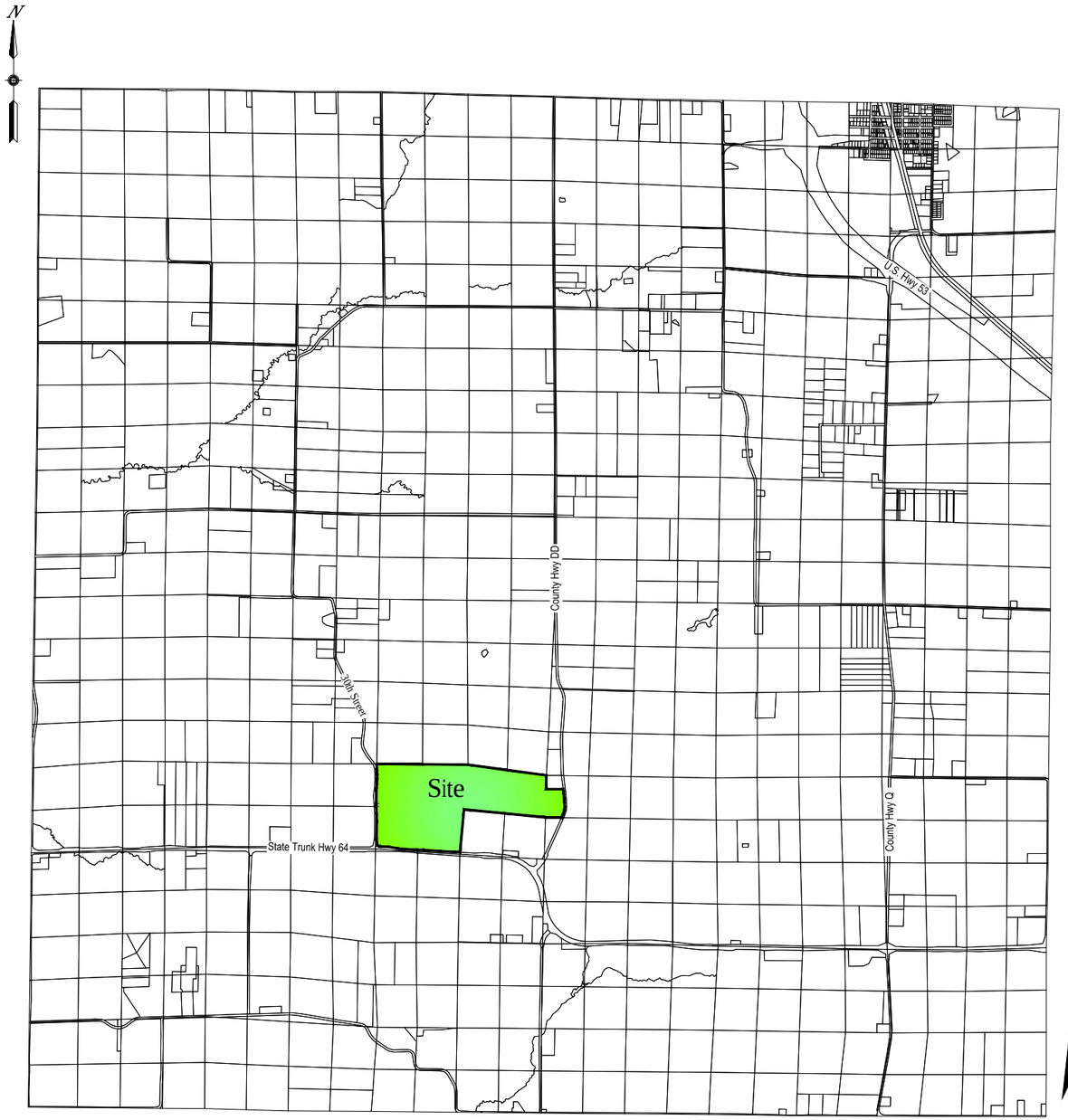
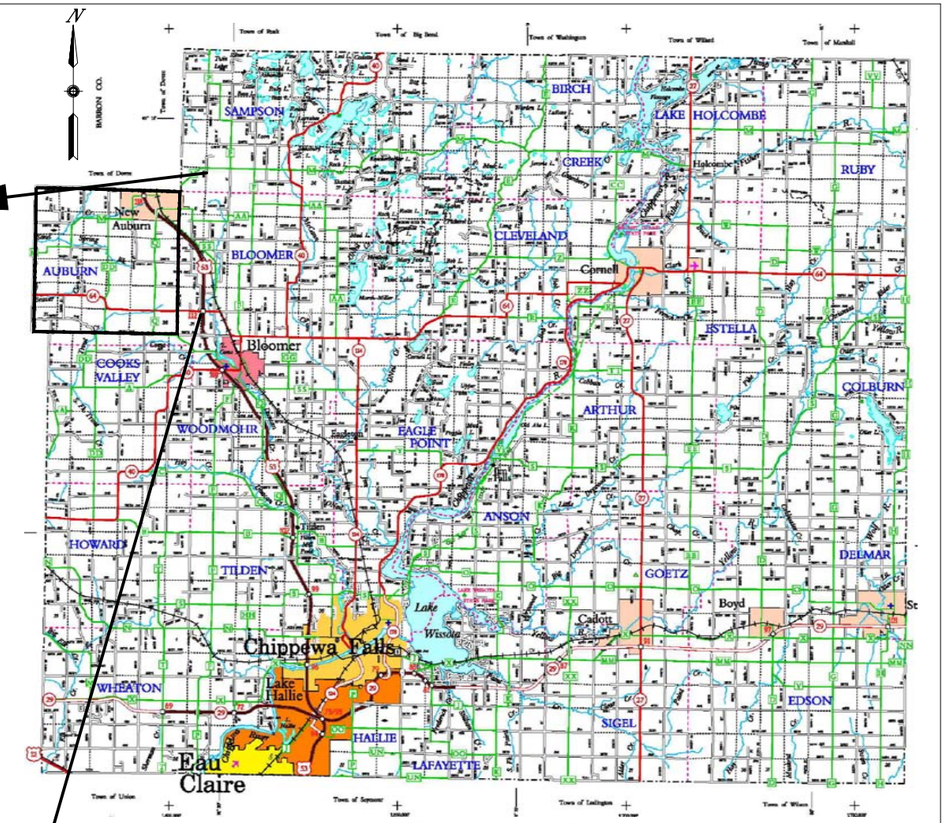


Town of Auburn



Chippewa County

Sunde Engineering, PLLC.

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BLOOMINGTON, MINNESOTA 55437
(952) 881-3344 TELEPHONE
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www.sundecivil.com

DRT Sands Inc

Industrial Sand Mining Permit

Town of Auburn
Chippewa County

DATE	REVISION

WISCONSIN PROFESSIONAL ENGINEER
KIRSTEN A. PAULY
E-40641
CHANHASSEN, MN

NAME
DATE: 10-10-2014

INFORMATION:

PROJECT NO.: 14-534
DRAWN BY:
CHECKED BY:
APPROVED BY:
SCALE:
DATE: 10-10-2014

DESCRIPTION:

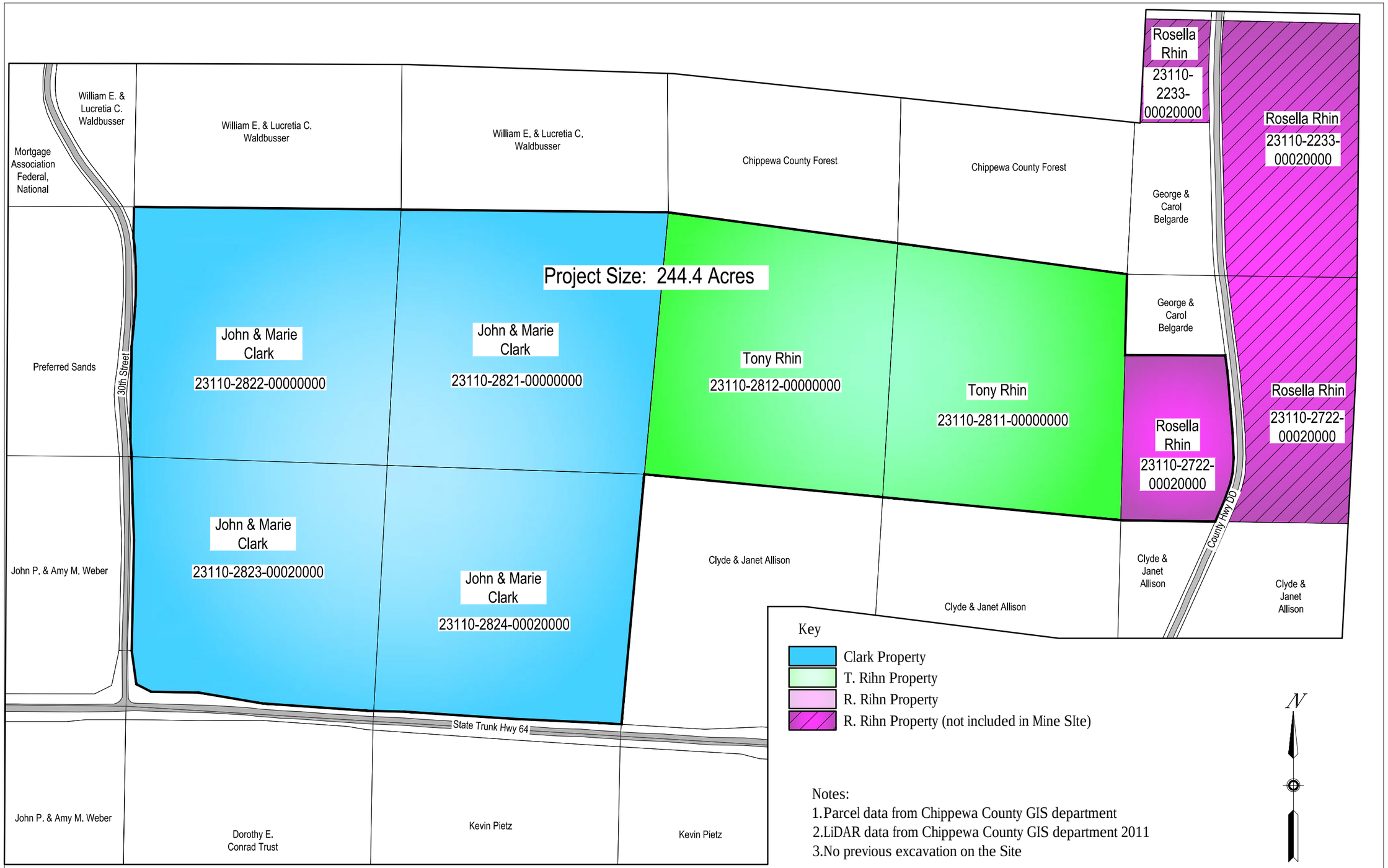
Project Location Map

SHEET NO:

C1

XOFX

#PROJECT T.TWP , R.RG , S.SEC DRAWN DRAWING: G:\DWGS\DRT Sands\Chippewa County\Reclamation Permit Figures\1-2015 Response to county comments\C1 General Location Map.dwg LAYOUT: Layout1



Notes:
1. Parcel data from Chippewa County GIS department
2. LiDAR data from Chippewa County GIS department 2011
3. No previous excavation on the Site

Sunde Engineering, PLLC.
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DRT Sands Inc.

Industrial Sand Mining Permit

Town of Auburn
Chippewa County

DATE	REVISION

WISCONSIN KIRSTEN A. PAULY E-40641 CHAMHASSEN, MN PROFESSIONAL ENGINEER

NAME
DATE: 10-10-2014

INFORMATION:

PROJECT NO.: 14-534
DRAWN BY:
CHECKED BY:
APPROVED BY:
SCALE:
DATE: 10-10-2014

DESCRIPTION:

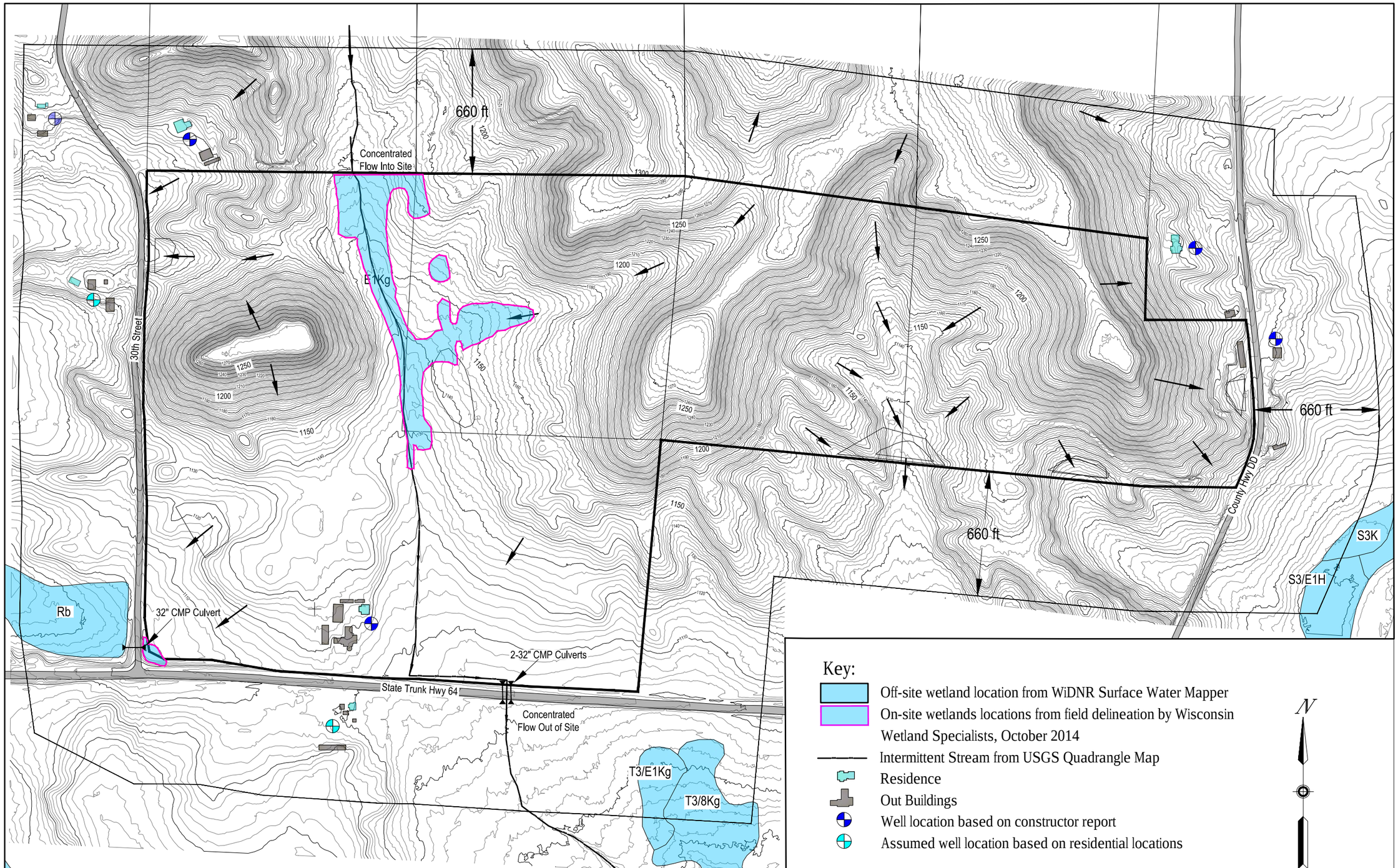
Project Parcels

SHEET NO:

C2

XOFX

#PROJECT T.TWP , R.RG , S.SEC DRAWN DRAWING: G:\DWGS\DRT Sands\Chippewa County\Reclamation Permit Figures\1-2015 Response to county comments\C2 Project Parcels.dwg LAYOUT: Layout1



Notes:

1. This drawing shows existing site conditions for the proposed site and surrounding 660 feet of the site.
2. Parcel data from Chippewa County GIS department
3. LiDAR data from Chippewa County GIS department 2011
4. No previous excavation on-site.

