

December 20, 2012

**BY FEDEX & EMAIL**

Ms. Linda Roberts  
Executive Director  
Connecticut Siting Council  
Ten Franklin Square  
New Britain, Connecticut 06051

Re: Message Center Management, Inc.  
Application for Certificate of Environmental Compatibility and Public Need  
Docket # 425  
4 Dittmar Road, Redding, Connecticut

Dear Ms. Roberts:

On behalf of Message Center Management, Inc. ("MCM"), please find enclosed an original and fifteen copies of responses to Siting Council Interrogatories dated December 12, 2012 regarding the Development and Management Plan ("D&M Plan") submitted November 21, 2012 in the captioned Docket. Please also find enclosed revised tower and D&M Plan drawings. One (1) full sized D&M Plan set requested by staff is being sent under separate cover.

Thank you for your consideration of the enclosed.

Very truly yours,



Daniel M. Laub

Enclosures

cc: Brad Mondschein, Esq., Town of Redding  
Natalie Ketcham, Town of Redding  
Julie D. Kohler, Esq.  
Robert. S. Paradise  
Maria Scotti, MCM  
Virginia King, MCM  
Scott Chasse, P.E., APT  
Hans Fiedler, T-Mobile  
Christopher B. Fisher, Esq.

CERTIFICATE OF SERVICE

I hereby certify that on this day, an original and 15 copies of the foregoing and enclosed were sent electronically and by overnight delivery to the Connecticut Siting Council with a copy by email and/or first class mail to:

T-Mobile Northeast LLC  
Julie D. Kohler, Esq.  
Cohen and Wolf, P.C.  
1115 Broad Street  
Bridgeport, CT  
[jkohler@cohenandwolf.com](mailto:jkohler@cohenandwolf.com)

Town of Redding  
Brad N. Mondschein, Esq.  
Pullman & Comley, LLC  
90 State House Square  
Hartford, CT 06103  
[bmondschein@pullcom.com](mailto:bmondschein@pullcom.com)

Natalie Ketcham, First Selectman  
Town of Redding  
Town Hall, P.O. Box 1028  
Redding, Connecticut 06875-1028

Owner:  
Robert. S. Paradise  
4 Dittmar Road  
W. Redding, CT 06896-1509

Dated: December 20, 2012

  
\_\_\_\_\_  
Daniel M. Laub, Esq.

STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

IN RE:

APPLICATION OF MESSAGE CENTER MANAGEMENT,  
INC. (MCM) FOR A CERTIFICATE OF ENVIRONMENTAL  
COMPATIBILITY AND PUBLIC NEED FOR THE  
CONSTRUCTION, MAINTENANCE AND OPERATION  
OF A REPLACEMENT TELECOMMUNICATIONS TOWER  
FACILITY AT 4 DITTMAR ROAD IN THE TOWN OF  
REDDING, CONNECTICUT

DOCKET NO. 425

December 20, 2012

APPLICANT RESPONSES TO SITING COUNCIL INTERROGATORIES

Q1. Will the replacement tower have bark cladding? If so, please provide a drawing indicating this.

A1. *Yes. "Bark" cladding is incorporated into the final tree and revised design drawings prepared by Larson Camouflage in conjunction with ISE incorporated dated August 21, 2012 and last revised December 14, 2012 which are included with these responses. Of note, this design includes MCM's proposal to construct a 120' AGL tower which will reach to a total height of 127' AGL including the associated artificial pine branches. For engineering loading purposes, however, the tower is designed to extend higher should that ever be needed by an applicant and approved by the Siting Council at some later date. The tower foundation and base are designed to accommodate these future antennas and appurtenances if needed and approved in the future.*

Q2. The Town of Redding's Tree Warden disagrees with MCM's choice of trees to plant around the facility compound. Would MCM be willing to plant the Tree Warden's suggested species or, as an alternate, to comply with the Town's suggested alternate?

A2. *The Landscaping Plan is included as LS-1 in the D&M Plan. In its December 10<sup>th</sup> submission the Town provided alternate suggestions for the compound screening trees. These include Colorado Blue Spruce<sup>1</sup>, Norway Spruce<sup>2</sup>, American Holly<sup>3</sup>, and Dragon Lady Holly.<sup>4</sup> The Colorado Blue and Norway Spruces and American Holly are known to grow more than 40 feet high and up to 20 feet wide. The Dragon Lady Holly, while typically smaller than these other species requires attentive pruning for its best and most dense appearance.*

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<sup>1</sup>[http://www.arboday.org/Shopping/Trees/TreeDetail.cfm?id=39&trackingID=142&gclid=CNeosryMk7QCFYKK4Aod\\_AgAlg](http://www.arboday.org/Shopping/Trees/TreeDetail.cfm?id=39&trackingID=142&gclid=CNeosryMk7QCFYKK4Aod_AgAlg)

<sup>2</sup><http://www.arboday.org/Shopping/Trees/TreeDetail.cfm?id=37&trackingID=137&gclid=CIKwIPCmk7QCFQWe4AodnWEAdg>

<sup>3</sup><http://www.arboday.org/treeguide/treeDetail.cfm?id=49>

<sup>4</sup><http://evergreen-shrubs.com/holly/dragon-lady-holly/>

*MCM believes that over time these alternate planting suggestions would fail to adequately screen the facility and its surrounding flat fencing. Further, trees of 40' or greater height could damage or destroy the Facility compound and the equipment of wireless carriers if compromised in heavy wind or severe storms.*

*Accordingly, MCM continues to propose the landscaping with the associated deer fencing as per Sheet LS-1 of the D&M plan drawings prepared by All Points Technology dated March 15, 2011 and last revised December 17, 2012 ("D&M Drawings"). MCM personnel visit the site regularly and specific inspections of the fencing will be scheduled twice annually. The use of deer repellent is not proposed, as it would be an unnecessarily redundant introduction of chemicals where the deer fencing will be in place.*

Q3. Will MCM make any changes to the existing access road other than installing an anti-tracking pad? If so, please provide drawings showing the details of such changes.

