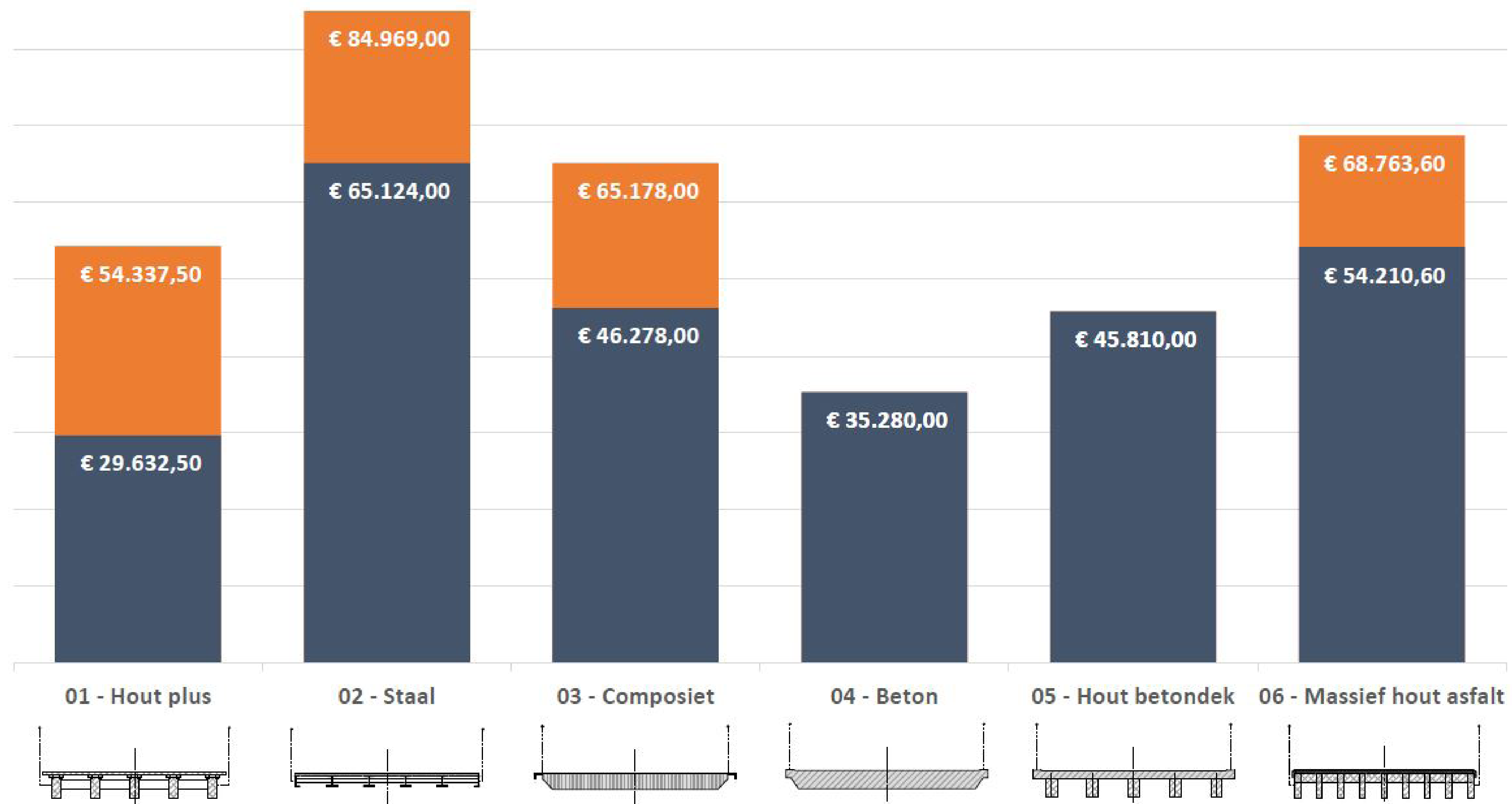


Hout
betondek

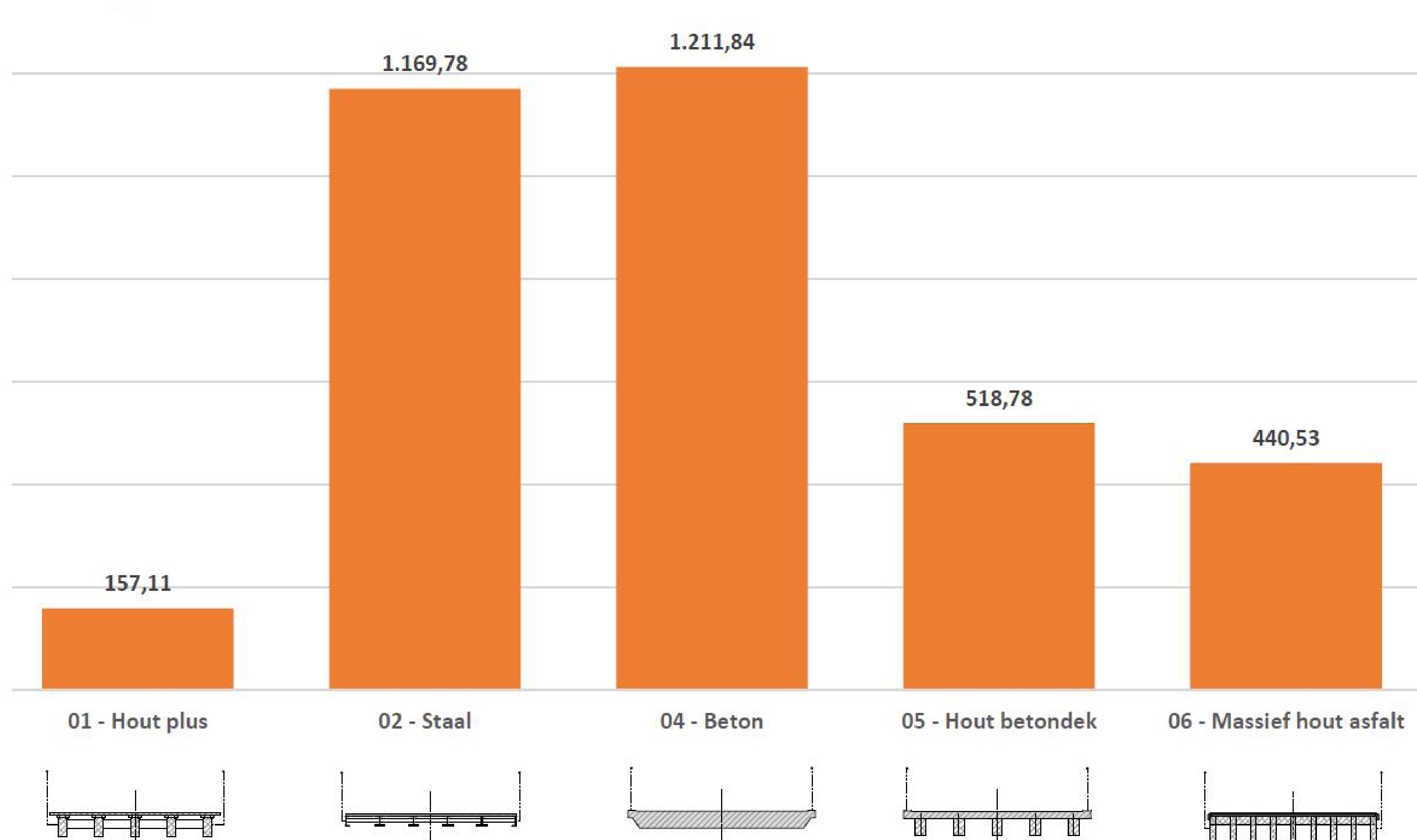


Massief hout