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Town of Auburn
Chippewa County

DATE	REVISION
1/27/2015	Add delineated wetland boundaries

WISCONSIN KIRSTEN A. PAULY E-40641 CHANHASSEN, MN PROFESSIONAL ENGINEER

NAME
DATE: 10-10-2014

INFORMATION:

PROJECT NO.: 14-534
DRAWN BY:
CHECKED BY:
APPROVED BY:
SCALE:
DATE:

DESCRIPTION:

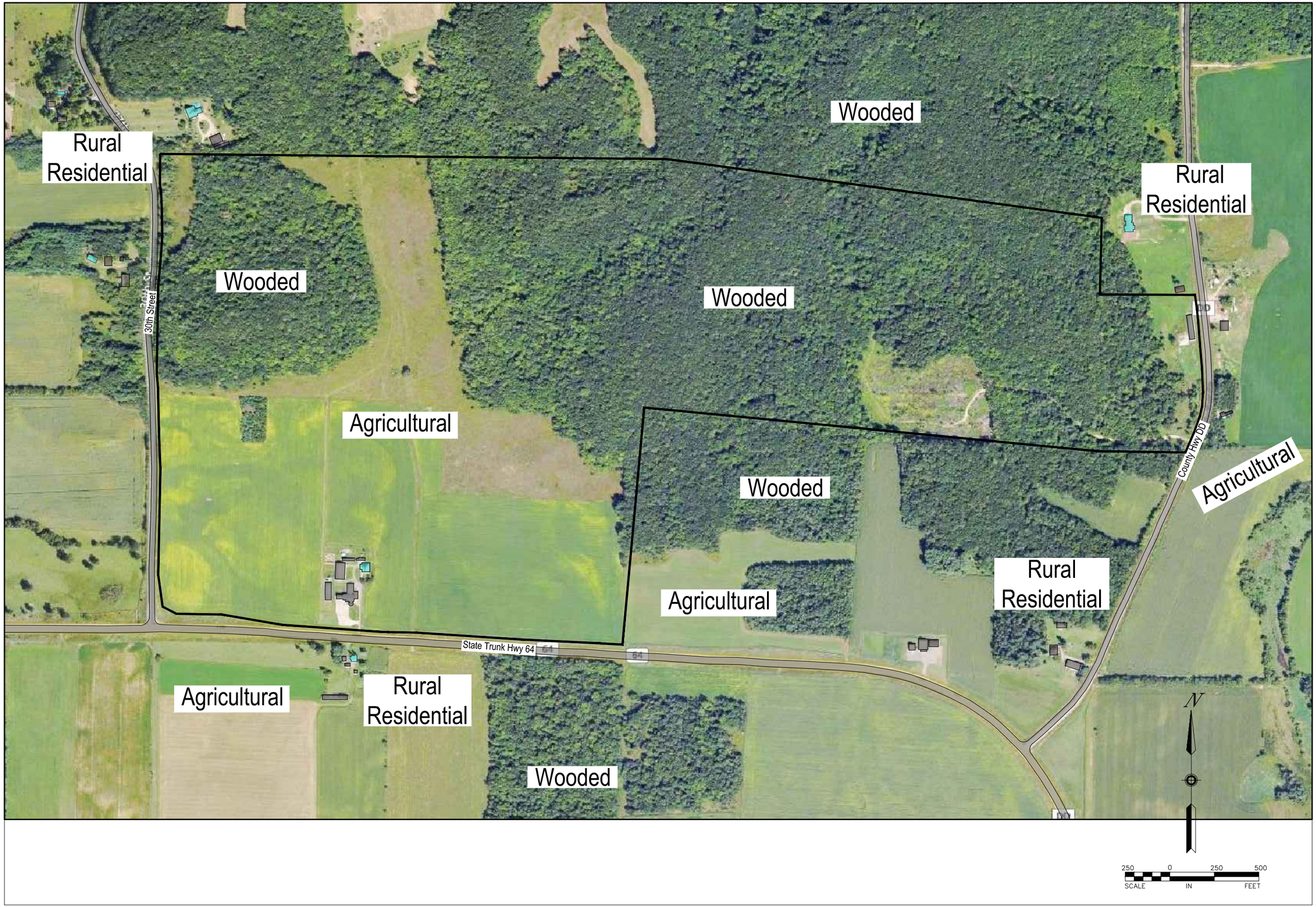
Existing Conditions

SHEET NO:

C3

XOFX

#PROJECT T.TWP , R.RG , S.SEC DRAWN DRAWING: G:\DWGS\DRT Sands\Chippewa County\Reclamation Permit Figures\1-2015 Response to county comments\C3 Existing Conditions.dwg LAYOUT: Layout1



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DRT Sands Inc.

Industrial Sand Mining Permit

Town of Auburn
Chippewa County

DATE	REVISION

KIRSTEN A. PAULY E-40641 CHANHASSEN, MN

NAME
DATE: 1-27-2015

INFORMATION:

PROJECT NO.: 14-534
DRAWN BY:
CHECKED BY:
APPROVED BY:
SCALE:
DATE: 1-6-2015

DESCRIPTION:

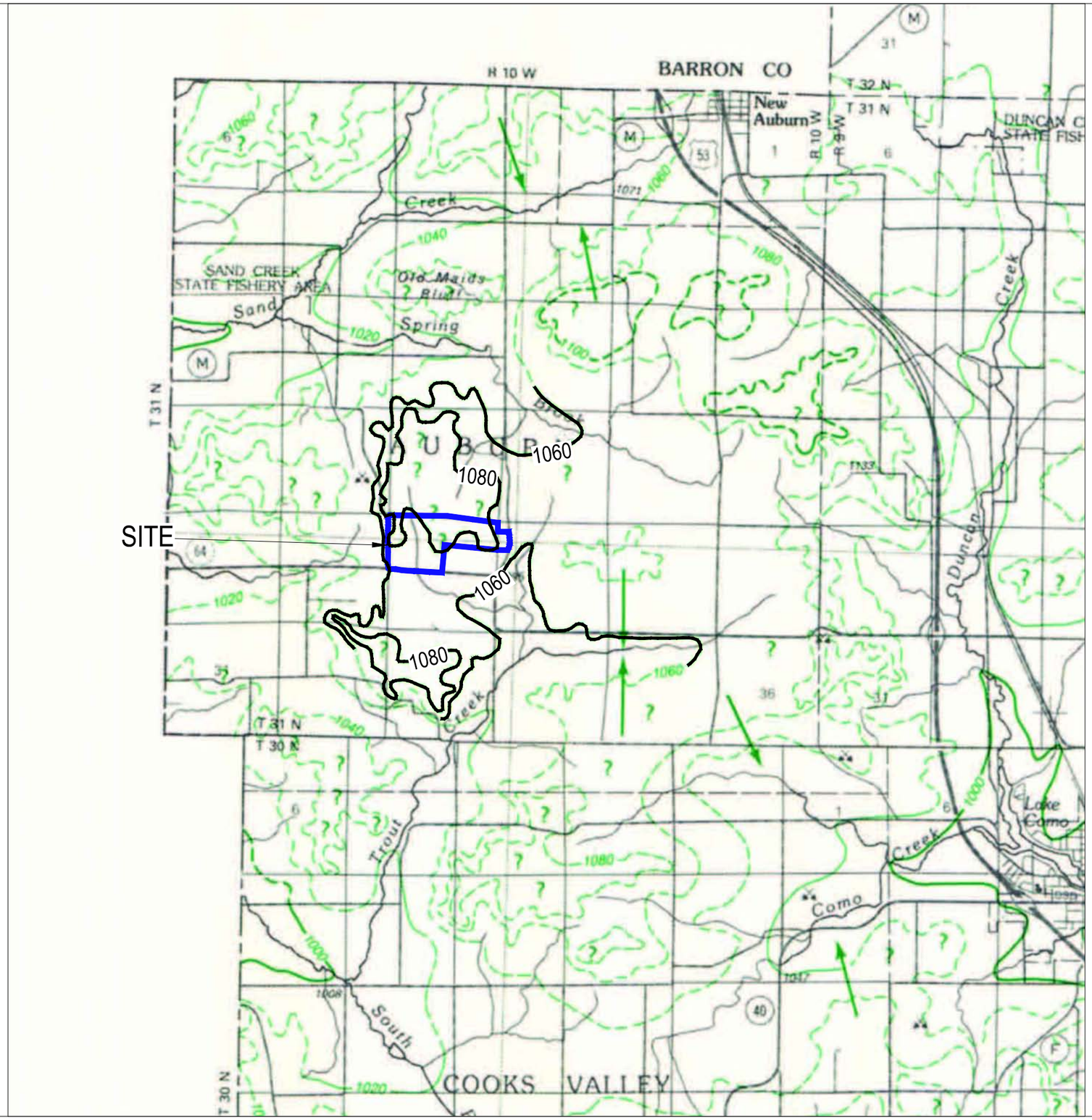
Existing Land Use

SHEET NO:

C3-A

XOFX

#PROJECT T.TWP , R.RG , S.SEC DRAWN DRAWING: G:\DWGS\DRT Sands\Chippewa County\Reclamation Permit Figures\1-2015 Response to county comments\C3-A Existing Land Use.dwg LAYOUT: Layout1



Notes:

1. Water Table information from "Generalized Water-Table Elevation of Chippewa County Wisconsin" - 1988.

N

.5 mile 0 .5 mile 1 mile

SCALE IN FEET

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DRT Sands Inc

Industrial Sand Mining Permit

Town of Auburn
Chippewa County

DATE	REVISION

WISCONSIN REGISTERED PROFESSIONAL ENGINEER
KIRSTEN A. PAULY
E-40641
CHANHASSEN, MN

NAME

DATE: 10-10-2014

INFORMATION:

PROJECT NO.: 14-534

DRAWN BY:

CHECKED BY:

APPROVED BY:

SCALE:

DATE: 10-10-2014

DESCRIPTION:

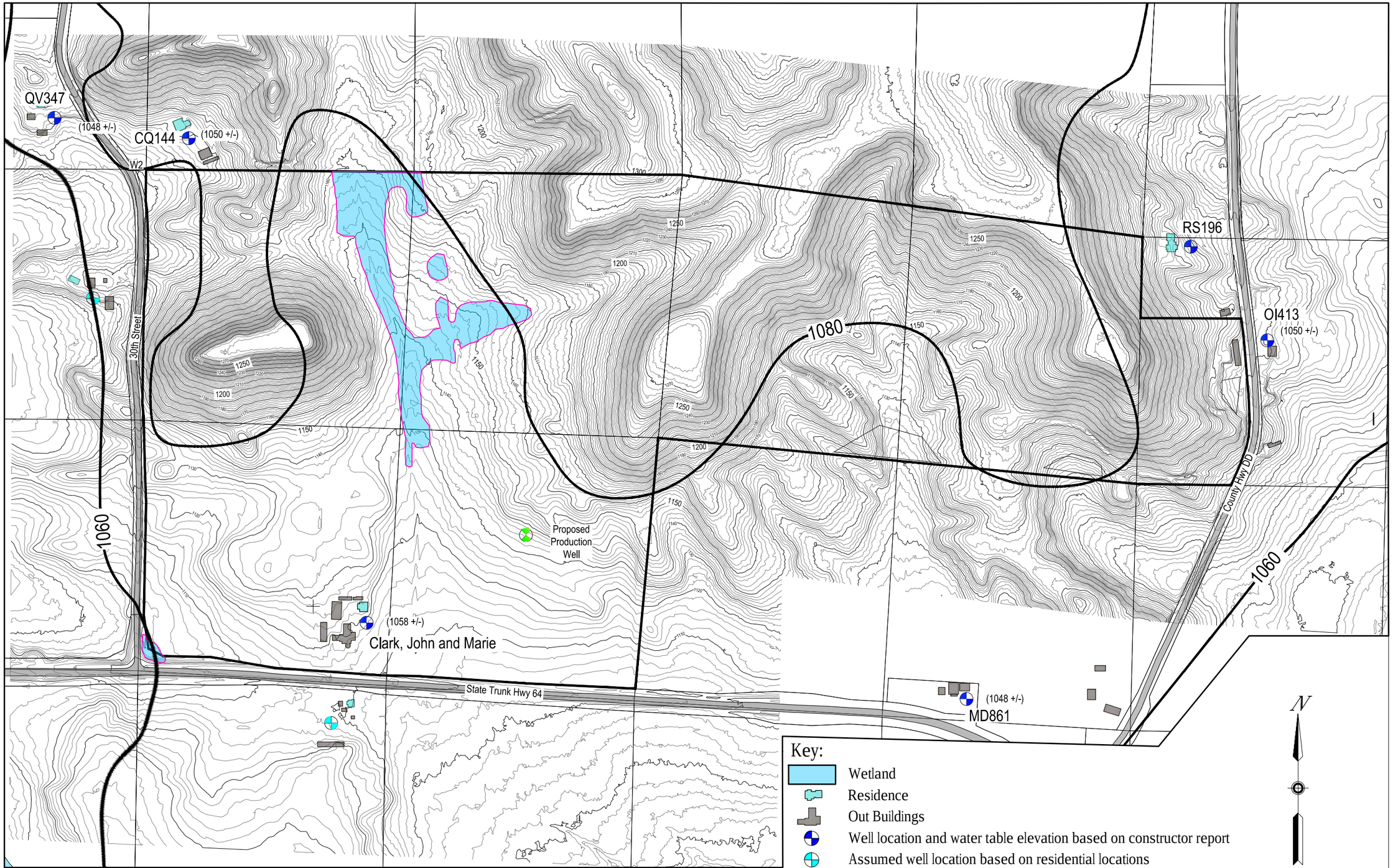
Water Table Conditions

SHEET NO:

C4

XOFX

#PROJECT T.TWP , R.RG , S.SEC DRAWN DRAWING: G:\DWGS\DRT Sands\Chippewa County\Reclamation Permit Figures\1-2015 Response to county comments\C4 Water Table Conditions.dwg LAYOUT: Layout1



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Industrial Sand Mining Permit

Town of Auburn
Chippewa County

DATE	REVISION

WISCONSIN REGISTERED PROFESSIONAL ENGINEER
KIRSTEN A. PAULY
E-40641
CHANHASSEN, MN

NAME
DATE: 1/27/2015

INFORMATION:

PROJECT NO.: 14-534
DRAWN BY:
CHECKED BY:
APPROVED BY:
SCALE:
DATE: 1-7-2015

DESCRIPTION:

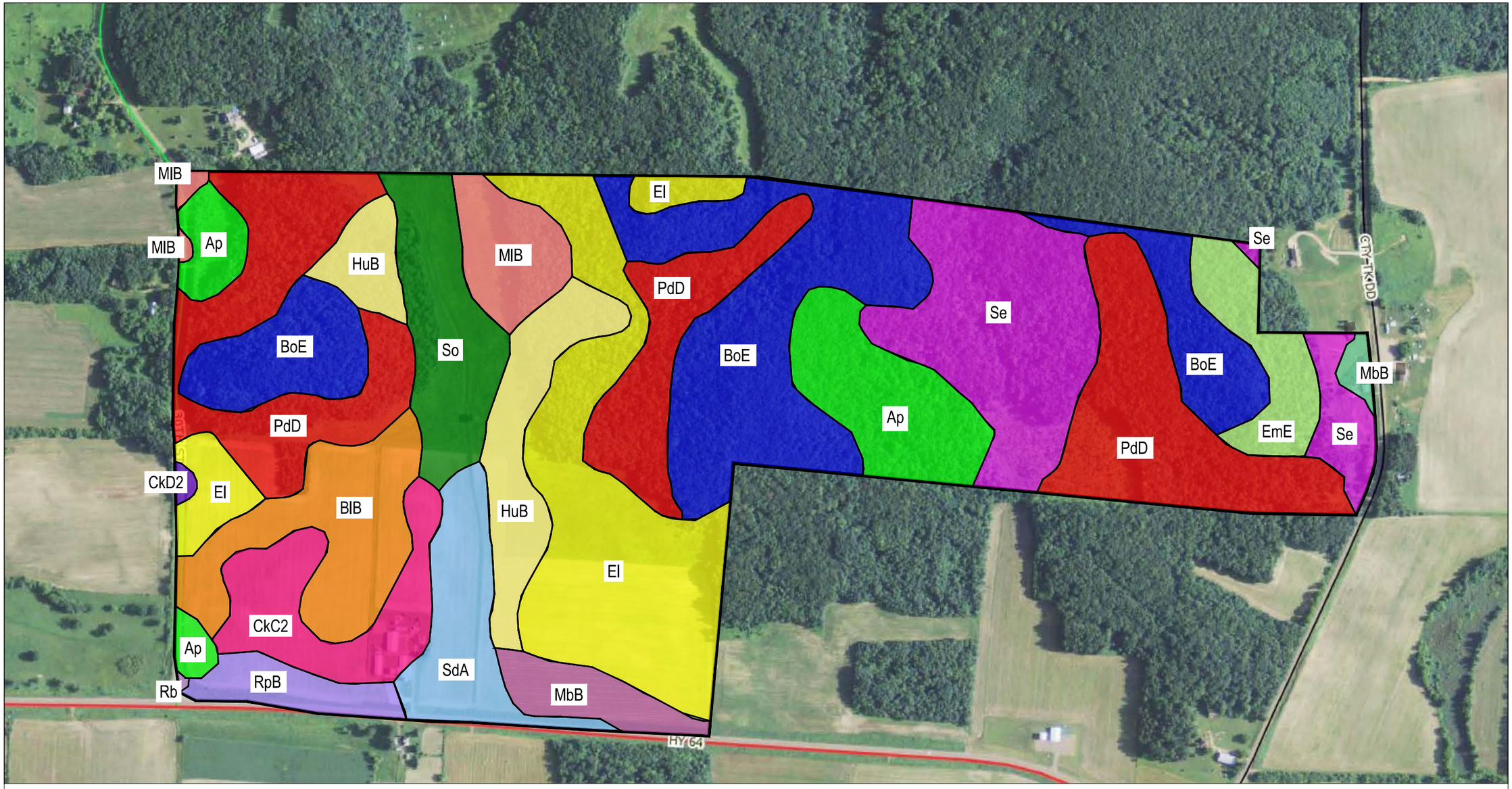
Mine Site Water Table Map

SHEET NO:

C4-A

XOFX

#PROJECT T.TWP , R.RG , S.SEC DRAWN DRAWING: G:\DWGS\DRT Sands\Chippewa County\Reclamation Permit Figures\1-2015 Response to county comments\C4-A Mine Site Water table Map r-1.dwg LAYOUT: Layout1



Key:

- Ap, Arland sandy loam
- AsB, Arland loam
- BlB, Billet sandy loam
- BoE, Boone fine sand
- CkC2, Chetek sandy loam
- CkD2, Chetek-Mahtomedi complex
- El, Eleva sandy loam
- EmE, Elkmound loam
- HuB, Humbird sandy loam
- MbB, Magnor silt loam
- MlB, Meridian loam
- PdD, Plainbo loamy sand
- Rb, Rib silt loam
- RpB, Rosholt loam
- SdA, Scott Lake loam
- Se, Seaton silt loam
- So, Shiffer loam

N

250 0 250 500
SCALE IN FEET

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Industrial Sand Mining Permit

Town of Auburn
Chippewa County

DATE	REVISION

KIRSTEN A. PAULY E-40641 CHANHASSEN, MN

NAME
DATE: 10-10-2014

INFORMATION:

PROJECT NO.: 14-534
DRAWN BY:
CHECKED BY:
APPROVED BY:
SCALE:
DATE: 10-10-2014

DESCRIPTION:

Soils Map

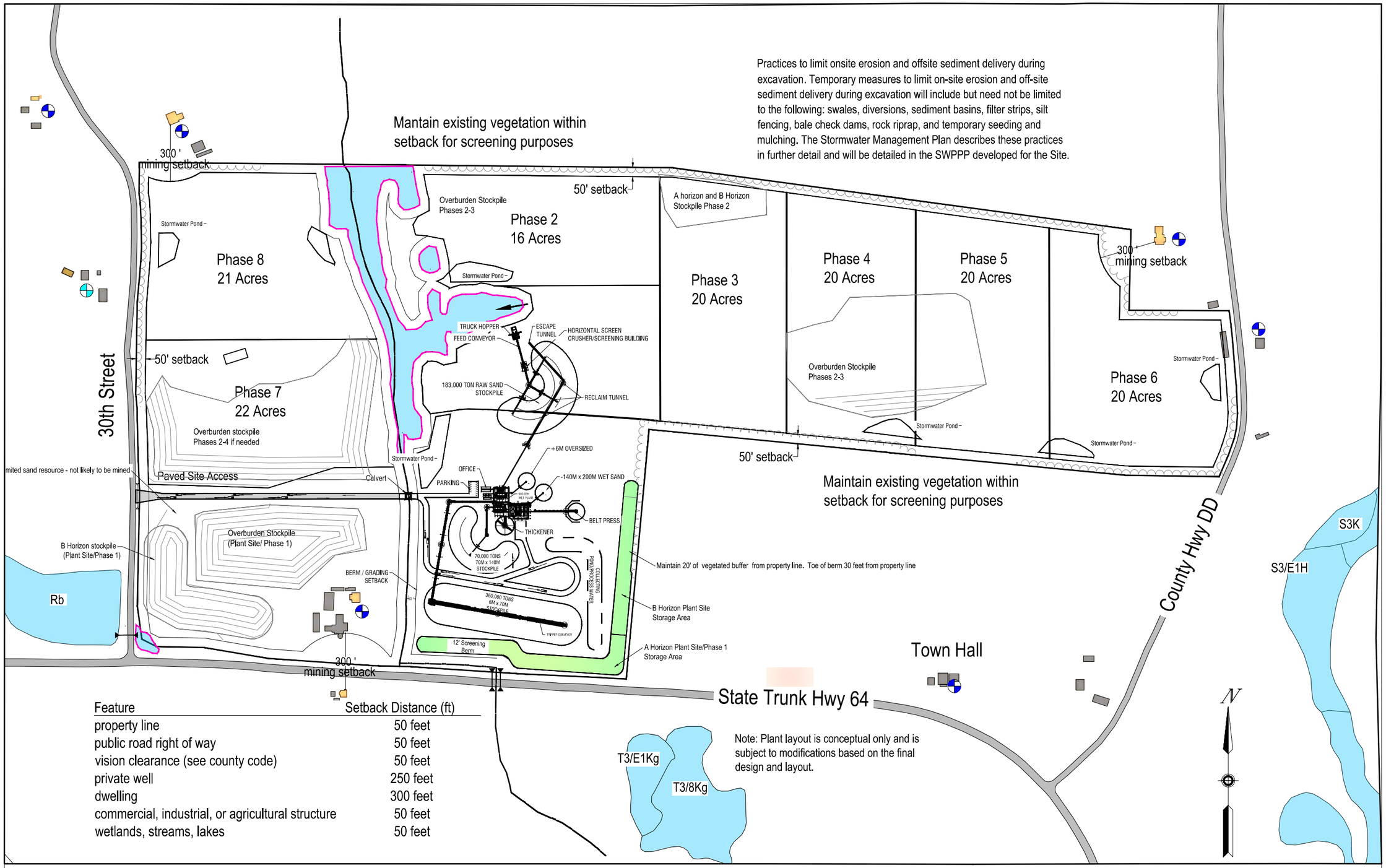
SHEET NO:

C5

XOFX

#PROJECT T.TWP , R.RG , S.SEC DRAWN DRAWING: \\Kirstenspc\dwgs\DRT Sands\Reclamation Permit Figures\C5 Soils Map.DWG LAYOUT: Layout1

Practices to limit onsite erosion and offsite sediment delivery during excavation. Temporary measures to limit on-site erosion and off-site sediment delivery during excavation will include but need not be limited to the following: swales, diversions, sediment basins, filter strips, silt fencing, bale check dams, rock riprap, and temporary seeding and mulching. The Stormwater Management Plan describes these practices in further detail and will be detailed in the SWPPP developed for the Site.



