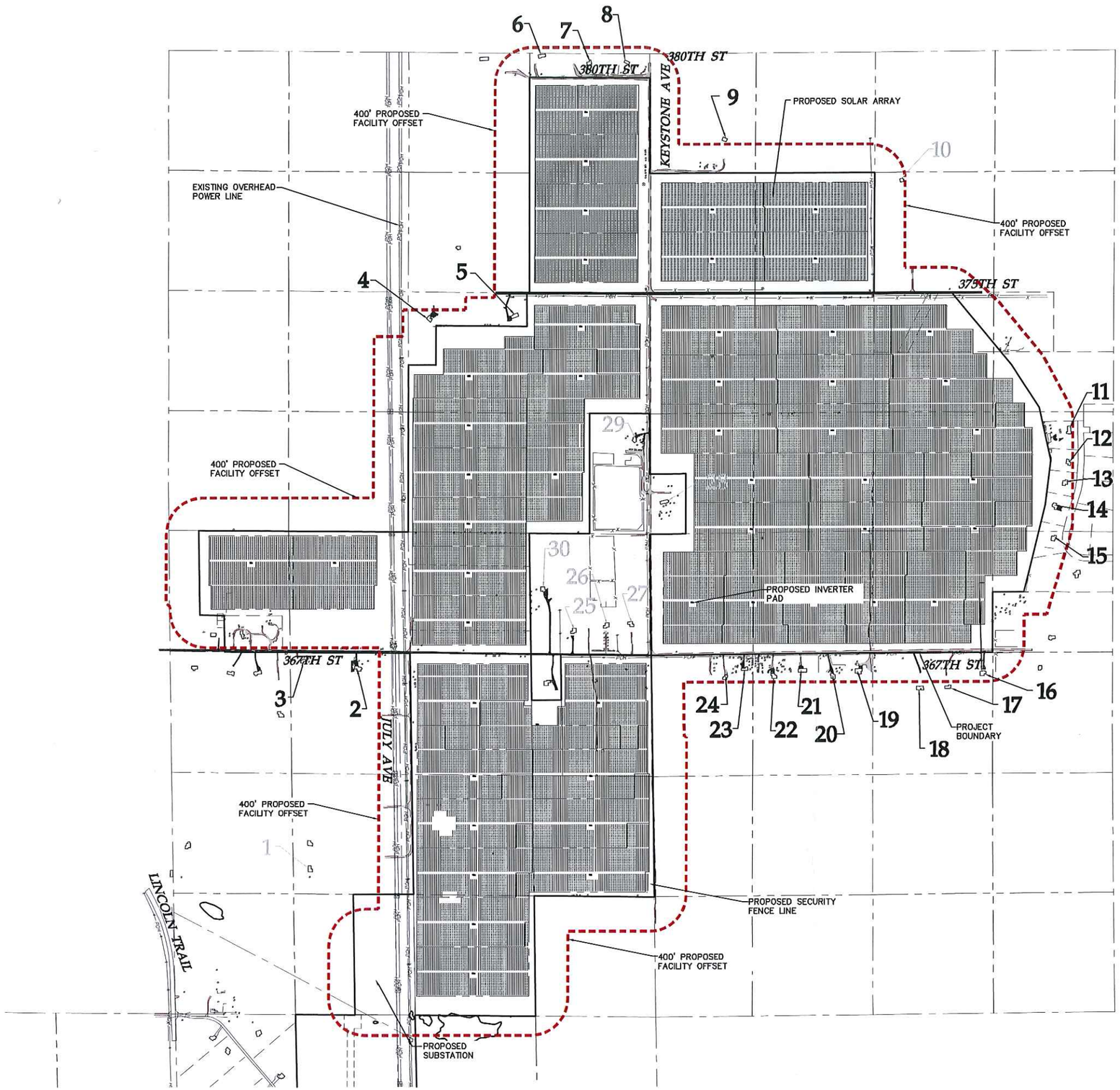
© Westwood Professional Services, Inc.



LEGEND:

- 400' PROPOSED FACILITY OFFSET
- # DENOTES HOUSES WITHIN APPROXIMATE FACILITY OFFSET (30 TOTAL)
- PROPOSED SOLAR ARRAY
- PROPOSED SUBSTATION LOCATION
- PROPOSED ACCESS ROAD
- PROPOSED INVERTER PAD
- PROPOSED SECURITY FENCE LINE
- EXISTING FENCE LINE
- EXISTING OVERHEAD POWER
- SECTION LINE
- EXISTING PARCEL LINE

PROJECT LOCATION:
LAT: 45.4949
LON: -92.8983

Westwood Professional Services, Inc.
7699 Anagram Drive
Eden Prairie, MN 55344
PHONE 952-937-5150
FAX 952-937-5822
www.westwoodps.com

Designed:	NTM
Checked:	CLM
Drawn:	NTM
Record Drawing by/date:	

Revisions:

#	DATE	DESCRIPTION

Prepared for:

NORTH STAR SOLAR PV LLC

Three Radnor Corporate Center - Suite 300
100 Matsonford Road
Radnor, PA 19087

North Star Solar Project

Chisago County, MN

Final Landscape Buffer Plan & Section Cover Sheet

N

0' 600' 1200' 1800'

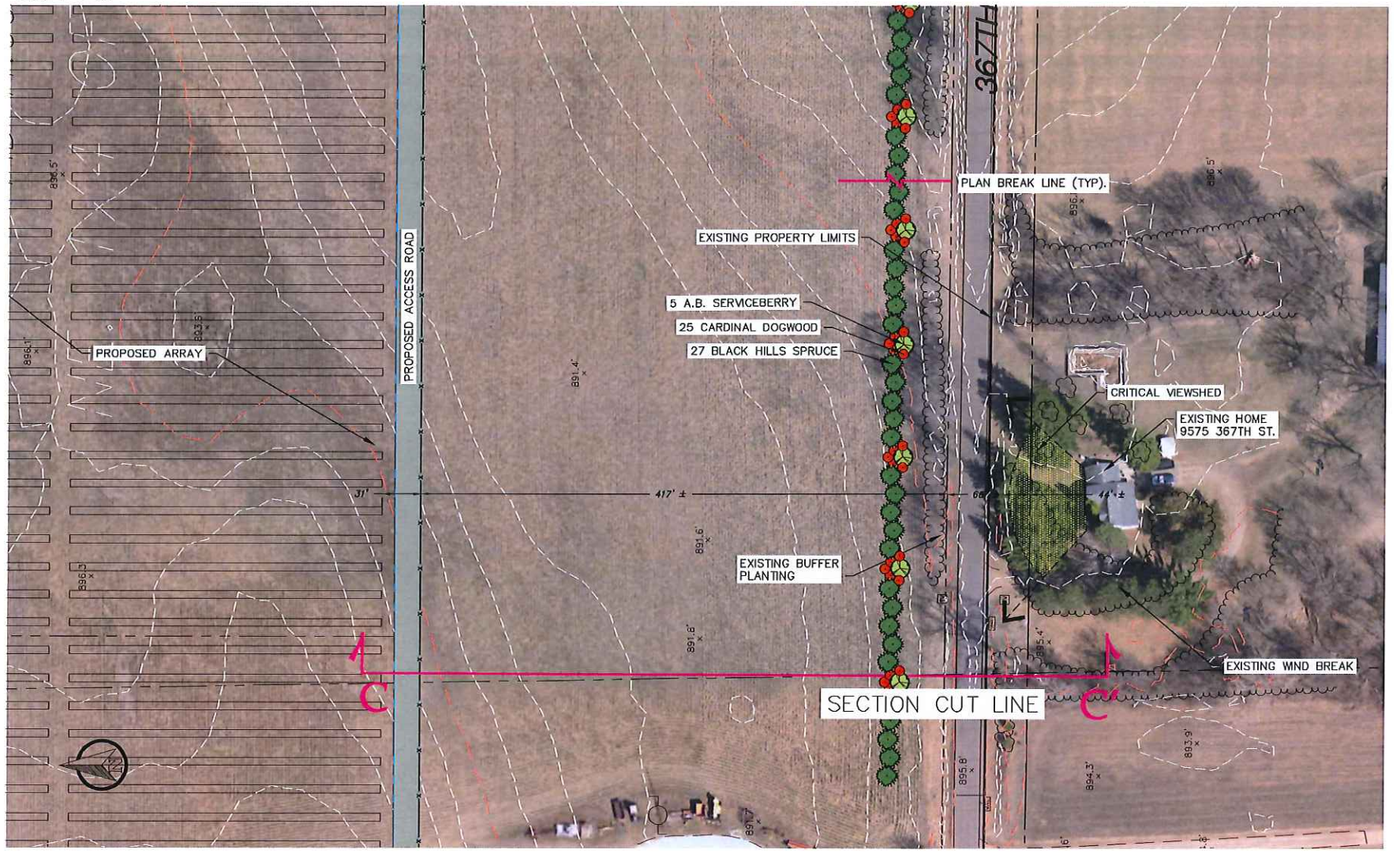
Date: 02/18/16
Drawing No: C.300

0004493COVER.dwg

© 2016 Westwood Professional Services, Inc.

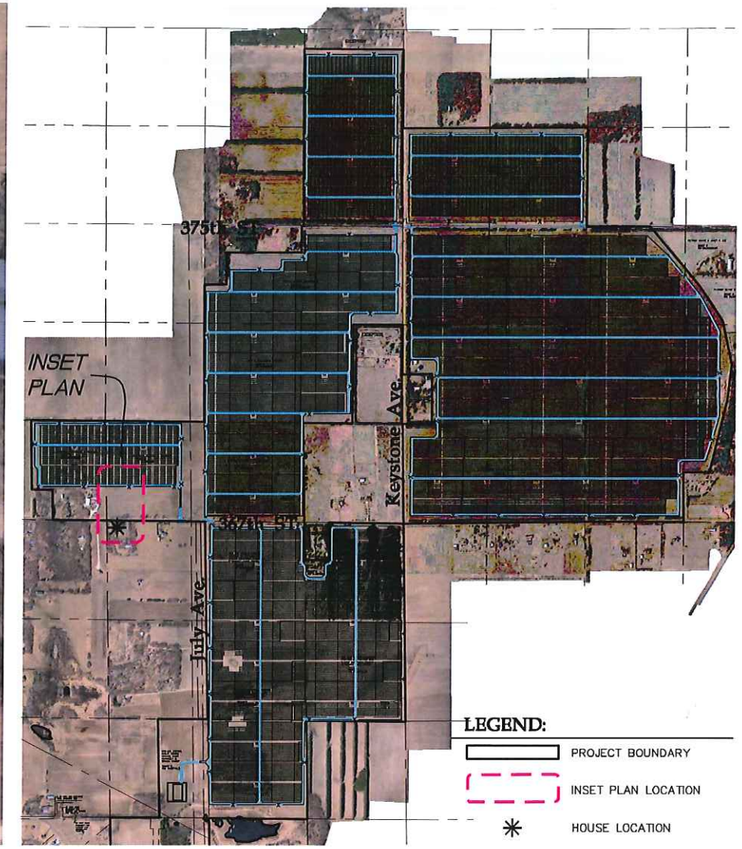
House 3: Landscape Buffer Plan

Scale: 1" = 60'



Overall Map Key

NTS



Buffer Planting Schedule

KEY	10	COMMON/BOTANICAL NAME	SIZE	SPACING O.C.	MATURE HEIGHT
	27	Black Hills Spruce / Picea glauca densata	6' HT BB	As shown	30'–40'
	5	Autumn Brilliance Serviceberry / Amelanchier x grandiflora	1.5" BB	As shown	20'–25'
	25	Cardinal Dogwood / Cornus sericea 'Cardinal'	#5 CONT.	8'–0" O.C. TYP.	8'–10'

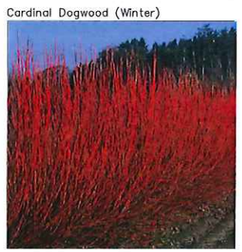
NOTE: QUANTITIES ON PLAN SUPERSEDE LIST QUANTITIES IN THE EVENT OF A DISCREPANCY.

