

# *City of West Branch*

~ A Heritage for Success ~

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110 N. Poplar St. • P.O. Box 218 • West Branch, Iowa 52358  
Ph. 319-643-5888 • Fax 319-643-2305 • www.westbranchiowa.org • wbcity@lcom.net

## **PLANNING AND ZONING COMMISSION MEETING**

**Tuesday, January 28, 2014 • 6:30 p.m.**

**West Branch City Council Chambers, 110 N. Poplar St.**

*Council Quorum May Be Present*

1. Call to Order
2. Roll Call
3. Approve minutes from the December 3, 2013 Planning and Zoning Commission Meeting/Move to action.
4. Approve Central States Tower II, LLC 197' Monopole Tower Site Plan./Move to action.
5. Old Business
  - a. Casey's Site Plan
  - b. City Zoning Map Updates
6. New Business
  - a. Meadows Subdivision, Part II
7. Adjourn

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**Planning & Zoning Commission Members:** Roger Laughlin, Chair, Helen Dauber, John Fuller,  
Trent Hansen, Molly Menard, Gary Slach, vacant

**Mayor:** Mary Worrell • **Council Members:** Jordan Ellyson, Colton Miller, Brian Pierce, Tim Shields, Mary Beth Stevenson

**City Administrator/Clerk:** Matt Muckler • **Fire Chief:** Kevin Stoolman • **Library Director:** Nick Shimmin

**Parks & Rec Director:** Melissa Russell • **Police Chief:** Mike Horihan • **Public Works Director:** Matt Goodale

*(These minutes are not approved until the next Commission meeting.)*

**City of West Branch Planning & Zoning Commission Meeting**  
**December 3, 2013**  
***West Branch City Council Chambers, 110 North Poplar Street***

Chair Roger Laughlin opened the meeting of the West Branch Planning and Zoning Commission at 6:32 p.m. by welcoming the audience, Zoning Board of Adjustment Chair Craig Walker, and the following City Staff: City Administrator Matt Muckler, Administrative Assistant Shanelle Peden, Public Works Employee Paul Stagg, Fire Chief Kevin Stoolman, City Attorney Kevin Olson, and City Engineer Dave Schechinger. Commission members Roger Laughlin (Chair), Helen Dauber, John Fuller, Trent Hansen, Lisa Schettler, and Gary Slach were present. Commission member Molly Menard was absent.

Motion by Laughlin to approve minutes from the October 15, 2013 meeting, second by Fuller.

AYES: Laughlin, Fuller, Dauber, Hansen, Schettler, Slach. NAYS: None. Absent: Menard. Motion carried.

Clean Energy-representative Ben Steckler of Fiedler Group spoke to the Commission regarding the proposed Site Plan. Steckler indicated that Clean Energy allows movement of liquid natural gas which is better for the environment than diesel fuel and less expensive. Commission member Fuller suggested that liquefied natural gas trucks are exempt from the gas tax. Commission member Schettler asked about the specific location of the proposed liquefied natural gas distribution center. City Engineer Schechinger commented that Clean Energy's storm water and pollution prevention plans are adequate and in place for site development, however, the irrigation system needs some modifications. Commission member Fuller asked about the volume and flow of truck traffic. Steckler indicated that four lanes would be available, with approximately 200 trucks through the facility each day. Steckler added that shutoff valves limit the risk exposure for catastrophe and the facility operates with ongoing monitoring and weekly emergency testing. Chair Laughlin asked what training is available for the West Branch Fire Department. Steckler said that Clean Energy will offset some of the training costs for firemen to attend the Clean Energy fire training in Texas and that he would also conduct an exercise with the members of West Branch Fire Department onsite prior to opening the site for business. Fire Chief Stoolman indicated that he contacted the State Fire Marshall for review of Clean Energy's plan and its standard operating procedure.

Motion by Fuller to approve Clean Energy Site Plan, second by Schettler. AYES: Fuller, Schettler, Dauber, Hansen, Laughlin, Slach. NAYS: None. Absent: Menard. Motion carried.

Approve one-year extension of Lot #1 Pedersen Valley, Part One Site Plan per Section 173.09 of the City Code of Ordinances-City Administrator Muckler indicated that builder Mike Furman contacted the City regarding an extension of Lot #1 in Pedersen Valley, Part One.

Motion by Laughlin to approve one-year extension of Lot #1 Pedersen Valley, Part One Site Plan, second by Hansen. AYES: Laughlin, Hansen, Dauber, Fuller, Schettler, Slach. NAYS: None. Absent: Menard. Motion carried.

Approve zoning amendment recommendations to the City Council-Zoning Board of Adjustment Chair Walker presented recommendations developed by the Zoning Board of Adjustment during a work session on November 20, 2013. Suggested recommendations from the Board include incorporating language to the City Code to include a provision for the Council to review and remand decisions back to the Board, amending City Code definitions of screens, fences, hedges, and retaining walls, correcting inconsistent

language between City Code sections 165.11 and 165.44, and amending City Code 165.44 to include specific requirements for retaining walls.

Attorney Olson indicated that upon revision and completion of the amended recommendations, the Commission would need to hold a public hearing before approving the item and forwarding it to Council. Chair Laughlin stated that builders and homeowners should have the ability to construct a wall higher than 48 inches without having engineering review. Commission member Fuller asked about the provisions for granting exceptions. Public Works Employee Stagg commented that leaving exceptions causes more ambiguity when interpreting and enforcing the City Code. The Commission came to a consensus regarding the zoning amendment recommendations and asked that City Administrator Muckler and Attorney Olson review and edit the suggestions prior to the next Commission meeting.

Motion by Hansen to adjourn, second by Laughlin. Motion carried on a voice vote. Meeting adjourned at 8:40 p.m.

CITY OF WEST BRANCH  
COMMISSION ACTION REPORT

MEETING DATE: January 28, 2014 AGENDA ITEM: 4

DATE PREPARED: January 8, 2014

STAFF LIAISON: Matt Muckler, City Administrator

ACTION TITLE:  
Clean Energy Site Plan

**RECOMMENDATIONS:**

Approve Central States Tower II, LLC 197' Monopole Tower Site Plan with the stipulation that the City Council agrees to provide an allowance for barbed wire on the fence.

**PROJECT DESCRIPTION:**

In July of 2008, site acquisition consultant Stu Harrison, Sr. completed a building permit application on behalf of Central States Tower, Inc. for the construction of a cell phone tower at 213 Northridge Drive. The permit was approved but the tower was not constructed at that time due to financial concerns of Central States Tower, Inc.

On March 28, 2013, Mr. Harrison approached the City of West Branch with a request to renew his building permit. Mr. Harrison was informed that his permit was expired and could not be renewed. Mr. Harrison was also informed about the site plan ordinance that had since been adopted by the Planning & Zoning Commission. After this initial exchange of information in March of 2013, Mr. Harrison did not pursue the site plan for the cell tower until December of 2013.

On December 13, 2013, Mr. Harrison stated that Central States Tower/Verizon Wireless had moved their West Branch tower up in priority and requested a pre-application conference per the site plan ordinance. City Administrator Matt Muckler and City Engineer Dave Schechinger conducted a pre-application conference with Mr. Harrison on December 18, 2013. Issues discussed at the meeting included the Code requirements on height limitations, the proposed use of barbed wire on the fence, the allowable height of the fence, the need for a concrete driveway, a five-foot sidewalk, a sound attenuator for the generator and an erosion control plan.

It was determined that Section 165.42 of the Code, Height Limitations, does not apply to the project. Mr. Harrison was informed that only the City Council can allow for the barbed wire per Section 41.07 of the City Code and that they could consider that approval at the February 18, 2014 City Council Meeting. On January 8, 2014, Mr. Harrison provided revised construction plans to the City of West Branch which included the following changes: 1) concrete driveway, 2) a five-foot concrete sidewalk, 3) sound attenuator for the generator, and 4) an erosion control plan. The chain-link fence remained at seven feet with one foot of barbed wire fence above that.

**ATTACHMENTS:**

Verizon Wireless West Branch DT West Branch, IA Construction Drawings (including Site Plan on page C-1), January 2014 (27 Pages)

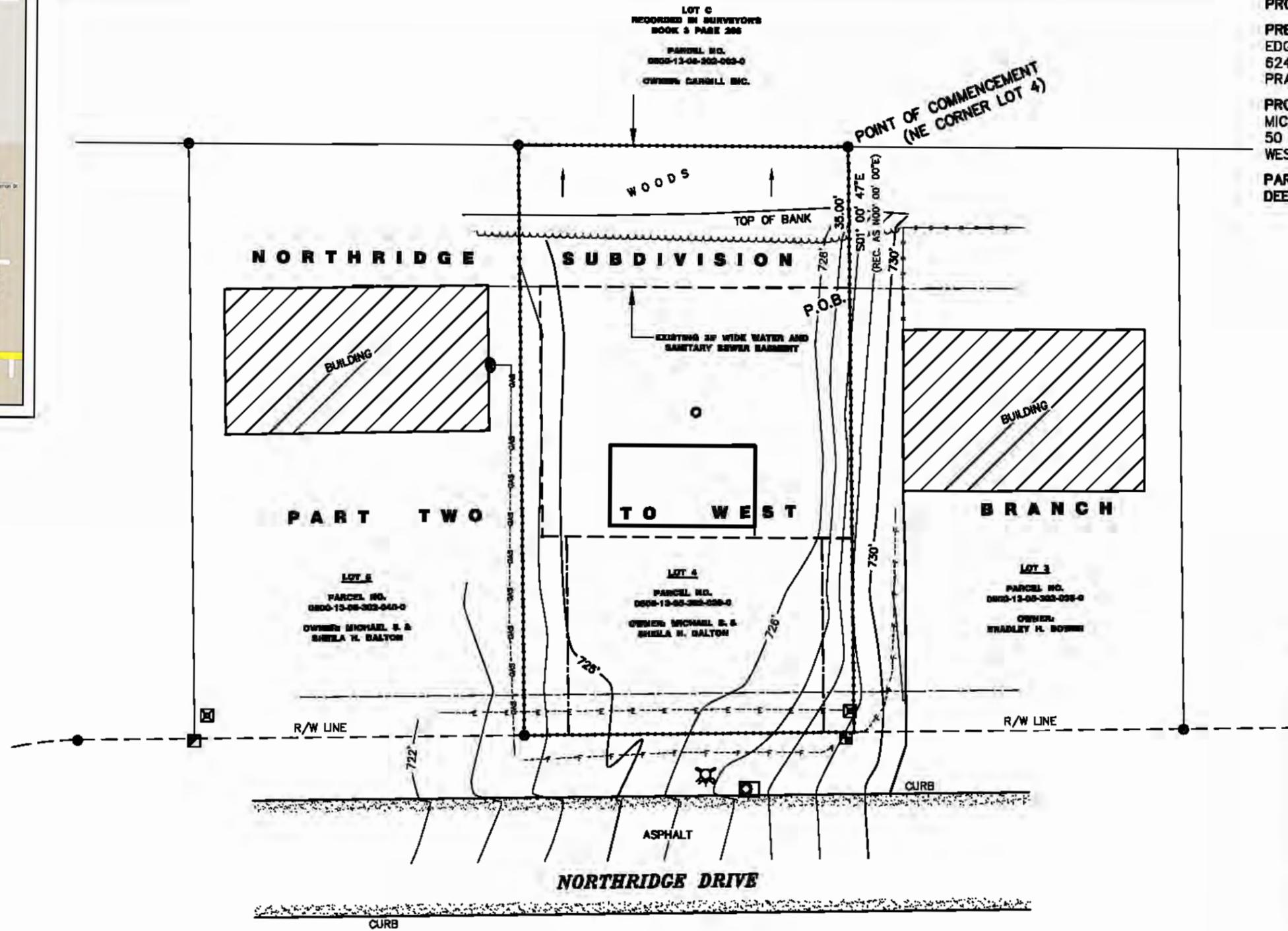
Determination of No Hazard to Air Navigation (4 pages)

Attached Separately - Geotechnical Report Prepared for Central States Tower II, LLC (37 pages)





PROJECT: WEST BRANCH #127799  
 PREPARED FOR:  
 EDGE CONSULTING ENGINEERS  
 624 WATER STREET  
 PRAIRIE DU SAC, WISCONSIN 53578  
 PROPERTY OWNER:  
 MICHAEL S. & SHEILA H. DALTON  
 50 GREENVIEW DRIVE  
 WEST BRANCH, IOWA 52358  
 PARCEL NO. 0500-13-05-302-039-0  
 DEED BOOK 588 PAGE 60