A3. *While a new tower and reconfigured and expanded compound are required, the existing road currently servicing the existing facility will remain largely unchanged. The existing access drive will receive limited gravel top dressing as needed to fix any ruts created due to construction traffic.*

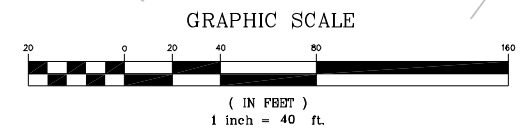
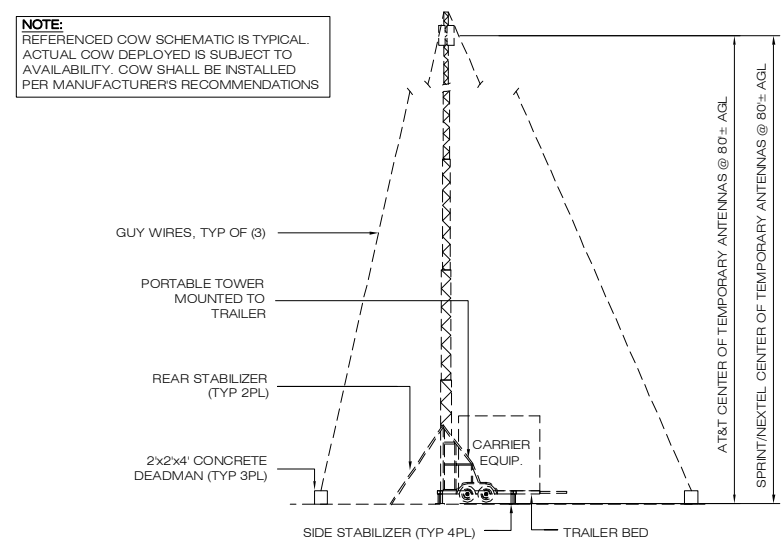
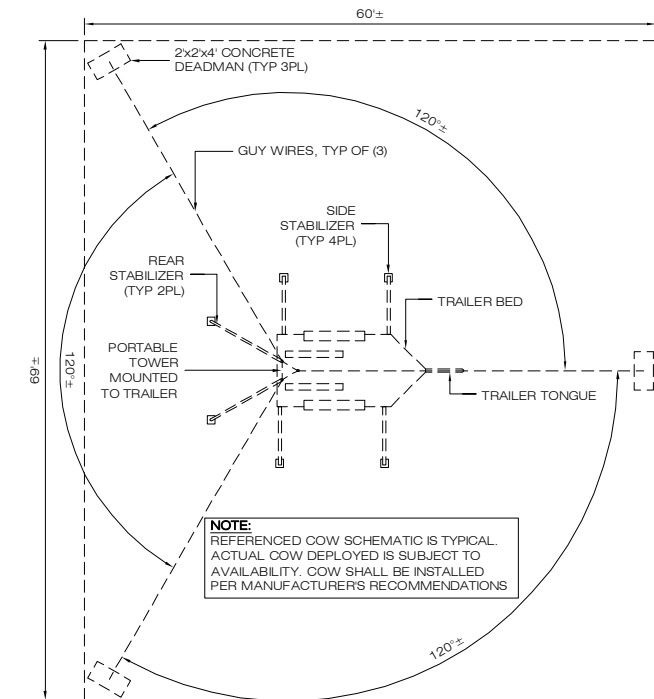
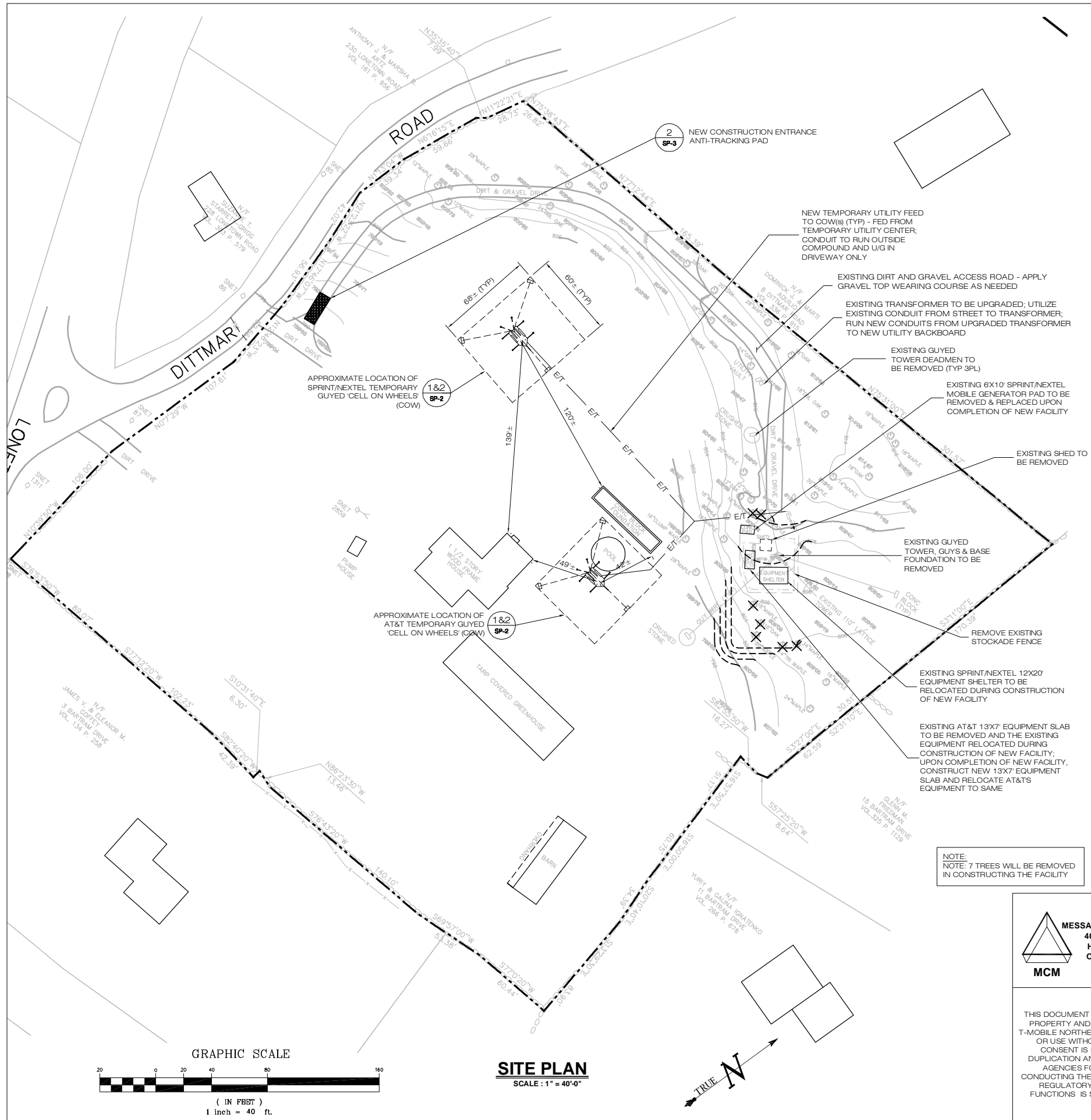
*Accordingly, the Grading & Erosion Sedimentation Control Plan included as Sheet SP-3 in the D&M Drawings depicts the location of silt fencing around the limits of work to the south and west. Of note, sedimentation and erosion control measures are provided with redundancy for the temporary excavation stockpile and the depth of the stone compound finish has been sized such that the void space of the stone (assumed 40% porosity) has the capacity to store the water quality standard volume for a 10-year storm event.*