Buffer Planting Materials

Black Hills Spruce

Autumn Brilliance Serviceberry (Spring)

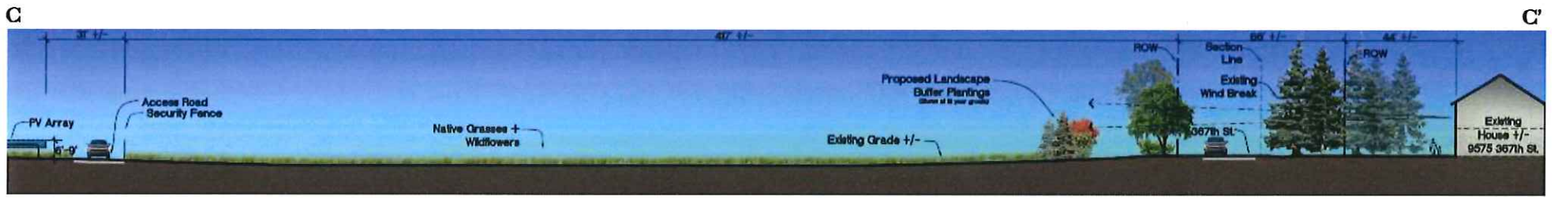
Cardinal Dogwood (Winter)



House 3: Illustrative Buffer Cross-Section

SCALE: 1"=30'

C C'



Westwood Professional Services, Inc.
7699 Anagram Drive
Eden Prairie, MN 55344
PHONE 952-937-5150
FAX 952-937-5822
www.westwoodps.com

Designed: NTM
Checked: CLM
Drawn: NTM
Record Drawing by/date:

Revisions:

#	DATE	DESCRIPTION

Prepared for:

NORTH STAR SOLAR PV LLC

Three Radnor Corporate Center - Suite 300
100 Matsonford Road
Radnor, PA 19087

North Star Solar Project

Chisago, MN

Final Landscape Buffer Plan & Section:
9575 367th St.

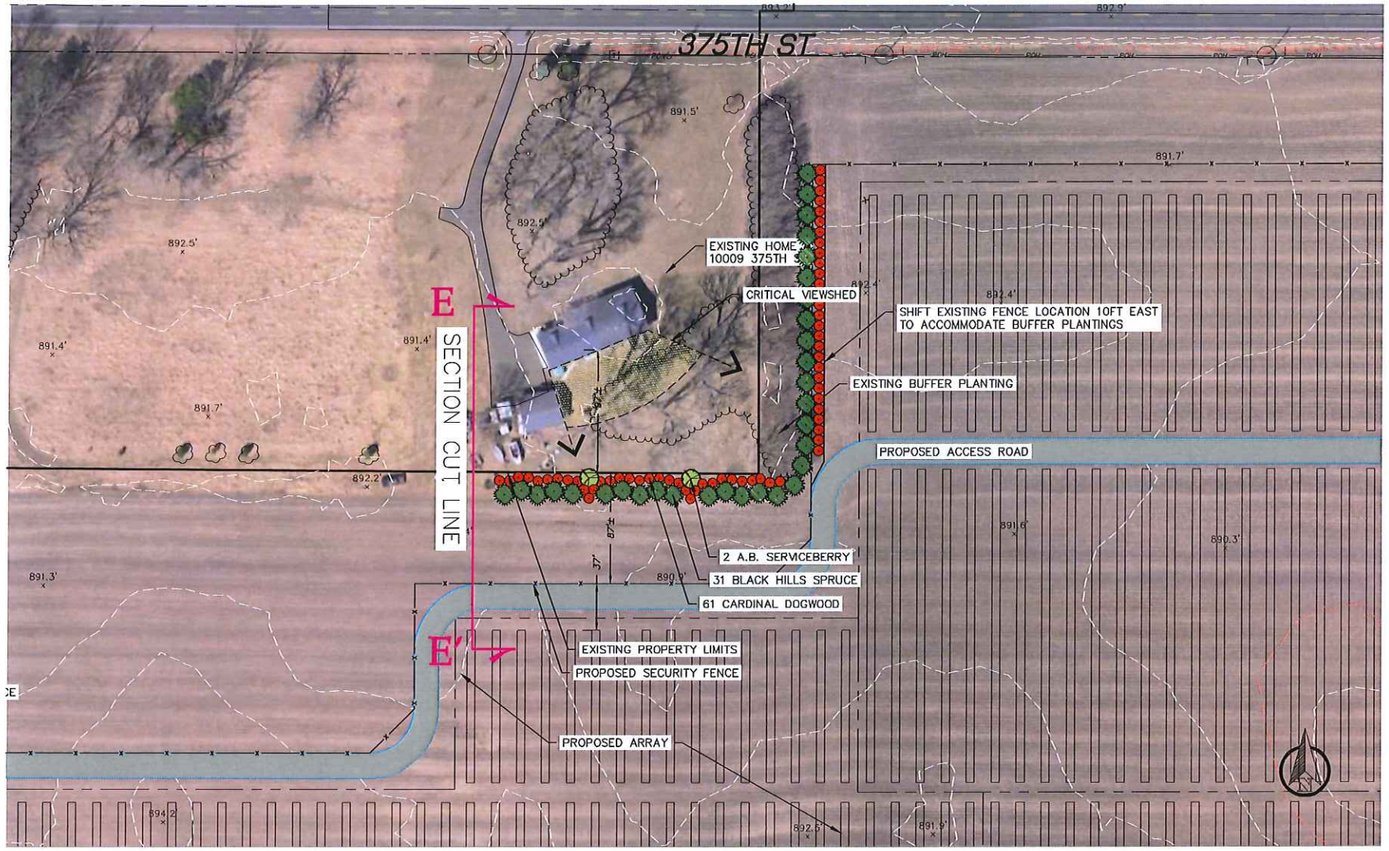
Date: 02/18/16
Drawing No: C.303

0004493PLF BUFFER HOME3.dwg

© 2016 Westwood Professional Services, Inc.

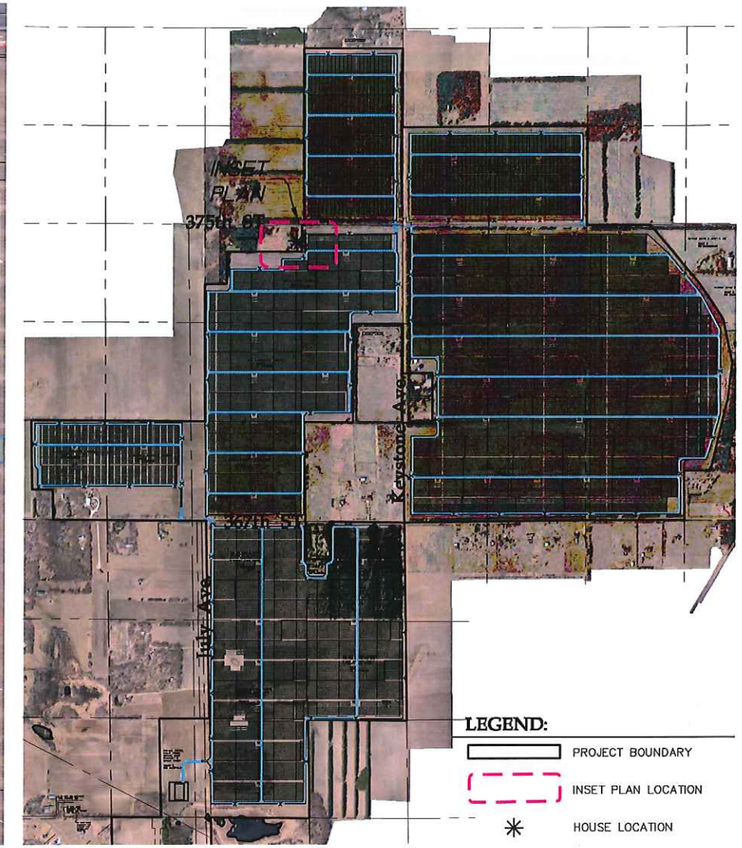
House 5: Landscape Buffer Plan

Scale: 1" = 60'



Overall Map Key

NTS



Buffer Planting Schedule

KEY	10	COMMON/BOTANICAL NAME	SIZE	SPACING O.C.	MATURE HEIGHT
	31	Black Hills Spruce / Picea glauca densata	6' HT BB	As shown	30'–40'
	2	Autumn Brilliance Serviceberry / Amelanchier x grandiflora	1.5" BB	As shown	20'–25'
	61	Cardinal Dogwood / Cornus sericea 'Cardinal'	#5 CONT.	8'–0" O.C. TYP.	8'–10'

NOTE: QUANTITIES ON PLAN SUPERSEDE LIST QUANTITIES IN THE EVENT OF A DISCREPANCY.

Buffer Planting Materials

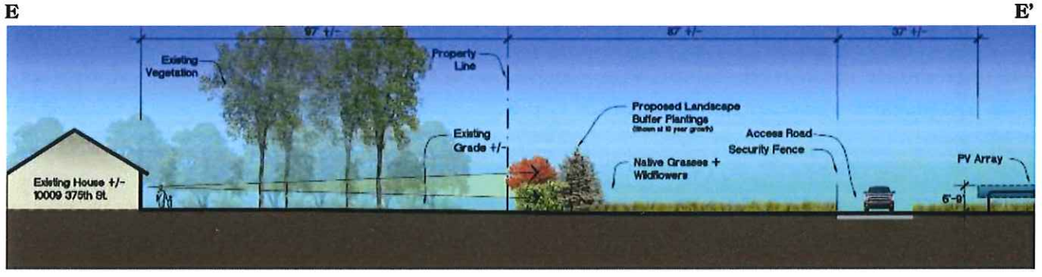
Black Hills Spruce

Autumn Brilliance Serviceberry (Spring)

Cardinal Dogwood (Winter)

House 5: Illustrative Buffer Cross-Section

SCALE: 1"=20'



Westwood Professional Services, Inc.
7699 Anagram Drive
Eden Prairie, MN 55344
PHONE 952-937-5150
FAX 952-937-5822
www.westwoodps.com

Designed:	NTM
Checked:	CLM
Drawn:	NTM
Record Drawing by/date:	-

Revisions:

#	DATE	DESCRIPTION
-	-	-

Prepared for:

NORTH STAR SOLAR PV LLC

Three Radnor Corporate Center - Suite 300
100 Matsonford Road
Radnor, PA 19087

North Star Solar Project

Chisago, MN

Final Landscape Buffer Plan & Section: 10009 375th St.

