

UPDATE ON THE N2 WILD COAST ROAD

04 May 2016

Photo - Mateku Falls & Gorge
View from future N2 Section 20B km 30

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WILD COAST TOLL ROAD

EAST LONDON TO MTAMVUNA

Length 410 km
9 Major Bridges



LEGEND	
Butterworth Idutywa Umtata	Ring Roads to be investigated at these towns
—	Existing N2
—	Existing R61
—	Greenfields

N2 Wild Coast Road Project description



410 km stretch of road from East London to the Mtamvuna River on the border between EC & KZN

- Of the total length, some 112 km would be on a new “greenfields” alignment between the Mzimvubu River (near Port St Johns) and the Mtamvuna River (near Mzamba) - including
 - 2 mega-bridge structures on the Msikaba and Mtentu Rivers
 - 7 additional major river bridges and 3 interchange bridges
 - Approx. 96 km of new class 1 road + 17km of “brownfield” class 1 road
- The remainder comprises the upgrading of the existing roads and the construction of bypasses at Mthatha, Idutwya and Butterworth
- Once complete the route will be approx. 85 km shorter than the current route and be up to 3 hours faster, particularly for heavy freight vehicles.



Progress to Date

- Positive Record of Decision received for the second EIA application in April 2010
- Decision appealed
- Decision upheld by Min Environmental Affairs- confirmed July 2011
- Various legal challenges
 - legal challenge by KZN business community withdrawn
 - legal challenge by RS Zukulu, Amadiba Traditional Authority (ATA) and Amadiba communities, but ATA and Amadiba communities have withdrawn
- 2010 – 2016 SANRAL has been implementing brownfields sections of the N2WCR (Improvements to East London to Mthatha and Mthatha to Port St Johns sections). These projects will be ongoing for the next 5 years



Progress to Date (2)

- 21 January 2016 - A joint announcement by the Ministers of Rural Development and Transport and the Premier of the Eastern Cape made that N2WCR greenfields section would proceed starting with the two mega bridges across the Msikaba and Mtentu river Gorges
- 08 April 2016 – A prequalification Bid Invite for potential contractors to build the Msikaba and/or the Mtentu bridges was advertised both locally and internationally.
- 21 April 2016 – the prequalification bid briefing was held in SANRAL Head Office in Pretoria. Approx. 40 national and international firms attended the briefing.



