NOTES

1. EXISTING CONDUIT TO BE RING CUT PRIOR TO SPLICE NIGHT. CABLES TO BE PULLED BACK AND RE-ROUTED INTO NEW 3" HDPE TOWARDS HH 7F. WILL NEED CONTRACTOR TO DUCT SPLICE 3" TO 2" AFTER SPLICE.

2. EXISTING METRONET HANDHOLE/SPLICE: CUT CABLES THE NIGHT OF THE SPLICE AND PULL BACK FOR SPLICE TAILS (36 SM MNET, 12 SM T&T).

3. INSTALL 96 SM FIBER OPTIC CABLE INTO PROPOSED TYPE 3 HANDHOLE 7F FROM BRIDGE BARRIER RAIL. FROM BRIDGE BARRIER RAIL TO HANDHOLE 7F INSTALL CONDUIT CONNECTION.

4. NEW FIBER (96 SM MNET) SHALL BE CONTINUOUS FROM HANDHOLE 7F TO HANDHOLE 1F (ON SHEET N.14).NEW FIBER (48 SM T&T) SHALL BE CONTINUOUS FROM HANDHOLE 7F TO HANDHOLE 1F (ON SHEET N.13).

Typical Installation Depth: 3'-4'

Typical Installation Depth: 3'-4'

PROPOSED 3" CONDUIT (930')
HH 7F TO HH 6F
INSTALL: 1-96 SM (MNET)
INSTALL: 1-48 SM (T&T)
INSTALL: 1-TR/PR
(SEE NOTE 4)

SEE NOTE 1

PROPOSED TYPE 3
HH 7F
(SEE NOTE 3)

SEE NOTE 2

7F

90+06

PROPOSED 3" CONDUIT (60')
FROM EX 2" HDPE CONDUIT TO HH 7F
INSTALL: 1-96 SM (MNET)
INSTALL: 1-48 SM (T&T)
INSTALL: 1-TR/PR

Approximate locations of proposed storm sewer structures.

SE 14TH STREET

EXISTING 2" HDPE CONDUIT AND CABLES:
EX: 36 SM (MNET)
EX: 12 SM (T&T)

HARRIET STREET

Contractor shall contact City of Des Moines Engineering Dept. (Brett Lewis, 515-208-4024) to request survey stakes for proposed storm sewer structures, critical crossings, traffic signals, and other facilities prior to starting work.

