



June 20, 2013

Maine Land Use Planning Commission  
c/o Karen Bolstridge, Regional Representative  
106 Hogan Rd, Suite 7  
BMHI Complex  
Bangor, Maine 04401

**Re: Maine RSA #4, Inc. d/b/a U.S. Cellular Corporation (USCC) – Telecommunication Facility**

Dear Land Use Planning Commission:

On behalf of Maine RSA #4, Inc. d/b/a U.S. Cellular Corporation (“USCC”), I am pleased to submit this application for the proposal to construct a 250’ Telecommunications Facility on the property owned by Christopher Cochran located off of West Street in the Big Lake Township, Washington County, identified as Map 04, Lot 25.

USCC has leased from Mr. Cochran a 40,000 square foot area for the installation of the 250’ Telecommunications Tower.

A pdf file of the Application and Site Plan has been provided to you via e-mail. Included with this letter is a hard copy of the Application and supporting documents and an 11”X17” copy of the Site Plan. Also included is a check to cover the cost of Application

Please contact me for any additional material or information.

Thank you for your consideration of this application.

Respectfully submitted,

A handwritten signature in black ink that reads "Jim Hebert".

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Jim Hebert / Black Diamond Consultants, Inc.  
Duly Authorized Agent for RSA #4 d/b/a U.S.  
Cellular

**Big Lake Township**

**Site ID #424342**

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Application  
For  
Wireless Telecommunication Site Plan  
To Construct a 250' Telecommunication Facility

Off of West Street  
(Map 04, Lot 25)

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Applicant

**Maine RSA #4, Inc. d/b/a U.S. Cellular**  
By It's Duly Authorized Agent  
Black Diamond Consultants, Inc.  
312 Water Street  
Gardiner, ME 04345



**INDEX TO BIG LAKE TOWNSHIP  
LUPC APPLICATION INFORMATION**

ATTACHMENT NUMBER	TITLE	PAGE NUMBER
1	Application for LUPC Permit and Letter of Authorization	
2	Required Fees, Supplements, and Exhibits	
3	LUPC location maps of property	
4	Land Division History	
5	Facility Signage Information	
6	Mr. Christopher Cochran "Letter of Authorization" & Deed	
7	Site Photographs	
8	Site Plan	
9	FEMA Floodplain Information	
10	BDC Experience and Training	
11	Historic Preservation Assessments	
12	Geo-tech Report on Area Potable Water Wells	
13	Site Exterior Lighting	
14	Wildlife and Rare Species Assessment	
15	Notice of LUPC Receipt of Permit Application	
16	USCC Financial Capacity	
17	Soil Information	
18	Certificate of Good Standing	
19	List of Occupants within 1500 ft. of Proposed Facility	
20	Additional Information on (1) Tower Failure Concerns, (2) Tower Co-Location, (3) Tower Abandonment	
21	Site Engineering Drawings	

**ATTACHMENT # 1**

**APPLICATION FOR LUPC PERMIT**



# Permit Application

for residential and non-residential development

## 1. APPLICANT INFORMATION

Applicant Name(s)	Daytime Phone	FAX	E-mail
Maine RSA #4, Inc. d/b/a U.S. Cellular Corporation (USCC)	603-555-2250	603-533-2277	
Mailing Address	Attention: Real Estate, 8410 West Bryn Mawr Avenue, Suite 700, Chicago, Illinois, 60631		

## 2. AGENT AUTHORIZATION AND APPLICANT SIGNATURES

Agent Name	Daytime Phone	FAX	E-mail
Black Diamond Consultants, Inc.	207-582-0056	207-582-9098	jrhebert@blkcdiamond.net
Mailing Address	312 Water Street, P.O. Box 57, Gardiner, ME 04345		

All persons listed on the deed, lease or sales contract as owners or lessees of the property must read the statement and sign below.

*I hereby authorize the above-listed individual to act as my legal agent in all matters relating to this permit application. I have personally examined and am familiar with the information submitted in this application, including the accompanying exhibits and supplements, and to the best of my knowledge and belief, this application is true and accurate. I understand that I am ultimately responsible for complying with all applicable regulations and with all conditions and limitations of any permits issued to me by LURC.*

Applicant Signature(s)

*James P. Hebert for USCC*

Date

*6/19/13*

Please see attached letter of Authorization.

## 3. PROJECT LOCATION AND DESCRIPTION

Describe in detail what you are proposing and the purpose of the work to be accomplished (use additional paper if you need more space).

U.S.Cellular proposes to construct a 250 foot Telecommunications Facility in Big Lake Township in Maine. The facility will include the installation of a 250' tower, equipment shelter, coaxial cables, electric power, telephone service, fencing, parking area, and site access road on land identified as Map 04, Lot 25. Facility objective is to provide cellular phone coverage to the town of Princeton and along Route 1.

Property Location	Township, Town or Plantation	County	Lessor and Lease Lot Numbers (check your lease)
	Big Lake Township,	Washington	Mr. Christopher Cochran, Map 04, Lot 25
	Tax Plan and Lot Numbers (check your tax bill)		Book and Page Numbers (check your deed)
	Map 04, Lot 25		Book 1885 - Page 171
Lot Size (in acres, or in square feet if less than 1 acre)	Zoning (check a LURC map - list all subdistricts covering your property)		
Lease area - 40,000 sq.ft.	No zones intersect this parcel of land		
Road Frontage. Is your property adjacent to any roads, streets or other rights-of-way (including any camp roads)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Frontage. Is there a lake, pond, river, stream, brook, or other water body on or adjacent to your lot? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If yes, write the name and frontage (in feet) for each road:	If yes, write the name and frontage (in feet) for each water body:		
If no, describe how you access your property:			
From West Street and through property shown on Map 04, Lot 23			

## 4. LAND DIVISION HISTORY

Using your deed as a starting point, trace the ownership history and configuration changes of your property back to 20 years from today. List all changes in ownership and all divisions of those lots from which your property originated (use additional paper if you need more space).

Description of Transaction (including seller's and buyer's names)	Date of sale or lease	Lot size
Please refer to information under Attachment (4)		

## 5. EXISTING USES, STRUCTURES AND FEATURES

Existing Use: What is the current use of your property?

Residential  Residential with Home Occupation  Commercial or Industrial  Public or Institutional  Other: Wooded area

Existing Structures: Are there any structures on your property?  Yes  No

If yes, fill in a line on the table below for each structure on your lot (use additional paper if necessary):

Type of structure (dwelling, garage, deck, porch, shed, etc.)	Year built	Exterior dimensions (LxWxH)	Number of:			Type of Foundation (full basement, slab, post, etc.)	Distance (in feet) of structure from nearest:						
			Bedrooms	Plumbing or water fixtures			Road	Property line	Lake or pond	River or stream	Wetland		

Other Existing Features: If any of these features exist on your property, check off the feature and answer the appropriate questions.

<input type="checkbox"/> Driveways	Dimensions (LxW): <input type="checkbox"/> Existing Driveway on site Shared driveway? <input type="checkbox"/> Yes <input type="checkbox"/> No Distance of driveway (in feet) from nearest: Property line    Lake or pond    River or stream    Wetland	<input type="checkbox"/> Parking areas	Number of parking areas: <input type="checkbox"/> No parking areas at site Dimensions (LxW): Distance of parking areas (in feet) from nearest: Road    Property line    Lake or pond    River or stream    Wetland
<input type="checkbox"/> Water supply	What type of water supply serves your property? <input type="checkbox"/> No water supply to site	<input type="checkbox"/> Exterior lighting	List the fixtures that have been installed to illuminate your property: <input type="checkbox"/> No existing illumination at site
<input type="checkbox"/> Signs	Number of signs: <input type="checkbox"/> There are no existing signs at the site Dimensions (LxWxH): Are any signs lighted? <input type="checkbox"/> Yes <input type="checkbox"/> No Distance of signs (in feet) from advertised structure or activity: _____		Type of bulb    Watts    Date fixture installed    Cutoff fixture?    Motion activated?  <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>  <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

## 6. CHANGES TO EXISTING STRUCTURES OR FEATURES

Will you be expanding, reconstructing, relocating, or otherwise altering any existing structures on your property?  Yes  No

If yes, fill in a line on the table below for each structure proposed to be altered (use additional paper if necessary):

Structure to be altered (dwelling, garage, porch, shed, driveway, sign, etc.)	Proposed alterations (check all that apply)						New exterior dimensions (LxWxH)	New number of:			Distance (in feet) of altered structure from nearest:				
	Expand or add on	Reconstruct or replace*	Permanent foundation	Relocate	Enclose deck or porch	Other**		Bedrooms	Plumbing or water fixtures	Road	Property line	Lake or pond	River or stream	Wetland	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									

\* Reconstruction or installation of a permanent foundation. If you are reconstructing an existing structure, or if you are installing a permanent foundation beneath an existing structure:

- Has the existing structure been damaged, destroyed or removed from your property?  Yes  No  
If yes, provide the date the structure was damaged, destroyed or removed: \_\_\_\_\_
- If the reconstructed structure or permanent foundation will not meet LURC's minimum setback requirements from property lines, roads, water bodies or wetlands, explain what physical limitations (such as lot size, slope, location of septic system, etc.) prevent the structure or foundation from meeting such setbacks:  
\_\_\_\_\_  
\_\_\_\_\_

\*\* Other. If you selected "Other" from the table above, describe in detail the type of alteration you are proposing (use additional paper if needed):  
\_\_\_\_\_  
\_\_\_\_\_

## 7. PROPOSED USES, STRUCTURES AND FEATURES

**Proposed Use:** What is the proposed use of your property?

Residential    Residential with Home Occupation    Commercial or Industrial    Public or Institutional    Other: \_\_\_\_\_

**New Structures:** Will you be constructing or installing any new structures on your property?

Yes    No

If yes, fill in a line on the table below for each new structure.

Type of structure (dwelling, garage, porch, shed, etc.)	Exterior dimensions (LxWxH)	Number of:			Type of Foundation (full basement, slab, post, etc.)	Distance(in feet) of structure from nearest:				
		Bedrooms	fixtures or water plumbing			Road	Property line	Lake or pond	River or stream	Wetland
Please refer to Attachment (21) for info on proposed structures.	Please refer to Attachment (21) for info on exterior dimensions.	0	0		Please see foundation and slab info in Attach. (21)	800+	300+	3000+	7+ miles	1000'+

**Other Proposed Features:** If you are proposing to add any of these features, check off the feature and answer the appropriate questions:

<input checked="" type="checkbox"/> Driveways	Dimensions (LxW):	575' X 12'				<input checked="" type="checkbox"/> Parking areas	Number of parking areas:	one				
	Shared driveway?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					Dimensions (LxW):	85' X 30'				
	Distance of driveway (in feet) from nearest:	Property line	Lake or pond	River or stream	Wetland	Distance of parking areas (in feet) from nearest:	Road	Property line	Lake or pond	River or stream	Wetland	
		200'+	3000+	7+ miles	1000'+		200'+	200'+	2 Miles+	2000'+	1000'+	
	Will the driveway have a slope greater than 8%?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				<input type="checkbox"/> Signs exceeding LURC standards	Number of signs:	_____				
	Will the driveway cross any flowing water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					Dimensions (LxWxH):	_____				
	If yes, what type of crossings will be used?	<input type="checkbox"/> Bridge <input type="checkbox"/> Culvert					Will any signs be lighted?	<input type="checkbox"/> Yes <input type="checkbox"/> No				
	Will crossings be sized at least 2½ times the cross-sectional area of the flowing water?	<input type="checkbox"/> Yes <input type="checkbox"/> No					Distance of signs (in feet) from advertised structure or activity:	_____				
<input type="checkbox"/> Water supply	What type of water supply will serve the property?	No water supply needed at facility										
<input checked="" type="checkbox"/> Exterior lighting	List the fixtures that will be installed to illuminate your property:	Type of bulb	Watts	Cutoff fixture?	Motion activated?	What features of the signs exceed LURC standards? _____ _____ _____ Why do the signs need to exceed LURC standards? _____ _____	Will the signs be a hazard to traffic? <input type="checkbox"/> Yes <input type="checkbox"/> No How will the signs' design elements (color, bulk, materials, height, etc.) be compatible with the property and fit harmoniously into the surroundings?  Please refer to Attachment (05) for info on facility signs					
		Please refer to Attachment (21) for info on light fixtures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							

## 8. SEWAGE DISPOSAL FOR NEW AND ALTERED STRUCTURES

Will any proposed new or altered structures include bedrooms, bathrooms or plumbing/water fixtures, or otherwise generate waste water?

Yes    No

## 9. WETLAND ALTERATIONS

Will your proposal alter any amount of land that is a mapped P-WL subdistrict or any ground below the normal high water mark of a lake, pond, river, stream, or intertidal area?

Yes    No

Will your proposal alter an acre or more of any land area, either upland or wetland?

Yes    No

## 10. FEMA FLOOD ZONING

Are you proposing first-time development or making substantial improvements to any existing development within a mapped FEMA floodplain?

Yes    No

**11. VEGETATION CLEARING**

Will your project involve any clearing of vegetation? (If yes, answer the following questions)  Yes  No

▪ Total area of clearing: 30,000 sq. ft.

▪ Distance between edge of cleared area and the nearest:

Road	Property line	Lake or pond	River or stream	Wetland
250'+	220'+	3000+	7+ miles	1000'+

**12. BUFFERING IN PROSPECTIVELY ZONED AREAS**

Is your property located in a development subdistrict within a prospectively zoned area?  Yes  No

▪ If yes, how wide are any existing wooded buffers (as measured at the narrowest point) between existing and proposed structures on your property and the nearest:

Road	Side property line	Rear property line	Subdistrict boundary (if in D-ES or D-CI)

▪ Do these buffers or any other features of your property screen the proposed development from view from the road and adjacent properties?  Yes  No

**13. EROSION AND SEDIMENTATION CONTROL**

▪ Total area of new or expanded soil disturbance: 30,000 sq. ft.

▪ Distance between the disturbed area and the nearest:

Road	Property line	Lake or pond	River or stream	Wetland
250'+	220'+	3000+	7+ miles	1000'+

▪ If soil disturbance will occur within 250 feet of a water body or wetland, what is the average slope of the land between the disturbed soil and the normal high water mark or upland edge? Slope: \_\_\_\_\_ %

▪ Will soil disturbance occur when the ground is frozen or saturated?  Yes  No

▪ Will soil disturbance occur (a) in water bodies, wetlands, natural drainage systems, or water crossings; (b) on slopes exceeding 15%; or (c) in other sensitive areas?  Yes  No

If yes, how will you stabilize disturbed areas and minimize the amount and duration of soil exposure?

\_\_\_\_\_

\_\_\_\_\_

▪ Will existing catch basins and culverts on or near the property be protected from sediment by the use of hay bale check dams, silt fences or other effective measures?  Yes  No

▪ Will topsoil be stripped from the property?  Yes  No

If yes, will the topsoil be stockpiled at least 100 feet from water and wetlands?  Yes  No

▪ Will all disturbed areas and stockpiled soils be effectively stabilized at the end of each workday?  Yes  No

▪ Will any fill used be free of hazardous or toxic materials, debris, trash and rubbish?  Yes  No

▪ What will you do (during site preparation, construction, cleanup, and post-construction) to stabilize disturbed soil and prevent sediment from entering water, wetlands, natural drainage systems, catch basins, culverts or adjacent properties?

Please see dwg. ENV-1A, Environmental & Civil Details, Erosion and Sedimentation Controls in accordance with "Maine Erosion and Sediment Control Handbook for Construction - Best Management Practices".

\_\_\_\_\_

\_\_\_\_\_

▪ What provisions will you make for the continued maintenance of all proposed erosion and sedimentation control measures?

Please see dwg. ENV-1A, Environmental & Civil Details, Erosion and Sedimentation Controls in accordance with "Maine Erosion and Sediment Control Handbook for Construction - Best Management Practices".

\_\_\_\_\_

\_\_\_\_\_

▪ Provide a general timeline of construction activities on your property, including clearing, grading, construction and landscaping:

Please see dwg. ENV-1A, Environmental & Civil Details, Erosion and Sedimentation Controls in accordance with "Maine Erosion and Sediment Control Handbook for Construction - Best Management Practices".

\_\_\_\_\_

\_\_\_\_\_

**14. ADDITIONAL INFORMATION**

State any facts that further explain your proposal or may help us in our review of your application (Use additional paper if needed).  
Please refer to the additional information in Attachment (2) and (20).

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**15. REQUIRED FEES, EXHIBITS AND SUPPLEMENTS**

Submit all necessary fees, exhibits and supplemental information with this application, as described in the instructions.





Letter  
of  
Agency

To Local Government

RE: Representation Authorization

This letter authorizes Pam Chambers, Chad Hébert, Aaron Cady and James Hébert with Black Diamond Consultants to represent our interests before the Local Government permitting authorities with regard to cellular communication site acquisition, permitting, and construction in the State of Maine.

If you have any questions, please contact me.

Sincerely,

Richard F. Houde  
Project Manager, Maine  
U.S. Cellular Corporation  
100 Gannett Street (Suite B)  
South Portland, ME 04106

**ATTACHMENT # 2**

**REQUIRED FEES, SUPPLEMENTS, EXHIBITS,  
AND RESPONSES**

**LUPC APPLICATION FEE FOR BIG LAKE TOWNSHIP SITE**

(LUPC APPLICATION FEE BASED ON LUPC GENERAL APPLICATIONS SECTION 1.04.B.8 “UTILITY FACILITIES PERMIT APPLICATIONS”)

- BASE FEE ----- \$500.00
  - TOWER HEIGHT (\$1.00 per foot of Tower Height) – (250’X \$1.00/ft) ---- \$250.00
  
  - SITE STRUCTURE FOOTPRINTS (@ \$0.40/ft. of Footprint)
    - 12’ X 20’ Shelter = (240ft<sup>2</sup> X \$0.40/ft<sup>2</sup>) = ----- \$96.00
    - 2 – Shelter Stoops @ 5ft X 5ft = (2 X 25ft<sup>2</sup> X \$0.40/ft<sup>2</sup>) = ----- \$20.00
    - Miscellaneous Post/Sonotubes ----- \$30.00
- TOTAL ----- \$896.00**

**APPLICATION FEE PAYED BY BDC CHECK # 12106**

12106



**BLACK DIAMOND  
CONSULTANTS INC**

PO Box 57 • 312 Water St.  
Gardiner, ME 04345

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52-7442-2112

6/18/2013

PAY TO THE ORDER OF Treasurer State of Maine

\$ \*\*896.00

Eight Hundred Ninety-Six and 00/100\*\*\*\*\*

DOLLARS

Treasurer State of Maine  
Attn: Financial Services  
155 State House Station  
Augusta, ME 04333

MEMO Princeton LURC Application Permit Fee

Security features. Details on back

[check signature, routing# and bank account# have been removed]

**APPLICATION FOR A LURC PERMIT  
REQUIRED FEES, EXHIBITS AND SUPPLEMENTS**

**APPLICATION FEE**

A check payable to the "Treasurer, State of Maine" is provided for the Application Fee for Utilities Facilities Permit.

**EXHIBIT A: LOCATION MAP.**

A map clearly marking the boundaries of the property is provided under Attachment (21). See also Attachment (3) for additional information.

**EXHIBIT B: DEED, LEASE OR SALES CONTRACT.**

See Attachment (6) for Letter of Authorization from Mr. Christopher Cochran for installation of the proposed Telecommunications Facility.

**EXHIBIT C: SITE PHOTOGRAPHS.**

See Attachment (7) for photographs taken within the past two years that show the features of the leased property.

**EXHIBIT D: SITE PLAN.**

See Attachment (8) for Site Plan on an 8 ½ X 11 inch sheet of paper. See also engineering drawings under Attachment (21) for detail site plan information. The areas to be cleared of vegetation with resulting soil exposure during construction are the 100 X 100 square foot area for the facility compound and the 12 X 575 foot driveway. Erosion and sedimentation controls will provided as noted in Eng. Dwg. ENV-1A, "Environmental & Civil Details".

**EXHIBIT E: SEWAGE DISPOSAL.**

The proposed facility will not include bedrooms, bathrooms, plumbing or water fixtures, or other wise generate waste water.

**EXHIBIT F: FLOOD ELEVATION CERTIFICATE.**

The proposed facility is not located in a mapped FEMA floodplain. See Attachment (9) for supporting information.

**EXHIBIT G: DOCUMENTATION FOR EXCEPTIONS TO BUFFERING REQUIREMENTS.**

Existing property vegetative buffers will buffer the facility site from adjacent property lines, with the exception of the upper section of the tower. Please refer to attached Supplement S-2, Item (17) for information relative to the necessity of keeping upper tower sections visibly exposed to allow telecommunications transmission.

**EXHIBIT H: EROSION AND SEDIMENTATION CONTROL PLAN.**

Soil disturbance estimated to be less than 1 acre of total soil disturbance.

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**REQUIREMENTS FOR NON-RESIDENTIAL DEVELOPMENT**  
**Supplement S-2**

**TECHNICAL AND FINANCIAL CAPACITY**

1. *Will you hire any consultants, contractors or staff to design and construct the proposed development? If yes, summarize the previous experience and training of your staff. If no, summarize your own previous experience and training in construction.*

(a) Black Diamond Consultants (BDC) has been hired to provide this Application for a LUPC Permit and to perform site surveys, Historic Preservation – Section 106 evaluations, NEPA Environmental Threshold screening, and Phase I – Environmental Assessment for Hazardous and Petroleum Wastes. In addition, BDC will develop the engineering drawings for site development. Please refer to Attachment (10) for BDC previous experience and training.

(b) The Construction Contractor for the facility will be selected after approval of the site for construction and upon successful bid for the construction.

2. *What is the estimated total cost of the proposed development (including all proposed improvements, structures and facilities)? How will the development be financed (e.g. by the applicant, bank, state government loan, etc.)?*

Estimated total cost of the proposed development is approximately \$250K and the Project will be financed by U.S. Cellular. U.S. Cellular is a multi billion dollar company traded on Wall Street. Please refer to Attachment (16) for additional financial information.

**IMPACT ON SERVICES**

3. *Will your proposed development involve any sources of potential contamination (such as junkyards, auto repair, gas stations, and bulk storage of petroleum)?*

The proposed development does not involve any sources of potential contamination.

4. *Does your proposed development use an existing or new well?*

The proposed development will not use an existing or new well.

5. *Will the project site have electric power? If yes, how will the power be generated (on site, by power company, etc.)? How far is the project site from the nearest existing utility pole?*

Electric power to the project site will be provided by Eastern Maine Electric. Power to site will be provided from existing power pole adjacent to Mr. Cochran's property. Eastern Maine Electric will determine pole routing to site. Distance of project site to the nearest existing utility pole is estimated at approximately 800 feet.

6. *What state-approved dump will you use for the regular collection and disposal of site-generated solid wastes? Provide the name and location of the dump. How will you dispose of construction debris, stumps, brush, wood wastes, asphalt and pavement products?*

Operation of the facility does not generate any solid waste. Any small amounts of solid waste generated during construction and maintenance activities will be collected and properly disposed of at approved licensed transfer or disposal facilities.

Construction wood debris, such as, stumps, brush and wood waste will be mechanically buried on the property, if possible, or will be disposed to a licensed wood waste disposal facility. Asphalt or pavement waste will not be generated by this project.

7. *Who will provide fire protection to your project site? Provide the name and distance to the nearest fire station.*

Fire protection to the project site will be provided by the Princeton Fire Department located at 11 Depot Street, Princeton, ME 04668. The Fire Station is approximately 3 1/2 miles from the proposed site.

### **VEHICULAR CIRCULATION, ACCESS, AND PARKING**

8. *How will you provide safe, uncongested vehicular access to and circulation within your project area? Will you limit the number and width of entrances and exists onto a roadway to that necessary for safe entering and exiting? Will access be designed so that vehicles can exit the site without backing onto a roadway or shoulder? Will shared access be implemented? If not, describes why shared access is not possible.*

Vehicular access to and circulation within an operating telecommunication site is infrequent and requires, at most, the use of 2 or 3 vehicles during a heavy maintenance or trouble shooting event. Therefore only one entrance/exist is provided to the existing driveway off of West Street. Adequate vehicular turn-around is provided at the facility area to allow vehicles to exit the site without having to back onto West Street.



9. *At what angle will access between the roadway and property intersect the roadway? What curb radius will the access way have? How will sight triangles be designed and maintained on each side of the intersection for the access way and the roadway?*

The access road to the site will connect to an existing driveway that intersects West Street at approximately 90°. Please refer to the attached engineering drawings under Attachment (21) for additional information.

10. *If you are proposing to use any existing or new parking areas, explain how such parking will meet the needs of the development and how such parking areas will be designed.*

The parking area and access road at the facility site area will provide sufficient parking area for the site during construction and operation. In addition, the parking area and access road will provide for vehicular turn-around at the facility site area. Refer to Eng. Dwg. CIV-1A for information on parking area design.

- (a) Are you proposing to use on-street or off-street (on-site ) parking?*

As indicated above, on-site parking will be provided.

- (b) How will parking areas be visually buffered from the roadway?*

As indicated above, on-site parking is provided by the access road at the facility site. The parking area is approximately 575 feet from the road. The site will be normally unmanned and accessed infrequently for inspection or maintenance. There are no residential structures near the property line adjacent to the facility site area. Parking area is in a wooded area.

11. *If you are proposing to build or upgrade any roads to be used to access your project site, explain how any existing or proposed roadways will meet the needs of the development and describe how such roadways will be designed. Describe what site-specific best management practices will be used to ensure that the roadways will not cause erosion or safety problems.*

Please refer to the engineering drawings under Attachment (21) for information on the proposed access road to the facility. The engineering drawings provide information relative to road design, stormwater control, and sedimentation and erosion control measures. Stormwater management was assessed for a 25 year storm rainfall.

### **NOISE AND LIGHTING**

12. *Except of day-time construction activities, will any continuous, regular or frequent source of noise be generated by the development? If yes, describe the source and frequency of such noise and explain how you will ensure that such noise will not exceed LURC's maximum permissible sound pressure levels.*

Except for day-time construction activities, operation of the telecommunications facility will not generate any continuous, regular or frequent sources of noise.

13. *If your development will use any new or existing lighting, will all non-essential lighting be turned off after business hours? What will be the hours of operation for your development?*

The telecommunication facility will be operational 24/7 unless the systems are de-powered for maintenance or system upgrade purposes. The facility is normally un-manned except for routing checks and maintenance that are normally performed during daytime hours. The equipment shelter is not lit when un-manned. Please refer to Attachment (13) for information on shelter exterior lighting and tower lighting in accordance with FAA regulations.

### **WATER AND AIR QUALITY**

14. *If your property or development area is adjacent to any water bodies, what measure will you use to ensure that point and nonpoint sources of water pollutants (including sediment) generated by your development do not affect the surface water quality of the water bodies?*

The development area is not adjacent to any water bodies and Maine Best Management Practices for erosion and sedimentation control will be provided for the development areas in accordance with the attached BDC engineering drawings.

15. *How will you ensure that your development will not pose an unreasonable risk of polluting a groundwater aquifer?*

Information from federal and state well data base indicates no wells are located in the vicinity of the facility development area. Please refer to map under Attachment (12) "GeoCheck Report" for additional information. Any ground disturbance will be limited, as much as possible, to the 100 ft X 100 ft facility compound area and the 575 X 12 foot driveway.

16. *Will your development generate any air emissions other than ordinary fireplace smoke or heating furnace exhaust? If so, describe the type and amount of emissions.*

The facility will not generate any air emissions during operation. Electric heating will be provided to the facility equipment shelter.

## **SCENIC CHARACTER, NATURAL AND HISTORIC FEATURES**

17. *How will your development be located, designed and landscaped to minimize visual impacts on the scenic character of the surrounding area? Will structures and other features be visible from existing roadways or shorelines? If on a ridge, how will the natural character of the ridgeline be preserved?*

Facility structures, except for the upper section of the telecommunication tower will not be visible from surrounding areas because of distance from these areas and limited height of these structures within a forested area. The upper section telecommunication tower must remain visible to distance viewers since cellular communications requires radio frequency line-of-site to the cell phones.

Throughout the nation and the State of Maine, towers are being installed at high elevations and in remote areas to provide cell phone coverage to these rural areas. These installations are promoted through the national "Universal Service Fund (USF)". The USF is a service mandated by the Telecommunications Act of 1996 with the goal, in part, to increase the availability of advanced telecommunication services to all consumers, including those in low income, rural, insular, and high cost areas and at rates that are reasonably comparable to those charged in urban areas. In rural areas, the availability of cell phone systems enhances communications throughout the coverage area and is especially important to personnel responding to emergency situations, such as, when responding to fires, ambulatory needs, remote communication to emergency hospital facilities, and communication with personnel in remote and forested areas.

The State of Maine is an active participant in the promotion of cell phones to rural areas under the USF service fund. As such, numerous telecommunication tower sites are being installed at high elevations and remote areas throughout the State. The visible upper section of a telecommunication tower at high elevations has become a very common feature throughout the State landscape and is widely accepted throughout the local communities as a benefit to the community for safety and improved communications and at a cost that is comparable to urban areas. The tower installation on this project site will not be seen as a dominating feature from the roadway or shoreline since only the upper section of the tower will be visible and because of the distance from the tower to the roadway and shoreline.

18. *If any portion of your project site includes S1 or S2 natural communities or plant species, how will you ensure that there will be no undue adverse impact on the community/species and how will you preserve the values that qualify your site for such designation?*

The State of Maine Department of Inland Fisheries and Wildlife, and the State of Maine, Department of Conservation have reviewed the proposed project and have found that there are no State threatened or endangered species or rare botanical features known to occur within the project area. Black Diamond Consultants conducted an assessment to verify compliance with the U.S. Department of Fish and Wildlife Service – Maine Field Office Review Package under Section 9 of the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.). The assessment indicates that there will be no taking of listed species or their habitats from this project. Please refer to information under Attachment (14) for additional information.

19. *If any portion of your project site includes archeologically sensitive areas, structures listed in the National register of Historic Places or is likely to contain a significant archaeological site or structure, how will you ensure that there will be no undue adverse impact on such features and how will you preserve the values that qualify your project site for such designation?*

Black Diamond has conducted a Historic Preservation – Section 106 evaluation on the proposed project and has determine that there are no Historic Properties within the Area of Potential Effect (APE) for direct effects and no Historic Properties within the Area of Potential Effect (APE) for visual effects from the tower and facility. Please refer to Attachment (11) for additional information.

**SHORELAND CRITERIA**

*20. If your proposed development is adjacent to any lakes or ponds, explain in detail how your proposal is consistent with each of the shoreland criteria.*

The proposed development is not adjacent to any lakes or ponds.

**BUILDING LAYOUT IN PROSPECTIVELY ZONED AREAS**

*21. Is your proposed development located in a D-GN, D-GN2, D-GN3, D-RS or D-RS2 subdistrict within a prospectively zoned area?*

The proposed facility is not located in a D-GN, D-GN2, D-GN3, D-RS or D-RS2 subdistrict within a prospectively zoned area. The zoned area of the development is as shown in Attachment (3).

## **REQUIRED EXHIBITS**

### **S2-A. FINANCIAL CAPACITY.**

The Project will be financed by U.S. Cellular Corporation (USCC). USCC is a multi-billion dollar company traded on Wall Street. Please refer to the information located under Attachment (16) for additional financial information.

### **S2-B. SOLID WASTE DISPOSAL AUTHORIZATION.**

Operation of the facility does not generate any solid waste. Any small amounts of solid waste generated during construction and maintenance activities will be collected and properly disposed of at approved licensed transfer or disposal facilities.

### **S2-C. SOIL SUITABILITY AND MAPPING.**

The soil in the project area is designated as very stony silt loam to gravelly loam texture. This soil is considered suitable, by USCC, for the construction of a telecommunications facility and access road as depicted in the Site Plan. Please see Attachment (17) for additional information on area soil.

### **S2-D. CORPORATE GOOD STANDING.**

Certification of Good Standing from the Maine Secretary of State is provided under Attachment (18).

### **S2-F. ROADWAY DESIGN AND MAINTENANCE.**

Please refer to Site engineering drawings for information on roadway design. The proposed roadway will be maintained by USCC to allow continued site access for personnel site inspections, maintenance, and repairs.

### **S2-G. PARKING LANDSCAPING PLAN.**

The parking area for the telecommunication facility is provided by the 30 X 80 ft parking area shown on the engineering drawings and is less than one acre in size.

### **S2-H. TRAFFIC IMPACT STUDY.**

The proposed development does not have the potential to generate significant amounts of traffic or safety/capacity concerns. Traffic to the development site is not expected to exceed 5 vehicles per day during construction or 2 to 3 vehicles per day during heavy maintenance periods. The access road and the facility site will provide adequate vehicle turn-around capability for site egress.

**S2-I. ARCHAEOLOGICAL SURVEY.**

Black Diamond has conducted a Historic Preservation – Section 106 evaluation on the proposed project and has determine that there are no Historic Properties within the Area of Potential Effect (APE) for direct effects and no Historic Properties within the Area of Potential Effect (APE) for visual effects from the tower and facility. Please refer to Attachment (11) for additional information.

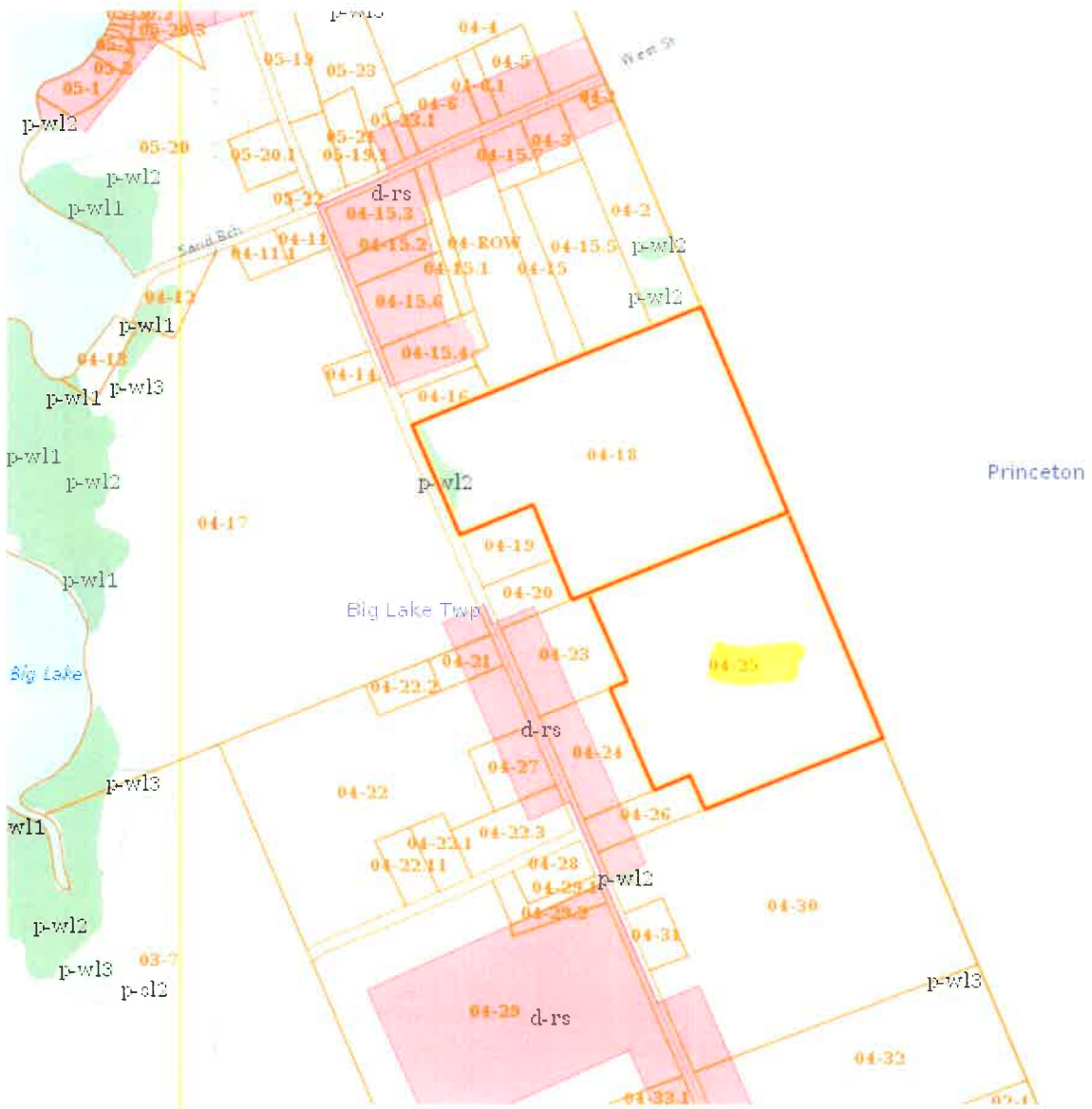
**S2-J. PHOSPHORUS CONTROL.**

The proposed project will not create a disturbed area of one acre or more within a direct watershed of a lake or pond.

**ATTACHMENT # 3**

**LUPC AND LOCATION MAPS OF PROPERTY**





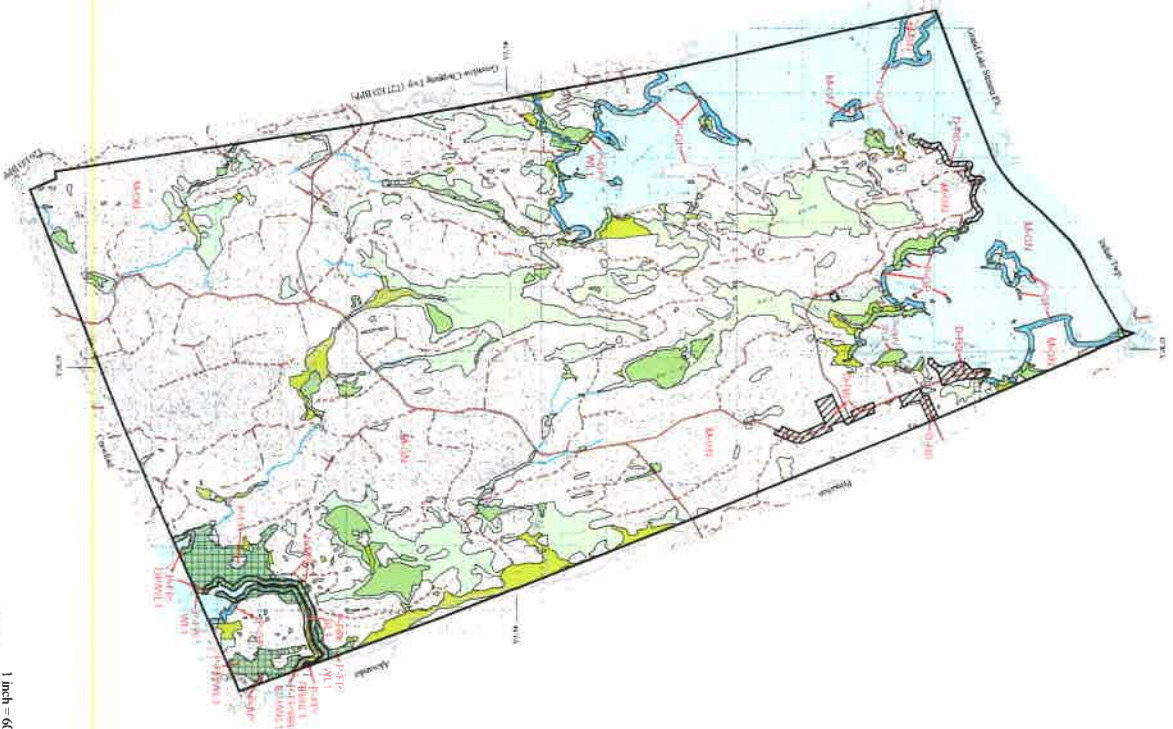
# Land Use Guidance Map

## Big Lake Twp.

T21 ED BPP  
Washington County



Maine Department of Conservation  
LAND USE REGULATORY COMMISSION  
Augusta, Maine 04333-0022  
(207) 287-2631  
TTY (207) 287-2213  
<http://www.state.me.us/doc/lurc>



- Legend**
- Development Subdistricts**
    - D-C Commercial/Industrial
    - D-RS Residential
  - Protection Subdistricts**
    - P-IP Flood Prone
    - P-GP Great Pond
    - P-WR Recreation - Water
    - P-SL2 Shoreland - Minor
    - P-WL1 Wetlands - Significant
    - P-WL2 Wetlands - Sensitive
    - P-WL3 Wetlands - Forested

- Management Subdistricts**
  - M-CN General
- Water body**
- Improved road**
- Unimproved road**
- Trail**
- Subdistrict boundary** or **Zoning amendment**

Acres designated as two or more protection subdistricts shall be zoned with the most restrictive zoning, e.g. P-FP/PW/WL1, P-FP/SL1, etc., where necessary.

This map is a reduced version of the official Land Use Guidance Map. It is not certified to be a true and correct copy. Full size official LURC Land Use Guidance Maps are available from the Commission at its Augusta office. Potential applicants unsure of their zoning should request a full size map from the Augusta office.

Land Use Guidance Map last amended on September 12, 2009

# **ATTACHMENT # 4**

## **LAND DIVISION HISTORY**

**LAND DIVISION HISTORY FOR SITE**  
(Please refer to attached Deeds for additional information)

Property on Tax Map 04, Lot No. 25:

Transaction Description	Date of Sale or Lease	Deed Book No. & Page No.	Lot Size
Monty L. Lilly → Christopher Cochran	10/08/1993	Book # 1885, Page # 171	Approx. 44 acres
Kenneth Polk → Monty L. Lilly	4/03/1984	Book # 1271, Page # 230	Approx. 44 acres

## **ATTACHMENT # 5**

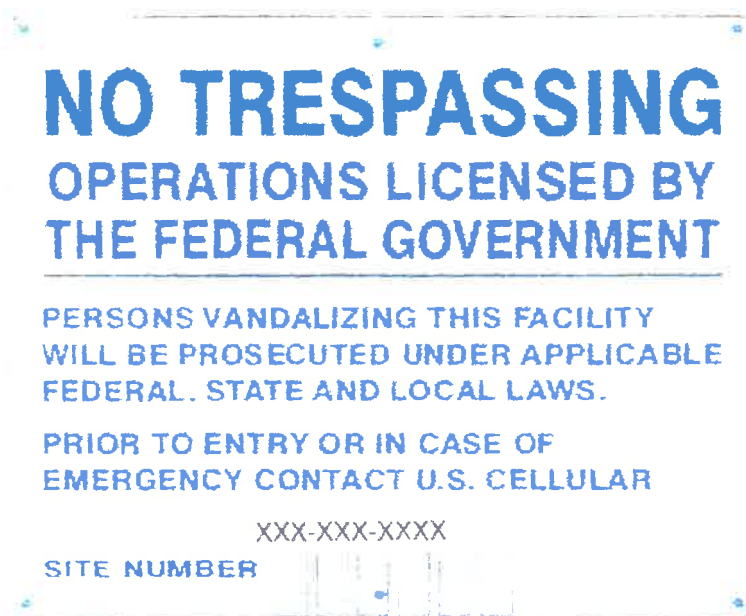
### **FACILITY SIGNAGE INFORMATION**

(Please refer to the attached pages for information on facility “cautionary” and regulatory required signage to be used at the Facility).

Advertising – No advertising signage will be installed at the telecommunications facility. There are four small personnel cautionary or licensed certification signs provided outside of the shelter facility. These are as follows:

- (1) A “No Trespassing” sign placed within the compound, on the inside of the vehicle entry gate fencing or on the Shelter. Sign is 24” X 24” in size.

Sample of No Trespassing Sign



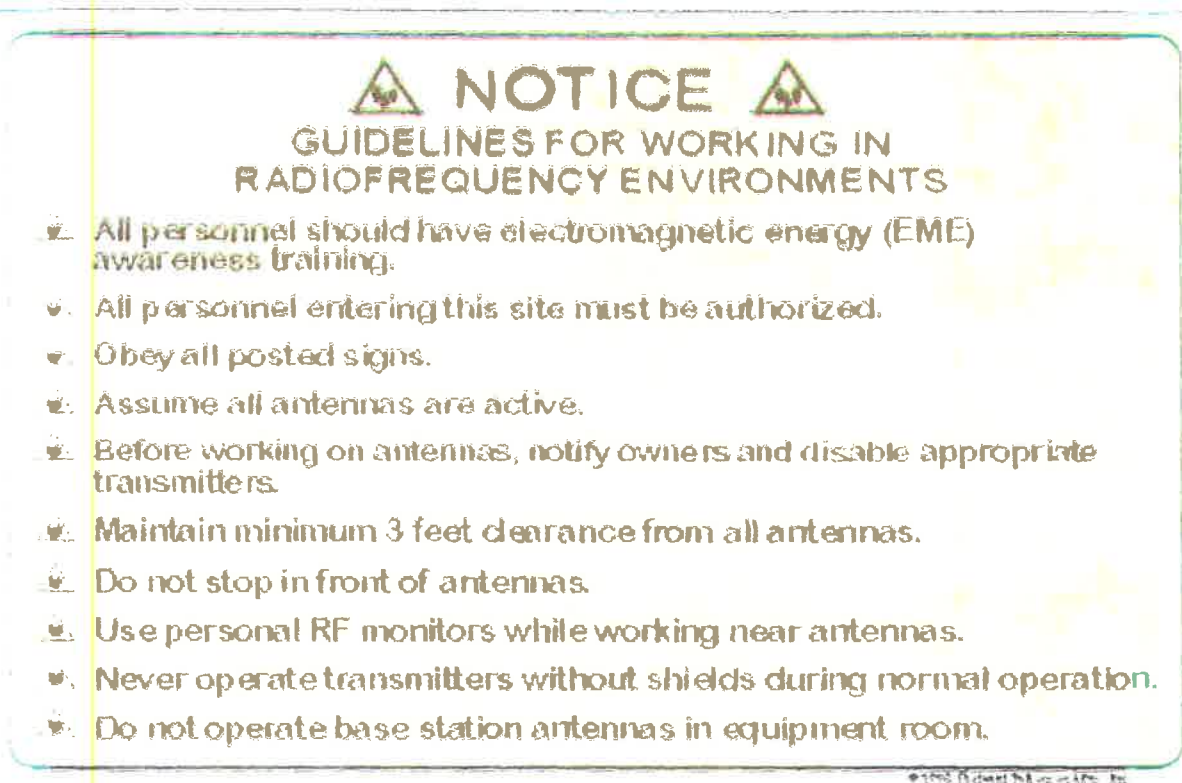
An FCC Antenna Structure Registration Sign placed where an FCC inspector can clearly see them without having to gain access to the site. Ideally, the sign is placed on the tower or shelter and at eye level, where it is clearly visible from a reasonable vantage point outside the compound.

Sample of FCC Antenna Structure Registration Sign



A ten-point "Notice with Instructions" sign is posted on the door side of the shelter. The sign measures 7" X 10".