N2 Wild Coast Road

Impact of Greenfields portion

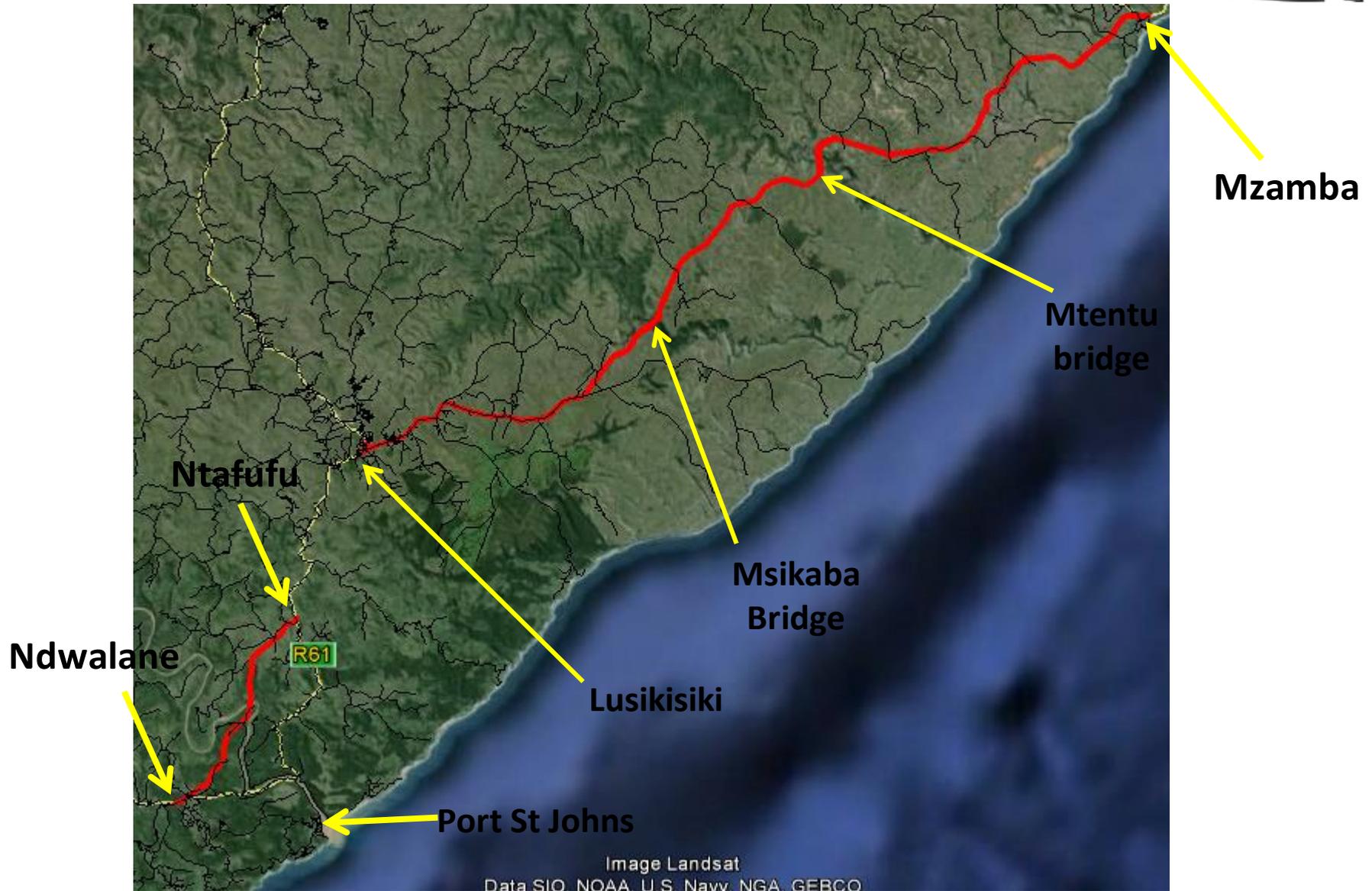


Not only a Road Project but Catalyst for other Development

- Regional Economic Development
 - Significantly faster delivery times and lower transportation costs
 - Improved mobility and connectivity
 - Improved access, mobility and attractiveness for tourists
- Local Economic Development
 - Local SMME/business opportunities, both direct and indirect
 - Positive impact on the local economies of Port St Johns, Lusikisiki and Mzamba, as well as to towns such as Flagstaff, Bizana and Holy Cross
 - Major eco-tourism and conventional tourism opportunities
 - Improved access for Agriculture and other local economic activities
- Local Socio-economic Development
 - Project and ongoing operational job opportunities, both direct and indirect
 - Improved access to health care, education and other social & economic opportunities



N2 Wild Coast Road Implementation - Greenfields



N2 Wild Coast Road Implementation Readiness - Greenfields



SANRAL is ready to implement.....

- Conditions set by the EIA Record of Decision are on track
 - The Biodiversity Offset Agreement was signed off in March 2016
 - Water Use License Applications and Wetland Demarcation Study were submitted to DWS in March 2016
 - Search and rescue for TOPS flora lined up
- Designs of the Msikaba and Mtentu River Bridges are complete.
 - SANRAL has commenced with the Tenders for construction of these 2 mega bridges (due to size and complexity of bridges a 9 months tender period is required)
 - Training of local SMMEs to start early to mid 2016
 - Construction of haul roads to 2 bridge sites to be implemented in 2016
- The Land Acquisition process for the entire route started in January 2016.



N2 Wild Coast Road Implementation - Greenfields



Continued...

- Detailed Design for the remaining roadworks, 7 major river bridges and 3 interchange bridges will also commence 2016.
 - Remaining sections have been split into 6 Design sections.
 - For each sub-section, there will be Community Development components in the form of Local Access Road and Pedestrian Facilities.
 - Extensive consultation will occur with communities to establish the number and location of pedestrian and agricultural over/underpasses, pedestrian paths, fencing, access roads, etc.
 - A minimum of a 1 year lead time is anticipated for Design and completion of Land Acquisition prior to construction.