Q4. Will MCM have to upgrade the utility service for the existing facility? If so, please provide drawings showing details of any necessary work.

A4. *The existing transformer and utility backboard will be upgraded; however, the existing underground conduits serving each will remain in place and be re-used to the greatest extent possible. These facets of the facility are reflected on Sheets SP-1 and S-1 of the revised D&M Drawings included with these responses.*

Q5. Please provide a revised Sheet N-1 with a reference to the Town of Redding in item no. 1 under General Notes.

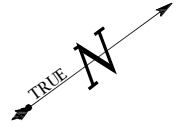
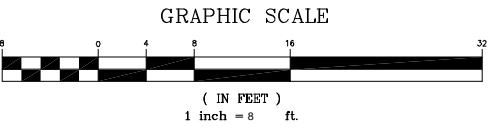
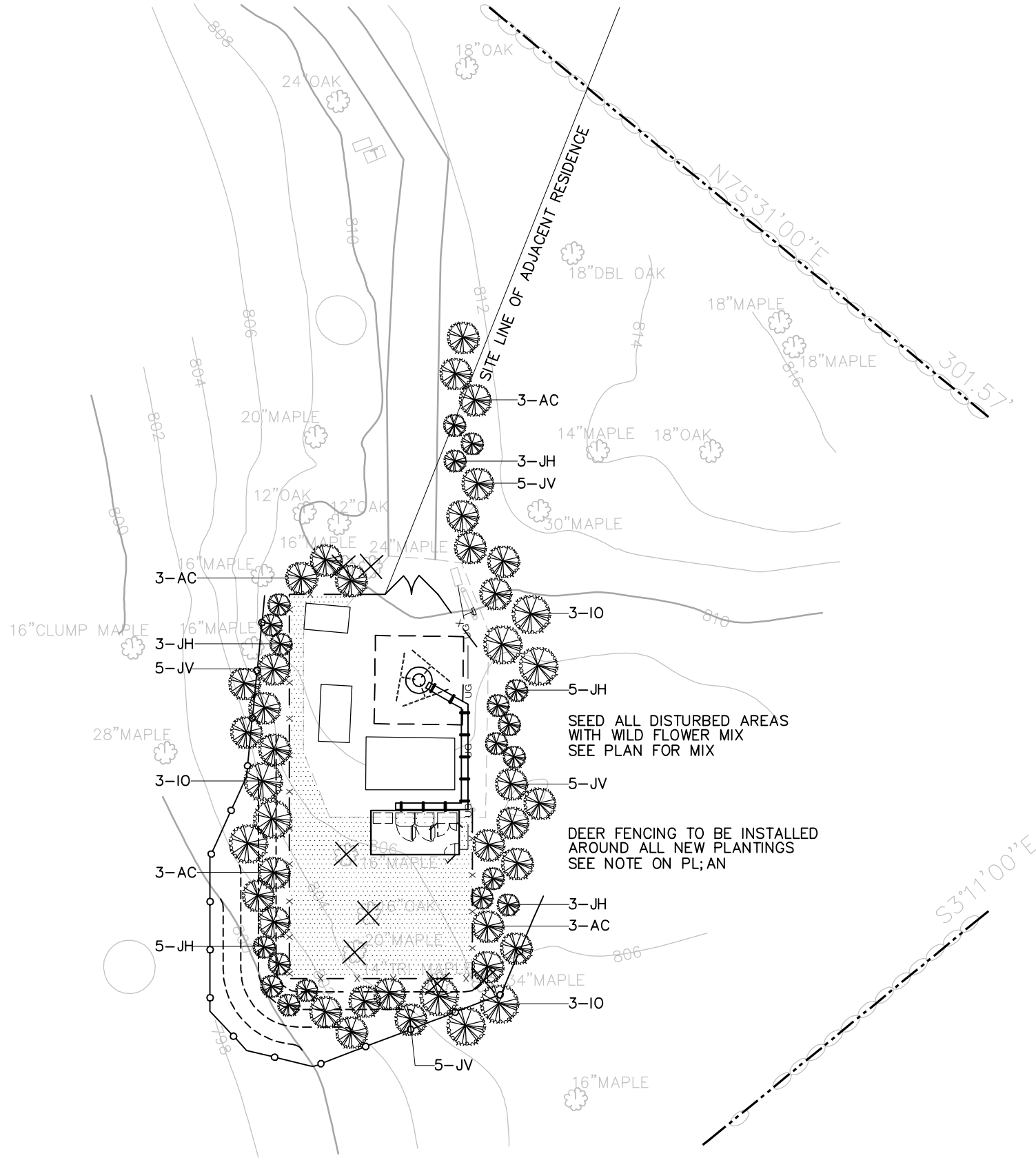
A5. *General Note #1 on Sheet N-1 has been corrected to indicate "Redding".*