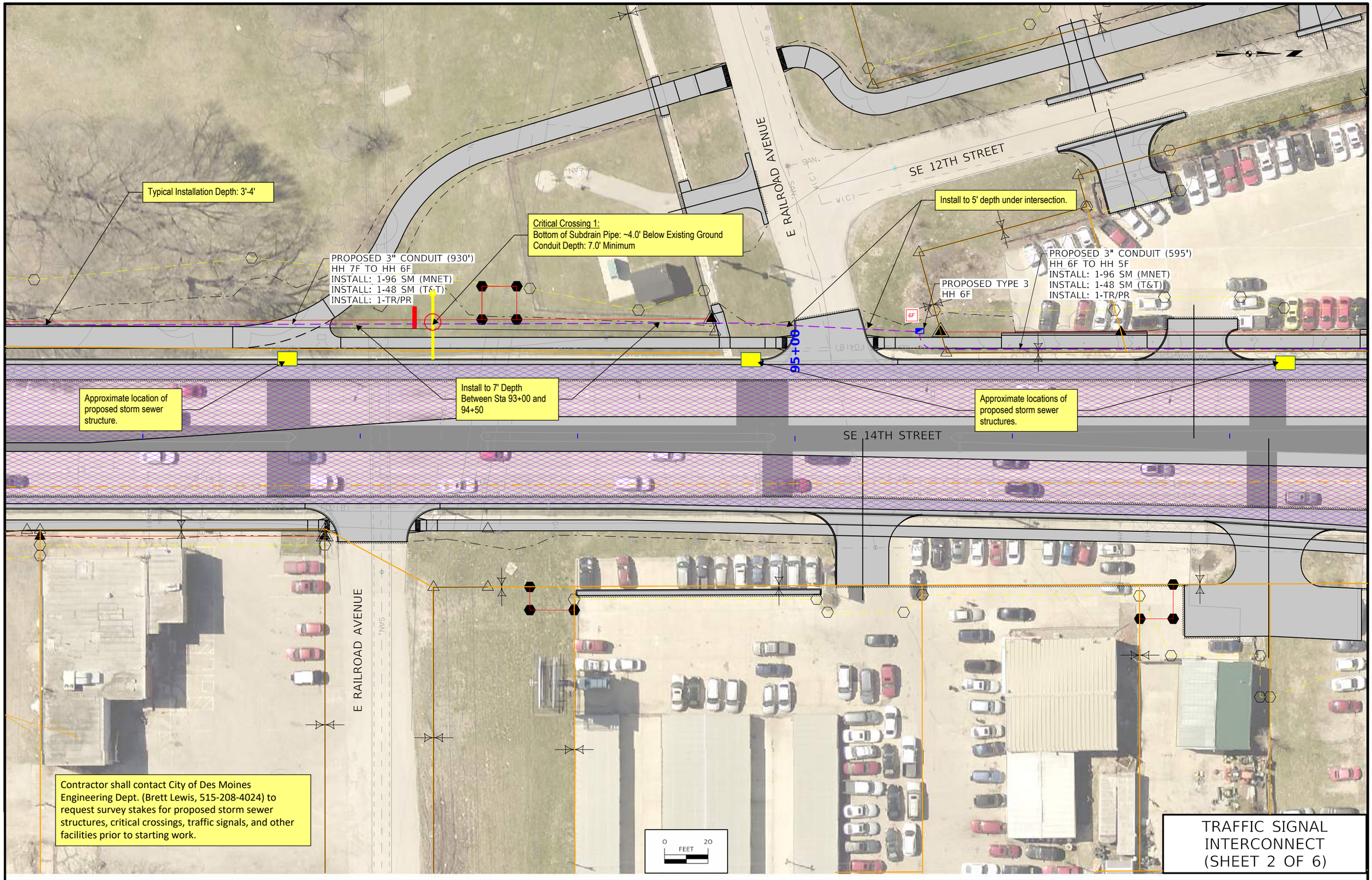
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FEET

TRAFFIC SIGNAL INTERCONNECT (SHEET 1 OF 6)

FILE NO.	ENGLISH	DESIGN TEAM City of Des Moines \ HR Green, Inc.	POLK COUNTY	PROJECT NUMBER NHSX-069-4(110)--3H-77	SHEET NUMBER N.11	06-2022-019

Plan File No.: 683-449

SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC



TRAFFIC SIGNAL INTERCONNECT (SHEET 2 OF 6)

FILE NO.	ENGLISH	DESIGN TEAM City of Des Moines \ HR Green, Inc.	POLK COUNTY	PROJECT NUMBER NHSX-069-4(110)--3H-77	SHEET NUMBER N.12	06-2022-019

SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC

Plan File No.: 683-450

NOTES

1. PULL EXISTING FIBER BACK TO HH E5. REINSTALL FIBER IN NEW 3" CONDUIT. COIL ALL EXISTING EXTRA FIBER IN HH 3F.
2. SET NEW TYPE 4 HANDHOLE (HH 4F) OVER EXISTING CITY 3" CONDUIT. MAINTAIN EXISTING FIBER TO EXISTING HANDHOLE E6 AND EXISTING CABINET UNTIL NEW FIBER SPLICING IS COMPLETE.
3. NEW FIBER (72 SM DSM IT AND 12 SM T&T) SHALL BE CONTINUOUS FROM HH 3F THROUGH HH 4F TO EXISTING HH E6 (AT SE 15TH STREET).
4. NEW FIBER (96 SM MNET) SHALL BE CONTINUOUS FROM HH 7F (ON SHEET N.11) TO HH 1F (ON SHEET N.14). NEW FIBER (48 SM T&T) SHALL BE CONTINUOUS FROM HH 4F THROUGH HH 3F TO HH 1F (SHEET N.14).
5. COIL 200 FEET OF SLACK OF THE 96 SM MNET IN HH 3F.

