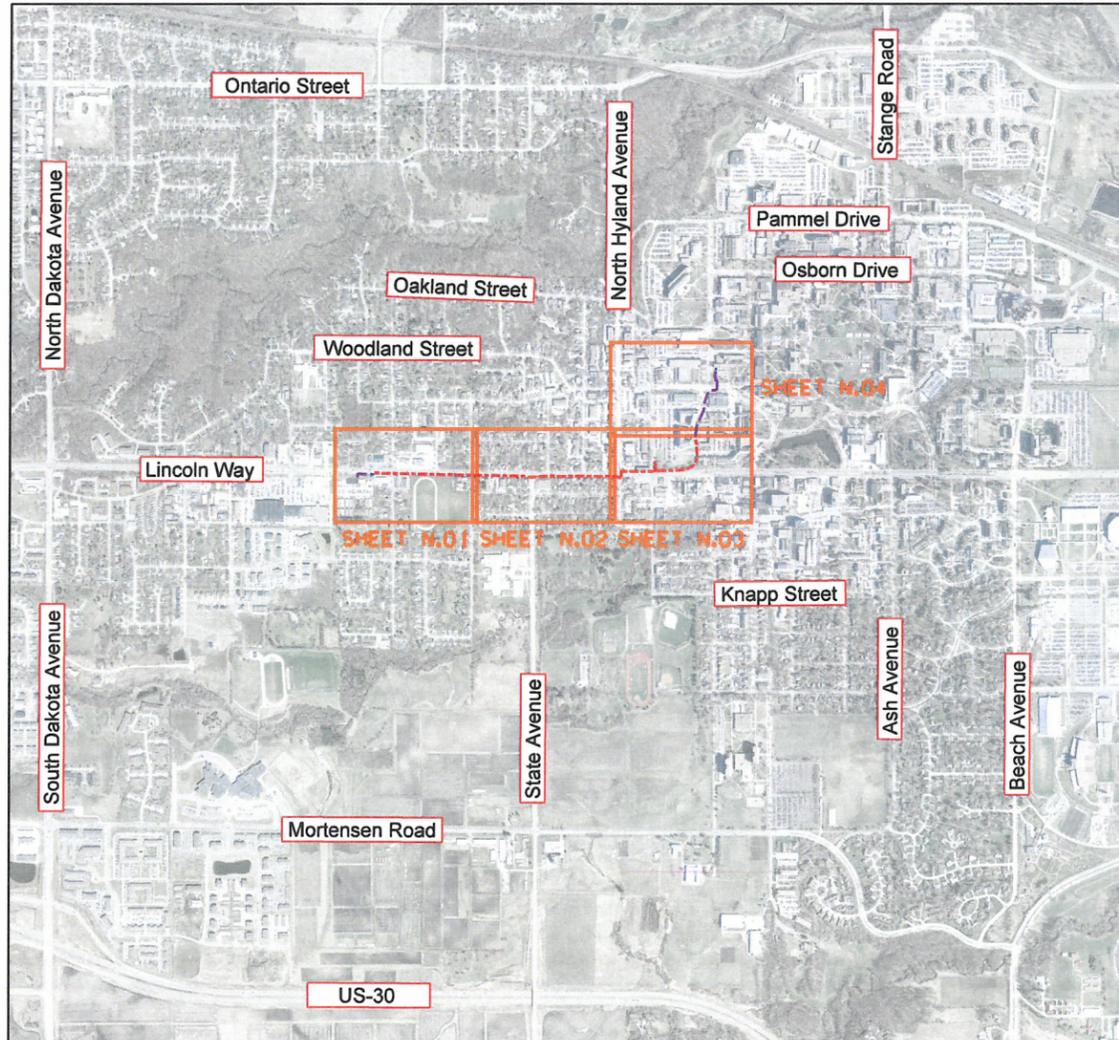
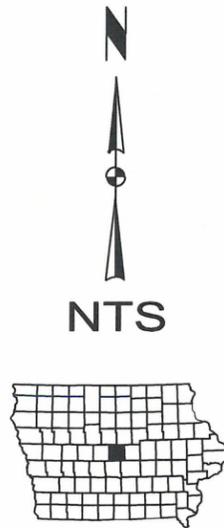




AMES, IOWA
 IOWA COMMUNICATIONS NETWORK
 AMES UNITY POINT
 PRIMARY HEALTH CARE CLINIC
 3510 LINCOLN WAY

PROJECT COORDINATION CONTACTS			
NAME	AGENCY	PHONE	EMAIL
TIM FLICKINGER	ICN	515-725-4699	TIMOTHY.FLICKINGER@IOWA.GOV



PRIOR TO CONSTRUCTION:
 CALL 811 FOR LOCATION OF UNDERGROUND TELEPHONE, ELECTRIC, GAS MAINS, CABLE TELEVISION AND OTHER UTILITIES.

EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND DRAINAGE STRUCTURES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS THE RESPONSIBILITY OF THE INDIVIDUAL CONTRACTORS TO EXACTLY LOCATE AND PROTECT EACH EXISTING UTILITY BEFORE AND DURING ACTUAL CONSTRUCTION.

CONSTRUCTION SHALL MEET CITY OF AMES STANDARD CONSTRUCTION SPECIFICATIONS AND STANDARD PLANS AND CURRENT STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS) AND CITY OF AMES SUPPLEMENTAL SPECIFICATIONS.

SHT. NO.	SHEET INDEX
A SHEETS	TITLE SHEETS
A.01	TITLE PAGE
A.02	LEGEND AND SYMBOL INFORMATION SHEET
C SHEETS	QUANTITIES AND GENERAL INFORMATION
C.01	ESTIMATE OF QUANTITIES, PROJECT DESCRIPTION, AND LISTING OF FIBER WORK
C.02	GENERAL NOTES
C.03	UTILITY CONTACTS
N SHEETS	FIBER PLANS
N.01 - N.04	FIBER DESIGN
U SHEETS	BUILDING ENTRANCE PLANS
U.01-U.03	BUILDING ENTRANCE DETAILS
ICN TYPICALS	SEE ATTACHED SHEETS FOR TYPICAL DETAILS FOR: - HANDHOLES - TRIVIEW LOCATE PEDESTAL - HIDEOUT LOCATE PEDESTAL

PERMITS REQUIRED	
SHT. NO.	PERMIT
N.01 - N.04	CITY OF AMES RIGHT OF WAY

LICENSED PROFESSIONAL ENGINEER

GREGORY T. SEIB

23179

IOWA

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Gregory T. Seib 6-22-2016

Signature Date

Gregory T. Seib

Printed or Typed Name

23179

License Number

My license renewal date is December 31, 2016

Pages or sheets covered by this seal: A.01-A.02, C.01-C.03, N.01-N.04, U.01-U.03

STANDARD SYMBOLS

- Interstate Highway Symbol
- U.S. Highway Symbol
- Iowa Highway Symbol
- County Road Highway Symbol
- Evergreen Tree
- Deciduous Tree
- Fruit Tree
- Shrub (Bushes)
- Timber
- Hedge
- Stump
- Swamp
- Rock Outcrop
- Broken Concrete
- Revetment (Rip Rap)
- Cemetery
- Grave
- Cave
- Sink Hole
- Board Fence
- Chain Link or Security Fence
- Wire Fence
- Terrace
- Earth Dam or Dike (Existing)
- Earth Dam or Dike (Proposed)
- Tile Outlet
- Edge of Water
- Existing Drainage
- Proposed Drainage
- Right of Way Rail or Lot Corner
- Concrete Monument
- Well
- Windmill
- Beehive Intake
- Existing Intake
- Proposed Intake
- Existing Utility Access (Manhole)
- Proposed Utility Access (Manhole)
- Fire Hydrant
- Water Hydrant (Rural)
- Septic Tank
- Cistern Symbol
- L.P. Gas Tank (No Footing)
- Underground Storage Tank
- Latrine
- Luminaire

- Traffic Signal
- Traffic Signal with Luminaire
- Telephone Pedestal
- Television Pedestal
- Telephone Pole
- Telephone Pole (Second Company)
- Telephone Pole (Third Company)
- Telephone Pole (Fourth Company)
- Telephone Pole (Fifth Company)
- Power Pole
- Power Pole (Second Company)
- Power Pole (Third Company)
- Power Pole (Fourth Company)
- Power Pole (Fifth Company)
- Electrical HighLine Tower (Metal or Concrete)
- Power Riser Pole
- Telegraph Pole
- Satellite TV Dish
- Existing Water Line
- Existing Water Line (Second Company)
- Existing Sanitary Sewer Line
- Existing Telephone Line
- Existing Telephone Line (Second Company)
- Existing Fiber Optics Telephone Line
- Existing Storm Sewer Line

- Existing Gas Line
- Existing High Pressure Gas Line
- Existing Gas Line (Second Company)
- Existing High Pressure Gas Line (Second Company)
- Existing Power Line
- Existing Power Line (Second Company)
- Cable Television Line
- Guardrail (Beam or Cable)
- Guard Post (one or two)
- Guard Post (over two)
- Filler Pipe
- Gas Valve
- Water Valve
- Speed Limit Sign
- Mile Marker Post
- Sign
- Water Hook Up
- Radio Tower
- Electric Box
- Traffic Signal Control Box
- Rail Road Signal Control Box
- Telephone Switch Box

UNIQUE SYMBOLS FOR THIS PROJECT

EXISTING	PROPOSED	DESCRIPTIONS
		ICN Bored Conduit
		Existing ICN Conduit
		ICN Handhole
		Locate Point



NOTE: THE PLAN LOCATIONS OF UNDERGROUND AND AERIAL UTILITIES, WHEN SHOWN, ARE APPROXIMATE ONLY. IN ADDITION, A PORTION OF UTILITY INFORMATION MAY NOT HAVE BEEN PROVIDED. ALL UTILITIES SHALL BE LOCATED AND MARKED PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTRACTING UTILITIES AND LOCATOR SERVICES AND SCHEDULING THE LOCATION OF UNDERGROUND UTILITIES. THE CONTRACTOR SHALL ALSO CONTACT ANY AND ALL UTILITIES AND LOCAL GOVERNMENT AGENCIES NOT PARTICIPATING IN LOCATION SERVICES.