N2 Wild Coast Road Implementation - Greenfields



Mzamba

Mtentu
bridge

Msikaba
Bridge

Lusikisiki

Port St Johns

Ndwalane

R61

Image Landsat

Data SIO, NOAA, U.S. Navy, NGA, GEBCO

N2 Wild Coast Road Msikaba Bridge



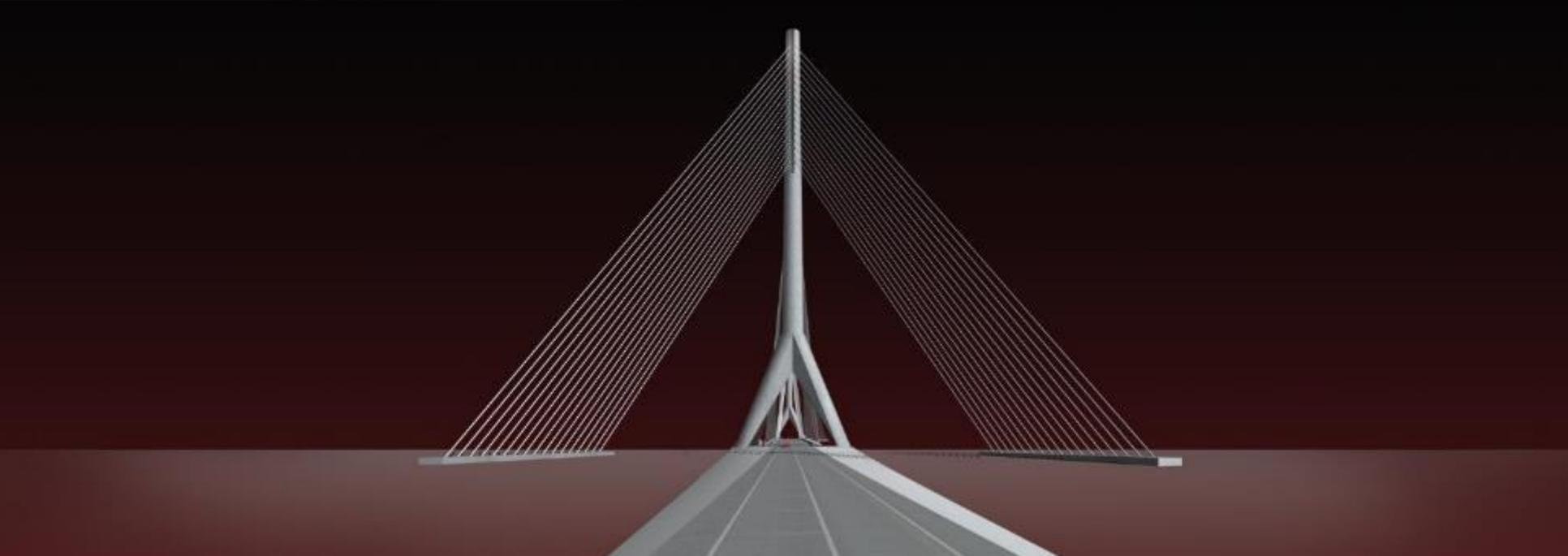
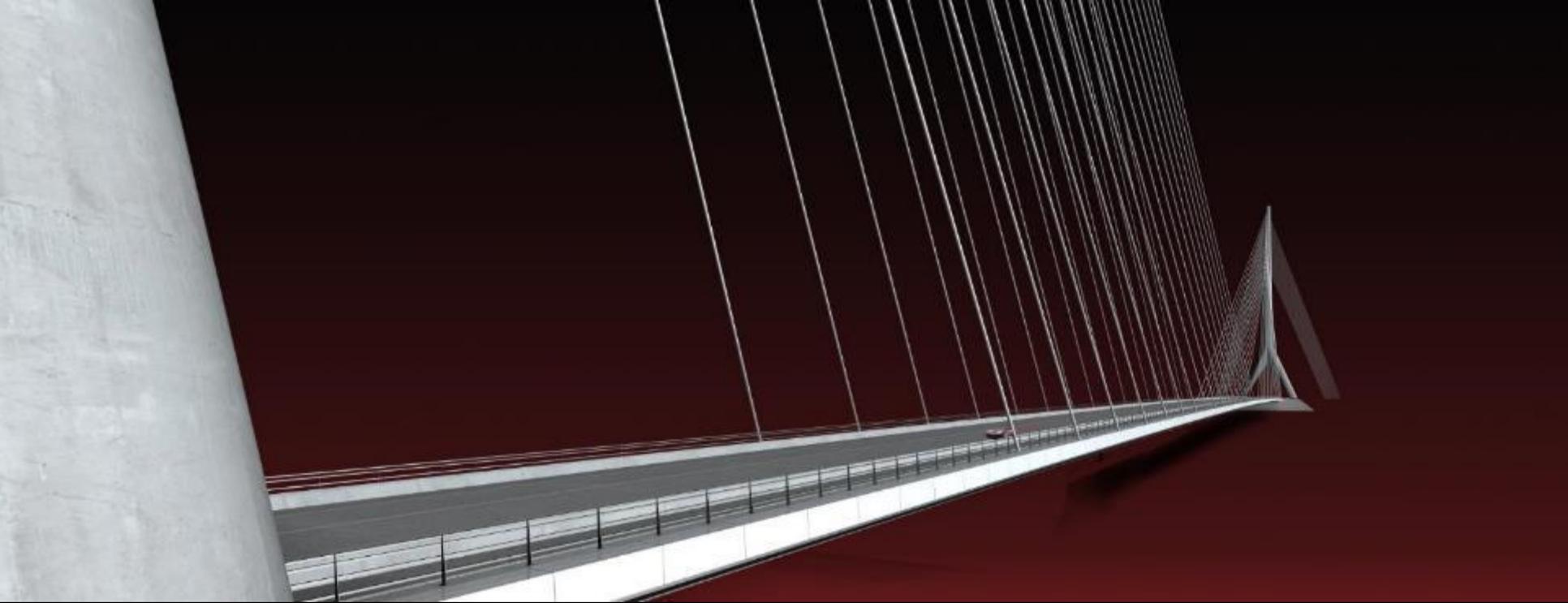


