



KINGSTON CAPACITY AND STATION IMPROVEMENT PROJECT  
KINGSTON, RHODE ISLAND

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES / FRESHWATER WETLANDS  
REQUEST FOR PRELIMINARY DETERMINATION  
SUPPORTING PLANS

**HNTB** HNTB CORPORATION  
300 APOLLO DRIVE  
CHELMSFORD, MA 01824

IN ASSOCIATION WITH:  
GORDON R. ARCHIBALD, INC.  
GZA GEOENVIRONMENTAL  
CROSSROADS DESIGN ASSOCIATES  
PROJECT TECHNOLOGIES GROUP, INC.  
PUBLIC ARCHAEOLOGY LABORATORY  
BRYANT ASSOCIATES, INC.  
TRC ENVIRONMENTAL CORPORATION

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JUN 13 2014 FILE # 14-0310  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

*Martin D. Wood*

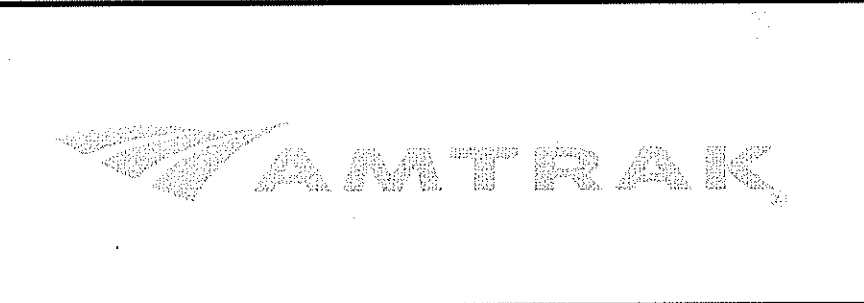
JAN 16 2014

FOR PERMITTING PURPOSES ONLY.  
NOT FOR CONSTRUCTION.

ANTHONY R. GOUVEIA  
No. 9575  
REGISTERED PROFESSIONAL ENGINEER (CIVIL)  
*A. R. Gouveia*  
01/10/2014

DECEMBER 2013

No.	Revisions	Date	By



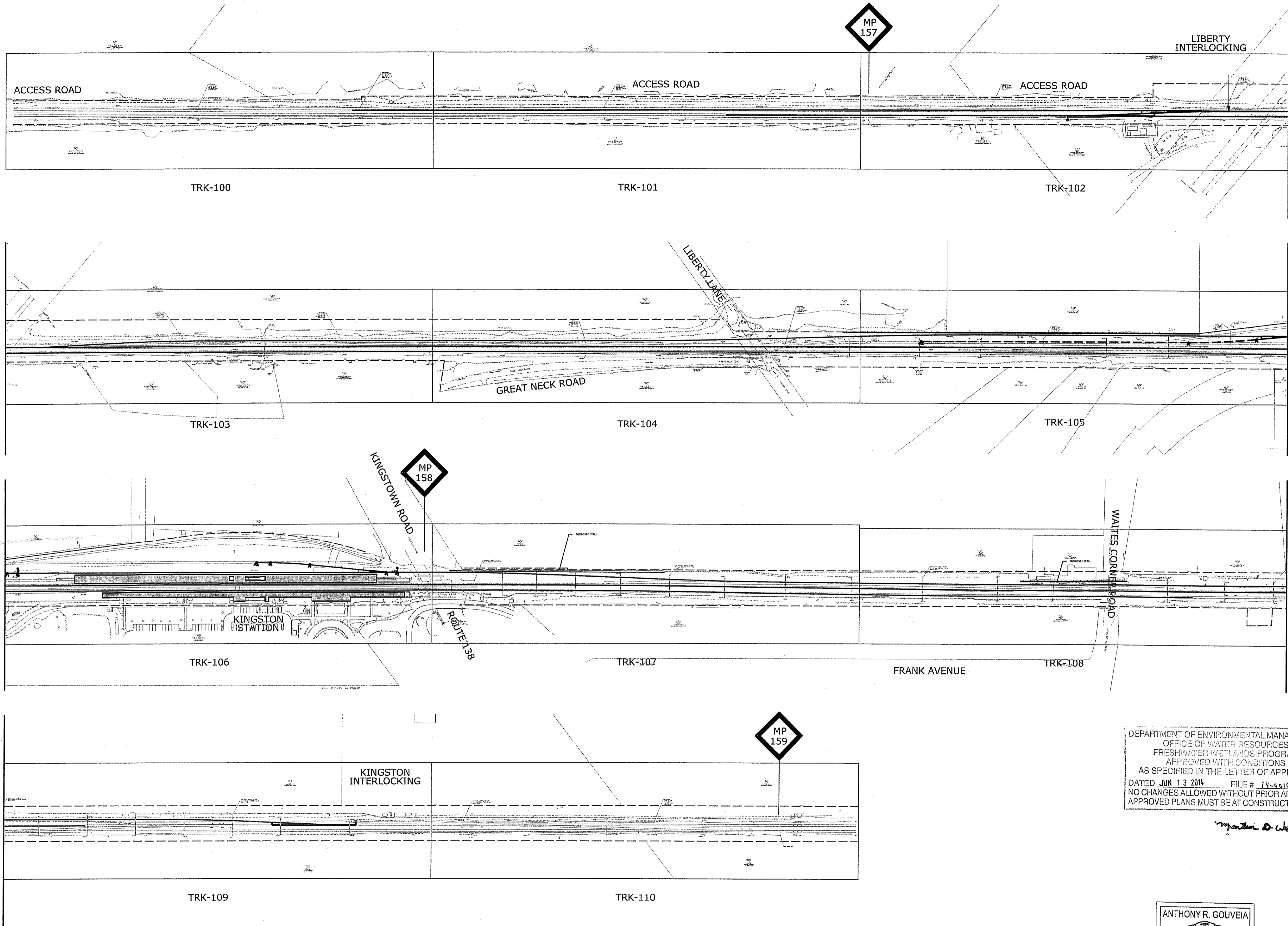
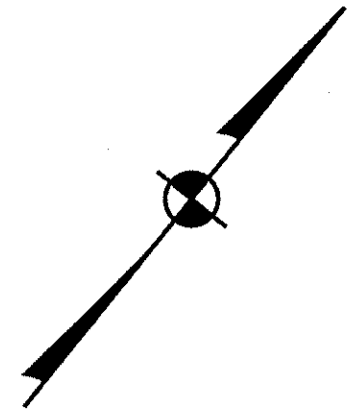
Office of Engineering  
Engineering Design  
National Railroad Passenger Corporation  
30TH Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

**HNTB** HNTB CORPORATION  
300 APOLLO DRIVE  
CHELMSFORD, MA 01824

**KINGSTON CAPACITY IMPROVEMENT PROJECT**  
COVER SHEET  
Designed **CEL** Drawn **CEL** Checked **ECD** Date **DEC 2013**

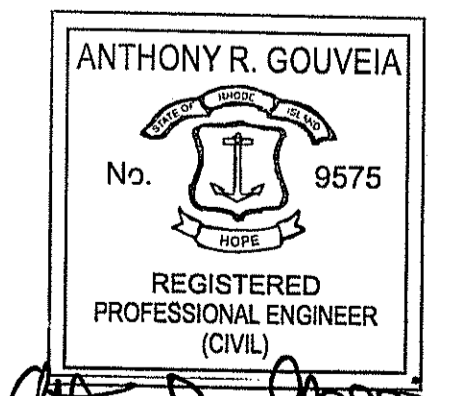
Job No. **57896**  
File Name **XXXXX**  
Sheet No. **XXX OF XXX**  
Dwg. No. **GN-001**



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED JUN 13 2014 FILE # 14-2010  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

*Matthew A. Womack*

JAN 16 2014



*Anthony R. Gouveia*  
 01/10/2014

FULL SIZE SCALE 1" = 150'  
 HALF SIZE SCALE 1" = 300'

No.	Revisions	Date	By



Office of Engineering  
 Engineering Design  
 National Railroad Passenger Corporation  
 30TH Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



300 APOLLO DRIVE  
 CHELMSFORD, MA 01824

**KINGSTON CAPACITY IMPROVEMENT PROJECT**

**KEY PLAN**

Designed CEL Drawn CEL Checked ECD Date 07/12/13

Job No. 57896  
 File Name XXXXX  
 Sheet No. XXX OF XXX  
 Dwg. No. **GN-002**

**TRACK ABBREVIATIONS**

⊕	CENTER LINE
CLF	CHAIN LINK FENCE
CS	CUT SECTION
CY	CUBIC YARD
DE	DESIGN EXCEPTION
EL	ELECTRIC LOCK
ELEV	ELEVATION
EXIST	EXISTING
FT	FOOT/FEET
GPR	GROUND PENETRATING RADAR
JERK	JERK RATE
LH	LEFT HAND
MIN	MINIMUM
MOW	MAINTENANCE OF WAY
MP	MILEPOST
MPH	MILE PER HOUR
N/A	NOT APPLICABLE
NO.	NUMBER
OH	OVERHEAD
PROP	PROPOSED
RH	RIGHT HAND
ROW	RIGHT OF WAY
SIG	SIGNAL
STA.	STATION
T.C.	TRACK CENTER
T/R	TOP OF RAIL
TRK	TRACK
TYP.	TYPICAL
V	VELOCITY

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
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 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED JUN 13 2014 FILE # 14-0010  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
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*Martin D. Wenzel*

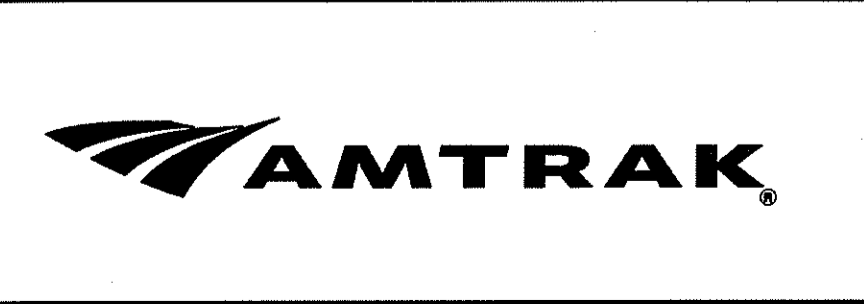
ANTHONY R. GOUVEIA  
 No. 9575  
 REGISTERED  
 PROFESSIONAL ENGINEER  
 (CIVIL)

*AG*  
 01/10/2014

JAN 16 2014

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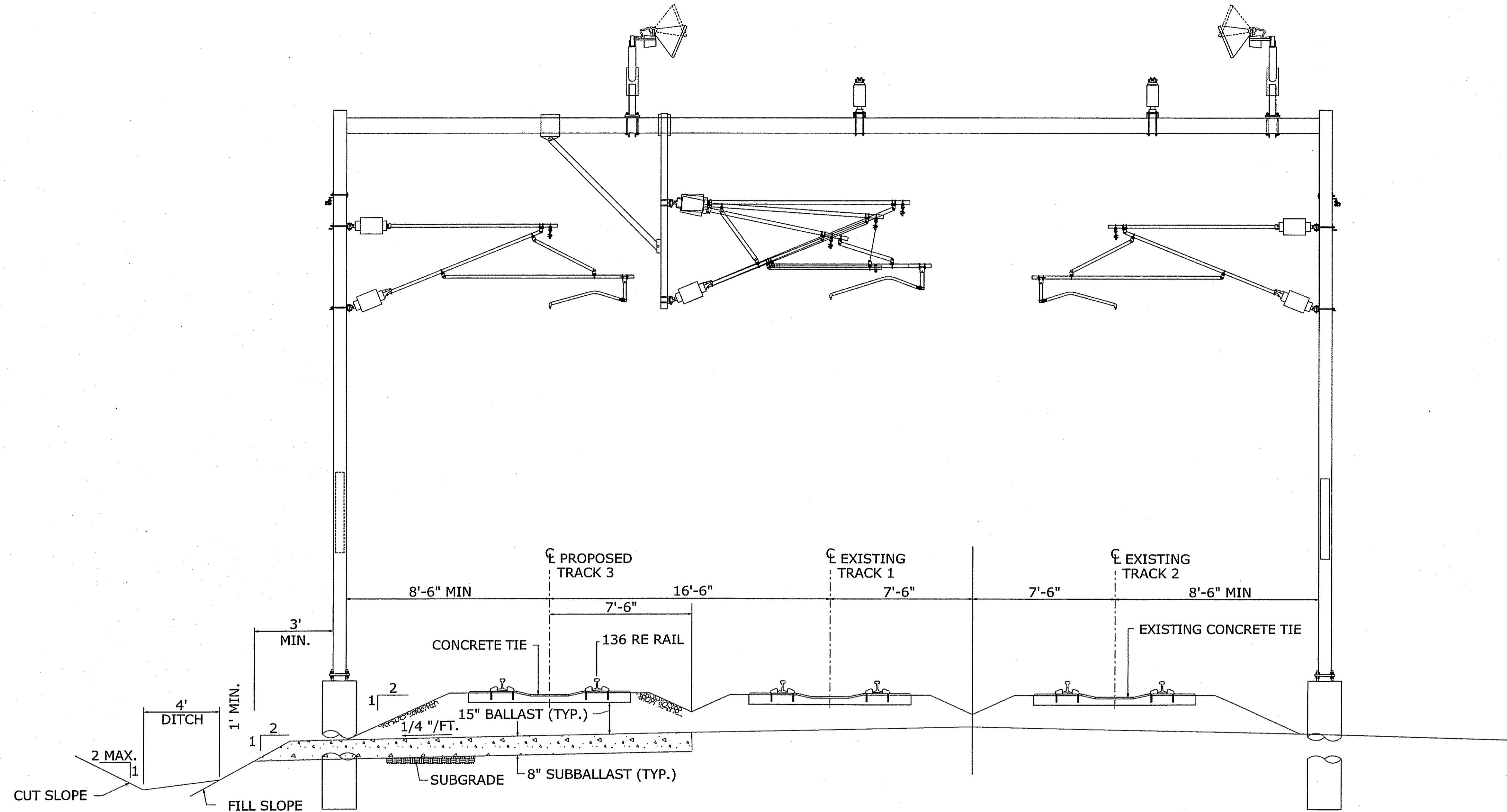
Approved	Date

**HNTB** HNTB CORPORATION  
 300 APOLLO DRIVE  
 CHELMSFORD, MA 01824

**KINGSTON CAPACITY  
 IMPROVEMENT PROJECT**

**TRACK ABBREVIATIONS**  
 Designed CEL Drawn CEL Checked ECD Date 07/12/13

Job No. 57896  
 File Name XXXXX  
 Sheet No. XXX OF XXX  
 Dwg. No. GN-003



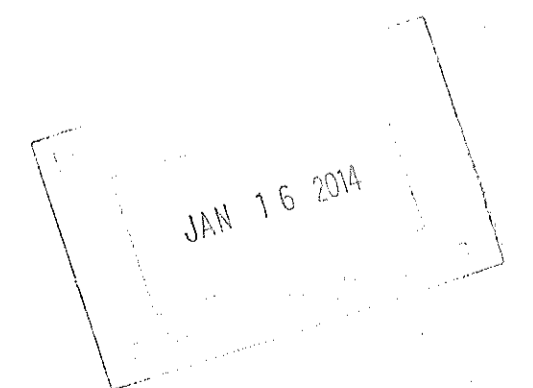
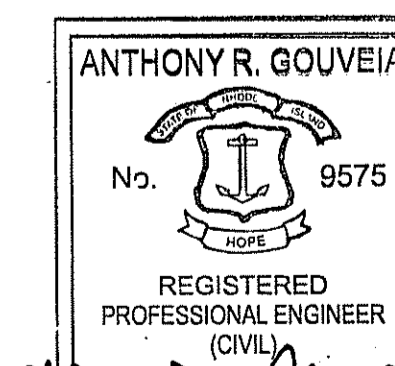
TYPICAL TANGENT TRACK SECTION

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED JUN 13 2014 FILE # 14-0506  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
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*Matthew D. Wenzel*

NOTES:

1. WHERE GEOTEXTILE FABRIC IS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER, PLACE FABRIC BENEATH THE SUBBALLAST.
2. WHEREVER THE OUTSIDE TRACK HAS THE GREATER SUPERELEVATION, INCREASE THE TRACK CENTERS 3 1/2" PER 1" OF SUPERELEVATION DIFFERENCE.
3. ALL WORK 2" BELOW TIE AND ABOVE WILL BE PERFORMED BY AMTRAK FORCE ACCOUNT. ALL OTHER WORK TO BE PERFORMED BY CONTRACTOR.



01/10/2014

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 30TH Street Station, Philadelphia, Pennsylvania 19104

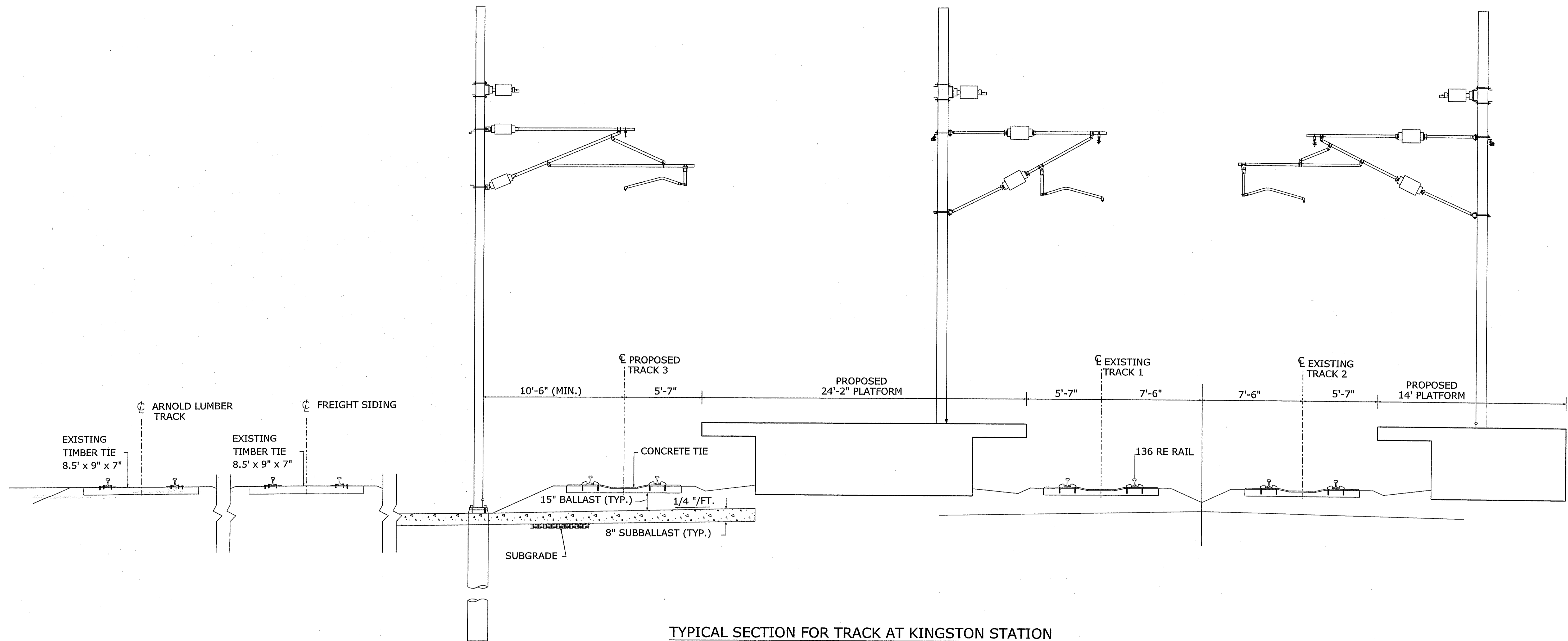
Approved	Date

**HNTB** HNTB CORPORATION  
 300 APOLLO DRIVE  
 CHELMSFORD, MA 01824

**KINGSTON CAPACITY IMPROVEMENT PROJECT**

**TYPICAL TRACK SECTION**  
 Designed CEL Drawn CEL Checked ECD Date 07/12/13

Job No. 57896  
 File Name XXXXX  
 Sheet No. XXX OF XXX  
 Dwg. No. **TRK-001**



TYPICAL SECTION FOR TRACK AT KINGSTON STATION

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
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 DATED JUN 13 2014 FILE # 14-0510  
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*Martin D. Wenczek*

NOTES:

- WHERE GEOTEXTILE FABRIC IS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER, PLACE FABRIC BENEATH THE SUBBALLAST.
- ALL WORK 2" BELOW TIE AND ABOVE WILL BE PERFORMED BY AMTRAK FORCE ACCOUNT. ALL OTHER WORK TO BE PERFORMED BY CONTRACTOR.