ABBREVIATIONS

ICN	Iowa Communications Network
ROW	Right of Way
HH	Handhole
NTS	Not to Scale
ISU	Iowa State University

RIGHT OF WAY LEGEND

- Proposed Right of Way
- Existing Right of Way
- Existing and Proposed Right of Way
- Easement and Existing Right of Way
- Borrow
- Easement (Temporary)
- Easement
- Excess
- Property Line
- A/C Access Control

CONVENTIONAL SIGNS

- Station Reference Point Survey Line
- Section Corner
- Proposed Profile Grade
- Railroad
- Field Tile
- Culverts
- Stream

LEGEND AND SYMBOL INFORMATION SHEET

ESTIMATE OF QUANTITIES

Item No.	Item	Unit	Planned Total	As-Built Total
1	TRAFFIC CONTROL	LS	1	
2	MOBILIZATION	LS	1	
3	INSTALL HANDHOLE, 24" x 36" x 30"	EACH	5	
4	INSTALL HANDHOLE, 30" x 48" x 30"	EACH	1	
5	(1) 2" HDPE CONDUIT, BORED	LINEAR FT	3,369	
6	(1) 4" HDPE CONDUIT, BORED	LINEAR FT	417	
7	(2) 2" HDPE CONDUIT BORED	LINEAR FT	324	
8	(1) 4" 3 CELL MAXCELL INNERDUCT	LINEAR FT	1,262	
9	48 SM DIELECTRIC FIBER (TOTAL)	LINEAR FT	6,415	
-	48 SM DIELECTRIC FIBER (IN CONDUIT)	LINEAR FT	5,040	
-	48 SM DIELECTRIC FIBER (COIL)	LINEAR FT	1,200	
-	48 SM DIELECTRIC FIBER (BUILDING ENTRANCES)	LINEAR FT	175	
10	#12 TRACER WIRE (TOTAL)	LINEAR FT	5,234	
-	#12 TRACER WIRE (IN CONDUIT)	LINEAR FT	5,159	
-	#12 TRACER WIRE (BUILDING ENTRANCES)	LINEAR FT	75	
11	INSTALL TRI-VIEW LOCATE PEDESTAL	EACH	1	
12	INSTALL HIDEOUT LOCATE PEDESTAL	EACH	1	
13	INSTALL GROUND ROD	EACH	3	
14	UNITY POINT PRIMARY HEALTH CARE CLINIC BUILDING ENTRANCE	LS	1	
15	BLACK ENGINEERING BUILDING ENTRANCE	LS	1	
16	SIDEWALK PANEL REPLACEMENT	LS	1	

PROJECT DESCRIPTION

PROJECT SUMMARY

ICN FIBER OPTIC INSTALLATION PROJECT IN STORY COUNTY.
 ICN PROVIDING NEW FIBER OPTIC TO UNITY POINT PRIMARY HEALTH CARE CLINIC.

THIS PROJECT INVOLVES INSTALLING BORED CONDUIT AND FIBER OPTIC CABLE ALONG LINCOLN WAY IN AMES, IOWA. APPROXIMATELY 4000 FEET OF NEW CONDUIT WILL BE INSTALLED WITH THIS PROJECT. A 48 SM DIELECTRIC FIBER OPTIC CABLE WILL BE INSTALLED WITH THIS PROJECT TO CONNECT PRIMARY HEALTH CARE CLINIC TO IOWA STATE UNIVERSITY'S BLACK ENGINEERING BUILDING. FIBER SPLICING AND DATA TRAFFIC CUTOVERS WILL BE COMPLETED UNDER A SEPARATE CONTRACT.

LISTING OF HANDHOLE WORK

Handhole Label	Handhole Type	Route	Station	Northing (As Constructed)	Easting (As Constructed)	48 SM Dielectric Fiber Coil
HH 1-1	24" x 36" x 30"	Lincoln Way	2+04			150
HH 2-1	24" x 36" x 30"	Lincoln Way	20+28			150
HH 3-1	24" x 36" x 30"	Lincoln Way	29+62			150
HH 3-2	24" x 36" x 30"	Lincoln Way	30+51			150
HH 3-3	24" x 36" x 30"	Lincoln Way	34+54			150
HH 3-4	30" x 48" x 30"	Lincoln Way	37+78			150
HH 3-5E	EXISTING	Union Drive	41+95			150
HH 3-6E	EXISTING	Sheldon Ave.	Lateral			
HH 4-1E	EXISTING	Union Drive	45+03			150
HH 4-2E	EXISTING	Union Drive	48+88			
Total						1200

LISTING OF CONDUIT & FIBER WORK

Conduit Run	Location		Length	Existing Conduit	(1) 2" HDPE Conduit, Bored	(2) 2" HDPE Conduit, Bored	4" HDPE Conduit, Bored	48 SM Dielectric Fiber	#12 Tracer Wire	4" 3 CELL MAXCELL INNERDUCT
	From	To								
1A	BUILDING ENTRANCE (Sta. 0+00)	HH 1-1 (Sta. 2+04)	204	X	-	-	-	204	204	-
1B	HH 1-1 (Sta. 2+04)	HH 2-1 (Sta. 20+28)	1824		1824	-	-	1824	1824	-
2A	HH 2-1 (Sta. 20+28)	HH 3-1 (Sta. 29+62)	934		934	-	-	934	934	-
3A	HH 3-1 (Sta. 29+62)	HH 3-2 (Sta. 30+51)	89		89	-	-	89	89	-
3B	HH 3-2 (Sta. 30+51)	HH 3-3 (Sta. 34+54)	403		403	-	-	403	403	-
3C	HH 3-3 (Sta. 34+54)	HH 3-4 (Sta. 37+78)	324		-	324	-	324	324	-
3D	HH 3-4 (Sta. 37+78)	HH 3-5E (Sta. 41+95)	417		-	-	417	417	417	417
3E	HH 3-5E (Sta. 41+95)	HH 4-1E (Sta. 45+03)	308	X	-	-	-	308	308	308
3F	HH 3-3 (Sta. 34+54)	HH 3-6E (LATERAL)	119		119	-	-	-	119	-
4A	HH 4-1E (Sta. 45+03)	HH 4-2E (Sta. 48+88)	385	X	-	-	-	385	385	385
4B	HH 4-2E (Sta. 48+88)	BUILDING ENTRANCE (Sta. 50+40)	152	X	-	-	-	152	152	152
Totals					3369	324	417	5040	5159	1262

ESTIMATE OF QUANTITIES, PROJECT DESCRIPTION, AND LISTING OF FIBER WORK

GENERAL NOTES

MISC.

1. AERIAL PHOTOGRAPHY SHOWN ON PLANS IS FOR REFERENCE ONLY AND MAY NOT MATCH EXISTING CONDITIONS.
2. ALL EXISTING IOWA COMMUNICATIONS NETWORK FIBER SHALL BE KEPT IN OPERATION. CONTRACTOR SHALL MAINTAIN AND PROTECT ALL EXISTING COMMUNICATION CABLES DURING CONSTRUCTION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

UTILITIES

3. THE PLAN LOCATIONS OF UNDERGROUND AND AERIAL UTILITIES, WHEN SHOWN, ARE APPROXIMATE ONLY. IN ADDITION, A PORTION OF UTILITY INFORMATION MAY NOT HAVE BEEN PROVIDED. ALL UTILITIES SHALL BE LOCATED AND MARKED PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING UTILITIES AND LOCATOR SERVICES AND SCHEDULING THE LOCATION OF UNDERGROUND UTILITIES. THE CONTRACTOR SHALL ALSO CONTACT ANY AND ALL UTILITIES AND LOCAL GOVERNMENT AGENCIES NOT PARTICIPATING IN LOCATION SERVICES.
4. THE CONTRACTOR SHALL NOT DISTURB ANY EXISTING UTILITIES EXCEPT AS SPECIFICALLY DEFINED WITHIN THE SCOPE OF WORK FOR THIS CONTRACT. WHERE WORK AFFECTS OR IS AFFECTED BY THE EXISTING UTILITIES, THE WORK SHALL BE COORDINATED WITH THE UTILITY COMPANY AND/OR OWNER. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH IOWA COMMUNICATIONS NETWORK.
5. UTILITY COMPANIES WHOSE FACILITIES ARE SHOWN ON THE PLANS OR KNOWN TO BE WITHIN THE CONSTRUCTION LIMITS SHALL BE NOTIFIED BY THE CONTRACTOR OF THE STARTING CONSTRUCTION DATE.

CONDUIT

6. THE CONTRACTOR SHALL BORE ALL CROSSINGS BENEATH ROADWAYS, STREETS, OTHER PAVED SURFACES, RAILROAD, OR OTHER STRUCTURE. DEPTH OF ALL BORES SHALL BE A MINIMUM OF 48 INCHES UNLESS OTHERWISE SPECIFIED IN PLANS.
7. ALL CONDUIT SHALL BE HDPE CONDUIT.
8. THE MINIMUM BENDING RADIUS OF HDPE CONDUIT SHALL BE THE CONDUIT MANUFACTURER'S RECOMMENDATIONS FOR MINIMUM BENDING RADIUS.

CONSTRUCTION

9. ANY AND ALL IMPROVEMENTS SUCH AS ASPHALT OR CONCRETE PAVEMENTS, CURBS, GUTTERS, WALKS, DRAINAGE DITCHES, CULVERTS, DRAIN TILES, EMBANKMENTS, SHRUBS, TREES, GRASS, SOD, ETC., IF DAMAGED, SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS (OR BETTER) AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE IOWA COMMUNICATIONS NETWORK.
10. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR ANY EXISTING CONDUIT, CONDUCTORS, OR OTHER FACILITIES DAMAGED DURING CONSTRUCTION. ALL EXISTING INFRASTRUCTURE REMOVED OR DAMAGED BY THE CONTRACTOR SHALL BE REPLACED IN KIND BY THE CONTRACTOR, WITH NO ADDITIONAL COMPENSATION.
11. MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF ALL APPLICABLE SECTIONS INCLUDING BUT NOT LIMITED TO ARTICLES 2523 AND 2525, OF THE "IOWA DEPARTMENT OF TRANSPORTATION ENGLISH STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SERIES 2015" PLUS CURRENT SUPPLEMENT SPECIFICATIONS AND SPECIAL PROVISIONS.

GENERAL NOTES

CONSTRUCTION (CONTINUED)

12. THE CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND DESIRABLE TREES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR WILL NOT BE PERMITTED TO PARK OR SERVICE VEHICLES AND EQUIPMENT OR USE THESE AREAS FOR STORAGE OF MATERIALS. STORAGE, PARKING AND SERVICE AREA(S) WILL BE SUBJECT TO THE APPROVAL OF THE RESIDENT CONSTRUCTION ENGINEER.
13. THE TOP SIX (6) INCHES OF THE DISTURBED AREAS SHALL BE FREE OF ROCK AND DEBRIS AND SHALL BE FOR THE ESTABLISHMENT OF VEGETATION, SUBJECT TO THE APPROVAL OF THE ENGINEER.
14. THE CONTRACTOR IS EXPECTED TO HAVE MATERIALS, EQUIPMENT, AND LABOR AVAILABLE ON A DAILY BASIS TO INSTALL AND MAINTAIN EROSION CONTROL FEATURES ON THE PROJECT. THIS MAY INVOLVE SEEDING, SILT FENCE, ROCK DITCH CHECKS, SILT BASINS, OR SILT DIKES.
15. NO OPEN HOLES OR MOUNDS OF DIRT SHALL BE LEFT UNPROTECTED DURING NON-WORKING HOURS.