BEARINGS REFERENCED TO THE IOWA  
 STATE PLANE COORDINATE SYSTEM  
 (NAD 83/2007) - SOUTH ZONE

- LEGEND —**
- = 1"x18" IRON PIPE WITH CAP SET
  - = 5/8" REBAR FOUND
  - = METAL POST
  - = STORM MANHOLE
  - = FIBER PEDESTAL
  - = ELECTRIC TRANSFORMER
  - = GAS METER
  - = FIRE HYDRANT (BM A)
  - = TELEPHONE PEDESTAL
  - — — = PROPERTY LINE
  - - - - = BURIED ELECTRIC
  - - - - = BURIED FIBER OPTIC
  - - - - = BURIED GAS LINE
  - - - - = EXISTING FENCELINE
  - ~~~~~ = EDGE OF WOODS
  - 733.0'x = SPOT ELEVATION
  - P.O.B. = POINT OF BEGINNING

1	04-29-13	FINAL
DRAWING FILE: 127799		
PROJECT NUMBER: 2130221		
DRAWN BY: BJB CHECKED BY: BAB		
NOTEBOOK: P-380 PAGES: 64		

**aerometric**

Land Survey & Design  
 920-457-3631 800-558-6707  
 4020 TECHNOLOGY PARKWAY  
 SHEBOYGAN, WISCONSIN 53083

**SITE NO. 127799**  
**SITE NAME:**  
**WEST BRANCH**  
 207 NORTHRIDGE DRIVE  
 WEST BRANCH, IOWA 52358  
 CEDAR COUNTY

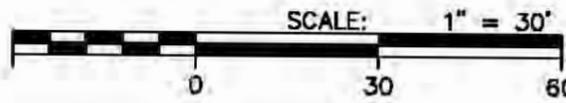
**AME MAP NO. D-1735**  
**SHEET 1 OF 3**

**PROFESSIONAL LAND SURVEYOR'S CERTIFICATE**

I hereby certify that this land surveying document was prepared and the related survey work was performed by me or under my direct personal supervision and that I am a duly licensed Land Surveyor under the laws of the State of Iowa.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

IOWA PROFESSIONAL LAND SURVEYOR  
 Anthony P. Lulloff, License No. 19860  
 My license renewal date is December 31, 2014.

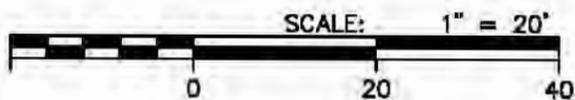


**SITE SURVEY FOR VERIZON WIRELESS  
 PERSONAL COMMUNICATIONS LP**  
 LOT 4, NORTHRIDGE SUBDIVISION PART TWO TO  
 WEST BRANCH; BEING A PART OF SECTION 5,  
 T.79N. R.4W., FIFTH PRINCIPAL MERIDIAN,  
 CITY OF WEST BRANCH, CEDAR COUNTY, IOWA

- LEGEND —**
- = 1"x18" IRON PIPE WITH CAP SET
  - = 5/8" REBAR FOUND
  - = METAL POST
  - ⊙ = STORM MANHOLE
  - ⊙ = FIBER PEDESTAL
  - ⊙ = ELECTRIC TRANSFORMER
  - ⊙ = GAS METER
  - ⊙ = FIRE HYDRANT (BM A)
  - ⊙ = TELEPHONE PEDESTAL
  - — — — — = PROPERTY LINE
  - - - - - = BURIED ELECTRIC
  - - - - - = BURIED FIBER OPTIC
  - - - - - = BURIED GAS LINE
  - - - - - = EXISTING FENCELINE
  - ~~~~~ = EDGE OF WOODS
  - 733.0'x = SPOT ELEVATION
  - P.O.B. = POINT OF BEGINNING

**BENCHMARK INFORMATION:**

SITE BENCHMARK: (BM A)  
TOP NUT ON FIRE HYDRANT  
ELEVATION = 728.90'

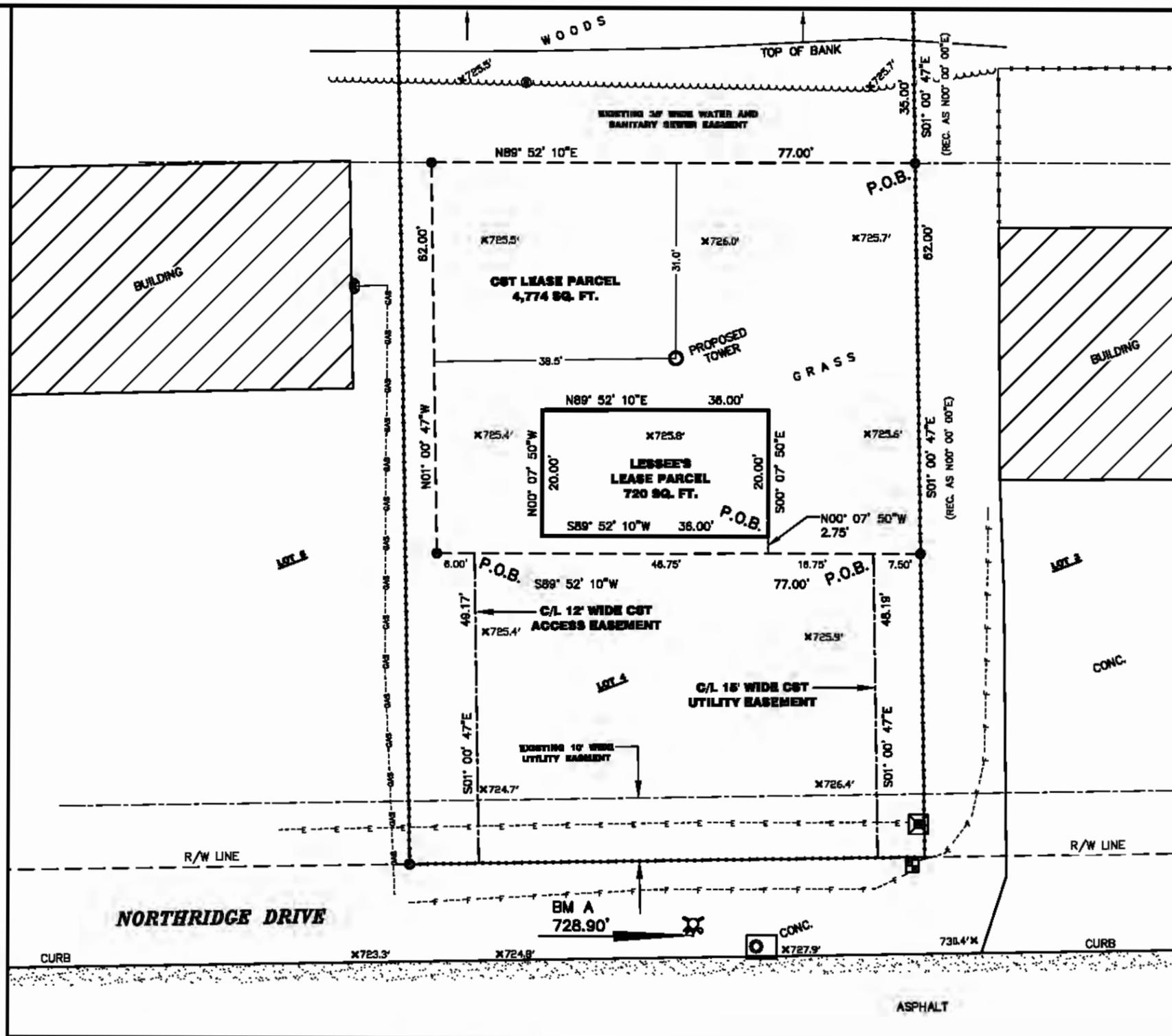


**PROFESSIONAL LAND SURVEYOR'S CERTIFICATE**

I hereby certify that this land surveying document was prepared and the related survey work was performed by me or under my direct personal supervision and that I am a duly licensed Land Surveyor under the laws of the State of Iowa.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

IOWA PROFESSIONAL LAND SURVEYOR  
Anthony P. Lulloff, License No. 19880  
My license renewal date is December 31, 2014.



**— TOWER BASE —**

Latitude: 41°-40'-38.95"  
Longitude: 91°-20'-35.24"  
(Per North American Datum of 1983/2007)

Ground Elevation: 725.9'  
(Per National American Vertical Datum of 1988)

**SITE SURVEY FOR VERIZON WIRELESS  
PERSONAL COMMUNICATIONS LP**  
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WEST BRANCH; BEING A PART OF SECTION 5,  
T.79N. R.4W., FIFTH PRINCIPAL MERIDIAN,  
CITY OF WEST BRANCH, CEDAR COUNTY, IOWA

1	04-23-13	FINAL
DRAWING FILE: 127799		
PROJECT NUMBER: 2130221		
DRAWN BY: BJB CHECKED BY: BAB		
NOTEBOOK: P-350 PAGES: 54		

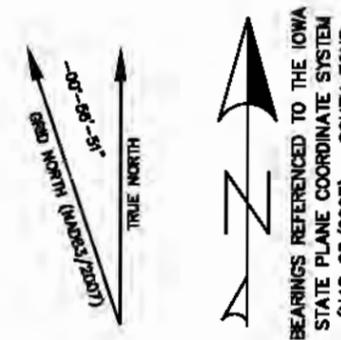


**Land Survey & Design**  
820-457-3831 800-558-8707  
4020 TECHNOLOGY PARKWAY  
SHEBOYGAN, WISCONSIN 53083

**SITE NO. 127799**  
**SITE NAME:**  
**WEST BRANCH**

207 NORTHRIDGE DRIVE  
WEST BRANCH, IOWA 52558  
CEDAR COUNTY

**AME MAP NO. D-1735**  
**SHEET 2 OF 3**



**LESSEE'S LEASE PARCEL**

A parcel of land located in Lot 4 of Northridge Subdivision Part Two to West Branch, Cedar County, Iowa containing 720 square feet (0.017 acres) of land and being described by:

Commencing at the Northeast Corner of said Lot 4; thence S01°-00'-47"E (recorded as N00°-00'-00"E) 97.00 feet along the Easterly line of said Lot 4; thence S89°-52'-10"W 24.25 feet; thence N00°-07'-50"W 2.75 feet to the point of beginning; thence S89°-52'-10"W 36.00 feet; thence N00°-07'-50"W 20.00 feet; thence N89°-52'-10"E 36.00 feet; thence S00°-07'-50"E 20.00 feet to the point of beginning; being subject to any and all easements and restrictions of record.

**CST'S LEASE PARCEL**

A parcel of land located in part of Lot 4 of Northridge Subdivision Part Two to West Branch, Cedar County, Iowa containing 4,774 square feet (0.110 acres) of land and being described by:

Commencing at the Northeast Corner of said Lot 4; thence S01°-00'-47"E (recorded as N00°-00'-00"E) 35.00 feet along the Easterly line of said Lot 4 to the point of beginning; thence continue S01°-00'-47"E (recorded as N00°-00'-00"E) 62.00 feet along said Easterly line; thence S89°-52'-10"W 77.00 feet; thence N01°-00'-47"W 62.00 feet; thence N89°-52'-10"E 77.00 feet to the point of beginning; being subject to any and all easements and restrictions of record.

**CST'S 12 FOOT WIDE ACCESS EASEMENT**

A 12 foot wide Access Easement being a part of Lot 4 of Northridge Subdivision Part Two to West Branch, Cedar County, Iowa containing 590 square feet (0.013 acres) of land and being 6 feet each side of and parallel to a line described by:

Commencing at the Northeast Corner of said Lot 4; thence S01°-00'-47"E (recorded as N00°-00'-00"E) 97.00 feet along the Easterly line of said Lot 4; thence S89°-52'-10"W 71.00 feet to the point of beginning; thence S01°-00'-47"E 49.17 feet to the North right-of-way line of Northridge Drive and the point of termination. The side lot lines of said easement are to be shortened or lengthened to terminate at the Southerly line of afore described CST'S LEASE PARCEL.

**CST'S 15 FOOT WIDE UTILITY EASEMENT**

A 15 foot wide Utility Easement being a part of Lot 4 of Northridge Subdivision Part Two to West Branch, Cedar County, Iowa containing 723 square feet (0.017 acres) of land and being 7.5 feet each side of and parallel to a line described by:

Commencing at the Northeast Corner of said Lot 4; thence S01°-00'-47"E (recorded as N00°-00'-00"E) 97.00 feet along the Easterly line of said Lot 4; thence S89°-52'-10"W 7.50 feet to the point of beginning; thence S01°-00'-47"E 48.19 feet to the North right-of-way line of Northridge Drive and the point of termination. The side lot lines of said easement are to be shortened or lengthened to terminate at the Southerly line of afore described CST'S LEASE PARCEL.

1	04-23-13	FINAL
DRAWING FILE: 127799		
PROJECT NUMBER: 2130221		
DRAWN BY: BJB CHECKED BY: BAB		
NOTEBOOK: P-350 PAGES: 54		



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SHEBOYGAN, WISCONSIN 53083

**SITE NO. 127799**  
**SITE NAME:**  
**WEST BRANCH**  
207 NORTHRIDGE DRIVE  
WEST BRANCH, IOWA 52368  
CEDAR COUNTY

**AME MAP NO. D-1735**  
**SHEET 3 OF 3**

**SITE SURVEY FOR VERIZON WIRELESS  
PERSONAL COMMUNICATIONS LP  
LOT 4, NORTHRIDGE SUBDIVISION PART TWO TO  
WEST BRANCH; BEING A PART OF SECTION 5,  
T.79N. R.4W., FIFTH PRINCIPAL MERIDIAN,  
CITY OF WEST BRANCH, CEDAR COUNTY, IOWA**











**LANDSCAPING PLAN**  
**WEST BRANCH DT**  
**WEST BRANCH, IOWA**

SHEET TITLE:

PRELIMINARY CDS  
 PRELIMINARY CDS - 04/03/13  
 CITY REQUIREMENTS - 01/07/14

STAMPED FINALS:

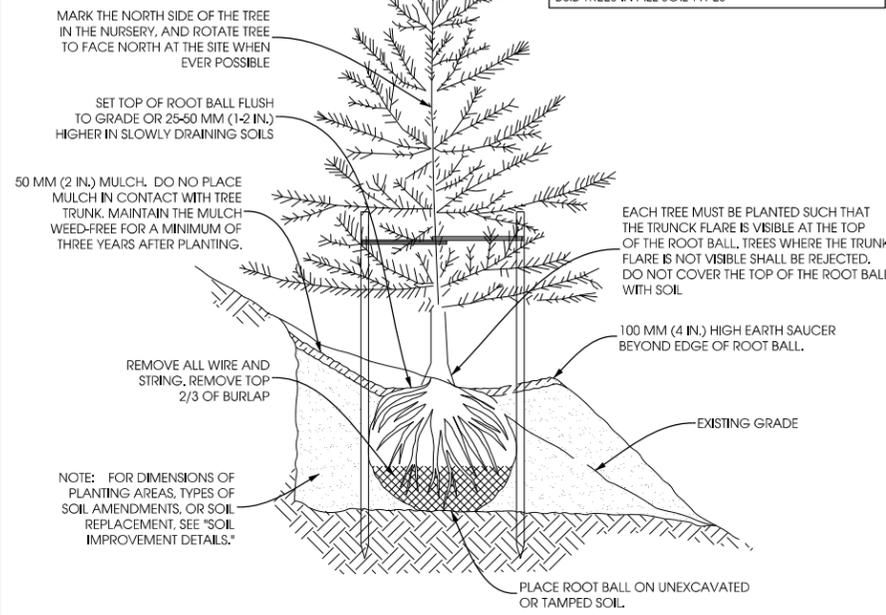
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 C.J.L.T.A.S.  
 CHECKED BY:  
 PCM  
 PLOT DATE:  
 1/7/2014  
 PROJECT #:  
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SHEET NUMBER:



**NOTE:**  
 DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED, HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.