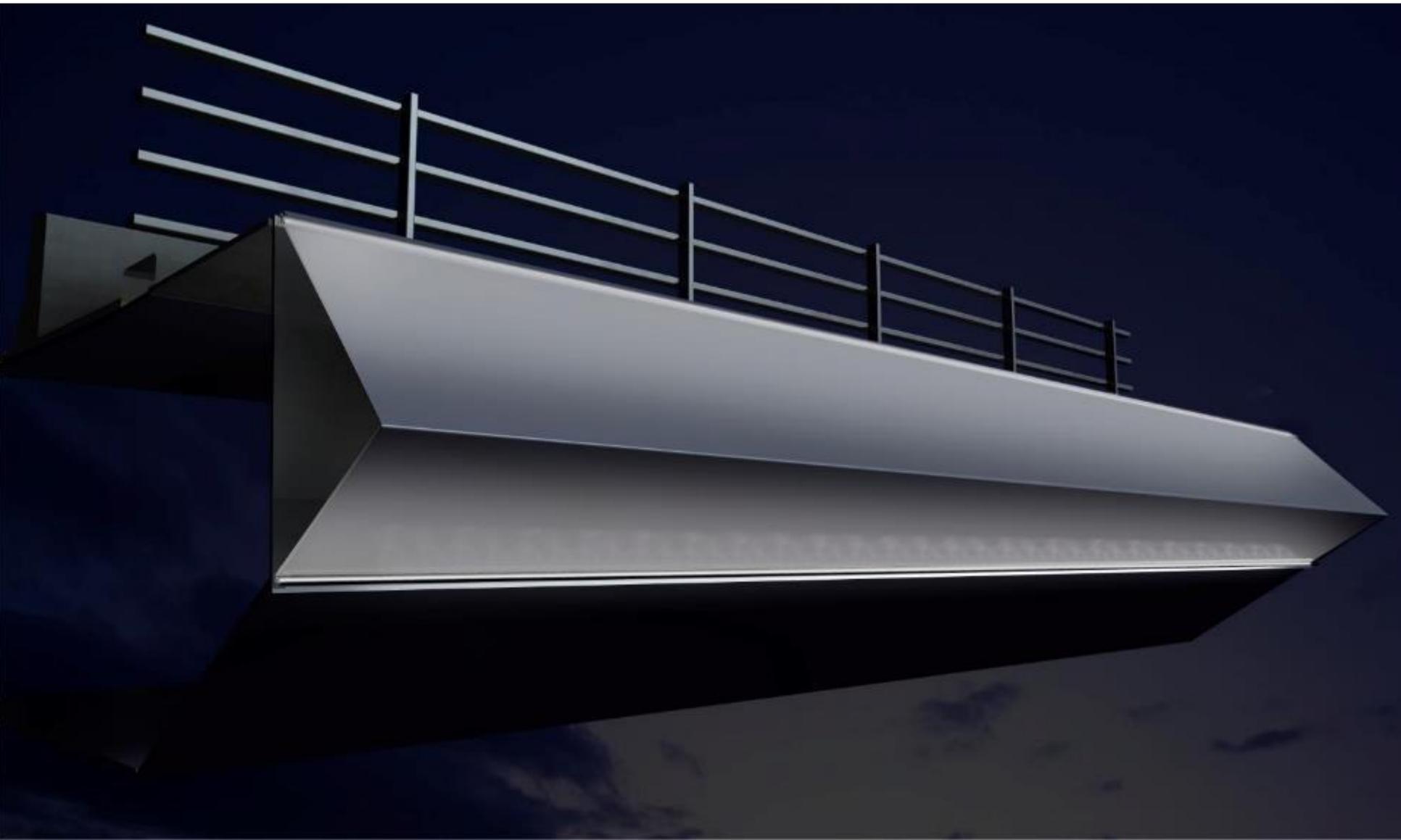
N2 Wild Coast Road Msikaba Bridge



□ KEY DIMENSIONS



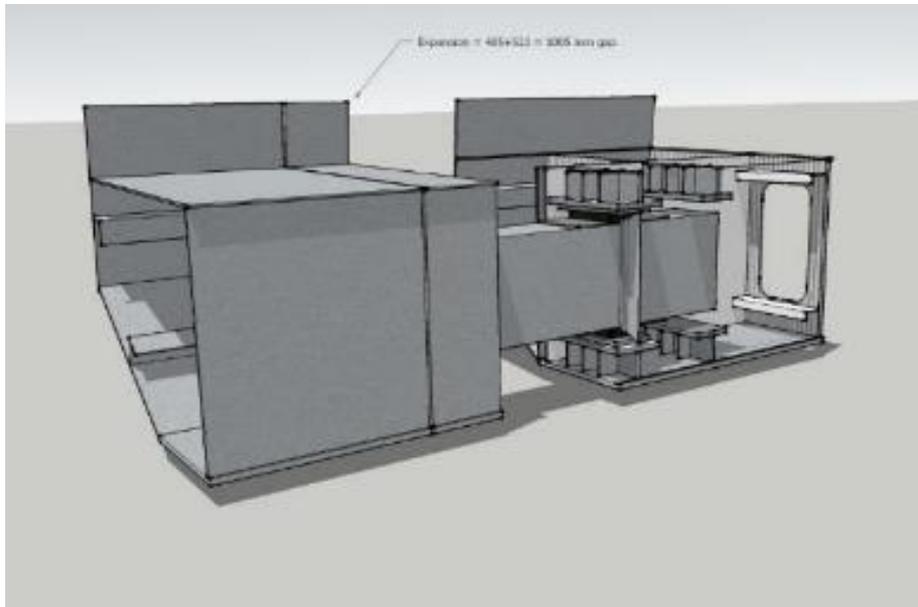




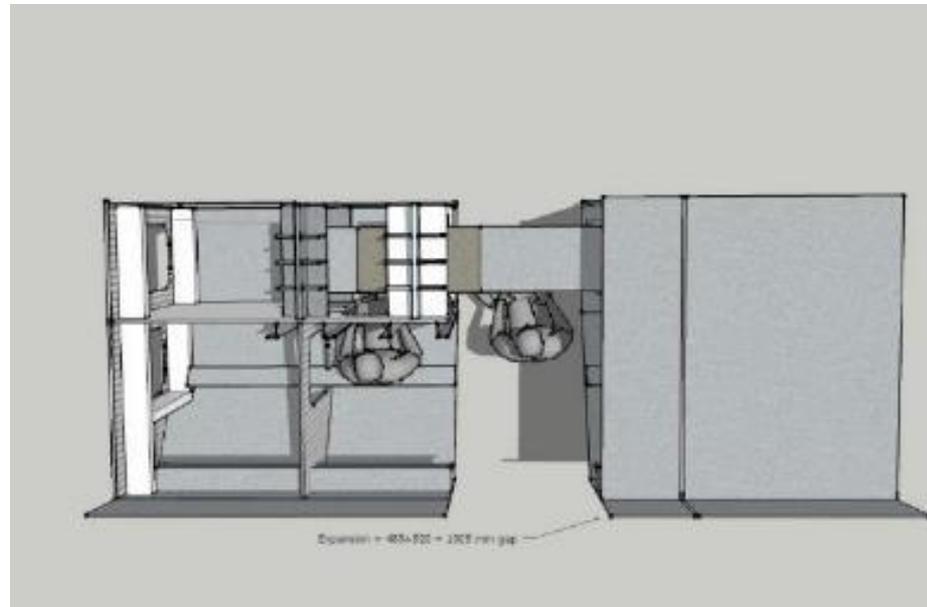
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□ MID-SPAN MOVEMENT JOINT

