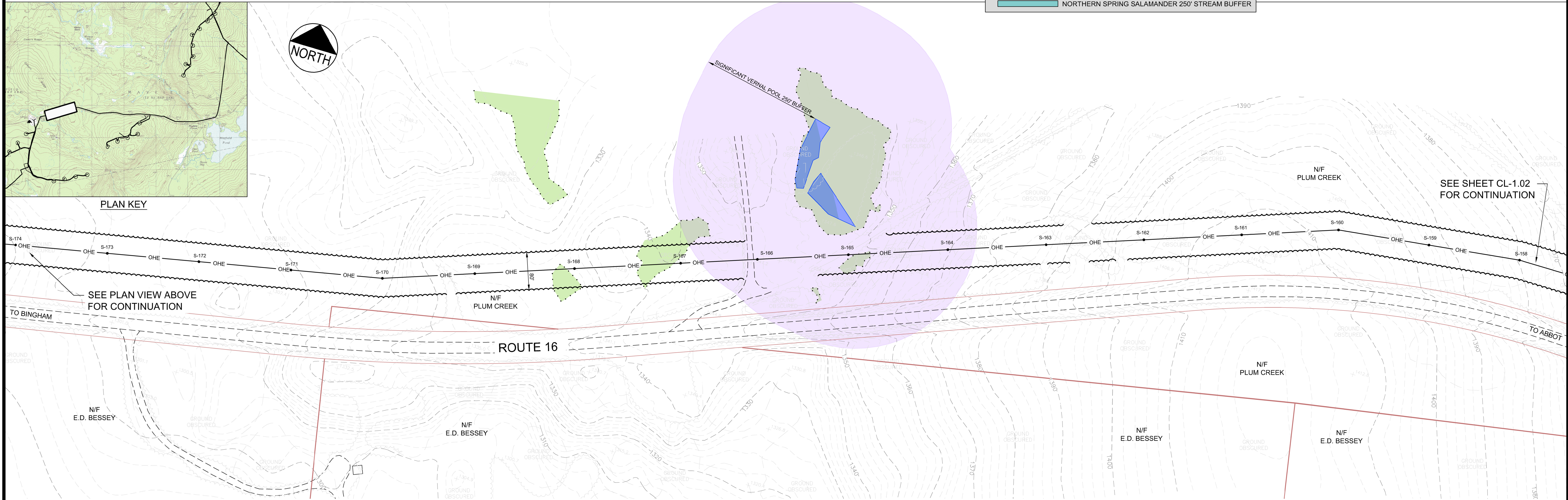


COLLECTOR LINE - PLAN
SCALE: 1" = 100'

RESOURCE LEGEND

- STREAM
- DELINEATED WETLAND
- SIGNIFICANT VERNAL POOL / NATURALLY OCCURRING POTENTIAL VERNAL POOL
- SIGNIFICANT VERNAL POOL / NATURALLY OCCURRING POTENTIAL VERNAL POOL 250' BUFFER
- NORTHERN SPRING SALAMANDER 250' STREAM BUFFER



COLLECTOR LINE - PLAN
SCALE: 1" = 100'

PRELIMINARY - NOT FOR CONSTRUCTION

COLLECTOR LINE PLAN

BINGHAM WIND PROJECT

BLUE SKY WEST, LLC

DeLuca-Hoffman Associates, Inc.
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, ME 04108
207.775.1121
www.delucahoffman.com

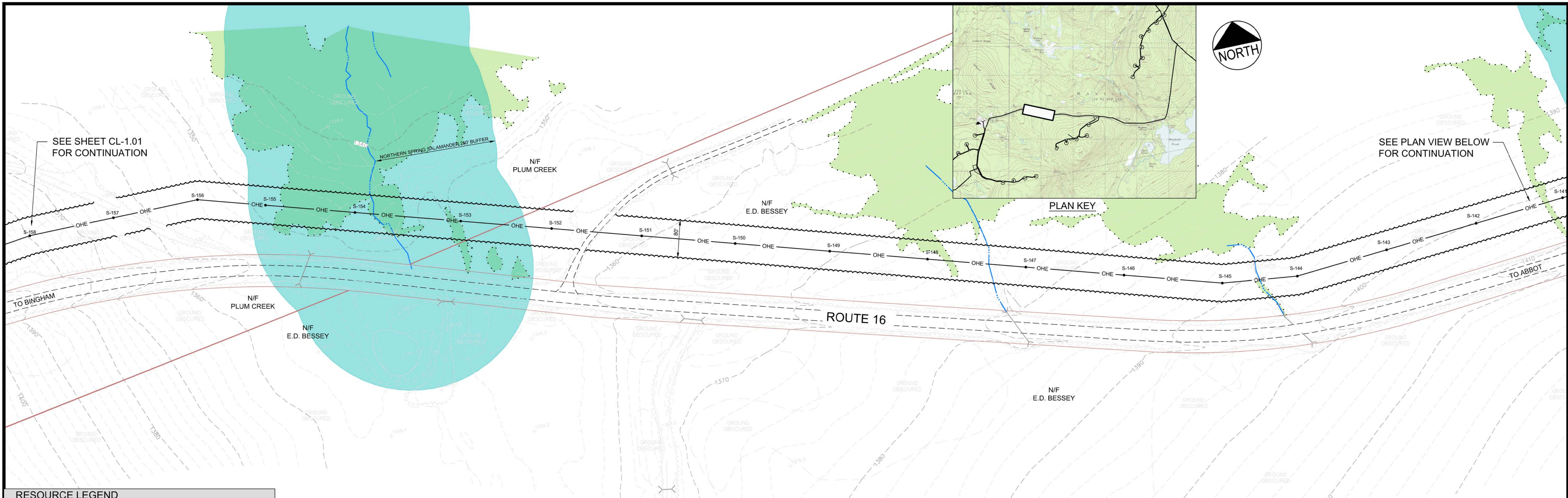
STATE OF MAINE
Professional Seal: THOMAS M. HENAGHAN, No. 12483, License No. 12483, L.C. # 12483

REVISIONS

NO.	DATE	DESCRIPTION
1	12.19.12	PERMIT DRAWINGS SUBMITTED FOR PROJECT TEAM REVIEW
2	03.06.13	ACOE REVISIONS
3	04.09.13	PERMIT PLAN SUBMISSION

SHEET
CL-1.01

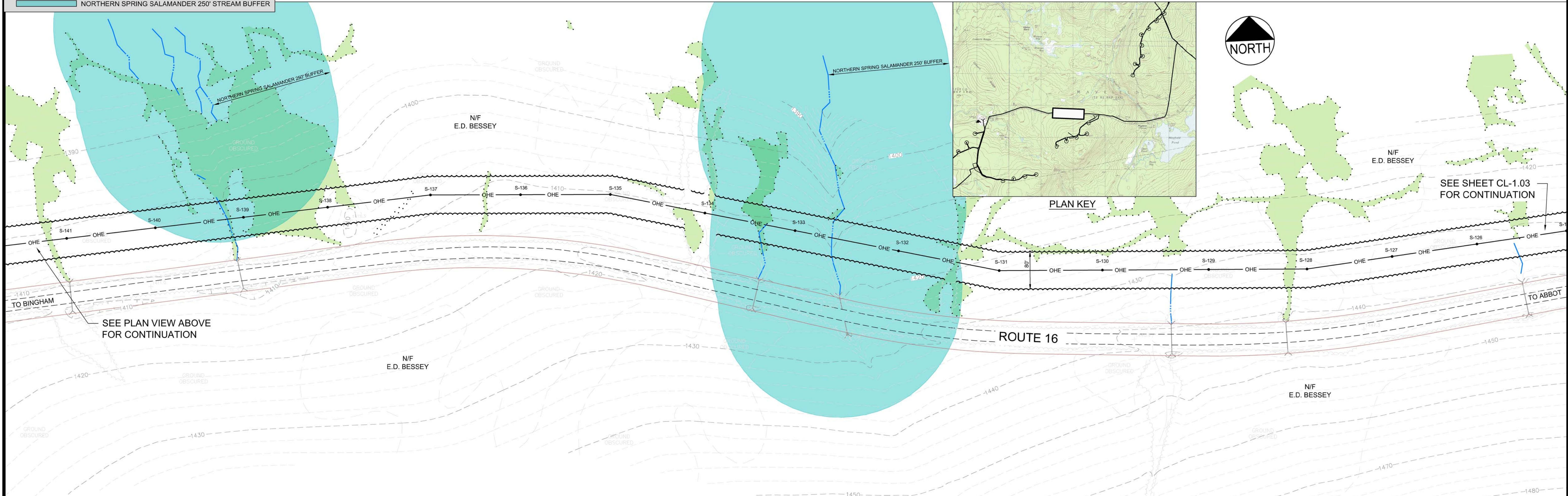
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COLLECTOR LINE - PLAN
SCALE: 1" = 100'

RESOURCE LEGEND

- STREAM
- DELINEATED WETLAND
- SIGNIFICANT VERNAL POOL / NATURALLY OCCURRING POTENTIAL VERNAL POOL
- SIGNIFICANT VERNAL POOL / NATURALLY OCCURRING POTENTIAL VERNAL POOL 250' BUFFER
- NORTHERN SPRING SALAMANDER 250' STREAM BUFFER

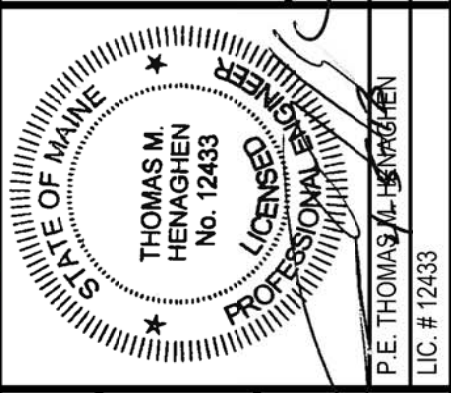


COLLECTOR LINE - PLAN
SCALE: 1" = 100'

PRELIMINARY - NOT FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
4	04.17.13	ADDRESS STATE RESOURCE COMMENTS
3	04.09.13	PERMIT PLAN SUBMISSION
2	03.06.13	ACOE REVISIONS
1	12.19.12	PERMIT DRAWINGS SUBMITTED FOR PROJECT TEAM REVIEW