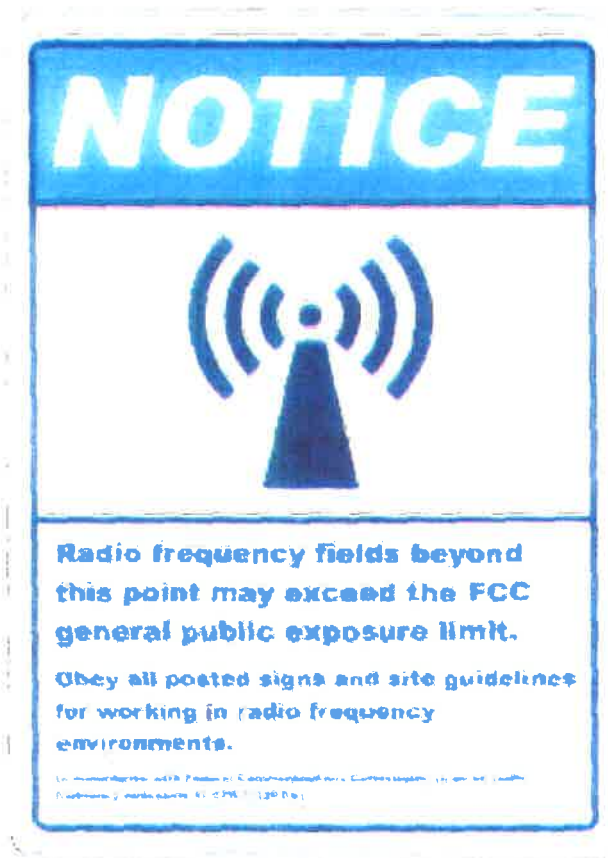
Sample of the Notice with Instructions Sign



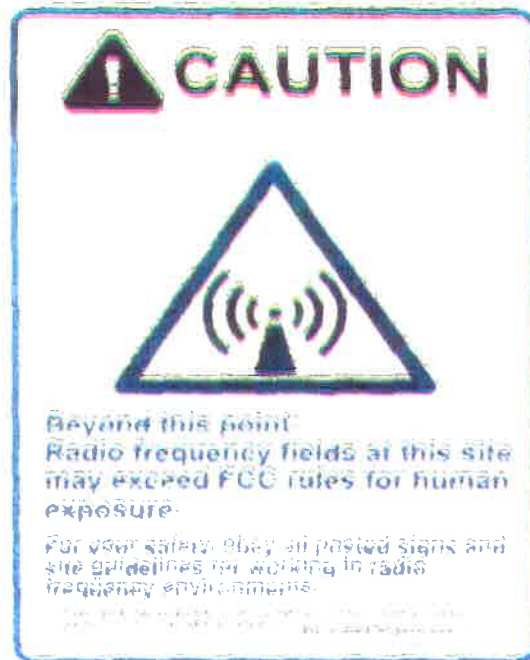


Radiofrequency (RF) Notice or Caution Sign placed at the base of the tower or on the shelter. The signs measure 10" X 14" each.

Sample of the RF Notice



Sample of the RF Caution



**ATTACHMENT # 6**

**CHRISTOPHER COCHRAN “LETTER OF  
AUTHORIZATION”**

**&**

**DEED**



May 5, 2013

**ZONING LETTER OF AUTHORIZATION**

I, Christopher Cochran, owner of property located at 983 West Street; Big Lake Township, Maine 04668, hereby authorizes Black Diamond Consultants, Inc., acting as a duly authorized representative of US Cellular/Maine RSA # 4, Inc. to apply to LURC for all necessary permits to accommodate the installation of a communications facility/tower on property as identified by Map 4 Lot 25.

Christopher S Cochran      5/8/13  
Date

Christopher Cochran      Christopher Cochran  
Print Name

BK1885PG171

11649

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS

THAT I, Monty L. Lilly of Princeton, County of Washington and State of Maine

in consideration of One Dollar and other value

paid by Christopher Cochran of Princeton aforesaid

the receipt whereof I do hereby acknowledge, do hereby

GIVE, GRANT, BARGAIN, SELL AND CONVEY unto the said

Christopher Cochran, his heirs and assigns forever,

a certain lot or parcel of land situated in Plantation # 21, now or formerly known as the Warren Brown homestead place, situated on the easterly side of the town road, and originally comprising 50 acres, more or less, excepting from the foregoing, however, several parcels previously conveyed out of record in the Washington County Registry of Deeds.

TRANSFER  
TAX  
PAID

For deed reference, see a deed to Ralph W. Polk and Ellenor G. Polk from the Inhabitants of Plantation # 21, dated October 15, 1949, of record in the aforesaid Registry at Book 486, Page 517.

Excepting and reserving however to Wilbert Spearin a life estate in the house situated on said property, together with 100' to each side and to the front and back of the house.

Meaning and intending to convey the same premises conveyed to the within Grantor by Kenneth Polk et als by deed dated April 3, 1984 and recorded in said Registry of Deeds in Book 1271, Page 230.

BK1885PG172

AND TO HAVE AND TO HOLD the aforegranted and bargained premises with all the privileges and appurtenances thereof to the said Christopher Cochran, his heirs and assigns, to his and their use and behoof forever.

AND I do COVENANT with the said Grantee, his heirs and assigns, that I am lawfully seized in fee of the premises that they are free of all encumbrances:

that I have good right to sell and convey the same to the said Grantee to hold as aforesaid, and that I and my heirs shall and will WARRANT AND DEFEND the same to the said Grantee, his heirs and assigns forever, against the lawful claims and demands of all persons claiming under us.

IN WITNESS WHEREOF, I, the said, Monty L. Lilly

in this deed as Grantor, have hereunto set my hand and seal this 8th day of October, in the year of our Lord one thousand nine hundred and Ninety-three.

SIGNED, SEALED AND DELIVERED IN PRESENCE OF

John Wayne Monty L. Lilly  
Monty L. Lilly

STATE OF MAINE  
Washington, SS.

October 9, 1993.

Personally appeared the above named Monty L. Lilly and acknowledged the above instrument to be his free act and deed.

Before me,

Richard P. Reynolds  
NOTARY PUBLIC  
RICHARD P. REYNOLDS  
12075Y FIELDS LANE  
MY COMMISSION EXPIRES JUNE 3, 2000



Notary's name, typed or printed

STATE OF MAINE  
WASHINGTON CO.  
REGISTRY OF DEEDS

NOV - 5 1993

Received at 12 H 45 M P M recorded  
in Book \_\_\_\_\_ Page \_\_\_\_\_  
Attest:

Register

# **ATTACHMENT # 7**

## **SITE PHOTOGRAPHS**



←  
red tape / this marks  
center of proposed  
facility.  
3/6/13





Looking West  
of Proposed Tower  
Area  
3/6/13



Looking South of  
Proposed Tower Area  
3/6/13

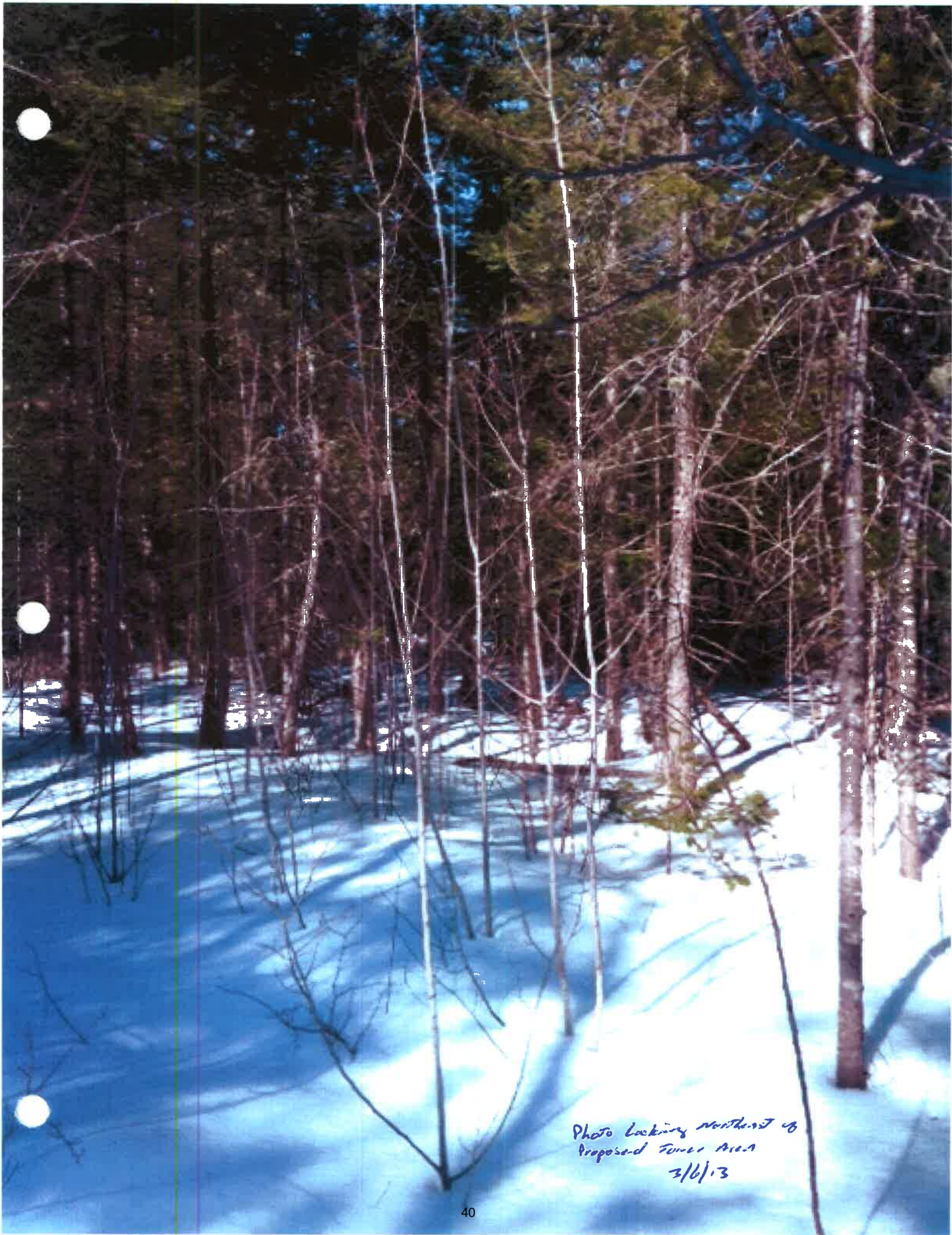


Photo Looking Northwest of  
Proposed Tower Area  
3/6/13



Looking Northwest  
of Tower Area  
3/6/13

# **ATTACHMENT # 8**

## **SITE PLAN**



Classification: UNCLASSIFIED  
Quality Category: NON-Q

DRAWING NUMBER: USCC-119-SUR-1A-1

**DESCRIPTION OF LEASE AREA**

This is a plan of a portion of the land shown on the attached survey of the Town of Princeton, New Jersey, and is intended to show the location and extent of the lease area. The lease area is shown in red on the attached survey. The lease area is bounded by the following dimensions: ...

NOW OR FORMERLY  
**MARSHALL  
MICHAEL & MARY**  
13507  
TAX MAP 4 LOT 20  
BIG LAKE TOWNSHIP, NJ 08666

NOW OR FORMERLY  
**CAMPBELL  
SCOTT**  
TAX MAP 4 LOT 20  
PRINCETON, NJ 08666

NOW OR FORMERLY  
**LANDRY  
DAVID**  
TAX MAP 4 LOT 22  
PRINCETON, NJ 08666

NOW OR FORMERLY  
**COCHRAN  
PAMELA**  
TAX MAP 4 LOT 23  
PRINCETON, NJ 08666

NOW OR FORMERLY  
**COCHRAN  
CHRISTOPHER**  
TAX MAP 4 LOT 23  
PRINCETON, NJ 08666

NOW OR FORMERLY  
**HASKELL  
MAY**  
TAX MAP 4 LOT 24  
PRINCETON, NJ 08666

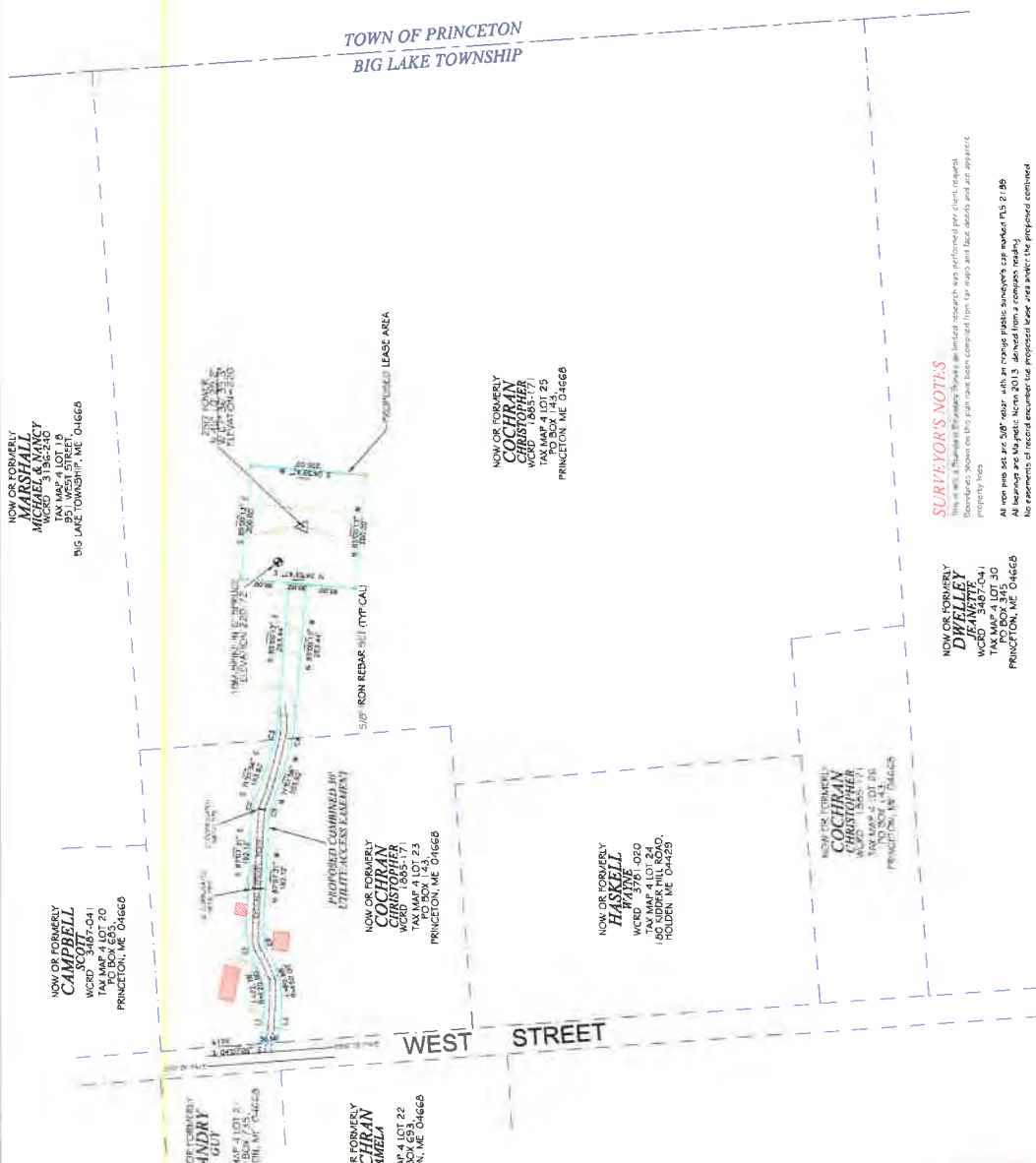
NOW OR FORMERLY  
**DWELLEY  
WENDY**  
TAX MAP 4 LOT 30  
PRINCETON, NJ 08666



LINE	BEARING	LENGTH
1	S 87° 15' E	27.00
2	S 87° 15' E	27.00
3	S 87° 15' E	27.00
4	S 87° 15' E	27.00

CLUMP	LENGTH	WIDTH
C1	10.54	27.00
C2	10.54	27.00
C3	10.54	27.00
C4	10.54	27.00

TOWN OF PRINCETON  
BIG LAKE TOWNSHIP



**NOTES:**

- 1. See drawing.
- 2. See notes.
- 3. See notes.
- 4. Owner.
- 5. Applicant.
- 6. See notes.
- 7. See notes.
- 8. See notes.
- 9. See notes.
- 10. Date of field survey.
- 11. Name of surveyor.
- 12. See notes.

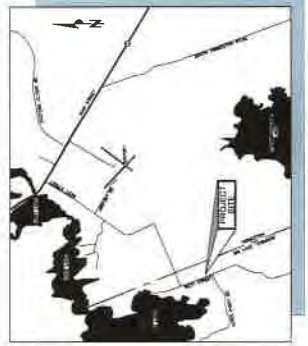
**SURVEYOR'S NOTES**

This survey was performed by the undersigned surveyor on the date indicated above. The survey was performed in accordance with the standards of the International Surveying and Mapping Society (ISMS) and the standards of the State of New Jersey. The survey was performed in accordance with the standards of the International Surveying and Mapping Society (ISMS) and the standards of the State of New Jersey. The survey was performed in accordance with the standards of the International Surveying and Mapping Society (ISMS) and the standards of the State of New Jersey.

**FAA CERTIFICATION-2C**

I hereby certify that the information contained on this drawing was obtained from reliable sources and that the information is true and correct to the best of my knowledge and belief.

4. Twenty (20) feet vertically  
4. Fifty (50) feet horizontally



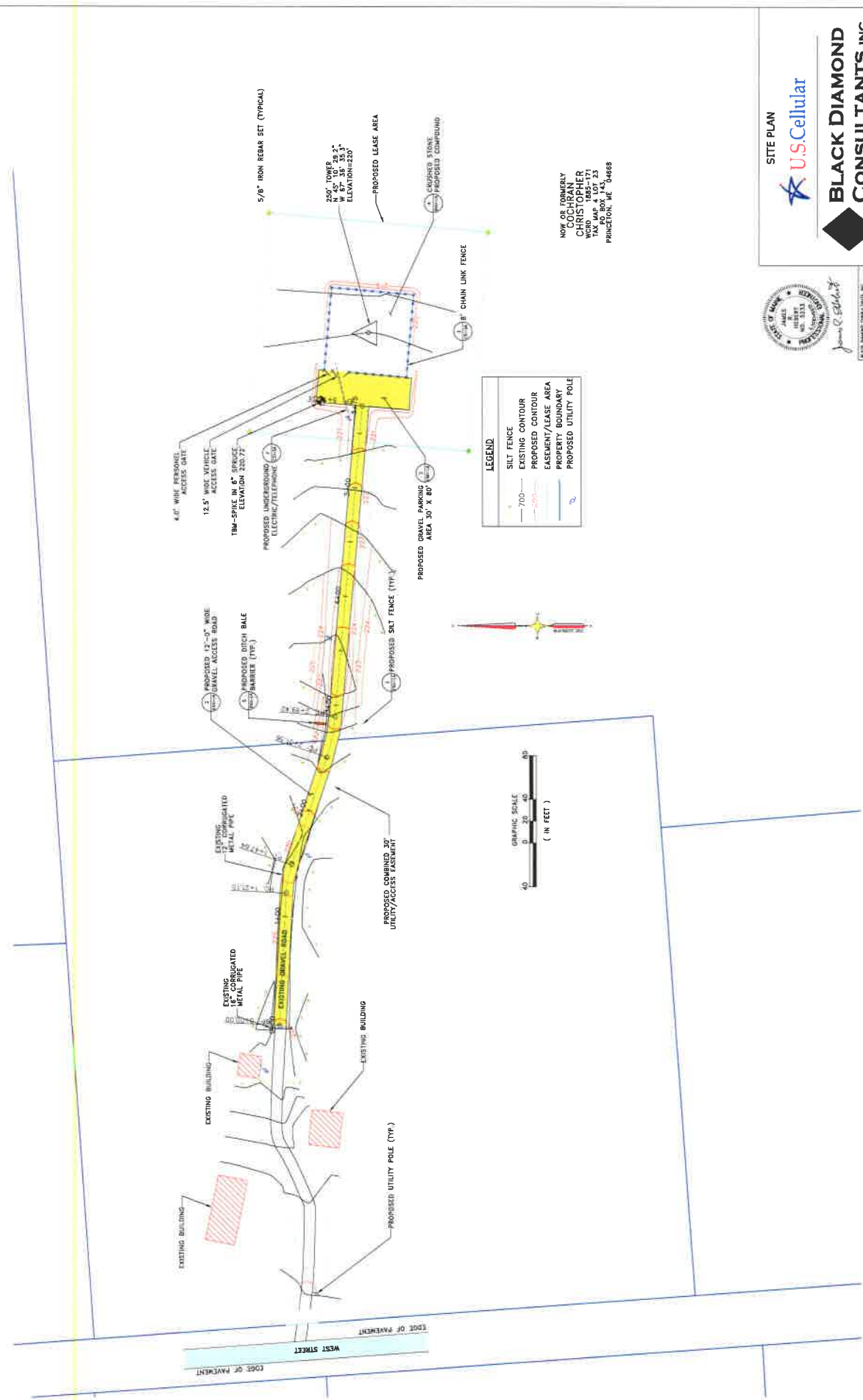
VICINITY MAP - NOT TO SCALE

Classification: UNCLASSIFIED  
Quality Category: NON-Q  
SITE NAME: PRINCETON  
SITE NUMBER: 424342

**BLACK DIAMOND CONSULTANTS INC**  
U.S. Cellular  
DRAWING NUMBER: USCC-119-SUR-1A-1  
PROJECT: DRAPING/BK/USCC-119/USCC-119-SUR-1A-1



NO.	DATE	BY	REVISION
1	03/21/13	DAJ	ISSUED FOR PERMIT



NOW OR FORMERLY  
OWNER OF THE  
PROPERTY  
CHAS. D. MOSELEY  
WCRD - 1882-171  
TAX MAP # LOT 23  
PRINCETON, ME 04868



**SITE PLAN**

**BLACK DIAMOND CONSULTANTS INC**

UNCLASSIFIED  
Quality Category: NON-Q

SITE NAME: PRINCETON  
SITE NUMBER: 424342

DATE:	DATE:	DATE:	DATE:
11/11/2010	11/11/2010	11/11/2010	11/11/2010
11/11/2010	11/11/2010	11/11/2010	11/11/2010
11/11/2010	11/11/2010	11/11/2010	11/11/2010

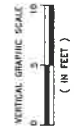
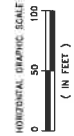
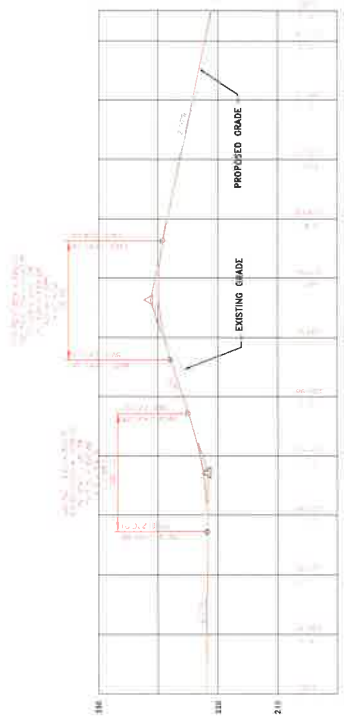
PROJECT: USCC-119\_CIV-1A-1  
DRAWING NUMBER: USCC-119\_CIV-1A-1  
JOB NUMBER: BDC/PT/AR/INTK/RBC/USCC-119/USCC-119\_CIV-1A-1

DRAWING NUMBER: USCC-119\_CIV-1A-1  
JOB NUMBER: BDC/PT/AR/INTK/RBC/USCC-119/USCC-119\_CIV-1A-1



DRAWING NUMBER  
USCC-119-CIV-1B-0

Classification: UNCLASSIFIED  
Quality Category: NON-Q



ACCESS ROAD PROFILE

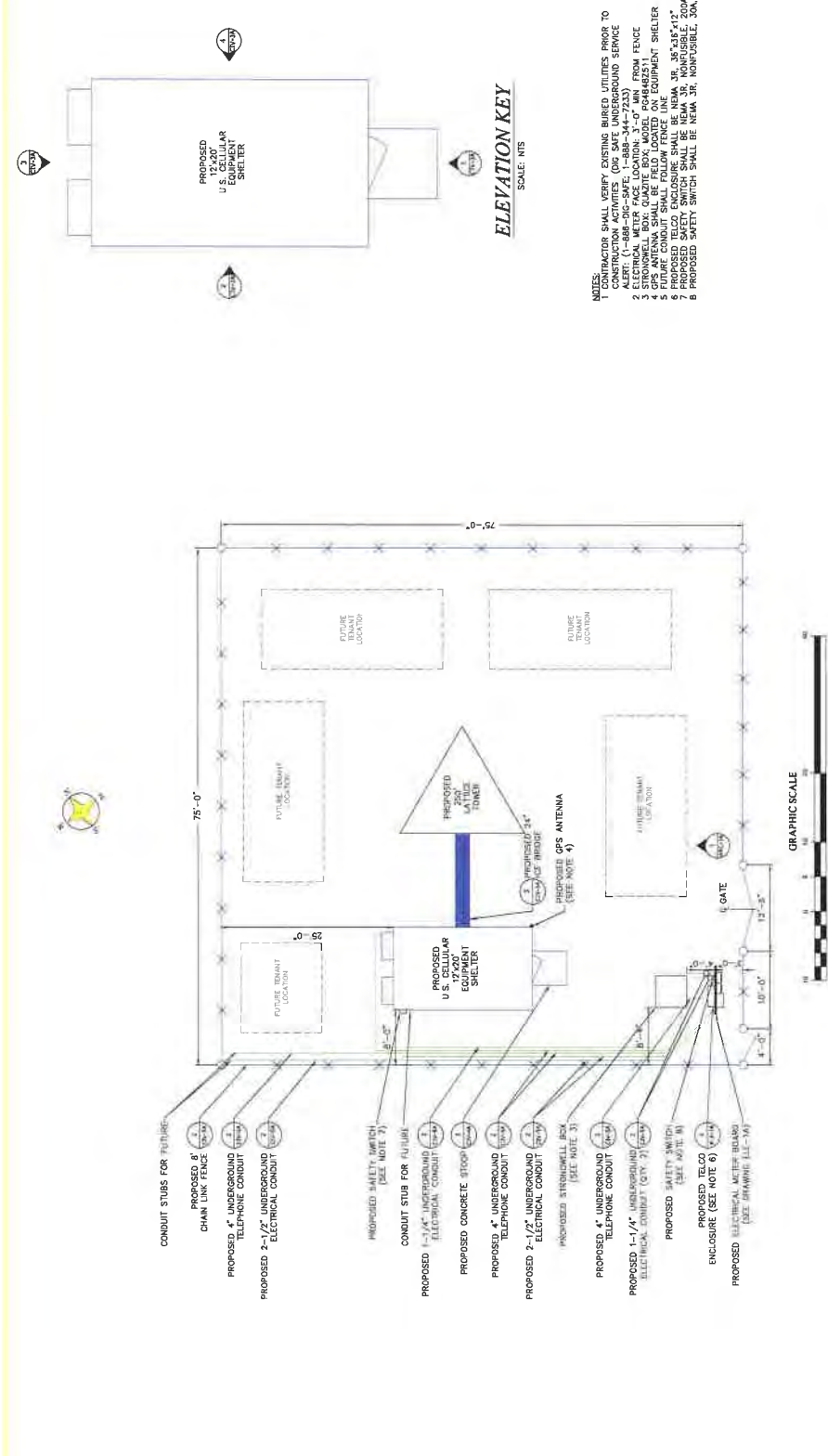
**BLACK DIAMOND CONSULTANTS INC**

DRAWING NUMBER: USCC-119-CIV-1B-0

REVISION	DATE	BY	DESCRIPTION
1	11/11/24	JB	ISSUED FOR PERMITS
2	11/11/24	JB	ISSUED FOR PERMITS

Classification: UNCLASSIFIED  
Quality Category: NON-Q

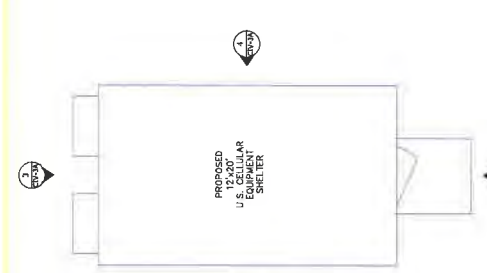
SITE NAME: PRINCETON  
SITE NUMBER: 424342



COMPOUND LAYOUT PLAN  
SCALE: GRAPHIC SCALE  
(IN FEET)

- NOTES:
- 1 CONTRACTOR SHALL VERIFY EXISTING BURIED UTILITIES PRIOR TO ANY EXCAVATION WORK.
  - 2 ELECTRICAL METER FACE LOCATION: 3'-0" MIN FROM FENCE LINE.
  - 3 GPS ANTENNA SHALL BE FIELD LOCATED ON EQUIPMENT SHELTER.
  - 4 GPS ANTENNA SHALL BE FIELD LOCATED ON EQUIPMENT SHELTER.
  - 5 FUTURE CONDUIT SHALL FOLLOW FENCE LINE.
  - 6 FUTURE CONDUIT SHALL FOLLOW FENCE LINE.
  - 7 PROPOSED SAFETY SWITCH SHALL BE NEMA 3R, NONFUSIBLE, 200A, 600VAC.
  - 8 PROPOSED SAFETY SWITCH SHALL BE NEMA 3R, NONFUSIBLE, 300A, 600VAC.

ELEVATION KEY  
SCALE: NTS

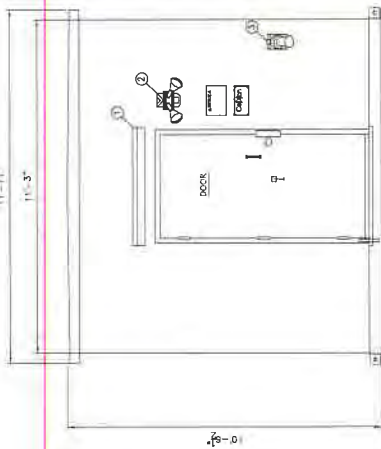


COMPOUND LAYOUT PLAN

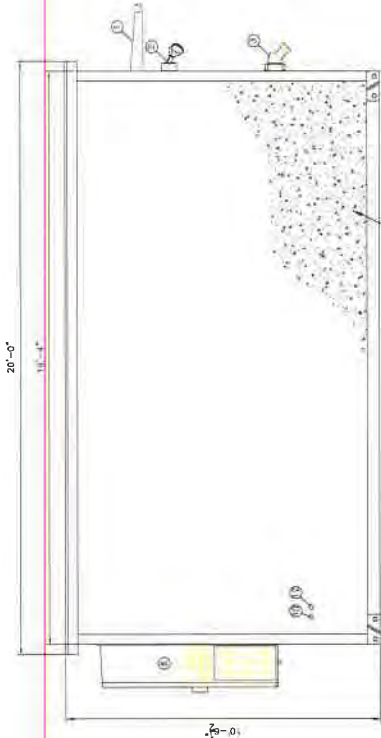
**BLACK DIAMOND CONSULTANTS INC**

DRAWING NUMBER USCC-119\_CIV-2A-0

DATE: 08/11/2011  
SCALE: AS SHOWN  
PROJECT: USCC-119\_CIV-2A-0  
DRAWING NUMBER: USCC-119\_CIV-2A-0



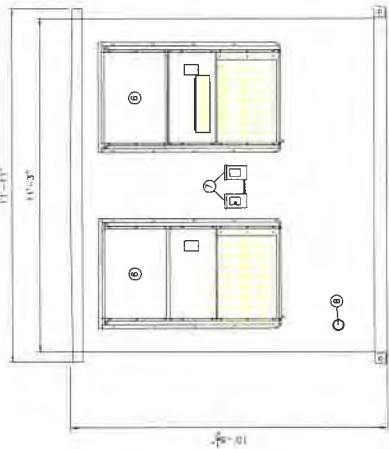
1 EXTERIOR ELEVATION "A"  
SCALE: NTS  
CIV-3A



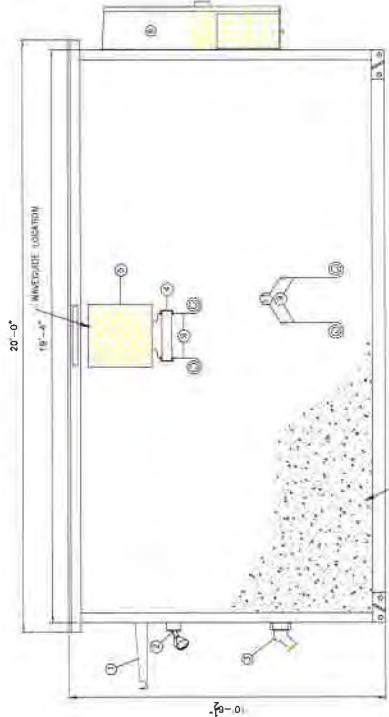
2 EXTERIOR ELEVATION "B"  
SCALE: NTS  
CIV-3A

NO.	DESCRIPTION
1	DOOR CANOPY
2	EXTERIOR LIGHT FIXTURE
3	GENERATOR RECEPTACLE
4	EXTERIOR GROUND BAR
5	WAVEGUIDE ENTRY
6	PMAC UNIT
7	JUNCTION BOX
8	TELECOM ENTRY - 4"
9	GROUNDING CABLE
10	SERVICE ENTRY
11	GROUND RING ENTRY
12	GENERATOR ENTRY

**BUILDING REQUIREMENTS:**  
BUILDING IS UNMANNED AND NOT FOR HUMAN OCCUPANCY. UNMANNED ACCESS REQUIREMENTS NOT APPLICABLE.  
**PLUMBING REQUIREMENTS:**  
FACILITY HAS NO PLUMBING.



3 EXTERIOR ELEVATION "C"  
SCALE: NTS  
CIV-3A



4 EXTERIOR ELEVATION "D"  
SCALE: NTS  
CIV-3A

**NOTES:**  
1. REFERENCE CALLING DRAWINGS FOR COMPLETE INSTALLATION AND BILL OF MATERIAL INFORMATION.  
2. CONTRACTOR RESPONSIBLE FOR DESIGN AND STRUCTURAL REQUIREMENTS.  
3. GPS ANTENNA SHALL BE MOUNTED TO EXTERIOR OF EQUIPMENT SHELTER.

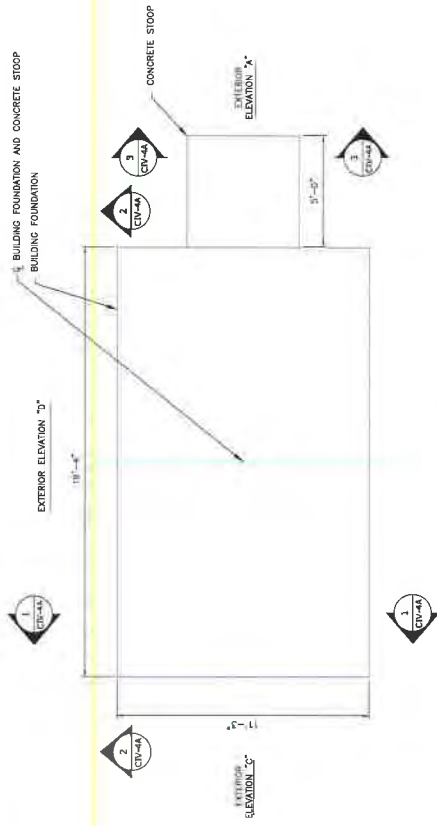
CELLULAR EQUIPMENT SHELTER ELEVATIONS

**U.S. Cellular**

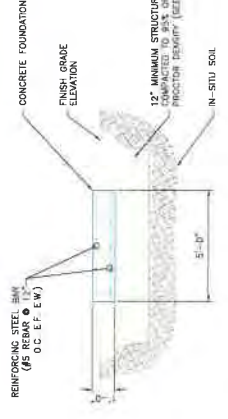
**BLACK DIAMOND CONSULTANTS INC**

DRAWING NUMBER: USCC-119\_CIV-3A-0

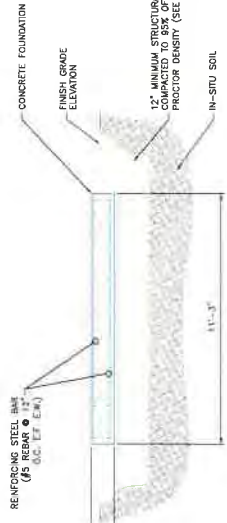
DATE: 11/19/2019  
DRAWN BY: JAVIER HERRERA  
CHECKED BY: JAVIER HERRERA  
SCALE: AS SHOWN



CELLULAR SHELTER FOUNDATION PLAN VIEW  
SCALE: NTS



1  
TYPICAL CELLULAR SHELTER  
CONCRETE STOOP DETAIL  
SCALE: NTS



1  
TYPICAL CELLULAR SHELTER  
FOUNDATION DETAIL  
SCALE: NTS



2  
TYPICAL CELLULAR SHELTER  
FOUNDATION DETAIL  
SCALE: NTS

- NOTES:
- 1 CONCRETE SHALL BE PROPORTIONED, MIXED AND PLACED IN ACCORDANCE WITH THE LATEST CODES AND SPECIFICATIONS OF THE ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
  - 2 28 DAY STRENGTH SHALL BE 4000 PSI AT MINIMUM.
  - 3 REINFORCING STEEL SHALL BE DEFORMED BILLET STEEL CONFORMING TO ASTM A615 AND FABRICATED IN ACCORDANCE WITH ACI 318 "BUILDING CODE REQUIREMENTS FOR CONCRETE REINFORCEMENT".
  - 4 WHERE CONCRETE IS PLACED AGAINST EXISTING CONCRETE, THE SURFACES OF CONCRETE AND REINFORCING STEEL SHALL BE:
    - A WHERE CONCRETE IS PLACED AGAINST EXISTING CONCRETE, THE SURFACES OF CONCRETE AND REINFORCING STEEL SHALL BE:
      - 8 WHERE CONCRETE SURFACES AFTER FORM REMOVAL ARE EXPOSED TO WEATHER.
      - 9 BARS OR LAGERS 2 INCHES MINIMUM SHALL BE USED TO PROTECT SURFACES FROM WEATHER OR GROUND.
      - 10 FOR BEAMS, GIRDERS, AND COLUMNS.
    - 11 SURFACES SHALL BE:
      - 12 MINIMUM 1/2" THICK SHALL CONSIST OF MINIMUM 12" LIFTS AND COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY WITH THE PROCTOR DENSITY OF THE MIXTURE. ALL SURFACES SHALL BE FREE FROM VEGETABLE MATTER, LUMPS OR BALLS OF CLAY AND OTHER DELETERIOUS SUBSTANCES.
  - 5 SIEVE SIZE PERCENT FINER
 

75	100
100	70
200	40
425	10
750	5

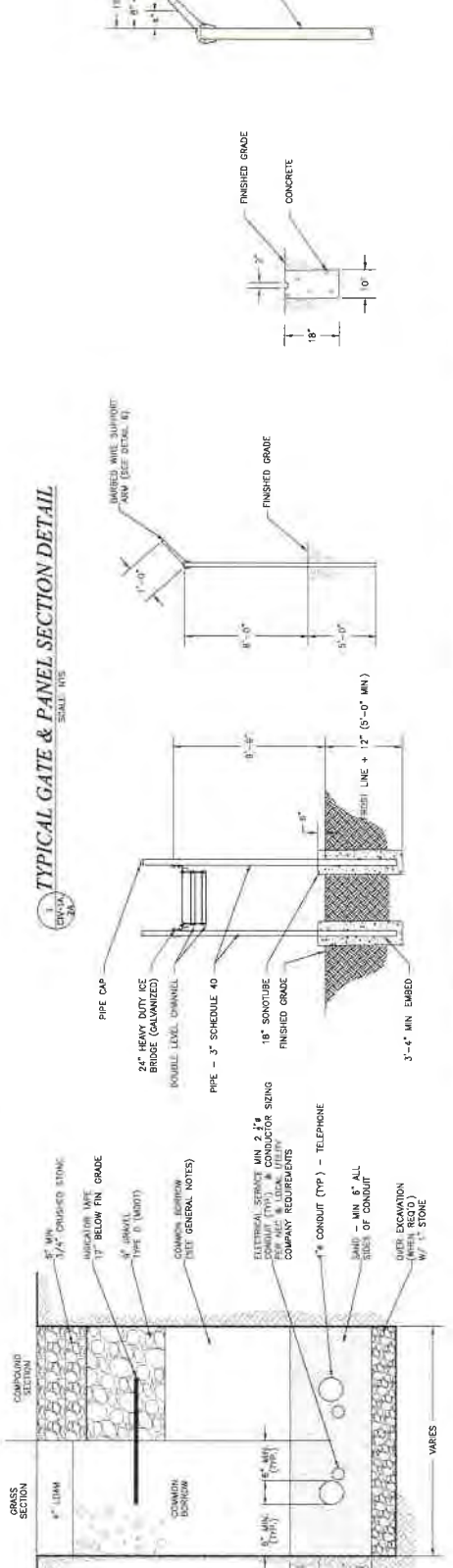
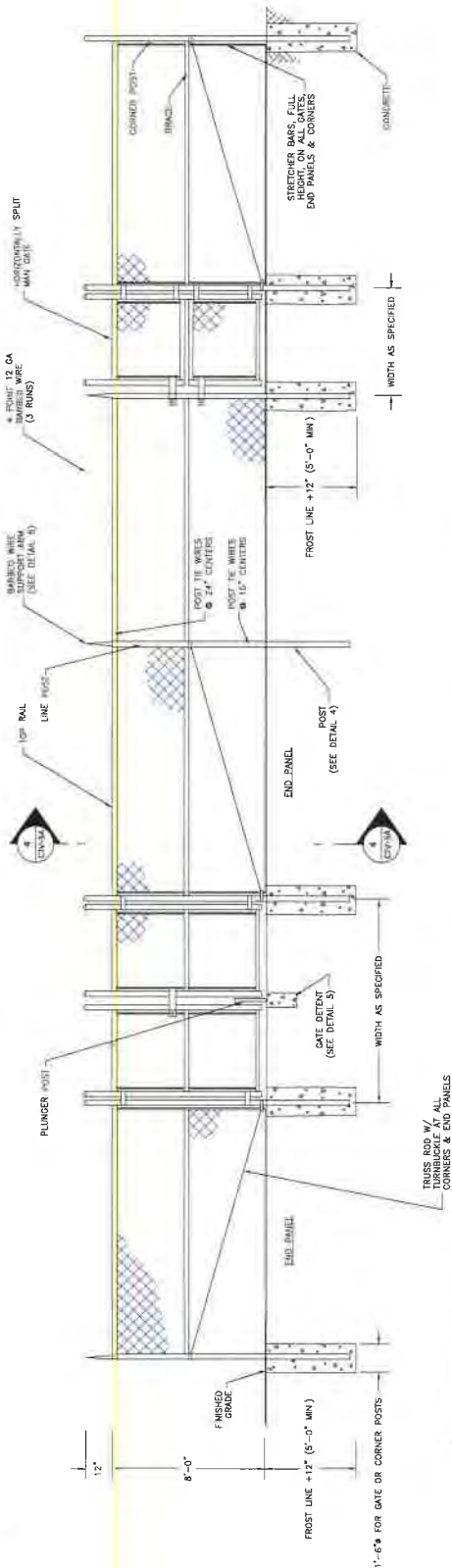
FOUNDATION AND STOOP DETAILS

**BLACK DIAMOND CONSULTANTS INC**

DRAWING NUMBER USCC-119\_CIV-4A-0

BDC/P/DRAFTING/BDC/USCC-119/USCC-119\_CIV-4A-0

DATE PLOTTED: 10/21/2019	SCALE: AS SHOWN
DATE: 10/21/2019	SCALE: AS SHOWN
DESIGNER: JAMES A. KELLY	SCALE: AS SHOWN
CHECKER: JAMES A. KELLY	SCALE: AS SHOWN
DATE: 10/21/2019	SCALE: AS SHOWN
SCALE: AS SHOWN	SCALE: AS SHOWN



1 TYPICAL ELECTRICAL/TELEPHONE TRENCH SECTION SCALE: NTS

3 TYPICAL ICE BRIDGE DETAIL SCALE: NTS

4 FENCE CROSS SECTION SCALE: NTS

1 GATE DETENT SCALE: NTS

6 BARBED WIRE SUPPORT ARM SCALE: NTS

- TRENCH NOTES:**
- CONTRACTOR SHALL COMPLY WITH OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION REGULATIONS PERTAINING TO THE EXCAVATION OF ALL TRENCHES. CONTRACTOR SHALL ALLOW UNOCCUPIED TRENCHES TO REMAIN OPEN FOR MIN. 5' ON EACH END AND BACKFILL WITH GRADE WITH ALL TRENCHES.
  - OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION STANDARDS TO 98% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 1557 MODIFIED PROCTOR DENSITY. PLACE IN 6" TO 12" LIFTS.
- ICE BRIDGE NOTES:**
- ALL STEEL TO BE GALVANIZED
  - TYPICAL HANGER NOT SHOWN. ICE BRIDGE MANUFACTURER SHALL BE RESPONSIBLE FOR PROVIDING HANGER DETAILS.
  - ICE BRIDGE STRUCTURAL COMPONENTS OF FABRIC OR STEEL SHALL BE BONDABLE TO THE FACILITY OR TOWER EXTERNAL GROUND RING (EGR) COMPOUND.
  - ALL ENTRY GATES SHALL BE BONDED TO THE MAIN FENCE AND GROUND #1 REINFORCING STEEL WITH #3 TIES @ 6" O.C.
  - TO MANUFACTURER'S SPECIFICATIONS.
  - CONTRACTOR SHALL DETERMINE REQUIRED QUANTITY OF ICE BRIDGE TO BE BONDED TO EQUIPMENT.
  - ICE BRIDGE SHALL BE BONDED TO LOCAL TOWER REGULATIONS. SHUTTER EXTERIOR GROUND RINGS.