**SITE PLAN**  
SCALE: 1" = 40'-0"

<p><b>MESSAGE CENTER MANAGEMENT</b> 40 WOODLAND STREET HARTFORD, CT 06105 OFFICE: (888) 973-7483</p>	<p>T-MOBILE SITE NUMBER: <b>CTFF632</b></p>	<p>DEVELOPMENT &amp; MANAGEMENT PLAN</p> <p><b>MCM DITTMAR ROAD 4 DITTMAR ROAD REDDING, CT 06896</b></p>	<p><b>DECOMMISSION &amp; COW PLAN</b></p>
	<p>APT FILING NUMBER: <b>CT-255T-830</b></p>	<p>DESIGN TYPE:</p> <p><b>RAW LAND</b></p>	
<p>THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE NORTHEAST LLC. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.</p>	<p><b>T-Mobile</b></p> <p>35 GRIFFIN ROAD BLOOMFIELD, CT 06002 OFFICE: (860)-692-7100</p>	<p>REVISIONS:</p> <p>REV.1: 11/12/12: FOR REVIEW: SMC REV.2: 11/16/12: FOR FILING: SMC REV.3: 12/11/12: TOWN'S COMMENTS: SMC REV.4: 12/17/12: CSC INTERROGATORIES: SMC REV.5: REV.6:</p>	<p>DRAWN BY: SMC CHECKED BY: SMC</p> <p>SCALE: AS NOTED DATE: 03/15/11</p>
	<p><b>ALL-POINTS</b> TECHNOLOGY CORPORATION</p> <p>3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 PHONE: (860)-663-1697 FAX: (860)-663-0935 WWW.ALLPOINTSTECH.COM</p>	<p>SHEET NUMBER: <b>SP-2</b></p>	

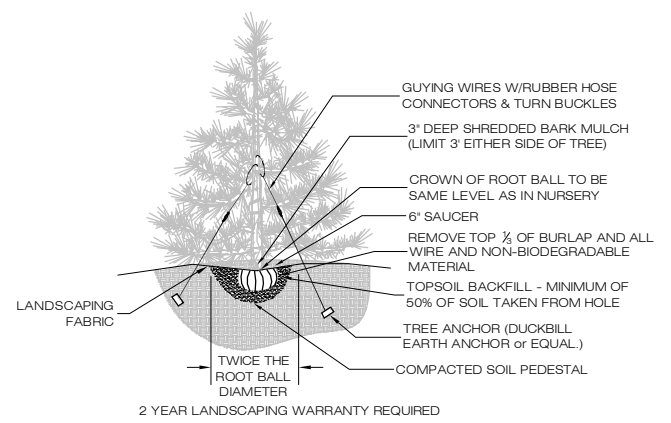




WILLIAM (BUDDY) JOHNSON  
 LANDSCAPE ARCHITECT  
 555 MEADOW CT. 11-C  
 SOUTHOLD, NEW YORK 11971  
 PHONE: 631-765-1793

**PLANT LIST**

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
12	AC	ABIES CONCOLOR	WHITE FIR	12-14' HT.	FULL AND DENSE TO GROUND
9	IO	ILEX OPACA	AMERICAN HOLLY	8-10' HT.	FULL AND DENSE TO GROUND
19	JH	JUNIPERUS HETZI COLUMNARIS	GREEN COLUMNNA R JUNIPER	7-8' HT.	FULL AND DENSE TO GROUND
20	JV	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	12-14' HT.	FULL AND DENSE TO GROUND