Note: Plant layout is conceptual only and is subject to modifications based on the final design and layout.

Feature	Setback Distance (ft)
property line	50 feet
public road right of way	50 feet
vision clearance (see county code)	50 feet
private well	250 feet
dwelling	300 feet
commercial, industrial, or agricultural structure	50 feet
wetlands, streams, lakes	50 feet

Key:

- Intermittent stream
- Setback
- Residence
- Out building
- Well location based on Constructor report
- Assumed well location based on residence
- Berm
- Wetland

250 0 250 500
SCALE IN FEET

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Industrial Sand Mining Permit

Town of Auburn
Chippewa County

DATE	REVISION
1/27/2015	County Comments

KIRSTEN A. PAULY E-40641 CHANHASSEN, MN

NAME:
DATE: 10-10-14

INFORMATION:

PROJECT NO.: 14-534
DRAWN BY:
CHECKED BY:
APPROVED BY:
SCALE:
DATE: 10-10-14

DESCRIPTION:

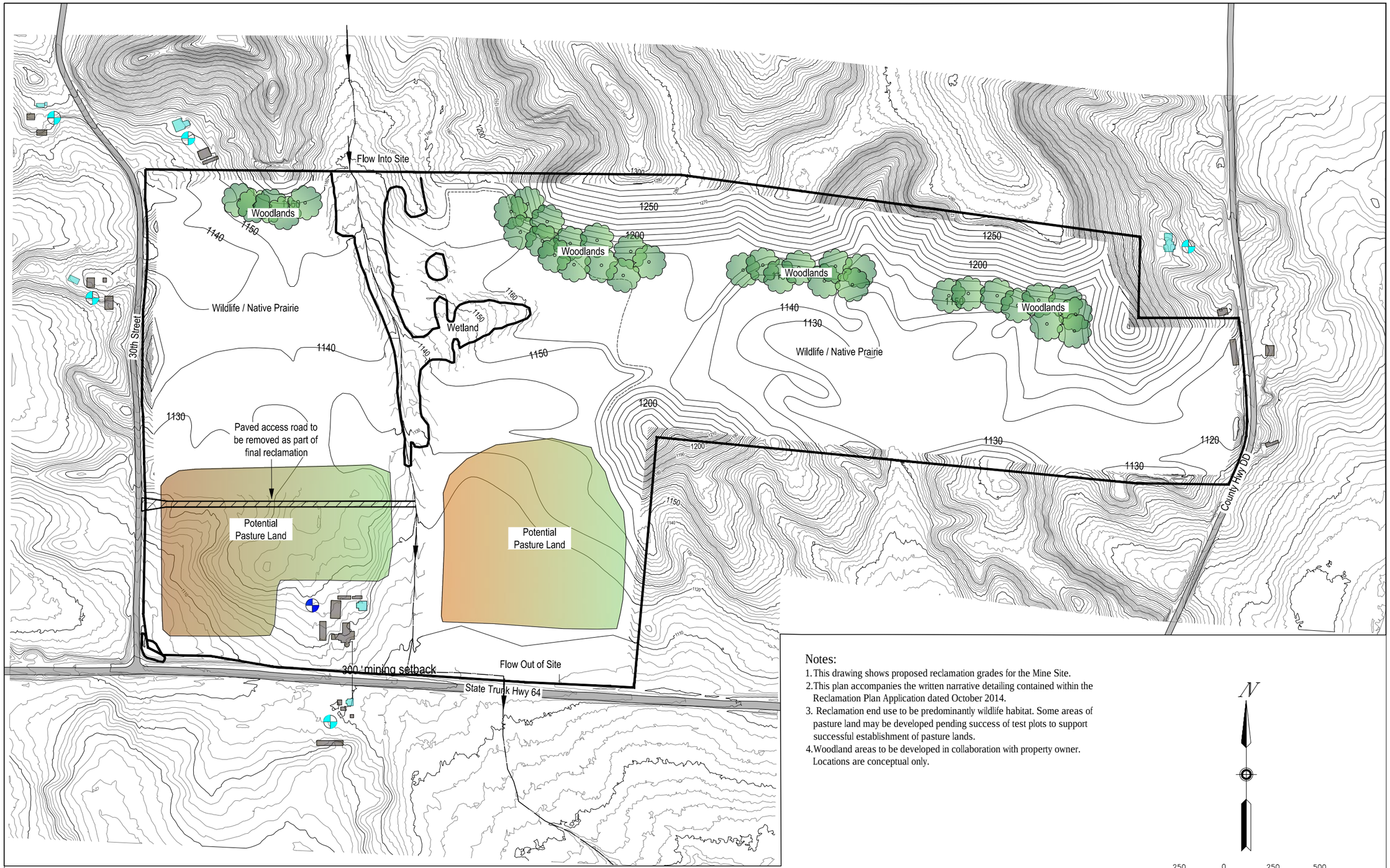
Operations Plan

SHEET NO:

C6

#PROJECT T.TWP , R.RG , S.SEC DRAWN

XOFX



Notes:

1. This drawing shows proposed reclamation grades for the Mine Site.
2. This plan accompanies the written narrative detailing contained within the Reclamation Plan Application dated October 2014.
3. Reclamation end use to be predominantly wildlife habitat. Some areas of pasture land may be developed pending success of test plots to support successful establishment of pasture lands.
4. Woodland areas to be developed in collaboration with property owner. Locations are conceptual only.

N

250 0 250 500
SCALE IN FEET

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DRT Sands Inc.

Industrial Sand Mining Permit

Town of Auburn
Chippewa County

DATE	REVISION

WISCONSIN KIRSTEN PAULY E-40641 CHANHASSEN, MN

NAME
DATE: 02-22-2015

INFORMATION:

PROJECT NO.: 14-534
DRAWN BY:
CHECKED BY:
APPROVED BY:
SCALE:
DATE: 10-10-2014

DESCRIPTION:

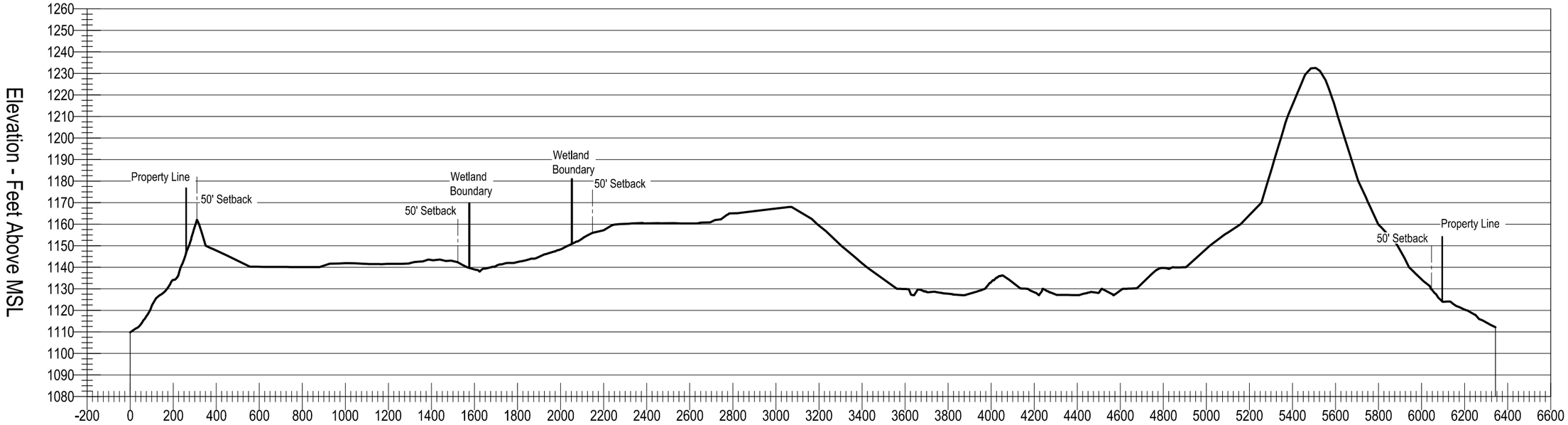
Reclamation Grades

SHEET NO:

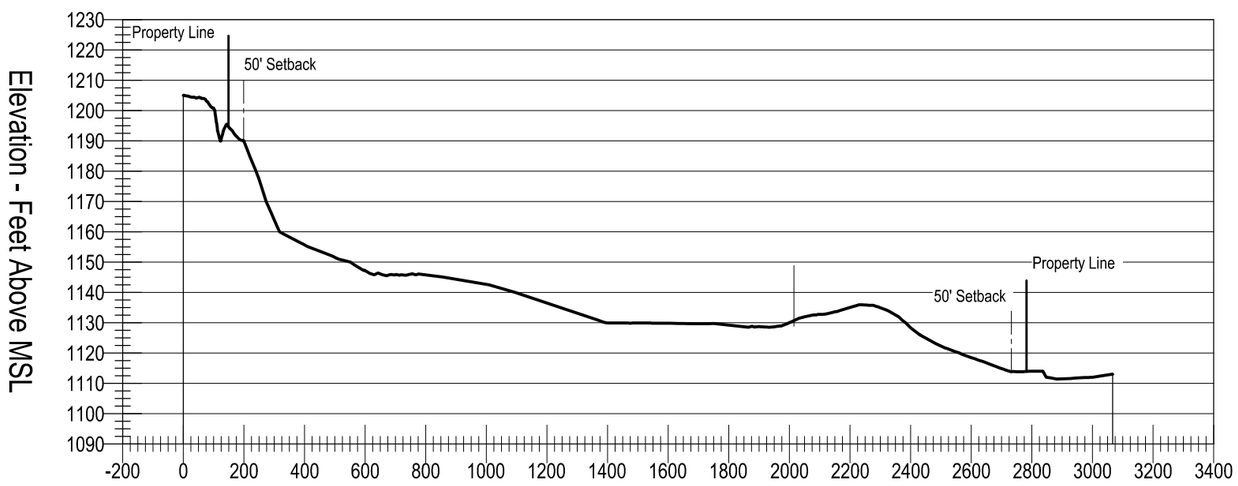
C7

XOFX

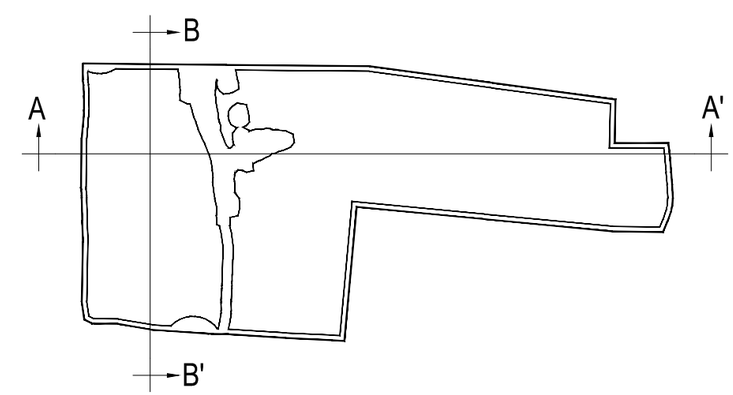
#PROJECT T.TWP , R.RG , S.SEC DRAWN DRAWING: \\Kirstenspc\DWGS\DRT Sands\Chippewa County\Reclamation Permit Figures\Submitted to County 2-22-2015\C7 Reclamation Grades, Cross Sections A-C.dwg LAYOUT: Reclamation Grades



Cross Section A-A'



Cross Section B-B'



Notes:

1. This drawing shows proposed reclamation grades for the Mine Site.
2. This plan accompanies the written narrative detailing contained within the Reclamation Plan Application dated October 2014.

Sunde Engineering, PLLC.

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DRT Sands Inc.

Industrial Sand Mining Permit

Town of Auburn
Chippewa County

DATE	REVISION

WISCONSIN REGISTERED PROFESSIONAL ENGINEER
KIRSTEN A. PAULY
E-40641
CHANHASSEN, MN

NAME
DATE: 1/27/2015

INFORMATION:

PROJECT NO.: 14-534
DRAWN BY:
CHECKED BY:
APPROVED BY:
SCALE:
DATE: 10-10-2014

DESCRIPTION:

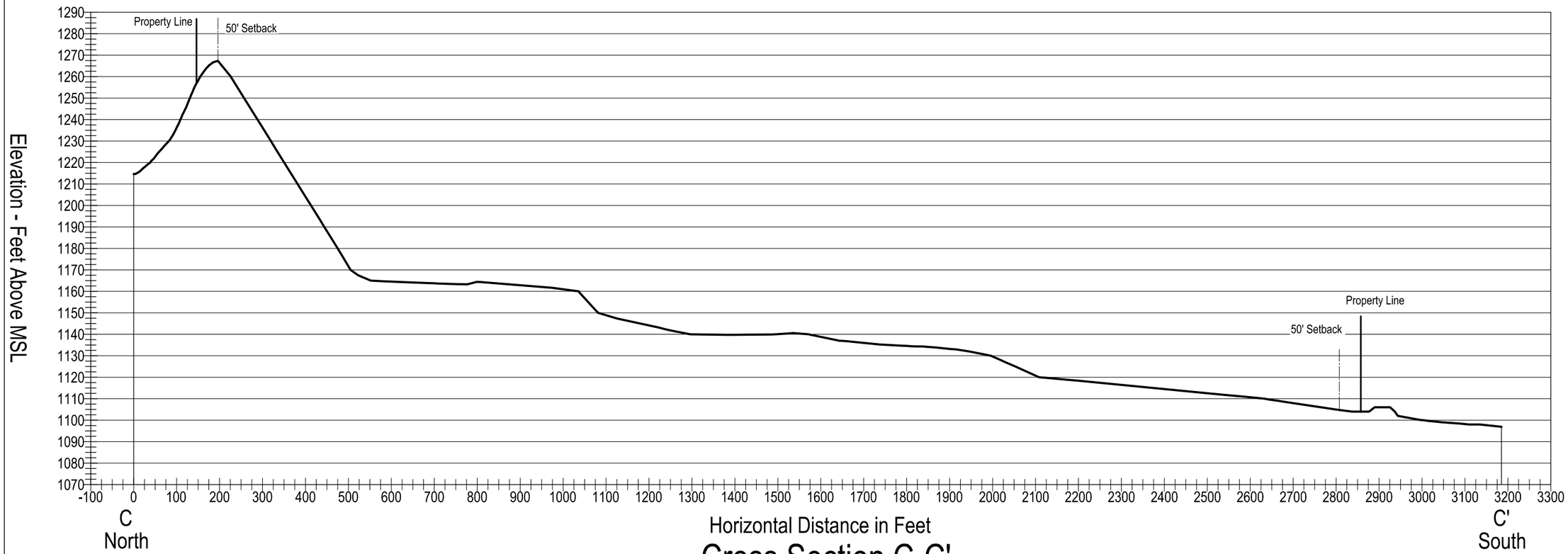
Reclamation Cross-Section

SHEET NO:

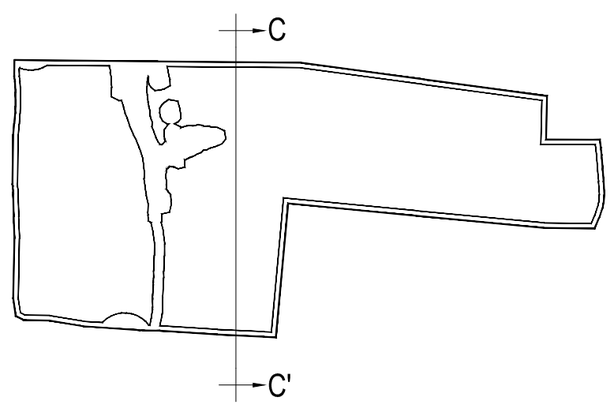
C7-A

XOFX

#PROJECT T.TWP , R.RG , S.SEC DRAWN DRAWING: G:\DWGS\DRT Sands\Chippewa County\Reclamation Permit Figures\1-2015 Response to county comments\C7 Reclamation Grades, Cross Sections A-C.dwg LAYOUT: A-A' & B-B'



Cross Section C-C'



Notes:

1. This drawing shows proposed reclamation grades for the Mine Site.
2. This plan accompanies the written narrative detailing contained within the Reclamation Plan Application dated October 2014.

