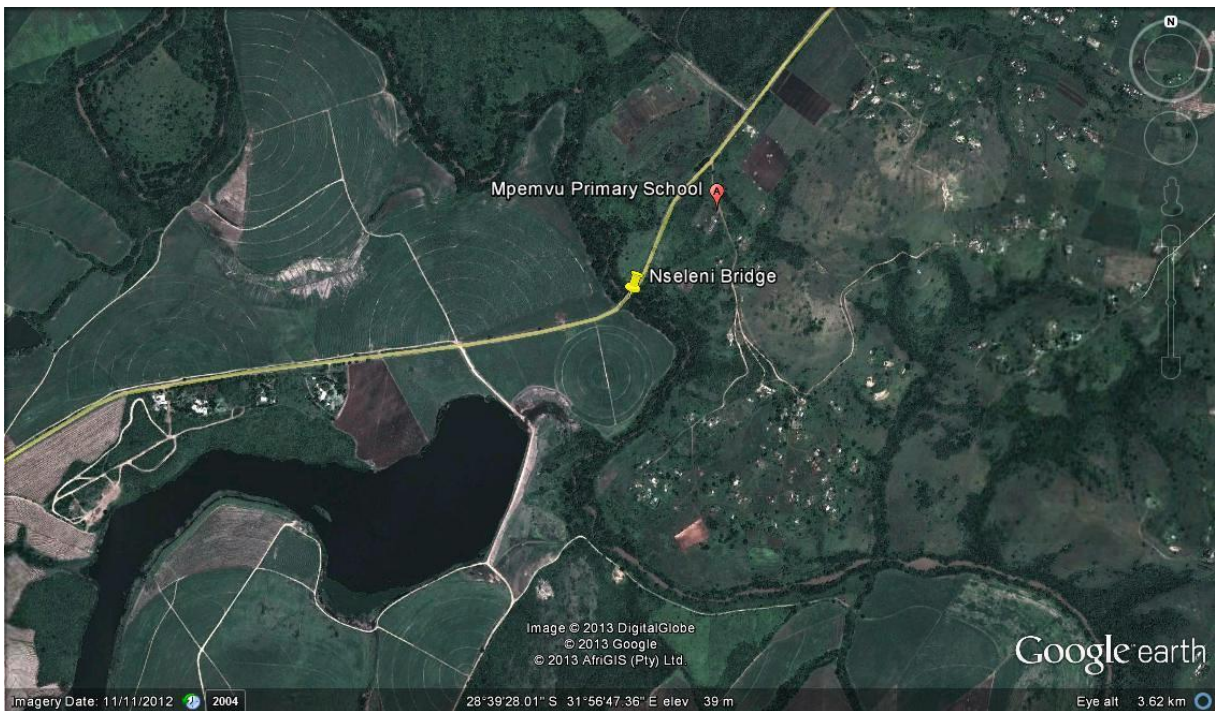


**BACKGROUND INFORMATION
DOCUMENT
AND OPPORTUNITY TO COMMENT**

**Replacement of the Nseleni River
Bridge No. 261 on P425 between
Empangeni and Nseleni**



DATE: 17 MAY 2013

REFERENCE NUMBER: DC28/0013/2013

INTRODUCTION

The purpose of this Background Information Document (BID) is to provide information to interested and affected parties (I&APs) regarding the proposed replacement of the Nseleni River Bridge No 261 on the P425 with alternative re-alignment, situated between Empangeni and Nseleni, Kwa-Zulu Natal.

A Basic Assessment Process for an environmental authorisation must be made as listed activities in Listing Notice 1 (GNR 544, 18 June 2010) of the National Environmental Management Act (NEMA) EIA Regulations are triggered as per the project description.

Triplo4 Sustainable Solutions, as independent environmental assessment practitioners, was appointed on behalf of the Department of Transport to undertake the Basic Assessment Process.

This document describes the proposed Bridge as well as the realignment of the road and provides an overview of the environmental authorisation processes. It also provides I&APs with an initial opportunity to comment on the proposed project and to register as a stakeholder.