**1**  
 LS-1  
**EVERGREEN TREE PLANTING DETAIL**

**LANDSCAPING NOTES**

- ALL LANDSCAPING SHALL BE INSTALLED PER STANDARDS AND SPECIFICATIONS OF THE TOWN OF REDDING.
- EXISTING TREE CANOPY HEIGHT IS APPROXIMATELY 65'.
- OWNER SHALL GUARANTEE AND BE RESPONSIBLE FOR MAINTAINING THE LANDSCAPE PLANTINGS SPECIFIED FOR A PERIOD OF (2) YEARS.
- ALL PLANTINGS SHALL BE MAINTAINED IN A HEALTHY RIGOROUS CONDITION.
- ANY AND ALL INVASIVE SPECIES FOUND IN THIS AREA SHALL BE REMOVED.
- ANY AND ALL PLANTS FOUND TO BE DEAD OR IN POOR CONDITION AFTER THE (2) YEAR GUARANTEE SHALL BE REPLACED IN KIND AND SIZE.
- ALL PROPOSED PLANTINGS SHALL BE INSTALLED BETWEEN APRIL 15th AND OCTOBER 15th.

**SEED MIX**

ANY EXPOSED SOIL AREAS ASSOCIATED WITH THE WIRELESS TELECOMMUNICATIONS FACILITY, ACCESS ROAD AND STORMWATER MANAGEMENT AREAS SHALL BE SOWN WITH NEW ENGLAND EROSION CONSERVATION/WILDLIFE MIX SUPPLIED BY NEW ENGLAND WETLAND PLANTS, INC. (413.548.8000) OR APPROPRIATE SUBSTITUTE. THE NEW ENGLAND CONSERVATION/WILDLIFE MIX PROVIDES A PERMANENT COVER OF GRASSES, FORBS, WILD FLOWERS, LEGUMES AND GRASSES TO PROVIDE BOTH GOOD EROSION CONTROL AND WILDLIFE HABITAT VALUE AND INCLUDES THE FOLLOWING SPECIES: BIG BLUESTEM (ANDROPOGON GERARDII), SWITCHGRASS (PANICUM VIRGATUM), LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM), VIRGINIA WILD RYE (ELYMUS VIRGINICUS), PARTRIDGE PEA (CHAMAECRISTA FASCICULATA), COMMON MILKWEED (ASCLEPIAS SYRIACA), SHOWY TICK-TREFOIL (DESMODIUM CANADENSE), NEW ENGLAND ASTER (ASTER NOVAE-ANGLIAE), SPOTTED JOE PYE WEED (EUPATORIUM MACULATUM), GRASS LEAVED GOLDENROD (EUTHAMIA GRAMINIFOLIA) CREEPING RED FESCUE (FESTUCA RUBRA), OX EYE SUNFLOWER (HELIOPSIS HELIANTHOIDES), DEER TONGUE (PANICUM CLANDESTINUM), TALL GREEN HEADED CONEFLOWER (RUDBECKIA LACINIATA), EARLY GOLDENROD (SOLIDAGO JUNCEA), INDIAN GRASS (SORGHASTRUM NUTANS). THE SEED MIX WILL BE APPLIED AT A RATE OF 1LB/1,500 SQUARE FEET. SOIL CONDITIONING ACTIVITIES, INCLUDING RAKING, WILL BE COMBINED WITH THE SEED APPLICATION PROCESS.

**DEER FENCING NOTES**

- DEER FENCING SHALL BE INSTALLED AROUND ALL NEW PLANTINGS AND INSPECTED AND REPAIRED AS NECESSARY.
- DEER FENCING SHALL BE 8' HIGH MOUNTED TO ANGLE STEEL LINE POSTS - NIXALITE DEER BLOCKER DEER FENCING, OR EQUAL.



**MESSAGE CENTER MANAGEMENT**  
 40 WOODLAND STREET  
 HARTFORD, CT 06105  
 OFFICE: (888) 973-7483  
**MCM**

**T-Mobile**  
 35 GRIFFIN ROAD  
 BLOOMFIELD, CT 06002  
 OFFICE: (860)-692-7100

**ALL-POINTS**  
 TECHNOLOGY CORPORATION  
 3 SADDLEBROOK DRIVE PHONE: (860)-663-1697  
 KILLINGWORTH, CT 06419 FAX: (860)-663-0935  
 WWW.ALLPOINTSTECH.COM

**DEVELOPMENT & MANAGEMENT PLAN**  
**MCM DITTMAR ROAD**  
**4 DITTMAR ROAD**  
**REDDING, CT 06896**

**DESIGN TYPE:**  
**RAW LAND**

**REVISIONS:**

REV.1:	
REV.2:	
REV.3:	
REV.4:	
REV.5:	
REV.6:	