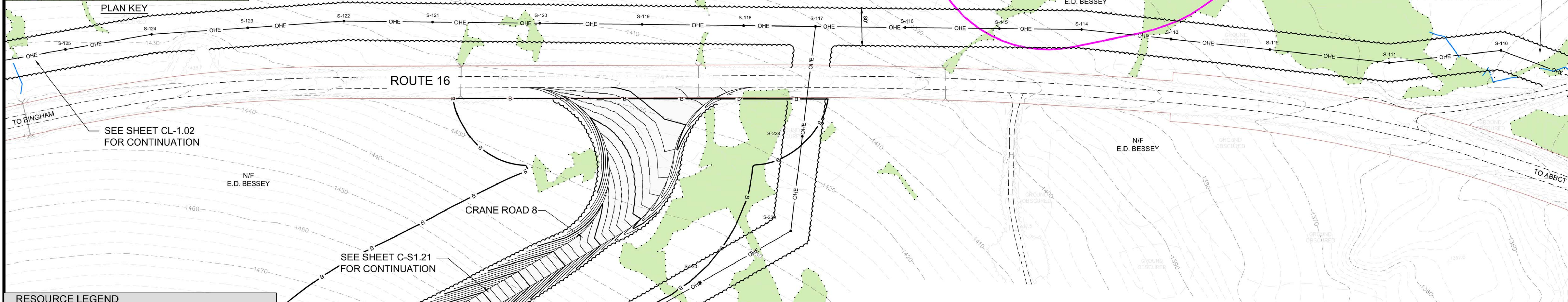
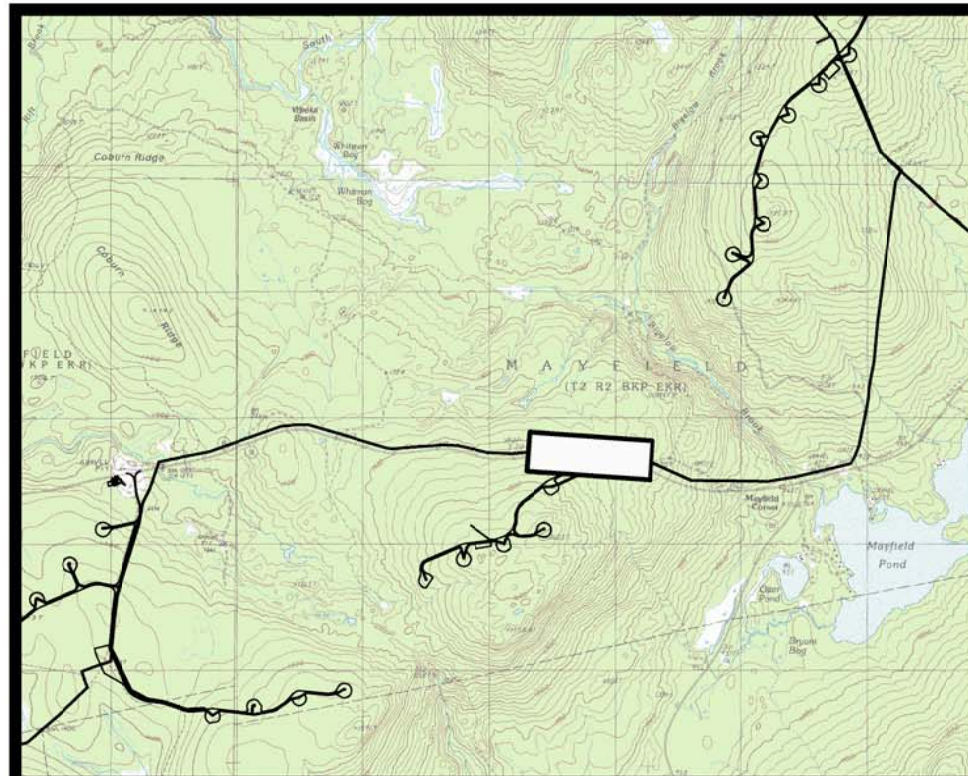
FILE NAME	JOB NO.	DATE	SCALE	CADW
3048-COLLECTOR LINE	3048	SEPT 2012	1" = 100'	



BINGHAM WIND PROJECT
BLUE SKY WEST, LLC
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SHEET
CL-1.02

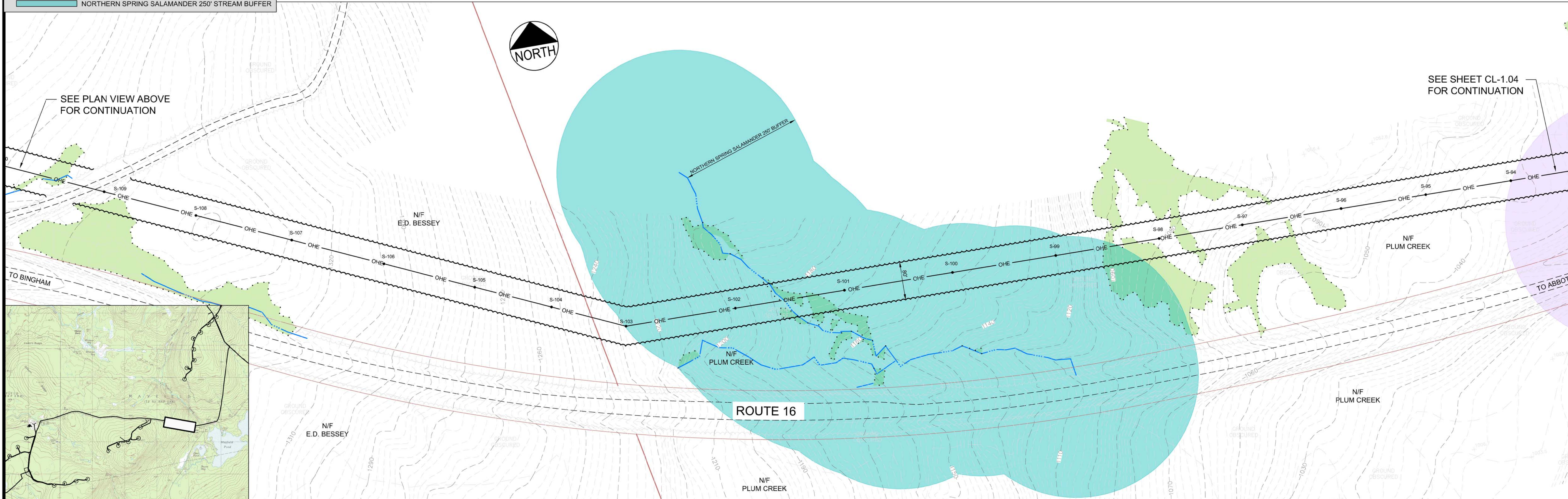
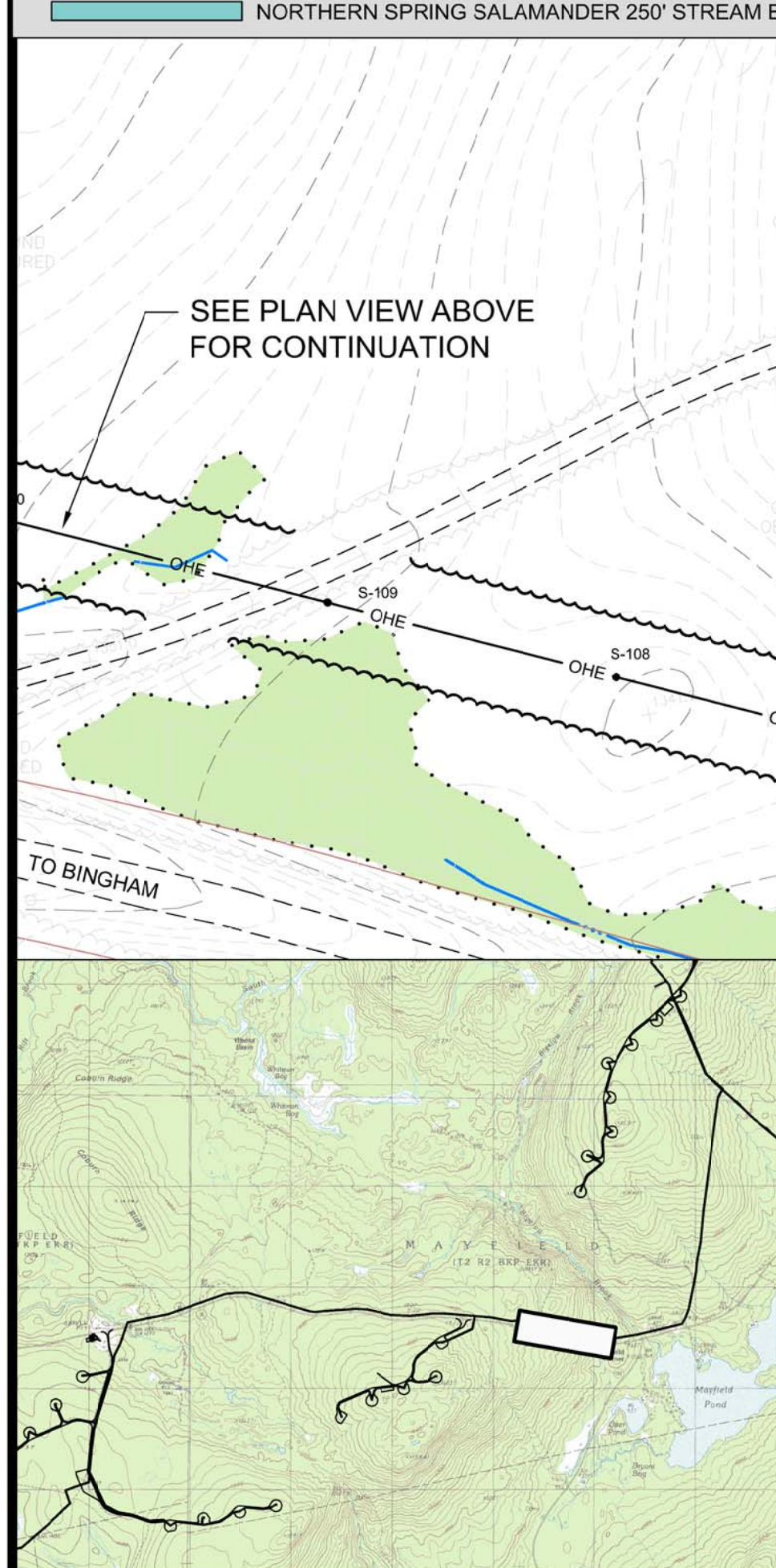
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COLLECTOR LINE - PLAN
SCALE: 1" = 100'

RESOURCE LEGEND

- STREAM
- DELINEATED WETLAND
- SIGNIFICANT VERNAL POOL / NATURALLY OCCURRING POTENTIAL VERNAL POOL
- SIGNIFICANT VERNAL POOL / NATURALLY OCCURRING POTENTIAL VERNAL POOL 250' BUFFER
- NORTHERN SPRING SALAMANDER 250' STREAM BUFFER