- FENCE NOTES:**
- FENCE CONSTRUCTION SHALL BE PLUMB, STRAIGHT, AND STRUCTURALLY SOUND
  - FENCE FABRIC SHALL USE A BOTTOM TENSION WIRE AND SHALL BE BONDED TO THE FACILITY OR TOWER EXTERNAL GROUND RING (EGR) COMPOUND.
  - FENCE FABRIC AND BARBED WIRE SHALL BE BONDED TO THE FACILITY OR TOWER EXTERNAL GROUND RING (EGR) COMPOUND.
  - ALL ENTRY GATES SHALL BE BONDED TO THE MAIN FENCE AND GROUND #1 REINFORCING STEEL WITH #3 TIES @ 6" O.C.
  - TWO HOLE COMPRESSION LUGS CAN BE USED IN PLACE OF ONE.
  - FENCE SHALL CONFORM TO LOCAL TOWER REGULATIONS.
  - ALL STEEL TO BE GALVANIZED

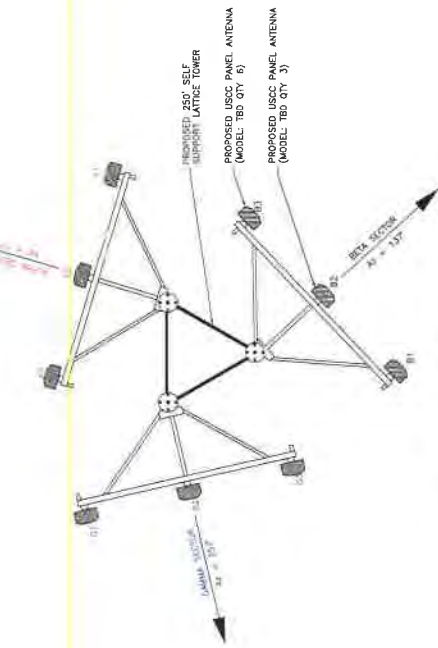
**BLACK DIAMOND CONSULTANTS INC.**

DRAWING NUMBER USCC-119\_CIV-5A-0

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Quality Category: NON-Q

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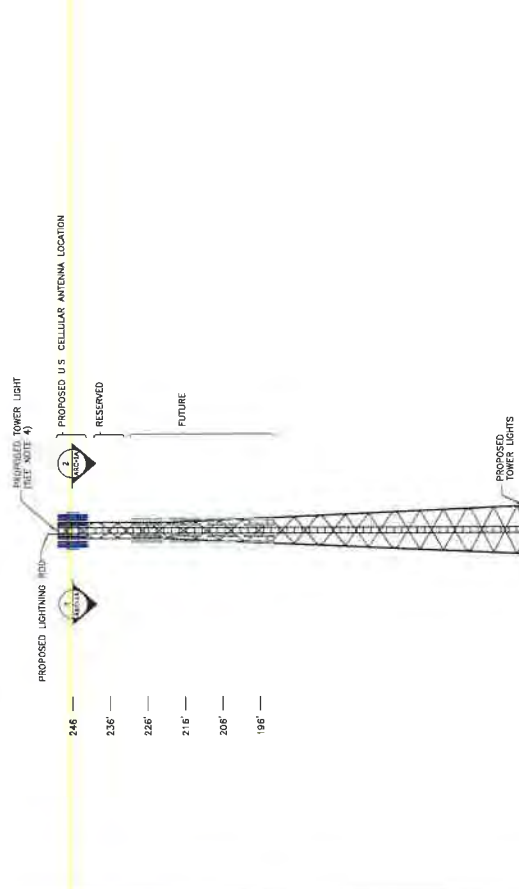
DESIGNER	CHECKED	DATE
DRAWN	APPROVED	DATE
SCALE	CLEAR	DATE



3-Antenna Location Section  
SCALE: NTS

Antenna and Coaxial Cable Schedule

Antenna Section Mark	Panel Antenna	Mechanical Downhill	Electrical Downhill	Max. Center	Coaxial Cable	Formal Cable Length	Antenna Height (True North)	Antenna Height (Magnetic North)	Section Line	Technology	Color Code
A1	TBD	0'	0'	246'	TBD	290'	0'	17'	BR	BR	BR
A1	TBD	0'	0'	246'	TBD	290'	0'	17'	BR	BR	BR
A2	TBD	0'	0'	246'	TBD	290'	0'	17'	BR	BR	BR
A2	TBD	0'	0'	246'	TBD	290'	0'	17'	BR	BR	BR
A3	TBD	0'	0'	246'	TBD	290'	0'	17'	BR	BR	BR
A3	TBD	0'	0'	246'	TBD	290'	0'	17'	BR	BR	BR
B1	TBD	0'	0'	246'	TBD	290'	120'	137'	W	W	W
B1	TBD	0'	0'	246'	TBD	290'	120'	137'	W	W	W
B2	TBD	0'	0'	246'	TBD	290'	120'	137'	W	W	W
B2	TBD	0'	0'	246'	TBD	290'	120'	137'	W	W	W
B3	TBD	0'	0'	246'	TBD	290'	120'	137'	WWW	WWW	WWW
B3	TBD	0'	0'	246'	TBD	290'	120'	137'	WWW	WWW	WWW
G1	TBD	0'	0'	246'	TBD	290'	240'	257'	B	B	B
G1	TBD	0'	0'	246'	TBD	290'	240'	257'	B	B	B
G2	TBD	0'	0'	246'	TBD	290'	240'	257'	B	B	B
G2	TBD	0'	0'	246'	TBD	290'	240'	257'	B	B	B
G3	TBD	0'	0'	246'	TBD	290'	240'	257'	BBB	BBB	BBB
G3	TBD	0'	0'	246'	TBD	290'	240'	257'	BBB	BBB	BBB



Tower and Equipment Shelter Elevation  
SCALE: MS

**TOWER NOTES:**  
1. TOWER ELEVATION PLAN SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL REFER TO TOWER MANUFACTURER DRAWINGS FOR SPECIFIC INSTALLATION AND BILL OF MATERIAL INFORMATION.  
2. TOWER MINIMUM DESIGN SPECIFICATIONS SHALL BE IN ACCORDANCE WITH THE FEDERAL COMMUNICATIONS COMMISSION (FCC) AND ANTENNA, REVISION 02 AND GOVERNING FEDERAL STANDARDS FOR ANTENNA SUPPORTING STRUCTURES.  
3. TOWER MANUFACTURER SHALL BE RESPONSIBLE FOR DESIGNING AND INSTALLING THE LIGHTING SYSTEM.  
4. TOWER LIGHTS SHALL BE DESIGNED TO ILLUMINATE RED AT NIGHT TIME AND WHITE FOR DAY TIME AND TWILIGHT.  
5. CONTRACTOR SHALL REFER TO THE TOWER MANUFACTURER DRAWINGS FOR CONTRADICTIONS AND INSTALLATION OF CABLES.

**ANTENNA NOTES:**  
1. CONTRACTOR SHALL CONTACT USCC OR ENGINEER FOR ALL ANTENNA INSTALLATION AND BILL OF MATERIAL INFORMATION.  
2. TOWER MANUFACTURER SHALL BE RESPONSIBLE FOR DESIGN AND STRUCTURAL COMPONENTS OF ANTENNA MOUNTS.

1-19-2024

**TOWER AND EQUIPMENT SHELTER ELEVATION**  
SCALE: MS

PROPOSED ANTENNA (SEE NOTE 5)  
PROPOSED USCC PANEL ANTENNA (MODEL TBD QTY 6)  
PROPOSED USCC PANEL ANTENNA (MODEL TBD QTY 3)  
PROPOSED CELLULAR EQUIPMENT SHELTER  
TOWER ELEVATION REPRESENTATION

USCC-119-ARC-1A-0

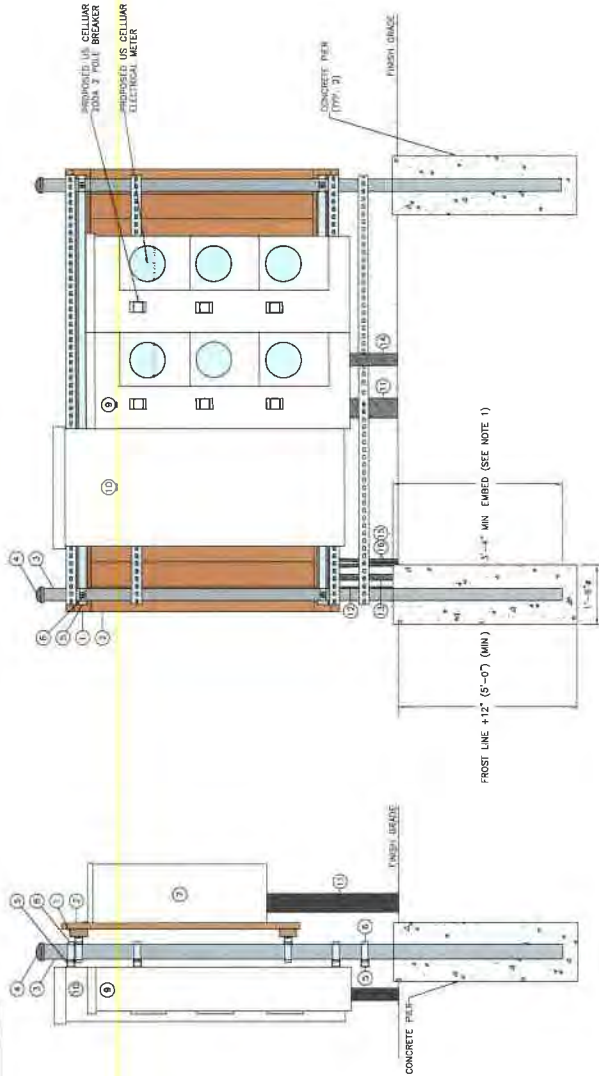
PRINCETON  
424312

Classification: UNCLASSIFIED  
Quality Category: NON-Q

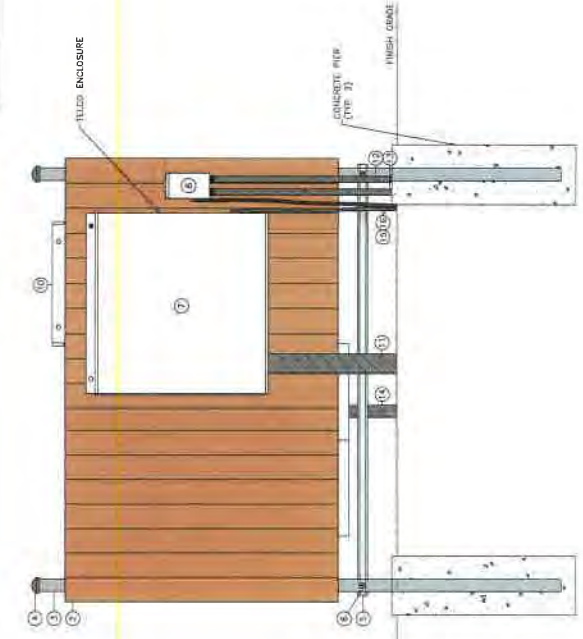
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BDC/P/DRAFTING/BDC/USCC-119/USCC-119-ARC-1A-0

U.S. Cellular  
**BLACK DIAMOND CONSULTANTS INC**

TOWER ELEVATION AND ANTENNA LOCATION SECTION



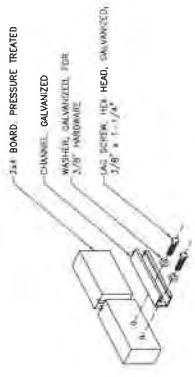
**ELECTRICAL METER BOARD FRONT ELEVATION**  
SCALE: NTS



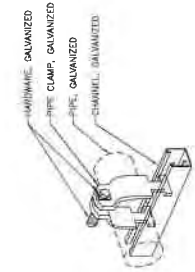
**ELECTRICAL METER BOARD REAR ELEVATION**  
SCALE: NTS

ITEM LIST	DESCRIPTION
1	2x4 BOARD, SOUTHERN PINE, PRESSURE TREATED (EXTERIOR, ABOVE GRADE)
2	3x4x8" BRACK, SOUTHERN PINE, PRESSURE TREATED (EXTERIOR, ABOVE GRADE)
3	WPC, SCHEDULE 40, GALVANIZED, 3"
4	CONCRETE PER (TYP. 3)
5	CHANNEL, 1-1/2x3/8x3/8x3/8, BOTTLED HOLE, GALVANIZED
6	PIPE CLAMP, FOR 3" PIPE, GALVANIZED, WITH HARDWARE
7	ENCLOSURE, NEMA 3R, 30" Wx 36" Hx 12" D, FOR TILTED
8	SWITCH, BREAKER, 200A, 3P, 480V, 1-1/2", FOR TILTED
9	ELECTRICAL DISTRIBUTION ENCLOSURE, 200A, 3P, 480V, 1-1/2"
10	CONDUIT, PVC, SCHEDULE 40, 1-1/2", TO EQUIPMENT RAIL
11	CONDUIT, PVC, SCHEDULE 40, 2-1/2", TO EQUIPMENT RAIL
12	CONDUIT, PVC, SCHEDULE 40, 2-1/2", TO EQUIPMENT RAIL
13	CONDUIT, PVC, SCHEDULE 40, 2-1/2", TO EQUIPMENT RAIL
14	CONDUIT, PVC, SCHEDULE 40, 2-1/2", TO EQUIPMENT RAIL
15	GROUND CABLE #2 BARE THREADED BOLT COPPER WITH 2 HOLE LUG
16	CONDUIT, PVC, SCHEDULE 40, 3/4", TO GROUND RING

NOTES:  
1 FOR BURIED LEGS AT LEAST 3'-6", CORE  
2 FOR BURIED LEGS AT LEAST 3'-6", CORE  
3 REINFORCING STEEL WITH #3 TIES AT 8" O.C.



**UNISTRUT AND 2X4 BOARD CONNECTION**  
SCALE: NTS



**UNISTRUT AND GALVANIZED PIPE CONNECTION  
PIPE CLAMP DETAIL**  
SCALE: NTS

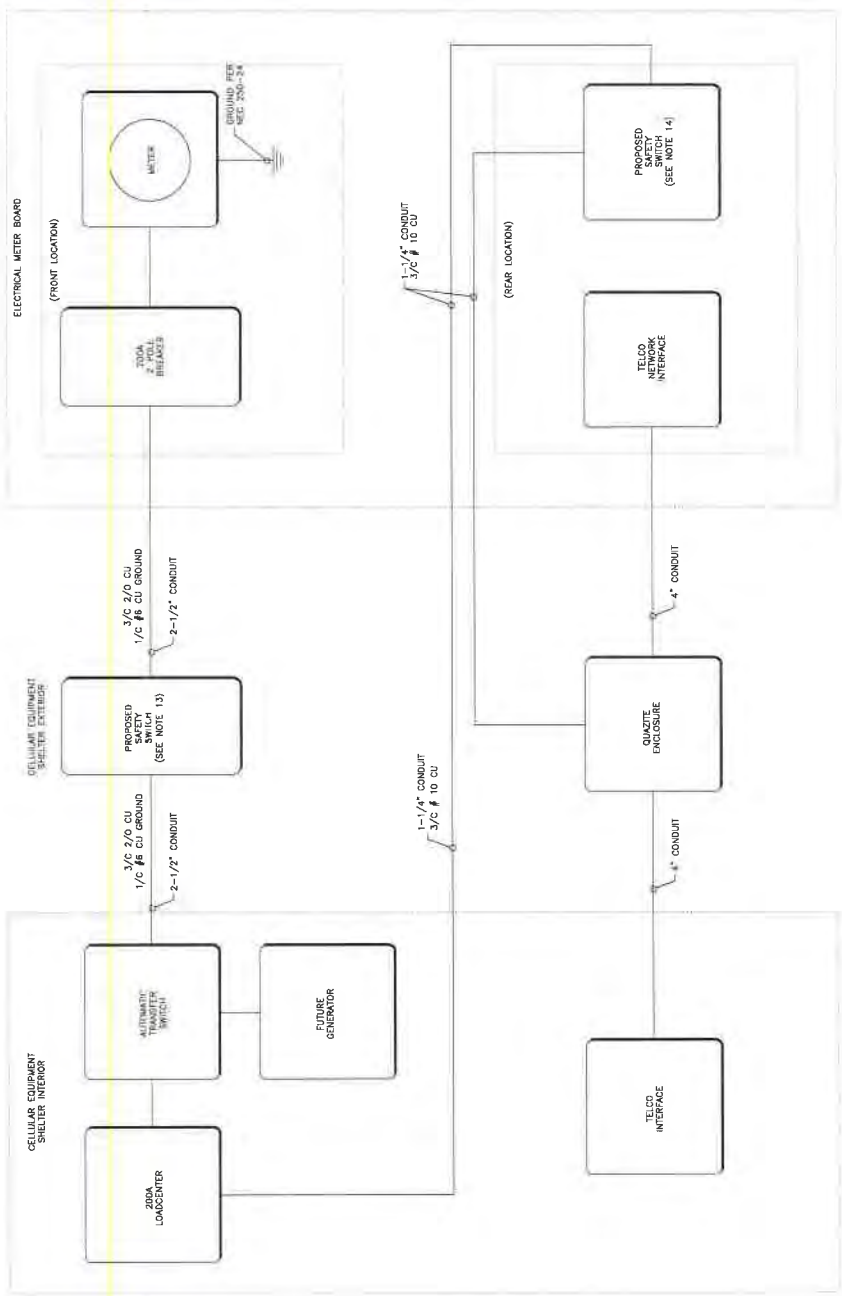


ELECTRICAL DETAILS  
**U.S. Cellular**  
**BLACK DIAMOND CONSULTANTS INC**

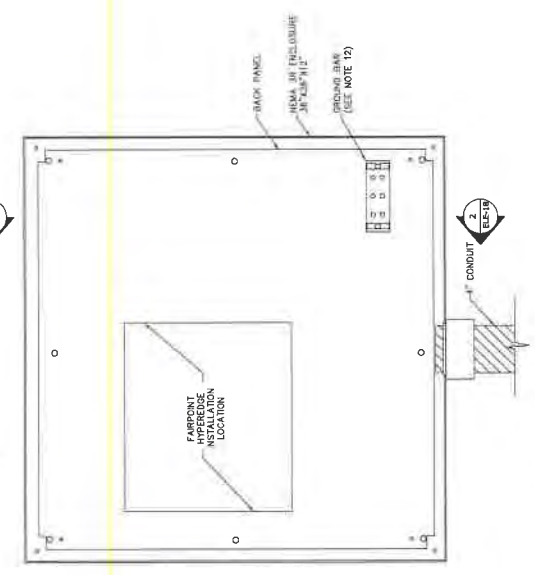
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Quality Category: NON-Q

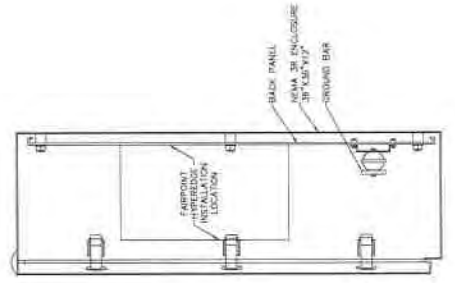
SITE NAME: PRINCETON  
SITE NUMBER: 424342



ELECTRICAL AND TELCO RISER DIAGRAM  
SCALE: 1/8" = 1'-0"



1. TELCO ENCLOSURE SECTION  
SCALE: 1/8" = 1'-0"



2. TELCO ENCLOSURE SECTION  
SCALE: 1/8" = 1'-0"

- NOTES:
1. TELCO CONDUITS SHALL BE 4" UNLESS OTHERWISE NOTED.
  2. CONTRACTOR SHALL INSTALL ALL CONDUITS AND CONDUIT RUNS UNLESS OTHERWISE NOTED.
  3. CONDUIT AND RULL STRINGS SHALL BE INSTALLED ABOVE GRADE WITH EXPANSION SLEEVES PROVIDED WITH GROUNDING SUBSTRATES.
  4. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST NATIONAL ELECTRIC CODE, LOCAL AND STATE ORDINANCES, AND COMPANY SPECIFICATIONS.
  5. CONDUITS SHALL BE 1/2" MINIMUM SINGLE PHASE AND 3/4" MINIMUM THREE PHASE.
  6. ALL CONDUIT ROUTINGS WITH LOCAL UTILITY COMPANIES AND USCC PROJECT MANAGER/RESPONSE COORDINATOR SHALL BE APPROVED.
  7. EXACT TELEPHONE AND ELECTRICAL SERVICE REQUIREMENTS WITH UTILITY COMPANIES SHALL BE PROVIDED BY THE PROJECT MANAGER/RESPONSE COORDINATOR.
  8. ALL CONDUITS ROUTED BELOW GRADE SHALL BE INSTALLED WITH EXPANSION SLEEVES PROVIDED WITH GROUNDING SUBSTRATES.
  9. ABOVE GRADE CONDUITS SHALL BE PROVIDED WITH GROUNDING SUBSTRATES.
  10. GENERAL CONTRACTOR SHALL PROVIDE ALL DIRECT BURIALS AND SHALL BE RESPONSIBLE FOR IDENTIFYING CONTENTS. TAKE CARES SHALL BE OBSERVED FOR TELEPHONE AND RED FOR ELECTRICAL UTILITIES PRIOR TO CONSTRUCTION.
  11. CONTRACTOR SHALL VERIFY BORING BUREAU UTILITIES PRIOR TO CONSTRUCTION.
  12. 8000 PSI SHALL BE USED FOR ALL CONDUITS LARGER THAN #10 SHALL BE STRANDED COPPER WITH THIN 600 VOLT INSULATION UNLESS OTHERWISE SPECIFIED.
  13. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING OF NOT LESS THAN 10,000 AIC COORDINATE WITH LOCAL UTILITY COMPANY REQUIREMENTS.
  14. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST NATIONAL ELECTRIC CODE, LOCAL AND STATE ORDINANCES, AND COMPANY SPECIFICATIONS.
  15. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST NATIONAL ELECTRIC CODE, LOCAL AND STATE ORDINANCES, AND COMPANY SPECIFICATIONS.
  16. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST NATIONAL ELECTRIC CODE, LOCAL AND STATE ORDINANCES, AND COMPANY SPECIFICATIONS.
  17. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST NATIONAL ELECTRIC CODE, LOCAL AND STATE ORDINANCES, AND COMPANY SPECIFICATIONS.
  18. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND FACTURE THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT.
  19. POWER WIRE AND CABLE CONDUITERS SHALL BE COPPER #12 AND MINIMUM UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS.
  20. ALL CONDUITS LARGER THAN #10 SHALL BE STRANDED COPPER WITH THIN 600 VOLT INSULATION UNLESS OTHERWISE SPECIFIED.
  21. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING OF NOT LESS THAN 10,000 AIC COORDINATE WITH LOCAL UTILITY COMPANY REQUIREMENTS.
  22. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST NATIONAL ELECTRIC CODE, LOCAL AND STATE ORDINANCES, AND COMPANY SPECIFICATIONS.
  23. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST NATIONAL ELECTRIC CODE, LOCAL AND STATE ORDINANCES, AND COMPANY SPECIFICATIONS.
  24. LOCATION OF PENETRATING STEEL ARE NOT DEFINITELY KNOWN AND SHALL BE DESCRIBED FOR BY APPROPRIATE METHODS AND EQUIPMENT.

ELECTRICAL AND TELCO DETAILS

**BLACK DIAMOND CONSULTANTS INC**

DRAWING NUMBER: USCC-119\_ELE-1B-0

PROJECT: BDCIP/DRAFTING/BDC/ARDC-119/ELE-1B-0

DATE: 11/19/19

BY: [Signature]

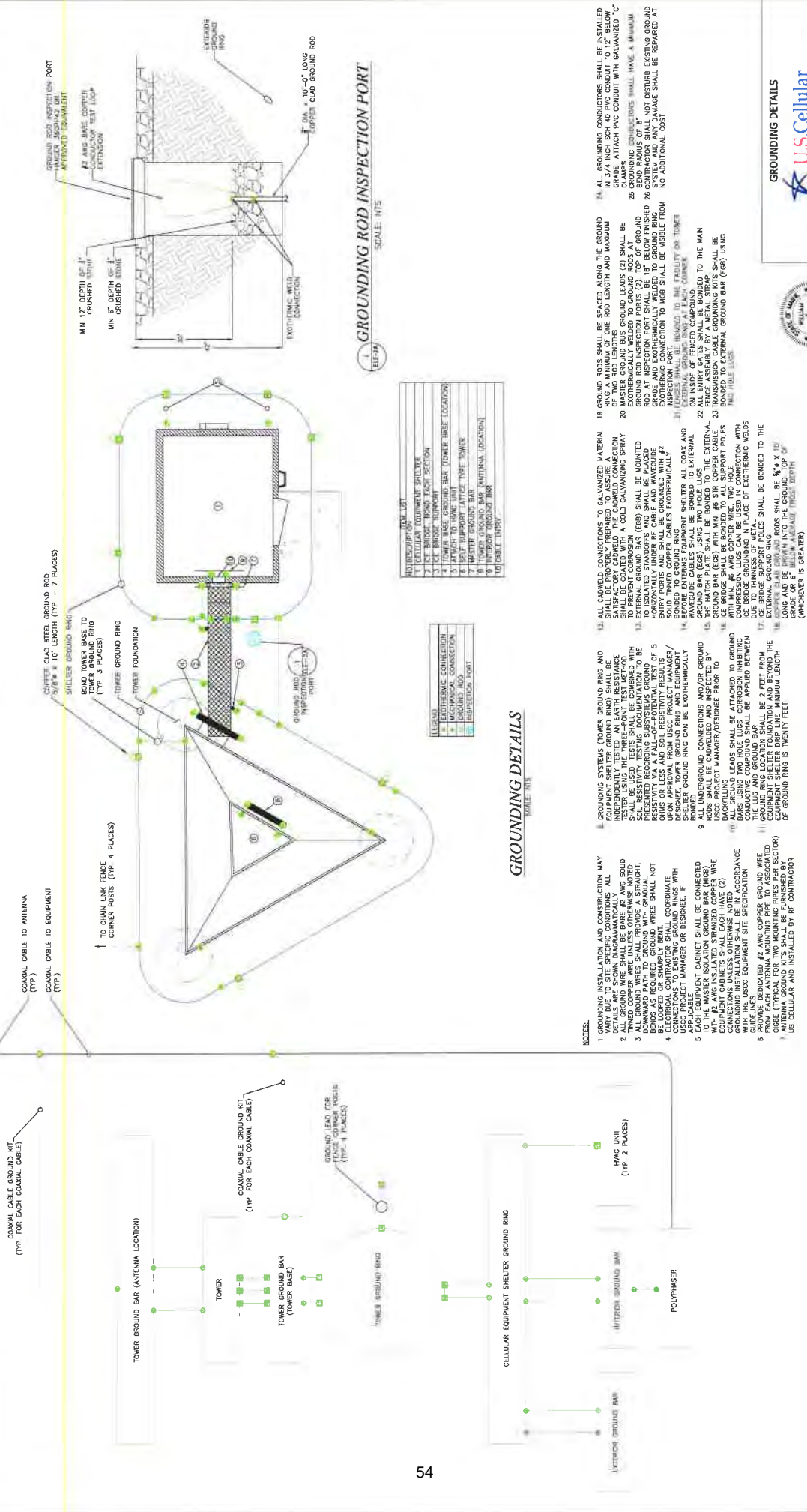
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DRAWING NUMBER USCC-119\_ELE-2A-0

Classification: UNCLASSIFIED  
Quality Category: NOVI-Q



Classification: UNCLASSIFIED  
Quality Category: NOVI-Q



**BLACK DIAMOND CONSULTANTS INC**

USCC-119\_ELE-2A-0  
DRAWING NUMBER  
BDC P/DRAFTING/BDC/USCC-119\_ELE-2A-0



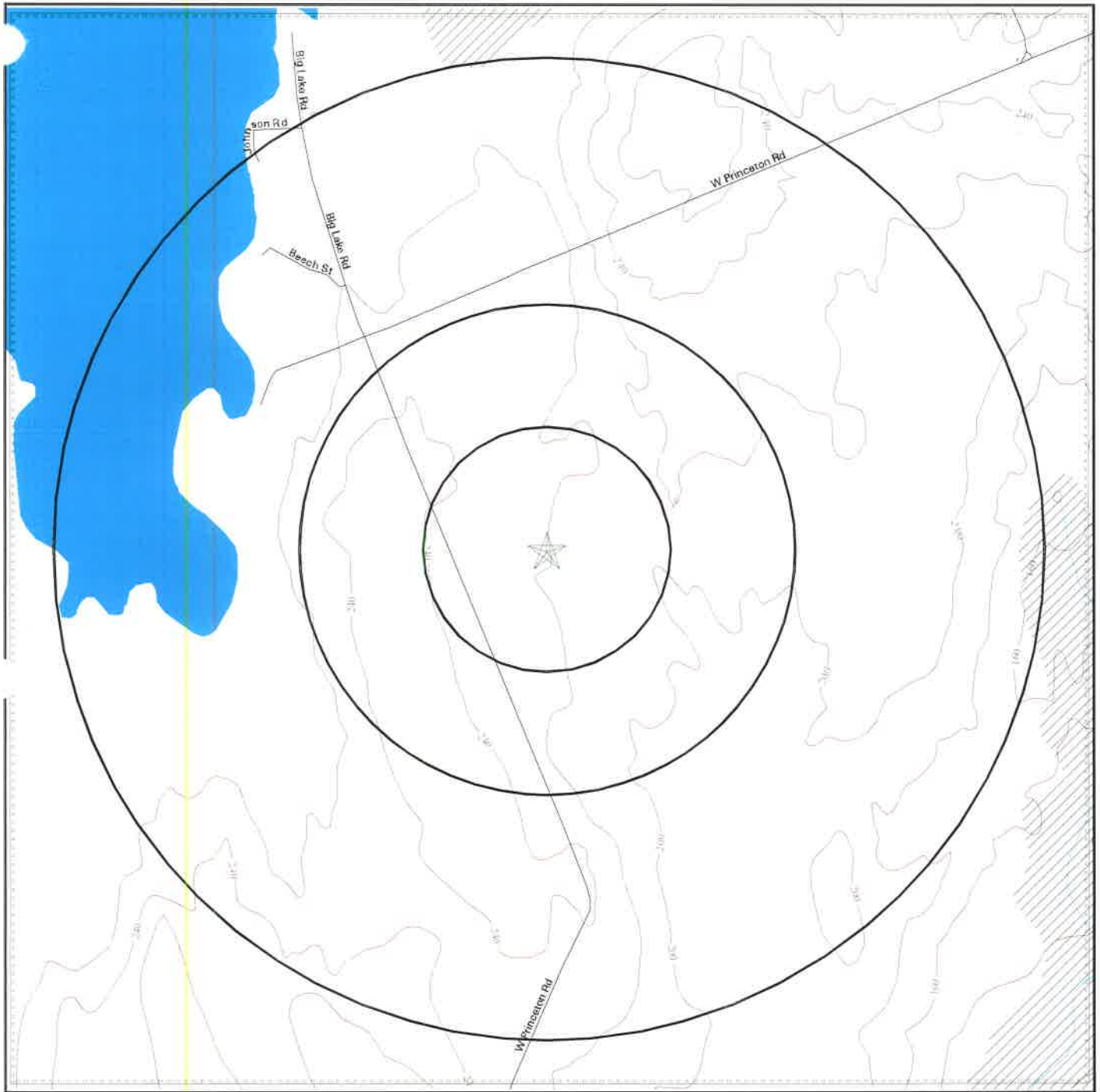


## **ATTACHMENT # 9**

### **FEMA FLOODPLAIN INFORMATION**

(The area to be developed is outside of any designated 100 year flood plain. Please see attached EDR map.)

# Flood Plain Map



- |                 |                                |                                    |
|-----------------|--------------------------------|------------------------------------|
| Major Roads     | Power Lines                    | Water                              |
| Contour Lines   | Pipe Lines                     | 100-year flood zone                |
| Waterways       | Fault Lines                    | 500-year flood zone                |
| County Boundary | Electronic FEMA data available | Electronic FEMA data not available |

SITE NAME: USCC-119  
 ADDRESS: West Street  
 Northern Washington ME 00134  
 LAT/LONG: 45.1748 / 67.6098

CLIENT: Black Diamond Consultants, Inc  
 CONTACT: Chad Hebert  
 INQUIRY #: 3602677.4s  
 DATE: May 9, 2013

# **ATTACHMENT # 10**

## **BDC EXPERIENCE AND TRAINING**



## **BLACK DIAMOND CONSULTANT'S EXPERIENCE AND TRAINING**

Black Diamond Consultant's (BDC) has provided telecommunications services in the State of Maine for several years and, as such, understands the processes for facilitating wireless network systems implementation. We have served the telecommunications industry in providing site acquisition, zoning, leasing, site environmental assessment, site design, site construction management, and site development and construction schedule management.

BDC has performed numerous environmental assessments for proposed telecommunication facilities throughout the State of Maine. These assessments include:

- Section 106 - Historic Preservation assessments under the Nationwide Programmatic Agreement (NPA) to determine the impact of the proposed telecommunication facility on historic preservation sites within the area, including archaeological artifacts and Indian tribe importance.
- Environmental assessment to determine whether a proposed telecommunication facility will have a significant environmental effect. The scope of the assessment includes affect on officially designated wilderness areas; officially designated wildlife preserves; listed threatened or endangered species or designated critical habitats; flood plains; wetland fill, and deforestation or water diversion.
- Phase I - Environmental assessment for hazardous and petroleum wastes in accordance with the Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM – E 1527-05.

The BDC site design and construction management experience includes the design of site "erosion and sedimentation controls" for construction and site post-construction permanent controls. The management oversight has included oversight of the implementation and maintenance of the erosion and sedimentation controls in accordance with engineering design plans and Maine Erosion and Sedimentation Control Handbook for Construction Best Management Practices.

BDC provides the necessary hydrology and hydraulics assessments of stormwater runoff for the proposed site in accordance with the Natural Resources Conservation Service developed hydrology techniques. Site stormwater runoff controls are developed for the site and identified in the BDC site engineering drawings.

Training at BDC on the aforementioned assessments is provided at the BDC offices on an annual basis and has also periodically been provided by the Applicants for telecommunications facilities. Training provides instructions on the performance of the environmental assessments and controls in accordance with the BDC environmental implementing procedures. The training objectives are to improve the trainees understanding of the implementing procedures, the correlations between the implementing procedures and the associated regulations/standards, and changes to associated regulations/standards.

Page 2 of 2

**BLACK DIAMOND CONSULTANTS**

312 WATER STREET PO BOX 57 GARDINER, ME 04345

PHONE: 207.582.0056 FACSIMILLIE: 207.582.9098

## **ATTACHMENT # 11**

### **HISTORIC PRESERVATION ASSESSMENT**

(Black Diamond Consultants have reviewed the “National Register of Historic Places” data file to identify any historic sites within the Area of Potential Effect (APE) of the proposed telecommunications facility. The investigation revealed that there are no historic sites within the APE of the proposed facility. The following report provides additional information on the Historic Preservation evaluation.)





# BLACK DIAMOND CONSULTANTS INC

## TECHNICAL REPORT

TR# 13-016

Revision #00

Report Type: Historic Preservation Review – (Section 106)  
Project Location: Princeton, Maine  
Report Date: 22 MAY 13  
Site Inspection Date(s): 21 MAR 13  
QA Category: Non-Q

Client: U.S. Cellular  
Project: USCC-119  
JO Number: 13-016  
Cell Site: N/A  
Classification: Unclassified

### TITLE

## **HISTORIC PRESERVATION REVIEW (SECTION 106) United States Cellular Corporation Proposed Telecommunications Facility 250' Lattice Tower Big Lake Township, Maine**

**MHPC Project # 0485-13**

#### **Prepared for:**

U.S. Cellular  
100 Gannett Drive Suite B  
South Portland, Maine 04106

#### **Prepared By:**

Black Diamond Consultants, Inc.  
312 Water Street  
PO Box 57  
Gardiner, ME 04345

## **Executive Summary**

Black Diamond Consultants, Inc. has performed this evaluation, assessment and report in accordance with Black Diamond Consultants, Procedure SOP-201, “Historic Preservation – Section 106 (New Tower)” developed in accordance with the Nationwide Programmatic Agreement (NPA). This Section 106 Review is for a proposed wireless telecommunications facility and 250’ Lattice Tower installation. The site is located off West Street in Big Lake Township, Maine and depicted as Lot 25 on Big Lake Township Tax Map 4. The site consists of approximately 10,000 square feet of land area. Vehicular access will be from West Street to the site via an existing access road and a newly constructed access road.

The Historic Preservation review is performed to determine whether the facility and tower will have “no effect” on historic properties, “no adverse effect” on such properties, or an “adverse effect” on any property listed or “eligible for listing” in the National Register of Historic Places. The NPA distinguishes between “direct” and “visual” effects, with “direct” effects considered to be those on the facility and tower’s immediate vicinity and “visual” effects being effects on the tower’s surrounding area.

The scope of the considerations performed by Black Diamond Consultants included:

- Determination of the area of potential affect (APE) associated with the project,
- Identification of the appropriate SHPO/THPO and other consulting parties, including relevant local government and all Indian tribes entitled to be invited to consult on the project,
- Notification to the public and relevant local government about the project and their opportunity to comment or consult,
- Contacting potentially interested Indian tribes and inviting them to consult and provide their views on the project’s potential effects to historic properties,
- Making reasonable and good-faith effort to identify historic properties within the APE by making use of record review available at the offices of the SHPO/THPO,
- Determining the nature of the project’s effects on identified historic properties,
- Informing SHPO/THPO of all comments received from the public or consulting parties,
- Preparing the NT Submission Packet – FCC Form 620 for submittal, and
- Preparing this complete Section 106 documentation and findings package for submittal to SHPO/THPO and all participating consulting parties.

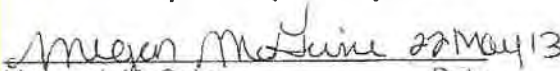
The information gathered by Black Diamond Consultants from this assessment indicates that there are no Historic Properties within the Area of Potential Effect (APE) for direct effects and no Historic Properties within the Area of Potential Effect (APE) for visual effects from the tower and facility in Big Lake Township, Maine. Refer to the FCC Form 620 and Attachments to this report for additional information

**Inspection & Evaluation Performed By:**

  
\_\_\_\_\_  
Chad J. Hébert  
Black Diamond Consultants, Inc.

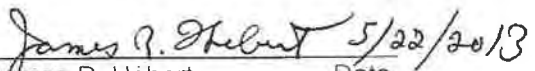
5/22/13  
\_\_\_\_\_  
Date

**Technical Report Prepared By:**

  
\_\_\_\_\_  
Megan J. McGuire  
Black Diamond Consultants, Inc.

22 May 13  
\_\_\_\_\_  
Date

**Technical Report Reviewed By:**

  
\_\_\_\_\_  
James R. Hébert  
Black Diamond Consultants, Inc.

5/22/2013  
\_\_\_\_\_  
Date

## **Objective**

The assessment has been developed to verify compliance with FCC's Environment rules relative to the National Historic Preservation Act (Section 106). The assessment evaluated the effect of the proposed wireless telecommunications equipment and 250' Lattice Tower in Big Lake Township, Maine on any property listed or eligible for listing in the National Register of Historic Places. This report documents the results of the Environmental Historic Preservation assessment.

## **Technical Approach**

The assessment and report were developed in accordance with Black Diamond Procedure SOP-201, "Historic Preservation – Section 106 (New Tower)" and the National Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (Appendix B). Compliance to the SOP ensures compliance to the FCC environmental regulations relative to Section 106. The assessment process included the gathering and evaluation of information, consultation with State expert agencies, Indian tribes and consulting parties, and providing opportunities for public notification and involvement.

## **Technical Results**

The proposed project was evaluated to determine the potential environmental effects of the proposed project on any property listed or eligible for listing in the National Register of Historic Places. The evaluation included the following considerations:

- Determination of the area of potential affect (APE) associated with the project,
- Identification of the appropriate SHPO/THPO and other consulting parties, including relevant local government and all Indian tribes entitled to be invited to consult on the project,
- Notification to the public and relevant local government about the project and their opportunity to comment or consult,
- Contacting potentially interested Indian tribes and inviting them to consult and provide their views on the project's potential effects to historic properties,
- Making reasonable and good-faith effort to identify historic properties within the APE by making use of record review available at the offices of the SHPO/THPO,
- Determining the nature of the project's effects on identified historic properties,
- Informing SHPO/THPO of all comments received from the public or consulting parties,

- Preparing the NT Submission Packet – FCC Form 620 for submittal, and
- Preparing this complete Section 106 documentation and findings package for submittal to SHPO/THPO and all participating consulting parties.

The information gathered by Black Diamond Consultants from this assessment indicates that there are no Historic Properties within the Area of Potential Effect (APE) for direct effects and no Historic Properties within the Area of Potential Effect (APE) for visual effects from the tower and facility in Big Lake Township, Maine. Refer to the FCC Form 620 and Attachments to this report for additional information.

### **Conclusion**

The assessment was performed to verify compliance with FCC's Environment regulations relative to Section 106 on Historic Preservation. The assessment considered the historic preservation environmental factors relative to the installation of a 250 foot Lattice Tower and associated telecommunications equipment in Big Lake Township, Maine.

The assessment was developed in accordance with Black Diamond Procedure SOP-201, "Historic Preservation – Section 106 (New Tower)" and the National Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (Appendix B). Compliance to the SOP ensures compliance to the FCC environmental regulations relative to Section 106.

The information gathered by Black Diamond Consultants from this assessment indicates that there are no Historic Properties within the Area of Potential Effect (APE) for direct effects and no Historic Properties within the Area of Potential Effect (APE) for visual effects from the tower and facility in Big Lake Township, Maine. Refer to the FCC Form 620 and Attachments to this report for additional information.

### **Reference(s)**

**Federal Communications Commission FCC 04-222**, - Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission, Appendix B, September 2004.

**Black Diamond Consultants Procedure SOP-201**, - Historic Preservation – Section 106 (New Tower)

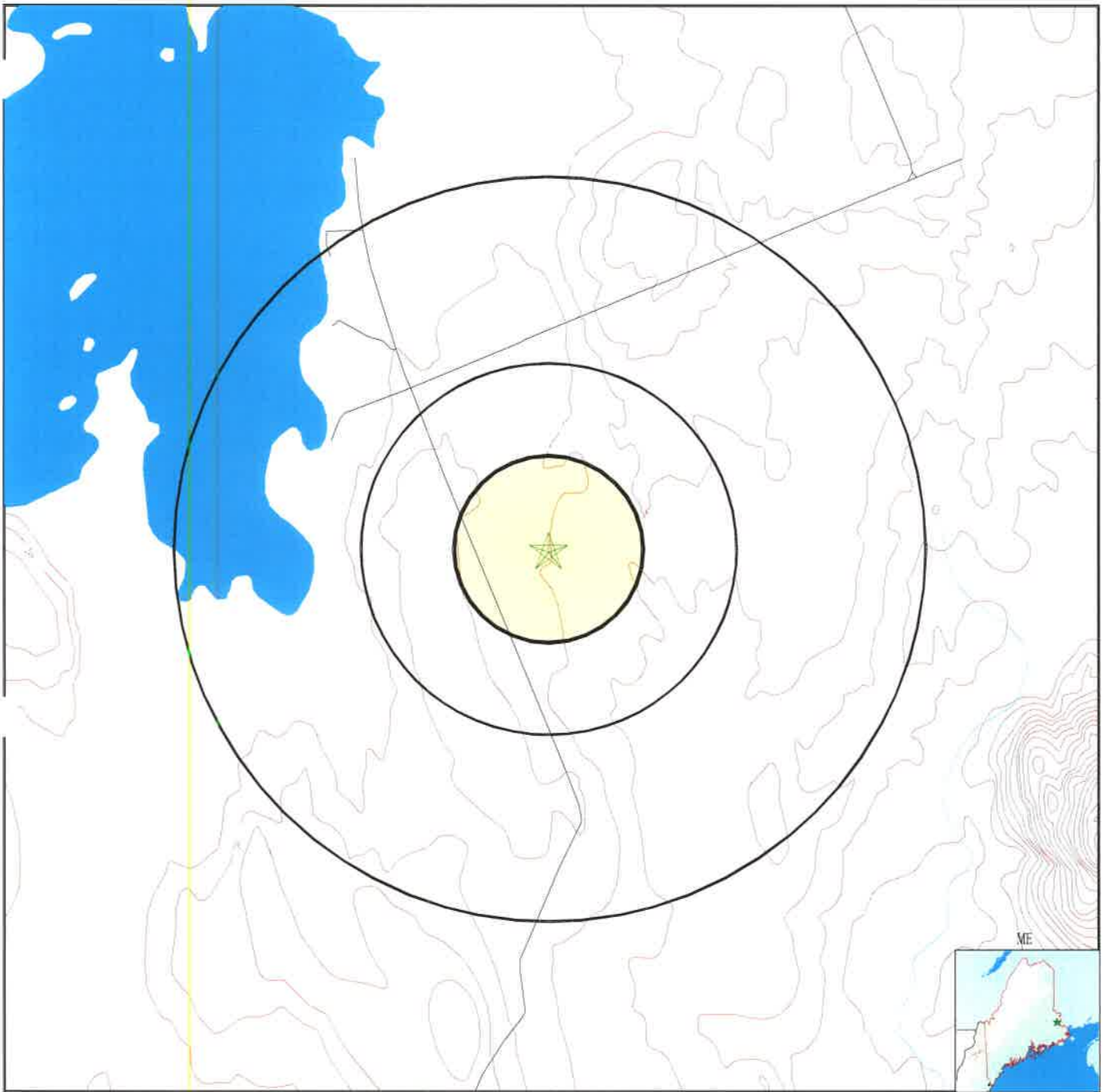
**U.S. Cellular Document** – "Scope of Work for Compliance with the FCC's Environmental Rules"

## **ATTACHMENT # 12**




# **GEO-TECH REPORT ON AREA POTABLE WATER WELLS**

(There are no potable water wells located in the proposed area to be developed, including the access road. Please see attached EDR Map information.)

# PHYSICAL SETTING SOURCE MAP - 3602677.1s



-  County Boundary
-  Major Roads
-  Contour Lines
-  Earthquake epicenter, Richter 5 or greater
-  Water Wells
-  Public Water Supply Wells
-  Cluster of Multiple Icons

-  Groundwater Flow Direction
-  Indeterminate Groundwater Flow at Location
-  Groundwater Flow Varies at Location



<p><b>SITE NAME:</b> USCC-119  <b>ADDRESS:</b> West Street          Northern Washington ME 00134  <b>LAT/LONG:</b> 45.1748 / 67.6098</p>	<p><b>CLIENT:</b> Black Diamond Consultants, Inc  <b>CONTACT:</b> Chad Hebert  <b>INQUIRY #:</b> 3602677.1s  <b>DATE:</b> May 09, 2013 5:43 pm</p>
--	--

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

### WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

### **FEDERAL USGS WELL INFORMATION**

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

### **FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION**

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

### **STATE DATABASE WELL INFORMATION**

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		



## **ATTACHMENT # 13**

### **SITE EXTERIOR LIGHTING**

(Lighting will be provided on the tower as required by the FAA. The proposed tower lighting will be a dual lighting system designed to illuminate red at night time and have a medium intensity flashing white light for day time and twilight. The only additional exterior light proposed for the facility is located on the facility shelter. The light is a wall pack fixture of 50 to 100 watt and is a cutoff fixture designed to retain the light close to the shelter. The exterior light is used only when the facility is occupied for maintenance or facility checks. The light is connected to a timer that secures the light after approximately one hour of use. Please refer to attached page for information on the shelter lighting.)



Catalog Number	
Notes	Type

## FEATURES & SPECIFICATIONS

### INTENDED USE

For entrances, stairwells, corridors and other pedestrian areas.

### CONSTRUCTION

Rear housing is rugged, corrosion-resistant, die-cast aluminum. Front cover is one-piece UV-resistant injection molded polycarbonate, internally painted. Captive external hardware is specially treated for corrosion resistance and includes slotted hex-head and tamperproof fasteners.

### FINISH

Dark bronze (DDB) corrosion-resistant polyester powder.