**LANDSCAPE PLAN**

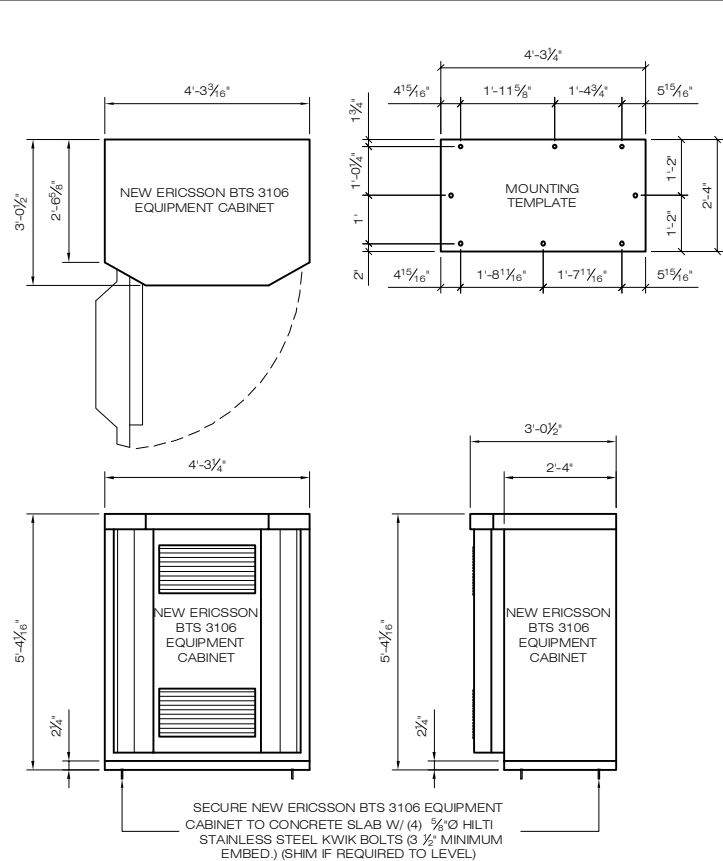
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 DATE: 08/22/12

