



**APPLICATION AND AGREEMENT FOR USE OF HIGHWAY RIGHT-OF-WAY FOR UTILITIES ACCOMMODATION**

Form 810025 (03-16)

**FOR DEPARTMENT USE ONLY**

Permit Number <u>294-2017-027</u>	Highway Number 61	County Des Moines
DOT Project Number NHSX-061-2(62)-3H-29		Expiration/Completion Date <u>Dec 31st 2017</u>

**APPLICANT (INDIVIDUAL OR COMPANY)**

First Name Chad	Middle Initial Levi	Last Name Levi	Phone Number (319) 899-9969	Ext.
Company Name ITC Midwest LLC			Phone Number (319) 297-6765	Ext.
Street Address 123 5th Street SE		City/Town Cedar Rapids	State	ZIP Code IA 52401
e-Mail Address clevi@itctransco.com		Secondary e-Mail Address		

**INSTALLATION TO BE ACCOMMODATED**

Approval is hereby requested to enter within the state highway right-of-way for the accommodation of a utility installation as detailed on the attachments and further described as follows.

The installation shall consist of:

ITC Midwest will be relocating a line crossing Highway 61, in Des Moines County, to accommodate a DOT project, as shown on attached plans. ITC Midwest will be setting up a temporary guard structure in the median and on both sides of the highway, as well as shoulder closures on each side. Structure #123 will be placed in private easement & #124 will be placed in ROW.

and shall be located as shown on the detailed plan attached hereto. (See current Iowa Department of Transportation Utility Accommodation Policy for submittal of detailed plan requirements. See Section 115.8 (3). <http://www.iowadot.gov/traffic/pdfs/UtilityPolicy.pdf>)

**WORK SITE LOCATION**

The proposed work as described above is located in Section 26, Twp. 71N, Range 3W on Highway No. 61 generally located 5.5 (miles) South (direction) from Mediapolis (city, county line, or other landmark). Work proposed is more specifically located as being from 49.52 (Milepost #) and 1489 + 12 (Highway Station) to 49.52 (Milepost #) and 1489 + 66 (Highway Station) on the Both side of highway.

**Disclosure Statement:** The information furnished on this form will be used by the Department of Transportation to determine approval or denial of the application. Failure to provide all pertinent information will result in denial of the application. Information furnished is public information and copies may be provided to the public upon request.

The utility company, corporation, applicant, permit holder or licensee, (hereinafter referred to as the Permit applicant) agrees with the Iowa Department of Transportation (hereafter referred to as the Department) that the following stipulations and those special requirements as listed on this document shall govern under this permit after it is approved by the Department.

**A. General**

1. The installation shall meet the requirements of local municipal, county, state, and federal franchise rules and regulations, regulations and directives of the Iowa State Commerce Commission; the Iowa Department of Natural Resources, all rules and regulations of the Department and any other laws or regulations applicable.
2. The Permit Holder shall be fully responsible for any future adjustments of the facilities within the established highway right-of-way caused by highway construction or maintenance operations.
3. As per Section 115.8(8) of the Utility Accommodation Policy, As-Built plans are due within 90 days after completion of construction, the utility owner shall submit to the district representative an as-built plan.
4. The work described in this permit shall be completed as proposed in compliance with the stipulations and special requirements within one year from the date Department approval is received for said request. Failure on the part of the Permit Holder to abide by the stipulations or in constructing the work described as stipulated and within the time frame stated shall render this agreement and request null and void. The Permit Holder also agrees to save the State of Iowa and the Department harmless of any damages or losses that may be sustained by any person, or persons, on account of the conditions and requirements of this agreement.
5. Non-compliance with any of the terms of the Department's policy, permit, or agreement, may be considered cause for shut-down of construction operations, revocation of the permit, or withholding of relocation reimbursement and/or withholding of future application approvals until compliance is confirmed. The cost of any work deemed necessary to be performed by the State in removal of non-complying construction will be assessed against the Permit Holder.

## **B. Construction and Maintenance**

1. The location, construction and maintenance of the utility installation covered by this application shall be in accordance with the current Department's Utility Accommodation Policy. <http://www.iowadot.gov/traffic/pdfs/UtilityPolicy.pdf>
2. Before beginning any work in the highway right-of-way, it is the responsibility of the Permit Holder to obtain an easement from the drainage district if necessary. The Department assumes no responsibility for advising the Permit Holder of each location of a drainage district crossing. It is the Permit Holder's responsibility to locate these crossings and obtain any necessary easements or permission from the drainage district. See Code of Iowa, Chapter 468 for additional information.
3. A copy of the approved permit shall be available on the job site at all times for examination by Department personnel.
4. Operations in the construction and maintenance of this utility installation shall be carried on in such a manner as to cause minimum interference to or distraction of traffic on said highway.
5. Traffic protection shall minimally be in accordance with Part VI of the current Manual on Uniform Traffic Control Devices for Streets and Highways. The applicant shall be responsible for correctly using traffic control devices including signs, warning lights, and channelizing devices as needed while work is in progress or the clear zone is impacted. Flagging operations are the responsibility of the applicant. The Department's TC XXX Series Standards are the preferred traffic control specification plans. [http://www.iowadot.gov/design/standplne\\_fc.htm](http://www.iowadot.gov/design/standplne_fc.htm)
6. The applicant shall seed and mulch all disturbed areas within the highway right-of-way and shall be responsible for the vegetative cover until it becomes well established. Any surfaced areas such as driveways or shoulders and sodded waterways and plantings which are disturbed shall be restored to their original condition. Any damage to any other underground facilities during installation shall be repaired at the permit holder's expense.
7. All personnel in the highway right-of-way shall wear ANSI 107 Class 2 apparel at all times when exposed to traffic or construction equipment.
8. As per Policy Section 115.4(9) parking or storage in the clear zone is prohibited. When not in actual use, vehicles, equipment and materials shall not be parked or stored within the clear zone or median.
9. Unless specifically noted in Special Requirements section, all work performed within the right-of-way shall be restricted to 30 minutes after sunrise to 30 minutes before sunset.
10. Pedestals shall be placed within 12 inches of the right-of-way line.
11. All above and below ground appurtenances (pedestals, hydrants, drains, accesses, etc.) shall be marked with high visibility posts and signs. The minimum height requirement for the signs shall be 5 foot. Urban Roadway Sections may be exempted with department approval.

## **C. Liability**

1. To the extent allowable by law, the Permit Holder agrees to indemnify, defend, and hold the Department harmless from any action or liability arising out of the design, construction, maintenance, placement of traffic control devices, inspection, or use of the Permit Holder's facilities. This agreement to indemnify, defend, and hold harmless applies to all aspects of the Department's application review and approval process, plan and construction reviews, and funding participation.
2. The Permit Holder shall indemnify and save harmless the State of Iowa, its agencies and employees, from any and all causes of action, suits at law or in equity, for losses, damages, claims or demands, and from any and all liability and expense of whatsoever nature, arising out of or in connection with the Permit Holder's use or occupancy of the public highway.
3. The State of Iowa and the Department assume no responsibility for damages to the Permit Holder's property occasioned by any construction or maintenance operations on said highway if the facilities are not located in accordance with this permit.
4. The State of Iowa, its agencies or employees, will be liable for expense incurred by the Permit Holder in its use and occupancy of the highway right-of-way only when negligence of the State, its agencies or employees, is the sole proximate cause of such expense. Whether in contract, tort or otherwise, the liability of the State, its agencies and employees, is limited to the reasonable, direct expense to repair damaged utilities, and in no event will such liability extend to loss of profits or business, indirect, special, consequential or incidental damages.