Elevation with inner web plate omitted



Plan with top plate omitted

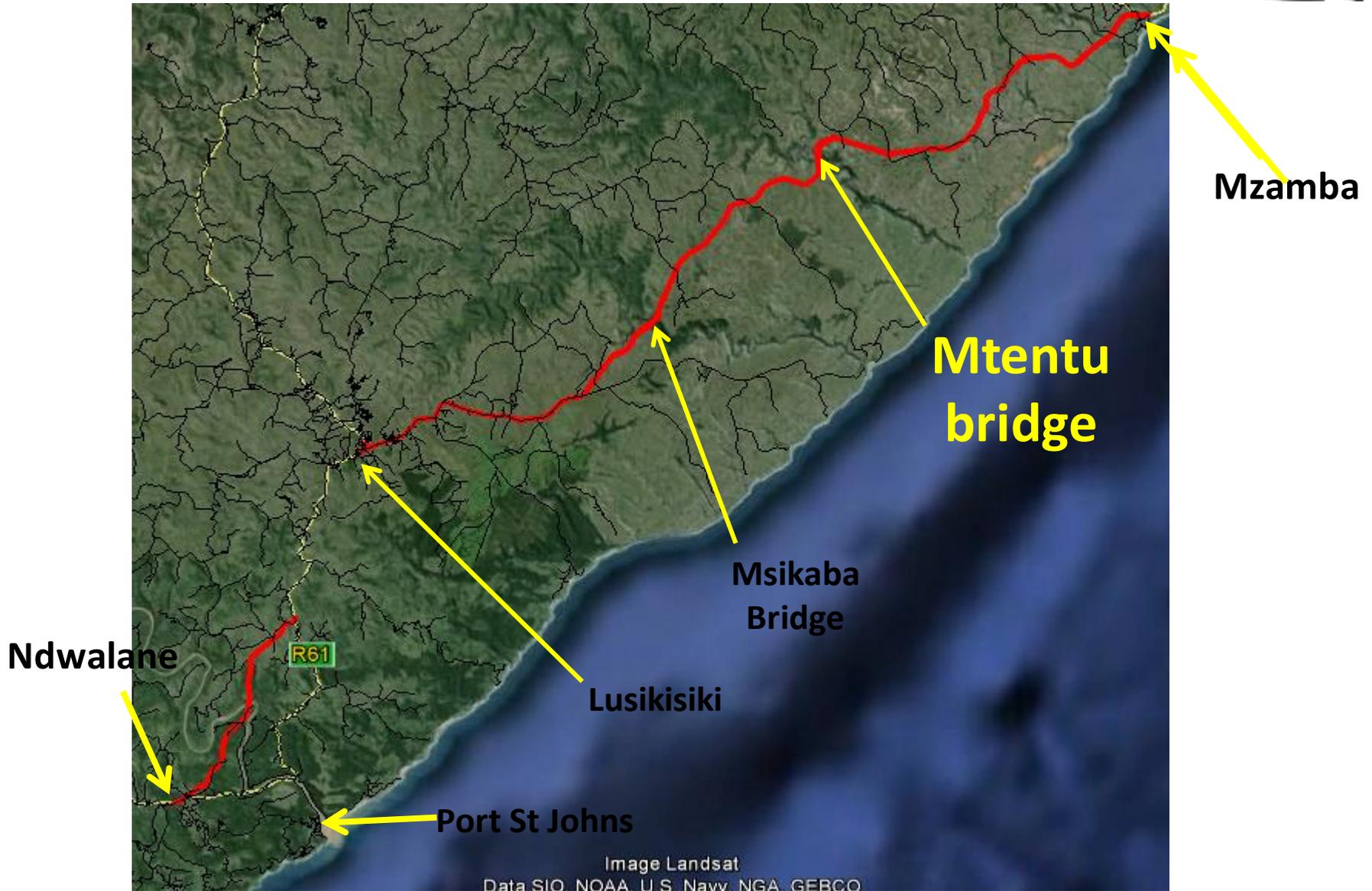


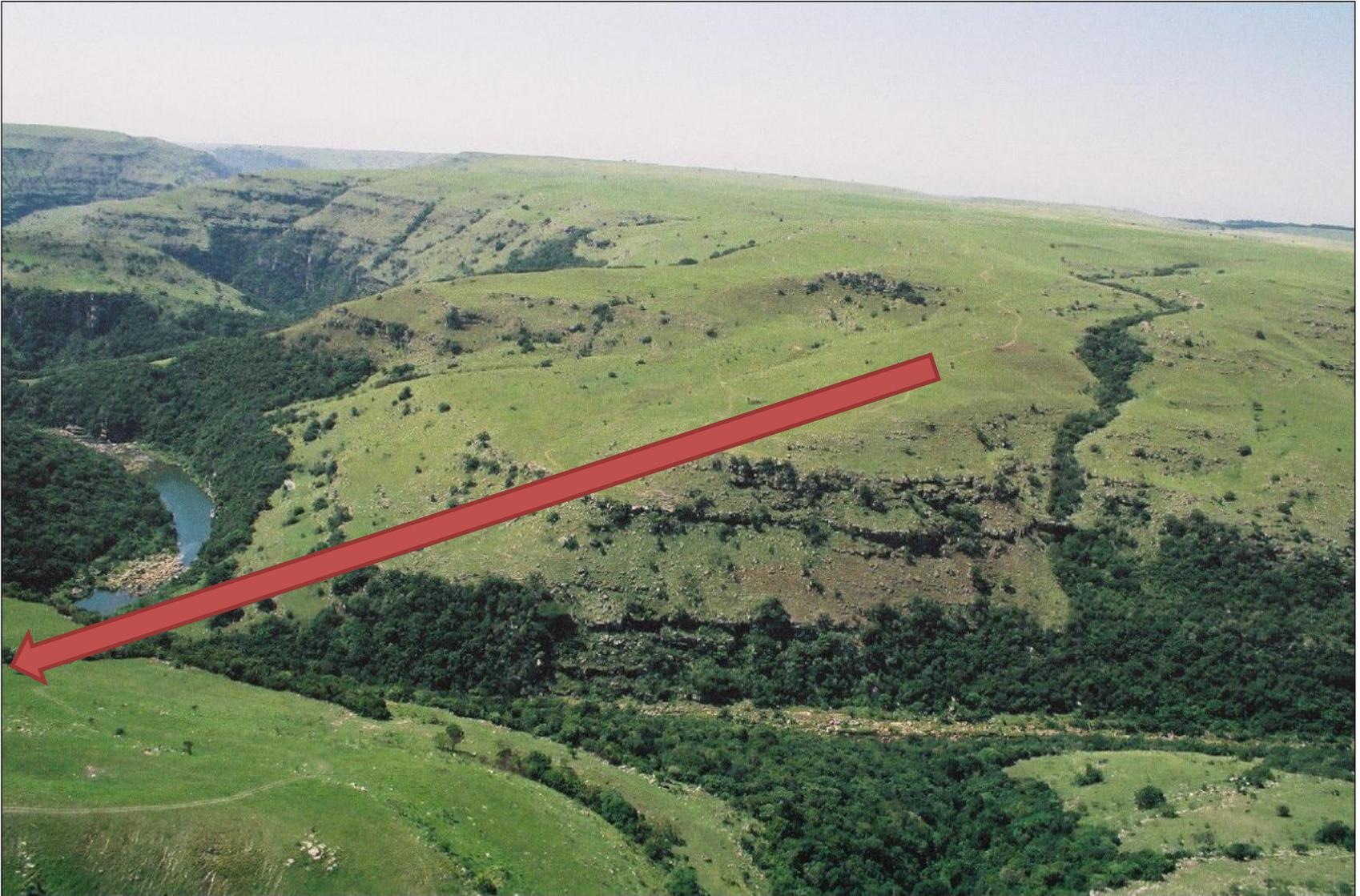


Staged construction
Baluarte Bridge, Mexico
520 m main span, 330 m deck height