SHEET NUMBER:  
**LS-1**

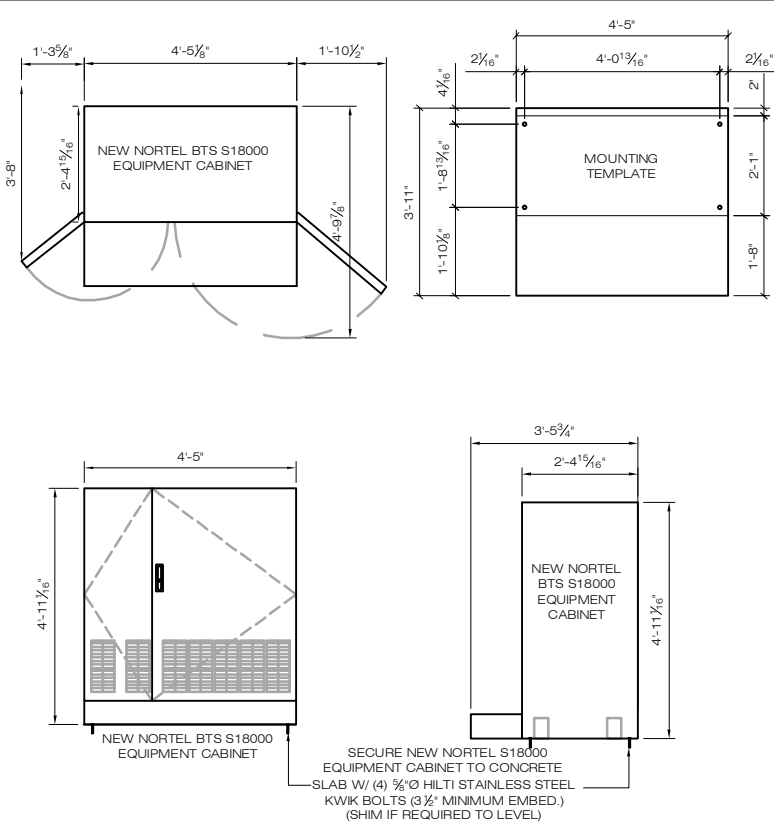




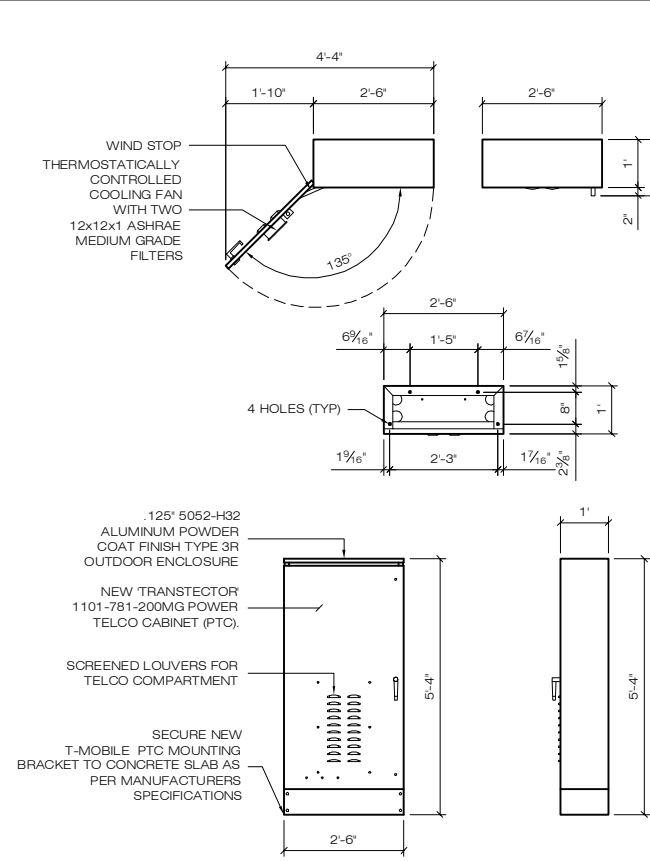




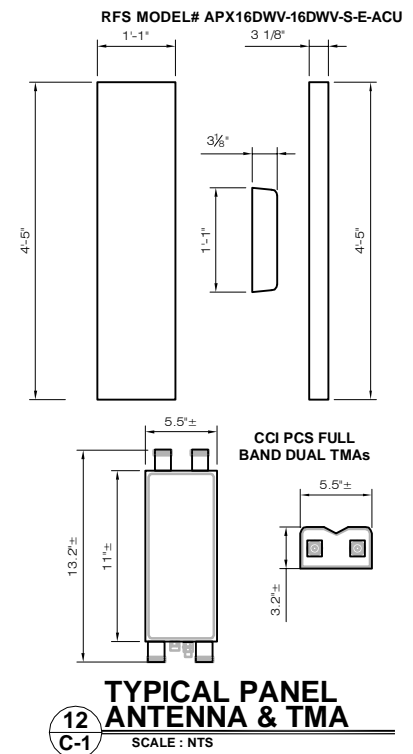
**1 ERICSSON RBS 3106 EQUIPMENT CABINET**  
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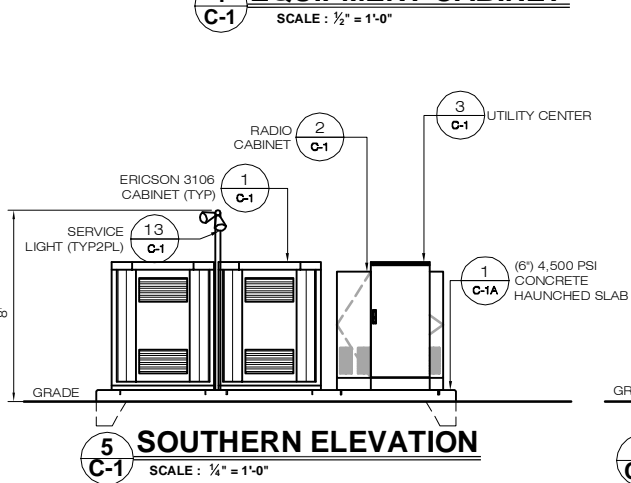
**2 NORTEL BTS S18000 EQUIPMENT CABINET**  
SCALE: 1/2" = 1'-0"



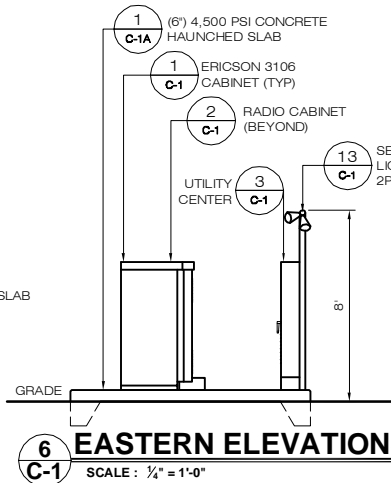
**3 TRANSECTOR PTC CABINET**  
SCALE: 1/2" = 1'-0"



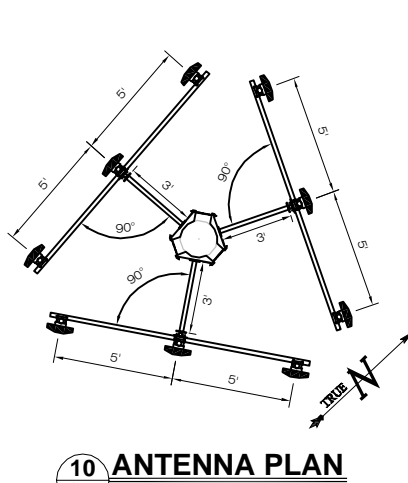
**12 TYPICAL PANEL ANTENNA & TMA**  
SCALE: NTS



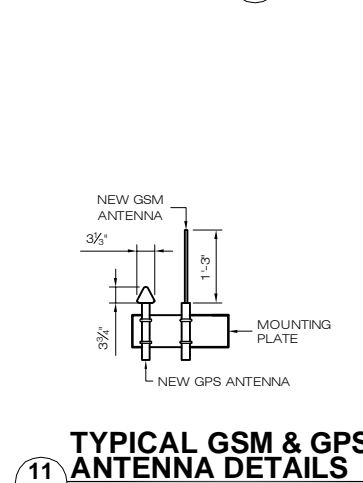
**5 SOUTHERN ELEVATION**  
SCALE: 1/4" = 1'-0"