FIBER

16. CONTRACTOR SHALL PLACE TAGS ON ALL FIBER OPTIC CABLE IDENTIFYING THE OWNER AND DIRECTION OF THE CABLE AT EACH TERMINATION POINT AND IN EVERY HANDHOLE AND SPLICE VAULT. TAGS SHALL CLEARLY IDENTIFY WHERE EACH INDIVIDUAL CABLE RUN ORIGINATED AND WHERE IT ENDS (HANDHOLE TO HANDHOLE, HANDHOLE TO CABINET, HANDHOLE TO BUILDING, ETC.) FOR FIBER INSTALLATIONS WITH JOINT DEPARTMENT OF TRANSPORTATION/OTHER AGENCY (OR ENTITY) USE WHERE THE FIBER WILL BE OWNED BY THE OTHER AGENCY (OR ENTITY), INSTALL TYPICAL IDENTIFIERS AND/OR MARKINGS FOR THAT FIBER.
17. IN THE EVENT IT IS SUSPECTED THAT CABLE DAMAGE HAS OCCURRED PRIOR TO FINAL ACCEPTANCE, CONTRACTOR SHALL PERFORM OTDR TESTING OF ALL FIBER STRANDS WITHIN SEVENTY TWO (72) HOURS AFTER NOTIFICATION AND SUBMIT A COPY OF THE OTDR TEST TO THE ENGINEER UPON COMPLETION.
18. CONTRACTOR SHALL REPLACE OR REPAIR, AS DIRECTED BY THE ENGINEER, ANY DAMAGE OCCURRING BEFORE FINAL ACCEPTANCE AT NO ADDITIONAL COST TO THE IOWA COMMUNICATIONS NETWORK. THE CONTRACTOR WILL NOT BE GRANTED AN EXTENSION OF TIME FOR DELAYS CAUSED BY REPLACING OR REPAIRING THE INSTALLED CABLE.
19. CONTRACTOR SHALL REPAIR OR REPLACE ANY DEFECT IN THE INSTALLED CABLE AT NO ADDITIONAL COST TO THE IOWA COMMUNICATIONS NETWORK. CONSIDER A DEFECT TO BE ANY CONDITION RESULTING IN A NEGATIVE OR ADVERSE EFFECT ON CURRENT OR FUTURE OPERATIONS OF THE COMPLETED FIBER OPTIC COMMUNICATION SYSTEM AS DETERMINED BY THE ENGINEER.
20. ANY EXISTING WIRING THAT IS DAMAGED DURING FIBER OPTIC CABLE INSTALLTION SHALL BE REPLACED OR REPAIRED, AS DIRECTED BY THE ENGINEER, AT NO ADDITIONAL COST TO THE IOWA COMMUNICATIONS NETWORK.

ICN STANDARDS:

CONTRACTOR SHALL ADHERE TO ICN STANDARD INSTALLATION DRAWING TYPICALS, PROJECT DETAILS, AND STANDARDS WITHIN THE SCOPE OF WORK BID DOCUMENT.

GENERAL NOTES

ENGLISH

ICN

DESIGN TEAM Olsson Associates

STORY

COUNTY

OSP LOG NUMBER 85160105 - AMES UNITY POINT PRIMARY HEALTH CARE CLINIC

SHEET NUMBER

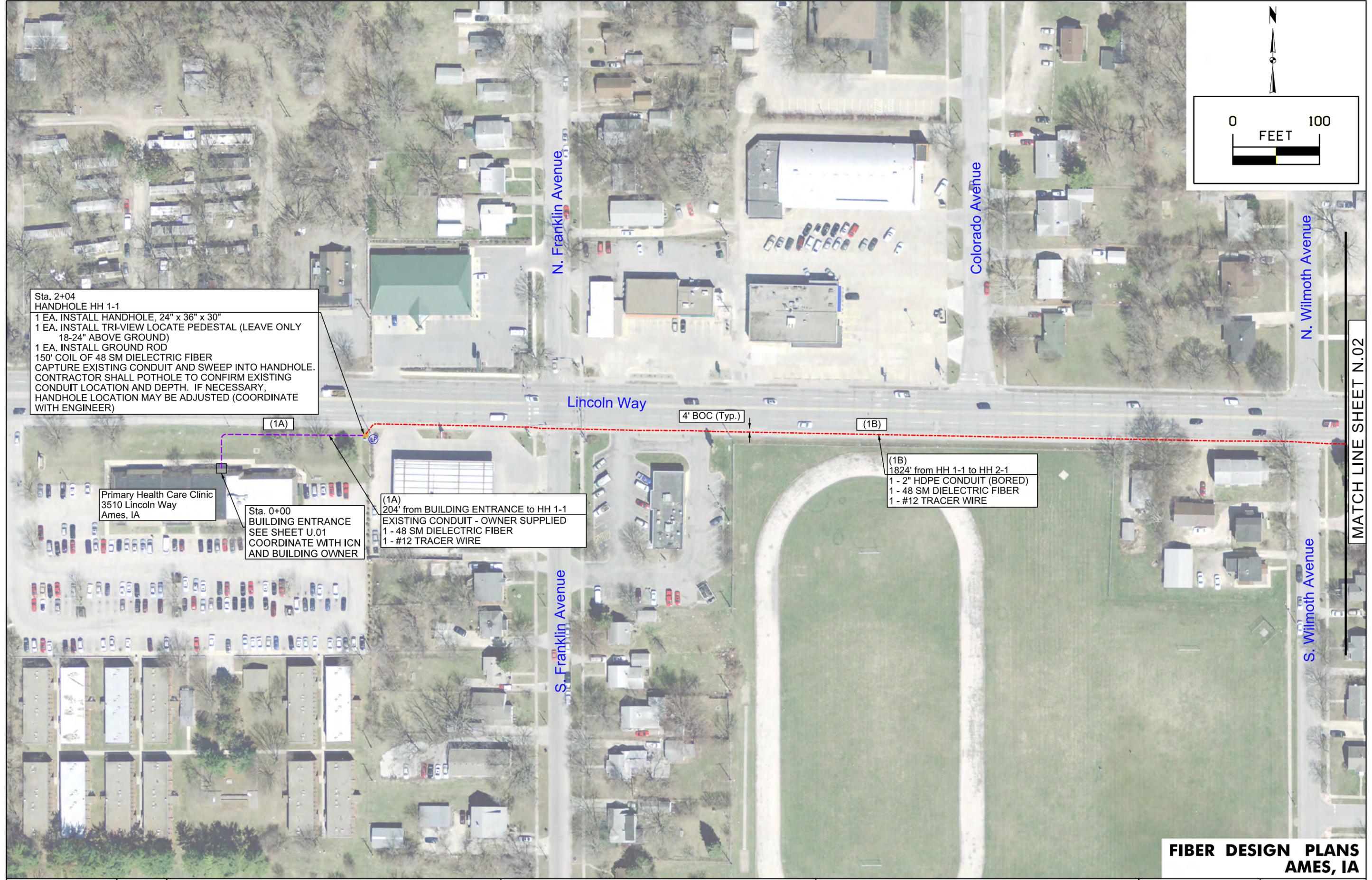
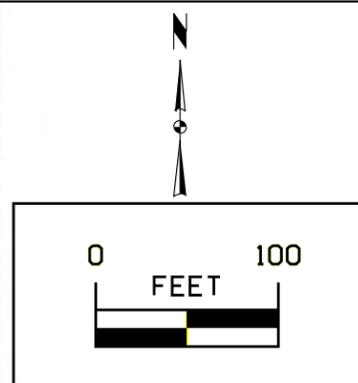
C.02

UTILITY CONTACTS

Company	Name	Street	City, State, Zip	Phone
ALLIANT ENERGY	DAVID STEVENSON	1284 XE PLACE	AMES, IA 50014	515-268-3469
CENTURYLINK	ANDREW SALTER	2103 E. UNIVERSITY AVENUE	DES MOINES, IA 50317	515-263-7219
CITY OF AMES (CABLE TV)	DEREK CRISLER	515 CLARK AVENUE	AMES, IA 50010	515-239-5214
CITY OF AMES (ELECTRIC DEPARTMENT)	LYNDON COOK	502 CARROLL AVENUE	AMES, IA 50010	515-239-5174
CITY OF AMES (ENGINEERING DIVISION)	TRACY WARNER	515 CLARK AVENUE	AMES, IA 50010	515-239-5163
CITY OF AMES (INFORMATION SERVICES)	KEN BILLS	428 5TH STREET, SUITE A	AMES, IA 50010	515-239-5188
CITY OF AMES (OPERATIONS DIVISION)	DALE WEBER	2207 EDISON STREET	AMES, IA 50010	515-239-5551
CITY OF AMES (SEWER)	LYLE HAMMES	300 EAST 5TH STREET BUILDING #1	AMES, IA 50010	515-239-5150
CITY OF AMES (STORM)	JOHN JOINER	515 CLARK AVENUE	AMES, IA 50010	515-239-5165
CITY OF AMES (TRAFFIC DIVISION)	GREG MATTERS	2207 EDISON STREET	AMES, IA 50010	515-239-5535
CITY OF AMES (WATER)	LYLE HAMMES	300 EAST 5TH STREET BUILDING #1	AMES, IA 50010	515-239-5150
CONSUMERS ENERGY	JIM KIDD	2074 242ND STREET	MARSHALLTOWN, IA 50158	641-752-1593
INTERNET CONSULTING SERVICES	LANCE CARSON	235 ALEXANDER AVENUE	AMES, IA 50010	515-232-4453
IOWA COMMUNICATIONS NETWORK (LOCAL FIBER OPTICS)	TIM FLICKINGER	400 E 14TH STREET, GRIMES STATE OFFICE BLDG	DES MOINES, IA, 50319	515-725-4699
IOWA DEPARTMENT OF TRANSPORTATION (UTILITY RELOCATION COORDINATOR)	JEFFRY N. MCCOLLOUGH			515-239-1373
IOWA NETWORK SERVICES	JEFF KLOCKO	4201 CORPORATE DRIVE	W. DES MOINES, IA 50266	515-830-0445
IOWA STATE UNIVERSITY	RANDY LARABEE		AMES, IA 50011	515-294-2716
MCLEODUSA TELECOMMUNICATIONS SERVICES/WINDSTREAM	TERRY BURKE	1020 MAIN STREET	GRINNELL, IA 50112	641-269-2732
MEDIACOM	TIM ADREON	225 S. DAYTON AVENUE	AMES, IA 50010	515-233-2318
NORTHERN NATURAL GAS COMPANY	KEITH GOOD	608 210TH STREET	OGDEN, IA 50212	402-530-2510
CITY OF AMES (RIGHT-OF-WAY PERMIT CONTACT)	MARK GANSEN	515 CLARK AVENUE	AMES, IA 50010	515-239-5291

THIS LIST IS NOT ALL-INCLUSIVE. CONTRACTOR IS RESPONSIBLE TO REQUEST LOCATES OF ALL UTILITIES, AND COORDINATE IF NEEDED, PRIOR TO COMMENCING WORK. 72 HOUR ADVANCE NOTICE IS REQUIRED TO NOTIFY ALL UTILITY COMPANIES.