The Basic Assessment (BA) Report with relevant attachments will be available for public review at the Empangeni Public Library for a period of 40 days from 14 June 2013 as part of the environmental authorisation processes, to provide stakeholders with additional information and further opportunities to raise issues of concern and suggestions for enhanced benefits. Thereafter, the final Basic Assessment Report will be submitted to the Authorities and DAEA for consideration.

Comments on the BID to reach us by no later than end of business day: 07 June 2013. Comments on the BA Report to reach us by no later than end of business day: 25 July 2013.

Your comments, issues, concerns and suggestions on any aspect of the proposed project, including the technical and public participation processes, will help to focus the application, and will ultimately assist the authorities to make a decision.

Please complete the enclosed comment and registration sheet or contact Triplo4 Sustainable Solutions by mailing or faxing a letter, or by telephone or e-mail, should you wish to receive further information about the proposed project and the BA.

Return address for comments and to register as an Interested & Affected Party:

Attention: Hantie Plomp

Triplo4 Sustainable Solutions

P.O. Box 6595, Zimbali, 4418

Office: 032 946 3213 Cell: 083 308 8003 Fax: 032 946 0826

E-Mail: hantie@triplo4.com

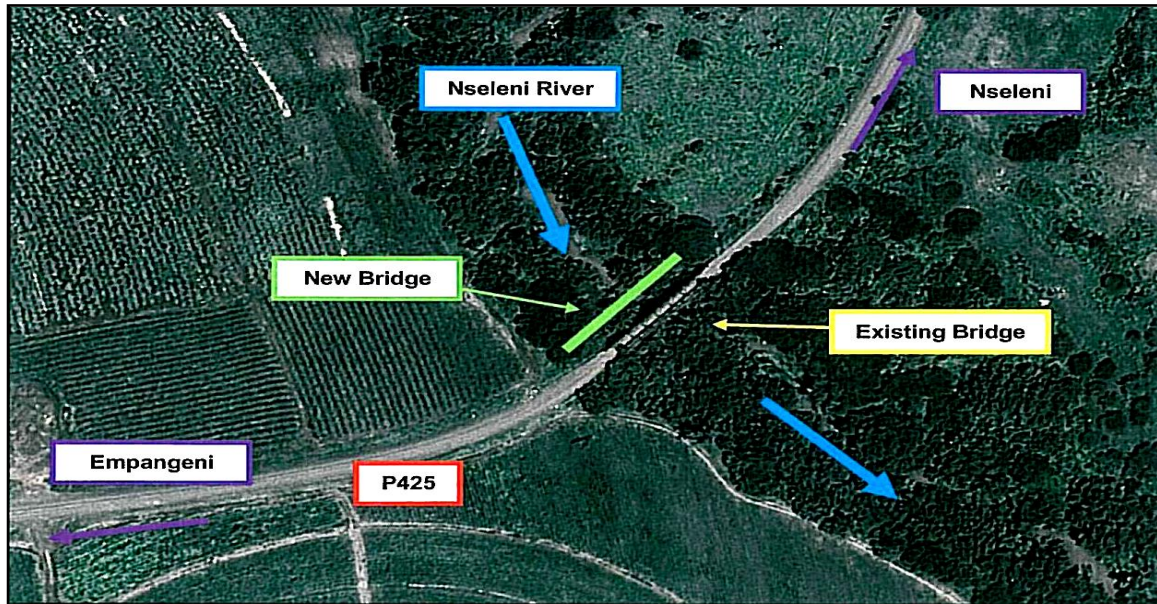
LOCATION OF PROPOSED PROJECT

The new bridge is to be located adjacent to the existing Nseleni steel truss bridge and river crossing at Road P425. The site is located some 11,3km north east of Empangeni and links the town to the villages of Lubana and Mabuyeni.

Co-ordinates of proposed development:

Latitude /Longitude	Degrees	Minutes	Seconds
South	28°	39'	20.39"
East	31°	56'	48.97"