### OPTICAL SYSTEM

One-piece die-formed reflector is diffused aluminum. Refractor is clear UV stabilized polycarbonate, providing IES cutoff distribution and maximum lateral light output. Front cover is sealed and gasketed to inhibit the entrance of outside contaminants.

### ELECTRICAL SYSTEM

Ballast: Metal halide: high reactance, high power factor. HPS: 35S, 50S, 70S, 120V are reactor, normal power factor. 100S 120V is reactor, high power factor. High reactance, high power factor (XHP). Optional for 50S, 70S and 100S, 120V. 208, 240, 277, 347 and TB are standard XHP. Ballasts are 100% factory tested. UL listed 660W, 600V and 4kV pulse rated.

All components are heat-sunked directly to the cast housing for maximum heat dissipation.

Socket: Porcelain, horizontally oriented medium-base socket with copper alloy, nickel-plated screw shell and center contact.

### INSTALLATION

Mount to any vertical surface or to a 4" round square outlet box. Back access through gasketed slot. Top wiring access through 1/2" threaded conduit entry. (Through-wiring requires use of a conduit tee).

### LISTING

UL listed for wet locations. IP65 rated. UL Listed to US and Canadian safety standards (see Options). NOM Certified.

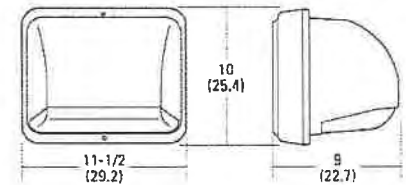
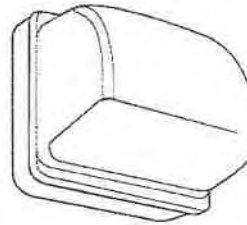
Note: Specifications subject to change without notice.

## Cutoff Mini Wall-Packs

# TWAC

METAL HALIDE  
50-100W

HIGH PRESSURE SODIUM  
35-100W



### Specifications

Height: 10" (25.4cm)  
Width: 11-1/2" (29.2cm)  
Depth: 8-15/16" (22.7cm)  
\*Weight: 10 lbs. (4.53kg)

\*Weight as configured example below

## ORDERING INFORMATION

For shortest lead times, configure product using **standard options (shown in bold)**.

Example: TWAC 50M 120 LPI

### TWAC

Series	Wattage	Voltage	Ballast	Options	Finish	Lamp <sup>11</sup>
TWAC	<u>Metal halide</u>	<b>120</b>	<b>(blank) Magnetic</b>	<u>Shipped installed in fixture</u>	<b>(blank)</b>	<b>LPI Lamp included</b>
	<b>50M</b>	208 <sup>2</sup>	XHP High reactance, high power factor <sup>5</sup>	SF Single fuse (120, 277, 347V) <sup>6</sup>	<b>Dark bronze</b>	<b>L/LP Less lamp</b>
	<b>70M</b>	240 <sup>2</sup>	CWI Constant wattage isolated	DF Double fuse (208, 240V) <sup>6</sup>	DNA Natural aluminum	
	<b>100M</b>	277		EC Emergency circuit <sup>7</sup>	DBL Black	
	<u>High pressure sodium</u>	<b>347</b>		DC12 Emergency circuit 12 volt (35 watt lamp included) <sup>9</sup>	DMB Medium bronze	
	35S <sup>1</sup>	<b>TB<sup>3</sup></b>		DC2012 Emergency circuit 12 volt (20 watt lamp included) <sup>9</sup>	DWH White	
	50S	23050HZ <sup>4</sup>		2DC12 Emergency circuit 12 volt (2 35 watt lamp included) <sup>9</sup>	DSS Sandstone	
	70S			2DC2012 Emergency circuit 12 volt (2 20 watt lamp included) <sup>9</sup>	CR Enhanced corrosion-resistance <sup>10</sup>	
	<b>100S</b>			QRS Quartz restrike system <sup>7</sup>	CRT Non-stick protective coating <sup>10</sup>	
				<b>CSA Listed and labeled to comply with Canadian Standards</b>		
			NOM NOM Certified <sup>4</sup>			
			PE Photocell <sup>6</sup>			
			<u>Shipped separately<sup>9</sup></u>			
			WG Wire guard			

### NOTES:

- 120V only.
- Must specify CWI in Canada.
- Optional multi-tap ballast (120, 208, 240, 277V). In Canada (120, 277, 347V) ships as 120/347.
- Consult factory for available wattages.
- Optional for 120V HPS only (in/a 35S).
- Not available with TB.
- Maximum allowable wattage lamp included.
- Not available with QRS, EC or NOM.
- May be ordered as an accessory as TWAUG U.
- Finish applied to housing only.
- Must be specified.

Outdoor

Sheet #: TWAC-M-S\_0

BM-700

**ATTACHMENT # 14**

**WILDLIFE AND RARE SPECIES ASSESSMENT**



PAUL R. LEPAGE  
GOVERNOR

STATE OF MAINE  
DEPARTMENT OF  
INLAND FISHERIES & WILDLIFE  
284 STATE STREET  
41 STATE HOUSE STATION  
AUGUSTA ME 04333-0041

CHANDLER E. WOODCOCK  
COMMISSIONER

May 31, 2013

Chad Hebert  
312 Water St., P.O. Box 57  
Gardiner, ME 04345

**RE: Information Request - Telecommunications Facility, Princeton**

Dear Chad:

Per your request received May 24, 2013, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information for known locations of Endangered, Threatened, and Special Concern species; designated Essential and Significant Wildlife Habitats; and Fisheries Habitat concerns within the vicinity of the telecommunications facility proposed in Princeton and indicated on the map you provided.

Our information indicates no locations of Endangered, Threatened, or Special Concern species within the project area. Additionally, our Department has not mapped any Essential or Significant Wildlife Habitats or Fisheries Habitats that would be directly affected by your project.

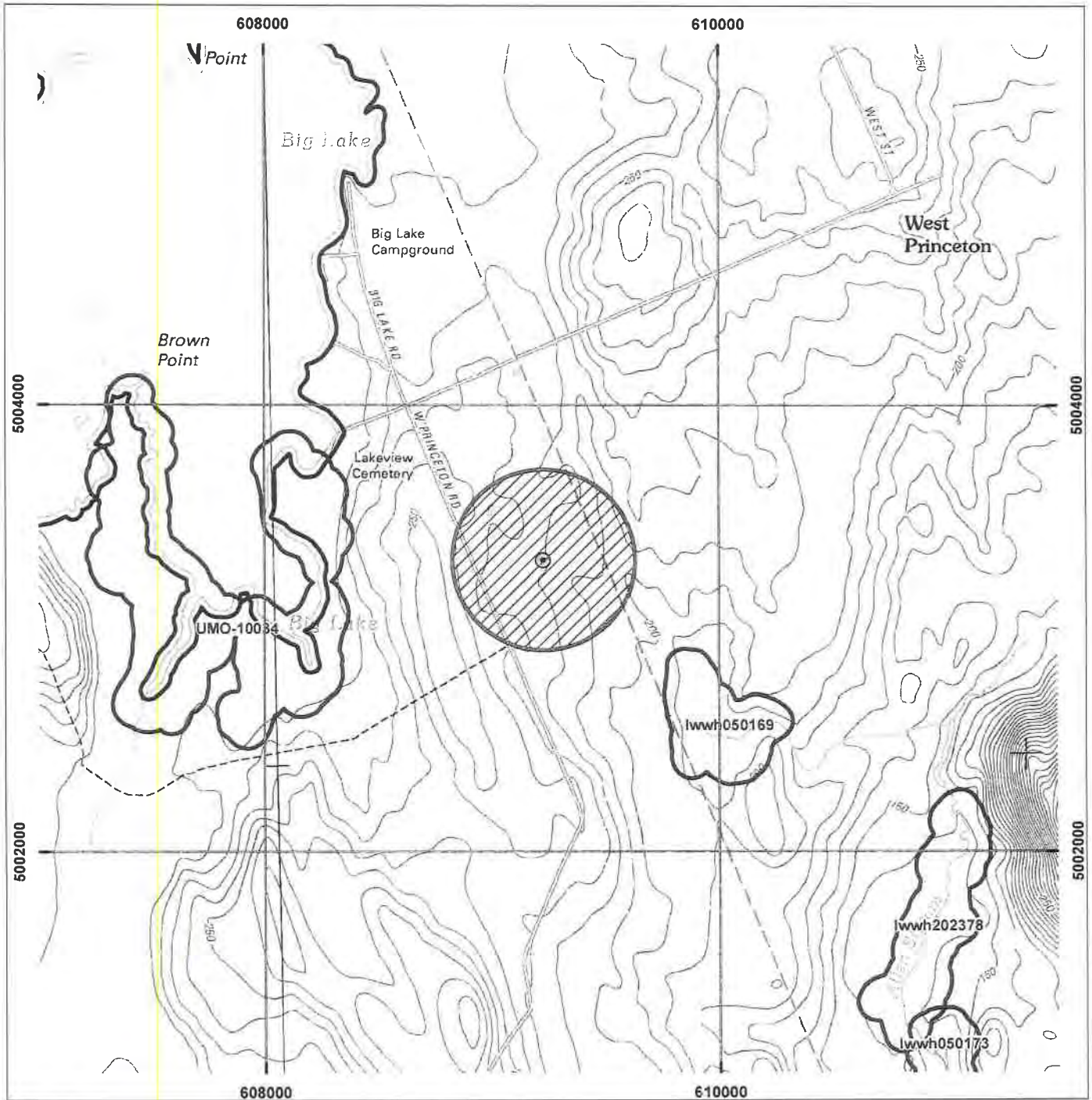
As proposed, this project will include construction of a 250-foot tall self-supported lattice tower. Given the height of the tower, bird collisions are likely. Please see the attached document to learn more about conflicts between birds and communication towers and for tower design considerations that limit bird mortality. These guidelines, developed by Partners in Flight, have been adopted by MDIFW. If at all possible, we recommend that the tower height be reduced to less than 200 feet. Towers below 200 feet in height do not require lighting which can attract birds and result in increased mortality. If a reduction in height is not possible, we recommend that the tower lighting be flashing white strobe lights with a maximum off period between flashes. This type of lighting is far less attractive to migratory birds than continuous or pulsating, incandescent red or white lights.

This consultation review has been conducted specifically for known MDIFW jurisdictional features and should not be interpreted as a comprehensive review for the presence of other regulated features that may occur in this area. Prior to the start of any future site disturbance we recommend additional consultation with the municipality, and other state resource agencies including the Maine Natural Areas Program and Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance.

Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

Best regards,

Bethany Atkins  
Acting Environmental Review Coordinator

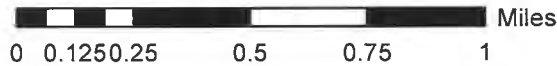


### Environmental Review of Fish and Wildlife Observations and Priority Habitats

Project Name: Telecommunications Facility in Princeton (Version 1)



Maine Department of  
Inland Fisheries and Wildlife



Projection: UTM, NAD83, Zone 19N  
Date: 5/31/2013

ProjectPoints	Deer Winter Area	Roseate Tern
ProjectLines	LURC p-fw	Piping Plover/Least Tern
ProjectPolys	Cooperative DWAs	Aquatic ETSc (2.5 mi review)
ProjectSearchAreas	Seabird Nesting Islands	Rare Mussels (5 mi review)
	Shorebird Areas	A and B List Ponds
	Inland Waterfowl/Wading Bird	Arctic Charr Habitat
	Shoreland Zoning_lwwh	E. Brook Trout Joint Venture Subwatershed Classification
	Tidal Waterfowl/Wading Bird	Redfin Pickerel/Swamp Darter Habitats (buffer100ft)
	Significant Vernal Pools	Special Concern-occupied habitats(100ft buffer)
	Environmental Review Polygons	Wild Lake Trout Habitats





STATE OF MAINE  
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY  
93 STATE HOUSE STATION  
AUGUSTA, MAINE  
04333-0093

PAUL R. LEPAGE  
GOVERNOR

WALTER E. WHITCOMB  
COMMISSIONER

May 17, 2013

Chad Hebert  
Black Diamond Consultants  
P.O. Box 57  
Gardiner, ME 04345

Re: Rare and exemplary botanical features in proximity to: Proposed Telecommunications Facility, Princeton, Maine

Dear Mr. Hebert:

I have searched the Natural Areas Program's Biological and Conservation Data System files in response to your request received May 17, 2013 for information on the presence of rare or unique botanical features documented from the vicinity of the project site in Princeton, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

The Natural Areas Program is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. The Natural Areas Program welcomes coordination with individuals or organizations proposing environmental alteration, or conducting environmental assessments. If, however, data provided by the Natural Areas Program are to be published in any form, the Program should be informed at the outset and credited as the source.

The Natural Areas Program has instituted a fee structure of \$75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for \$150.00 for two hours of our services.

Thank you for using the Natural Areas Program in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,



Don Cameron  
Ecologist  
Maine Natural Areas Program  
207-287-8041  
[don.s.cameron@maine.gov](mailto:don.s.cameron@maine.gov)

## Rare & Exemplary Botanical Features within 4 miles of

### Project: Telecommunications Facility, Princeton, Maine

Scientific Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
<i>Carex tenuiflora</i>	SC	S3	G5	2004-09-17	21	Open wetland, not coastal nor rivershore (non-forested, wetland)
<i>Cypripedium reginae</i>	T	S3	G4	2007-07-10	51	Forested wetland
Domed bog ecosystem		S3	GNR	2006-08-29	8	Open wetland, not coastal nor rivershore (non-forested, wetland)
Unpatterned fen ecosystem		S5	GNR	2007-07-11	63	Open wetland, not coastal nor rivershore (non-forested, wetland)
Unpatterned fen ecosystem		S5	GNR	2000-07-14	28	Open wetland, not coastal nor rivershore (non-forested, wetland)

Maine Natural Areas Program

Visit our website: [www.maine.gov/doc/nrimc/mnap](http://www.maine.gov/doc/nrimc/mnap)



## STATE RARITY RANKS

- S1** Critically imperiled in Maine because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.
- S2** Imperiled in Maine because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
- S3** Rare in Maine (20-100 occurrences).
- S4** Apparently secure in Maine.
- S5** Demonstrably secure in Maine.
- SH** Known historically from the state, not verified in the past 20 years.
- SX** Apparently extirpated from the state, loss of last known occurrence has been documented.
- SU** Under consideration for assigning rarity status; more information needed on threats or distribution.
- S#?** Current occurrence data suggests assigned rank, but lack of survey effort along with amount of potential habitat create uncertainty (e.g. S3?).
- SNR** State rank not yet assessed.

**Note:** State Rarity Ranks are determined by the Maine Natural Areas Program.

## GLOBAL RARITY RANKS

- G1** Critically imperiled globally because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extinction.
- G2** Globally imperiled because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
- G3** Globally rare (20-100 occurrences).
- G4** Apparently secure globally.
- G5** Demonstrably secure globally.
- GNR** Global rank not yet assessed.

**Note:** Global Ranks are determined by NatureServe, for more information see <http://www.natureserve.org/explorer/ranking.htm>.

## STATE LEGAL STATUS

**Note:** State legal status is according to 5 M.R.S.A. § 13076-13079, which mandates the Department of Conservation to produce and biennially update the official list of Maine's **Endangered** and **Threatened** plants. The list is derived by a technical advisory committee of botanists who use data in the Natural Areas Program's database to recommend status changes to the Department of Conservation.

- E** ENDANGERED; Rare and in danger of being lost from the state in the foreseeable future; or federally listed as Endangered.
- T** THREATENED; Rare and, with further decline, could become endangered; or federally listed as Threatened.

## NON-LEGAL STATUS

- SC** SPECIAL CONCERN; Rare in Maine, based on available information, but not sufficiently rare to be considered Threatened or Endangered.
- PE** Potentially Extirpated; Species has not been documented in Maine in past 20 years or loss of last known occurrence has been documented.

Visit our website for more information on rare, threatened, and endangered species!  
<http://www.maine.gov/doc/nrimc/mnap>



# BLACK DIAMOND CONSULTANTS INC

## TECHNICAL REPORT

TR# 13-019

Revision #00

Report Type: Federal Wildlife and Rare Species Assessment  
Project Location: Big Lake Township, Maine  
Report Date: 19 JUN 13  
QA Category: Non-Q

Client: U.S. Cellular  
Project: USCC-119  
JO Number: 13-016  
Cell Site: N/A  
Classification: Unclassified

### TITLE

## **Federal Wildlife and Rare Species Assessment United States Cellular Corporation Proposed Telecommunications Facility 250' Lattice Tower Princeton, Maine**

**Prepared for:**  
U.S. Cellular  
100 Gannett Drive Suite B  
South Portland, Maine 04106

**Prepared By:**  
Black Diamond Consultants, Inc.  
312 Water Street  
PO Box 57  
Gardiner, ME 04345


**Executive Summary**

Black Diamond Consultants, Inc. has performed this evaluation, assessment and report in accordance with the U.S Department of Fish and Wildlife Service – Maine Field Office review process. This review package is for a proposed wireless telecommunications facility and tower installation off from West Street in Big Lake Township, Maine. The site consists of approximately 40,000 square feet of leased land located within a forested area. The developed area will be restricted to 100'x100' with a 75'x75' fenced-in compound area within the developed area. Vehicular access will be from West Street to the site via an existing access gravel road.

The Ecological Services review is performed to determine whether the facility and tower is located within any endangered and threatened species habitat. Endangered and threatened species and their habitats are protected by Section 7(a)(2) of the Endangered Species Act (ESA). Section 9 of the Endangered Species Act prohibits unauthorized taking of listed species. This assessment is to ensure that any action which is authorized, funded or carried out is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat.

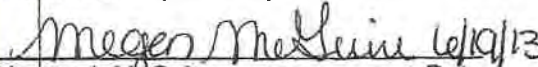
The information gathered by Black Diamond Consultants from this assessment indicates that there are will be no taking of listed species or their habitats from the tower and facility in Big Lake Township, Maine.

**Inspection & Evaluation Performed By:**

  
\_\_\_\_\_  
Chad J. Hébert  
Black Diamond Consultants, Inc.

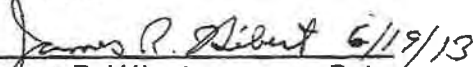
6/19/13  
\_\_\_\_\_  
Date

**Technical Report Prepared By:**

  
\_\_\_\_\_  
Megan J. McGuire  
Black Diamond Consultants, Inc.

6/19/13  
Date

**Technical Report Reviewed By:**

  
\_\_\_\_\_  
James R. Hébert  
Black Diamond Consultants, Inc.

6/19/13  
Date

## **Objective**

The assessment has been developed to verify compliance with the U.S. Department of Fish and Wildlife Service –Maine Field Office Review Package under Section 9 of the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 et seq.). The assessment evaluated the effect of the proposed wireless telecommunications equipment and 250' Lattice Tower in Big Lake Township, Maine on any endangered and threatened species or their habitat. This report documents the results of the Federal Wildlife and Rare Species assessment and review package.

## **Technical Approach**

The assessment and report were developed in accordance with the U.S. Department of Fish and Wildlife Service –Maine Field Office review process. The assessment process included the gathering and evaluation of information from the Maine Field Office web based instructions on Species Lists and Project Reviews.

## **Technical Results**

The proposed project was evaluated to determine the potential environmental effects of the proposed project on any endangered or threatened species and their habitats.

The information gathered by Black Diamond Consultants from this assessment indicates that there will be no taking of listed species or their habitats from the tower and facility in Big Lake Township, Maine.

## **Conclusion**

The assessment has been developed to verify compliance with the U.S. Department of Fish and Wildlife Service –Maine Field Office Review Package under Section 9 of the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 et seq.). The assessment evaluated the effect of the proposed wireless telecommunications equipment and 300' Lattice Tower in St. John, Maine on any endangered and threatened species or their habitat.

The information gathered by Black Diamond Consultants from this assessment indicates that there will be no taking of listed species or their habitats from the tower and facility in Big Lake Township, Maine.

**Reference(s)**

**United States Department of the Interior – Maine Field Office –  
Ecological Services Web Based process**

**U.S. Cellular Document – “Scope of Work for Compliance with the  
FCC’s Environmental Rule.**

**ATTACHMENT # 15**

**NOTICE OF LUPC RECEIPT OF  
PERMIT APPLICATION**

(Reference LUPC Rules of Practice – Chapter 4, Section 4.04(4))

(Black Diamond Consultants is prepared to provide notice of pending Application in accordance with the above Rules of Practice if so directed by LUPC.)

## **ATTACHMENT # 16**

### **USCC FINANCIAL CAPABILITY**

U.S. Cellular is a multi billion dollar company traded on Wall Street. Please refer to the following additional financial information.

**UNITED STATES CELLULAR CORPORATION**  
**ANNUAL REPORT TO SHAREHOLDERS FOR THE YEAR ENDED DECEMBER 31, 2012**  
**Pursuant to SEC Rule 14a-3**

The following audited financial statements and certain other financial information for the year ended December 31, 2012, represent U.S. Cellular's annual report to shareholders as required by the rules and regulations of the Securities and Exchange Commission ("SEC").

The following information was filed with the SEC on February 26, 2013 as Exhibit 13 to U.S. Cellular's Annual Report on Form 10-K for the year ended December 31, 2012. Such information has not been updated or revised since the date it was originally filed with the SEC. Accordingly, you are encouraged to review such information together with any subsequent information that we have filed with the SEC and other publicly available information.



**United States Cellular Corporation**  
**Consolidated Statement of Operations**

Year Ended December 31,	<u>2012</u>	<u>2011</u>	<u>2010</u>
(Dollars and shares in thousands, except per share amounts)			
<b>Operating revenues</b>			
Service . . . . .	\$4,098,856	\$4,053,797	\$3,913,001
Equipment sales . . . . .	353,228	289,549	264,680
Total operating revenues . . . . .	<u>4,452,084</u>	<u>4,343,346</u>	<u>4,177,681</u>
<b>Operating expenses</b>			
System operations (excluding Depreciation, amortization and accretion reported below) . . . . .	946,805	929,379	854,931
Cost of equipment sold . . . . .	935,947	791,802	756,290
Selling, general and administrative (including charges from affiliates of \$104.3 million, \$104.1 million and \$107.5 million in 2012, 2011 and 2010) . . . . .	1,764,933	1,769,701	1,783,315
Depreciation, amortization and accretion . . . . .	608,633	573,557	570,955
(Gain) loss on asset disposals and exchanges, net . . . . .	18,088	(1,873)	10,717
(Gain) loss on sale of business and other exit costs, net . . . . .	21,022	—	—
Total operating expenses . . . . .	<u>4,295,428</u>	<u>4,062,566</u>	<u>3,976,208</u>
<b>Operating income</b> . . . . .	156,656	280,780	201,473
<b>Investment and other income (expense)</b>			
Equity in earnings of unconsolidated entities . . . . .	90,364	83,566	97,318
Interest and dividend income . . . . .	3,644	3,395	3,808
Gain (loss) on investment . . . . .	(3,718)	11,373	—
Interest expense . . . . .	(42,393)	(65,614)	(61,555)
Other, net . . . . .	500	(678)	72
Total investment and other income (expense) . . . . .	<u>48,397</u>	<u>32,042</u>	<u>39,643</u>
<b>Income before income taxes</b> . . . . .	205,053	312,822	241,116
Income tax expense . . . . .	63,977	114,078	81,958
<b>Net income</b> . . . . .	141,076	198,744	159,158
Less: Net income attributable to noncontrolling interests, net of tax . . . . .	<u>(30,070)</u>	<u>(23,703)</u>	<u>(23,084)</u>
<b>Net income attributable to U.S. Cellular shareholders</b> . . . . .	<u>\$ 111,006</u>	<u>\$ 175,041</u>	<u>\$ 136,074</u>
<b>Basic weighted average shares outstanding</b> . . . . .	84,645	84,877	86,128
<b>Basic earnings per share attributable to U.S. Cellular shareholders</b> . . . . .	<u>\$ 1.31</u>	<u>\$ 2.06</u>	<u>\$ 1.58</u>
<b>Diluted weighted average shares outstanding</b> . . . . .	85,067	85,335	86,518
<b>Diluted earnings per share attributable to U.S. Cellular shareholders</b> . . . . .	<u>\$ 1.30</u>	<u>\$ 2.05</u>	<u>\$ 1.57</u>

The accompanying notes are an integral part of these consolidated financial statements.

## **ATTACHMENT # 17**

### **SOIL INFORMATION**

(The soil in the project area is designated as very stony to gravelly loam. This soil is considered suitable by USCC, for the construction of a telecommunications facility and access road as depicted in the Site Plan. Please see the attached information on area soil.)

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	2 inches	very stony - silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 6.00 Min: 3.60
2	2 inches	18 inches	silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 6.00 Min: 3.60
3	18 inches	65 inches	gravelly - loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 0.20 Min: 0.00	Max: 6.50 Min: 5.10

### OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: extremely stony - silt loam  
 extremely stony - muck  
 extremely stony - fine sandy loam  
 muck  
 very stony - loam

Surficial Soil Types: extremely stony - silt loam  
 extremely stony - muck  
 extremely stony - fine sandy loam  
 muck  
 very stony - loam

Shallow Soil Types: channery - fine sandy loam

Deeper Soil Types: gravelly - silt loam  
 unweathered bedrock  
 very channery - sandy loam  
 channery - silt loam  
 channery - loam  
 muck  
 silt loam  
 gravelly - fine sandy loam  
 fine sandy loam

**ATTACHMENT # 18**

**CERTIFICATE OF GOOD STANDING**



# MAINE

Department of the Secretary of State  
Bureau of Corporations, Elections and Commissions

Corporate Name Search

## Information Summary

[Subscriber activity report](#)

This record contains information from the CEC database and is accurate as of: Thu Jun 13 2013 12:05:47. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
MAINE RSA #1, INC.	19902308 D	BUSINESS CORPORATION	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
05/29/1990	N/A	MAINE

Other Names	(A=Assumed ; F=Former)
U.S. CELLULAR	A
CELLULAR DIRECT	A

### Clerk/Registered Agent

SEVERIN M. BELIVEAU  
45 MEMORIAL CIRCLE  
AUGUSTA, ME 04330

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Click on a link to obtain additional information.

List of Filings

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Obtain additional information:

Certificate of Existence <a href="#">(more info)</a>	<a href="#">Short Form without amendments (\$30.00)</a>	<a href="#">Long Form with amendments (\$30.00)</a>
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You will need Adobe Acrobat version 3.0 or higher in order to view PDF files. If you encounter problems, visit the [troubleshooting page](#).



# State of Maine



## Department of the Secretary of State

*I, the Secretary of State of Maine, certify that according to the provisions of the Constitution and Laws of the State of Maine, the Department of the Secretary of State is the legal custodian of the Great Seal of the State of Maine which is hereunto affixed and of the reports of organization, amendment and dissolution of corporations and annual reports filed by the same.*

*I further certify that BLACK DIAMOND CONSULTANTS, INC. is a duly organized business corporation under the laws of the State of Maine and that the date of incorporation is February 18, 2000.*

*I further certify that said business corporation has filed annual reports due to this Department, and that no action is now pending by or on behalf of the State of Maine to forfeit the charter and that according to the records in the Department of the Secretary of State, said corporation is a legally existing business corporation in good standing under the laws of the State of Maine at the present time.*

*In testimony whereof*, I have caused the Great Seal of the State of Maine to be hereunto affixed. Given under my hand at Augusta, Maine, this twenty-first day of September 2012.



A handwritten signature in cursive script, reading "Charles E. Summers, Jr.", written over a horizontal line.

**Charles E. Summers, Jr.**

**Secretary of State**

## ATTACHMENT # 19

### OCCUPANTS ADJACENT TO THE PROPOSED FACILITY PROPERTY

Map/Lot Number	Record Owner	Address
4-18	Michael and Nancy Marshall	951 West Street, Big Lake Township, Maine 04668
4-20	Scott Campbell	PO Box 685 Princeton, Maine 04668
4-21	Guy Landry	PO Box 735, Princeton, Maine 04668
4-22	Pamela Cochran	PO Box 693, Princeton, Maine 04668
4-23	Christopher Cochran	PO Box 143, Princeton, ME 04668
4-24	Wayne Haskell	180 Kidder Hill Road, Holden, Maine 04429
4-25	Christopher Cochran	PO Box 143, Princeton, Maine 04668
4-26	Christopher Cochran	PO Box 143, Princeton, Maine 04668
4-30	Jeanette Dwelley	PO Box 345, Princeton, Maine 04668

## **ATTACHMENT # 20**

### **ADDITIONAL INFORMATION ON (1) TOWER FAILURE CONCERNS, (2) TOWER CO-LOCATION, (3) TOWER ABANDONMENT**





Title: Tower Failure Evaluation

From: Black Diamond Consultants  
To: Land Use Planning Commission (LUPC)

Black Diamond, in consultation with USCC and tower designers, is pleased to provide the following information on the design of Telecommunication Towers to national standards.

Communications towers are designed not to fail. The proposed self supported lattice tower will be designed to withstand substantial wind and ice loading in accordance with the nationally accepted design standard "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures", ANSI Standard ANSI/EIA/TIA-222-G. Safety factors are included in the design of the tower, as required by the ANSI Standard. The tower is comprised of galvanized structural steel sized to meet the design wind and ice loads, including design safety factor. A substantial reinforced concrete foundation structure is designed to properly anchor the structure against the design wind and ice loads, including safety factor margins.

For example a typical foundation for a 190' self-supporting lattice tower occupies a volume of approximately 60 cubic yards of reinforced (re-barred) concrete for a total weight of approximately 122 tons which supports a tower structure of approximately 24 tons. The foundation, as such, weighs over five (5) times the weight of the tower. It is not reasonable to expect that such a tower would topple over a foundation that is 5 times its weight.

Again, towers are engineered structures and any catastrophic loading beyond predicted conditions, (i.e. natural disasters, such as, tornadoes, hurricanes) would also result in the devastation of the surrounding area.

As previously mentioned, steel towers are manufactured from structural steel materials that do not fail by brittle fracture, which is a common mode of failure for a wooden structure such as a tree, but would experience a ductile (bending) mode of failure and thus would tend to fold over on itself with little or no impact on any area beyond the site developed area.



Title: Tower Design for Co-Location

From: Black Diamond Consultants  
To: Land Use Planning Commission (LUPC)

The new wireless telecommunication facility and related equipment has been designed and will be constructed to provide accommodation for the future co-location of four (4) additional wireless telecommunication providers. Please refer to the Site Plan for additional information on the proposed tower design for future co-location.



Title: Tower Abandonment

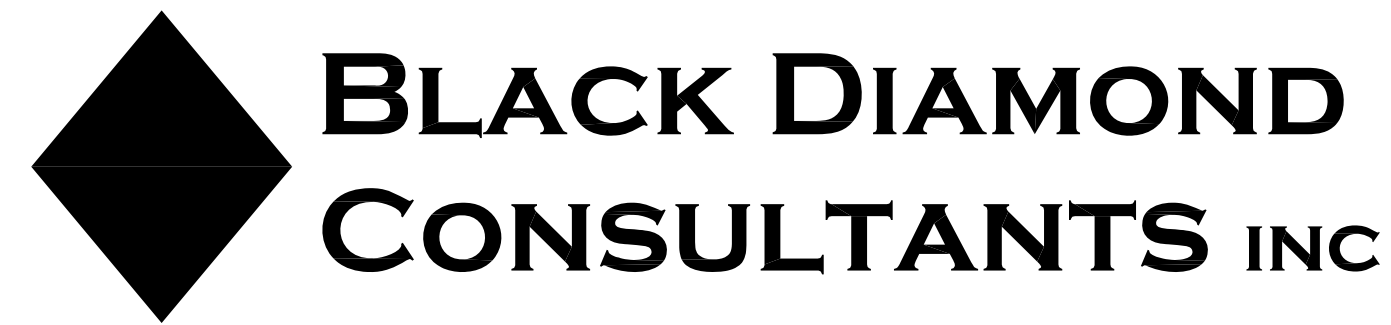
From: Black Diamond Consultants  
To: Land Use Planning Commission (LUPC)

RSA #4 d/b/a USCC has entered into a lease agreement with property owner, Mr. Christopher Cochran or its successor, and has made application to LUPC for a Permit to construct a wireless telecommunications tower at the leased site. USCC provides guarantee for the removal and disposal of the tower when the lease expires or is terminated or the site is abandoned.

## **ATTACHMENT # 21**

### **SITE ENGINEERING DRAWINGS**

(Please refer to the attached Site Plan Engineering Drawings for the Proposed Project. The Site Plan is provided to you under separate cover.)



**BLACK DIAMOND  
CONSULTANTS INC**

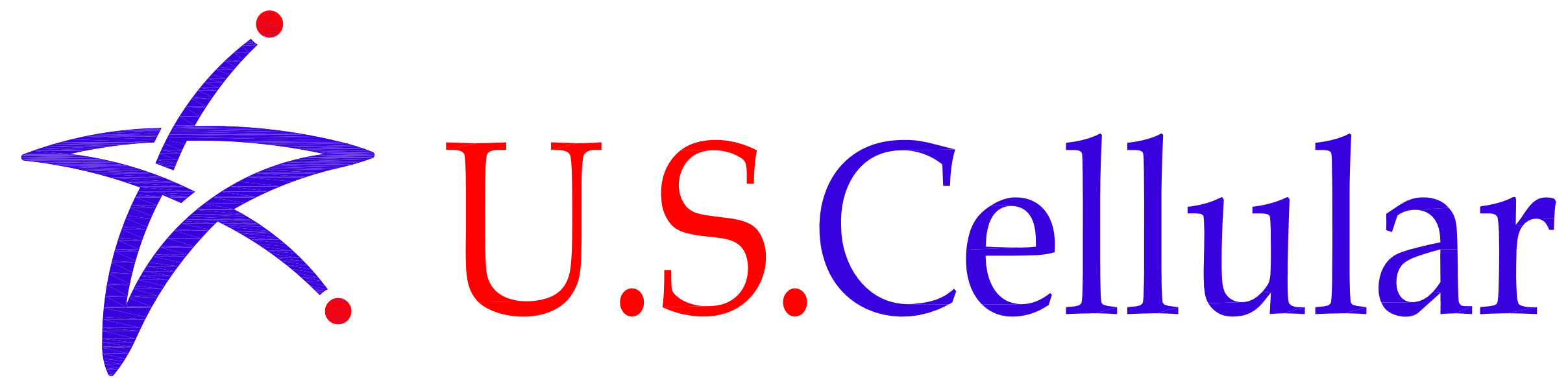
[www.BLCKDiamond.net](http://www.BLCKDiamond.net)

312 Water Street  
PO Box 57  
Gardiner, ME 04345

111 New Hampshire Avenue  
Portsmouth, NH 03801

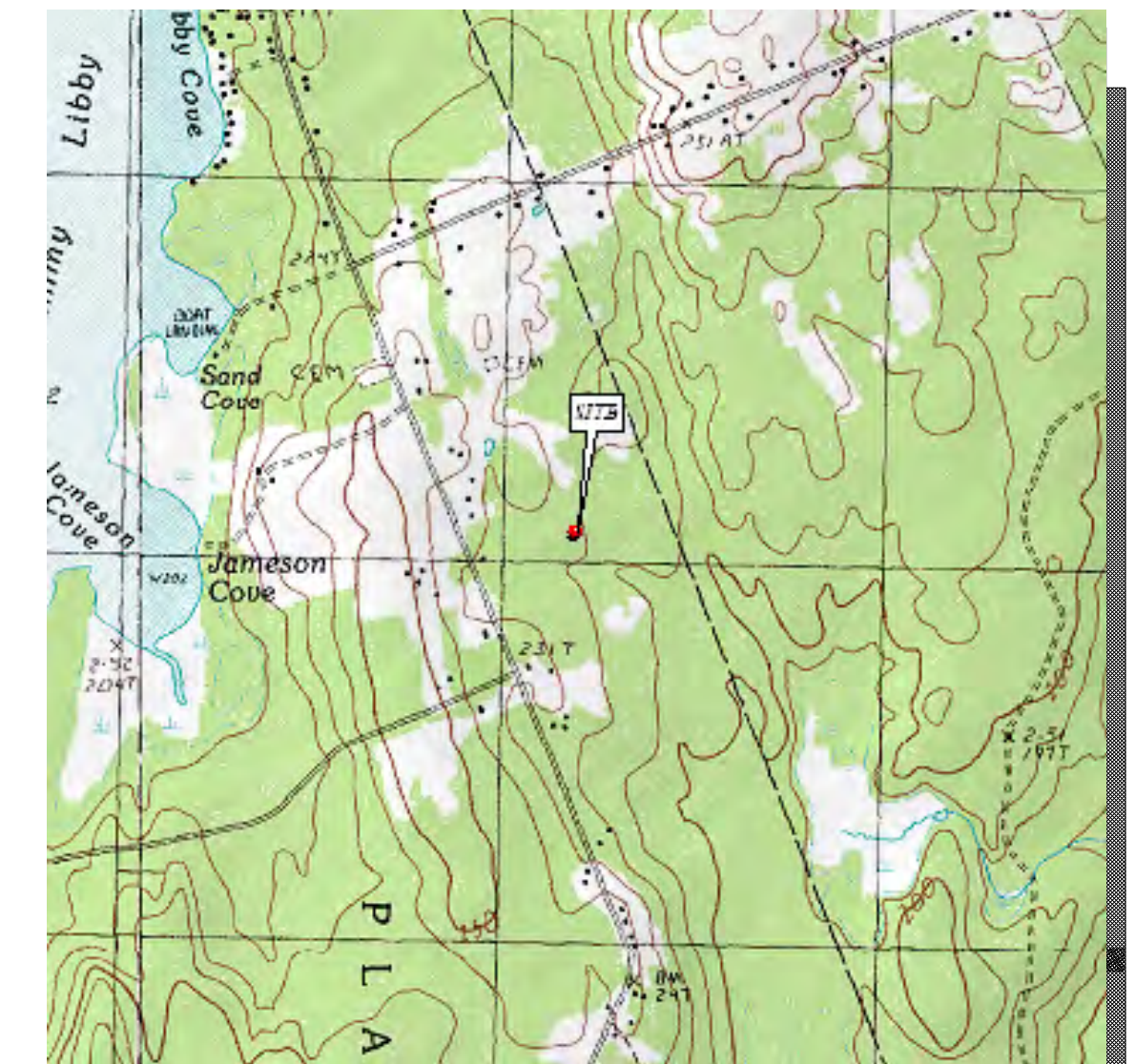
tel 207.582.0056 fax 207.582.9098 tel 603.570.2281

**BDC PROJECT  
USCC-119**



**UNITED STATES CELLULAR CORPORATION**

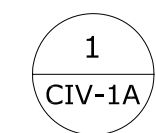
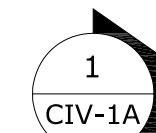
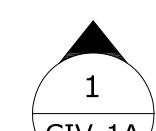
**SITE NAME: PRINCETON**  
**SITE NUMBER: 424342**  
**LATITUDE: 45° 10' 29.2"**  
**LONGITUDE: 67° 36' 35.3"**



**VICINITY MAP** SOURCE: DeLorme SCALE: NTS

**DIRECTIONS: (FROM I-95 NORTH):**  
Take exit 182A to merge onto I-395 E/ME-15 S toward Bangor-Brewer/U.S. 1A/ME-9 (2.0 mi) Take exit 4 for ME-15 S/ME-9 E/S Main St toward Brewer (0.2 mi) keep right at the fork, follow signs for Brewer/Calais and merge onto ME-15 N/ME-9 E/S Main St Continue to follow ME-9 E (69.6 mi) Turn left toward Stud Mill Rd (7.7 mi) Turn right onto Stud Mill Rd (4.7 mi) continue onto West St (1.5 mi) Destination will be on the right.

**LEGEND**

-  **1** **CIV-1A**  
DETAIL NUMBER  
SHEET ON WHICH DETAIL APPEARS
-  **1** **CIV-1A**  
SECTION NUMBER  
SHEET ON WHICH SECTION APPEARS
-  **1** **CIV-1A**  
ELEVATION NUMBER  
SHEET ON WHICH ELEVATION APPEARS

**ABBREVIATIONS**

<ul style="list-style-type: none"> <li>⊙ - AT</li> <li>A/C - AIR CONDITIONING</li> <li>ALUM - ALUMINUM</li> <li>AMSL - ABOVE MEAN SEA LEVEL</li> <li>AMC - ACCESS MASTER CONTROL</li> <li>BLDG - BUILDING</li> <li>BTS - BARE TINNED STRANDED</li> <li>CAM - CAMERA</li> <li>CE - CAMERA ENCLOSURE</li> <li>CL - CENTERLINE</li> <li>CMP - CORRUGATED METAL PIPE</li> <li>CONC - CONCRETE</li> <li>DIA - DIAMETER</li> <li>DP - DISTRIBUTION PANEL</li> <li>DVR - DIGITAL VIDEO RECORDER</li> <li>DWG - DRAWING</li> <li>EDP - EMERGENCY DISTRIBUTION PANEL</li> <li>EGB - EXTERNAL GROUND BAR</li> <li>EGR - EXTERNAL GROUND RING</li> <li>EF - EACH FACE</li> <li>EW - EACH WAY</li> <li>ELEV - ELEVATION</li> <li>ELE - ELECTRICAL</li> <li>ETC - ETCETERA</li> <li>FC - FIBER CONVERTER</li> <li>FCDAT - FIBER CONVERTER, DATA</li> </ul>	<ul style="list-style-type: none"> <li>FCT - FIBER CONVERTER, TELEPHONE</li> <li>FE - FIBER ENCLOSURE</li> <li>FNDN - FOUNDATION</li> <li>FTG - FOOTING</li> <li>GALV - GALVANIZED</li> <li>GF - GND FAULT INTERRUPTER</li> <li>GH - GATEHOUSE</li> <li>GND - GROUND</li> <li>HR - HOUR</li> <li>HT - HEIGHT</li> <li>IGB - ISOLATED GROUND BAR</li> <li>LC - LIGHTING CONTACTOR</li> <li>LP - LIGHTING PANEL</li> <li>MAX - MAXIMUM</li> <li>MECH - MECHANICAL</li> <li>MIGB - MASTER ISOLATION GROUND BAR</li> <li>MIN - MINIMUM</li> <li>MISC - MISCELLANEOUS</li> <li>MON - MONITOR</li> <li>MRF - MANUFACTURER</li> <li>MS - MATRIX SWITCH</li> <li>NIC - NOT IN CONTRACT</li> <li>NTS - NOT TO SCALE</li> <li>OC - ON CENTER</li> <li>PAS - PRIMARY ALARM STATION</li> <li>PC - POINT OF CURVE</li> <li>PDE - POWER DISTRIBUTION ENCLOSURE</li> </ul>	<ul style="list-style-type: none"> <li>PM - POLE MOUNTED</li> <li>PS - POWER SUPPLY</li> <li>PT - POINT OF TANGENT</li> <li>QTY - QUANTITY</li> <li>QUAD - QUADSPITTER</li> <li>R - RADIUS</li> <li>RR - RAILROAD</li> <li>SC - SEALED CONCRETE</li> <li>SF - SILTATION FENCE</li> <li>SOB - SECURITY OPERATIONS BUILDING</li> <li>SP - SECURITY PANEL</li> <li>SPEC - SPECIFICATION</li> <li>TYP - TYPICAL</li> <li>UPS - UNINTERRUPTABLE POWER SUPPLY</li> <li>VIF - VERIFY IN FIELD</li> <li>WM - WALL MOUNTED</li> <li>UNO - UNLESS NOTED OTHERWISE</li> </ul>
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**PROJECT INFORMATION**

**SITE ADDRESS**  
WEST STREET  
BIG LAKE TOWNSHIP, MAINE 04668

**APPLICANT**  
UNITED STATES CELLULAR CORPORATION  
c/o BLACK DIAMOND CONSULTANTS, INC  
312 WATER STREET PO BOX 57  
GARDINER, MAINE 04345

**PROPERTY OWNER**  
CHRISTOPHER COCHRAN  
PO BOX 143  
PRINCETON, MAINE 04668

**ELECTRICAL COMPANY**  
BANGOR HYDRO ELECTRIC COMPANY  
970 ILLINOIS AVENUE  
BANGOR, MAINE 04401  
207.945.5621

**TELEPHONE COMPANY**  
FAIRPOINT COMMUNICATIONS  
627 ROUTE 3  
SOUTH CHINA, MAINE 04358  
866.984.3001

**DRAWING INDEX**

- COVERSHEET (CVR)**  
CVR-1A-0 COVERSHEET
- SURVEY (SUR)**  
SUR-1A-1 PLOT PLAN
- CIVIL (CIV)**  
CIV-1A-1 SITE PLAN  
CIV-1B-0 ACCESS ROAD PROFILE  
CIV-2A-0 COMPOUND LAYOUT PLAN  
CIV-3A-0 CELLULAR EQUIPMENT SHELTER ELEVATIONS  
CIV-4A-0 FOUNDATION AND STOOP DETAILS  
CIV-5A-0 FENCE, TRENCH AND ICE BRIDGE DETAILS
- ARCHITECTURAL (ARC)**  
ARC-1A-0 TOWER ELEVATION AND ANTENNA LOCATION SECTION
- ELECTRICAL (ELE)**  
ELE-1A-0 ELECTRICAL DETAILS  
ELE-1B-0 ELECTRICAL AND TELCO DETAILS  
ELE-2A-0 GROUNDING DETAILS
- ENVIRONMENTAL (ENV)**  
ENV-1A-0 ENVIRONMENTAL & CIVIL DETAILS

APPROVED: LAND USE PLANNING COMMISSION	
SIGNED _____	DATE _____
SIGNED _____	DATE _____
SIGNED _____	DATE _____
SIGNED _____	DATE _____
SIGNED _____	DATE _____
SIGNED _____	DATE _____

**PDF PRINTS**  
SCALE MAY VARY DUE TO  
INDIVIDUAL PRINTER SETTINGS

**DRAWING NUMBER** USCC-119\_CVR-1A-0  
BDC: P/DRAFTING/BDC/USCC-119/USCC-119\_CVR-1A-0

**DESCRIPTION OF LEASE AREA:**

That tract of land located 790 feet, more or less, easterly from West Street, in Big Lake Township, Washington County, Maine, being more particularly described as follows:

Beginning at a 5/8-inch rebar set, marking the most southwest corner of the herein described parcel, said rebar being the point of beginning

Thence N 04°59'47" E and 200.00 feet to a 5/8-inch rebar set;

Thence S 85°00'13" E and 200.00 feet to a 5/8-inch rebar set;

Thence S 04°59'47" W and 200.00 feet to a 5/8-inch rebar set;

Thence N 85°00'13" W and 200.00 feet to the point of beginning.

Meaning and intending to be 40,000 square feet of land.

Bearings are based on Magnetic North, 2013.