Typical Installation Depth: 3'-4'

PROPOSED 3" CONDUIT (595')
HH 6F TO HH 5F
INSTALL: 1-96 SM (MNET)
INSTALL: 1-48 SM (T&T)
INSTALL: 1-TR/PR

Typical Installation Depth: 3'-4'

100' OF 3" CONDUIT
HH 5F TO HH 3F
INSTALL: 1-96 SM (MNET)
INSTALL: 1-48 SM (T&T)
INSTALL: 1-TR/PR

PROPOSED TYPE 3
HH 5F

Traffic Signal Structures

Traffic Signal Structure

205' OF 3" CONDUIT
HH 5F TO HH 3F
REMOVE & REINSTALL: 1-48 SM EXISTING (MNET)
REMOVE & REINSTALL: 1-12 SM EXISTING (T&T)
INSTALL: 1-TR/PR
(SEE NOTE 1)

Critical Crossing 3:
Bottom of Prop. Storm Pipe: ~4.0' Below Existing Ground
Conduit Depth: 7.0' Minimum

PROPOSED 3" CONDUIT (340')
HH 3F TO HH 2F
INSTALL: 1-96 SM (MNET)
INSTALL: 1-48 SM (T&T)
INSTALL: 1-TR/PR
(SEE NOTE 4)

PROPOSED TYPE 4
HH 3F
(SEE NOTE 5)

Approximate locations of proposed storm sewer structures.

SE 14TH STREET

165' OF 3" CONDUIT
HH 3F TO HH 4F
INSTALL: 1-72 SM (DSM IT)
INSTALL: 2-48 SM (T&T)
INSTALL: 1-12 SM (T&T)
INSTALL: 1-TR/PR
(SEE NOTE 3)

Critical Crossing 2:
Bottom of Prop. Storm Pipe: ~5.2' Below Existing Ground
Conduit Depth: 7.0' Minimum

Critical Crossing 4:
Bottom of Prop. Storm Pipe: ~5.5' Below Existing Ground
Conduit Depth: 8.0' Minimum

PROPOSED FUTURE CABINET

Traffic Signal Structures

PROPOSED TYPE 4
HH 4F
(SEE NOTE 2)

EX CONDUIT
(SEE SHEET N.16)

MAURY STREET

Contractor shall contact City of Des Moines Engineering Dept. (Brett Lewis, 515-208-4024) to request survey stakes for proposed storm sewer structures, critical crossings, traffic signals, and other facilities prior to starting work.

0 20 FEET

TRAFFIC SIGNAL INTERCONNECT (SHEET 3 OF 6)

Plan File No.: 683-451

FILE NO.	ENGLISH	DESIGN TEAM City of Des Moines \ HR Green, Inc.	POLK COUNTY	PROJECT NUMBER NHSX-069-4(110)--3H-77	SHEET NUMBER N.13	06-2022-019

SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC

NOTES

1. EXISTING METRONET MANHOLE AND SPLICE: CUT CABLES THE NIGHT OF THE SPLICE AND PULL BACK FOR SPLICE TAILS. 66' OF EXISTING SLACK.

SHAW STREET

PROPOSED FUTURE CABINET

Typical Installation Depth: 3'-4'

PROPOSED TYPE 4
HH 2F

PROPOSED 3" CONDUIT (340')
HH 3F TO HH 2F
INSTALL: 1-96 SM (MNET)
INSTALL: 1-48 SM (T&T)
INSTALL: 1-TR/PR

105+00

2F

Typical Installation Depth: 3'-4'

Install to 5' Minimum Depth Under Proposed Intersection Pavement.

Approximate location of proposed storm sewer structure.