ANTHONY R. GOUVEIA  
 No. 9575  
 REGISTERED PROFESSIONAL ENGINEER (CIVIL)

JAN 16 2014

*01/10/2014*

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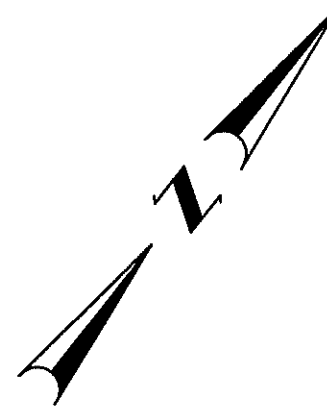
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**HNTB** HNTB CORPORATION  
 300 APOLLO DRIVE  
 CHELMSFORD, MA 01824

**KINGSTON CAPACITY IMPROVEMENT PROJECT**

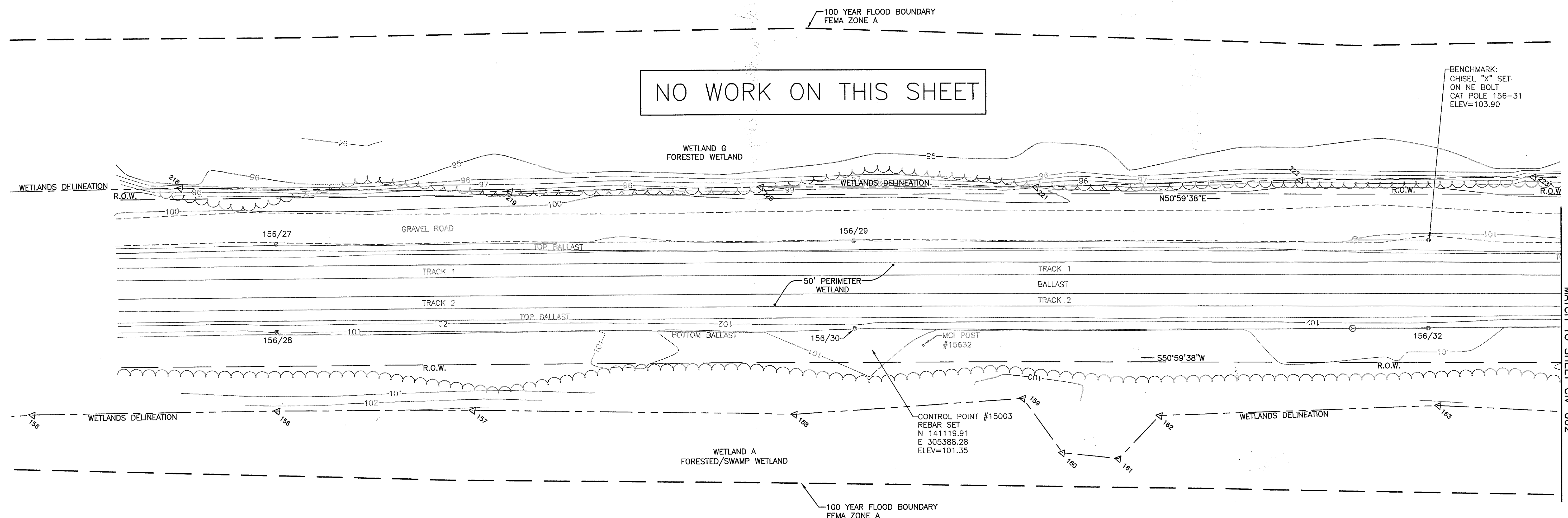
**TYPICAL TRACK SECTION**  
 Designed CEL Drawn CEL Checked ECD Date 07/12/13

Job No. 57896  
 File Name XXXXX  
 Sheet No. XXX OF XXX  
 Dwg. No. **TRK-002**



NO WORK ON THIS SHEET

BENCHMARK:  
CHISEL "X" SET  
ON NE BOLT  
CAT POLE 156-31  
ELEV=103.90



MATCH TO SHEET CIV-002

**LEGEND**

(LOD) ---	LIMIT OF DISTURBANCE
(CFS) ---	COMPOST FILTER SOCK
(LOR) ---	LIMIT OF REGRADING
---	OPEN DITCH
(BCP)	BITUMINOUS CONCRETE PAD (SEE DETAIL)
(CG)	CLEARING AND GRUBBING
(CPF)	NEW CATENARY POLE FOUNDATION
(GAF)	NEW GUY ANCHOR FOUNDATION
(RCF)	REMOVE & DISPOSE EXISTING CATENARY POLE FOUNDATION

AP 37  
LOT 1  
N/F  
STATE OF RHODE ISLAND  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT  
DB 68 P. 220

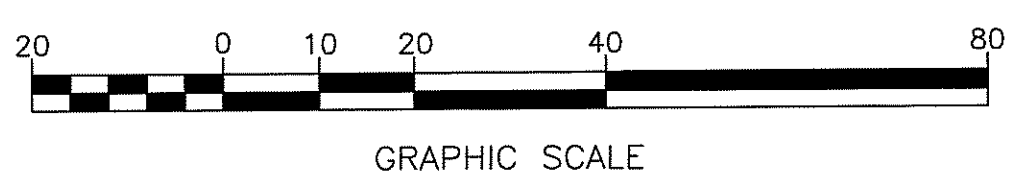
Kindly be advised that this  
Permit is not equivalent to a  
verification of the type or extent  
of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JUN 13 2014 FILE # 14-0210  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Environmental Management  
MAY 14 2014  
Office of Water Resources

*Martin D. Wenzel*

TODD A. RAVENELLE  
No. 5928  
REGISTERED  
PROFESSIONAL ENGINEER

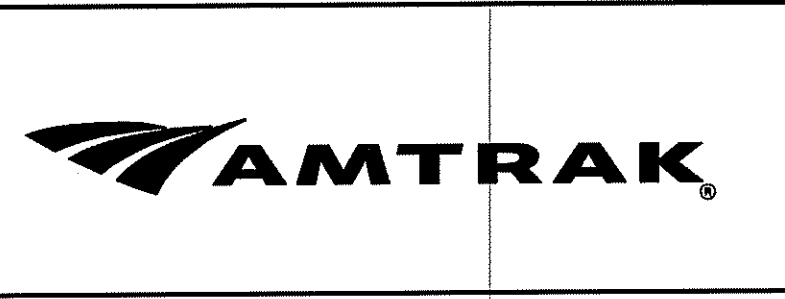


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Civil and Environmental Engineers  
Pawtucket, Rhode Island

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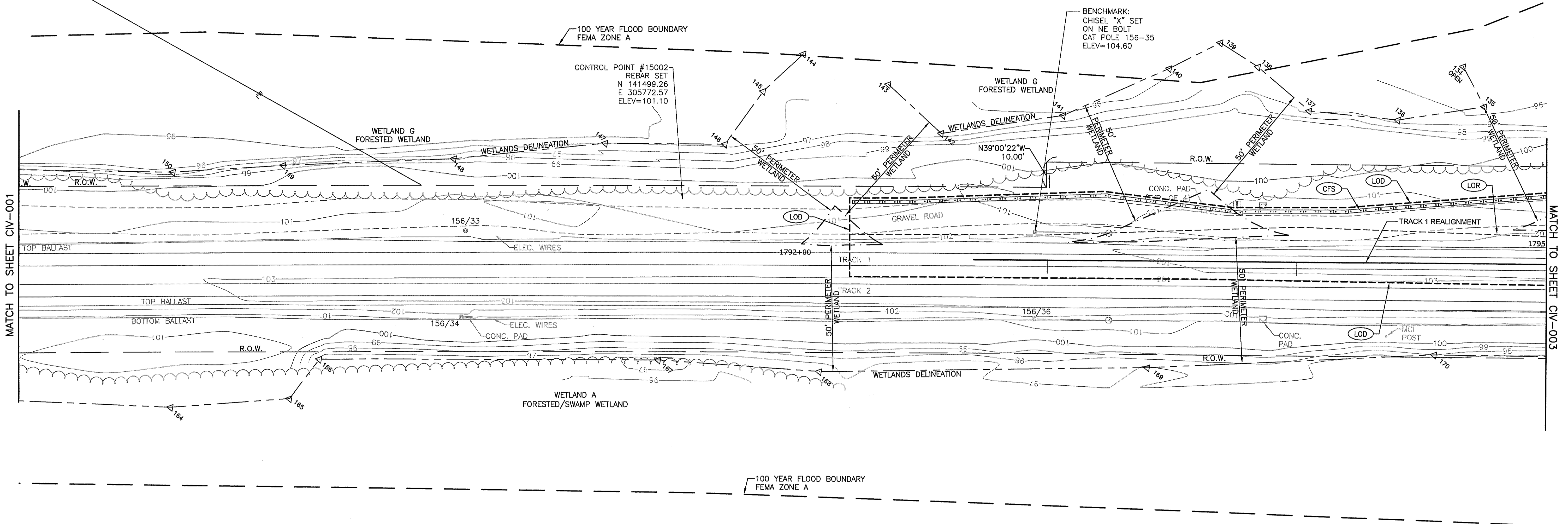
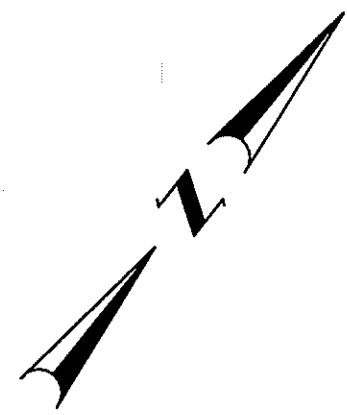
Office of Engineering  
Engineering Design  
National Railroad Passenger Corporation  
30TH Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

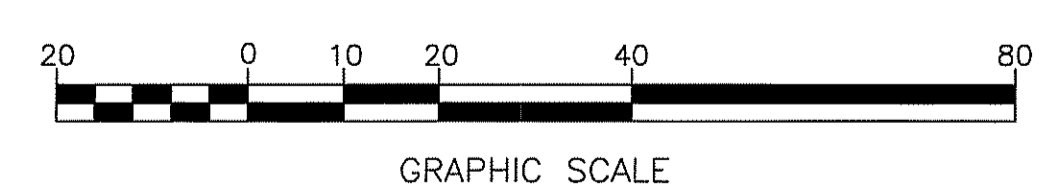
**HNTB** HNTB CORPORATION  
300 APOLLO DRIVE  
CHELMSFORD, MA 01824

**KINGSTON CAPACITY  
IMPROVEMENT PROJECT**  
DRAINAGE & UTILITY PLAN 1  
Designed **KMN** Drawn **LBD** Checked **TAR** Date **5/6/14**

Job No.	57896
File Name	1436DU001
Sheet No.	7 OF 208
Dwg. No.	<b>CIV-001</b>



- LEGEND**
- LIMIT OF DISTURBANCE
  - COMPOST FILTER SOCK
  - LIMIT OF REGRADING
  - OPEN DITCH
  - BITUMINOUS CONCRETE PAD (SEE DETAIL)
  - CLEARING AND GRUBBING
  - NEW CATENARY POLE FOUNDATION
  - NEW GUY ANCHOR FOUNDATION
  - REMOVE & DISPOSE EXISTING CATENARY POLE FOUNDATION



Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED JUN 13 2014 FILE # 14-0010  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Environmental Management  
 MAY 14 2014

*Martin D. Wenzel*

TODD A. HAVENELLE  
 No. 5928  
 REGISTERED PROFESSIONAL ENGINEER

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Office of Engineering  
 Engineering Design  
 National Railroad Passenger Corporation  
 30TH Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

**HNTB** HNTB CORPORATION  
 300 APOLLO DRIVE  
 CHELMSFORD, MA 01824

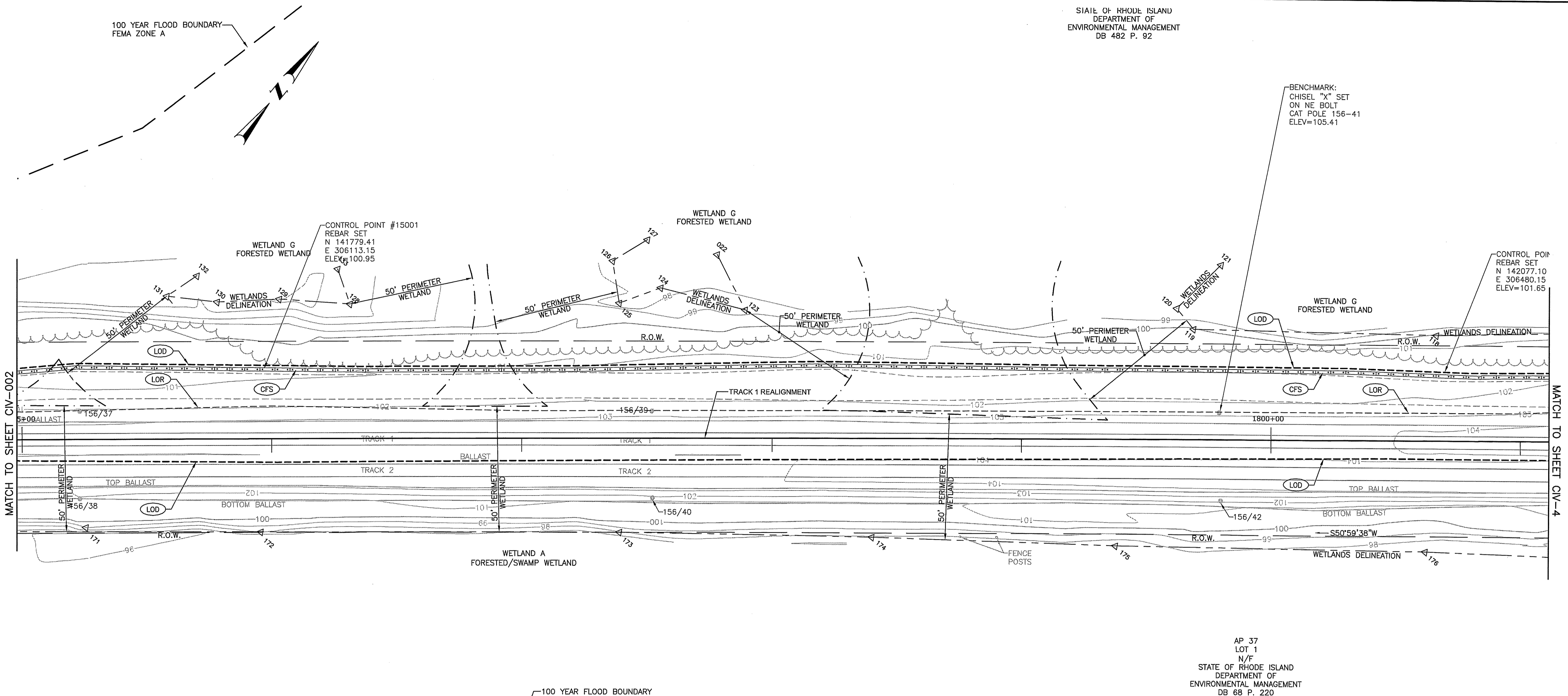
**KINGSTON CAPACITY IMPROVEMENT PROJECT**

DRAINAGE & UTILITY PLAN 2

Designed **KMN** Drawn **LBD** Checked **TAR** Date **5/6/14**

Job No.	57896
File Name	1436DU002
Sheet No.	8 OF 208
Dwg. No.	<b>CIV-002</b>

BENCHMARK:  
CHISEL "X" SET  
ON NE BOLT  
CAT POLE 156-41  
ELEV=105.41

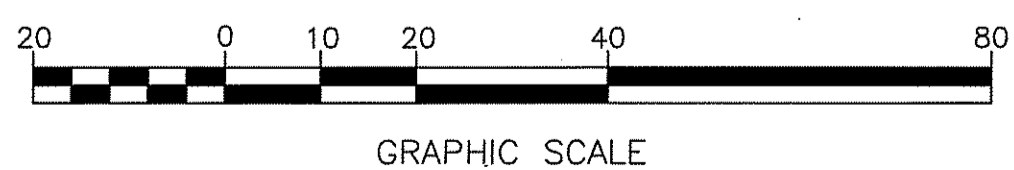


AP 37  
LOT 1  
N/F  
STATE OF RHODE ISLAND  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT  
DB 68 P. 220

100 YEAR FLOOD BOUNDARY  
FEMA ZONE A

LEGEND

- (LOD) --- LIMIT OF DISTURBANCE
- (CFS) --- COMPOST FILTER SOCK
- (LOR) --- LIMIT OF REGRADING
- OPEN DITCH
- (BCP) --- BITUMINOUS CONCRETE PAD (SEE DETAIL)
- (CG) --- CLEARING AND GRUBBING
- (CPF) --- NEW CATENARY POLE FOUNDATION
- (GAF) --- NEW GUY ANCHOR FOUNDATION
- (RCF) --- REMOVE & DISPOSE EXISTING CATENARY POLE FOUNDATION



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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
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Environmental Management  
MAY 14 2014  
Office of Water Resources

*Martin D. Wenzel*

TODD A. RAVENELLE  
No. 5928  
REGISTERED  
PROFESSIONAL ENGINEER

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Civil and Environmental Engineers  
Pawtucket, Rhode Island