**NOTE:**  
 THIS DETAIL ASSUMES THAT THE PLANTING SPACE IS LARGER THAN 2400 MM (8 FT.) SQUARE, OPEN TO THE SKY, AND NOT COVERED BY ANY PAVING OR GRATING.  
 TREES PLANTED IN NON-RESTRICTED SOIL CONDITIONS  
 B&B TREES IN ALL SOIL TYPES



**A** **TREE PLANTING DETAIL**  
 L-1 SCALE: NTS



TYP. DARK GREEN ARBORVITAE "TECHNY ARBOR VITAE"



TYP. PIN OAK "QUERCUS PALUSTRIS"

**LEGEND:**

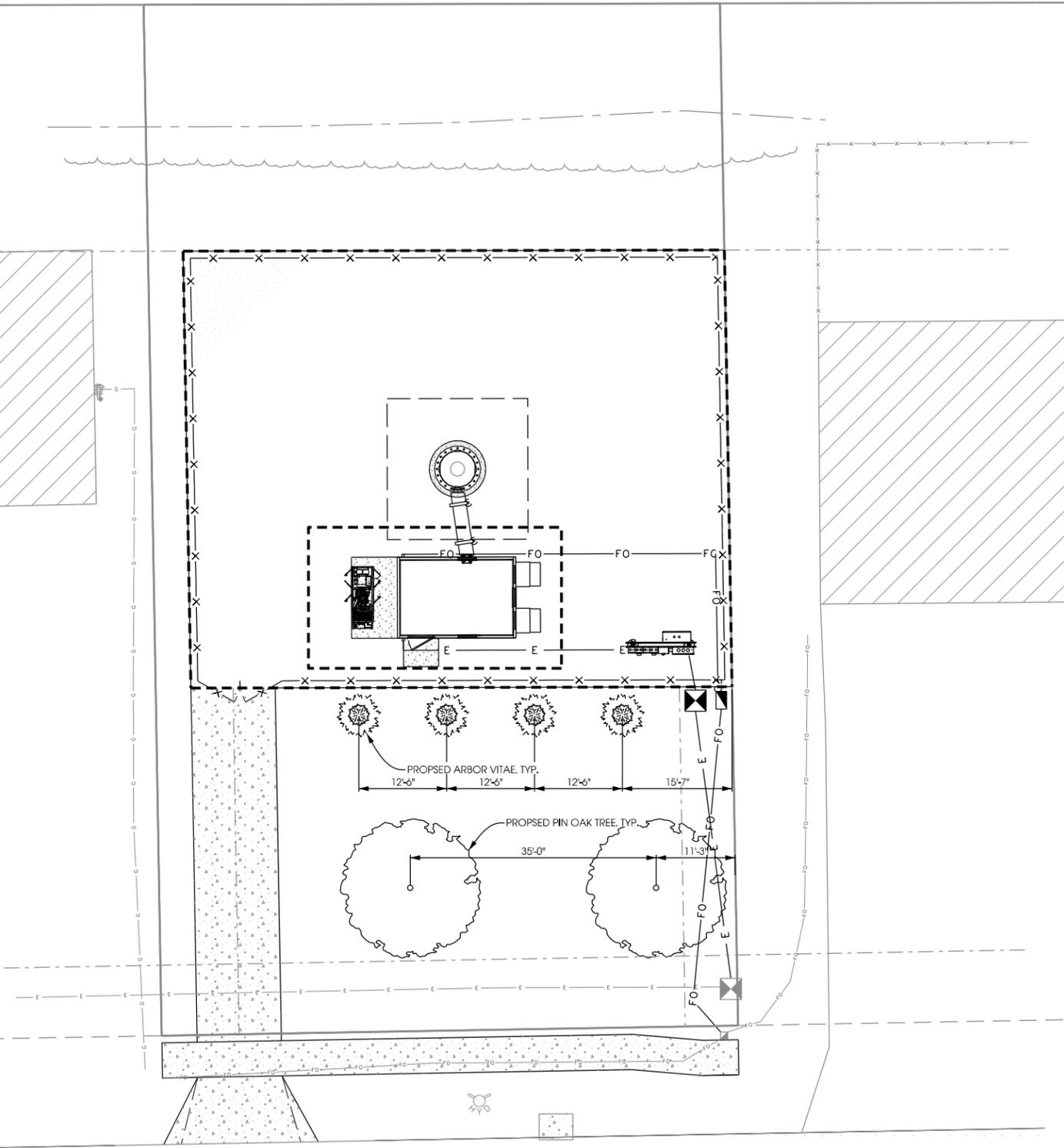
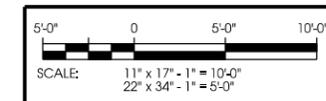
- = DARK GREEN ARBORVITAE (23)  
MIN. PLANTING SIZE = 5' HEIGHT
- = PIN OAK (2)  
MIN. PLANTING SIZE = 10' HEIGHT

**NOTES:**

- PLANT CONTAINER OR BALLED-AND-BURLAPED PLANTS IN SPRING OR FALL
- PLANT ON A RAISED BED TO ENSURE GOOD DRAINAGE
- ALL EXPOSED AREAS SHALL BE PROTECTED AGAINST WASHOUTS AND SOIL EROSION

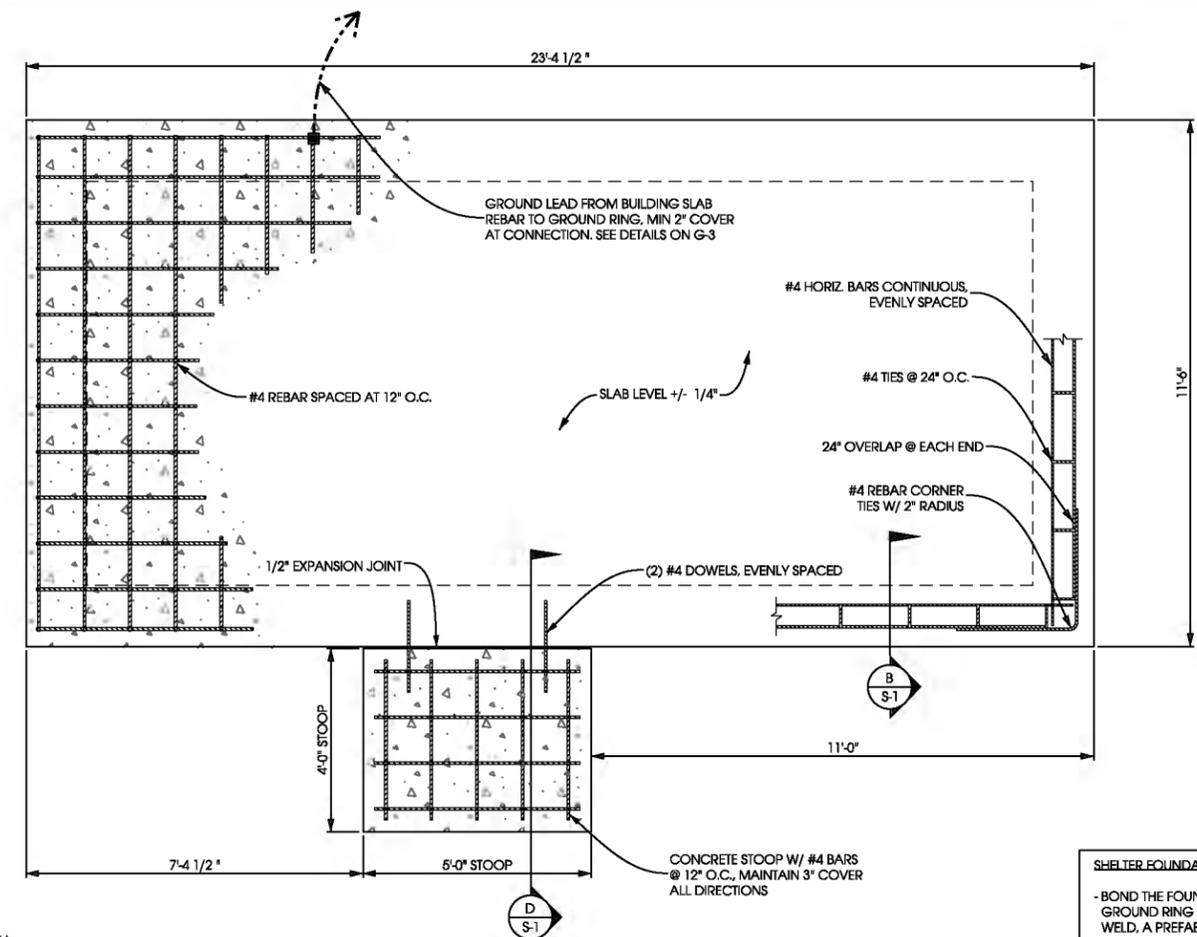
**NOTES:**

- MINIMIZE DISTURBANCE TO SITE'S TREES, PLANTS AND NATURAL ROCK OUT AS MUCH AS POSSIBLE FOR PROPOSED CONSTRUCTION.
- (2) STAKES PER TREE TO BE INSTALLED FOR PLANTING AND GROWTH STABILITY



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**FOUNDATION DETAILS**  
**WEST BRANCH DT**  
**WEST BRANCH, IOWA**

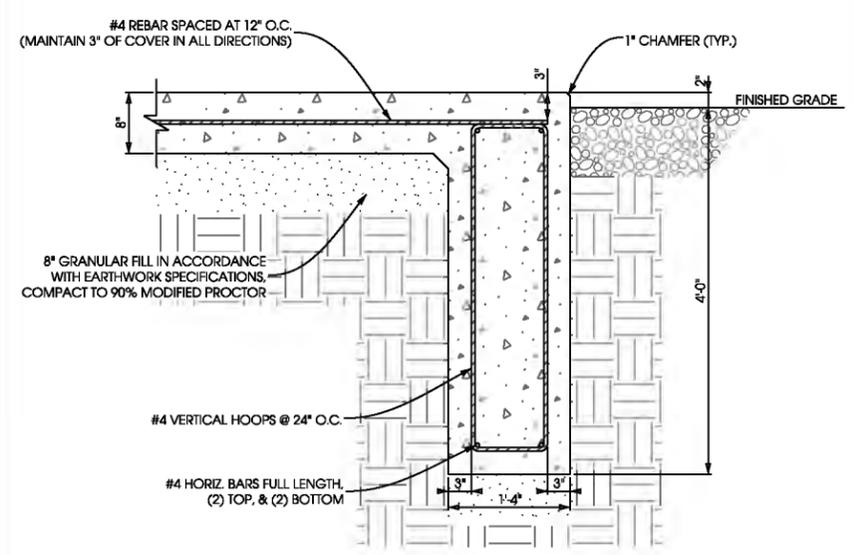


**A EQUIPMENT FOUNDATION PLAN**  
 SCALE: 11" x 17" - 1/4" = 1'-0"  
 22" x 34" - 1/2" = 1'-0"

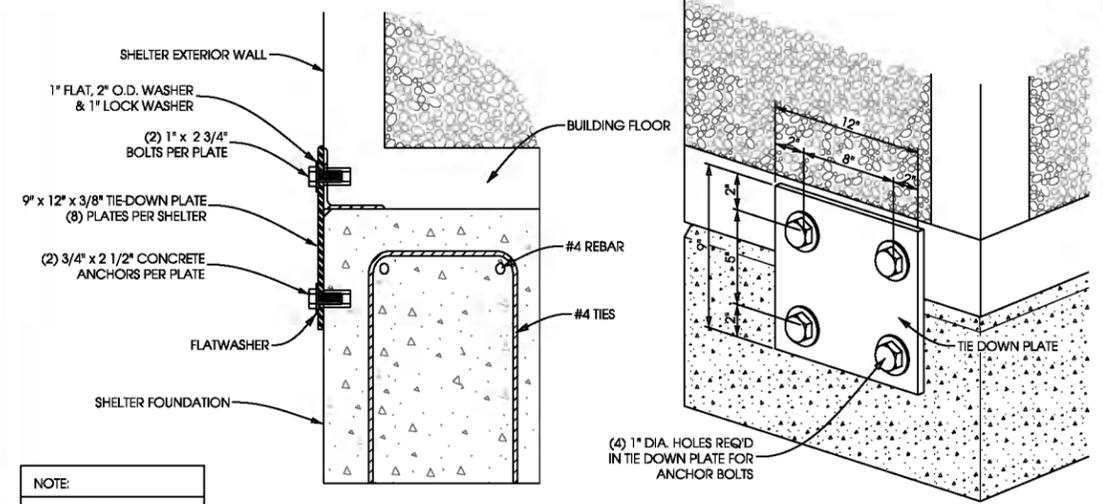
**NOTE:**  
 GENERAL CONTRACTOR TO PLACE SHIMS & NON-SHRINK GROUT TO FILL ALL GAPS BETWEEN EQUIPMENT PAD AND FOUNDATION

**SHELTER FOUNDATION NOTE:**

- BOND THE FOUNDATION REBAR TO THE EARTH GROUND RING USING EITHER AN EXOTHERMIC WELD, A PREFABRICATED WELDED REBAR ASSEMBLY WIRE-TIED TO 6' MIN. PIECE OF REBAR, OR A UL APPROVED 2 BOLT PARALLEL CONNECTOR FOR MAKING THIS CONNECTION.
- CONNECTION SHALL BE COVERED BY NOT LESS THAN 2" OF CONCRETE. ATTEMPT TO MAKE CONNECTION TO A 6' RUN OF REBAR OR GREATER
- TO AVOID POSSIBLE CORROSION AT THE CONCRETE TO SOIL INTERFACE, APPLY HEAT SHRINK OR ELECTRICAL/INSULATING TAPE AROUND THE CONDUCTOR