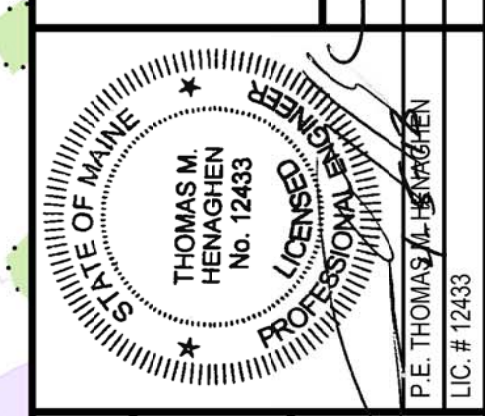


COLLECTOR LINE - PLAN
SCALE: 1" = 100'

PRELIMINARY - NOT FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	12.19.12	PERMIT DRAWINGS SUBMITTED FOR PROJECT TEAM REVIEW
2	03.06.13	ACADE REVISIONS
3	04.09.13	PERMIT PLAN SUBMISSION
4	04.17.13	ADDRESS STATE RESOURCE COMMENTS

PROJECT	BINGHAM WIND PROJECT
SCALE	1" = 100'
DATE	SEPT 2012
JOB NO.	3048
FILE NAME	3048-COLLECTOR LINE

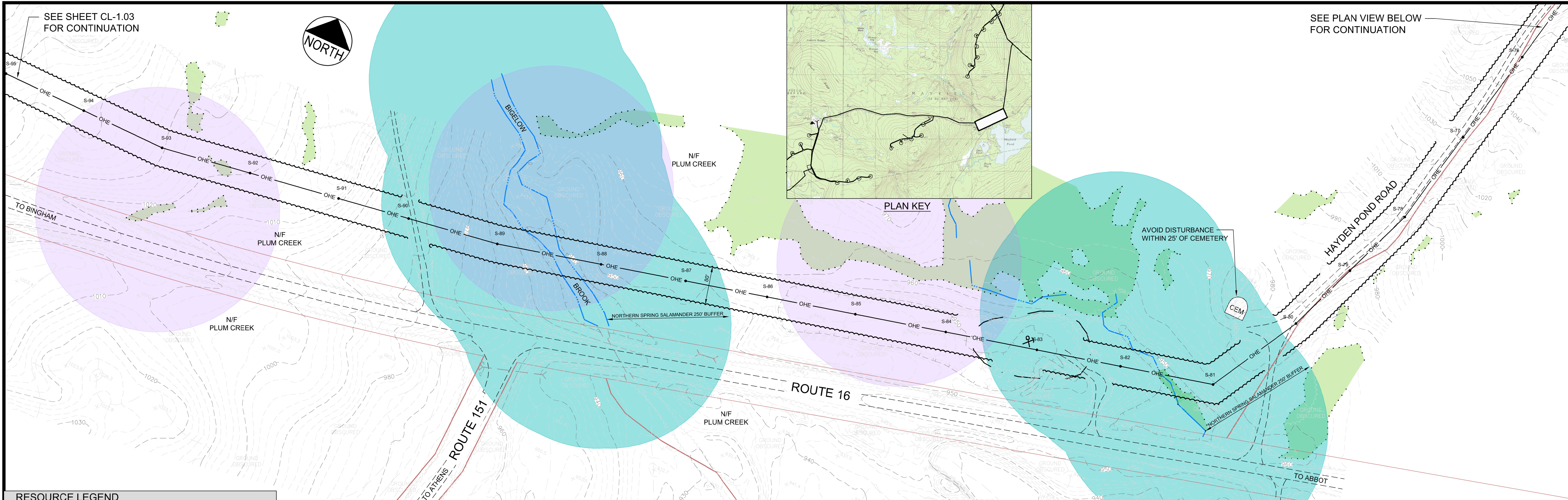


BINGHAM WIND PROJECT
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SHEET
CL-1.03

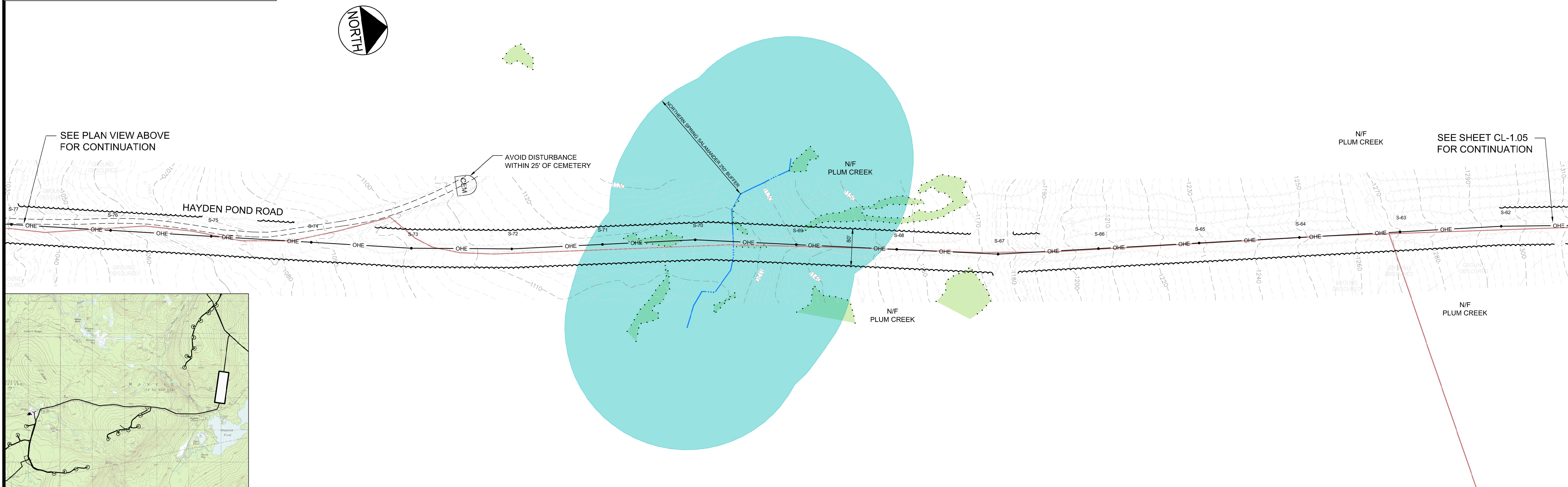
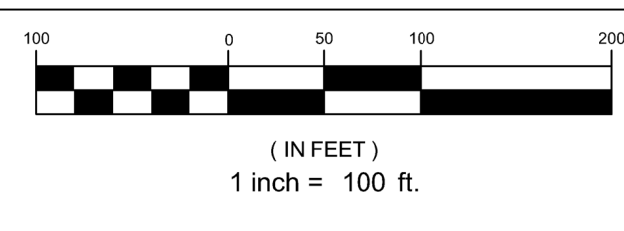
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RESOURCE LEGEND

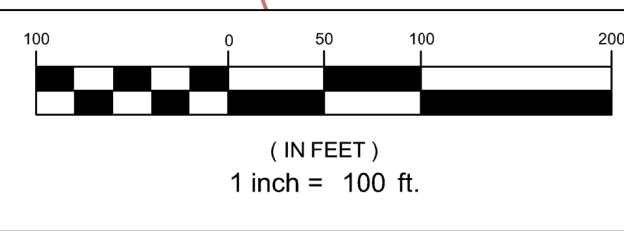
- STREAM
- DELINEATED WETLAND
- SIGNIFICANT VERNAL POOL / NATURALLY OCCURRING POTENTIAL VERNAL POOL
- SIGNIFICANT VERNAL POOL / NATURALLY OCCURRING POTENTIAL VERNAL POOL 250' BUFFER
- NORTHERN SPRING SALAMANDER 250' STREAM BUFFER

COLLECTOR LINE - PLAN
SCALE: 1" = 100'



PLAN KEY

COLLECTOR LINE - PLAN
SCALE: 1" = 100'



PRELIMINARY - NOT FOR CONSTRUCTION

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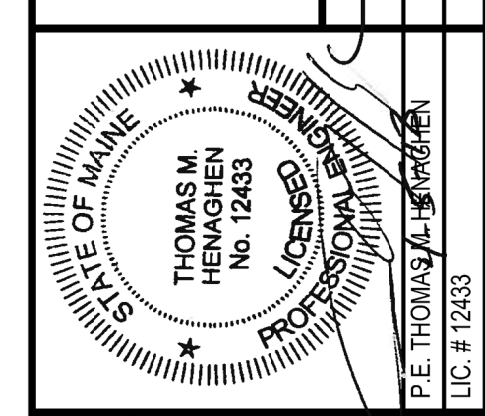
SEE PLAN VIEW BELOW FOR CONTINUATION

SEE SHEET CL-1.03 FOR CONTINUATION

SEE SHEET CL-1.05 FOR CONTINUATION

SEE PLAN VIEW ABOVE FOR CONTINUATION

COLLECTOR LINE PLAN	NO.	DATE	DESCRIPTION
	1	12.19.12	PERMIT DRAWINGS SUBMITTED FOR PROJECT TEAM REVIEW
	2	03.06.13	ACOE REVISIONS
	3	04.09.13	PERMIT PLAN SUBMISSION
FILE NAME	3048-COLLECTOR LINE		
CHECKED	SRB	DATE	SCALE
DESIGNED	SJB	SEPT 2012	1" = 100'
DRAWN	CMW		

