











**PROPOSED
GRID CONNECTION
FOR THE BONSMARA
SOLAR PV FACILITY
NEAR
KROONSTAD,
FREE STATE PROVINCE
CRITICAL BIODIVERSITY
AREAS**








Legend

-  Rivers
-  Railway
-  Arterial Route
-  Existing High Voltage Power Lines (132kV)
-  Kroonstad Switching Station (existing)
-  Bonsmara PV Application Site

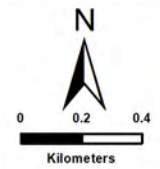
Proposed Grid Connection

-  Grid Connection Assessment Corridor (preferred)
-  Grid Connection Assessment Corridor (alternative)
-  Substation
-  Switching Station

CBA Classification

-  Protected
-  CBA1
-  CBA2
-  ESA1
-  ESA2
-  Other
-  Degraded

Source:
NFEPA, 2011
FREE STATE BIODIVERSITY SPATIAL PLAN, 2017
ESKOM, 2012

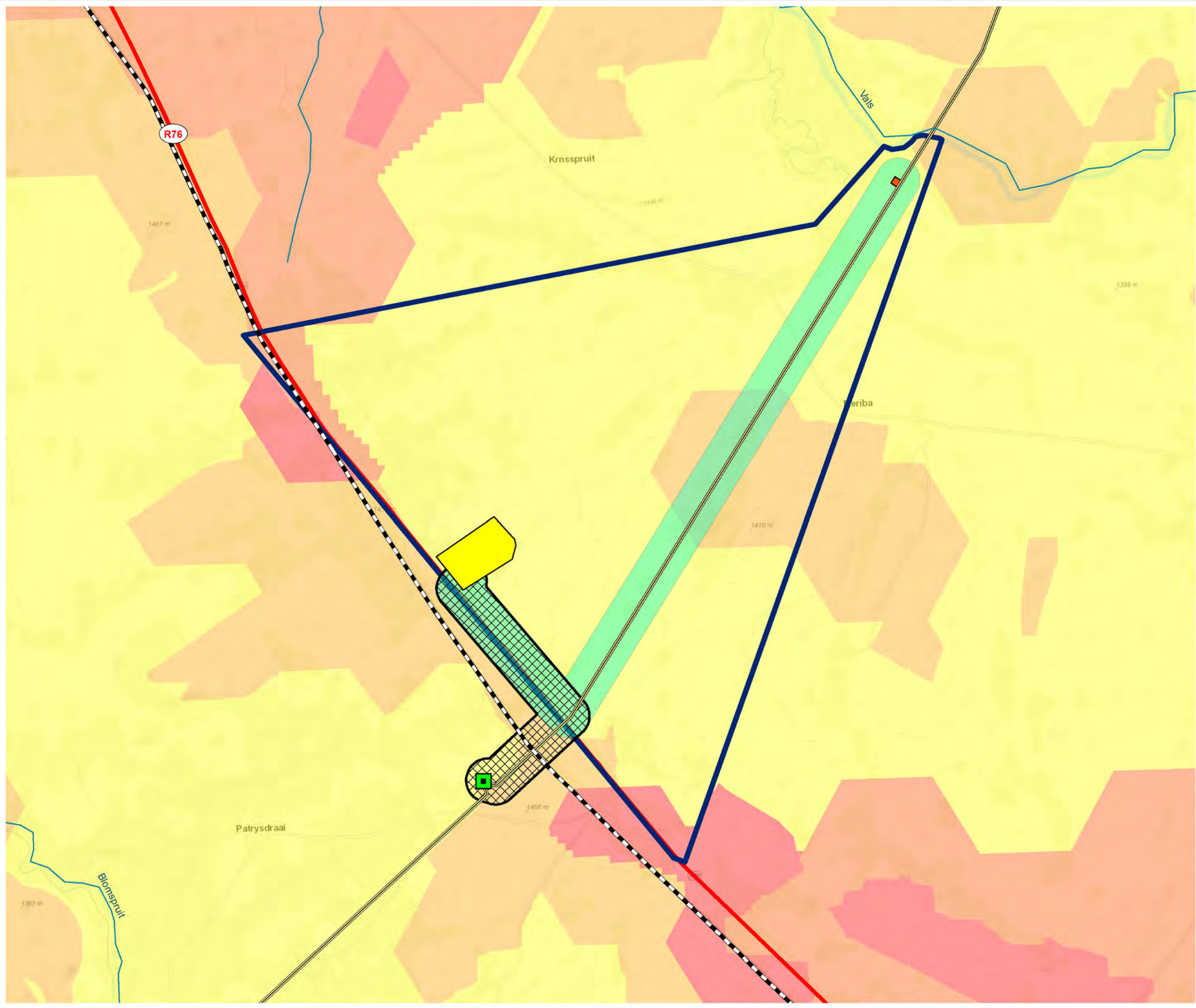


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Map Ref No 17869	Revision 0	Date







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**PROPOSED
GRID CONNECTION
FOR THE BONSMARA
SOLAR PV FACILITY
NEAR
KROONSTAD,
FREE STATE PROVINCE
BROAD LAND COVER
CLASSIFICATION**

Legend

-  Rivers
-  Railway
-  Arterial Route
-  Existing High Voltage Power Lines (132kV)
-  Kroonstad Switching Station (existing)
-  Bonsmara PV Application Site

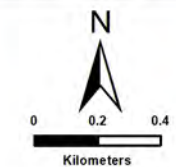
Proposed Grid Connection

-  Grid Connection Assessment Corridor (preferred)
-  Grid Connection Assessment Corridor (alternative)
-  Substation
-  Switching Station

Land Cover Classification

-  Barren Land
-  Built-up
-  Cultivated Land
-  Forested Land
-  Grassland
-  Mines & Quarries
-  Shrubland
-  Wetlands / Waterbodies