UTILITY CONTACTS



Sta. 2+04
HANDHOLE HH 1-1
1 EA. INSTALL HANDHOLE, 24" x 36" x 30"
1 EA. INSTALL TRI-VIEW LOCATE PEDESTAL (LEAVE ONLY 18-24" ABOVE GROUND)
1 EA. INSTALL GROUND ROD
150' COIL OF 48 SM DIELECTRIC FIBER
CAPTURE EXISTING CONDUIT AND SWEEP INTO HANDHOLE.
CONTRACTOR SHALL POTHOLE TO CONFIRM EXISTING CONDUIT LOCATION AND DEPTH. IF NECESSARY, HANDHOLE LOCATION MAY BE ADJUSTED (COORDINATE WITH ENGINEER)

Primary Health Care Clinic
3510 Lincoln Way
Ames, IA

Sta. 0+00
BUILDING ENTRANCE
SEE SHEET U.01
COORDINATE WITH ICN
AND BUILDING OWNER

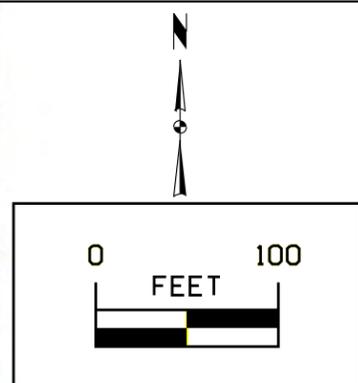
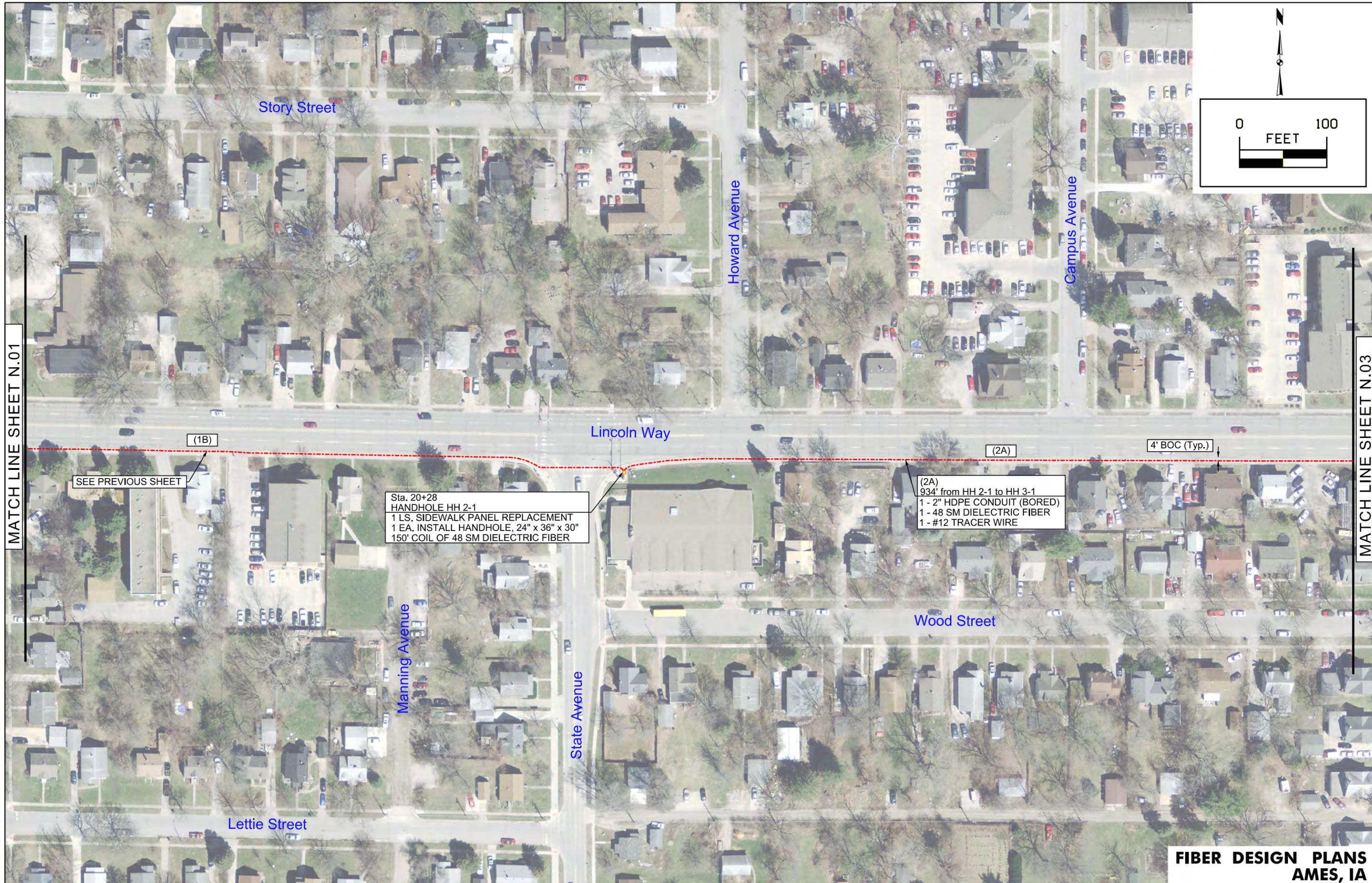
(1A)
204' from BUILDING ENTRANCE to HH 1-1
EXISTING CONDUIT - OWNER SUPPLIED
1 - 48 SM DIELECTRIC FIBER
1 - #12 TRACER WIRE

4' BOC (Typ.)

(1B)
1824' from HH 1-1 to HH 2-1
1 - 2" HDPE CONDUIT (BORED)
1 - 48 SM DIELECTRIC FIBER
1 - #12 TRACER WIRE

MATCH LINE SHEET N.02

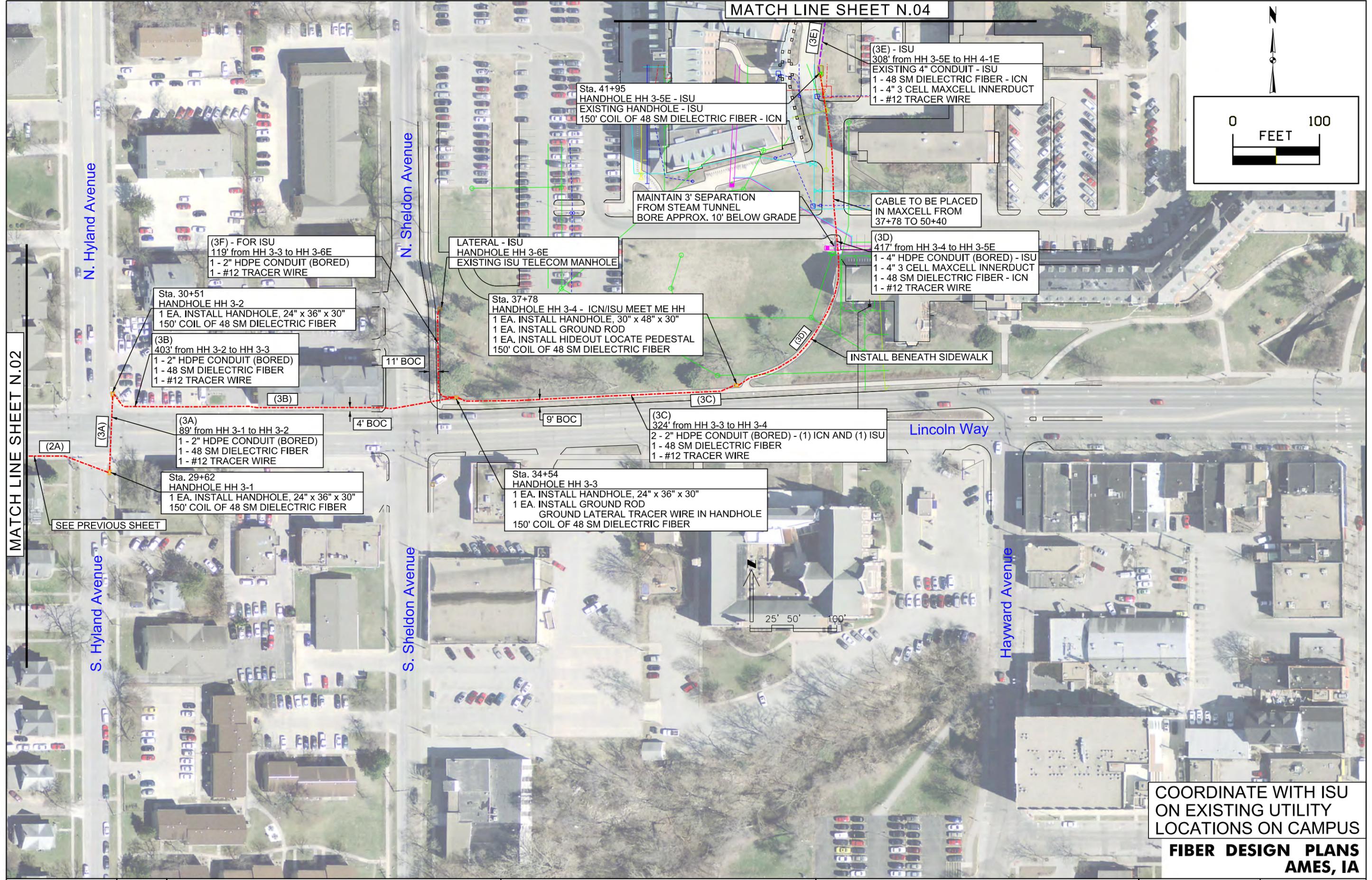
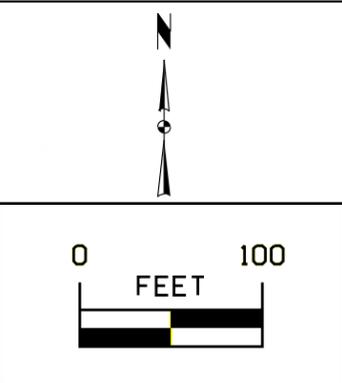
**FIBER DESIGN PLANS
AMES, IA**