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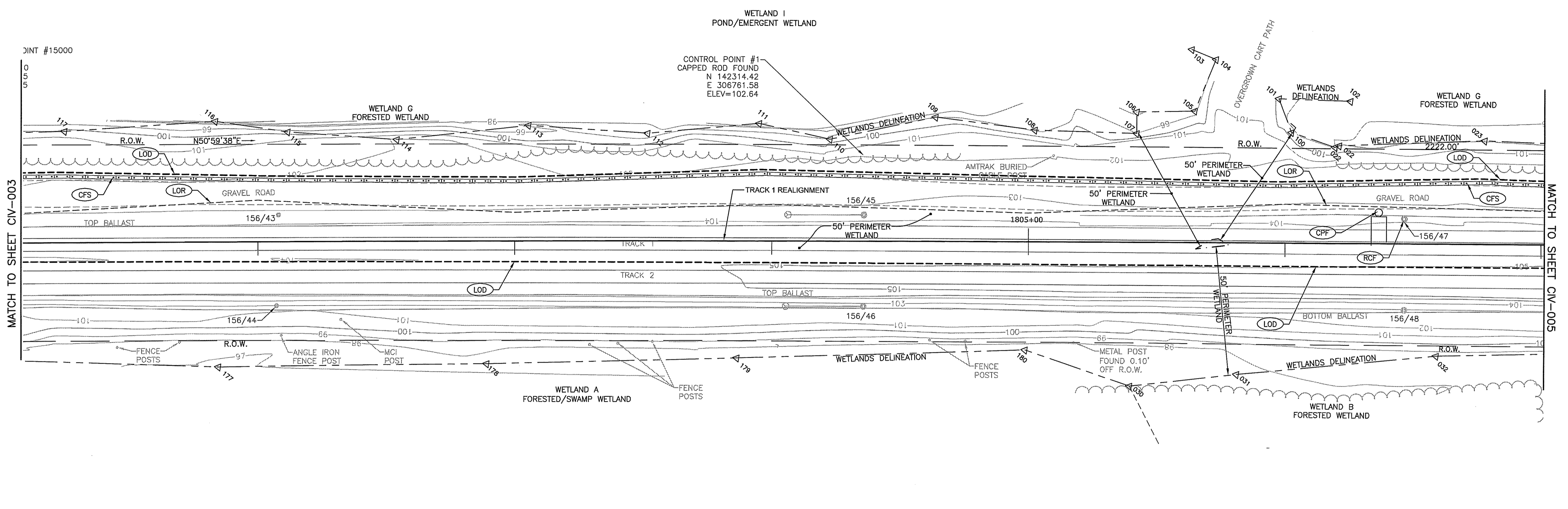
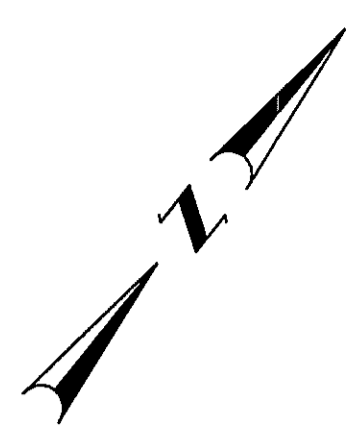
Office of Engineering  
Engineering Design  
National Railroad Passenger Corporation  
30TH Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

**HNTB** HNTB CORPORATION  
300 APOLLO DRIVE  
CHELMSFORD, MA 01824

**KINGSTON CAPACITY  
IMPROVEMENT PROJECT**  
DRAINAGE & UTILITY PLAN 3  
Designed KMN Drawn LBD Checked TAR Date 5/6/14

Job No.	57896
File Name	1436DU003
Sheet No.	9 OF 208
Dwg. No.	<b>CIV-003</b>



MATCH TO SHEET CIV-003

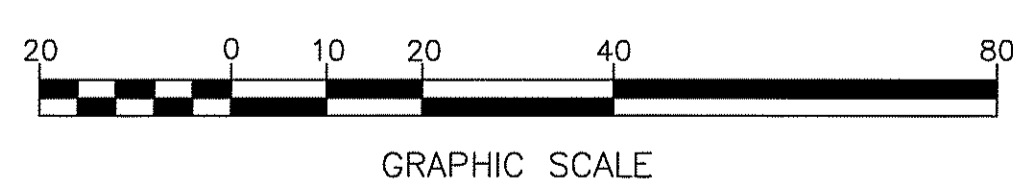
MATCH TO SHEET CIV-005

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
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*Martin D. Wonech*

- LEGEND**
- (LOD) --- LIMIT OF DISTURBANCE
  - (CFS) --- COMPOST FILTER SOCK
  - (LOR) --- LIMIT OF REGRADING
  - OPEN DITCH
  - (BCP) --- BITUMINOUS CONCRETE PAD (SEE DETAIL)
  - (CG) --- CLEARING AND GRUBBING
  - (CPF) --- NEW CATENARY POLE FOUNDATION
  - (GAF) --- NEW GUY ANCHOR FOUNDATION
  - (RCF) --- REMOVE & DISPOSE EXISTING CATENARY POLE FOUNDATION



Environmental Management  
MAY 14 2014  
Office of Water Resources

TODD A. RAVENELLE  
No. 5928  
REGISTERED PROFESSIONAL ENGINEER

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Civil and Environmental Engineers  
Pawtucket, Rhode Island

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**AMTRAK**  
Office of Engineering  
Engineering Design  
National Railroad Passenger Corporation  
30TH Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

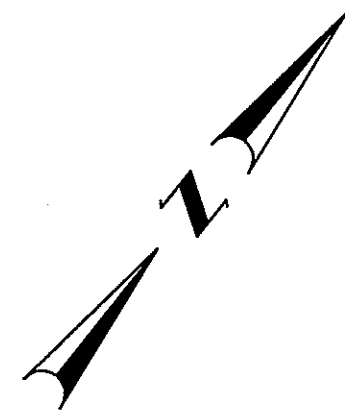
**HNTB** HNTB CORPORATION  
300 APOLLO DRIVE  
CHELMSFORD, MA 01824

**KINGSTON CAPACITY IMPROVEMENT PROJECT**  
DRAINAGE & UTILITY PLAN 4  
Designed KMN Drawn LBD Checked TAR Date 5/6/14

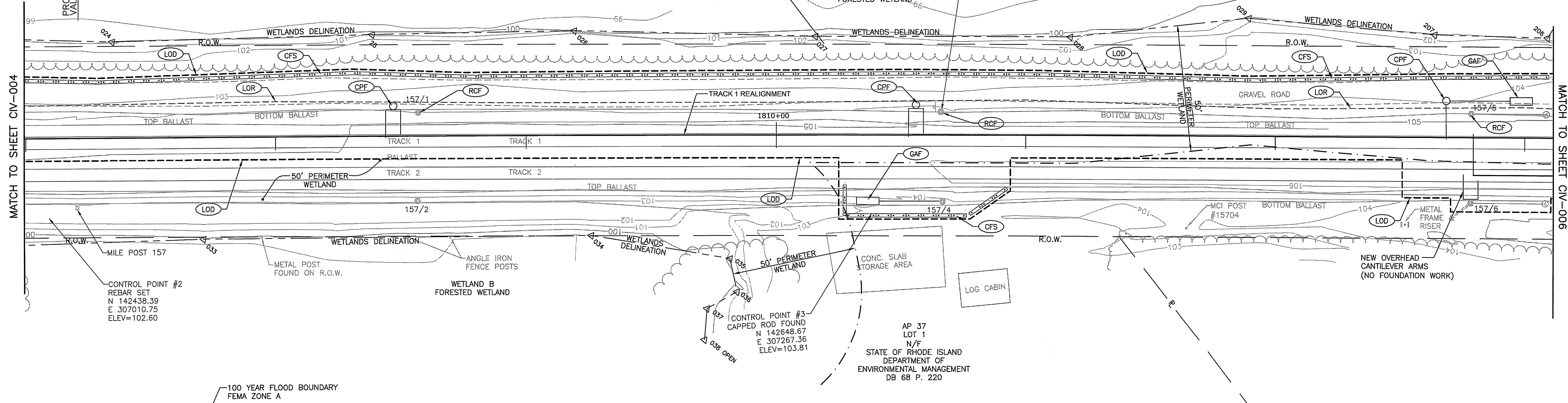
Job No.	57896
File Name	1436DU004
Sheet No.	10 OF 208
Dwg. No.	CIV-004

MP  
157

PROJECT STA. 1807+21.39  
VAL. PLAN STA. 1807+21.39



BENCHMARK:  
CHISEL "X" SET  
ON NE BOLT  
CAT POLE 157-3  
ELEV=107.11



MATCH TO SHEET CIV-004

MATCH TO SHEET CIV-006

CONTROL POINT #2  
REBAR SET  
N 142438.39  
E 307010.75  
ELEV=102.60

CONTROL POINT #3  
CAPPED ROD FOUND  
N 142648.67  
E 307267.36  
ELEV=103.81

AP 37  
LOT 1  
N/F  
STATE OF RHODE ISLAND  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT  
DB 68 P. 220

NEW OVERHEAD  
CANTILEVER ARMS  
(NO FOUNDATION WORK)

100 YEAR FLOOD BOUNDARY  
FEMA ZONE A

**LEGEND**

- (LOD) --- LIMIT OF DISTURBANCE
- (CFS) --- COMPOST FILTER SOCK
- (LOR) --- LIMIT OF REGRADING
- OPEN DITCH
- (BCP) BITUMINOUS CONCRETE PAD (SEE DETAIL)
- (CG) CLEARING AND GRUBBING
- (CPF) NEW CATENARY POLE FOUNDATION
- (GAF) NEW GUY ANCHOR FOUNDATION
- (RCF) REMOVE & DISPOSE EXISTING CATENARY POLE FOUNDATION



GRAPHIC SCALE

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MAY 14 2014  
Office of Water Resources

TODD A. RAVENELLE  
No. 5928  
REGISTERED  
PROFESSIONAL ENGINEER

FOR PERMITTING PURPOSES ONLY

**Gordon R. Archibald, Inc.**  
Civil and Environmental Engineers  
Pawtucket, Rhode Island

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No.	Revisions	Date	By



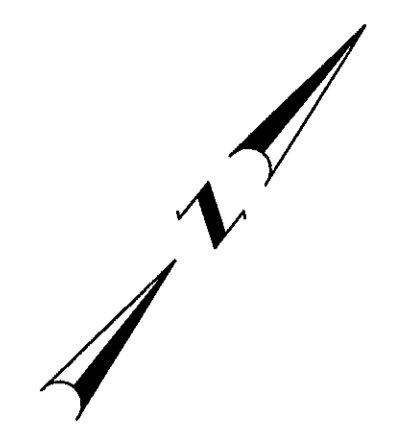
Office of Engineering  
Engineering Design  
National Railroad Passenger Corporation  
30TH Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

**HNTB** HNTB CORPORATION  
300 APOLLO DRIVE  
CHELMSFORD, MA 01824

**KINGSTON CAPACITY  
IMPROVEMENT PROJECT**  
DRAINAGE & UTILITY PLAN 5  
Designed KMN Drawn LBD Checked TAR Date 5/6/14

Job No. 57896  
File Name 1436DU005  
Sheet No. 11 OF 208  
Dwg. No. CIV-005

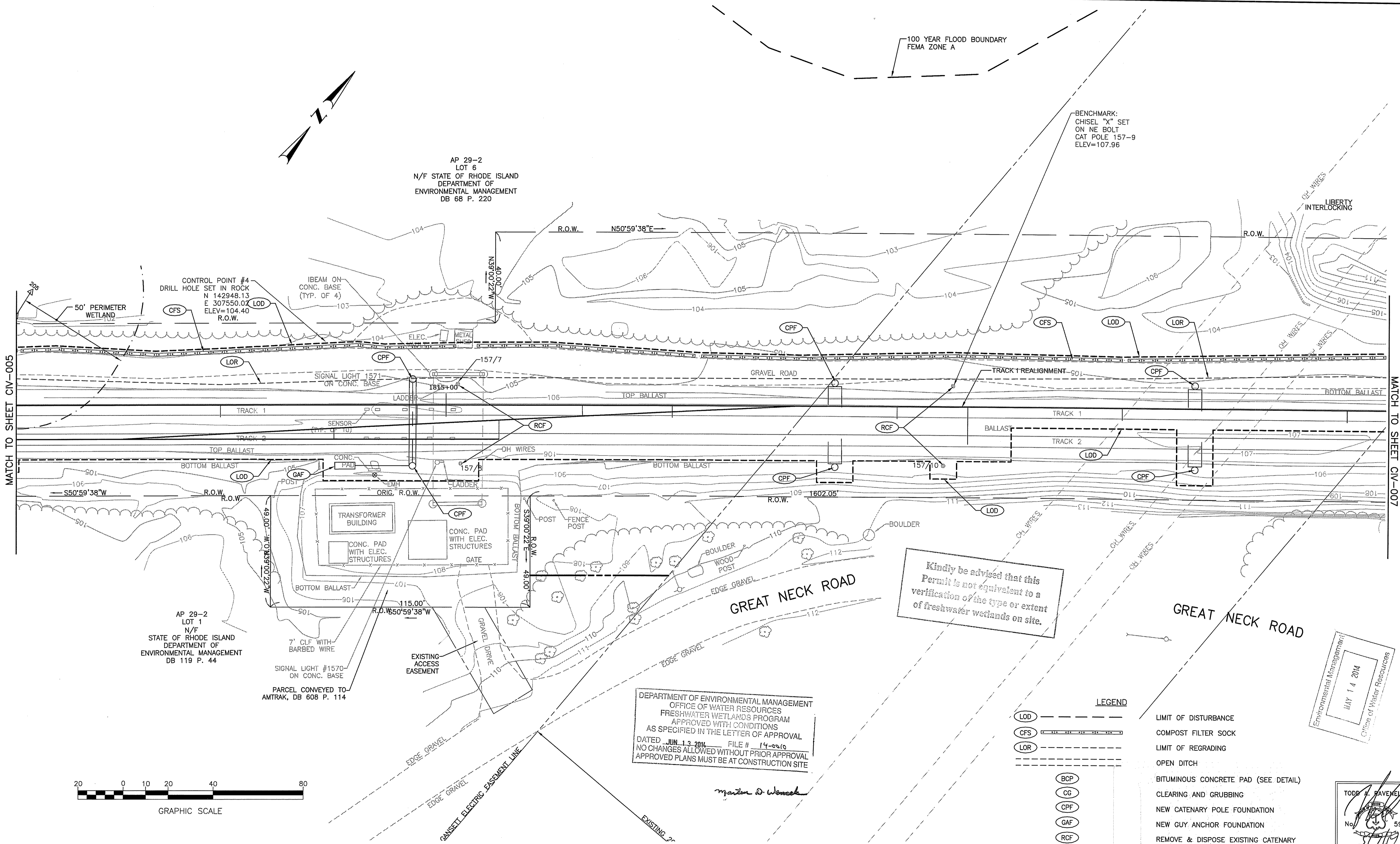


AP 29-2  
LOT 6  
N/F STATE OF RHODE ISLAND  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT  
DB 68 P. 220

BENCHMARK:  
CHISEL "X" SET  
ON NE BOLT  
CAT POLE 157-9  
ELEV=107.96

MATCH TO SHEET CIV-005

MATCH TO SHEET CIV-007



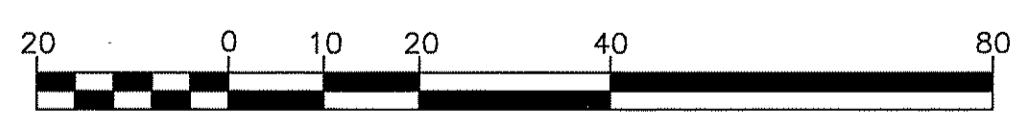
AP 29-2  
LOT 1  
N/F STATE OF RHODE ISLAND  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT  
DB 119 P. 44

PARCEL CONVEYED TO  
AMTRAK, DB 608 P. 114

Kindly be advised that this  
Permit is not equivalent to a  
verification of the type or extent  
of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JUN 13 2014 FILE # 14-0010  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

*Martin D. Wenzel*



GRAPHIC SCALE

- LEGEND**
- LOD ——— LIMIT OF DISTURBANCE
  - CFS ——— COMPOST FILTER SOCK
  - LOR ——— LIMIT OF REGRADING
  - OPEN DITCH
  - BCP ( ) BITUMINOUS CONCRETE PAD (SEE DETAIL)
  - CG ( ) CLEARING AND GRUBBING
  - CPF ( ) NEW CATENARY POLE FOUNDATION
  - GAF ( ) NEW GUY ANCHOR FOUNDATION
  - RCF ( ) REMOVE & DISPOSE EXISTING CATENARY POLE FOUNDATION

Environmental Management  
MAY 14 2014  
Office of Water Resources

TODD H. RAVENELLE  
No. 5928  
REGISTERED  
PROFESSIONAL ENGINEER

FOR PERMITTING PURPOSES ONLY

**Gordon R. Archibald, Inc.**  
Civil and Environmental Engineers  
Pawtucket, Rhode Island

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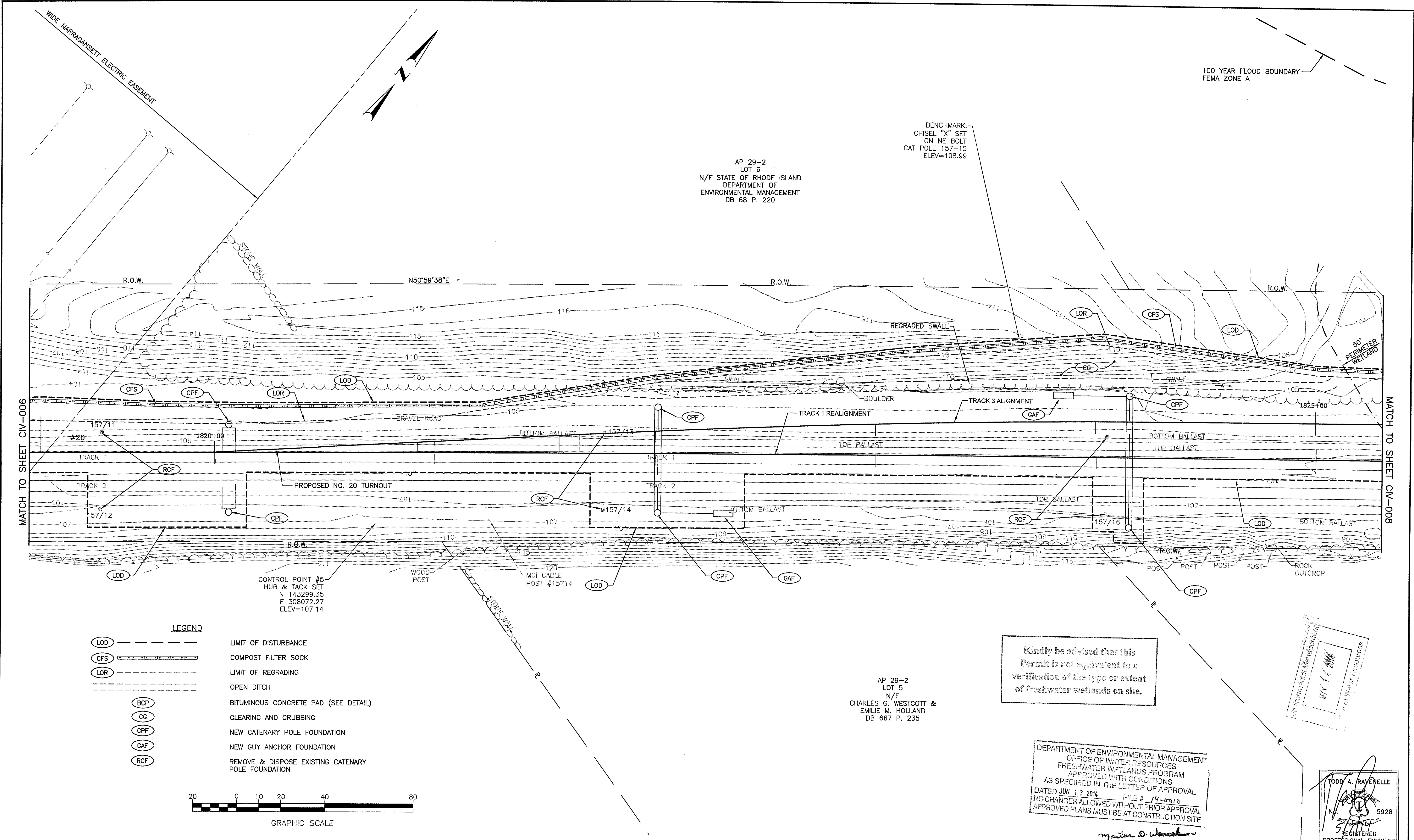
Office of Engineering  
Engineering Design  
National Railroad Passenger Corporation  
30TH Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