Source:
NFEPA, 2011
2018 SA NATIONAL LAND COVER
(© GEOTERRAIMAGE - 2018)
ESKOM, 2012

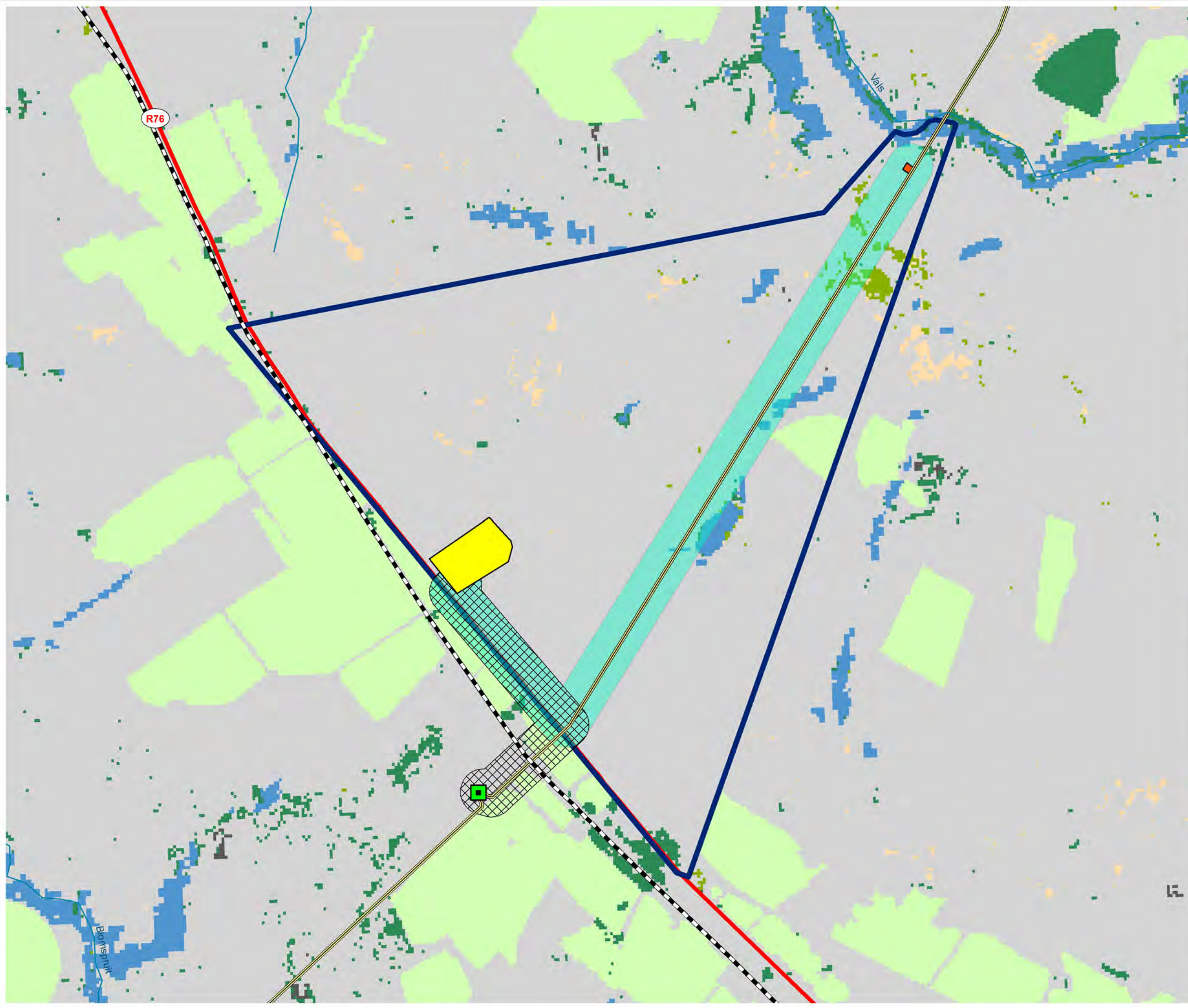


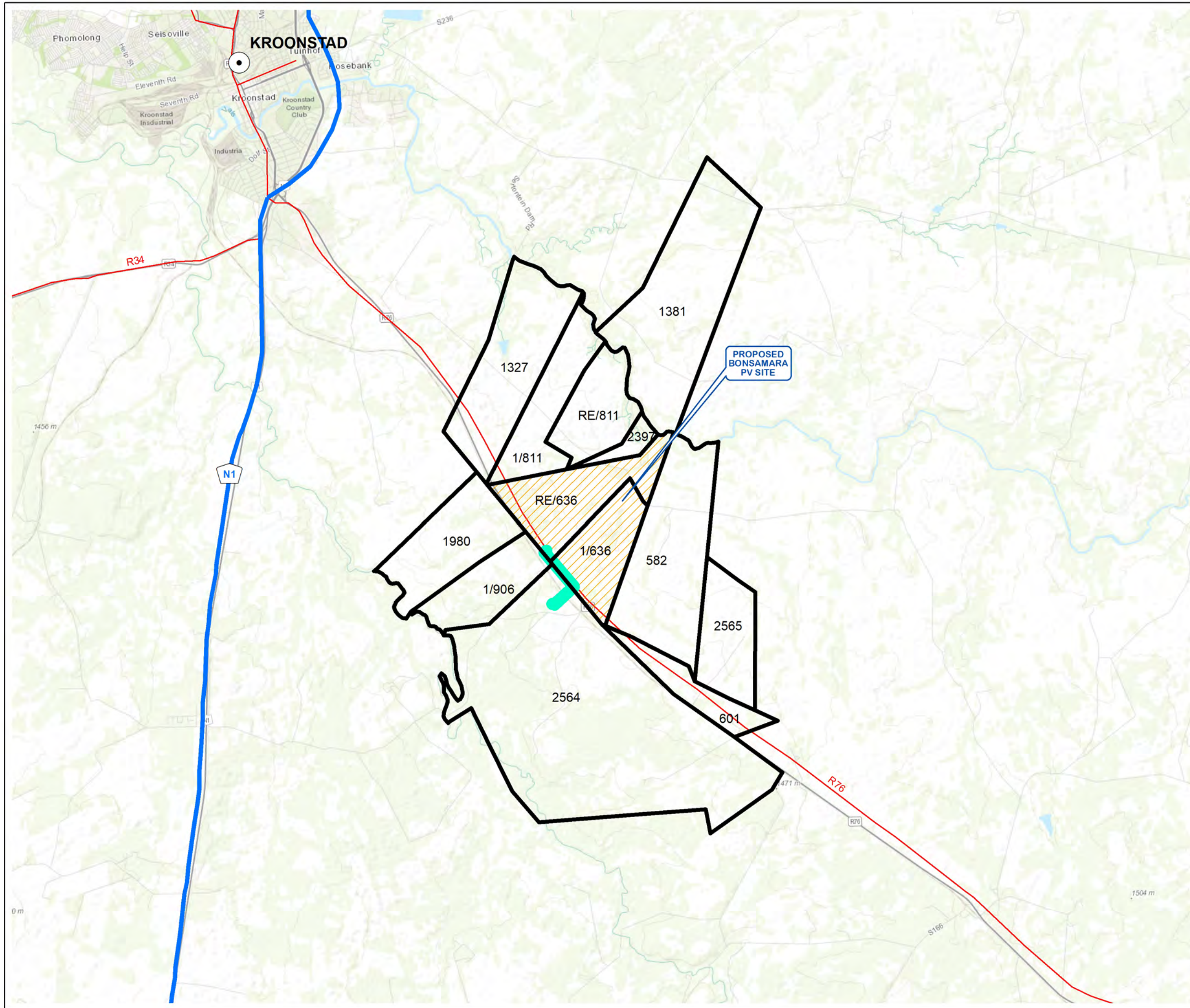
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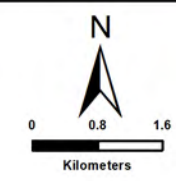