MATCH LINE SHEET N.01

MATCH LINE SHEET N.03

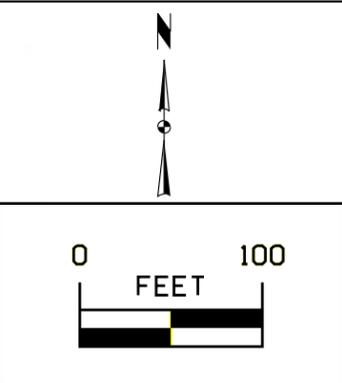
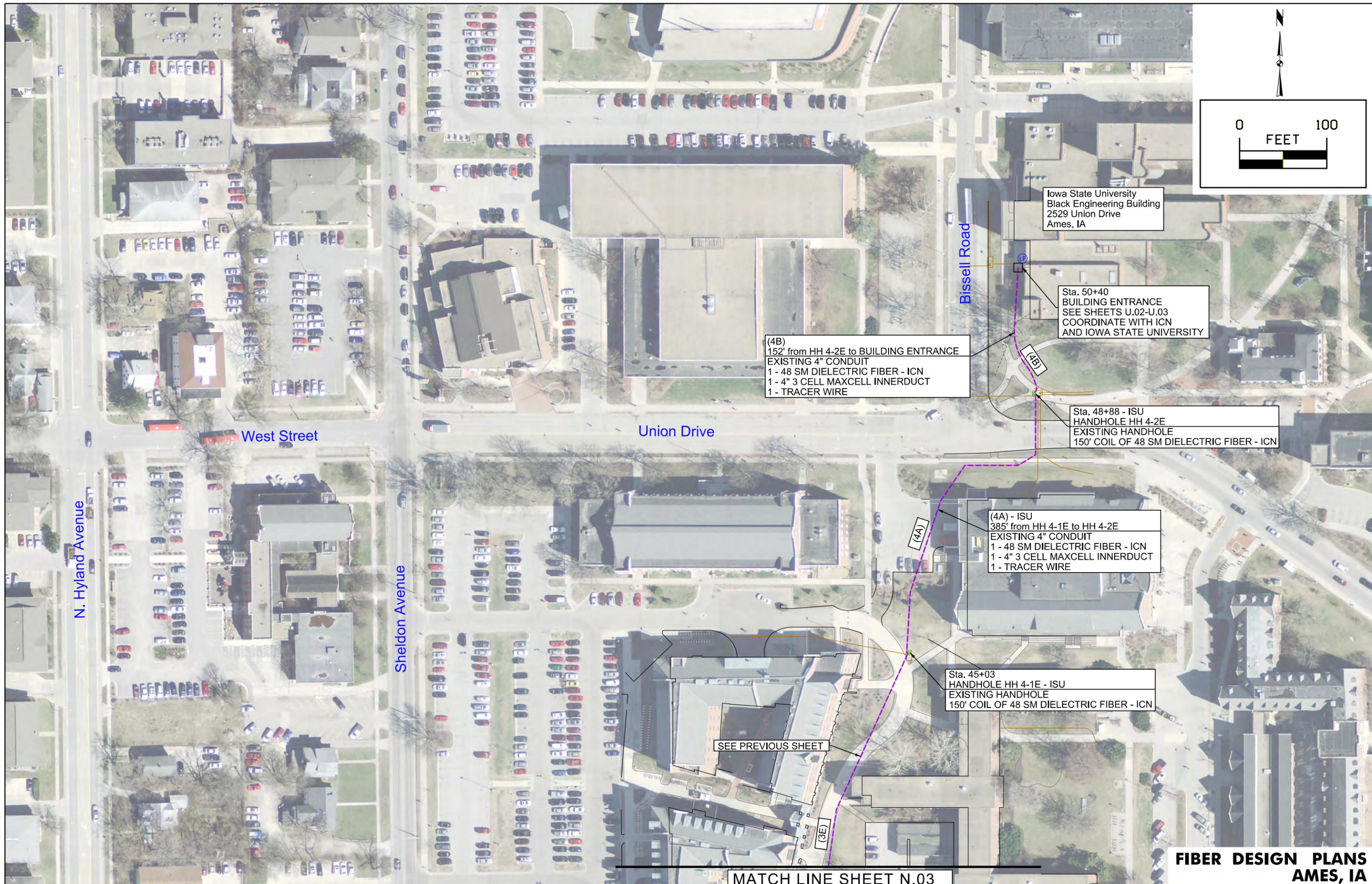
**FIBER DESIGN PLANS
AMES, IA**



MATCH LINE SHEET N.02

SEE PREVIOUS SHEET

COORDINATE WITH ISU ON EXISTING UTILITY LOCATIONS ON CAMPUS
**FIBER DESIGN PLANS
AMES, IA**



Iowa State University
Black Engineering Building
2529 Union Drive
Ames, IA

Sta. 50+40
BUILDING ENTRANCE
SEE SHEETS U.02-U.03
COORDINATE WITH ICN
AND IOWA STATE UNIVERSITY

(4B)
152' from HH 4-2E to BUILDING ENTRANCE
EXISTING 4" CONDUIT
1 - 48 SM DIELECTRIC FIBER - ICN
1 - 4" 3 CELL MAXCELL INNERDUCT
1 - TRACER WIRE

Sta. 48+88 - ISU
HANDHOLE HH 4-2E
EXISTING HANDHOLE
150' COIL OF 48 SM DIELECTRIC FIBER - ICN

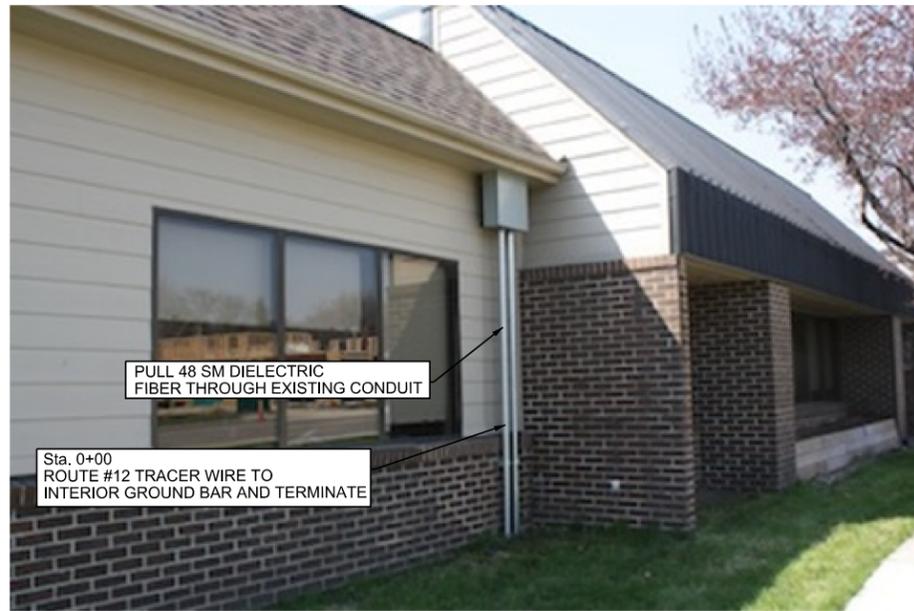
(4A) - ISU
385' from HH 4-1E to HH 4-2E
EXISTING 4" CONDUIT
1 - 48 SM DIELECTRIC FIBER - ICN
1 - 4" 3 CELL MAXCELL INNERDUCT
1 - TRACER WIRE