## **D. Notification**

1. The Permit Holder is responsible for contacting **Iowa One-Call (1-800-292-8989)** and request the location of all underground utilities forty-eight (48) hours before excavation. Before beginning work in the highway right-of-way, the Permit Holder shall also contact any other known utility located in the area of the proposed work.
2. The Permit Holder agrees to give the Department forty-eight (48) hour notice of its intention to start construction or to perform routine maintenance on the highway right-of-way. Said notice shall be made to the local DOT contact person whose name is shown on Page 3.
3. **511 Notification**-In accordance with Iowa Code section 321.348, cities and utilities may not obstruct or close primary highways or primary highway extensions (State highways within city limits) **without prior consent of the Iowa DOT**, except in emergency situations. Before setting up a lane closure or a vertical/horizontal restriction of any kind on a primary highway, call your local Iowa DOT Maintenance garage and call the Traffic Management Center per attached documents. Except in emergency situations, a 10 day advance notice is required.

<http://www.iowadot.gov/traffic/utility/pdfs/511UtilityNotification.pdf>

## **E. Buy America**

Buy America applies to relocations of utility facilities that must move due to highway projects under certain specific conditions that include reimbursable locations and relocations due to interstate projects. Please contact the Department's District Engineering Operation Technician (EOT) for more information on Buy America requirements or visit the following link: <http://www.iowadot.gov/traffic/utility/utility.html>


Permit Number: \_\_\_\_\_

**FOR DEPARTMENT USE ONLY**

Special Requirements - in addition to the stipulations above, the following special requirements shall apply to this permit:

**Applicant Signature and Agreement**

The undersigned have read the stipulations of this permit agreement as stated, as well as attachments which may be included, and by signing this application agree to abide by all stipulations and to complete the work as proposed in compliance with the stipulations and attachments within one year from the date Department approval is granted for said request. Failure on the part of the applicant to abide by the stipulations or to construct the work desired as stipulated and within the time frame stated shall render this agreement and request null and void. The undersigned also agrees to save harmless the State of Iowa and the Iowa Department of Transportation from any damage or losses that may be sustained by any person or persons on account of the conditions and requirements of this agreement.

Name of Agent (Print or Type) Chad Levi	Agent/Owner (Signature) 	Title Sr. Community Relations Rep.
Name of Owner (Print or Type) ITC Midwest LLC	Date 10-17-17	
e-Mail Address clevi@itctransco.com		

**CITY ACTION (IF PROPOSED WORK IS WITHIN AN INCORPORATED CITY, CITY ACTION IS REQUIRED)**

"The undersigned city joins in the grants embodied in the above permit executed by the Iowa Department of Transportation on condition that all of the covenants and undertakings therein running to the Iowa Department of Transportation shall inure to the benefit of the undersigned city and recommends action on said permit application as noted below by the delegated city official".

Recommend Approval     Do Not Recommend Approval     None Required

Handwritten Signature	Title	Date
Type or Print Name	Authorized Official for the City of	
e-Mail Address		

**COUNTY ACTION (IF PROPOSED WORK CROSSES COUNTY RIGHT-OF-WAY, COUNTY ACTION IS REQUIRED)**

"The undersigned county joins in the grants embodied in the above permit executed by the Iowa Department of Transportation on condition that all of the covenants and undertakings therein running to the Iowa Department of Transportation shall inure to the benefit of the undersigned county and recommends action on said permit application as noted below by the delegated county official".

Recommend Approval     Do Not Recommend Approval     None Required

Handwritten Signature	Title	Date
Type or Print Name Brian Carter	Authorized Official for the County of Des Moines	
e-Mail Address SEE NEXT PAGE		

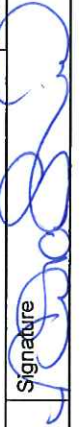
**FEDERAL HIGHWAY ADMINISTRATION ACTION (WHEN REQUIRED)**

Recommend Approval     Do Not Recommend Approval     None Required

Authorized FHWA Representative Signature	Date
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**DEPARTMENT OF TRANSPORTATION FINAL ACTION**

Application Approved     Application Denied

Authorized Highway District Representative Nora Lind	Signature 	Permit Number: 294-2007-027
e-Mail Address NORA.LIND@IOWADOT.US	Date 10/17/17	

Notice of intention to commence activities on the highway rights-of-way shall be submitted by the applicant a minimum of 48 hours prior to actually commencing the activities as herein granted by this approved application. Notice is to be given to the following Iowa Department of Transportation representative. Except in emergencies a 10 day advance notice is required for lane restrictions of any kind:

Local DOT Contact Person (Type or Print Name) Mt. Pleasant RCE	Phone Number 319-385-2211
Street Address 205 E Taft St.	City/Town Mt. Pleasant
e-Mail Address lauren.giarmo@iowadot.us / marv.may@iowadot.us	State ZIP Code IA 52641

Permit Number: \_\_\_\_\_

Special Requirements - In addition to the stipulations above, the following special requirements shall apply to this permit:

**Applicant Signature and Agreement**

The undersigned have read the stipulations of this permit agreement as stated, as well as attachments which may be included, and by signing this application agree to abide by all stipulations and to complete the work as proposed in compliance with the stipulations and attachments within one year from the date Department approval is granted for said request. Failure on the part of the applicant to abide by the stipulations or to construct the work desired as stipulated and within the time frame stated shall render this agreement and request null and void. The undersigned also agrees to save harmless the State of Iowa and the Iowa Department of Transportation from any damage or losses that may be sustained by any person or persons on account of the conditions and requirements of this agreement.

Name of Agent (Print or Type) Chad Levi	Agent/Owner (Signature) <i>[Signature]</i>	Title Sr. Community Relations Rep.
Name of Owner (Print or Type) ITC Midwest LLC		Date 10-11-17
e-Mail Address clevi@itctransco.com		

**CITY ACTION (IF PROPOSED WORK IS WITHIN AN INCORPORATED CITY, CITY ACTION IS REQUIRED)**

"The undersigned city joins in the grants embodied in the above permit executed by the Iowa Department of Transportation on condition that all of the covenants and undertakings therein running to the Iowa Department of Transportation shall inure to the benefit of the undersigned city and recommends action on said permit application as noted below by the delegated city official".

Recommend Approval     Do Not Recommend Approval     None Required

Handwritten Signature	Title	Date
Type or Print Name	Authorized Official for the City of	
e-Mail Address		

**COUNTY ACTION (IF PROPOSED WORK CROSSES COUNTY RIGHT-OF-WAY, COUNTY ACTION IS REQUIRED)**

"The undersigned county joins in the grants embodied in the above permit executed by the Iowa Department of Transportation on condition that all of the covenants and undertakings therein running to the Iowa Department of Transportation shall inure to the benefit of the undersigned county and recommends action on said permit application as noted below by the delegated county official".

Recommend Approval     Do Not Recommend Approval     None Required

Handwritten Signature <i>[Signature]</i>	Title County Engineer	Date 10-17-17
Type or Print Name Brian Carter	Authorized Official for the County of Des Moines County	
e-Mail Address office@dnaroads.org		

**FEDERAL HIGHWAY ADMINISTRATION ACTION (WHEN REQUIRED)**

Recommend Approval     Do Not Recommend Approval     None Required

Authorized FHWA Representative Signature	Date
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**DEPARTMENT OF TRANSPORTATION FINAL ACTION**

Application Approved     Application Denied

Authorized Highway District Representative Signature	Date
e-Mail Address	

Notice of intention to commence activities on the highway right-of-way shall be submitted by the applicant a minimum of 48 hours prior to actually commencing the activities as herein granted by this approved application. Notice is to be given to the following Iowa Department of Transportation representative. Except in emergencies a 10 day advance notice is required for lane restrictions of any kind:

Local DOT Contact Person (Type or Print Name)	Phone Number
Street Address	State    ZIP Code
e-Mail Address	IA