**DESCRIPTION OF COMBINED 30' UTILITY/ACCESS EASEMENT:**

That tract of land located on the easterly sideline of West Street, in Big Lake Township, Washington County, Maine, being more particularly described as follows:

Commencing on the said easterly sideline of West Street, at the southeasterly corner of land now or formerly of Scott Campbell (WCRD 3487-041);

Thence S 04°07'09" E along the said easterly sideline of West Street and 175 feet, more or less, to a point, said point being the point of beginning;

Thence S 82°59'08" E and 67.35 feet to a point of curvature;

Thence along a curve to the left having a radius of 120.00 feet and an arc length of 72.78 feet to a point of reverse curvature;

Thence along a curve to the right having a radius of 125.00 feet and an arc length of 70.84 feet to a point;

Thence S 87°07'31" E and 192.12 feet to a point of curvature;

Thence along a curve to the right having a radius of 115.00 feet and an arc length of 30.63 feet to a point;

Thence S 71°51'56" E and 103.92 feet to a point of curvature;

Thence along a curve to the left having a radius of 150.00 feet and an arc length of 34.40 feet to a point;

Thence S 85°00'13" E and 253.44 feet to a point;

Thence S 04°59'47" W and 30.00 feet to a point;

Thence N 85°00'13" W and 253.44 feet to a point of curvature;

Thence along a curve to the right having a radius of 180.00 feet and an arc length of 41.27 feet to a point;

Thence N 71°51'56" W and 103.92 feet to a point of curvature;

Thence along a curve to the left having a radius of 85.00 feet and an arc length of 22.64 feet to a point;

Thence N 87°07'31" W and 192.12 feet to a point of curvature;

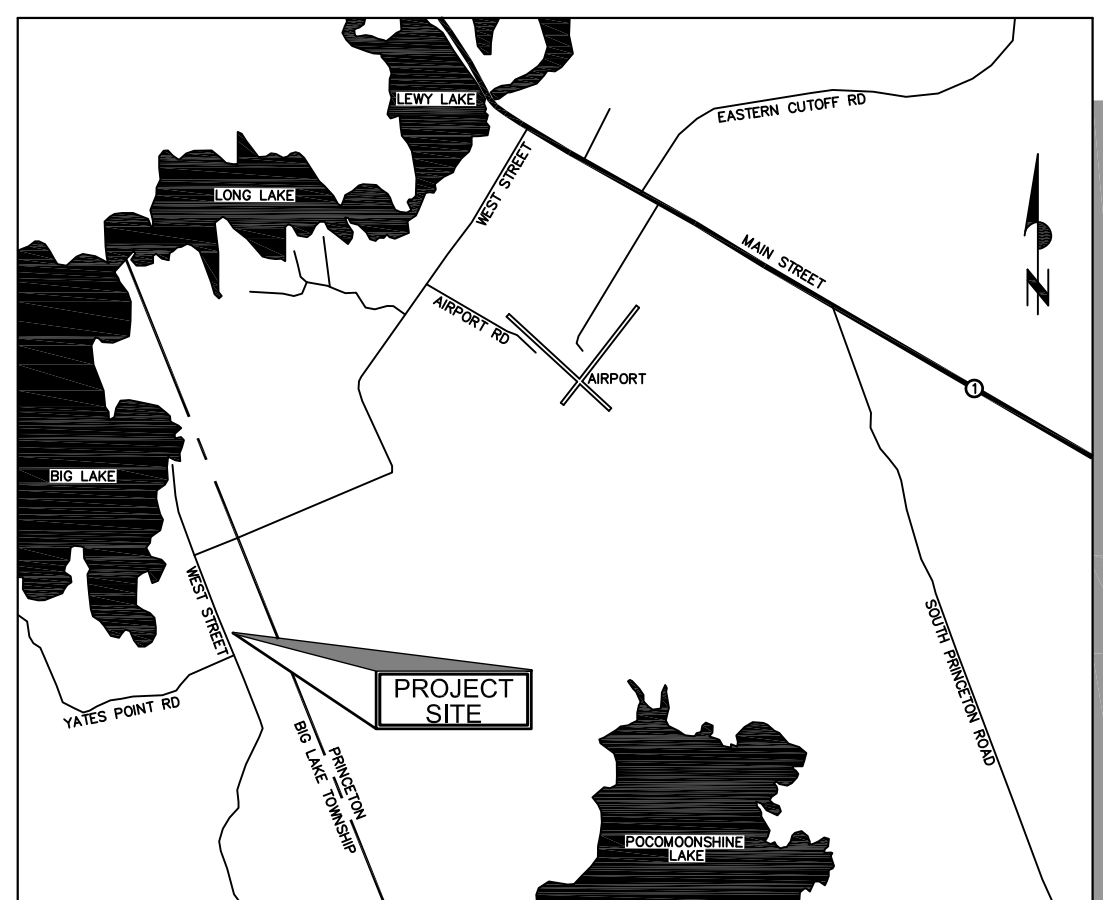
Thence along a curve to the left having a radius of 95.00 feet and an arc length of 53.84 feet to a point of reverse curvature;

Thence along a curve to the right having a radius of 150.00 feet and an arc length of 90.98 feet to a point;

Thence N 82°59'08" W and 61.44 feet to a point and the said easterly sideline of West Street;

Thence N 04°07'09" W along the said easterly sideline of West Street and 30.58 feet to the point of beginning;

Bearings are based on Magnetic North, 2013.



VICINITY MAP - NOT TO SCALE

NOW OR FORMERLY  
**CAMPBELL SCOTT**  
WCRD 3487-041  
TAX MAP 4 LOT 20  
PO BOX 685,  
PRINCETON, ME 04668

NOW OR FORMERLY  
**MARSHALL MICHAEL & NANCY**  
WCRD 3196-240  
TAX MAP 4 LOT 18  
951 WEST STREET,  
BIG LAKE TOWNSHIP, ME 04668

NOW OR FORMERLY  
**LANDRY GUY**  
TAX MAP 4 LOT 21  
PO BOX 735,  
PRINCETON, ME 04668

NOW OR FORMERLY  
**COCHRAN PAMELA**  
TAX MAP 4 LOT 22  
PO BOX 693,  
PRINCETON, ME 04668

NOW OR FORMERLY  
**COCHRAN CHRISTOPHER**  
WCRD 1885-171  
TAX MAP 4 LOT 23  
PO BOX 143,  
PRINCETON, ME 04668

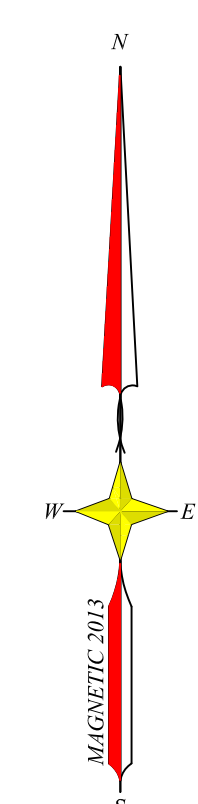
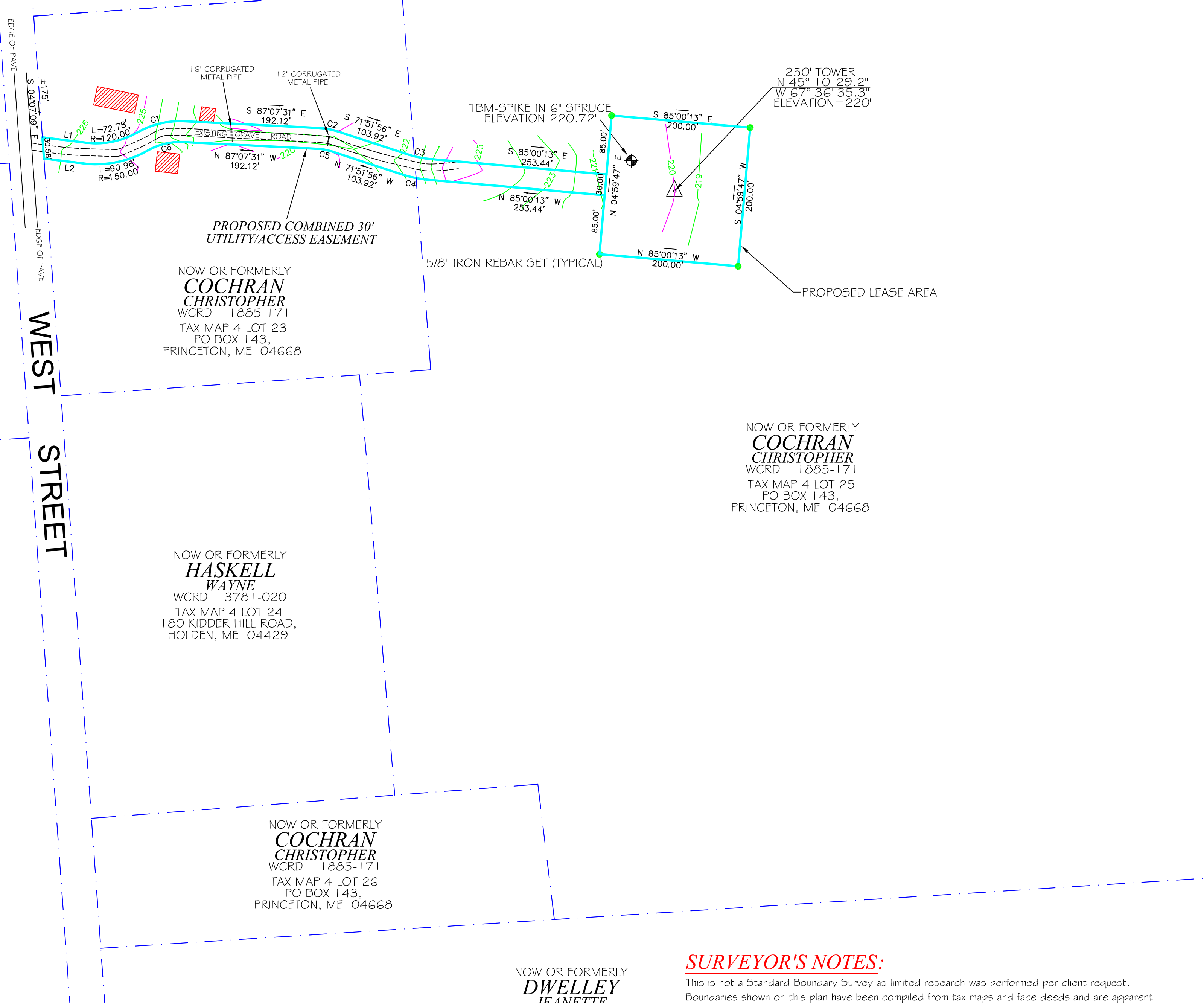
NOW OR FORMERLY  
**HASKELL WAYNE**  
WCRD 3781-020  
TAX MAP 4 LOT 24  
180 KIDDER HILL ROAD,  
HOLDEN, ME 04429

NOW OR FORMERLY  
**COCHRAN CHRISTOPHER**  
WCRD 1885-171  
TAX MAP 4 LOT 26  
PO BOX 143,  
PRINCETON, ME 04668

NOW OR FORMERLY  
**DWELLEY JEANETTE**  
WCRD 3487-041  
TAX MAP 4 LOT 30  
PO BOX 345,  
PRINCETON, ME 04668

WEST STREET

TOWN OF PRINCETON  
BIG LAKE TOWNSHIP



LINE TABLE		
LINE	LENGTH	BEARING
L1	67.35	S 82°59'08" E
L2	61.44	N 82°59'08" W

CURVE TABLE		
CURVE	LENGTH	RADIUS
C1	70.84	125.00
C2	30.63	115.00
C3	34.40	150.00
C4	41.27	180.00
C5	22.64	85.00
C6	53.84	95.00

**NOTES:**

- 1) Site Name: Princeton
- 2) Site Number: 424342
- 3) Site Address: 983 West Street, Big Lake Township, ME 04668
- 4) Owner: Christopher Cochran
- 5) Applicant: U.S. Cellular c/o Black Diamond Consultants, Inc., PO Box 57, 312 Water Street, Gardiner, Maine 04345 207.582.0056
- 6) Tax Parcel Identification: Map 4-Lot 25
- 7) Deed Reference: Book 1885-Page 171
- 8) Vertical Datum: National Geodetic Vertical Datum of 1929, (Mean Sea Level)
- 9) Horizontal Datum: North American Datum of 1983 (NAD83)
- 10) Date of Field Survey: April 2013
- 11) Center of Proposed Tower: Latitude = N 45° 10' 29.2" (NAD 83)  
Longitude = W 67° 36' 35.3" (NAD 83)  
Ground Elev. = 220'
- 12) Directions: Magnetic North 2013

**SURVEYOR'S NOTES:**

This is not a Standard Boundary Survey as limited research was performed per client request. Boundaries shown on this plan have been compiled from tax maps and face deeds and are apparent property lines.

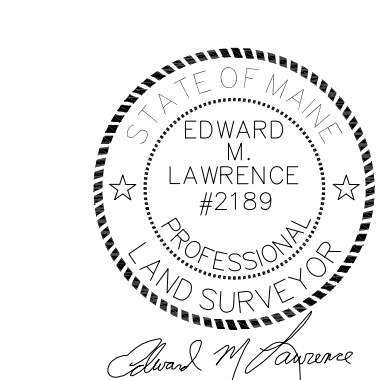
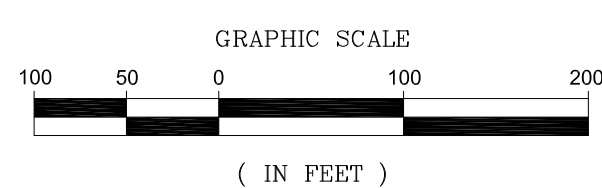
All iron pins set are 5/8" rebar, with an orange plastic surveyor's cap marked PL5 2189. All bearings are Magnetic North 2013, derived from a compass reading. No easements of record encumber the proposed lease area and/or the proposed combined utility/access easement, unless shown hereon.

**FAA CERTIFICATION-2C:**

I hereby certify that the Latitude, Longitude, and elevation presented hereon meets the requirements of the FAA with the following accuracies:

- +/- Twenty (20) feet vertically
- +/- Fifty (50) feet horizontally

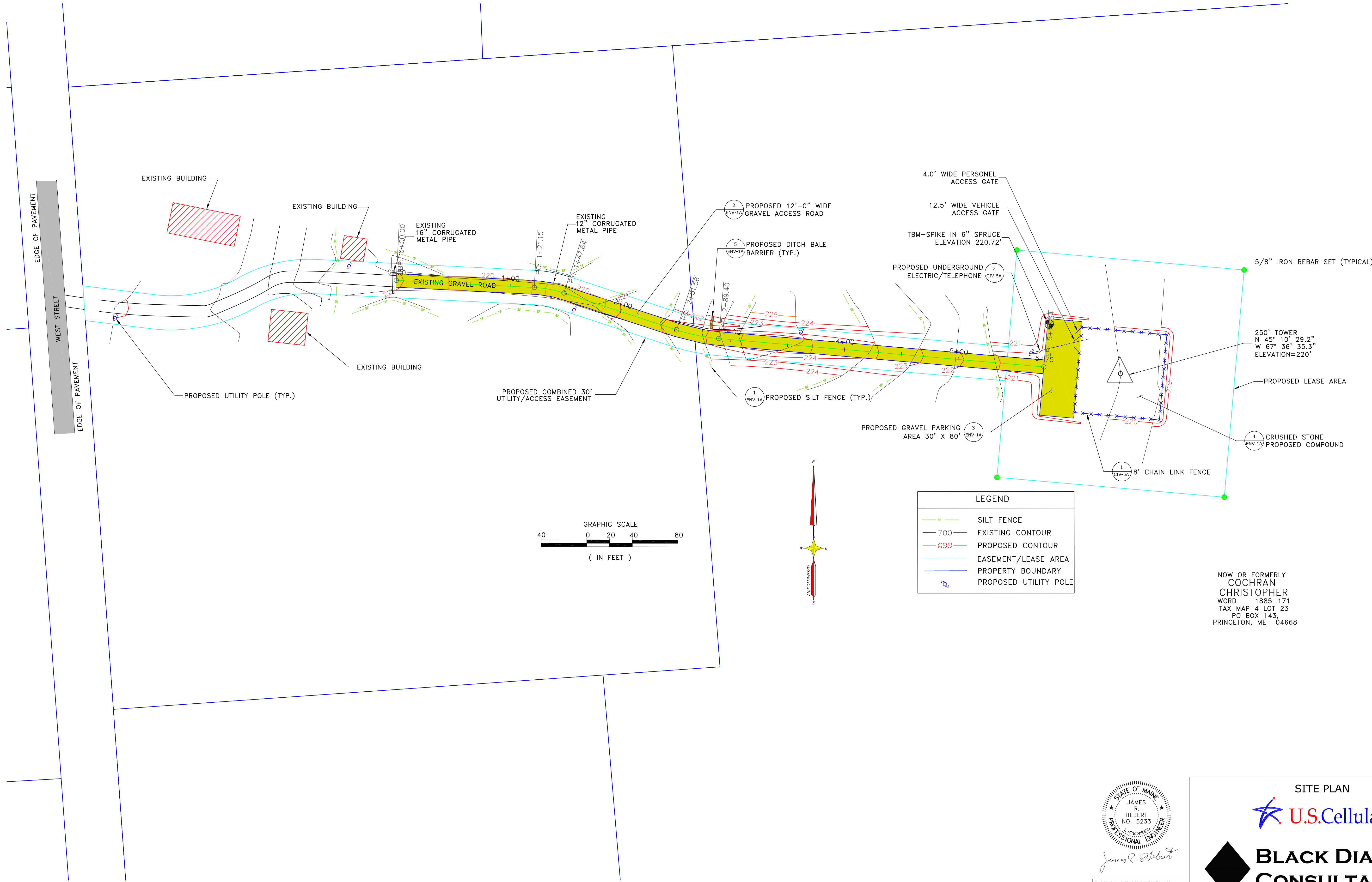
*Edward M. Lawrence*  
Edward M. Lawrence, PLS 2189  
03/21/13  
DATE



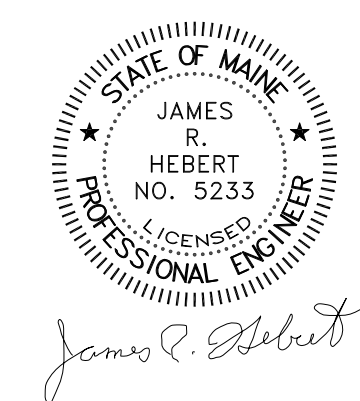
CAPITAL SURVEYING SERVICES INC.  
EDWARD M. LAWRENCE, PLS.  
11 MAINE AVENUE  
GARDINER, MAINE 04345 207.582.1800

PLOT PLAN

DRAWING NUMBER: USCC-119\_SUR-1A-1



NOW OR FORMERLY  
COCHRAN  
CHRISTOPHER  
WCRD 1885-171  
TAX MAP 4 LOT 23  
PO BOX 143,  
PRINCETON, ME 04668



BLACK DIAMOND CONSULTANTS, INC.  
JAMES R. HEBERT, PE  
312 WATER STREET  
GARDINER, MAINE 04345 207.582.0056

**SITE PLAN**

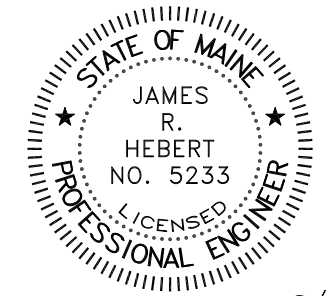
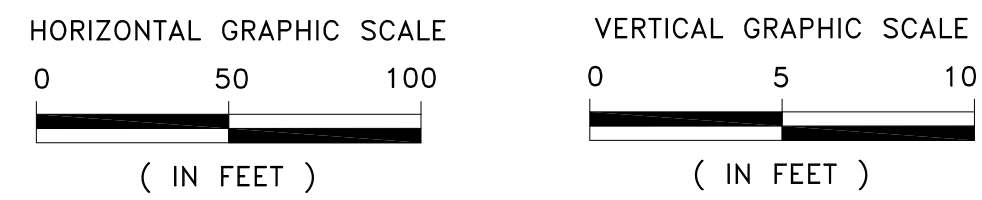
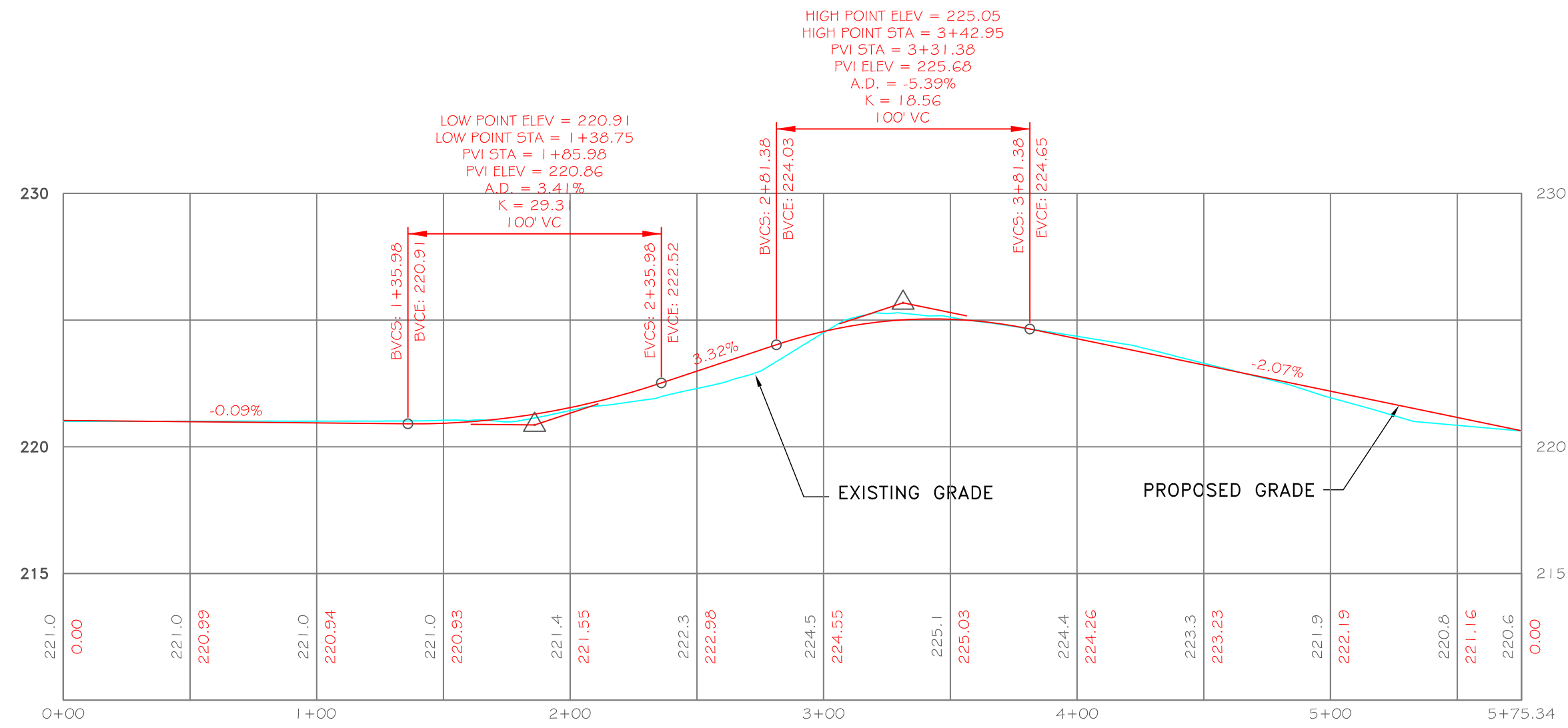
**U.S. Cellular**

**BLACK DIAMOND CONSULTANTS INC**

REV	DATE	BY	CHK'D	REV'D	APP'D	REV	DATE	BY	CHK'D	REV'D	APP'D
1	06/19/13	AMC	JRH	RFH		0	06/19/13	AMC	JRH	RFH	

REVISION NOTES: EOD #13-028  
REVISION NOTES: ORIGINAL ISSUE.

BDC PROJECT(S)	USCC-119	BDC PROPOSAL(S)	N/A
BDC JOB ORDER(S)	13-016	CLIENT DATA	SITE NAME: PRINCETON SITE NUMBER: 424342



*James R. Hebert*

BLACK DIAMOND CONSULTANTS, INC.  
 JAMES R. HEBERT, PE  
 312 WATER STREET  
 GARDINER, MAINE 04345 207.582.0056

ACCESS ROAD PROFILE

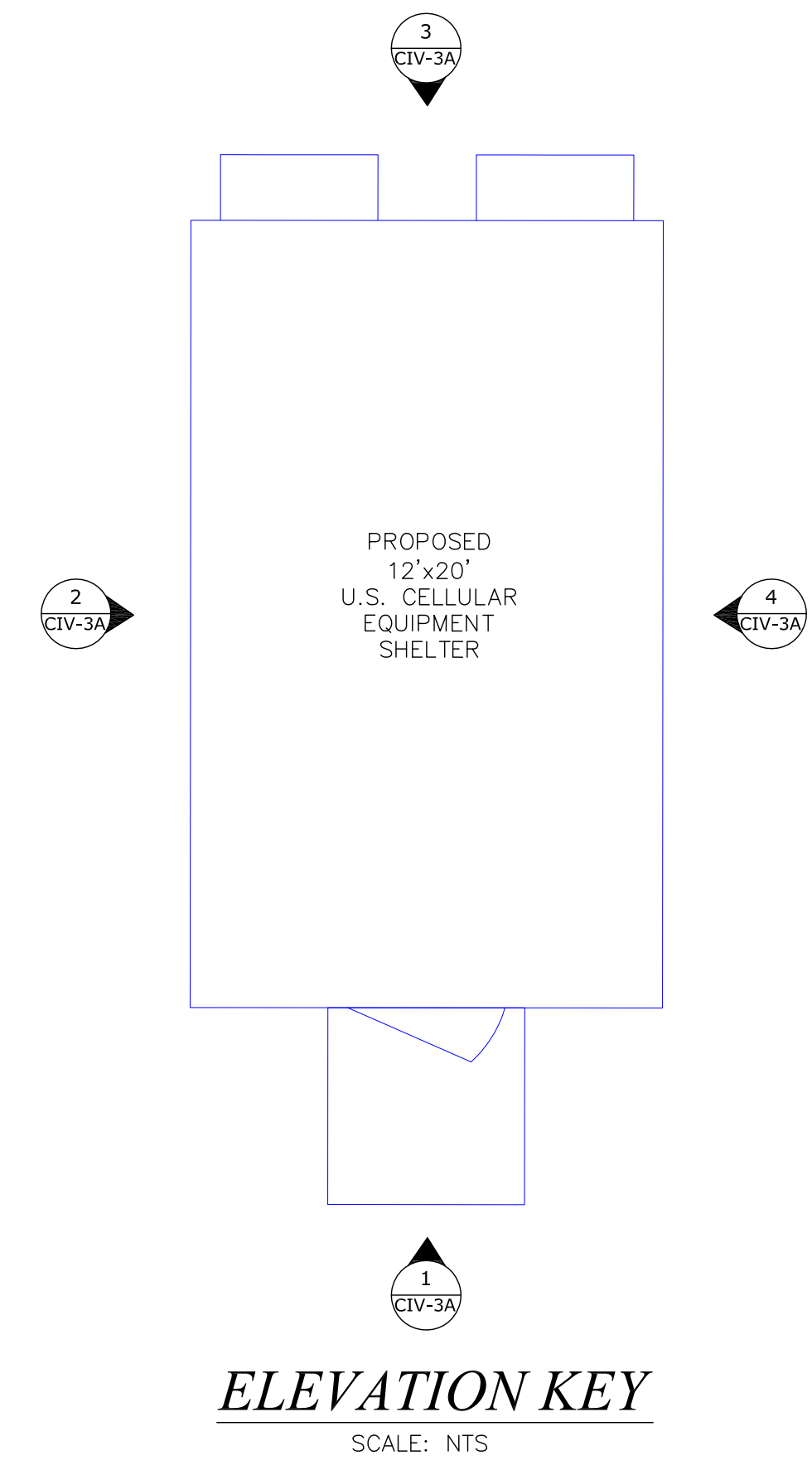
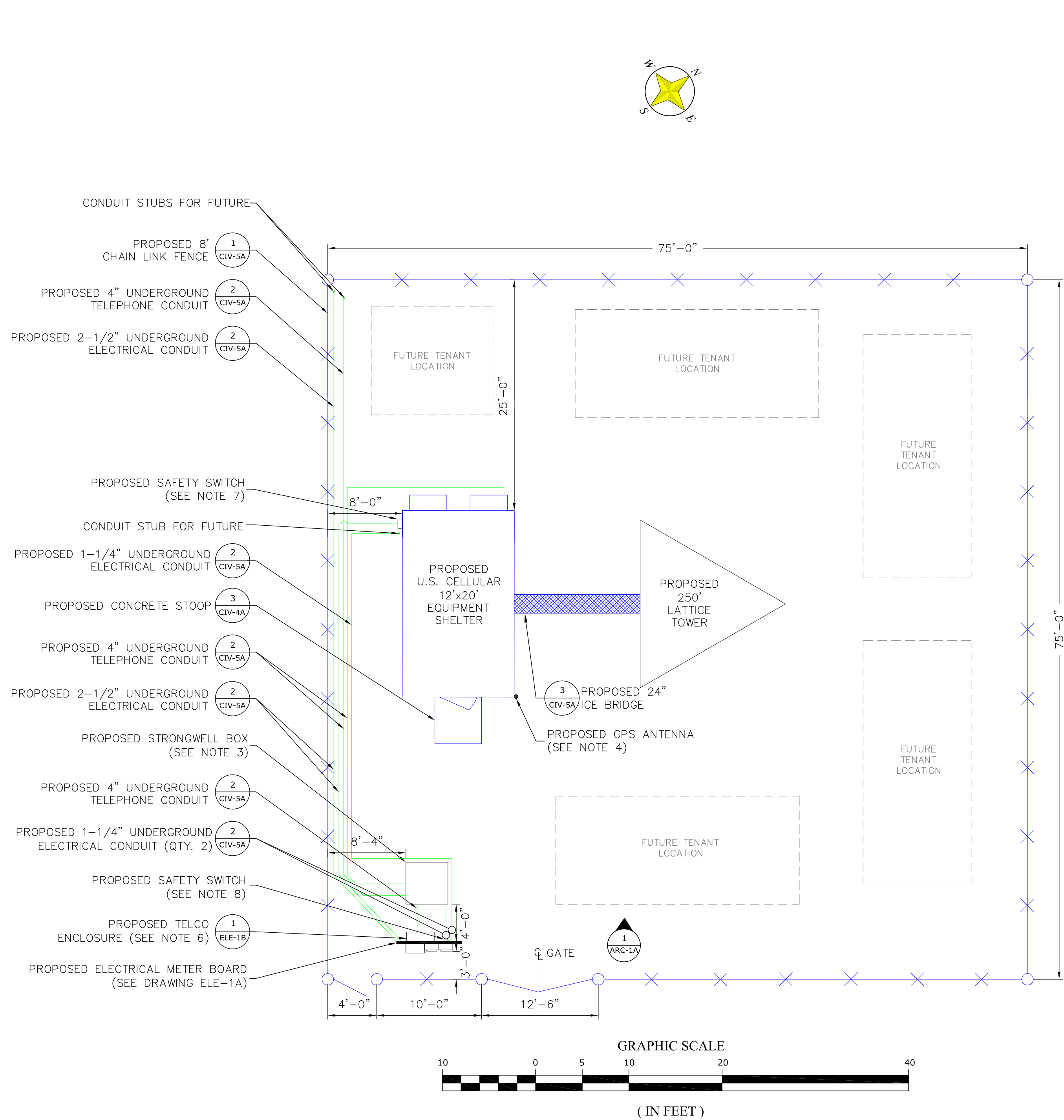
DRAWING NUMBER USCC-119\_CIV-1B-0

BDC: P/DRAFTING/BDC/USCC-119/USCC-119\_CIV-1B-0

REV	DATE	BY	CHK'D	REV'D	APP'D	BDC PROJECT(S)	BDC PROPOSAL(S)
0	06/06/23	AMC	ZMC	JRH	RFH	USCC-119	N/A
REVISION NOTES: ORIGINAL ISSUE.						BDC JOB ORDER(S)	CLIENT DATA
						13-016	SITE NAME: PRINCETON SITE NUMBER: 424342

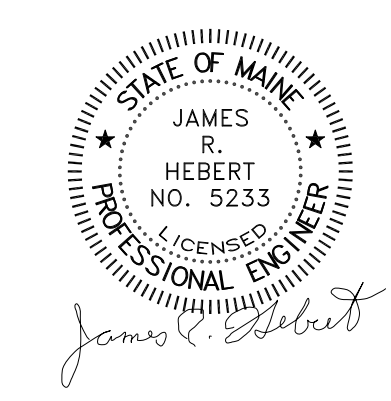
Classification: UNCLASSIFIED	SITE NAME: PRINCETON
Quality Category: NON-Q	SITE NUMBER: 424342





- NOTES:
- CONTRACTOR SHALL VERIFY EXISTING BURIED UTILITIES PRIOR TO CONSTRUCTION ACTIVITIES. (DIG SAFE UNDERGROUND SERVICE ALERT: (1-888-DIG-SAFE; 1-888-344-7233).
  - ELECTRICAL METER FACE LOCATION: 3'-0" MIN. FROM FENCE.
  - STRONGWELL BOX: QUAZITE BOX; MODEL PG48482511.
  - GPS ANTENNA SHALL BE FIELD LOCATED ON EQUIPMENT SHELTER.
  - FUTURE CONDUIT SHALL FOLLOW FENCE LINE.
  - PROPOSED TELCO ENCLOSURE SHALL BE NEMA 3R, 36"x36"x12".
  - PROPOSED SAFETY SWITCH SHALL BE NEMA 3R, NONFUSIBLE, 200A, 600VAC.
  - PROPOSED SAFETY SWITCH SHALL BE NEMA 3R, NONFUSIBLE, 30A, 600VAC.

**COMPOUND LAYOUT PLAN**  
SCALE: GRAPHIC SCALE



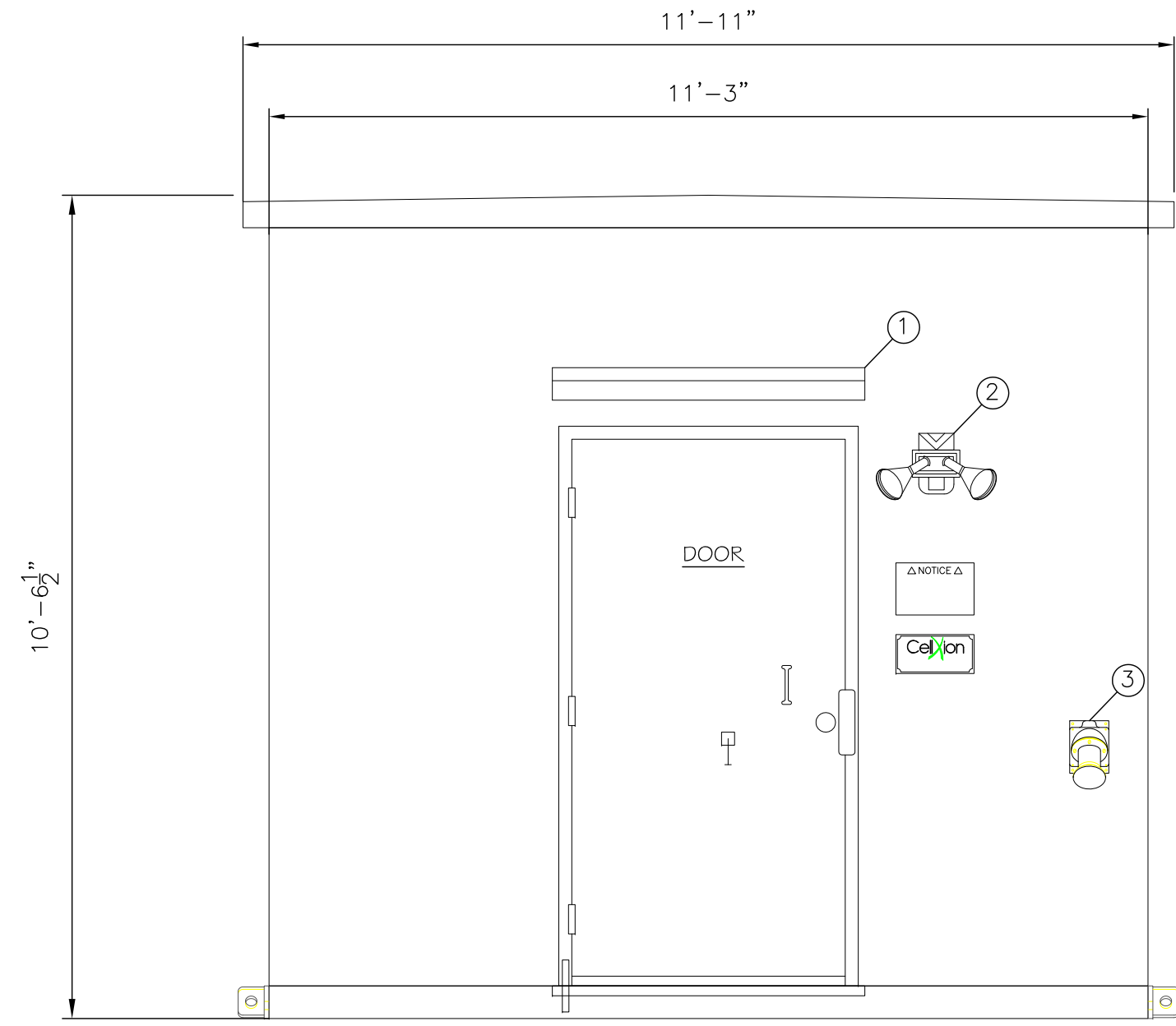
BLACK DIAMOND CONSULTANTS, INC.  
JAMES R. HEBERT, PE  
312 WATER STREET  
GARDINER, MAINE 04345 207.582.0056

COMPOUND LAYOUT PLAN

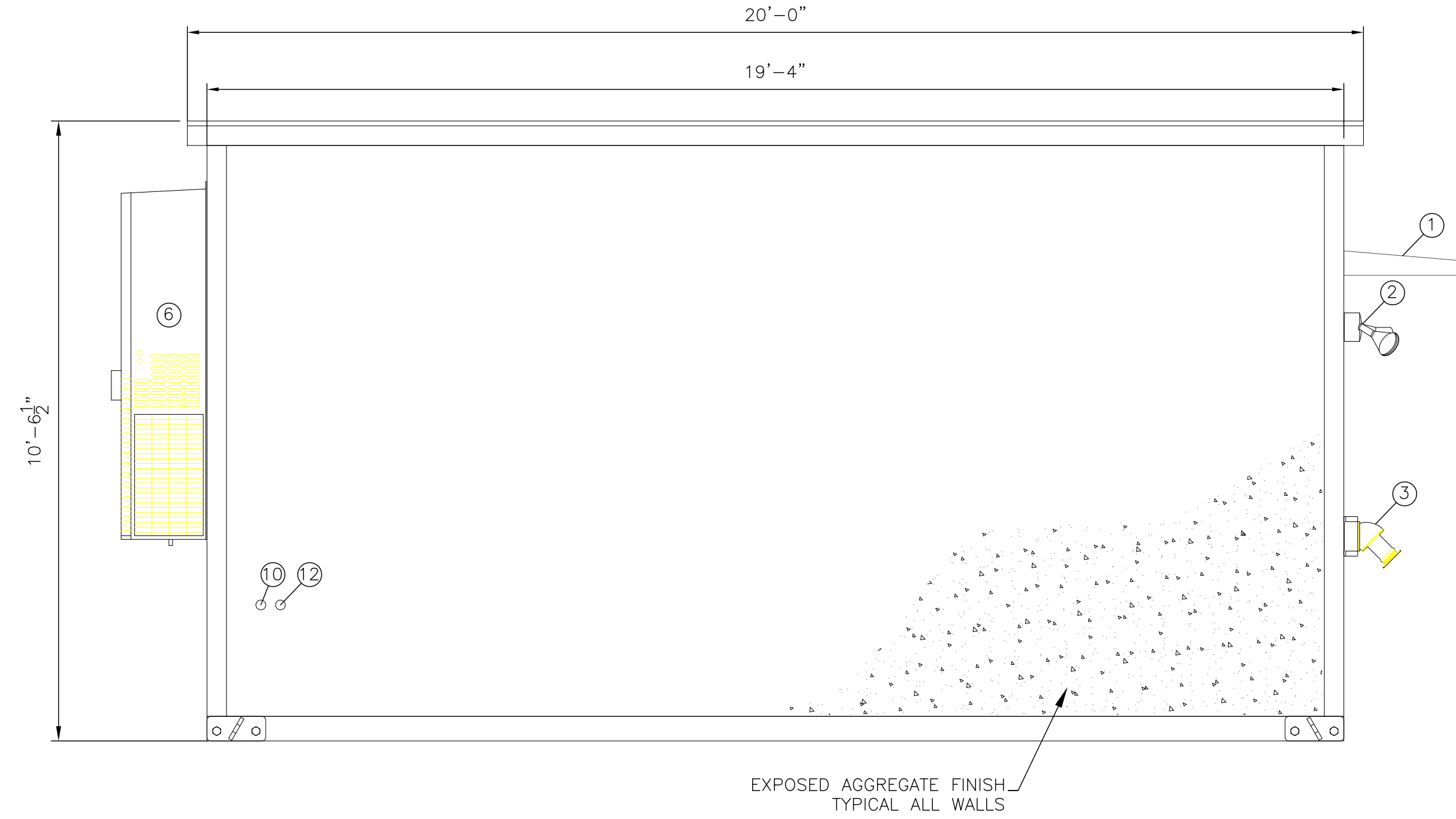
**BLACK DIAMOND CONSULTANTS INC**

DRAWING NUMBER: USCC-119\_CIV-2A-0  
BDC:P/DRAFTING/BDC/USCC-119/USCC-119\_CIV-2A-0

REV	DATE	BY	CHK'D	REV'D	APP'D	BDC PROJECT(S)	BDC PROPOSAL(S)
0	06/19/23	MJM	SAM	JRH	RFH	USCC-119	N/A
REVISION NOTES: ORIGINAL ISSUE.						13-016	CLIENT DATA



1 **EXTERIOR ELEVATION "A"**  
 CIV-2A SCALE: NTS



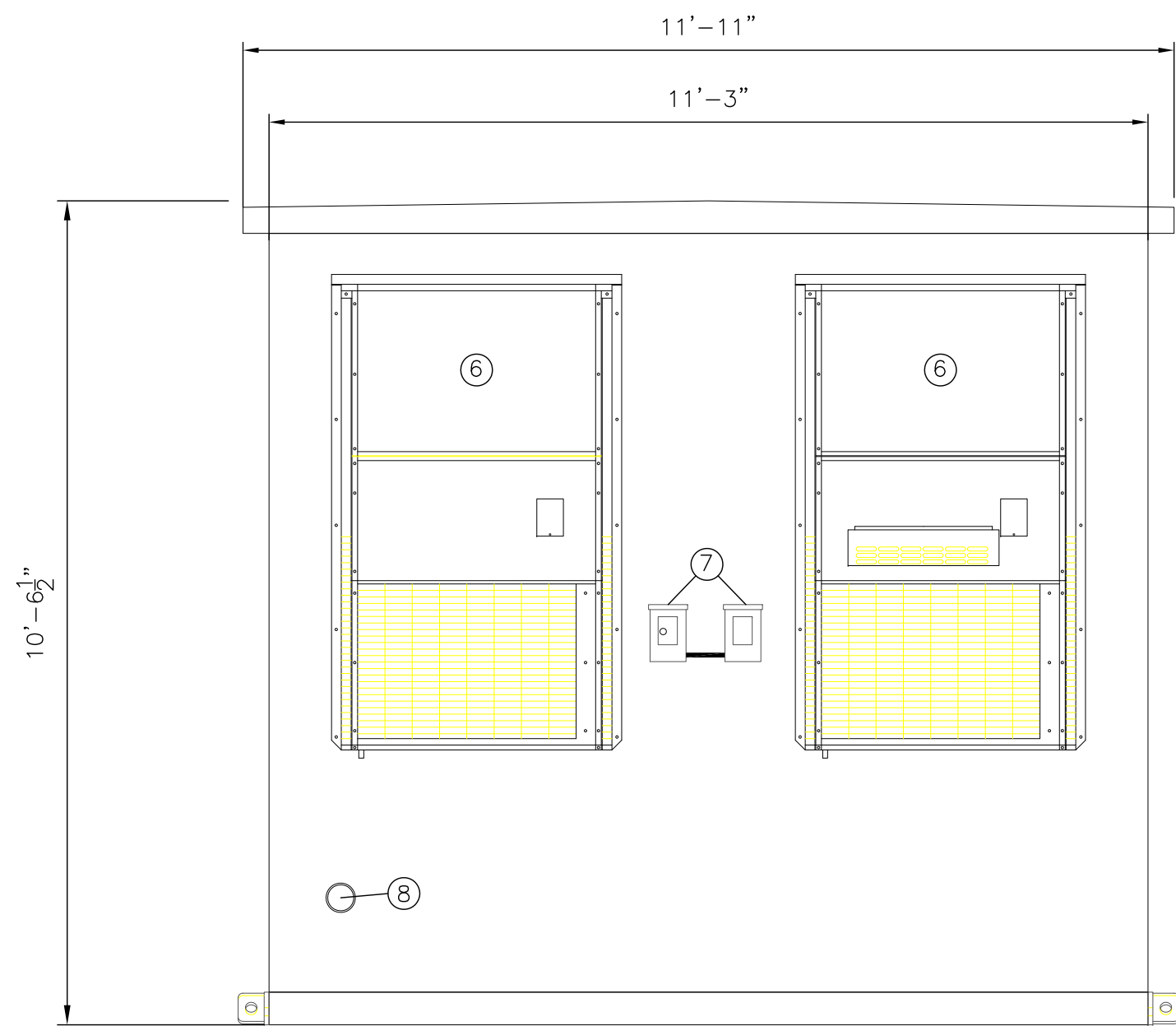
2 **EXTERIOR ELEVATION "B"**  
 CIV-2A SCALE: NTS

NO.	DESCRIPTION
1	DOOR CANOPY
2	EXTERIOR LIGHT FIXTURE
3	GENERATOR RECEPTACLE
4	EXTERIOR GROUND BAR
5	WAVEGUIDE ENTRY
6	HVAC UNIT
7	JUNCTION BOX
8	TELCO ENTRY - 4"
9	GROUND CABLE
10	SERVICE ENTRY
11	GROUND RING ENTRY
12	GENERATOR ENTRY

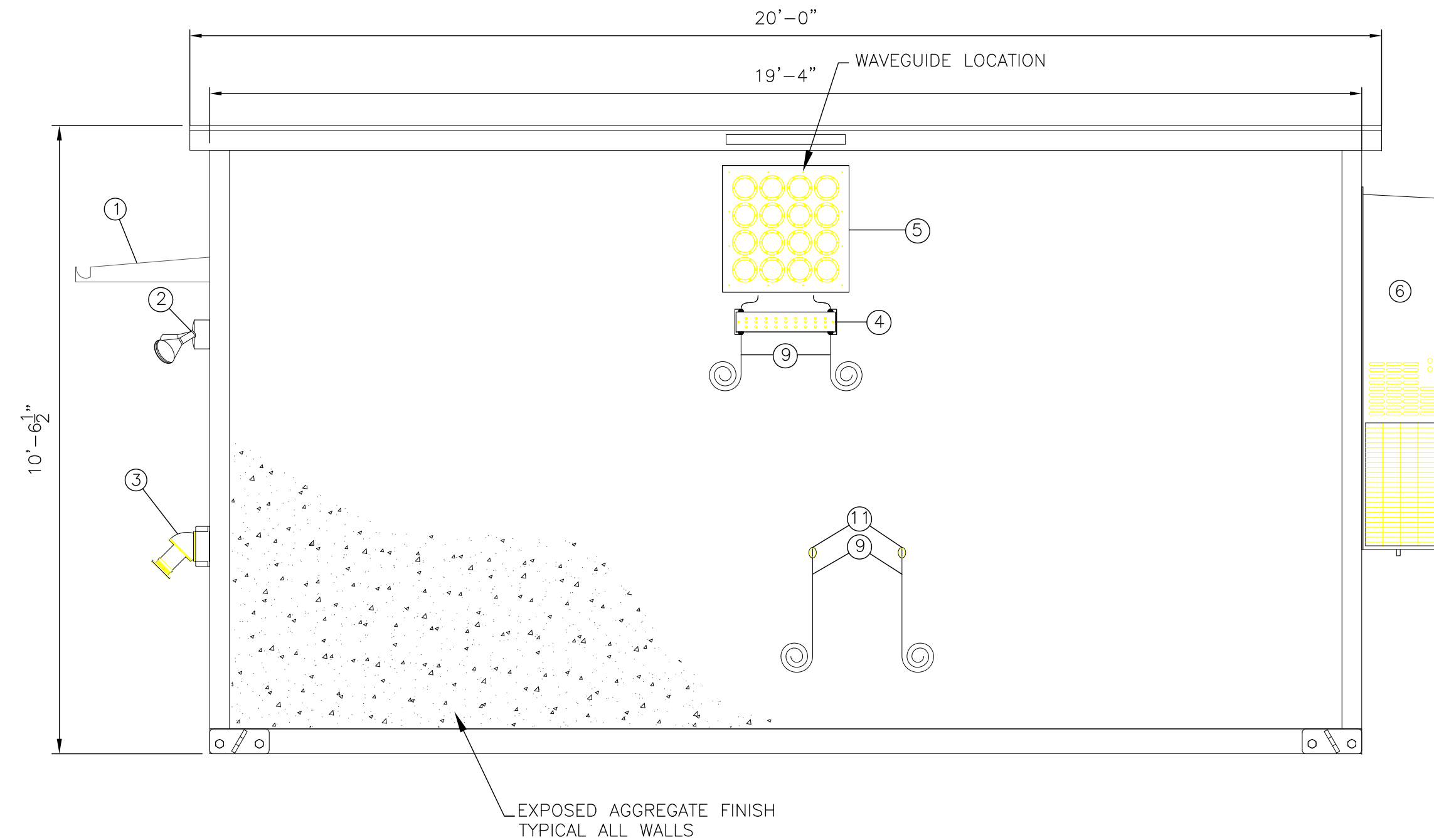
**BUILDING REQUIREMENTS:**  
 BUILDING IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS REQUIREMENTS NOT APPLICABLE.