Date: 02/18/16

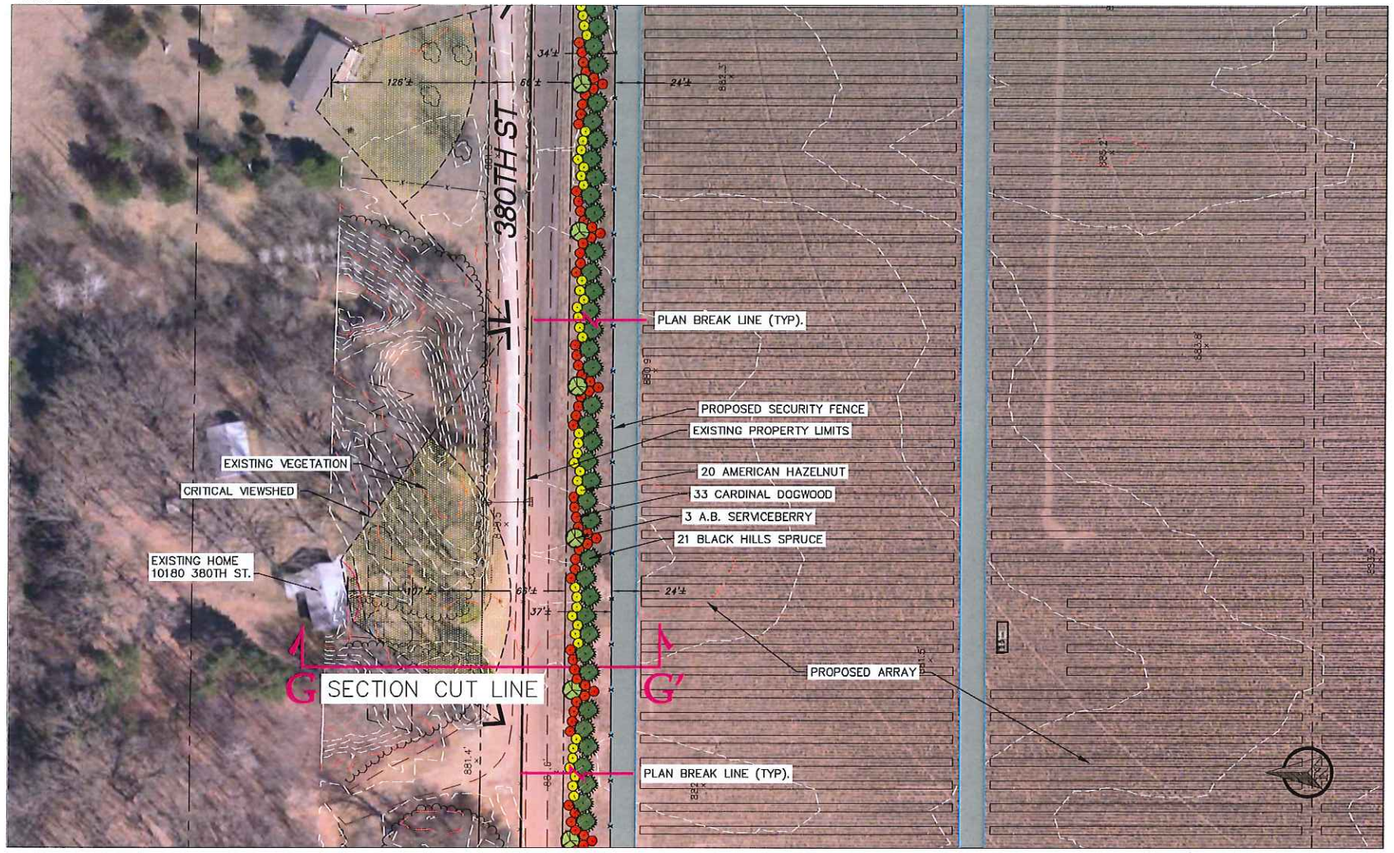
Drawing No: C.305

0004493PLF BUFFER HOME5.dwg

© 2016 Westwood Professional Services, Inc.

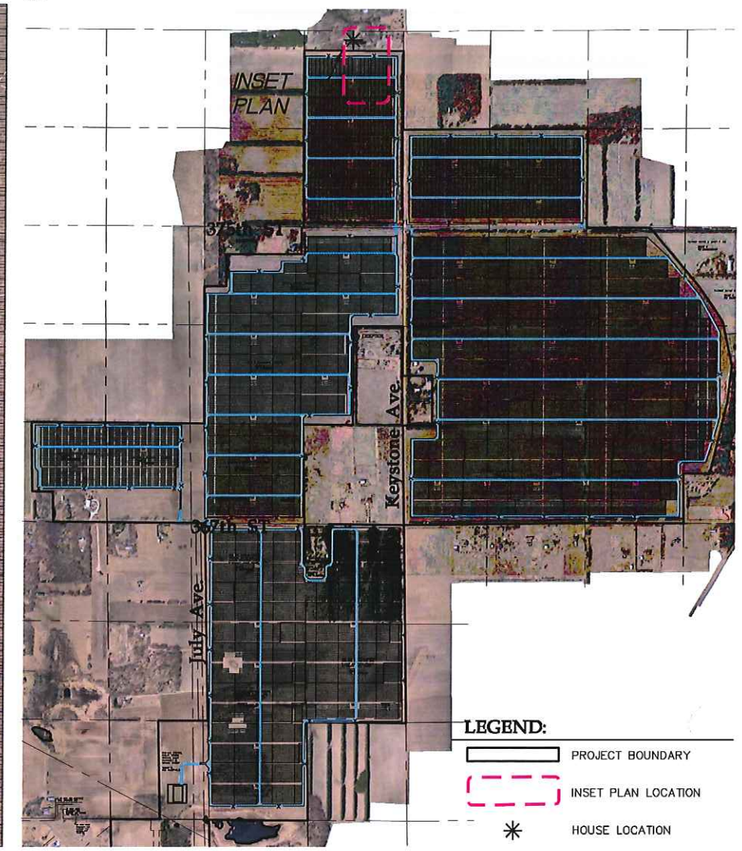
House 7: Landscape Buffer Plan

Scale: 1" = 60'



Overall Map Key

NTS



Buffer Planting Schedule

KEY	QTY.	COMMON/BOTANICAL NAME	SIZE	SPACING O.C.	MATURE HEIGHT
	21	Black Hills Spruce / Picea glauca densata	6' HT BB	As shown	30'–40'
	3	Autumn Brilliance Serviceberry / Amelanchier x grandiflora	1.5" BB	As shown	20'–25'
	20	American Hazelnut / Corylus americana	#5 CONT.	8'–0" O.C. TYP.	6'–15'
	33	Cardinal Dogwood / Cornus sericea 'Cardinal'	#5 CONT.	8'–0" O.C. TYP.	8'–10'

NOTE: QUANTITIES ON PLAN SUPERSEDE LIST QUANTITIES IN THE EVENT OF A DISCREPANCY.

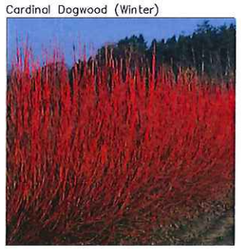
Buffer Planting Materials

Black Hills Spruce

Autumn Brilliance Serviceberry (Spring)

American Hazelnut (Summer)

Cardinal Dogwood (Winter)



House 7: Illustrative Buffer Cross-Section

SCALE: 1"=20'

Westwood Professional Services, Inc.
7699 Anagram Drive
Eden Prairie, MN 55344
PHONE 952-937-5150
FAX 952-937-5822
www.westwoodps.com

Designed:	NTM
Checked:	CLM
Drawn:	NTM
Record Drawing by/date:	-

Revisions:

#	DATE	DESCRIPTION
-	-	-

Prepared for:

NORTH STAR SOLAR PV LLC

Three Radnor Corporate Center - Suite 300
100 Matsonford Road
Radnor, PA 19087

North Star Solar Project

Chisago, MN

Final Landscape Buffer Plan & Section:
10180 380th St.

Date: 02/18/16

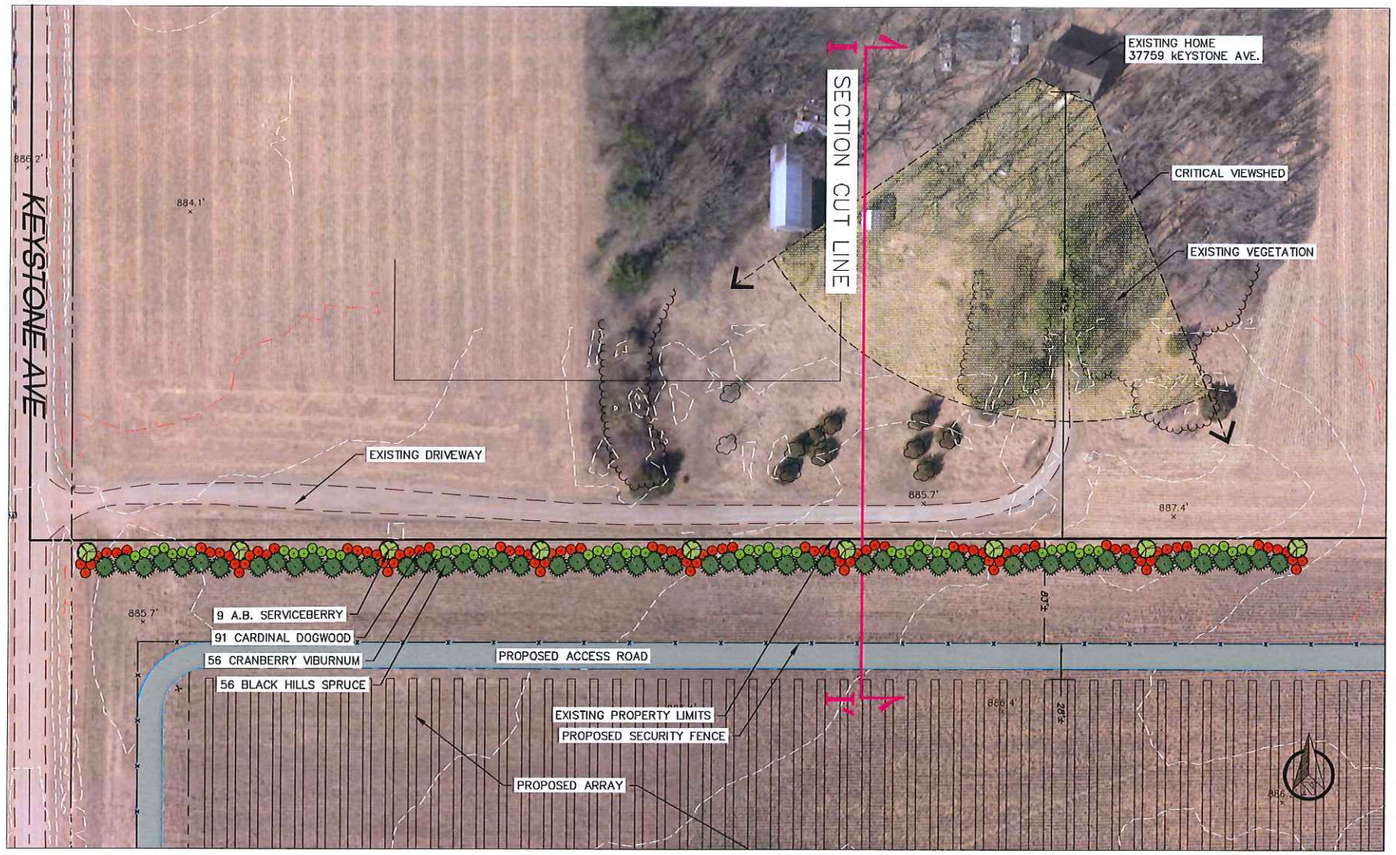
Drawing No: C.307

0004493PLF BUFFER HOME7.dwg

© 2016 Westwood Professional Services, Inc.

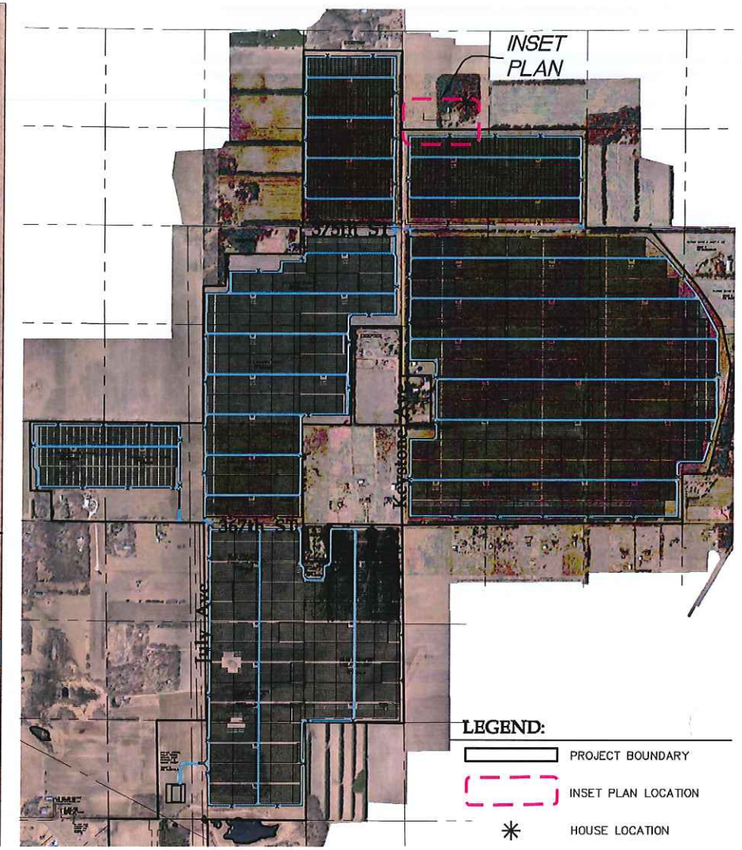
House 9: Landscape Buffer Plan

Scale: 1" = 60'



Overall Map Key

NTS



Buffer Planting Schedule

KEY	QTY.	COMMON/BOTANICAL NAME	SIZE	SPACING O.C.	MATURE HEIGHT
	56	Black Hills Spruce / Picea glauca densata	6' HT BB	As shown	30'-40'
	9	Autumn Brilliance Serviceberry / Amelanchier x grandiflora	1.5" BB	As shown	20'-25'
	91	Cardinal Dogwood / Cornus sericea 'Cardinal'	#5 CONT.	8'-0" O.C. TYP.	8'-10'
	56	Cranberry Viburnum / Viburnum trilobum	#5 CONT.	8'-0" O.C. TYP.	8'-15'

NOTE: QUANTITIES ON PLAN SUPERSEDE LIST QUANTITIES IN THE EVENT OF A DISCREPANCY.