Permit Number 294-2017-027  
ITC



For Culvert Situation Plan  
Refer to Sheet No. V.6

PROPERTY EASEMENT  
TO SHAPE

FRANKLIN TWP.  
T-71N R-3W  
SEC. 23

JERRY J. MILLER REV. TRUST

Sta. 11492+30  
Build 8'x6' X 66' RCB  
Skew = 35° Lt. Ahd.  
F.L. = Lt. 702.60  
Rt. 700.90  
Design No. 617

MILLER FAMILY LIVING TRUST


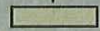

170th Street / Stoney Hollow Road

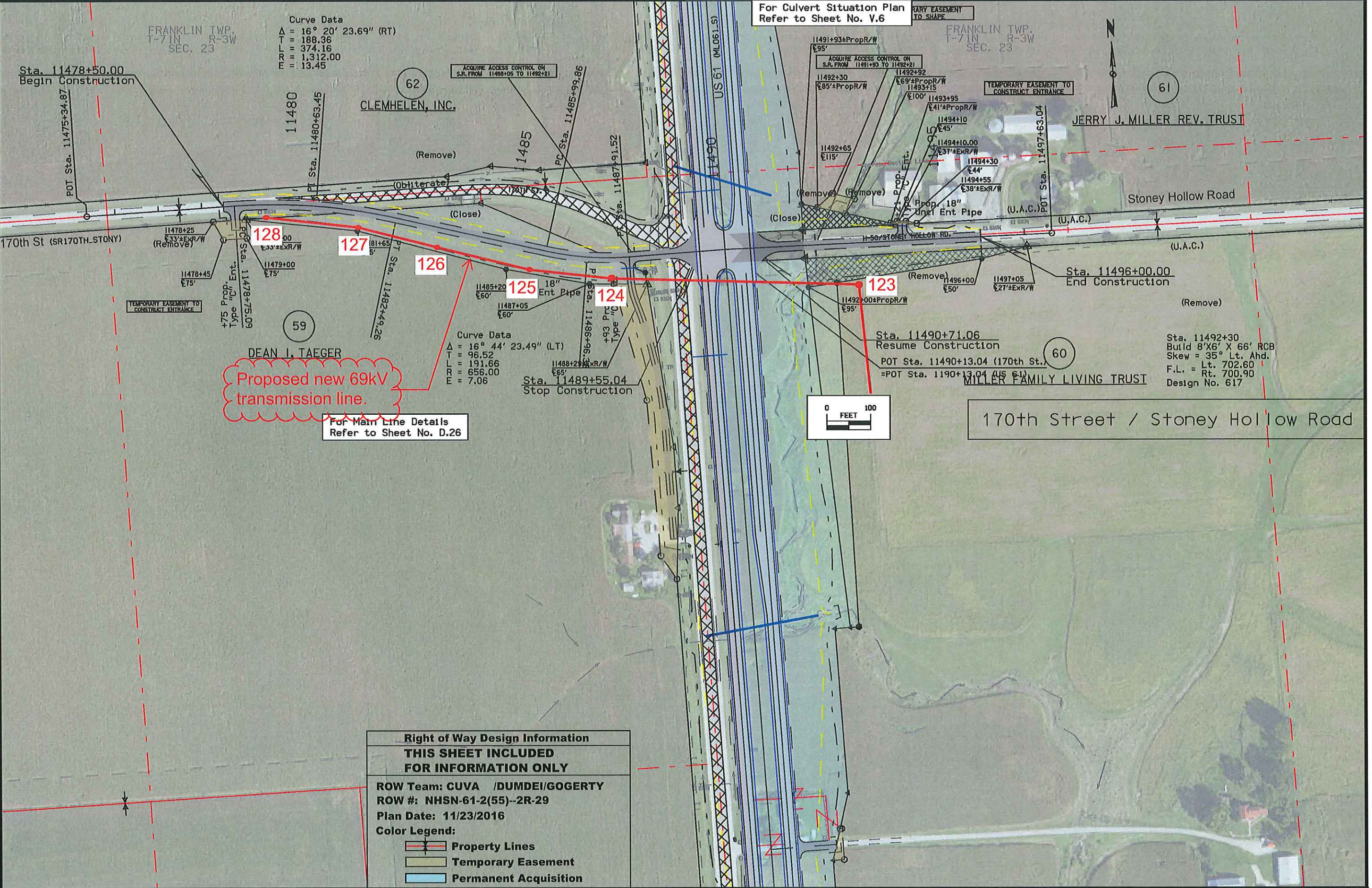
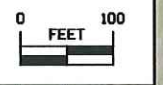
Curve Data  
Δ = 16° 20' 23.69" (RT)  
T = 188.36  
L = 374.16  
R = 1,312.00  
E = 13.45

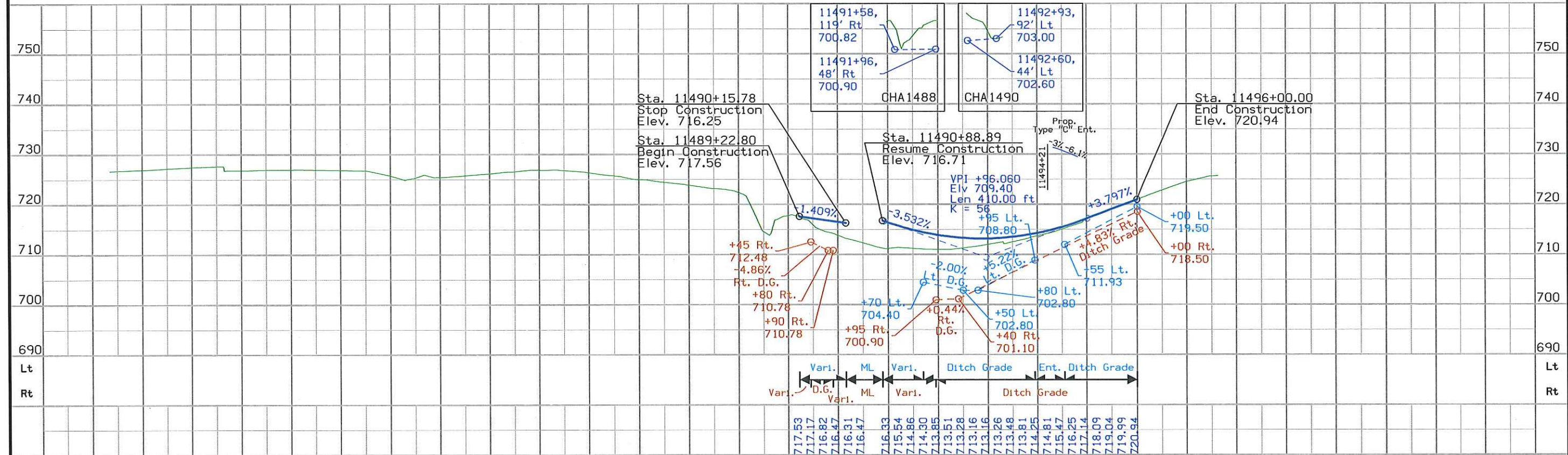
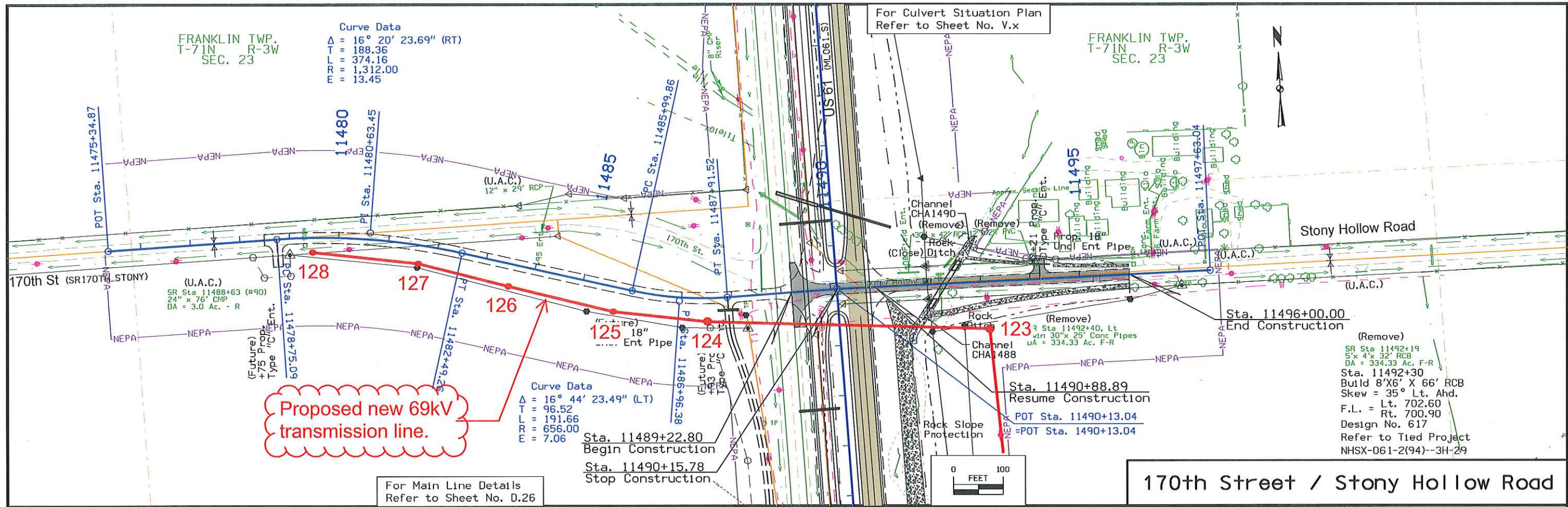
Curve Data  
Δ = 16° 44' 23.49" (LT)  
T = 96.52  
L = 191.66  
R = 656.00  
E = 7.06