**PROPOSED
GRID CONNECTION
FOR THE BONSMARA
SOLAR PV FACILITY
NEAR
KROONSTAD,
FREE STATE PROVINCE
PROPERTY LAYOUT**

Legend

- National Route
 - Main Arterial Routes
 - Farm Portions
 - Bonsmara PV Application Site
- Proposed Grid Connection**
- Grid Connection Assessment Corridor

Source:
NGI, 2014



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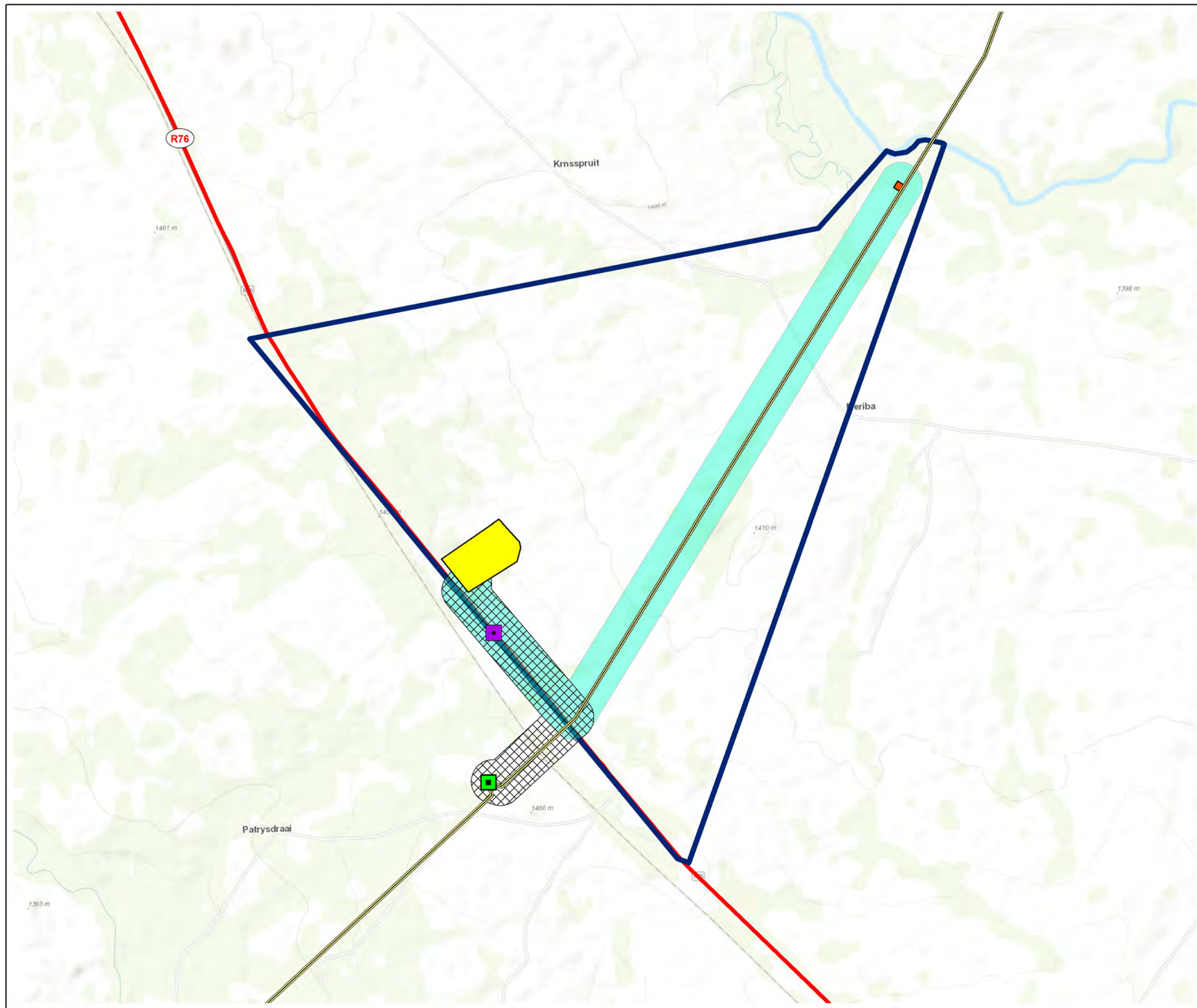
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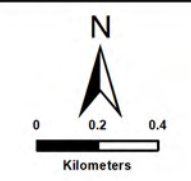
**PROPOSED
GRID CONNECTION
FOR THE BONSMARA
SOLAR PV FACILITY
NEAR
KROONSTAD,
FREE STATE PROVINCE
PROPOSED LAYOUT**

