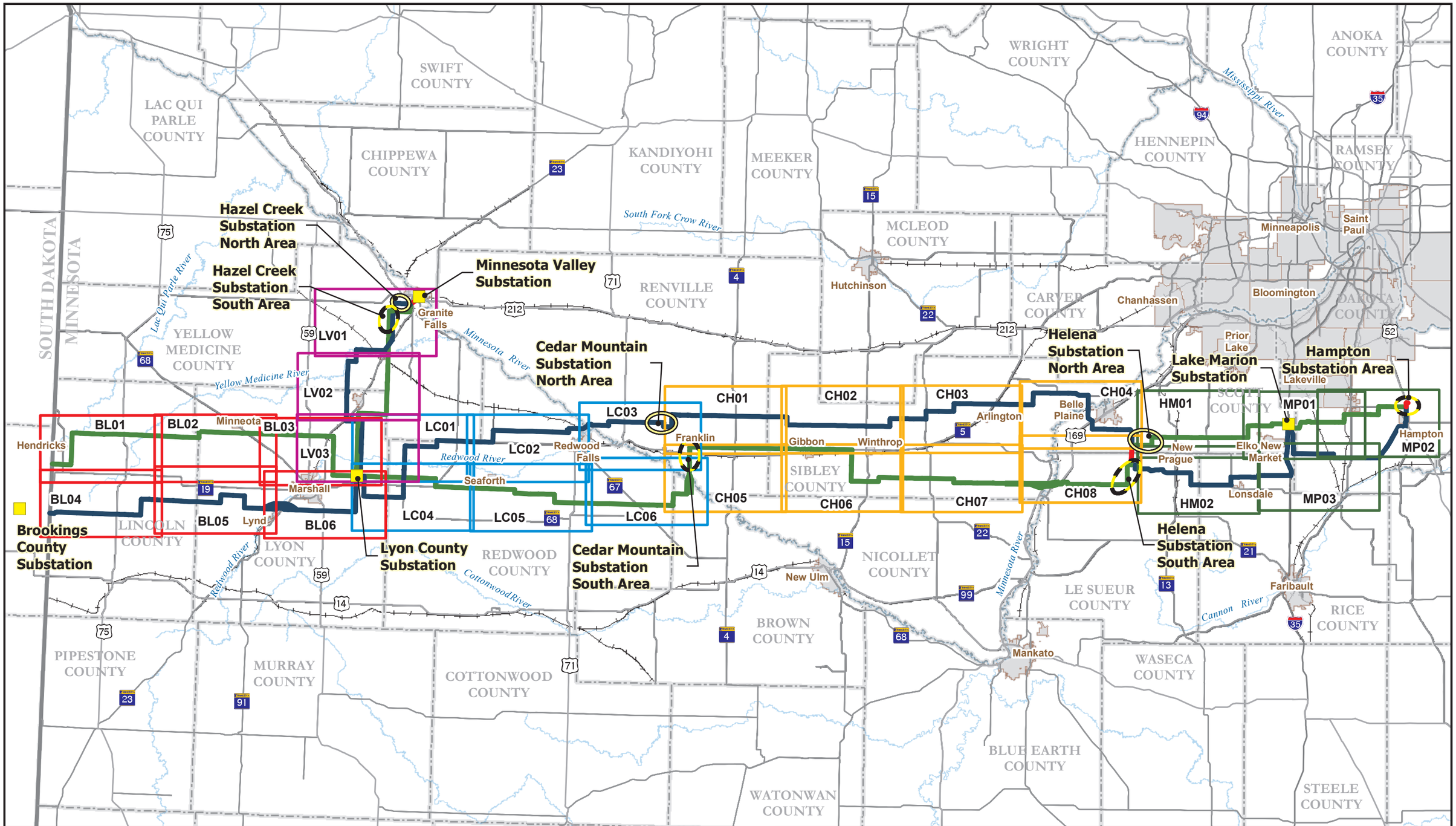

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0 5 10 Miles

Project Substations
Preferred Substation Area
Alternate Substation Area

Routes
Preferred
Alternate
Both Preferred & Alternate

Map Index pages
Brookings County, SD to Lyon County
Lyon County to MN Valley
Lyon County to Cedar Mountain
Cedar Mountain to Helena
Helena to Lake Marion to Hampton

Appendix C - All Segment Map Index

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508_indexmap.mxd) 12/22/2008

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DEUEL COUNTY

BROOKINGS COUNTY

HANSONVILLE T 113 R 46

MARBLE T 113 R 45

ALTA VISTA T 113 R 44

HENDRICKS T 112 R 46

ROYAL T 112 R 45

LIMESTONE T 112 R 44

ASH LAKE T 111 R 45

LAKE STAY T 111 R 44

SHAOKATAN T 111 R 46

Hendricks

Ivanhoe

BL286 BL332 BL297 BL1003 BL1004 BL1005 BL1008 BL1009 BL296 BL339 BL300 BL331 BL285 BL1002 BL1007 BL337 BL59 BL359 BL68 BL95 BL97 BL301 BL272 BL58 BL284 BL63 BL56 BL263 BL57 BL62 BL66 BL67 BL93 BL90 BL61 BL65 BL302 BL303 BL304 BL64 BL54 BL1001 BL55 BL53 BL50 BL51 BL299 BL52 BL60 BL47 BL1006 BL44 BL45 BL46 BL39 BL48 BL36 BL37 BL352 BL40 BL85 BL336 BL83 BL240 BL79 BL80

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0 0.5 1 Miles

MP224 Routes in Application

HM125 All Considered Route Segments

FH244 Preliminary Routes

Route Segment Endpoints

Project Substations

Preferred Substation Area

Alternate Substation Area

Existing Pipeline

Railroad

City

Transmission Lines

69 kV - Existing

115 kV - Existing

230 kV - Existing

345 kV - Existing

Appendix C - Segment Map BL01

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008

ALTA VISTA
T 113 R 44

EIDSVOLD
T 113 R 43

Minneota

WESTERHEIM
T 113 R 42

LIMESTONE
T 112 R 44

NORDLAND
T 112 R 43

GRANDVIEW
T 112 R 42

Ghent

LAKE STAY
T 111 R 44

ISLAND LAKE
T 111 R 43

CapX2020
Delivering electricity you can rely on

0 0.5 1 Miles

MP224	Routes in Application
HM125	All Considered Route Segments
FH244	Preliminary Routes
+	Route Segment Endpoints
	Project Substations
	Preferred Substation Area
	Alternate Substation Area
	Existing Pipeline
	Railroad
	City

Transmission Lines

- 69 kV - Existing
- 115 kV - Existing
- 230 kV - Existing
- 345 kV - Existing

Appendix C - Segment Map BL02

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008

WESTERHEIM
T 113 R 42

VALLERS
T 113 R 41

LUCUS
T 113 R 40

GRANDVIEW
T 112 R 42

FAIRVIEW
T 112 R 41

STANLEY
T 112 R 40

LYND
T 111 R 42

LAKE MARSHALL
T 111 R 41

Ghent

Marshall

Lyon County Substation

CapX2020
Delivering electricity you can rely on

0 0.5 1 Miles

MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations

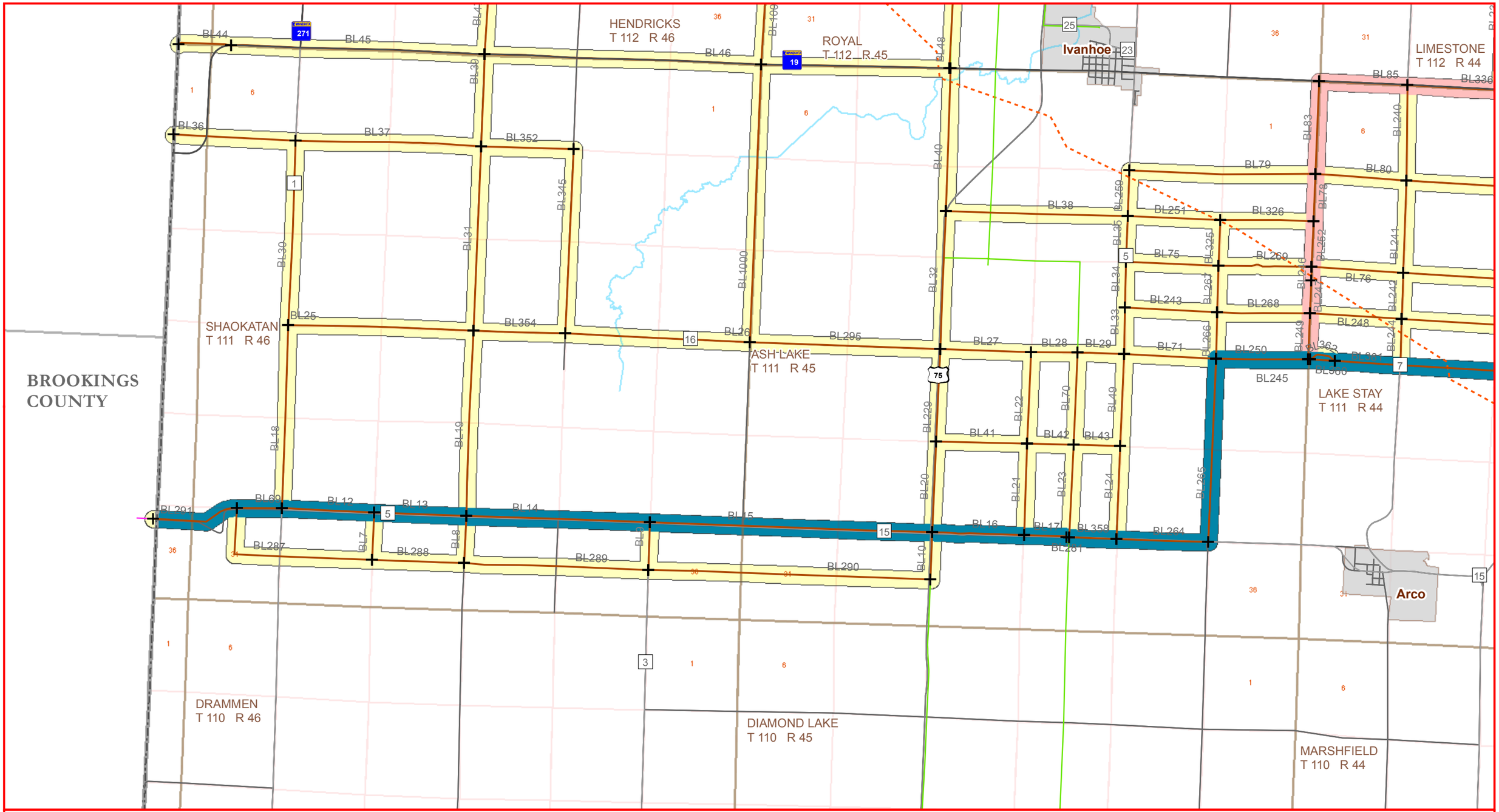
Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing

Appendix C - Segment Map BL03

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008



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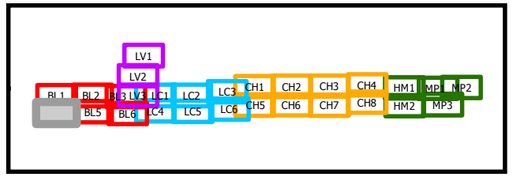
N

0 0.5 1
Miles

MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations
Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing



Appendix C - Segment Map BL04

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008

LIMESTONE
T 112 R 44

NORDLAND
T 112 R 43

GRANDVIEW
T 112 R 42

LAKE STAY
T 111 R 44

ISLAND LAKE
T 111 R 43

LYND
T 111 R 42

MARSHFIELD
T 110 R 44

COON CREEK
T 110 R 43

LYONS
T 110 R 42

Arco

Lynd

BL85 BL336 BL239 BL86 BL341 BL236 BL129 BL131 BL132 BL262 BL133 BL274 BL306
BL80 BL81 BL82 BL140 BL141 BL142 BL143 BL347
BL76 BL77 BL271 BL257 BL248 BL72 BL73 BL150 BL151 BL152 BL351
BL162 BL163 BL164 BL165 BL166 BL167 BL168 BL169 BL170 BL171 BL172

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Delivering electricity you can rely on

0 0.5 1 Miles

MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations

Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing

Appendix C - Segment Map BL05

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008

Lyon County Substation

GRANDVIEW T 112 R 42

FAIRVIEW T 112 R 41

STANLEY T 112 R 40

Marshall

LYND T 111 R 42

CLIFTON T 111 R 40

LAKE MARSHALL T 111 R 41

Lynd

LYONS T 110 R 42

SODUS T 110 R 41

AMIRET T 110 R 40

CapX2020

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0 0.5 1 Miles

Routes in Application

All Considered Route Segments

Preliminary Routes

Route Segment Endpoints

Project Substations

Preferred Substation Area

Alternate Substation Area

Existing Pipeline

Railroad

City

Transmission Lines

69 kV - Existing

115 kV - Existing

230 kV - Existing

345 kV - Existing

Appendix C - Segment Map BL06

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008

LISBON
T 116 R 41

STONY RUN
T 116 R 40

Granite Falls

GRANITE FALLS
T 116 R 39

Hazel Creek Substation North Area

Minnesota Valley Substation

Clarkfield

FRIENDSHIP
T 115 R 41

HAZEL RUN
T 115 R 40

Hazel Creek Substation South Area

Hazel Run

MINNESOTA FALLS
T 115 R 39

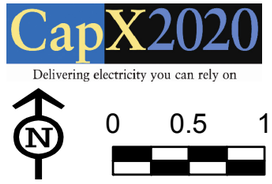
NORMANIA
T 114 R 41

SANDNESS
T 114 R 40

WOOD LAKE
T 114 R 39

Hanley Falls

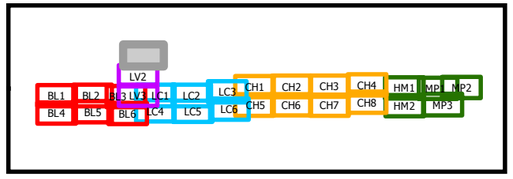
LC77 LC79 LC83 LC84 CV1 LC78 LC80 LC81 LC90 LC82 CV2 LC47 LC86 LC85 LC89 CV3 CV4 LC87 LC88 LC74 LC121 LC64 LC65 LC66 LC122 LC120 LC63 LC62 LC61 LC68 LC67 LC71 LC119 LC144 LC73 LC129 LC131 LC60 LC69 LC58 LC56 LC55 LC53 LC54 LC52 LC50 LC118 LC128 LC49 LC123 LC124 LC125 LC107 LC48 LC114 LC117 LC47



MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations

Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing



Appendix C - Segment Map LV01

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008

NORMANIA
T 114 R 41

SANDNESS
T 114 R 40

WOOD LAKE
T 114 R 39

VALLERS
T 113 R 41

LUCUS
T 113
R 40

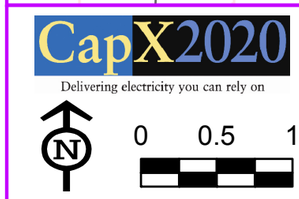
POSEN
T 113
R 39

Hanley Falls

Wood Lake

Cottonwood

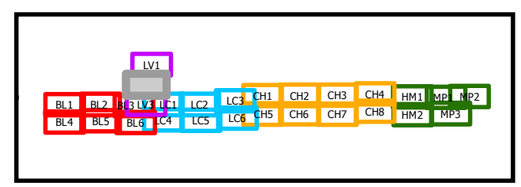
LC114 LC115 LC116 LC113 LC112 LC108 LC138 LC139 LC14 LC43 LC46 LC47 LC35 LC37 LC38 LC40 LC41 LC142 LC143 LC111 LC140 LC107 LC109 LC132 LC110 LC34 LC36 LC39 LC33 LC31 LC29 LC106 LC103 LC102 LC104 LC105 LC101 LC26 LC146 LC145 LC25 LC21 LC32 LC2 LC100 LC23 LC24 LC18 LC20 LC22 LC28 LC19 LC17 LC91 LC99 LC98 LC14 LC12



MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations

Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing



Appendix C - Segment Map LV02

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008

VALLERS
T 113
R 41

LUCUS
T 113
R 40

POSEN
T 113
R 39

STANLEY
T 112
R 40

UNDERWOOD
T 112 R 39

FAIRVIEW
T 112 R 41

Marshall

Lyon County
Substation

LC91 LC99 LC98 LC14 LC12 LC19 LC17 LC16 LC97 LC96 LC95 LC135 LC133 LC94 LC13 LC1 LC93 LC92 LC9 LC10 LC11 LC13 LC8 LC7 LC6 LC5 LC4 LC2 LC3 LC1

BL183 BL184 BL185 BL186 BL187 BL188 BL189 BL190 BL191 BL192 BL193 BL194 BL316 BL320 BL319 BL206 BL321 BL318 BL207 BL208 BL322 BL209 BL210 BL211 BL212 BL204 BL205 BL217 BL228 BL213 BL222 BL218 BL219 BL220 BL221 BL298 BL223 BL224 BL216 BL215 BL292 BL329 BL328 BL327 BL326

LF1009 LF1032 LF340 LF49 LF52 LF51 LF301 LF54 LF303 LF307 LF300 LF299 LF302 LF304 LF298 LF50 LF57 LF45 LF46 LF53 LF43 LF44 LF305 LF2 LF4 LF3 LF306 LF42 LF5 LF240 LF6 LF361 LF35 LF41 LF309 LF310 LF33 LF324 LF325 LF323 LF329 LF326 LF36

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Delivering electricity you can rely on