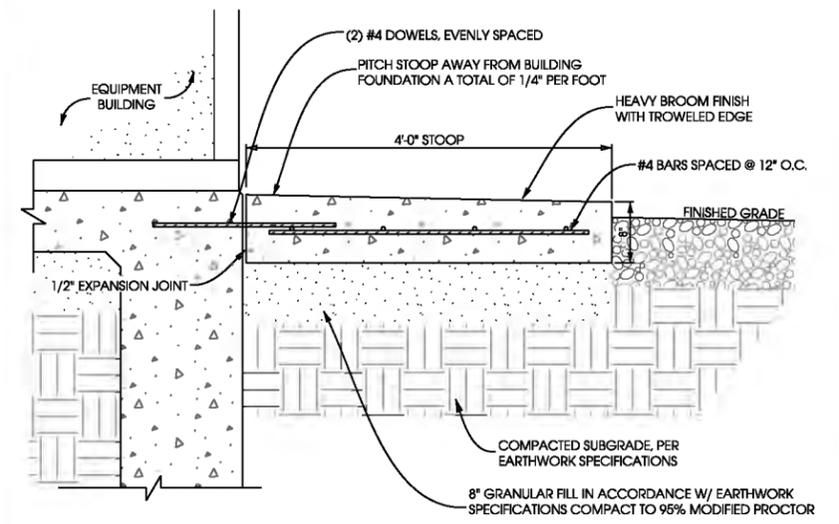
**B TYPICAL FOUNDATION DETAIL**  
 SCALE: 11" x 17" - 1/2" = 1'-0"  
 22" x 34" - 1" = 1'-0"



**C TIE DOWN PLATE DETAIL**  
 SCALE: 11" x 17" - 1" = 1'-0"  
 22" x 34" - 2" = 1'-0"

**NOTE:**  
 \*\*VERIFY TIE-DOWN WITH FINAL SHELTER PLANS\*\*

- CONCRETE AND REINFORCING NOTES:**
- 1.) ALL CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH LOCAL BUILDING CODE REQUIREMENTS AND MOST CURRENT VERSION OF ACI STANDARDS.
  - 2.) CONCRETE FINISH TO BE CLASS A TOLERANCE.
  - 3.) ALL CONCRETE UNLESS SPECIFICALLY NOTED SHALL BE NORMAL WEIGHT (145 PCF) AND SHALL ACHIEVE A 28-DAY COMPRESSIVE STRENGTH (f'c) OF 3,000 PSI. EXPOSED EXTERIOR CONCRETE TO BE AIR ENTRAINED WITH 6% AIR CONTENT. CONTRACTOR TO PERFORM CONCRETE SLUMP TEST (5" MAX SLUMP). NO WATER TO BE ADDED AFTER SLUMP HAS BEEN MEASURED.
  - 4.) ALL CONCRETE REINFORCING SHALL BE ASTM A615 GRADE 60 AND PLACED IN ACCORDANCE WITH ACI STANDARDS W/ 3" MIN. COVERAGE.
  - 5.) REMOVE ALL ORGANIC MATERIAL, SOFT AREAS, AND POOR SOILS BENEATH SLAB TO A DEPTH OF AT LEAST 4'-0".
  - 6.) DESIGN BASED ON A PRESUMPTIVE SOIL BEARING CAPACITY OF 2500 PSF AND MAX. PLASTICITY INDEX OF 20. CONTRACTOR TO VERIFY EXACT SOIL CONDITIONS BEFORE INSTALLATION. ENGINEER SHALL BE CONTACTED IF ABOVE CONDITIONS ARE NOT MET.
  - 7.) SLAB NOT SUITABLE AT SITES WITH ORGANIC SOIL, UNCOMPACTED FILL, EXPANSIVE SOIL, OR SOILS SUSCEPTIBLE TO FROST HEAVE.
  - 8.) CONTRACTOR TO ENSURE POSITIVE DRAINAGE FROM ALL FOUNDATIONS.
  - 9.) FOUNDATION DESIGN BASED ON INFORMATION PROVIDED BY SHELTER MFG. (WEIGHT, LIVE LOAD, ETC.). CONTRACTOR TO VERIFY EXACT SHELTER SIZE AND TYPE.



**D BUILDING STOOP DETAIL**  
 SCALE: 11" x 17" - 1/2" = 1'-0"  
 22" x 34" - 1" = 1'-0"

SHEET TITLE:

PRELIMINARY CDS:  
 PRELIMINARY CDS - 04/03/13  
 CITY REQUIREMENTS - 01/07/14

STAMPED FINALS:

DRAWN BY:  
 CUL TAS  
 CHECKED BY:  
 PCM  
 PLOT DATE:  
 1/7/2014  
 PROJECT #:  
 8593  
 FILE NAME:  
 S-1.dgn

SHEET NUMBER:

**S-1**









**ECR DATA TO BE PROVIDED BY LESSEE**

**ANTENNA DETAILS  
 WEST BRANCH DT  
 WEST BRANCH, IOWA**

SHEET TITLE:

PRELIMINARY CDS:  
 PRELIMINARY CDS - 04/03/13  
 CITY REQUIREMENTS - 01/07/14

STAMPED FINALS:

DRAWN BY:  
 C.J.L. T.A.S.  
 CHECKED BY:  
 PCM  
 PLOT DATE:  
 1/7/2014  
 PROJECT #:  
 8593  
 FILE NAME:  
 A-2.dgn

SHEET NUMBER:

**A-2**

**LESSEE ECR INFORMATION**  
 SCALE: NTS









SHEET TITLE:

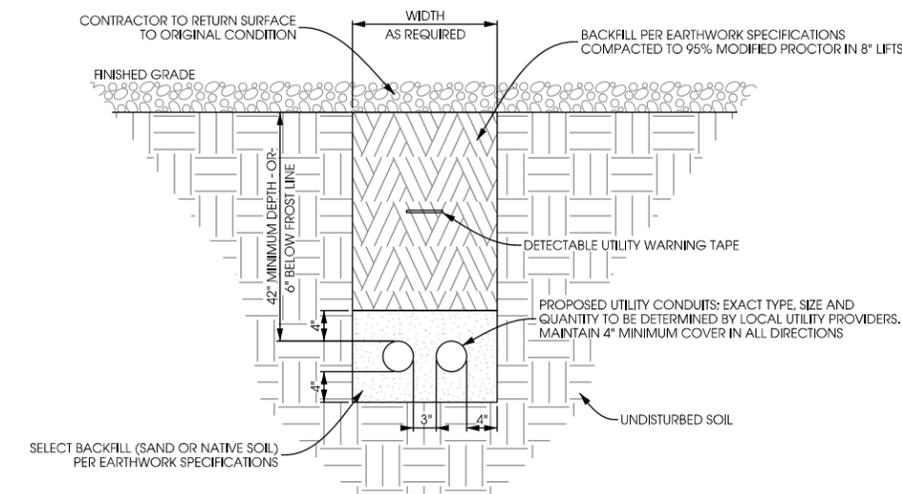
PRELIMINARY CDS  
 PRELIMINARY CDS - 04/03/13  
 CITY REQUIREMENTS - 01/07/14

STAMPED FINALS:

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 FILE NAME:  
 E-3.dgn

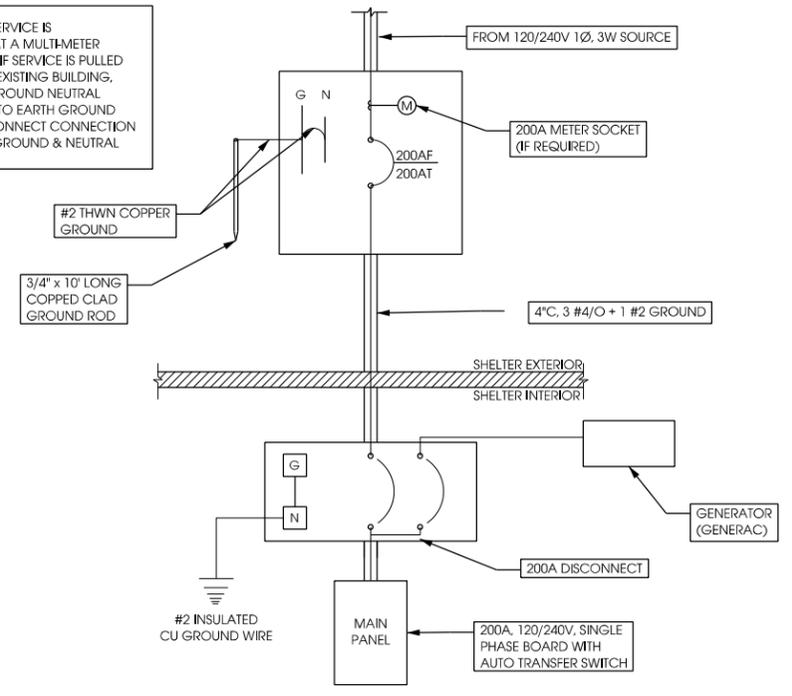
SHEET NUMBER:

**NOTES:**  
 UTILITY CONDUITS TO BE BURIED A MINIMUM DEPTH OF 42" BELOW GROUND LEVEL OR 6" BELOW THE FROST LINE.  
 CONDUIT TYPE, SIZE, QUANTITY AND SEPARATION TO BE VERIFIED WITH LOCAL UTILITY PROVIDER REQUIREMENTS.

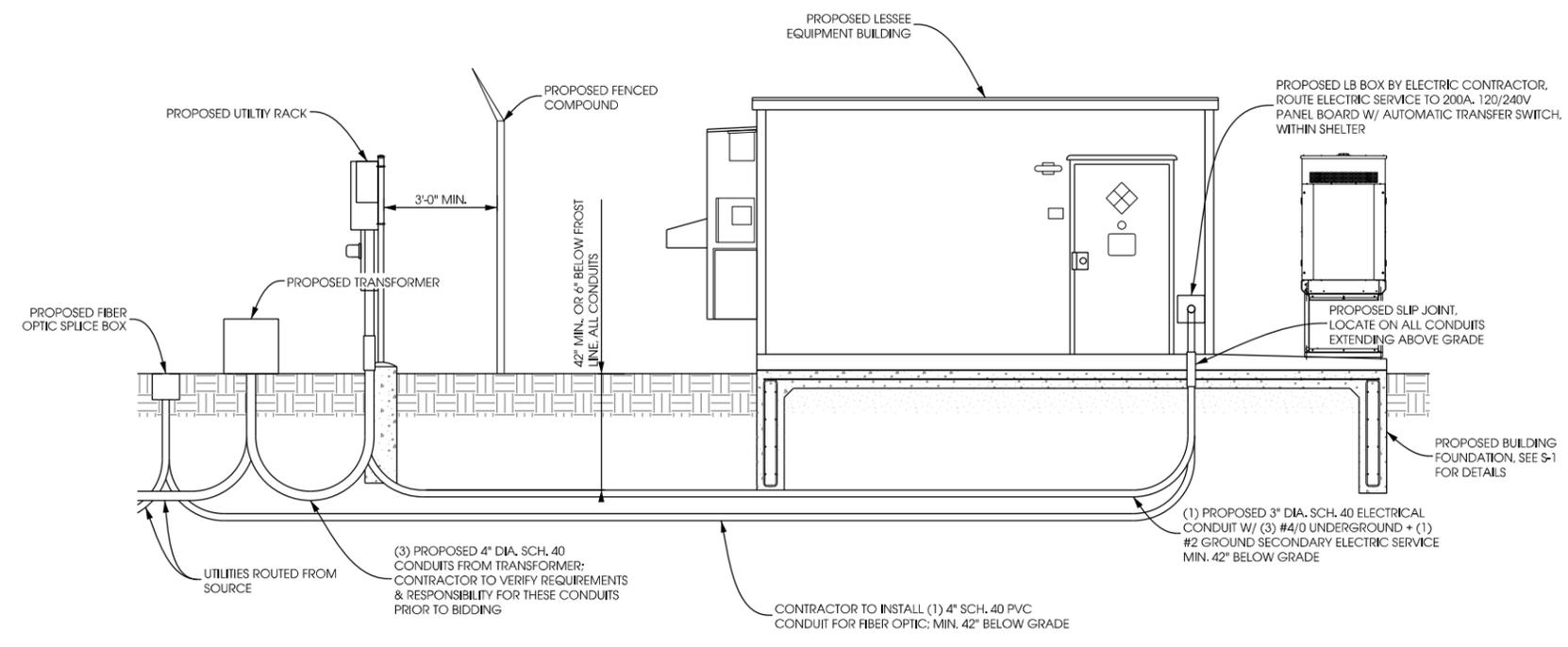


**D UTILITY TRENCH DETAIL**  
 SCALE: NTS

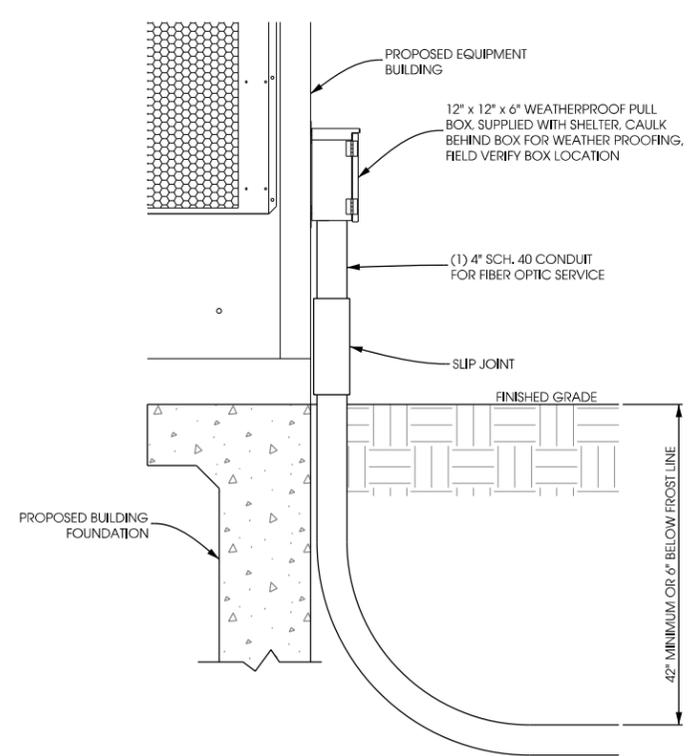
IF LESSEE SERVICE IS METERED AT A MULTI-METER GANG OR IF SERVICE IS PULLED FROM AN EXISTING BUILDING, DO NOT GROUND NEUTRAL TERMINAL TO EARTH GROUND AND DISCONNECT CONNECTION BETWEEN GROUND & NEUTRAL.