Legend

-  Arterial Route
 -  Existing High Voltage Power Lines (132kV)
 -  Kroonstad Switching Station (existing)
 -  Bonsmara PV Application Site
- Proposed Grid Connection**
-  Access Road
 -  Grid Connection Assessment Corridor (preferred)
 -  Grid Connection Assessment Corridor (alternative)
 -  Substation
 -  Switching Station



Source:
NGI, 2014
ESKOM, 2012



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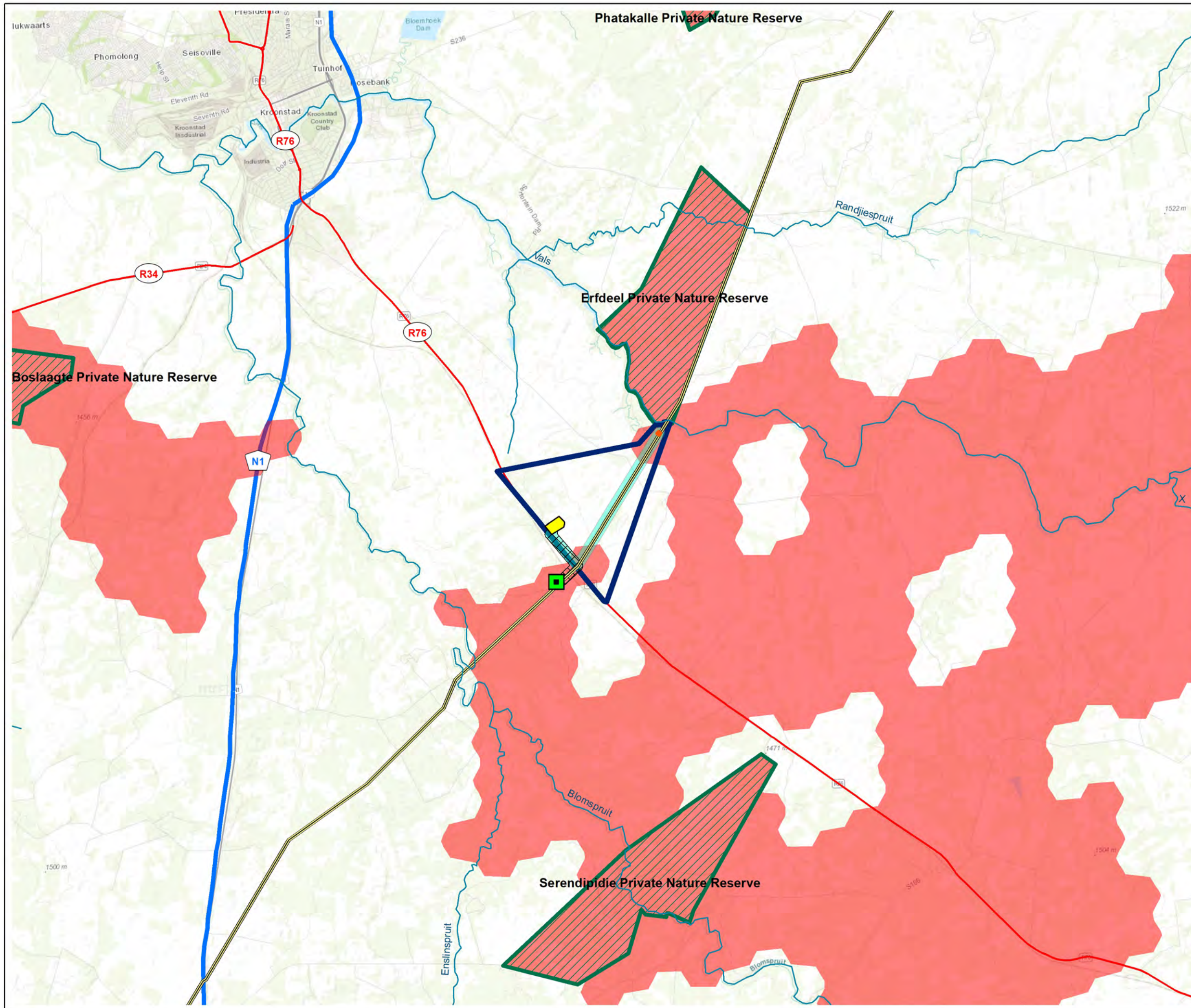
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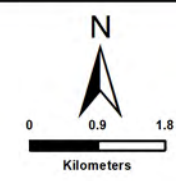


**PROPOSED
GRID CONNECTION
FOR THE BONSMARA
SOLAR PV FACILITY
NEAR
KROONSTAD,
FREE STATE PROVINCE
PROTECTED AREAS**

- Legend**
- National Route
 - Arterial Routes
 - Existing High Voltage Power Lines (132kV)
 - Rivers
 - Protected Areas
 - NPAES
 - Kroonstad Switching Station (existing)
 - Bonsmara PV Application Site

- Proposed Grid Connection**
- Grid Connection Assessment Corridor (preferred)
 - Grid Connection Assessment Corridor (alternative)
 - Substation
 - Switching Station

Source:
NFEPA, 2011
SANBI, 2018
ESKOM, 2012



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**PROPOSED
GRID CONNECTION
FOR THE BONSMARA
SOLAR PV FACILITY**
NEAR KROONSTAD,
FREE STATE PROVINCE
**RENEWABLE ENERGY PROJECTS
(EXISTING AND PROPOSED)**