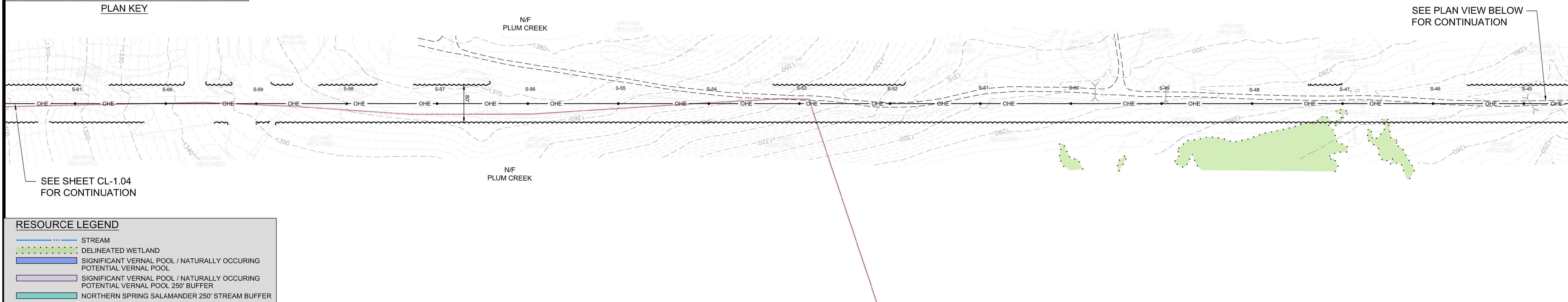
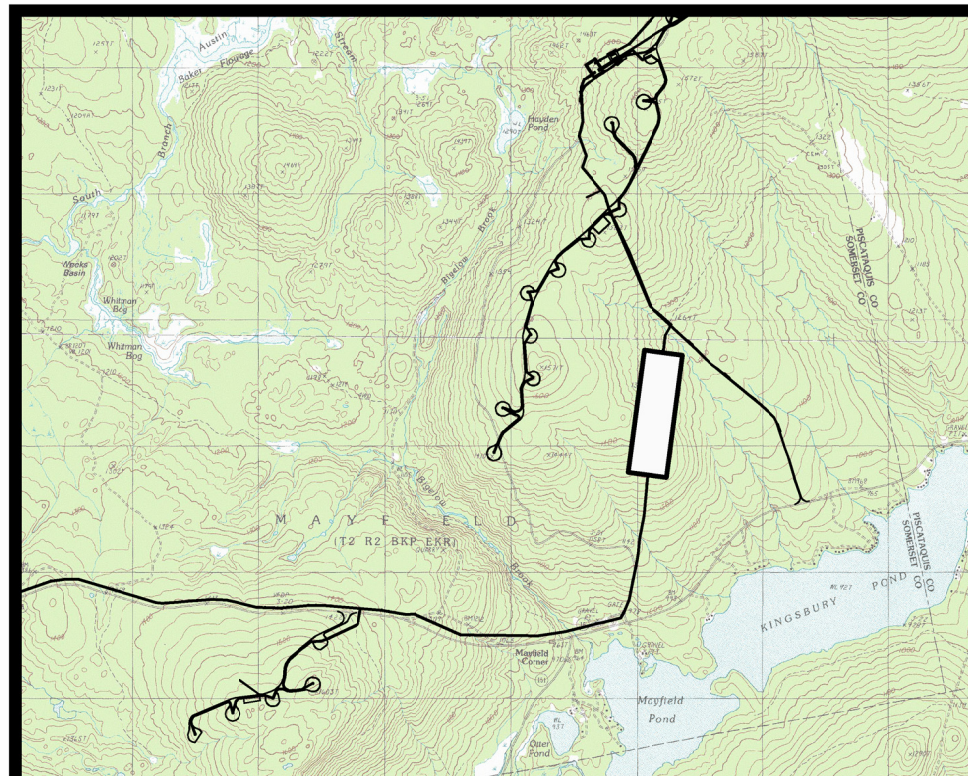


BINGHAM WIND PROJECT

BLUE SKY WEST, LLC

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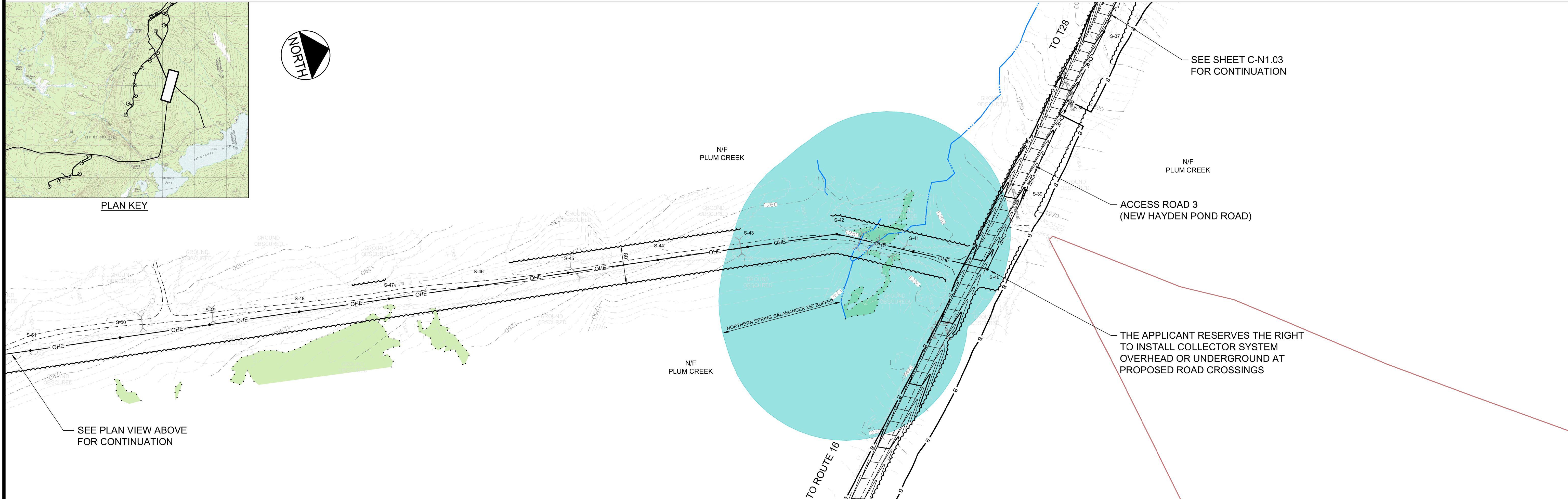
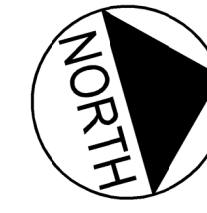
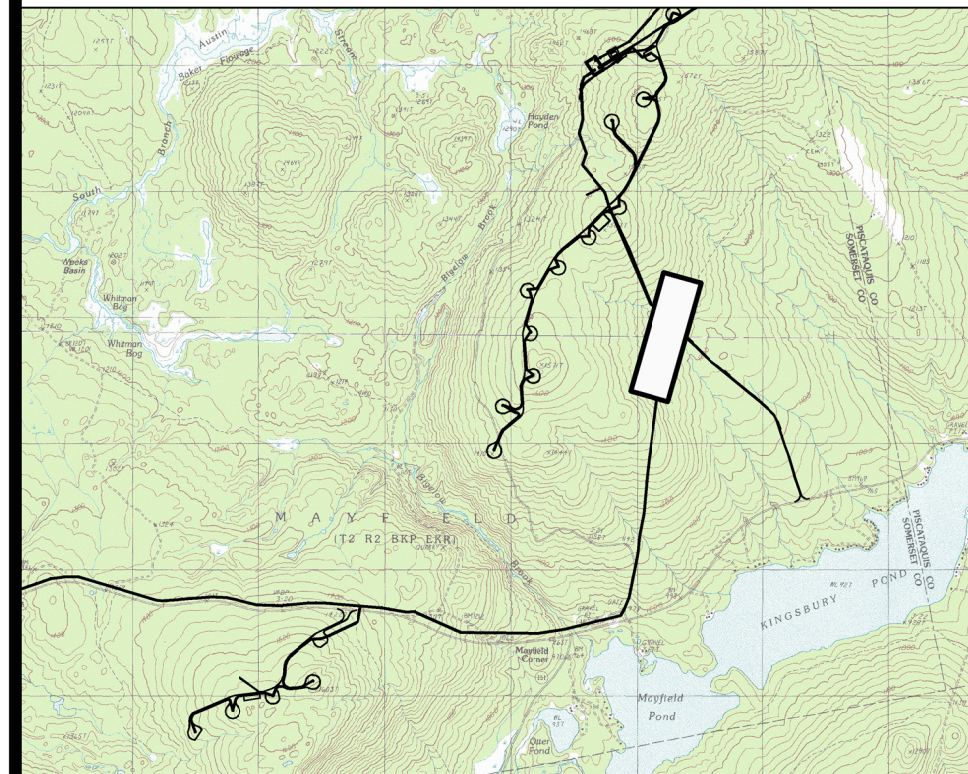
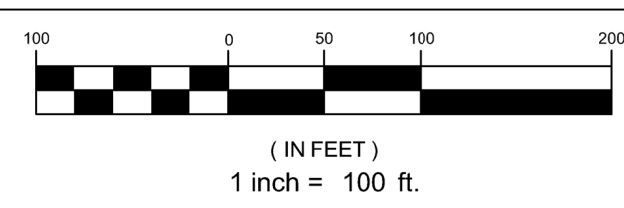
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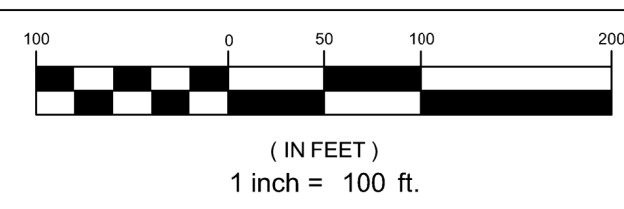
RESOURCE LEGEND

- STREAM
- DELINEATED WETLAND
- SIGNIFICANT VERNAL POOL / NATURALLY OCCURRING POTENTIAL VERNAL POOL
- SIGNIFICANT VERNAL POOL / NATURALLY OCCURRING POTENTIAL VERNAL POOL 250' BUFFER
- NORTHERN SPRING SALAMANDER 250' STREAM BUFFER

COLLECTOR LINE - PLAN
SCALE: 1" = 100'



COLLECTOR LINE - PLAN
SCALE: 1" = 100'

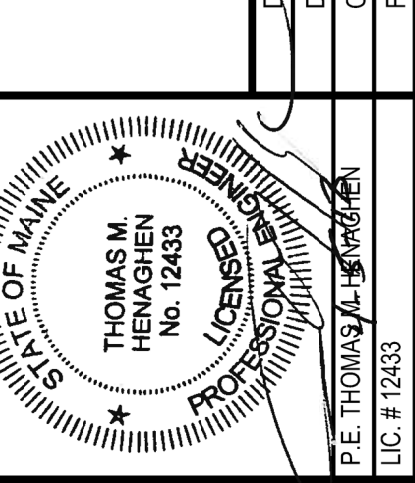


PRELIMINARY - NOT FOR CONSTRUCTION

COLLECTOR LINE PLAN

NO.	DATE	DESCRIPTION
1	12.19.12	PERMIT DRAWINGS SUBMITTED FOR PROJECT TEAM REVIEW
2	03.06.13	ACOE REVISIONS
3	04.09.13	PERMIT PLAN SUBMISSION

FILE NAME	SRB	SRB	DATE	SCALE	CWM	DRAWN
3048-COLLECTOR LINE	3048	3048	SEPT 2012	1" = 100'		