**PLUMBING REQUIREMENTS:**  
 FACILITY HAS NO PLUMBING.

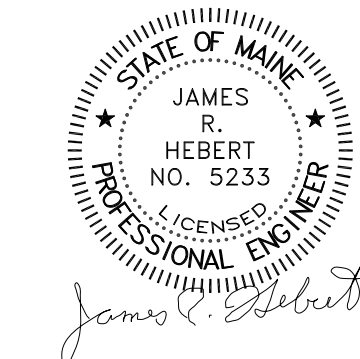
**NOTES:**  
 1. REFERENCE CellXion DRAWINGS FOR COMPLETE INSTALLATION AND BILL OF MATERIAL INFORMATION.  
 2. EQUIPMENT SHELTER MANUFACTURER SHALL BE RESPONSIBLE FOR DESIGN AND STRUCTURAL COMPONENTS OF EQUIPMENT SHELTER, AND STRUCTURAL ATTACHMENTS TO CONCRETE SLAB.  
 3. GPS ANTENNA SHALL BE MOUNTED TO EXTERIOR OF EQUIPMENT SHELTER.



3 **EXTERIOR ELEVATION "C"**  
 CIV-2A SCALE: NTS



4 **EXTERIOR ELEVATION "D"**  
 CIV-2A SCALE: NTS



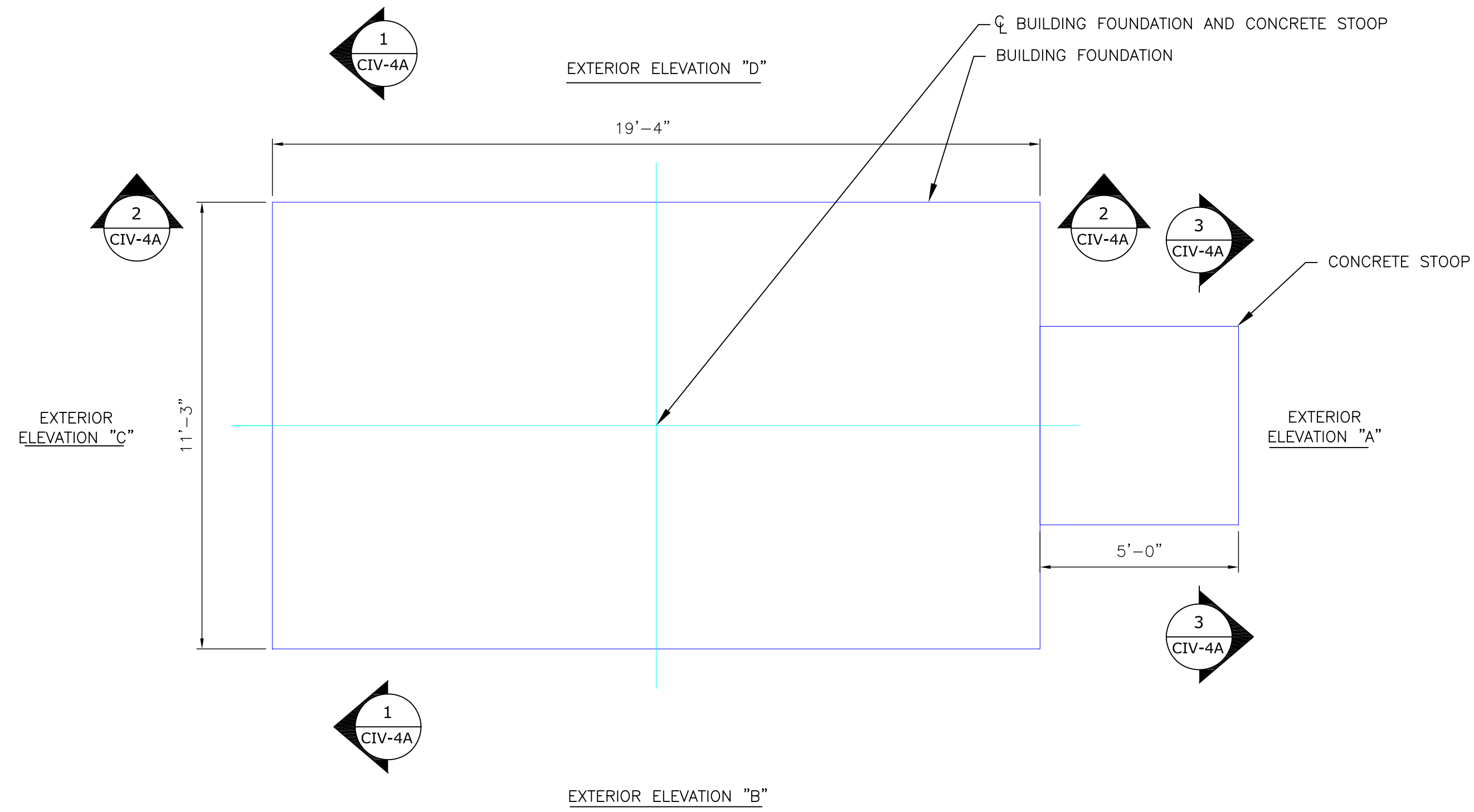
BLACK DIAMOND CONSULTANTS, INC.  
 JAMES R. HEBERT, PE  
 312 WATER STREET  
 GARDINER, MAINE 04345 207.582.0056

CELLULAR EQUIPMENT SHELTER ELEVATIONS

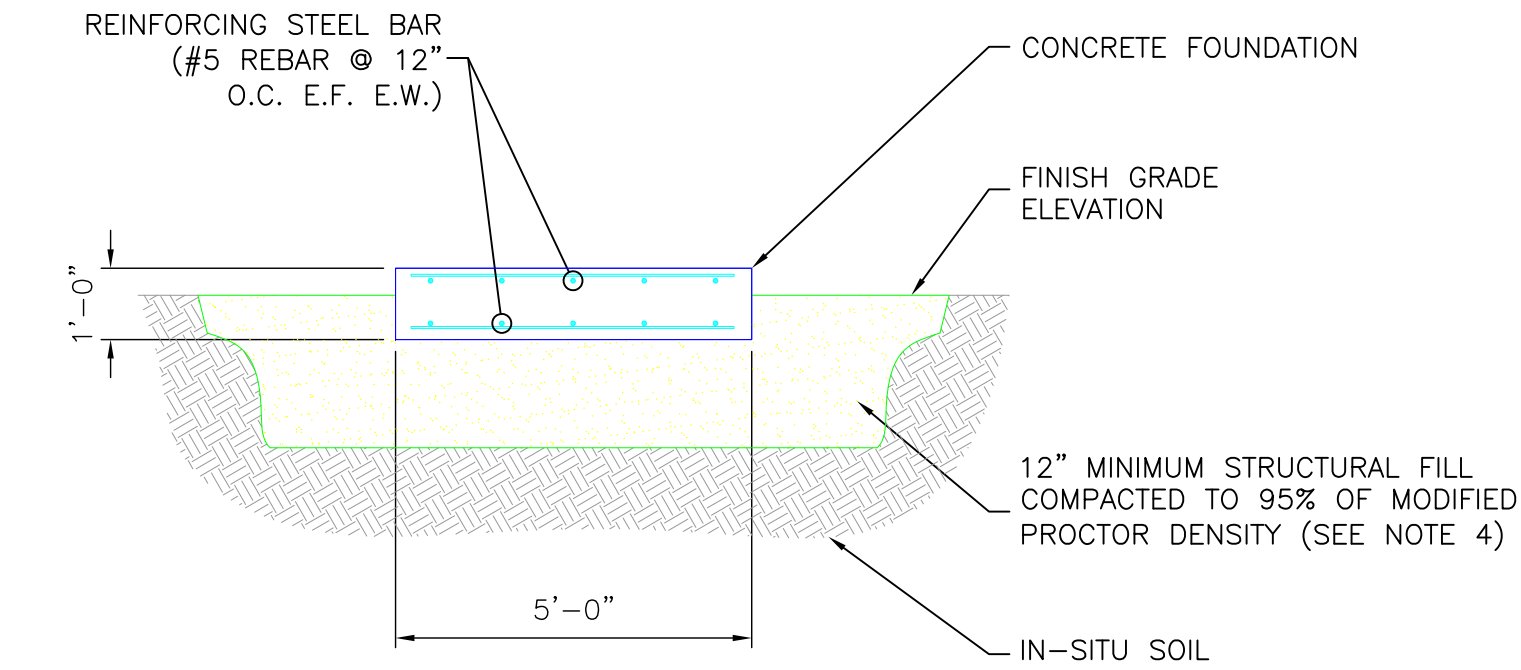


DRAWING NUMBER USCC-119\_CIV-3A-0

REV	DATE	BY	CHK'D	REV'D	APP'D	BDC PROJECT(S)	BDC PROPOSAL(S)
0	06/19/23	MJM	SAM	JRH	RFH	USCC-119	N/A
REVISION NOTES: ORIGINAL ISSUE.						13-016	
						BDC JOB ORDER(S)	CLIENT DATA
						SITE NAME:	PRINCETON
						SITE NUMBER:	424342



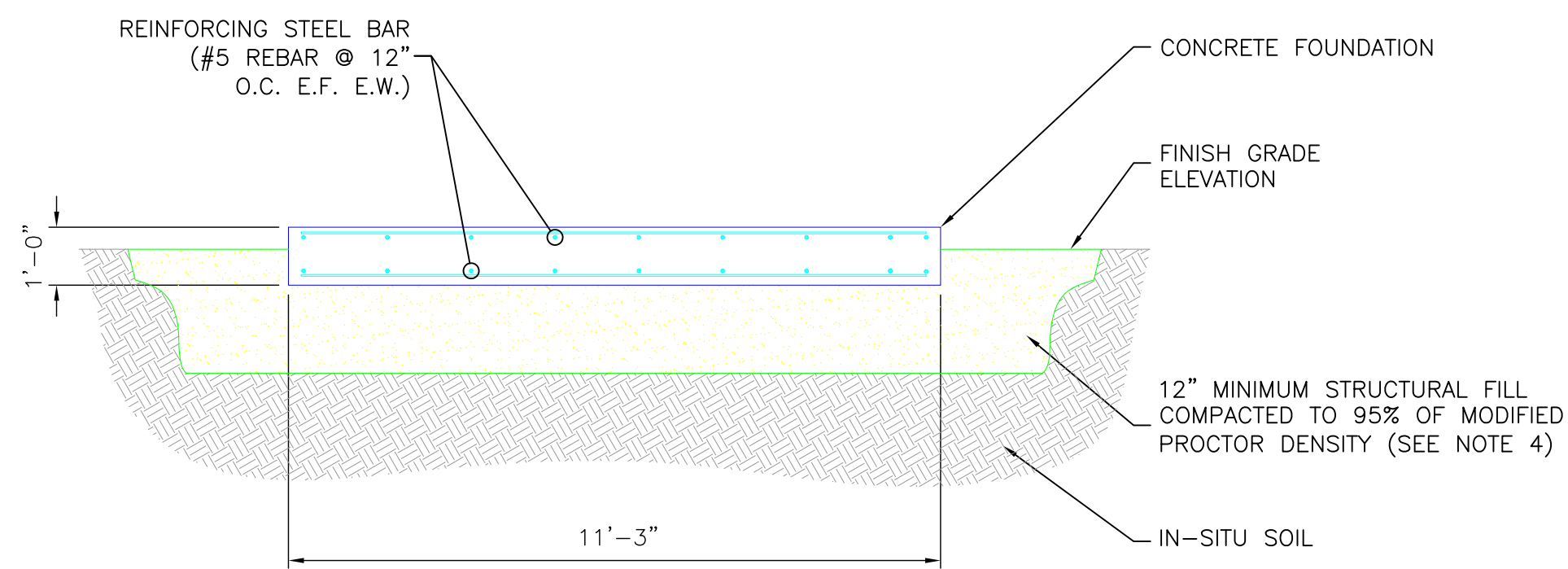
**CELLULAR SHELTER FOUNDATION PLAN VIEW**  
SCALE: NTS



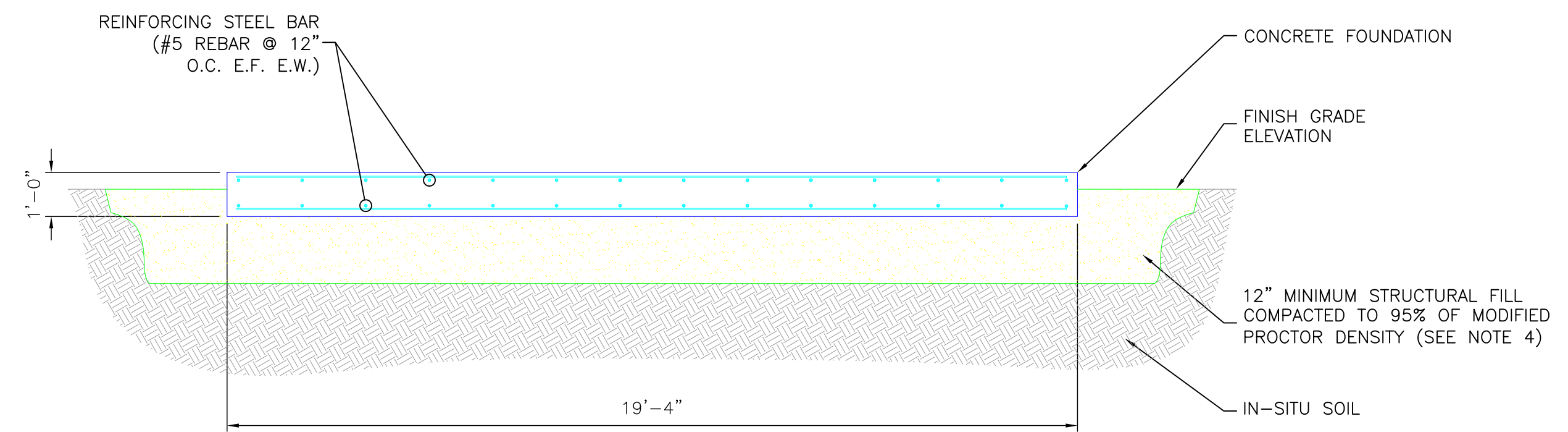
**TYPICAL CELLULAR SHELTER CONCRETE STOOP DETAIL**  
SCALE: NTS

- NOTES:**
- CONCRETE
    - ALL CONCRETE SHALL BE PROPORTIONED, MIXED AND PLACED IN ACCORDANCE WITH THE LATEST CODES AND SPECIFICATIONS OF THE AMERICAN CONCRETE INSTITUTE (ACI 318) "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE."
    - CONCRETE SHALL HAVE A SPECIFIED COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
  - REINFORCING STEEL
    - REINFORCING STEEL SHALL BE DEFORMED BILLET STEEL CONFORMING TO ASTM A615 GRADE 60.
    - REINFORCING STEEL SHALL BE DETAILED AND FABRICATED IN ACCORDANCE WITH ACI 315-92, "DETAILS AND DETAILING CONCRETE REINFORCEMENT."
  - CONCRETE PROTECTION OF REINFORCEMENT
    - A MINIMUM CLEAR DISTANCE BETWEEN FACE OF CONCRETE AND REINFORCING STEEL SHALL BE:
      - WHERE CONCRETE IS PLACED AGAINST EARTH: 3 INCHES.
      - WHERE CONCRETE SURFACES, AFTER FORM REMOVAL ARE EXPOSED TO WEATHER:
        - #5 BARS OR SMALLER: 1 1/2 INCHES.
        - #6 BARS OR LARGER: 2 INCHES.
      - WHERE CONCRETE SURFACES ARE NOT EXPOSED TO WEATHER OR GROUND:
        - #11 BARS OR SMALLER: 1 INCH.
        - FOR BEAMS, GIRDERS, AND COLUMNS: 1 1/2 INCHES.
    - SUBGRADE BELOW THE SLAB-ON-GRADE SHALL CONSIST OF MINIMUM 12" LIFTS AND COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY WITH THE FOLLOWING CHARACTERISTICS. FILL SHOULD BE FREE FROM VEGETABLE MATTER, LUMPS OR BALLS OF CLAY AND OTHER DELETERIOUS SUBSTANCES.

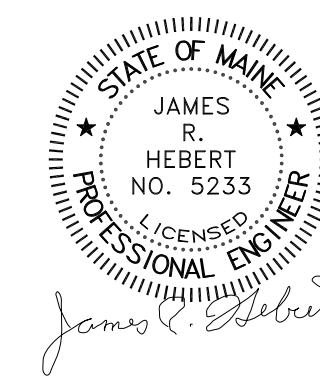
SIEVE SIZE	PERCENT FINER
3"	90-100
1/2"	25-70
NO. 40	0-30
NO. 200	0-5



**TYPICAL CELLULAR SHELTER FOUNDATION DETAIL**  
SCALE: NTS



**TYPICAL CELLULAR SHELTER FOUNDATION DETAIL**  
SCALE: NTS



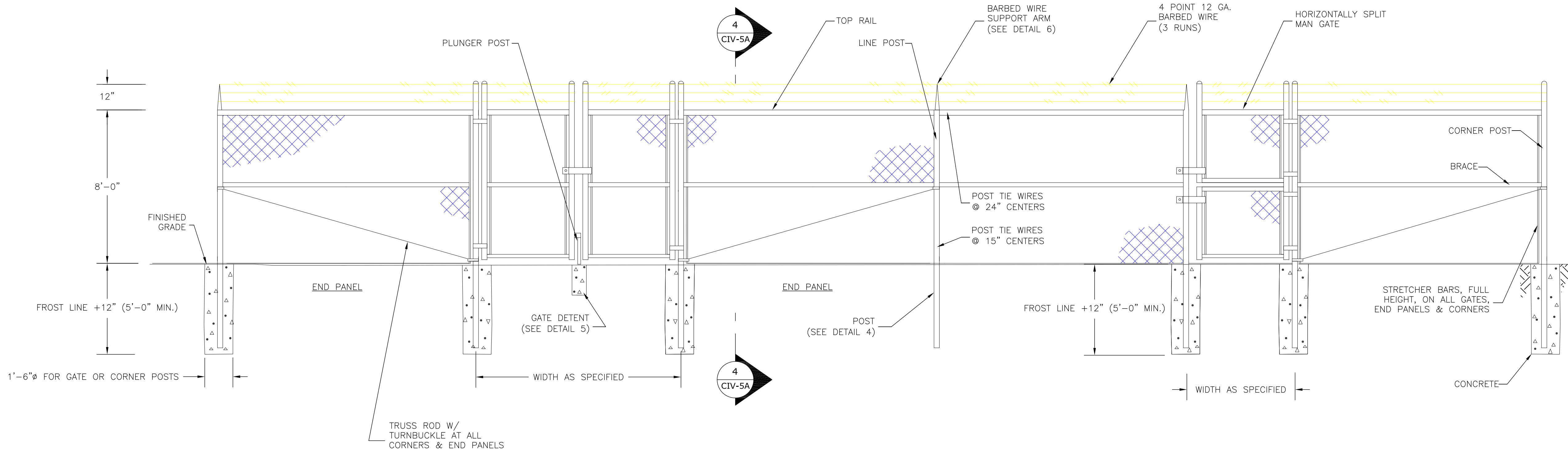
BLACK DIAMOND CONSULTANTS, INC.  
JAMES R. HEBERT, PE  
312 WATER STREET  
GARDINER, MAINE 04345 207.582.0056

FOUNDATION AND STOOP DETAILS

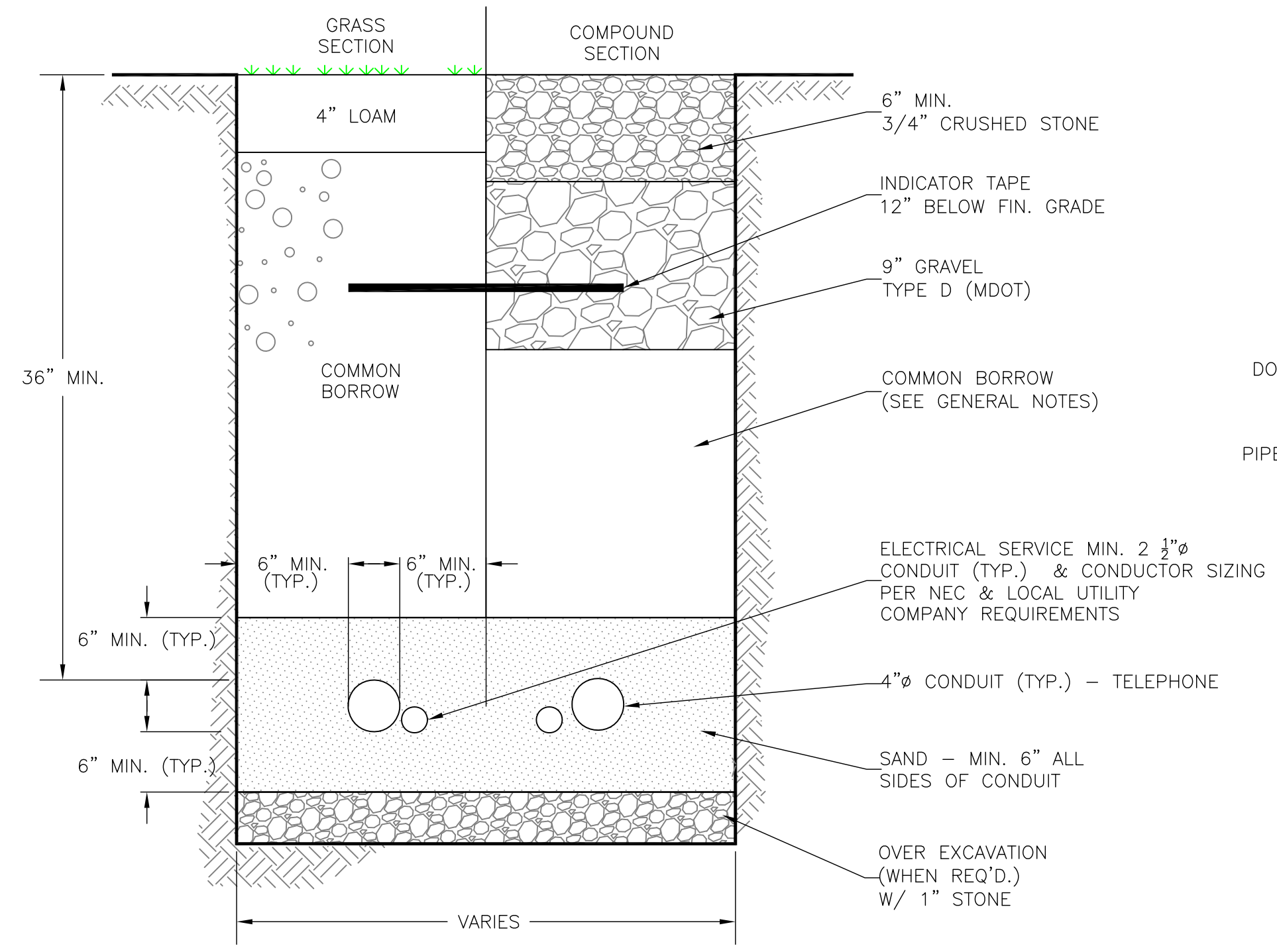


DRAWING NUMBER USCC-119\_CIV-4A-0

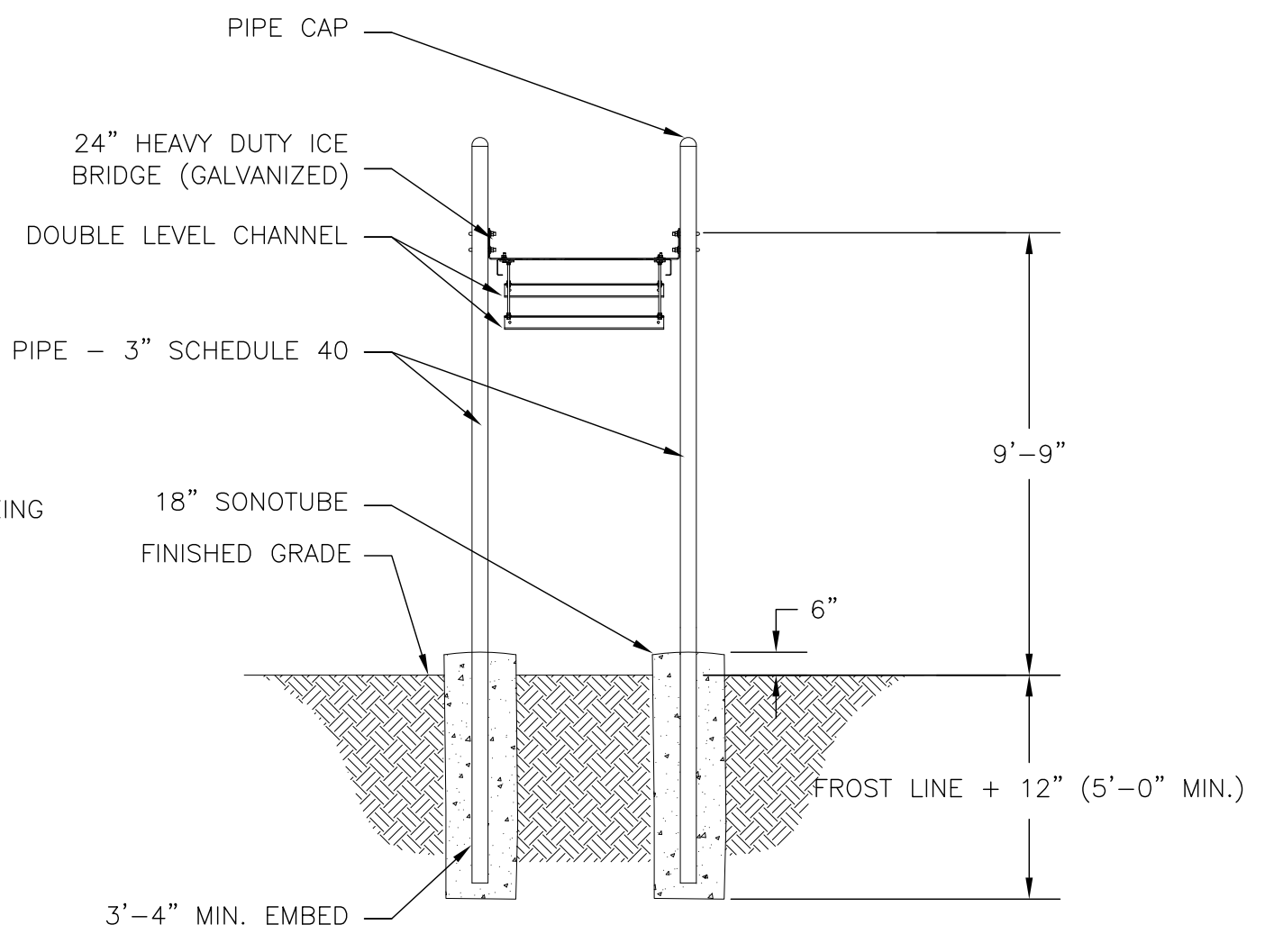
BDC:P/DRAFTING/BDC/USCC-119/USCC-119\_CIV-4A-0



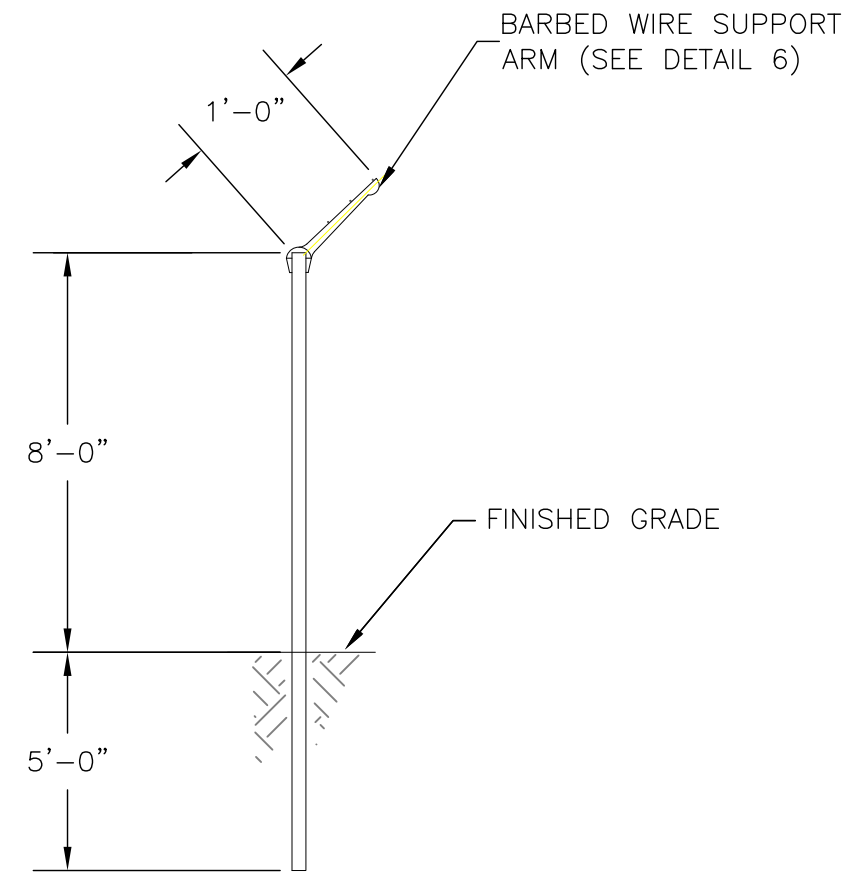
1 **TYPICAL GATE & PANEL SECTION DETAIL**  
SCALE: NTS



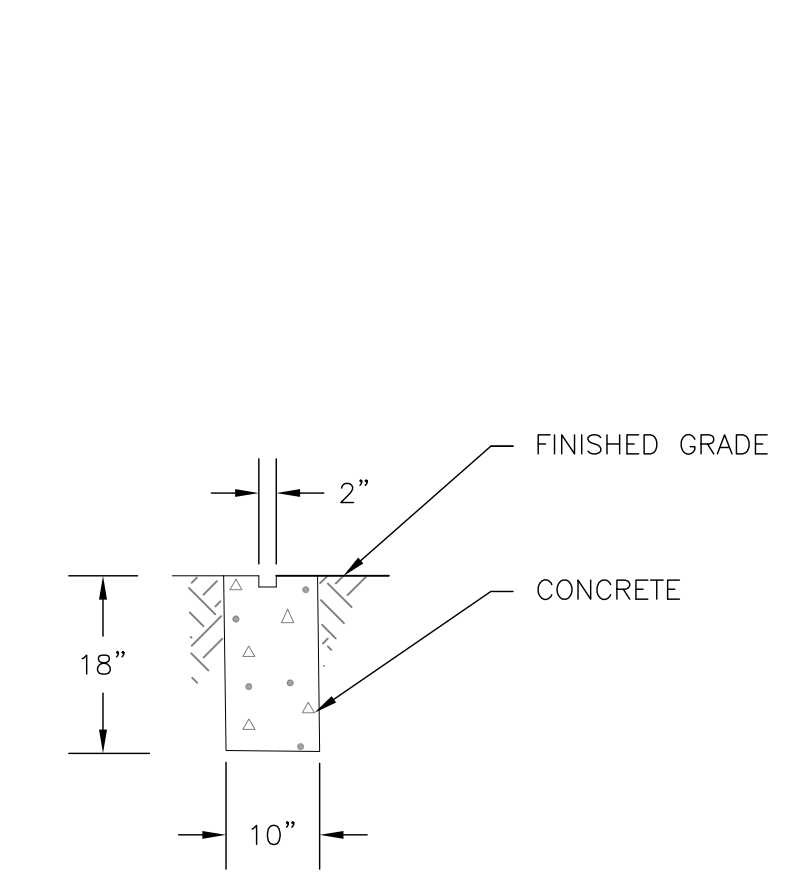
2 **TYPICAL ELECTRICAL/TELEPHONE TRENCH SECTION**  
SCALE: NTS



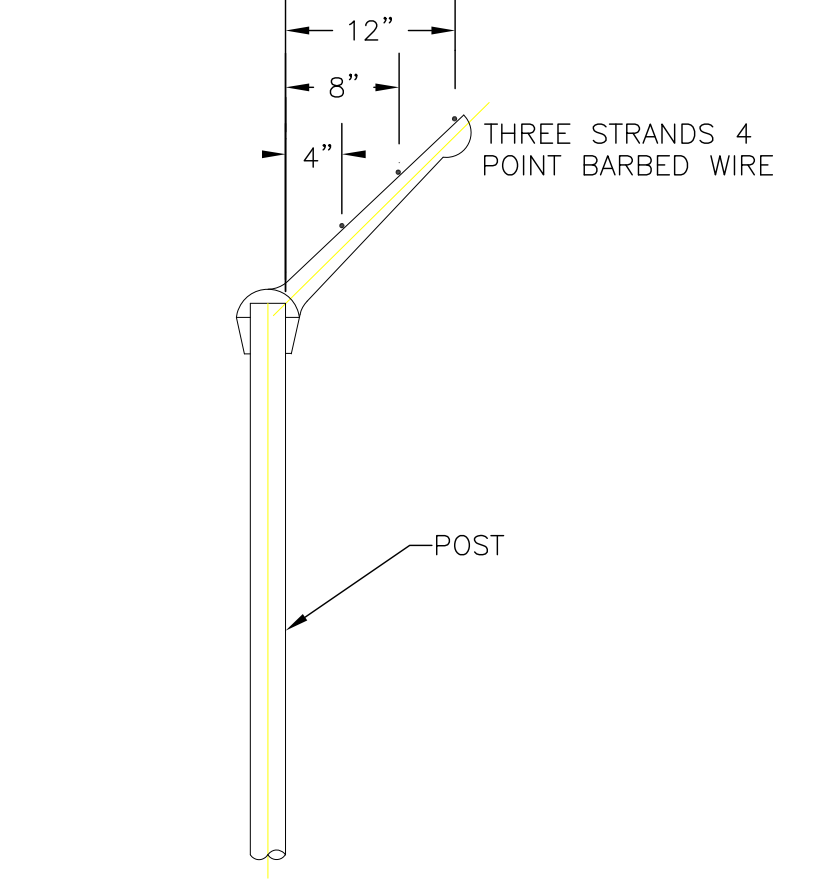
3 **TYPICAL ICE BRIDGE DETAIL**  
SCALE: NTS



4 **FENCE CROSS SECTION**  
SCALE: NTS



5 **GATE DETENT**  
SCALE: NTS



6 **BARBED WIRE SUPPORT ARM**  
SCALE: NTS

**TRENCH NOTES:**

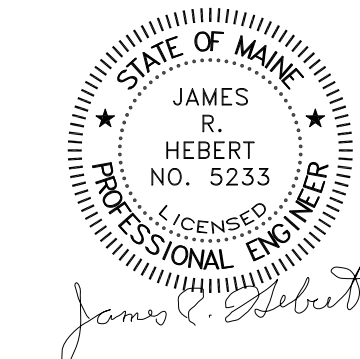
- CONTRACTOR SHALL COMPLY WITH OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION REGULATIONS PERTAINING TO THE EXCAVATION OF ALL TRENCHES. CONTRACTOR SHALL ALLOW FOR PAYMENT OF ADDITIONAL EXCAVATION, TRENCH BOXES, AND BACKFILL WITH REGARD TO COMPLYING WITH ALL OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION STANDARDS.
- ALL COMMON BORROW AND GRAVEL AREAS TO BE COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557 "MODIFIED PROCTOR DENSITY". PLACE IN 9" TO 12" LIFTS.

**ICE BRIDGE NOTES:**

- ALL STEEL TO BE GALVANIZED.
- TYPICAL HANGER KIT SHOWN. ICE BRIDGE MANUFACTURER SHALL BE RESPONSIBLE FOR DESIGN AND STRUCTURAL COMPONENTS OF ICE BRIDGE.
- FOR BURIED LEDGE AT LESS THAN 3'-6", CORE LEDGE WITH 4-1/2" X 8" DEEP HOLES AND GROUT. #3 REINFORCING STEEL WITH #3 TIES @ 6" O.C.
- ALL COMPONENTS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- CONTRACTOR SHALL DETERMINE REQUIRED QUANTITY OF ICE BRIDGE COMPONENTS.
- ICE BRIDGE SHALL BE BONDED TO EQUIPMENT SHELTER EXTERIOR GROUND RINGS.

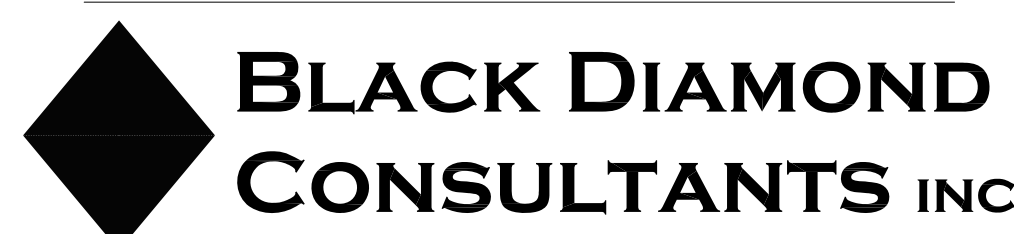
**FENCE NOTES:**

- FENCE CONSTRUCTION SHALL BE PLUMB, STRAIGHT, AND STRUCTURALLY SOUND.
- FENCE FABRIC SHALL USE A BOTTOM TENSION WIRE AND BARBED WIRE. FENCING SHALL BE TIGHT AND CONTINUOUS.
- FENCE, FENCE FABRIC AND BARBED WIRE SHALL BE BONDED TO THE FACILITY OR TOWER EXTERNAL GROUND RING (EGR) AT EACH CORNER ON INSIDE OF FENCING COMPOUND.
- ALL ENTRY GATES SHALL BE BONDED TO THE MAIN FENCE ASSEMBLY BY A METAL STRAP.
- TWO HOLE COMPRESSION LUGS CAN BE USED IN PLACE OF EXOTHERMIC WELDS DUE TO THINNESS OF METAL.
- FENCE SHALL CONFORM TO LOCAL ZONING REGULATIONS.
- ALL STEEL TO BE GALVANIZED.



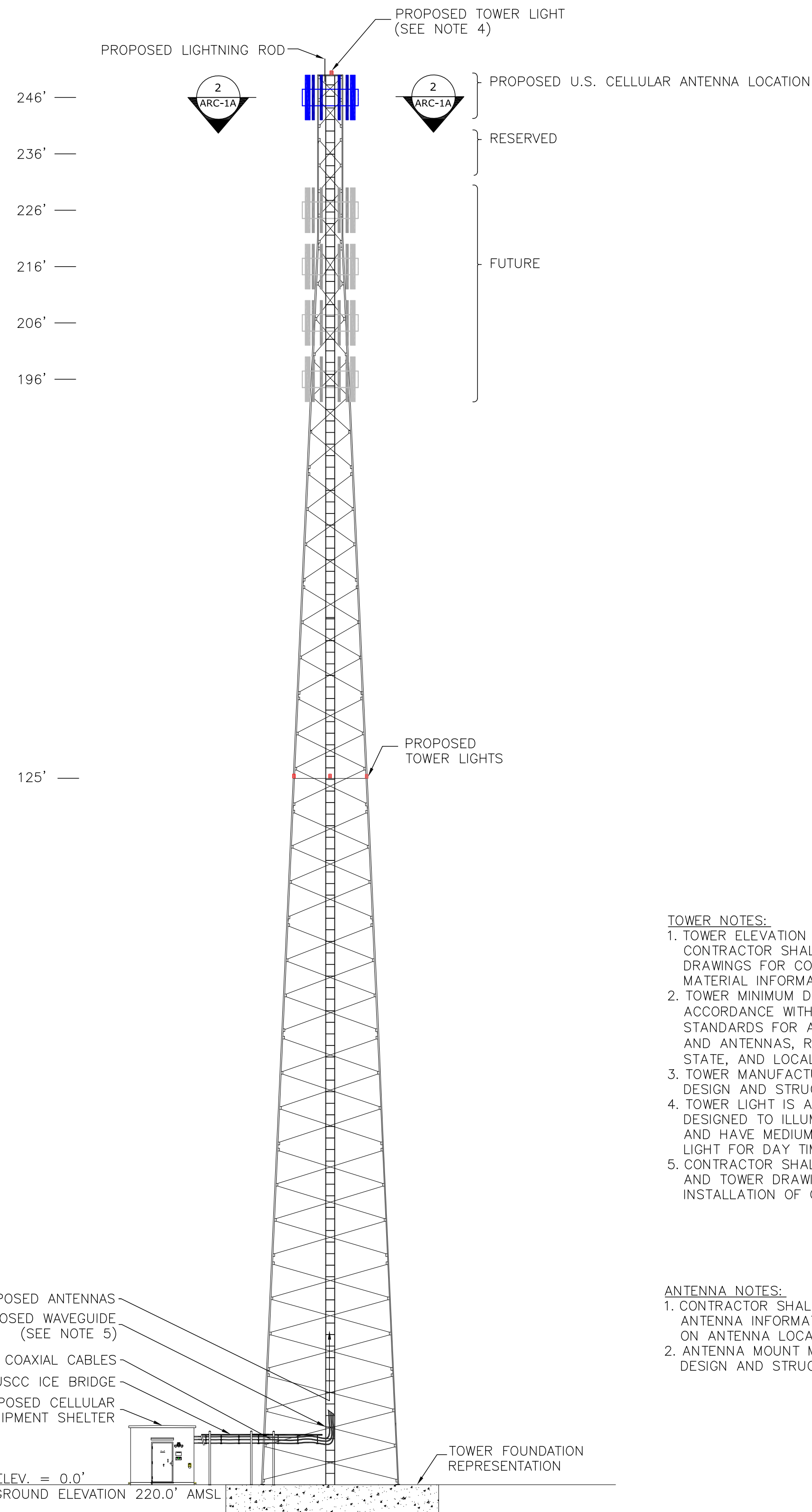
BLACK DIAMOND CONSULTANTS, INC.  
JAMES R. HERBERT, PE  
312 WATER STREET  
GARDINER, MAINE 04345 207.582.0056

FENCE, TRENCH AND ICE BRIDGE DETAILS



DRAWING NUMBER USCC-119\_CIV-5A-0

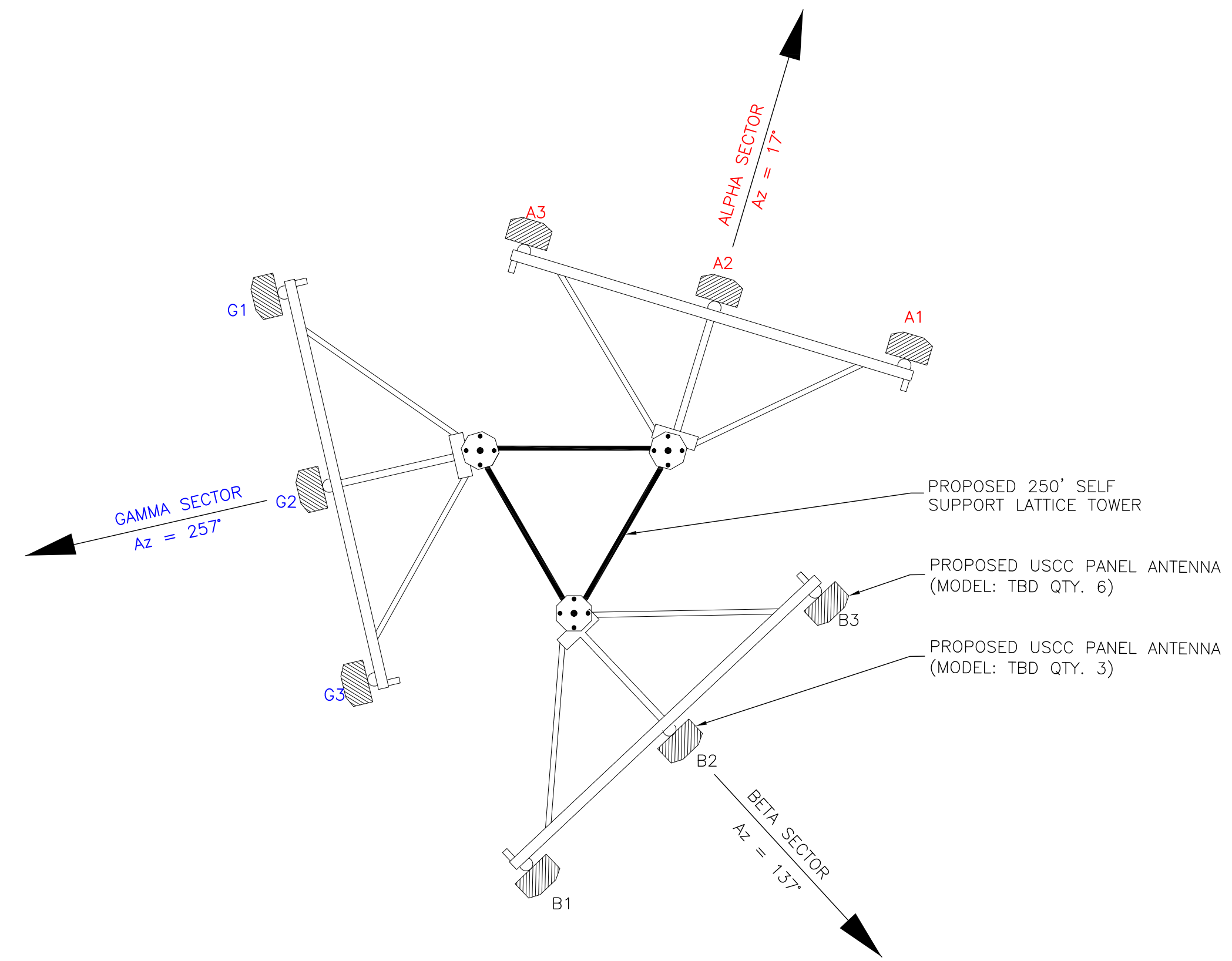
REV	DATE	BY	CHK'D	REV'D	APP'D	BDC PROJECT(S)	BDC PROPOSAL(S)
0	06/19/23	MJM	SAM	JRH	RFH	USCC-119	N/A
REVISION NOTES: ORIGINAL ISSUE.						BDC JOB ORDER(S)	CLIENT DATA
						13-016	SITE NAME: PRINCETON SITE NUMBER: 424342



**1 TOWER AND EQUIPMENT SHELTER ELEVATION**  
 SCALE: NTS

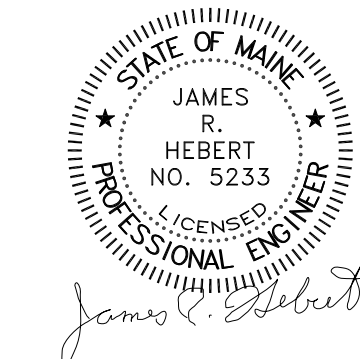
- TOWER NOTES:**
1. TOWER ELEVATION PLAN SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL REFER TO TOWER MANUFACTURER DRAWINGS FOR COMPLETE INSTALLATION AND BILL OF MATERIAL INFORMATION.
  2. TOWER MINIMUM DESIGN SPECIFICATIONS SHALL BE IN ACCORDANCE WITH ANSI/TIA/EIA 222-G "STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS, REVISION G" AND GOVERNING FEDERAL, STATE, AND LOCAL CODE REQUIREMENTS.
  3. TOWER MANUFACTURER SHALL BE RESPONSIBLE FOR DESIGN AND STRUCTURAL COMPONENTS OF TOWER.
  4. TOWER LIGHT IS A DUAL LIGHTING SYSTEM DESIGNED TO ILLUMINATE RED AT NIGHT TIME AND HAVE MEDIUM INTENSITY FLASHING WHITE LIGHT FOR DAY TIME AND TWILIGHT.
  5. CONTRACTOR SHALL REFER TO THE TOWER MANUFACTURER AND TOWER DRAWINGS FOR CONFIGURATIONS AND INSTALLATION OF CABLES.