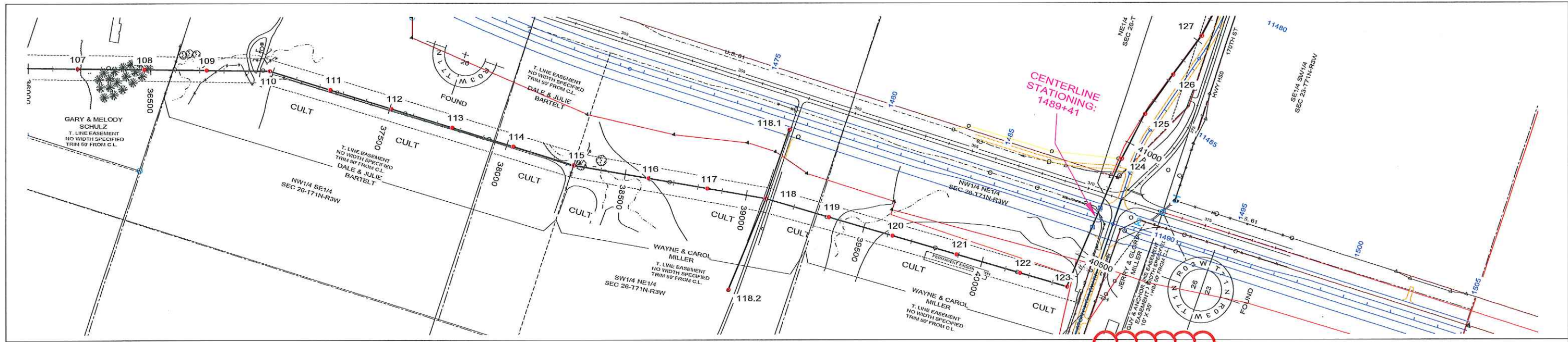
Proposed new 69kV  
transmission line.

For Main Line Details  
Refer to Sheet No. D.26

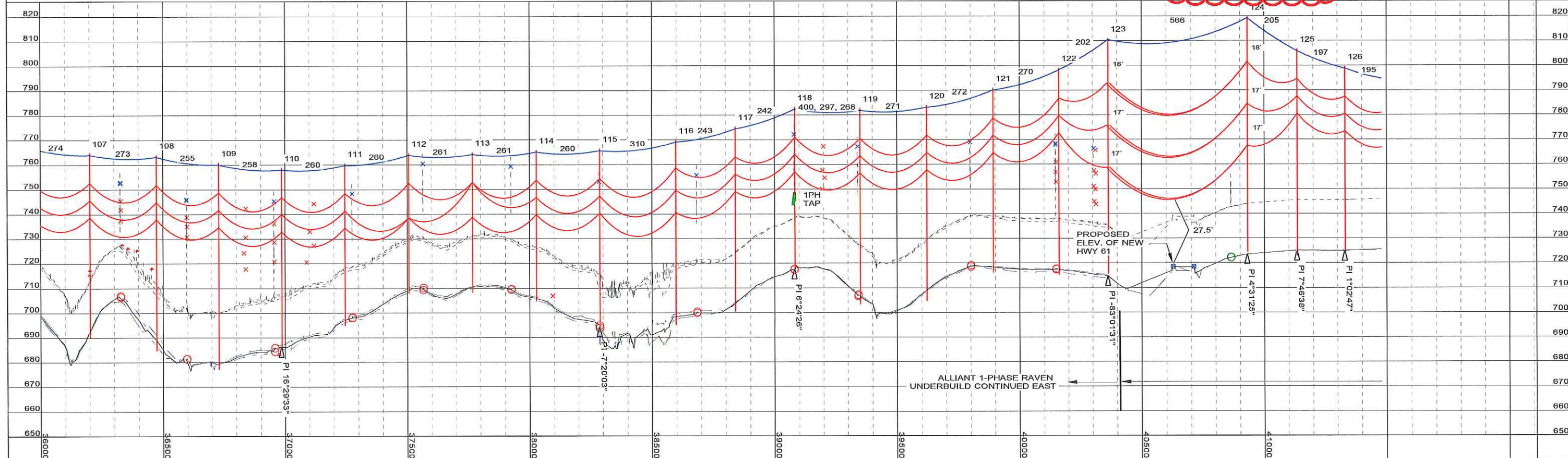
Right of Way Design Information	
<b>THIS SHEET INCLUDED FOR INFORMATION ONLY</b>	
ROW Team: CUVA /DUMDEI/GOGERTY	
ROW #: NHSN-61-2(55)--2R-29	
Plan Date: 11/23/2016	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition







<p>108 STA=36472.65 X=2284936.14 Y=342676.01 69DTGVP 90-H3 SET 15' DEEP SLSN WLP-WD</p>	<p>110 STA=36984.84 X=2284773.90 Y=343161.83 69DTGVP-L PELR-H16-89.5C170 SLSN</p>	<p>109 STA=36727.30 X=2284855.48 Y=342917.55 69DTGVP 95-H3 SET 13.5' DEEP SLSN WLP-WD</p>	<p>111 STA=37244.47 X=2284764.95 Y=343421.30 69DTGVP 75-H2 SET 11.5' DEEP (2)SLSN WLP-WD</p>	<p>112 STA=37504.58 X=2284755.99 Y=343681.26 69DTGVP-M2 65-H2 SET 9.5' DEEP SLSN WLP-WD</p>	<p>113 STA=37765.18 X=2284747.01 Y=343941.70 69DTGVP-M3 65-H2 SET 10.5' DEEP SLSN WLP-WD</p>	<p>114 STA=38025.92 X=2284738.03 Y=344202.29 69DTGVP 70-H2 SET 10' DEEP SLSN WLP-WD</p>	<p>115 STA=38285.65 X=2284729.08 Y=344461.87 69DTGVP-L PELR-H9-86.5C145 SLSN</p>	<p>116 STA=38595.59 X=2284678.95 Y=344767.72 69DTGVP-M1 85-H3 SET 13.5' DEEP (2)SLSN WLP-WD</p>	<p>117 STA=38838.38 X=2284639.67 Y=345007.32 69DTGVP 85-H3 SET 13.5' DEEP SLSN WLP-WD</p>	<p>118 STA=39080.38 X=2284600.53 Y=345246.13 69DTGVP-L PELR-H7-78.5C130 SLSN</p>	<p>119 STA=39348.42 X=2284586.96 Y=345513.83 69DTGVP 90-H3 SET 14' DEEP SLSN WLP-WD</p>	<p>120 STA=39619.21 X=2284573.25 Y=345784.27 69DTGVP 90-H3 SET 15' DEEP SLSN WLP-WD</p>	<p>121 STA=39890.73 X=2284559.51 Y=346055.44 69DTGVP 85-H3 SET 12' DEEP (2)SLSN WLP-WD</p>	<p>122 STA=40160.26 X=2284545.87 Y=346324.63 69DTGVP 95-H3 SET 13.5' DEEP SLSN WLP-WD</p>	<p>123 STA=40362.46 X=2284535.63 Y=346526.56 69DDJV3-S 95' STEEL ON DRILLED PIER SEE DWG 20223-54-XX</p>	<p>124 STA=40928.93 X=2283970.58 Y=346566.80 69DDJV3-S 95' STEEL ON DRILLED PIER SEE DWG 20223-54-XX</p>	<p>125 STA=41133.58 X=2283768.24 Y=346597.39 69DTGVP-L PELR-XX-97</p>	<p>126 STA=41330.08 X=2283579.71 Y=346652.78 69DTGVP 85-H3</p>
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SHIELD WIRE	3/8" EHS	TENSION @ NESC H.	2800	#. R.S.	275'	PLOTTING TEMP.	-20 I
CONDUCTOR	T2-PENGUIN	VOLTAGE	69KV	TENSION @ NESC H.	4000	#. R.S.	275'
CONDUCTOR	RAVEN	VOLTAGE	7.2KV	TENSION @ NESC H.	1700	#. R.S.	275'
CONDUCTOR		VOLTAGE		TENSION @ NESC H.		#. R.S.	
CONDUCTOR		VOLTAGE		TENSION @ NESC H.		#. R.S.	
CONDUCTOR		VOLTAGE		TENSION @ NESC H.		#. R.S.	

SURVEYED BY:	CGA	DATE:	3/14
PLOTTED BY:	MBN-EAS	DATE:	4/14
PROFILED BY:	MBN-EAS	DATE:	4/14
APPROVED BY:	MBN-KJB	DATE:	10/15

NO.	0	08-29-2017	LINE REBUILD (M0003600) PRELIMINARY	MBN-EAS, MBN-KJB, ITC-SEP	BY	CHKD APV
NO.		DATE	REVISION			

**CONFIDENTIAL**

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N BURLINGTON-US GYSUM-MEDI 69KV

**PLAN & PROFILE**  
BURLINGTON-NEW LONDON TAP  
STR #122 - STR #140

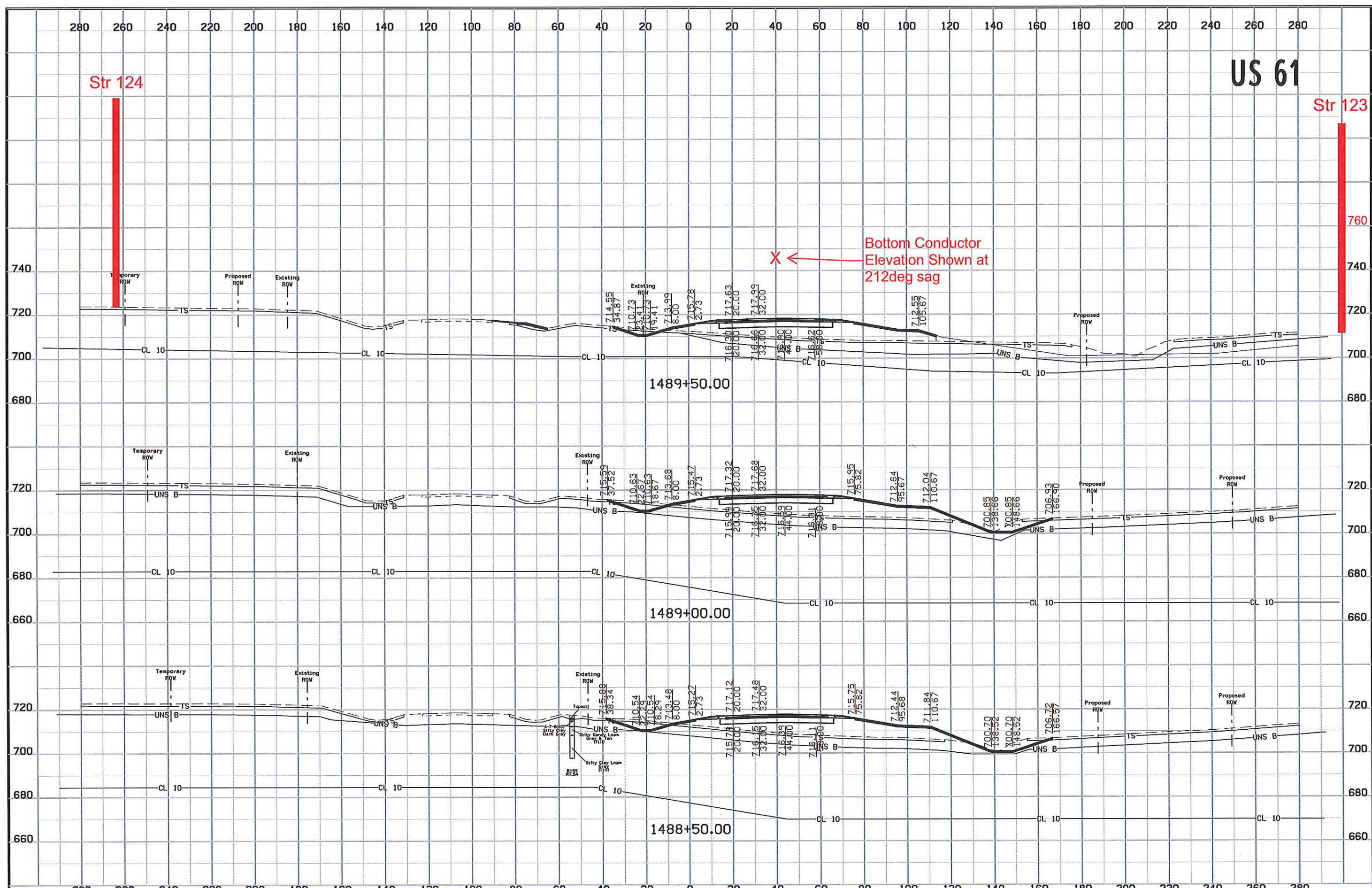
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# US 61