Buffer Planting Materials

Black Hills Spruce

Autumn Brilliance Serviceberry (Spring)

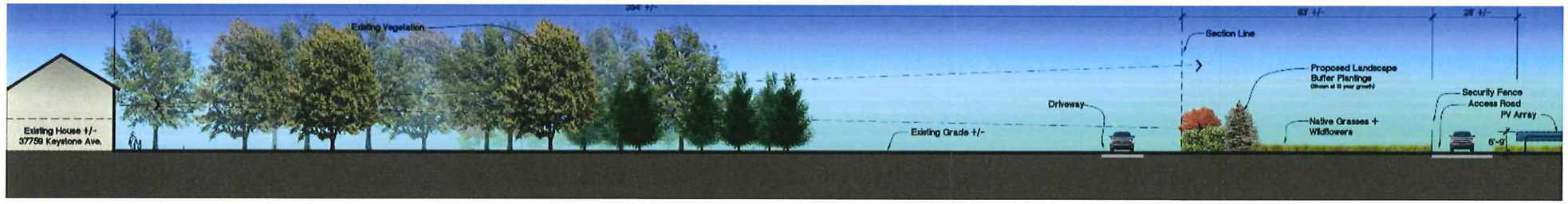
Cardinal Dogwood (Winter)

Cranberry Viburnum (Summer)

House 9: Illustrative Buffer Cross-Section

SCALE: 1"=20'

I — I'



Westwood Professional Services, Inc.
7699 Anagram Drive
Eden Prairie, MN 55344
PHONE 952-937-5150
FAX 952-937-5822
www.westwoodps.com

Designed: NTM
Checked: CLM
Drawn: NTM
Record Drawing by/date:

Revisions:

#	DATE	DESCRIPTION

Prepared for:

NORTH STAR SOLAR PV LLC

Three Radnor Corporate Center - Suite 300
100 Matsonford Road
Radnor, PA 19087

North Star Solar Project

Chisago, MN

Final Landscape Buffer Plan & Section:
37759 Keystone Ave.

Date: 02/18/16

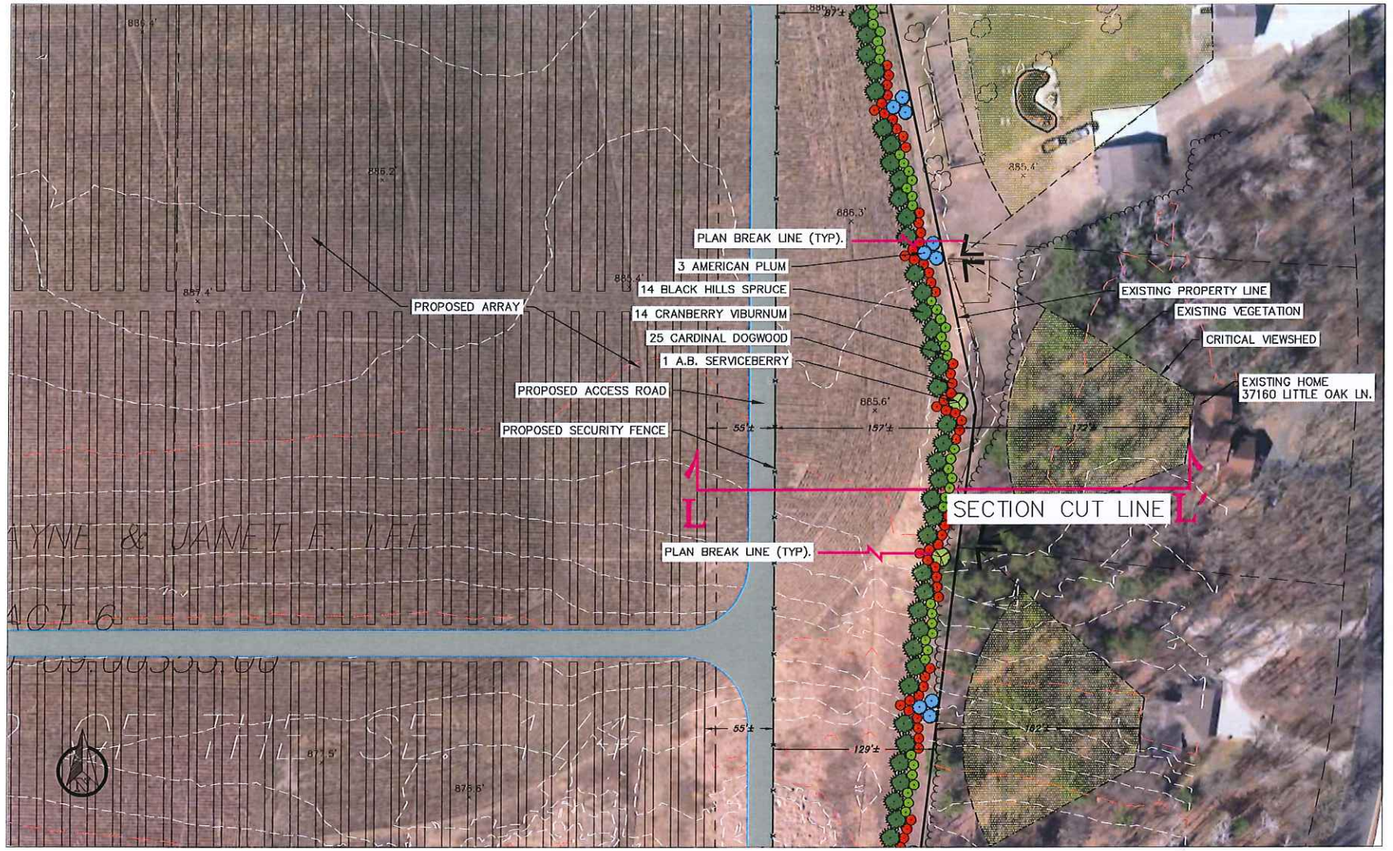
Drawing No: C.309

0004493PLF BUFFER HOME9.dwg

©2016 Westwood Professional Services, Inc.

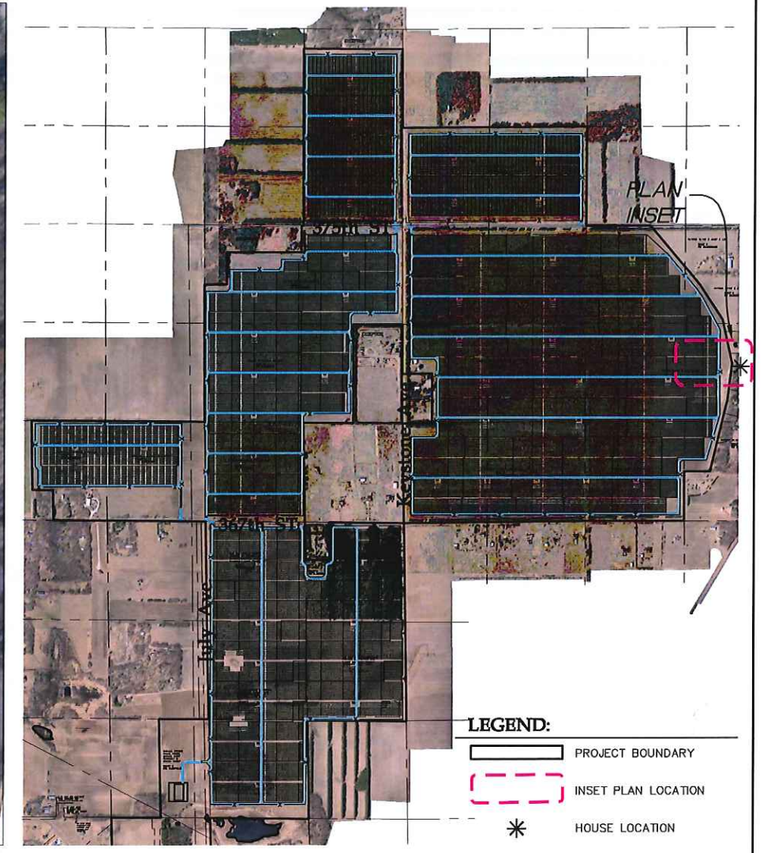
House 12: Landscape Buffer Plan

Scale: 1" = 60'



Overall Map Key

NTS



Buffer Planting Schedule

KEY	QTY.	COMMON/BOTANICAL NAME	SIZE	SPACING O.C.	MATURE HEIGHT
	14	Black Hills Spruce / Picea glauca densata	6' HT BB	As shown	30'–40'
	1	Autumn Brilliance Serviceberry / Amelanchier x grandiflora	1.5" BB	As shown	20'–25'
	3	American Plum / Prunus americana	#5 CONT.	8'–0" O.C. TYP.	10'–20'
	25	Cardinal Dogwood / Cornus sericea 'Cardinal'	#5 CONT.	8'–0" O.C. TYP.	8'–10'
	14	Cranberry Viburnum / Viburnum trilobum	#5 CONT.	8'–0" O.C. TYP.	8'–15'

NOTE: QUANTITIES ON PLAN SUPERSEDE LIST QUANTITIES IN THE EVENT OF A DISCREPANCY.

Buffer Planting Materials

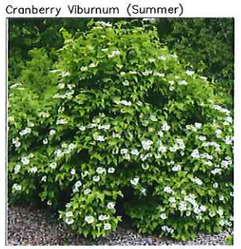
Black Hills Spruce

Autumn Brilliance Serviceberry (Spring)

American Plum (Spring)

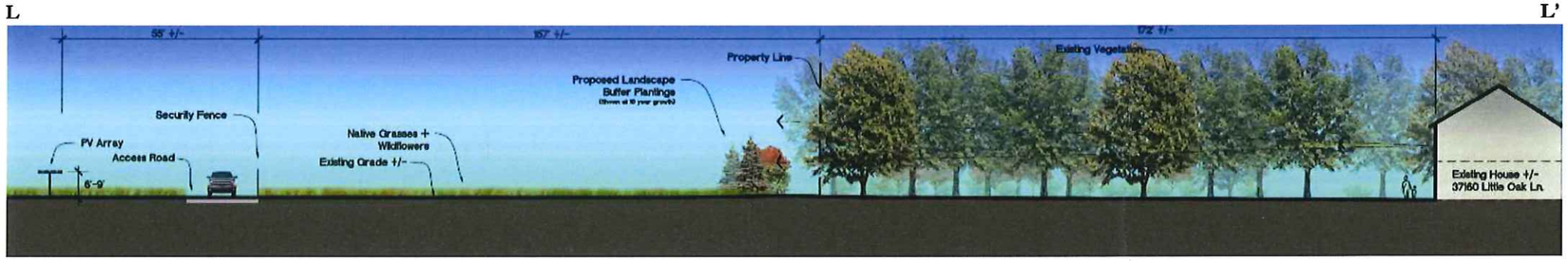
Cardinal Dogwood (Winter)

Cranberry Viburnum (Summer)



House 12: Illustrative Buffer Cross-Section

SCALE: 1"=20'



Westwood Professional Services, Inc.
7699 Anagram Drive
Eden Prairie, MN 55344
PHONE 952-937-5150
FAX 952-937-5822
www.westwoodps.com

Designed: NTM
Checked: CLM
Drawn: NTM
Record Drawing by/date: .

Revisions:

#	DATE	DESCRIPTION
.	.	.

Prepared for:

NORTH STAR SOLAR PV LLC

Three Radnor Corporate Center - Suite 300
100 Matsonford Road
Radnor, PA 19087

North Star Solar Project

Chisago, MN

Final Landscape Buffer Plan & Section:
37160 Little Oak Ln.