- ANTENNA NOTES:**
1. CONTRACTOR SHALL CONTACT USCC RF ENGINEER FOR ALL ANTENNA INFORMATION. ANTENNA AND AZIMUTHS SHOWN ON ANTENNA LOCATION SECTION FOR REFERENCE ONLY.
  2. ANTENNA MOUNT MANUFACTURER SHALL BE RESPONSIBLE FOR DESIGN AND STRUCTURAL COMPONENTS OF ANTENNA MOUNTS.



**2 ANTENNA LOCATION SECTION**  
 SCALE: NTS

ANTENNA AND COAXIAL CABLE SCHEDULE											COLOR CODE	
ANTENNA MARK	SECTOR	PANEL ANTENNA	MECHANICAL DOWNTILT	ELECTRICAL DOWNTILT	RAD CENTER	COAXIAL CABLE	COAXIAL CABLE LENGTH	AZIMUTH (TRUE NORTH)	AZIMUTH (MAGNETIC NORTH)	SECTOR/LINE	TECHNOLOGY ID	SPECTRUM ID
A1	A	TBD	0°	-	246'	TBD	290'	0°	17°	R	YEL	BR
A1	A	TBD	0°	-	246'	TBD	290'	0°	17°	RR	YEL	BR
A2	A	TBD	0°	-	246'	TBD	290'	0°	17°	R	OR	GR
A2	A	TBD	0°	-	246'	TBD	290'	0°	17°	RR	OR	GR
A3	A	TBD	0°	-	246'	TBD	290'	0°	17°	RRR	YEL	BR
A3	A	TBD	0°	-	246'	TBD	290'	0°	17°	RRRR	YEL	BR
B1	B	TBD	0°	-	246'	TBD	290'	120°	137°	W	YEL	BR
B1	B	TBD	0°	-	246'	TBD	290'	120°	137°	WW	YEL	BR
B2	B	TBD	0°	-	246'	TBD	290'	120°	137°	W	OR	GR
B2	B	TBD	0°	-	246'	TBD	290'	120°	137°	WW	OR	GR
B3	B	TBD	0°	-	246'	TBD	290'	120°	137°	WWW	YEL	BR
B3	B	TBD	0°	-	246'	TBD	290'	120°	137°	WWWW	YEL	BR
G1	G	TBD	0°	-	246'	TBD	290'	240°	257°	B	YEL	BR
G1	G	TBD	0°	-	246'	TBD	290'	240°	257°	BB	YEL	BR
G2	G	TBD	0°	-	246'	TBD	290'	240°	257°	B	OR	GR
G2	G	TBD	0°	-	246'	TBD	290'	240°	257°	BBB	OR	GR
G3	G	TBD	0°	-	246'	TBD	290'	240°	257°	BBB	YEL	BR
G3	G	TBD	0°	-	246'	TBD	290'	240°	257°	BBBB	YEL	BR



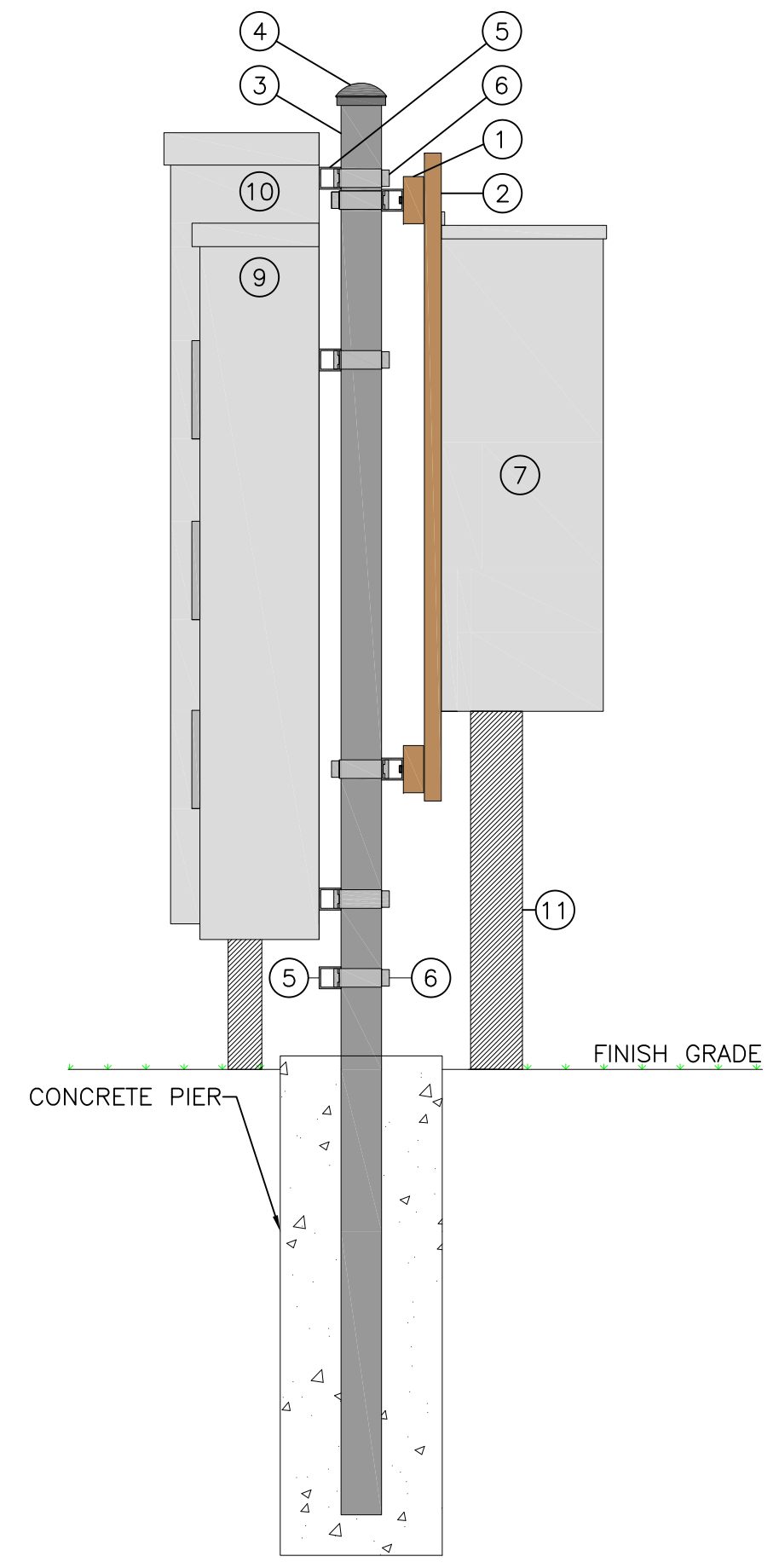
BLACK DIAMOND CONSULTANTS, INC.  
 JAMES R. HERBERT, PE  
 312 WATER STREET  
 GARDINER, MAINE 04345 207.582.0056

**TOWER ELEVATION AND ANTENNA LOCATION SECTION**

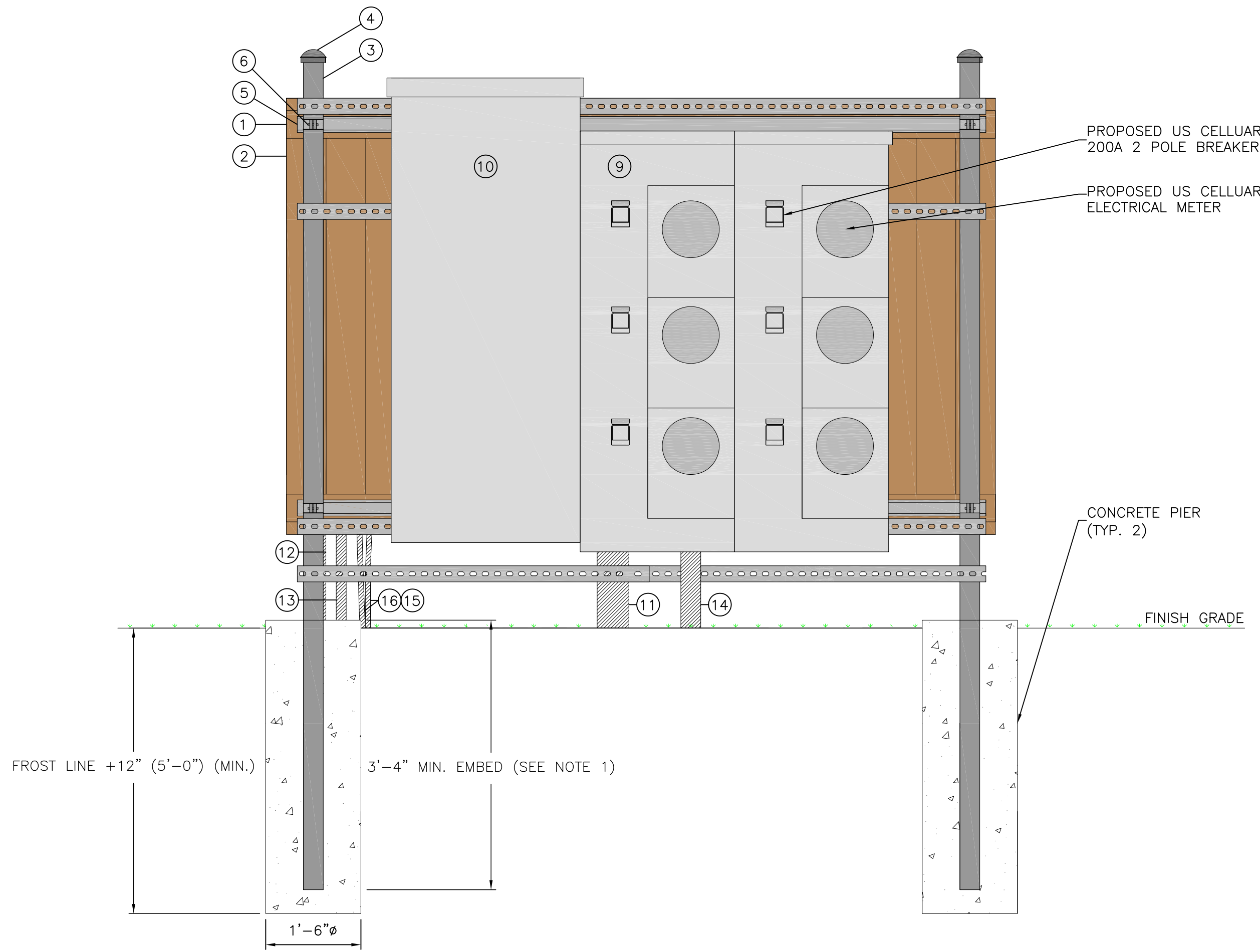


DRAWING NUMBER USCC-119\_ARC-1A-0

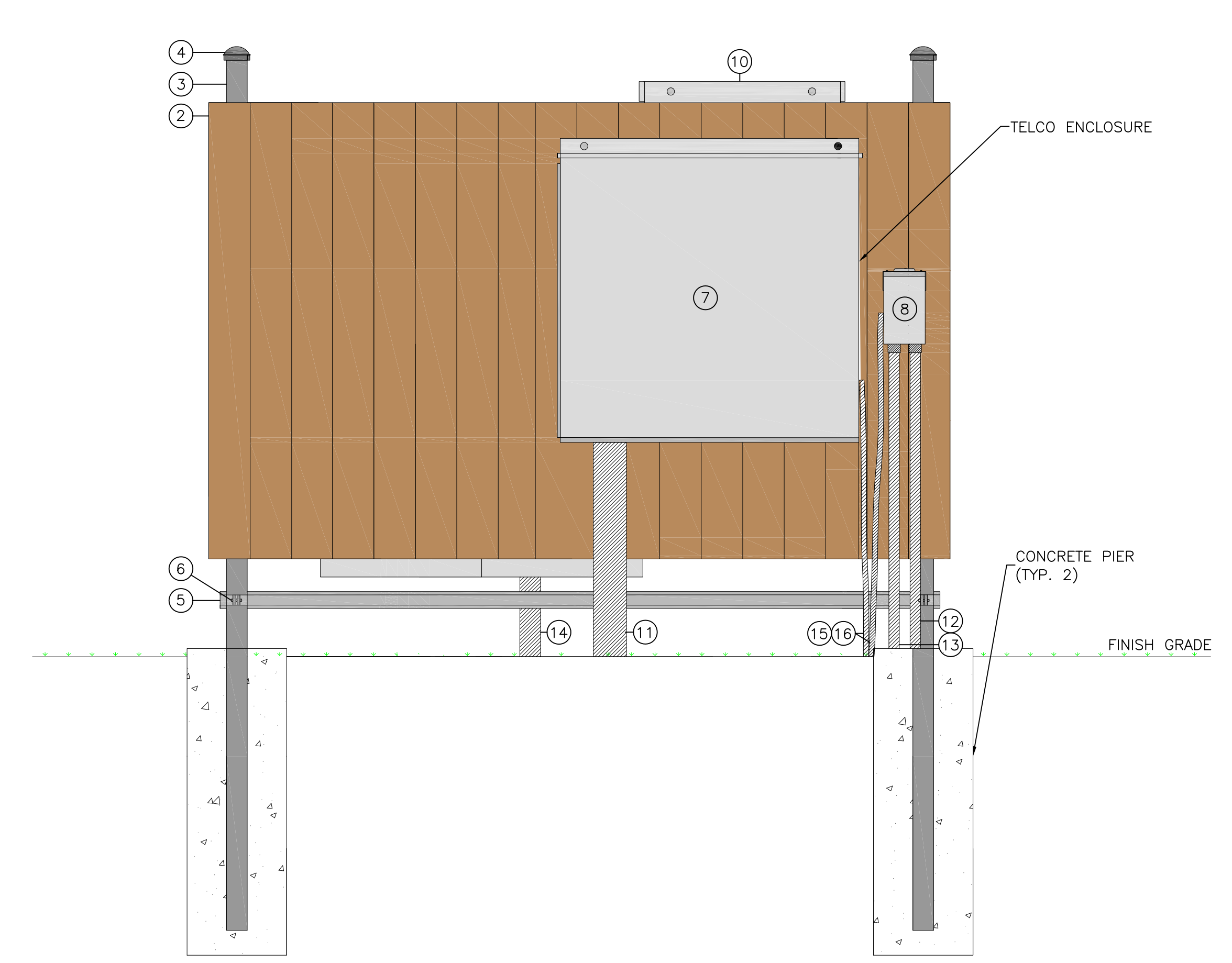
REV	DATE	BY	CHK'D	REV'D	APP'D	BDC PROJECT(S)	BDC PROPOSAL(S)
0	06/19/23	MJM	SAM	JRH	RFH	USCC-119	N/A
REVISION NOTES: ORIGINAL ISSUE.						BDC JOB ORDER(S)	CLIENT DATA
						13-016	
						SITE NAME:	PRINCETON
						SITE NUMBER:	424342



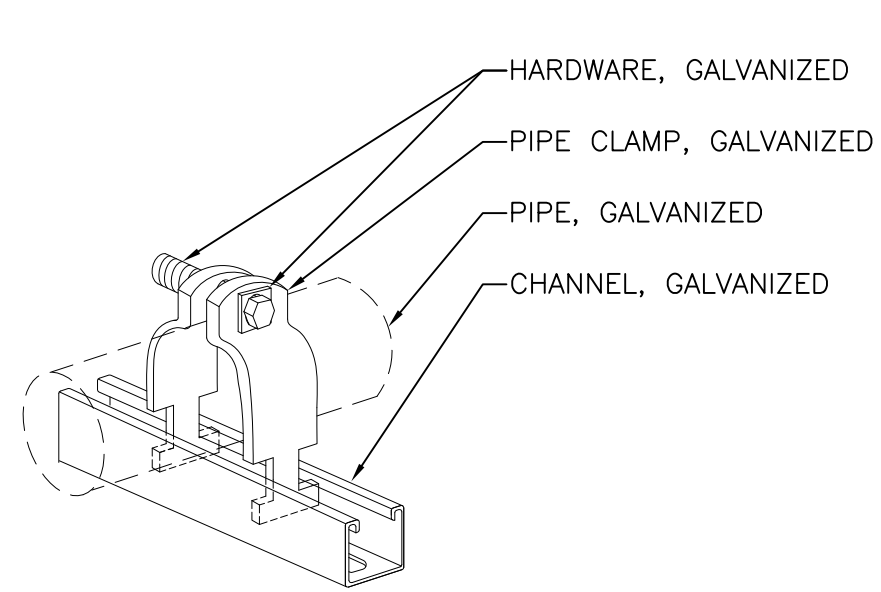
**ELECTRICAL METER BOARD SIDE ELEVATION**  
 SCALE: NTS



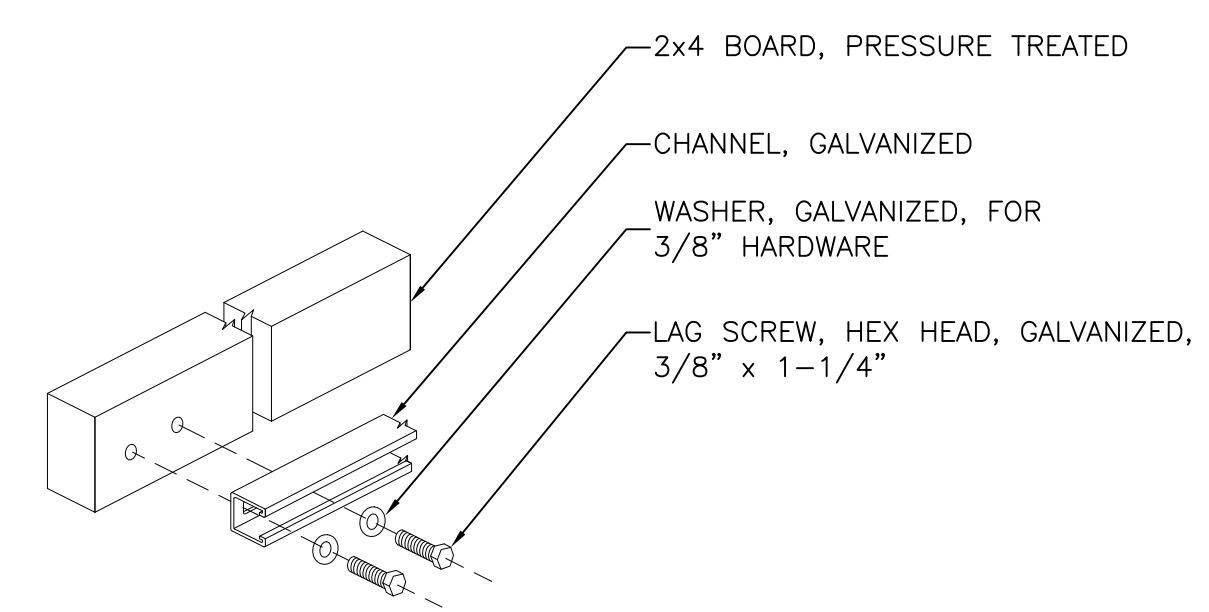
**ELECTRICAL METER BOARD FRONT ELEVATION**  
 SCALE: NTS



**ELECTRICAL METER BOARD REAR ELEVATION**  
 SCALE: NTS



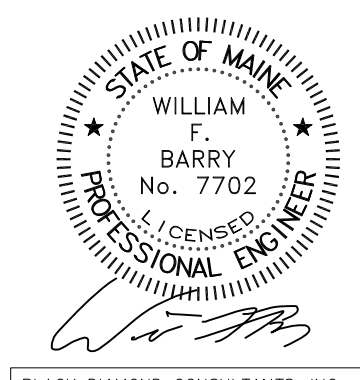
**UNISTRUT AND GALVANIZED PIPE CONNECTION**  
**PIPE CLAMP DETAIL**  
 SCALE: NTS



**UNISTRUT AND 2X4 BOARD CONNECTION**  
 SCALE: NTS

ITEM	DESCRIPTION
1	2" X 4" BOARD, SOUTHERN PINE, PRESSURE TREATED (EXTERIOR, ABOVE GRADE)
2	5/4" X 6" BOARD, SOUTHERN PINE, PRESSURE TREATED (EXTERIOR, ABOVE GRADE)
3	PIPE, SCHEDULE 40, GALVANIZED, 3"
4	CAP, GALVANIZED, 3"
5	CHANNEL, 1-5/8"x1-5/8", SLOTTED HOLE, GALVANIZED
6	PIPE CLAMP, FOR 3" PIPE, GALVANIZED, WITH HARDWARE
7	ENCLOSURE, NEMA 3R, 36"x36"x12", FOR TELCO
8	SAFETY SWITCH, NEMA 3R, NONFUSIBLE, 30A, 600VAC, FOR TELCO CSC CABINET
9	ELECTRICAL METER ENCLOSURE, SIX GANG
10	ELECTRICAL DISTRIBUTION ENCLOSURE
11	CONDUIT, PVC, SCHEDULE 40, 4", TO STRONGWELL BOX
12	CONDUIT, PVC, SCHEDULE 40, 1-1/4", TO STRONGWELL BOX
13	CONDUIT, PVC, SCHEDULE 40, 1-1/4", TO EQUIPMENT SHELTER
14	CONDUIT, PVC, SCHEDULE 40, 2-1/2", TO EQUIPMENT SHELTER
15	GROUND CABLE, #2 BARE TINNED SOLID COPPER, WITH 2 HOLE LUG
16	CONDUIT, PVC, SCHEDULE 40, 3/4", TO GROUND RING

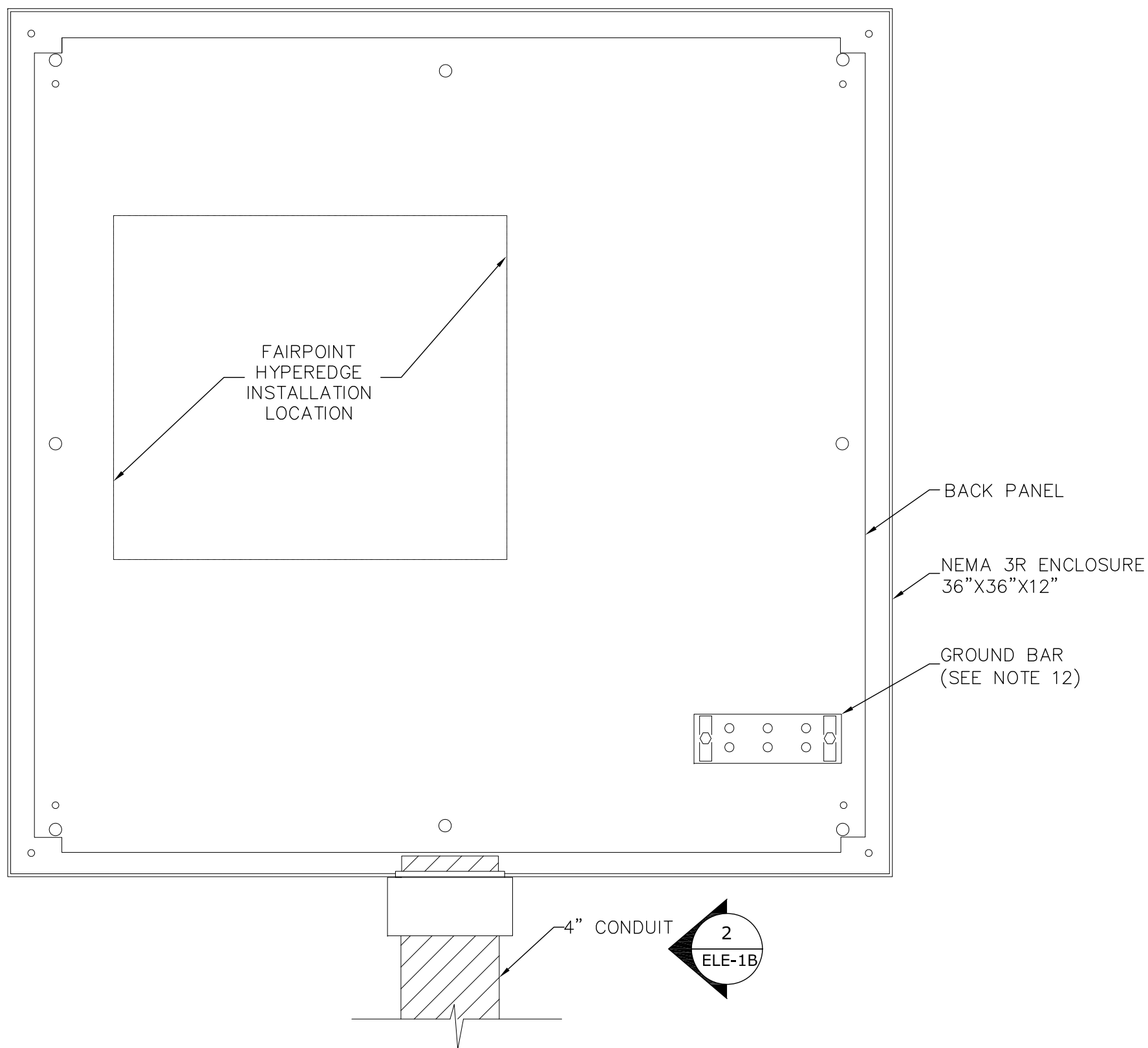
NOTES:  
 1. FOR BURIED LEDGE AT LESS THAN 3'-6". CORE LEDGE WITH 4-1/2"Ø X 8" DEEP HOLES AND GROUT. #3 REINFORCING STEEL WITH #3 TIES AT 6" O.C.



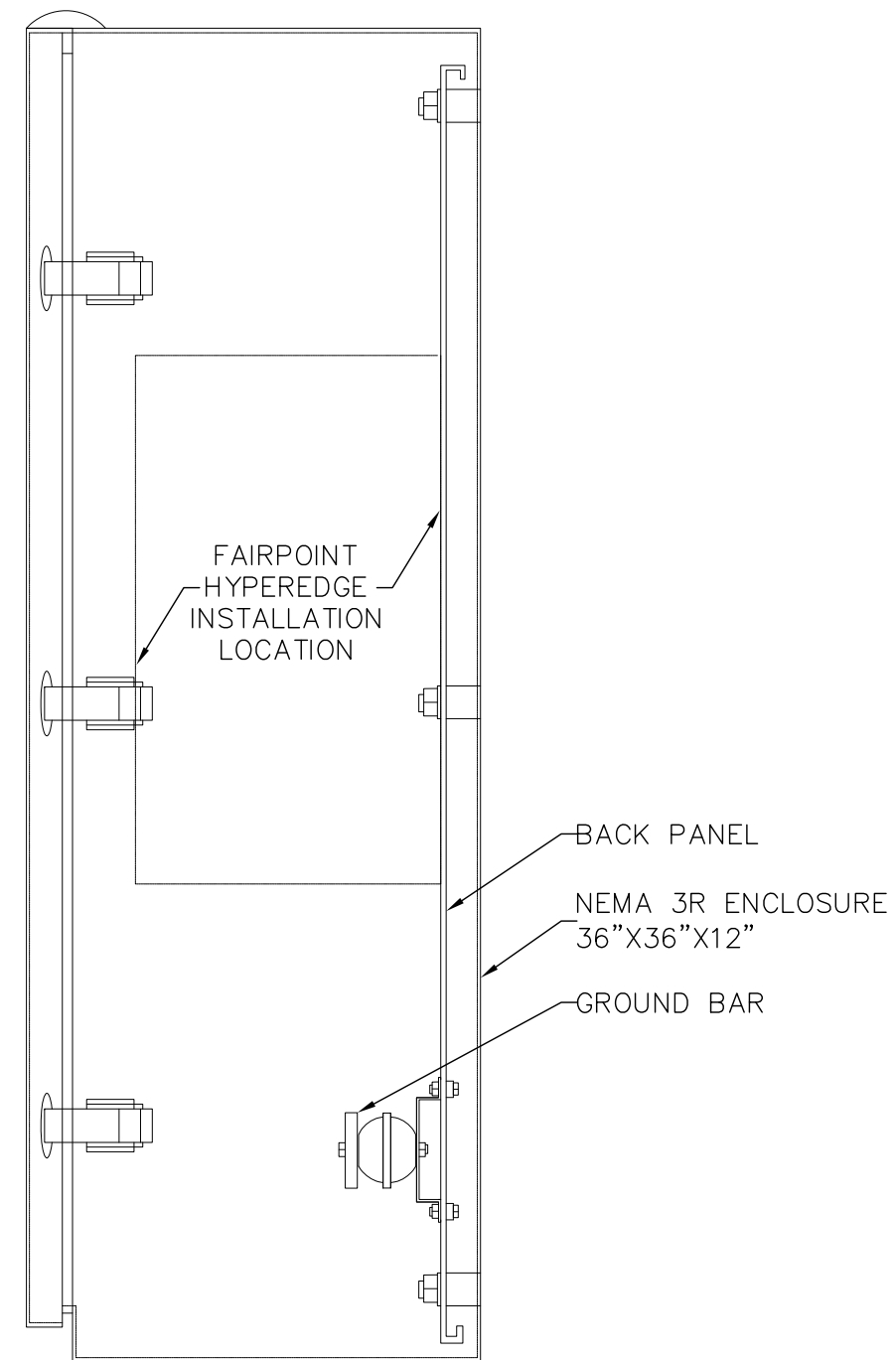
BLACK DIAMOND CONSULTANTS, INC.  
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ELECTRICAL DETAILS

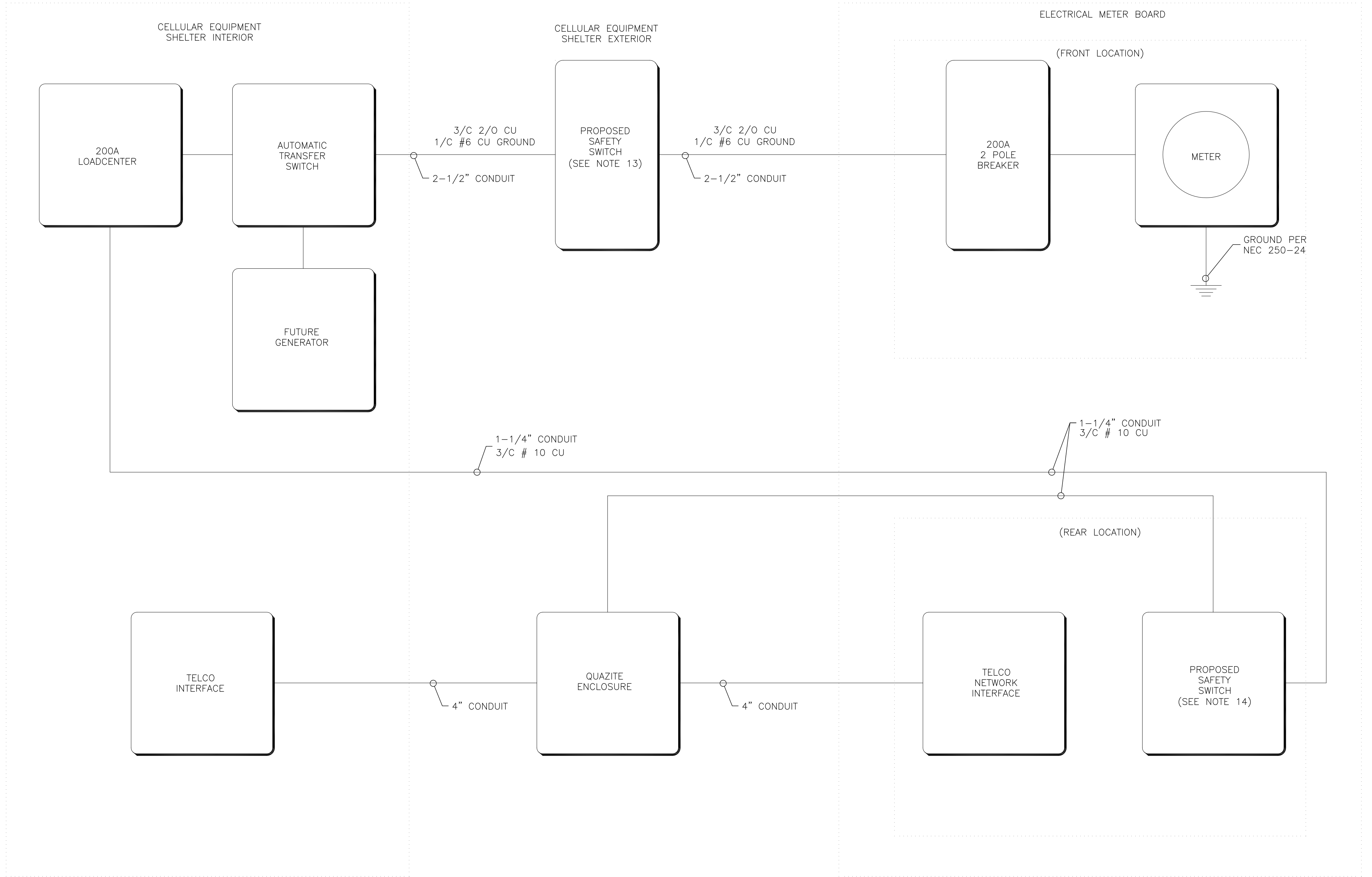
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1 **TELCO ENCLOSURE**  
 CIV-2A SCALE: NTS



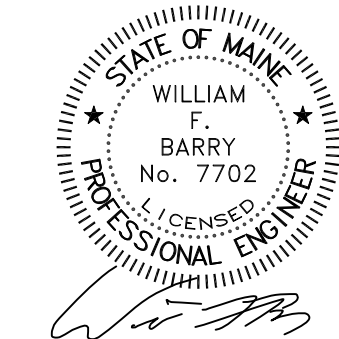
2 **TELCO ENCLOSURE SECTION**  
 ELEM-1B SCALE: NTS



**ELECTRICAL AND TELCO RISER DIAGRAM**  
 SCALE: NTS

NOTES:

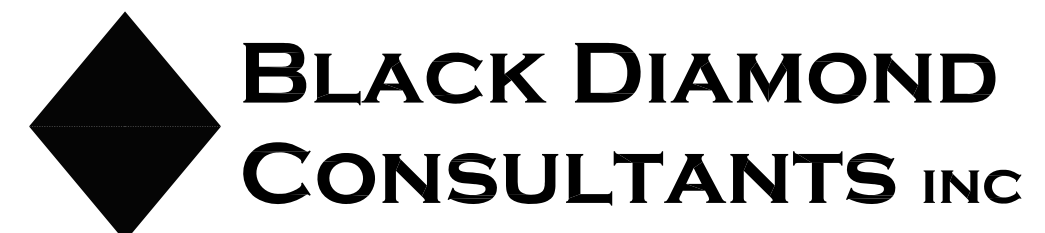
- ALL TELCO CONDUITS SHALL BE 4"Ø UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL INSTALL ALL CONDUITS AND WIRES AS SHOWN AS CONTINUOUS COPPER CONDUCTOR RUNS UNLESS OTHERWISE NOTED.
- CONDUIT AND PULL STRINGS SHALL BE INSTALLED BY CONTRACTOR.
- ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST NATIONAL ELECTRIC CODE, ALL LOCAL AND STATE CODES, LAWS AND ORDINANCES.
- POWER SERVICE REQUIREMENTS SHALL BE COMMERCIAL 120/240 VAC NOMINAL, SINGLE PHASE AND 3 WIRE WITH 200 AMP RATING.
- THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL CONDUIT ROUTING WITH LOCAL UTILITY COMPANIES AND USCC PROJECT MANAGER/DESIGNEE.
- UTILITY SERVICES SHOWN ARE PROPOSED, THE ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT TELEPHONE AND ELECTRICAL SERVICE CONNECTION POINTS, ROUTING, AND ASSOCIATED REQUIREMENTS WITH UTILITY COMPANIES.
- ALL CONDUITS ROUTED BELOW GRADE SHALL TRANSITION TO RIGID GALVANIZED STEEL CONDUIT ABOVE GRADE WITH EXPANSION SLEEVES.
- ALL METAL CONDUIT BUSHINGS SHALL BE PROVIDED WITH GROUNDING BUSHINGS.
- GENERAL CONTRACTOR SHALL PROVIDE ALL DIRECT BURIED CONDUITS WITH PLASTIC WARNING TAPE IDENTIFYING CONTENTS. TAPE COLORS SHALL BE ORANGE FOR TELEPHONE AND RED FOR ELECTRICAL.
- CONTRACTOR SHALL VERIFY EXISTING BURIED UTILITIES PRIOR TO CONSTRUCTION. (DIG SAFE UNDERGROUND SERVICE ALERT: 1-888-DIG-SAFE; 1-888-344-7233).
- GROUND BAR SHALL BE 2"X6"X¼" AND INSTALLED WITH INSULATORS AND STAINLESS STEEL HARDWARE. GROUND BAR SHALL BE BONDED VIA #2 BARE TINNED SOLID COPPER CONDUCTOR AND TWO HOLE COMPRESSION LUG TO GROUND RING.
- PROPOSED SAFETY SWITCH SHALL BE NEMA 3R, NONFUSIBLE, 200A, 600VAC. SAFETY SWITCH SHALL BE MOUNTED TO EXTERIOR OF CELLULAR EQUIPMENT SHELTER AT ELECTRICAL SERVICE ENTRY LOCATION.
- PROPOSED SAFETY SWITCH SHALL BE NEMA 3R, NONFUSIBLE, 30A, 600VAC.
- SEAL ALL SERVICE ENTRANCES INTO THE SHELTER FOLLOWING INSTALLATION.
- ALL MATERIALS SHALL BE U.L. LISTED.
- THESE PLANS ARE DIAGRAMMATIC ONLY. FOLLOW AS CLOSELY AS POSSIBLE. SUBCONTRACTOR SHALL ENSURE THAT ACCESS TO EQUIPMENT IS MAINTAINED IN ACCORDANCE WITH MANUFACTURER SPECIFICATION AND ALL APPLICABLE CODES.
- ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURE THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIAL SHALL BE LISTED AND APPROVED BY UNDERWRITER LABORATORY AND SHALL BEAR THE INSPECTION LABEL.
- POWER WIRE AND CABLE CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM, UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS. CONDUCTORS #10 AWG AND SMALLER SHALL BE SOLID.
- ALL CONDUCTORS LARGER THAN #10 SHALL BE STRANDED COPPER WITH THWN 600 VOLT INSULATION UNLESS OTHERWISE SPECIFIED.
- ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING OF NOT LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C. COORDINATE SHORT CIRCUIT REQUIREMENTS WITH LOCAL UTILITY.
- CONTRACTOR SHALL PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
- IN DRILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATION THROUGH THE FLOOR FOR CONDUIT RUNS, PIPING RUNS ETC. IT MUST BE CLEARLY UNDERSTOOD THAT REINFORCEMENT STEEL WILL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES.
- LOCATION OF REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND, THEREFORE, MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT.