Str 124

Str 123



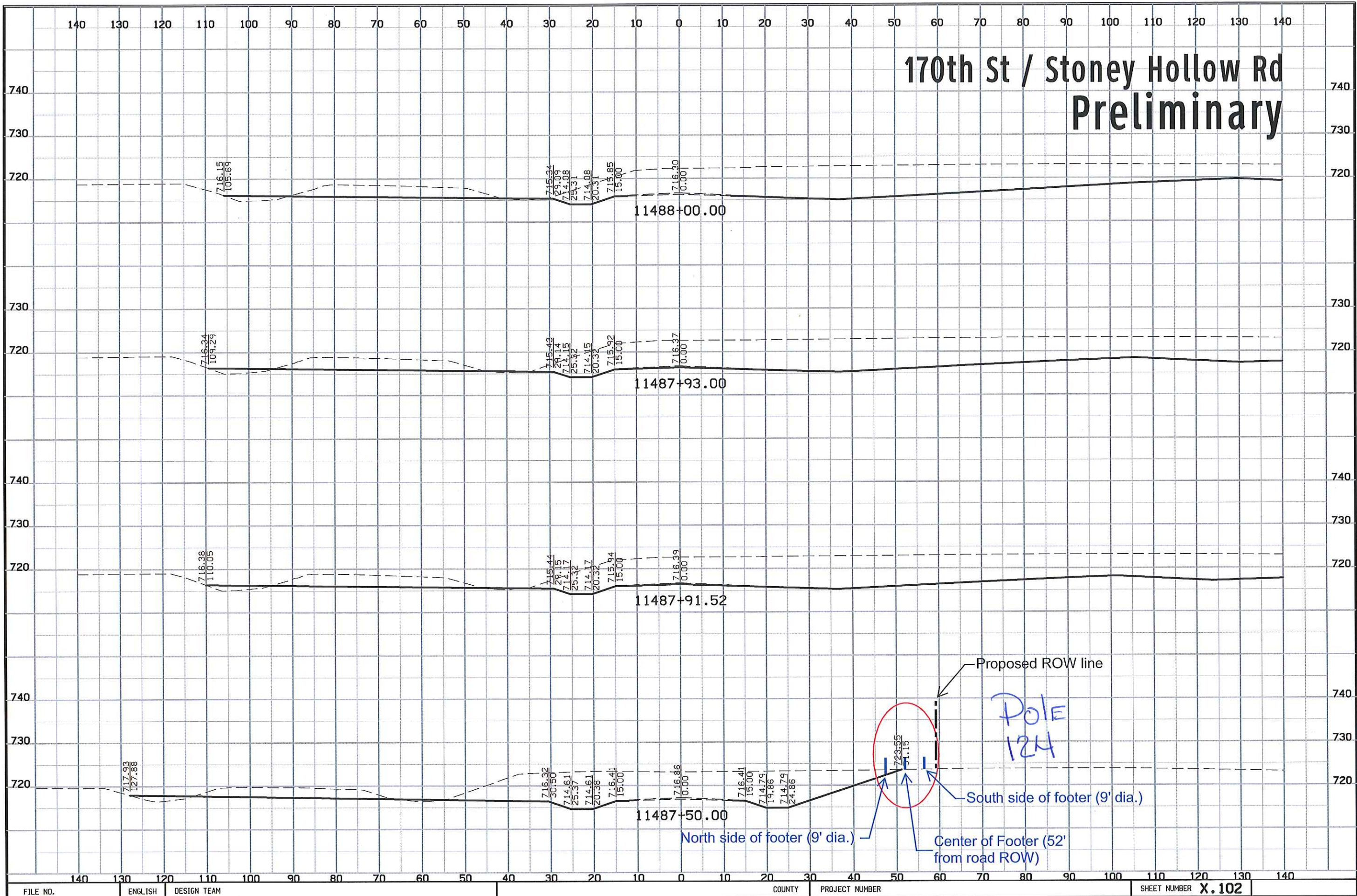
X ← Bottom Conductor Elevation Shown at 212deg sag

1489+50.00

1489+00.00

1488+50.00

# 170th St / Stoney Hollow Rd Preliminary



FRANKLIN TWP.  
T-71N R-3W  
SEC. 23

For Side Road Details  
Refer to Sheet No. E.13  
For Intersection Details  
Refer to Sheet No. L.21

Proposed new 69kV  
transmission line.

(Future)  
Sta. 1491+50, 44' Lt.  
Install 24" X 92' 2000D  
F.L. = Lt. 711.10  
Rt. 716.30  
Other 711.50

(Future)  
Sta. 1505+50, 44' Lt.  
Install 24" X 82' 2000D  
F.L. = Lt. 721.40  
Rt. 725.50  
Other 722.10

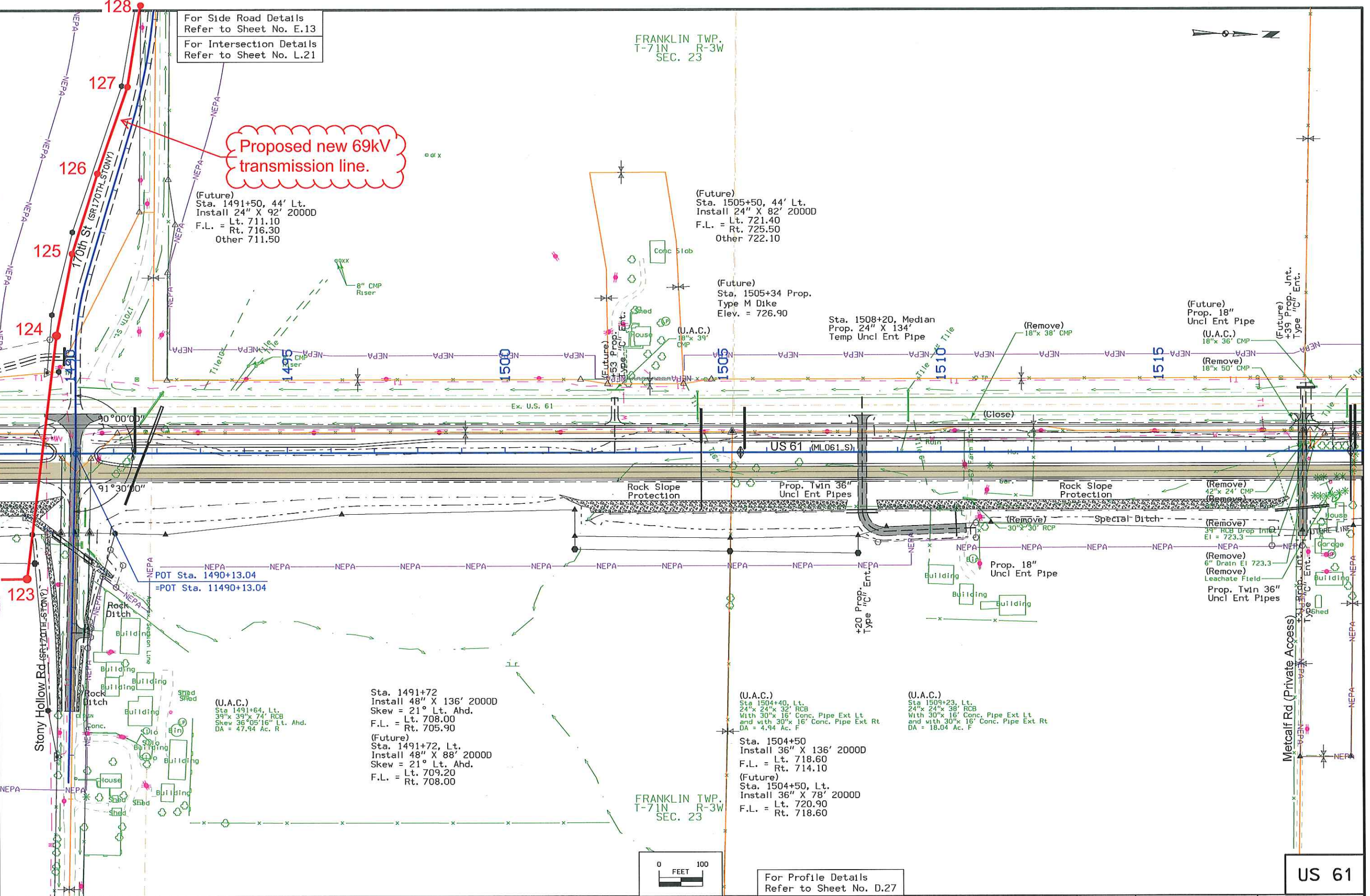
(Future)  
Sta. 1505+34 Prop.  
Type M Dike  
Elev. = 726.90

Sta. 1508+20, Median  
Prop. 24" X 134'  
Temp Uncl Ent Pipe

(Future)  
Prop. 18"  
Uncl Ent Pipe  
(U.A.C.)  
18" X 36' CMP

(Remove)  
18" X 50' CMP

(Future)  
+39' Prop. Int.  
Type "C" Ent.