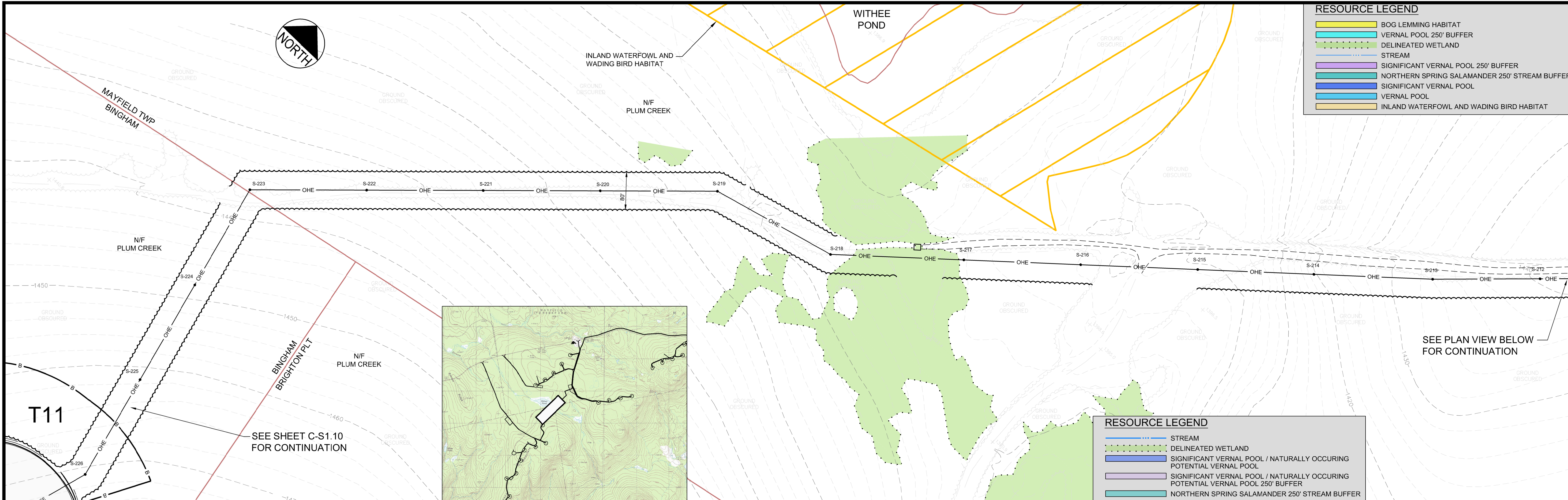
BINGHAM WIND PROJECT

BLUE SKY WEST, LLC

DeLuca-Hoffman Associates, Inc.
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, ME 04106
207.775.1121
www.delucahoffman.com

SHEET
CL-1.05

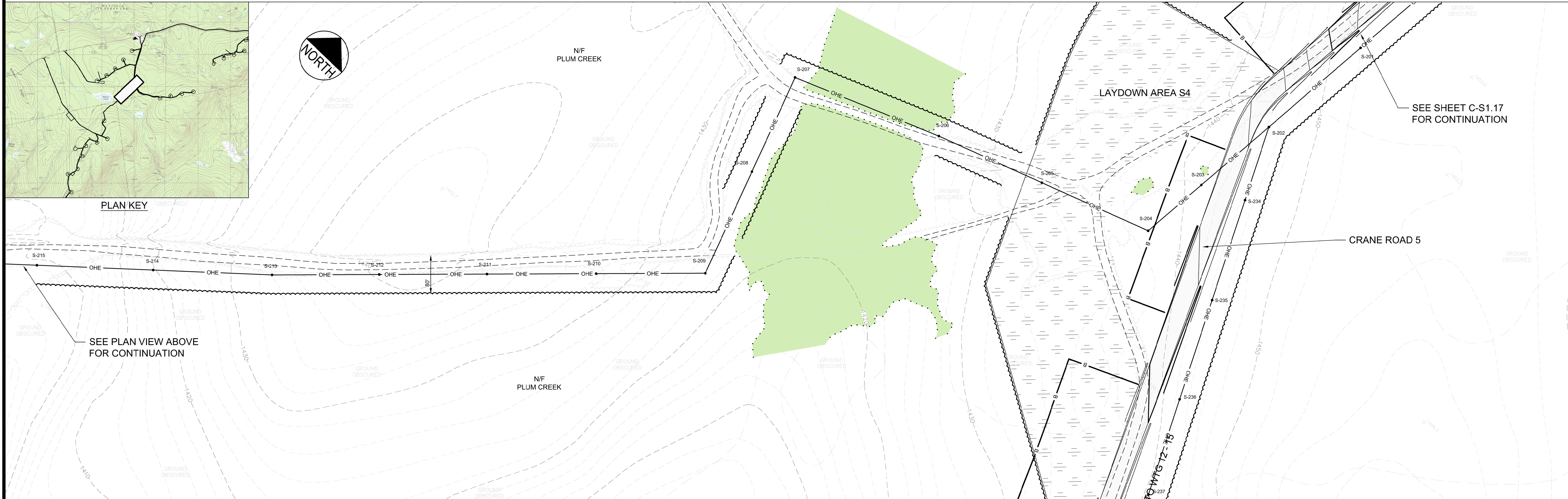
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RESOURCE LEGEND

- BOG LEMMING HABITAT
- VERNAL POOL 250' BUFFER
- DELINEATED WETLAND
- STREAM
- SIGNIFICANT VERNAL POOL 250' BUFFER
- NORTHERN SPRING SALAMANDER 250' STREAM BUFFER
- SIGNIFICANT VERNAL POOL
- VERNAL POOL
- INLAND WATERFOWL AND WADING BIRD HABITAT

COLLECTOR LINE - PLAN
SCALE: 1" = 100'



RESOURCE LEGEND

- STREAM
- DELINEATED WETLAND
- SIGNIFICANT VERNAL POOL / NATURALLY OCCURRING POTENTIAL VERNAL POOL
- SIGNIFICANT VERNAL POOL / NATURALLY OCCURRING POTENTIAL VERNAL POOL 250' BUFFER
- NORTHERN SPRING SALAMANDER 250' STREAM BUFFER

COLLECTOR LINE - PLAN
SCALE: 1" = 100'

PRELIMINARY - NOT FOR CONSTRUCTION

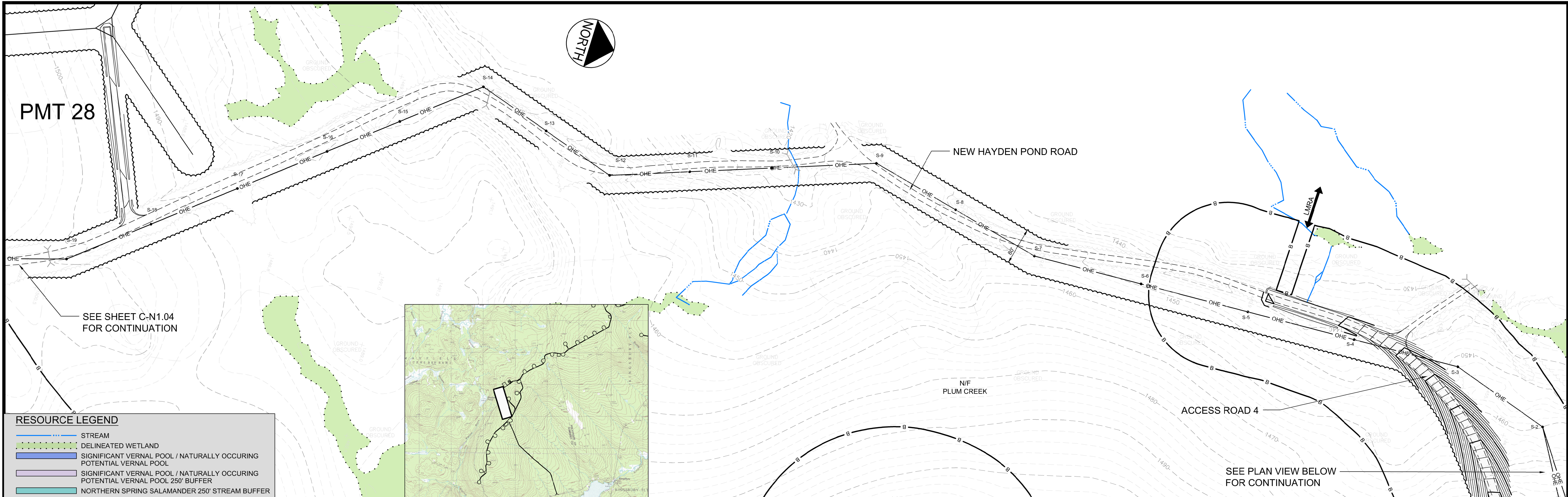
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	DESIGNED: SRB	JOB NO. 3048	DATE: 03.06.13	NO. 2	ACOE REVISIONS
	CHECKED: P.E. THOMAS M. HENAGHAN	FILE NAME: 3048-COLLECTOR LINE	DATE: 12.19.12	NO. 1	PERMIT DRAWINGS SUBMITTED FOR PROJECT TEAM REVIEW
				NO.	DESCRIPTION

BINGHAM WIND PROJECT
BLUE SKY WEST, LLC

DeLuca-Hoffman Associates, Inc.
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SOUTH PORTLAND, ME 04106
207.775.1121
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CL-1.06

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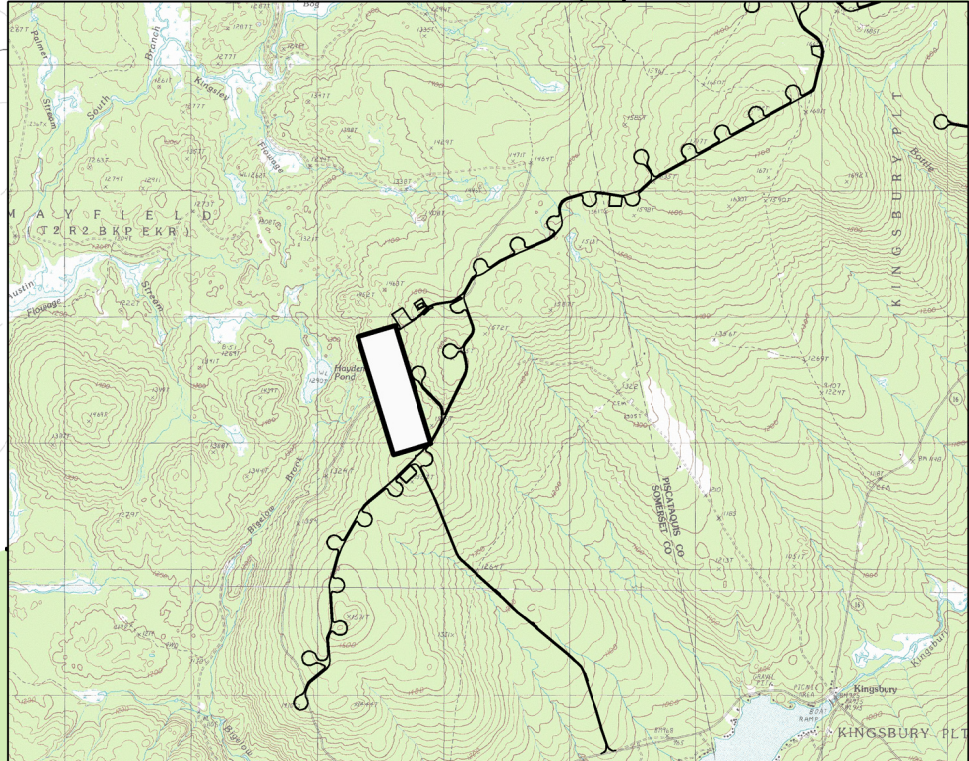