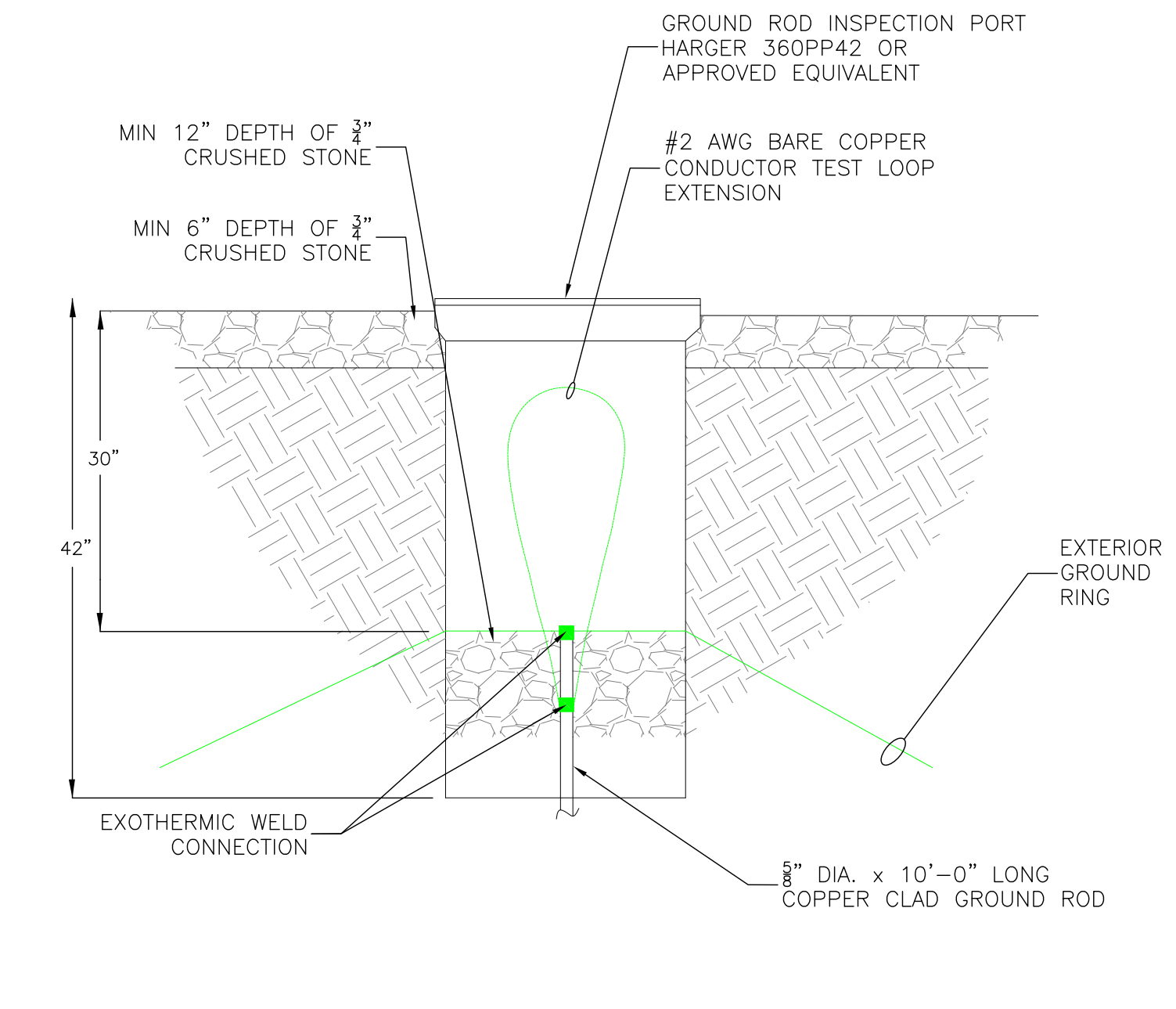
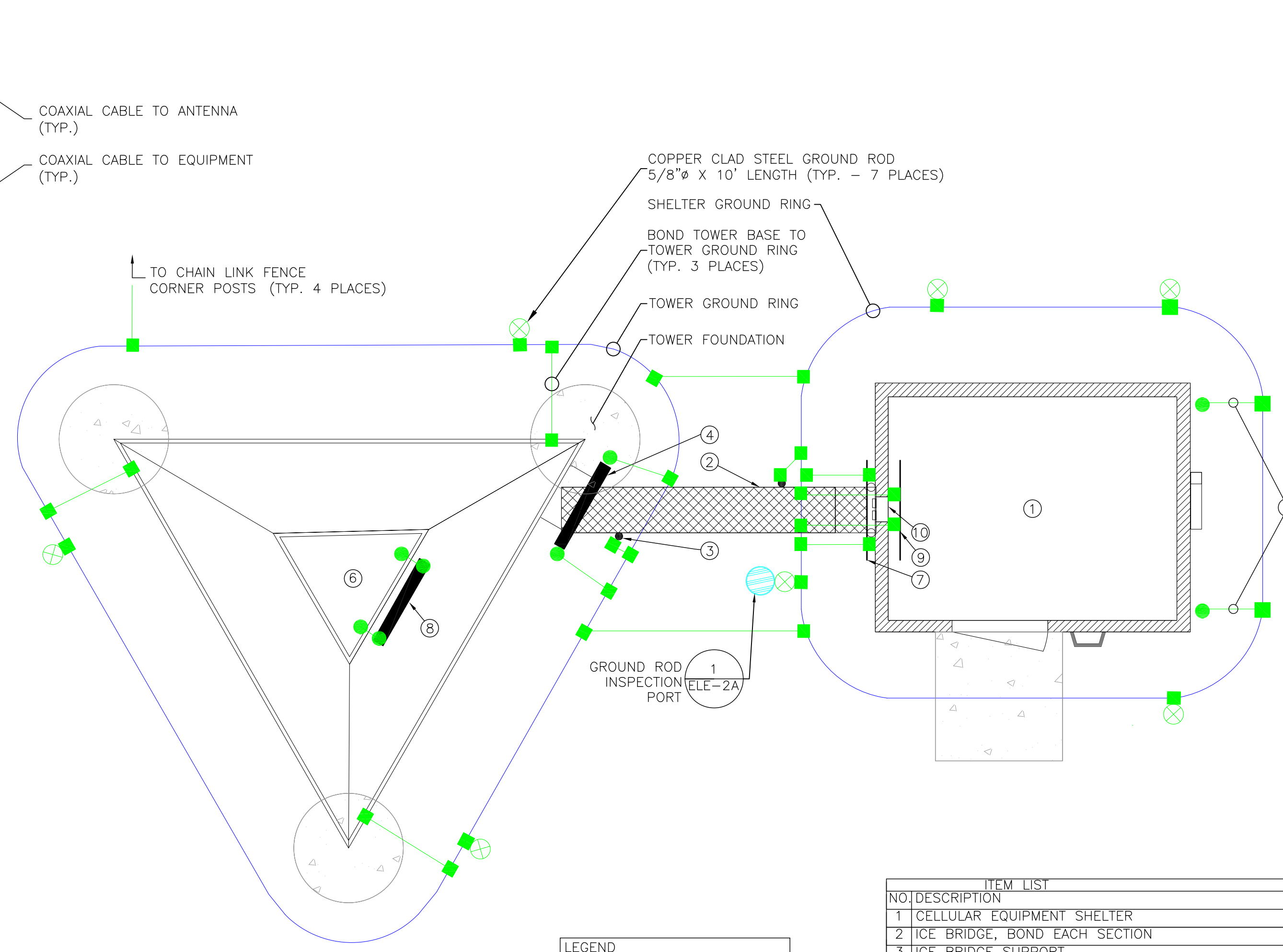
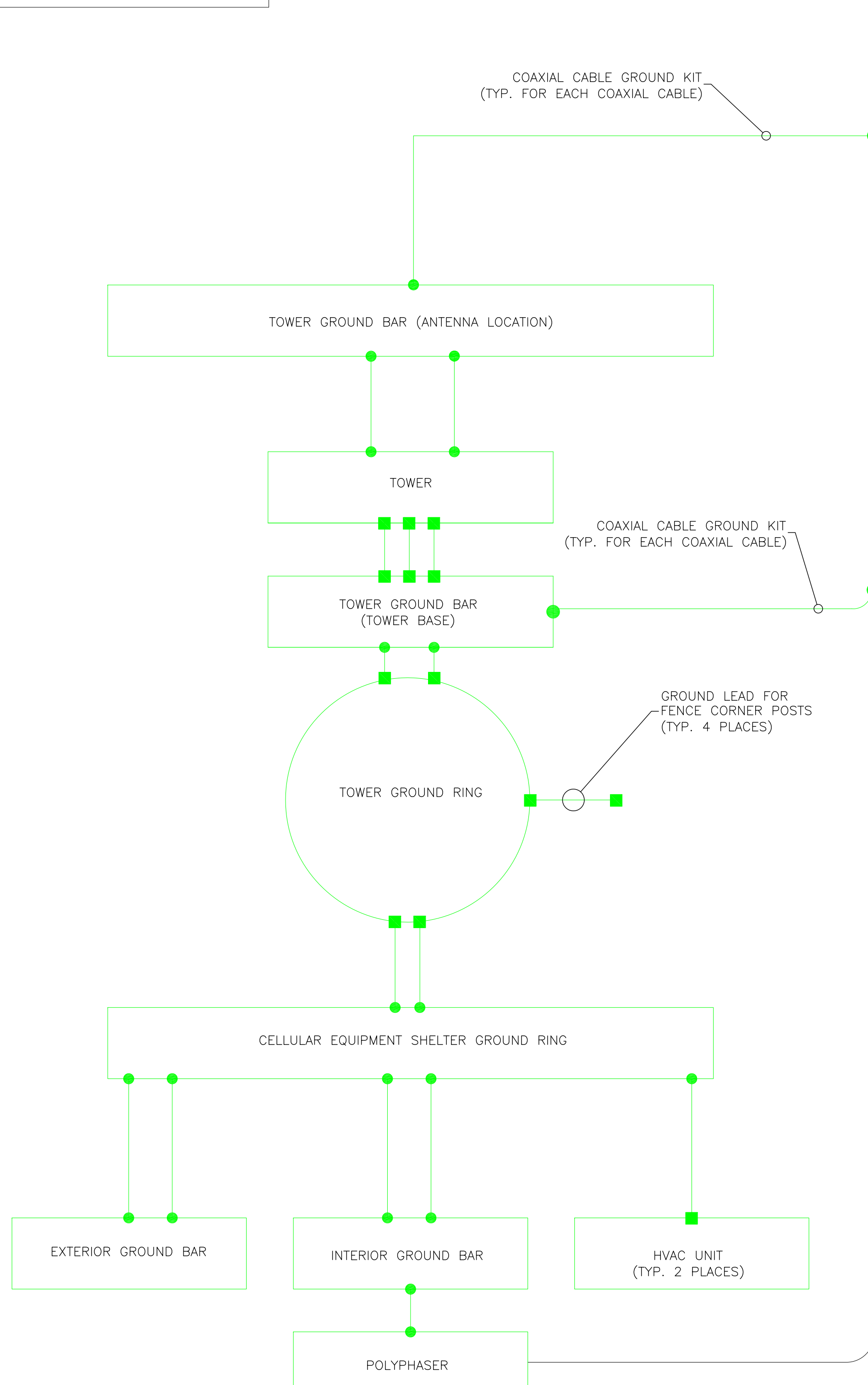
BLACK DIAMOND CONSULTANTS, INC.  
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USCC-119		BDC PROJECT(S)		BDC PROPOSAL(S)	
0		06/19/23		MUM   SAM   WFB   RFB	
13-016		BDC JOB ORDER(S)		CLIENT DATA	
REVISION NOTES: ORIGINAL ISSUE.		SITE NAME: PRINCETON		SITE NUMBER: 424342	

ELECTRICAL AND TELCO DETAILS



DRAWING NUMBER: USCC-119\_ELE-1B-0



1 GROUNDING ROD INSPECTION PORT  
SCALE: NTS

LEGEND

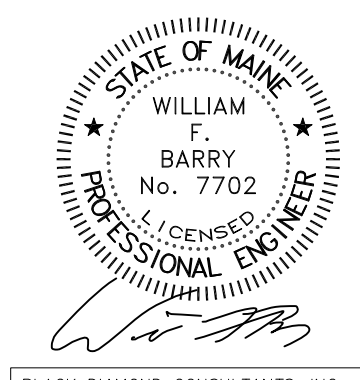
- EXOTHERMIC CONNECTION
- MECHANICAL CONNECTION
- ⊗ GROUND ROD
- Ⓜ INSPECTION PORT

NO.	DESCRIPTION
1	CELLULAR EQUIPMENT SHELTER
2	ICE BRIDGE, BOND EACH SECTION
3	ICE BRIDGE SUPPORT
4	TOWER BASE GROUND BAR (TOWER BASE LOCATION)
5	ATTACH TO HVAC UNIT
6	SELF SUPPORT LATTICE TYPE TOWER
7	MASTER GROUND BAR
8	TOWER GROUND BAR (ANTENNA LOCATION)
9	INTERIOR GROUND BAR
10	CABLE ENTRY

**GROUNDING DETAILS**  
SCALE: NTS

NOTES:

- GROUNDING INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SITE SPECIFIC CONDITIONS. ALL DETAILS ARE SHOWN DIAGRAMMATICALLY.
- ALL GROUND WIRE SHALL BE BARE #2 AWG SOLID TINNED COPPER WIRE UNLESS OTHERWISE NOTED.
- ALL GROUND WIRES SHALL PROVIDE A STRAIGHT, DOWNWARD PATH TO GROUND WITH GRADUAL BENDS AS REQUIRED. GROUND WIRES SHALL NOT BE LOOPED OR SHARPLY BENT.
- ELECTRICAL CONTRACTOR SHALL COORDINATE CONNECTIONS TO EXISTING GROUND RINGS WITH USCC PROJECT MANAGER OR DESIGNEE, IF APPLICABLE.
- EACH EQUIPMENT CABINET SHALL BE CONNECTED TO THE MASTER ISOLATION GROUND BAR (MIGB) WITH #2 AWG INSULATED STRANDED COPPER WIRE. EQUIPMENT CABINETS SHALL EACH HAVE (2) CONNECTIONS UNLESS OTHERWISE NOTED. GROUNDING INSTALLATION SHALL BE IN ACCORDANCE WITH THE USCC EQUIPMENT SITE SPECIFICATION GUIDELINES.
- PROVIDE DEDICATED #2 AWG COPPER GROUND WIRE FROM EACH ANTENNA MOUNTING PIPE TO ASSOCIATED CIGBE (TYPICAL FOR TWO MOUNTING PIPES PER SECTOR).
- ANTENNA GROUND KITS SHALL BE FURNISHED BY US CELLULAR AND INSTALLED BY RF CONTRACTOR.
- GROUNDING SYSTEMS (TOWER GROUND RING AND EQUIPMENT SHELTER GROUND RING) SHALL BE INDEPENDENTLY TESTED. AN EARTH RESISTANCE TESTER USING THE THREE-POINT TEST METHOD SHALL BE USED. TESTS SHALL BE COMBINED WITH SOIL RESISTIVITY TESTING. DOCUMENTATION TO BE PRESENTED RECORDING SUBSYSTEMS GROUND RESISTIVITY VIA A FALL-OF-POTENTIAL TEST OF 5 OHMS OR LESS AND SOIL RESISTIVITY RESULTS. UPON APPROVAL FROM USCC PROJECT MANAGER/DESIGNEE, TOWER GROUND RING AND EQUIPMENT SHELTER GROUND RING CAN BE EXOTHERMICALLY BONDED.
- ALL UNDERGROUND CONNECTIONS AND/OR GROUND RODS SHALL BE CADWELDED AND INSPECTED BY USCC PROJECT MANAGER/DESIGNEE PRIOR TO BACKFILLING.
- ALL GROUND LEADS SHALL BE ATTACHED TO GROUND BARS USING TWO HOLE LUGS. CORROSION INHIBITING CONDUCTIVE COMPOUND SHALL BE APPLIED BETWEEN THE LUG AND GROUND BAR.
- GROUND RING LOCATION SHALL BE 2 FEET FROM EQUIPMENT SHELTER FOUNDATION AND BEYOND THE EQUIPMENT SHELTER DRIP LINE. MINIMUM LENGTH OF GROUND RING IS TWENTY FEET.
- ALL CADWELD CONNECTIONS TO GALVANIZED MATERIAL SHALL BE PROPERLY PREPARED TO ASSURE A SATISFACTORY CADWELD. THE CADWELD CONNECTION SHALL BE COATED WITH A COLD GALVANIZING SPRAY TO PREVENT CORROSION.
- EXTERNAL GROUND BAR (EGB) SHALL BE MOUNTED TO ISOLATED STANDOFFS AND SHALL BE PLACED HORIZONTALLY UNDER RF CABLE AND WAVEGUIDE ENTRY PORTS AND SHALL BE GROUND WITH #2 SOLID TINNED COPPER CABLES EXOTHERMICALLY BONDED TO GROUND RING.
- BEFORE ENTERING EQUIPMENT SHELTER ALL COAX AND WAVEGUIDE CABLES SHALL BE BONDED TO EXTERNAL GROUND BAR (EGB) USING TWO HOLE LUGS.
- THE HATCH PLATE SHALL BE BONDED TO THE EXTERNAL GROUND BAR (EGB) WITH MIN. #6 STR COPPER CABLE.
- ICE BRIDGE SHALL BE BONDED TO ALL SUPPORT POLES WITH MIN. #6 AWG COPPER WIRE. TWO HOLE COMPRESSION LUGS CAN BE USED IN CONNECTION WITH ICE BRIDGE GROUNDING IN PLACE OF EXOTHERMIC WELDS DUE TO THINNESS OF METAL.
- ICE BRIDGE SUPPORT POLES SHALL BE BONDED TO THE EXTERNAL GROUND RING.
- COPPER CLAD GROUND RODS SHALL BE 5/8" X 10' LONG AND BE DRIVEN INTO THE GROUND. TOP OF GRADE OR 6" BELOW AVERAGE FROST DEPTH (WHICHEVER IS GREATER).
- GROUND RODS SHALL BE SPACED ALONG THE GROUND RING A MINIMUM OF ONE ROD LENGTH AND MAXIMUM OF TWO ROD LENGTHS.
- MASTER GROUND BUS GROUND LEADS (2) SHALL BE EXOTHERMICALLY WELDED TO GROUND RODS AT GROUND ROD INSPECTION PORTS (2). TOP OF GROUND ROD AT INSPECTION PORT SHALL BE 18" BELOW FINISHED GRADE AND EXOTHERMICALLY WELDED TO GROUND RING. EXOTHERMIC CONNECTION TO MGB SHALL BE VISIBLE FROM INSPECTION PORT.
- FENCES SHALL BE BONDED TO THE FACILITY OR TOWER EXTERNAL GROUND RING AT EACH CORNER ON INSIDE OF FENCED COMPOUND.
- ALL ENTRY GATES SHALL BE BONDED TO THE MAIN FENCE ASSEMBLY BY A METAL STRAP.
- TRANSMISSION CABLE GROUNDING KITS SHALL BE BONDED TO EXTERNAL GROUND BAR (EGB) USING TWO HOLE LUGS.
- ALL GROUNDING CONDUCTORS SHALL BE INSTALLED IN 3/4 INCH SCH 40 PVC CONDUIT TO 12" BELOW GRADE. ATTACH PVC CONDUIT WITH GALVANIZED "C" CLAMPS.
- GROUNDING CONDUCTORS SHALL HAVE A MINIMUM BEND RADIUS OF 8"
- CONTRACTOR SHALL NOT DISTURB EXISTING GROUND SYSTEM AND ANY DAMAGE SHALL BE REPAIRED AT NO ADDITIONAL COST.



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GROUNDING DETAILS

BLACK DIAMOND CONSULTANTS INC



NOTES: TO PROTECT CONSTRUCTION SITE AREAS AND ADJACENT SENSITIVE LAND AND WATERS OF THE STATE, THE FOLLOWING EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED AND MAINTAINED. THESE MEASURES HAVE BEEN ESTABLISHED TO CONFORM TO STATE OF MAINE EROSION AND SEDIMENT CONTROL "BEST MANAGEMENT PRACTICES (BMP)".

THIS EROSION/STABILIZATION PLAN IS A MINIMUM THAT THE CONTRACTOR MUST DO. GIVEN SITE AND WEATHER CONDITIONS, ADDITIONAL MEASURES MAY BE NEEDED.

SOIL DISTURBANCE: THE CONTRACTED SHALL LIMIT THE EXTENT OF SOIL EXPOSED DURING CONSTRUCTION TO THE MINIMUM POSSIBLE. EXPOSED AREAS SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED AS SOON AS POSSIBLE BUT NO LATER THAN 15 DAYS AFTER INITIAL DISTURBANCE OF THE SOIL AND WITHIN 7 DAYS OF FINAL GRADING.

ROAD DITCHES; INLET AND OUTLET PROTECTION FOR CULVERTS: EXPOSED AREAS FOR ROAD DITCHING SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED AS SOON AS POSSIBLE BUT NO LATER THAN 7 DAYS AFTER INITIAL DISTURBANCE OF THE SOIL. INLET AND OUTLET PROTECTION FOR CULVERTS SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED AS SOON AS POSSIBLE BUT NO LATER THAN 24 HOURS OF INSTALLING EACH CULVERT, FIELD INLET OR STORM DRAIN OUTFALL.

SILT FENCING AND/OR HAY BALES: INSTALL SILT FENCES AND/OR HAY BALES AROUND SITE EXPOSED AREAS AS SHOWN ON THE SITE PLAN AND FOR ANY ADDITIONAL AREAS DETERMINED TO BE SUBJECT TO SEDIMENT EROSION AS A RESULT OF SITE CONDITIONS. SILT FENCING AND/OR HAY BALES WILL REMAIN IN PLACE UNTIL EXPOSED AREAS HAVE ACQUIRED STABILIZATION. INSTALL THE SILT FENCING AND/OR HAY BALES IN ACCORDANCE WITH DETAILS PROVIDED BY THE SITE PLAN.

STOCKPILING, HAUL ROADS, BORROW AREAS: THE CONTRACTOR SHALL VERIFY THAT STOCKPILING, HAUL ROAD, AND BORROW AREAS SHALL NOT BE LOCATED IN WETLANDS AND AREAS OF CONCENTRATED FLOWS. SILT FENCES, MULCHING, AND OTHER EROSION CONTROL MEASURES SHALL BE PROVIDED TO PROVIDE SEDIMENTATION CONTROL TO THESE AREAS.

DUST CONTROL: THE EXPOSED SOIL SURFACE SHALL BE MOISTENED PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST.

SITE EROSION/STABILIZATION MAINTENANCE: THE CONTRACTOR SHALL INSPECT THE AREAS ROUTINELY AND ESPECIALLY AFTER RAIN EVENTS AND SHALL REPAIR THE SEDIMENTATION CONTROLS, AS NECESSARY. THE CONTRACTOR SHALL MAINTAIN THE TEMPORARY AND PERMANENT SITE EROSION AND STABILIZATION CONTROLS UNTIL FINAL ACCEPTANCE OF THE WORK. MAINTENANCE SHALL INCLUDE PROVIDING PROTECTION AGAINST SITE TRAFFIC AND REPAIRING DAMAGES TO CONTROLS RESULTING FROM RAIN, WIND, OR OTHER EVENTS. DAMAGED AREAS SHALL BE REPAIRED TO RE-ESTABLISH SOIL CONDITIONS AND GRADES AND SHALL INCLUDE RE-ESTABLISHING THE TEMPORARY OR PERMANENT FERTILIZING, LIMING, SEEDING, MULCHING CONDITIONS OBTAINED PRIOR TO THE DAMAGES.

TEMPORARY MEASURES FOR EROSION CONTROL:

THESE TEMPORARY MEASURES WILL PROTECT THE AREA UNTIL MORE PERMANENT SITE STABILIZATION MEASURES ARE ESTABLISHED. THE FOLLOWING MEASURES SHALL BE USED FOR TEMPORARY SITE STABILIZATION. REFER TO MAINE EROSION AND SEDIMENT CONTROL BMP A-1 AND A-2 FOR ADDITIONAL INFORMATION ON TEMPORARY MEASURES FOR EROSION CONTROL.

TEMPORARY SEEDING: GRADE AND PREPARE AREA AS NEEDED TO PROVIDE FOR SEEDING. APPLY 10-10-10 FERTILIZER AT THE RATE OF 13.8#/1000FT2, APPLY LIMESTONE AT THE RATE OF 138#/1000FT2, APPLY WINTER RYE AT THE RATE OF 2 1/2 #/1000FT2. NOTE - SEEDING RATE MUST BE INCREASED BY 10% WHEN HYDRO-SEEDING. AFTER SEEDING, APPLY TEMPORARY HAY OR STRAW MULCHING AS FOLLOWS:

TEMPORARY MULCHING: APPLY HAY OR STRAW MULCHING OVER THE EXPOSED AREA AT THE RATE OF 2 BALES/1000FT2 TO COVER 75 TO 90% OF THE GROUND SURFACE. SECURE MULCH BY TRACKING, NETTING, OR PEG AND TWINE, AS NECESSARY, TO PREVENT LOSS OF COVER OVER EXPOSED AREA.

PERMANENT MEASURES FOR EROSION CONTROL:

FOR DISTURBED AREAS WITH SLOPES GREATER THAN 2:1, EROSION CONTROLS AND AREA STABILIZATION SHALL BE PROVIDED AS SHOWN BY THE SITE PLAN.

PERMANENT SEEDING: PROVIDE PERMANENT SEEDING AS EACH CONSTRUCTION AREA IS BROUGHT TO FINISH GRADE. PREPARE AREA AS NEEDED TO PROVIDE FOR SEEDING. APPLY 10-20-20 FERTILIZER AT THE RATE OF 18.4#/1000FT2, APPLY LIMESTONE AT THE RATE OF 138#/1000FT2, APPLY A MIXTURE OF KENTUCKY BLUEGRASS (45%), CREEPING RED FESCUE (45%), AND PERENNIAL RYEGRASS (10%) AT THE RATE OF 1#/1000FT2. NOTE - SEEDING RATE MUST BE INCREASED BY 10% WHEN HYDRO-SEEDING. AFTER SEEDING, APPLY TEMPORARY HAY OR STRAW MULCHING AS FOLLOWS:

TEMPORARY MULCHING: APPLY HAY OR STRAW MULCHING OVER THE EXPOSED AREA AT THE RATE OF 2 BALES/1000FT2 TO COVER 75 TO 90% OF THE GROUND SURFACE. SECURE MULCH BY TRACKING, NETTING, OR PEG AND TWINE, AS NECESSARY, TO PREVENT LOSS OF COVER OVER EXPOSED AREA.

OVER-WINTER CONSTRUCTION AND STABILIZATION

IF THE CONSTRUCTION SITE IS NOT STABILIZED BY NOVEMBER 15 THEN THE SITE NEEDS TO BE PROTECTED WITH OVER-WINTER STABILIZATION. THE WINTER CONSTRUCTION PERIOD IS FROM NOVEMBER 1 THROUGH APRIL 15. IF CONSTRUCTION IS CONDUCTED DURING THE WINTER CONSTRUCTION PERIOD, LIMIT CONSTRUCTION EXPOSED AREAS TO ONLY THOSE AREAS REQUIRED FOR TELECOMMUNICATIONS FACILITY INSTALLATION, SUCH AS, ACCESS GRAVEL ROAD CONSTRUCTION, INSTALLATION OF UTILITIES, AND INSTALLATION OF TOWER, SHELTER AND EQUIPMENT. FINAL SITE GRADING, PERMANENT MEASURES FOR EROSION CONTROL, CONSTRUCTION AND STABILIZATION OF DITCHES AND CHANNELS SHALL BE PROVIDED AFTER WINTER CONSTRUCTION PERIOD. REFER TO MAINE EROSION AND SEDIMENT CONTROL BMP A-3 FOR ADDITIONAL INFORMATION ON OVER-WINTER CONSTRUCTION AND STABILIZATION.

SEDIMENT BARRIERS: DURING FROZEN CONDITION, SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERMS OR ANY OTHER RECOGNIZED SEDIMENT BARRIERS IF FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES OR SILT FENCES.

MULCHING: HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE THAT IS TWICE THE NORMAL NON-WINTER PERIOD ACCEPTED RATE AND SHALL BE PROPERLY ANCHORED. EROSION CONTROL MIX, IF USED, MUST BE APPLIED WITH A MINIMUM 4 INCH THICKNESS. ANY SNOW WILL BE REMOVED DOWN TO ONE INCH DEPTH OR LESS PRIOR TO MULCHING APPLICATION. STOCKPILES OF SOIL WILL BE SIMILARLY MULCHED.

OVER-WINTER STABILIZATION OF DITCHES AND CHANNELS: ALL DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15.

CONSTRUCTION SCHEDULE

(IN FOLLOWING SEQUENCE, COORDINATE WITH OTHER CONSTRUCTION ACTIVITIES, MAINTAIN CONTINUOUSLY)

- 1. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE.
2. INSTALL SILT FENCE, PROJECT WIDE.
3. REMOVE AND STOCKPILE LOAM, PLACE SILT FENCE AT TOE.
4. SITE BLASTING AND PRIMARY EARTHWORK.
5. INSTALL DRAINAGE SYSTEM IMPROVEMENTS.
6. INSTALL DRAINAGE SYSTEM EROSION CONTROL MEASURES.
7. PROVIDE PRIMARY SLOPE STABILIZATION AND MULCHING OR TEMPORARY SEEDING.
8. FINAL SITE GRADING; PERMANENT SLOPE PROTECTION, PERMANENT SEEDING.
9. AFTER SITE IS STABILIZED AND COMPLETE, REMOVE TEMPORARY EROSION CONTROL MEASURES.

PIPE INLET PROTECTION

INLET PROTECTION, (RIPRAP D50=6") SHALL EXTEND AT LEAST ONE PIPE DIAMETER BEYOND THE CONDUIT. RIPRAP SHALL BE INSTALLED IN ACCORDANCE WITH THE STATE OF MAINE "BMP". RIPRAP PROTECTION SHALL BE UNDERLAIN WITH MIRAFI 600X GEOTEXTILE FABRIC TO PREVENT PIPING THROUGH THE BACKFILL MATERIAL.

GENERAL NOTES:

AGGREGATE FOR GRAVEL BASE:

AGGREGATE FOR GRAVEL BASE SHALL BE SCREENED OR CRUSHED GRAVEL OF HARD DURABLE PARTICLES FREE FROM VEGETABLE MATTER, LUMPS OR BALLS OF CLAY AND OTHER DELETERIOUS SUBSTANCES. THE GRADATION OF THE PART THAT PASSES A 3 INCH SIEVE SHALL MEET THE GRADING REQUIREMENTS OF THE FOLLOWING TABLE:

Table with 3 columns: SIEVE DESIGNATION, PERCENTAGE BY WEIGHT PASSING SQUARE MESH SIEVE, TYPE A AGGREGATE, TYPE D AGGREGATE. Rows include 1/2 INCH, 3/4 INCH, No. 40, and No. 200.

TYPE "A" AGGREGATE SHALL NOT CONTAIN PARTICLES WHICH WILL NOT PASS THE 2 INCH SQUARE MESH SIEVE.

TYPE "D" AGGREGATE SHALL NOT CONTAIN PARTICLES WHICH WILL NOT PASS THE 6 INCH SQUARE MESH SIEVE.

EACH LAYER AS APPLIED SHALL BE ROLLED WITH A 20 TON ROLLER. THE MATERIAL AS SPREAD SHALL BE WELL MIXED WITH NO POCKETS OF EITHER FINE OR COARSE MATERIAL. OVER SIZED STONES SHALL BE REMOVED FROM THE AGGREGATE.

EACH LAYOUT OF AGGREGATE SHALL BE PLACED OVER THE FULL WIDTH OF THE SECTION. AGGREGATE BASE AND SUB-BASE COURSES MAY BE PLACED UPON FROZEN SURFACES WHEN SUCH SURFACES HAVE BEEN PROPERLY CONSTRUCTED.

THE SURFACE OF EACH LAYER SHALL BE MAINTAINED DURING COMPACTION OPERATIONS IN SUCH A MANNER THAT A UNIFORM TEXTURE IS PRODUCED AND THE AGGREGATE IS FIRMLY KEYED. THE MOISTURE CONTENT OF THE MATERIAL SHALL BE MAINTAINED AT THE PROPER PERCENT TO ATTAIN THE REQUIRED COMPACTION AND STABILITY. COMPACTION OF EACH LAYER SHALL BE CONTINUED UNTIL DENSITY OF NOT LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557 "MODIFIED PROCTOR DENSITY" HAS BEEN ACHIEVED FOR THE FULL WIDTH AND DEPTH OF EACH LAYER AS APPLIED.

THE SURFACE TOLERANCE OF EACH BASE COURSE AS APPLIED SHALL BE 3/8 INCHES ABOVE OR BELOW THE REQUIRED TEMPLATE LINES.

AGGREGATE FOR SUB-BASE:

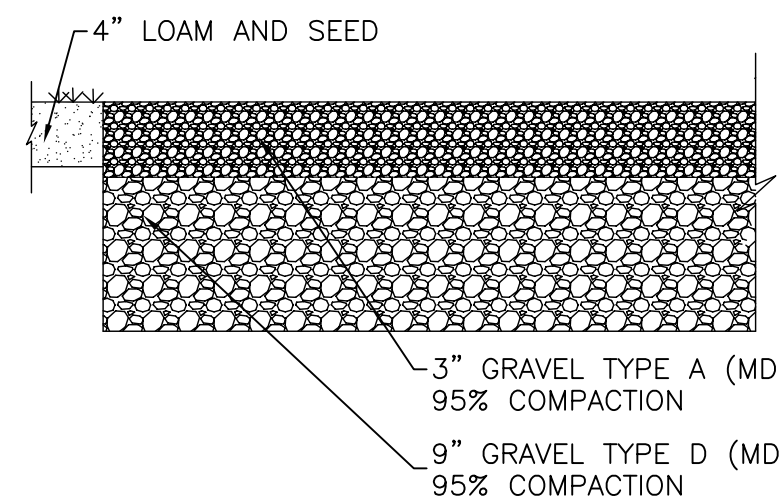
AGGREGATE FOR SUB-BASE SHALL BE TYPE "D" (MDOT). IT SHALL BE FREE FROM VEGETABLE MATTER, LUMPS OR BALLS OF CLAY AND OTHER DELETERIOUS SUBSTANCES.

COMMON BORROW:

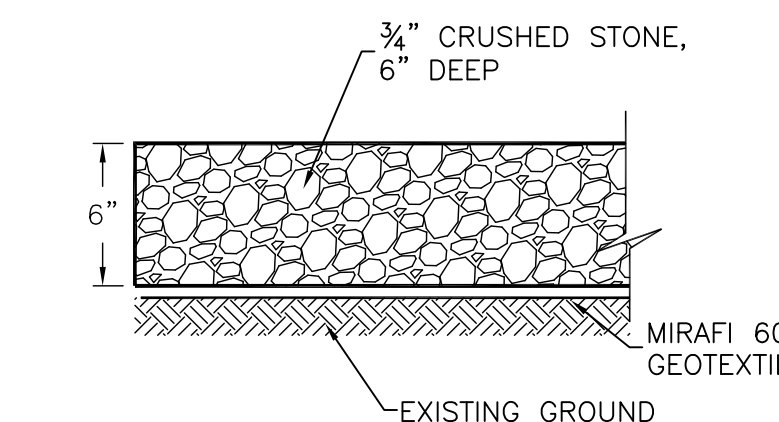
COMMON BORROW SHALL CONSIST OF EARTH, SUITABLE FOR EMBANKMENT CONSTRUCTION. IT SHALL BE FREE FROM FROZEN MATERIAL, PERISHABLE RUBBISH, PEAT AND OTHER UNSUITABLE MATERIAL.

THE MOISTURE CONTENT SHALL BE SUFFICIENT TO PROVIDE THE REQUIRED COMPACTION AND STABLE EMBANKMENT. IN NO CASE SHALL THE MOISTURE CONTENT EXCEED 4 PERCENT ABOVE OPTIMUM.

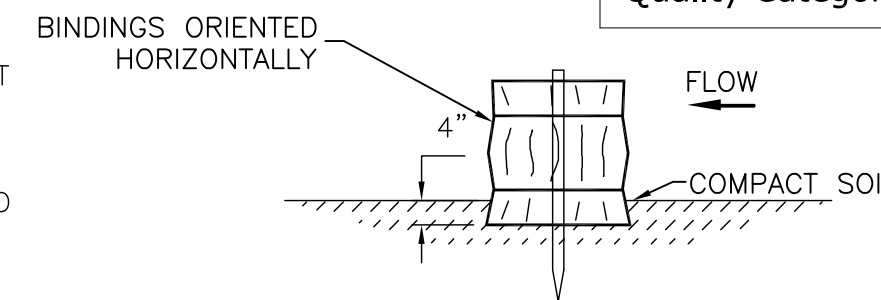
ALL COMMON BORROW AND GRAVEL AREAS TO BE COMPACTED TO 95% OF ITS MAX. DRY DENSITY AS DETERMINED BY ASTM D-1557 "MODIFIED PROCTOR DENSITY". PLACE IN 9" TO 12" LIFTS.



3 PARKING AREA DETAIL SCALE: NTS CIV-1A



4 COMPOUND CRUSHED STONE SECTION SCALE: NTS CIV-1A

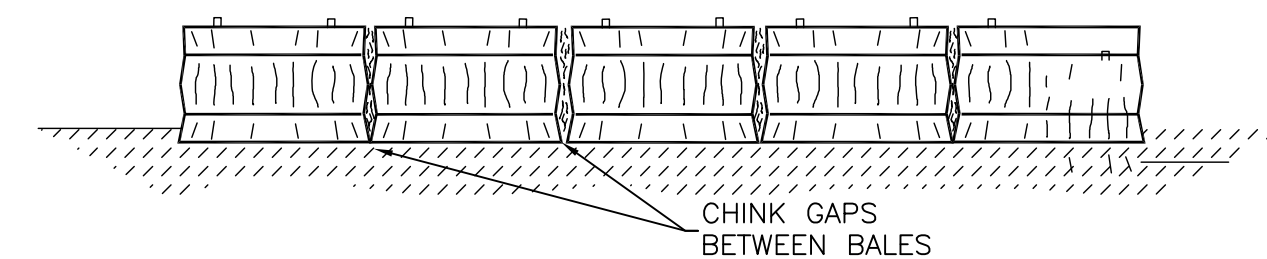


MAINTENANCE:

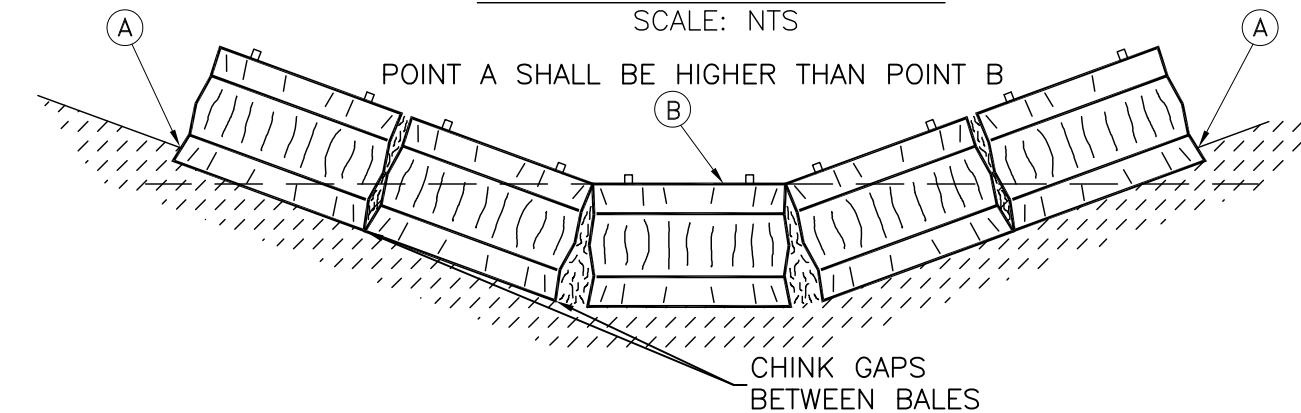
- THE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
-CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, END RUNS AND UNDERCUTTING BENEATH BALES.
-NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT SHALL BE ACCOMPLISHED PROMPTLY.
-SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. THEY MUST BE REMOVED WHEN THE BARRIER IS REMOVED.

NOTES:

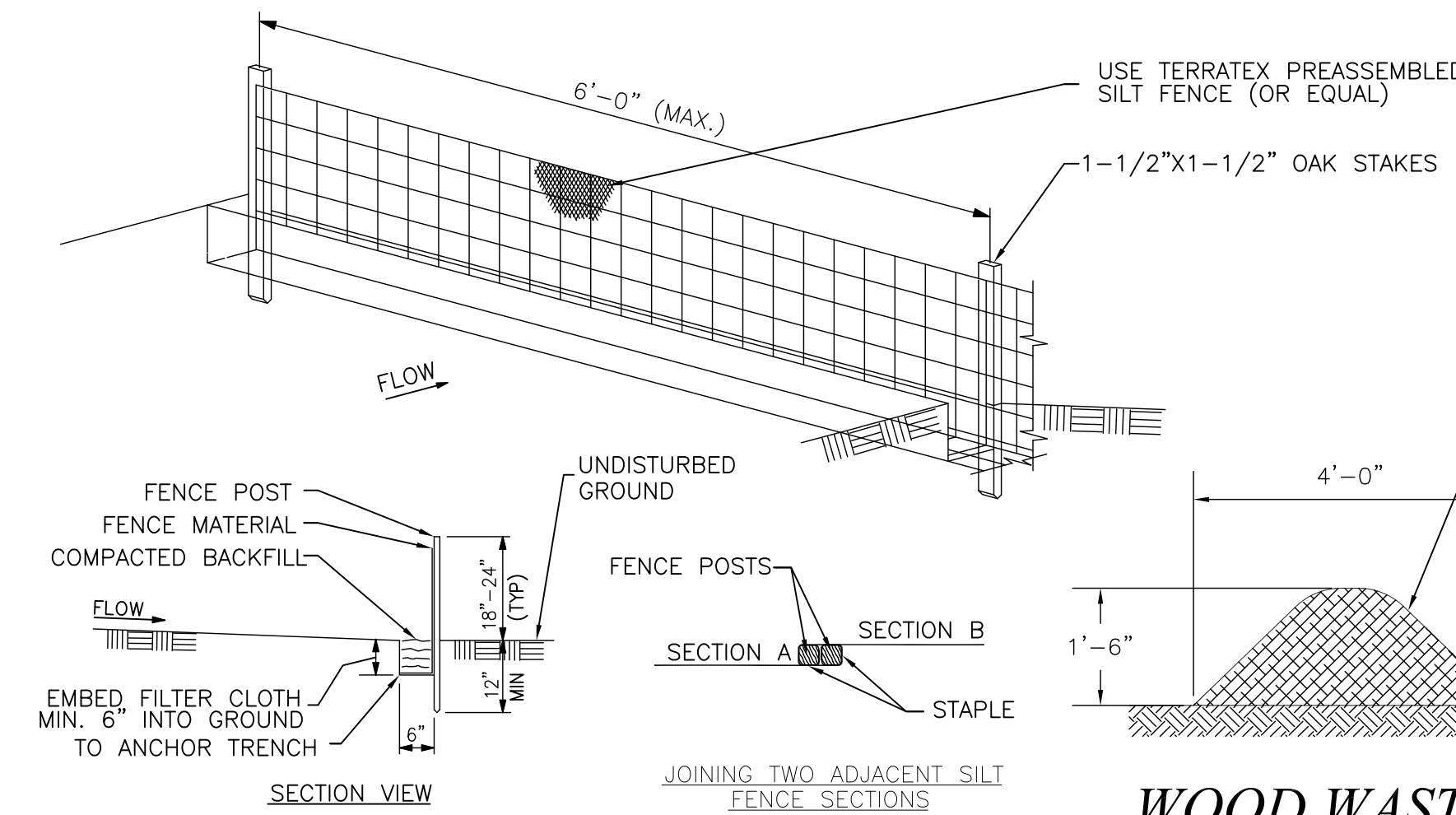
- BALES ARE HAY OR STRAW, DIMENSIONS: 14" X 18" X 30", WIRE OR NYLON, PLACED IN DRAINAGE AREAS, UPON THE CONTOUR OF THE GROUND. BALES ARE TO BE PLACED IN A ROW, WITH ENDS TIGHTLY SET AGAINST THE ADJACENT BALE.
-EACH BALE IS TO BE EMBEDDED IN THE SOIL A MINIMUM OF 4" AND ANCHORED IN PLACE BY STAKES DRIVEN THROUGH THE BALES INTO THE GROUND AT LEAST 18". THE STAKES ARE TO BE DRIVEN IN SUCH A MANNER AS TO FORCE THE ENDS OF THE BALES TOGETHER. STAKES MAY BE REBAR STEEL PICKETS, 2" X 2" SOFTWOOD, OR 1" X 1" HARDWOOD.



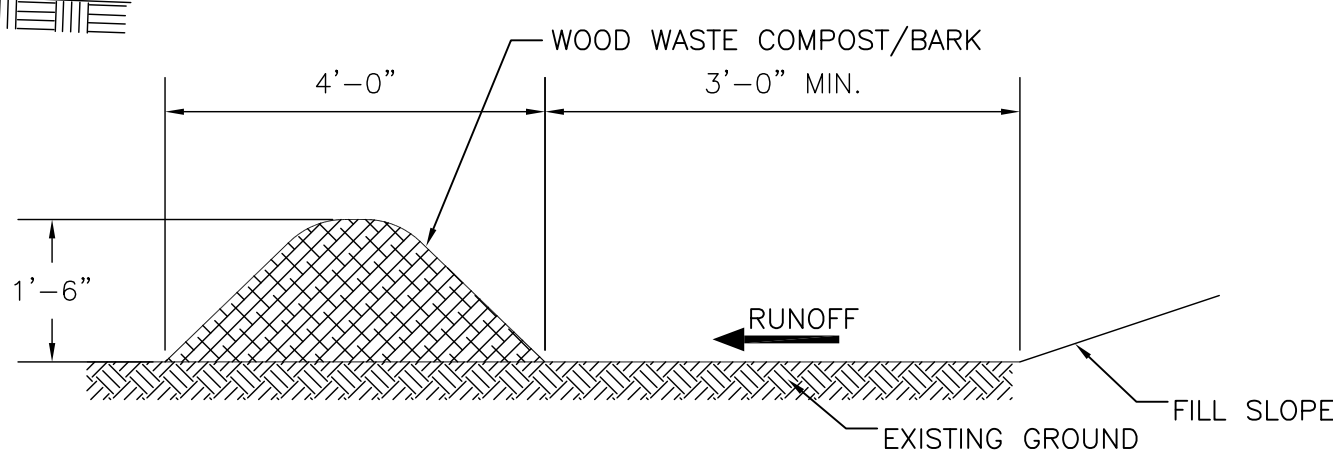
BALE BARRIER SCALE: NTS



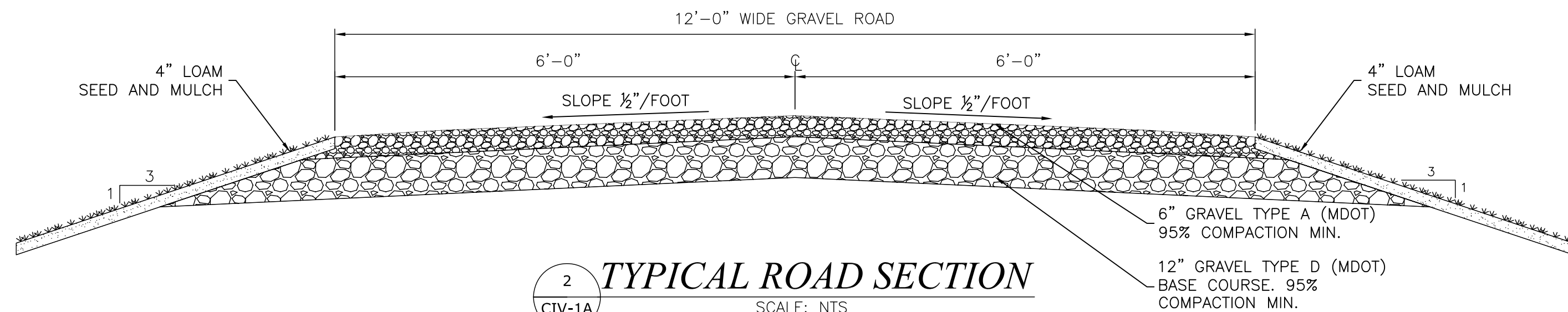
5 DITCH BALE BARRIER SCALE: NTS CIV-1A



1 SILT FENCE DETAIL SCALE: NTS CIV-1A



WOOD WASTE COMPOST/BARK FILTER BERM ALTERNATIVE SCALE: NTS



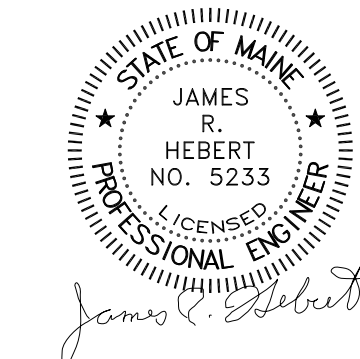
2 TYPICAL ROAD SECTION SCALE: NTS CIV-1A

- NOTES: 1. SILT FENCE AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. 2. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. 3. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED. 4. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

- WOOD WASTE COMPOST/BARK FILTER BERMS NOTES: THE FILTER BERM SHALL CONSIST OF A WOOD WASTE COMPOST/BARK MULCH MIX OR RECYCLED COMPOSTED BARK FLUME GRIT AND FRAGMENTED WOOD GENERATED FROM WATER-FLUME LOG HANDLED SYSTEMS. COMPOSTED MIXES CAN BE USED UPON APPROVAL OF THE OFFICE OF ENVIRONMENTAL SERVICES LANDSCAPE UNIT. THE MIX SHALL CONFORM TO THE FOLLOWING STANDARDS: A. MOISTURE CONTENT - 30-60% B. pH - 5.0-8.0 C. SCREEN SIZE - 100% LESS THAN 3", MAXIMUM 70% LESS THAN 1". D. NO LESS THAN 40% ORGANIC MATERIAL (DRY WEIGHT) BY LOSS OF IGNITION E. NO STONES LARGER THAN 2" IN DIAMETER THE COMPOSTED BERM SHALL BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR.

NOTE: WOOD WASTE COMPOST/BARK FILTER BERMS MAY BE USED IN COMBINATION WITH SILT FENCE TO IMPROVE SEDIMENT REMOVAL AND PERVENT CLOGGING OF THE WOOD WASTE COMPOST/BARK BERM BY LARGER SEDIMENT PARTICLES. (SILT FENCE PLACED TO FILTER RUNOFF BEFORE WOOD WASTE COMPOST/BARK).

Table with columns: REV, DATE, BY, CHK'D, REV'D, APP'D, BDC PROJECT(S), BDC PROPOSAL(S), BDC JOB ORDER(S), CLIENT DATA, SITE NAME, SITE NUMBER, PRINCETON 424342.



BLACK DIAMOND CONSULTANTS, INC. JAMES R. HERBERT, PE 312 WATER STREET GARDINER, MAINE 04345 207.582.0056

ENVIRONMENTAL AND CIVIL DETAILS U.S.Cellular BLACK DIAMOND CONSULTANTS INC DRAWING NUMBER USCC-119\_ENV-1A-0 BDC:P/DRAFTING/BDC/USCC-119/USCC-119\_ENV-1A-0