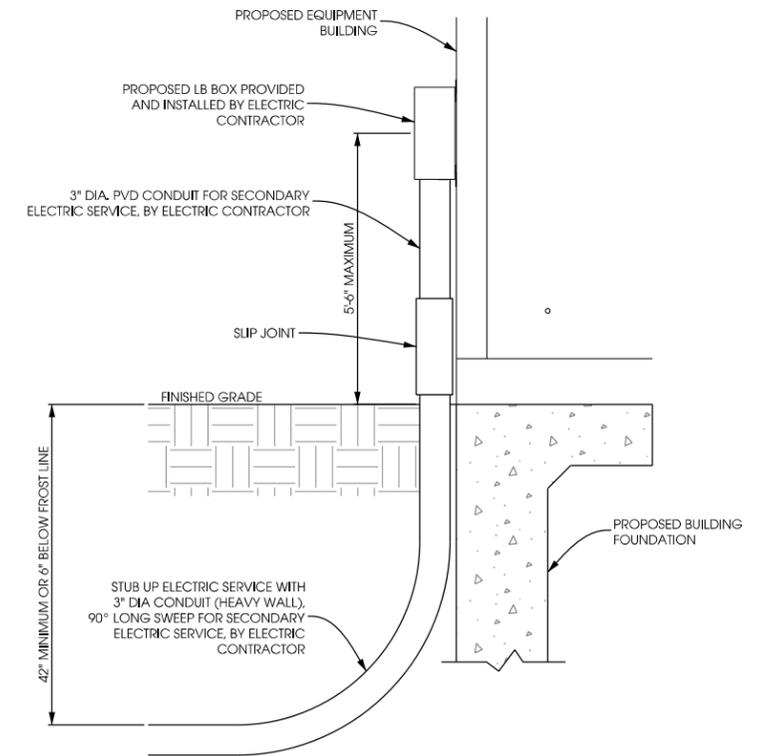
**E ELECTRIC LINE DIAGRAM & NOTES**  
 SCALE: NTS



**A ELECTRICAL RISER DETAIL [TYPICAL]**  
 SCALE: NTS



**B FIBER OPTIC SERVICE ENTRANCE**  
 SCALE: NTS



**C ELECTRIC SERVICE DETAIL**  
 SCALE: NTS

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**LEGEND**

-  INSPECTION WELL
-  5/8" DIA. x 10'-0" LONG, STEEL CLAD W/ A PURE COPPER JACKET (10' MAX SEPARATION)
-  EXOTHERMIC CONNECTION (CADWELD OR EQUIVALENT)
-  MECHANICAL CONNECTION (BURNDY OR EQUIVALENT)
-  #2 SOLID BARE TINNED COPPER CONDUCTOR

**KEYED GROUNDING NOTES:**

- 1** EQUIPMENT BUILDING GROUND RING, #2 SOLID BARE TINNED COPPER CONDUCTOR MIN. 4'-6" BURY (TYP.) OR 6" BELOW FROST WHICH EVER IS GREATER. GROUND RODS SPACED @ 8' O.C.
- 2** BUILDING GROUND LEAD IN 1/2" DIAMETER PVC CONDUIT
- 3** HVAC GROUNDING, GROUND WITH MECHANICAL CLAMP (DUAL CRIMP COMPRESSION)
- 4** MAINTAIN 2-FOOT CLEARANCE FROM ALL STRUCTURES
- 5** GROUND ELECTRIC METER TO (2) INDEPENDENT GROUND RODS, SPACED 10' O.C. WITH #2 SOLID BARE TINNED COPPER
- 6** GROUND MULTI-METER CABINETS
- 7** EXTERIOR GROUND BAR BY BUILDING MANUFACTURER CONTRACTOR TO EXTEND (2) 2" SOLID BARE TINNED COPPER LEADS FROM GROUND BAR & CADWELD TO GROUND RING
- 8** INTERIOR MASTER GROUND BAR BY BUILDING MANUFACTURER CONTRACTOR TO EXTEND (2) 2" SOLID BARE TINNED COPPER LEADS THROUGH BUILDING WALL @ 45 ANGLE AND CADWELD TO EQUIPMENT BUILDING GROUND RING
- 9** GROUND ICE BRIDGE POSTS WITH #2 SOLID BARE TINNED COPPER LEADS
- 10** 4" x 20" x 1/4" COPPER GROUND BAR, NON-ISOLATED WITH (2) #2 SOLID BARE TINNED COPPER LEADS TO GROUND RING, LOWER TOWER GROUND BAR
- 11** GROUND COAX CABLES TO GROUND BAR AT ANTENNA ELEVATION, GROUND ANTENNA GROUND BAR TO TOWER STEEL
- 12** 5/8" DIAMETER x 10'-0" LONG COPPER CLAD GROUND ROD WITH EXOTHERMIC CONNECTION, 8' SPACING, TYP.
- 13** FENCE CORNER GROUND LEAD, #2 SOLID BARE TINNED COPPER, CADWELD CONNECTION. GROUND FENCE POSTS WITHIN 6-FEET OF EQUIPMENT BUILDING AND 25-FEET OF TOWER
- 14** BOND PROPOSED TOWER GROUND RING TO THE PROPOSED EQUIPMENT GROUND RING WITH (2) #2 SOLID BARE TINNED COPPER LEADS, EXOTHERMIC CONNECTION
- 15** PROPOSED TOWER GROUND RING
- 16** GATE GROUND LEAD, #2 SOLID BARE TINNED COPPER LEADS TO GATE POST, & BRAIDED STRAP CONNECTION FROM POST TO GATE

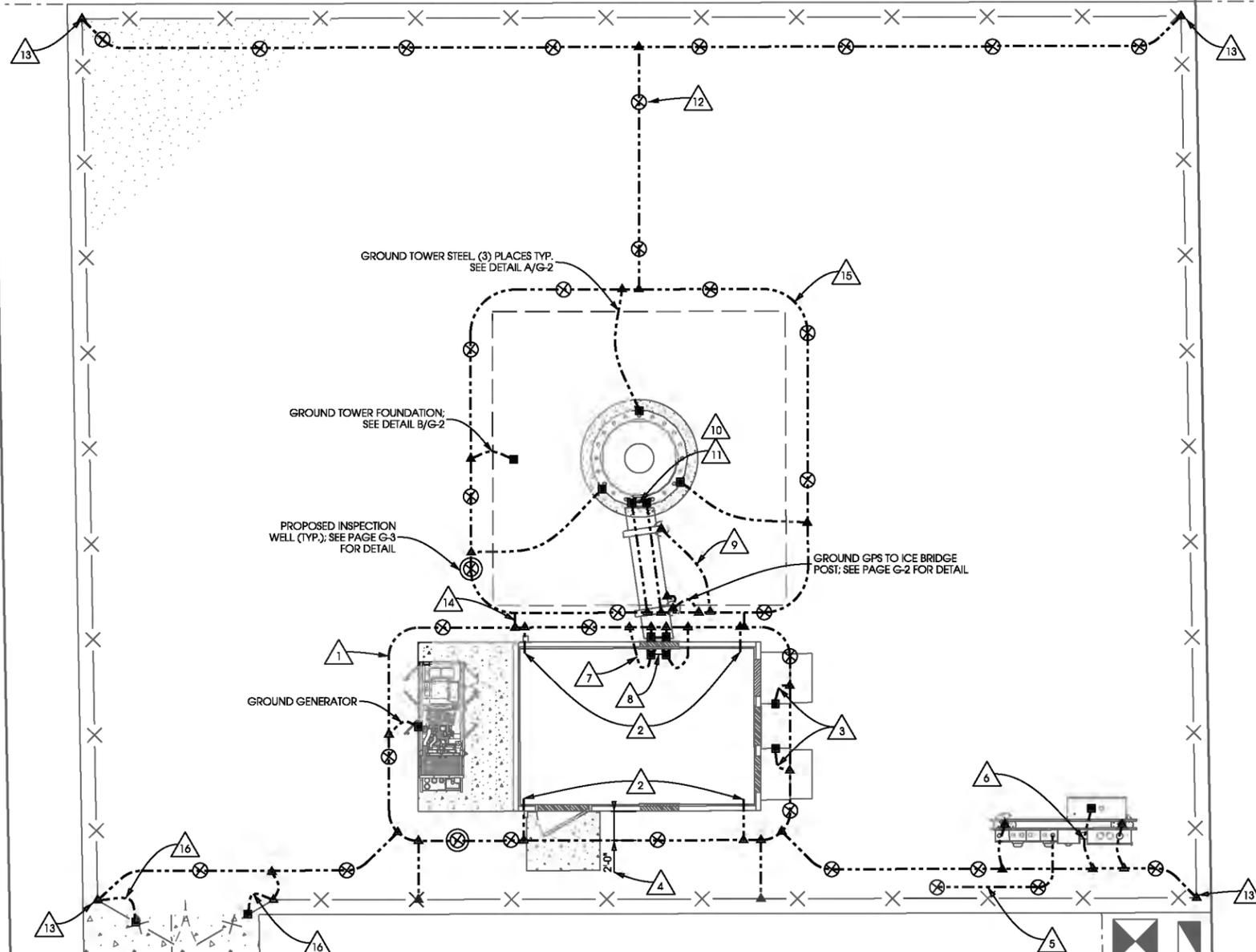
**GROUNDING ELECTRODE SYSTEM NOTES:**

1. CONNECTIONS:  
ALL CONNECTIONS SHALL BE EXOTHERMICALLY CONNECTED UNLESS NOTED OTHERWISE. CONTRACTOR TO FOLLOW ALL MANUFACTURER'S GUIDELINES & RECOMMENDATIONS.
2. ALL ELECTRICAL AND MECHANICAL GROUND CONNECTIONS SHALL HAVE ANTI-OXIDANT COMPOUND APPLIED TO CONNECTION.
3. FENCE/GATE:  
GROUND FENCE POSTS WITHIN 6-FEET OF ENCLOSURE AND 25-FEET OF TOWER. GROUND EACH GATE POST AND CORNER POST. GROUND CONNECTIONS TO FENCE POSTS SHALL BE MADE BY THE EXOTHERMIC PROCESS AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND PROCEDURES.
4. CONTRACTOR SHALL SUBMIT THE GROUND RESISTANCE TEST REPORT AS FOLLOWS:  
A. ONE (1) COPY TO THE OWNER REPRESENTATIVE  
B. ONE (1) COPY TO THE ENGINEER  
C. ONE (1) COPY TO KEEP INSIDE EQUIPMENT ENCLOSURE



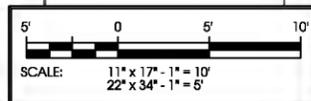
**NOTE:**  
- TOP OF EACH GROUND ROD SHALL EXTEND NO MORE THAN 6" ABOVE BOTTOM OF TRENCH

**NOTE:**  
ANY CONDUCTIVE UTILITY JUNCTION BOX OR ENCLOSURE SHALL BE BONDED TO THE EARTH GROUND SYSTEM W/ A #2 SOLID BARE TINNED COPPER CONDUCTOR



**GROUNDING NOTE:**  
THIS GROUNDING PLAN WAS PREPARED PRIOR TO THE COMPLETION OF THE GEOTECHNICAL REPORT AND RECEIPT OF THE TOWER FOUNDATION DESIGN. THE LAYOUT OF RADIALS AND GROUND RODS ARE APPROXIMATE IN NATURE AND MAY NEED TO BE ADJUSTED IN THE FIELD. GROUND RODS SHOULD NOT EXTEND THROUGH THE TOWER FOUNDATION OR OTHER STRUCTURAL ELEMENTS WITHOUT PRIOR APPROVAL FROM THE DESIGN ENGINEER. IN ADDITION, SOME ADJUSTMENT TO THE GROUND METHOD MAY BE REQUIRED IN INSTANCES WHERE SHALLOW BEDROCK OR OTHER UNIQUE CIRCUMSTANCES ARE ENCOUNTERED. CONTRACTOR SHALL CONSULT GEOTECHNICAL REPORT FOR FURTHER DESIGN AND CONSTRUCTION RECOMMENDATIONS.

**NOTE:**  
- THE GROUNDING SHALL BE TESTED PRIOR TO FINAL BACK-FILLING. DOCUMENTATION OF 5 OHM OR LESS RESISTANCE TO BE PROVIDED TO PROJECT MANAGER.  
- ALL NON-INSULATED GROUND LEADS EXTENDING ABOVE GROUND LEVEL SHALL BE ENCASED IN 3/4" PVC & SEALED WITH SILICONE. PVC SHALL BE MIN. 16" INTO EARTH & EXTEND MIN. 6" ABOVE GROUND.



**GROUNDING PLAN  
WEST BRANCH DT  
WEST BRANCH, IOWA**

SHEET TITLE:	PRELIMINARY CDS: PRELIMINARY CDS - 04/03/13 CITY REQUIREMENTS - 01/07/14
STAMPED FINALS:	
DRAWN BY:	CJL/TAS
CHECKED BY:	PCM
PLOT DATE:	1/7/2014
PROJECT #:	8593
FILE NAME:	G-1.dgn
SHEET NUMBER:	<b>G-1</b>







GENERAL

THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS ARE INTERRELATED WHEN PERFORMING THE WORK. EACH CONTRACTOR MUST REFER TO ALL DRAWINGS. COORDINATION IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

DIVISION 1: GENERAL REQUIREMENTS

SECTION 01700 - PROJECT CLOSEOUT

PART 1 - GENERAL

- A. OBTAIN AND SUBMIT RELEASES ENABLING THE OWNER UNRESTRICTED USE OF THE WORK AND ACCESS TO SERVICES AND UTILITIES. INCLUDE OCCUPANCY PERMITS, OPERATING CERTIFICATES, AND SIMILAR RELEASES.
B. SUBMIT RECORD DRAWINGS, DAMAGE, OR SETTLEMENT SURVEY, PROPERTY SURVEY, AND SIMILAR FINAL RECORD INFORMATION.
C. COMPLETE FINAL CLEAN-UP REQUIREMENTS, INCLUDING TOUCH-UP PAINTING. TOUCH-UP AND OTHERWISE REPAIR AND RESTORED MARRED EXPOSED FINISHES.