Legend

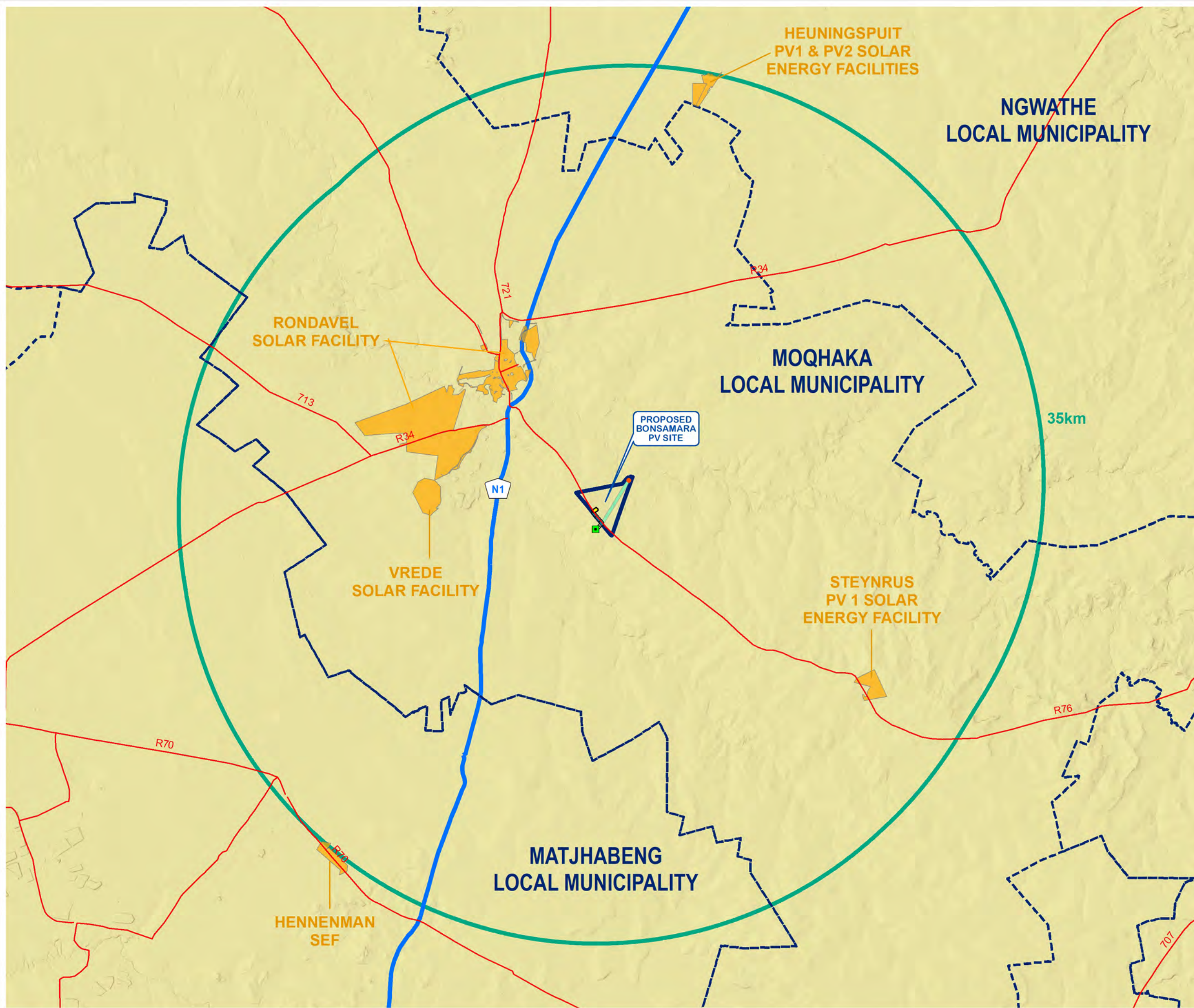
- Arterial Routes
- National Route
- Local Municipal Boundaries
- Kroonstad Switching Station (existing)
- Bonsmara PV Application
- 35km Radius

Proposed Grid Connection

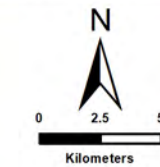
- Grid Connection Assessment Corridor (preferred)
- Grid Connection Assessment Corridor (alternative)
- Substation
- Switching Station