Sunde Engineering, PLLC.
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DRT Sands Inc.
Industrial Sand Mining Permit

Town of Auburn
Chippewa County

DATE	REVISION

KIRSTEN A. PAULY E-40641 CHANHASSEN, MN

NAME:
DATE: 1/27/2015

INFORMATION:

PROJECT NO.: 14-534
DRAWN BY:
CHECKED BY:
APPROVED BY:
SCALE:
DATE:

DESCRIPTION:

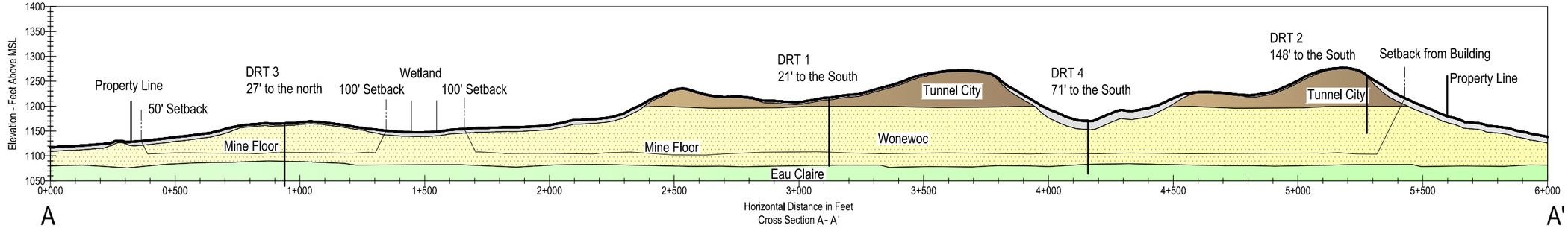
Reclamation Cross-Section

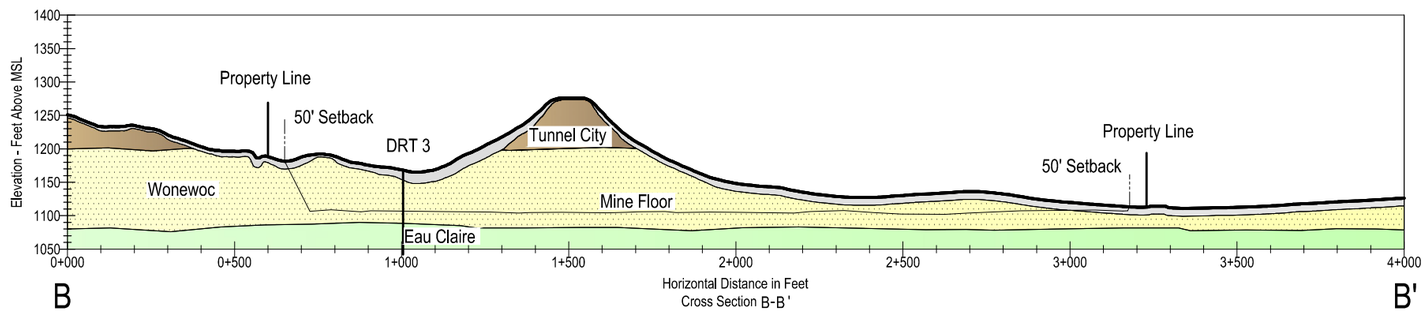
SHEET NO:

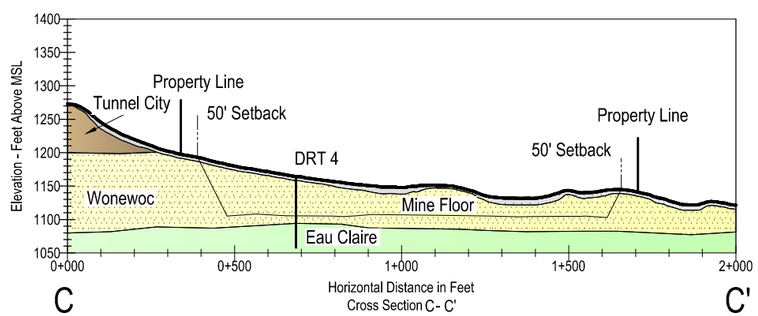
C7-B

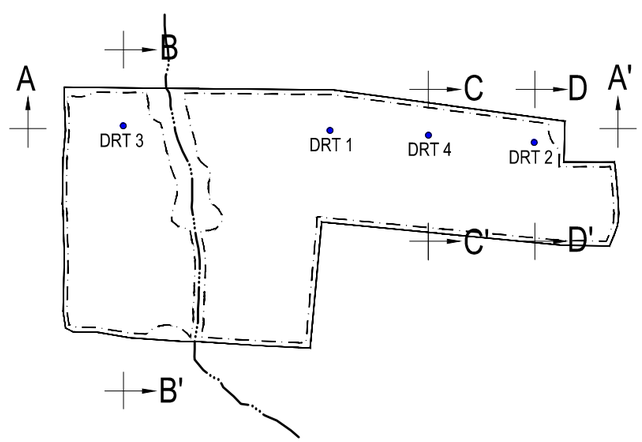
XOFX

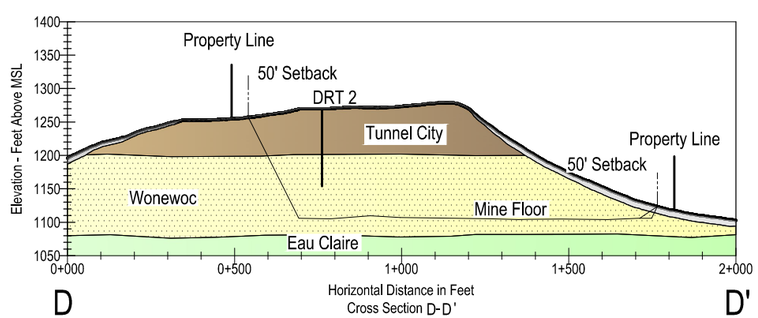
#PROJECT T.TWP , R.RG , S.SEC DRAWN DRAWING: G:\DWGS\DRT Sands\Chippewa County\Reclamation Permit Figures\1-2015 Response to county comments\C7 Reclamation Grades, Cross Sections A-C.dwg LAYOUT: C-C'











Notes:

1. Parcel data from Chippewa County GIS department
2. LiDAR data from Chippewa County GIS department 2011
3. Topographic information outside of the two foot LiDAR data range from USGS Quad Map contours.

Sunde Engineering, PLLC.
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(952) 881-1913 FAX
www.sundecivil.com

DRT Sands, Inc.

Industrial Sand Mining Permit

Town of Auburn
Chippewa County

DATE	REVISION

NAME
DATE:

INFORMATION:

PROJECT NO.: 14-534
DRAWN BY:
CHECKED BY:
APPROVED BY:
SCALE:
DATE:

DESCRIPTION:

Cross Sections

SHEET NO:

C8

XOFX

#PROJECT T TWP R RG S SEC DRAWN