PMT 28



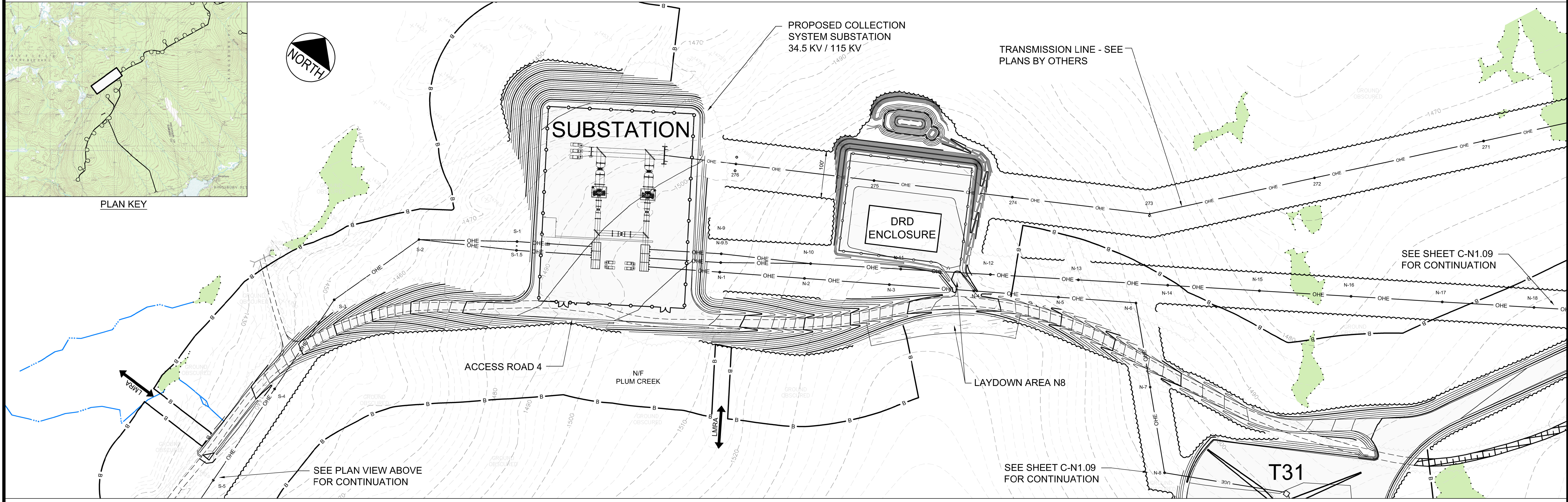
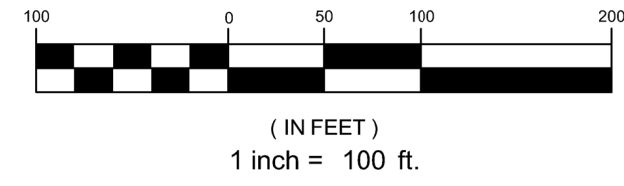
SEE SHEET C-N1.04 FOR CONTINUATION

- RESOURCE LEGEND**
- STREAM
 - DELINEATED WETLAND
 - SIGNIFICANT VERNAL POOL / NATURALLY OCCURRING POTENTIAL VERNAL POOL
 - SIGNIFICANT VERNAL POOL / NATURALLY OCCURRING POTENTIAL VERNAL POOL 250' BUFFER
 - NORTHERN SPRING SALAMANDER 250' STREAM BUFFER



PLAN KEY

COLLECTOR LINE - PLAN
SCALE: 1" = 100'



SUBSTATION

DRD ENCLOSURE

PROPOSED COLLECTION SYSTEM SUBSTATION 34.5 KV / 115 KV

TRANSMISSION LINE - SEE PLANS BY OTHERS

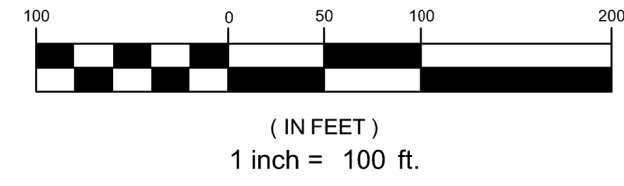
SEE SHEET C-N1.09 FOR CONTINUATION

SEE PLAN VIEW ABOVE FOR CONTINUATION

SEE SHEET C-N1.09 FOR CONTINUATION

T31

COLLECTOR LINE - PLAN
SCALE: 1" = 100'



PRELIMINARY - NOT FOR CONSTRUCTION

COLLECTOR LINE PLAN	NO.	DATE	DESCRIPTION
	3	04.09.13	PERMIT PLAN SUBMISSION
	2	03.06.13	ACOE REVISIONS
	1	12.19.12	PERMIT DRAWINGS SUBMITTED FOR PROJECT TEAM REVIEW
BINGHAM WIND PROJECT BLUE SKY WEST, LLC	DRAWN:	SCALE:	1" = 100'
	DESIGNED:	DATE:	SEPT 2012
	CHECKED:	SRB:	JOB NO. 3048
	FILE NAME:	3048-COLLECTOR LINE	

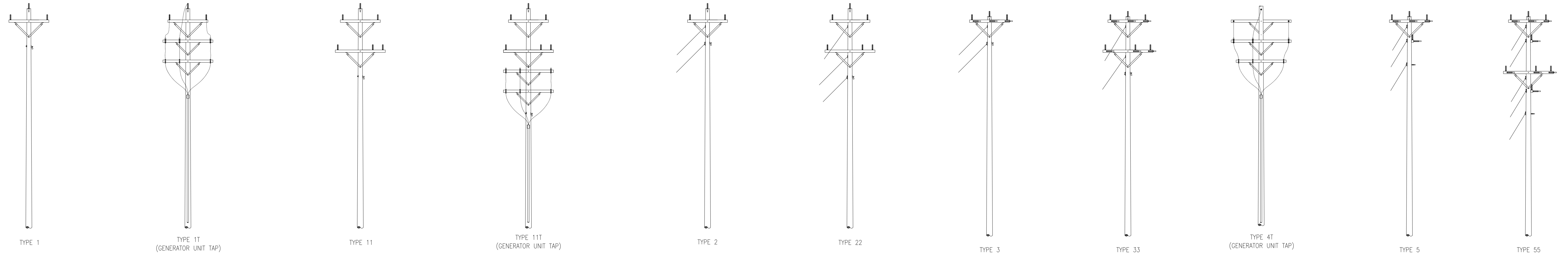
STATE OF MAINE
THOMAS M. HENAGHAN
No. 12483
Professional Engineer License

DeLuca-Hoffman Associates, Inc.
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, ME 04106
207.775.1121
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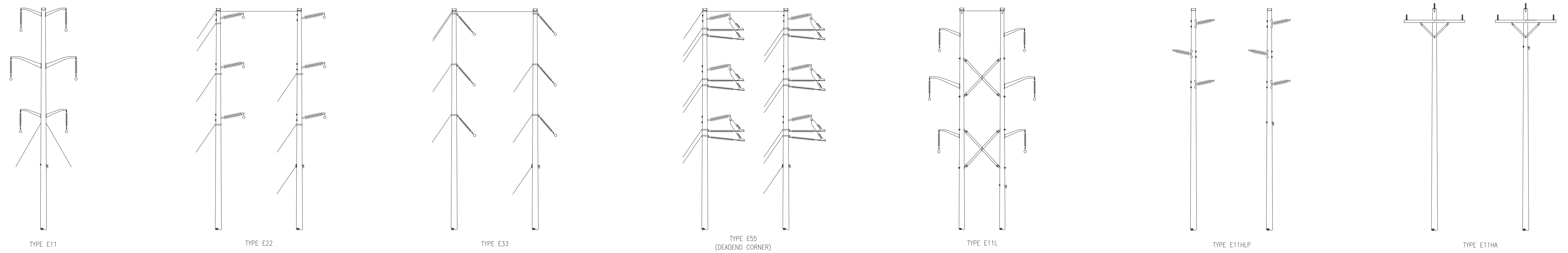
BINGHAM WIND PROJECT
BLUE SKY WEST, LLC

SHEET
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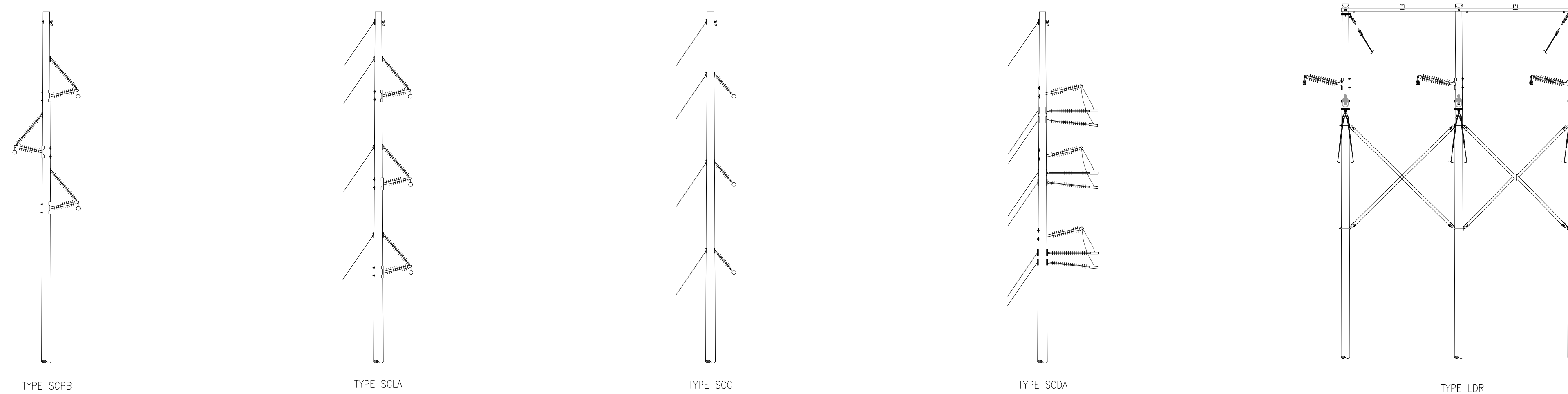
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34.5 kV MOUNTAINTOP COLLECTOR STRUCTURES



**34.5 kV OPTIONAL COLLECTOR STRUCTURES
(TO BE USED ALONG RTE. 16)**



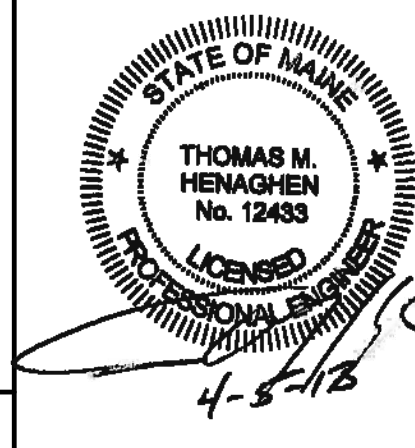
115 kV MOUNTAINTOP GENERATOR LEAD STRUCTURES