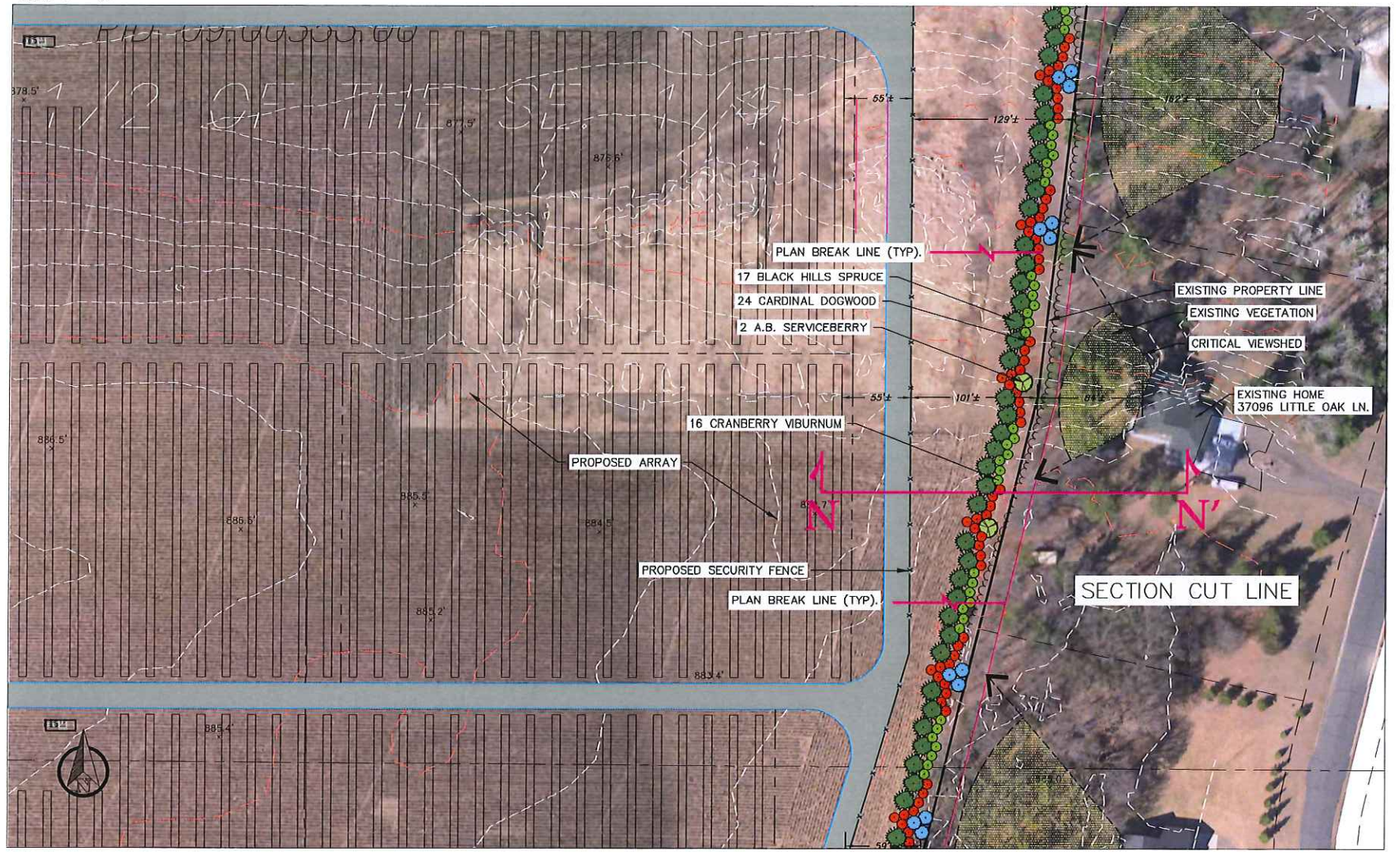
Date: 02/18/16
Drawing No: C.312

0004493PLF BUFFER HOME12.dwg

© 2016 Westwood Professional Services, Inc.

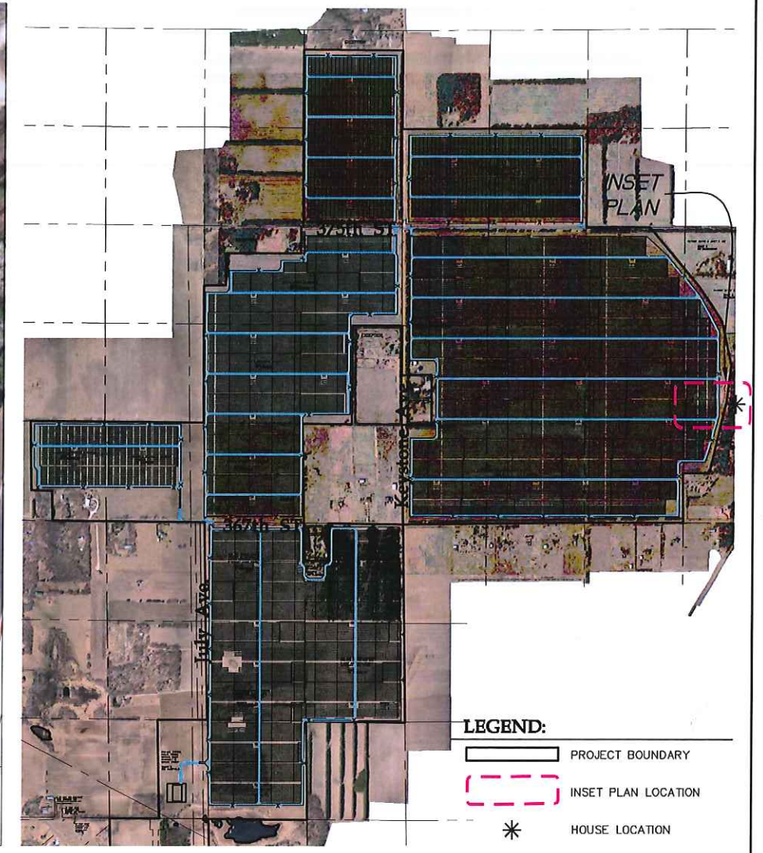
House 14: Landscape Buffer Plan

Scale: 1" = 60'



Overall Map Key

NTS



Buffer Planting Schedule

KEY	QTY.	COMMON/BOTANICAL NAME	SIZE	SPACING O.C.	MATURE HEIGHT
	17	Black Hills Spruce / Picea glauca densata	6' HT BB	As shown	30'–40'
	2	Autumn Brilliance Serviceberry / Amelanchier x grandiflora	1.5" BB	As shown	20'–25'
	24	Cardinal Dogwood / Cornus sericea 'Cardinal'	#5 CONT.	8'–0" O.C. TYP.	8'–10'
	16	Cranberry Viburnum / Viburnum trilobum	#5 CONT.	8'–0" O.C. TYP.	8'–15'

NOTE: QUANTITIES ON PLAN SUPERSEDE LIST QUANTITIES IN THE EVENT OF A DISCREPANCY.

Buffer Planting Materials

Black Hills Spruce

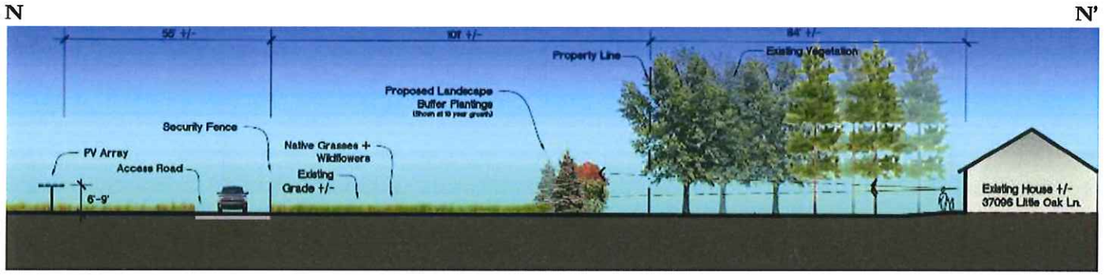
Autumn Brilliance Serviceberry (Spring)

Cardinal Dogwood (Winter)

Cranberry Viburnum (Summer)

House 14: Illustrative Buffer Cross-Section

SCALE: 1"=20'



Westwood Professional Services, Inc.
7699 Anagram Drive
Eden Prairie, MN 55344
PHONE 952-937-5150
FAX 952-937-5822
www.westwoodps.com

Designed:	NTM
Checked:	CLM
Drawn:	NTM
Record Drawing by/date:	-

Revisions #	DATE	DESCRIPTION
-	-	-

Prepared for:

NORTH STAR SOLAR PV LLC

Three Radnor Corporate Center - Suite 300
100 Matsonford Road
Radnor, PA 19087

North Star Solar Project

Chisago, MN

Final Landscape Buffer Plan & Section: 37096 Little Oak Ln.

Date: 02/18/16

Drawing No: C.314

0004493PLF BUFFER HOME14.dwg

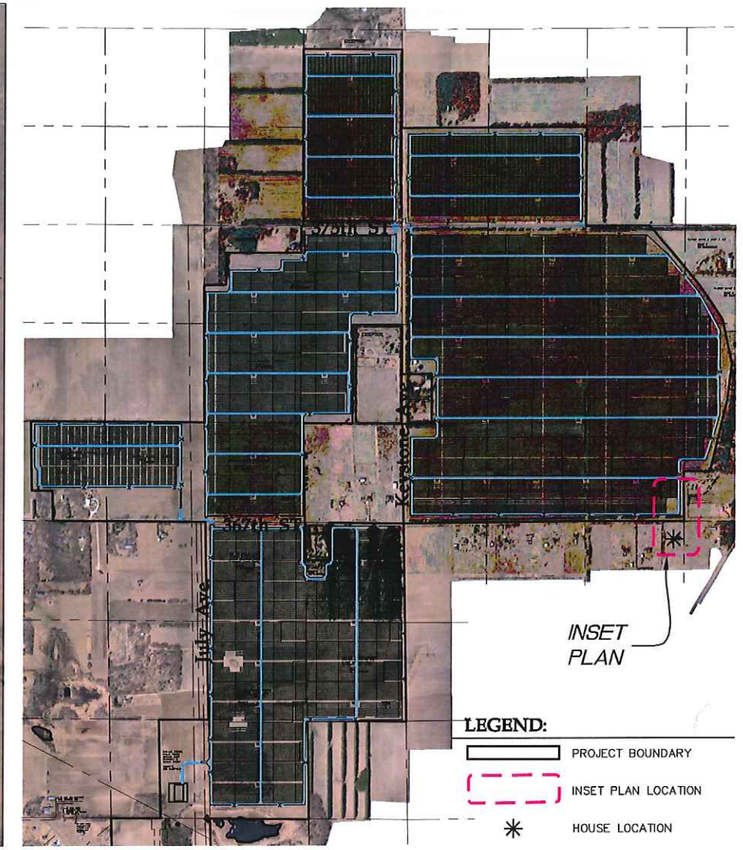
©2016 Westwood Professional Services, Inc.

House 16: Landscape Buffer Plan

Scale: 1" = 60'

Overall Map Key

NTS



Buffer Planting Schedule

KEY	QTY.	COMMON/BOTANICAL NAME	SIZE	SPACING O.C.	MATURE HEIGHT
	6	Red Pine / Pinus resinosa	6' HT BB	As shown	60'–80'
	15	American Hazelnut / Corylus americana	#5 CONT.	8'–0" O.C. TYP.	6'–15'
	21	Cranberry Viburnum / Viburnum trilobum	#5 CONT.	8'–0" O.C. TYP.	8'–15'

NOTE: QUANTITIES ON PLAN SUPERSEDE LIST QUANTITIES IN THE EVENT OF A DISCREPANCY.