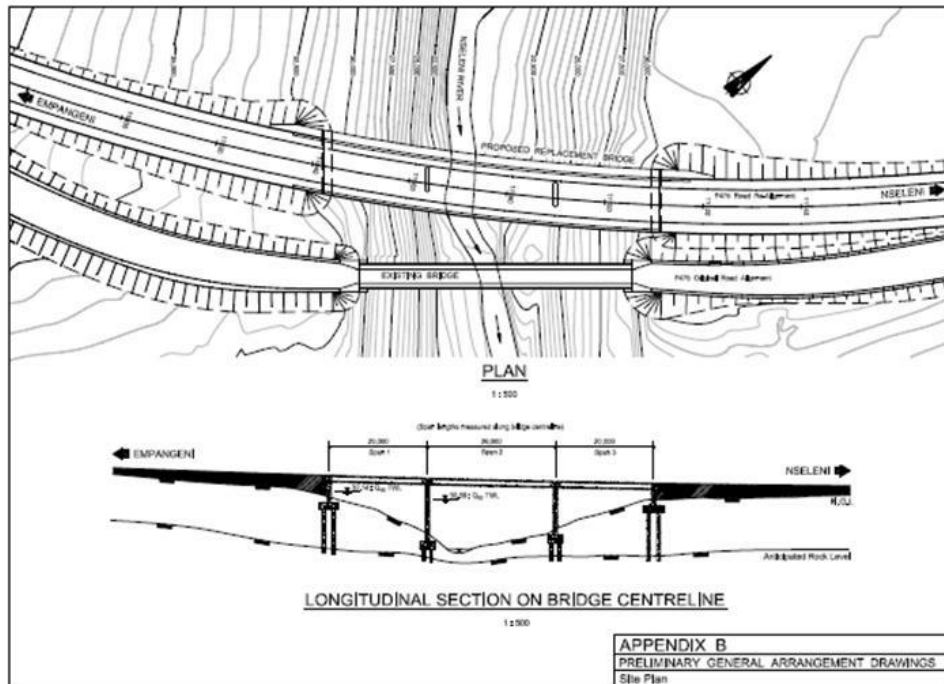
A Satellite Image of the Nseleni Bridge on the P425 and the Position of the Proposed Replacement Bridge.



PROJECT DETAIL

The following is proposed:

- A new two lane (3,5m wide with 1,5m shoulders), three span (20m-26m-20m) continuous in-situ box girder concrete deck (total length of 66m) upstream and immediately adjacent to the old steel truss.
- Pier cross sections, rectangular in shape with rounded edges to accommodate river flow around the pier. Both piers are approximately 14 metres high.
- Ancillary components forming part of the proposed structures:
 - In situ vehicle barriers on the deck edge and before the sidewalk, matching KZN DoT's (and SANRAL'S's) existing standards and design procedure (revised 2012).
 - 1,5m barrier-protected pedestrian sidewalk on one side of the bridge.
 - Bearings and expansion joints.



The bridge was designed so as to avoid placement of piers within the regular flow of the Nseleni River. Some temporary re-direction of the river and or construction of a temporary platform or a causeway may be required for the construction of the pier adjacent to the river.

Preservation of the existing steel bridge, being a historical structure is proposed, entailing barriers designed to prevent vehicular and pedestrian access as well as safety and educational signage following closure.

ALTERNATIVES

Two site alternatives were considered for the new bridge namely upstream (yellow alignment) or downstream (red alignment) of the existing bridge. These were considered in conjunction with the required road class and environmental aspects e.g. footprints and ecological impacts. (See figure below).



The preferred position is upstream from the current bridge as this provides for a future upgrade of the P425 with a Road Class 3 compliance of 100 km/h design speed and a smaller environmental footprint.