N

0 0.5 1
Miles

MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations

Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing

LV1 LV2 BL1 BL2 BL3 BL4 BL5 BL6 LC1 LC2 LC3 LC4 LC5 LC6 CH1 CH2 CH3 CH4 CH5 CH6 CH7 CH8 HM1 HM2 MP1 MP2 MP3

Appendix C - Segment Map LV03

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008

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LUCUS
T 113
R 40

POSEN
T 113
R 39

ECHO
T 113
R 38

STANLEY
T 112
R 40

UNDERWOOD
T 112 R 39

VESTA
T 112
R 38

Vesta

Lyon County
Substation
LF240

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0 0.5 1
Miles

MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations

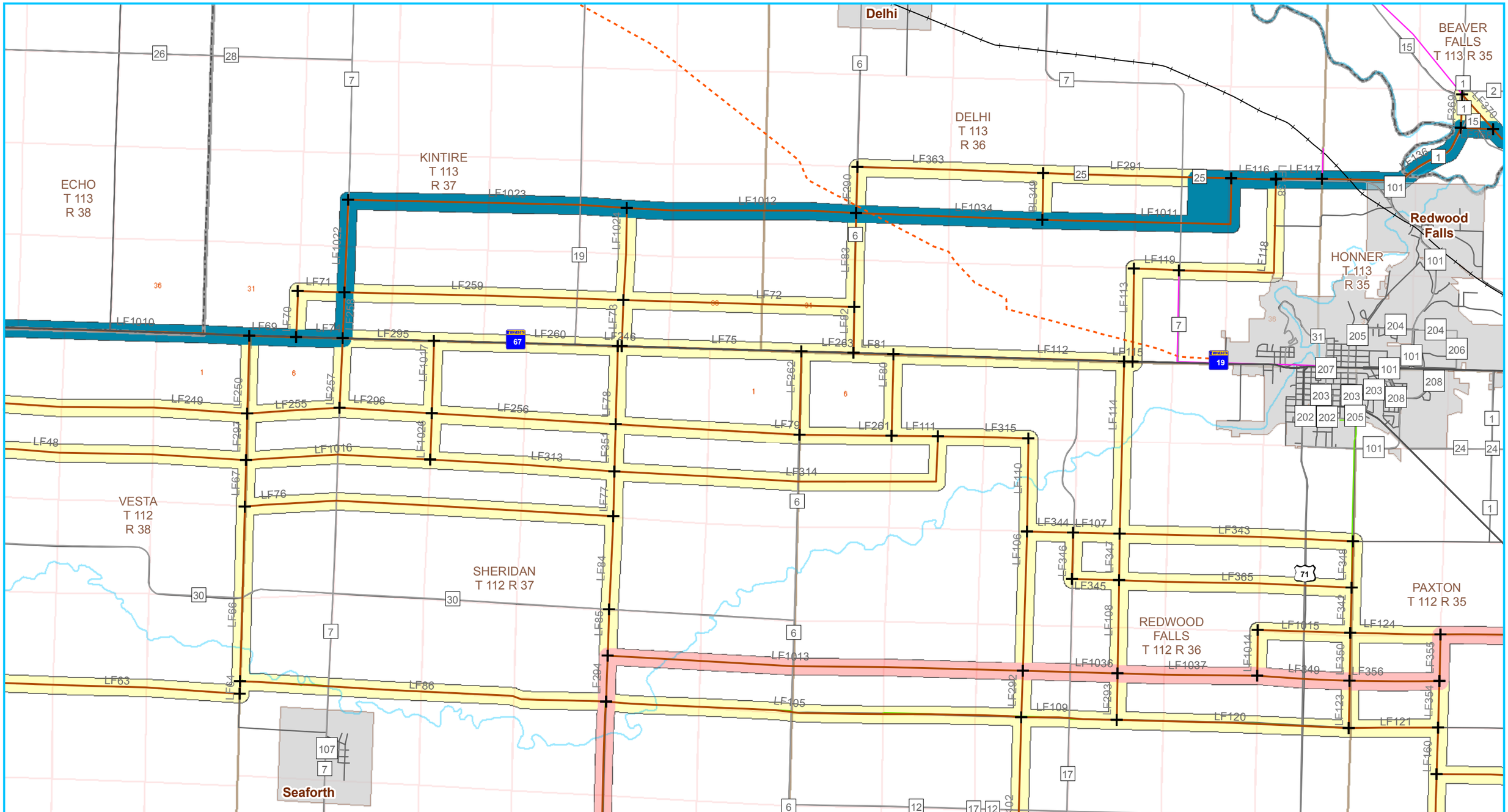
Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing

Appendix C - Segment Map LC01

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008



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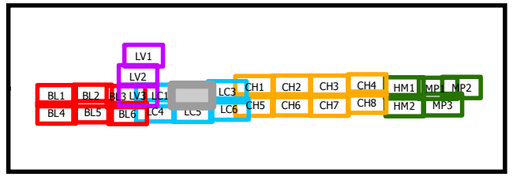
0 0.5 1 Miles

MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations
Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

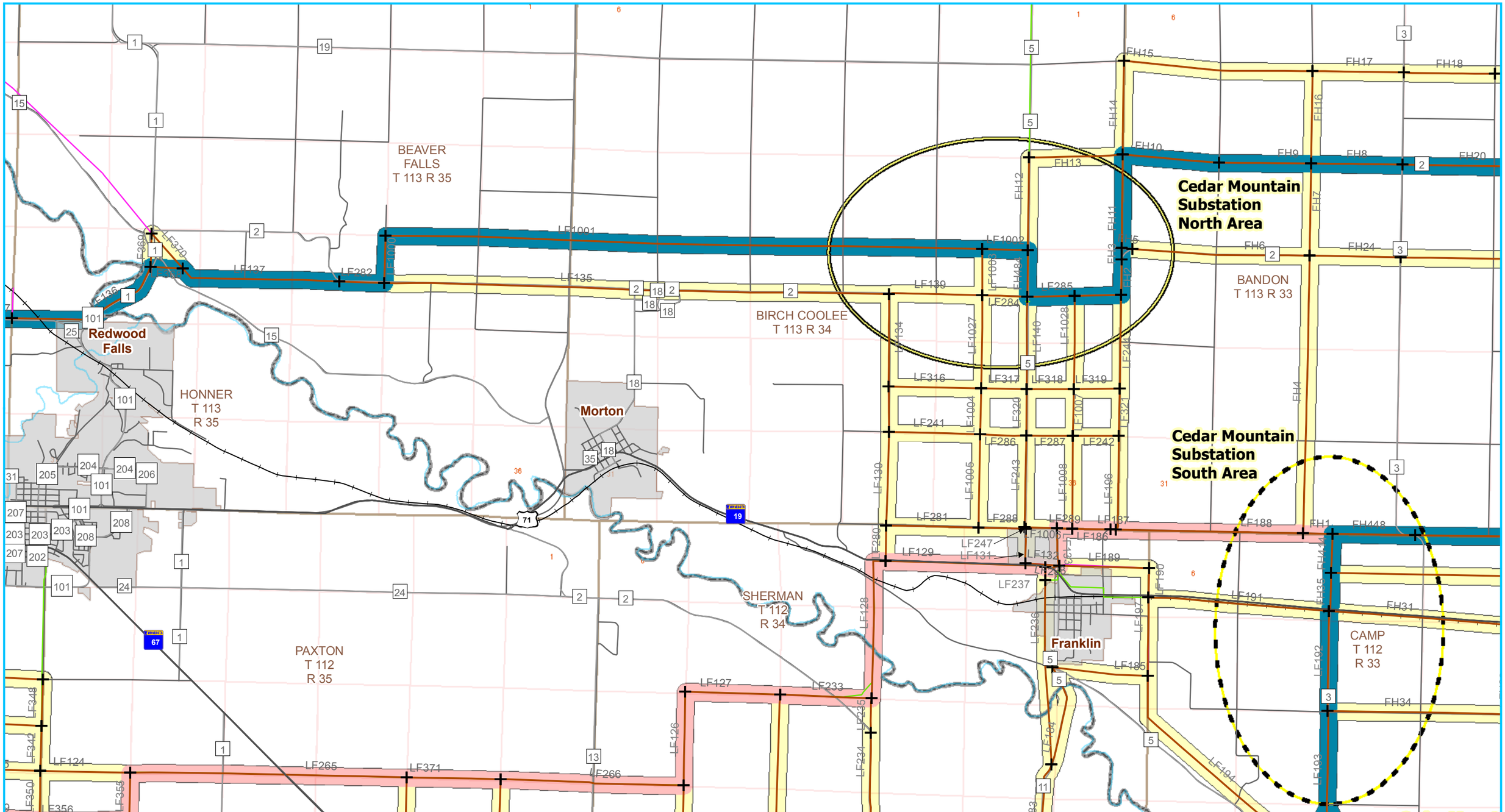
Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing



Appendix C - Segment Map LC02

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008



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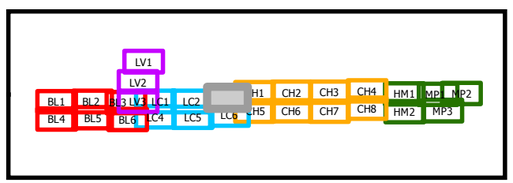
0 0.5 1 Miles

MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations
Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

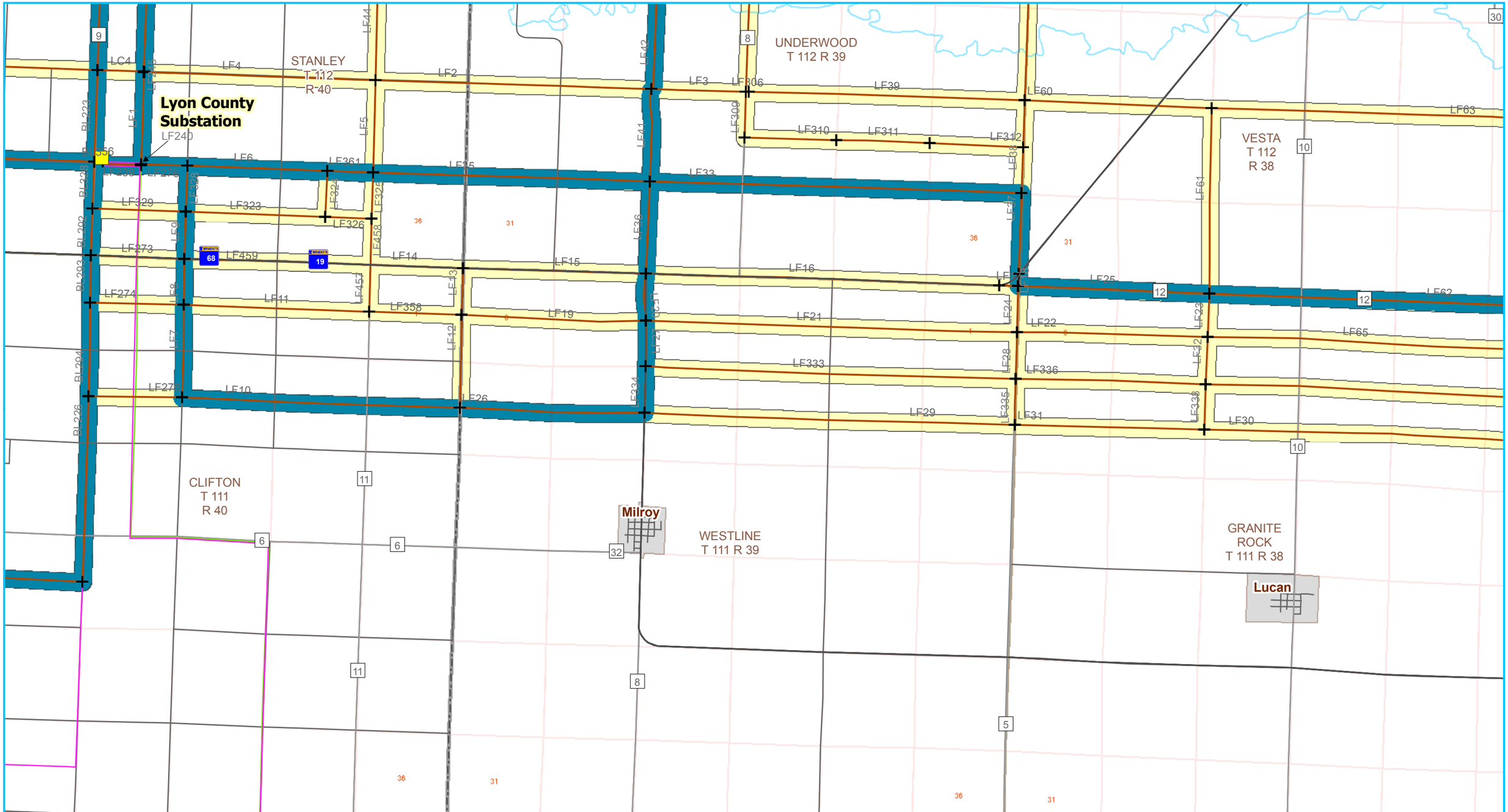
Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing



Appendix C - Segment Map LC03

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008



CapX2020
Delivering electricity you can rely on

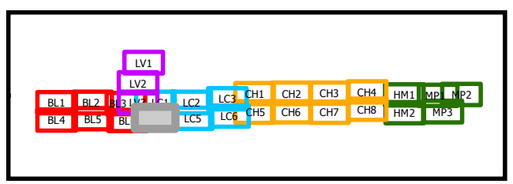
N

0 0.5 1 Miles

MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations

Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing



Appendix C - Segment Map LC04

Route Permit
Brookings County - Hampton
345 kV Transmission Line

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SHERIDAN
T 112 R 37

VESTA
T 112
R 38

Seaforth

REDWOOD
FALLS
T 112 R 36

PAXTON
T 112
R 35

GRANITE
ROCK
T 111 R 38

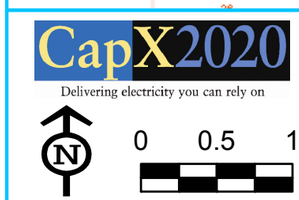
VAIL
T 111
R 37

Wabasso

NEW AVON
T 111 R 36

THREE LAKES
T 111 R 35

LF63 LF64 LF66 LF86 LF85 LF294 LF1013 LF105 LF292 LF293 LF109 LF120 LF345 LF108 LF1015 LF342 LF124 LF1036 LF1037 LF1014 LF349 LF350 LF356 LF355 LF354 LF123 LF121 LF160 LF159 LF62 LF88 LF87 LF103 LF104 LF102 LF101 LF142 LF143 LF34 LF90 LF89 LF93 LF94 LF99 LF100 LF141 LF145 LF146 LF155 LF337 LF460 LF339 LF95 LF98 LF204 LF206 LF207 LF208 LF147 LF144 LF153 LF353 LF352

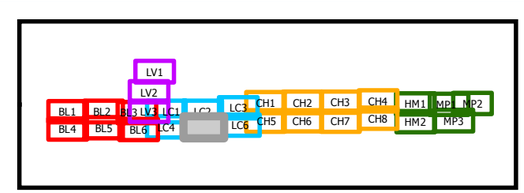


0 0.5 1 Miles

MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations

Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing



Appendix C - Segment Map LC05

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008

Franklin

PAXTON
T 112
R 35

SHERMAN
T 112 R 34

CAMP
T 112
R 33

Cedar Mountain
Substation
South Area

THREE LAKES
T 111 R 35

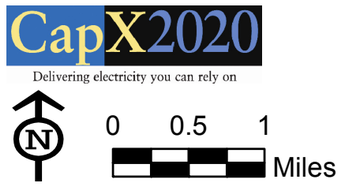
MORGAN
T 111
R 34

Morgan

EDEN
T 111
R 33

LF265 LF371 LF266 LF127 LF233 LF235 LF234 LF126 LF180 LF232 LF231 LF181 LF229 LF182 LF183 LF184 LF185 LF194 LF193 LF192 FH34 FH32 LF355 LF354 LF264 LF267 LF271 LF270 LF166 LF230 LF228 LF160 LF161 LF268 LF269 LF179 LF162 LF277 LF167 LF278 LF159 LF362 LF154 LF359 LF164 LF165 LF171 LF172 LF173 LF226 LF174 LF198 LF1030 LF1029 LF364 LF332 LF331 LF330 LF1020 LF146 LF155 LF158 LF272 LF461 LF279 LF178 LF227 LF144 LF153 LF156 LF157 LF169 LF223 LF224 LF177 LF225 LF175 LF163 LF168 LF170 LF215 LF221 LF353 LF352 LF152 LF210 LF211 LF209 LF213 LF212 LF214 LF216 LF217 LF218 LF219 LF366 LF220 LF222

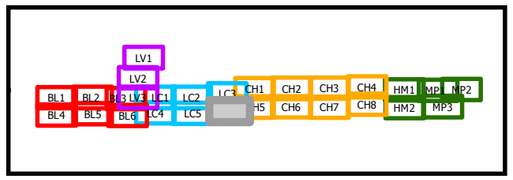
1 2 3 5 10 11 13 16 7 8 30 102 67 68



MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations

Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

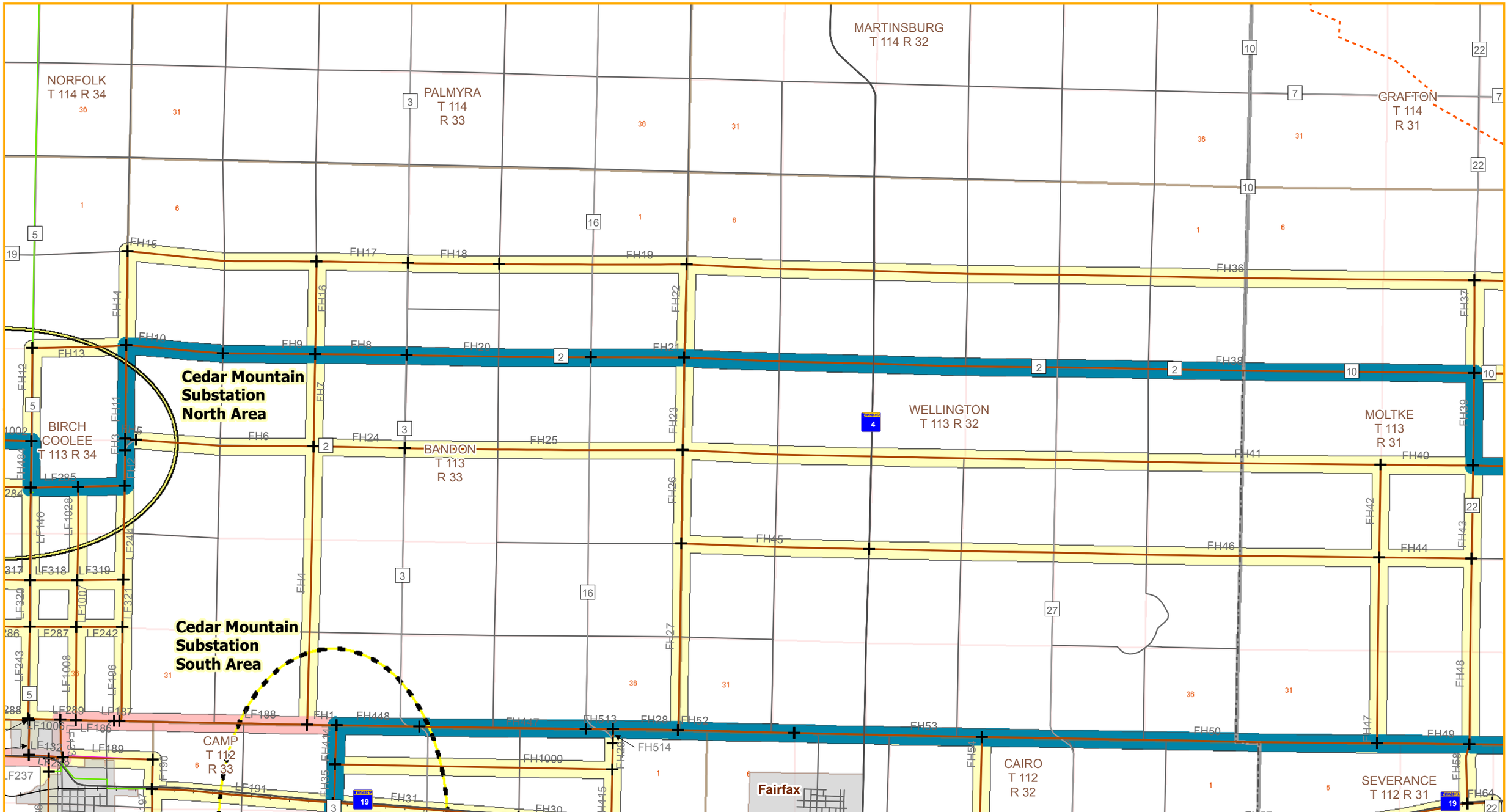
Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing



Appendix C - Segment Map LC06

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008



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0 0.5 1 Miles

MP224 Routes in Application

HM125 All Considered Route Segments

FH244 Preliminary Routes

Route Segment Endpoints

Project Substations

Preferred Substation Area

Alternate Substation Area

Existing Pipeline

Railroad

City

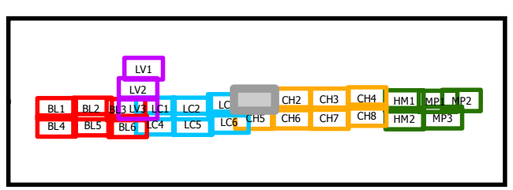
Transmission Lines

69 kV - Existing

115 kV - Existing

230 kV - Existing

345 kV - Existing



Appendix C - Segment Map CH01

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008

GRAFTON
T 114
R 31

POUND
GROVE
T 114 R 30

PENN
T 114
R 29

BISMARCK
T 113 R 30

MOLTKE
T 113 R 31

TRANSIT
T 113
R 29

SEVERANCE
T 112 R 31

Gibbon

Winthrop

CORNISH
T 112 R 30

ALFSBORG
T 112 R 29

FH79 FH78 FH77 FH76 FH75 FH185 FH93 FH95 FH37 FH80 FH74 FH84 FH85 FH88 FH94 FH99 FH39 FH81 FH87 FH86 FH529 FH528 FH98 FH40 FH83 FH82 FH493 FH89 FH90 FH97 FH100 FH43 FH44 FH491 FH403 FH404 FH48 FH494 FH49 FH72 FH71 FH70 FH69 FH463 FH528 FH492 FH495 FH111 FH59 FH68 FH64 FH476 FH477 FH464 FH66 FH73 FH146 FH482 FH430 FH415 FH112

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Delivering electricity you can rely on

0 0.5 1 Miles

MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations

Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing

LV1 LV2 BL1 BL2 BL3 LV3 LC1 LC2 LC3 CH1 CH3 CH4 HM1 MP1 MP2 BL4 BL5 BL6 LC4 LC5 LC6 CH5 CH6 CH7 CH8 HM2 MP3

Appendix C - Segment Map CH02

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008

PENN
T 114
R 29

NEW AUBURN
T 114 R 28

GREEN ISLE
T 114 R 27

WASHINGTON
LAKE
T 114 R 26

DRYDEN
T 113 R 28

TRANSIT
T 113
R 29

ARLINGTON
T 113 R 27

JESSENLAND
T 113 R 26

ALFSBORG
T 112 R 29

SIBLEY
T 112 R 28

Arlington

Gaylord

FH99 FH102 FH103 FH104 FH105 FH106 FH107 FH108 FH109 FH110 FH111 FH112 FH137 FH149 FH150 FH152 FH153 FH154 FH155 FH156 FH157 FH158 FH159 FH160 FH161 FH180 FH184 FH185 FH186 FH187 FH188 FH189 FH190 FH191 FH192 FH193 FH221 FH222 FH223 FH224 FH225 FH393 FH394 FH395 FH404 FH405 FH406 FH417 FH418 FH419 FH425 FH426 FH442 FH497 FH498 FH500 FH501 FH502 FH503 FH504 FH505 FH512 FH530 FH1002 FH1003 FH1004 FH1005 FH1006 FH1007 FH1012

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Delivering electricity you can rely on

N

0 0.5 1
Miles

MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations

Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing

LV1 LV2 LV3 LV4 LV5 LV6
BL1 BL2 BL3 BL4 BL5 BL6
LC1 LC2 LC3 LC4 LC5 LC6
CH1 CH2 CH3 CH4 CH5 CH6 CH7 CH8
HM1 HM2 MP1 MP2 MP3

Appendix C - Segment Map CH03

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008

WASHINGTON LAKE T 114 R 26

FAXON T 114 R 25

SAN FRANCISCO T 114 R 24

ST LAWRENCE T 114 R 24

BELLE PLAINE T 113 R 24

BLAKELY T 113 R 25

JESSENLAND T 113 R 26

Belle Plaine

Helena Substati

FH197 FH200 FH201 FH202 FH203 FH213 FH214 FH204 FH198 FH199 FH193 FH194 FH443 FH217 FH216 FH1001 FH208 FH210 FH211 FH212 FH416 FH483 FH215 FH218 FH219 FH220 FH221 FH222 FH223 FH329 FH330 FH331 FH332 FH333 FH334 FH335 FH336 FH337 FH338 FH341 FH340 FH510 FH424 FH522 FH506 FH326 FH327 FH328 FH309 FH310 FH307 FH306 FH308 FH305 FH304 FH311 FH312 FH314 FH315 FH316 FH317 FH318 FH320 FH321 FH322 FH323 FH438 FH437 FH439 FH436 FH440 FH490 FH526 FH478 FH516 FH1006 FH381 FH509 FH344

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0 0.5 1 Miles

MP224 Routes in Application

HM125 All Considered Route Segments

FH244 Preliminary Routes

Route Segment Endpoints

Project Substations

Preferred Substation Area

Alternate Substation Area

Existing Pipeline

Railroad

City

Transmission Lines

69 kV - Existing

115 kV - Existing

230 kV - Existing

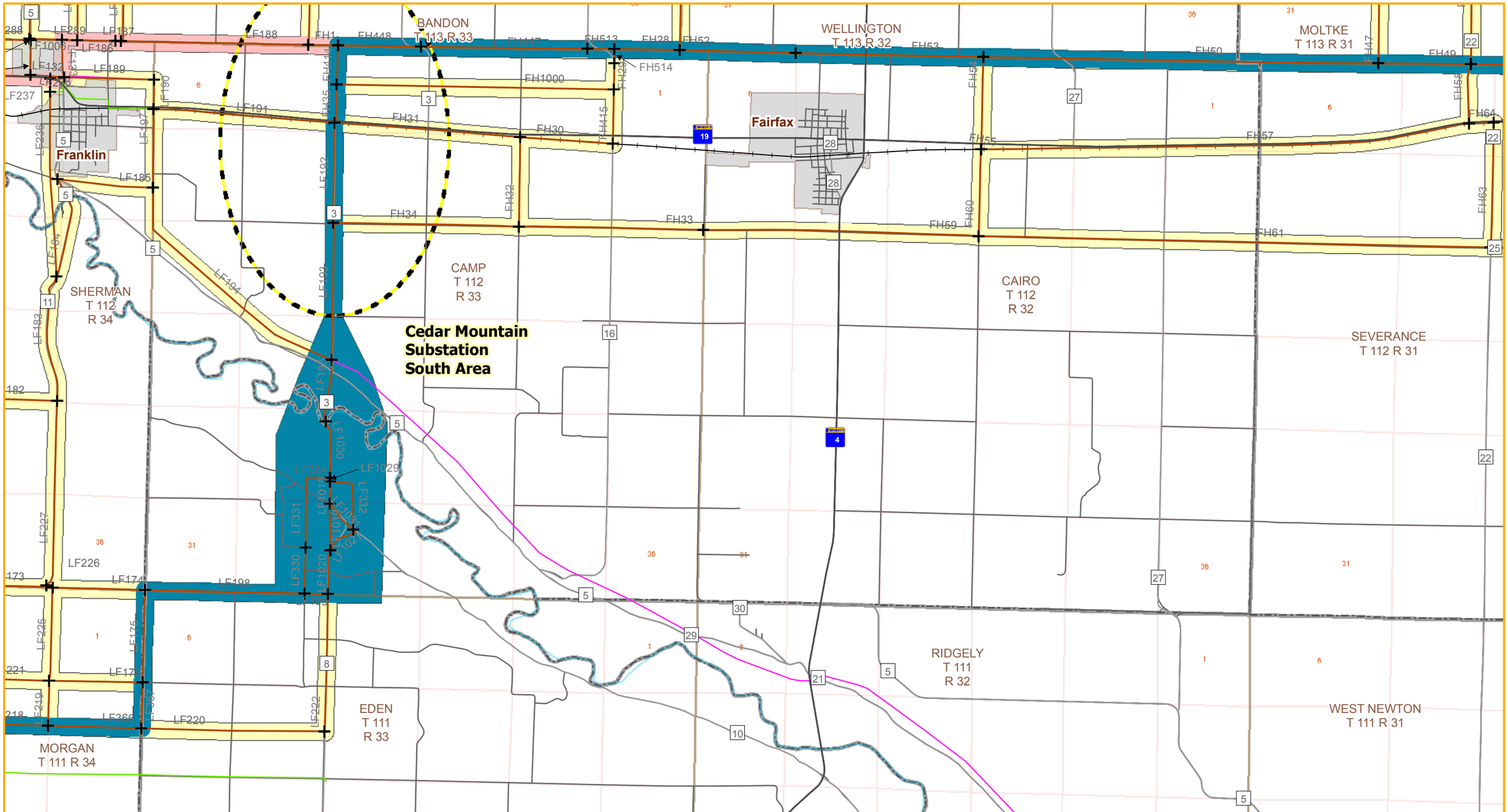
345 kV - Existing

LV1 LV2 BL1 BL2 BL3 BL4 BL5 BL6 LC1 LC2 LC3 LC4 LC5 LC6 CH1 CH2 CH3 CH5 CH6 CH7 CH8 HM1 HM2 MP1 MP2 MP3

Appendix C - Segment Map CH04

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008



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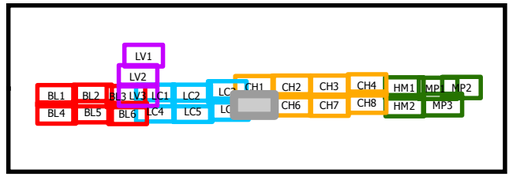
0 0.5 1 Miles

MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations
Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