Sta. 45+03
HANDHOLE HH 4-1E - ISU
EXISTING HANDHOLE
150' COIL OF 48 SM DIELECTRIC FIBER - ICN

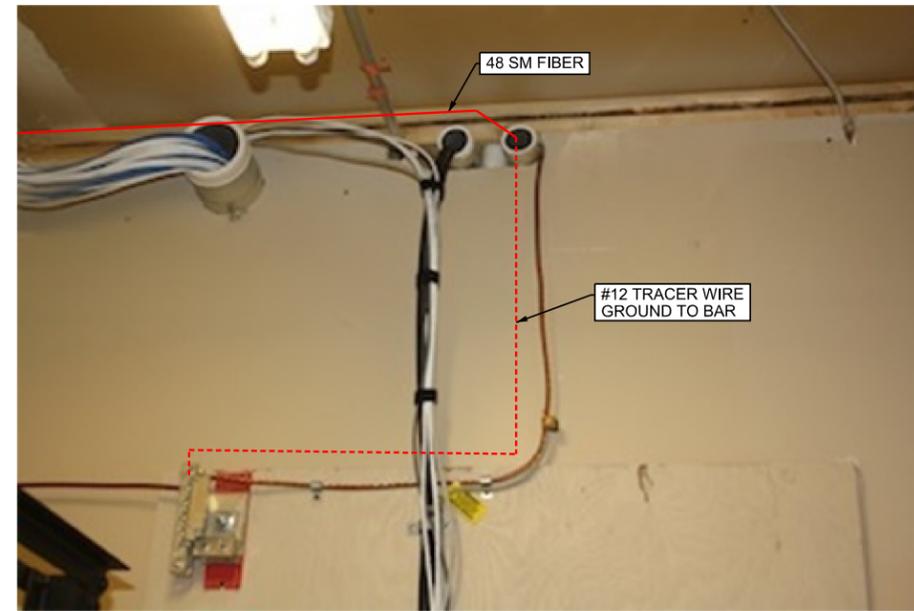
SEE PREVIOUS SHEET

MATCH LINE SHEET N.03

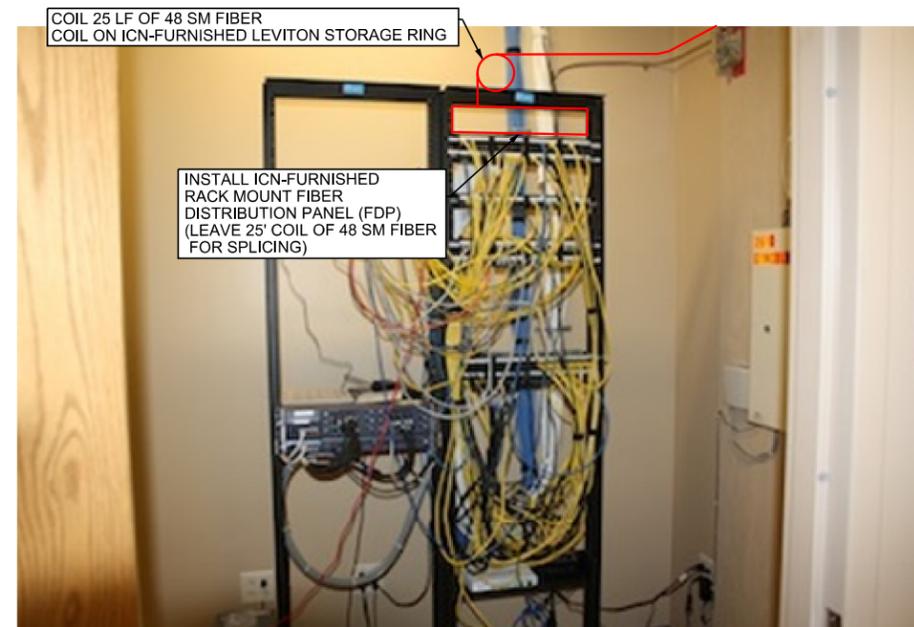
**FIBER DESIGN PLANS
AMES, IA**



**AMES UNITY POINT PRIMARY
HEALTH CARE CENTER – NORTH FACE OF BUILDING**



**AMES UNITY POINT PRIMARY
HEALTH CARE CENTER – DATA ROOM**

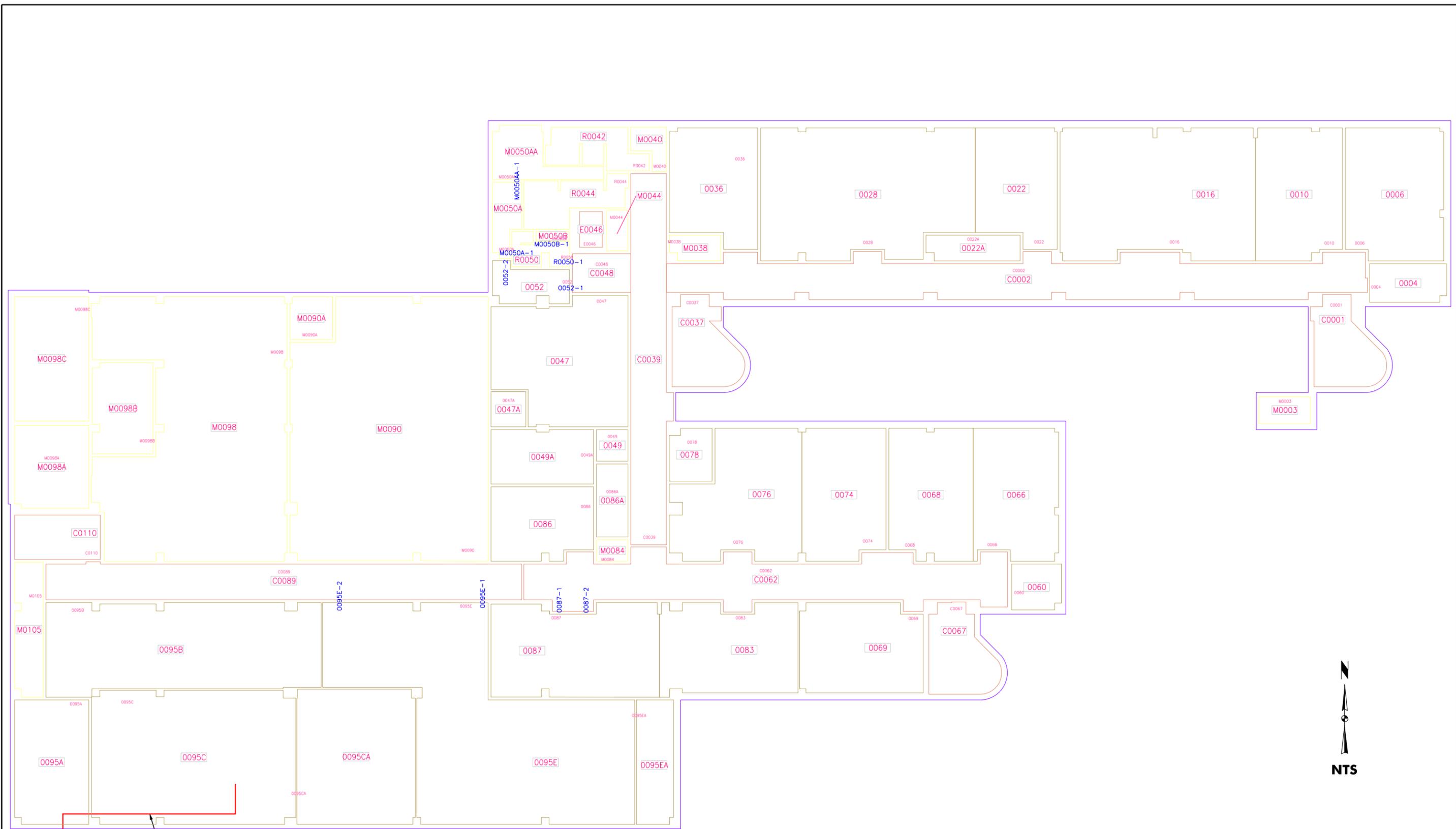


**AMES UNITY POINT PRIMARY
HEALTH CARE CENTER – DATA ROOM**

AMES PRIMARY HEALTH CARE CLINIC BUILDING ENTRANCE LISTING OF WORK*				
Item No.	Item	Unit	Quantities	
			Estimated	As-Built
			Total	Total
1	48 SM DIELECTRIC FIBER	LINEAR FEET	100	
2	INSTALL ICN-FURNISHED FDP (BY SPLICER)	EACH	1	
3	#12 TRACER WIRE	LINEAR FEET	50	

*BUILDING ENTRANCES ARE BID AS A LUMP SUM. FIBER AND TRACER WIRE QUANTITIES IN THIS TABLE ARE ALSO LISTED ON SHEET C.01. ALL OTHER QUANTITIES IN THIS TABLE ARE NOT INCLUDED IN THE QUANTITIES LISTED ON SHEET C.01.

BUILDING ENTRANCE DETAILS



APPROX. 50' OF 48 SM DIELECTRIC FIBER
(APPROXIMATE LOCATION - SEE SHEET U.03 FOR ADDITIONAL DETAIL)

**IOWA STATE UNIVERSITY
BLACK ENGINEERING BUILDING**

NOTE: ROOMS 0095A AND 0095C ARE ON LOWER LEVEL OF BUILDING

BUILDING ENTRANCE DETAILS



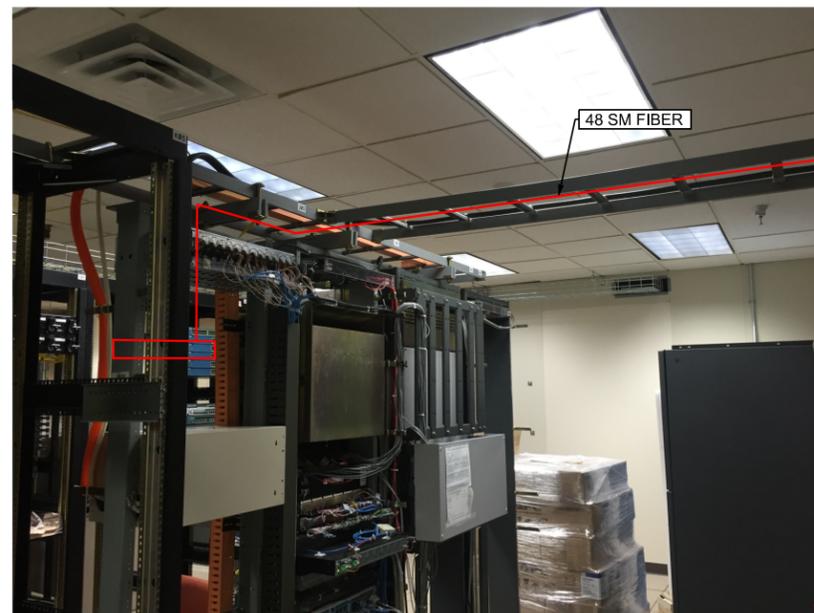
**IOWA STATE UNIVERSITY
BLACK ENGINEERING BUILDING
ROOM 0095A
CONDUIT ENTRANCE**