Buffer Planting Materials

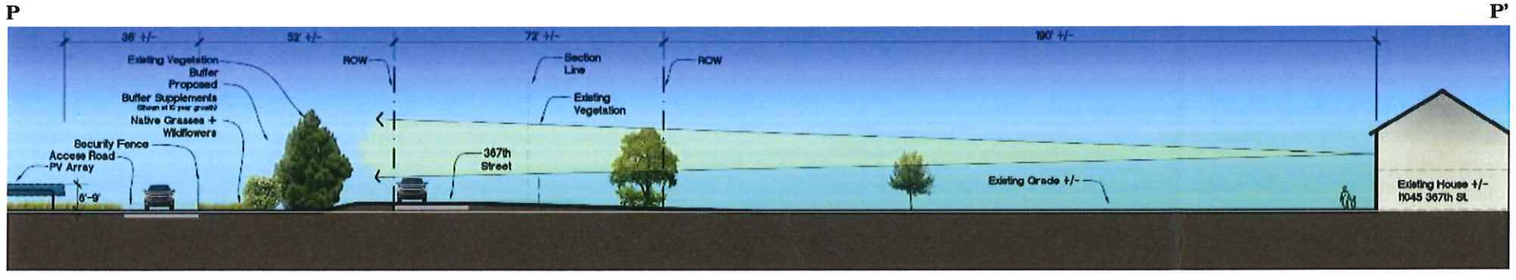
Red Pine

American Hazelnut (Summer)

Cranberry Viburnum (Summer)

House 16: Illustrative Buffer Cross-Section

SCALE: 1"=20'



Westwood Professional Services, Inc.
7699 Anagram Drive
Eden Prairie, MN 55344
PHONE 952-937-5150
FAX 952-937-5822
www.westwoodps.com

Designed:	NTM
Checked:	CLM
Drawn:	NTM
Record Drawing by/date:	-

Revisions:

#	DATE	DESCRIPTION
-	-	-

Prepared for:

NORTH STAR SOLAR PV LLC

Three Radnor Corporate Center - Suite 300
100 Matsonford Road
Radnor, PA 19087

North Star Solar Project

Chisago, MN

Final Landscape Buffer Plan & Section: 11045 367th St.

Date: 02/18/16

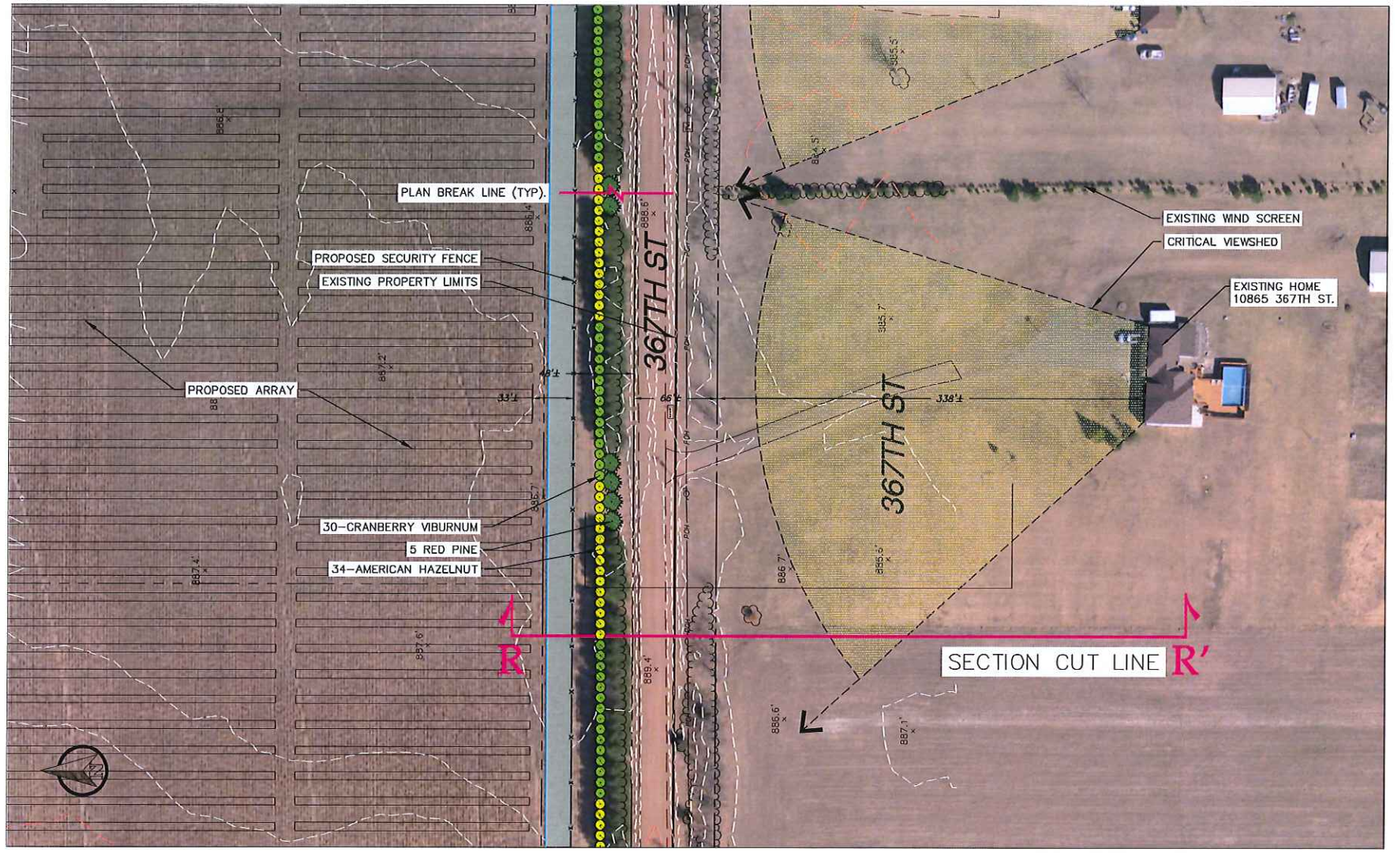
Drawing No: C.316

000449.PLF BUFFER HOME16.dwg

© 2016 Westwood Professional Services, Inc.

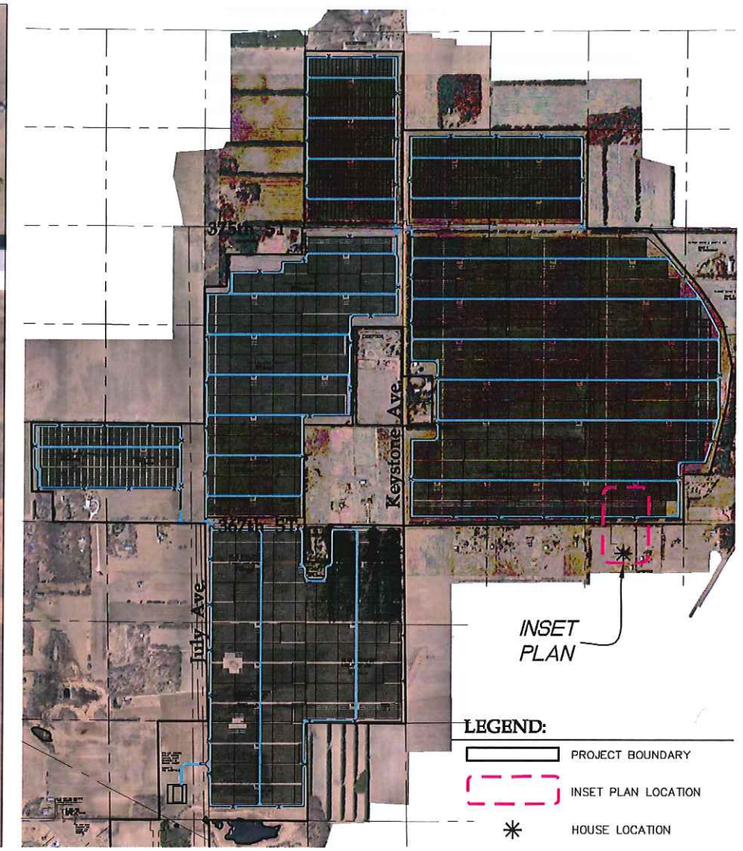
House 18: Landscape Buffer Plan

Scale: 1" = 60'



Overall Map Key

NTS



Buffer Planting Schedule

KEY	QTY.	COMMON/BOTANICAL NAME	SIZE	SPACING O.C.	MATURE HEIGHT
	5	Red Pine / Pinus resinosa	6' HT BB	As shown	60'–80'
	34	American Hazelnut / Corylus americana	#5 CONT.	8'–0" O.C. TYP.	6'–15'
	30	Cranberry Viburnum / Viburnum trilobum	#5 CONT.	8'–0" O.C. TYP.	8'–15'

NOTE: QUANTITIES ON PLAN SUPERSEDE LIST QUANTITIES IN THE EVENT OF A DISCREPANCY.

Buffer Planting Materials

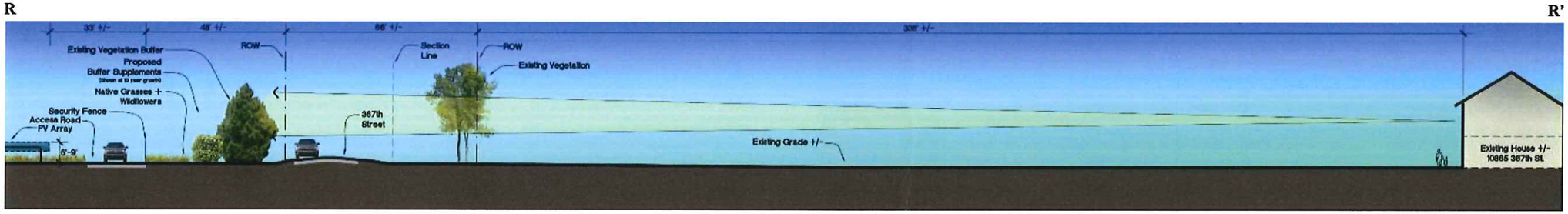
Red Pine

American Hazelnut (Summer)

Cranberry Viburnum (Summer)

House 18: Illustrative Buffer Cross-Section

SCALE: 1"=20'



Westwood Professional Services, Inc.
7699 Anagram Drive
Eden Prairie, MN 55344
PHONE 952-937-5150
FAX 952-937-5822
www.westwoodps.com

Designed:	NTM
Checked:	CLM
Drawn:	NTM
Record Drawing by/date:	.

Revisions:

#	DATE	DESCRIPTION
.	.	.

Prepared for:

NORTH STAR SOLAR PV LLC

Three Radnor Corporate Center - Suite 300
100 Matsonford Road
Radnor, PA 19087

North Star Solar Project

Chisago, MN

Final Landscape Buffer Plan & Section: 10865 367th St.