EXISTING 3" HDPE CONDUIT AND CABLES
EX: 48 SM (MNET)
EX: 48 SM (T&T)

PROPOSED TYPE 3 HH 1F
SET OVER EXISTING 3" HDPE

PROPOSED 3" CONDUIT (380')
HH 2F TO HH 1F
INSTALL: 1-96 SM (MNET)
INSTALL: 1-48 SM (T&T)
INSTALL: 1-TR/PR

1F

SEE NOTE 1

SE 14TH STREET

SE 14TH STREET

Contractor shall contact City of Des Moines Engineering Dept. (Brett Lewis, 515-208-4024) to request survey stakes for proposed storm sewer structures, critical crossings, traffic signals, and other facilities prior to starting work.

0 20
FEET

TRAFFIC SIGNAL INTERCONNECT
(SHEET 4 OF 6)

Plan File No.: 683-452

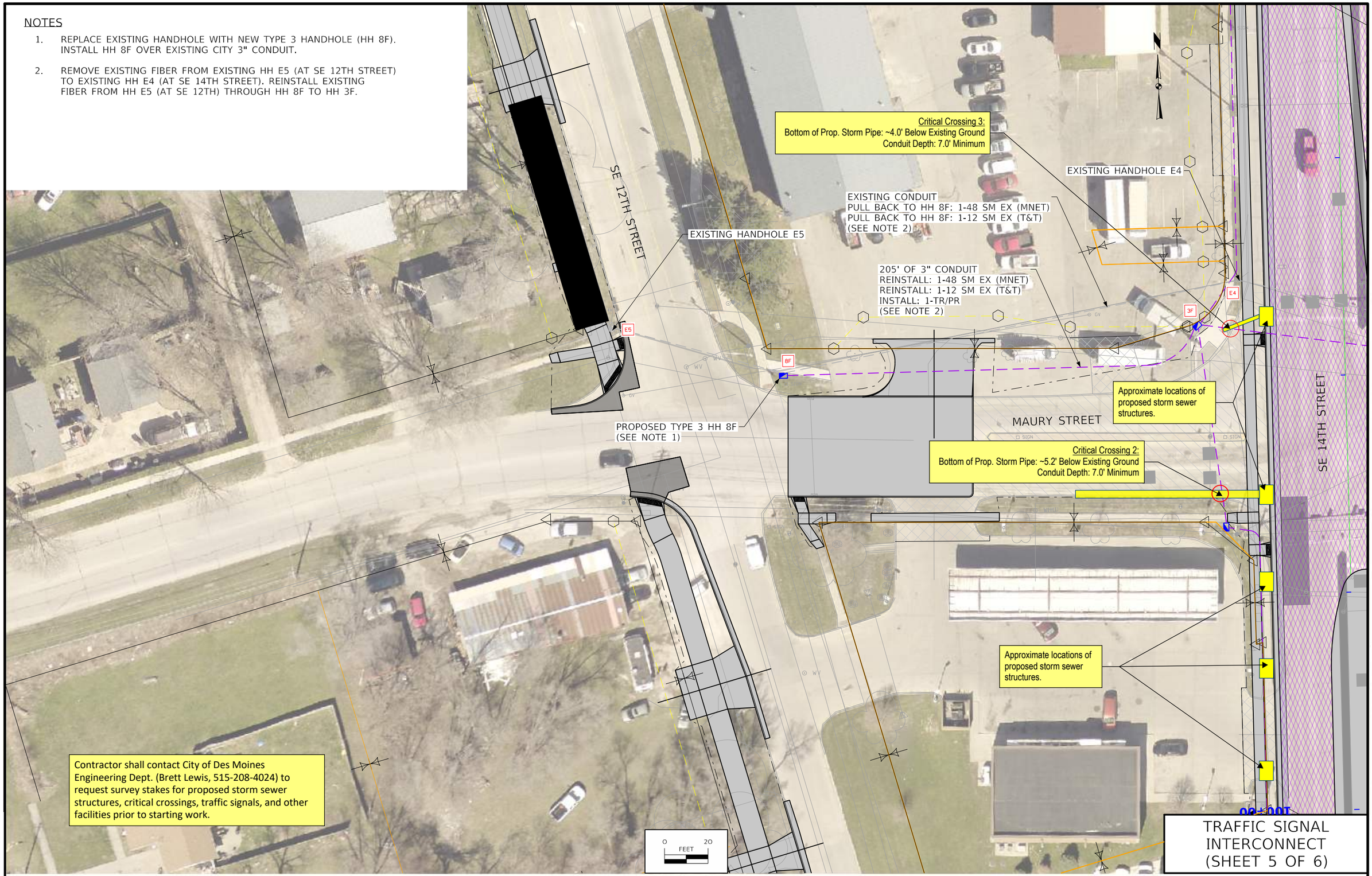
FILE NO.	ENGLISH	DESIGN TEAM City of Des Moines \ HR Green, Inc.	POLK COUNTY	PROJECT NUMBER NHSX-069-4(110)--3H-77	SHEET NUMBER N.14	06-2022-019

SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC

NOTES

1. REPLACE EXISTING HANDHOLE WITH NEW TYPE 3 HANDHOLE (HH 8F). INSTALL HH 8F OVER EXISTING CITY 3" CONDUIT.

2. REMOVE EXISTING FIBER FROM EXISTING HH E5 (AT SE 12TH STREET) TO EXISTING HH E4 (AT SE 14TH STREET). REINSTALL EXISTING FIBER FROM HH E5 (AT SE 12TH) THROUGH HH 8F TO HH 3F.



TRAFFIC SIGNAL INTERCONNECT (SHEET 5 OF 6)

FILE NO.	ENGLISH	DESIGN TEAM City of Des Moines \ HR Green, Inc.	POLK COUNTY	PROJECT NUMBER NHSX-069-4(110)--3H-77	SHEET NUMBER N.15	06-2022-019

Plan File No.: 683-453

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NOTES

1. NEW FIBER (72 SM DSM IT AND 12 SM T&T) INSTALLED SHALL BE CONTINUOUS FROM HANDHOLE E6 THROUGH HH 4F TO HH 3F. EXISTING FIBER SHALL NOT BE REMOVED UNTIL SPLICING (BY OTHERS) AT HH E6 AND HH 3F IS COMPLETED.

2. PULL BACK EXISTING FIBER (48 SM T&T) FROM EXISTING FIBER HANDHOLE NEAR EXISTING TRAFFIC SIGNAL CABINET (AT SE 14TH STREET TO EXISTING HH E6 (AT SE 15TH ST). REINSTALL EXISTING FIBER (48SM T&T) FROM HH E6 TO HH 4F (ON SHEET N.13). COIL 100 FEET OF SLACK IN HH E6; COIL REMAINING FIBER IN HH 4F.

CONNECT TO PROPOSED TYPE 4 HH 4F (SEE SHEET N.13)

MAURY STREET

SE 14TH COURT

EXISTING CONDUIT (620')
HH 4F TO HH E6
INSTALL: 1-72 SM (DSM IT)
INSTALL: 1-12 SM (T&T)
INSTALL: 1-TR/PR
REMOVE: 1-48 SM
REMOVE: 1-24 SM
REMOVE: 1-12 SM
(SEE NOTE 1)
PULL BACK: 1-48 SM (T&T)
REINSTALL: 1-48 SM (T&T)
(SEE NOTE 2)

SE 15TH STREET

EXISTING TYPE 4 HH E6

E6

Contractor shall contact City of Des Moines Engineering Dept. (Brett Lewis, 515-208-4024) to request survey stakes for proposed storm sewer structures, critical crossings, traffic signals, and other facilities prior to starting work.