PART 2 - FINAL CLEANING/PROJECT CLOSEOUT

- 1. COMPLETE THE FOLLOWING OPERATIONS BEFORE REQUESTING INSPECTION FOR CERTIFICATE OF COMPLETION:
A. CLEAN THE PROJECT SITE, YARD AND GROUNDS IN AREAS DISTURBED BY CONSTRUCTION ACTIVITIES, INCLUDING LANDSCAPE DEVELOPMENT, AREAS OF RUBBISH, WASTE MATERIALS, LITTER AND FOREIGN SUBSTANCES. SWEEP PAVED AREAS BROOM CLEAN. REMOVE PETRO-CHEMICAL SPILLS, STAINS AND OTHER FOREIGN DEPOSITS. RAKE GROUNDS THAT ARE NEITHER PLANTED NOR PAVED TO A SMOOTH, EVEN-TEXTURED SURFACE.
B. REMOVE TOOLS, CONSTRUCTION EQUIPMENT, MACHINERY, AND SURPLUS MATERIAL FROM THE SITE.
C. REMOVE SNOW AND ICE TO PROVIDE SAFE ACCESS TO THE SITE AND EQUIPMENT BUILDING.
D. CLEAN EXPOSED EXTERIOR AND INTERIOR HARD-SURFACED FINISHES TO A DIRT-FREE CONDITION, FREE OF STAINS, FILMS AND SIMILAR FOREIGN SUBSTANCES. AVOID DISTURBING NATURAL WEATHERING OF EXTERIOR SURFACES.
E. REMOVE DEBRIS FROM LIMITED ACCESS SPACES, INCLUDING ROOFS, EQUIPMENT BUILDING, MANHOLES AND SIMILAR SPACES.
F. REMOVE LABELS THAT ARE NOT PERMANENT LABELS.
G. TOUCH-UP AND OTHERWISE REPAIR AND RESTORE MARRED EXPOSED FINISHES AND SURFACES. REPLACE FINISHES AND SURFACES THAT CAN NOT BE SATISFACTORILY REPAIRED OR RESTORED, OR THAT SHOW EVIDENCE OF REPAIR OR RESTORATION. DO NOT PAINT OVER "UL" AND SIMILAR LABELS, INCLUDING ELECTRICAL NAME PLATES.
H. LEAVE THE PROJECT CLEAN AND READY FOR OCCUPANCY.
I. DUST OFF ALL EQUIPMENT, INCLUDING BATTERY PACKS, WITHIN EQUIPMENT BUILDING.
J. GENERAL CONTRACTOR TO CLEAN AND APPLY STATIC-FREE WAX TO THE FLOORS ONCE FINAL SHELTER EQUIPMENT AND ACCESSORIES ARE COMPLETED.

2. REMOVAL OF PROTECTION

REMOVE TEMPORARY PROTECTION AND FACILITIES INSTALLED DURING CONSTRUCTION TO PROTECT PREVIOUSLY COMPLETED INSTALLATIONS DURING THE REMAINDER OF THE CONSTRUCTION PERIOD.

DIVISION 2: SITE WORK

SECTION 02200 - EARTHWORK AND DRAINAGE

PART 1 - GENERAL

- 1. WORK INCLUDED - SEE SITE PLAN
2. DESCRIPTIONS

ACCESS DRIVE WITH TURN-AROUND AREA, LEASE AREA, AND, IF APPLICABLE, UNDERGROUND UTILITY EASEMENTS ARE TO BE CONSTRUCTED TO PROVIDE A WELL-DRAINED, EASILY MAINTAINED, EVEN SURFACE FOR MATERIAL AND EQUIPMENT DELIVERIES AND MAINTENANCE PERSONNEL ACCESS.

3. QUALITY ASSURANCE

- A. APPLY SOIL STERILIZER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS (AS NEEDED).
B. APPLY AND MAINTAIN GRASS SEED AS RECOMMENDED BY THE SEED PRODUCER (AS NEEDED).
C. PLACE AND MAINTAIN VEGETATION LANDSCAPING, IF INCLUDED WITHIN THE CONTRACT, AS RECOMMENDED BY NURSERY INDUSTRY STANDARDS.

4. SEQUENCING

- A. CONFIRM SURVEY STAKES AND SET ELEVATIONS STAKES PRIOR TO ANY CONSTRUCTION.
B. COMPLETELY GRUB THE ACCESS DRIVE WITH TURN-AROUND, UNDERGROUND UTILITY EASEMENTS (IF APPLICABLE), AND LEASE AREA PRIOR TO FOUNDATION CONSTRUCTION, PLACEMENT OF BACKFILL AND SUB-BASE MATERIAL.
C. CONSTRUCT TEMPORARY CONSTRUCTION AREA ALONG ACCESS DRIVE.
D. BRING THE LEASE AREA AND ACCESS DRIVE WITH TURN-AROUND TO BASE COURSE ELEVATION PRIOR TO INSTALLING FOUNDATION.
E. APPLY SOIL STERILIZER PRIOR TO PLACING BASE MATERIALS.
F. GRADE, SEED, FERTILIZE, AND MULCH ALL AREAS DISTURBED BY CONSTRUCTION (INCLUDING UNDERGROUND UTILITY EASEMENTS) IMMEDIATELY AFTER BRINGING LEASE AND ACCESS DRIVE WITH TURN-AROUND TO BASE COURSE ELEVATION. WATER TO ENSURE GROWTH.

- G. REMOVE GRAVEL FROM TEMPORARY CONSTRUCTION ZONE TO AN AUTHORIZED AREA OR AS DIRECTED BY THE PROJECT MANAGER.
H. AFTER APPLICATIONS OF FINAL SURFACES, APPLY SOIL STERILIZER TO STONE SURFACES.

5. SUBMITTALS

- A. BEFORE CONSTRUCTION
IF LANDSCAPING IS APPLICABLE TO THE CONTRACT, SUBMIT TWO (2) COPIES OF THE LANDSCAPE PLAN UNDER NURSERY LETTER-HEAD. IF LANDSCAPE ALLOWANCE WAS INCLUDED IN THE CONTRACT, PROVIDE AN ITEMIZED LISTING OF PROPOSED COSTS ON NURSERY LETTER-HEAD. REFER TO PLANS FOR LANDSCAPING REQUIREMENTS.
G. PLACE FILL OR STONE IN SIX (6) INCH MAXIMUM LIFTS, AND COMPACT BEFORE PLACING NEXT LIFT.
B. AFTER CONSTRUCTION
1. MANUFACTURER'S DESCRIPTION OF PRODUCT AND WARRANTY STATEMENT ON SOIL STERILIZED.
2. MANUFACTURER'S DESCRIPTION OF PRODUCT ON GRASS SEED AND FERTILIZER.
3. LANDSCAPING WARRANTY STATEMENT.

6. WARRANTY

- A. IN ADDITION TO THE WARRANTY ON ALL CONSTRUCTION COVERED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL REPAIR ALL DAMAGE AND RESTORE AREA AS CLOSE TO ORIGINAL CONDITION AS POSSIBLE AT SITE AND SURROUNDINGS.
B. SOIL STERILIZATION APPLICATION TO GUARANTEE VEGETATION FREE ROAD AND SITE AREAS FOR ONE YEAR FROM DATE OF FINAL INSPECTION.
C. DISTURBED AREAS WILL REFLECT GROWTH OF NEW GRASS PRIOR TO FINAL INSPECTION.
D. LANDSCAPING, IF INCLUDED WITHIN THE SCOPE OF THE CONTRACT, WILL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL INSPECTION.

PART 2 - PRODUCTS

- 1. MATERIALS
A. SOIL STERILIZER SHALL BE AN EPA REGISTERED, PRE-EMERGENCE LIQUID:
TOTAL KILL PHASAR CORPORATION
PRODUCT 910 P.O. BOX 5123
EPA 10292-7 DEARBORN, MI 48128
313.563.8000
AMBUSH HERBICIDE FRAMAR INDUSTRIAL PRODUCTS
EPA REGISTERED 1435 MORRIS AVENUE
UNION, NJ 07083
800.526.4924
B. ROAD AND SITE MATERIALS SHALL CONFORM TO DOT SPECIFICATIONS (UNLESS OTHERWISE NOTED). ACCEPTABLE SELECT FILL SHALL BE IN ACCORDANCE WITH STATE DEPARTMENT OF HIGHWAY AND TRANSPORTATION STANDARD SPECIFICATIONS.
C. SOIL STABILIZED FABRIC SHALL BE MIRAFI - 500X.

PART 3 - EXECUTION

- 1. INSPECTIONS
LOCAL BUILDING INSPECTORS SHALL BE NOTIFIED NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS, UNLESS OTHERWISE SPECIFIED BY THE LOCAL JURISDICTION.
2. PREPARATION
A. CLEAR TREES, BRUSH AND DEBRIS FROM LEASE AREA, ACCESS DRIVE WITH TURN-AROUND, AND UNDERGROUND UTILITY EASEMENTS AS REQUIRED FOR CONSTRUCTION.
B. PRIOR TO OTHER EXCAVATION AND CONSTRUCTION, GRUB ORGANIC MATERIAL TO A MINIMUM OF SIX (6) INCHES BELOW GRADE.
C. UNLESS OTHERWISE INSTRUCTED BY LEASEE, TRANSPORT ALL REMOVED TREES, BRUSH AND DEBRIS FROM THE PROPERTY TO AN AUTHORIZED LANDFILL.
D. PRIOR TO PLACEMENT OF FILL OR BASE MATERIALS, ROLL THE SOIL.
E. WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, LINE THE AREAS WITH A STABILIZED MAT PRIOR TO PLACEMENT OF FILL OR BASE MATERIAL.
F. PRIOR TO PLACEMENT OF FILL OR BASE MATERIALS, REMOVE SOFT SPOTS, PLACE SELECT FILL, AND COMPACT TO 95% MODIFIED PROCTOR.
3. INSTALLATION
A. GRADE OR FILL THE LEASE AREA AND ACCESS DRIVE WITH TURN-AROUND AS REQUIRED IN ORDER THAT UPON DISTRIBUTION OF SPOILS RESULTING FROM EXCAVATIONS, THE RESULTING GRADE WILL CORRESPOND WITH SAID SUB-BASE COURSE. ELEVATIONS ARE TO BE CALCULATED FROM BENCHMARK FINISHED GRADES, OR INDICATED SLOPES.
B. CLEAR EXCESS SPOILS, IF ANY, FROM JOB SITE AND DO NOT SPREAD BEYOND THE LIMITS OF PROJECT AREA UNLESS AUTHORIZED BY PROJECT MANAGER AND AGREED TO BY LANDOWNER.
C. BRING THE ACCESS DRIVE WITH TURN-AROUND TO BASE COURSE ELEVATION TO FACILITATE CONSTRUCTION AND OBSERVATION DURING CONSTRUCTION OF THE SITE.
D. AVOID CREATING DEPRESSIONS WHERE WATER MAY POND.
E. THE CONTRACT SHALL INCLUDE GRADING, BANKING, AND DITCHING, UNLESS OTHERWISE NOTED.
F. WHEN IMPROVING AN EXISTING ACCESS DRIVE, GRADE THE EXISTING DRIVE TO REMOVE ANY ORGANIC MATTER AND SMOOTH THE SURFACE BEFORE PLACING FILL OR STONE.
H. THE TOP SURFACE COURSE SHALL EXTEND A MINIMUM OF ONE (1) FOOT BEYOND THE SITE FENCE, UNLESS OTHERWISE NOTED, AND SHALL COVER THE AREA AS INDICATED.

- I. APPLY RIP-RAP TO THE SIDE SLOPES OF ALL FENCED SITE AREAS, PARKING AREAS, AND ALL OTHER SLOPES. NO SLOPES ARE TO BE GREATER THAN 4:1.
J. APPLY RIP-RAP TO THE SIDES OF DITCHES AND DRAINAGE SWALES.
K. RIP-RAP ENTIRE DITCH FOR SIX (6) FEET IN ALL DIRECTIONS AT CULVERT OPENINGS.
L. APPLY SEED, FERTILIZER, AND STRAW COVER TO ALL OTHER DISTURBED AREAS, DITCHES, AND DRAINAGE SWALES, NOT OTHERWISE RIP-RAPPED.
M. UNDER NO CIRCUMSTANCES WILL DITCHES, SWALES, OR CULVERTS BE PLACED SO THAT THEY DIRECT WATER TOWARDS, OR PERMIT STANDING WATER IMMEDIATELY ADJACENT TO SHELTER OR EQUIPMENT. IF DESIGNS OR ELEVATIONS ARE IN CONFLICT WITH THIS, ADVISE CONSTRUCTION MANAGER IMMEDIATELY.
N. IN DITCHES WITH SLOPES GREATER THAN 10%, MOUND DIVERSIONARY HEADWALLS IN THE DITCH AT AN ANGLE NO GREATER THAN 60° OFF THE DITCH LINE. RIP-RAP THE UPSTREAM SIDE OF THE HEADWALL AS WELL AS THE DITCH FOR SIX (6) FEET ABOVE THE CULVERT ENTRANCE.
O. APPLY SEED AND FERTILIZER TO SURFACE CONDITIONS WHICH WILL ENCOURAGE ROOTING. RAKE AREAS TO BE SEEDED TO EVEN THE SURFACE AND LOOSEN THE SOIL.
P. SOW SEED IN TWO DIRECTIONS IN TWICE THE QUANTITY RECOMMENDED BY THE SEED PRODUCER.
Q. ENSURE GROWTH OF SEEDED AND LANDSCAPED AREAS BY WATERING UP TO THE POINT OF RELEASE FROM THE CONTRACT. CONTINUE TO REWORK THE BARE AREAS UNTIL COMPLETE COVERAGE IS OBTAINED.