Renewable Energy Application Sites

- Solar PV



Source:
DFFE, 2022
NGI, 2014
MUNICIPAL DEMARCATION BOARD, 2016



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







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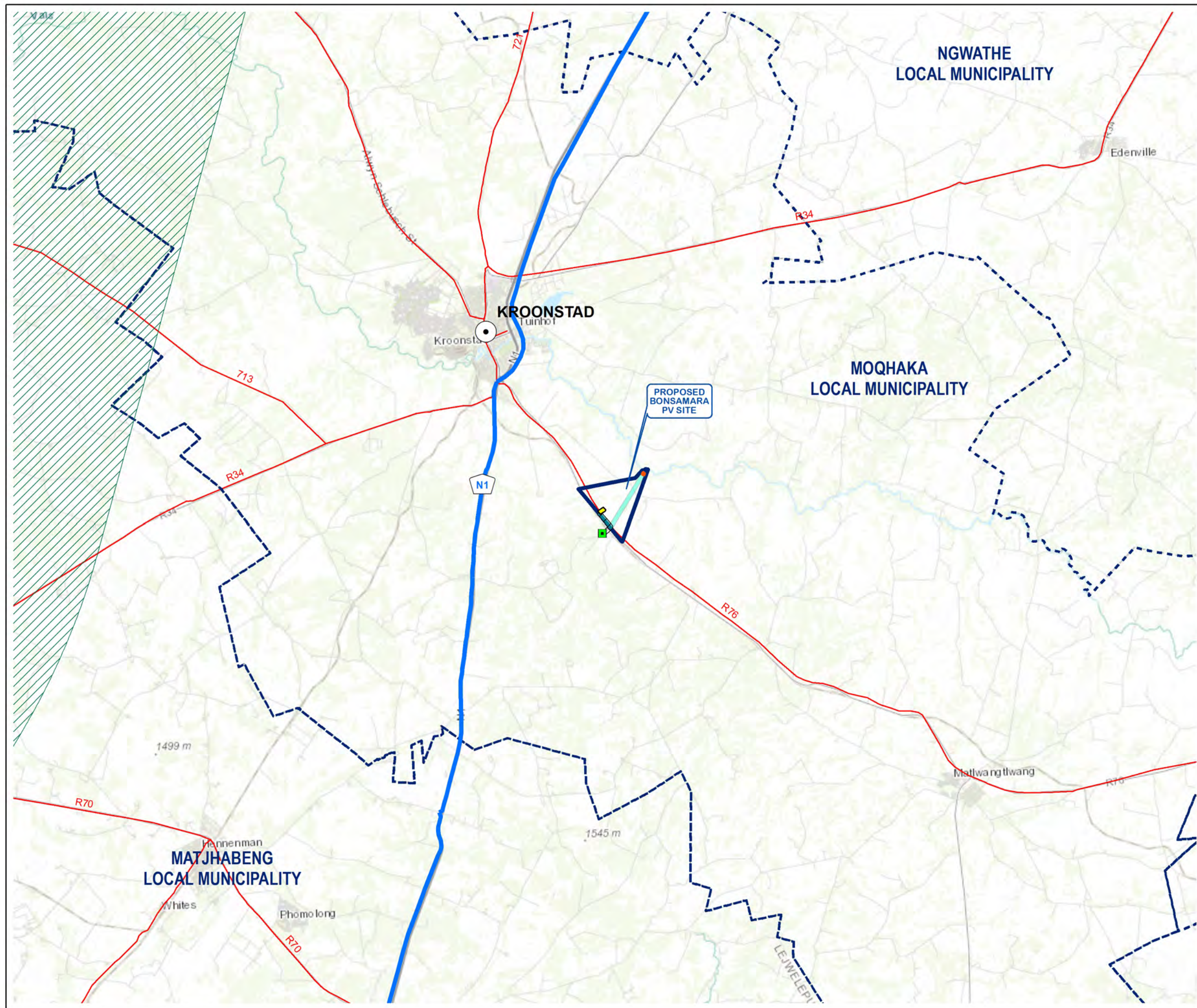
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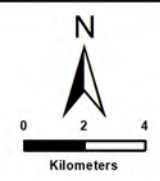
**PROPOSED
GRID CONNECTION
FOR THE BONSMARA
SOLAR PV FACILITY
NEAR
KROONSTAD,
FREE STATE PROVINCE
REDZ & EGI**

Legend

-  Main Towns
 -  National Route
 -  Main Arterial Routes
 -  Local Municipal Boundaries
 -  Central Strategic Transmission Corridor
 -  Kroonstad Switching Station (existing)
 -  Bonsmara PV Application Site
- Proposed Grid Connection**
-  Grid Connection Assessment Corridor (preferred)
 -  Grid Connection Assessment Corridor (alternative)
 -  Substation
 -  Switching Station



Source:
NGI, 2014
DFFE, 2021
MUNICIPAL DEMARCATION BOARD, 2016



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**PROPOSED
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FOR THE BONSMARA
SOLAR PV FACILITY
NEAR
KROONSTAD,
FREE STATE PROVINCE
REGIONAL CONTEXT**

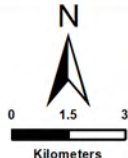
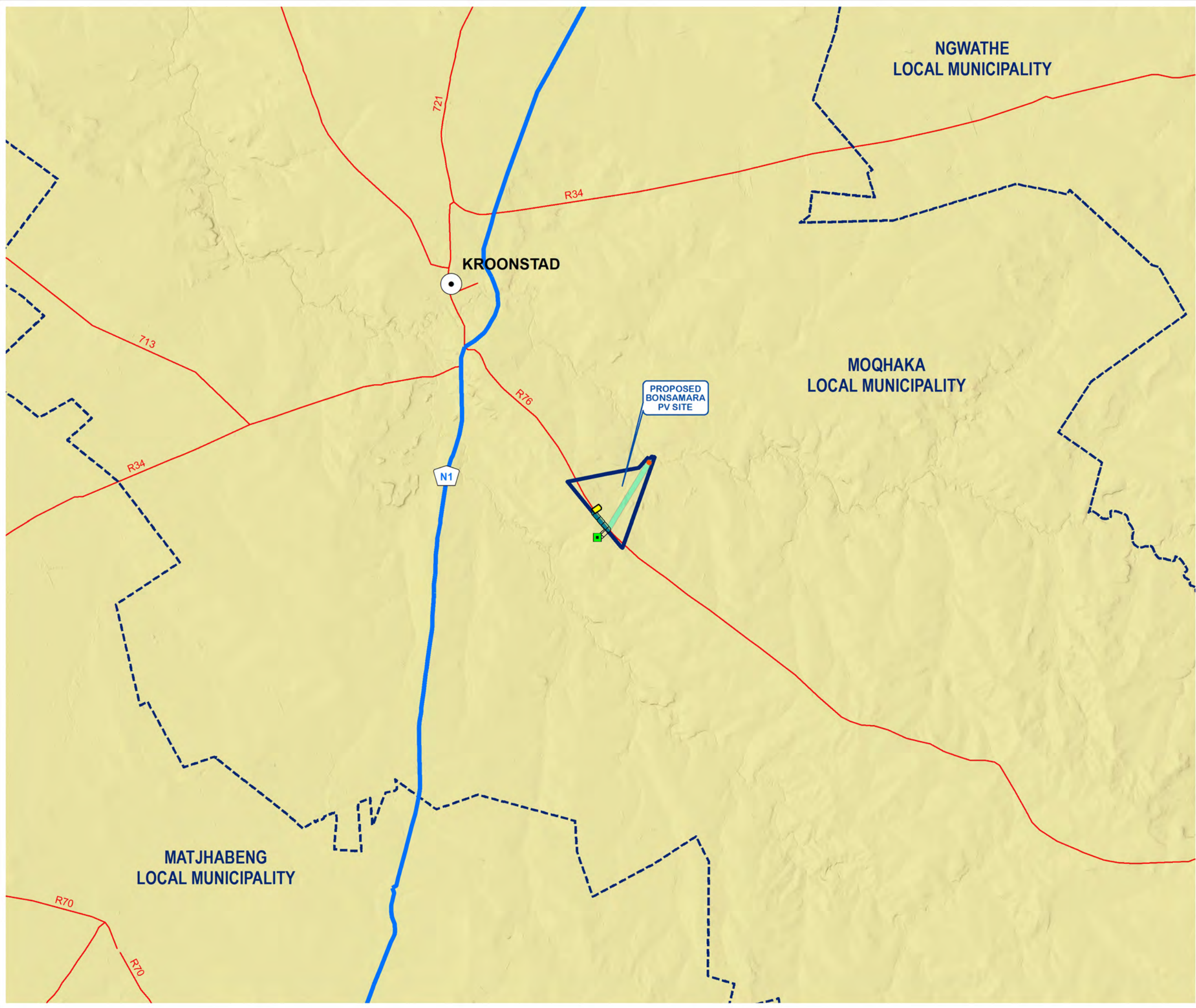
Legend