0 20 FEET

TRAFFIC SIGNAL INTERCONNECT (SHEET 6 OF 6)

FILE NO.	ENGLISH	DESIGN TEAM City of Des Moines \ HR Green, Inc.	POLK COUNTY	PROJECT NUMBER NHSX-069-4(110)--3H-77	SHEET NUMBER N.16	06-2022-019

Plan File No.: 683-454

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WIRE TABULATION (IN FEET) - FIBER OPTIC RELOCATION
SE 14th Street & Maury Street

From	To	Plan Length	Adj. Length	Pull Rope	1c #10 Tracer	12 SM Fiber Optic Cable	48 SM Fiber Optic Cable	72 SM Fiber Optic Cable	96 SM Fiber Optic Cable
Handhole 1F	Handhole 2F	380	490	490	490		490		490
Handhole 2F	Handhole 3F	340	450	450	450		450		450
Handhole 3F	Handhole 4F	165	275	275	275	275	550	275	
Handhole 4F	Handhole E6	620	630	630	630	630		630	
Handhole 3F	Handhole 5F	100	210	210	210		210		210
Handhole 5F	Handhole 6F	595	705	705	705		705		705
Handhole 6F	Handhole 7F	930	1040	1040	1040		1040		1040
Handhole 7F	Existing Conduit	60	70	70	70		60		70
	Totals =			3870	3870	905	3505	905	2965

NOTES:
Plan Length: Center to Center length between objects.
Adjusted Length: Plan length with additional slack length.

EXISTING CONDUIT
FIBER OPTIC RELOCATION

From	To	Plan Length	Adj. Length	12 SM Fiber Optic	48 SM Fiber Optic
HH E4	HH 8F	215	330	330	330
HH 8F	HH E5	85	190	190	190
HH 4F	HH E6	620	760	760	760
	Totals			1280	1280

NOTES:
Plan Length: Center to Center length between objects.
Adjusted Length: Plan length with additional slack length included.

CONDUIT TABULATION - FIBER OPTIC RELOCATION
SE 14th Street & Maury Street

From	To	Trenched (Feet) 1" Dia. PVC	2" Dia. PVC	3" Dia. PVC	4" Dia. PVC	Pushed (Feet) 2" Dia. PVC	3" Dia. PVC	4" Dia. PVC
Handhole 1F	Handhole 2F						380	
Handhole 2F	Handhole 3F						340	
Handhole 3F	Handhole 4F						165	
Handhold 8F	Handhold 3F						205	
Handhole 3F	Handhole 5F						100	
Handhole 5F	Handhole 6F						595	
Handhole 6F	Handhole 7F						930	
Handhole 7F	Existing Conduit						60	
	Totals =	0	0	0	0	0	2,775	0
	Extra =	0	0	0	0	0	100	0
	Grand Totals =	0	0	0	0	0	2,875	0

EXISTING/NEW CONDUIT
FIBER OPTIC RELOCATION

From	To	Plan Length	Adj. Length	12 SM Fiber Optic	48 SM Fiber Optic
HH E5	HH 8F	85	190	-	190
HH 8F	HH 3F	200	310	-	310
HHE6	HH 4F	660	800	-	800
	Totals			-	1300

NOTES:
Plan Length: Center to Center length between objects.
Adjusted Length: Plan length with additional slack length included.

FOOTING AND HANDHOLE TABULATION - FIBER OPTIC RELOCATION
SE 14th Street & Maury Street

NUMBER	Signal Pole Footing	Pedestal Pole Footing	Push Button Pole Footing	Hand-Hole Type I 24" Dia.	Hand-Hole Type III	Hand-Hole Type IV	Comments
Handhole 1F					1		Fiber - See Details
Handhole 2F						1	Fiber - See Details
Handhole 3F						1	Fiber - See Details
Handhole 4F						1	Fiber - See Details
Handhole 5F					1		Fiber - See Details
Handhole 6F					1		Fiber - See Details
Handhole 7F					1		Fiber - See Details
Handhole 8F					1		Fiber - See Details
Totals =	0	0	0	0	5	3	

TRAFFIC SIGNAL INTERCONNECT TABULATIONS

Plan File No.: 683-455

FILE NO.	ENGLISH	DESIGN TEAM **City of Des Moines \ HR Green, Inc.**	**POLK** COUNTY	PROJECT NUMBER **NHSX-069-4(110)--3H-77**	SHEET NUMBER **N.17**	06-2022-019

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