4. FIELD QUALITY CONTROL

COMPACT SOILS TO MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D-1557. AREAS OF SETTLEMENT WILL BE EXCAVATED AND REFILLED AT CONTRACTOR'S EXPENSE. INDICATE PERCENTAGE OF COMPACTION ACHIEVED ON AS-BUILT DRAWINGS.

5. PROTECTION

- A. PROTECT SEEDED AREAS FROM EROSION BY SPREADING STRAW TO A UNIFORM LOOSE DEPTH OF 1-2 INCHES, STAKE AND TIE DOWN AS REQUIRED. USE OF EROSION CONTROL MESH OR MULCH NET WILL BE AN ACCEPTABLE ALTERNATE.
B. ALL TREES PLACED IN CONJUNCTION WITH A LANDSCAPE CONTRACT WILL BE WRAPPED, TIED WITH HOSE PROTECTED WIRE, AND SECURED TO 2" x 2" x 4 - 0" WOODEN STAKES EXTENDING TWO-FEET INTO THE GROUND ON FOUR SIDES OF THE TREE.
C. PROTECT ALL EXPOSED AREAS AGAINST WASHOUTS AND SOIL EROSION. PLACE STRAW BALES AT THE INLET APPROACH TO ALL NEW OR EXISTING CULVERTS. WHERE THE SITE OR ROAD AREAS HAVE BEEN ELEVATED IMMEDIATELY ADJACENT TO THE RAIL LINE, STAKE EROSION CONTROL FABRIC FULL LENGTH IN THE SWALE TO PREVENT CONTAMINATION OF THE RAIL BALLAST. ALL EROSION CONTROL METHODS SHALL CONFORM TO APPLICABLE BUILDING CODE REQUIREMENTS.

SECTION 02830 - FENCING AND GATE(S)

PART 1 - GENERAL

- 1. WORK INCLUDED
SEE PLAN FOR SITE AND LOCATION OF FENCE AND GATE(S).
2. QUALITY ASSURANCE
ALL STEEL MATERIALS UTILIZED IN CONJUNCTION WITH THIS SPECIFICATION WILL BE GALVANIZED OR STAINLESS STEEL. WEIGHT OF ZINC COATING ON THE FABRIC SHALL NOT BE LESS THAN TWELVE (12) OUNCES PER SQUARE FOOT OF MATERIAL COVERED. POSTS SHALL BE HOT-DIPPED IN GRADE 'E' ZINC, EIGHTEEN (18) OUNCES PER SQUARE FOOT.
3. SEQUENCING
IF THE SITE AREA HAS BEEN BROUGHT UP TO SURFACE COURSE ELEVATION (PRIOR TO THE FENCE CONSTRUCTION), FENCE POST EXCAVATION SPOILS MUST BE CONTROLLED TO PRECLUDE CONTAMINATION OF SAID SURFACE COURSE.
4. SUBMITTALS
A. MANUFACTURER'S DESCRIPTIVE LITERATURE.
B. CERTIFICATE OR STATEMENT OF COMPLIANCE WITH THE SPECIFICATIONS.

PART 2 - PRODUCTS

- 1. FENCE MATERIAL
A. ALL FABRIC WIRE, RAILS, HARDWARE, AND OTHER STEEL MATERIALS SHALL BE HOT-DIPPED GALVANIZED.
B. FABRIC SHALL BE SEVEN (7) FOOT HIGH OR MATCH EXISTING FENCE. THE FABRIC SHALL HAVE A KNUCKLED FINISH FOR THE TOP SELVAGES. FABRIC SHALL CONFORM TO THE SPECIFICATIONS OF ASTM A-392 CLASS 1.
C. BARBED WIRE SHALL BE DOUBLE-STRAND, 12-1/2 GAUGE TWISTED WIRE, WITH 14-GAUGE, 4-POINT ROUND BARBS SPACED ON FIVE (5) INCH CENTERS.
D. ALL POSTS SHALL BE SCHEDULE - 40 MECHANICAL SERVICE PIPE AND SHALL BE TYPE 1 ASTM A-128 AND OF THE FOLLOWING DIAMETER:
LINE: 2" SCHEDULE 40 (2 3/8" O.D.)
CORNER: 4" SCHEDULE 40 (4 5/8" O.D.)
GATE: 4" SCHEDULE 40 (4 5/8" O.D.)
E. GATE POSTS SHALL BE EXTENDED TWELVE (12) INCHES, INCLUDING DOME CAP, TO PROVIDE FOR ATTACHMENT OF BARBED WIRE.
F. ALL TOP AND BRACE RAILS SHALL BE ONE (1) INCH DIAMETER SCHEDULE - 40 MECHANICAL-SERVICE PIPE.

- G. GATE FRAMES AND BRACES SHALL BE 1.90 INCH DIAMETER SCHEDULE 40 MECHANICAL-SERVICE PIPE. FRAMES SHALL HAVE WELDED CORNERS.
H. GATE FRAMES SHALL HAVE A FULL-HEIGHT VERTICAL BRACE, AND A FULL-WIDTH HORIZONTAL BRACE, SECURED IN PLACE BY USE OF GATE BRACE CLAMPS.
I. GATE HINGES SHALL BE MERCHANTS METAL MODEL 64386 HINGE ADAPTER WITH MODEL 6409, 180-DEGREE ATTACHMENT.
J. THE GUIDE (LATCH ASSEMBLY) SHALL BE HEAVY INDUSTRIAL DOUBLE GATE LATCH. SEE DETAIL(S).
K. LATCHES AND STOPS SHALL BE PROVIDED FOR ALL GATES.
L. PLUNGER ROD COMPLETE WITH RECEPTOR TO BE PROVIDED AT THE INACTIVE LEAF OF ALL DOUBLE GATE INSTALLATIONS.
M. ALL STOPS SHALL HAVE KEEPERS CAPABLE OF HOLDING THE GATE LEAF IN THE OPEN POSITION.
N. A NO. 7 GAUGE ZINC COATED TENSION WIRE SHALL BE USED AT THE BOTTOM OF THE FABRIC, TERMINATED WITH BAND CLIPS AT CORNER AND GATE POSTS.
O. A SIX (6) INCH BY 1/2 INCH DIAMETER EYEBOLT TO HOLD TENSION WIRE SHALL BE PLACED AT LINE POSTS.
P. STRETCHER BARS SHALL BE 3/16 INCH BY 3/4 INCH OR HAVE EQUIVALENT CROSS-SECTIONAL AREA.
Q. ALL CORNER GATE AND PANELS SHALL HAVE A 3/8 INCH TRUSS ROD WITH TURNBUCKLES.
R. ALL POSTS EXCEPT GATE POSTS SHALL HAVE A COMBINATION CAP AND BARBED WIRE SUPPORTING ARM. GATE POSTS SHALL HAVE A DOME CAP.
S. OTHER HARDWARE INCLUDES, BUT MAY NOT BE LIMITED TO, TIE CLIPS, BAND CLIPS AND TENSION BAND CLIPS.
T. BARBED WIRE GATE GUARDS SHALL BE FITTED WITH DOME CAPS.
U. BARBED WIRE SUPPORT ARMS SHALL BE PRESSED STEEL COMPLETE WITH SET BOLT AND LOCK WIRE IN THE ARM.
V. ALL CAPS SHALL BE MALLEABLE IRON, DOME OR ACORN SHAPED AS REQUIRED BY PIPE SIZE.
W. WHERE THE USE OF CONCERTINA HAS BEEN SPECIFIED, 24-INCH DIAMETERS COIL, BARBED TAPE, STAINLESS STEEL CYCLONE FENCE MODEL G8P TO TYPE III SHALL BE FURNISHED. IT SHALL BE SUPPORTED ABOVE THE TOP RAIL BY USE OF SIX (6) WIRE BARBED WIRE ARMS POSITIONED ATOP EACH LINE/CORNER POST.

PART 3 - EXECUTION

- 1. INSPECTION
TO CONFIRM PROPER DEPTH AND DIAMETER OF POST HOLE EXCAVATIONS. ALL POST HOLES WILL BE EXCAVATED AS PER CONSTRUCTION DOCUMENTS.
2. INSTALLATION
A. FOUNDATIONS SHALL HAVE A MINIMUM SIX (6) INCH CONCRETE COVER UNDER POST.
B. ALL FENCE POSTS SHALL BE VERTICALLY PLUMB WITHIN ONE QUARTER (1/4) INCH.
C. AT CORNER POSTS, GATE POSTS, AND SIDES OF GATE FRAME, FABRIC SHALL BE ATTACHED WITH STRETCHER AND TENSION BAND-CLIPS AT FIFTEEN (15) INCH INTERVALS.
D. AT LINE POSTS, FABRIC SHALL BE ATTACHED WITH BAND-CLIPS AT FIFTEEN (15) INCH INTERVALS.
E. FABRIC SHALL BE ATTACHED TO BRACE RAILS, TENSION WIRE AND TRUSS RODS WITH TIE-CLIPS AT TWO (2) FOOT INTERVALS.
F. A MAXIMUM GAP OF ONE (1) INCH WILL BE PERMITTED BETWEEN TIE CHAIN LINE FABRIC AND THE FINAL GRADE.
G. GATE SHALL BE INSTALLED SO LOCKS ARE ACCESSIBLE FROM BOTH SIDES.
H. GATE HINGE BOLTS SHALL HAVE THEIR THREADS PEENED OR WELDED TO PREVENT UNAUTHORIZED REMOVAL.
I. CONCRETE TO BE A MINIMUM OF 4,000 PSI AT 7 DAYS. CEMENT SHALL EXCEED ASTM C150, TYPE IIIA.
3. PROTECTION
UPON COMPLETION OF ERECTION, INSPECT FENCE MATERIAL AND PAINT FIELD CUTS OR GALVANIZING BREAKS WITH ZINC-BASED PAINT, COLOR TO MATCH THE GALVANIZED METAL.
APPLICABLE STANDARDS:
ASTM-A120 SPECIFICATION FOR PIPE, STEEL BLACK AND HOT-DIPPED ZINC COATED (GALVANIZED) WELDED AND SEAMLESS, FOR ORDINARY USES.
ASTM-A123 ZINC (HOT-DIP GALVANIZED) COATING ON IRON AND STEEL PRODUCTS.
ASTM-A163 STANDARD SPECIFICATION FOR ZINC COATING (HOT-DIP) ON IRON AND STEEL HARDWARE.
ASTM-A392 SPECIFICATION FOR ZINC-COATED STEEL CHAIN LINK FENCE FABRIC.
ASTM-A491 SPECIFICATION FOR ALUMINUM-COATED STEEL CHAIN LINK FENCE FABRIC
ASTM-A525 STANDARD SPECIFICATION FOR STEEL SHEET ZINC COATED (GALVANIZED) BY THE HOT-DIPPED PROCESS.
ASTM-A570 SPECIFICATION FOR HOT-ROLLED CARBON STEEL SHEET AND STRIP, STRUCTURAL QUALITY.
ASTM-A535 SPECIFICATION FOR ALUMINUM COATED STEEL BARBED WIRE, FEDERAL SPECIFICATION RR-F-191- FENCING, WIRE AND POST METAL AND GATES, CHAIN LINK FENCE FABRIC, AND ACCESSORIES.

Edge Consulting Engineers, Inc.
624 Water Street
Poulsbo WA 98268
608.644.1449 voice
608.644.1549 fax
www.edgeconsulting.com

SPECIFICATIONS
WEST BRANCH DT
WEST BRANCH, IOWA

SHEET TITLE:
PRELIMINARY CDS:
PRELIMINARY CDS - 04/03/13
CITY REQUIREMENTS - 01/07/14
STAMPED FINALS:
DRAWN BY:
CJL/TAS
CHECKED BY:
PCM
PLOT DATE:
1/7/2014
PROJECT #:
8593
FILE NAME:
SP-1.dgn
SHEET NUMBER:
SP-1



9. I.E.E.E. FALL POTENTIAL TESTS

A. FOR RAW LAND SITE

1. GROUND TESTS SHALL BE PERFORMED AS INDICATED ON DRAWINGS. A BIDDLE GROUND OHMMER OR THE METHOD OF USING TWO AUXILIARY GROUND RODS (AS DESCRIBED IN I.E.E.E. STANDARDS NO. 81-1983, PART 1) MAY BE USED. THE I.E.E.E. METHOD REQUIRES THE USE OF AN A.C. TEST CURRENT. THE AUXILIARY TEST RODS MUST BE SUFFICIENTLY FAR AWAY FROM THE ROD UNDER TEST SO THAT THE REGIONS IN WHICH THEIR RESISTANCE IS LOCALIZED DO NOT OVERLAP. THE TEST POINT WILL BE THE GROUND ROD AND WILL CONSIST OF THE THREE POINT FALL OF POTENTIAL MEGGER TEST METHOD, USING THE BIDDLE NULL-BALANCE EARTH TESTER (MEGGER #250220-2, OR EQUIVALENT)

2. CONTRACTOR TO CONDUCT GROUND RESISTANCE TEST IN THE FORMAT AS FOLLOWS:

B. EQUIPMENT PAD

1. FIRST TEST - SHALL BE WITH FOUR (4) GROUND RODS INSTALLED, ONE AT EACH CORNER OF THE PAD BUT NOT CONNECTED TO THE MAIN GROUNDING BUS. FURNISH WIRE TO CONNECT (TEMPORARY CLAMP) ALL FOUR (4) GROUND RODS TOGETHER TO MAKE A SYSTEM TEST AFTER EACH ROD IS INDIVIDUALLY TESTED. IF ANY INDIVIDUAL ROD TESTS 25 OHMS OR MORE, THE ELECTRICAL CONTRACTOR AND OWNER'S REPRESENTATIVE SHOULD BE NOTIFIED SO THAT THE ROD CAN BE DRIVEN DEEPER UNTIL ALL FOUR (4) RODS HAVE A RESISTANCE OF 10 OHMS OR LESS ON A DRY DAY.