(U.A.C.)  
Sta 1491+64, Lt.  
39' X 39' X 74' RCB  
Skew 36° 05' 16" Lt. Ahd.  
DA = 47.94 Ac. R

Sta. 1491+72  
Install 48" X 136' 2000D  
Skew = 21° Lt. Ahd.  
F.L. = Lt. 708.00  
Rt. 705.90

(Future)  
Sta. 1491+72, Lt.  
Install 48" X 88' 2000D  
Skew = 21° Lt. Ahd.  
F.L. = Lt. 709.20  
Rt. 708.00

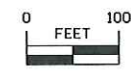
FRANKLIN TWP.  
T-71N R-3W  
SEC. 23

(U.A.C.)  
Sta 1504+40, Lt.  
24' X 24' X 32' RCB  
With 30" X 16' Conc. Pipe Ext Lt  
and with 30" X 16' Conc. Pipe Ext Rt  
DA = 4.94 Ac. F

Sta. 1504+50  
Install 36" X 136' 2000D  
F.L. = Lt. 718.60  
Rt. 714.10

(Future)  
Sta. 1504+50, Lt.  
Install 36" X 78' 2000D  
F.L. = Lt. 720.90  
Rt. 718.60

(U.A.C.)  
Sta 1509+23, Lt.  
24' X 24' X 38' RCB  
With 30" X 16' Conc. Pipe Ext Lt  
and with 30" X 16' Conc. Pipe Ext Rt  
DA = 18.04 Ac. F



For Profile Details  
Refer to Sheet No. D.27

US 61

- Do not allow work to interfere with the flow of traffic.
- When parked, locate vehicles as far from the open traffic lane as possible. Entrances and driveways should be used whenever appropriate.
- Equip all vehicles with an amber revolving light or amber strobe light.
- ① For work lasting longer than one hour, refer to TC-202 or TC-402.



① VEHICLE STOPPED ON SHOULDER FOR LESS THAN ONE HOUR



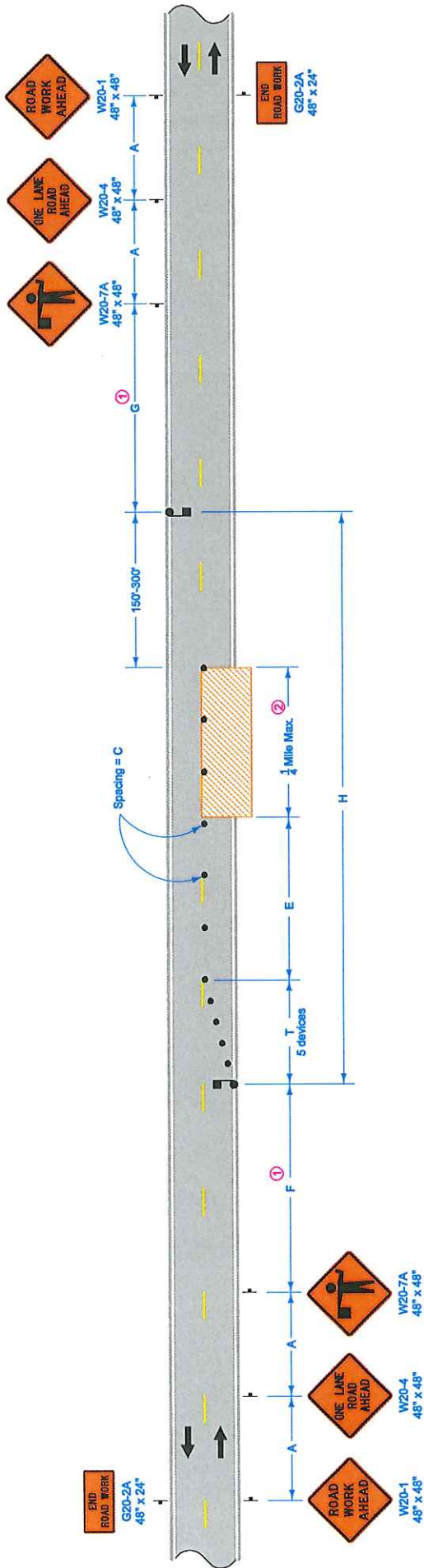
SLOW-MOVING OPERATION

**LEGEND**

- Traffic Sign
- Direction of Traffic

Possible Contract Item:  
Traffic Control

 Iowa Department of Transportation	REVISION	04-16-13
	2	
<b>STANDARD ROAD PLAN</b>		TC-1
		SHEET 1 of 1
REVISIONS: Modified note concerning amber Vehicle Warning Light.		
APPROVED BY DESIGN METHODS ENGINEER <i>Deanna Mitchell</i>		
<b>WORK NOT AFFECTING TRAFFIC (TWO-LANE OR MULTI-LANE)</b>		



Possible Contract Items:  
 Flaggers  
 Traffic Control

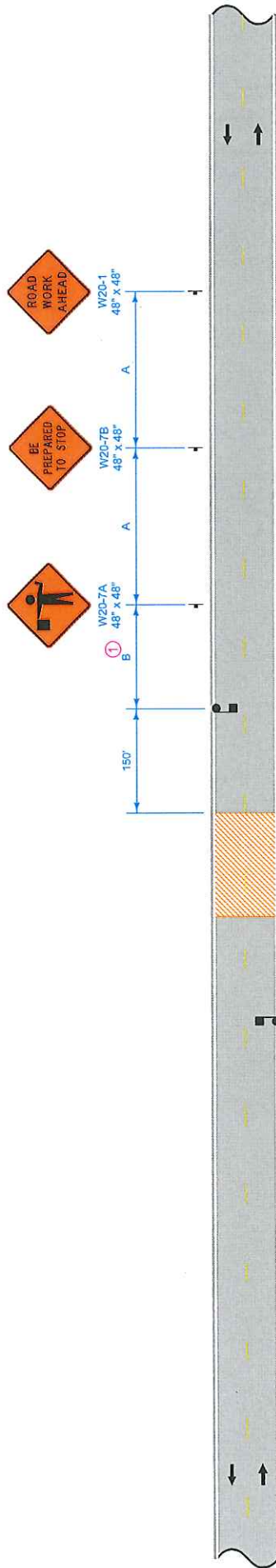
 <b>Iowa Department of Transportation</b> <b>STANDARD ROAD PLAN</b>	REVISION	3	04-17-12
	<b>TC-213</b>		
	SHEET 1 of 1 <small>REVISIONS: Removed "or Vertical Panel" from 42" Channelizer in Legend.</small>		
APPROVED BY DESIGN NETWORKS ENGINEER <i>Jessica Naitoh</i>			
<b>LANE CLOSURE WITH FLAGGERS</b>			

- ① Keep F and G distances as near to minimum values as work permits. However, to allow advancement of the work area without moving signs, F and G distances may be varied within the limits of the table. Maximum movement can be achieved by setting one F or G value at the minimum and the other value at its maximum.
- ② If length of work area exceeds 1/4 mile, use TC-214.