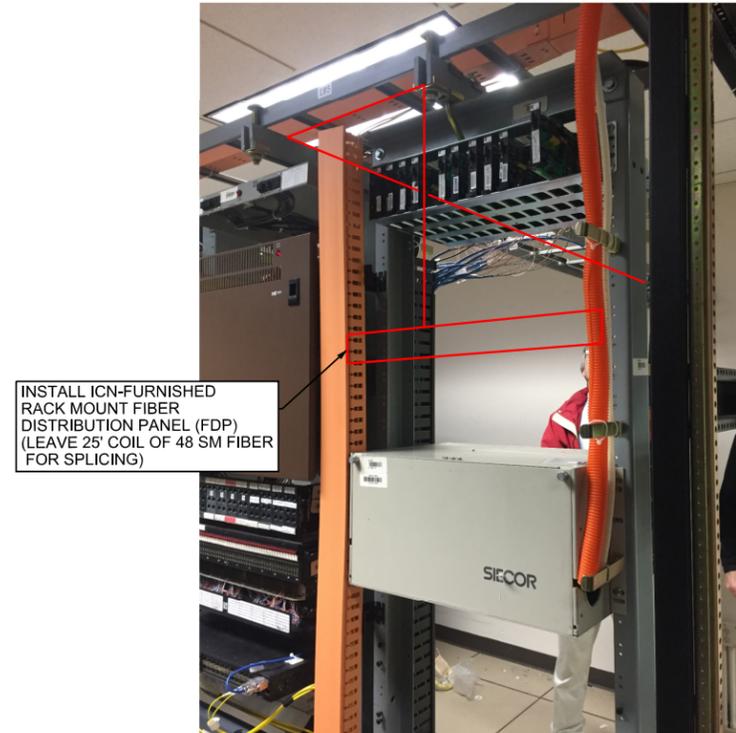
**IOWA STATE UNIVERSITY
BLACK ENGINEERING BUILDING
ROOM 0095A**



**IOWA STATE UNIVERSITY
BLACK ENGINEERING BUILDING
ROOM 0095C-DATA ROOM**



**IOWA STATE UNIVERSITY
BLACK ENGINEERING BUILDING
ROOM 0095C-DATA ROOM**



**IOWA STATE UNIVERSITY
BLACK ENGINEERING BUILDING
ROOM 0095C-DATA ROOM**

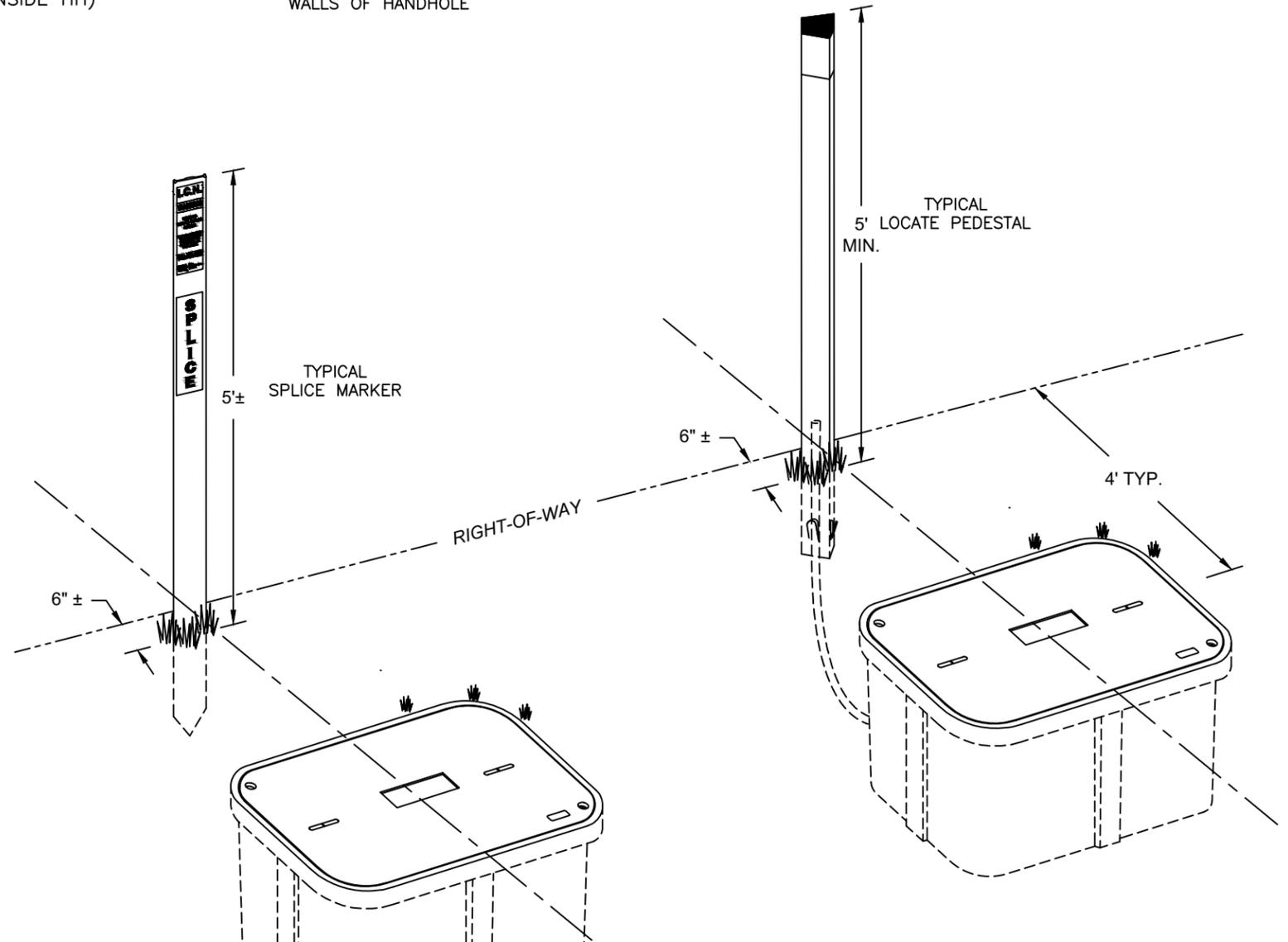
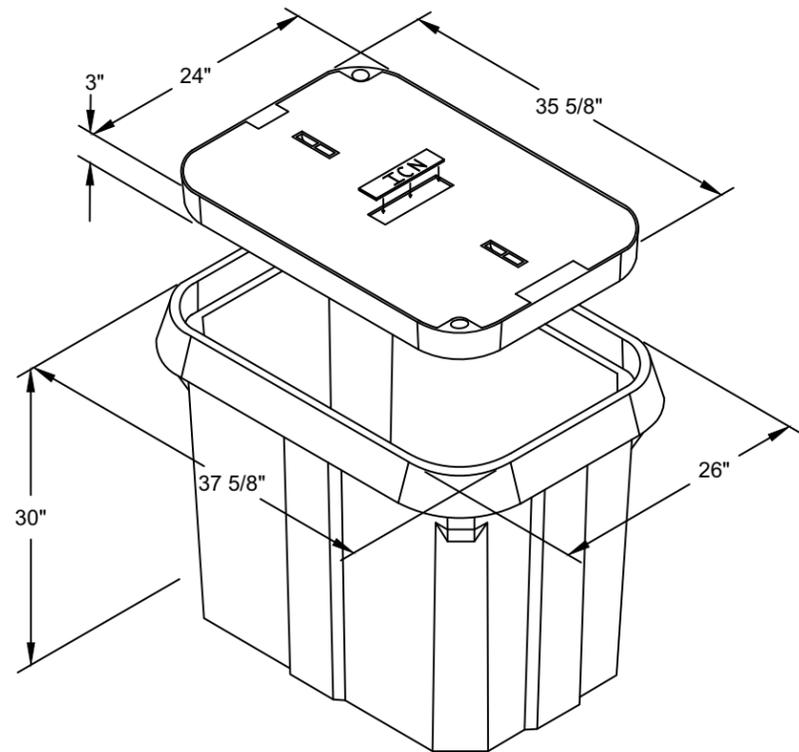
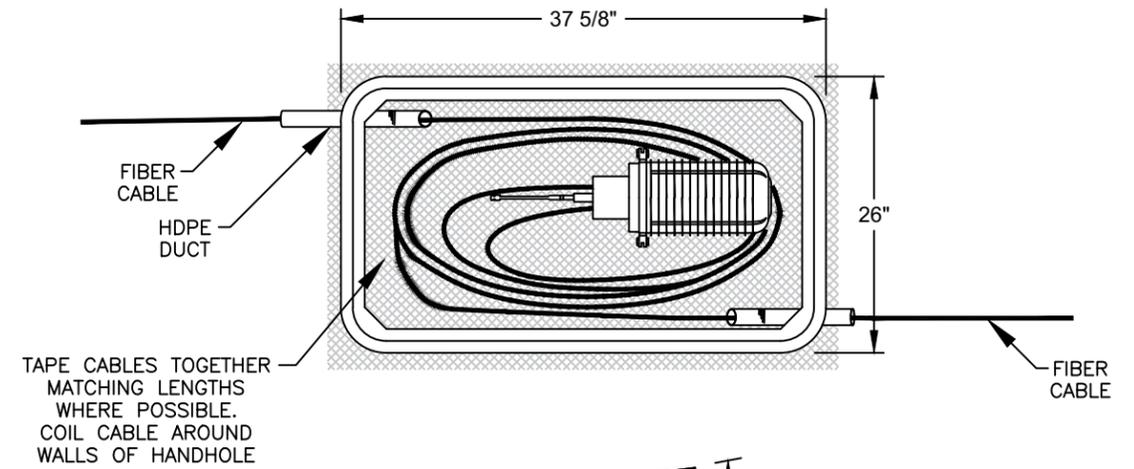
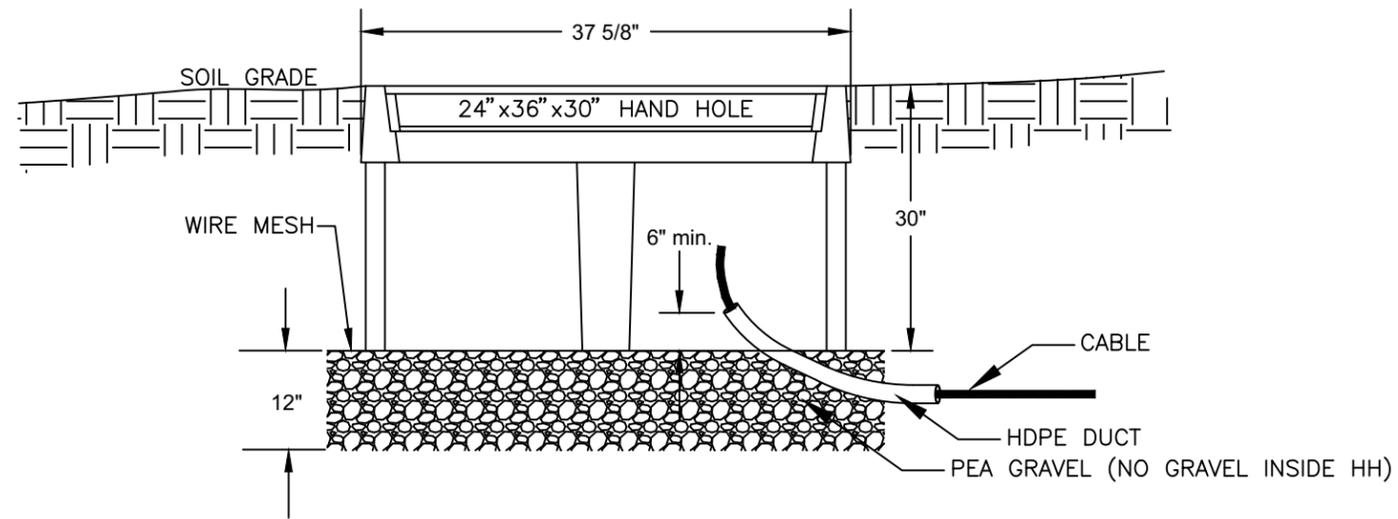
ISU BLACK ENGINEERING BUILDING ENTRANCE LISTING OF WORK*				
Item No.	Item	Unit	Quantities	
			Estimated	As-Built
1	48 SM DIELECTRIC FIBER	LINEAR FEET	75	
2	INSTALL ICN-FURNISHED FDP (BY SPLICER)	EACH	1	
3	#12 TRACER WIRE	LINEAR FEET	25	

*BUILDING ENTRANCES ARE BID AS A LUMP SUM. FIBER AND TRACER WIRE QUANTITIES IN THIS TABLE ARE ALSO LISTED ON SHEET C.01. ALL OTHER QUANTITIES IN THIS TABLE ARE NOT INCLUDED IN THE QUANTITIES LISTED ON SHEET C.01.

BUILDING ENTRANCE DETAILS

HANDHOLE PLACEMENT TYPICAL

24" X 36" X 30" NEW BASIS HAND HOLE



IOWA COMMUNICATIONS NETWORK

GRIMES STATE OFFICE BUILDING
400 EAST 14TH STREET
DES MOINES, IOWA 50319
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CONSTRUCTION DETAIL
HANDHOLE TYPICAL - NEW BASIS PC243630SN20
24" x 36" x 30"