N2 Wild Coast Road Implementation - Greenfields

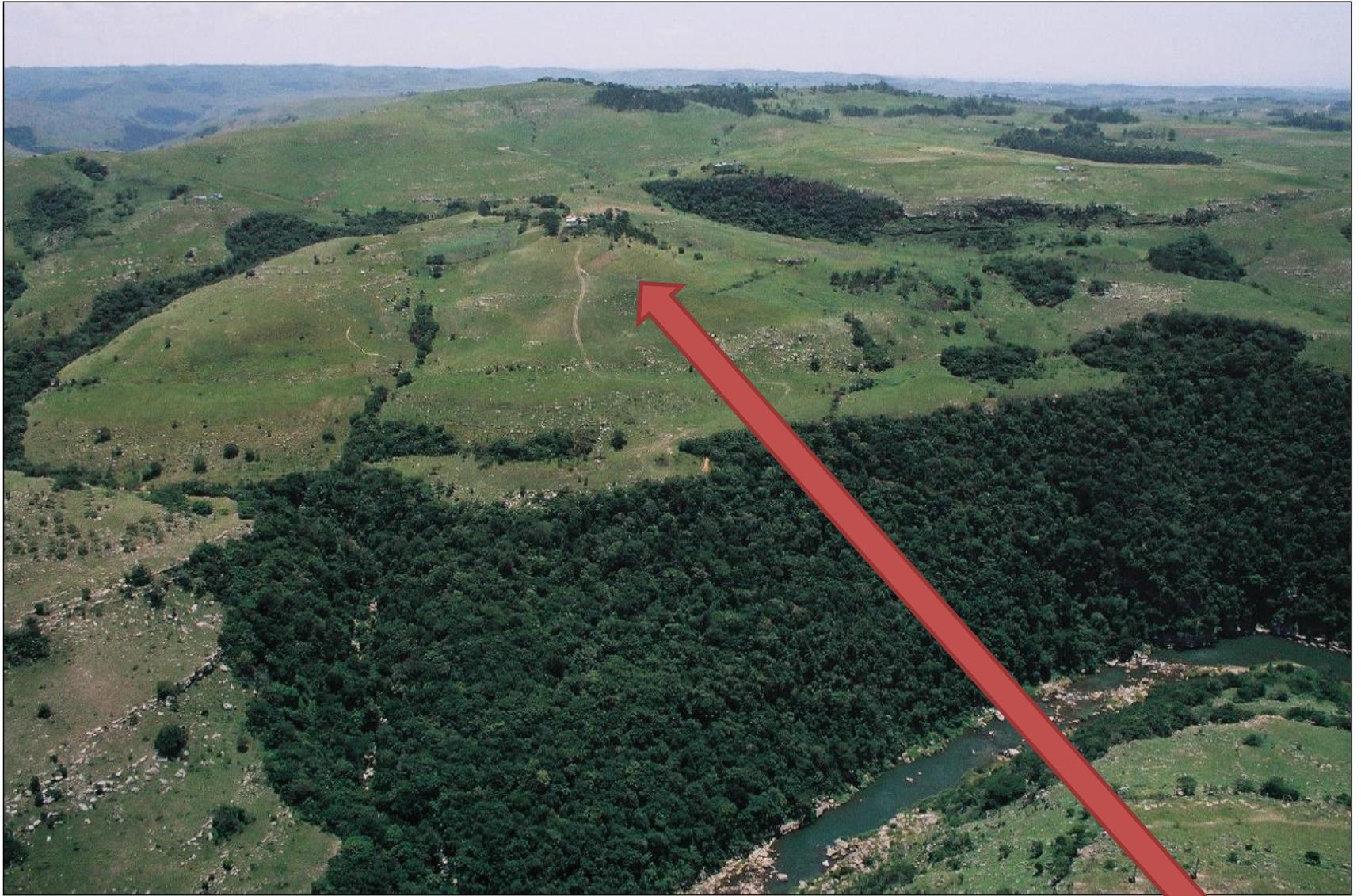




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PLATE 1 : SOUTHERN APPROACH



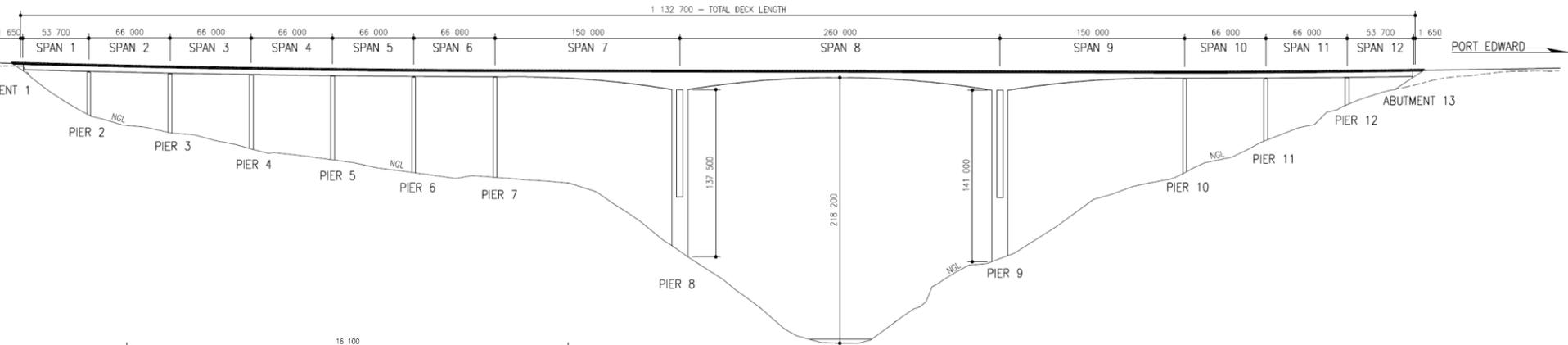


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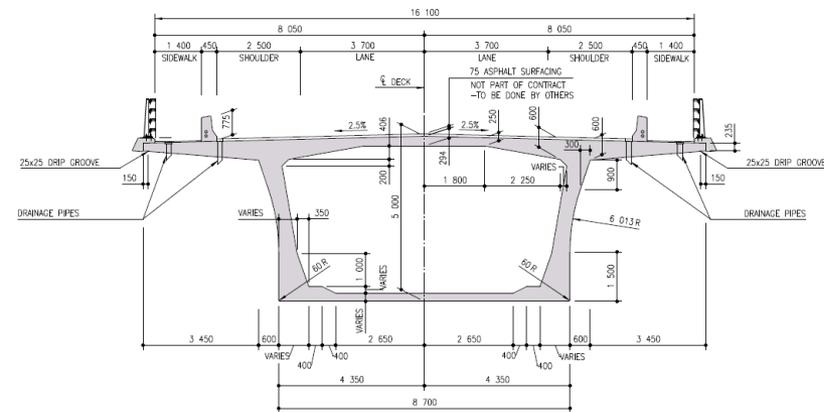
PLATE 2 : NORTHERN APPROACH



N2 Wild Coast Road Mtentu Bridge



ELEVATION
SCALE 1:2000



TYPICAL VIADUCT SECTION
SCALE 1:75

Combination rigid frame
(balanced cantilever
construction) & box girder
(incrementally launched) bridge