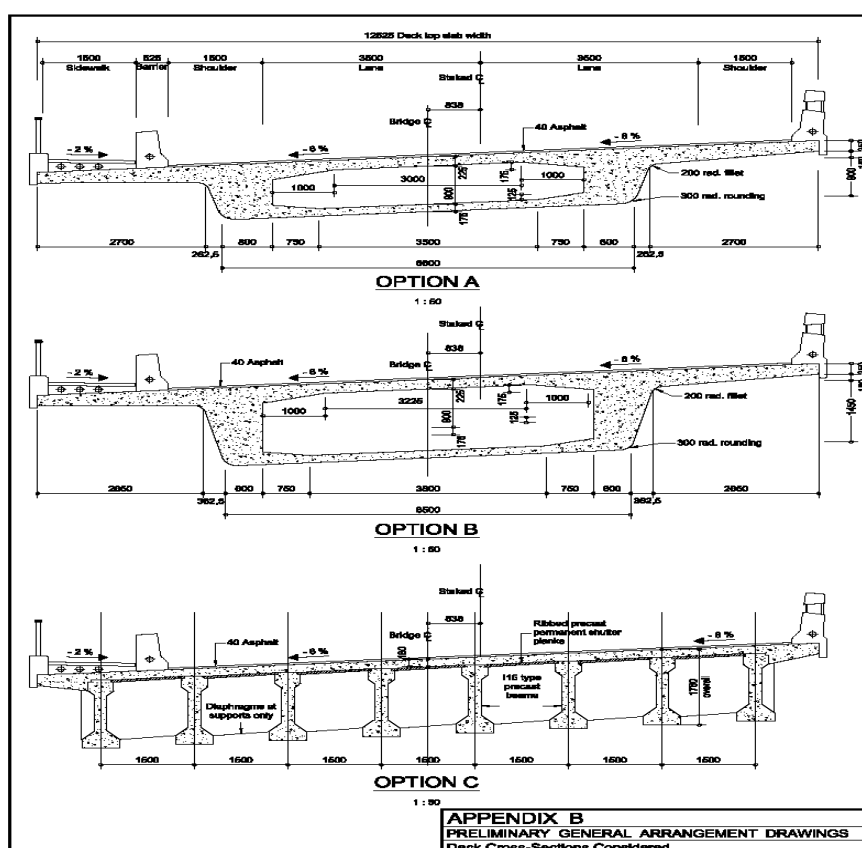
Design alternatives considered were based on two different construction methodologies (in situ versus pre-cast) and minimising foundations within the river valley (two span versus three span). Ultimately, three design options, based on factors inclusive of economy; constructability; safety; structural maintenance; aesthetics; environment and social sustainability, were considered for the new bridge:

- 3 Span Continuous Box Girder Deck (20m-26m-20m)
- 2 Span Continuous Box Girder Deck (33m-33m)
- 3 Span Pre-Cast Beam and In situ Deck Slab (22m-22m-22m)

The 3 span continuous box girder bridge design alternative is the most slender and aesthetically pleasing option proposed.

This 2 span option reduces costs due to the elimination of one of the pier columns, along with the associated earthworks. These cost savings however result in additional costs due to increased deck depth and post-tensioning.

With the 3 Span pre-cast beam option consisting of 8 pre-cast beams per span, one of the piers lies closer to the low flow river stream and a higher degree of river diversion would be required than for the other options.



Based on the sustainability factors (environmental, social, economic), the 3 Span Continuous Box Girder Deck (Option A) is the preferred option.

PROJECT MOTIVATION

The existing single lane river bridge is a steel truss that is deemed structurally inadequate. The bridge, build shortly after 1931, does not comply with the required standards for the class and loading it has to carry. In addition, adequate provision is essential in terms of the requirement to serve as an emergency road to the N2. Going forward,

it is planned that the road be upgraded to a Road Class 3 with a 100km/h design speed (Note: this upgrade falls outside the scope of the bridge upgrade project).



SPECIALIST EVALUATION AND POTENTIAL ALTERNATIVES

The following specialist studies have been conducted for the project:

- Geotechnical assessment;
- Floodline determination; and
- Preliminary ecological and habitat assessment.

ENVIRONMENTAL PROCESSES

Relevant Environmental Legislation

The below mentioned environmental activities are potentially being triggered by the proposed development, requiring a Basic Assessment Process to be conducted and thus Environmental Authorisation from KZN DAEA (uThungulu District):

Listing Notice 1 (GNR 544, 2010):

Activity No	Listed activity as per the project description
Activity 11	<p>The construction of canals; channels, bridges, dams, bulk storm water outlet structures and /or infrastructure or structures covering 50 square metres or more where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.</p> <p>The construction of a new bridge, road re-alignment, coffer dam and construction platforms will take place at or within the river.</p>
Activity 18	<p>The infilling or depositing of any material of more than 5 cubic meters into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 cubic metres from a watercourse.</p>

	During road and bridge construction materials will be brought in, coffer dams will be built, erosion protection measures will be implemented and excavations and moving of soil, sand or rock will take place.
Activity 22	The construction of a road, outside urban areas, (i) with a reserve wider than 13,5 meters or, (ii) where no reserve exists where the road is wider than 8 metres. The new road is to be approximately 13m wide and will have a road reserve of 30m
Activity 47	The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre - (i) where the existing reserve is wider than 13,5 meters; or (ii) where no reserve exists, where the existing road is wider than 8 metres – excluding widening or lengthening occurring inside urban areas. The road will not be lengthened by more than a kilometre, although the alignment between the existing and new re-aligned sections may comprise small areas that will be widened by more than 6m.