STRUCTURE AND LAYOUT NOTES:

1. TYPICAL STRUCTURE HEIGHTS ON THE MOUNTAINTOP COLLECTOR WILL RANGE FROM 35 TO 60 FEET AND WILL VARY BASED ON SITE CONDITIONS AT THE TIME OF INSTALLATION. STRUCTURE HEIGHTS FOR THE COLLECTOR SYSTEM ALONG THE RTE. 16 CORRIDOR WILL RANGE FROM 45 TO 80 FEET AND WILL VARY BASED ON SITE CONDITIONS AT THE TIME OF INSTALLATION.
2. STRUCTURE CONFIGURATIONS VARY (E.G. SINGLE-POLE, DOUBLE-POLE, HORIZONTAL, VERTICAL) BASED ON SITE CONDITIONS AT THE TIME OF INSTALLATION. SEE TYPICAL STRUCTURE DETAILS (THIS SHEET) FOR STANDARD CONFIGURATIONS.
3. TYPICAL OVERHEAD SPANS (DISTANCE BETWEEN STRUCTURES) MAY VARY BETWEEN 150 AND 300 FEET ON THE MOUNTAINTOP, AND MAY INCREASE TO BETWEEN 200 AND 450 FEET ON THE PORTION BETWEEN THE NORTH AND SOUTH COLLECTOR SYSTEMS, PARTICULARLY ALONG ROUTE 16 WHERE THE OPTIONAL STRUCTURE TYPES MAY BE APPLIED. STRUCTURE LOCATIONS WILL BE GENERALLY AS REPRESENTED ON THE PERMIT PLANS. FINAL SPAN LENGTHS MAY BE ADJUSTED BASED ON SITE CONDITIONS AT THE TIME OF INSTALLATION.
4. STRUCTURES REQUIRING GUYS ARE SHOWN ON THE TYPICAL STRUCTURE DETAILS. FINAL ANCHOR LOCATIONS WILL VARY BASED ON STRUCTURE HEIGHT, TERRAIN AND SITE CONDITIONS. FOR THE MOUNTAINTOP COLLECTOR, NO STRUCTURES OR ANCHORS ARE PROPOSED WITHIN WETLAND RESOURCE AREAS.
5. ANCHORS WILL PREDOMINATELY BE SCREW TYPE, BUT ROCK OR SLUG ANCHORS MAY BE USED DEPENDENT ON SITE CONDITIONS.
6. FINAL POLE OR ANCHOR LOCATIONS MAY BE ADJUSTED BASED ON SITE CONDITIONS AT THE TIME OF INSTALLATION. NO ADJUSTMENTS TO POLE LOCATIONS SHOWN ON THE PLANS WILL BE MADE THAT WOULD RESULT IN STRUCTURES OR ANCHORS BEING RELOCATED CLOSER THAN 25' TO A STREAM OR WITHIN WETLANDS.
7. REMOVAL OF INDIVIDUAL "DANGER TREES" BEYOND THE PROPOSED CLEARING LIMITS SHOWN ON THE DRAWINGS WILL BE REQUIRED.
8. TO THE EXTENT PRACTICABLE, STRUCTURES WILL BE DESIGNED WITH REFERENCE TO THE GUIDELINES SET FORTH IN THE AVIAN POWER LINE INTERACTION COMMITTEE DOCUMENT, "SUGGESTED PRACTICES FOR AVIAN PROTECTION ON POWER LINES: THE STATE OF THE ART IN 2006". COMPLIANCE WILL BE MET PRIMARILY BY PROVIDING ADEQUATE SPACING BETWEEN CONDUCTORS WITH ADDITIONAL INSULATION OR COVERING OF ENERGIZED ELEMENTS AS SUGGESTED.
9. GENERATOR LEAD DETAILS ARE PROVIDED FOR REFERENCE. FOR MORE INFORMATION ON GENERATOR LEAD SEE 115 kV GENERATOR LEAD MAPS AND FOR DETAILS SEE DRAWING 782-13-1251.



ISSUED FOR PERMIT

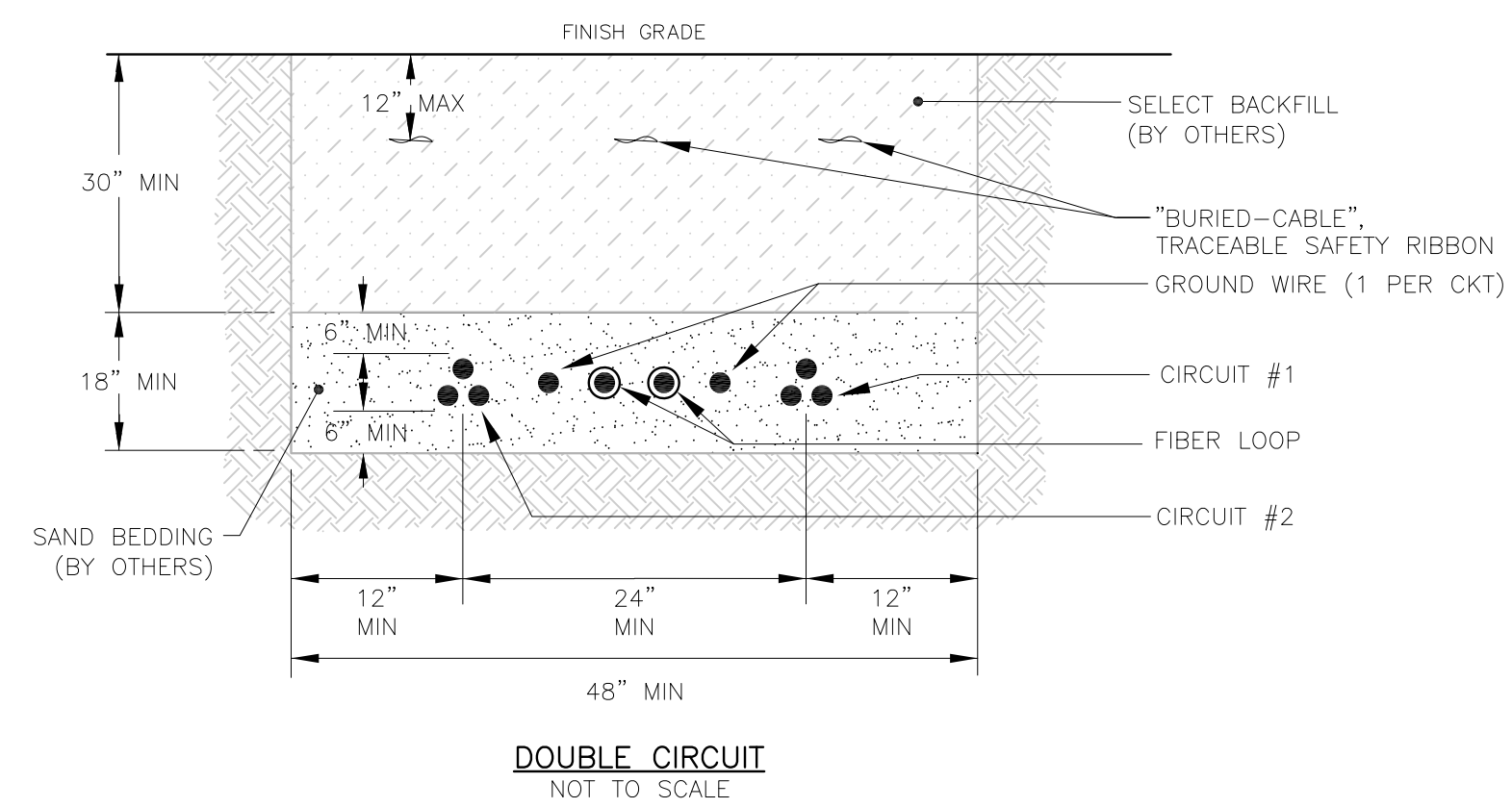
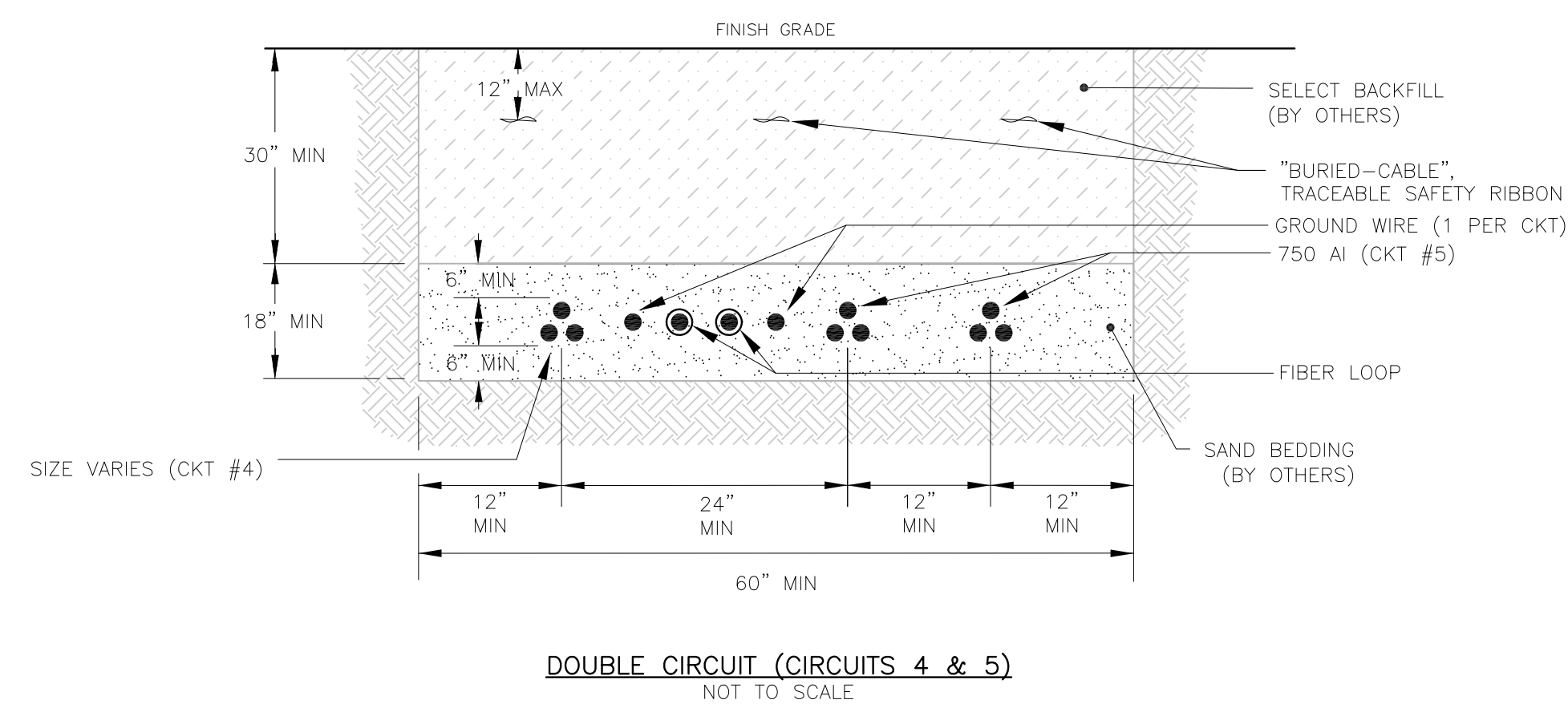
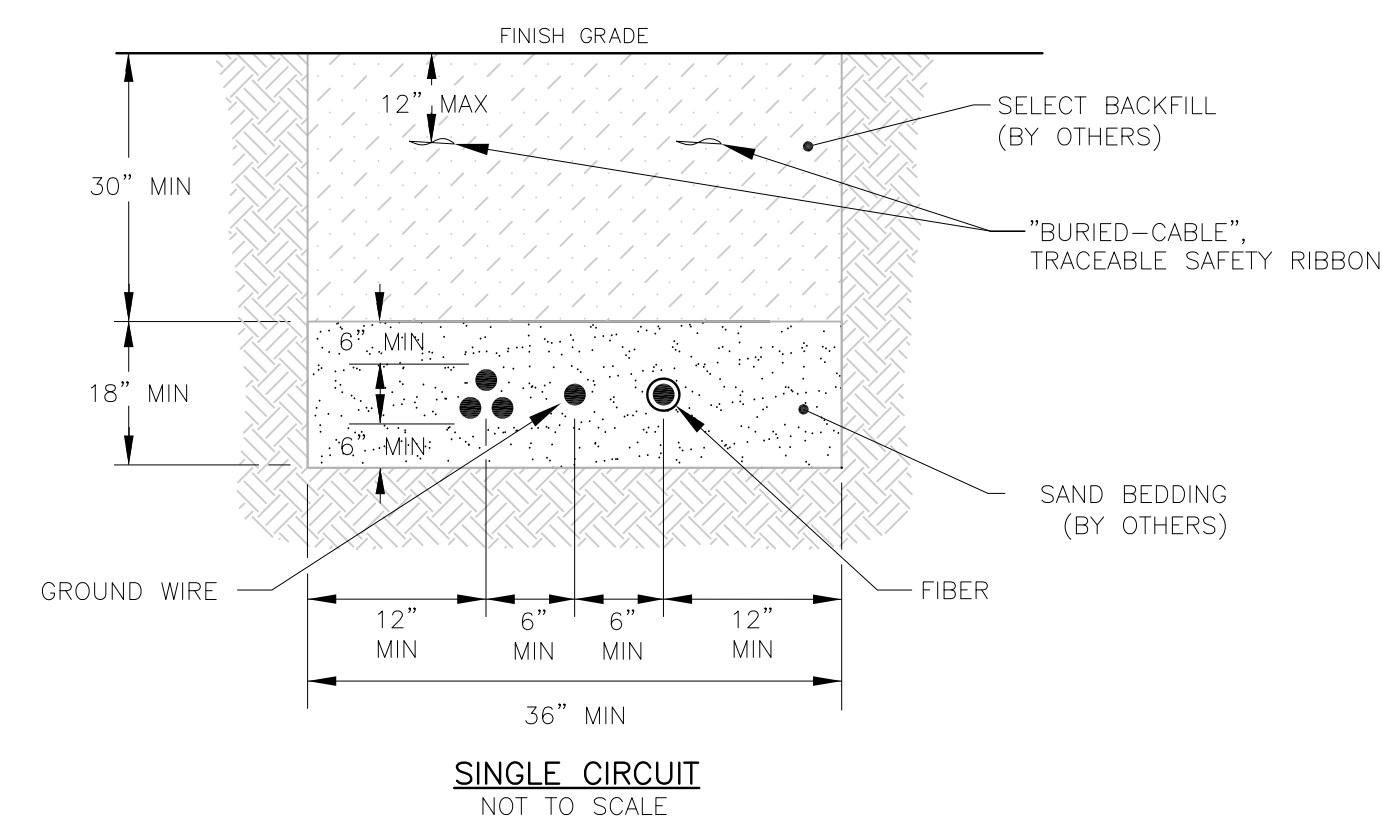


NO.	REVISIONS:	APPD:	DATE:
A	ISSUED FOR REVIEW	TMH	11/13/2012
B	ISSUED FOR PERMIT	TMH	04/05/2013

TITLE:	COLLECTOR SYSTEM & MOUNTAINTOP GEN LEAD TYPICAL STRUCTURE TYPES
PROJECT:	BINGHAM WIND PROJECT SOMERSET COUNTY, MAINE
CLIENT:	BLUE SKY WEST, LLC c/o FIRST WIND, LLC, 129 MIDDLE ST., 3rd FLOOR, PORTLAND, ME 04101

SGC PROJECT NUMBER	782001
DRAWING NUMBER	782-13-1200
REVISION	B
SHEET NUMBER	CL-2.01

DATE:	NOVEMBER 12, 2012	SCALE:	N.T.S.	DRAWN:	JTF	DESIGN:	JTF	APPROVED:	TMH
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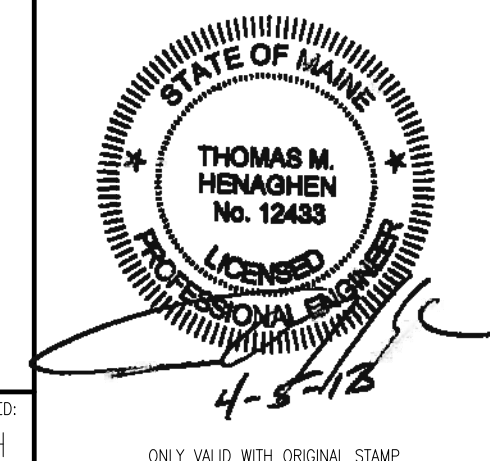
NOTES:

1. EXCAVATION AND BACKFILL BY OTHERS.
2. JUNCTION BOXES SHALL BE FIELD LOCATED AT THE EDGE OF ROAD OR OUTSIDE THE TRAVEL WAY. BOXES SHALL BE PROTECTED BY BOULDERS TO PREVENT DAMAGE DUE TO VEHICLE TRAFFIC.
3. MINIMUM TRENCH DIMENSIONS SHALL BE AS SHOWN ON THE DETAILS.
4. CABLES SHALL BE LAID ON A PREPARED BEDDING LAYER AND BACKFILLED AND COMPACTED PER THE SPECIFICATIONS.
5. CABLE BENDING RADII SHALL NOT EXCEED THOSE SPECIFIED BY THE CABLE MANUFACTURER.
6. CABLES MAY BE DIVIDED INTO SEPARATE TRENCHES PROVIDED MINIMUM SEPARATION REQUIREMENTS ARE MET.

CABLE SCHEDULE			
LOCATION FROM	LOCATION TO	LENGTH (FT)	CABLE SIZE
CIRCUIT #1			
T-01	T-02	1300	1/0
T-02	T-03	1500	1/0
T-03	T-04	1300	1/0
T-04	T-05	2300	4/0
T-05	T-06	1500	4/0
T-06	T-07	1800	500 MCM
T-07	T-08	1500	500 MCM
T-08	T-09	2300	750 MCM
T-09	JB-1	1200	750 MCM
T-10	JB-1	650	1/0
JB-1	T-11	2000	1000 MCM
T-11	RISER	400	1000 MCM
CIRCUIT #2			
T-15	T-14	1200	1/0
T-14	T-13	1700	1/0
T-13	T-12	1600	1/0
T-12	RISER	400	4/0
T-16	T-17	1400	1/0
T-17	T-18	1600	1/0
T-18	JB-2	1400	1/0
T-19	JB-2	800	1/0
JB-2	T-20	1100	4/0
T-20	RISER	1600	4/0
T-73	T-74	1100	1/0
T-74	T-75	1900	1/0
T-75	RISER	1800	1/0
CIRCUIT #3			
T-21	T-22	1600	1/0
T-22	T-23	1300	1/0
T-23	T-24	1500	1/0
T-24	T-25	1700	4/0
T-25	T-26	1500	4/0
T-26	T-27	1500	500 MCM
T-27	T-28	1700	500 MCM
T-28	JB-3	1400	750 MCM
T-29	JB-3	1200	1/0
JB-3	T-30	2000	750 MCM
T-30	T-31	1500	1000 MCM
T-31	RISER	400	1000 MCM
CIRCUIT #4			
T-41	T-40	1500	1/0
T-40	T-39	1500	1/0
T-39	T-38	1500	1/0
T-38	JB-4	1400	4/0
T-37	JB-4	750	1/0
JB-4	T-36	1000	4/0
T-36	T-35	1700	500 MCM
T-35	T-34	1500	500 MCM
T-34	T-33	1500	750 MCM
T-33	T-32	1800	750 MCM
T-32	RISER	400	750 MCM
CIRCUIT #5			
T-42	T-43	900	1/0
T-43	T-44	3000	1/0
T-44	JB-5	3100	1/0
JB-5	T-49	1200	500 MCM
T-51	T-50	1100	1/0
T-50	JB-5	700	1/0
T-49	T-48	1300	500 MCM
T-48	T-47	1700	750 MCM
T-47	RISER	850	750 MCM
T-58	T-57	1200	1/0
T-57	T-56	1700	1/0
T-56	T-55	1600	1/0
T-55	RISER	500	4/0
T-53	T-54	1100	1/0
T-54	RISER	1900	1/0



DATE: NOVEMBER 12, 2012
SCALE: N.T.S.
DRAWN: SJF
DESIGN: TMH
APPROVED: TMH



NO.	REVISIONS:	APPD:	DATE:
A	ISSUED FOR PERMIT	TMH	04/05/2013

TITLE: COLLECTOR SYSTEM & MOUNTAIN TOP GEN LEAD
TYPICAL UNDERGROUND TRENCH DETAILS

PROJECT: BINGHAM WIND PROJECT
SOMERSET COUNTY, MAINE

CLIENT: BLUE SKY WEST, LLC
c/o FIRST WIND, LLC, 129 MIDDLE ST., 3rd FLOOR, PORTLAND, ME 04101

SGC PROJECT NUMBER: 782001
DRAWING NUMBER: 782-13-1200
REVISION: A
SHEET NUMBER: CL-2.00