SPEED LIMIT (mph)	A	C	E	F and G Range	F + G Max	H Max	T
35 or less	250'	40'	0'-200'	500'-3000'	3500'	2000'	50'
40 - 45	350'	80'	0'-200'	700'-3000'	3700'	2000'	100'
50 or greater	500'	100'	200'-300'	1000'-3000'	4000'	2000'	100'

**LEGEND**

- Traffic Sign
- Flagger
- 42" Channelizer
- Work Area
- Direction of Traffic



Possible Contract Item:  
Traffic Control  
Flaggers

LEGEND

- Traffic Sign
- Work Area
- Flagger
- Direction of Traffic

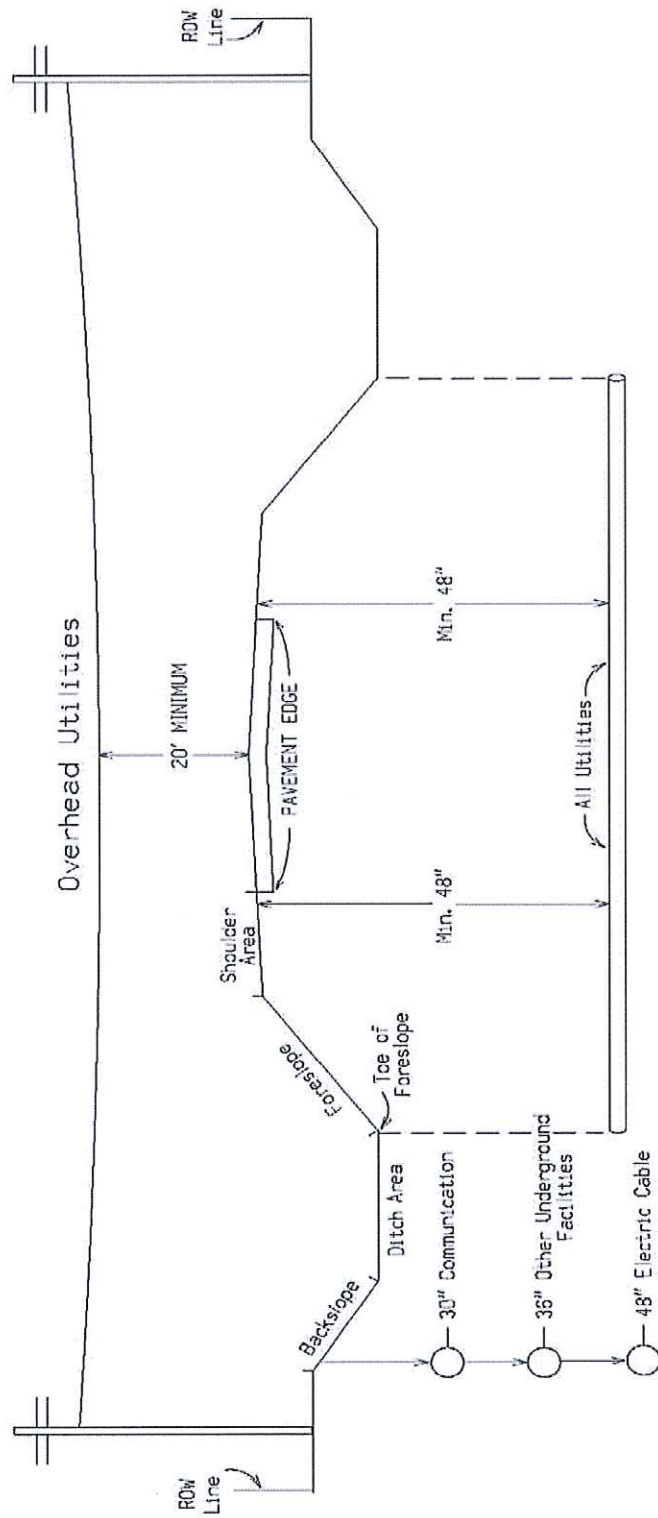
This layout is intended for a preplanned closure of 20 minutes or less.

SPEED LIMIT (mph)	A	B (minimum)
35 or less	250'	250'
40 - 45	350'	350'
50 or greater	500'	500'

① The Engineer will determine the storage length, B, necessary to accommodate stopped traffic during the closure.

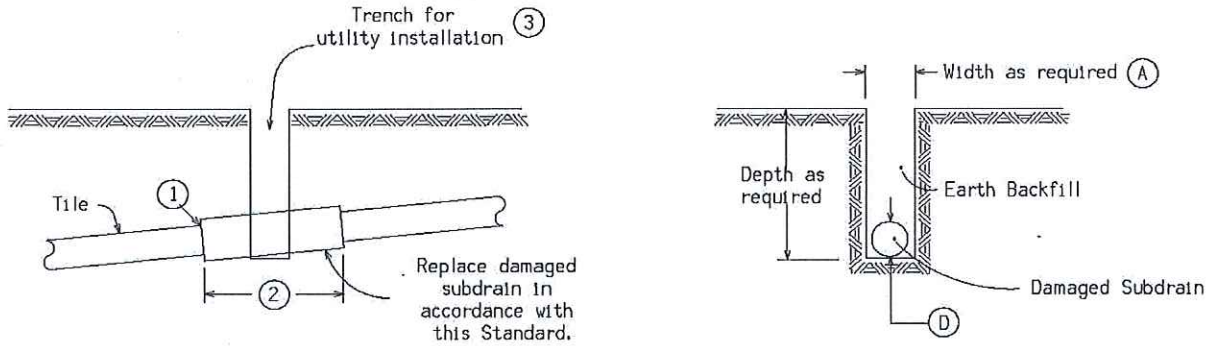
 Iowa Department of Transportation	REVISION 2   04-17-12
	TC-251
STANDARD ROAD PLAN	
REVISIONS: No significant changes. Changed to color.	
<i>Deanna Macklin</i> <small>APPROVED BY DESIGN METHOD ENGINEER</small>	
TEMPORARY ROAD CLOSURE	

# Minimum Policy Requirements Rural Section Non-Freeway Highway



**Notes:**  
 Utilities shall be located between the toe of foreslope and the highway row line.  
 Utilities should be located as near to the highway row line as practical.  
 See Utility Policy, Section 115.13 for further details.

# Tile Line Repair Guideline



**Note:**  
Replacement of drainage tile shall be accomplished so as to cause the minimum of disturbance to existing field tile. The repaired drainage tile shall be left in a functional condition with special emphasis placed on maintaining existing flow line elevations.

① = A minimum of 24" shall be excavated outside the normal utility trench wall or such greater width as may be required to expose a minimum of 12" of undamaged drain tile.

REPLACEMENT SCHEDULE - CASE 'A'										
Existing Tile ①	4	6	8	10	12	15	18	21	24	>24
Proposed Subdrain Size										
Concrete Pipe	-	-	12	15	15	18	21	24	30	D+6"
Coated C.M.P.	10	12	15	18	21	24	30	36	36	*

\* Replacement sizes provide equivalent capacity based on 6" settlement assuming a 0.20% slope with  $n = 0.013$  for concrete pipe and  $n = 0.025$  for corrugated pipe (Manning Formula)

**NOTES:**

Tile lines disturbed within the right-of-way (outside the Roadway Embankment Area \*) limits shall be repaired as follows:

May be repaired with schedule 40 PVC pipe of compatible size or in accordance with the replacement schedule-case 'A' as listed above. Replacement with schedule 40 PVC pipe shall require using a connecting device of a Femco plain and plain flexible pipe coupling or equal.

Tile lines disturbed within the "Roadway Embankment Area" shall be replaced in accordance with the replacement schedule - case 'A' stated above and as follows:

① Concrete collar to be placed around joint where existing tile line and corrugated aluminized metal pipe connect.

② Minimum length of corrugated metal pipe shall be 4 feet. Minimum length of 2 feet on each side of the tile line break location.

③ Trench shall be backfilled with 8 inches loose material, compacted to 6 inches with a minimum of 95% compaction of natural density.

A. Backfill and compact area around drain tile to be completed by hand until new tile is completely covered. Remainder of the trench shall be backfilled by acceptable methods.

B. Area shall require inspection by the Iowa Department of Transportation inspectors or their designated personnel prior to backfilling of trench.

\* "Roadway Embankment Area" is defined as the area lying between the foreslopes of a two-lane roadway and from near foreslope to far foreslope of a four lane roadway.