Date: 02/18/16

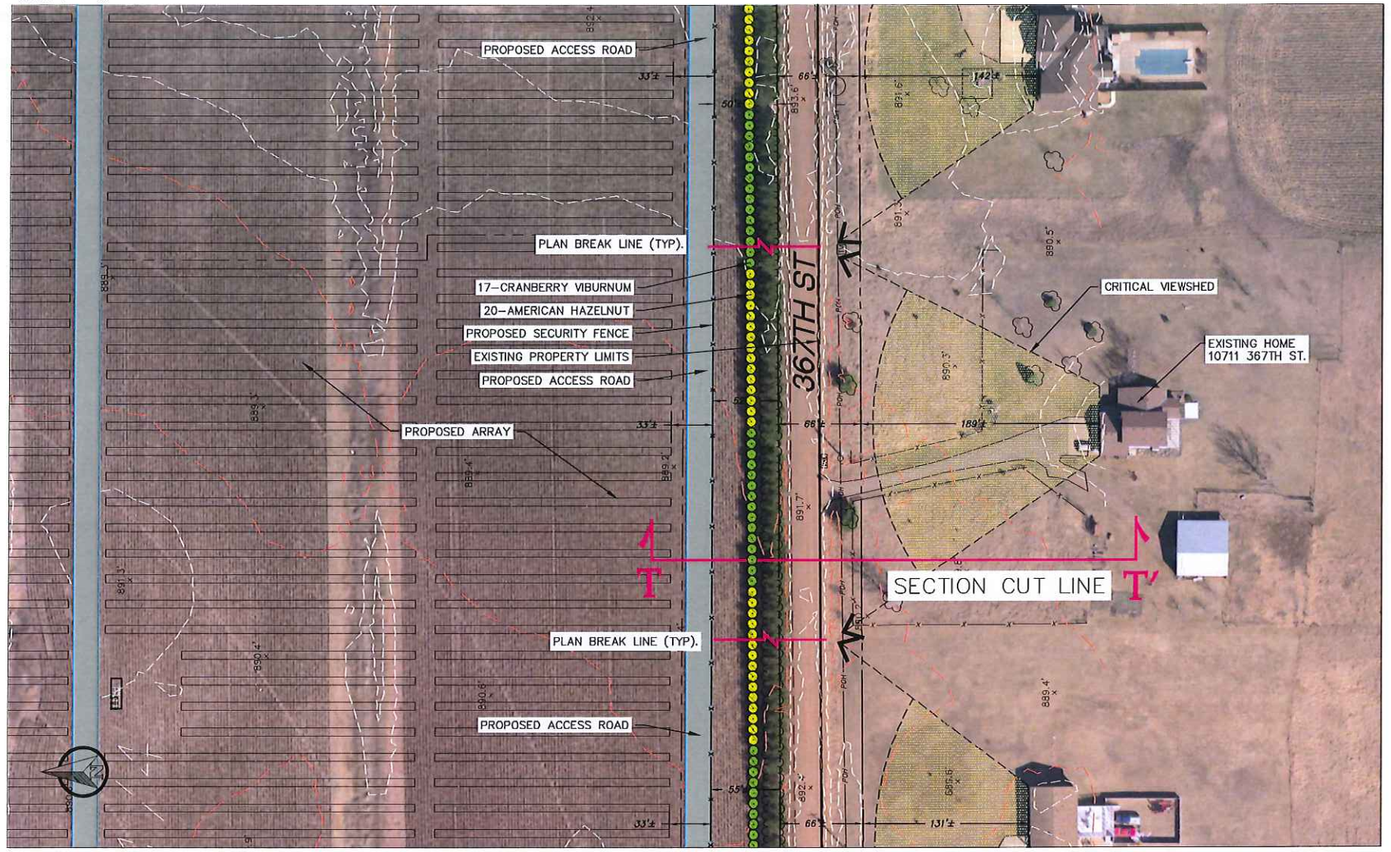
Drawing No: C.318

000449.PLF BUFFER HOME18.dwg

© 2016 Westwood Professional Services, Inc.

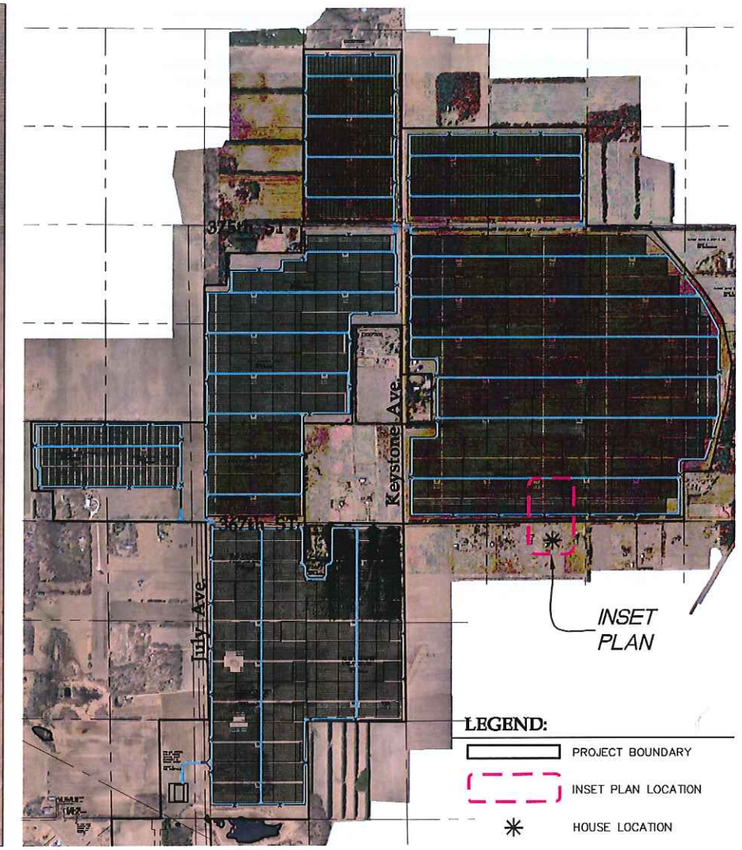
House 20: Landscape Buffer Plan

Scale: 1" = 60'



Overall Map Key

NTS



Buffer Planting Schedule

KEY	QTY.	COMMON/BOTANICAL NAME	SIZE	SPACING O.C.	MATURE HEIGHT
	20	American Hazelnut / Corylus americana	#5 CONT.	8'–0" O.C. TYP.	6'–15'
	17	Cranberry Viburnum / Viburnum trilobum	#5 CONT.	8'–0" O.C. TYP.	8'–15'

NOTE: QUANTITIES ON PLAN SUPERSEDE LIST QUANTITIES IN THE EVENT OF A DISCREPANCY.

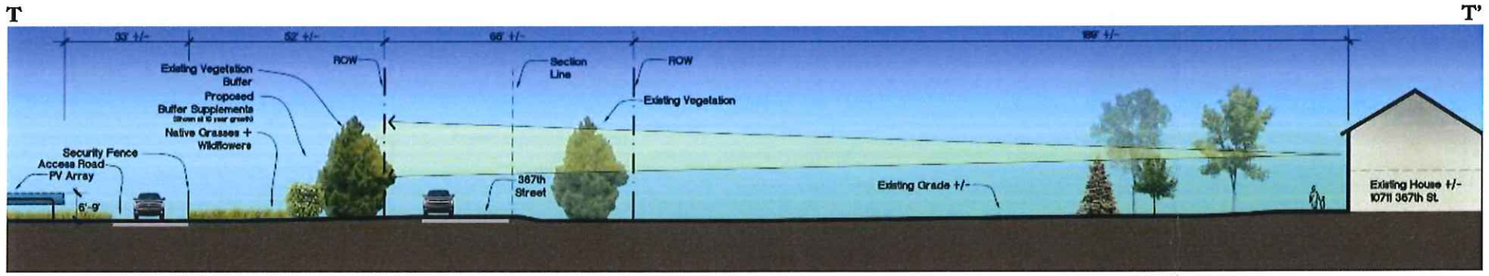
Buffer Planting Materials

American Hazelnut (Summer)

Cranberry Viburnum (Summer)

House 20: Illustrative Buffer Cross-Section

SCALE: 1"=20'



Westwood Professional Services, Inc.
7699 Anagram Drive
Eden Prairie, MN 55344
PHONE 952-937-5150
FAX 952-937-5822
www.westwoodps.com

Designed:	NTM
Checked:	CLM
Drawn:	NTM
Record Drawing by/date:	-

Revisions:

#	DATE	DESCRIPTION
-	-	-

Prepared for:

NORTH STAR SOLAR PV LLC

Three Radnor Corporate Center - Suite 300
100 Matsonford Road
Radnor, PA 19087

North Star Solar Project

Chisago, MN

Final Landscape Buffer Plan & Section: 10711 367th St.

Date: 02/18/16

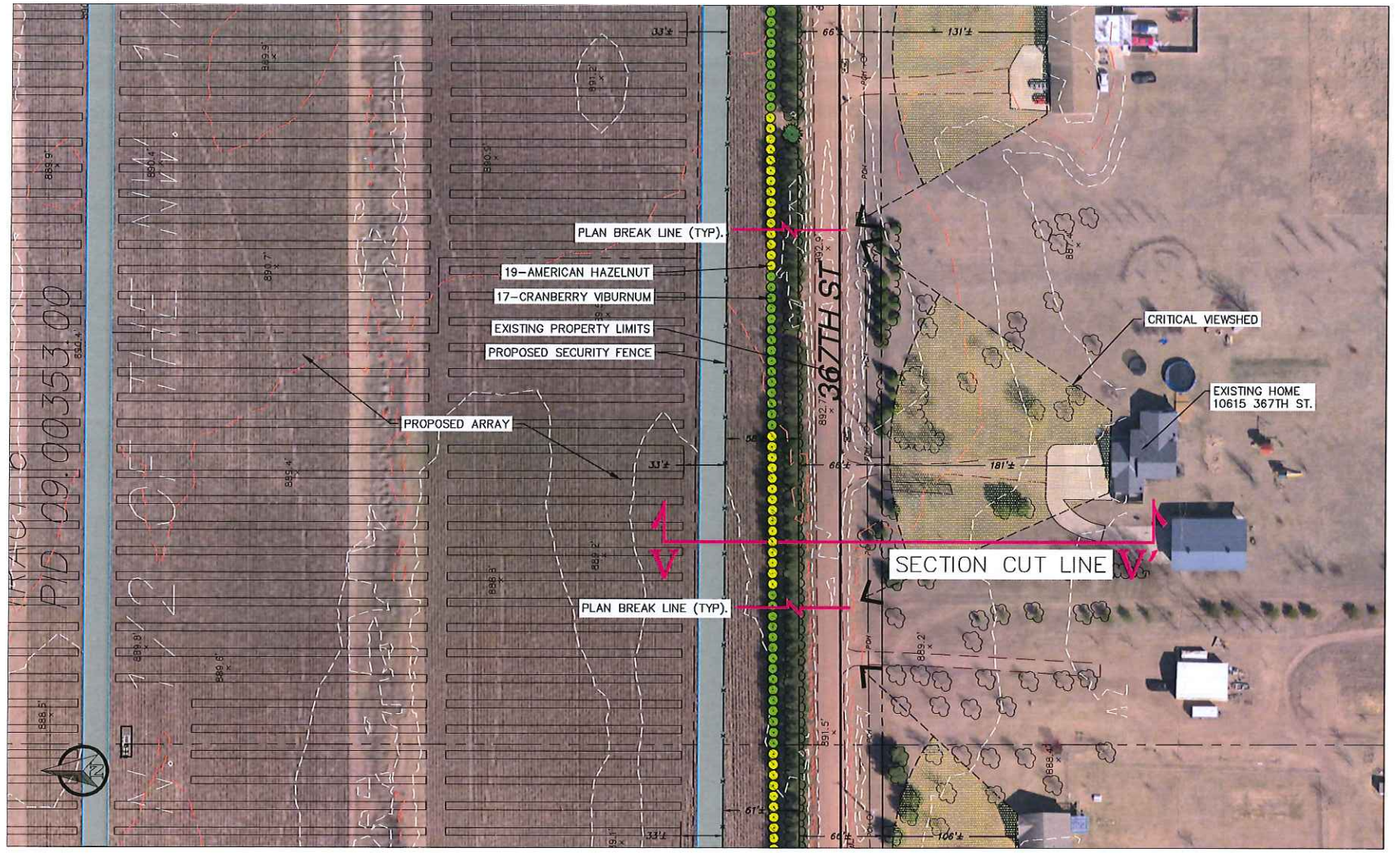
Drawing No: C.320

0004493PLF BUFFER HOME20.dwg

© 2016 Westwood Professional Services, Inc.

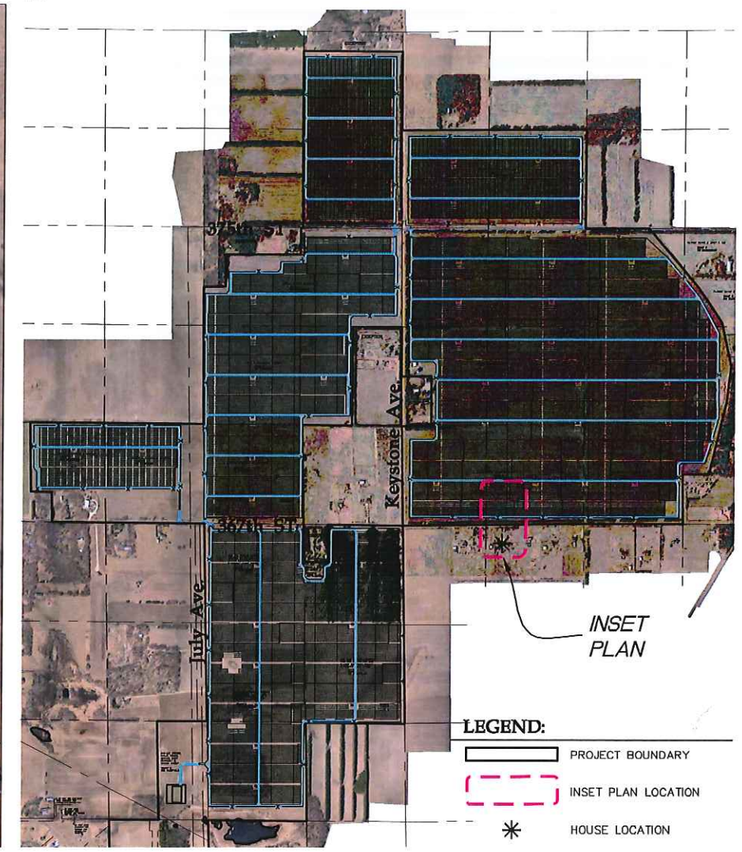
House 22: Landscape Buffer Plan

Scale: 1" = 60'



Overall Map Key

NTS



Buffer Planting Schedule

KEY	QTY.	COMMON/BOTANICAL NAME	SIZE	SPACING O.C.	MATURE HEIGHT
	19	American Hazelnut / Corylus americana	#5 CONT.	8'–0" O.C. TYP.	6'–15'
	17	Cranberry Viburnum / Viburnum trilobum	#5 CONT.	8'–0" O.C. TYP.	8'–15'

NOTE: QUANTITIES ON PLAN SUPERSEDE LIST QUANTITIES IN THE EVENT OF A DISCREPANCY.