2. SECOND TEST - SHALL BE WITH THE GROUND RODS CONNECTED, WITH DRY SOIL AND WHEN NO STANDING WATER HAS BEEN PRESENT FOR THE PAST TEN (10) DAYS. THE MAXIMUM ALLOWABLE READING IS 5 OHMS TO GROUND. IF THE RESISTANCE OF THE ENTIRE SYSTEM EXCEEDS 5 OHMS, NOTIFY THE CONTRACTOR AND OWNER'S REPRESENTATIVE SO THAT ADDITIONAL AND/OR DEEPER RODS CAN BE INSTALLED.

C. TOWER

1. FIRST TEST - SHALL BE WITH THREE (3) GROUND RODS INSTALLED (MINIMUM), EQUALLY SPACED AROUND THE TOWER FOUNDATION, BUT NOT CONNECTED TO THE SHELTER PAD EXTERNAL GROUND RING FURNISH WIRE TO CONNECT (TEMPORARY CLAMP) ALL THREE (3) GROUND RODS TOGETHER TO MAKE A SYSTEM TEST AFTER EACH ROD IS INDIVIDUALLY TESTED. IF ANY INDIVIDUAL ROD TESTS 25 OHMS OR MORE, NOTIFY THE CONTRACTOR AND OWNER'S REPRESENTATIVE SO THAT THE ROD CAN BE DRIVEN DEEPER UNTIL ALL THREE (3) RODS HAVE A RESISTANCE OF 10 OHMS OR LESS ON A DRY DAY.

2. SECOND TEST - SHALL BE WITH THE GROUND RODS CONNECTED, WITH DRY SOIL AND WHEN NO STANDING WATER HAS BEEN PRESENT FOR THE PAST TEN (10) DAYS, THE MAXIMUM ALLOWABLE READING IS 5 OHMS TO GROUND. IF THE RESISTANCE OF THE ENTIRE SYSTEM EXCEEDS 5 OHMS, THE ELECTRICAL CONTRACTOR AND OWNER'S REPRESENTATIVE SHOULD BE NOTIFIED SO THAT EITHER ADDITIONAL AND/OR DEEPER RODS CAN BE INSTALLED.

D. EQUIPMENT PAD AND TOWER

1. AFTER THE EQUIPMENT PAD AND TOWER GROUND RESISTANCE TEST IS COMPLETED, CONTRACTOR SHALL TIE EQUIPMENT PAD EXTERNAL GROUND RING AND TOWER EXTERNAL GROUND RING TOGETHER. AFTER FIRST AND SECOND TEST ALL CONNECTIONS MUST BE MADE USING EXOTHERMIC WELD. NO LUGS OR CLAMPS WILL BE ACCEPTED.

2. AFTER ALL THE EXTERNAL GROUND RINGS ARE TIED TOGETHER, COMPLETE A MEGGER CHECK OF THE GROUND SYSTEM. THE MAXIMUM ALLOWABLE READING IS 5 OHMS TO GROUND.

10. GROUNDING RESISTANCE TEST REPORT

UPON COMPLETION OF THE TESTING FOR EACH SITE, A TEST REPORT SHOWING RESISTANCE IN OHMS WITH AUXILIARY POTENTIAL ELECTRODES AT 5 FEET AND 10 FEET INTERVALS UNTIL THE AVERAGE RESISTANCE STARTS INCREASING AND ALSO NOTE THAT 10-15 PHOTOS MUST BE TAKEN TO PROOF ENTIRE EXTERNAL GROUND RING SYSTEM BEFORE BACKFILL. TWO (2) SETS OF TEST DOCUMENTS ARE OF THE INDEPENDENT TESTING SERVICE TO BE BOUND AND SUBMITTED WITHIN ONE (1) WEEK OF WORK COMPLETION.

SECTION 16503 - POLES, POSTS, AND STANDARDS

1. GENERAL

A. LIGHTNING ROD AND EXTENSION PIPE INCLUDING ALL APPURTENANCES, TO BE FURNISHED BY OWNER, IF REQUIRED.

B. PROVIDE TEMPORARY LIGHTING FOR TOWER AS PER FAA REGULATIONS DURING CONSTRUCTION, IF REQUIRED.

C. GROUNDING

GROUND TOWER WITH A MINIMUM OF #2 AWG TINNED SOLID BARE COPPER CONDUCTOR CADWELDED TO TABS (IF PRESENT). TWO (2) GROUNDING LEADS PER TOWER. NO EXOTHERMIC WELDS SHALL BE ATTACHED DIRECTLY TO THE TOWER STEEL.

SECTION 16745 - TELECOMMUNICATIONS WIRING COMPONENTS (COAXIAL ANTENNA CABLE)

1. GENERAL

A. ALL MATERIALS, PRODUCTS OR PROCEDURES INCORPORATED INTO WORK SHALL BE NEW AND OF STANDARD COMMERCIAL QUALITY.

B. CERTAIN MATERIALS AND PRODUCTS WILL BE SUPPLIED BY THE OWNER (REFER TO GENERAL CONDITIONS FOR THE LIST OF OWNER FURNISHED EQUIPMENT, MATERIALS AND SUPPLIES FOR THESE ITEMS). THE CONTRACTOR IS RESPONSIBLE FOR PICKUP AND DELIVERY OF ALL SUCH MATERIALS.

C. ALL OTHER MATERIALS AND PRODUCTS SPECIFIED IN THE CONTRACT DOCUMENTS SHALL BE SUPPLIED BY THE CONTRACTOR.

2. MATERIALS:

A. COAXIAL CABLE:

1. INSTALL COAXIAL CABLE AND TERMINATIONS BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS WITH COAXIAL CABLES SUPPORTED AT NO MORE THAN 3'-0" O.C. WEATHERPROOF ALL CONNECTORS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF EQUIPMENT LOCATION UNLESS OTHERWISE STATED.

2. ALL COAX RUNS SHALL BE 1-5/8" UNLESS OTHERWISE INDICATED.

3. ANTENNA AND COAXIAL CABLE GROUNDING

A. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

4. COAXIAL CABLE IDENTIFICATION

A. TO PROVIDE EASY IDENTIFICATION AND UNIFORM MARKING OF ANTENNA CABLING, MARK CABLE:

1. FIRST LOCATION IS AT THE END OF THE COAX NEAREST THE ANTENNA (WHERE THE COAXIAL CABLE AND JUMPER ARE CONNECTED).

2. SECOND LOCATION IS INSIDE THE EQUIPMENT SHELTER NEAR THE WAVEGUIDE ENTRY PORT.

5. TESTING

IF REQUESTED BY CONSTRUCTION MANAGER, LESSEE SHALL PROVIDE AN INDEPENDENT TESTING AGENCY TO PERFORM THE COAXIAL SWEEP TEST & REPORT. THE CONTRACTOR SHALL PROVIDE ONE CLIMBER / QUALIFIED PERSONNEL TO ASSIST IN ANY REPAIRS AND WEATHERPROOFING ONCE THE TEST IS COMPLETE. THE CONTRACTOR SHALL PROVIDE LESSEE WITH A MINIMUM OF FORTY-EIGHT (48) HOURS NOTICE PRIOR TO THE TIME OF THE SWEEP TEST.



SPECIFICATIONS  
WEST BRANCH DT  
WEST BRANCH, IOWA

SHEET TITLE:

Table with 1 column and 3 rows: PRELIMINARY CDS, PRELIMINARY CDS - 04/03/13, CITY REQUIREMENTS - 01/07/14

STAMPED FINALS:

Table with 1 column and 7 rows: DRAWN BY: C.J.L. TAS, CHECKED BY: PCM, PLOT DATE: 1/7/2014, PROJECT #: 8593, FILE NAME: SP-3.dgn

SHEET NUMBER:  
SP-3



Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
2601 Meacham Boulevard  
Fort Worth, TX 76137

Aeronautical Study No.  
2013-ACE-602-OE

Issued Date: 03/26/2013

Brian Meier  
Central States Tower II, LLC  
323 South Hale St, Suite 100  
Wheaton, IL 60187

**\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:           Antenna Tower - West Branch DT 13-O-0153.CST.027  
Location:           West Branch, IA  
Latitude:            41-40-38.95N NAD 83  
Longitude:           91-20-35.24W  
Heights:            726 feet site elevation (SE)  
                          199 feet above ground level (AGL)  
                          925 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part I)  
 Within 5 days after the construction reaches its greatest height (7460-2, Part II)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 09/26/2014 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (310) 725-6558. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2013-ACE-602-OE.

**Signature Control No: 185428591-186118714**

( DNE )

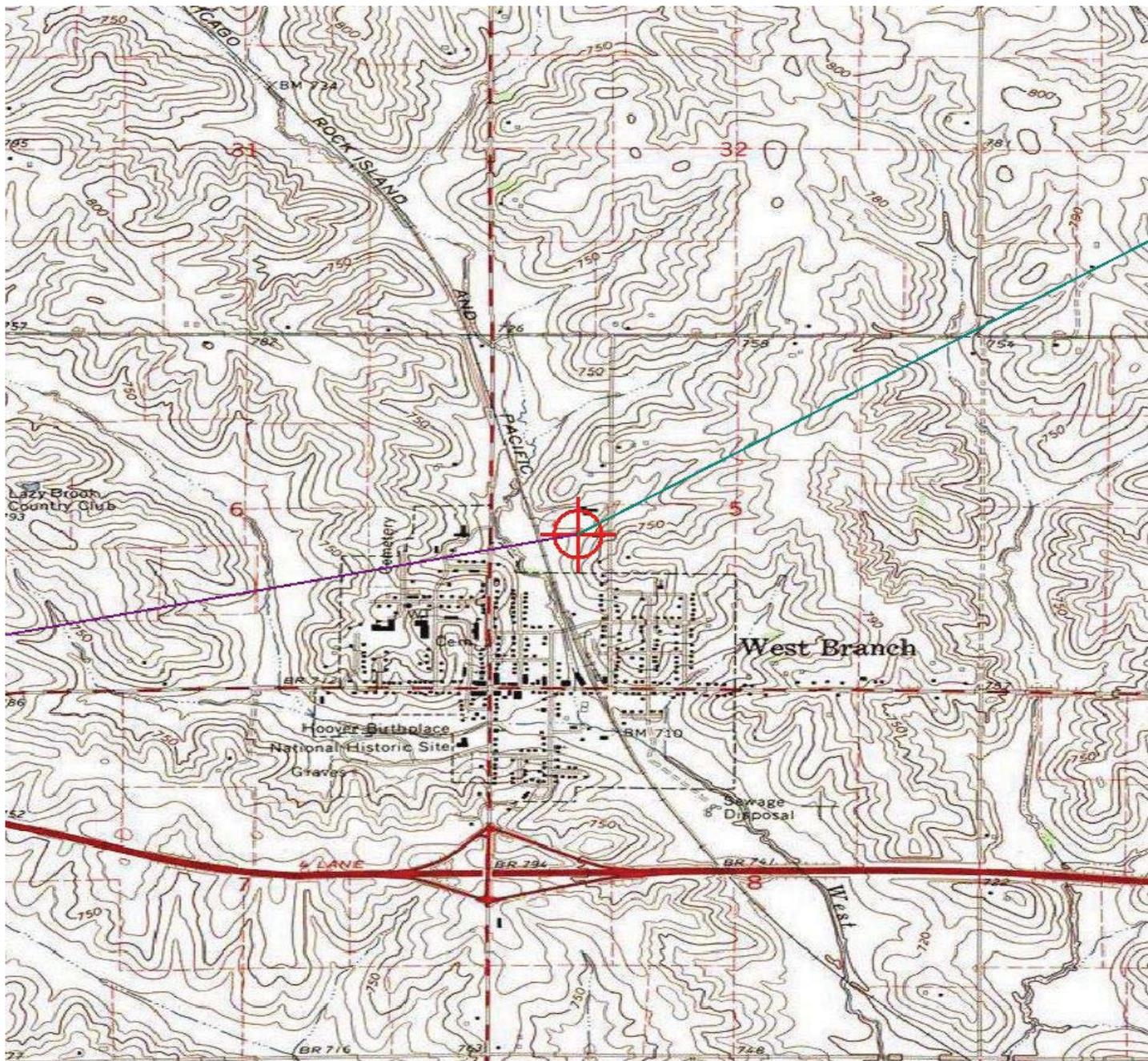
LaDonna James  
Technician

Attachment(s)  
Frequency Data  
Map(s)

cc: FCC

**Frequency Data for ASN 2013-ACE-602-OE**

<b>LOW FREQUENCY</b>	<b>HIGH FREQUENCY</b>	<b>FREQUENCY UNIT</b>	<b>ERP</b>	<b>ERP UNIT</b>
698	806	MHz	1000	W
806	824	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1850	1910	MHz	1640	W
1930	1990	MHz	1640	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W



## Traffic Study Goals

There is a new housing development just north of the high school and east of Cedar Johnson Road. The development will include access points on Main Street and on Cedar Johnson Road. The City would like to accomplish several things in this study including:

- a. Determine and set proper speed limit for F44 from Lower West Branch Road to Scott Drive.
- b. Identify improvements needed to intersection of F44 and Cedar Johnson Road to serve projected traffic.
- c. Establish access control for the study area along F44 including recommended location for high school access and development access.
- d. Identify need for future turn lanes for high school access and Cedar Johnson Road.
- e. Determine optimum location for pedestrian crossing and recommended signage/signalization.
- f. Determine recommended street section for F44 between Lower West Branch Road and Scott Drive.
- g. Determine recommended street section for Cedar Johnson Road between 350<sup>th</sup> Street and F44.



350th St-NE

Bickford

Green-View-Dr

Development Area  
(yellow)

Sullivan St

Gilbert Dr

N Maple St

N Oliphant St

Poplar St

Roadway to be  
included in study  
(light blue)

Cedar-Johnson Rd

W Main St

West Branch  
High School

Hilltop Dr

Pedersen St

Scott Dr

Esagent St

Thomas St

Foster St

F44

Lower West Branch Rd-SE

80

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Google earth

1994

Imagery Date: 9/14/2012 41°40'27.35" N 91°21'58.12" W elev 777 ft eye alt 10039 ft