-  Main Towns
-  National Route
-  Main Arterial Routes
-  Local Municipal Boundaries
-  Kroonstad Switching Station (existing)
-  Bonsmara PV Application Site

Proposed Grid Connection

-  Grid Connection Assessment Corridor (preferred)
-  Grid Connection Assessment Corridor (alternative)
-  Substation
-  Switching Station

Source:
NGI, 2014
MUNICIPAL DEMARCATION BOARD, 2016
DFFE, 2021



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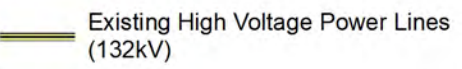

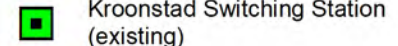
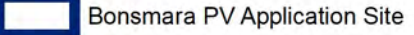
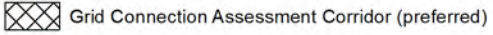
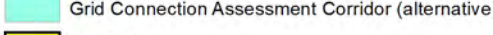
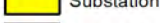
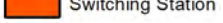
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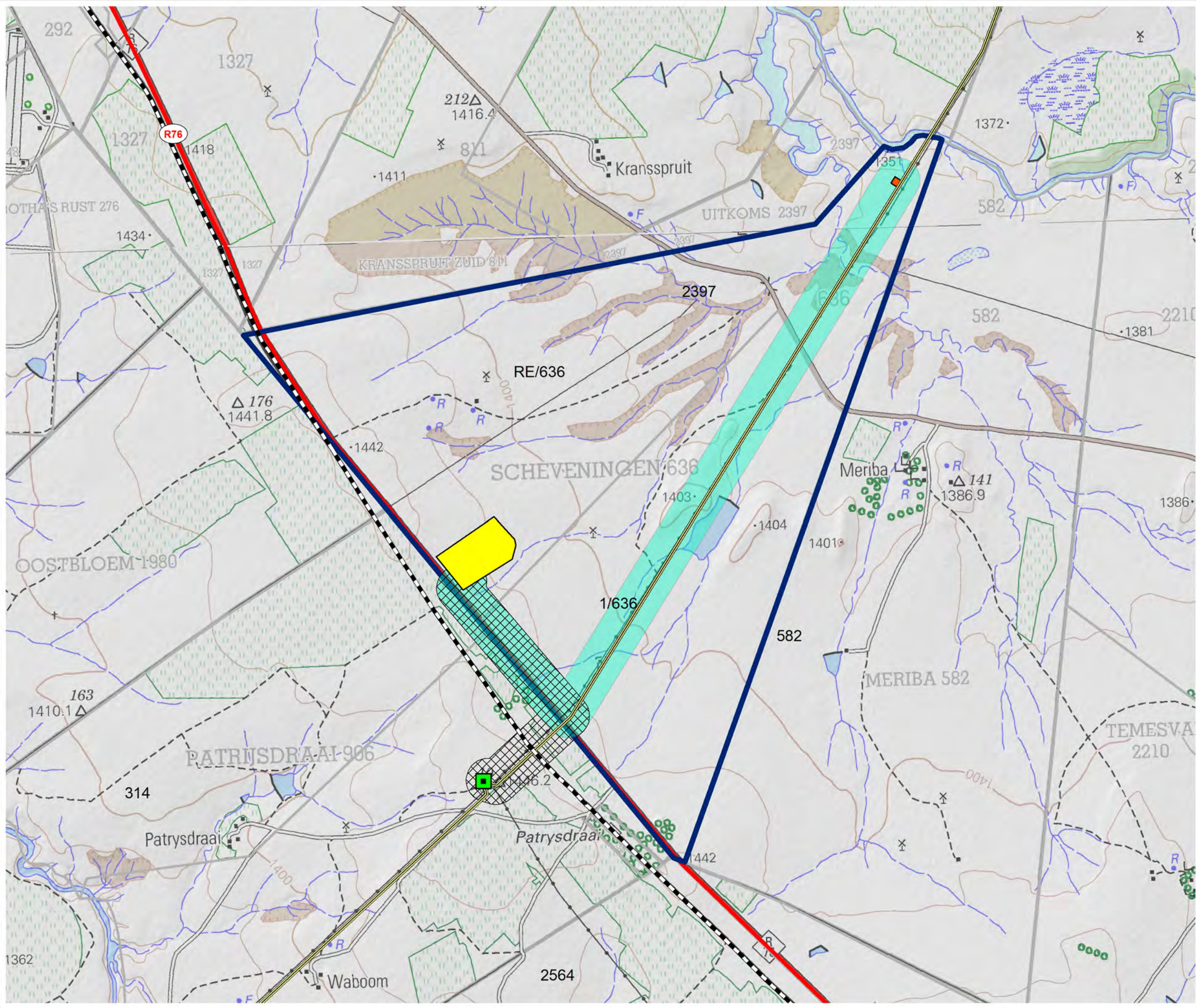
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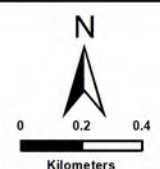
**PROPOSED
GRID CONNECTION
FOR THE BONSMARA
SOLAR PV FACILITY
NEAR
KROONSTAD,
FREE STATE PROVINCE
ROUTE ALIGNMENT**