**HNTB** HNTB CORPORATION  
300 APOLLO DRIVE  
CHELMSFORD, MA 01824

**KINGSTON CAPACITY  
IMPROVEMENT PROJECT**  
DRAINAGE & UTILITY PLAN 6  
Designed **KMN** Drawn **LBD** Checked **TAR** Date **5/6/14**

Job No. **57896**  
File Name **1436DU006**  
Sheet No. **12 OF 208**  
Dwg. No. **CIV-006**



AP 29-2  
 LOT 6  
 N/F STATE OF RHODE ISLAND  
 DEPARTMENT OF  
 ENVIRONMENTAL MANAGEMENT  
 DB 68 P. 220

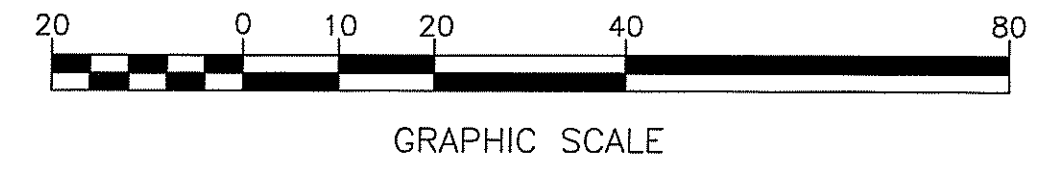
BENCHMARK:  
 CHISEL "X" SET  
 ON NE BOLT  
 CAT POLE 157-15  
 ELEV=108.99

100 YEAR FLOOD BOUNDARY  
 FEMA ZONE A

MATCH TO SHEET CIV-006

MATCH TO SHEET CIV-008

- LEGEND**
- LIMIT OF DISTURBANCE
  - COMPOST FILTER SOCK
  - LIMIT OF REGRADING
  - OPEN DITCH
  - BITUMINOUS CONCRETE PAD (SEE DETAIL)
  - CLEARING AND GRUBBING
  - NEW CATENARY POLE FOUNDATION
  - NEW GUY ANCHOR FOUNDATION
  - REMOVE & DISPOSE EXISTING CATENARY POLE FOUNDATION



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AP 29-2  
 LOT 5  
 N/F  
 CHARLES G. WESTCOTT &  
 EMILIE M. HOLLAND  
 DB 667 P. 235

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED JUN 13 2014 FILE # 14-0010  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Environmental Management  
 MAY 14 2014  
 Office of Water Resources

TODD A. RAVENELLE  
 No. 5928  
 REGISTERED PROFESSIONAL ENGINEER

FOR PERMITTING PURPOSES ONLY

**Gordon R. Archibald, Inc.**  
 Civil and Environmental Engineers  
 Pawtucket, Rhode Island

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Office of Engineering  
 Engineering Design  
 National Railroad Passenger Corporation  
 30TH Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

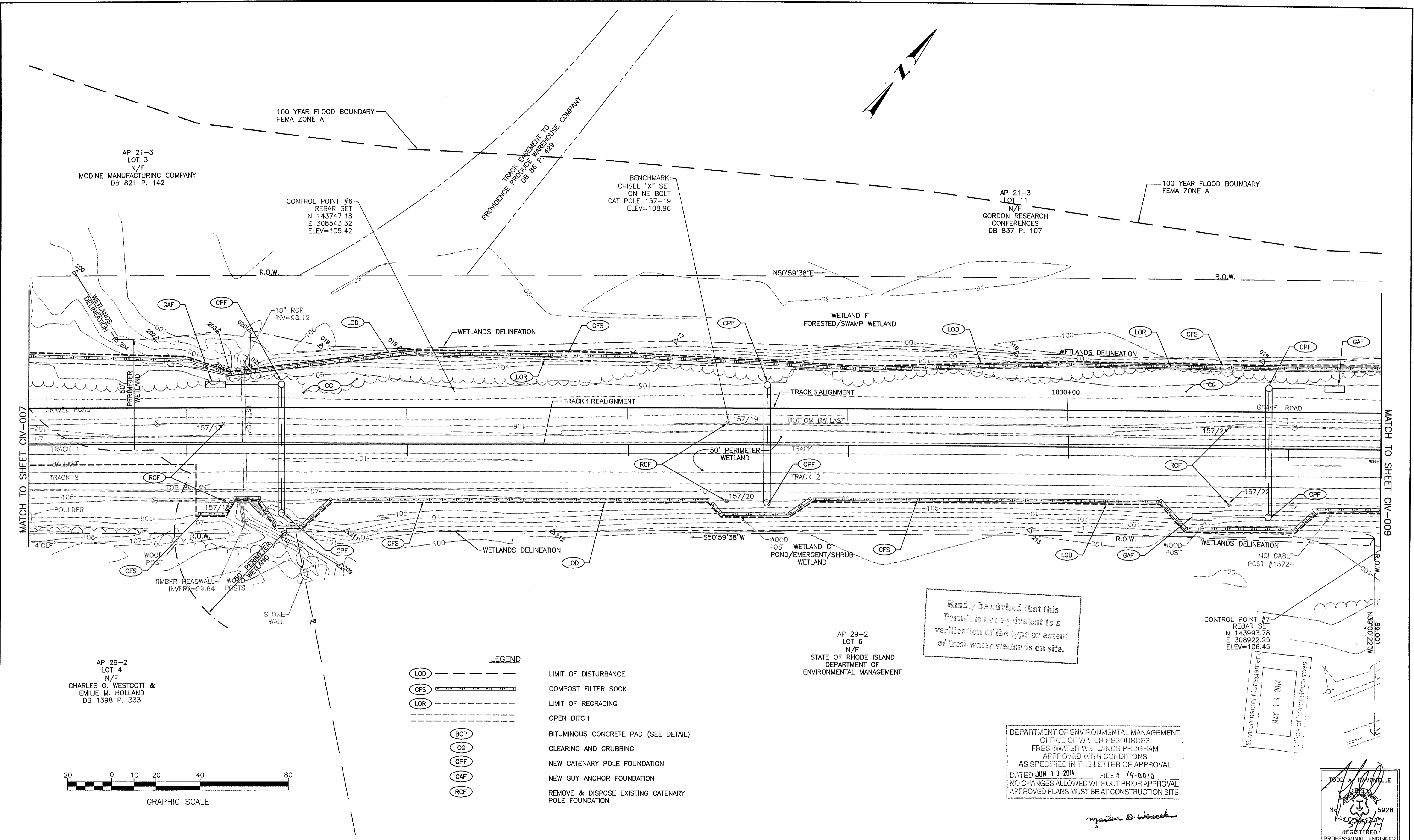
**HNTB** HNTB CORPORATION  
 300 APOLLO DRIVE  
 CHELMSFORD, MA 01824

**KINGSTON CAPACITY IMPROVEMENT PROJECT**

**DRAINAGE & UTILITY PLAN 7**

Job No. 57896  
 File Name 1436DU007  
 Sheet No. 13 OF 208  
 Dwg. No. CIV-007

Designed KMN Drawn LBD Checked TAR Date 5/6/14



MATCH TO SHEET CIV-007

MATCH TO SHEET CIV-009

AP 21-3  
LOT 3  
N/F  
MODINE MANUFACTURING COMPANY  
DB 821 P. 142

CONTROL POINT #6  
REBAR SET  
N 143747.18  
E 308543.32  
ELEV=105.42

BENCHMARK:  
CHISEL "X" SET  
ON NE BOLT  
CAT POLE 157-19  
ELEV=108.96

AP 21-3  
LOT 11  
N/F  
GORDON RESEARCH  
CONFERENCES  
DB 837 P. 107

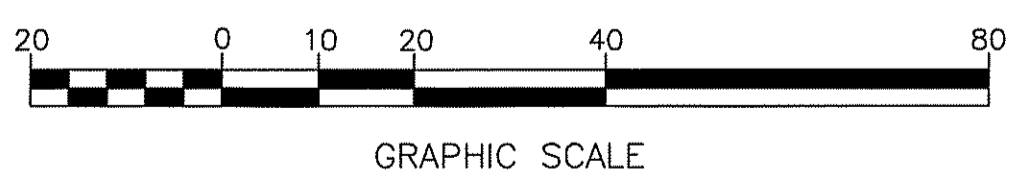
AP 29-2  
LOT 4  
N/F  
CHARLES G. WESTCOTT &  
EMILIE M. HOLLAND  
DB 1398 P. 333

AP 29-2  
LOT 6  
N/F  
STATE OF RHODE ISLAND  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT

CONTROL POINT #7  
REBAR SET  
N 143993.78  
E 308922.25  
ELEV=106.45

**LEGEND**

	--- ---	LIMIT OF DISTURBANCE
	--- ---	COMPOST FILTER SOCK
	--- ---	LIMIT OF REGRADING
	---	OPEN DITCH
	(BCP)	BITUMINOUS CONCRETE PAD (SEE DETAIL)
	(CG)	CLEARING AND GRUBBING
	(CPF)	NEW CATENARY POLE FOUNDATION
	(GAF)	NEW GUY ANCHOR FOUNDATION
	(RCF)	REMOVE & DISPOSE EXISTING CATENARY POLE FOUNDATION



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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JUN 13 2014 FILE # 14-0016  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Environmental Management  
MAY 14 2014  
Office of Water Resources

TODD A. HAVENELLE  
No. 5928  
REGISTERED PROFESSIONAL ENGINEER

FOR PERMITTING PURPOSES ONLY

**Gordon R. Archibald, Inc.**  
Civil and Environmental Engineers  
Pawucket, Rhode Island

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**Office of Engineering**  
Engineering Design  
National Railroad Passenger Corporation  
30TH Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

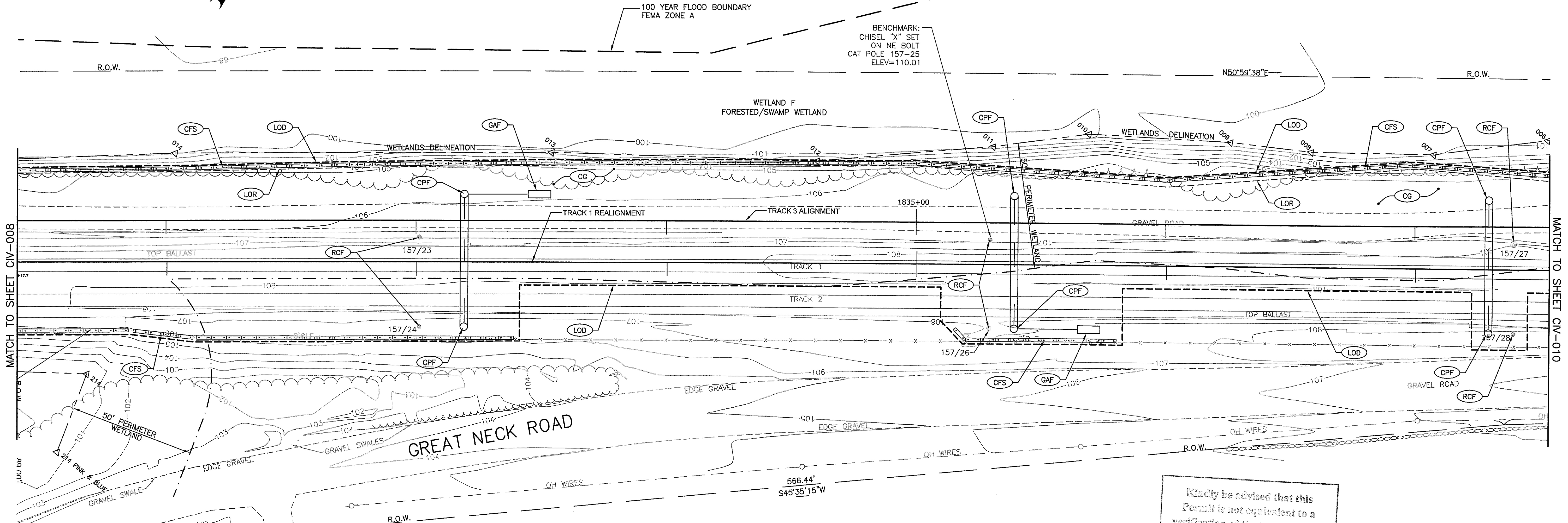
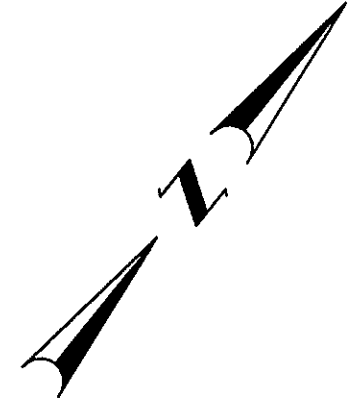
**HNTB** HNTB CORPORATION  
300 APOLLO DRIVE  
CHELMSFORD, MA 01824

**KINGSTON CAPACITY IMPROVEMENT PROJECT**

**DRAINAGE & UTILITY PLAN 8**

Designed	KMN	Drawn	LBD	Checked	TAR	Date	5/6/14
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Job No.	57896
File Name	1436DU008
Sheet No.	14 OF 208
Dwg. No.	<b>CIV-008</b>

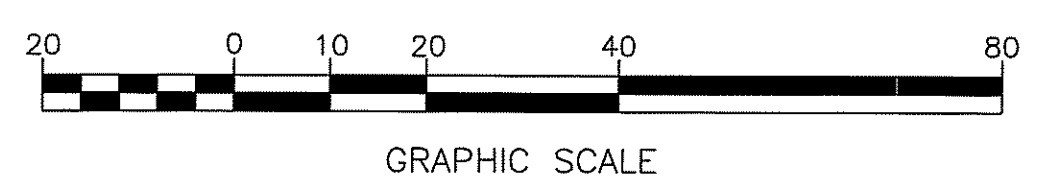


MATCH TO SHEET CIV-008

MATCH TO SHEET CIV-010

**LEGEND**

- LOD ----- LIMIT OF DISTURBANCE
- CFS ----- COMPOST FILTER SOCK
- LOR ----- LIMIT OF REGRADING
- OPEN DITCH
- BCP BITUMINOUS CONCRETE PAD (SEE DETAIL)
- CG CLEARING AND GRUBBING
- CPF NEW CATENARY POLE FOUNDATION
- GAF NEW GUY ANCHOR FOUNDATION
- RCF REMOVE & DISPOSE EXISTING CATENARY POLE FOUNDATION



Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

AP 22-4  
LOT 1  
N/F  
STATE OF RHODE ISLAND  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT  
MAY 14 2014  
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JUN 13 2014 FILE # 19-0010  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

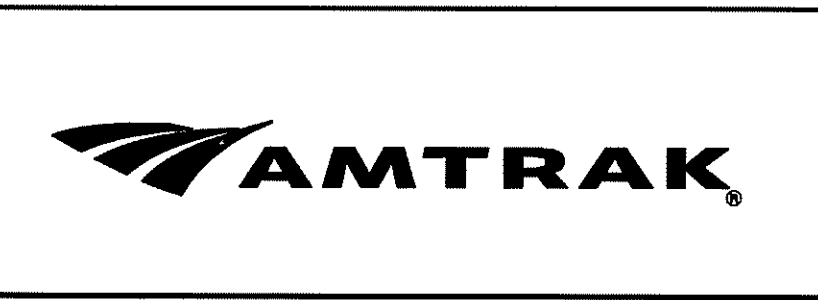
TODD N. RAVENHILL  
No. 5928  
REGISTERED PROFESSIONAL ENGINEER

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Civil and Environmental Engineers  
Pawtucket, Rhode Island

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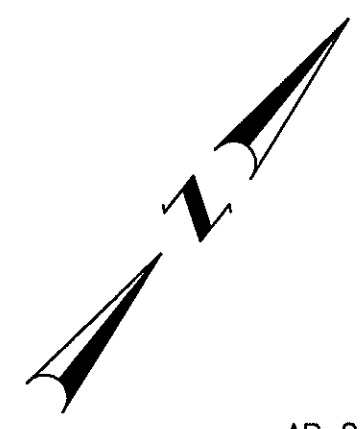
Approved	Date

**HNTB** HNTB CORPORATION  
300 APOLLO DRIVE  
CHELMSFORD, MA 01824

**KINGSTON CAPACITY IMPROVEMENT PROJECT**  
DRAINAGE & UTILITY PLAN 9

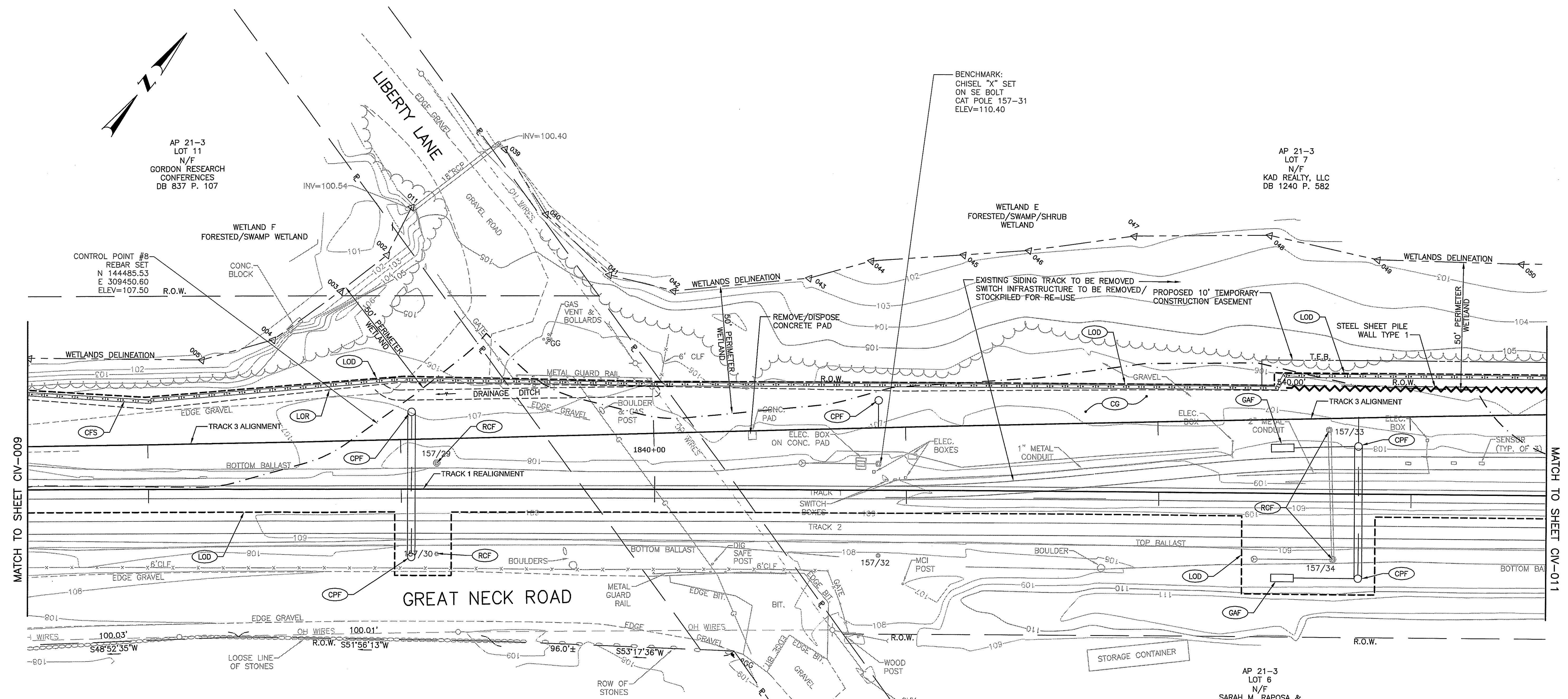
Designed	KMN	Drawn	LBD	Checked	TAR	Date	5/6/14
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Job No. 57896  
File Name 1436DU009  
Sheet No. 15 OF 208  
Dwg. No. **CIV-009**



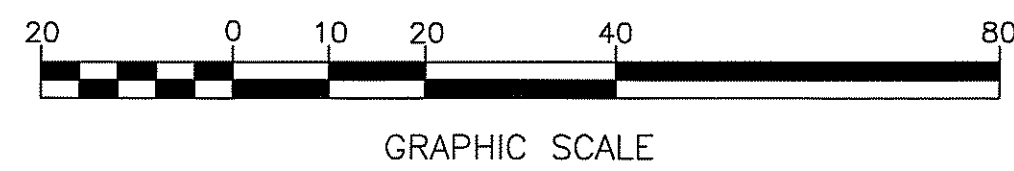
AP 21-3  
LOT 11  
N/F  
GORDON RESEARCH  
CONFERENCES  
DB 837 P. 107

AP 21-3  
LOT 7  
N/F  
KAD REALTY, LLC  
DB 1240 P. 582



MATCH TO SHEET CIV-009

MATCH TO SHEET CIV-011



LEGEND	
(LOD) ---	LIMIT OF DISTURBANCE
(CFS) ---	COMPOST FILTER SOCK
(LOR) ---	LIMIT OF REGRADING
---	OPEN DITCH
(BCP) ---	BITUMINOUS CONCRETE PAD (SEE DETAIL)
(CG) ---	CLEARING AND GRUBBING
(CPF) ---	NEW CATENARY POLE FOUNDATION
(GAF) ---	NEW GUY ANCHOR FOUNDATION
(RCF) ---	REMOVE & DISPOSE EXISTING CATENARY POLE FOUNDATION

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Environmental Management  
MAY 14 2014  
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JUN 13 2014 FILE # 14-03/0  
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TODD RAVENHILL  
No. 5928  
REGISTERED PROFESSIONAL ENGINEER

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Civil and Environmental Engineers  
Pawtucket, Rhode Island

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National Railroad Passenger Corporation  
30TH Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

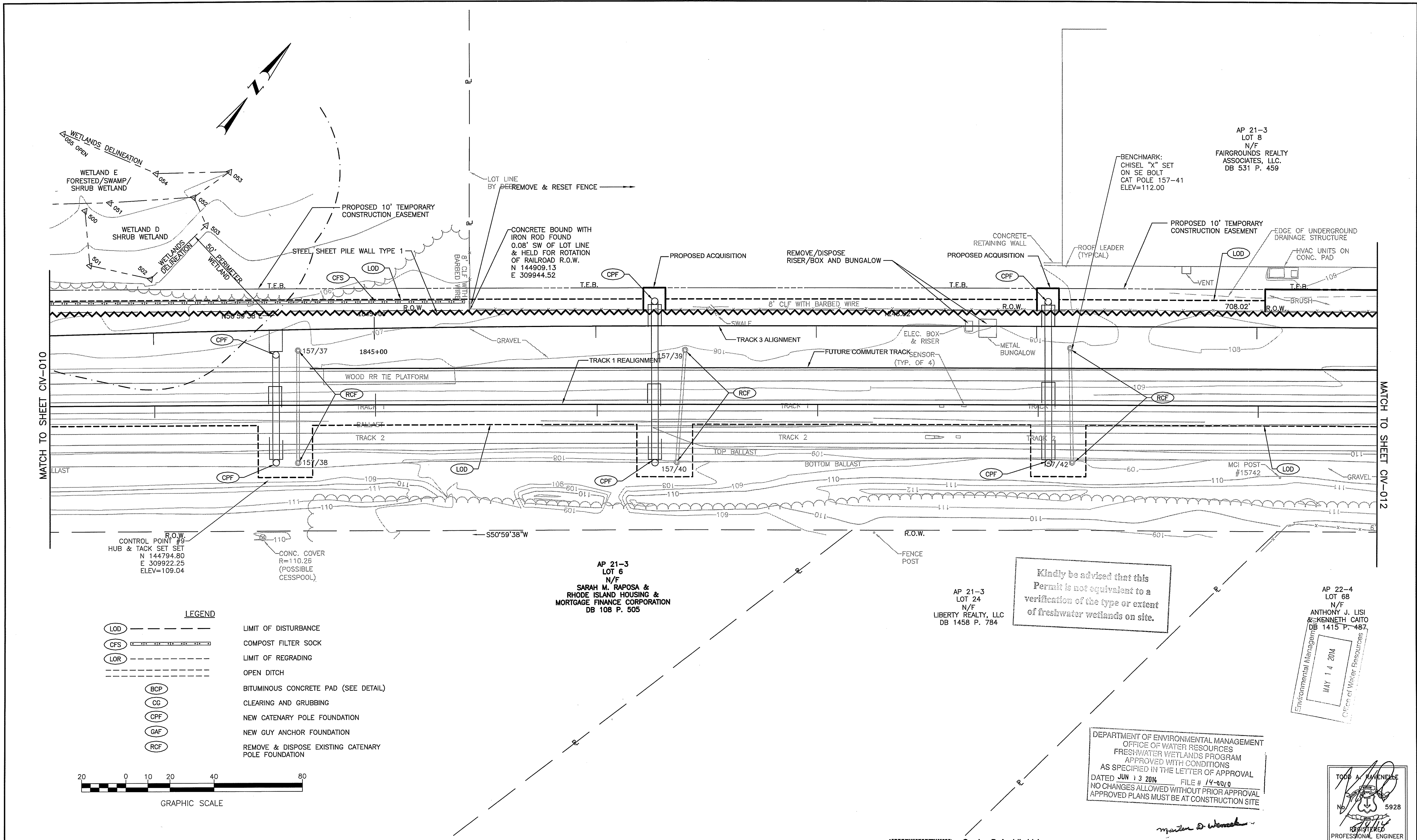
**HNTB** HNTB CORPORATION  
300 APOLLO DRIVE  
CHELMSFORD, MA 01824

**KINGSTON CAPACITY IMPROVEMENT PROJECT**

**DRAINAGE & UTILITY PLAN 10**

Designed **KMN** Drawn **LBD** Checked **TAR** Date **5/6/14**

Job No.	57896
File Name	1436DU010
Sheet No.	16 OF 208
Dwg. No.	<b>CIV-010</b>



AP 21-3  
LOT 8  
N/F  
FAIRGROUNDS REALTY  
ASSOCIATES, LLC.  
DB 531 P. 459

AP 21-3  
LOT 6  
N/F  
SARAH M. RAPOSA &  
RHODE ISLAND HOUSING &  
MORTGAGE FINANCE CORPORATION  
DB 108 P. 505

AP 21-3  
LOT 24  
N/F  
LIBERTY REALTY, LLC  
DB 1458 P. 784

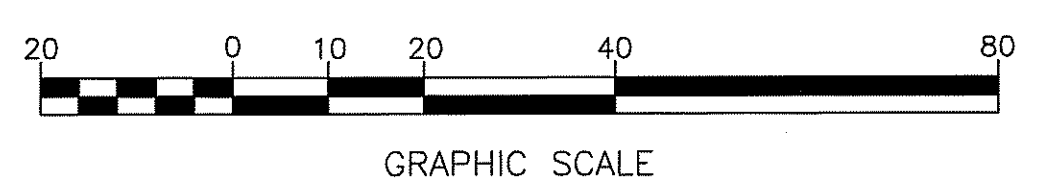
AP 22-4  
LOT 68  
N/F  
ANTHONY J. LISI  
& KENNETH CAITO  
DB 1415 P. 487

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of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JUN 13 2014 FILE # 14-00/0  
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE

TOOP A. KAVENALE  
5928  
REGISTERED  
PROFESSIONAL ENGINEER

- LEGEND**
- LOD --- LIMIT OF DISTURBANCE
  - CFS --- COMPOST FILTER SOCK
  - LOR --- LIMIT OF REGRADING
  - OPEN DITCH
  - BCP ( ) BITUMINOUS CONCRETE PAD (SEE DETAIL)
  - CC ( ) CLEARING AND GRUBBING
  - CPF ( ) NEW CATENARY POLE FOUNDATION
  - GAF ( ) NEW GUY ANCHOR FOUNDATION
  - RCF ( ) REMOVE & DISPOSE EXISTING CATENARY POLE FOUNDATION



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Civil and Environmental Engineers  
Pawtucket, Rhode Island

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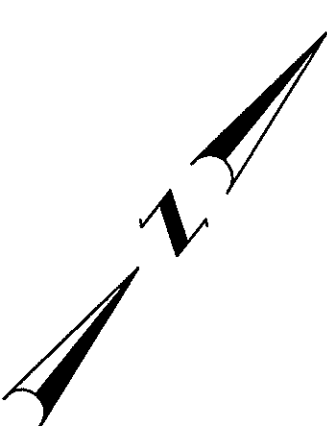
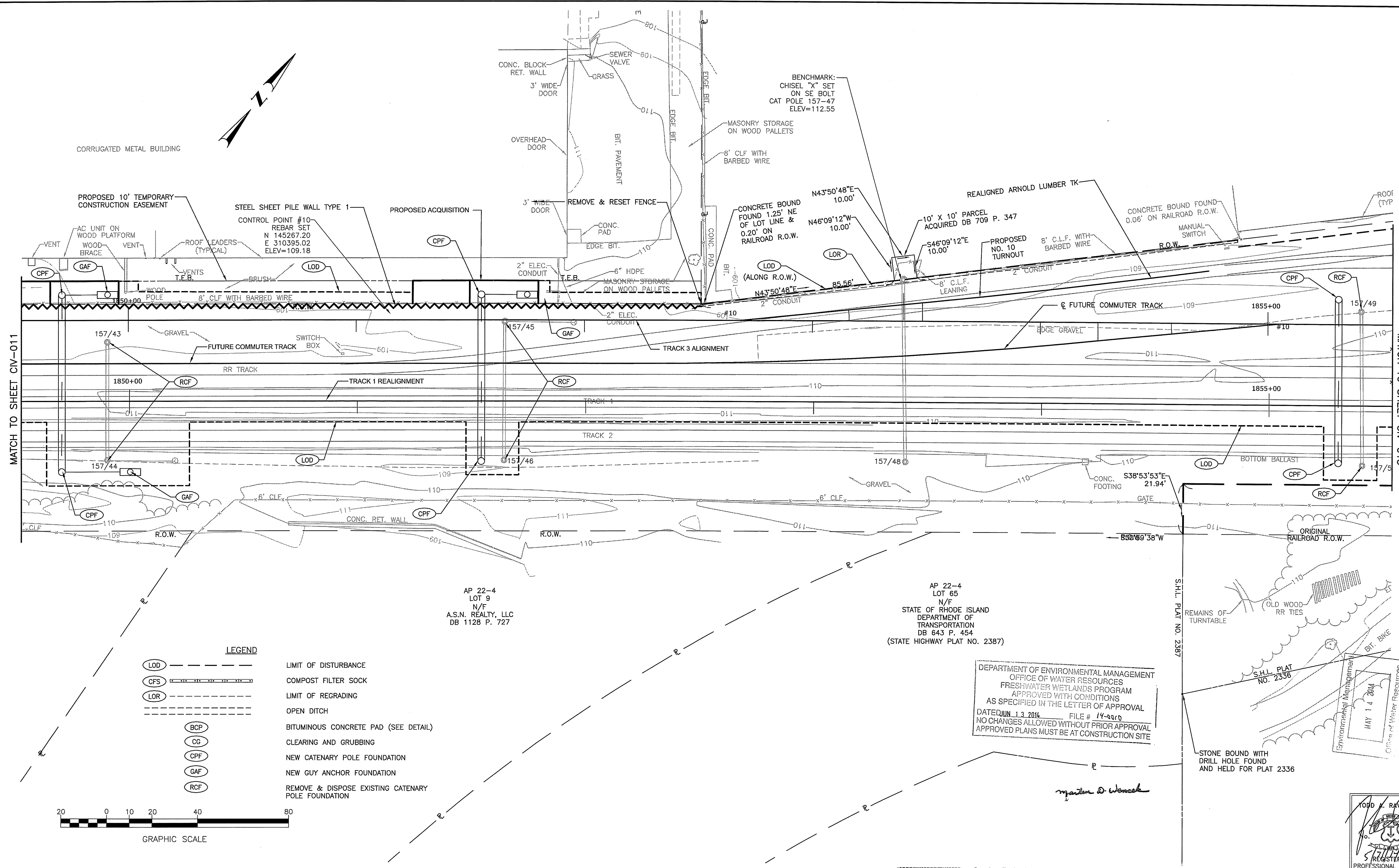
**Office of Engineering**  
Engineering Design  
National Railroad Passenger Corporation  
30TH Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

**HNTB** HNTB CORPORATION  
300 APOLLO DRIVE  
CHELMSFORD, MA 01824

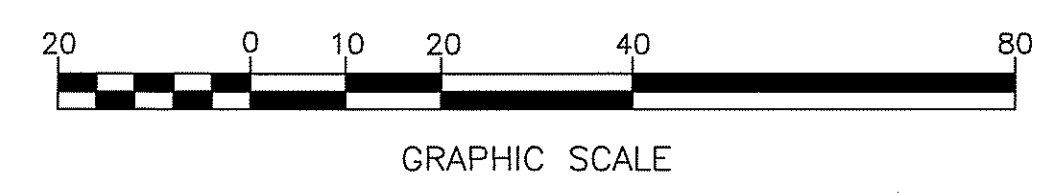
**KINGSTON CAPACITY IMPROVEMENT PROJECT**  
DRAINAGE & UTILITY PLAN 11  
Designed KMN Drawn LBD Checked TAR Date 5/6/14

Job No.	57896
File Name	1436DU011
Sheet No.	17 OF 208
Dwg. No.	<b>CIV-011</b>



**LEGEND**

- LOD LIMIT OF DISTURBANCE
- CFS COMPOST FILTER SOCK
- LOR LIMIT OF REGRADING
- OPEN DITCH
- BITUMINOUS CONCRETE PAD (SEE DETAIL)
- CLEARING AND GRUBBING
- NEW CATENARY POLE FOUNDATION
- NEW GUY ANCHOR FOUNDATION
- REMOVE & DISPOSE EXISTING CATENARY POLE FOUNDATION



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED JUN 13 2014 FILE # 14-0000  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

S.H.L. PLAT NO. 2336  
 REMAINS OF TURNTABLE  
 OLD WOOD RR TIES  
 BIT. BIKE  
 STONE BOUND WITH DRILL HOLE FOUND AND HELD FOR PLAT 2336

FOR PERMITTING PURPOSES ONLY

**Gordon R. Archibald, Inc.**  
 Civil and Environmental Engineers  
 Pawtucket, Rhode Island

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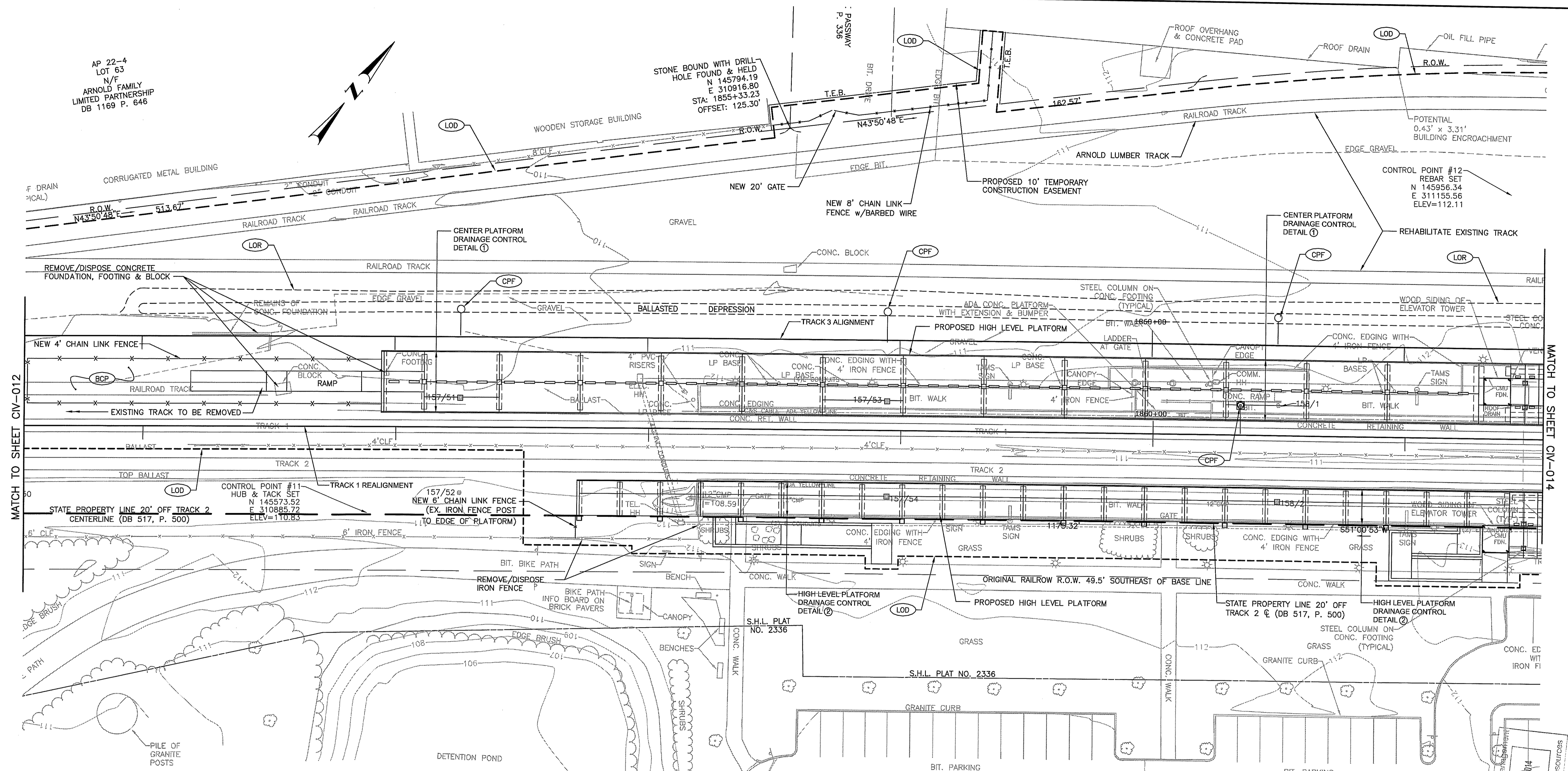
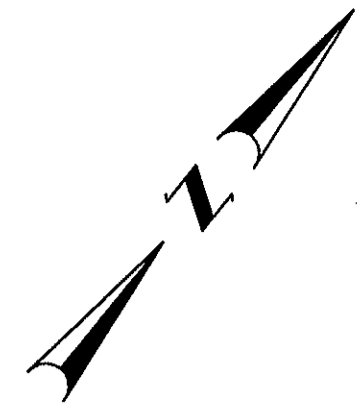
Approved	Date

**HNTB** HNTB CORPORATION  
 300 APOLLO DRIVE  
 CHELMSFORD, MA 01824

**KINGSTON CAPACITY IMPROVEMENT PROJECT**  
**DRAINAGE & UTILITY PLAN 12**  
 Job No. 57896  
 File Name 1436DU012  
 Sheet No. 18 OF 208  
 No. CIV-012  
 Dwg. No. 5/6/14  
 Designed KMN Drawn LBD Checked TAR Date 5/6/14

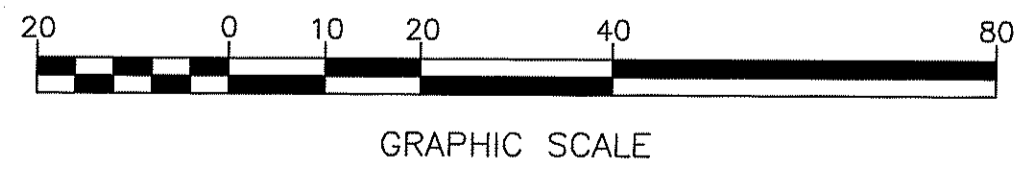
TODD A. RAVENELLE  
 No. 5928  
 REGISTERED PROFESSIONAL ENGINEER

AP 22-4  
LOT 63  
N/F  
ARNOLD FAMILY  
LIMITED PARTNERSHIP  
DB 1169 P. 646



MATCH TO SHEET CIV-012

MATCH TO SHEET CIV-014



- LEGEND**
- LOD ——— LIMIT OF DISTURBANCE
  - CFS ——— COMPOST FILTER SOCK
  - LOR ——— LIMIT OF REGRADING
  - OPEN DITCH
  - BCP ( ) BITUMINOUS CONCRETE PAD (SEE DETAIL)
  - CG ( ) CLEARING AND GRUBBING
  - CPF ( ) NEW CATENARY POLE FOUNDATION
  - GAF ( ) NEW GUY ANCHOR FOUNDATION
  - RCF ( ) REMOVE & DISPOSE EXISTING CATENARY POLE FOUNDATION

AP 22-4  
LOT 66  
N/F  
STATE OF RHODE ISLAND  
DEPARTMENT OF  
TRANSPORTATION  
DB 517 P. 472

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JUN 13 2014 FILE # 14-0010  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Environmental Management  
MAY 14 2014  
Office of Water Resources

TODD RAVENHILLE  
No. 5928  
REGISTERED  
PROFESSIONAL ENGINEER

FOR PERMITTING PURPOSES ONLY

**Gordon R. Archibald, Inc.**  
Civil and Environmental Engineers  
Pawtucket, Rhode Island

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No.	Revisions	Date	By



Office of Engineering  
Engineering Design  
National Railroad Passenger Corporation  
30TH Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

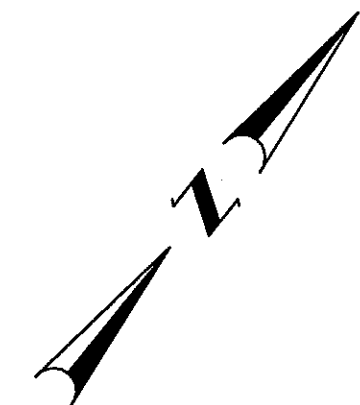
**HNTB** HNTB CORPORATION  
300 APOLLO DRIVE  
CHELMSFORD, MA 01824

**KINGSTON CAPACITY IMPROVEMENT PROJECT**  
DRAINAGE & UTILITY PLAN 13

Job No.	57896
File Name	1436DU013
Sheet No.	19 OF 208
Dsg. No.	CIV-013

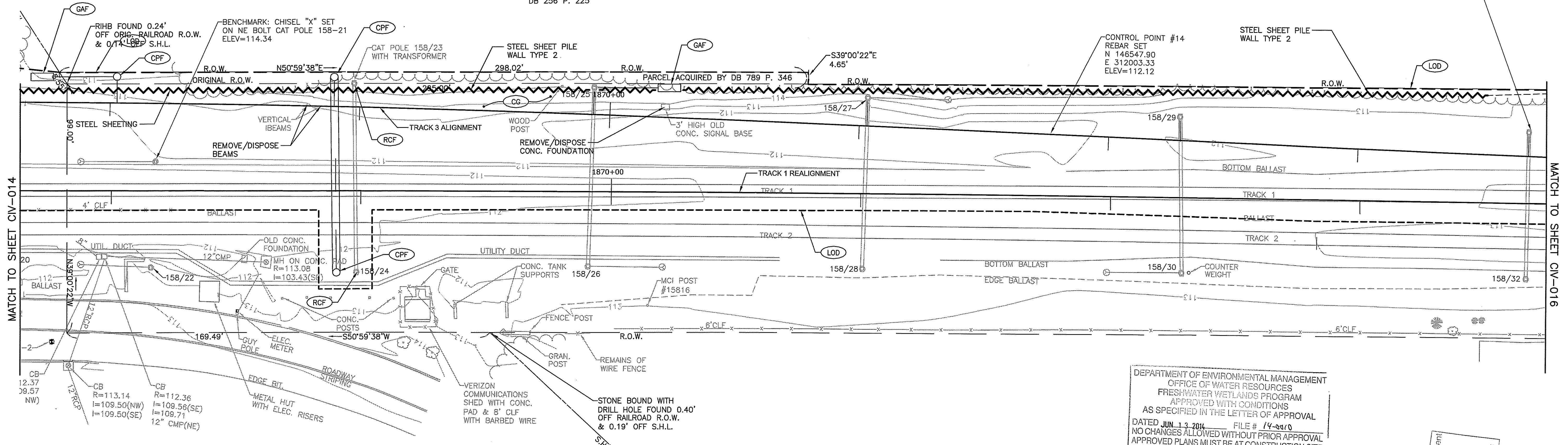
Dsg. No. CIV-013





BENCHMARK: CHISEL "X" SET  
ON NE BOLT CAT POLE 158-31  
ELEV=114.85

AP 22-1  
LOT 40  
N/F  
ESTATE OF  
JACQUELINE NEMZOW  
DB 256 P. 225



MATCH TO SHEET CV-014

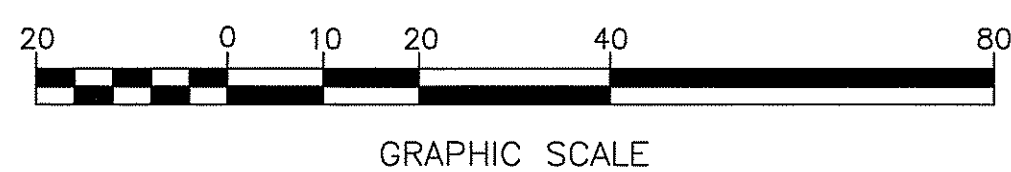
MATCH TO SHEET CV-016

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JUN 13 2014 FILE # 14-0010  
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*Mark D. Wenzel*

Environmental Management  
MAY 14 2014  
Office of Water Resources

- LEGEND**
- (LOD) --- LIMIT OF DISTURBANCE
  - (CFS) --- COMPOST FILTER SOCK
  - (LOR) --- LIMIT OF REGRADING
  - OPEN DITCH
  - (BCP) BITUMINOUS CONCRETE PAD (SEE DETAIL)
  - (CG) CLEARING AND GRUBBING
  - (CPF) NEW CATENARY POLE FOUNDATION
  - (GAF) REMOVE & DISPOSE EXISTING CATENARY POLE FOUNDATION
  - (RCF) ---



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Civil and Environmental Engineers  
Pawtucket, Rhode Island

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TODD A. RAVENELLE  
No. 5928  
REGISTERED  
PROFESSIONAL ENGINEER

No.	Revisions	Date	By

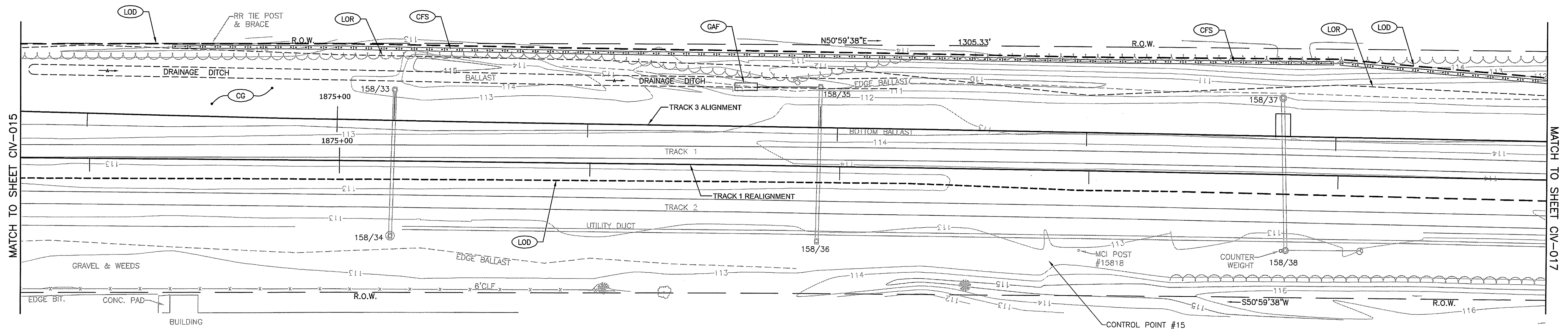
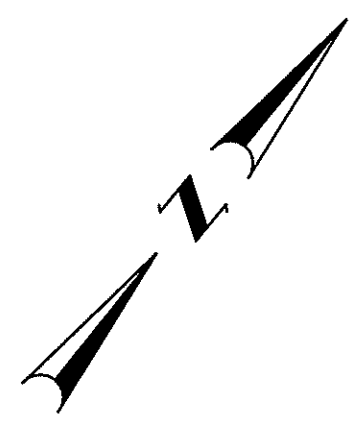
**Office of Engineering**  
Engineering Design  
National Railroad Passenger Corporation  
30TH Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

**HNTB** HNTB CORPORATION  
300 APOLLO DRIVE  
CHELMSFORD, MA 01824

**KINGSTON CAPACITY IMPROVEMENT PROJECT**  
DRAINAGE & UTILITY PLAN 15  
Designed **KMN** Drawn **LBD** Checked **TAR** Date **5/6/14**

Job No.	57896
File Name	1436DU015
Sheet No.	21 OF 208
Dwg. No.	<b>CIV-015</b>



MATCH TO SHEET CIV-015

MATCH TO SHEET CIV-017

AP 22-1  
LOT 38  
N/F  
KINGSTON STATION  
COMMERCIAL CONDOMINIUM  
DB 1118 P. 359

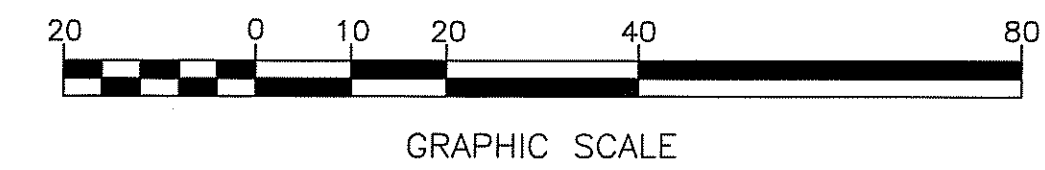
CONTROL POINT #15  
HUB & TACK SET  
N 146882.65  
E 312515.53  
ELEV=112.76

**LEGEND**

(LOD) - - - - -	LIMIT OF DISTURBANCE
(CFS) [Symbol]	COMPOST FILTER SOCK
(LOR) - - - - -	LIMIT OF REGRADING
[Symbol]	OPEN DITCH
(BCP) [Symbol]	BITUMINOUS CONCRETE PAD (SEE DETAIL)
(CG) [Symbol]	CLEARING AND GRUBBING
(CPF) [Symbol]	NEW CATENARY POLE FOUNDATION
(GAF) [Symbol]	NEW GUY ANCHOR FOUNDATION
(RCF) [Symbol]	REMOVE & DISPOSE EXISTING CATENARY POLE FOUNDATION

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
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Environmental Management  
MAY 14 2014  
Office of Water Resources



*Martin D. Wenzel*

TODD A. RAYNEBLE  
No. 5928  
REGISTERED  
PROFESSIONAL ENGINEER

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Civil and Environmental Engineers  
Pawtucket, Rhode Island

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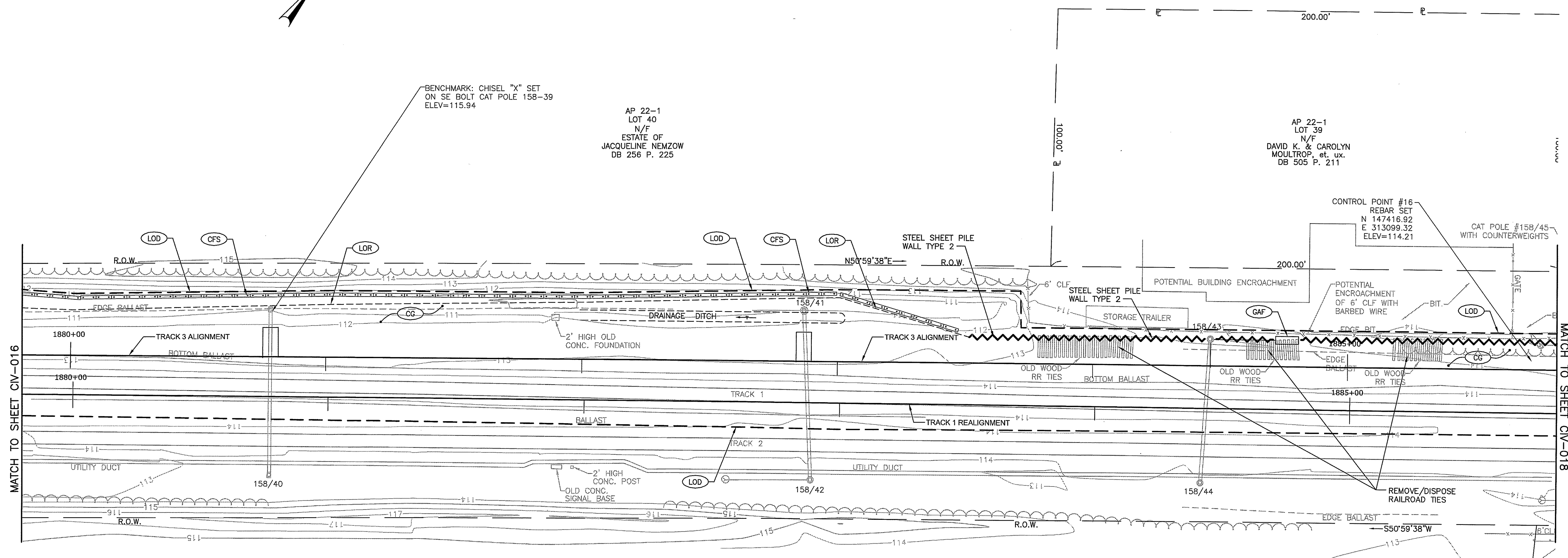
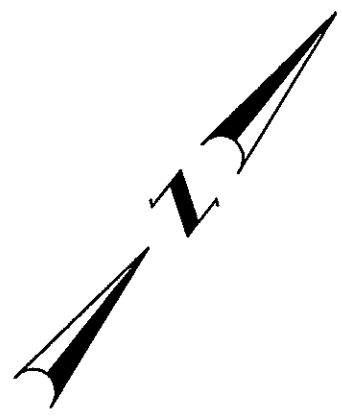


Office of Engineering  
Engineering Design  
National Railroad Passenger Corporation  
30TH Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

**HNTB** HNTB CORPORATION  
300 APOLLO DRIVE  
CHELMSFORD, MA 01824

<b>KINGSTON CAPACITY IMPROVEMENT PROJECT</b>			
<b>DRAINAGE &amp; UTILITY PLAN 16</b>			
Designed	KMN	Drawn	LBD
Checked	TAR	Date	5/6/14
Job No.	57896	File Name	1436DU016
Sheet No.	22 OF 208	Dwg. No.	<b>CIV-016</b>



MATCH TO SHEET CIV-016

MATCH TO SHEET CIV-018

BENCHMARK: CHISEL "X" SET  
ON SE BOLT CAT POLE 158-39  
ELEV=115.94

AP 22-1  
LOT 40  
N/F  
ESTATE OF  
JACQUELINE NEMZOW  
DB 256 P. 225

AP 22-1  
LOT 39  
N/F  
DAVID K. & CAROLYN  
MOULTROP et. ux.  
DB 505 P. 211

CONTROL POINT #16  
REBAR SET  
N 147°41'6.92"  
E 313°09'9.32"  
ELEV=114.21

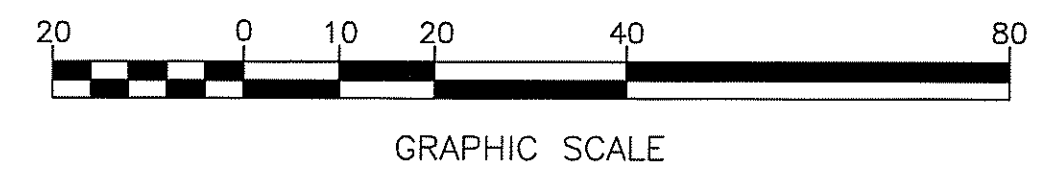
CAT POLE #158/45  
WITH COUNTERWEIGHTS

AP 22-1  
LOT 38  
N/F  
KINGSTON STATION  
COMMERCIAL CONDOMINIUM

CAT POLE #158/46  
WITH COUNTERWEIGHTS

**LEGEND**

- LOD --- --- --- LIMIT OF DISTURBANCE
- CFS --- --- --- COMPOST FILTER SOCK
- LOR --- --- --- LIMIT OF REGRADING
- --- --- OPEN DITCH
- BCP BITUMINOUS CONCRETE PAD (SEE DETAIL)
- CG CLEARING AND GRUBBING
- CPF NEW CATENARY POLE FOUNDATION
- GAF NEW GUY ANCHOR FOUNDATION
- RCF REMOVE & DISPOSE EXISTING CATENARY POLE FOUNDATION



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
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Environmental Management  
MAY 14 2014  
Office of Water Resources

*Todd A. Ravelle*

TODD A. RAVELLE  
No. 5928  
REGISTERED  
PROFESSIONAL ENGINEER

FOR PERMITTING PURPOSES ONLY

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Civil and Environmental Engineers  
Pawtucket, Rhode Island

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Engineering Design  
National Railroad Passenger Corporation  
30TH Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

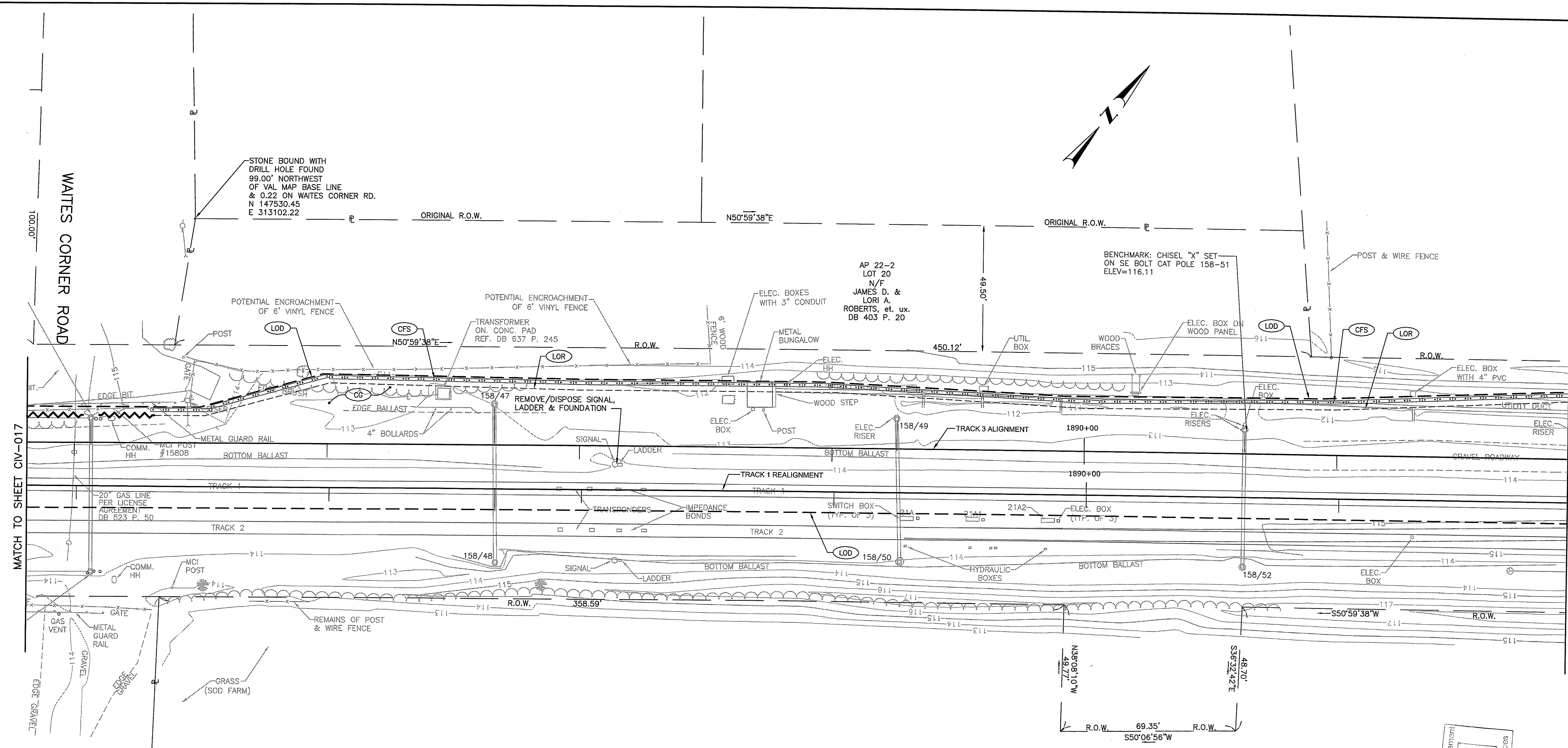
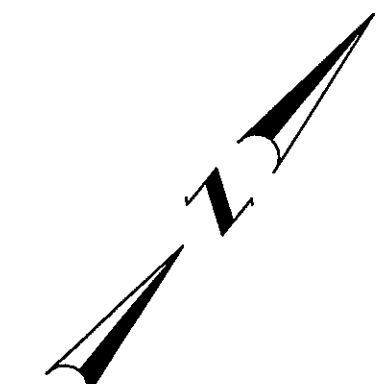
**HNTB** HNTB CORPORATION  
300 APOLLO DRIVE  
CHELMSFORD, MA 01824

**KINGSTON CAPACITY IMPROVEMENT PROJECT**

**DRAINAGE & UTILITY PLAN 17**

Designed	KMN	Drawn	LBD	Checked	TAR	Date	5/6/14
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Job No.	57896
File Name	1436DU017
Sheet No.	23 OF 208
Dwg. No.	<b>CIV-017</b>

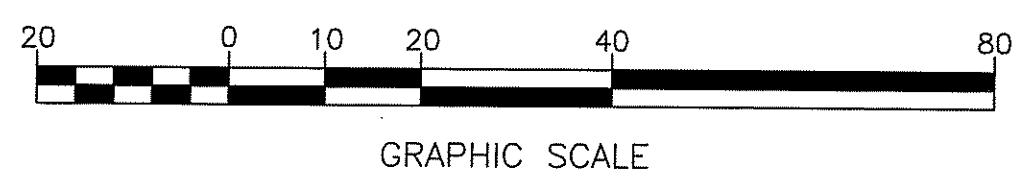


MATCH TO SHEET CIV-017

MATCH TO SHEET CIV-019

**LEGEND**

- LOD ———— LIMIT OF DISTURBANCE
- CFS ———— COMPOST FILTER SOCK
- LOR ———— LIMIT OF REGRADING
- — — — — OPEN DITCH
- BCP BITUMINOUS CONCRETE PAD (SEE DETAIL)
- CG CLEARING AND GRUBBING
- CPF NEW CATENARY POLE FOUNDATION
- GAF NEW GUY ANCHOR FOUNDATION
- RCF REMOVE & DISPOSE EXISTING CATENARY POLE FOUNDATION



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
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 FRESHWATER WETLANDS PROGRAM  
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Environmental Management  
 MAY 14 2014  
 Office of Water Resources

*Jonathan D. Wenzel*

JONATHAN D. WENZEL  
 No. 5928  
 REGISTERED PROFESSIONAL ENGINEER

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 Civil and Environmental Engineers  
 Pawtucket, Rhode Island

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 30TH Street Station, Philadelphia, Pennsylvania 19104

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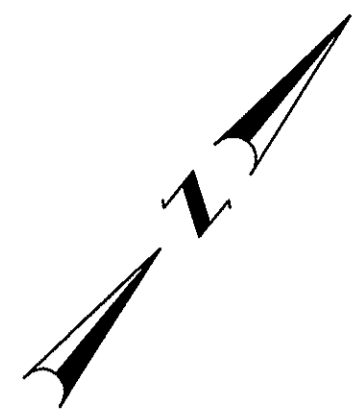
**HNTB** HNTB CORPORATION  
 300 APOLLO DRIVE  
 CHELMSFORD, MA 01824

**KINGSTON CAPACITY IMPROVEMENT PROJECT**

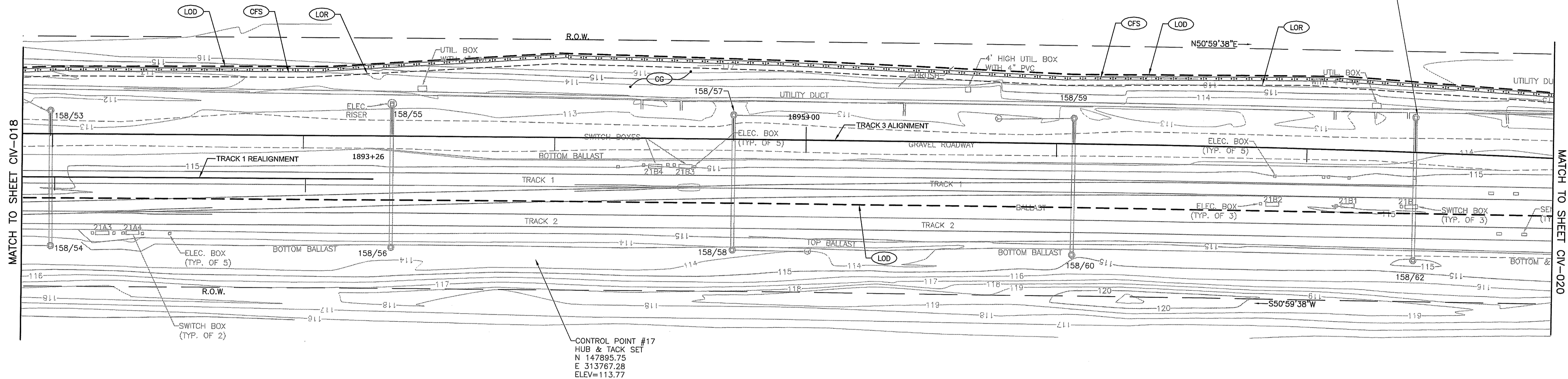
**DRAINAGE & UTILITY PLAN 18**

Designed	KMN	Drawn	LBD	Checked	TAR	Date	5/6/14
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Job No.	57896
File Name	1436DU018
Sheet No.	24 OF 208
Dwg. No.	<b>CIV-018</b>



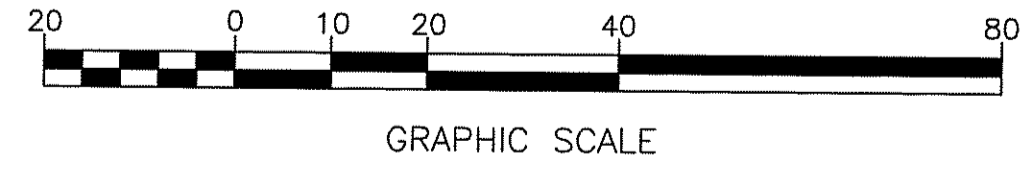
BENCHMARK: CHISEL "X" SET  
ON NW BOLT CAT POLE 158-61  
ELEV=117.36



MATCH TO SHEET CIV-018

MATCH TO SHEET CIV-020

- LEGEND**
- (LOD) --- LIMIT OF DISTURBANCE
  - (CFS) --- COMPOST FILTER SOCK
  - (LOR) --- LIMIT OF REGRADING
  - OPEN DITCH
  - (BCP) BITUMINOUS CONCRETE PAD (SEE DETAIL)
  - (CG) CLEARING AND GRUBBING
  - (CPF) NEW CATENARY POLE FOUNDATION
  - (GAF) NEW GUY ANCHOR FOUNDATION
  - (RCF) REMOVE & DISPOSE EXISTING CATENARY POLE FOUNDATION



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
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FRESHWATER WETLANDS PROGRAM  
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DATED JUN 13 2014 FILE # 14-0010  
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Environmental Management  
MAY 14 2014  
Office of Water Resources

TOOD RAYEMENLE  
No. 5928  
REGISTERED  
PROFESSIONAL ENGINEER

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Civil and Environmental Engineers  
Pawtucket, Rhode Island

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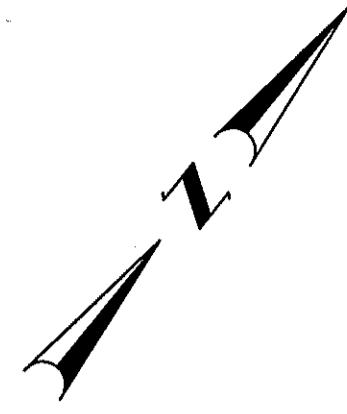
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**AMTRAK**  
Office of Engineering  
Engineering Design  
National Railroad Passenger Corporation  
30TH Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

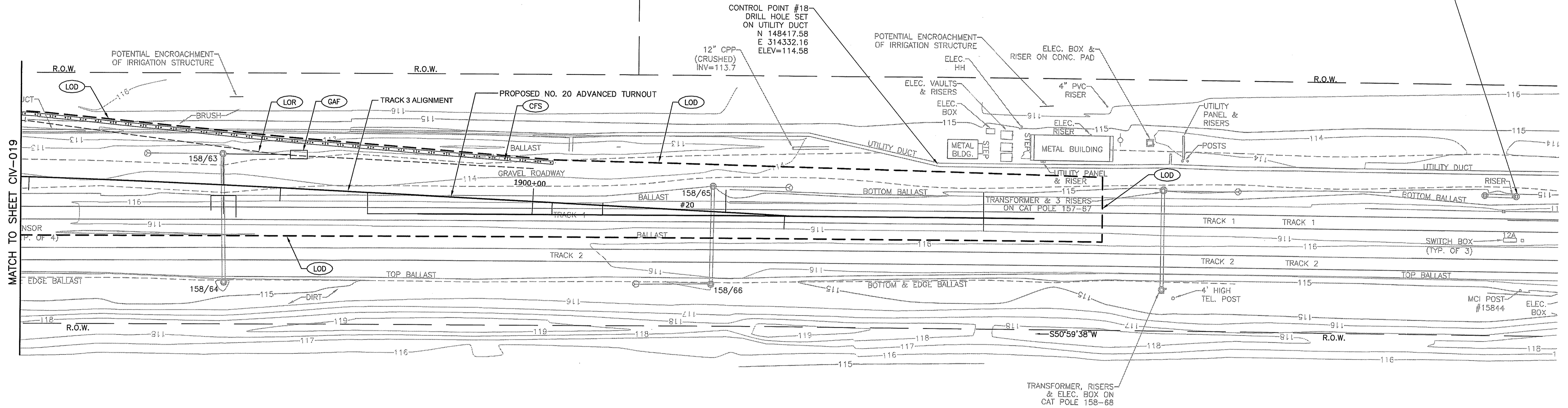
**HNTB** HNTB CORPORATION  
300 APOLLO DRIVE  
CHELMSFORD, MA 01824

**KINGSTON CAPACITY IMPROVEMENT PROJECT**  
DRAINAGE & UTILITY PLAN 19  
Job No. 57896  
File Name 1436DU019  
Sheet No. 25 OF 208  
Designed KMN Drawn LBD Checked TAR Date 5/6/14  
Dwg. No. **CIV-019**



AP 14  
LOT 1  
N/F  
DARRELL H. &  
BARBARA BOUCHARD

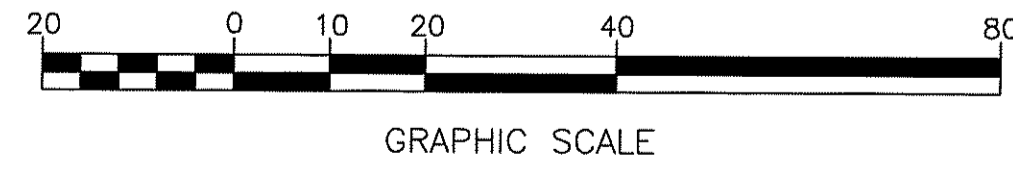
BENCHMARK: CHISEL "X" SET  
ON NE BOLT CAT POLE 158-69  
ELEV=118.26



MATCH TO SHEET CIV-019

AP 22-2  
LOT 19  
N/F  
MYRA &  
JOHN H. PARTYKA  
DB 401 P. 48

- LEGEND**
- LOD ——— LIMIT OF DISTURBANCE
  - CFS ——— COMPOST FILTER SOCK
  - LOR ——— LIMIT OF REGRADING
  - OPEN DITCH
  - BCP ( ) BITUMINOUS CONCRETE PAD (SEE DETAIL)
  - CG ( ) CLEARING AND GRUBBING
  - CPF ( ) NEW CATENARY POLE FOUNDATION
  - GAF ( ) NEW GUY ANCHOR FOUNDATION
  - RCF ( ) REMOVE & DISPOSE EXISTING CATENARY POLE FOUNDATION



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
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Environmental Management  
Office of Water Resources  
MAY 14 2014

TODD A. BAVENELLE  
No. 5928  
REGISTERED  
PROFESSIONAL ENGINEER

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Civil and Environmental Engineers  
Pawtucket, Rhode Island

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National Railroad Passenger Corporation  
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300 APOLLO DRIVE  
CHELMSFORD, MA 01824

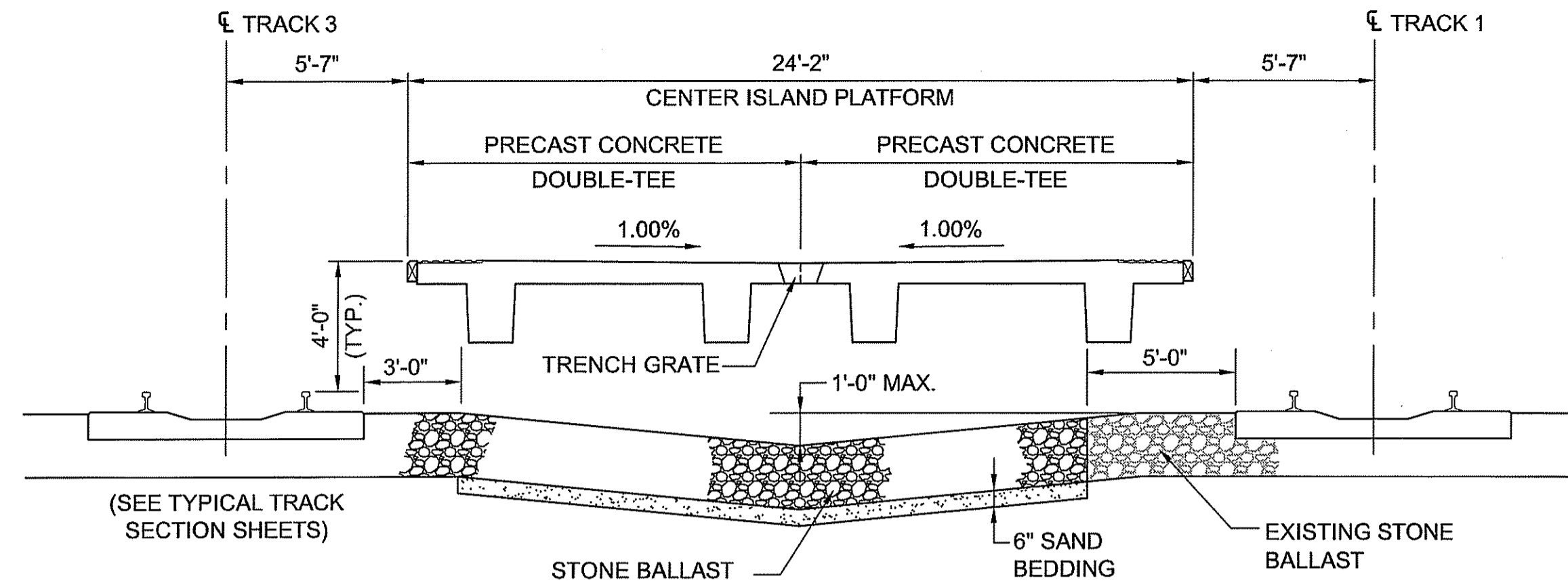
**KINGSTON CAPACITY IMPROVEMENT PROJECT**

DRAINAGE & UTILITY PLAN 20

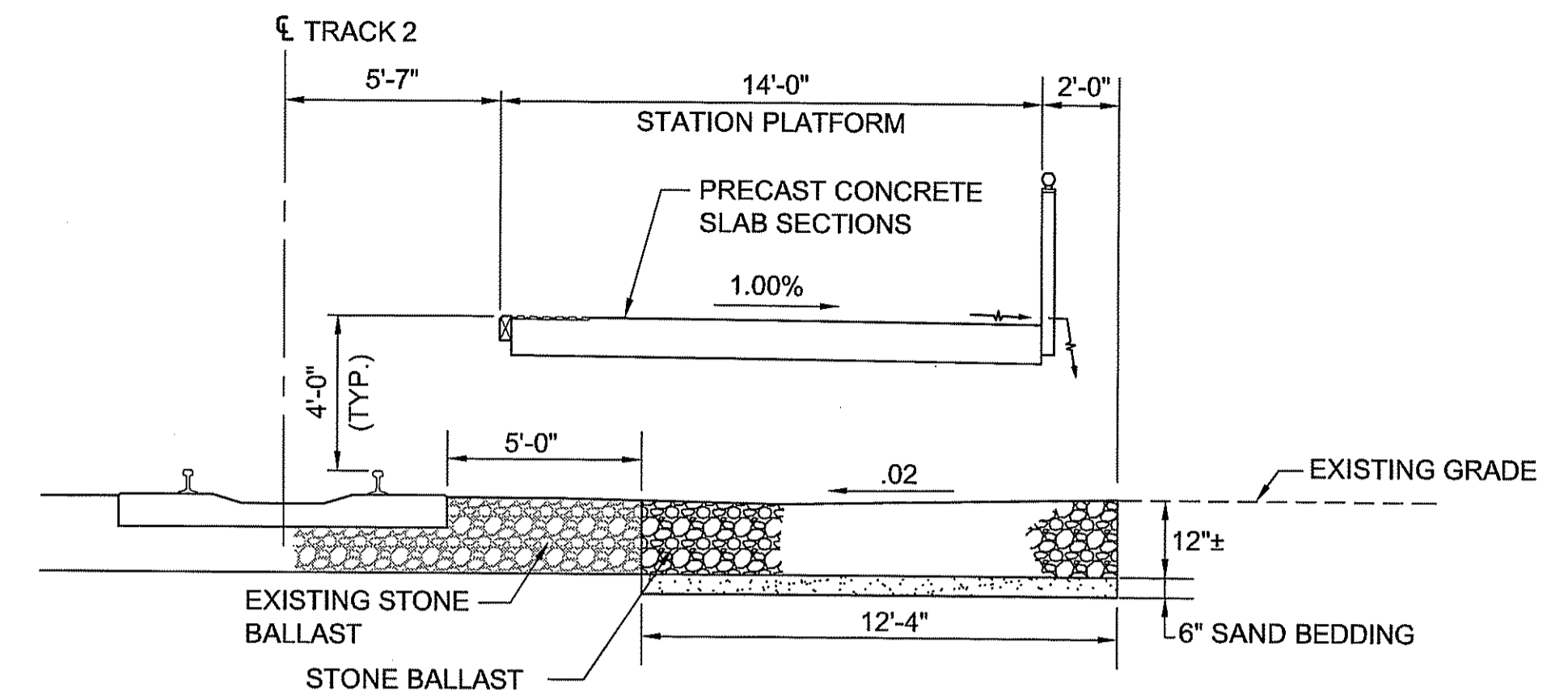
Job No. 57896  
File Name 1436DU020  
Sheet No. 26 OF 208

Designed KMN Drawn LBD Checked TAR Date 5/6/14

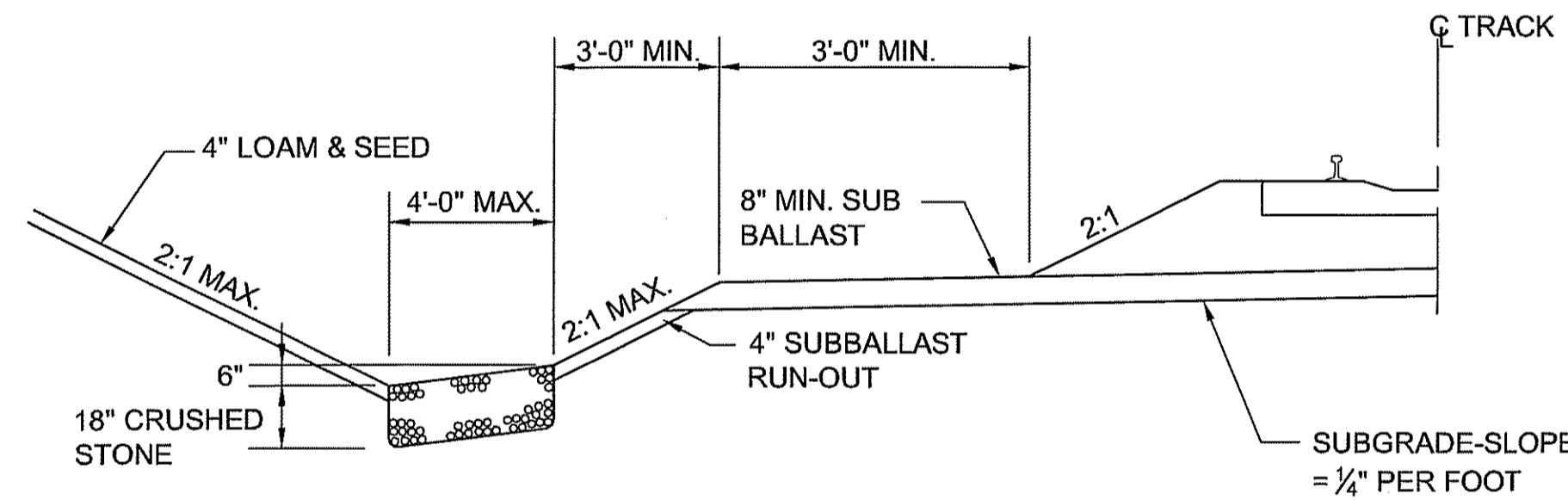
Dwg. No. **CIV-020**



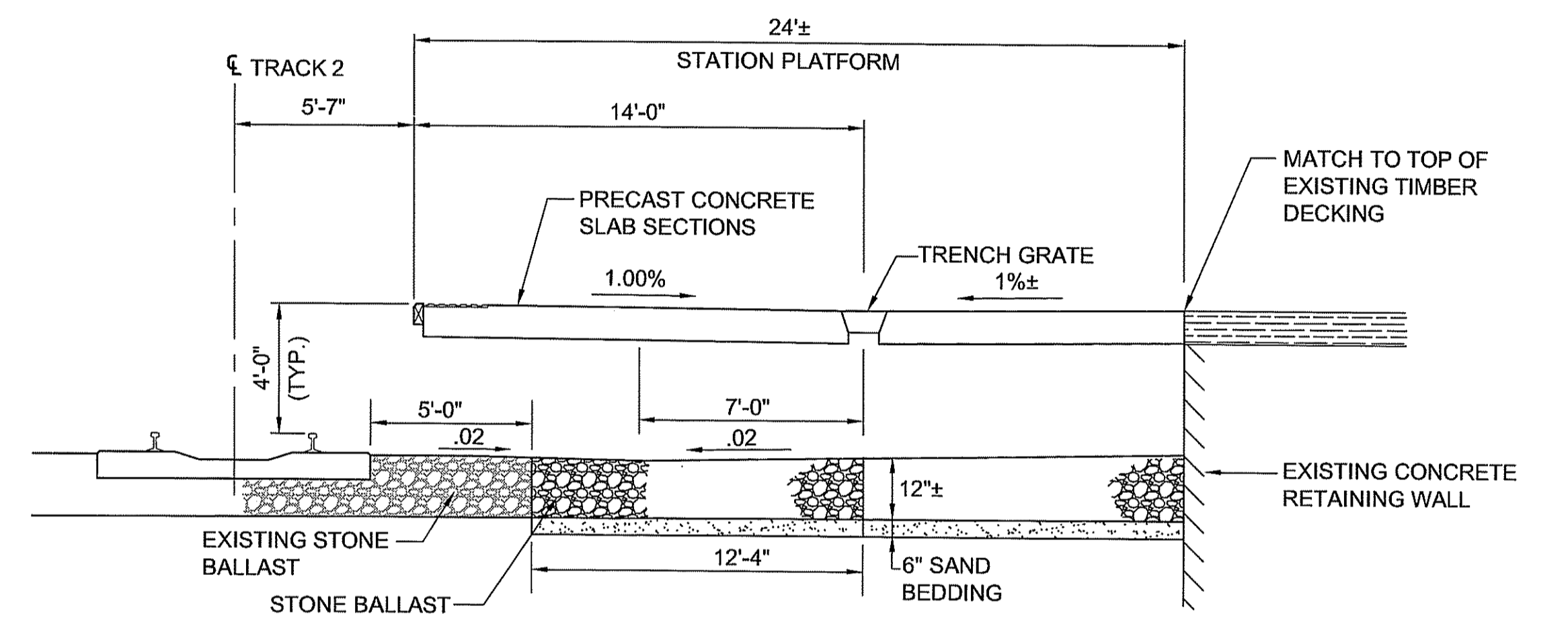
**CENTER PLATFORM DRAINAGE CONTROL DETAIL ①**  
SCALE: 1"=4'



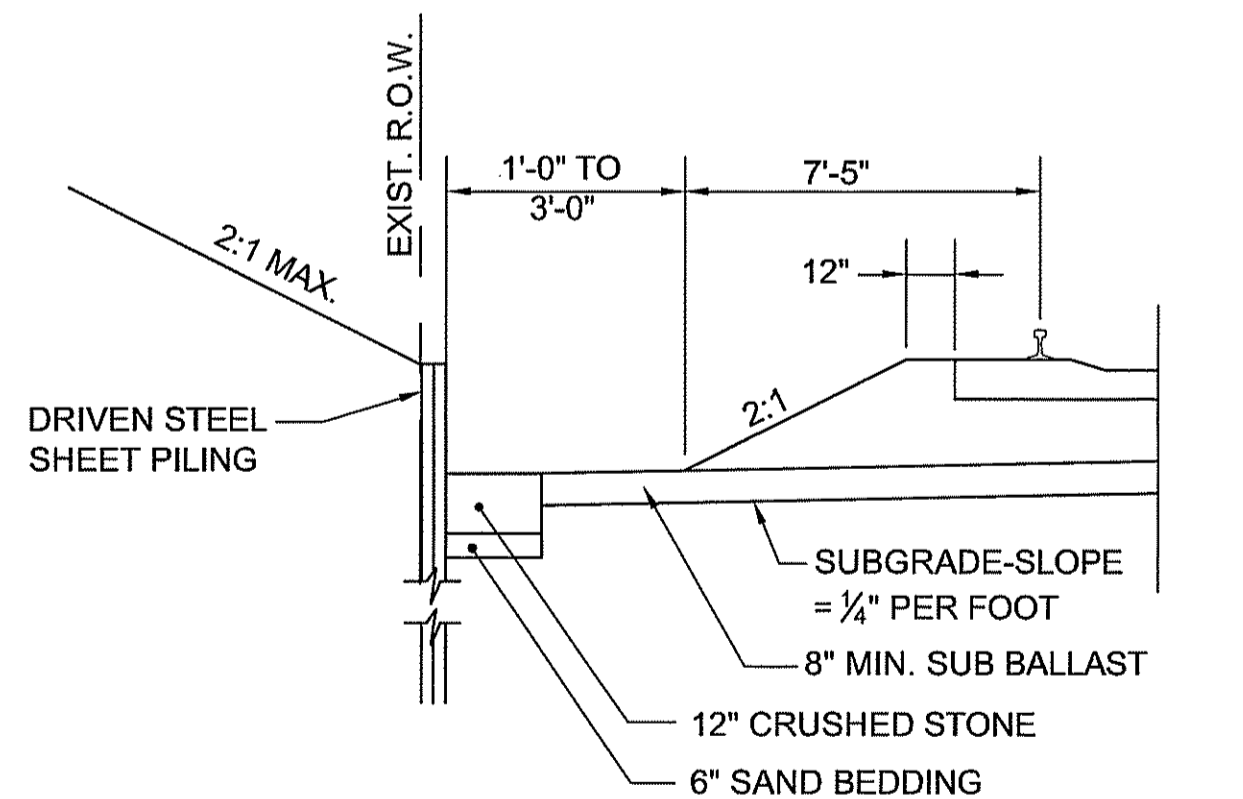
**HIGH LEVEL PLATFORM DRAINAGE CONTROL DETAIL ②**  
SCALE: 1"=4'



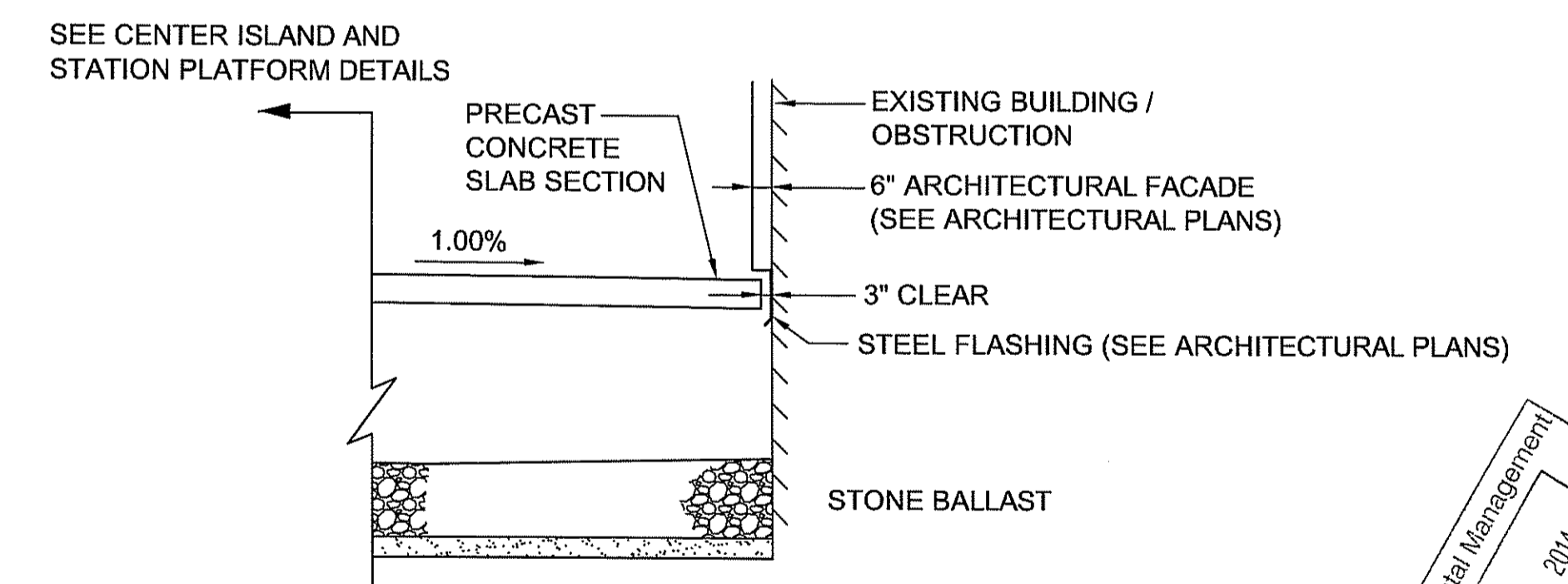
**OPEN DITCH**  
SCALE: 1"=4'



**HIGH LEVEL PLATFORM DRAINAGE CONTROL DETAIL ③**  
SCALE: 1"=4'



**STEEL SHEETING WITH INFILTRATION TRENCH**  
SCALE: 1"=4'



**DRAINAGE CONTROL AT HEADHOUSE DETAIL ④**  
SCALE: 1"=4'

**NOTES:**

- STONE BALLAST FOR DRAINAGE CONTROLS SHALL BE GRANITE, TRAPROCK, OR QUARTZITE, FREE FROM INJURIOUS AMOUNTS OF DELETERIOUS SUBSTANCES AND CONFORMING TO ALL REQUIREMENTS OF AMTRAK BALLAST SPECIFICATION NO. 200. THE STONE SHALL BE WELL GRADED WITHIN THE FOLLOWING SIZE LIMITATION AREAS, AS PER AMERICAN RAILWAY ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION (AREMA) SIZE NO. 3:

NOMINAL SIZE OF SQUARE OPENING: 2'-1"

SIZE OF SQUARE SIEVE OPENING	PERCENT PASSING BY WEIGHT
2 1/2"	100
2"	95-100
1 1/2"	35-70
1"	0-15
1/2"	0-5

- CRUSHED STONE SHALL MEET THE REQUIREMENTS FOR FILTER STONE SET FORTH IN SECTION M.01.07 OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
- SAND FOR BEDDING SHALL CONSIST OF A MEDIUM SAND MEETING THE REQUIREMENTS OF ASTM C-33 CONCRETE SAND.
- LOAM & SEED SHALL MEET THE APPLICABLE REQUIREMENTS SET FORTH IN SECTIONS L.01 AND L.02 OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION AND SHALL BE INSTALLED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL NOTES PROVIDED HEREIN.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
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Environmental Management  
MAY 14 2014  
TOBIAS RAVENELLE  
No. 5928  
REGISTERED PROFESSIONAL ENGINEER

FOR PERMITTING PURPOSES ONLY

**Gordon R. Archibald, Inc.**  
Civil and Environmental Engineers  
Pawtucket, Rhode Island

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Office of Engineering  
Engineering Design  
National Railroad Passenger Corporation  
30TH Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

**HNTB** HNTB CORPORATION  
300 APOLLO DRIVE  
CHELMSFORD, MA 01824

**KINGSTON CAPACITY  
IMPROVEMENT PROJECT**

DETAIL PLAN 1  
Designed KMN Drawn LBD Checked TAR Date 5/6/14

Job No. 57896  
File Name 1436DTL001  
Sheet No. 27 OF 208  
Dwg. No. CIV-021