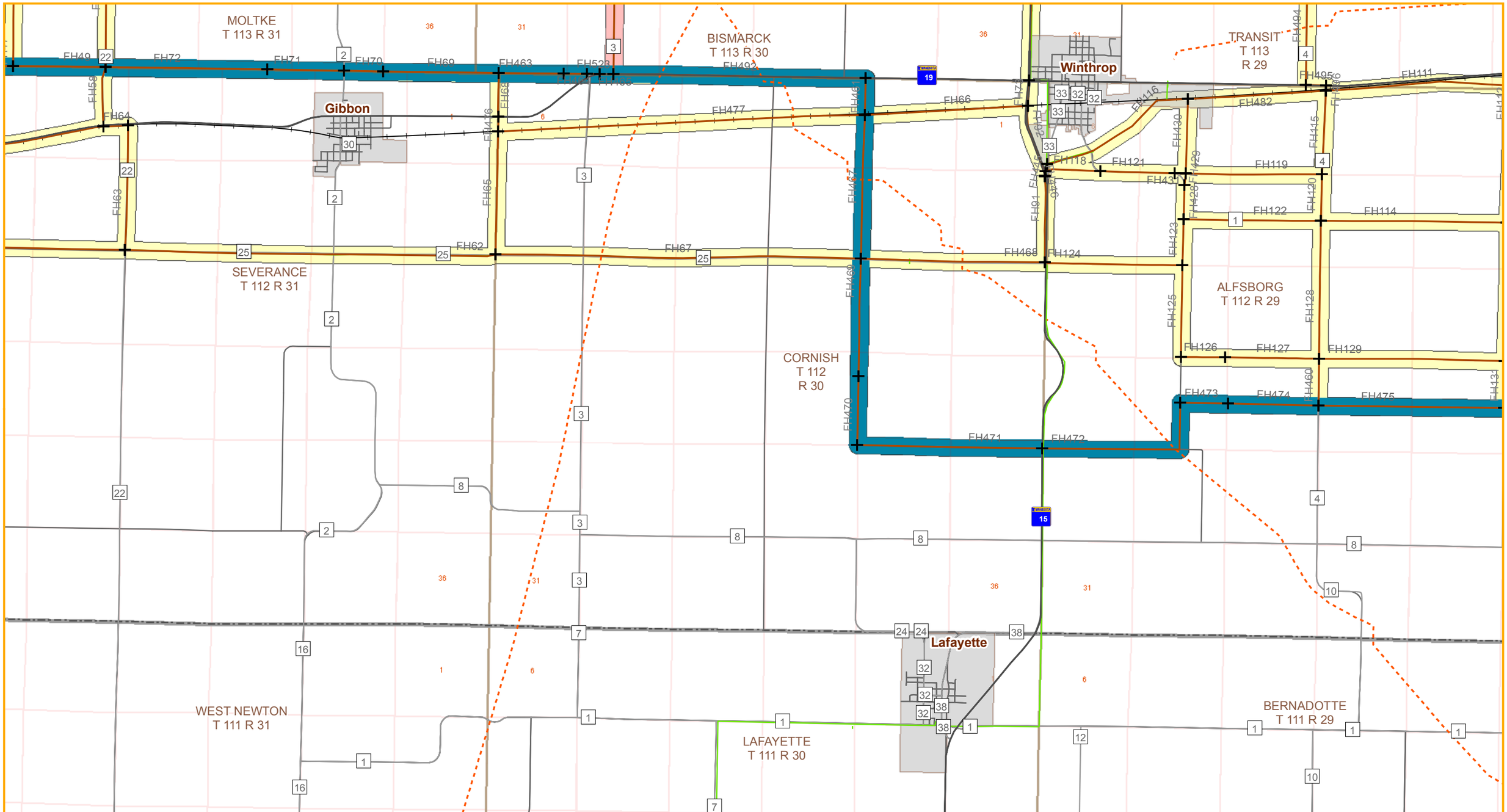
Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing



Appendix C - Segment Map CH05

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008



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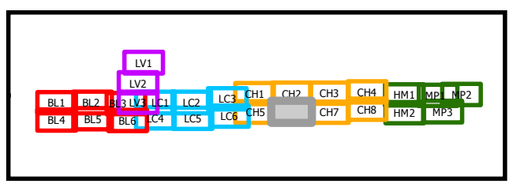
0 0.5 1 Miles

MP224	Routes in Application
HM125	All Considered Route Segments
FH244	Preliminary Routes
+	Route Segment Endpoints
	Project Substations
	Preferred Substation Area
	Alternate Substation Area
	Existing Pipeline
	Railroad
	City

Transmission Lines

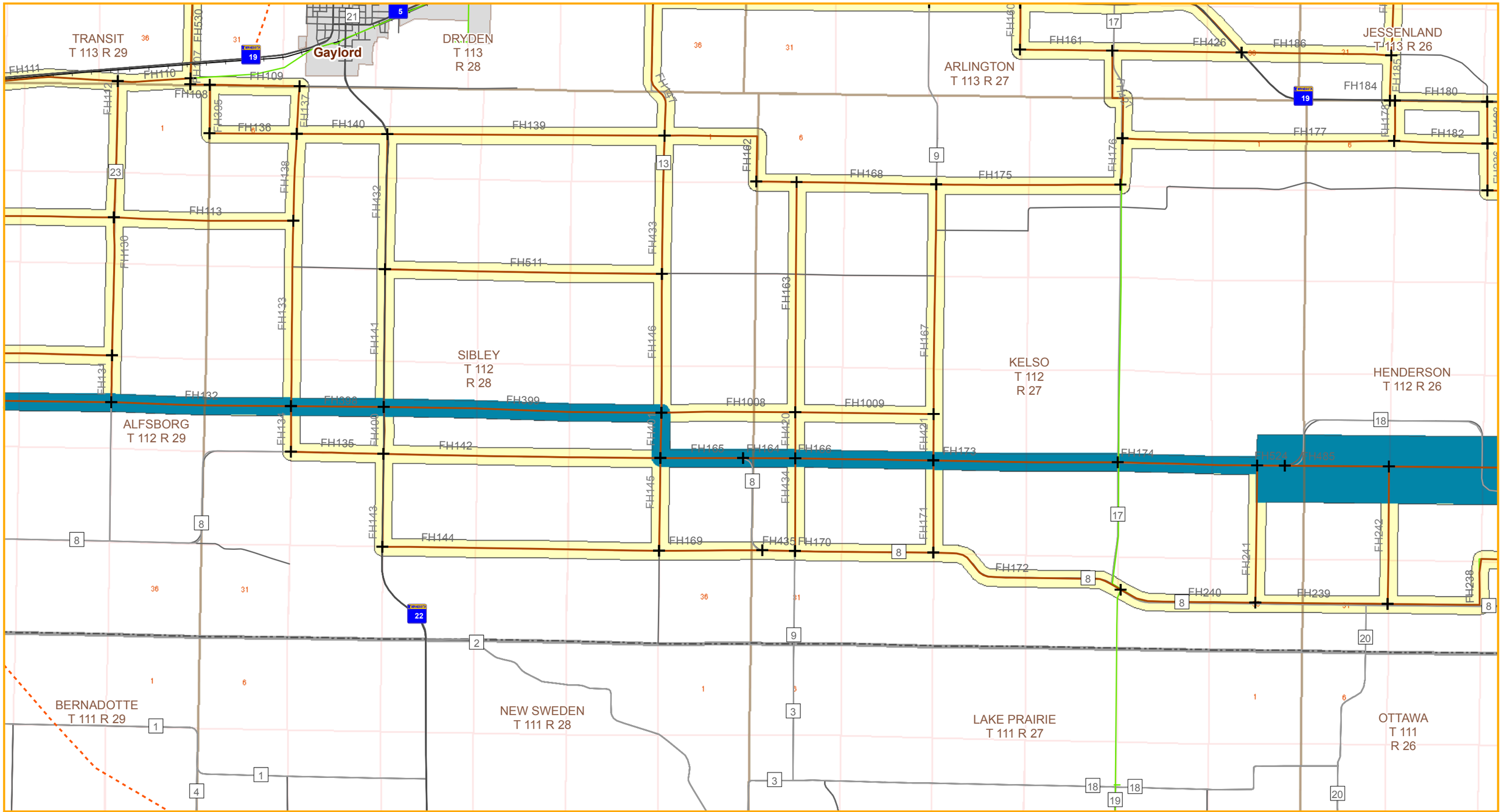
- 69 kV - Existing
- 115 kV - Existing
- 230 kV - Existing
- 345 kV - Existing



Appendix C - Segment Map CH06

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008



CapX2020
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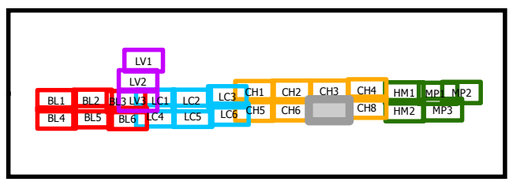
0 0.5 1 Miles

MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations

Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing



Appendix C - Segment Map CH07

Route Permit
Brookings County - Hampton
345 kV Transmission Line

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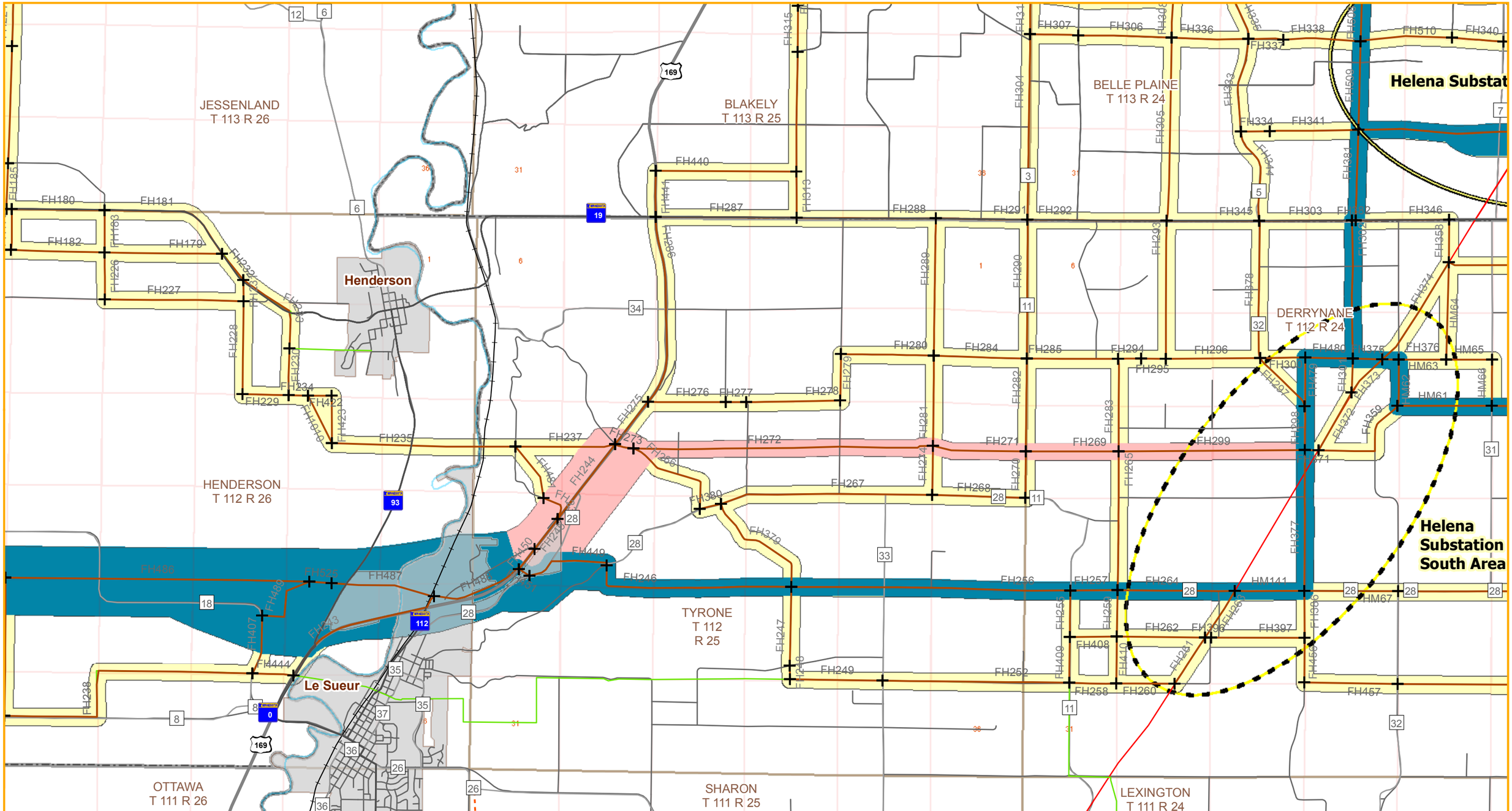

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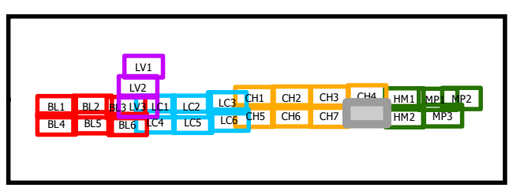
0 0.5 1 Miles

MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations

Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing



Appendix C - Segment Map CH08

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008

Jordan
ST LAWRENCE
T 114 R 24
SAND CREEK
T 114 R 23
SPRING LAKE
T 114 R 22
CREDIT
RIVER
T 114 R 21
NEW MARKET
T 113 R 21
BELLE
PLAINE
T 113 R 24
HELENA
T 113
R 23
CEDAR LAKE
T 113 R 22
Elko
New
Market
Helena Substatin North Area
Helena
Substation
North Area
New
Prague
DERRYNANE
T 112 R 24
LANESBURG
T 112 R 23
WHEATLAND
T 112 R 22
WEBSTER
T 112 R 21

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0 0.5 1
Miles

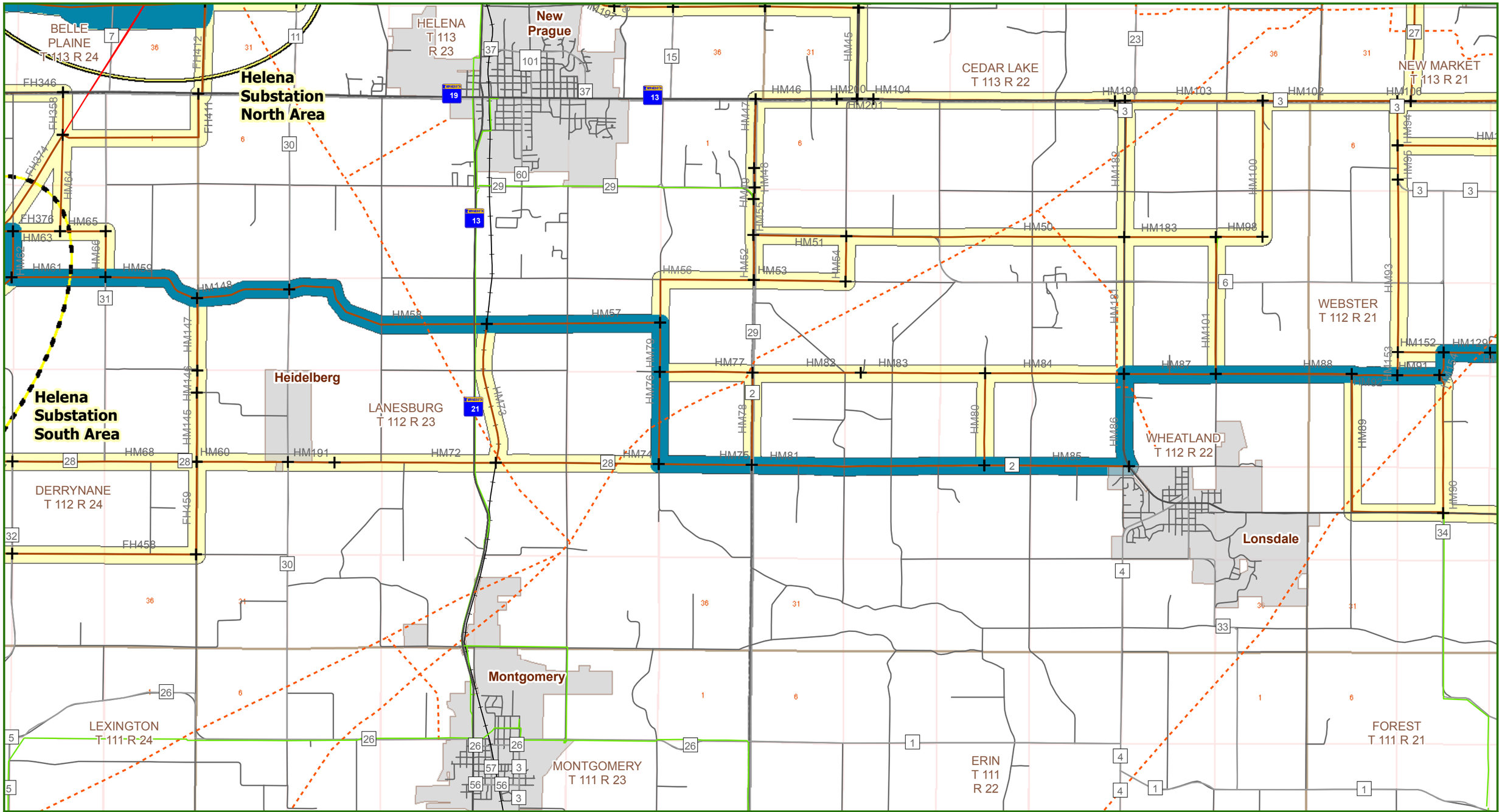
MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations
Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing

Appendix C - Segment Map HM01

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008



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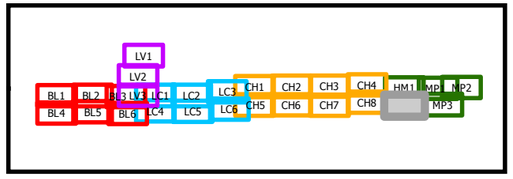
0 0.5 1 Miles

MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations
Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