TYPICAL HANDHOLE

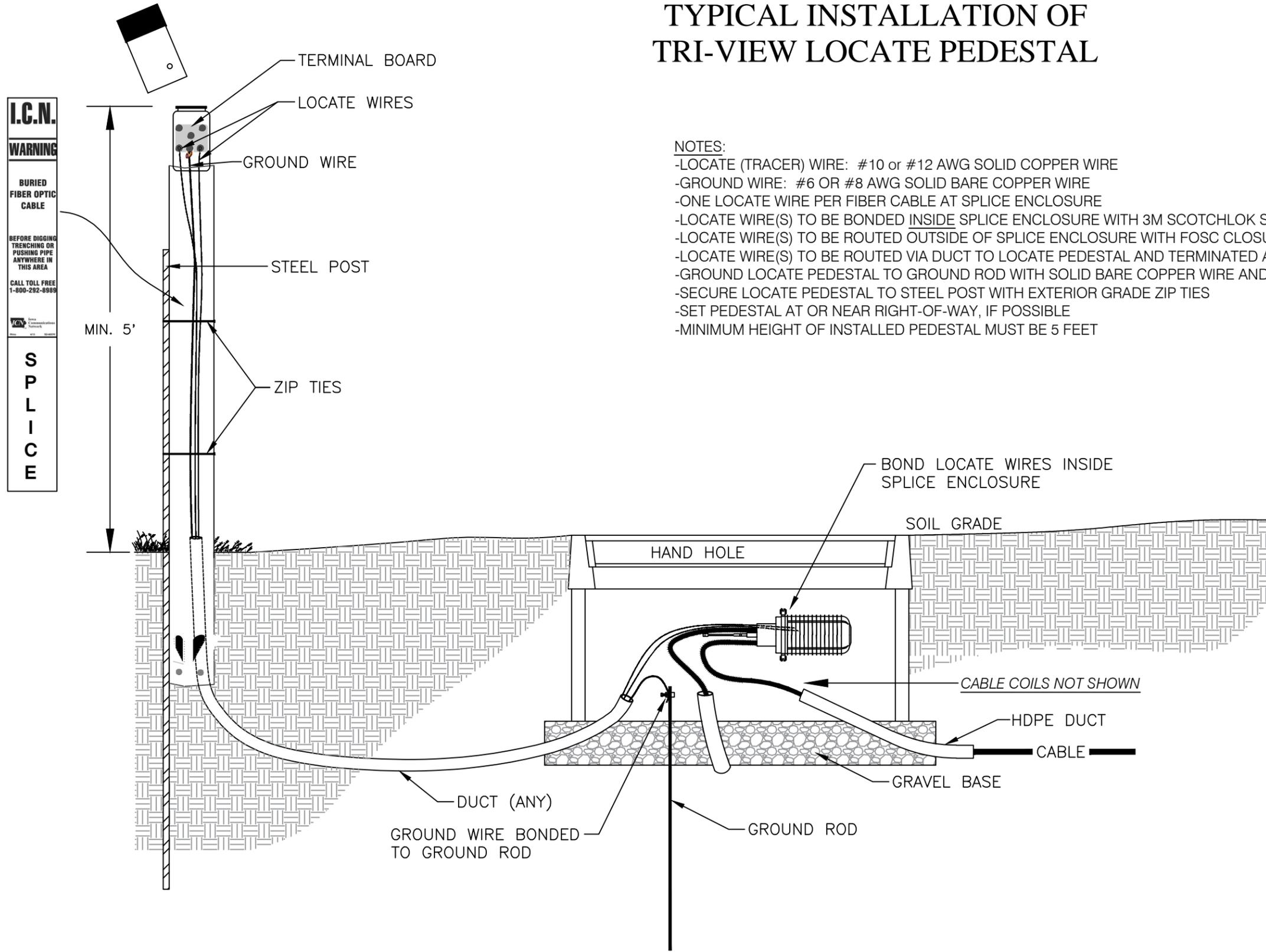
SCALE: NONE

SIZE: 11 x 17

1	REVISION	3-27-12	5
2	REVISION	7-16-14	6
3	REVISION	11-10-14	7
4	REVISION	8-21-15	8

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TYPICAL INSTALLATION OF TRI-VIEW LOCATE PEDESTAL



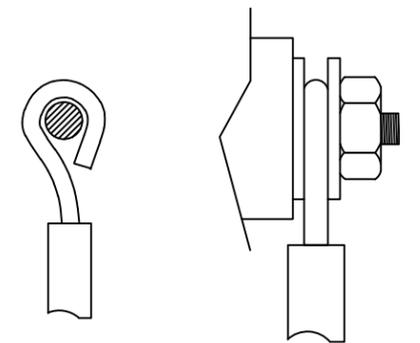
NOTES:

- LOCATE (TRACER) WIRE: #10 or #12 AWG SOLID COPPER WIRE
- GROUND WIRE: #6 OR #8 AWG SOLID BARE COPPER WIRE
- ONE LOCATE WIRE PER FIBER CABLE AT SPLICE ENCLOSURE
- LOCATE WIRE(S) TO BE BONDED INSIDE SPLICE ENCLOSURE WITH 3M SCOTCHLOK SHIELD BONDING KIT
- LOCATE WIRE(S) TO BE ROUTED OUTSIDE OF SPLICE ENCLOSURE WITH FOSC CLOSURE SEALING KIT
- LOCATE WIRE(S) TO BE ROUTED VIA DUCT TO LOCATE PEDESTAL AND TERMINATED AT TERMINAL BOARD
- GROUND LOCATE PEDESTAL TO GROUND ROD WITH SOLID BARE COPPER WIRE AND GROUND CLAMP
- SECURE LOCATE PEDESTAL TO STEEL POST WITH EXTERIOR GRADE ZIP TIES
- SET PEDESTAL AT OR NEAR RIGHT-OF-WAY, IF POSSIBLE
- MINIMUM HEIGHT OF INSTALLED PEDESTAL MUST BE 5 FEET

TRACER WIRE TERMINATION DETAIL

Termination of the locate wire at either a pedestal, puck, or in a splice case shall be made in the following fashion:

Strip off a minimum of 3/4" of insulation. Using a needle nose pliers bend a wire "eyelet" on the wire end in a clockwise manner. Use a flat washer on both sides of the wire eyelet when cinching it down on the stud. Flat washers shall be of appropriate size such that the hole matches the diameter of the stud and the outside diameter of the flat washer matches reasonably close to the eyelet diameter.

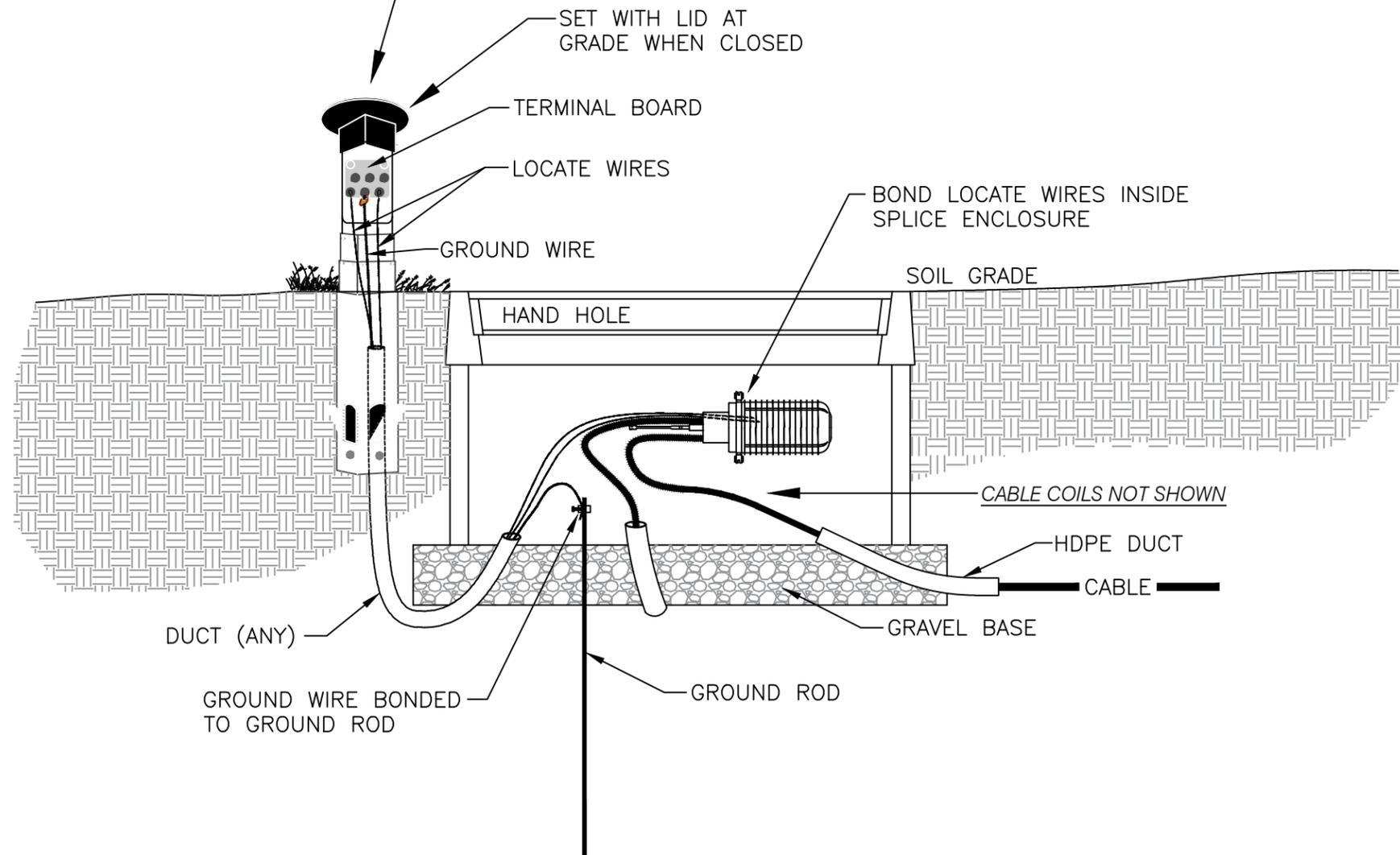


TYPICAL INSTALLATION OF HIDE-OUT LOCATE STATION



NOTES:

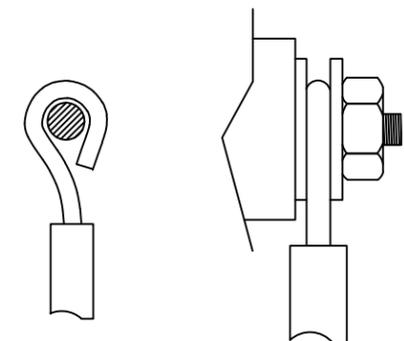
- LOCATE (TRACER) WIRE: #10 or #12 AWG SOLID COPPER WIRE
- GROUND WIRE: #6 OR #8 AWG SOLID BARE COPPER WIRE
- ONE LOCATE WIRE PER CABLE AT SPLICE ENCLOSURE
- LOCATE WIRE(S) TO BE BONDED INSIDE SPLICE ENCLOSURE WITH 3M SCOTCHLOK SHIELD BONDING KIT
- LOCATE WIRE(S) TO BE ROUTED OUTSIDE OF SPLICE ENCLOSURE WITH FOSC CLOSURE SEALING KIT
- LOCATE WIRE(S) TO BE ROUTED VIA DUCT TO LOCATE PEDESTAL AND TERMINATED AT TERMINAL BOARD
- GROUND LOCATE STATION TO GROUND ROD WITH COPPER WIRE AND GROUND CLAMP
- SET LOCATE STATION APPROXIMATELY 18-INCHES FROM THE HANDHOLE OR STRUCTURE



TRACER WIRE TERMINATION DETAIL

Termination of the locate wire at either a pedestal, puck, or in a splice case shall be made in the following fashion:

Strip off a minimum of 3/4" of insulation. Using a needle nose pliers bend a wire "eyelet" on the wire end in a clockwise manner. Use a flat washer on both sides of the wire eyelet when cinching it down on the stud. Flat washers shall be of appropriate size such that the hole matches the diameter of the stud and the outside diameter of the flat washer matches reasonably close to the eyelet diameter.



IOWA COMMUNICATIONS NETWORK

GRIMES STATE OFFICE BUILDING
400 EAST 14TH STREET
DES MOINES, IOWA 50319
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CONSTRUCTION DETAIL
LOCATE PEDESTAL TYPICAL
RHINO HIDEOUT

TYPICAL LOCATE PEDESTAL

SCALE: NONE

SIZE: 11 x 17

1	FOR CONSTRUCTION	11-3-14	5	REVISION	12-28-15
2	UPDATE	3-13-15	6		
3	REVISION	8-21-15	7		
4	REVISION	9-4-15	8		

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