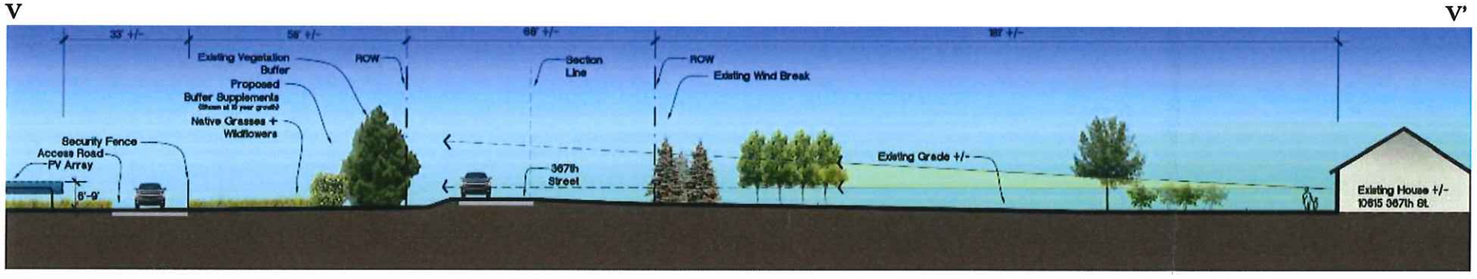
Buffer Planting Materials

American Hazelnut (Summer)

Cranberry Viburnum (Summer)

House 22: Illustrative Buffer Cross-Section

SCALE: 1"=20'



Westwood Professional Services, Inc.
7699 Anagram Drive
Eden Prairie, MN 55344
PHONE 952-937-5150
FAX 952-937-5822
www.westwoodps.com

Designed:	NTM
Checked:	CLM
Drawn:	NTM
Record Drawing by/date:	-

Revisions:

#	DATE	DESCRIPTION
-	-	-

Prepared for:

NORTH STAR SOLAR PV LLC

Three Radnor Corporate Center - Suite 300
100 Matsonford Road
Radnor, PA 19087

North Star Solar Project

Chisago, MN

Final Landscape Buffer Plan & Section: 10615 367th St.

Date: 02/18/16

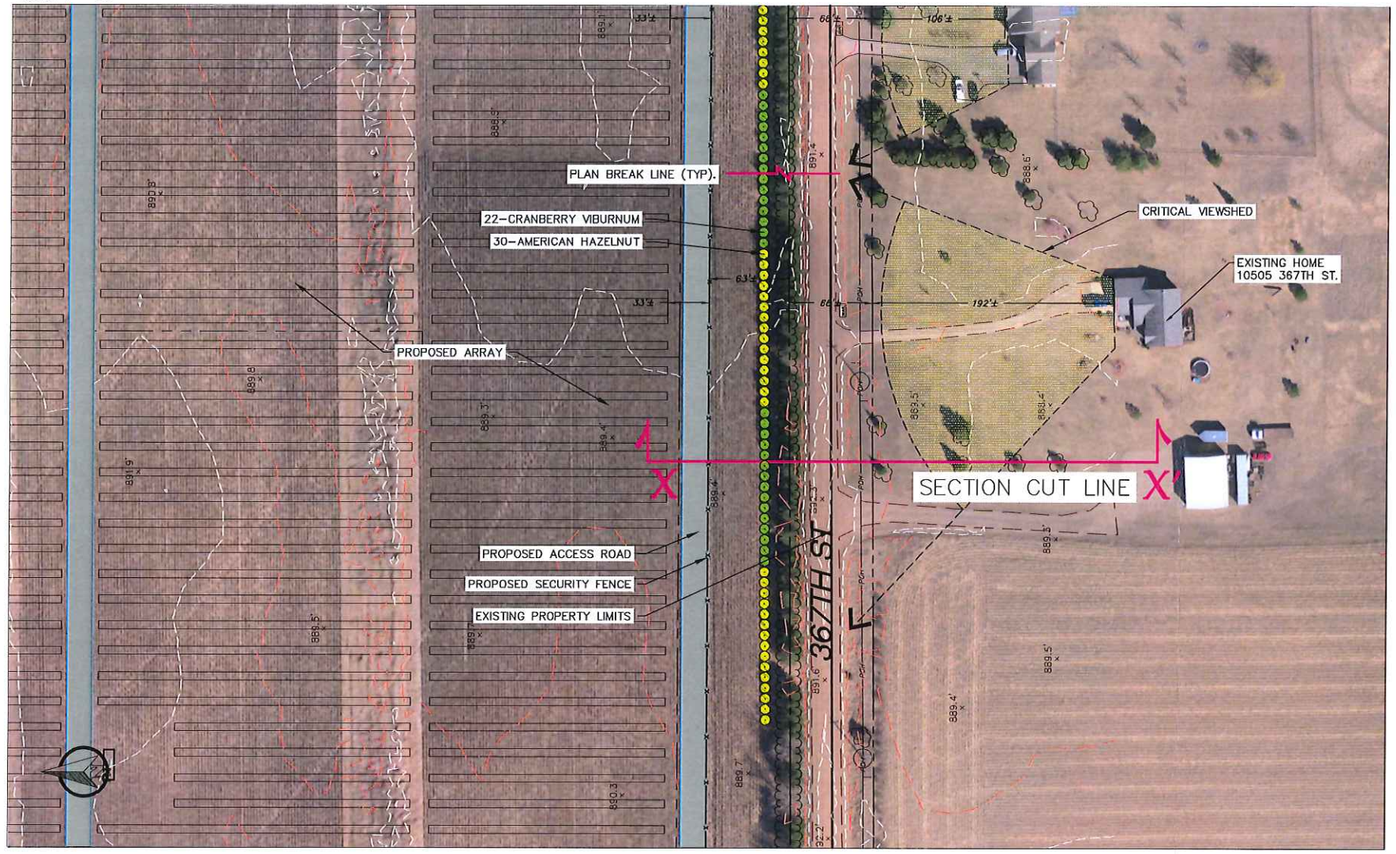
Drawing No: C.322

000449.3PLF BUFFER HOME22.dwg

© 2016 Westwood Professional Services, Inc.

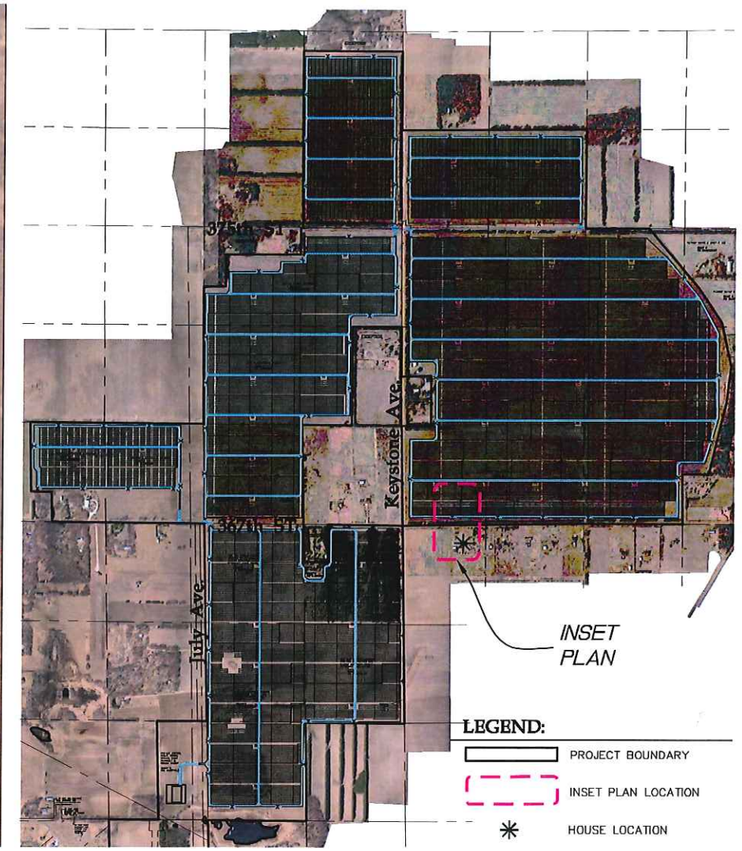
House 24: Landscape Buffer Plan

Scale: 1" = 60'



Overall Map Key

NTS



Buffer Planting Schedule

KEY	QTY.	COMMON/BOTANICAL NAME	SIZE	SPACING O.C.	MATURE HEIGHT
	30	American Hazelnut / Corylus americana	#5 CONT.	8'–0" O.C. TYP.	6'–15'
	22	Cranberry Viburnum / Viburnum trilobum	#5 CONT.	8'–0" O.C. TYP.	8'–15'

NOTE: QUANTITIES ON PLAN SUPERSEDE LIST QUANTITIES IN THE EVENT OF A DISCREPANCY.

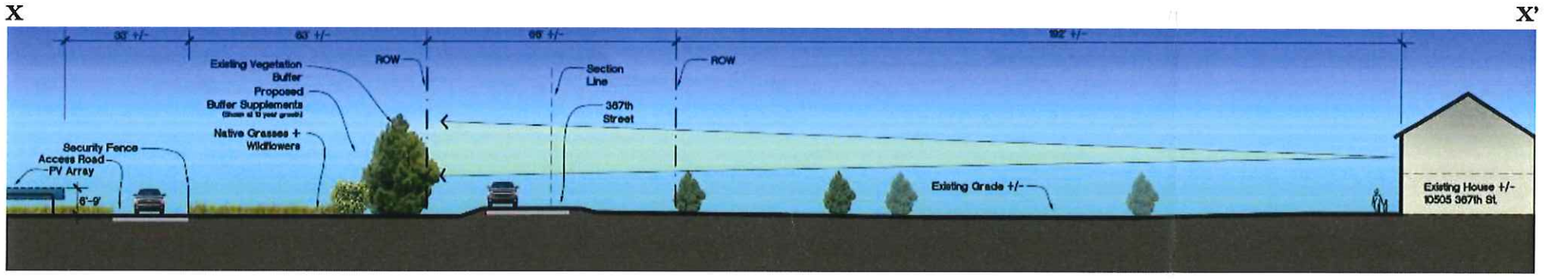
Buffer Planting Materials

American Hazelnut (Summer)

Cranberry Viburnum (Summer)

House 24: Illustrative Buffer Cross-Section

SCALE: 1"=20'



Westwood Professional Services, Inc.
7699 Anagram Drive
Eden Prairie, MN 55344
PHONE 952-937-5150
FAX 952-937-5822
www.westwoodps.com

Designed:	NTM
Checked:	CLM
Drawn:	NTM
Record Drawing by/date:	.

Revisions:

#	DATE	DESCRIPTION
.	.	.

Prepared for:

NORTH STAR SOLAR PV LLC

Three Radnor Corporate Center - Suite 300
100 Matsonford Road
Radnor, PA 19087

North Star Solar Project

Chisago, MN

Final Landscape Buffer Plan & Section:
10505 367th St.

Date: 02/18/16

Drawing No: C.324

000449.9PLF BUFFER HOME24.dwg