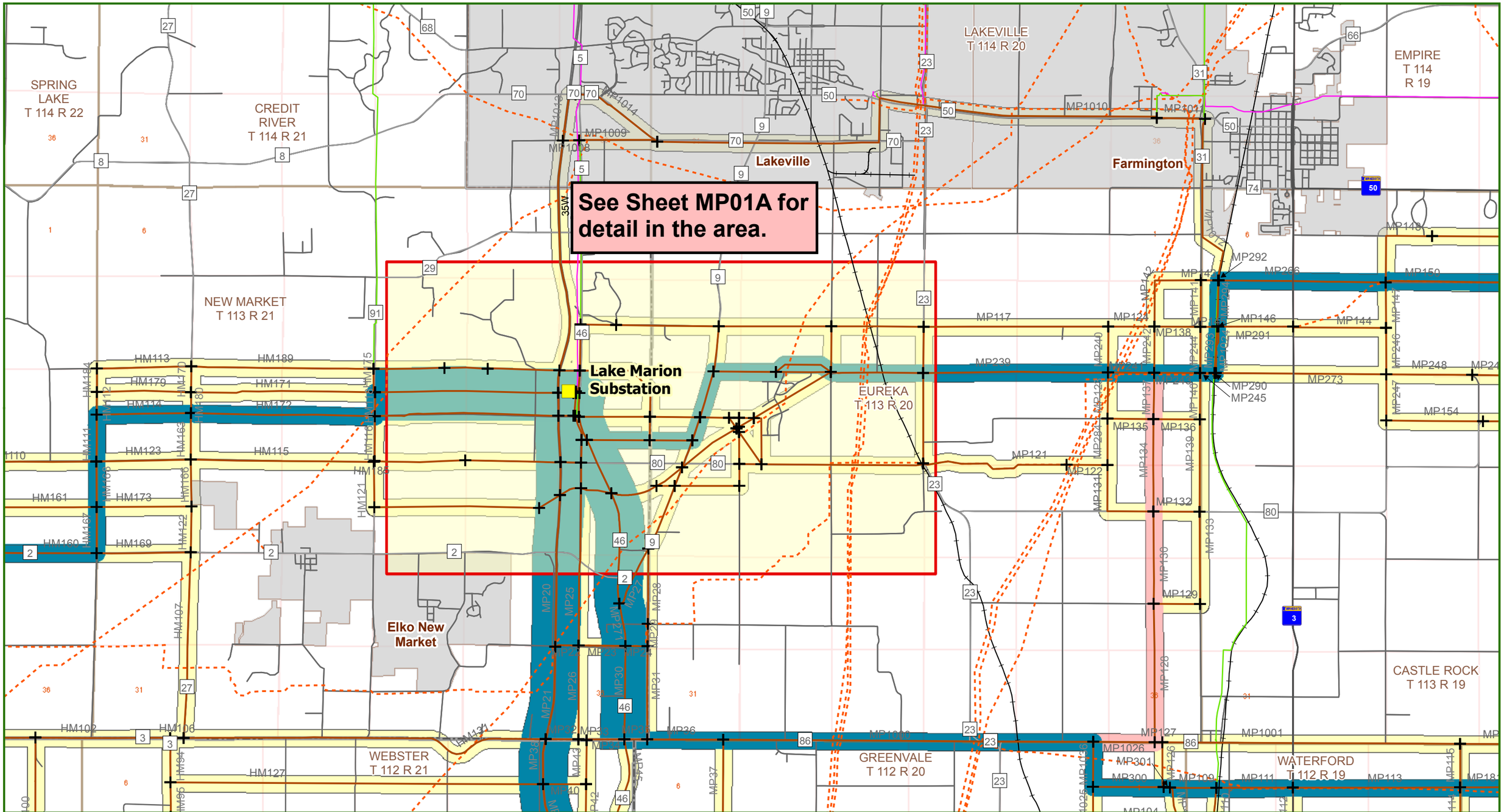
Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing



Appendix C - Segment Map HM02

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008



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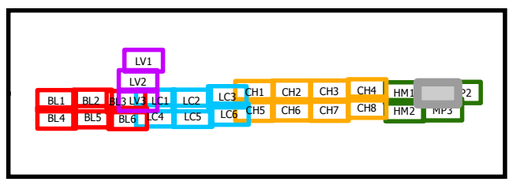
0 0.5 1 Miles

MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations
Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing



Appendix C - Segment Map MP01

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008

Lake Marion Substation

NEW MARKET
T 113 R 21

EUREKA
T 113 R 20

Elko New Market

HM119 HM124 HM125 HM174 HM117 HM176 HM177 HM121 HM120 HM126 HM130 HM178

MP2 MP3 MP53 MP116 MP118 MP125 MP119 MP120 MP233 MP13 MP277 MP227 MP228 MP238 MP282 MP283 MP235 MP237 MP1 MP1035 MP1020 MP267 MP288 MP4 MP1019 MP5 MP302 MP268 MP229 MP230 MP231 MP265 MP275 MP1028 MP236 MP1030 MP1006 MP264 MP276 MP1029 MP232 MP1032 MP1033 MP1031 MP224 MP286 MP12 MP225 MP269 MP274 MP1018 MP1027 MP1017 MP226 MP11 MP14 MP19 MP18 MP234 MP6 MP8 MP9 MP270 MP10 MP16 MP7 MP15 MP25 MP28

I35-I 91 29 46 9 23 80 2

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N

0 1,000 2,000
Feet

MP224 Alternate Route
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations

Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing

LV1 LV2 LV3 BL1 BL2 BL3 BL4 BL5 BL6 LC1 LC2 LC3 LC4 LC5 LC6 CH1 CH2 CH3 CH4 CH5 CH6 CH7 CH8 HM1 HM2 MP2 MP3

Appendix C - MP01A

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508_MP01A.mxd) 12/19/2008

LAKEVILLE
T 114 R 20

Lakeville

Farmington

EMPIRE
T 114 R 19

VERMILLION
T 114 R 18

Hampton Substation Area

Hampton

New Trier

EUREKA
T 113 R 20

CASTLE ROCK
T 113 R 19

HAMPTON
T 113
R 18

GREENVALE
T 112 R 20

WATERFORD
T 112 R 19

STANTON
T 112 R 18

Cannon Falls

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0 0.5 1
Miles

MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations

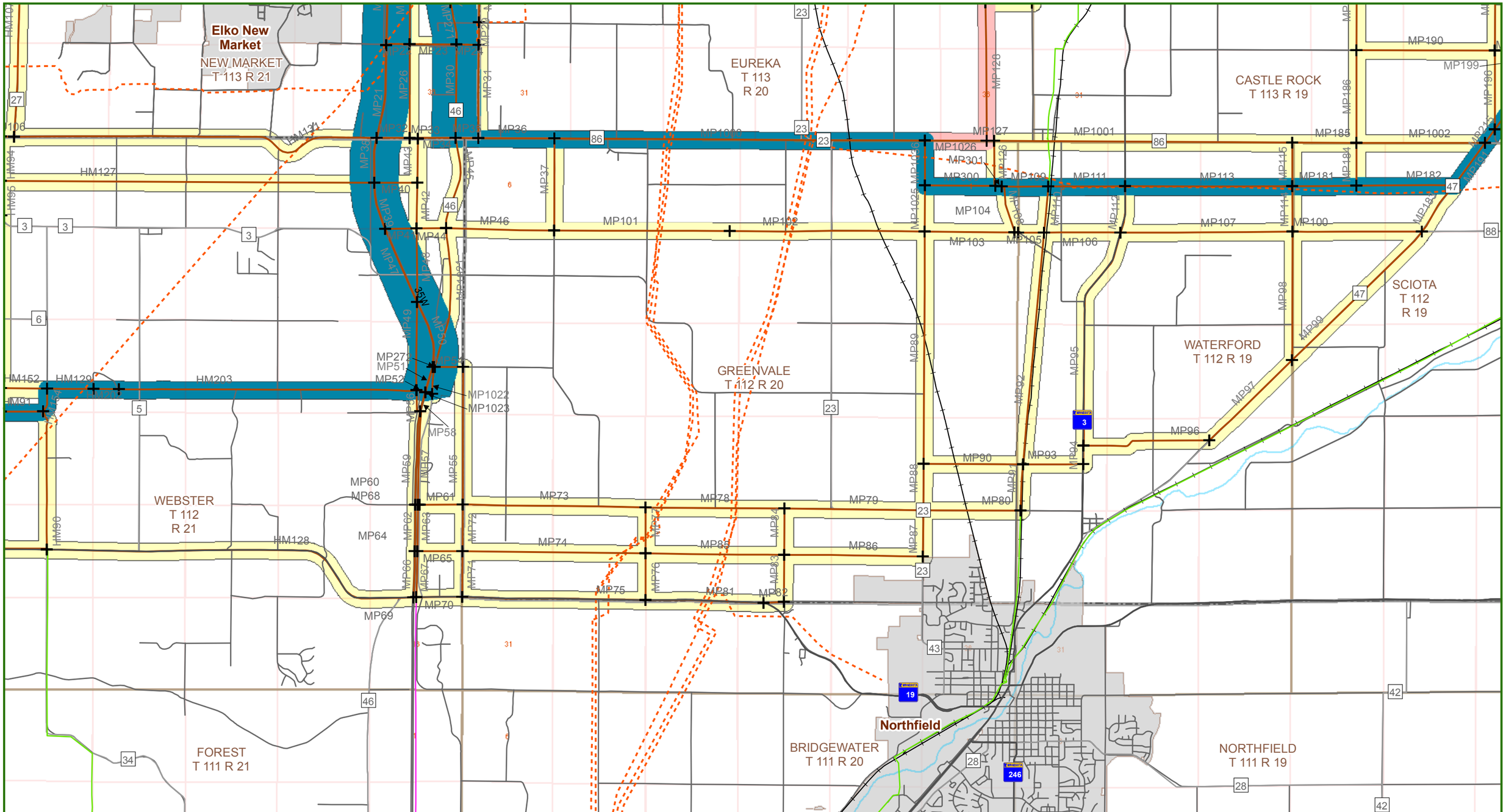
Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing

Appendix C - Segment Map MP02

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008



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0 0.5 1 Miles

MP224 Routes in Application
HM125 All Considered Route Segments
FH244 Preliminary Routes
Route Segment Endpoints
Project Substations
Preferred Substation Area
Alternate Substation Area
Existing Pipeline
Railroad
City

Transmission Lines
69 kV - Existing
115 kV - Existing
230 kV - Existing
345 kV - Existing

Appendix C - Segment Map MP03

Route Permit
Brookings County - Hampton
345 kV Transmission Line

Map Document: (\\mspe-gis-file\GISProj\GRE\64620\map_docs\mxd\Route_Permit\appendix\all_segments\map_11x17_L_all_segments_121508.mxd) 12/19/2008