Listing Notice 3 (GNR 546, 2010)

Activity No	Listed activity as per the project description
Activity 12 The clearance of an area of 300 square metres or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation.	(a) Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; The proposed new Nseleni Bridge alignment will occur within the riparian zone (high sensitivity) and will require clearing of vegetation. This zone has been highly transformed and degraded by cultivation

A person who wishes to commence, undertake or conduct an activity listed in terms of the National Environmental Management Act, or NEMA EIA Listing Notice 1 activities must conduct a basic assessment process.

BASIC ASSESSMENT PROCESS

The basic assessment process being followed comprises of the following:

- Submission of an Application for Authorization to DAEA;
- Public participation Process:
 - Submission of a Background Information Document (this document) to identified stakeholders;
 - An advertisement in the local newspaper (The Zululand Fever);
 - Placement of site notifications at the site; and;
 - Relevant I&AP's consultation to address issues and concerns raised.
- Compilation of Draft Basic Assessment Report for I&AP's and Stakeholder review and comments, which will be available for review and comment at the Empangeni Public Library for a period of 40 days from 14 June 2013 to 25 July 2013 and submitted in hardcopy to Government Departments;
- Submission of the final Basic Assessment Report and details of I&AP consultation to registered I&AP's and DAEA for an environmental authorisation;
- Communication to I&AP's regarding the Environmental Authorisation.

Public Participation Process

The public participation process and time frames are summarized as follows:

Announcing the opportunity to participate and register, 17 May 2013

- Distribution of the Background Information Document to all identified stakeholders to announce the project and inviting stakeholders to register as an I&AP and participate in the public participation process;
- Posting of the site notice at the site;
- Advertisement in the “Zululand Fever” which will be available from 17 May 2013.

Obtaining initial comment,

- Providing this BID and comment sheets to stakeholders; and
- Capturing all comments in a Comment and Response Report / Issues Trial.

Draft BA Report, 14 June 2013- 25 July 2013

- Availability of the draft BA report at the Empangeni Library, which will contain a full project description, alternatives considered, and relevant information.

Submitting the final BA report to Authorities, providing a comment period of 40 days (excluding public holidays); and
Submitting the final BA report to DAEA for consideration and communicating the decision to I&AP's.'

Your contributions are important

You can get involved in the process:

1. By responding (by phone, fax or e-mail) to our invitation for your involvement in the process;
2. By completing the attached comment form and e-mailing, posting or faxing it to Triplo4 Sustainable Solutions;
3. In writing contacting or telephoning consultants if you have a query, comment or require further project information; and
4. By reviewing and commenting on the BA Report within the allowed 40-day review period.

In terms of the NEMA Regulations (GN 543) you are invited to formally register as an I&AP.

REGISTRATION FORM:

REPLACEMENT OF THE NSELENI RIVER BRIDGE NO. 261 ON P425 BETWEEN
EMPANGENI AND NSELENI, UTHUNGULU DISTRICT, KZN

Attention: Hantie Plomp - 083 308 8003/084 2777 074

Office: 032 946 3213

E-mail: hantie@triplo4.com / arlene@triplo4.com

Fax: 032 946 0826

Title (Mr/Mrs/Ms)		Phone	
Name		Fax	
Organisation / Interes		E-mail	
Signature			

Please tick the appropriate circle and confirm your contact details above:

Registration

- I would like to register as an Interested and Affected Party for the BA process for this Project
- Non stakeholder: I would like you to take me off your distribution sheet for the Proposed. I would not like to receive any further information regarding this process.

Other

If you know of any other individual or organisation that would be interested in registering as an Interested and Affected Party please provide their contact details:

Title (Mr/Mrs/Ms)		Phone	
Name		Fax	
Organisation / Interes		E-mail	
Signature			

I have the following queries/comments:
