

NEW JERSEY MEADOWLANDS COMMISSION

MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION PHASE 4

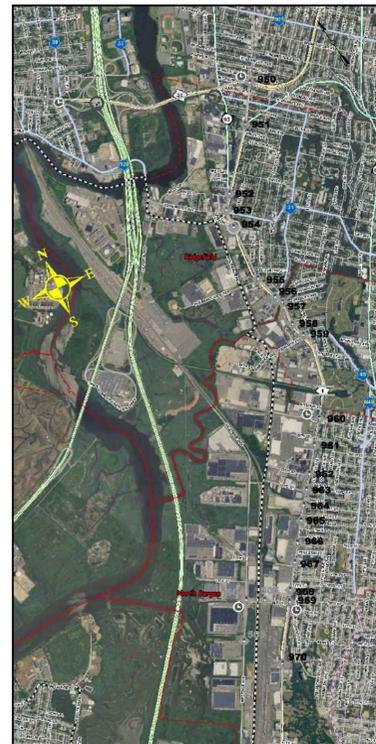
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BOROUGH OF PALISADES PARK, BOROUGH OF RIDGEFIELD & BOROUGH OF FAIRVIEW, BERGEN COUNTY; TOWNSHIP OF NORTH BERGEN & JERSEY CITY, HUDSON COUNTY, NEW JERSEY

FEBRUARY 2013



INTERSECTION & PLAN INDEX			
INTERSECTION	NAME	ELECTRICAL	TRAFFIC CONTROL
950	US 1/9 & US 46	E-1	TCP-1
951	US 1/9 & NJ 5	E-2	TCP-2
952	US 1/9 & River St	E-3	TCP-3
953	US 1/9 & Edgewater Ave/ Hendricks Causeway	E-4	TCP-4
954	US 1/9 & Marion Pl	E-5	TCP-5
955	US 1/9 & Pleasant View Ter	E-6	TCP-6
956	US 1/9 & Shaler Blvd	E-7	TCP-7
957	US 1&9 & Greeley Ave/Franklin Ave	E-8	TCP-8
958	US 1/9 & Probst Ave	E-9	TCP-9
959	US 1/9 & Fairview Ave	E-10	TCP-10
960	US 1/9 & 91st St	E-11	TCP-11
961	US 1/9 & 88th St	E-12	TCP-12
962	US 1/9 & 85th St	E-13	TCP-13
963	US 1/9 & 83rd St	E-14	TCP-14
964	US 1/9 & 81st St	E-15	TCP-15
965	US 1/9 & 79th St	E-16	TCP-16
966	US 1/9 & 76th St	E-17	TCP-17
967	US 1/9 & 74th St	E-18	TCP-18
968- 969	US 1/9 & 69th St & 70th St	E-19/20	TCP-19/20
970	US 1/9 & 61st St	E-21	TCP-21
971	US 1/9 & 51st St	E-22	TCP-22
972	US 1/9 & Bergen Tpk/46th St	E-23	TCP-23
973	US 1/9 & 43rd St	E-24	TCP-24
982	US 1/9 & Tonelle Ave	E-25	-
983	US 1/9 Truck & Charlotte Ave	E-26	TCP-26
984	US 1/9 Truck & Newark Ave	E-27	TCP-27
985	US 1/9 Truck & Broadway	E-28	TCP-28
986	US 1/9 Truck & Halleck Ave	E-29	TCP-29



KEY MAP
N.T.S.



KEY MAP
N.T.S.

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES
3	ESTIMATE & DISTRIBUTION OF QUANTITIES
4-31	ELECTRICAL PLANS
32-58	TRAFFIC CONTROL PLANS
59-72	ITS PLANS
73	FIBER OPTIC COMMUNICATION SCHEMATIC
74-79	CONSTRUCTION DETAILS
80-85	ITS DETAILS

NOTICE:
LOCATIONS OF CONDUITS, JUNCTION BOXES, TRAFFIC SIGNAL POLES, ETC. AS SHOWN ON THE PLANS ARE PLOTTED FROM AVAILABLE DATA ON FILE AND ARE NOT GUARANTEED AS TO EXACTNESS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION AND DEPTH OF ALL UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL USE THE LOCATIONS OF THE CONDUITS, JUNCTION BOXES, TRAFFIC SIGNAL POLES, ETC. AS AN AID IN DETERMINING EXACT LOCATIONS.

NJDOT 2007 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND NJDOT 2007 STANDARD SPECIFICATIONS FOR ELECTRICAL MATERIAL AND CONSTRUCTION SHALL GOVERN EXCEPT FOR THE SPECIFICATIONS OF NON-STANDARD NJDOT ITEMS, CONTAINED IN THE SPECIFICATIONS OF THE PROJECT.

STANDARD ROADWAY CONSTRUCTION/TRAFFIC CONTROL BRIDGE CONSTRUCTION DETAILS BOOKLET 2007, AND STANDARD ELECTRICAL DETAILS BOOKLET 2007, ARE APPLICABLE TO THIS PROJECT EXCEPT FOR THOSE DETAILS CONTAINED HEREIN.

DAVID LIEBGOLD

NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 45897

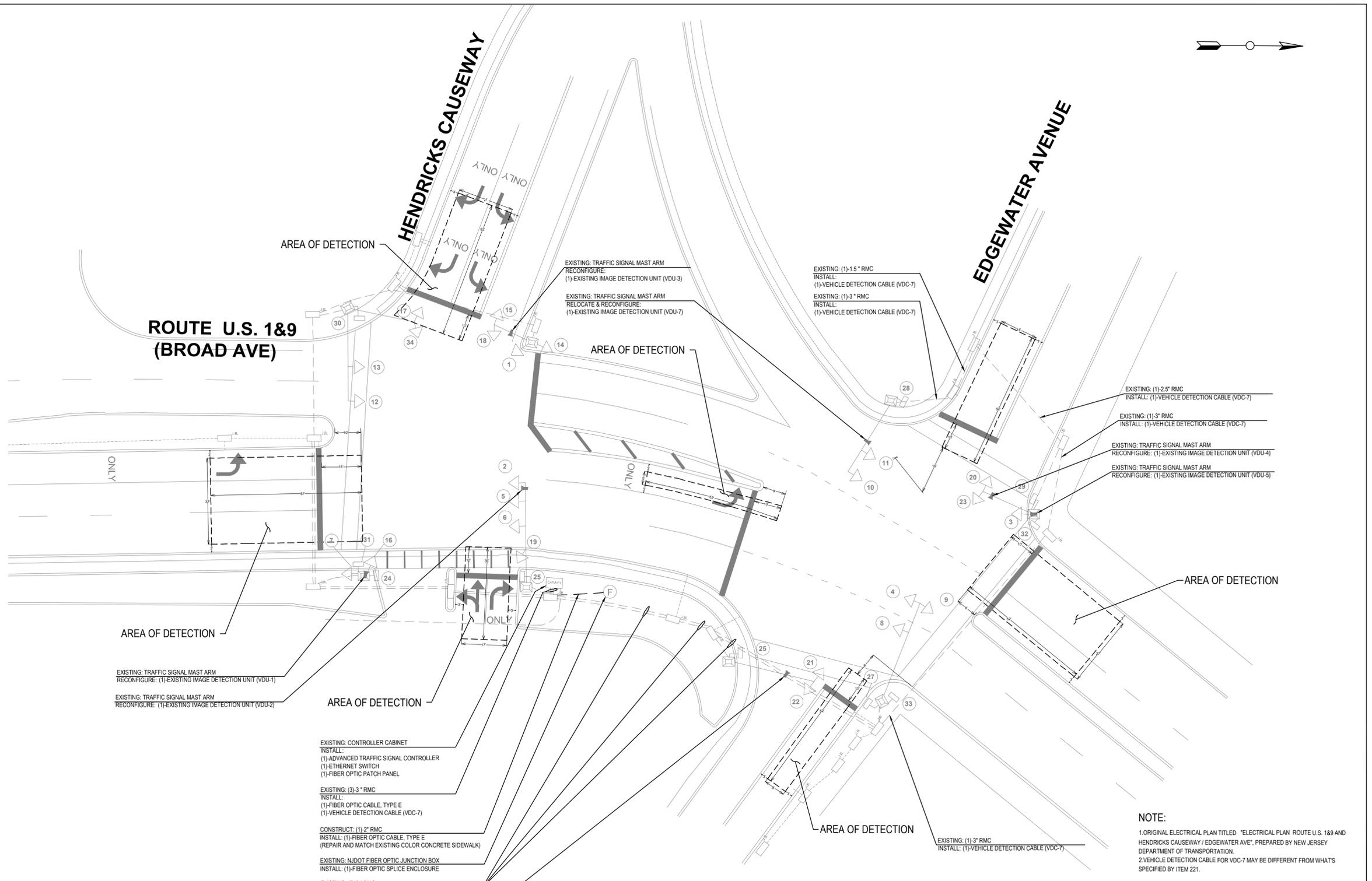
HONG YUAN

NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 48481

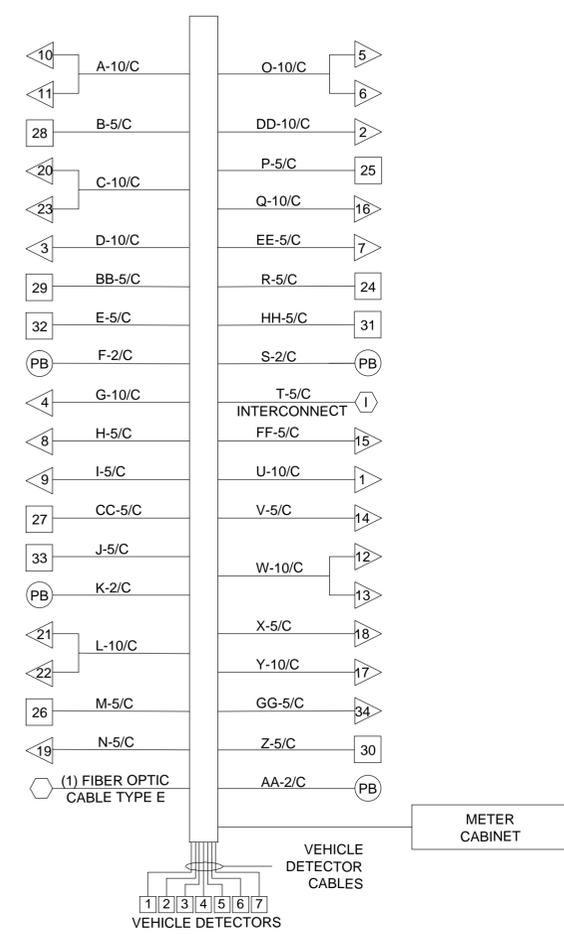
LEOMAR ALMANZAR

NEW JERSEY PROFESSIONAL ENGINEER
LICENSE NO. 48348

ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
221	VEHICLE DETECTION CABLE	465 LF
242	RECONFIGURE EXISTING IMAGE DETECTION UNIT	7 UNITS
244	RELOCATE EXISTING VEHICLE DETECTION UNIT	1 UNIT
313	ETHERNET SWITCH	1 UNIT
502	ADVANCED TRAFFIC SIGNAL CONTROLLER	1 UNIT
602	2" RIGID METAL CONDUIT	25 LF
632	CONCRETE SIDEWALK, 4" THICK	30 SY
705	FIBER OPTIC CABLE, TYPE E	75 LF
711	FIBER OPTIC PATCH PANEL	1 UNIT
712	FIBER OPTIC SPLICE ENCLOSURE	1 UNIT



BLOCK WIRING DIAGRAM



- EXISTING: TRAFFIC SIGNAL MAST ARM
RECONFIGURE: (1)-EXISTING IMAGE DETECTION UNIT (VDU-1)
- EXISTING: TRAFFIC SIGNAL MAST ARM
RECONFIGURE: (1)-EXISTING IMAGE DETECTION UNIT (VDU-2)
- EXISTING: CONTROLLER CABINET
INSTALL:
(1)-ADVANCED TRAFFIC SIGNAL CONTROLLER
(1)-ETHERNET SWITCH
(1)-FIBER OPTIC PATCH PANEL
- EXISTING: (3)-3" RMC
INSTALL:
(1)-FIBER OPTIC CABLE, TYPE E
(1)-VEHICLE DETECTION CABLE (VDC-7)
- CONSTRUCT: (1)-2" RMC
INSTALL: (1)-FIBER OPTIC CABLE, TYPE E
(REPAIR AND MATCH EXISTING COLOR CONCRETE SIDEWALK)
- EXISTING: NIDOT FIBER OPTIC JUNCTION BOX
INSTALL: (1)-FIBER OPTIC SPLICE ENCLOSURE
- EXISTING: (2)-3" RMC
INSTALL: (1)-VEHICLE DETECTION CABLE (VDC-7)
- EXISTING: TRAFFIC SIGNAL MAST ARM
RECONFIGURE: (1)-EXISTING IMAGE DETECTION UNIT (VDU-6)

- EXISTING: (1)-1.5" RMC
INSTALL: (1)-VEHICLE DETECTION CABLE (VDC-7)
- EXISTING: (1)-3" RMC
INSTALL: (1)-VEHICLE DETECTION CABLE (VDC-7)
- EXISTING: (1)-2.5" RMC
INSTALL: (1)-VEHICLE DETECTION CABLE (VDC-7)
- EXISTING: (1)-3" RMC
INSTALL: (1)-VEHICLE DETECTION CABLE (VDC-7)
- EXISTING: TRAFFIC SIGNAL MAST ARM
RECONFIGURE: (1)-EXISTING IMAGE DETECTION UNIT (VDU-4)
- EXISTING: TRAFFIC SIGNAL MAST ARM
RECONFIGURE: (1)-EXISTING IMAGE DETECTION UNIT (VDU-5)

NOTE:
1. ORIGINAL ELECTRICAL PLAN TITLED "ELECTRICAL PLAN ROUTE U.S. 1&9 AND HENDRICKS CAUSEWAY / EDGEWATER AVE", PREPARED BY NEW JERSEY DEPARTMENT OF TRANSPORTATION.
2. VEHICLE DETECTION CABLE FOR VDC-7 MAY BE DIFFERENT FROM WHAT'S SPECIFIED BY ITEM 221.

REVISIONS:		
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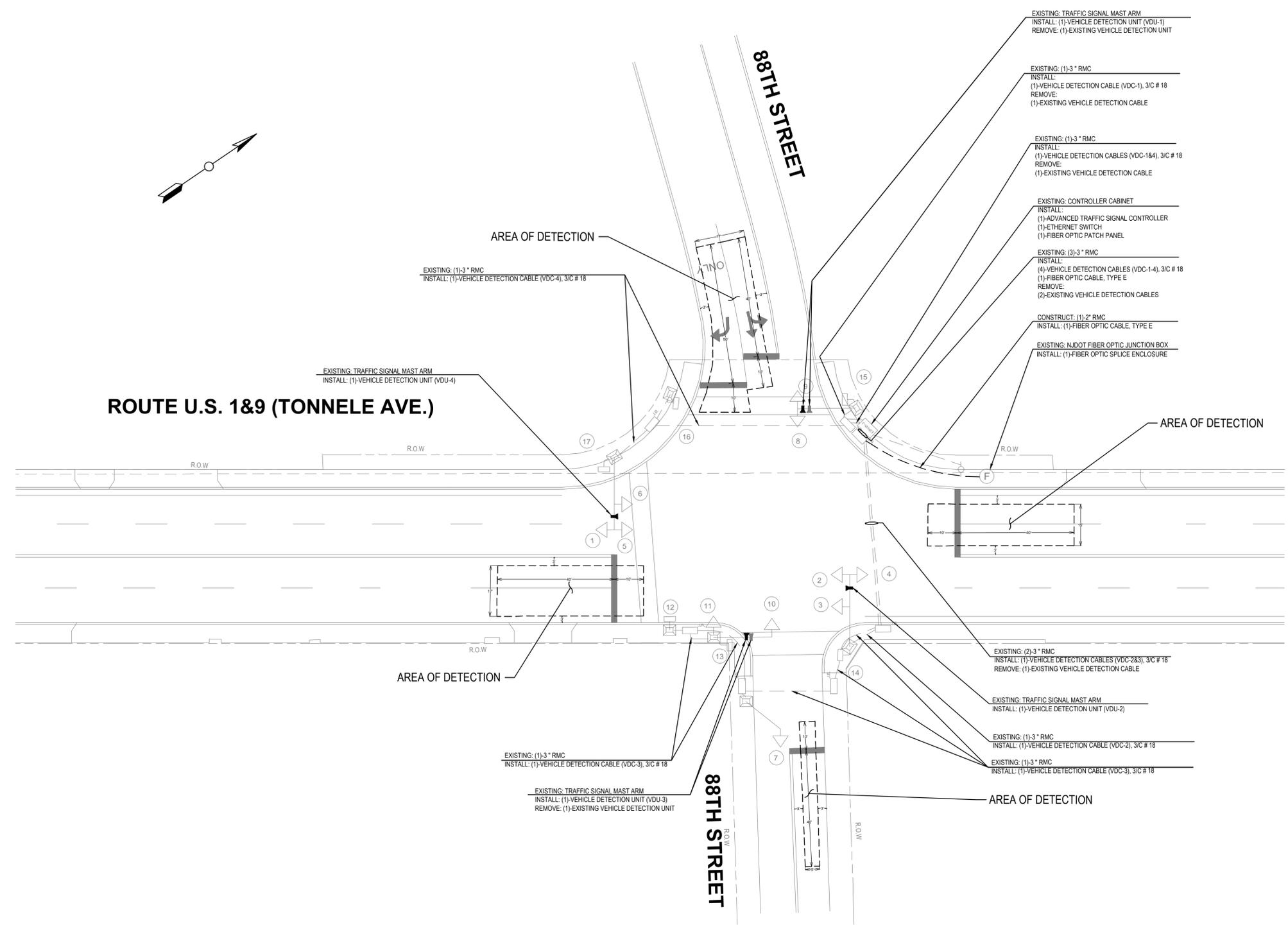
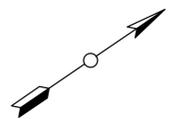
NEW JERSEY MEADOWLANDS COMMISSION
 ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434

MASTR
 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION

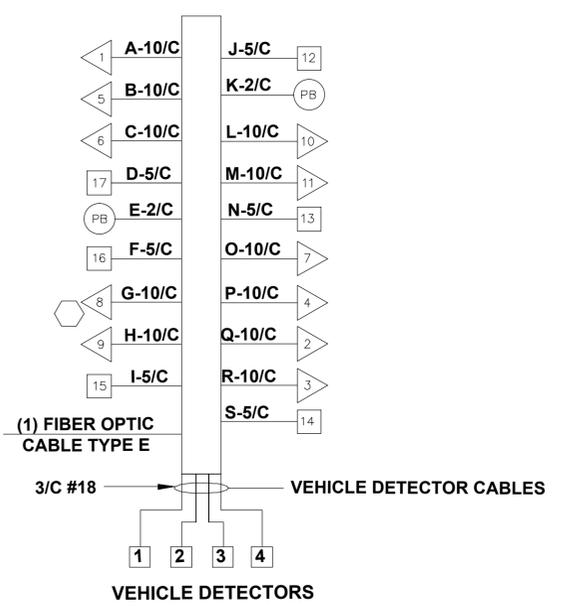


DRAWN BY: OG CHECKED BY: LA	APPROVED BY: HY DATE: 2/01/2013	DAVID LIEBGOLD <i>David Liebgold</i> PROFESSIONAL ENGINEER N.J. LIC. GE45897	HONG YUAN <i>Hong Yuan</i> PROFESSIONAL ENGINEER N.J. LIC. GE48481	LEOMAR ALMANZAR <i>Leomar Almanzar</i> PROFESSIONAL ENGINEER N.J. LIC. GE48348	ELECTRICAL PLAN -4- 953: US 1&9 & HENDRICKS CAUSEWAY/EDGEWATER AVE BOROUGH OF RIDGEFIELD BERGEN, NJ SCALE: 1"= 20' N.J.M.C. PROJECT: PHASE 4 SHEET #: 7 OF 85
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ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
210	VEHICLE DETECTION UNIT INSTALLATION	4 UNITS
221	VEHICLE DETECTION CABLE, 3/C # 18	540 LF
241	REMOVAL OF EXISTING IMAGE DETECTION UNITS	2 UNITS
313	ETHERNET SWITCH	1 UNIT
502	ADVANCED TRAFFIC SIGNAL CONTROLLER	1 UNIT
602	2" RIGID METAL CONDUIT	45 LF
632	CONCRETE SIDEWALK, 4" THICK	35 SY
705	FIBER OPTIC CABLE, TYPE E	110 LF
711	FIBER OPTIC PATCH PANEL	1 UNIT
712	FIBER OPTIC SPLICE ENCLOSURE	1 UNIT



BLOCK WIRING DIAGRAM



NOTE:
 ORIGINAL ELECTRICAL PLAN TITLED "ELECTRICAL PLANS ROUTE U.S. 1&9 AND 88TH STREET, PREPARED BY LANGAN ENGINEERING & ENVIRONMENTAL SERVICES, INC. FOR NEW JERSEY DEPARTMENT OF TRANSPORTATION.

REVISIONS:	
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DRAWN BY: **BM**
 CHECKED BY: **LA**
 APPROVED BY: **HY**
 DATE: 2/01/2013

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 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION



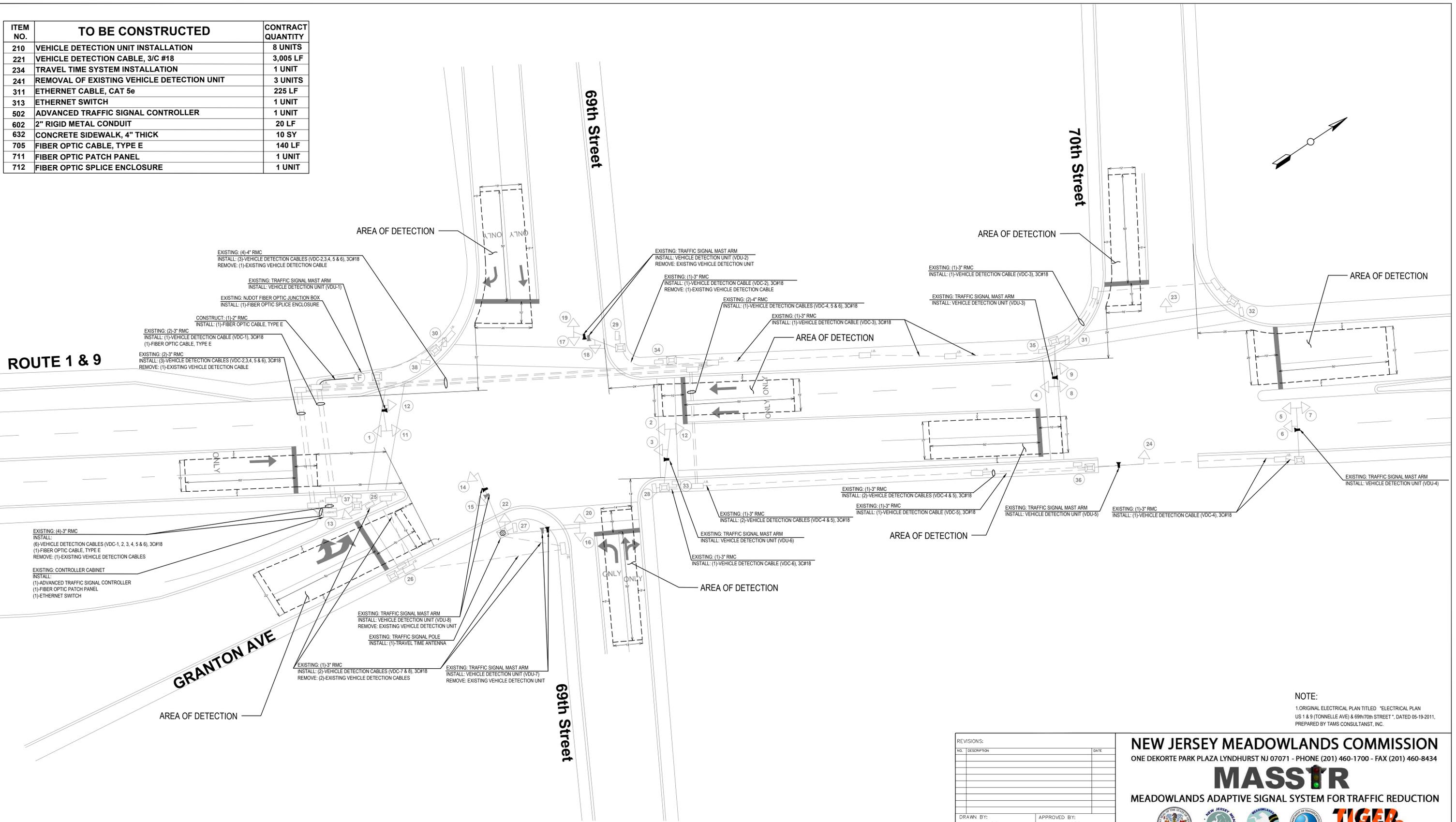
DAVID LIEBGOLD
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LEOMAR ALMANZAR
 PROFESSIONAL ENGINEER N.J. LIC. GE48348

ELECTRICAL PLAN -12-
 961: US 1&9 & 88TH STREET
 TOWNSHIP OF NORTH BERGEN HUDSON, NJ
 SCALE: 1"= 20'
 N.J.M.C. PROJECT: PHASE 4
 SHEET #: 15 OF 85

ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
210	VEHICLE DETECTION UNIT INSTALLATION	8 UNITS
221	VEHICLE DETECTION CABLE, 3/C #18	3,005 LF
234	TRAVEL TIME SYSTEM INSTALLATION	1 UNIT
241	REMOVAL OF EXISTING VEHICLE DETECTION UNIT	3 UNITS
311	ETHERNET CABLE, CAT 5e	225 LF
313	ETHERNET SWITCH	1 UNIT
502	ADVANCED TRAFFIC SIGNAL CONTROLLER	1 UNIT
602	2" RIGID METAL CONDUIT	20 LF
632	CONCRETE SIDEWALK, 4" THICK	10 SY
705	FIBER OPTIC CABLE, TYPE E	140 LF
711	FIBER OPTIC PATCH PANEL	1 UNIT
712	FIBER OPTIC SPLICE ENCLOSURE	1 UNIT



NOTE:
 1. ORIGINAL ELECTRICAL PLAN TITLED "ELECTRICAL PLAN US 1 & 9 (TONNELLE AVE) & 69th/70th STREET", DATED 05-19-2011, PREPARED BY TAMS CONSULTANT, INC.

REVISIONS:	
NO.	DESCRIPTION

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 ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434

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 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION



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APPROVED BY: HY
 DATE: 2/01/2013

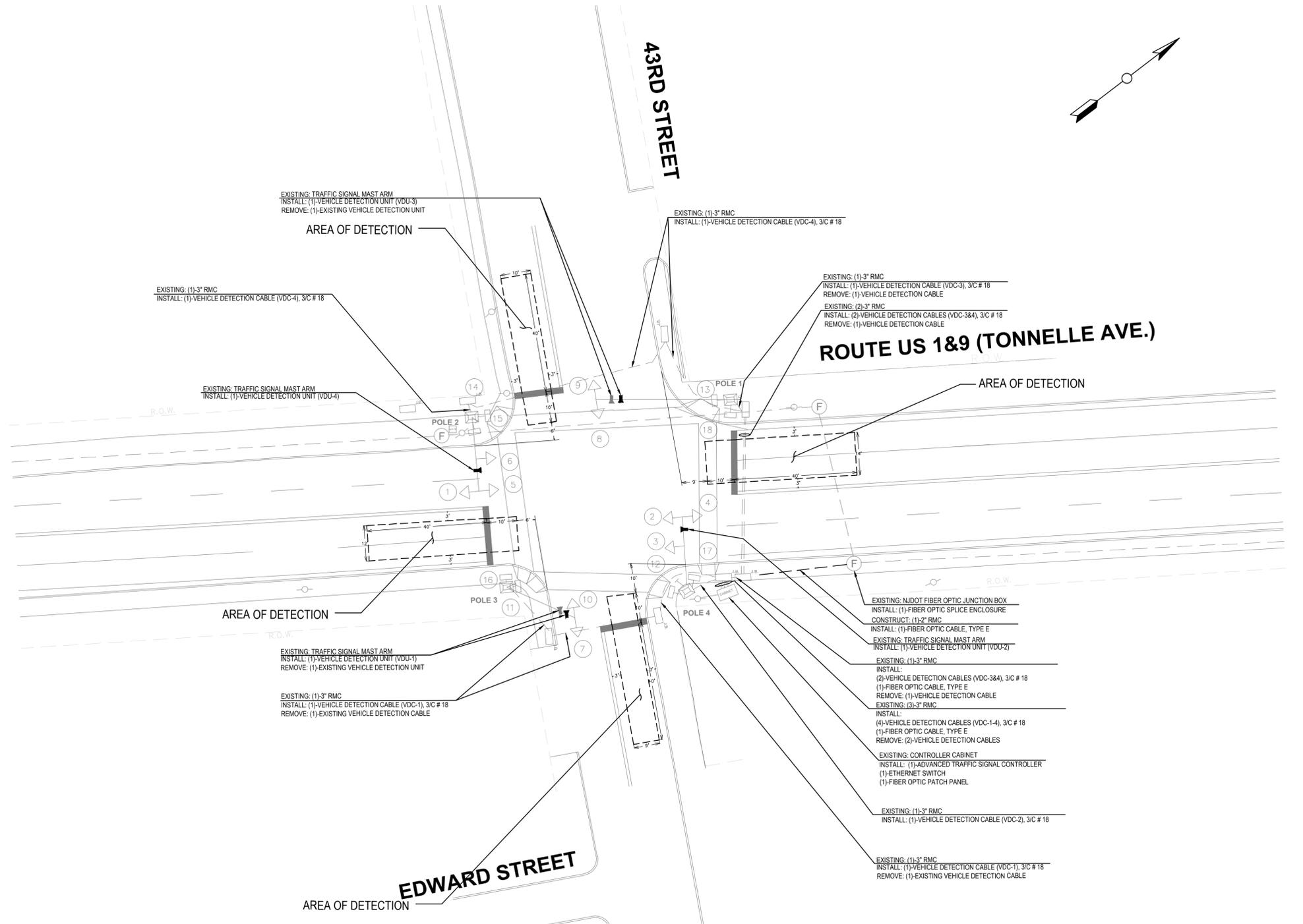
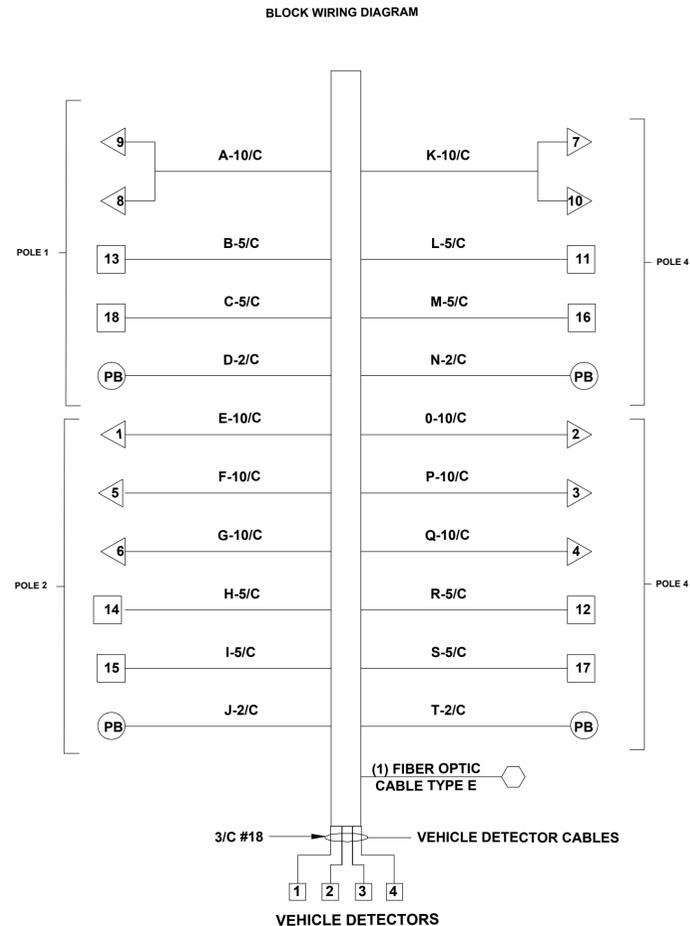
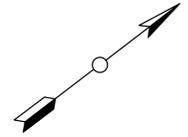
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ELECTRICAL PLAN -19/20-
 968-968: US 1 & 9 AND 69th-70th STREET
 NORTH BERGEN HUDSON, NJ

SCALE: 1"= 20'
 N.J.M.C. PROJECT: PHASE 4
 SHEET #: 22 OF 85

ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
210	VEHICLE DETECTION UNIT INSTALLATION	4 UNITS
221	VEHICLE DETECTION CABLE, 3/C #18	560 LF
241	REMOVAL OF EXISTING VEHICLE DETECTION UNIT	2 UNIT
313	ETHERNET SWITCH	1 UNIT
502	ADVANCED TRAFFIC SIGNAL CONTROLLER	1 UNIT
602	2" RIGID METAL CONDUIT	40 LF
632	CONCRETE SIDEWALK, 4" THICK	25 SY
705	FIBER OPTIC CABLE, TYPE E	100 LF
711	FIBER OPTIC PATCH PANEL	1 UNIT
712	FIBER OPTIC SPLICE ENCLOSURE	1 UNIT



NOTE:
 ORIGINAL PLAN TITLED "ELECTRICAL PLANS,"
 DATED JUNE 12, 2012, PREPARED BY NJDOT.

REVISIONS:		DATE
NO.	DESCRIPTION	

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 ONE DEKORTE PARK PLAZA, LYNDHURST, NJ 07071 - PHONE: (201) 460-1700 FAX: (201) 460-8434

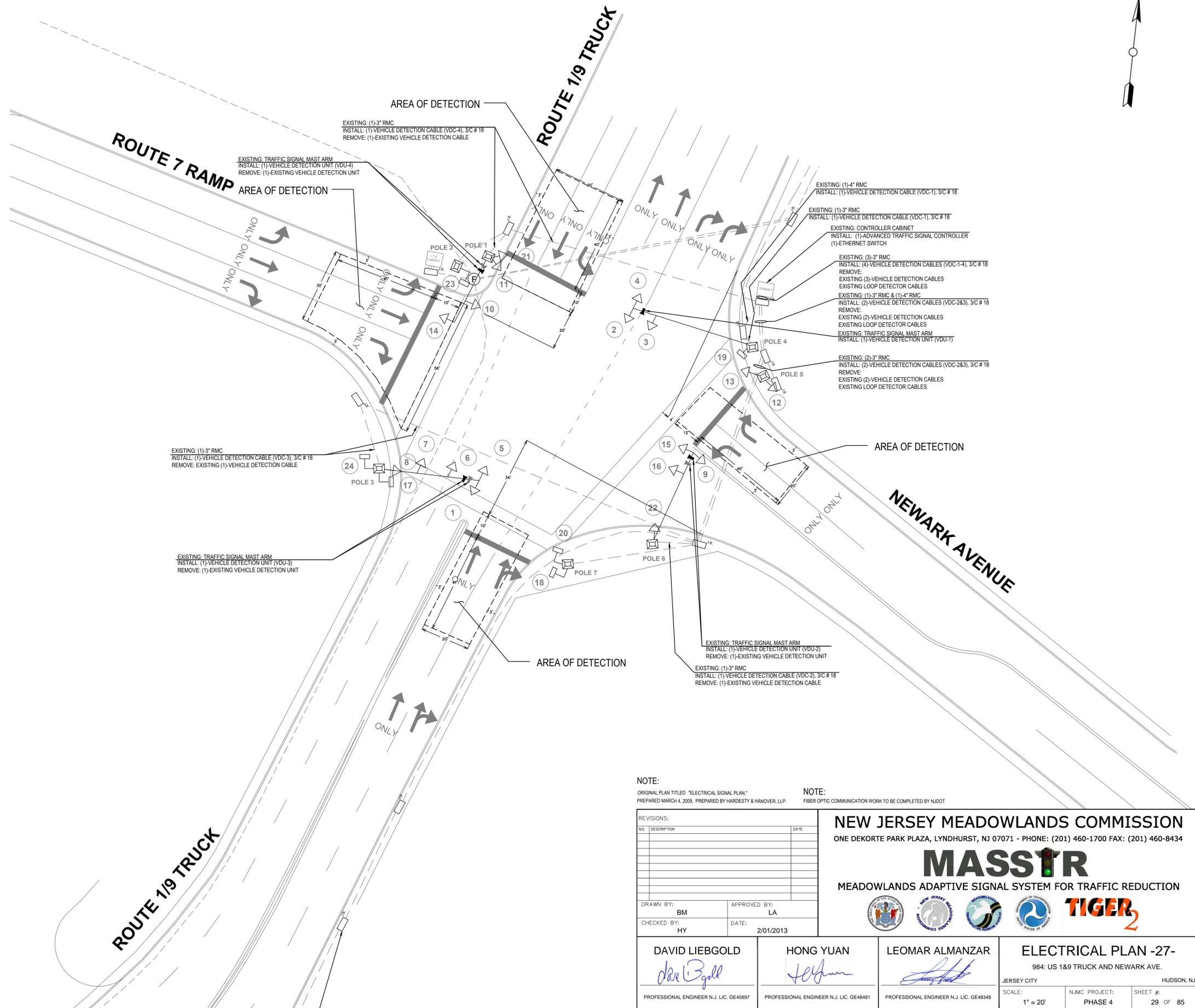


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 DATE: 2/01/2013

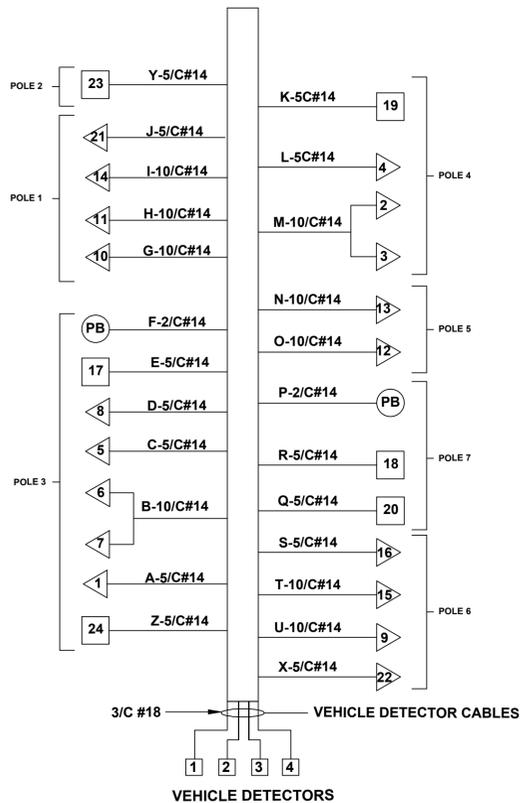
DAVID LIEBGOLD
 HONG YUAN
 LEOMAR ALMANZAR

ELECTRICAL PLAN -24-
 973: U.S 1&9 AND 43RD STREET
 NORTH BERGEN HUDSON, NJ
 SCALE: 1" = 20'
 NJMC PROJECT: PHASE 4
 SHEET #: 26 OF 85

ITEM NO.	TO BE CONSTRUCTED	QUANTITY
210	VEHICLE DETECTION UNIT INSTALLATION	4 UNITS
221	VEHICLE DETECTION CABLE, 3/C # 18	755 LF
241	REMOVAL OF EXISTING VEHICLE DETECTION UNIT	3 UNIT
313	ETHERNET SWITCH	1 UNIT
502	ADVANCED TRAFFIC SIGNAL CONTROLLER	1 UNIT



BLOCK WIRING DIAGRAM



NOTE:

ORIGINAL PLAN TITLED "ELECTRICAL SIGNAL PLAN,"
PREPARED MARCH 4, 2009, PREPARED BY HARDESTY & HANOVER, LLP.

NOTE:

FIBER OPTIC COMMUNICATION WORK TO BE COMPLETED BY NJDOT

NO.	DESCRIPTION	DATE

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ONE DEKORTE PARK PLAZA, LYNDHURST, NJ 07071 - PHONE: (201) 460-1700 FAX: (201) 460-8434

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MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION



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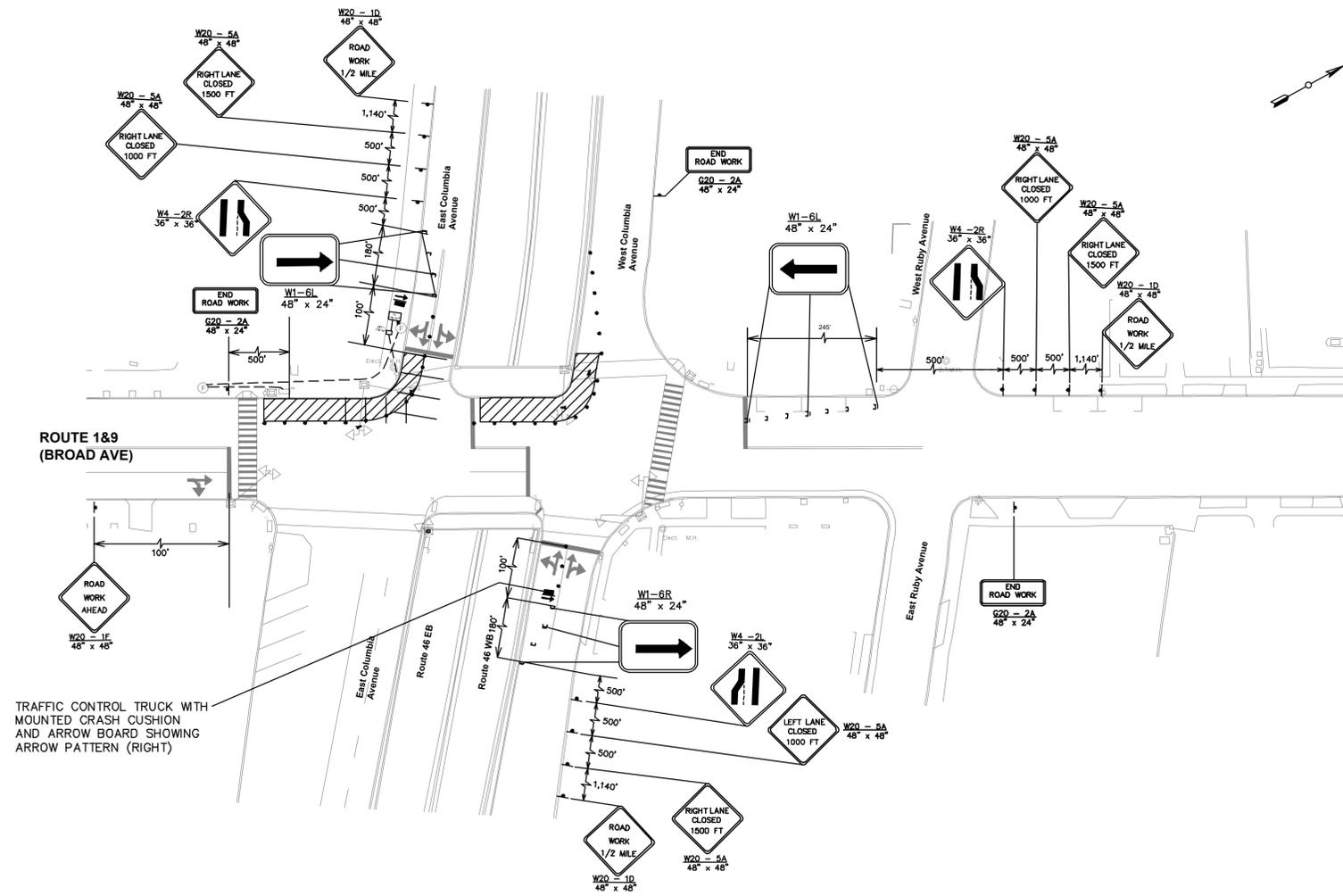
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ELECTRICAL PLAN -27-
984: US 1&9 TRUCK AND NEWARK AVE.
JERSEY CITY HUDSON, NJ
SCALE: 1" = 20'
N.J.M.C PROJECT: PHASE 4
SHEET #: 29 OF 85

STAGE 1



TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION AND ARROW BOARD SHOWING ARROW PATTERN (RIGHT)

NOTE:
 ALLOWABLE LANE CLOSURE SCHEDULE:
 THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN BETWEEN 5:00 AM AND 8:00 PM ON ALL STATE ROADWAYS. THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN PRIOR TO 9:00AM OR BEYOND 4:30 PM ON ALL LOCAL ROADWAYS.

NOTE:
 SEE CONSTRUCTION DETAIL 5, FOR THE MAXIMUM CHANNELIZING DEVICE SPACING.
 BROAD AVE (US 1 & 9) = 35 MPH;
 ROUTE 5 = 30MPH

REVISIONS:	
NO.	DESCRIPTION

DRAWN BY: OG	APPROVED BY: HY
CHECKED BY: LA	DATE: 2/1/2013

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NEW JERSEY MEADOWLANDS COMMISSION
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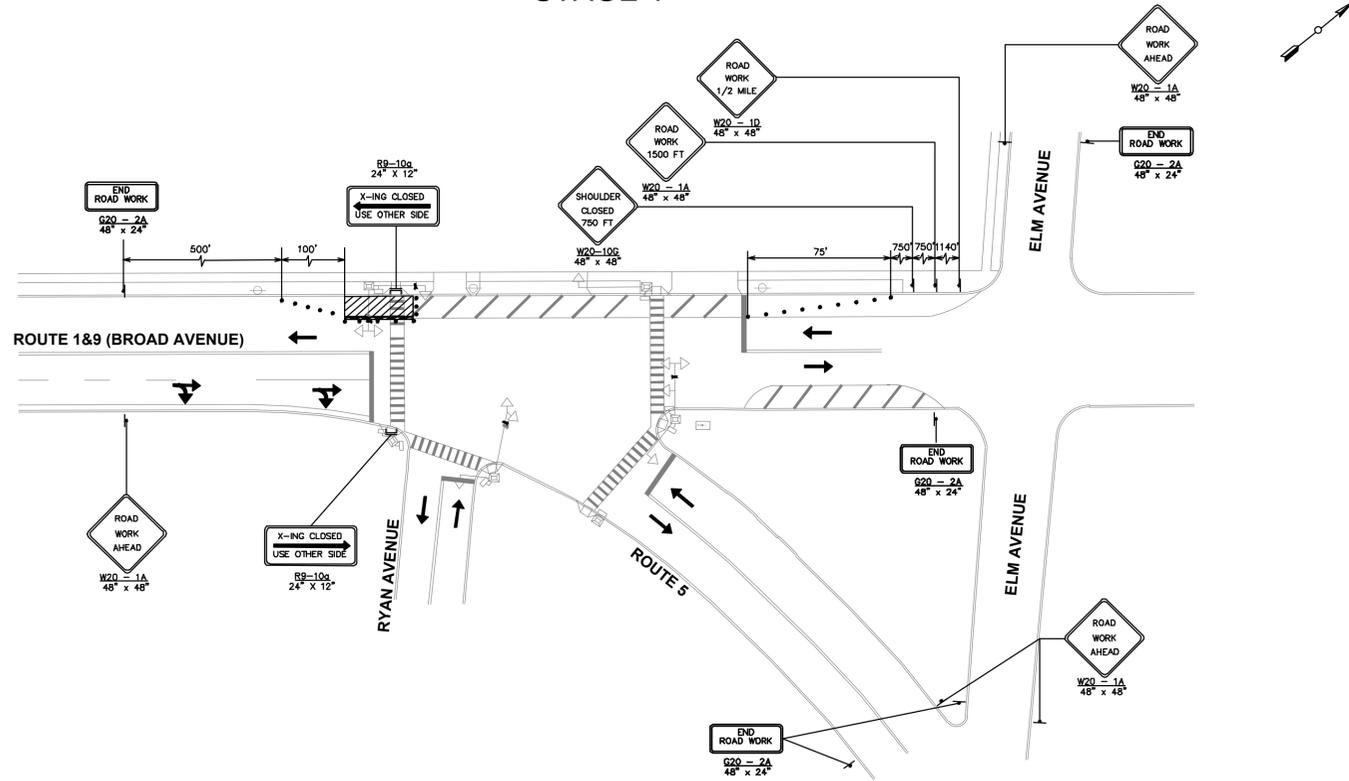
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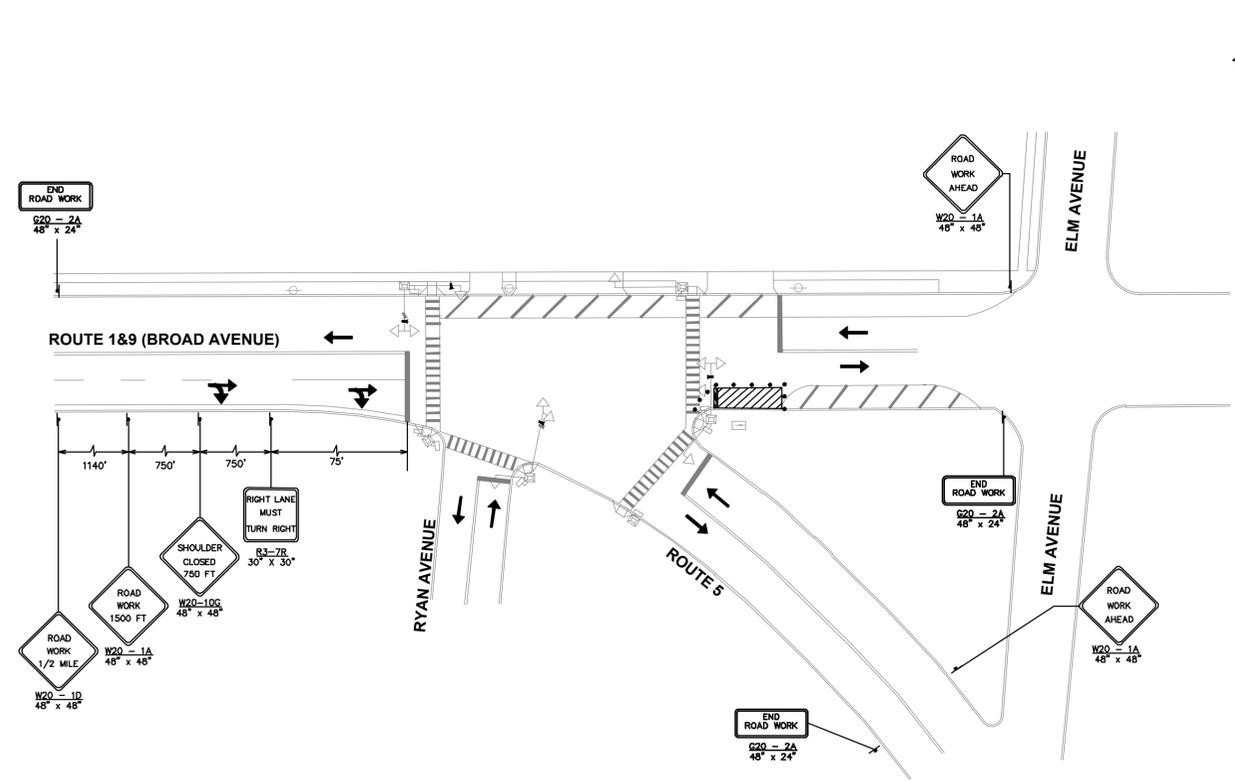
TRAFFIC CONTROL PLAN -1-
 950: US 1&9 (BROAD AVE) & COLUMBIA AVE (RT 46)
 BOROUGH OF PALISADES PARK BERGEN, NJ

SCALE: 1"= 40'	NJMC PROJECT: PHASE 4	SHEET #: 32 OF 85
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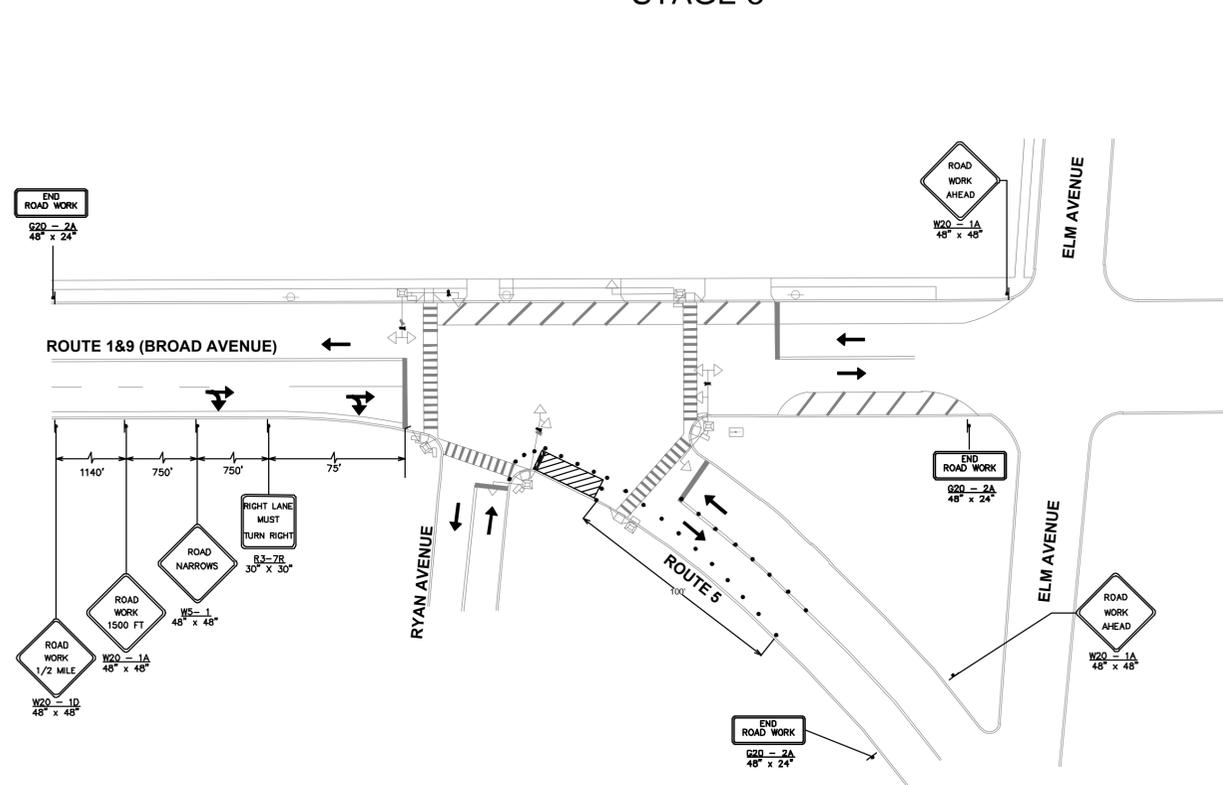
STAGE 1



STAGE 2



STAGE 3



NOTE:
 ALLOWABLE LANE CLOSURE SCHEDULE:
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NOTE:
 SEE CONSTRUCTION DETAIL 5, FOR THE MAXIMUM CHANNELIZING DEVICE SPACING.
 BROAD AVE (US 1 & 9) = 35 MPH;
 ROUTE 5 = 30MPH

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NEW JERSEY MEADOWLANDS COMMISSION
 ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434

MASTR
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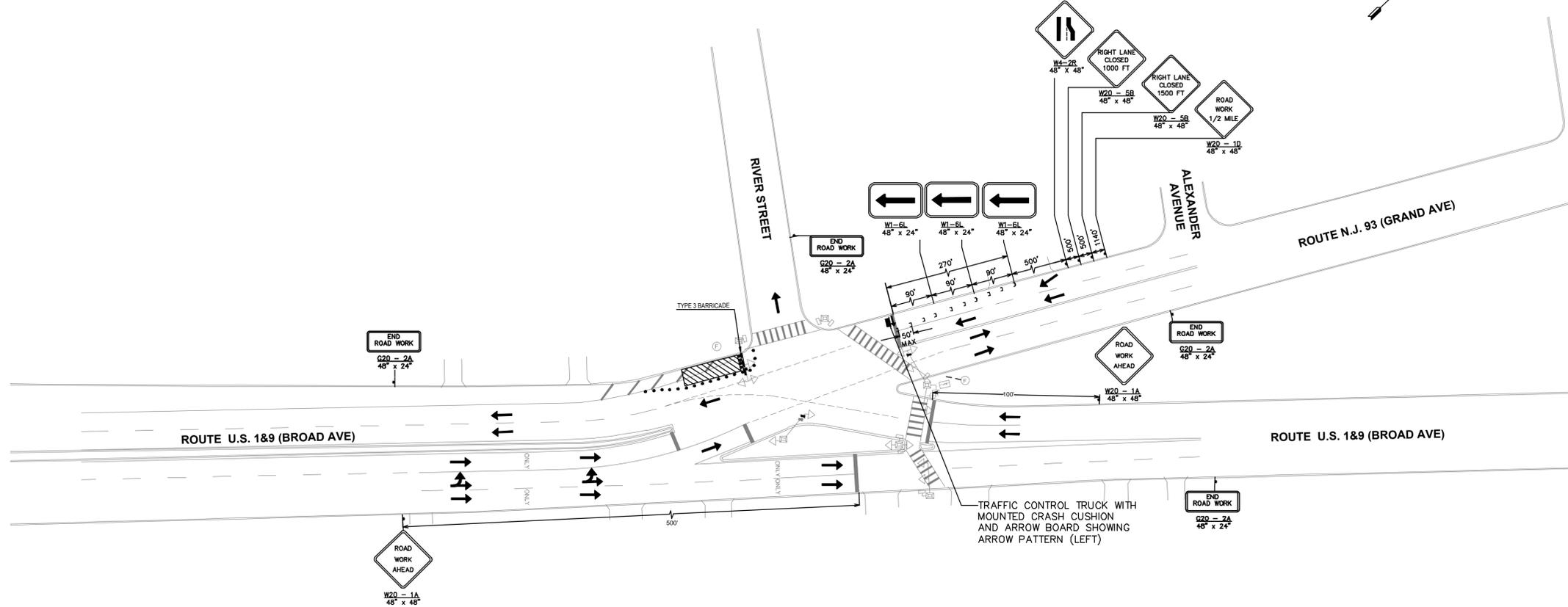
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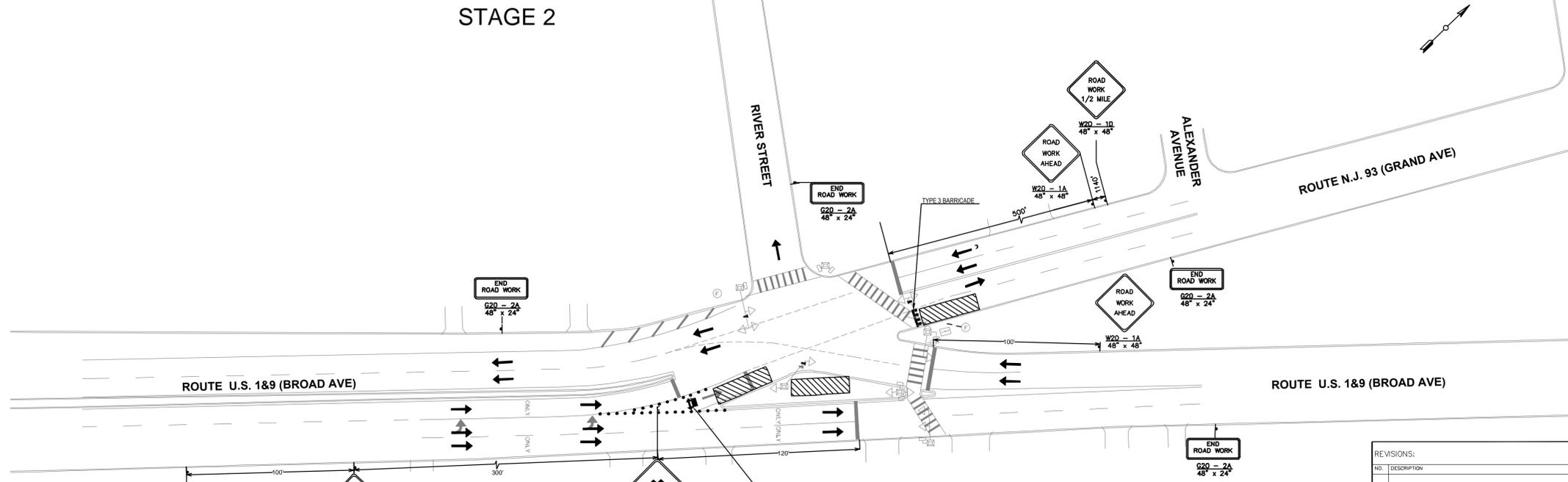
TRAFFIC CONTROL PLAN -2-
 951: US 1&9 (BROAD AVE) & ROUTE 5 - RAY AVE
 BOROUGH OF RIDGEFIELD BERGEN, NJ

SCALE: 1"= 40'
 N.J.M.C. PROJECT: PHASE 4
 SHEET #: 33 OF 85

STAGE 1



STAGE 2



NOTE:
 ALLOWABLE LANE CLOSURE SCHEDULE:
 THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN BETWEEN 5:00 AM AND 8:00 PM ON ALL STATE ROADWAYS. THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN PRIOR TO 9:00AM OR BEYOND 4:30 PM ON ALL LOCAL ROADWAYS.

NOTE:
 SEE CONSTRUCTION DETAIL 5, FOR THE MAXIMUM CHANNELIZING DEVICE SPACING.
 BROAD AVE (US 1 & 9) = 30 MPH;
 GRAND AVE (ROUTE NJ 93) = 40MPH

REVISIONS:

NO.	DESCRIPTION	DATE

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 CHECKED BY: LA DATE: 2/01/2013

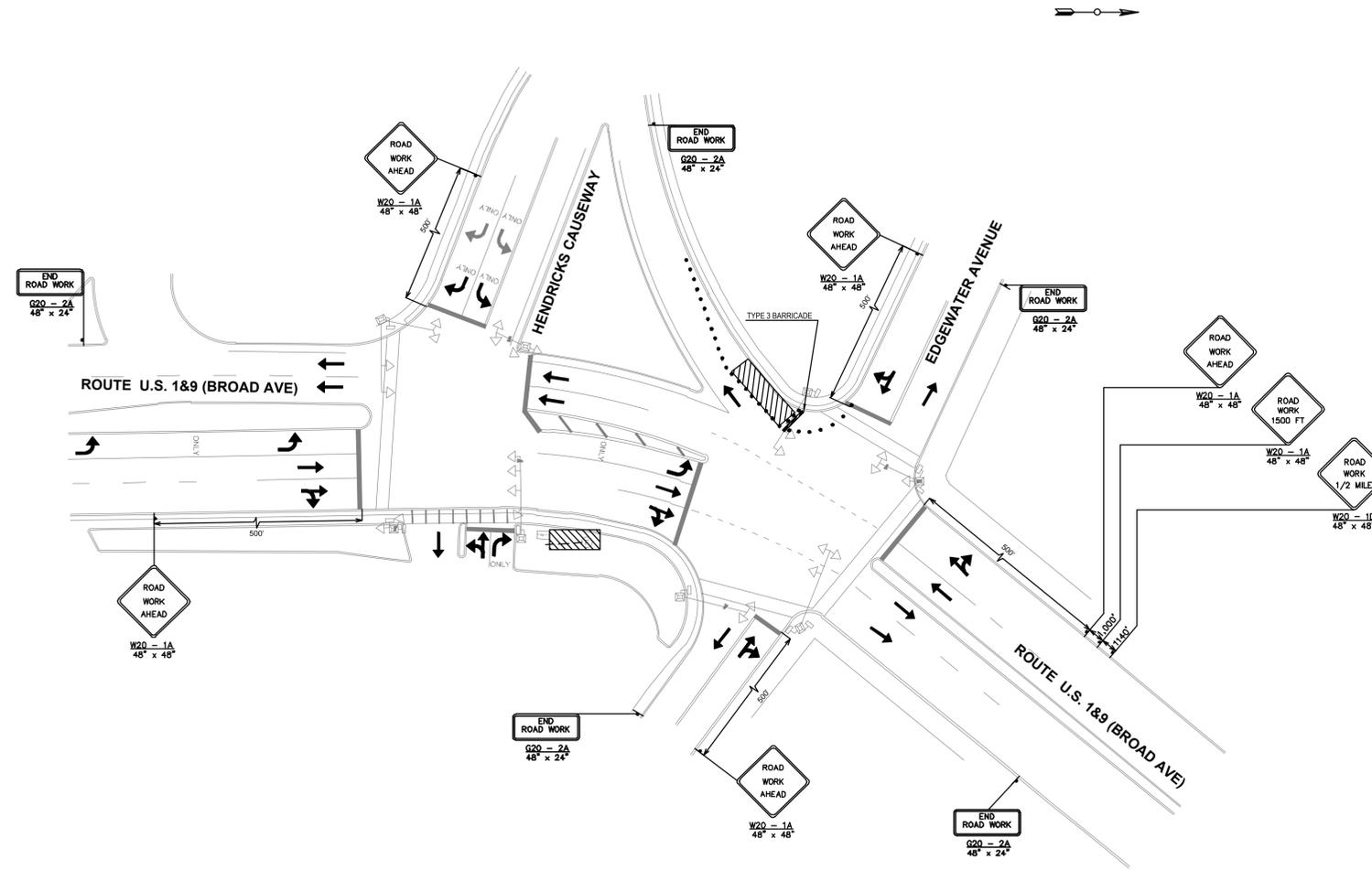
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MASSIR
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DAVID LIEBGOLD PROFESSIONAL ENGINEER N.J. LIC. GE45897	HONG YUAN PROFESSIONAL ENGINEER N.J. LIC. GE48481	LEOMAR ALMANZAR PROFESSIONAL ENGINEER N.J. LIC. GE48348	TRAFFIC CONTROL PLAN -3- 952: US 1&9(BROAD AVE) & RT 93 (GRAND AVE)-RIVER ST BOROUGH OF RIDGEFIELD BERGEN, NJ SCALE: 1"= 40' N.J.M.C PROJECT: PHASE 4 SHEET #: 34 OF 85
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STAGE 1



NOTE:

ALLOWABLE LANE CLOSURE SCHEDULE:
 THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN BETWEEN 5:00 AM AND 8:00 PM ON ALL STATE ROADWAYS. THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN PRIOR TO 9:00AM OR BEYOND 4:30 PM ON ALL LOCAL ROADWAYS.

NOTE:

SEE CONSTRUCTION DETAIL 5, FOR THE MAXIMUM CHANNELIZING DEVICE SPACING.
 BROAD AVE (US 1 & 9) = 30 MPH;
 EDGEWATER AVE = 25 MPH

REVISIONS:	
NO.	DESCRIPTION

NEW JERSEY MEADOWLANDS COMMISSION
 ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434

MASSIR
 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION



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CHECKED BY: LA	DATE: 2/01/2013

DAVID LIEBGOLD
David Liebgold
 PROFESSIONAL ENGINEER N.J. LIC. GE45897

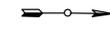
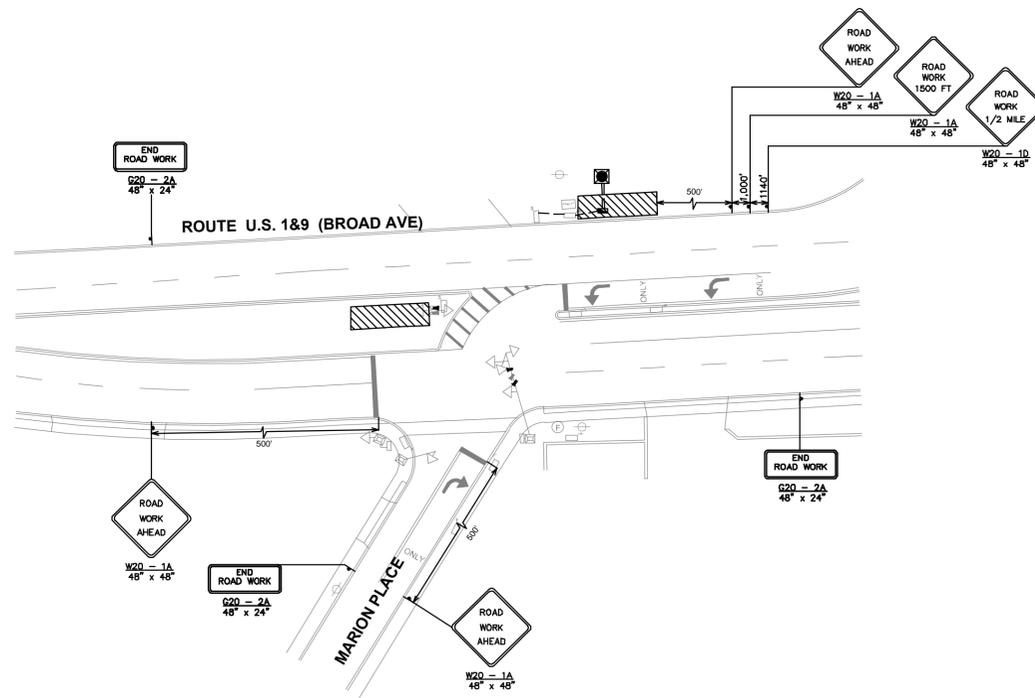
HONG YUAN
Hong Yuan
 PROFESSIONAL ENGINEER N.J. LIC. GE48481

LEOMAR ALMANZAR
Leomar Almanzar
 PROFESSIONAL ENGINEER N.J. LIC. GE48348

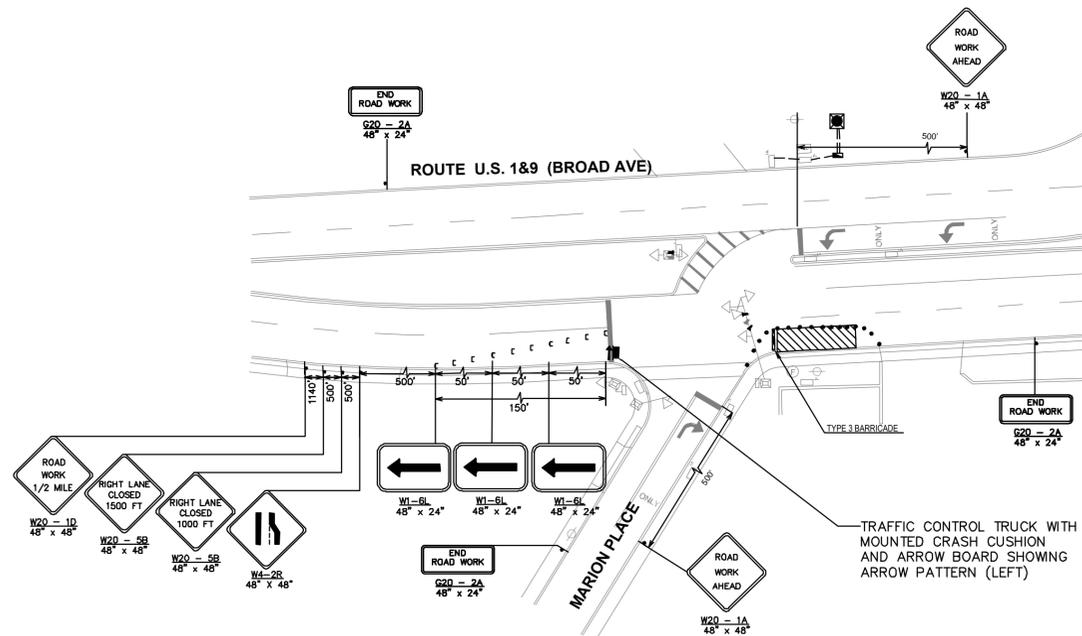
TRAFFIC CONTROL PLAN -4-
 953: US 1&9 & HENDRICKS CAUSEWAY/EDGEWATER AVE
 BOROUGH OF RIDGEFIELD BERGEN, NJ

SCALE: 1"= 40'
 N.J.M.C. PROJECT: PHASE 4
 SHEET #: 35 OF 85

STAGE 1



STAGE 2



NOTE:

ALLOWABLE LANE CLOSURE SCHEDULE:
 THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN BETWEEN 5:00 AM AND 8:00 PM ON ALL STATE ROADWAYS. THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN PRIOR TO 9:00AM OR BEYOND 4:30 PM ON ALL LOCAL ROADWAYS.

NOTE:
 SEE CONSTRUCTION DETAIL 5, FOR THE MAXIMUM CHANNELIZING DEVICE SPACING
 BROAD AVE (US 1 & 9) = 30 MPH;
 MARION PLACE = 25 MPH

REVISIONS:	
NO.	DESCRIPTION

NEW JERSEY MEADOWLANDS COMMISSION
 ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434
MASSIR
 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION



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CHECKED BY: LA	DATE: 2/01/2013

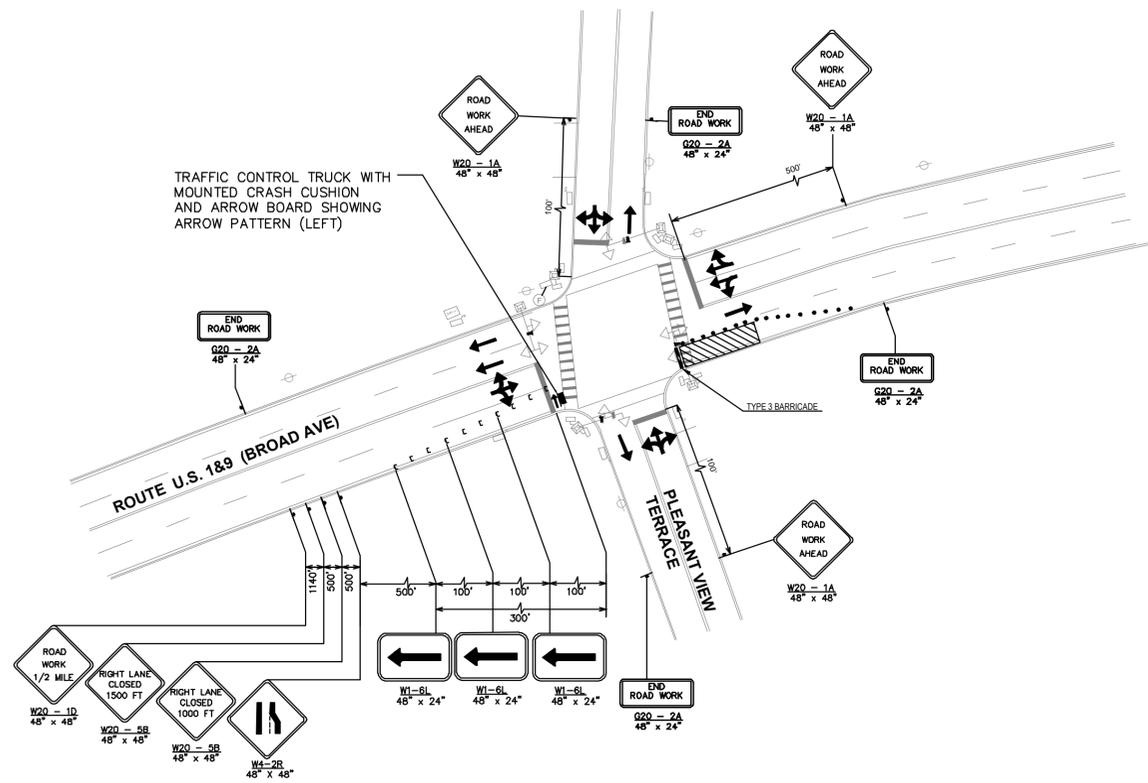
DAVID LIEBGOLD
David Liebgold
 PROFESSIONAL ENGINEER N.J. LIC. GE45897

HONG YUAN
Hong Yuan
 PROFESSIONAL ENGINEER N.J. LIC. GE48481

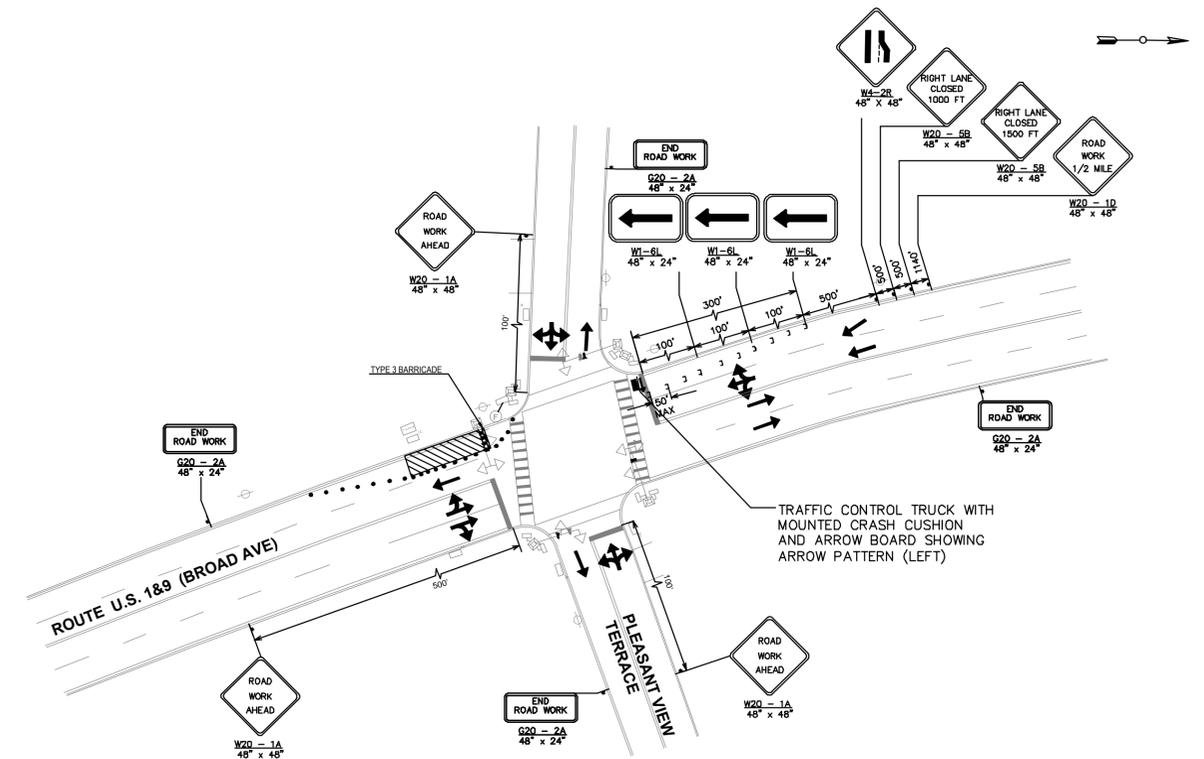
LEOMAR ALMANZAR
Leomar Almanzar
 PROFESSIONAL ENGINEER N.J. LIC. GE48348

TRAFFIC CONTROL PLAN -5-
 954: US 1&9 & MARION PLACE
 BOROUGH OF RIDGEFIELD BERGEN, NJ
 SCALE: 1"= 40'
 N.J.M.C PROJECT: PHASE 4
 SHEET #: 36 OF 85

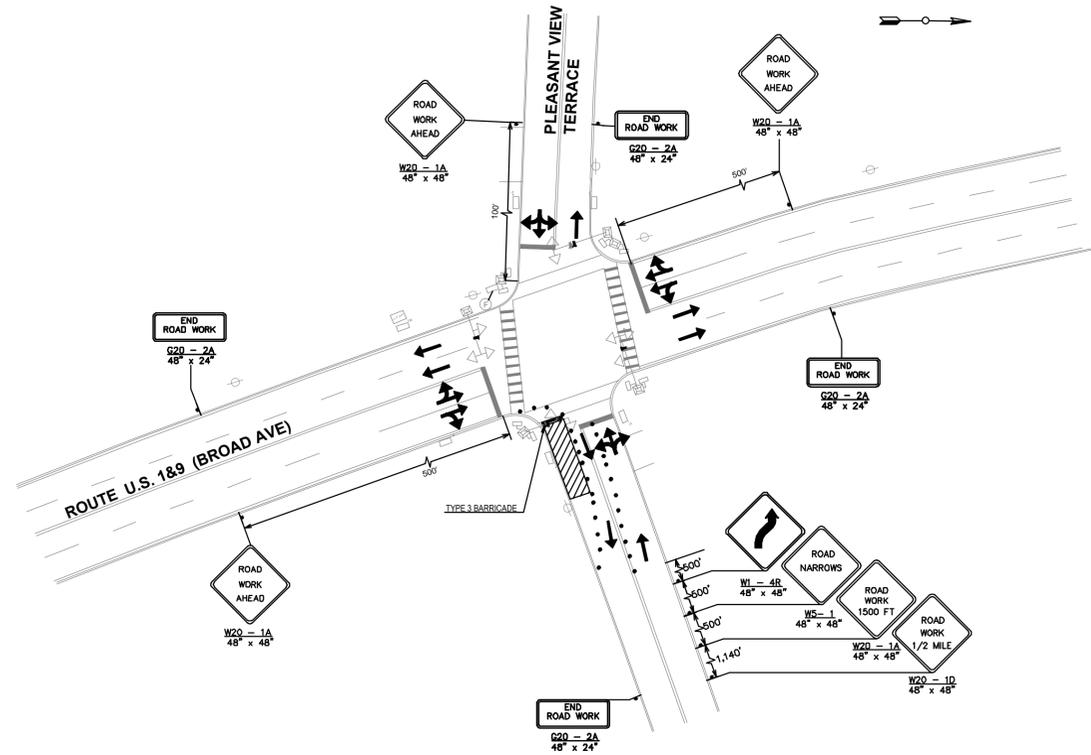
STAGE 1



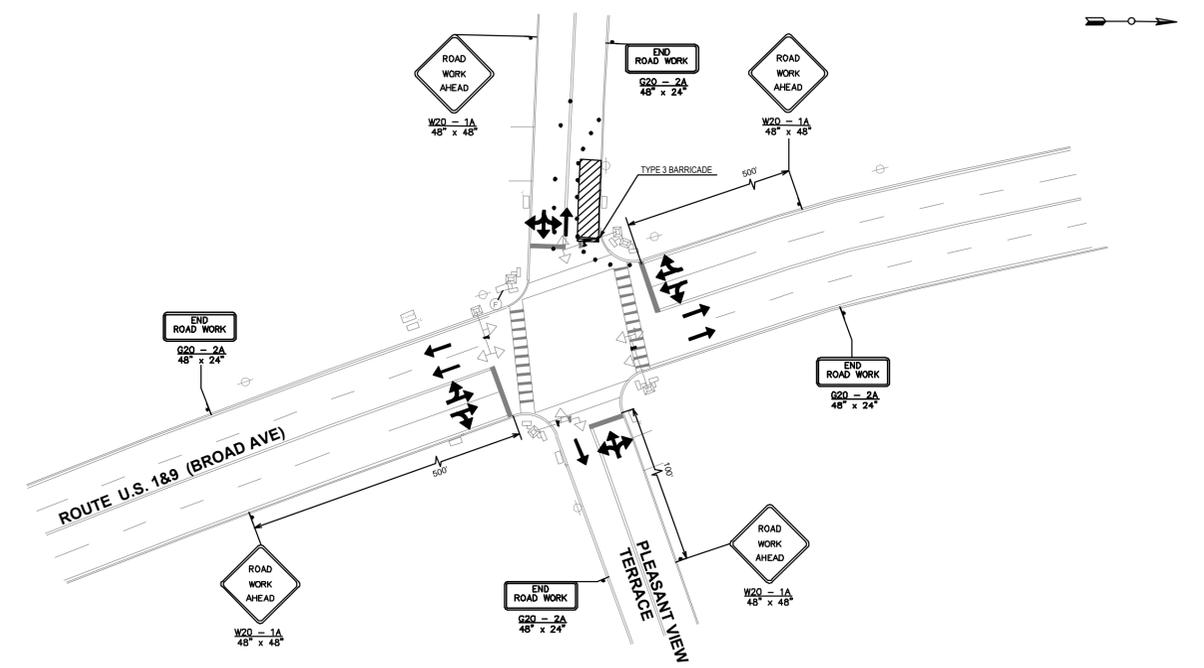
STAGE 2



STAGE 3



STAGE 4



NOTE:
SEE CONSTRUCTION DETAIL 5, FOR THE MAXIMUM CHANNELIZING DEVICE SPACING.
BROAD AVE (US 1 & 9) = 35 MPH.
PLEASANT VIEW TERRACE = 25 MPH

NOTE:
ALLOWABLE LANE CLOSURE SCHEDULE:
THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN BETWEEN 5:00 AM AND 3:00 PM ON ALL STATE ROADWAYS. THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN PRIOR TO 9:00AM OR BEYOND 4:30 PM ON ALL LOCAL ROADWAYS.

REVISIONS:	
NO.	DESCRIPTION

DRAWN BY: OG
CHECKED BY: LA

APPROVED BY: HY
DATE: 2/01/2013

DAVID LIEBGOLD
PROFESSIONAL ENGINEER N.J. LIC. GE45897

HONG YUAN
PROFESSIONAL ENGINEER N.J. LIC. GE48481

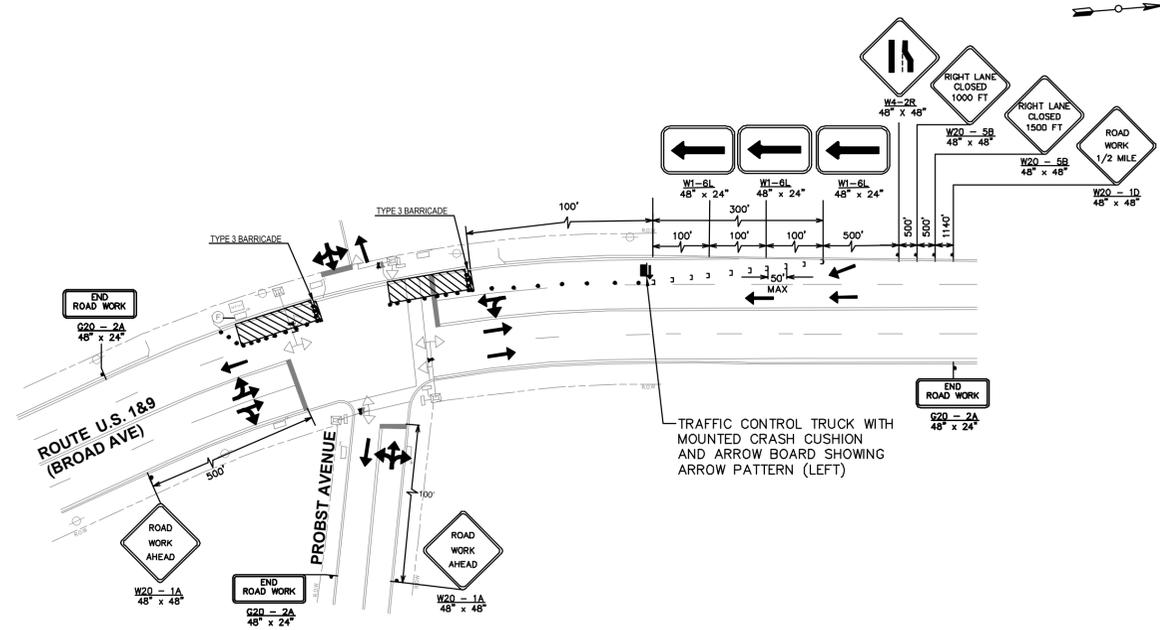
LEOMAR ALMANZAR
PROFESSIONAL ENGINEER N.J. LIC. GE48348

TRAFFIC CONTROL PLAN -6-
955: US 1&9 AND PLEASANT VIEW TERRACE
BOROUGH OF RIDGEFIELD BERGEN, NJ
SCALE: 1"= 40'
NUMJC PROJECT: PHASE 4
SHEET #: 37 OF 85

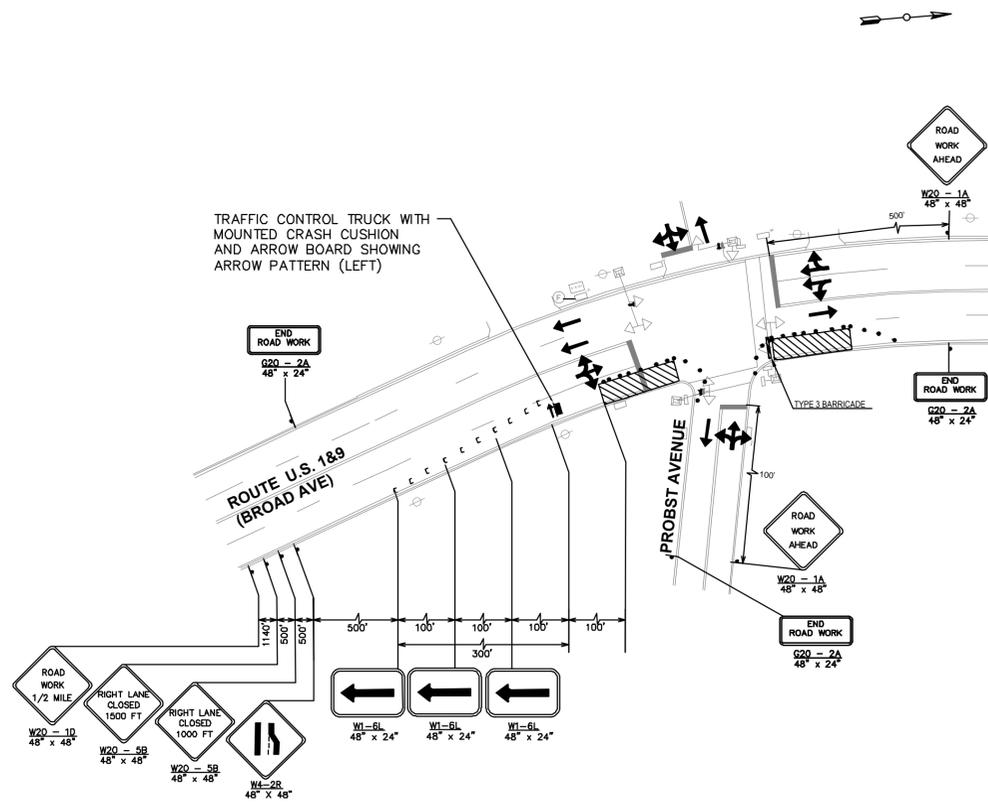
NEW JERSEY MEADOWLANDS COMMISSION
ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434

MASSIR
MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION

STAGE 1



STAGE 2



NOTE:
SEE CONSTRUCTION DETAIL 5, FOR THE MAXIMUM CHANNELIZING DEVICE SPACING.
BROAD AVE (US 1 & 9) = 40 MPH;
PROBST AVENUE = 25 MPH

NOTE:
ALLOWABLE LANE CLOSURE SCHEDULE:
THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN BETWEEN 5:00 AM AND 8:00 PM ON ALL STATE ROADWAYS. THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN PRIOR TO 9:00AM OR BEYOND 4:30 PM ON ALL LOCAL ROADWAYS.

REVISIONS:		DATE
NO.	DESCRIPTION	

NEW JERSEY MEADOWLANDS COMMISSION
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MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION



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CHECKED BY: LA	DATE: 2/01/2013

DAVID LIEBGOLD
David Liebgold
PROFESSIONAL ENGINEER N.J. LIC. GE45897

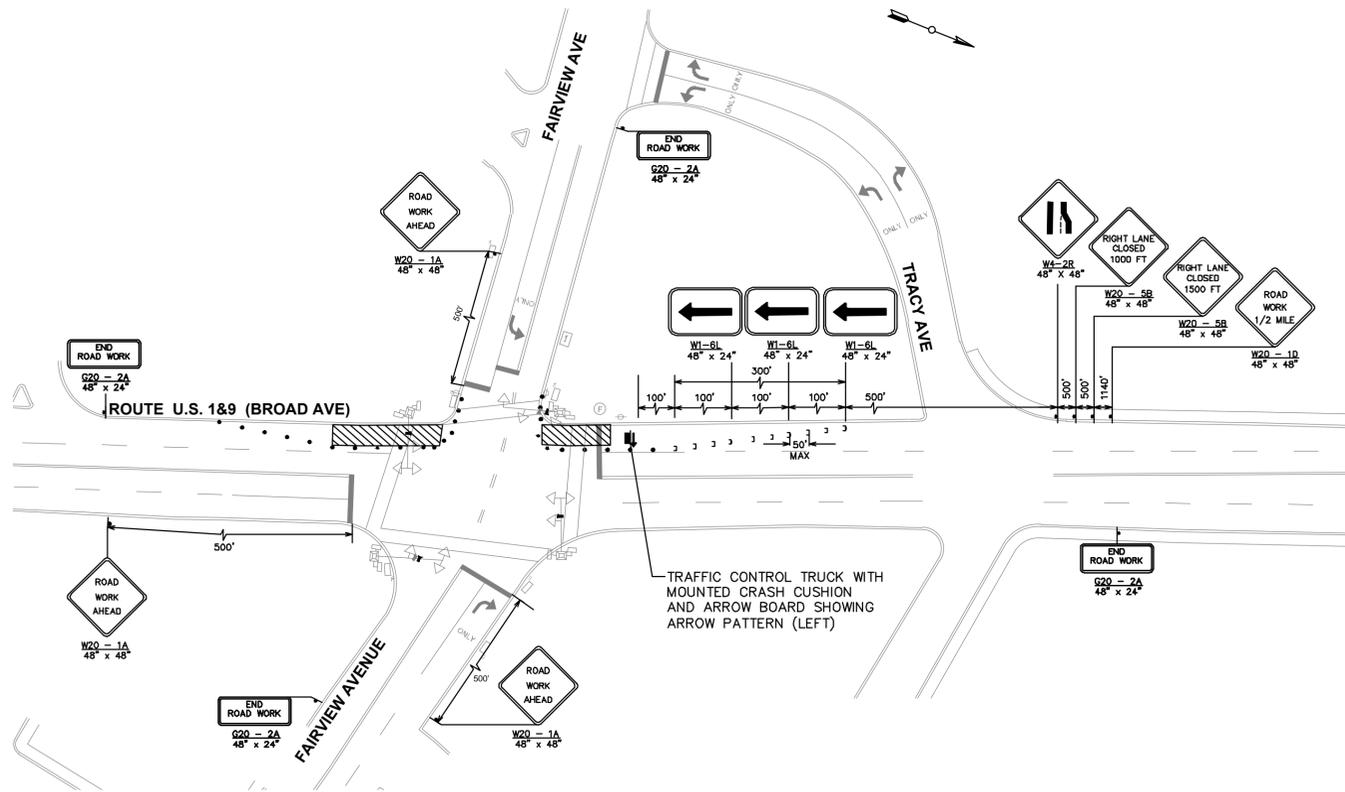
HONG YUAN
Hong Yuan
PROFESSIONAL ENGINEER N.J. LIC. GE48481

LEOMAR ALMANZAR
Leomar Almanzar
PROFESSIONAL ENGINEER N.J. LIC. GE48348

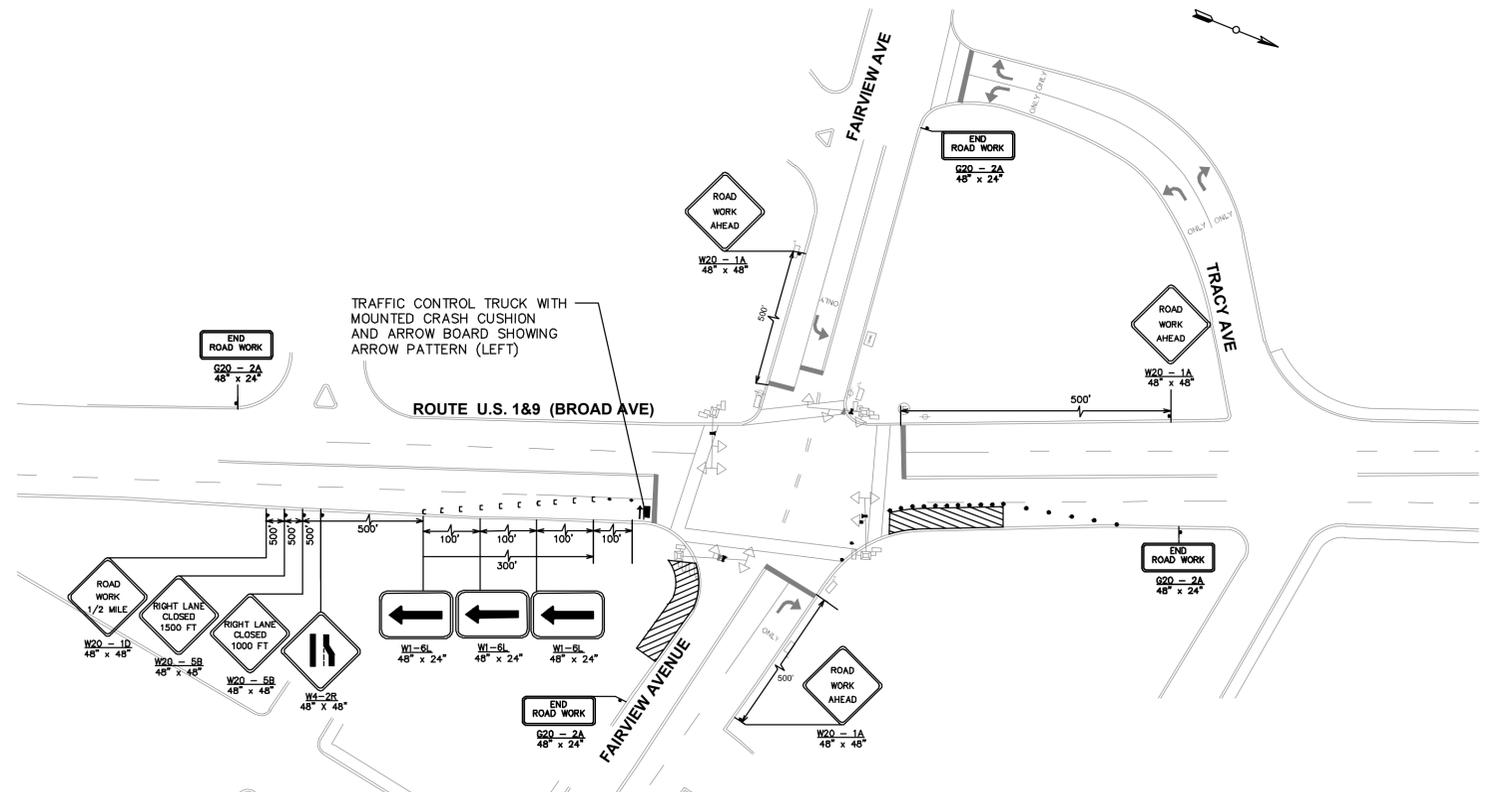
TRAFFIC CONTROL PLAN -9-
958: US 1&9 AND PROBST AVENUE
BOROUGH OF FAIRVIEW BERGEN, NJ

SCALE: 1"= 40'
NUMJC PROJECT: PHASE 4
SHEET #: 40 OF 85

STAGE 1



STAGE 2



NOTE:
SEE CONSTRUCTION DETAIL 5, FOR THE MAXIMUM CHANNELIZING DEVICE SPACING.
BROAD AVE (US 1 & 9) = 35 MPH;
FAIRVIEW AVE = 35 MPH

NOTE:
ALLOWABLE LANE CLOSURE SCHEDULE:
THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC,
REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN BETWEEN
5:00 AM AND 3:00 PM ON ALL STATE ROADWAYS. THE CONTRACTOR
SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE
NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN PRIOR TO 9:00AM OR
BEYOND 4:30 PM ON ALL LOCAL ROADWAYS.

REVISIONS:	
NO.	DESCRIPTION

DRAWN BY: LA	APPROVED BY: HY
CHECKED BY: OG	DATE: 2/01/2013

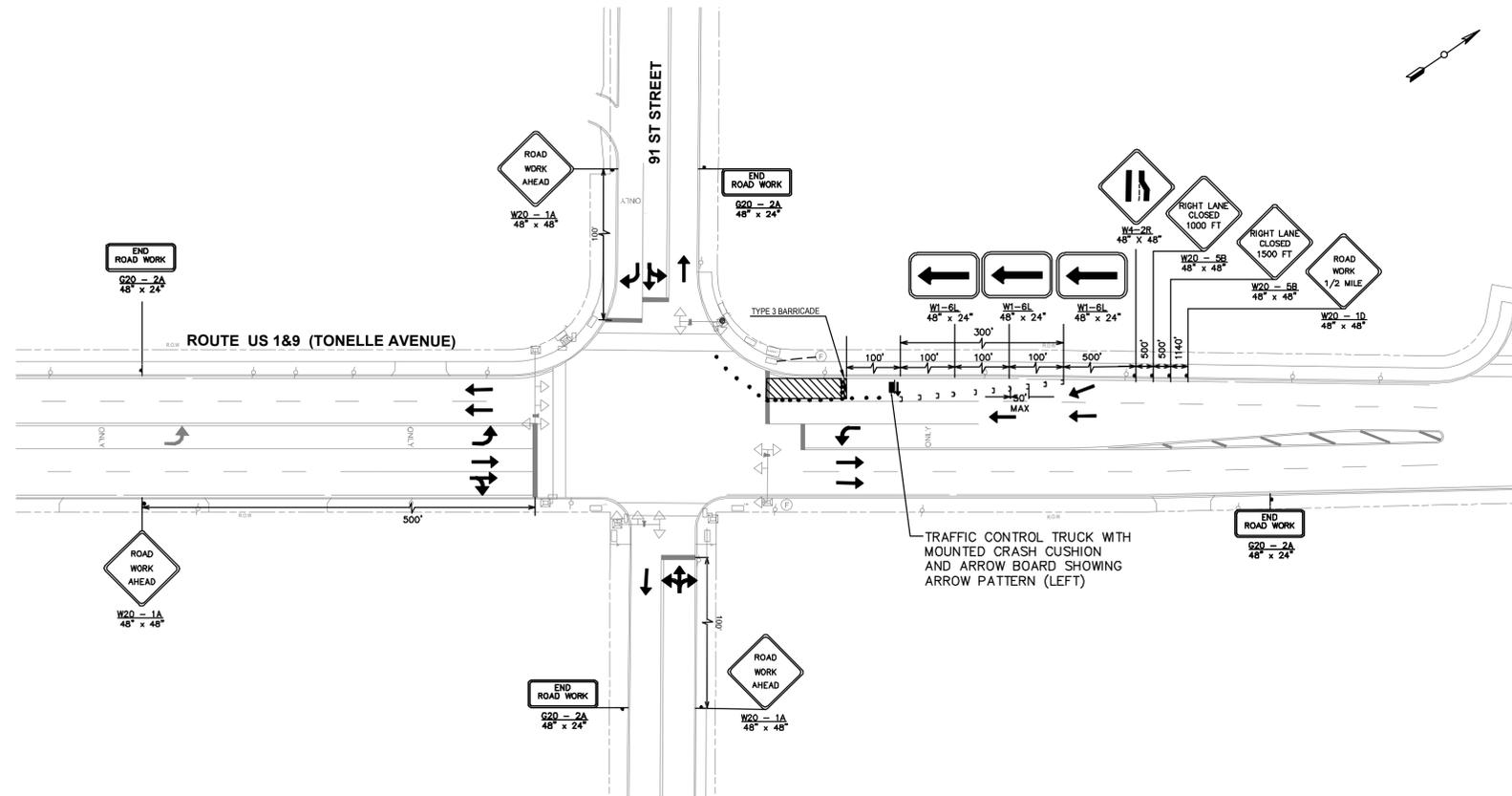
NEW JERSEY MEADOWLANDS COMMISSION
ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434

MASSIR
MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION



DAVID LIEBGOLD <i>David Liebgold</i> PROFESSIONAL ENGINEER N.J. LIC. GE45897	HONG YUAN <i>Hong Yuan</i> PROFESSIONAL ENGINEER N.J. LIC. GE48481	LEOMAR ALMANZAR <i>Leomar Almanzar</i> PROFESSIONAL ENGINEER N.J. LIC. GE48348	TRAFFIC CONTROL PLAN -10- 959: US 1&9 AND FAIRVIEW AVENUE BOROUGH OF FAIRVIEW BERGEN, NJ SCALE: 1"= 60' NUMC PROJECT: PHASE 4 SHEET #: 41 OF 85
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STAGE 1



NOTE:

ALLOWABLE LANE CLOSURE SCHEDULE:
 THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN BETWEEN 5:00 AM AND 8:00 PM ON ALL STATE ROADWAYS. THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN PRIOR TO 9:00AM OR BEYOND 4:30 PM ON ALL LOCAL ROADWAYS.

NOTE:

SEE CONSTRUCTION DETAIL 5, FOR THE MAXIMUM CHANNELIZING DEVICE SPACING.
 BROAD AVE (US 1 & 9) = 40 MPH;
 91ST STREET = 25 MPH

REVISIONS:	
NO.	DESCRIPTION

NEW JERSEY MEADOWLANDS COMMISSION
 ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434
MASSIR
 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION



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CHECKED BY: LA	DATE: 2/01/2013

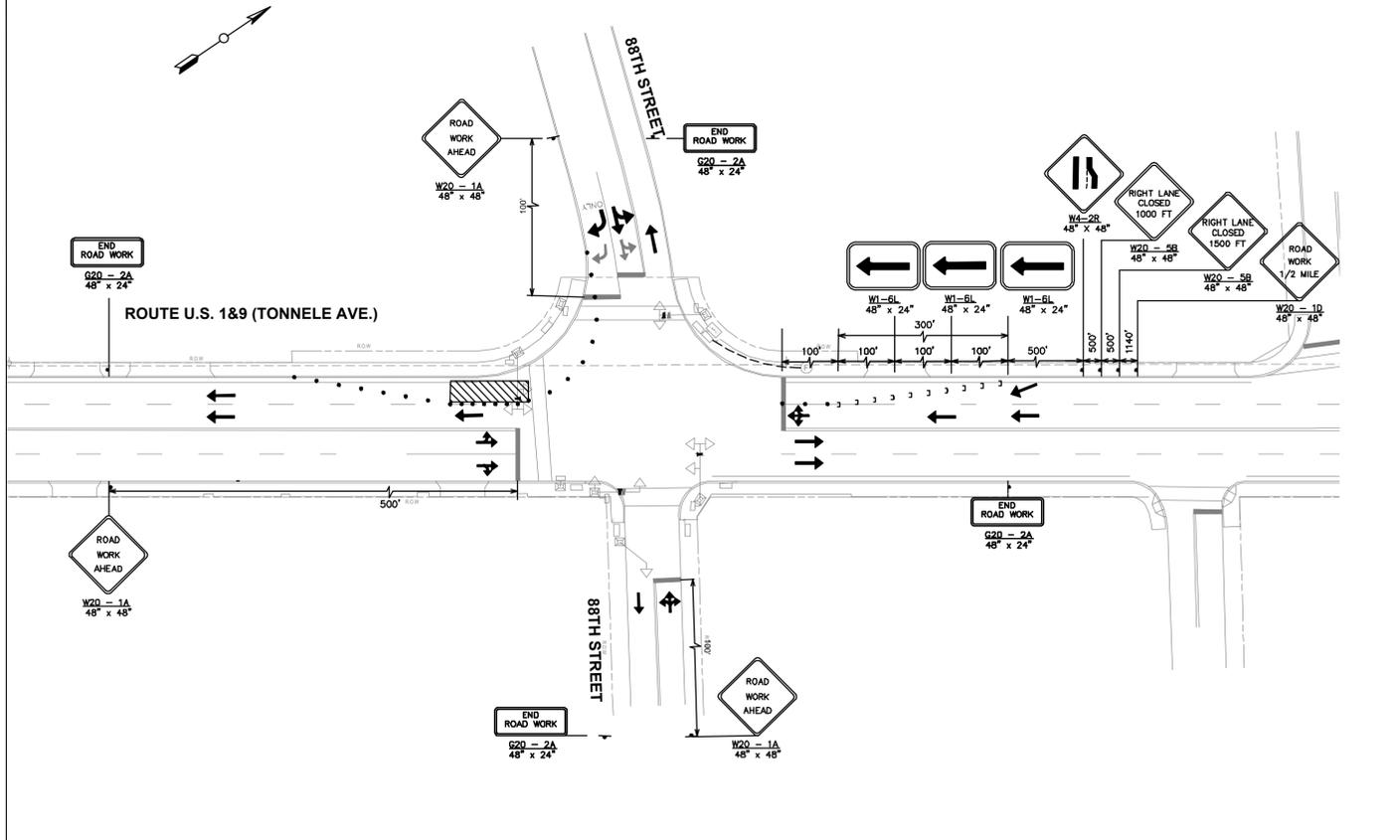
DAVID LIEBGOLD
David Liebgold
 PROFESSIONAL ENGINEER N.J. LIC. GE45897

HONG YUAN
Hong Yuan
 PROFESSIONAL ENGINEER N.J. LIC. GE48481

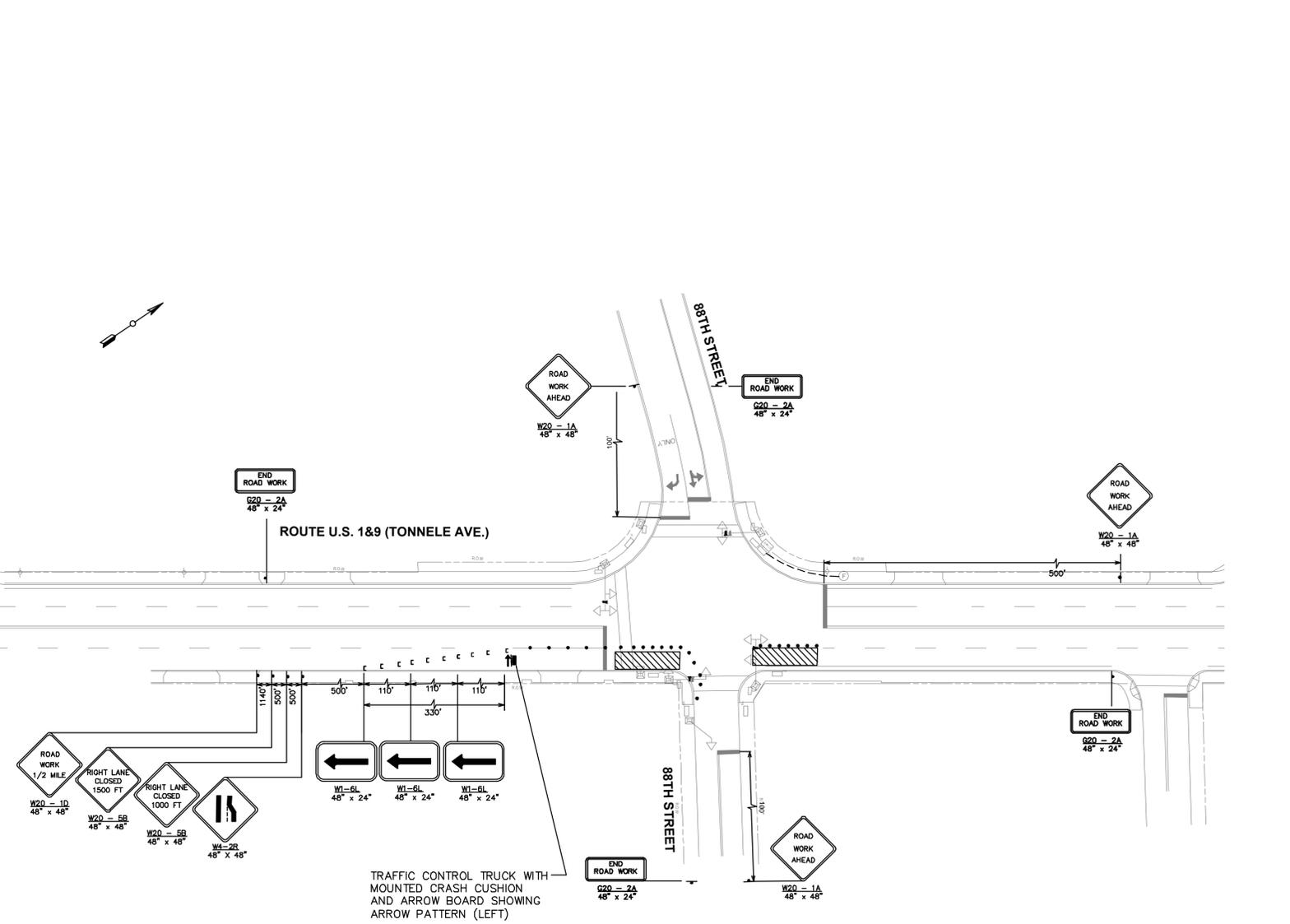
LEOMAR ALMANZAR
Leomar Almanzar
 PROFESSIONAL ENGINEER N.J. LIC. GE48348

TRAFFIC CONTROL PLAN -11-
 960: US 1&9 (BROAD AVE) & 91ST STREET
 TOWNSHIP OF NORTH BERGEN HUDSON, NJ
 SCALE: 1"= 40'
 N.J.M.C PROJECT: PHASE 4
 SHEET #: 42 OF 85

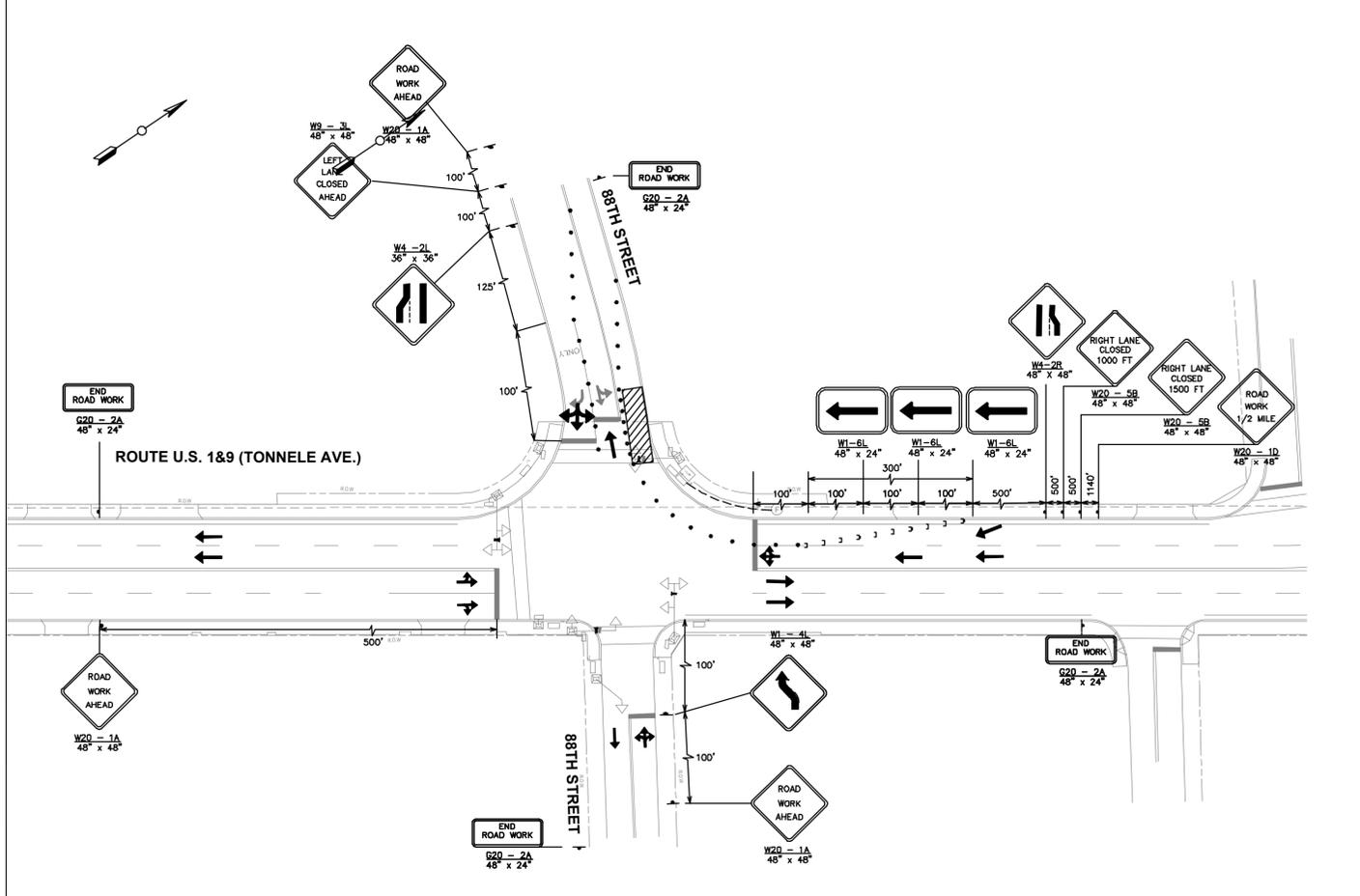
STAGE 1



STAGE 3



STAGE 2



NOTE:
ALLOWABLE LANE CLOSURE SCHEDULE:
THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN BETWEEN 5:00 AM AND 8:00 PM ON ALL STATE ROADWAYS. THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN PRIOR TO 9:00AM OR BEYOND 4:30 PM ON ALL LOCAL ROADWAYS.

NOTE:
SEE CONSTRUCTION DETAIL 5, FOR THE MAXIMUM CHANNELIZING DEVICE SPACING.
US 1 & 9 = 40 MPH;

REVISIONS:	
NO.	DESCRIPTION

NEW JERSEY MEADOWLANDS COMMISSION
ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434

MASSIR
MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION



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CHECKED BY: LA

APPROVED BY: HY
DATE: 2/01/2013

DAVID LIEBGOLD
PROFESSIONAL ENGINEER N.J. LIC. GE45897

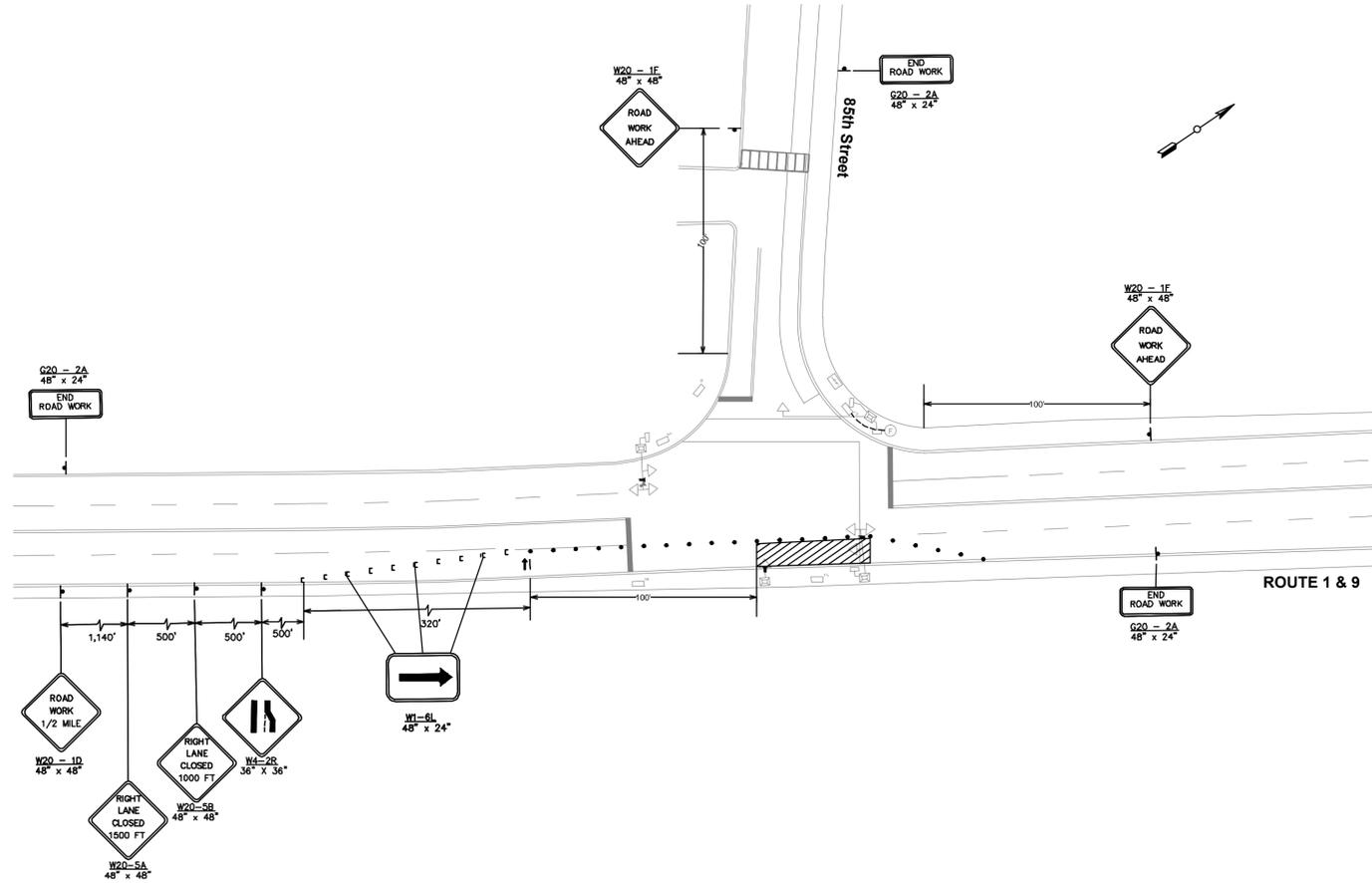
HONG YUAN
PROFESSIONAL ENGINEER N.J. LIC. GE48481

LEOMAR ALMANZAR
PROFESSIONAL ENGINEER N.J. LIC. GE48348

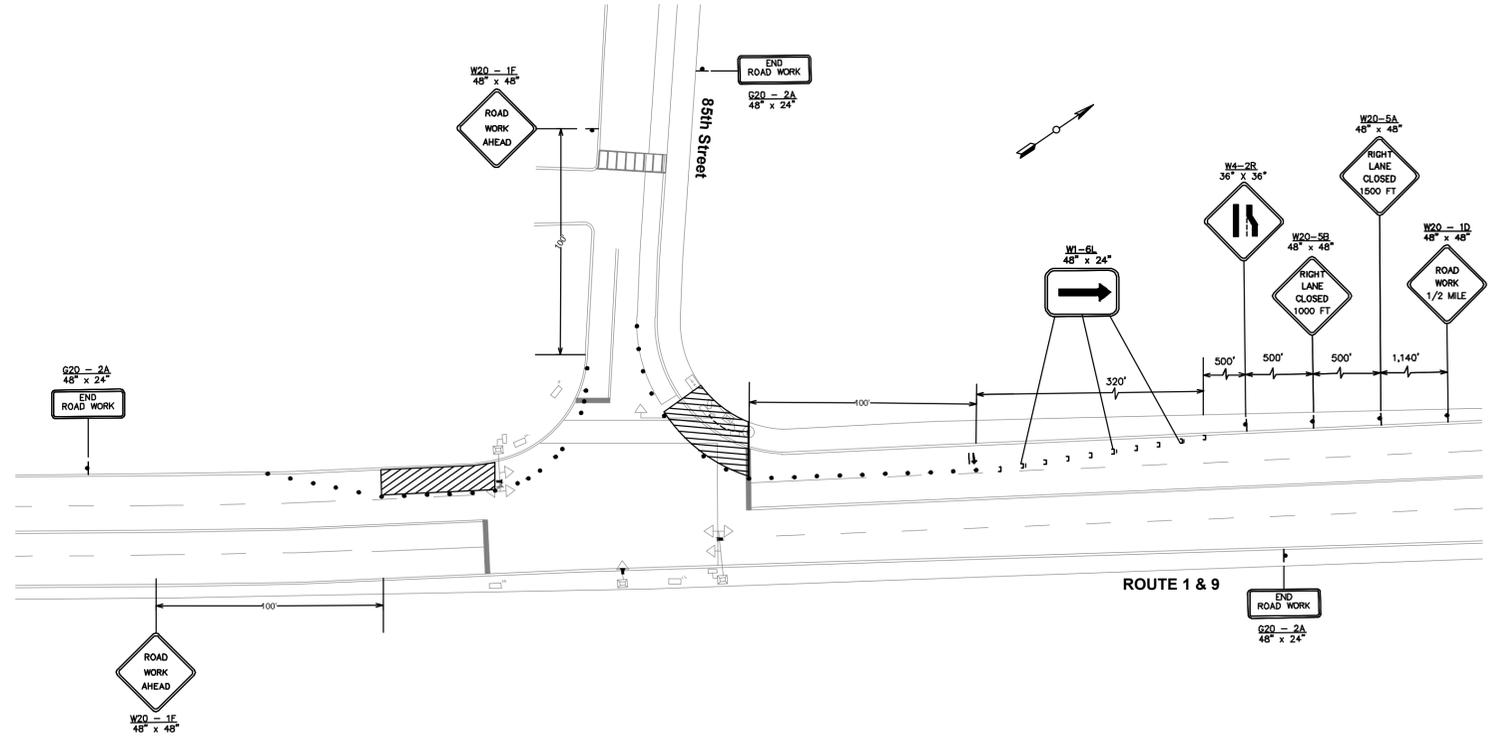
TRAFFIC CONTROL PLAN -12-
961: US 1&9 & 88th STREET
TOWNSHIP OF NORTH BERGEN HUDSON, NJ

SCALE: 1"= 40'
PHASE 4
SHEET #: 43 OF 85

STAGE 1



STAGE 2



NOTE:

ALLOWABLE LANE CLOSURE SCHEDULE:
 THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN BETWEEN 5:00 AM AND 8:00 PM ON ALL STATE ROADWAYS. THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN PRIOR TO 9:00AM OR BEYOND 4:30 PM ON ALL LOCAL ROADWAYS.

NOTE:

SEE CONSTRUCTION DETAIL 5, FOR THE MAXIMUM CHANNELIZING DEVICE SPACING.
 US ROUTE 1 & 9 = 40 MPH;

REVISIONS:		
NO.	DESCRIPTION	DATE

NEW JERSEY MEADOWLANDS COMMISSION
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MASSIR
 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION



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CHECKED BY: OG	DATE: 2/01/2013

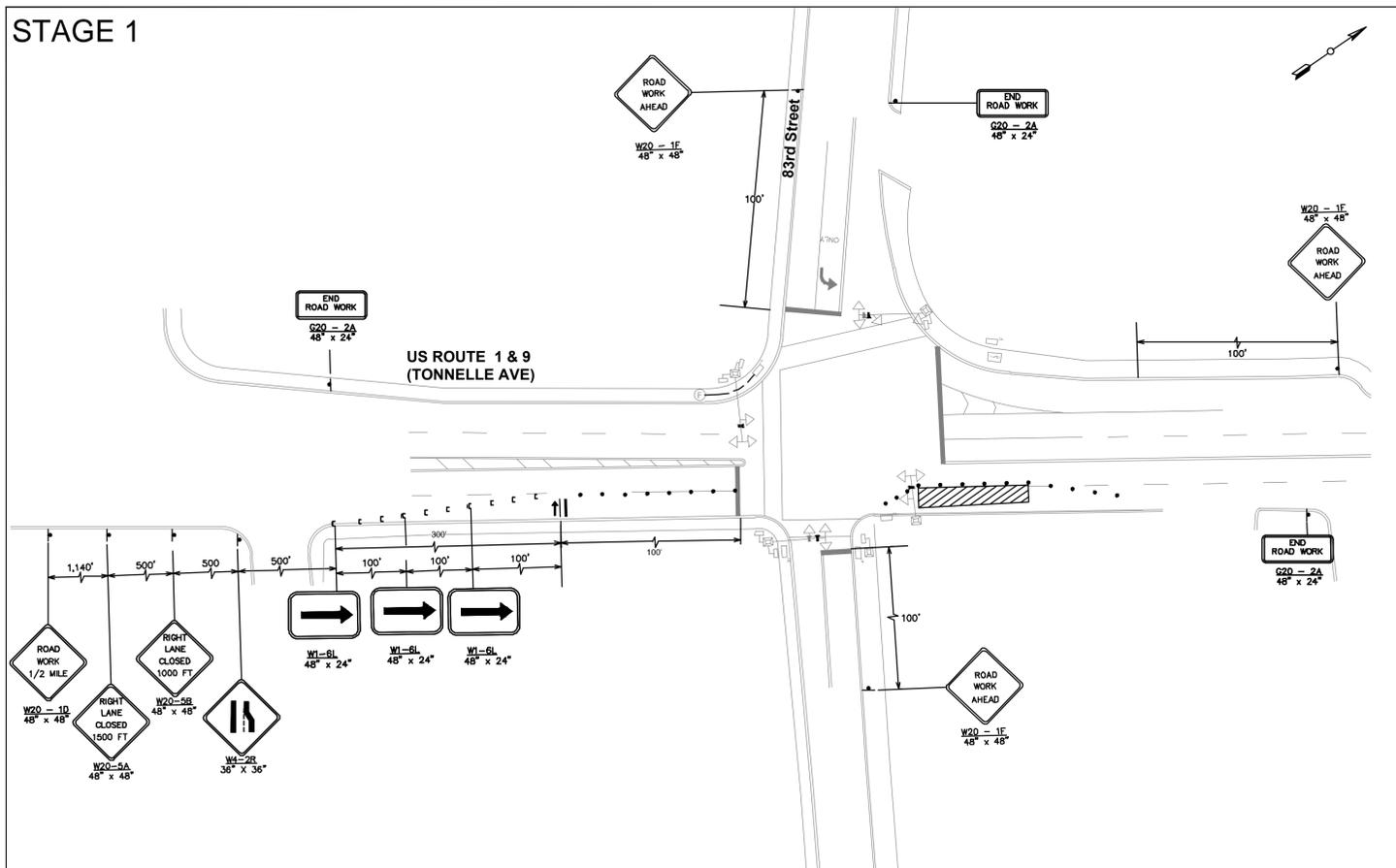
DAVID LIEBGOLD
David Liebgold
 PROFESSIONAL ENGINEER N.J. LIC. GE45897

HONG YUAN
Hong Yuan
 PROFESSIONAL ENGINEER N.J. LIC. GE48481

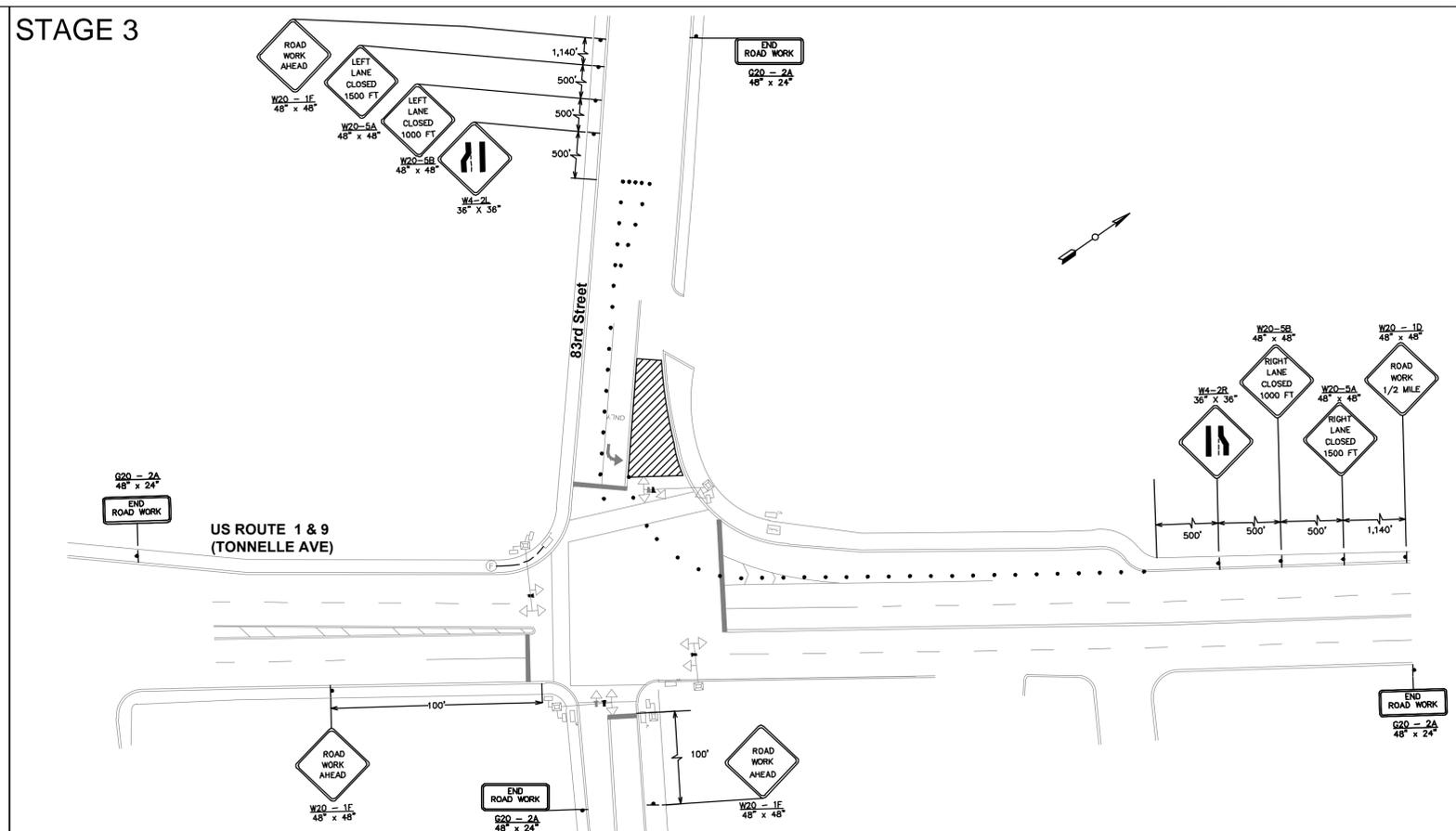
LEOMAR ALMANZAR
Leomar Almanzar
 PROFESSIONAL ENGINEER N.J. LIC. GE48348

TRAFFIC CONTROL PLAN -13-
 962: US 1&9 AND 85TH STREET
 NORTH BERGEN HUDSON, NJ
 SCALE: 1"= 40'
 N.J.M.C PROJECT: PHASE 4
 SHEET #: 44 OF 85

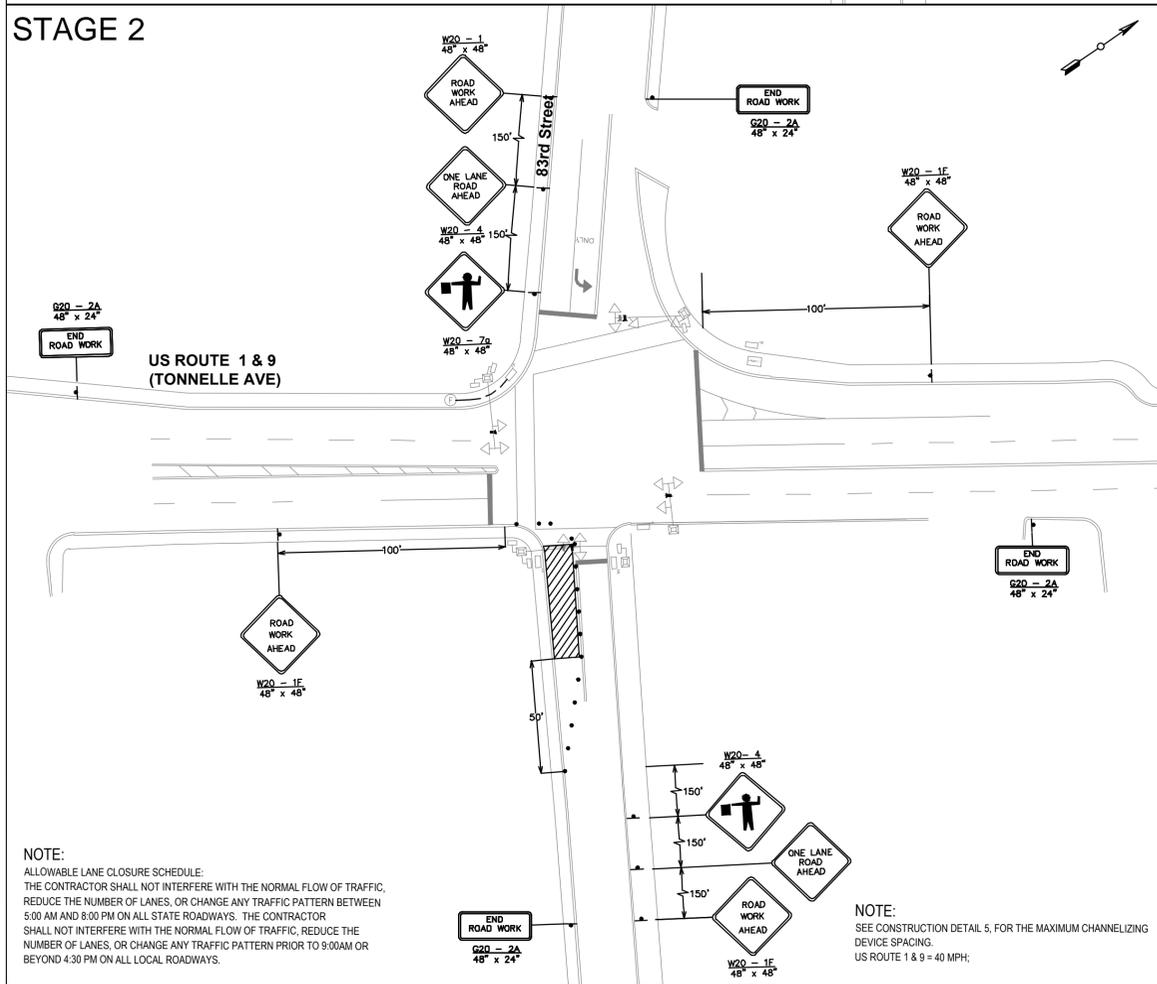
STAGE 1



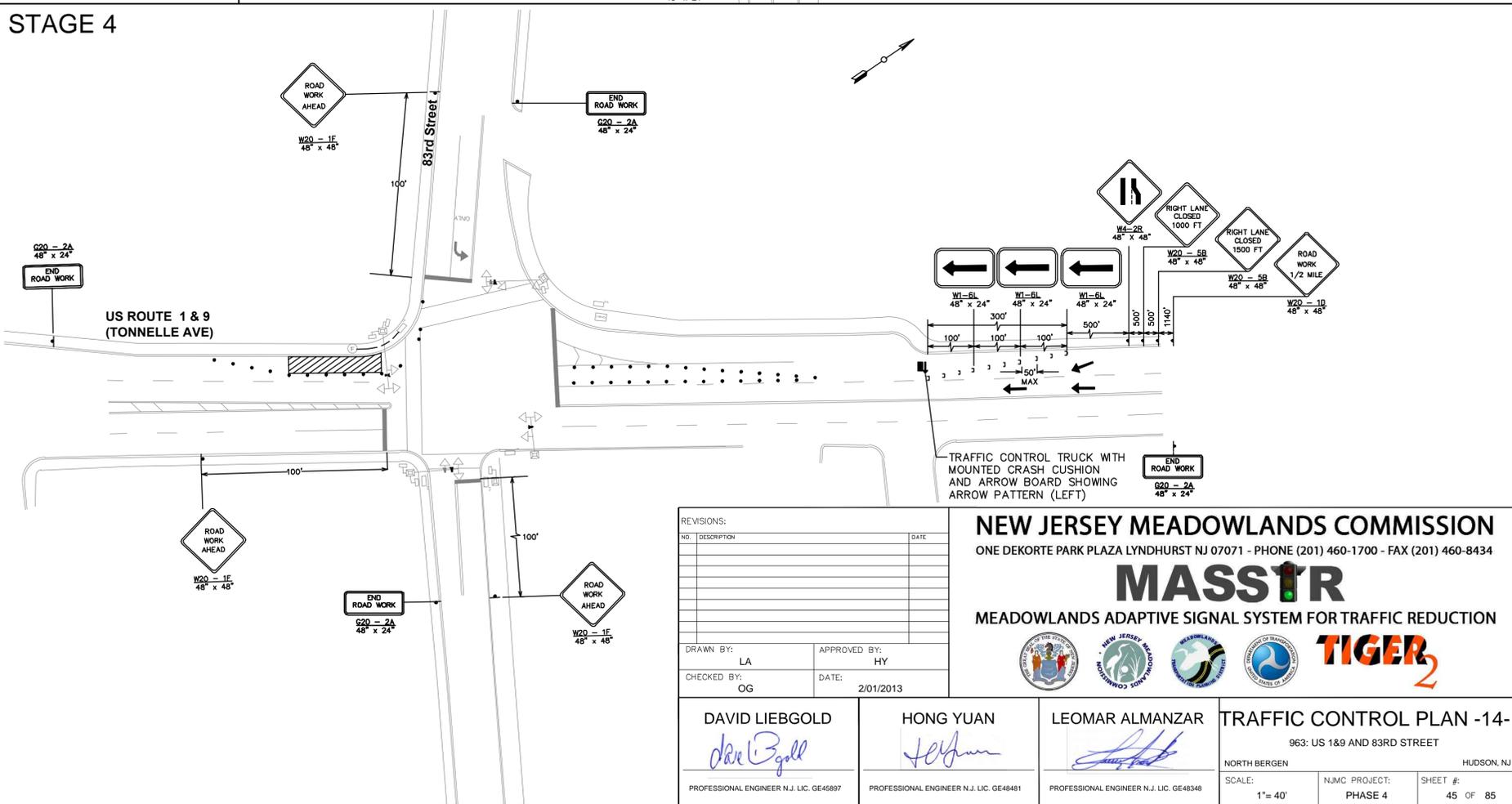
STAGE 3



STAGE 2



STAGE 4



NOTE:
ALLOWABLE LANE CLOSURE SCHEDULE:
THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC.
REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN BETWEEN
5:00 AM AND 8:00 PM ON ALL STATE ROADWAYS. THE CONTRACTOR
SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC. REDUCE THE
NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN PRIOR TO 9:00AM OR
BEYOND 4:30 PM ON ALL LOCAL ROADWAYS.

NOTE:
SEE CONSTRUCTION DETAIL 5, FOR THE MAXIMUM CHANNELIZING
DEVICE SPACING.
US ROUTE 1 & 9 = 40 MPH;

REVISIONS:

NO.	DESCRIPTION	DATE

DRAWN BY: LA APPROVED BY: HY
 CHECKED BY: OG DATE: 2/01/2013

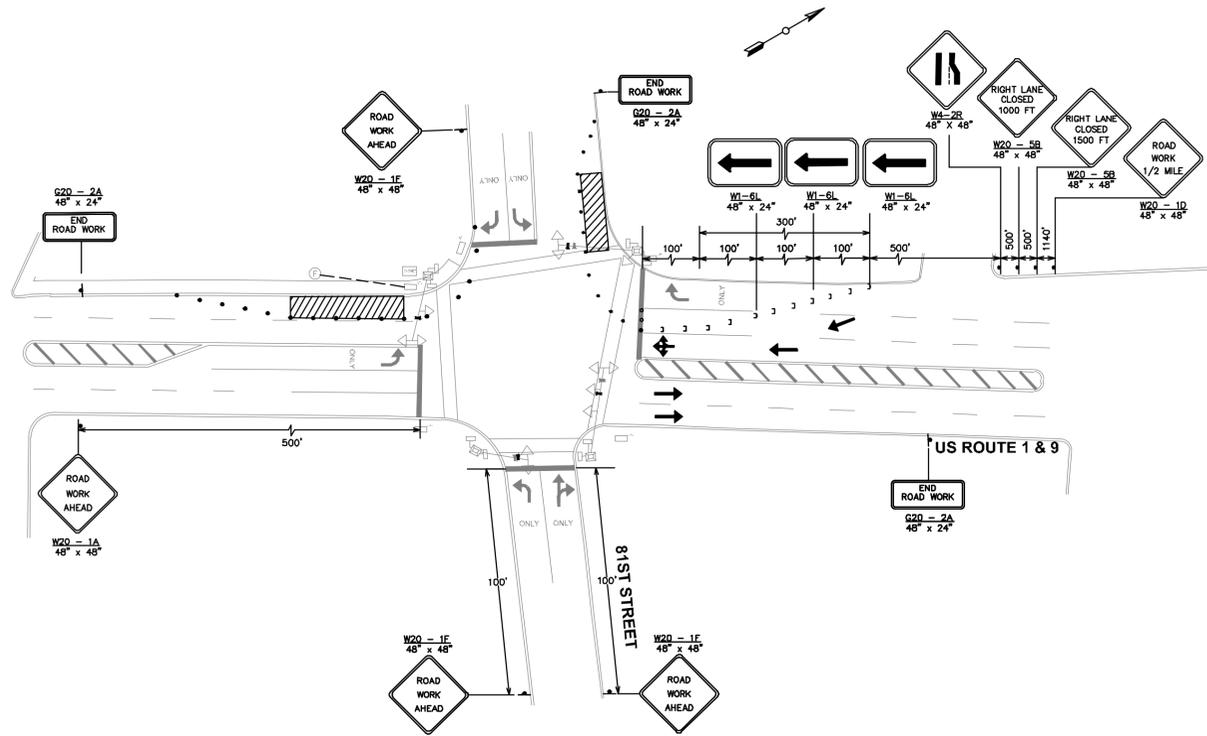
NEW JERSEY MEADOWLANDS COMMISSION
 ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434

MASSIR
 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION

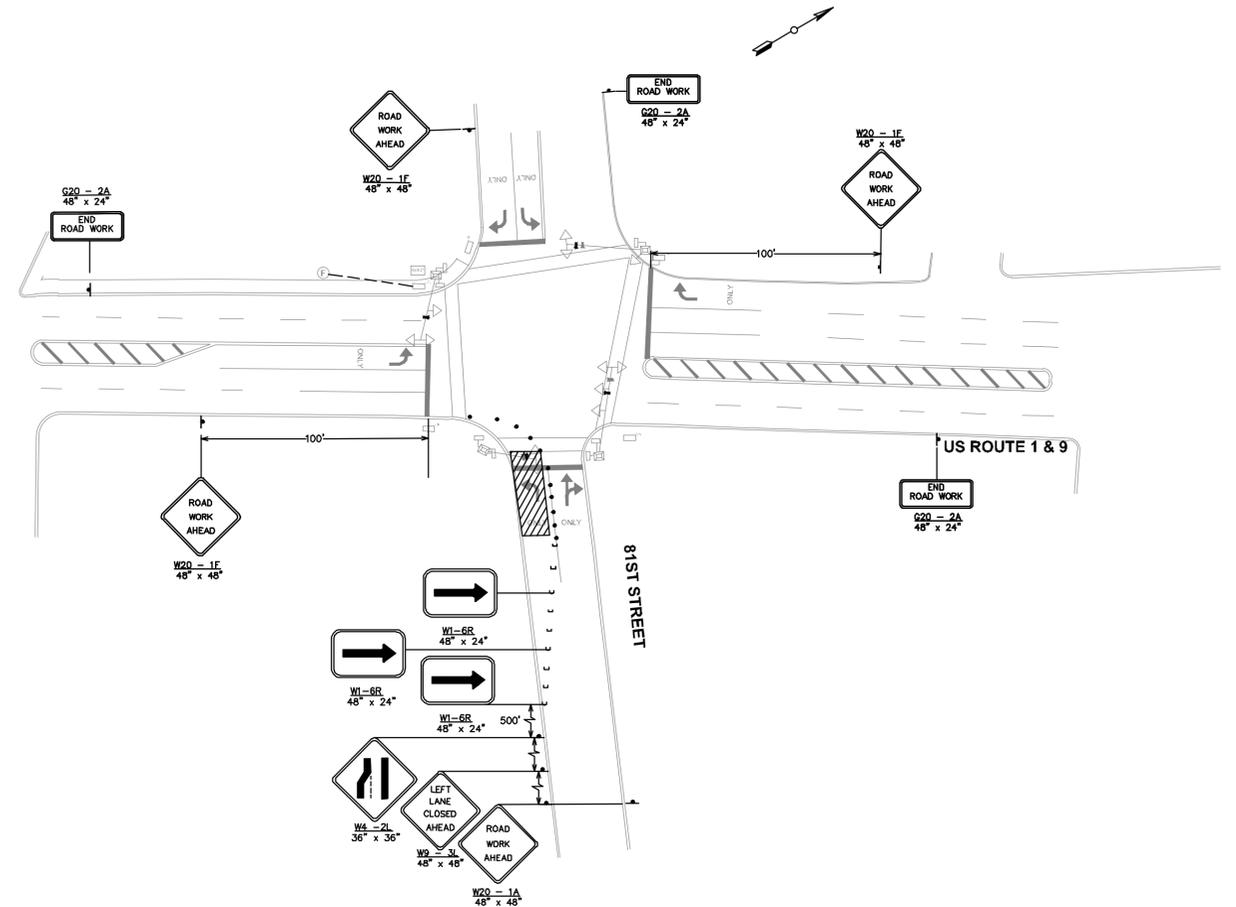


DAVID LIEBGOLD <i>David Liebgold</i> PROFESSIONAL ENGINEER N.J. LIC. GE45897	HONG YUAN <i>Hong Yuan</i> PROFESSIONAL ENGINEER N.J. LIC. GE48481	LEOMAR ALMANZAR <i>Leomar Almanzar</i> PROFESSIONAL ENGINEER N.J. LIC. GE48348	TRAFFIC CONTROL PLAN -14- 963: US 1&9 AND 83RD STREET NORTH BERGEN HUDSON, NJ SCALE: 1"= 40' NJMC PROJECT: PHASE 4 SHEET #: 45 OF 85
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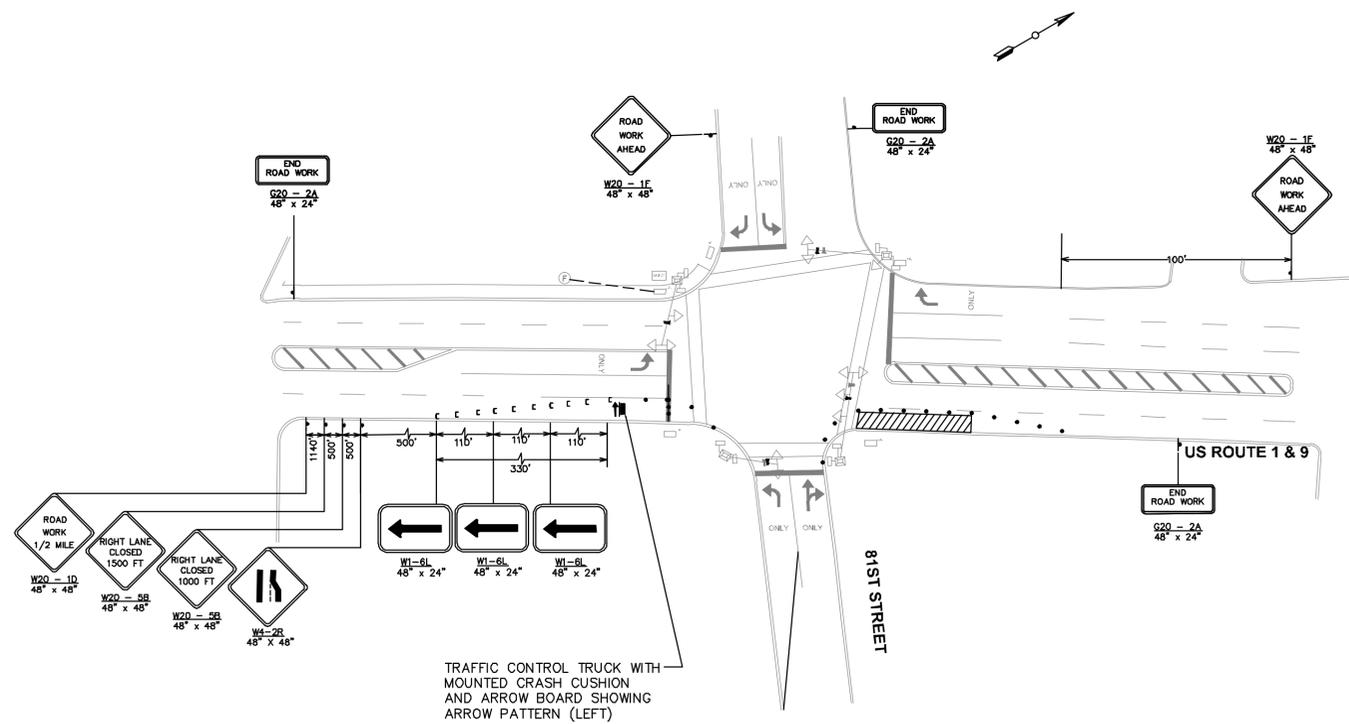
STAGE 1



STAGE 3



STAGE 2



TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION AND ARROW BOARD SHOWING ARROW PATTERN (LEFT)

NOTE:
ALLOWABLE LANE CLOSURE SCHEDULE:
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NOTE:
SEE CONSTRUCTION DETAIL 5, FOR THE MAXIMUM CHANNELIZING DEVICE SPACING.
US 1 & 9 = 40 MPH;

REVISIONS:		DATE
NO.	DESCRIPTION	

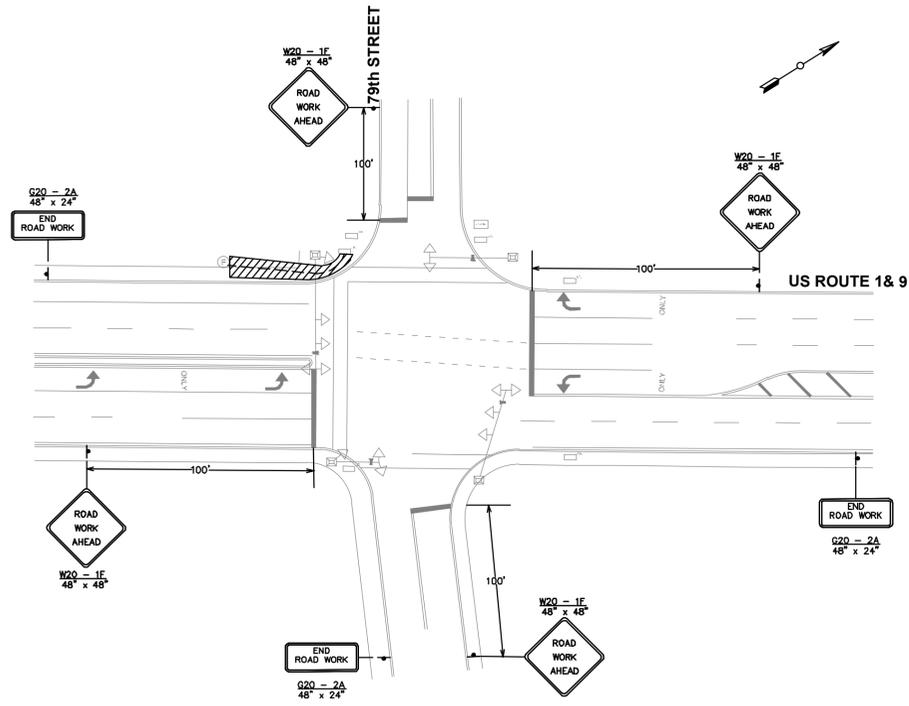
DRAWN BY: LA
CHECKED BY: OG
APPROVED BY: HY
DATE: 2/01/2013

NEW JERSEY MEADOWLANDS COMMISSION
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MASSIR
MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION



DAVID LIEBGOLD <i>David Liebgold</i> PROFESSIONAL ENGINEER N.J. LIC. GE45897	HONG YUAN <i>Hong Yuan</i> PROFESSIONAL ENGINEER N.J. LIC. GE48481	LEOMAR ALMANZAR <i>Leomar Almanzar</i> PROFESSIONAL ENGINEER N.J. LIC. GE48348	TRAFFIC CONTROL PLAN -15- 964: US 1&9 AND 81ST STREET NORTH BERGEN HUDSON, NJ SCALE: 1" = 40' NUMJC PROJECT: PHASE 4 SHEET #: 46 OF 85
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STAGE 1



NOTE:
 ALLOWABLE LANE CLOSURE SCHEDULE:
 THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN BETWEEN 5:00 AM AND 8:00 PM ON ALL STATE ROADWAYS. THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN PRIOR TO 9:00AM OR BEYOND 4:30 PM ON ALL LOCAL ROADWAYS.

NOTE:
 SEE CONSTRUCTION DETAIL 5, FOR THE MAXIMUM CHANNELIZING DEVICE SPACING.
 US 1 & 9 = 40 MPH;

REVISIONS:		
NO.	DESCRIPTION	DATE

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MASSIR
 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION



DRAWN BY: LA
 CHECKED BY: OG
 APPROVED BY: HY
 DATE: 2/01/2013

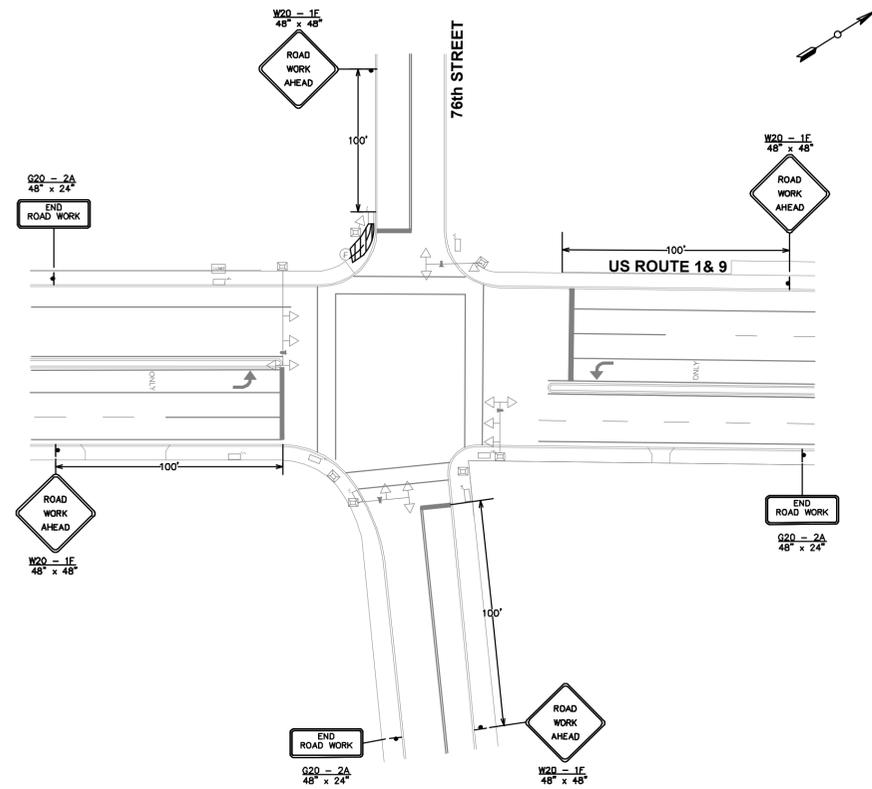
DAVID LIEBGOLD
David Liebgold
 PROFESSIONAL ENGINEER N.J. LIC. GE45897

HONG YUAN
Hong Yuan
 PROFESSIONAL ENGINEER N.J. LIC. GE48481

LEOMAR ALMANZAR
Leomar Almanzar
 PROFESSIONAL ENGINEER N.J. LIC. GE48348

TRAFFIC CONTROL PLAN -16-
 965: US 1&9 AND 79TH STREET
 NORTH BERGEN HUDSON, NJ
 SCALE: 1" = 40'
 N.J.M.C PROJECT: PHASE 4
 SHEET #: 47 OF 85

STAGE 1



NOTE:
 ALLOWABLE LANE CLOSURE SCHEDULE:
 THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN BETWEEN 5:00 AM AND 8:00 PM ON ALL STATE ROADWAYS. THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN PRIOR TO 9:00AM OR BEYOND 4:30 PM ON ALL LOCAL ROADWAYS.

NOTE:
 SEE CONSTRUCTION DETAIL 5, FOR THE MAXIMUM CHANNELIZING DEVICE SPACING.
 US 1 & 9 = 40 MPH;

REVISIONS:		
NO.	DESCRIPTION	DATE

NEW JERSEY MEADOWLANDS COMMISSION
 ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434

MASSIR
 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION



DRAWN BY: LA	APPROVED BY: HY
CHECKED BY: OG	DATE: 2/01/2013

DAVID LIEBGOLD
David Liebgold
 PROFESSIONAL ENGINEER N.J. LIC. GE45897

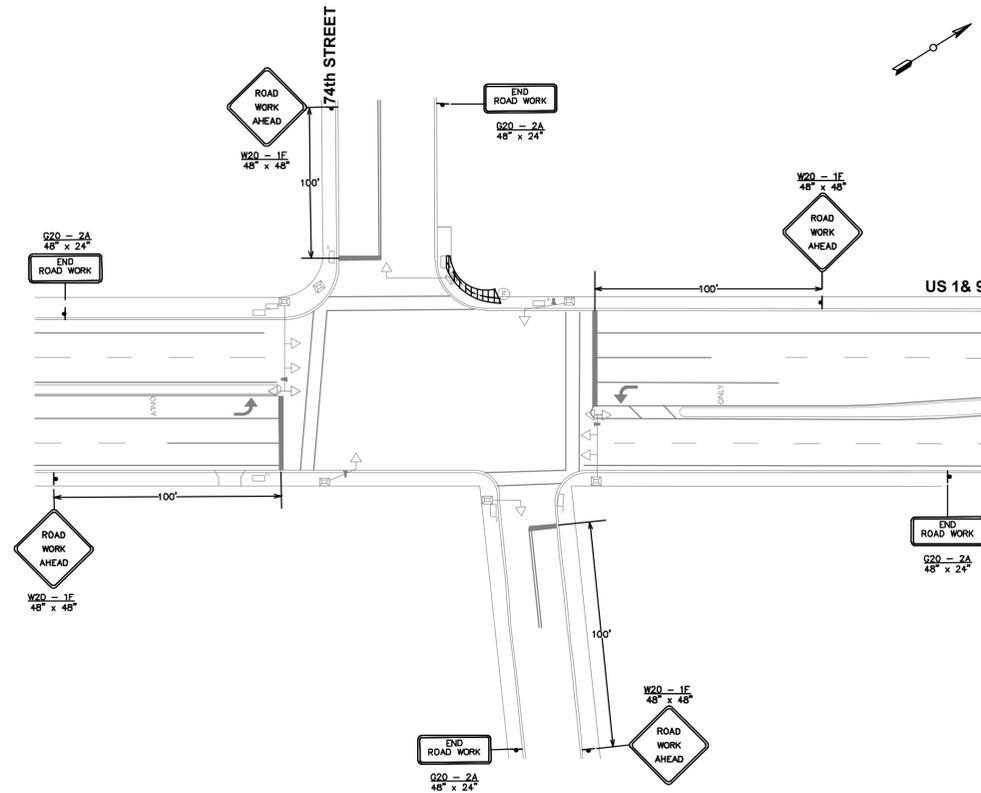
HONG YUAN
Hong Yuan
 PROFESSIONAL ENGINEER N.J. LIC. GE48481

LEOMAR ALMANZAR
Leomar Almanzar
 PROFESSIONAL ENGINEER N.J. LIC. GE48348

TRAFFIC CONTROL PLAN -17-
 966: US 1&9 AND 76TH STREET
 NORTH BERGEN HUDSON, NJ

SCALE: 1" = 40'	N.J.M.C PROJECT: PHASE 4	SHEET #: 48 OF 85
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STAGE 1



NOTE:
 ALLOWABLE LANE CLOSURE SCHEDULE:
 THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN BETWEEN 5:00 AM AND 8:00 PM ON ALL STATE ROADWAYS. THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN PRIOR TO 9:00AM OR BEYOND 4:30 PM ON ALL LOCAL ROADWAYS.

NOTE:
 SEE CONSTRUCTION DETAIL 5, FOR THE MAXIMUM CHANNELIZING DEVICE SPACING.
 US 1 & 9 = 40 MPH;

REVISIONS:		
NO.	DESCRIPTION	DATE

DRAWN BY: LA	APPROVED BY: HY
CHECKED BY: OG	DATE: 2/01/2013

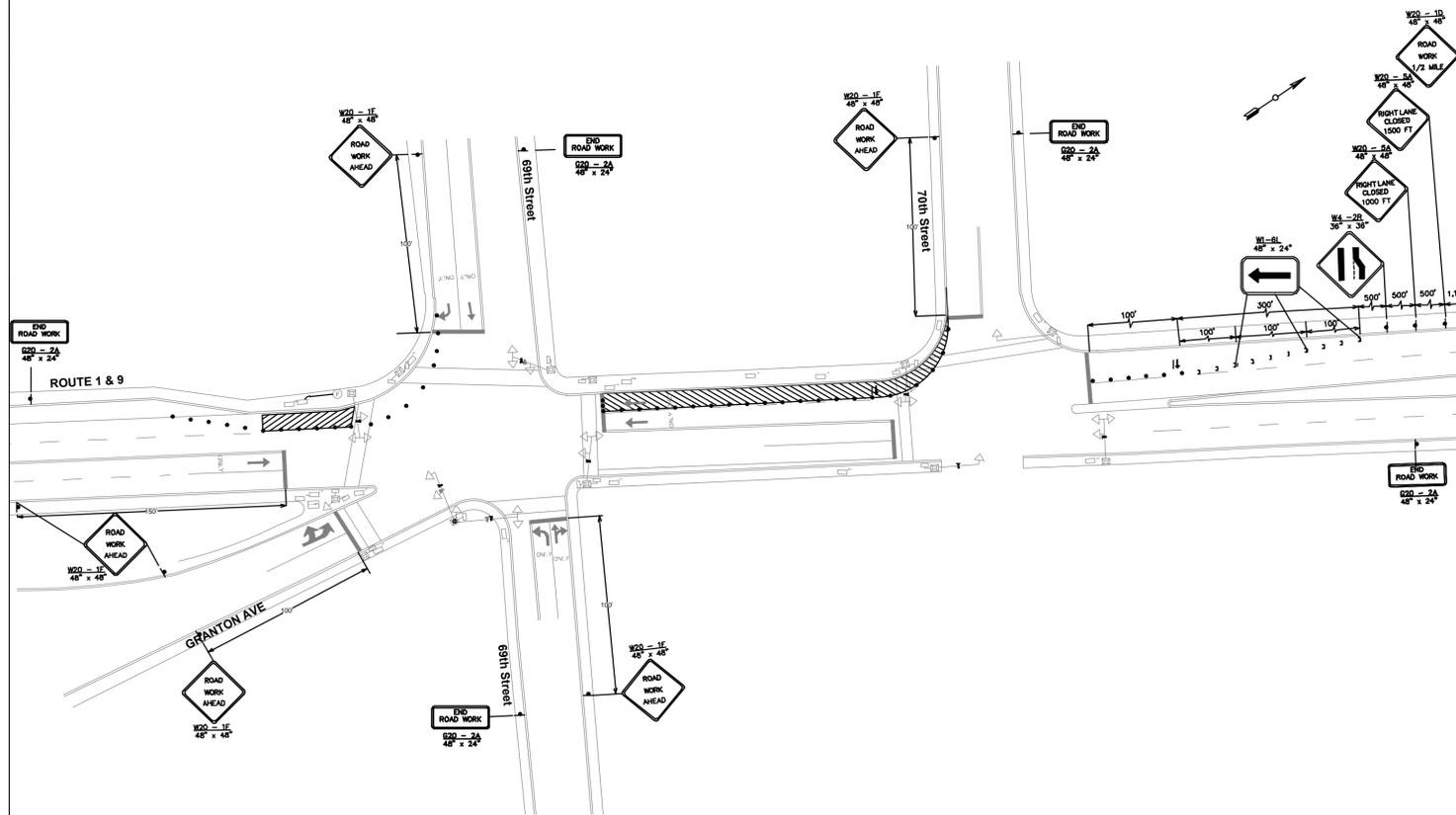
NEW JERSEY MEADOWLANDS COMMISSION
 ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434

MASSIR
 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION

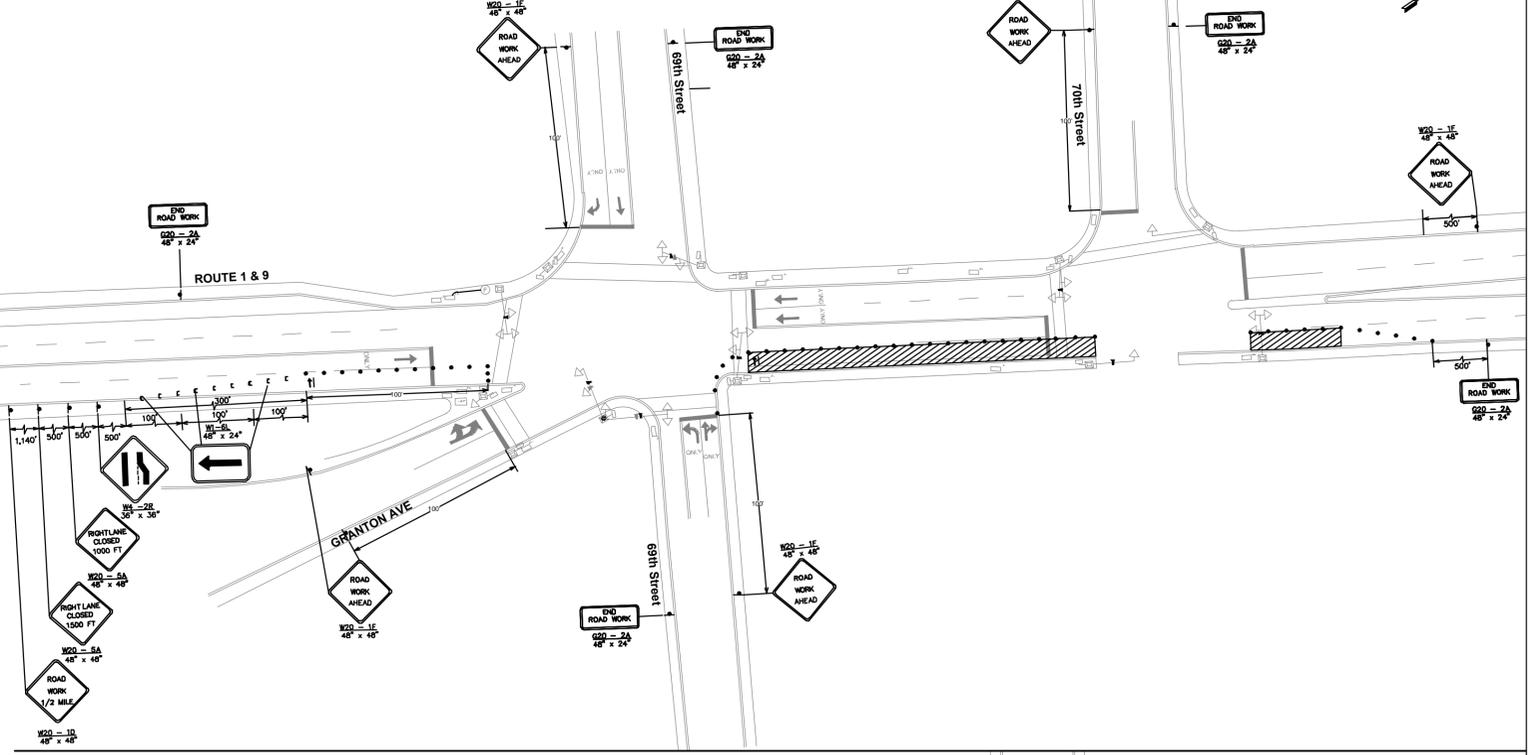


DAVID LIEBGOLD PROFESSIONAL ENGINEER N.J. LIC. GE45897	HONG YUAN PROFESSIONAL ENGINEER N.J. LIC. GE48481	LEOMAR ALMANZAR PROFESSIONAL ENGINEER N.J. LIC. GE48348	TRAFFIC CONTROL PLAN -18- RIDGEFIELD PARK BERGEN, NJ 967: US 1&9 & 74TH STREET SCALE: 1"= 40' N.J.M.C PROJECT: PHASE 4 SHEET #: 49 OF 85
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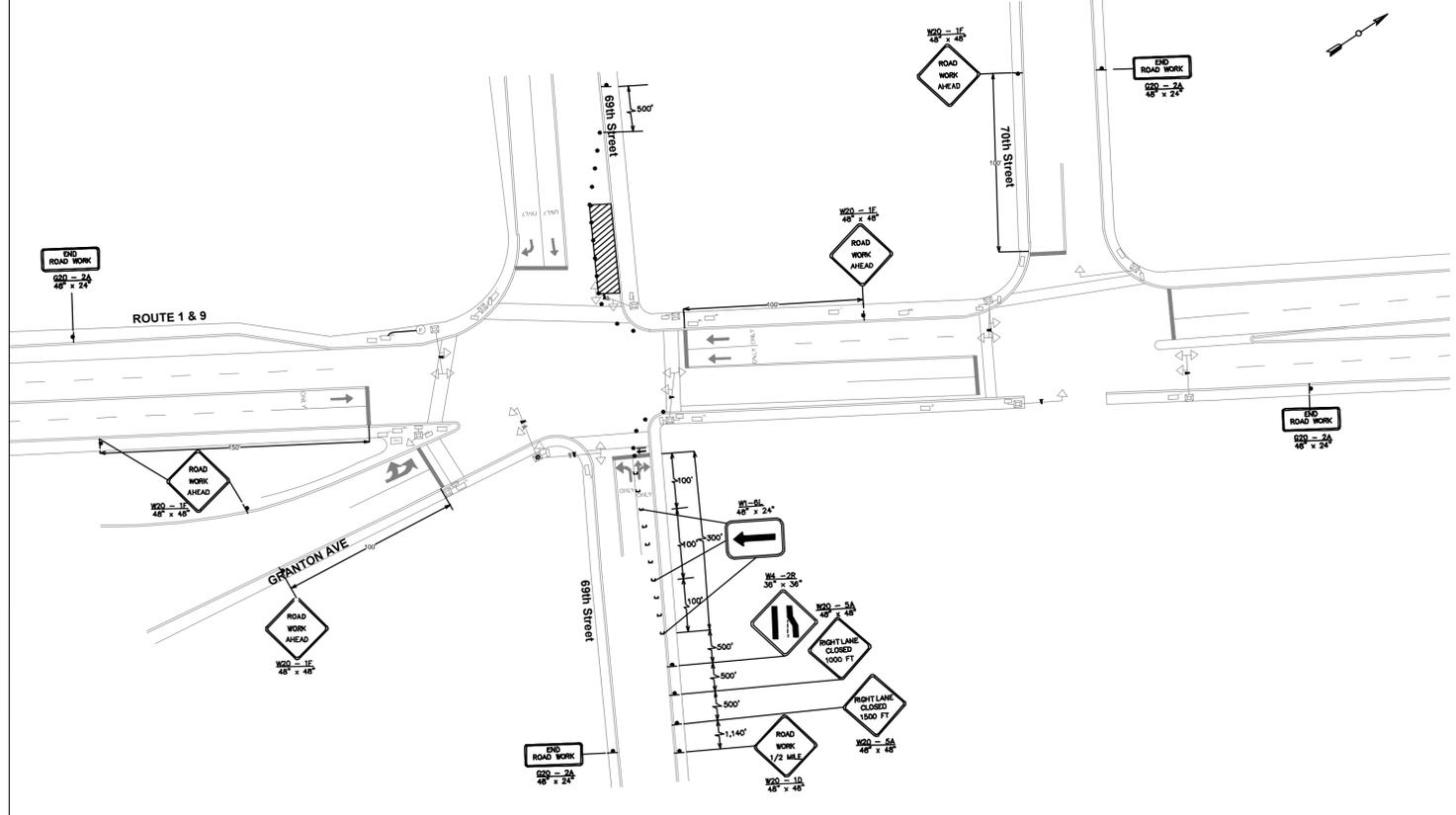
STAGE 1



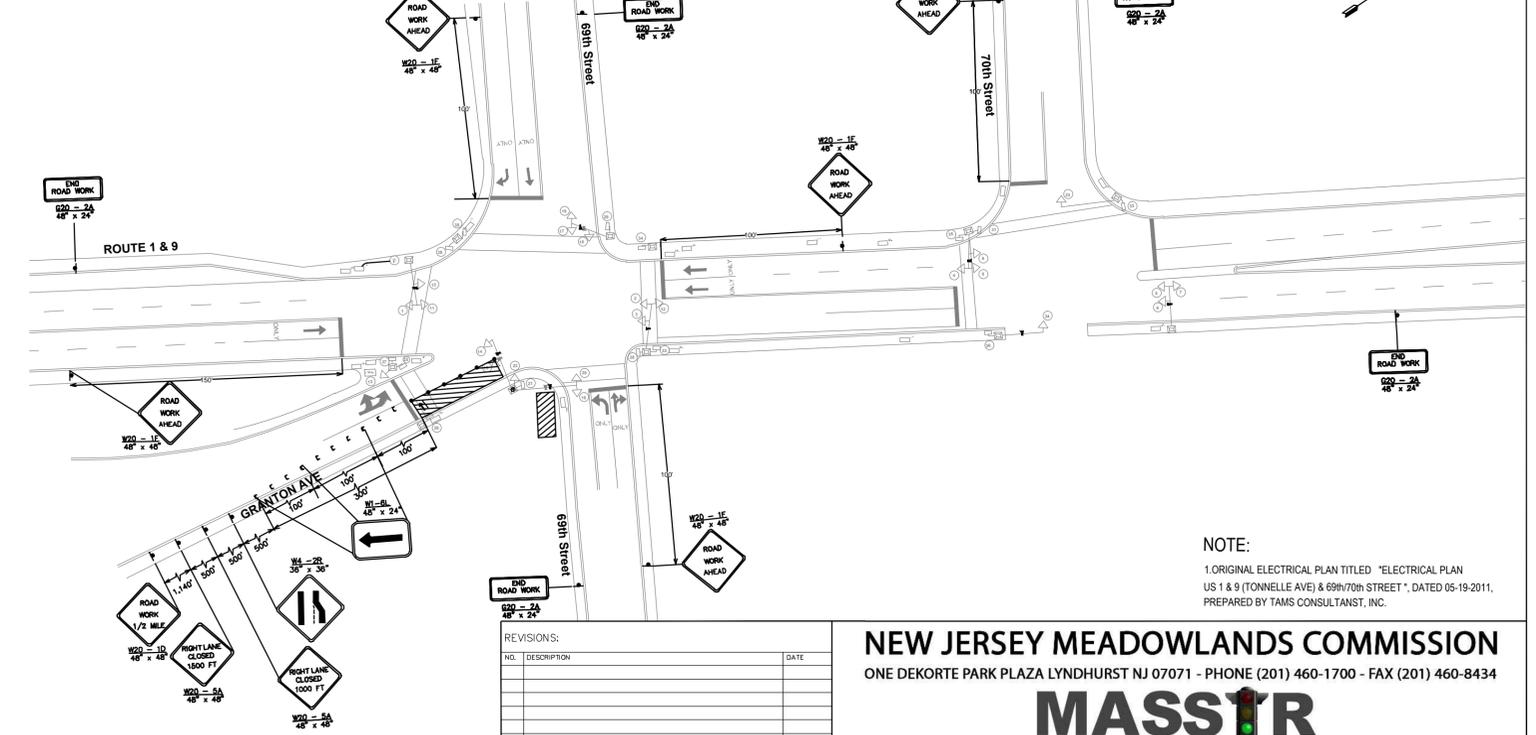
STAGE 3



STAGE 2



STAGE 4



NOTE:
1. ORIGINAL ELECTRICAL PLAN TITLED "ELECTRICAL PLAN US 1 & 9 (TONNELLE AVE) & 69th/70th STREET", DATED 05-19-2011, PREPARED BY TAMS CONSULTANT, INC.

NOTE:
SEE CONSTRUCTION DETAIL 5, FOR THE MAXIMUM CHANNELIZING DEVICE SPACING. ROUTE US 1 & 9 = 40 MPH;

NOTE:
ALLOWABLE LANE CLOSURE SCHEDULE:
THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN BETWEEN 5:00 AM AND 3:00 PM ON ALL STATE ROADWAYS. THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN PRIOR TO 9:00AM OR BEYOND 4:30 PM ON ALL LOCAL ROADWAYS.

REVISIONS:		DATE
NO.	DESCRIPTION	

DRAWN BY: LA
CHECKED BY: OG
APPROVED BY: HY
DATE: 2/01/2013

DAVID LIEBGOLD
David Liebgold
PROFESSIONAL ENGINEER N.J. LIC. GE45897

HONG YUAN
Hong Yuan
PROFESSIONAL ENGINEER N.J. LIC. GE48481

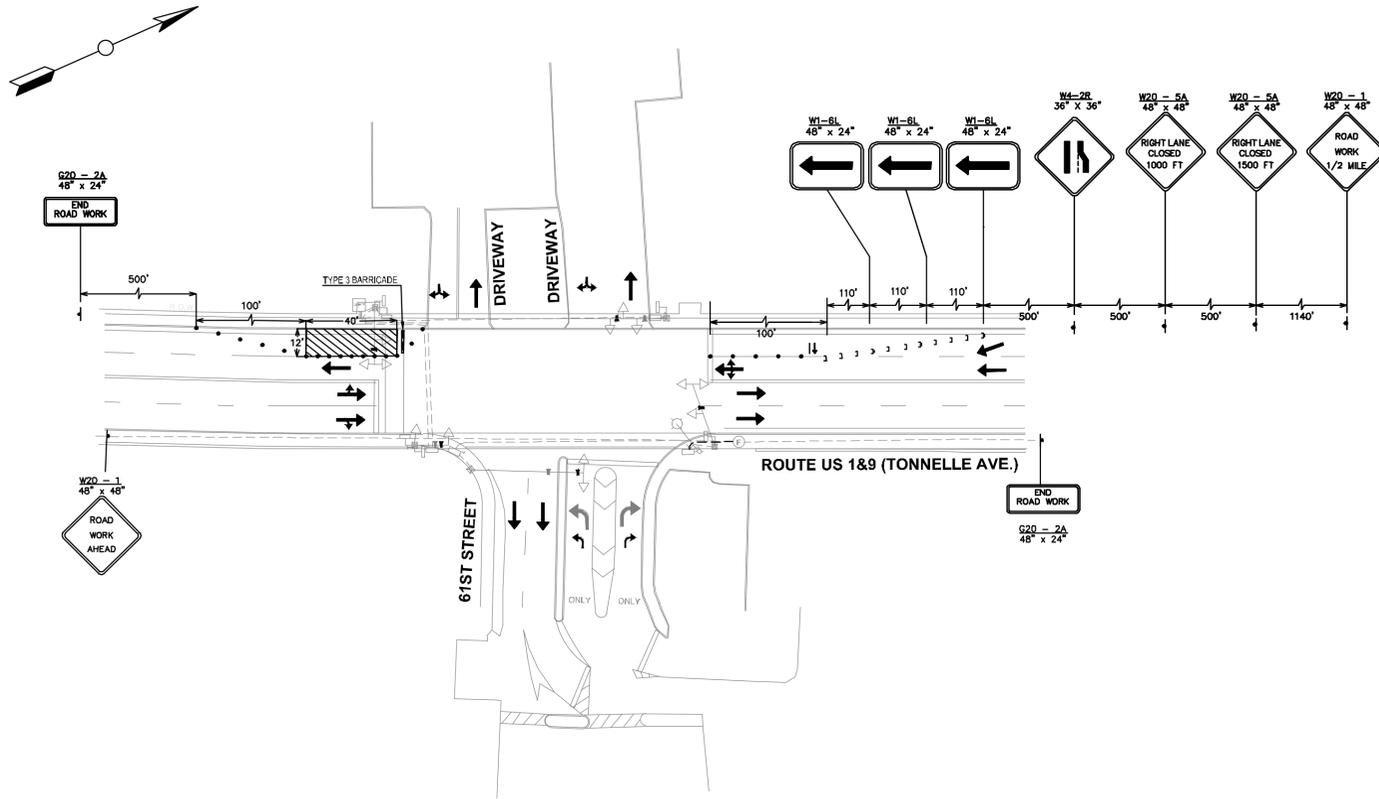
LEOMAR ALMANZAR
Leomar Almanzar
PROFESSIONAL ENGINEER N.J. LIC. GE48348

NEW JERSEY MEADOWLANDS COMMISSION
ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434
MASSIR
MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION

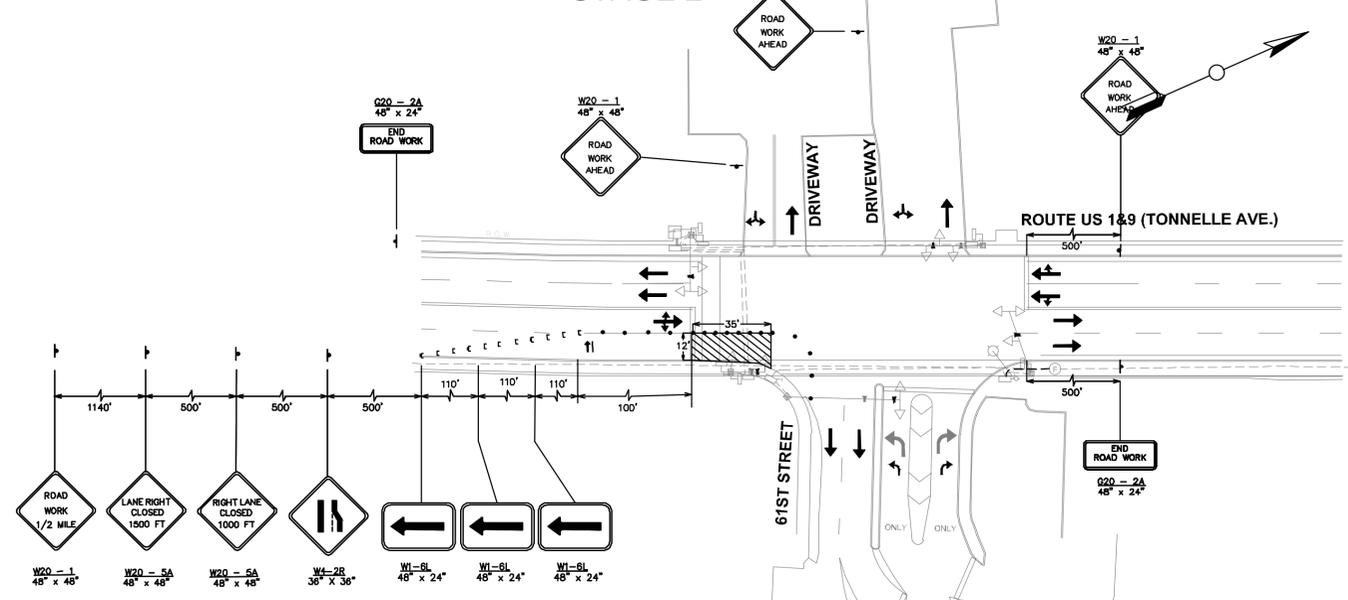


TRAFFIC CONTROL PLAN -19/20-
968-968: US 1 & 9 AND 69th-70th STREET
NORTH BERGEN HUDSON, NJ
SCALE: 1"=50'
N.J.M.C. PROJECT: PHASE 4
SHEET #: 50 OF 85

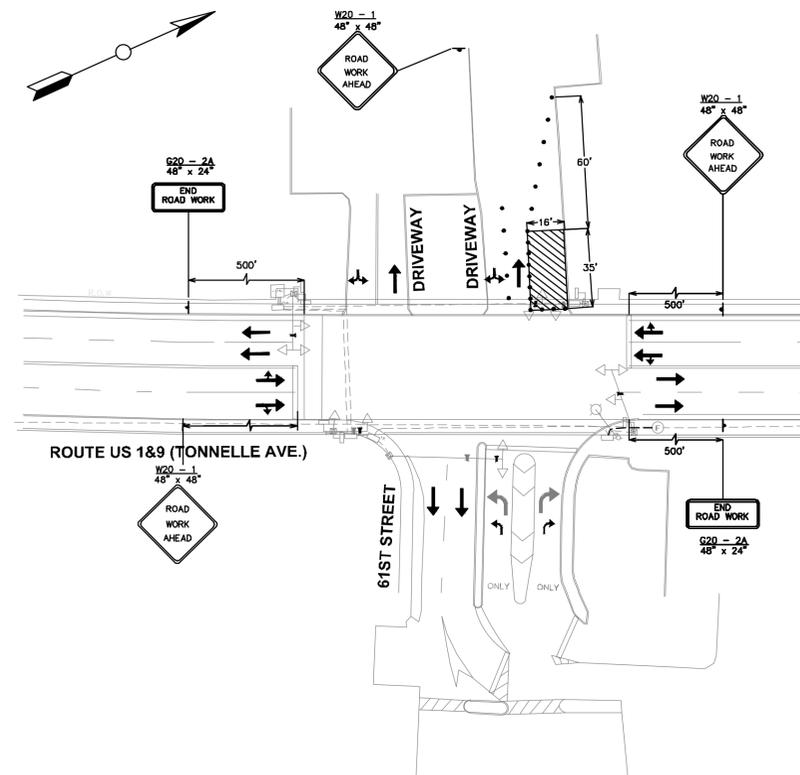
STAGE 1



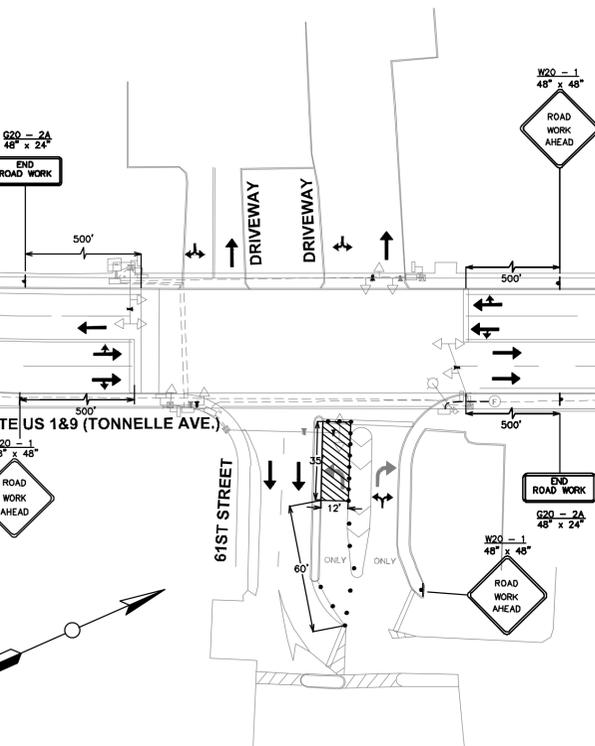
STAGE 2



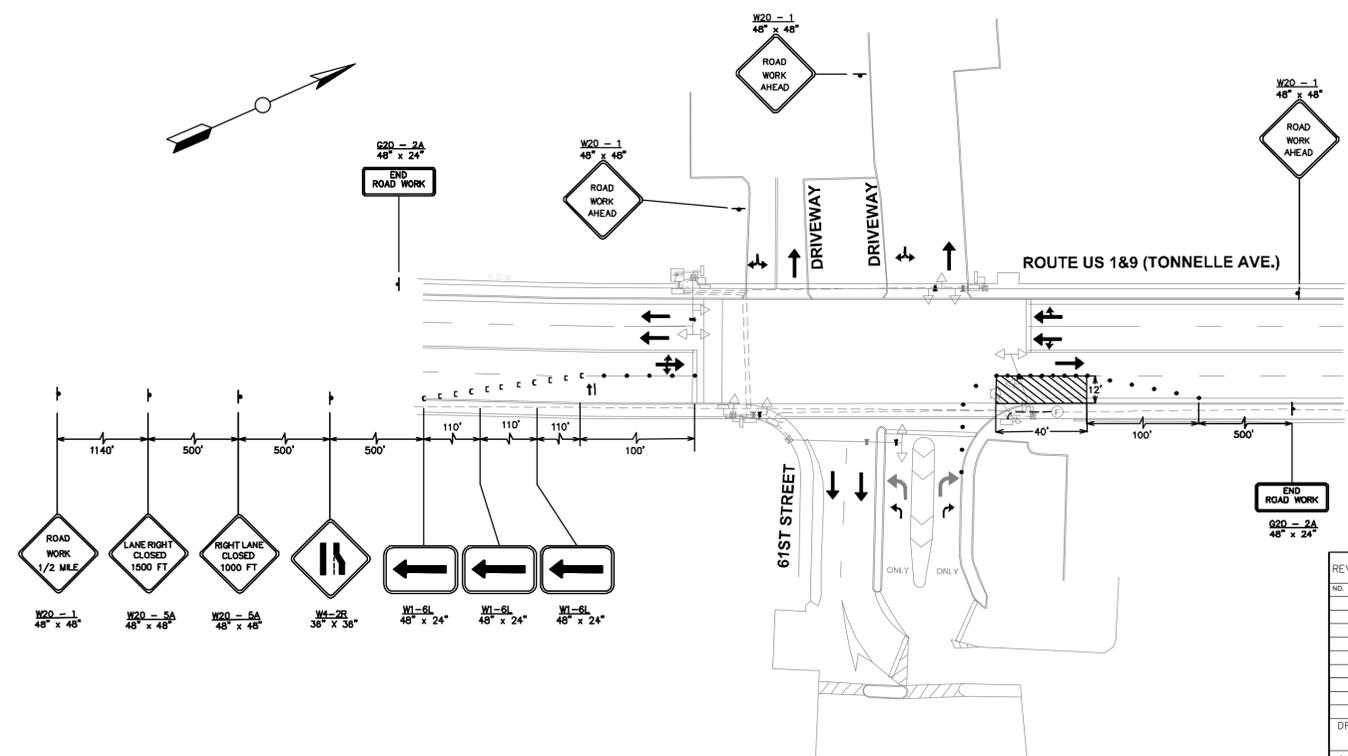
STAGE 5



STAGE 3



STAGE 4



NOTE:
SEE CONSTRUCTION DETAIL 5, FOR THE MAXIMUM CHANNELIZING DEVICE SPACING.
TONNELLES AVENUE (U.S. 1&9) = 40 MPH
61ST STREET & DRIVEWAYS = 25 MPH

NOTE:
ALLOWABLE LANE CLOSURE SCHEDULE:
THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN BETWEEN 5:00 AM AND 8:00 PM ON ALL STATE ROADWAYS. THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN PRIOR TO 9:00AM OR BEYOND 4:30 PM ON ALL LOCAL ROADWAYS.

REVISIONS:		
NO.	DESCRIPTION	DATE

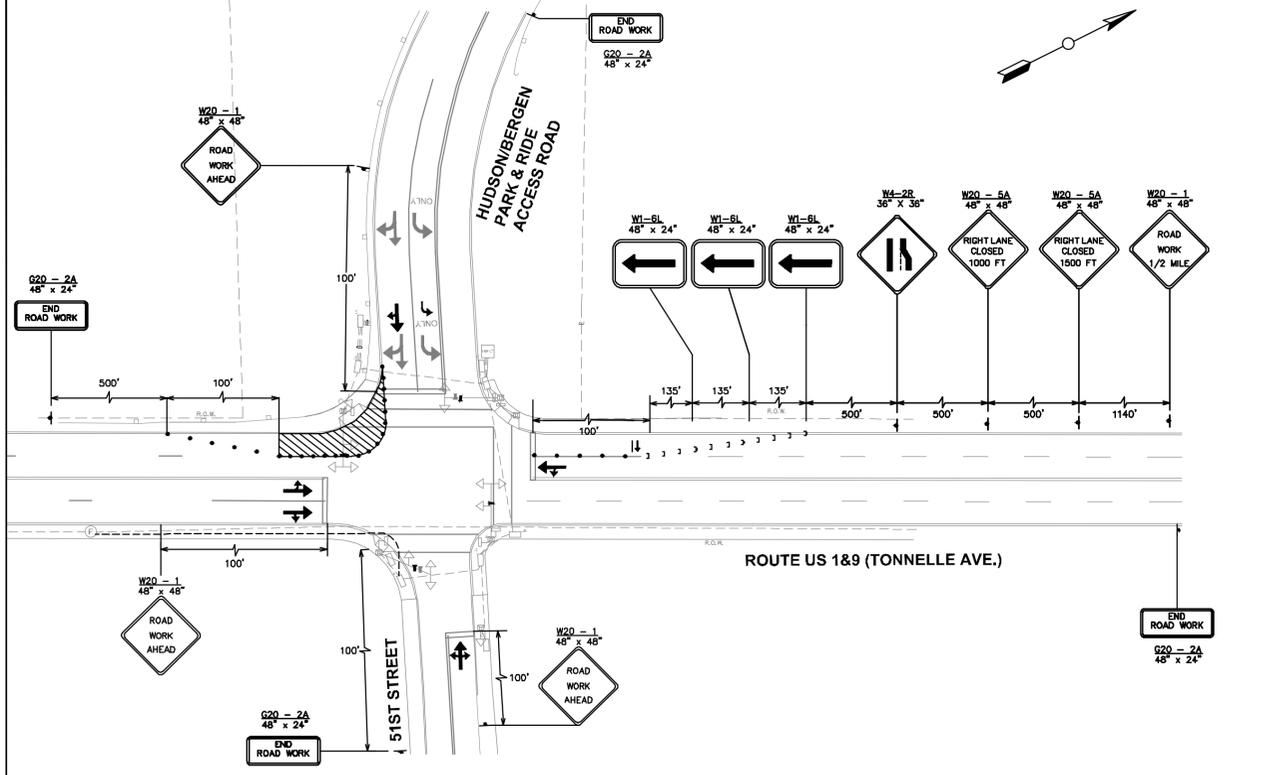
DRAWN BY: BM
CHECKED BY: OG
APPROVED BY: HY
DATE: 2/01/2013

NEW JERSEY MEADOWLANDS COMMISSION
ONE DEKORTE PARK PLAZA, LYNDHURST, NJ 07071 - PHONE: (201) 460-1700 FAX: (201) 460-8434

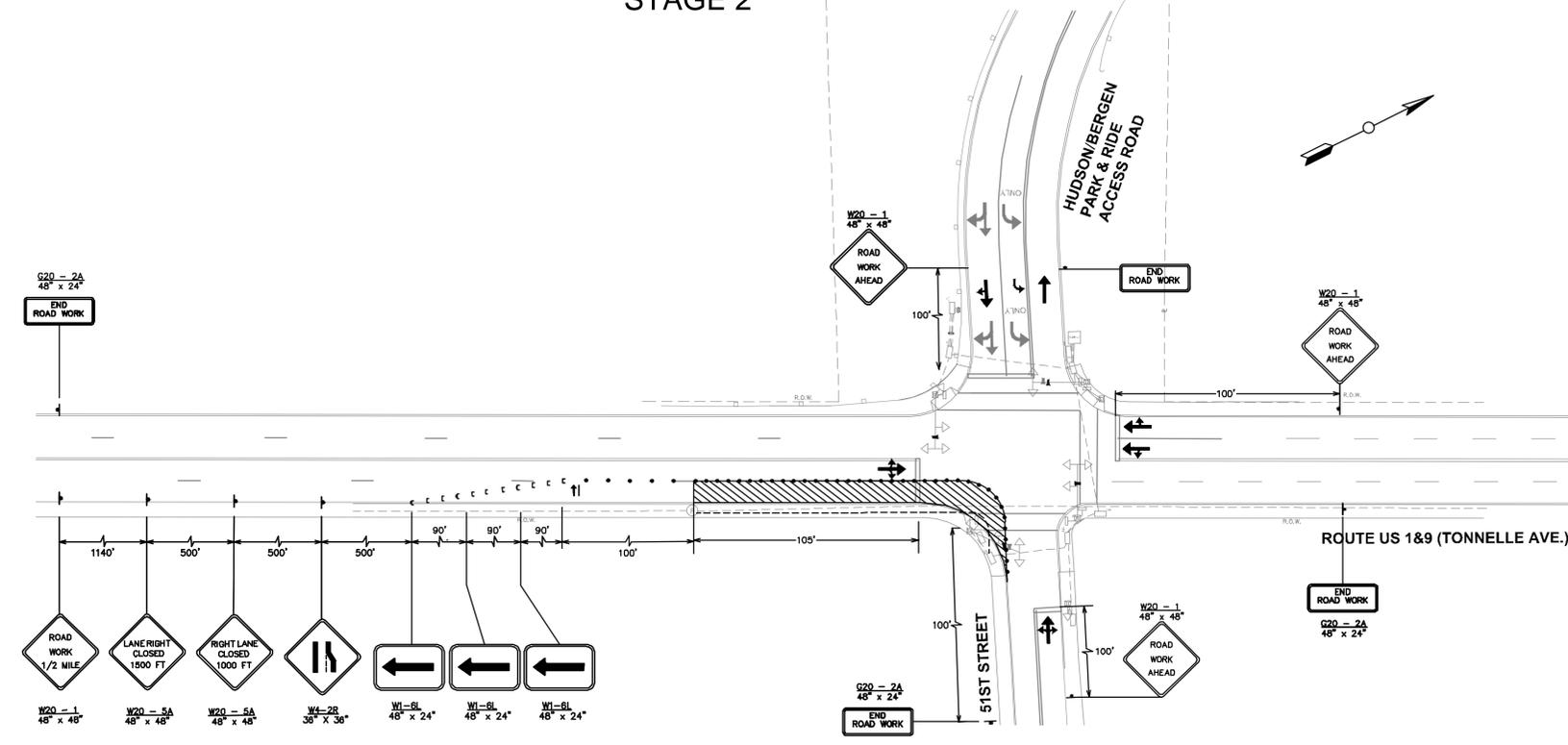


DAVID LIEBGOLD <i>David Liebgold</i> PROFESSIONAL ENGINEER N.J. LIC. GE45897	HONG YUAN <i>Hong Yuan</i> PROFESSIONAL ENGINEER N.J. LIC. GE48481	LEOMAR ALMANZAR <i>Leomar Almanzar</i> PROFESSIONAL ENGINEER N.J. LIC. GE48348	TRAFFIC CONTROL PLAN -21- 970: US 1&9 AND 61ST STREET NORTH BERGEN HUDSON, NJ SCALE: 1" = 40' NJMC PROJECT: PHASE 4 SHEET #: 51 OF 85
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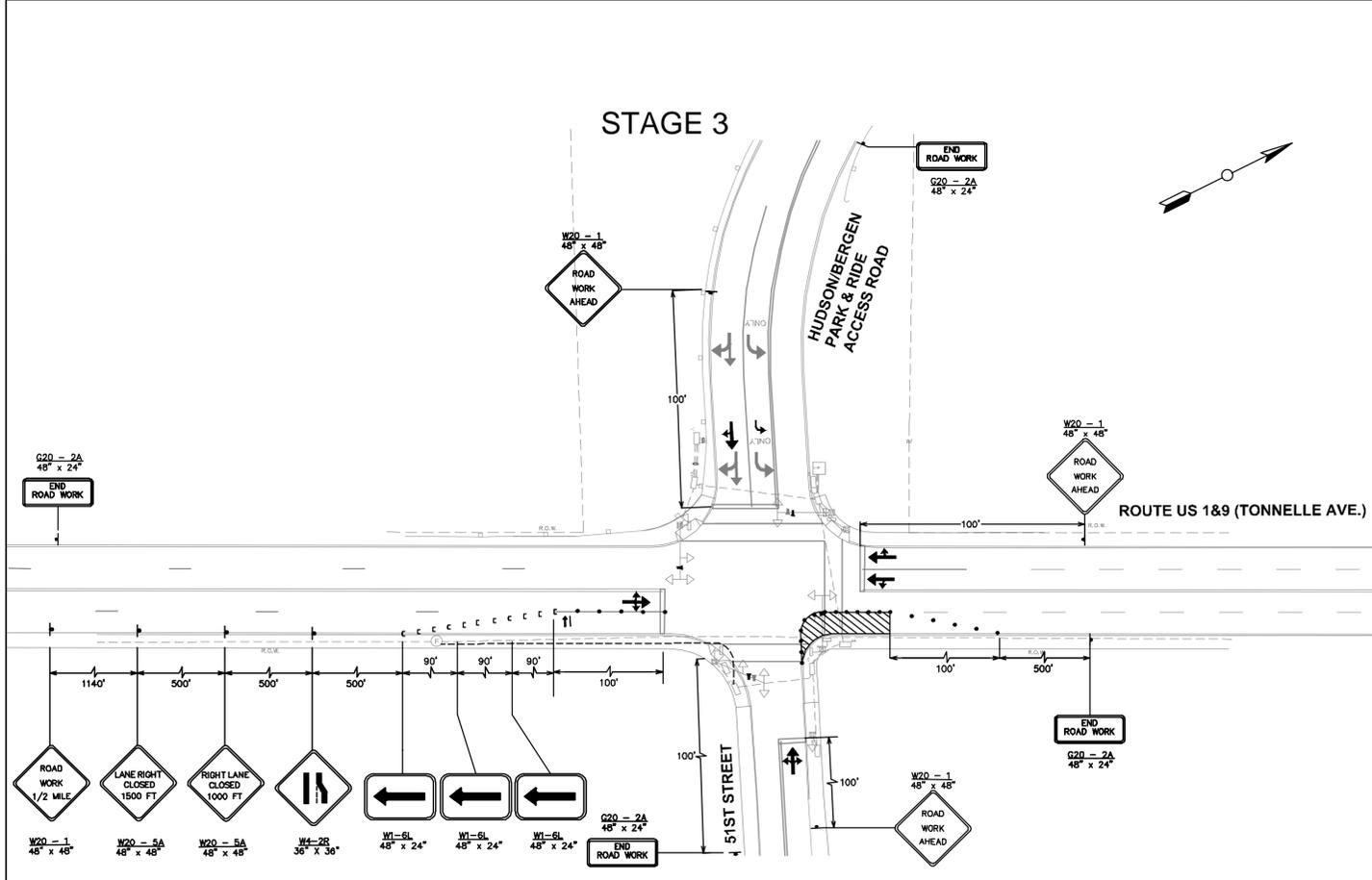
STAGE 1



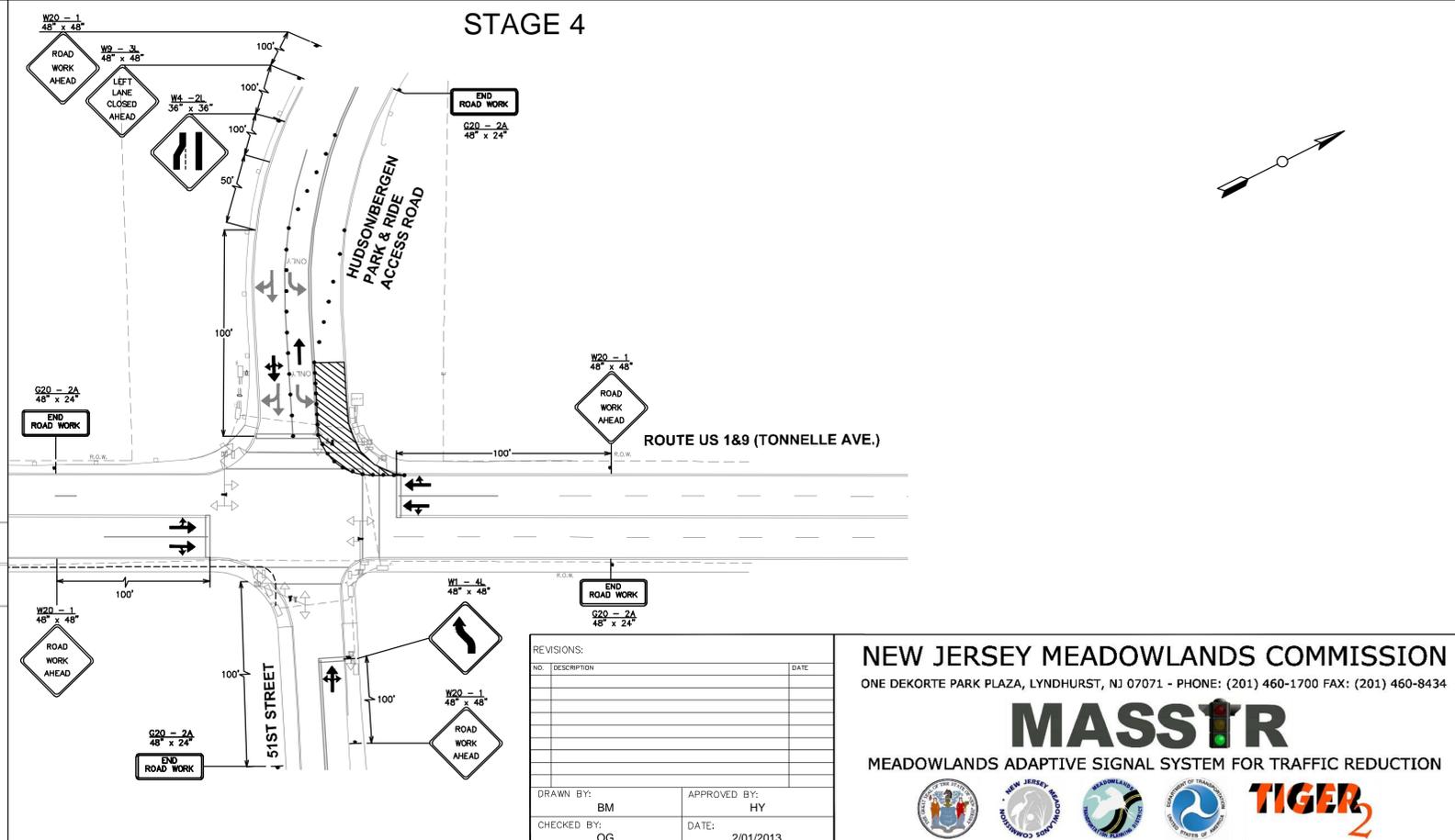
STAGE 2



STAGE 3



STAGE 4



NOTE:
 ALLOWABLE LANE CLOSURE SCHEDULE:
 THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN BETWEEN 5:00 AM AND 8:00 PM ON ALL STATE ROADWAYS; THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN PRIOR TO 9:00AM OR BEYOND 4:30 PM ON ALL LOCAL ROADWAYS.

NOTE:
 SEE CONSTRUCTION DETAIL 5, FOR THE MAXIMUM CHANNELIZING DEVICE SPACING.
 TONNELLE AVENUE (U.S. 1&9) = 40 MPH
 51ST STREET = 25 MPH

REVISIONS:

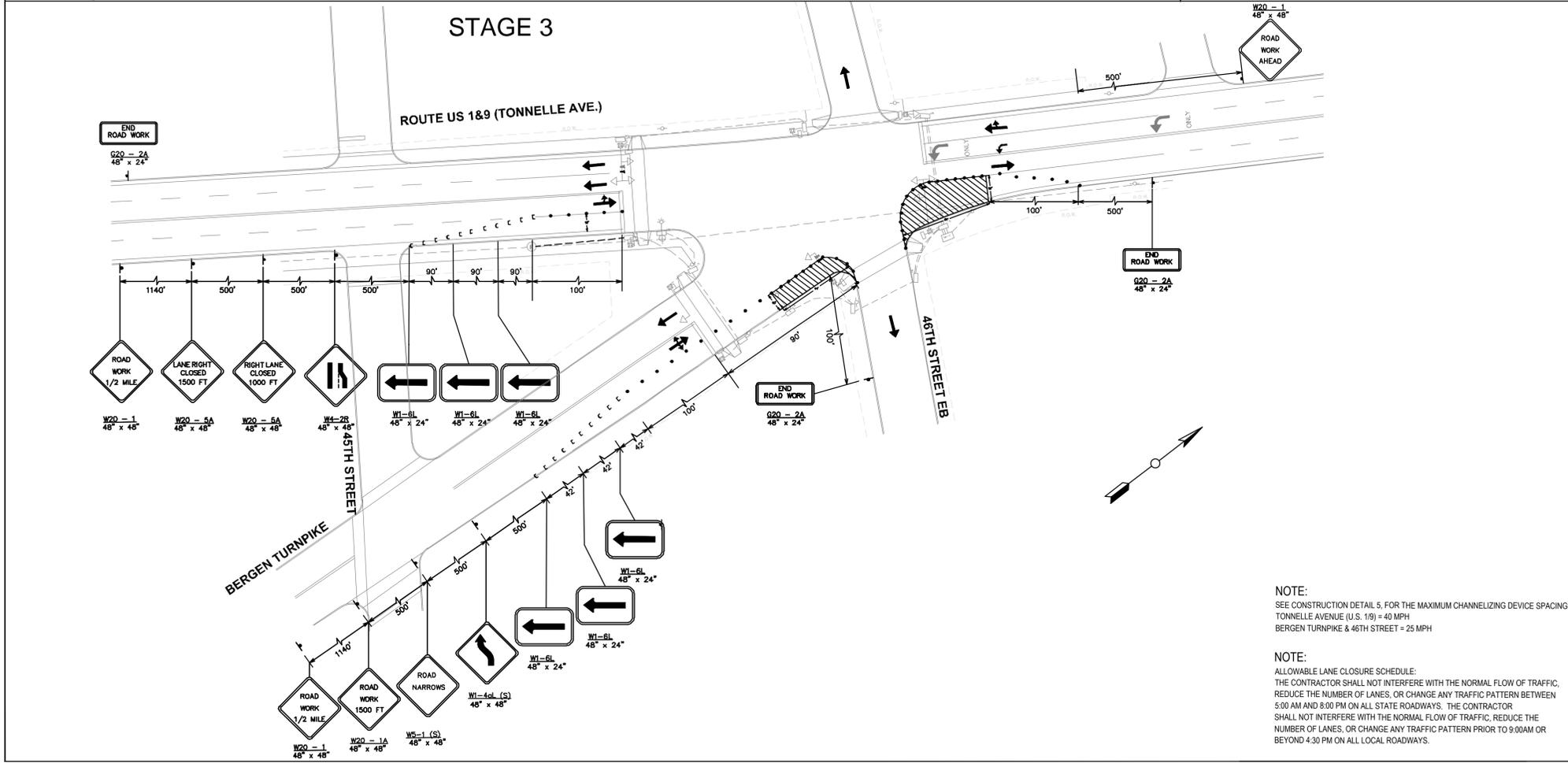
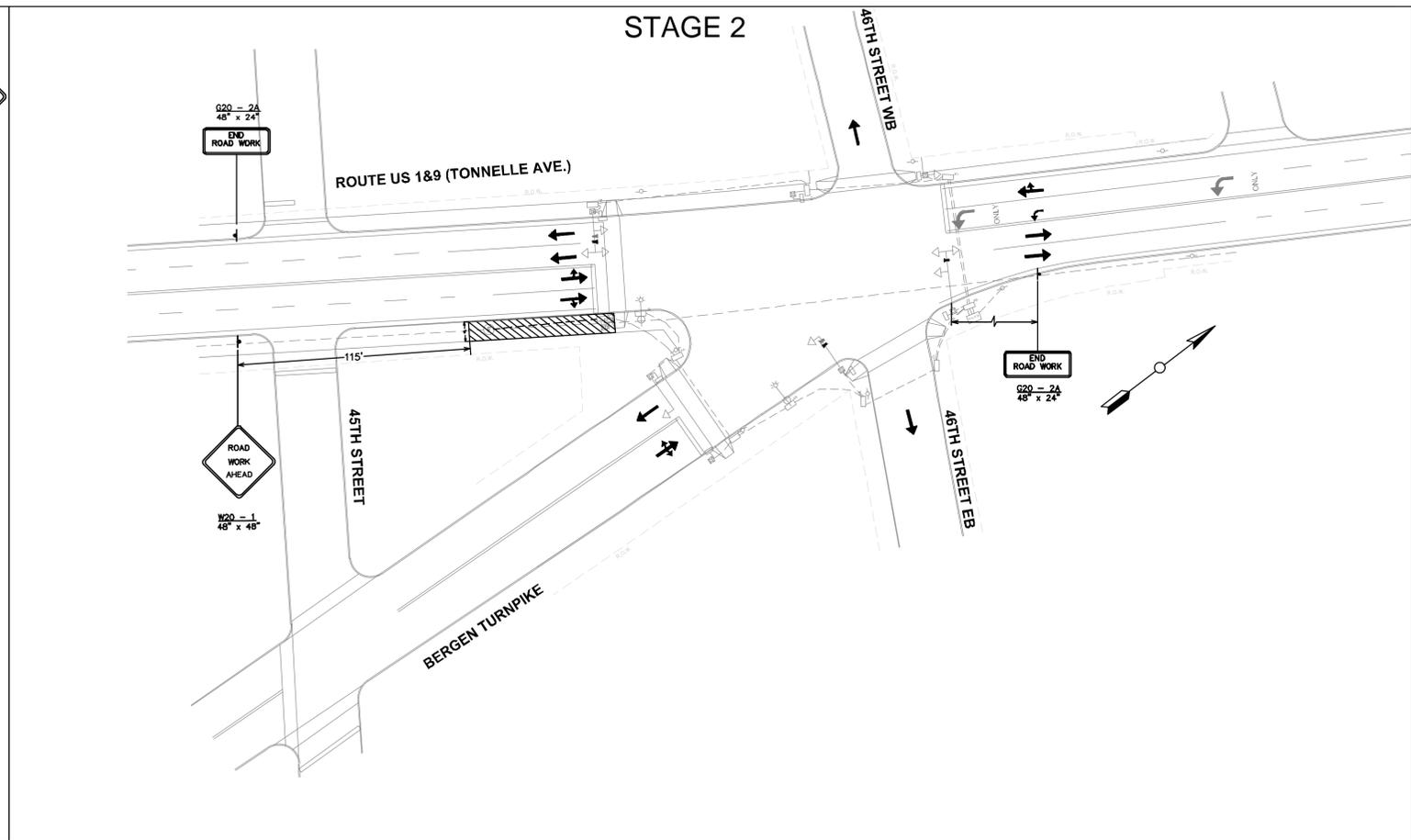
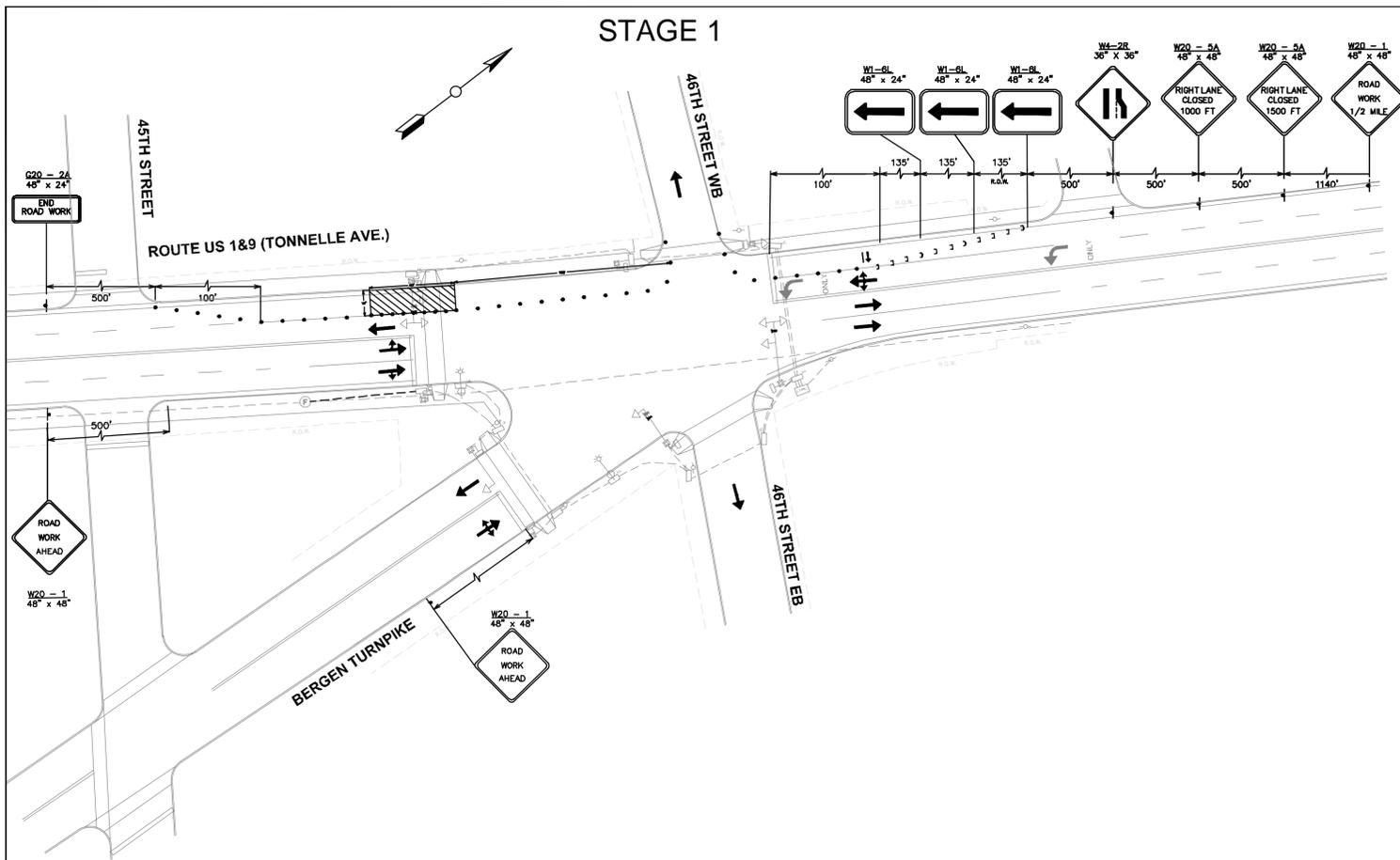
NO.	DESCRIPTION	DATE

DRAWN BY: BM APPROVED BY: HY
 CHECKED BY: OG DATE: 2/01/2013

NEW JERSEY MEADOWLANDS COMMISSION
 ONE DEKORTE PARK PLAZA, LYNDHURST, NJ 07071 - PHONE: (201) 460-1700 FAX: (201) 460-8434

MASSTR
 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION

DAVID LIEBGOLD <i>David Liebgold</i> PROFESSIONAL ENGINEER N.J. LIC. GE45897	HONG YUAN <i>Hong Yuan</i> PROFESSIONAL ENGINEER N.J. LIC. GE48481	LEOMAR ALMANZAR <i>Leomar Almanzar</i> PROFESSIONAL ENGINEER N.J. LIC. GE48348	TRAFFIC CONTROL PLAN -22- 971: US 1&9 AND 51ST STREET NORTH BERGEN HUDSON, NJ SCALE: 1" = 40' NJM PROJECT: PHASE 4 SHEET #: 52 OF 85
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REVISIONS:

NO.	DESCRIPTION	DATE

DRAWN BY: BM
 CHECKED BY: OG
 APPROVED BY: HY
 DATE: 2/01/2013

DAVID LIEBGOLD
 PROFESSIONAL ENGINEER N.J. LIC. GE45897

HONG YUAN
 PROFESSIONAL ENGINEER N.J. LIC. GE48481

LEOMAR ALMANZAR
 PROFESSIONAL ENGINEER N.J. LIC. GE48348

NEW JERSEY MEADOWLANDS COMMISSION
 ONE DEKORTE PARK PLAZA, LYNDHURST, NJ 07071 - PHONE: (201) 460-1700 FAX: (201) 460-8434

MASSTR
 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION

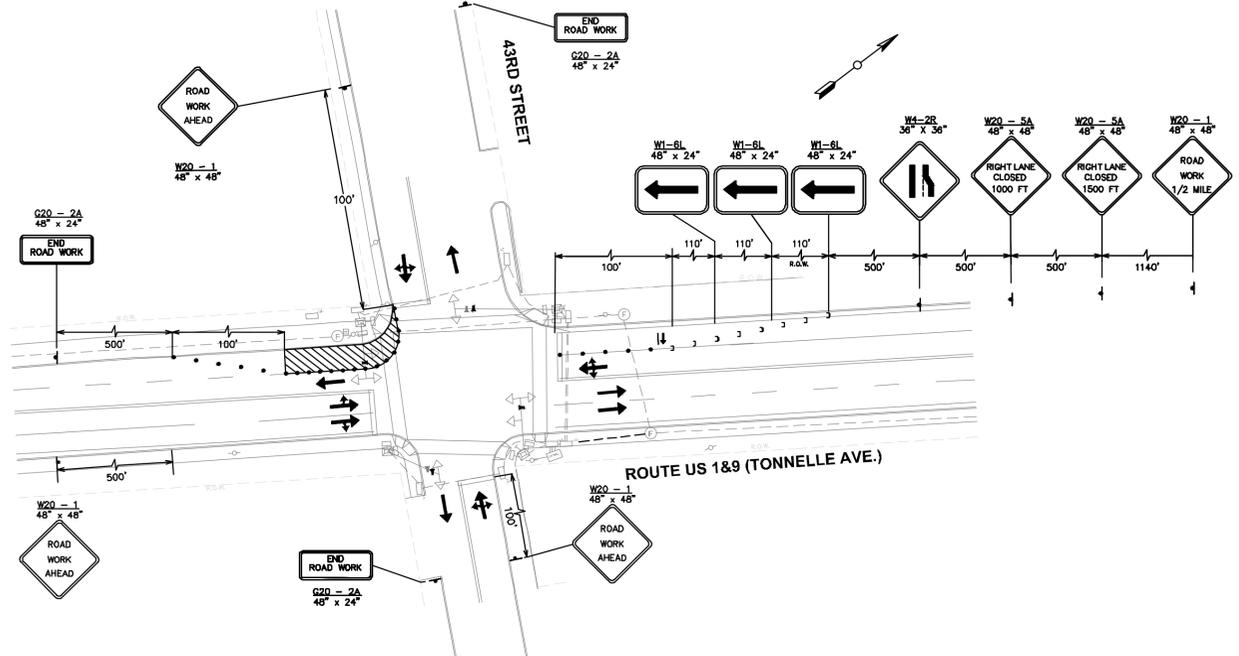
TRAFFIC CONTROL PLAN -23-
 972: US 1&9 AND BERGEN TURNPIKE / 46TH ST.
 NORTH BERGEN HUDSON, NJ

SCALE: 1" = 40'
 NJMC PROJECT: PHASE 4
 SHEET #: 53 OF 85

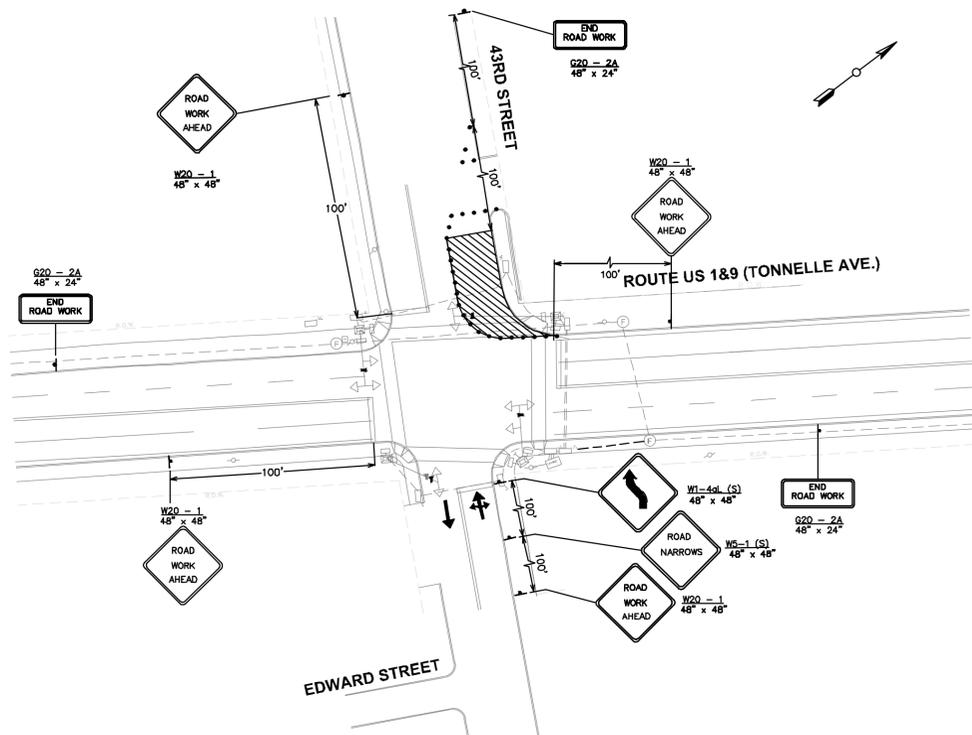
NOTE:
 SEE CONSTRUCTION DETAIL 5, FOR THE MAXIMUM CHANNELIZING DEVICE SPACING.
 TONNELLE AVENUE (U.S. 19) = 40 MPH
 BERGEN TURNPIKE & 46TH STREET = 25 MPH

NOTE:
 ALLOWABLE LANE CLOSURE SCHEDULE:
 THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC,
 REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN BETWEEN
 5:00 AM AND 8:00 PM ON ALL STATE ROADWAYS. THE CONTRACTOR
 SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE
 NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN PRIOR TO 9:00AM OR
 BEYOND 4:30 PM ON ALL LOCAL ROADWAYS.

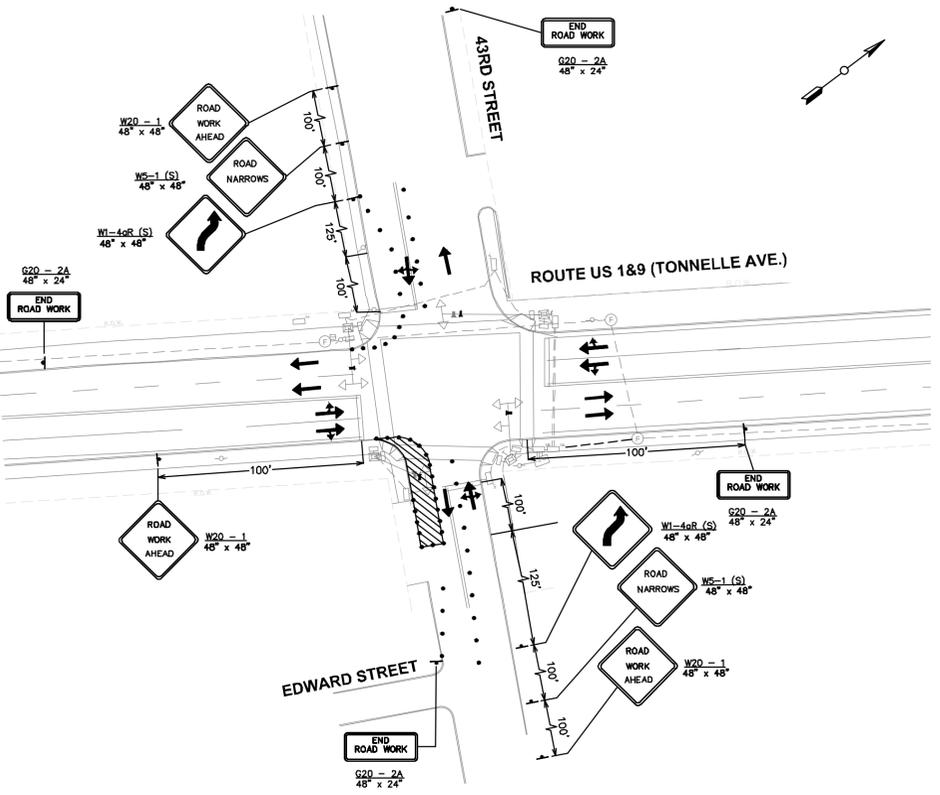
STAGE 1



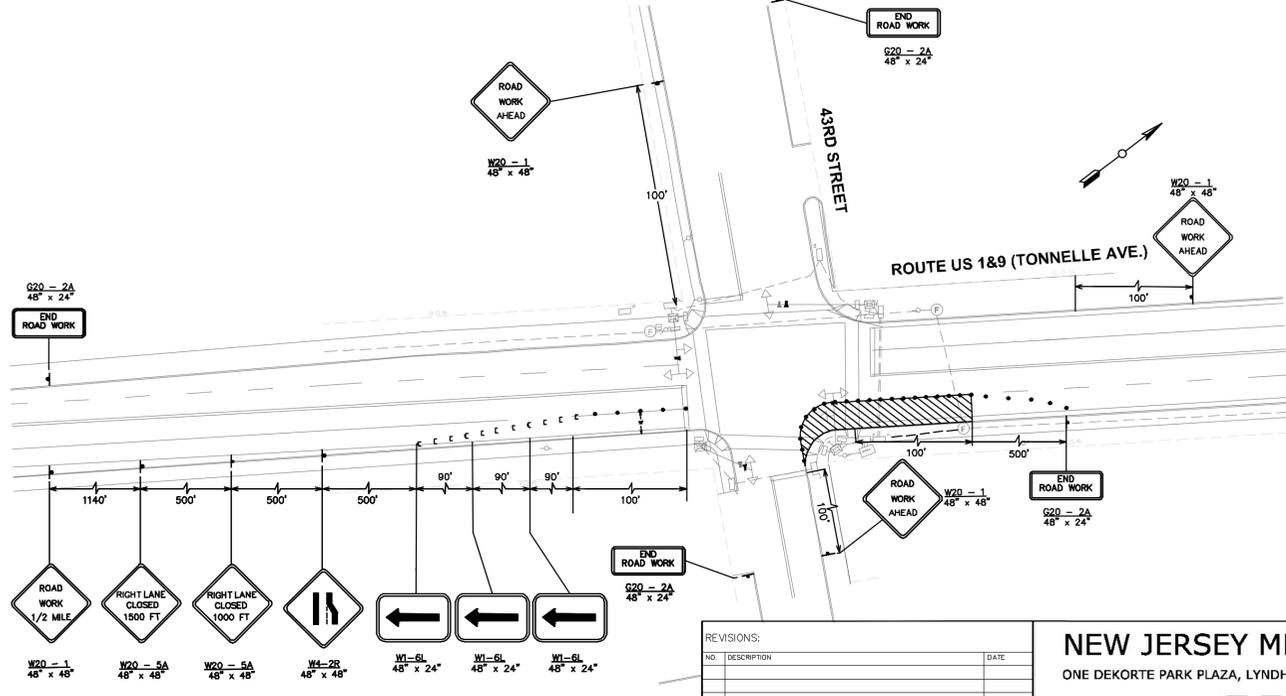
STAGE 2



STAGE 3



STAGE 4



NOTE:
SEE CONSTRUCTION DETAIL 5, FOR THE MAXIMUM CHANNELIZING DEVICE SPACING.
TONNELLE AVE = 40 MPH
EDWARD STREET & 43RD STREET = 25 MPH

NOTE:
ALLOWABLE LANE CLOSURE SCHEDULE:
THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC,
REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN BETWEEN
5:00 AM AND 8:00 PM ON ALL STATE ROADWAYS. THE CONTRACTOR
SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE
NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN PRIOR TO 9:00AM OR
BEYOND 4:30 PM ON ALL LOCAL ROADWAYS.

REVISIONS:		
NO.	DESCRIPTION	DATE

DRAWN BY: BM
CHECKED BY: HY
APPROVED BY: LA
DATE: 2/01/2013

DAVID LIEBGOLD
PROFESSIONAL ENGINEER N.J. LIC. GE45897

HONG YUAN
PROFESSIONAL ENGINEER N.J. LIC. GE48481

LEOMAR ALMANZAR
PROFESSIONAL ENGINEER N.J. LIC. GE48348

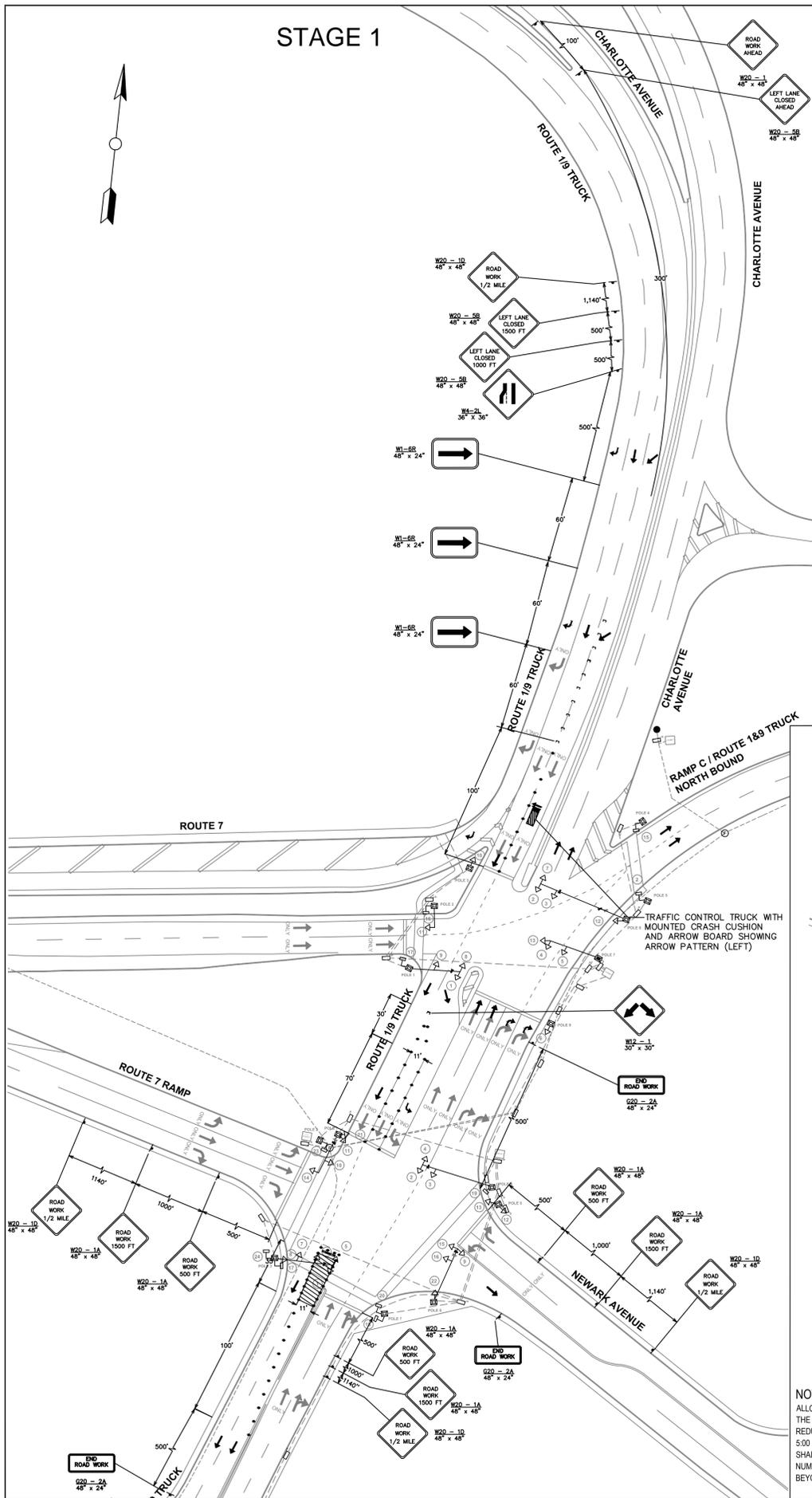
NEW JERSEY MEADOWLANDS COMMISSION
ONE DEKORTE PARK PLAZA, LYNDHURST, NJ 07071 - PHONE: (201) 460-1700 FAX: (201) 460-8434

MASSTR
MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION

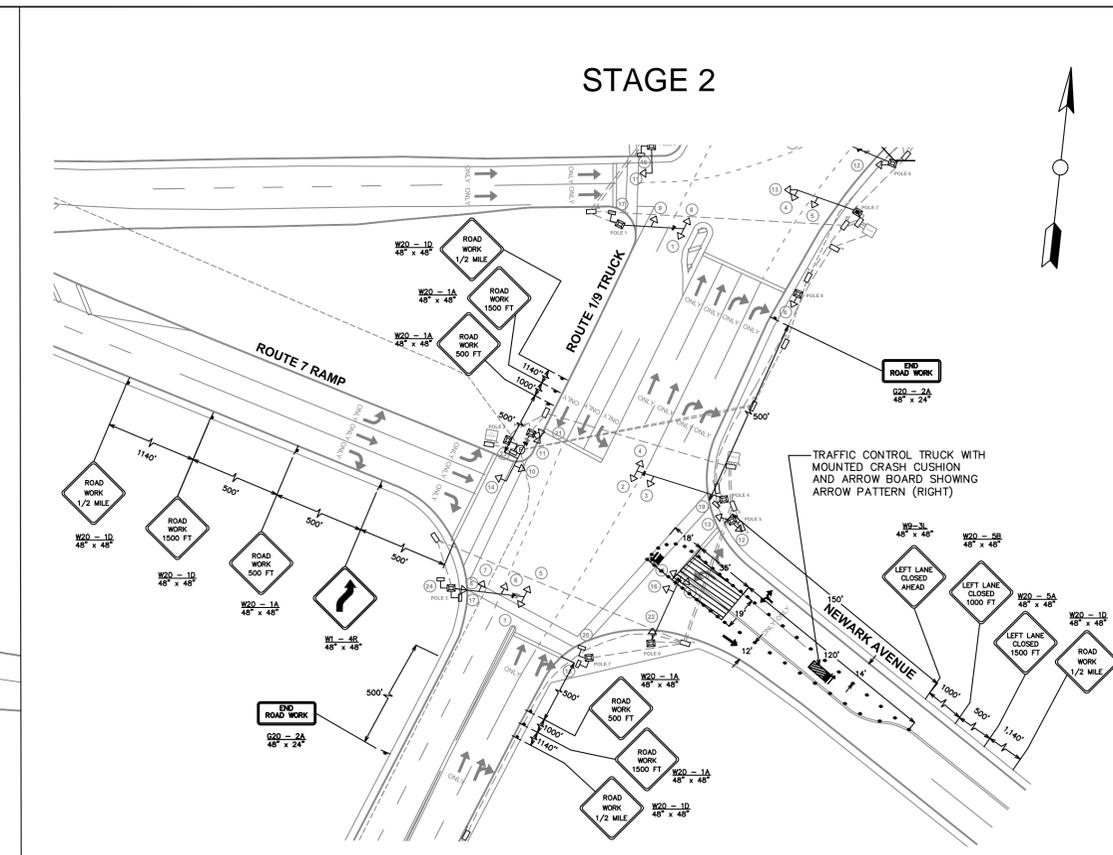


TRAFFIC CONTROL PLAN -24-
973: US 1&9 AND 43RD STREET
NORTH BERGEN HUDSON, NJ
SCALE: 1" = 40'
N/JMC PROJECT: PHASE 4
SHEET #: 54 OF 85

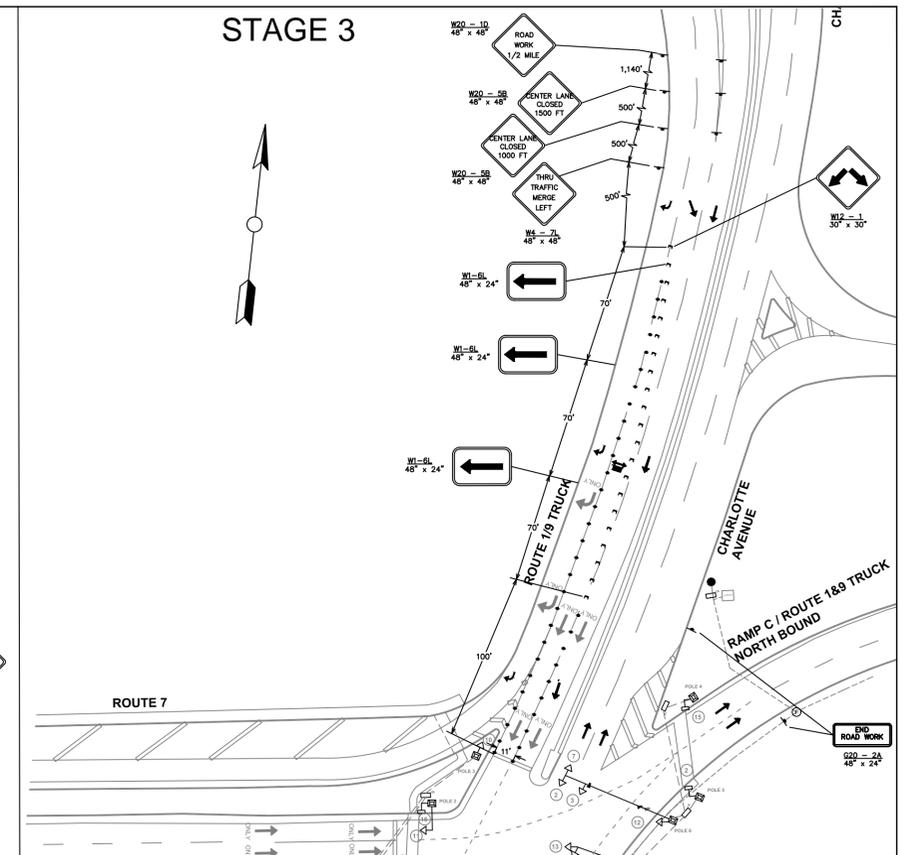
STAGE 1



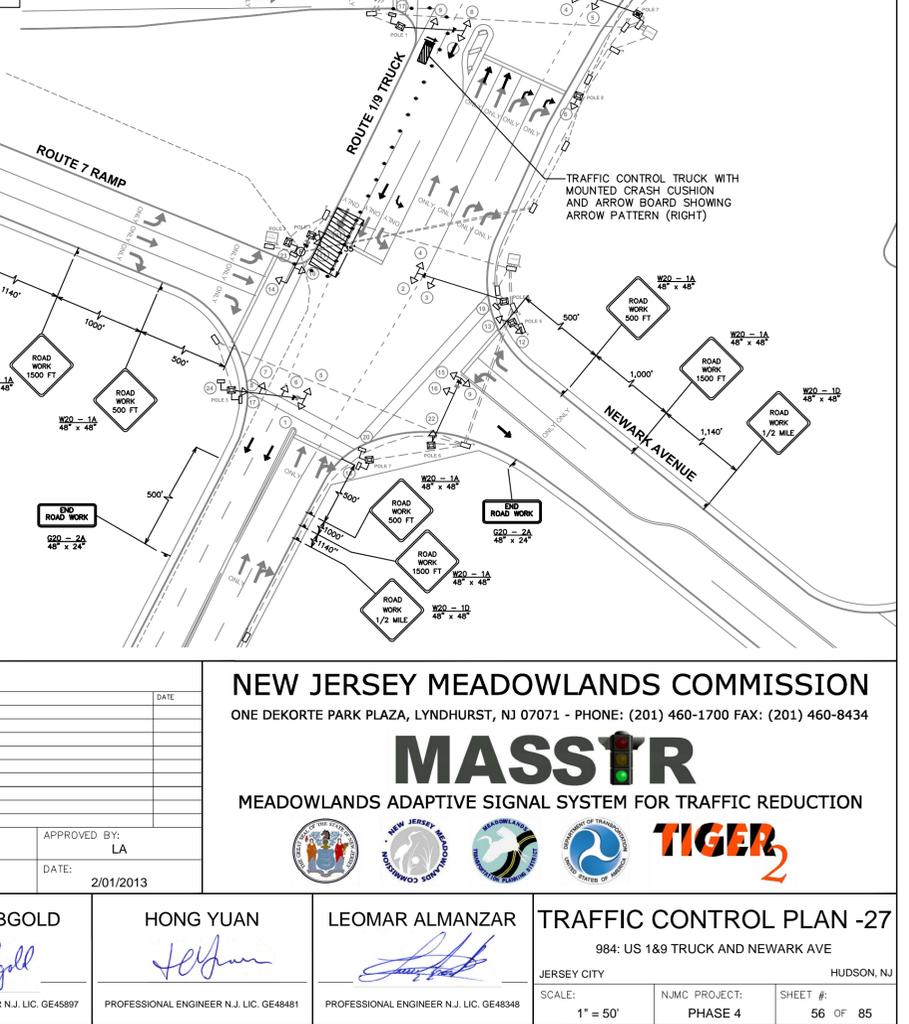
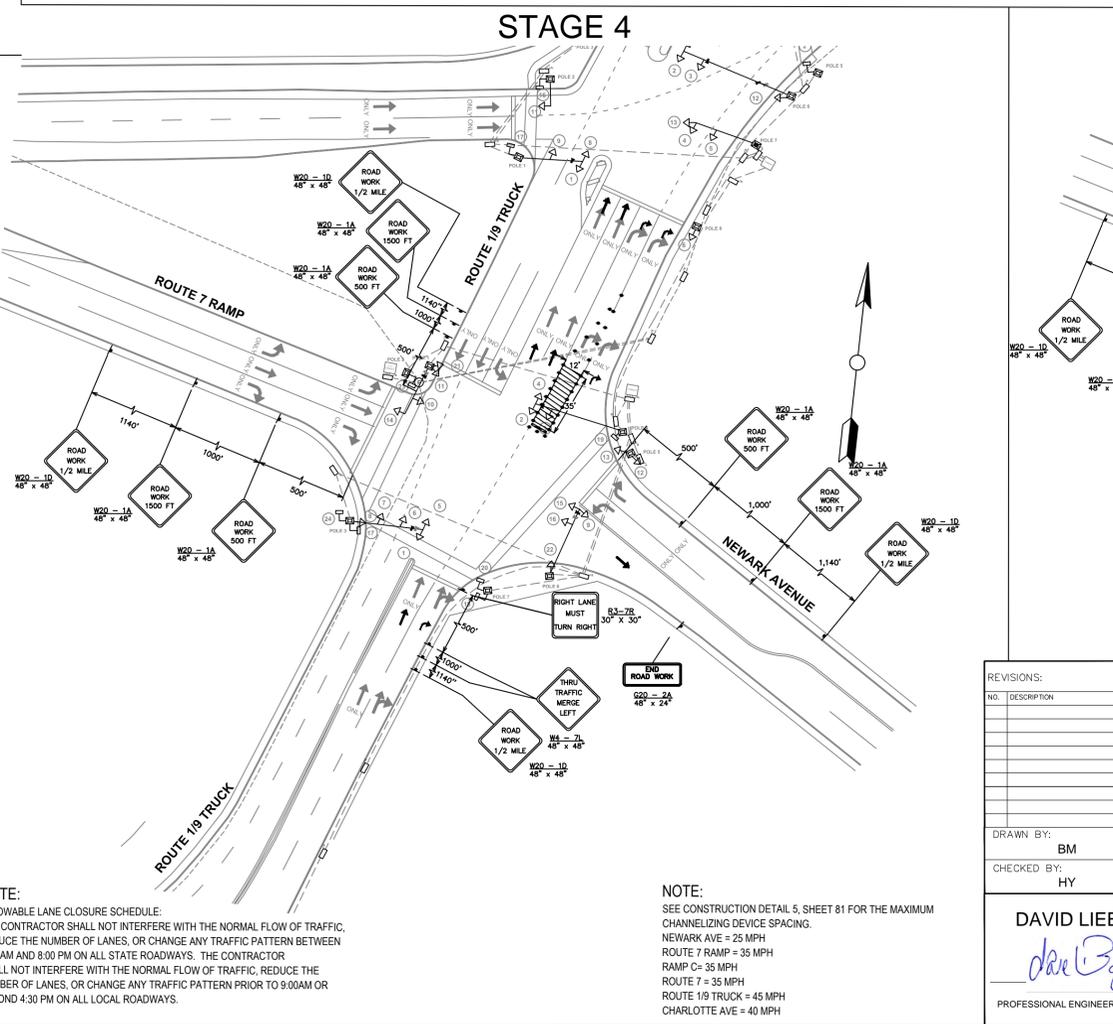
STAGE 2



STAGE 3



STAGE 4



NOTE:
ALLOWABLE LANE CLOSURE SCHEDULE:
THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC.
REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN BETWEEN
5:00 AM AND 8:00 PM ON ALL STATE ROADWAYS. THE CONTRACTOR
SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE
NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN PRIOR TO 9:00AM OR
BEYOND 4:30 PM ON ALL LOCAL ROADWAYS.

NOTE:
SEE CONSTRUCTION DETAIL 5, SHEET 81 FOR THE MAXIMUM
CHANNELIZING DEVICE SPACING.
NEWARK AVE = 25 MPH
ROUTE 7 RAMP = 35 MPH
RAMP C = 35 MPH
ROUTE 7 = 35 MPH
ROUTE 189 TRUCK = 45 MPH
CHARLOTTE AVE = 40 MPH

REVISIONS:		
NO.	DESCRIPTION	DATE

DRAWN BY: BM
CHECKED BY: HY
APPROVED BY: LA
DATE: 2/01/2013

NEW JERSEY MEADOWLANDS COMMISSION
ONE DEKORTE PARK PLAZA, LYNDHURST, NJ 07071 - PHONE: (201) 460-1700 FAX: (201) 460-8434

MASSTR
MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION



DAVID LIEBGOLD
David Liebgold
PROFESSIONAL ENGINEER N.J. LIC. GE48897

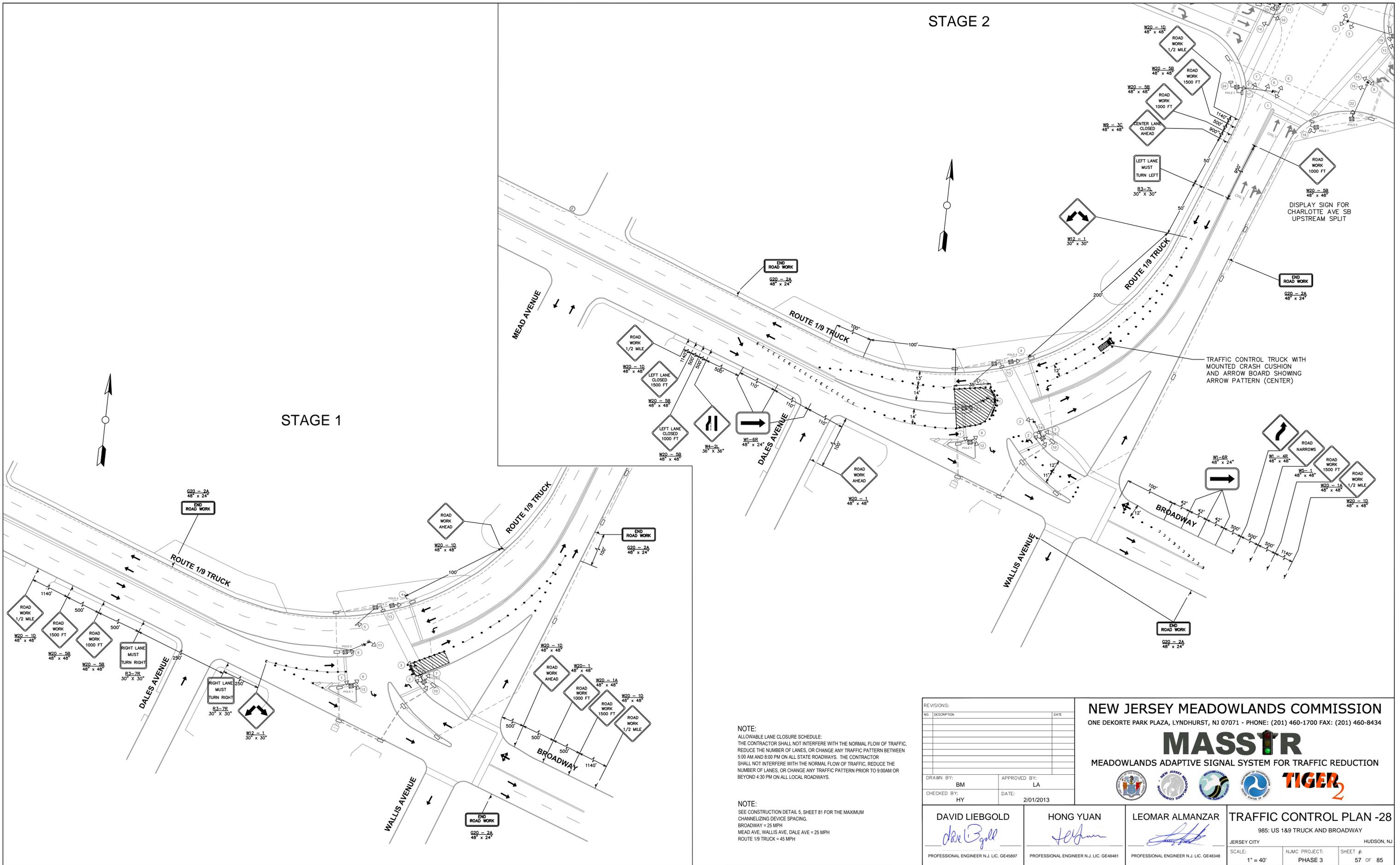
HONG YUAN
Hong Yuan
PROFESSIONAL ENGINEER N.J. LIC. GE48481

LEOMAR ALMANZAR
Leomar Almanzar
PROFESSIONAL ENGINEER N.J. LIC. GE48348

TRAFFIC CONTROL PLAN -27
984: US 1&9 TRUCK AND NEWARK AVE
JERSEY CITY HUDSON, NJ
SCALE: 1" = 50'
N.J.C. PROJECT: PHASE 4
SHEET #: 56 OF 85

STAGE 2

STAGE 1



NOTE:
 ALLOWABLE LANE CLOSURE SCHEDULE:
 THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN BETWEEN 5:00 AM AND 8:00 PM ON ALL STATE ROADWAYS. THE CONTRACTOR SHALL NOT INTERFERE WITH THE NORMAL FLOW OF TRAFFIC, REDUCE THE NUMBER OF LANES, OR CHANGE ANY TRAFFIC PATTERN PRIOR TO 9:00AM OR BEYOND 4:30 PM ON ALL LOCAL ROADWAYS.

NOTE:
 SEE CONSTRUCTION DETAIL 5, SHEET 81 FOR THE MAXIMUM CHANNELIZING DEVICE SPACING.
 BROADWAY = 25 MPH
 MEAD AVE, WALLIS AVE, DALE AVE = 25 MPH
 ROUTE 1/9 TRUCK = 45 MPH

REVISIONS:		
NO.	DESCRIPTION	DATE

DRAWN BY: BM
 CHECKED BY: HY
 APPROVED BY: LA
 DATE: 2/01/2013

NEW JERSEY MEADOWLANDS COMMISSION
 ONE DEKORTE PARK PLAZA, LYNDHURST, NJ 07071 - PHONE: (201) 460-1700 FAX: (201) 460-8434

MASSTR
 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION



DAVID LIEBGOLD
David Liebgold
 PROFESSIONAL ENGINEER N.J. LIC. GE48897

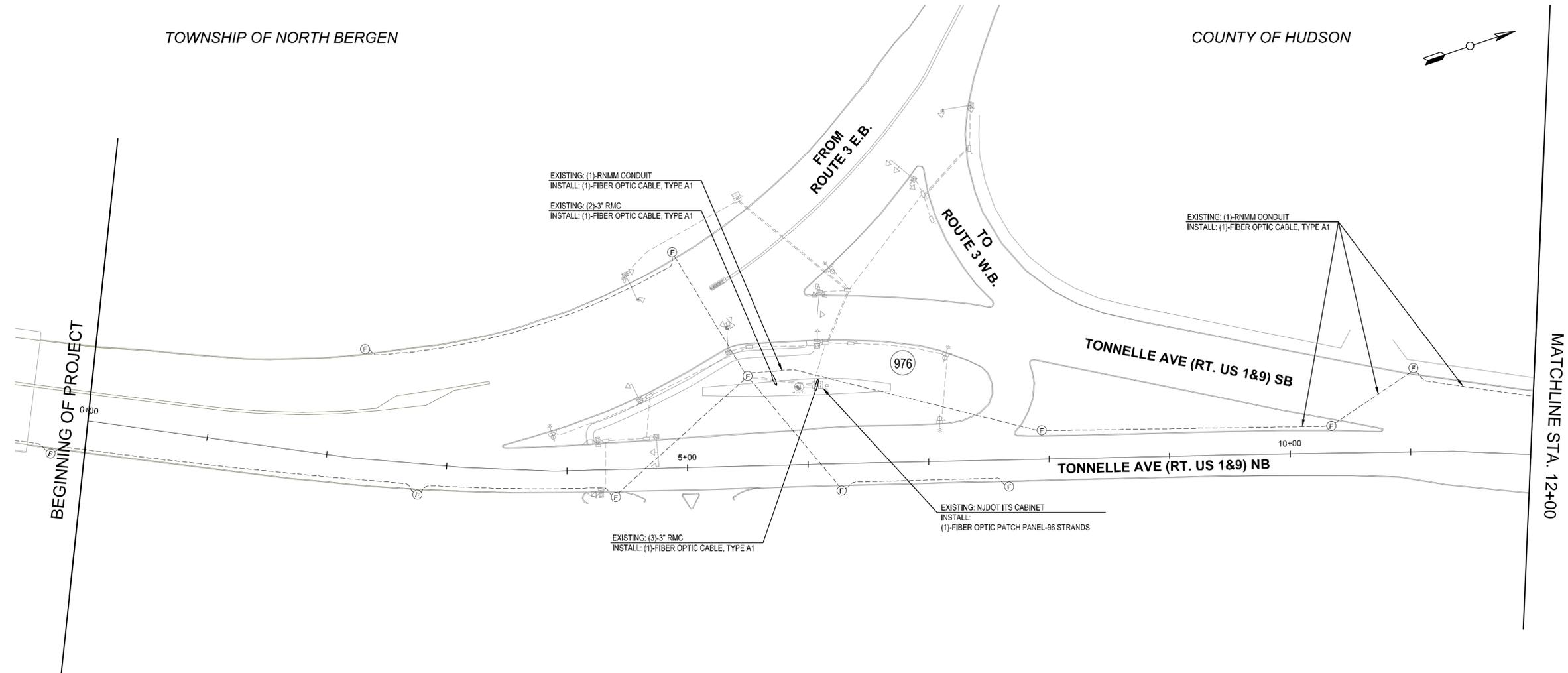
HONG YUAN
Hong Yuan
 PROFESSIONAL ENGINEER N.J. LIC. GE48481

LEOMAR ALMANZAR
Leomar Almanzar
 PROFESSIONAL ENGINEER N.J. LIC. GE48348

TRAFFIC CONTROL PLAN -28
 985: US 1&9 TRUCK AND BROADWAY
 JERSEY CITY HUDSON, NJ
 SCALE: 1" = 40'
 NJMC PROJECT: PHASE 3
 SHEET #: 57 OF 85

TOWNSHIP OF NORTH BERGEN

COUNTY OF HUDSON



ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
701A	FIBER OPTIC CABLE, TYPE A1	1,100 LF
711A	FIBER OPTIC PATCH PANEL- 96 PORT	1 UNIT

NOTE:

1. ORIGINAL ITS PLAN TITLED "ITS PLANS ROUTE 1&9 SECTION 24", PREPARED BY PARSONS TRANSPORTATION GROUP.

REVISIONS:	
NO.	DESCRIPTION

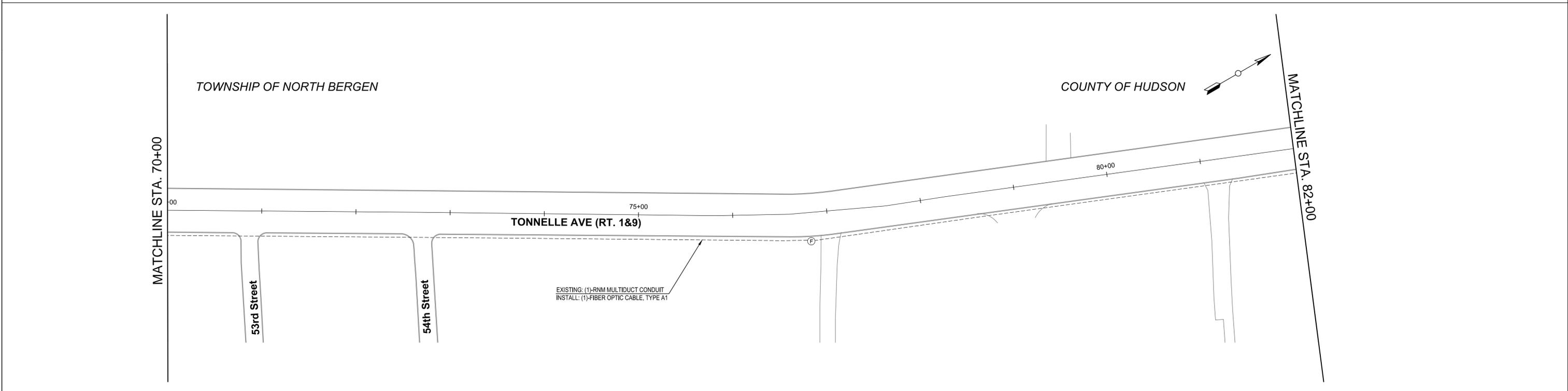
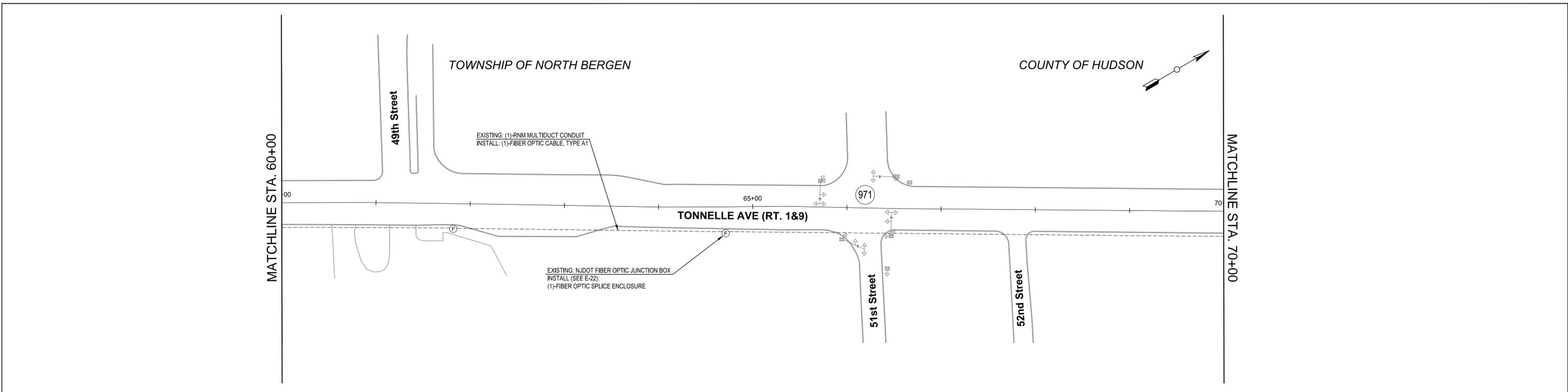
DRAWN BY: OG	APPROVED BY: HY
CHECKED BY: LA	DATE: 2/01/2013

NEW JERSEY MEADOWLANDS COMMISSION
 ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434

MASSIR
 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION



DAVID LIEBGOLD PROFESSIONAL ENGINEER N.J. LIC. GE45897	HONG YUAN PROFESSIONAL ENGINEER N.J. LIC. GE48481	LEOMAR ALMANZAR PROFESSIONAL ENGINEER N.J. LIC. GE48348	ITS PLAN -1- ROUTE U.S. 1 & 9 (Intersection 976) TOWNSHIP OF NORTH BERGEN HUDSON, NJ
SCALE: 1"= 50'	N.J.M.C. PROJECT: PHASE 4	SHEET #: 59 OF 85	



ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
701A	FIBER OPTIC CABLE, TYPE A1	2,385 LF

NOTE:
 1. ORIGINAL ITS PLAN TITLED "ITS FACILITIES PLANS ROUTE 1&9 SECTION 2B", DATED 07-20-2005, PREPARED BY TAMS CONSULTANTS, INC.

REVISIONS:	
NO.	DESCRIPTION

DRAWN BY: OG	APPROVED BY: HY
CHECKED BY: LA	DATE: 2/01/2013

NEW JERSEY MEADOWLANDS COMMISSION
 ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434

MASTR
 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION

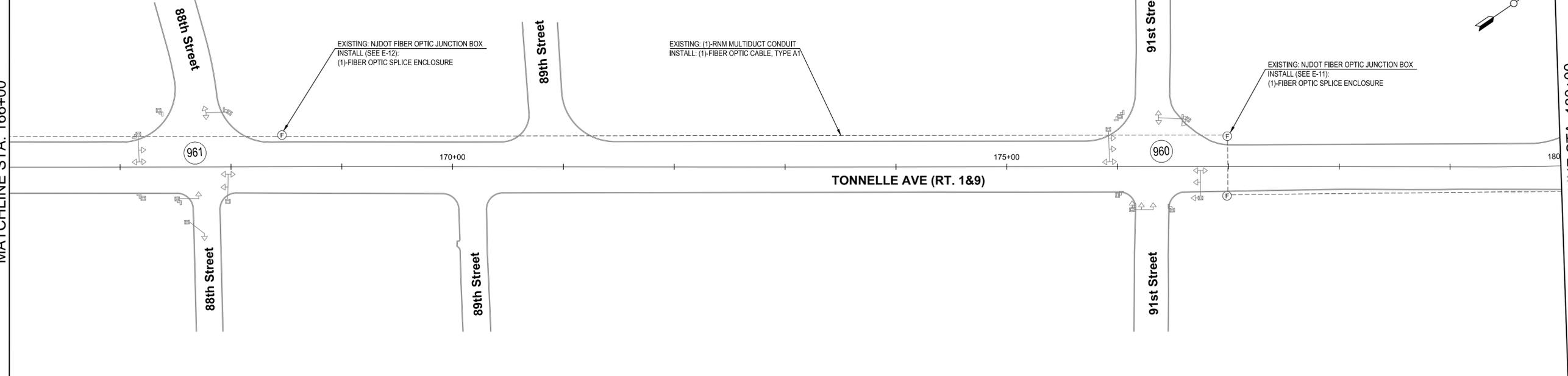
DAVID LIEBGOLD <i>David Liebgold</i> PROFESSIONAL ENGINEER N.J. LIC. GE48897	HONG YUAN <i>Hong Yuan</i> PROFESSIONAL ENGINEER N.J. LIC. GE48481	LEOMAR ALMANZAR <i>Leomar Almanzar</i> PROFESSIONAL ENGINEER N.J. LIC. GE48348	ITS PLAN -4- ROUTE U.S. 1 & 9 (Intersection 971) TOWNSHIP OF NORTH BERGEN HUDSON, NJ SCALE: 1"= 50' NJMTC PROJECT: PHASE 4 SHEET #: 62 OF 85
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TOWNSHIP OF NORTH BERGEN

COUNTY OF HUDSON

MATCHLINE STA. 166+00

MATCHLINE STA. 180+00

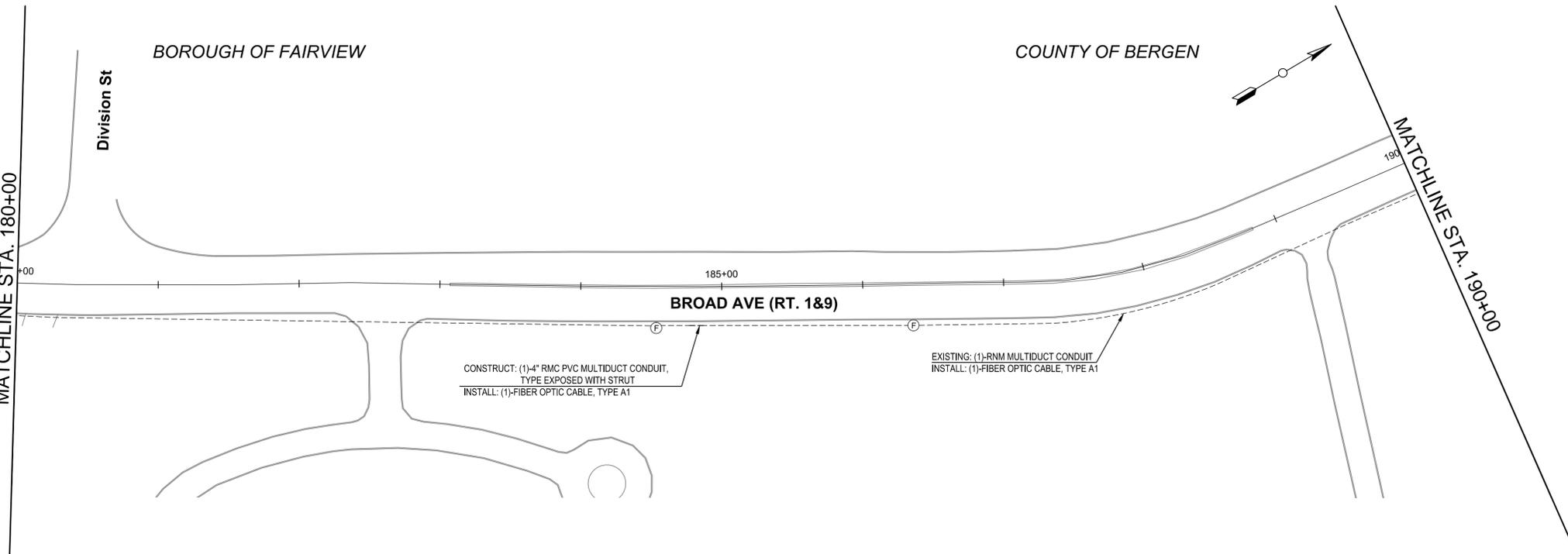


BOROUGH OF FAIRVIEW

COUNTY OF BERGEN

MATCHLINE STA. 180+00

MATCHLINE STA. 190+00



ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
701A	FIBER OPTIC CABLE, TYPE A1	2,770 LF
723	4" PVC MULTIDUCT CONDUIT (IF & WHERE)	10 LF

NOTE:
1. ORIGINAL ITS PLAN TITLED "ITS FACILITIES PLANS ROUTE 1&9 SECTION 28", DATED 07-20-2005, PREPARED BY TAMS CONSULTANTS, INC.

REVISIONS:	
NO.	DESCRIPTION

DRAWN BY: OG	APPROVED BY: HY
CHECKED BY: LA	DATE: 2/01/2013

NEW JERSEY MEADOWLANDS COMMISSION
 ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434

MASSIR
 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION



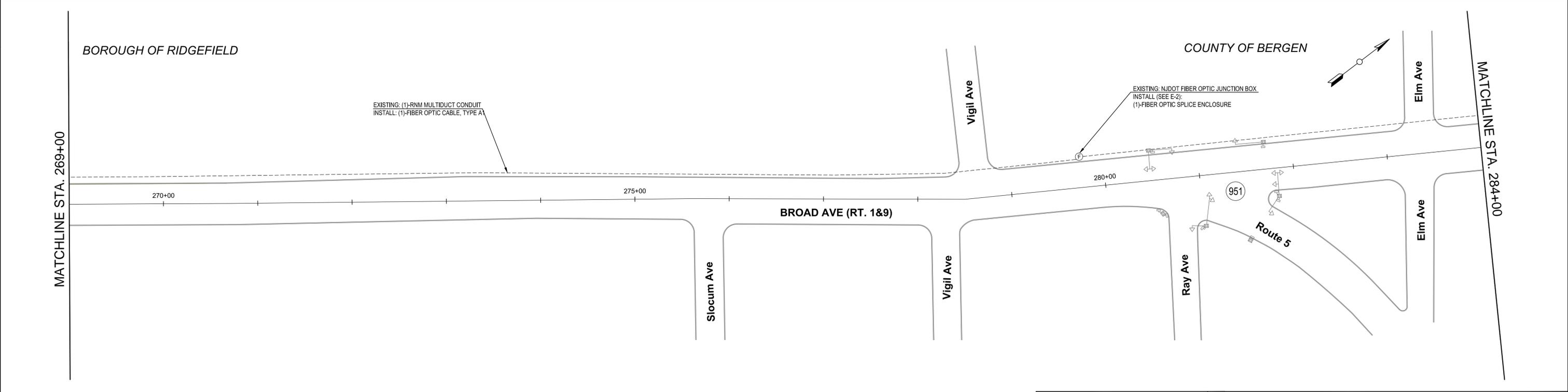
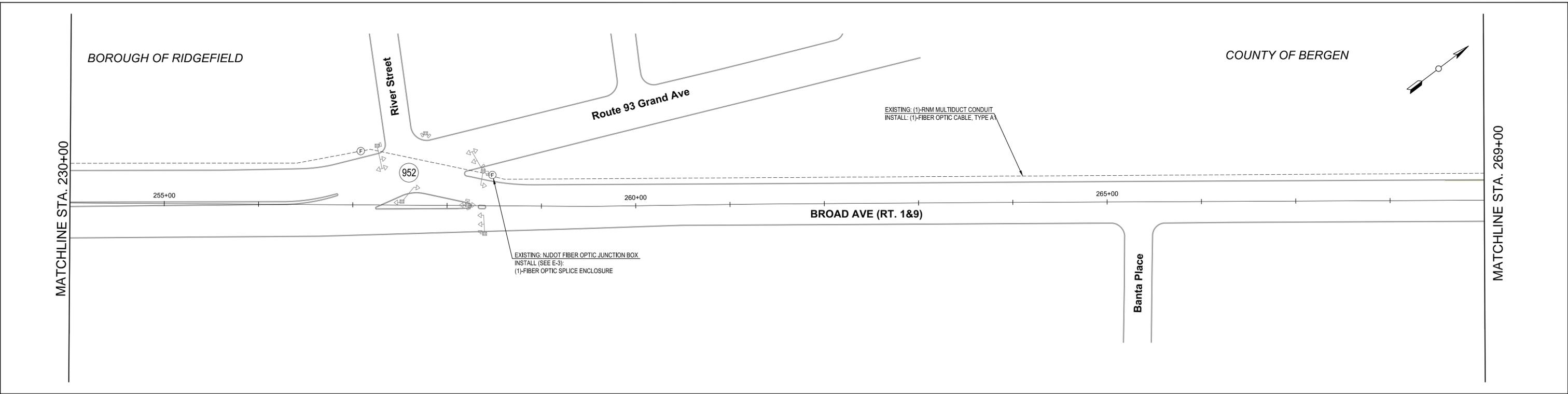
DAVID LIEBGOLD
David Liebgold
 PROFESSIONAL ENGINEER N.J. LIC. GE46897

HONG YUAN
Hong Yuan
 PROFESSIONAL ENGINEER N.J. LIC. GE48481

LEOMAR ALMANZAR
Leomar Almanzar
 PROFESSIONAL ENGINEER N.J. LIC. GE48348

ITS PLAN -9-
 ROUTE U.S. 1 & 9 (Intersection 961 & 960)
 NORTH BERGEN / BOROUGH OF FAIRFIELD HUDSON / BERGEN, NJ

SCALE: 1"= 50'	NJMC PROJECT: PHASE 4	SHEET #: 67 OF 85
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ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
701A	FIBER OPTIC CABLE, TYPE A1	3,180 LF

NOTE:
1. ORIGINAL ITS PLAN TITLED "ITS FACILITIES PLANS ROUTE 1&9 SECTION 28", DATED 07-20-2005, PREPARED BY TAMS CONSULTANTS, INC.

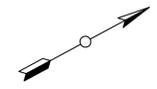
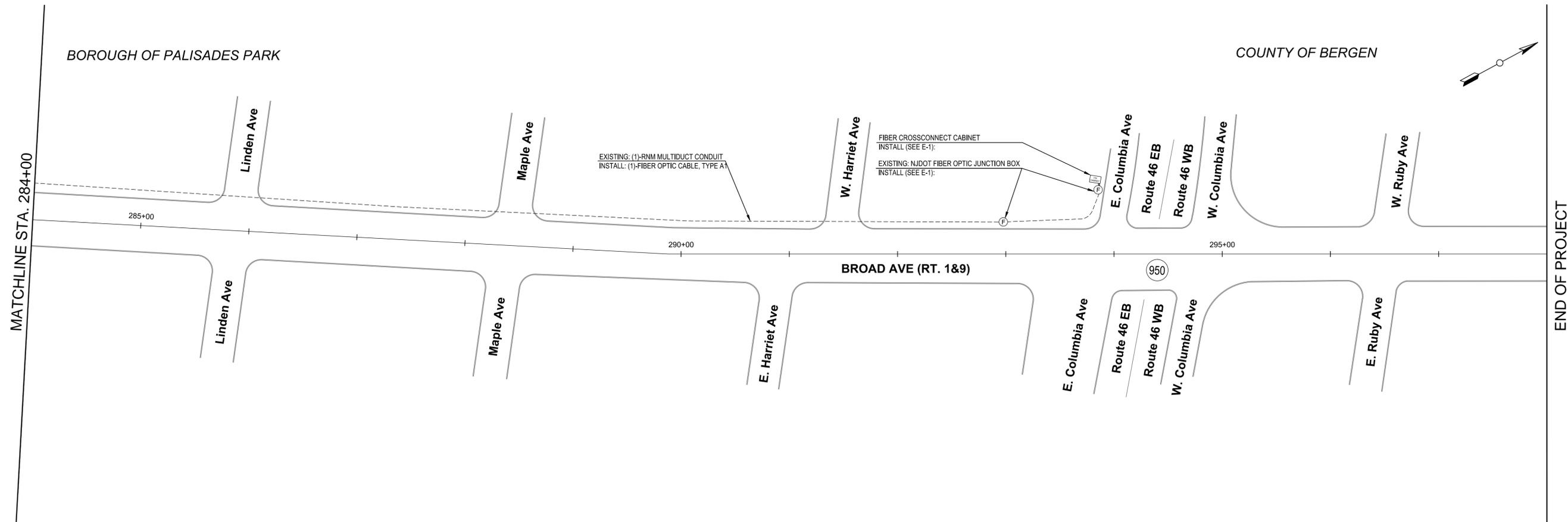
REVISIONS:		
NO.	DESCRIPTION	DATE

DRAWN BY: OG	APPROVED BY: HY
CHECKED BY: LA	DATE: 2/01/2013

NEW JERSEY MEADOWLANDS COMMISSION
ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434

MASSIR
MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION

DAVID LIEBGOLD <i>David Liebgold</i> PROFESSIONAL ENGINEER N.J. LIC. GE48897	HONG YUAN <i>Hong Yuan</i> PROFESSIONAL ENGINEER N.J. LIC. GE48348	LEOMAR ALMANZAR <i>Leomar Almanzar</i> PROFESSIONAL ENGINEER N.J. LIC. GE48348	ITS PLAN -13- ROUTE U.S. 1 & 9 (Intersection 952 & 951) BOROUGH OF RIDGEFIELD BERGEN, NJ
SCALE: 1"= 50'		NJMC PROJECT: PHASE 4	SHEET #: 71 OF 85



ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
701A	FIBER OPTIC CABLE, TYPE A1	1,120 LF

NOTE:
 1. ORIGINAL ITS PLAN TITLED "ITS FACILITIES PLANS ROUTE 1&9 SECTION 28", DATED 07-20-2005, PREPARED BY TAMS CONSULTANTS, INC.

REVISIONS:		
NO.	DESCRIPTION	DATE

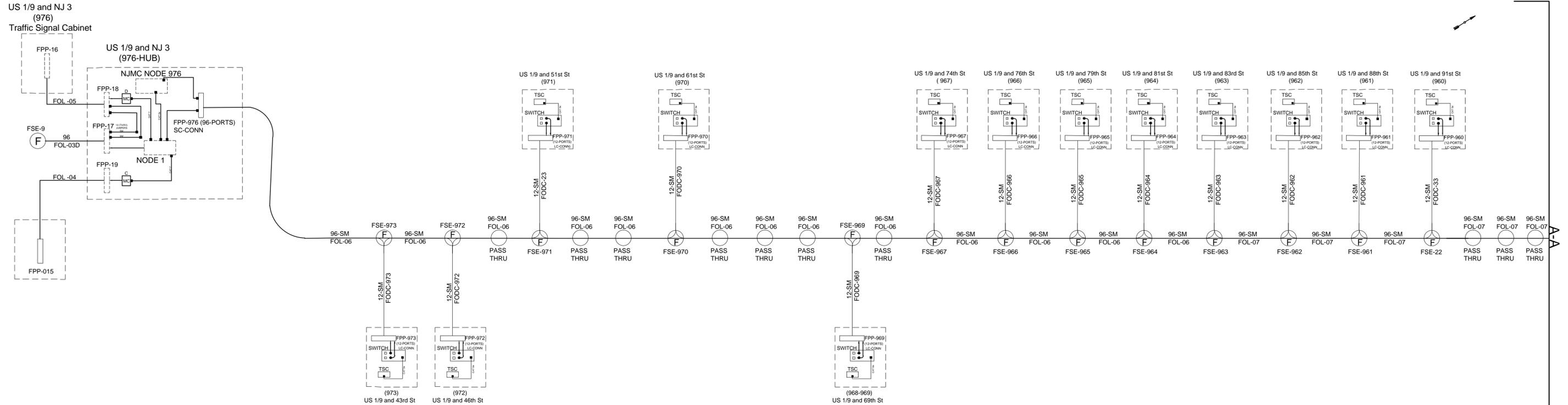
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CHECKED BY: LA	DATE: 2/01/2013

NEW JERSEY MEADOWLANDS COMMISSION
 ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434

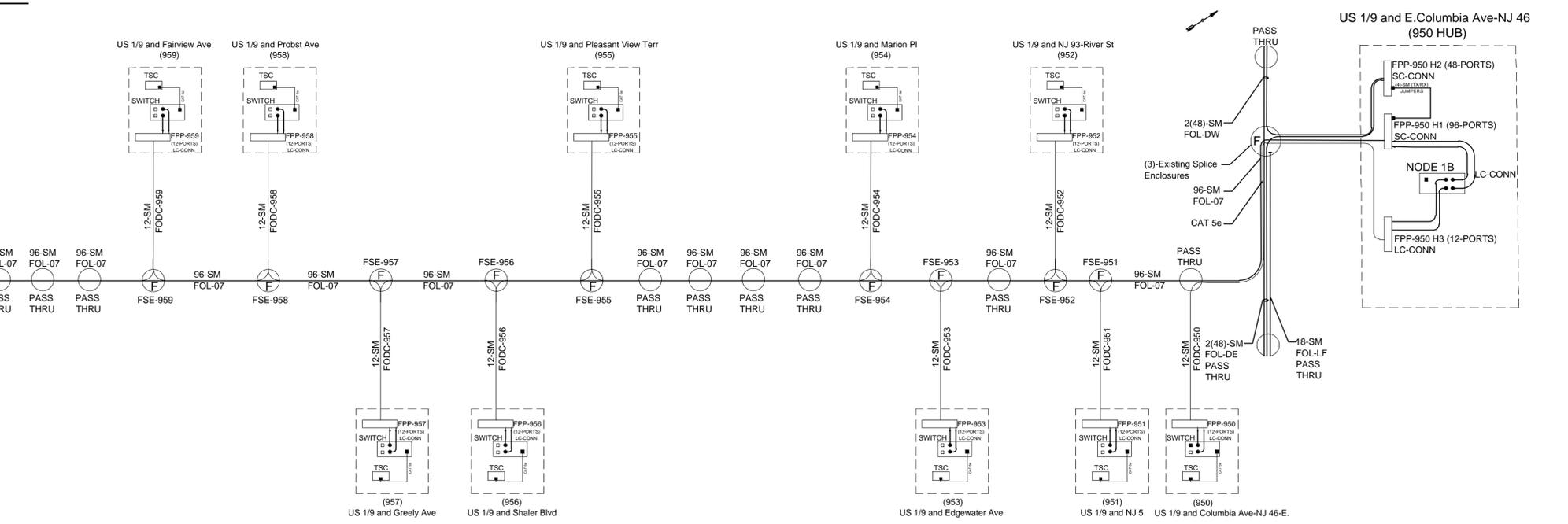
MASTR
 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION

DAVID LIEBGOLD PROFESSIONAL ENGINEER N.J. LIC. GE45897	HONG YUAN PROFESSIONAL ENGINEER N.J. LIC. GE48481	LEOMAR ALMANZAR PROFESSIONAL ENGINEER N.J. LIC. GE48348	ITS PLAN -14- ROUTE U.S. 1 & 9 (Intersection 950) BOROUGH OF PALISADES PARK BERGEN, NJ SCALE: 1"= 50' NJMTC PROJECT: PHASE 4 SHEET #: 72 OF 85
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PROJECT BEGINS



A-A



PROJECT ENDS

LEGEND

- — EXISTING FIBER OPTIC MANHOLE
- ⊕ — EXISTING FIBER OPTIC MANHOLE WITH SPLICE ENCLOSURE
- — EXISTING FIBER OPTIC PATCH PANEL (FPP)
- — PROPOSED FIBER OPTIC PATCH PANEL (FPP)
- — PROPOSED TRAFFIC SIGNAL CONTROLLER (TSC)
- — PROPOSED ETHERNET SWITCH
- — SFP-10/100/1000 BASE-X ETHERNET PORT
- — 10/100/1000 BASE-T ETHERNET PORT
- — 10/100 BASE-TX ETHERNET PORT
- FSE XX — FIBER SPLICE ENCLOSURE
- FOL XX — FIBER OPTIC LINK
- FODC — FIBER OPTIC DROP CABLE

REVISIONS:

NO.	DESCRIPTION	DATE

DRAWN BY: LA APPROVED BY: DL
 CHECKED BY: DL DATE: 2/01/2013

NEW JERSEY MEADOWLANDS COMMISSION
 ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434

MASSTR
 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION

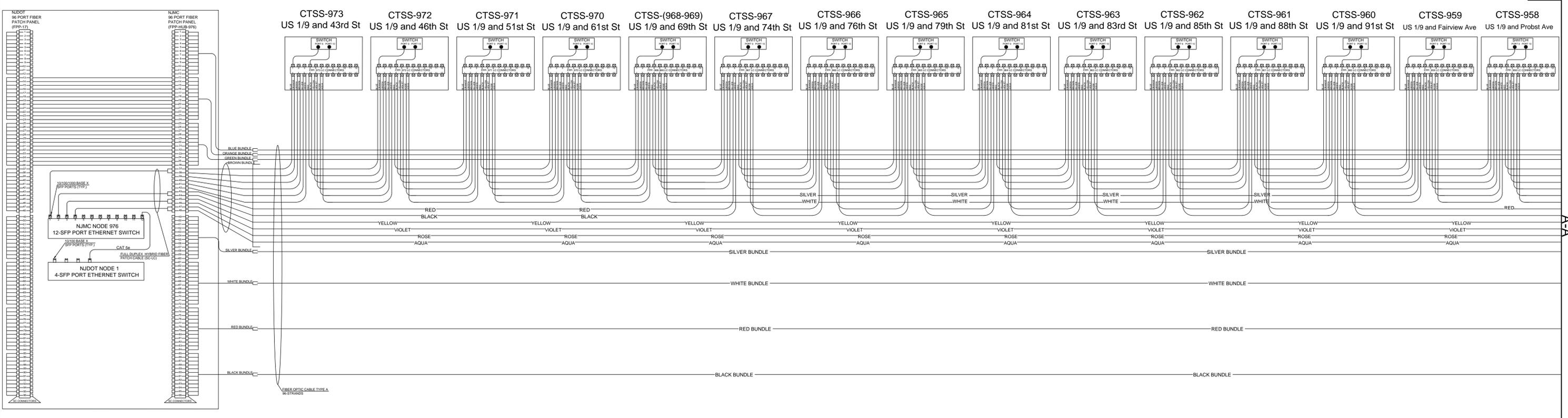
DAVID LIEBGOLD
David Liebgold
 PROFESSIONAL ENGINEER N.J. LIC. GE45887

HONG YUAN
Hong Yuan
 PROFESSIONAL ENGINEER N.J. LIC. GE46481

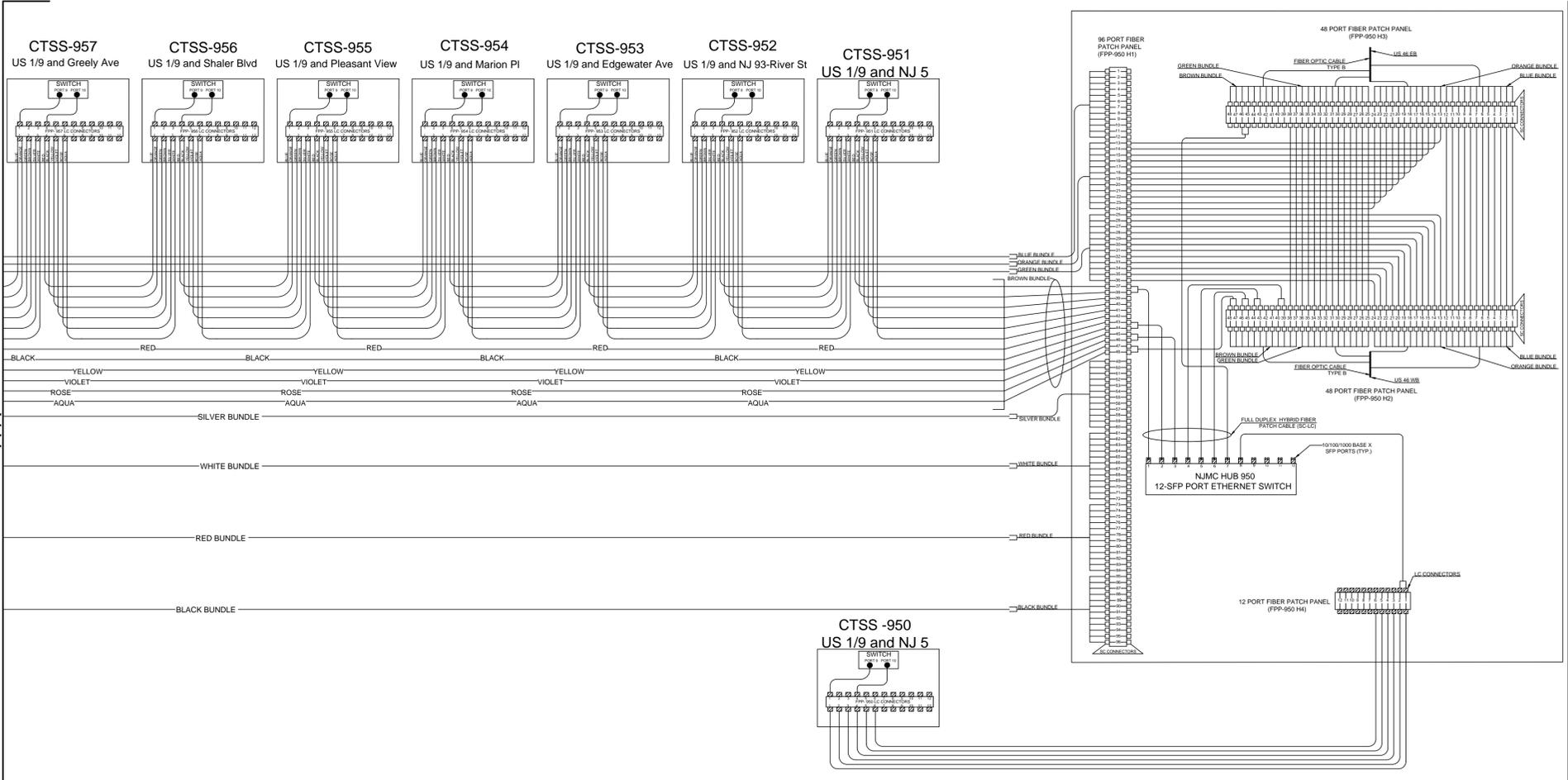
LEOMAR ALMANZAR
Leomar Almanzar
 PROFESSIONAL ENGINEER N.J. LIC. GE48348

FIBER OPTIC COMMUNICATION SCHEMATIC -1-
 ROUTE U.S. 1 & 9
 BERGEN AND HUDSON, NJ
 SCALE: N.T.S. NJMC PROJECT: PHASE 4 SHEET #: 73 OF 85

PROJECT BEGINS

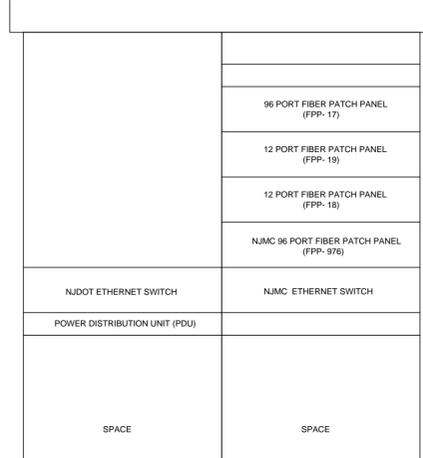


A-A

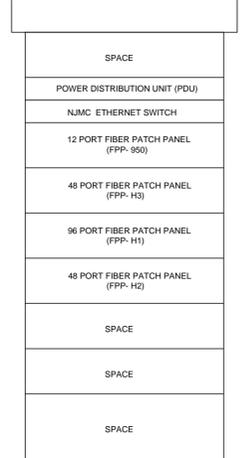


PROJECT ENDS

COMMUNICATION HUB 976
US 1/9 & NJ 3



COMMUNICATION HUB 950
US 1/9 & US 46



REVISIONS:

NO.	DESCRIPTION	DATE

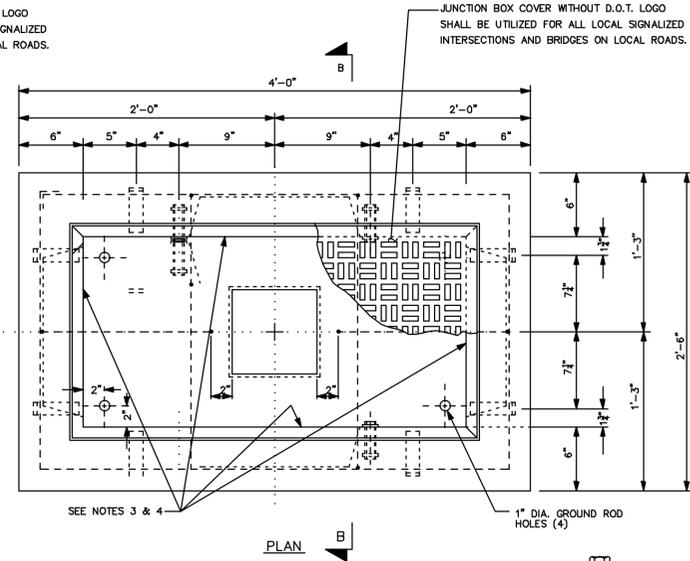
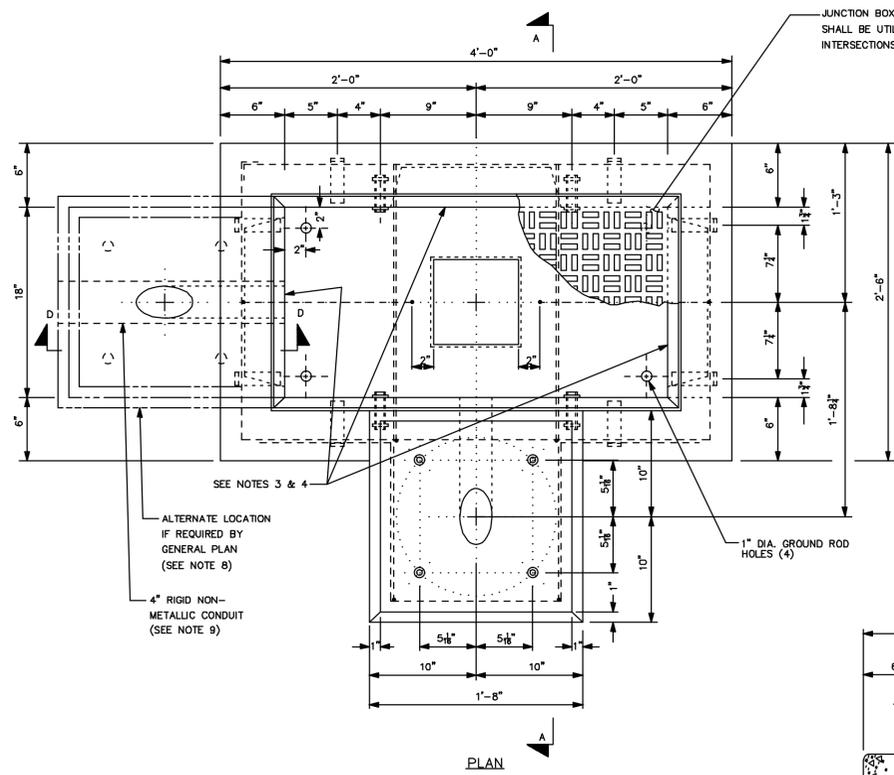
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 CHECKED BY: DL DATE: 2/01/2013

NEW JERSEY MEADOWLANDS COMMISSION
 ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434

MASSTR
 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION



DAVID LIEBGOLD <i>David Liebgold</i> PROFESSIONAL ENGINEER N.J. LIC. GE45897	HONG YUAN <i>Hong Yuan</i> PROFESSIONAL ENGINEER N.J. LIC. GE4841	LEOMAR ALMANZAR <i>Leomar Almanzar</i> PROFESSIONAL ENGINEER N.J. LIC. GE48348	FIBER OPTIC COMMUNICATION BLOCK WIRING DIAGRAM -1- ROUTE U.S. 1 & 9 BERGEN AND HUDSON, NJ SCALE: N.T.S. NJMC PROJECT: PHASE 4 SHEET #: 73 OF 85
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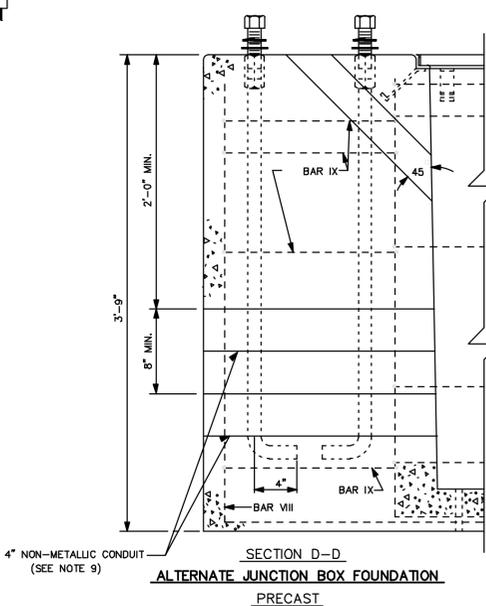
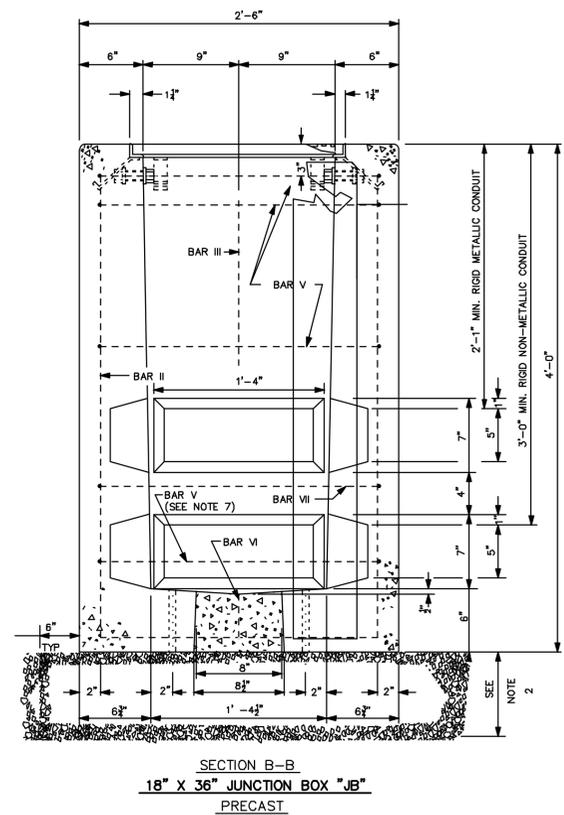
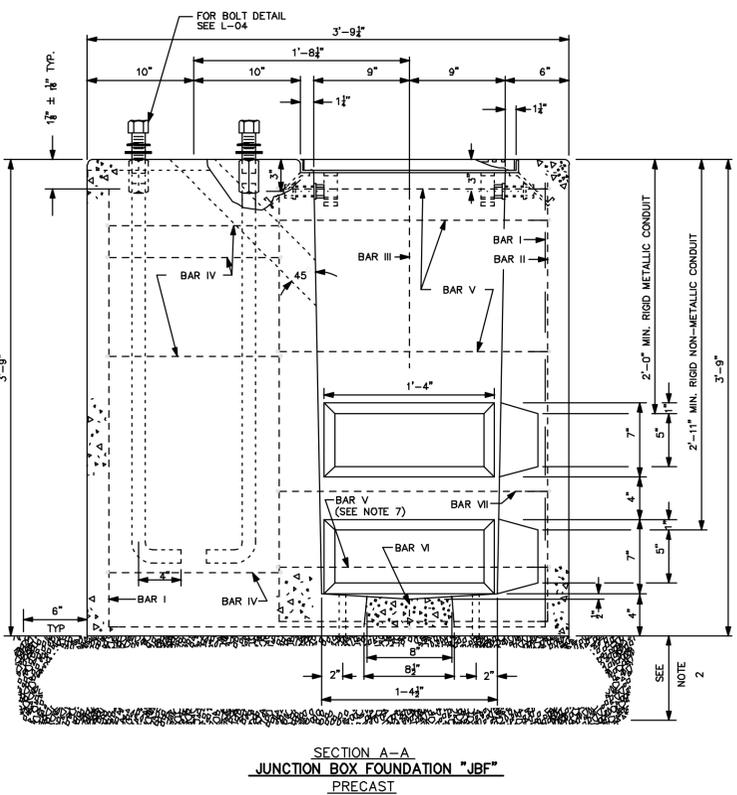
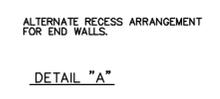
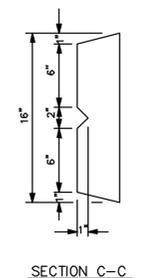


ITEM
JUNCTION BOX FOUNDATION "JBF"

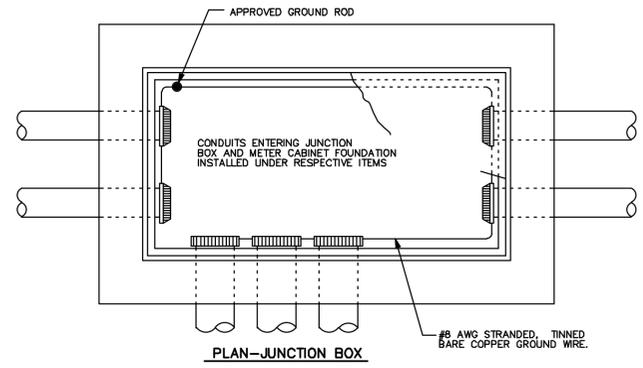
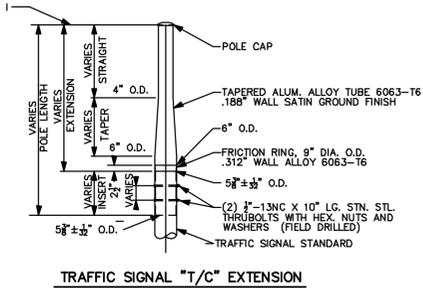
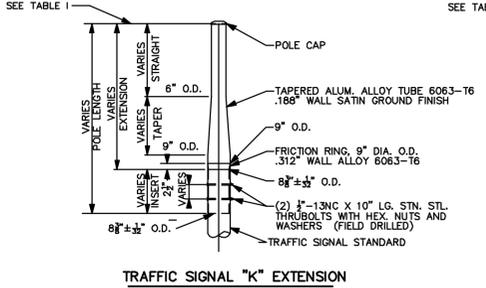
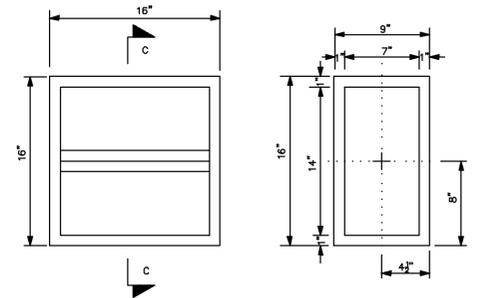
MARK	SIZE NO. 4 RODS			NO. RODS REQ.
	A	B	C	
I	41"	40"	40"	2
II	40"	24"	—	2
III	19"	—	—	2
IV	15"	16"	12"	4
V	44"	26"	4"	4
VI	1"	15"	—	2
VII	15"	26"	—	2
VIII	40"	59"	—	2
IX	15"	16"	4"	4

ITEM
18" X 36" JUNCTION BOX "JB"

MARK	SIZE NO. 4 RODS			NO. RODS REQ.
	A	B	C	
II	42"	25"	—	4
III	21"	—	—	2
V	44"	26"	4"	3
VI	2"	16"	—	2
VII	15"	26"	—	2



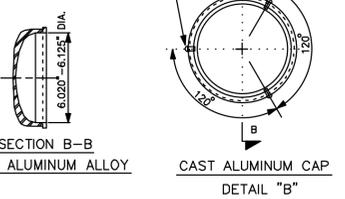
- NOTES:
- THE CONSTRUCTION AND INSTALLATION OF PRECAST JUNCTION BOX FOUNDATION AND 18" X 36" JUNCTION BOX SHALL CONFORM TO SPECIFICATIONS FOR THE CONTRACT AND TO DETAILS AND NOTES SHOWN ON THIS DRAWING AND SHALL INCLUDE APPLICABLE NOTES AND DETAILS SHOWN ON DRAWING FOR CAST-IN-PLACE TYPE.
 - COMPACTED 3/4" GRAVEL OR BROKEN STONE BASE REQUIRED FOR ALL PRECAST UNITS. MINIMUM DEPTH 6".
 - A 16" X 7" X 4" RECESS TO BE PROVIDED IN SIDE AND END WALLS AS SHOWN.
 - AFTER THE INSTALLATION OF CONDUIT, ALL OPEN RECESSES ARE TO BE COMPLETELY BRICKED AND FINISHED.
 - AN ALTERNATE RECESS ARRANGEMENT MAY BE SUBSTITUTED AS SHOWN BELOW IN DETAIL "A" & "B". IF THIS ARRANGEMENT IS USED AND THE CONDUIT IS BROUGHT INTO THE JUNCTION BOX THROUGH THE TOP OF THE RECESS THEN THE ENTIRE RECESS MUST BE BRICKED FROM TOP TO BOTTOM.
 - PRECAST JUNCTION BOX FOUNDATION MAY BE INSTALLED BEHIND THE GUIDE RAIL OR IN AREAS WHERE THE SLOPE IS LESS THAN 1:22.
 - INSTALL THIS BAR WHEN USING DETAIL "A" ONLY.
 - FOR ALTERNATE LOCATION FOR THE FOUNDATION, USE MARK VII AND IX IN PLACE OF MARK I AND IV.
 - ALIGN CONDUITS.



- NOTE:
- FURNISH WITH EACH STANDARD:
 - FRICITION RING, 9" DIA. O.D. .312" WALL ALLOY 6063-T6
 - POLE CAP
 - 2" - 13NC X 10" LG. STN. STL. THROBOLTS WITH STN. STL. HEX NUTS AND STN. STL. WASHERS (FIELD DRILLED)
 - CERTIFICATIONS SHALL BE FURNISHED THAT ALUMINUM ALLOY AND TEMPER SHOWN MEET REQUIREMENTS AS SET FORTH BELOW OR AS OTHERWISE INDICATED ON DRAWING.
 - CONTRACTOR SHALL PROVIDE DESIGN OF EXTENSIONS, INCLUDING FINAL DIMENSIONS, CERTIFIED BY A NEW JERSEY LICENSED PROFESSIONAL ENGINEER.

TABLE 1 - EXTENSION POLE

POLE TYPE	POLE LENGTH (FT)	EXTENSION (FT)	TAPER (FT)	STRAIGHT (FT)	INSERT (FT)
C	—	—	—	—	—
T	—	8.7	—	—	—
K	—	17.5	—	—	—



REVISIONS:

NO.	DESCRIPTION	DATE

DRAWN BY: LA APPROVED BY: DL
 CHECKED BY: HY DATE: 2/01/2013

DAVID LIEBGOLD
 PROFESSIONAL ENGINEER N.J. LIC. GE45897

HONG YUAN
 PROFESSIONAL ENGINEER N.J. LIC. GE48481

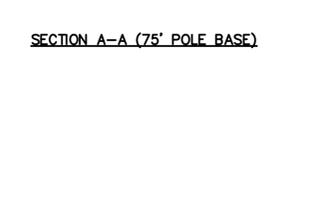
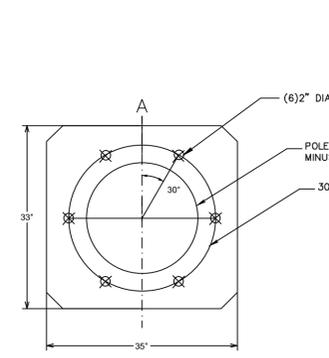
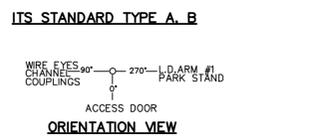
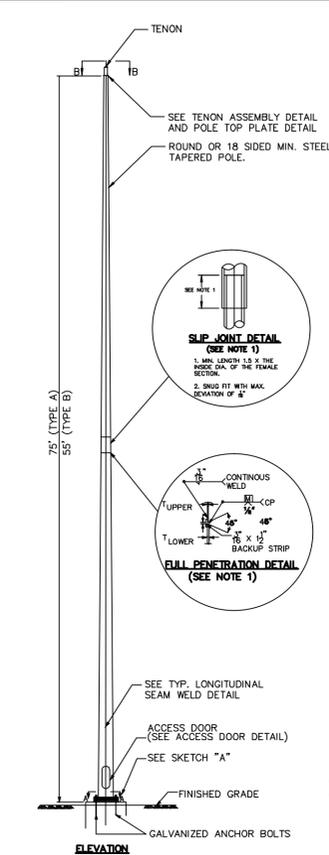
LEOMAR ALMANZAR
 PROFESSIONAL ENGINEER N.J. LIC. GE48348

CONSTRUCTION DETAILS -1-
 SCALE: N.T.S. NJMC PROJECT: PHASE 4 SHEET #: 74 OF 85

NEW JERSEY MEADOWLANDS COMMISSION
 ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434

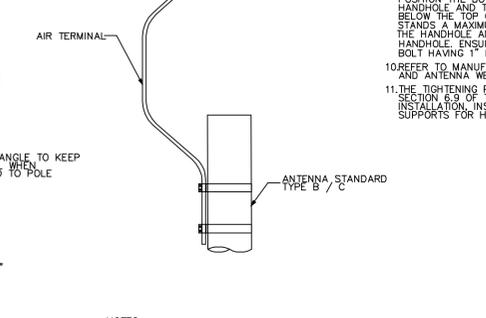
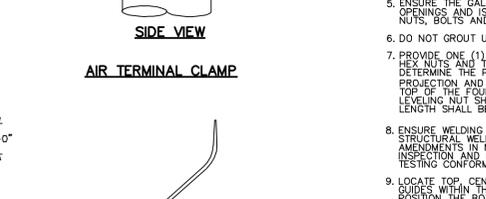
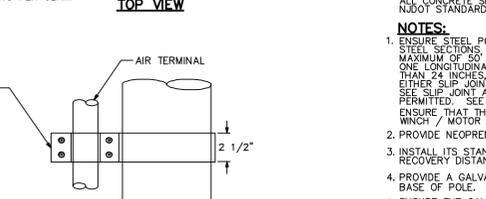
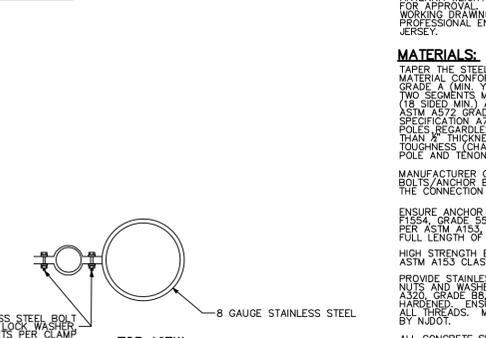
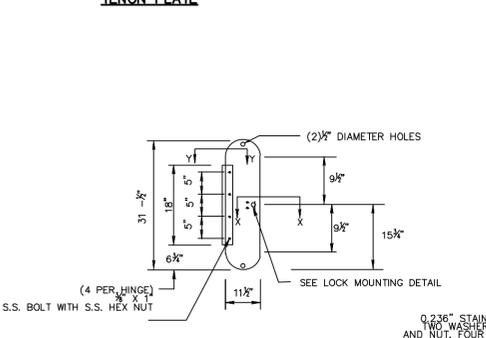
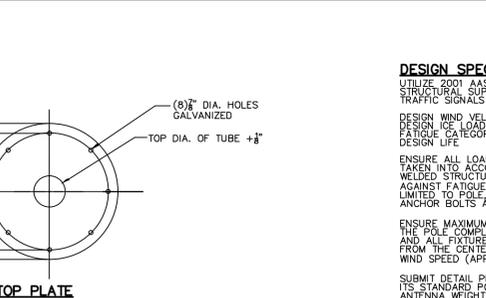
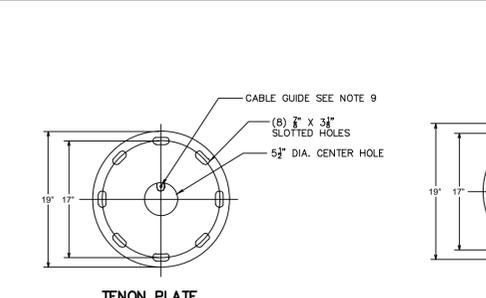
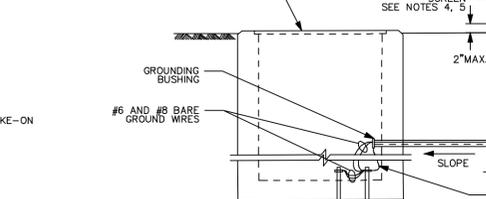
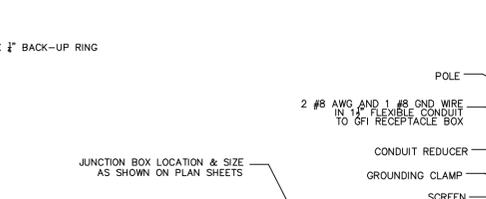
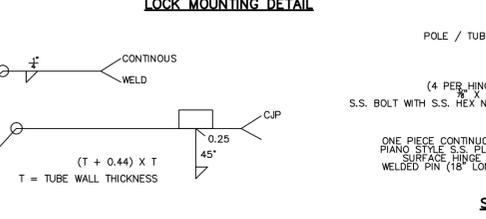
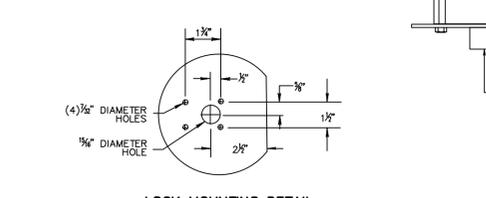
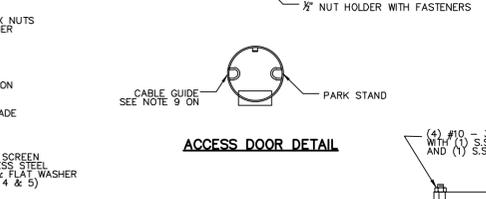
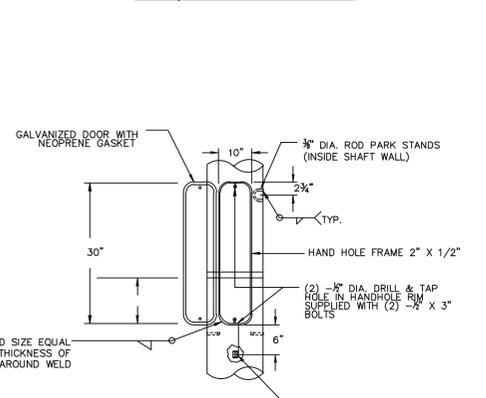
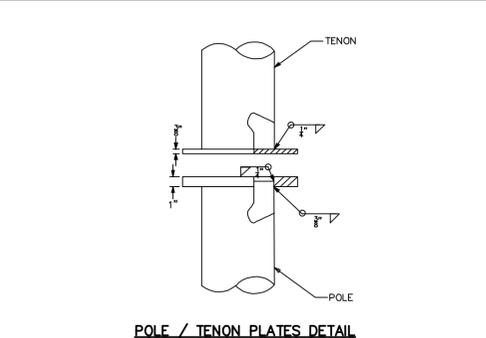
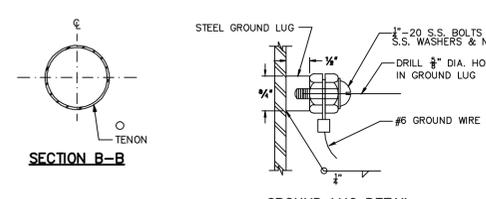
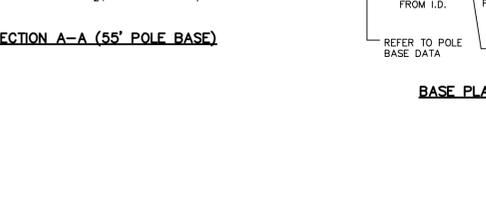
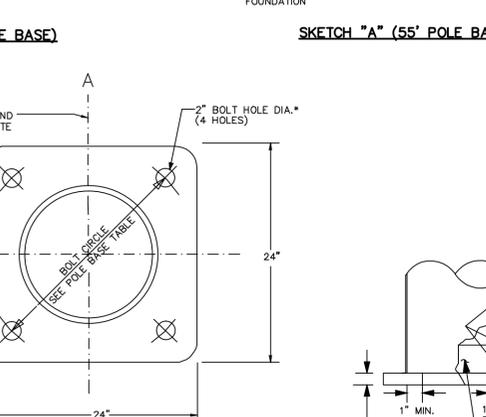
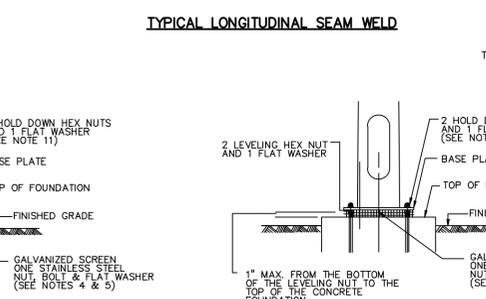
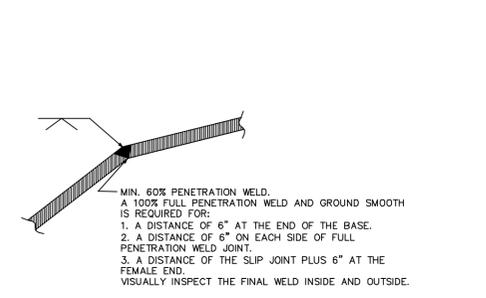
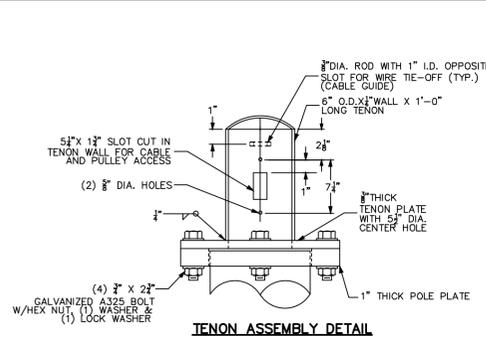
MASSIR
 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION

TIGER 2



POLE BASE TABLE				
POLE TYPE	POLE HEIGHT (IN)	BASE PLATE SIZE (AxB) (IN)	BOLT CIRCLE DIAMETER (IN)	BOLT HOLE DIAMETER (IN)
A	75'	35X33	30	2"
B	55'	24X24	24	2"

* FOR ANCHOR BOLD DIA. 1 3/4"



- NOTES:**
- INSTALL ALL WIRING INSIDE THE POLE AND PROVIDE STRAIN RELIEF FOR ALL ANTENNA CABLES.
 - SUPPORT ELECTRICAL AND COMMUNICATION CABLES WITH SEPARATE TRIPS.

REVISIONS:

NO.	DESCRIPTION	DATE

DRAWN BY: LA

APPROVED BY: DL

CHECKED BY: HY

DATE: 2/01/2013

NEW JERSEY MEADOWLANDS COMMISSION

ONE DEKORTE PARK PLAZA LYNDHURST NJ 07071 - PHONE (201) 460-1700 - FAX (201) 460-8434

MASSTR

MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION

TIGER

DAVID LIEBGOLD

HONG YUAN

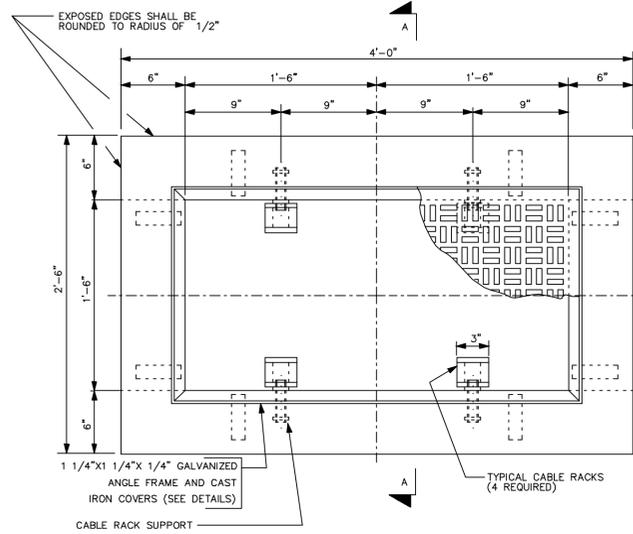
LEOMAR ALMANZAR

CONSTRUCTION DETAILS -2-

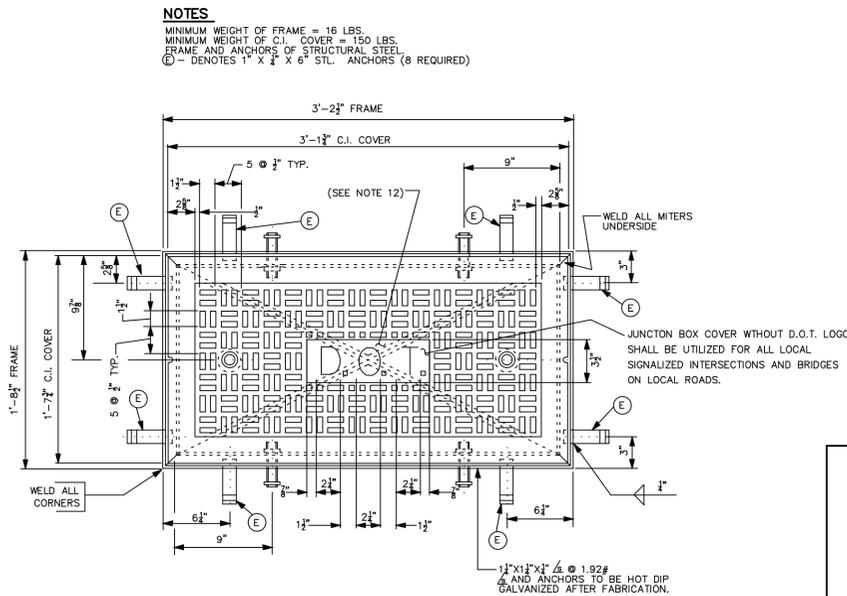
SCALE: N.T.S.

NJMC PROJECT: PHASE 4

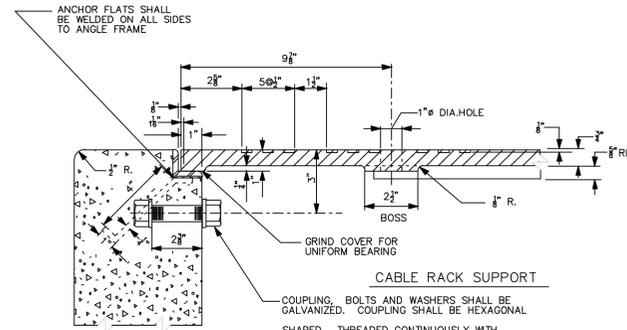
SHEET #: 75 OF 85



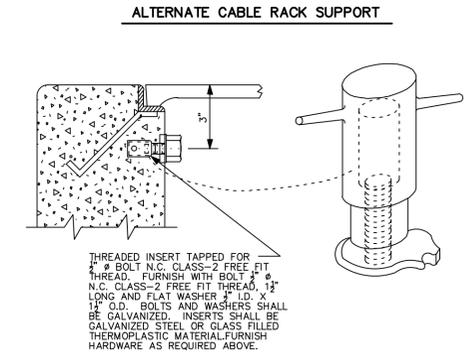
PLAN
18' X 36' JUNCTION BOX - CLASS "JB"
 CONCRETE CLASS "C"
 USING APPROVED 5/8" AGGREGATE
 0.8 CU. YD.



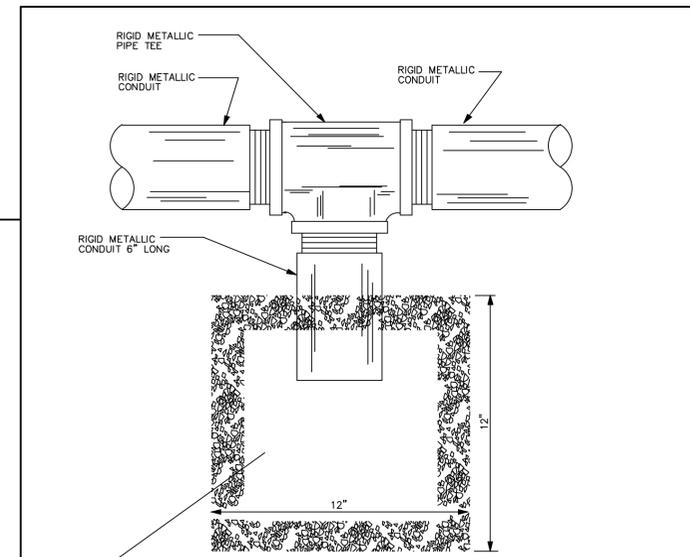
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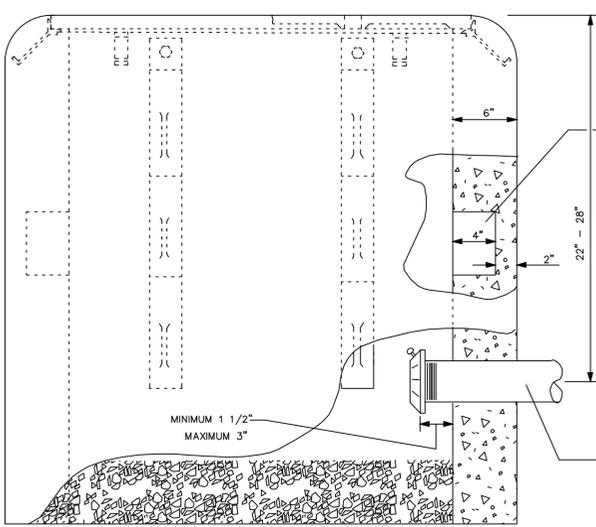
SECTION THRU JUNCTION BOX



ALTERNATE CABLE RACK SUPPORT



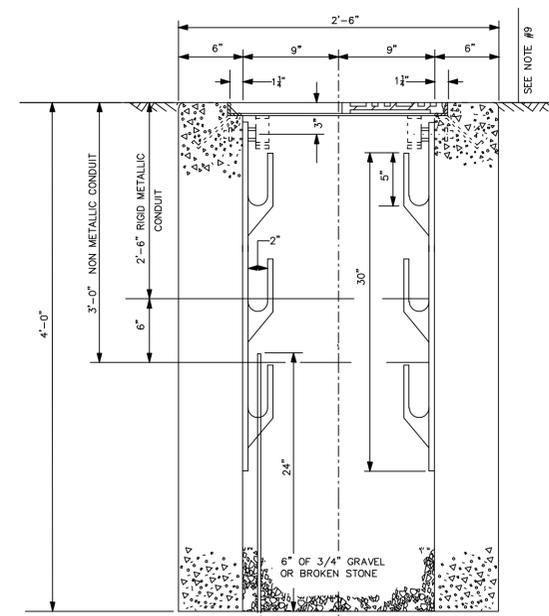
TYPICAL TEE DRAIN



ELEVATION

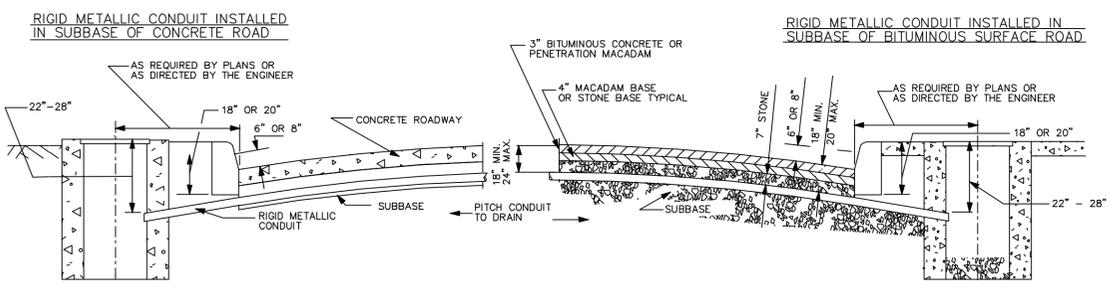
6"X18"X4" RECESS IN END WALLS OF JUNCTION BOX FOR INSERTING REQUIRED CONDUITS. NUMBER OF CONDUITS ENTERING JUNCTION BOX SHALL BE DETERMINED FROM THE GENERAL PLANS. WALL OF RECESS SHALL BE BROKEN, CONDUIT(S) INSERTED AND REMAINING AREA OF WALL AND RECESS SHALL BE COMPLETELY SEALED WITH GROUT.

ADDITIONAL OPENINGS SHALL BE PROVIDED AT APPROVED ELEVATIONS FOR UNDER ROADWAY CONDUITS ENTERING JUNCTION BOX - TYPICAL.

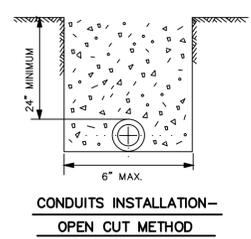


SECTION A-A

- NOTES:
- JUNCTION BOX FOUNDATION SHALL BE SET PARALLEL TO THE CURB AND TOP OF JUNCTION BOX SHALL BE SET AT GRADE IN SIDEWALK, PAVED AREA, IN GRASS OR DIRT AREAS.
 - CABLE RACKS FURNISHED AND INSTALLED AS INDICATED.
 - BONDING AND GROUNDING INSULATED BUSHINGS SHALL BE INSTALLED ON METALLIC CONDUITS TERMINATING IN JUNCTION BOXES AND/OR FOUNDATIONS AND SHALL HAVE A FITTING TO PREVENT ENTRY OF FOREIGN MATTER PRIOR TO INSTALLATION OF WIRING.
 - A NYLON CORD, 125 POUND MINIMUM TEST STRENGTH, SHALL BE FURNISHED AND INSTALLED IN ALL CONDUITS. SEE SPECIFICATIONS.
 - CONDUITS SHALL ENTER JUNCTION BOX PERPENDICULAR TO WALLS OR AS APPROVED BY THE ENGINEER. A 2" SEPARATION SHALL BE MAINTAINED BETWEEN ADJACENT WALLS, CONDUITS, AND CABLE RACK LOCATIONS.
 - TERMINAL ENDS OF ALL METALLIC CONDUIT SHALL BE THREADED.
 - ALL NON-METALLIC CONDUITS SHALL TERMINATE WITH BELL END CONSTRUCTION IN JUNCTION BOX.
 - ALL UNUSED CONDUITS SHALL BE PLUGGED OR CAPPED.
 - ENGINEER MAY REQUIRE TOP OF JUNCTION BOX TO BE INCLINED IN ORDER TO CONFORM WITH FIELD CONDITIONS. JUNCTION BOX SHALL BE SET TO GRADE IN SIDEWALK AREA AND IN ALL OTHER AREAS.
 - WARNING TAPE SHALL BE A RED 4 MIL. FLEXIBLE POLYETHYLENE FILM WHICH IS RESISTANT TO ACIDS, BASES, HYDROCARBONS AND WATER.
 - IN INCLINE AREA, NO PART OF THE JUNCTION BOX SHALL EXTEND MORE THAN 4" ABOVE THE FINISH GRADE.
 - JUNCTION BOX COVER WITHOUT D.O.T. LOGO SHALL BE UTILIZED FOR ALL LOCAL SIGNALIZED INTERSECTIONS AND BRIDGES ON LOCAL ROADS.

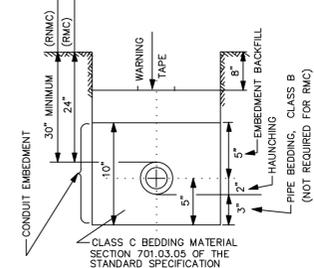


TYPICAL INSTALLATION OF UNDER ROADWAY RIGID METALLIC CONDUITS AND TYPICAL JUNCTION BOXES (18'X36') INSTALLATION
 SUBJECT TO APPROVAL OF THE ENGINEER



CONDUITS INSTALLATION - OPEN CUT METHOD

WARNING TAPE
 CAUTION CAUTION CAUTION
 ELECTRIC LINE BURIED BELOW 6" TYP. BLACK LETTERS ON RED BACKGROUND



NON METALLIC CONDUIT & CUG INSTALLATION
 TYPICAL CONDUIT INSTALLATION

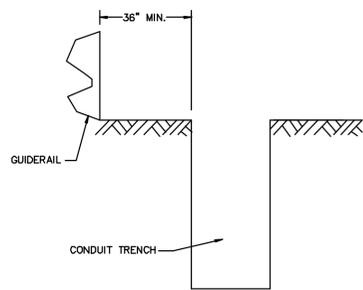
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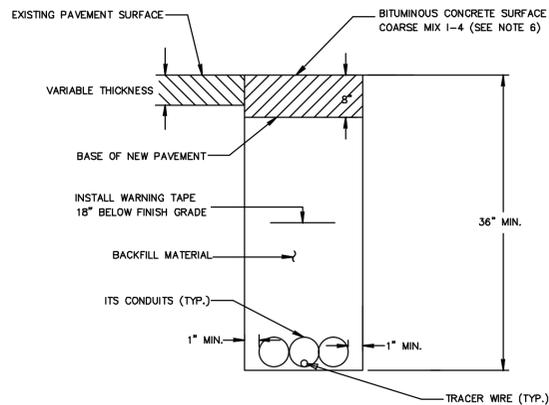
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MASTR
 MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION

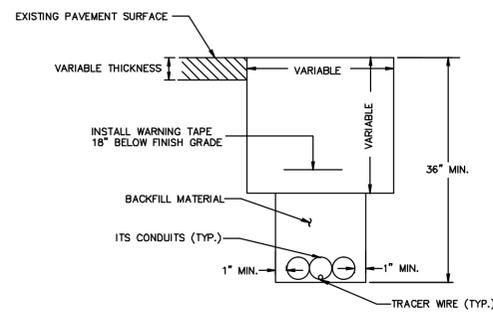
DAVID LIEBGOLD <i>David Liebgold</i> PROFESSIONAL ENGINEER N.J. LIC. GE45897	HONG YUAN <i>Hong Yuan</i> PROFESSIONAL ENGINEER N.J. LIC. GE48481	LEOMAR ALMANZAR <i>Leomar Almanzar</i> PROFESSIONAL ENGINEER N.J. LIC. GE48348	CONSTRUCTION DETAILS -4-
SCALE:	N.J.M.C. PROJECT:	SHEET #:	
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CONDUIT TRENCH OFFSET FROM EXISTING AND PROPOSED GUIDERAIL



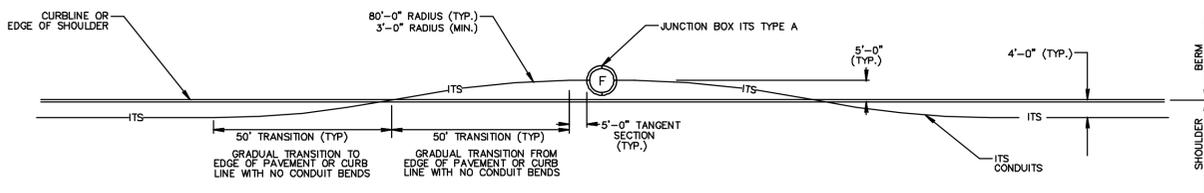
IN BITUMINOUS SHOULDER, TRAVELED WAY OR RAMP AREA



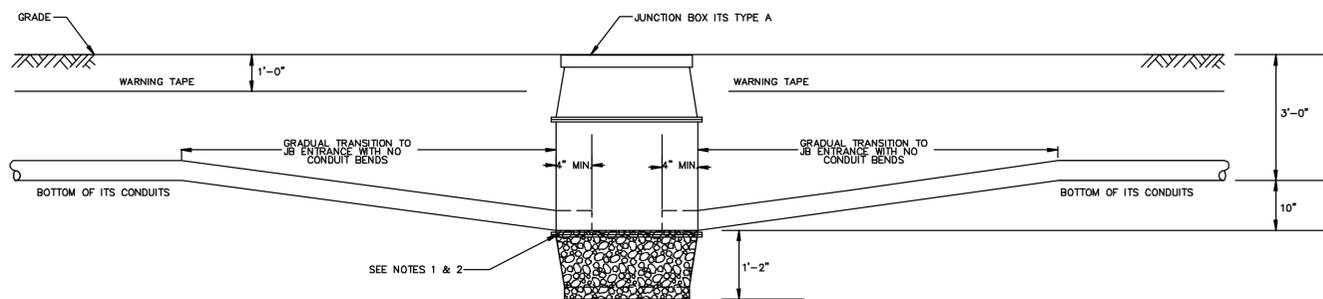
IN REHABILITATED/RECONSTRUCTED CONCRETE SHOULDER OR BITUMINOUS SHOULDER, TRAVELED WAY OR RAMP AREA

NOTES:

1. THE GRADUAL TRANSITION OF CONDUITS ENTERING THE JUNCTION BOX IS TO BE SUCH THAT THE CONDUIT ENDS REST ON THE STONES INSIDE THE JUNCTION BOX.
2. THE TRANSITION MUST PROVIDE FOR SUFFICIENT DRAINAGE TO ENSURE THAT WATER DOES NOT GET TRAPPED IN THE CONDUITS.
3. BACKFILL THE TRENCH WITHIN THE SAME DAY.
4. TRANSITION LAYOUT FOR ITS CONDUITS LEADING TO JUNCTION BOXES ITS TYPE C AND D IS TO BE SIMILAR.

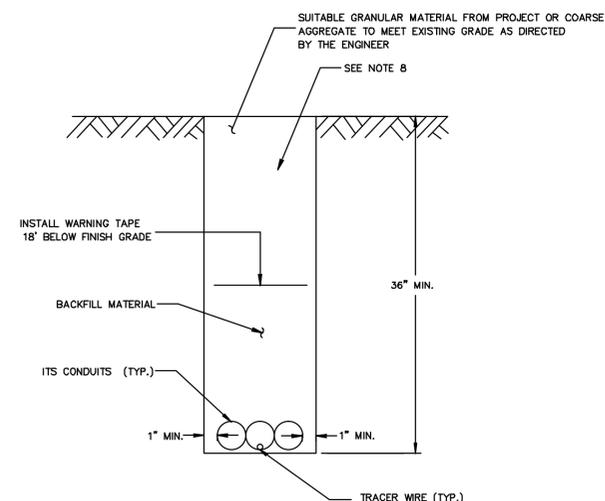


TYPICAL ITS CONDUIT HORIZONTAL TRANSITION

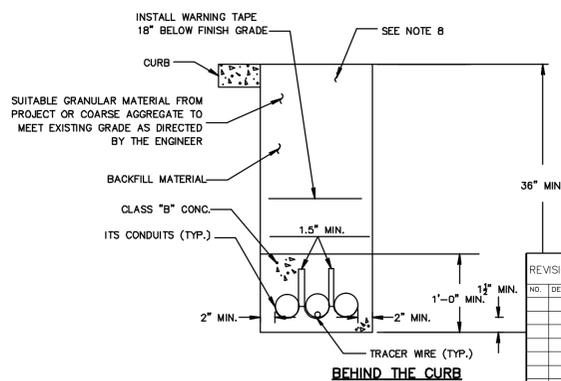


TYPICAL ITS CONDUIT VERTICAL TRANSITION

TYPICAL UNDERGROUND ITS CONDUIT TRANSITION AND LAYOUT



IN GRASS AREA



ITS CONDUIT, TYPE A

NOTES:

1. BEFORE BACKFILLING TRENCH, REMOVE ALL CUT DEBRIS FROM SITE.
2. PREPARE THE TRENCH BOTTOM FOR ITS CONDUITS TO ELIMINATE LUMPS, RIDGES, JAGGED EDGES AND HOLLOW, UTILIZING CLASS C BEDDING MATERIALS.
3. CENTER THE ITS CONDUITS IN THE TRENCH AND HOLD FIRMLY IN PLACE WHILE THE TRENCH IS BACKFILLED.
4. ENSURE THE BACKFILL MATERIAL IS CLASS C BEDDING 2' ABOVE THE TOP OF CONDUIT OR TO THE BOTTOM OF THE PAVEMENT BOX.
5. COMPACT THE BACKFILL MATERIAL IN EQUAL LIFTS TO A MAXIMUM OF 6" EACH WITH A MODIFIED VIBRATORY PLATE COMPACTOR. (MINIMUM THREE PASSES PER LIFT)
6. MOUND UP THE BITUMINOUS CONCRETE SURFACE COARSE MIX 1-4 ABOVE THE EXISTING PAVEMENT SURFACE. AFTER THOROUGH COMPACTION ENSURE FINISH GRADE IS 1/4" ABOVE THE ADJACENT PAVEMENT SURFACE. COMPACT IN ACCORDANCE WITH SECTION 1003 (10 TON VIBRATORY ROLLER).
7. FOR WARNING TAPE DETAILS SEE FIBER OPTIC WARNING TAPE, MARKER & TAG DETAIL.
8. AFTER MATERIAL IS BACKFILLED, SEED AND MULCH IN ACCORDANCE WITH DIVISION 800.
9. WHEN THERE IS A CONCRETE SHOULDER, SAW CUT AND REMOVE THE CONCRETE MATERIAL BACK TO THE CURB, UTILIZING A TRENCHING MACHINE TO MAKE THE TRENCH. ENSURE REPLACEMENT MATERIAL COMPLIES WITH NOTE 11.
10. WHEN THERE IS A CONCRETE SHOULDER WITH BITUMINOUS OVERLAY, REPLACE WITH 8" MINIMUM BITUMINOUS MATERIAL OR MATCH EXISTING SECTION. (SEE NOTE 6)
11. ENSURE QUICK SETTING CONCRETE IS TYPE 1A AND COMPLIES WITH SECTION 903.07. FOR CONCRETE REPLACEMENT ENSURE THE THICKNESS OF THE QUICK SETTING CONCRETE IS THE SAME AS THE EXISTING. REPLACE EXPANSION JOINTS AND DOWELS IN KIND AND INSTALL LONGITUDINAL JOINT TIES IN ACCORDANCE WITH THE STANDARD CONSTRUCTION DETAILS. CONTRACTOR IS TO SUPPLY THE ENGINEER WITH DETAILED DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.
12. INSTALL ONE #14 AWG CONDUCTOR TYPE THHW/THWN IN THE MIDDLE CONDUIT PER TRENCH.
13. UNLESS OTHERWISE SPECIFIED, EACH ITS CONDUIT IS 2" IN DIAMETER (I.D.) MEETING ALL CONDUIT REQUIREMENTS FOR FNMC (HDPE).
14. PRIOR TO TERMINATION, ENSURE THE ITS CONDUITS NORMALIZES A MINIMUM OF 24 HOURS. ENSURE CONDUIT SLACK AND TERMINATIONS INSIDE THE JUNCTION BOX ARE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION FOR DISTANCES BETWEEN JUNCTION BOXES AND THE PROPER TEMPERATURE VARIATION TO ENSURE THE PROPER SLACK AND TERMINATION.
15. ENSURE THAT ONE OF ITS CONDUITS IS RED IN COLOR AND IS INSTALLED ON EITHER THE LEFT OR RIGHT SIDE OF THE TRENCH. THE REMAINING TWO ITS CONDUITS ARE TO BE ORANGE IN COLOR.

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NO.	DESCRIPTION	DATE

DRAWN BY: **DAVID LIEBGOLD**
 CHECKED BY: LA
 APPROVED BY: **HONG YUAN**
 DATE: 2/01/2013

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TIGER 2

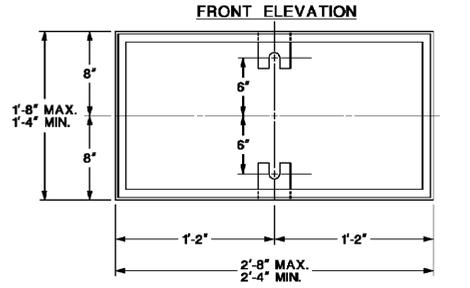
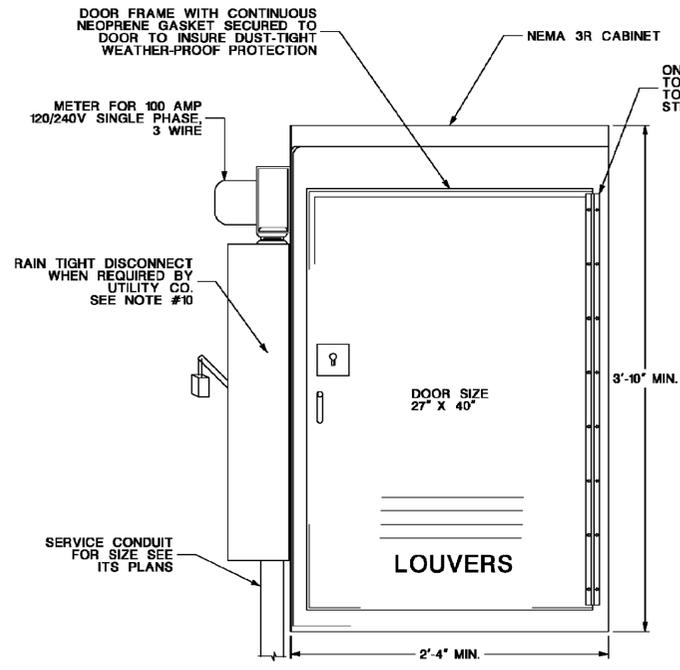
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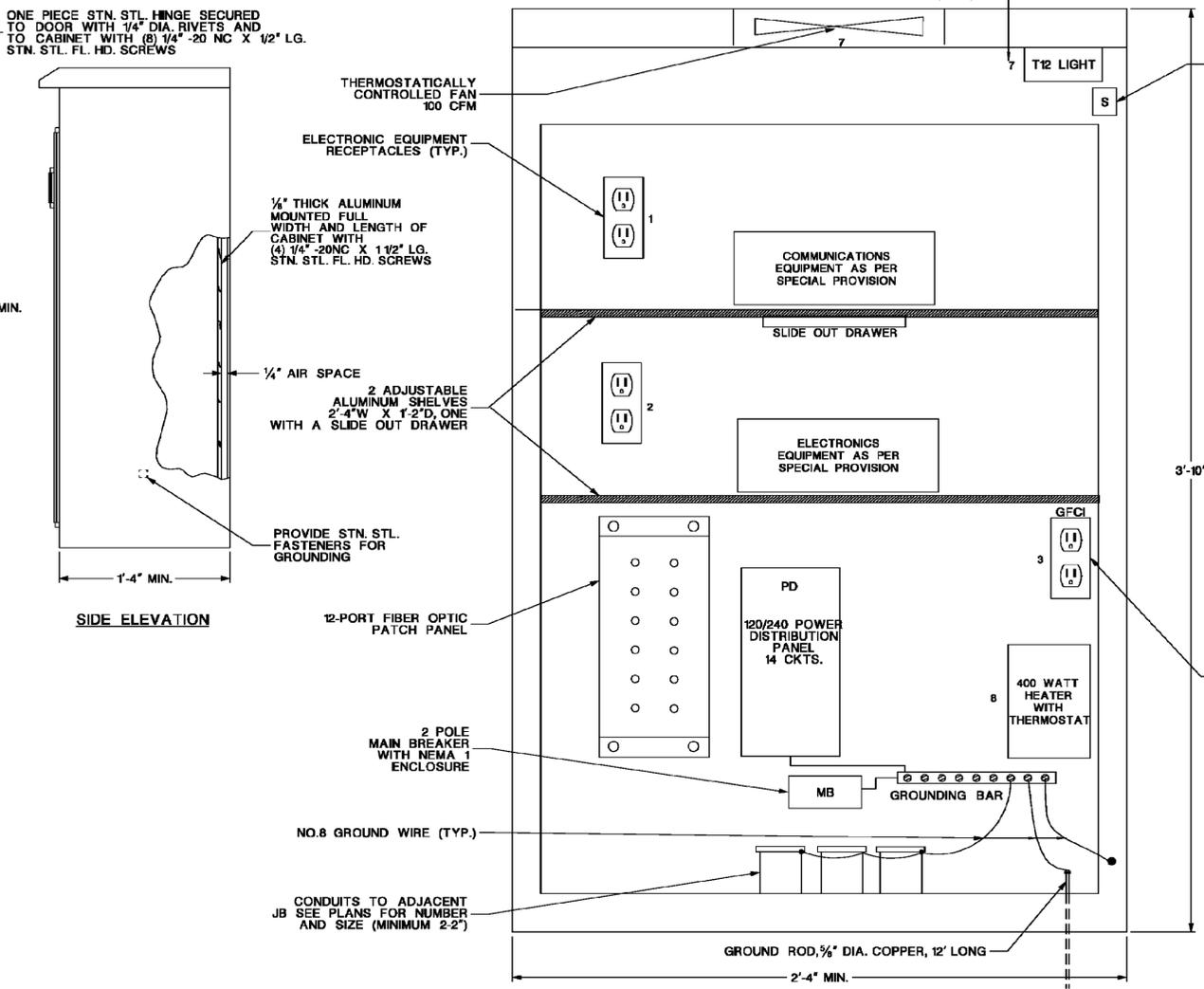
ITS DETAILS -1-

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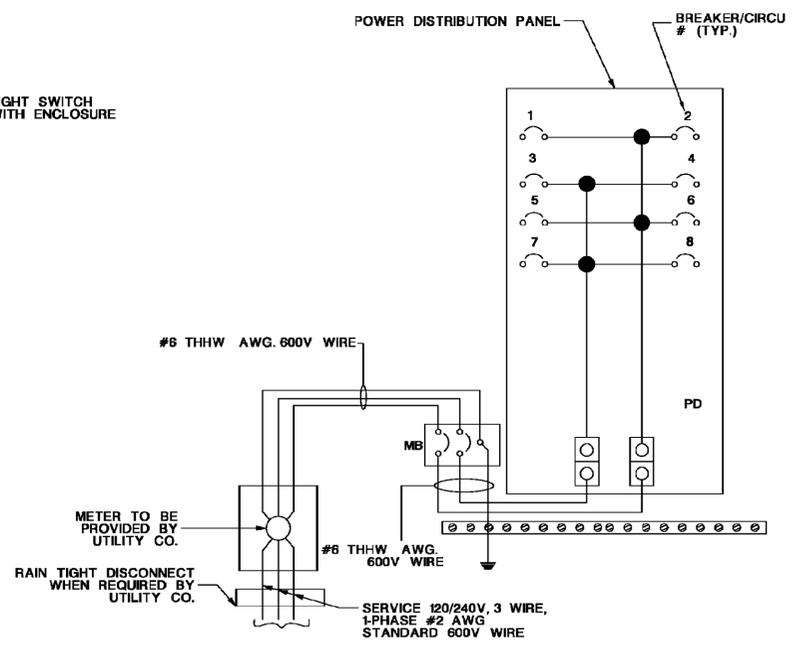


BOTTOM VIEW & ANCHOR BOLT LAYOUT

CABINET TYPE "M" - FABRICATED



CABINET EQUIPMENT LAYOUT (TYP.)



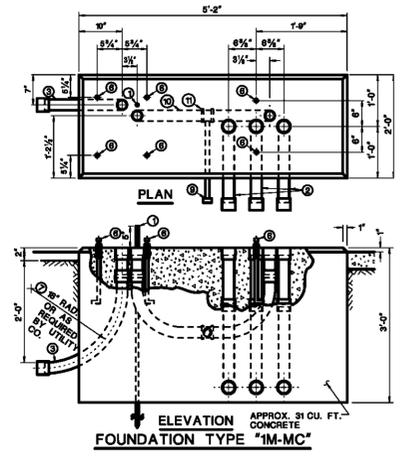
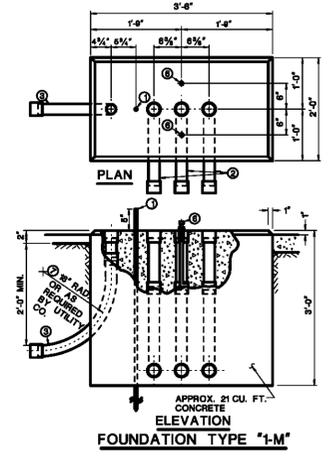
POWER DISTRIBUTION DIAGRAM

CONVENIENCE RECEPTACLE (GFCI)

TABLE A

BREAKERS #	BREAKER RATING	
	FUNCTION	TRIP RATING (AMPS)
MB	MAIN BREAKER 60 AMP	60
1	ELECTRONIC EQUIPMENT RECEPTACLE	15
2	ELECTRONIC EQUIPMENT RECEPTACLE	15
3	CONVENIENCE RECEPTACLE (GFCI)	15
4	SPARE	15
5	SPARE	15
6	SPARE	15
7	FAN & LIGHT	15
8	HEATER	20

- NOTES:**
- ENSURE CABINET AND CABINET DOOR IS FABRICATED FROM SHEET ALUMINUM 1/4" THICK, 5052-H32 ALLOY, UNPAINTED.
 - SUPPLY WITH EACH CABINET (2) ANCHOR BOLTS 3/4"-10NC X 15" LG. STL. WITH GALVANIZED 3" COUPLING (2) STAINLESS STEEL 1 1/4" O.D. X 1/4" THK. FLAT WASHERS AND (2) 3/4"-10NC X 3" LG. STAINLESS STEEL CAP SCR.
 - SECURE CABINET DOOR WITH A SUB-TREASURY LOCK NO. 0357S AND KEYPAD ALIKE FOR KEY NO. 5 AVAILABLE FROM THE AMERICAN HARDWARE CO. NEW BRITAIN, CONN., OR A TUMBLER LOCK NO. 15481ARS AND KEYPAD ALIKE FOR NO. 2 AVAILABLE FROM CORBIN LOCK CO. NEW BRITAIN, CONN.
 - SECURE CABINET LOCK TO THE DOOR WITH #10 - 24 X 1 1/2" ROUND HEAD (STN. STL.) MACHINE SCREWS.
 - 120V EXPOSED WIRING IS NOT PERMITTED. ENCASE WIRING TO ENCLOSURES AND OUTLETS IN LIQUID TIGHT FLEXIBLE CONDUIT AND FITTINGS INSIDE THE CABINET.
 - ENSURE ALL EQUIPMENT IS UL & NEMA LISTED FOR OUTDOOR INSTALLATION INSIDE NEMA 3R CABINET.
 - LABEL ALL ELECTRICAL RECEPTACLES EXCEPT GFCI AS "ELECTRONIC EQUIPMENT ONLY". AND GFCI RECEPTACLE AS "CONVENIENCE RECEPTACLE". FOR BREAKER RATINGS, SEE TABLE A.
 - PROVIDE SURGE SUPPRESSION.
 - METER, RAIN TIGHT DISCONNECT SWITCH AND SERVICE CONDUIT ARE NOT REQUIRED IF ELECTRIC SERVICE IS CONNECTED TO ANOTHER LOAD CENTER AND NOT TO UTILITY COMPANY POWER SOURCE.
 - WHERE REQUIRED, ENSURE METER PAN CONFORMS TO UTILITY COMPANY'S HEIGHT REQUIREMENTS.



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