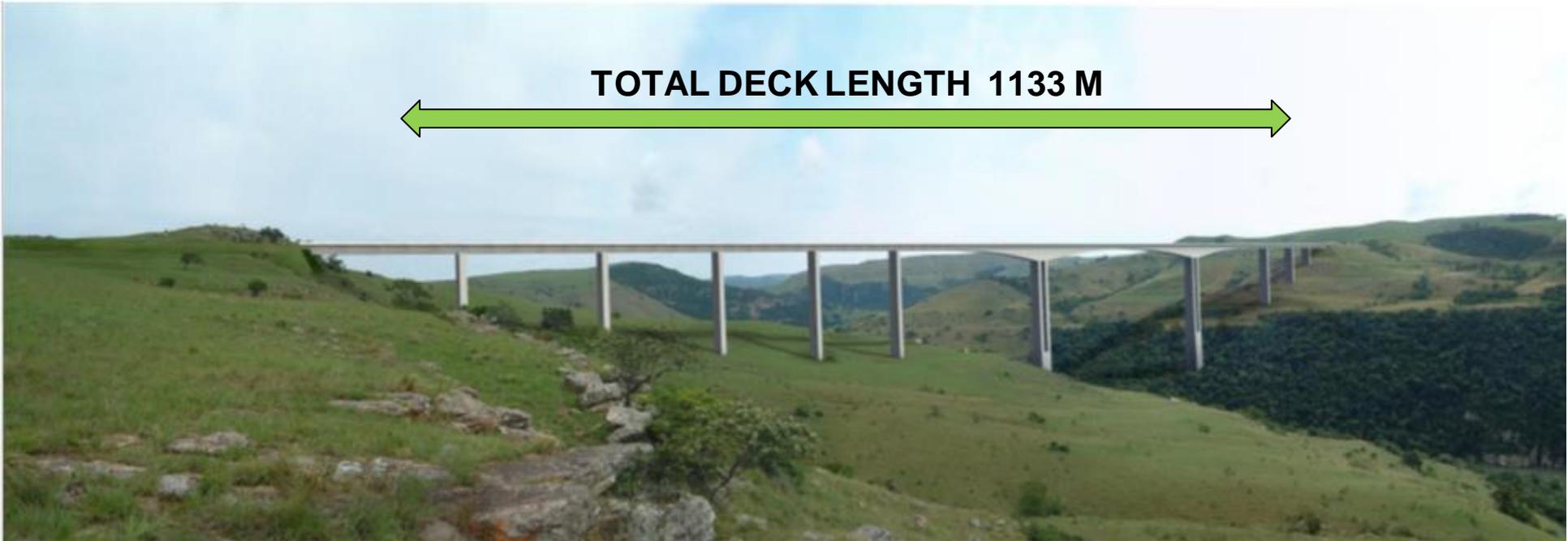


N2 Wild Coast Road Mtentu Bridge



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N2 Wild Coast Road Mtentu Bridge



TOTAL DECK LENGTH 1133 M

1 200 m

= 12 full size football fields end to end

= 14 minutes at normal walking speed (1.4m/s or 5.0 km/hr)

= 54 sec at 80km/h



CONSTRUCTION BALANCED CANTILEVER MAIN SPANS



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N2 Wild Coast Road Mtentu Bridge



Balanced cantilever construction of central spans
160m main piers = ~40 stories high,
main span = 260m, back spans = 150m



N2 Wild Coast Road Mtentu Bridge



HEIGHT
~ 220 M

At ~ 220 m maximum height of deck Mtentu will become the highest bridge in Africa and the S. Hemisphere

(Bloukraans bridge at 217 m deck height is currently the 37th highest bridge in the world and the highest in Africa and the S. Hemisphere)



N2 Wild Coast Road Fun Facts



Msikaba bridge:

- 28 000 m³ of concrete
- 2 700 tons of Structural Steel
- 2 500 tons of Cables

Mtentu Bridge:

- 63 000 m³ of concrete
- 10 000 tons of rebar
- 60 000 MN*m of stressing



N2 Wild Coast Road Funding



Hybrid Funding Model to be used– Combination of state funding (fiscus) and borrowing (Bonds)

- Evaluation of various permutations and implementation scenarios:
 - Recovery of capital costs
 - Recovery of interest
 - Recovery of operating costs and interest
 - Recovery of partial capital costs and full operating costs
- Outcome will be guided by funding and strategy that maximises user benefits with compelling discount
- However the hybrid funding model for the greenfields section is still unresolved



N2 Wild Coast Road Time Frames



2016

- Tender process for Mtentu and Msikaba Bridges
- Local SMME training
- Construction of Community Access roads as part of SMME training
- Construction of Haul roads to 2 bridge sites (6 months)
- Land acquisition for entire route
- Tender for detailed design of remaining packages

2017

- Start of construction of two Bridges (3-4 year construction period)
- *Tender processes for construction of remaining sections of roads and bridges (subject to funding arrangement)*

2018 – 2021

- *Construction of all greenfields roads and bridges (~ 3 year construction periods)*
- *Construction of all community legacy projects*



N2 Wild Coast Road Conclusion



The project will have a huge positive impact on the Eastern Cape and particularly the Pondoland area

- The N2 WCR will be a Sustainable Development Corridor that will form the Spine for the EC and Pondoland Development
- Greenfields portion will provide access to one of the most beautiful but currently inaccessible and impoverished areas in SA
- The Mtentu and Msikaba bridges will be tourist attractions in their own right complimenting the tourism attractions of the Wild Coast
- Will improve economic and logistic linkages in the region
- The project will have major socio- economic benefits
- Will open up the tourism and agriculture potential of the region
- Will significantly benefit the environment through the environmental off-set agreement
- Will transform the EC construction industry landscape



Thank You

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