asfalt

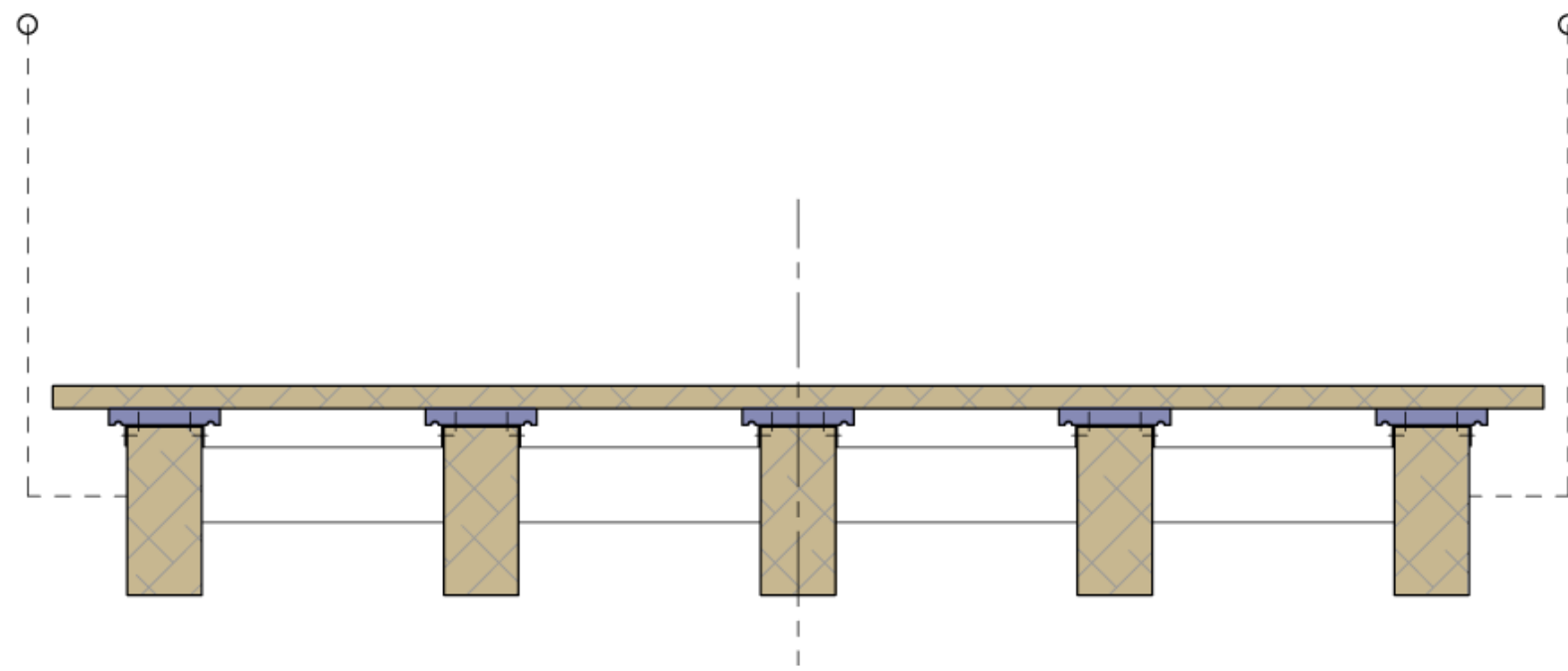
Variantenstudie - kosten



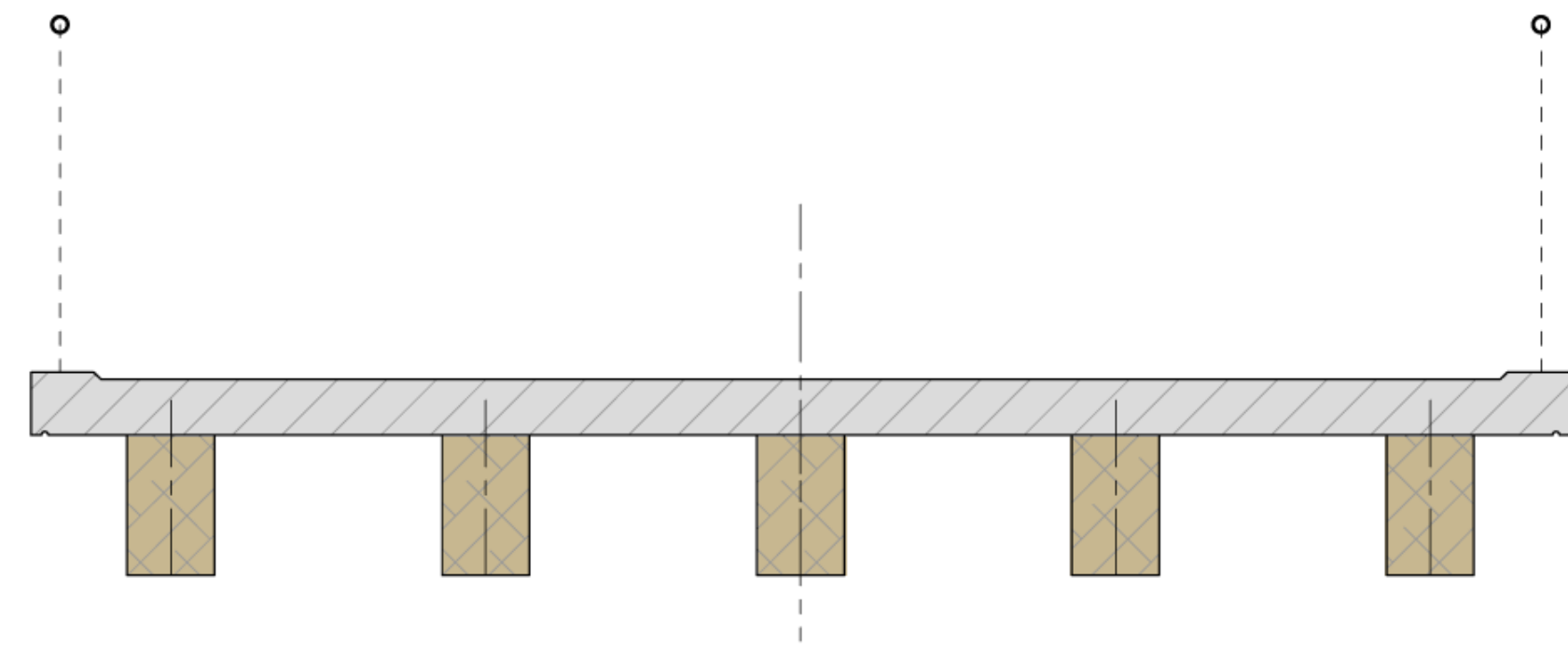
Variantenstudie - MKI



Variantenstudie - fietsbrug



Hout plus



Hout
betondek

Duurzame houten brug