Legend

-  Railway
 -  Arterial Route
 -  Existing High Voltage Power Lines (132kV)
 -  Farm Portions
 -  Kroonstad Switching Station (existing)
 -  Bonsmara PV Application Site
- Proposed Grid Connection**
-  Grid Connection Assessment Corridor (preferred)
 -  Grid Connection Assessment Corridor (alternative)
 -  Substation
 -  Switching Station



Source:
NGI, 2014
ESKOM, 2012



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**PROPOSED
GRID CONNECTION
FOR THE BONSMARA
SOLAR PV FACILITY
NEAR
KROONSTAD,
FREE STATE PROVINCE
SENSITIVITY LAYOUT**





Legend

-  Arterial Route
-  Existing High Voltage Power Lines (132kV)
-  Kroonstad Switching Station (existing)
-  Bonsmara PV Application Site

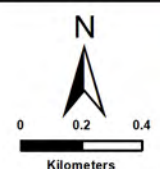
Proposed Grid Connection

-  Grid Connection Assessment Corridor (preferred)
-  Grid Connection Assessment Corridor (alternative)
-  Substation
-  Switching Station

Environmental Sensitivities (No-Go)

-  Aquatic Sensitivity
-  Avifauna Sensitivity
-  Heritage Sensitivity
-  Terrestrial Sensitivity

Source:
NGI, 2014
ESKOM, 2012

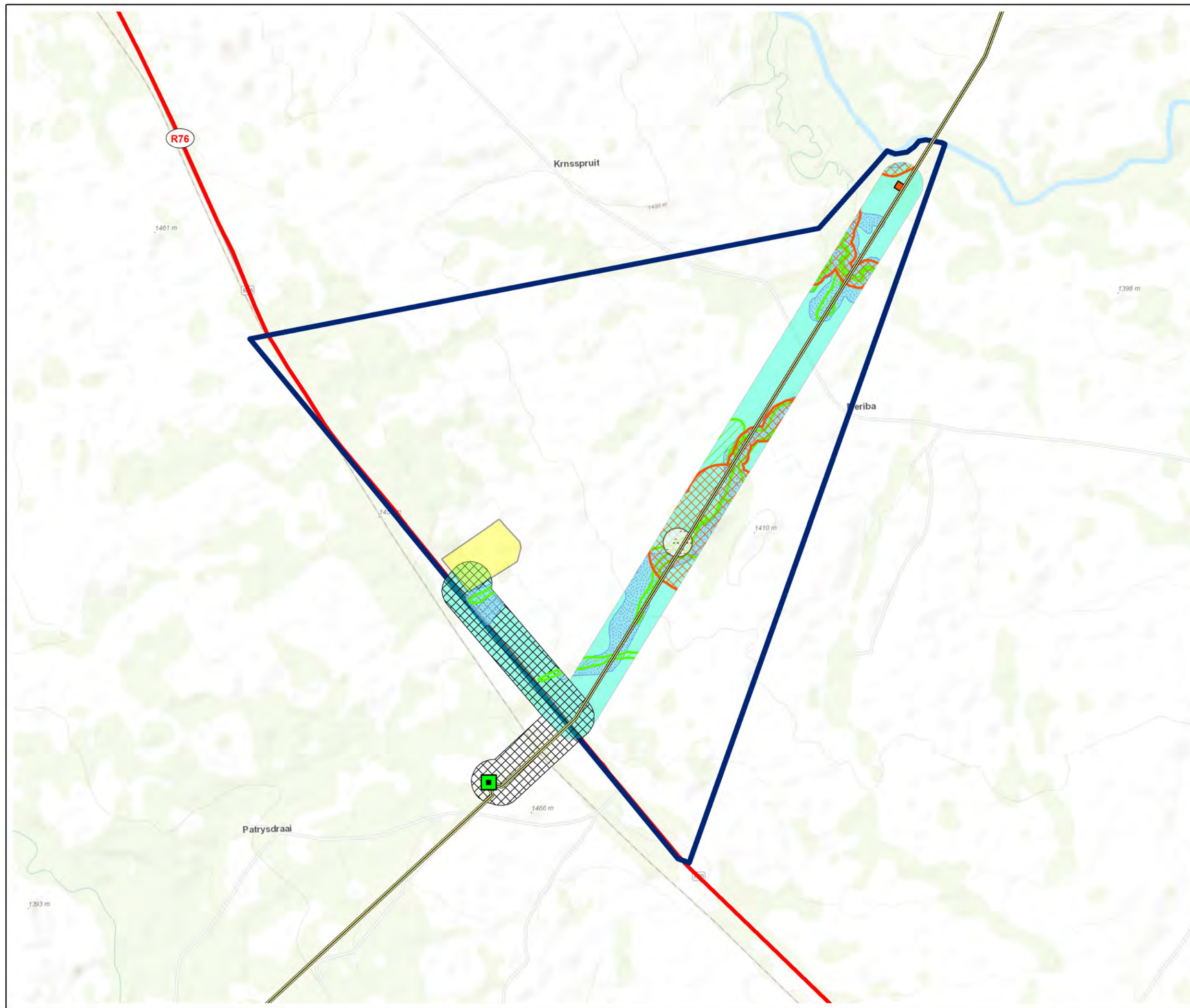


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




**PROPOSED
GRID CONNECTION
FOR THE BONSMARA
SOLAR PV FACILITY**
**NEAR
KROONSTAD,
FREE STATE PROVINCE**
VEGETATION CLASSIFICATION



Legend

-  Rivers
-  Railway
-  Arterial Route
-  Existing High Voltage Power Lines (132kV)
-  Kroonstad Switching Station (existing)
-  Bonsmara PV Application Site

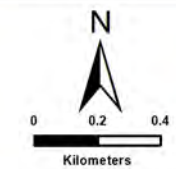
Proposed Grid Connection

-  Grid Connection Assessment Corridor (preferred)
-  Grid Connection Assessment Corridor (alternative)
-  Substation
-  Switching Station

Vegetation Classification

-  Central Free State Grassland
-  Highveld Salt Pans

Source:
NFEPA, 2011
SANBI, 2018
ESKOM, 2012



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