**6 EASTERN ELEVATION**  
SCALE: 1/4" = 1'-0"



**10 ANTENNA PLAN**  
SCALE: 1/4" = 1'-0"

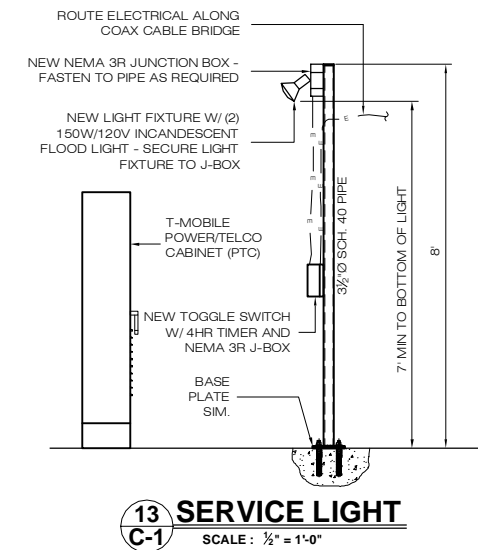


**11 TYPICAL GSM & GPS ANTENNA DETAILS**  
SCALE: NTS

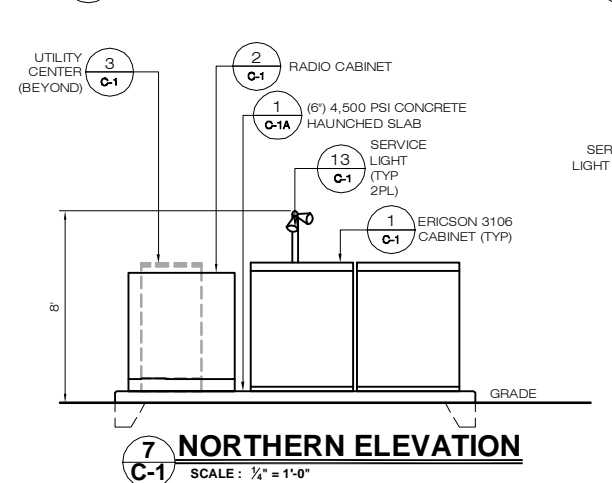
**DESIGN LOAD CRITERIA**

EQUIPMENT SHELTER SHALL BE DESIGNED AND MANUFACTURED TO MEET ALL STATE AND LOCAL CODES. ITS LAYOUT SHALL BE COORDINATED WITH CARRIERS.

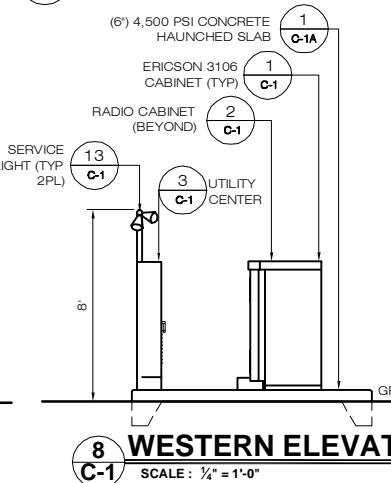
DESIGN BASIS	CONNECTICUT STATE BUILDING CODE
GOVERNING CODE	40 PSF (ASCE 7-02)
DESIGN LIVE LOADS	II
IMPORTANCE CATEGORY	
SNOW LOAD:	
GROUND SNOW LOAD (Pg)	30 PSF
IMPORTANCE FACTOR	1.0
EXPOSURE FACTOR (Ce)	1.0
THERMAL FACTOR (Ct)	1.0
WIND LOAD:	
BASIC WIND LOAD	100 MPH (3 SECOND GUST)
EXPOSURE GROUP	B
IMPORTANCE FACTOR	1.00
EQUIPMENT LOAD:	
EQUIPMENT DL	9,000 LBS
SEISMIC DESIGN PARAMETERS:	
SEISMIC USE GROUP	II
MCE SPECTRAL ACCELERATION SHORT (Sa)	0.354
MCE SPECTRAL ACCELERATION SHORT (S)	0.089
SITE CLASS	C
IMPORTANCE FACTOR	1.0



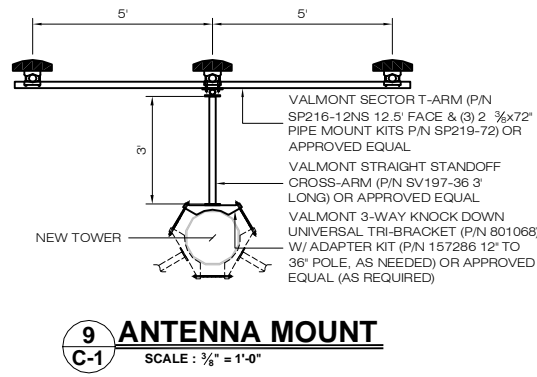
**13 SERVICE LIGHT**  
SCALE: 1/2" = 1'-0"



**7 NORTHERN ELEVATION**  
SCALE: 1/4" = 1'-0"

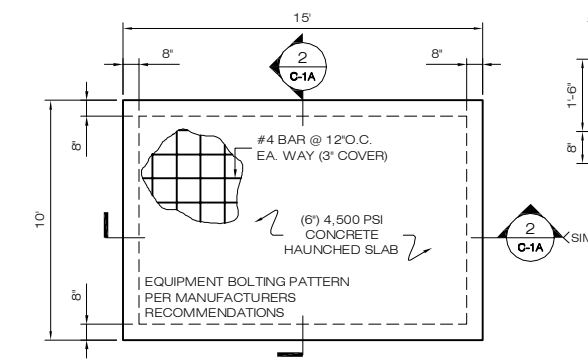


**8 WESTERN ELEVATION**  
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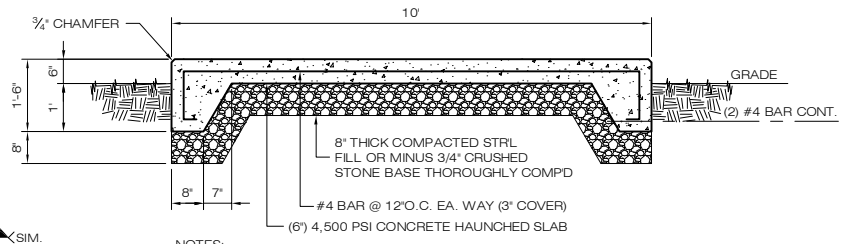


**9 ANTENNA MOUNT**  
SCALE: 1/8" = 1'-0"

<p><b>MESSAGE CENTER MANAGEMENT</b> 40 WOODLAND STREET HARTFORD, CT 06105 OFFICE: (888) 973-7483</p>	<p>T-MOBILE SITE NUMBER: <b>CTFF632</b></p>	<p>DEVELOPMENT &amp; MANAGEMENT PLAN</p>	<p><b>T-MOBILE EQUIPMENT PLAN &amp; DETAILS</b></p>
	<p>APT FILING NUMBER: <b>CT-255T-830</b></p>	<p><b>MCM DITTMAR ROAD</b> 4 DITTMAR ROAD REDDING, CT 06896</p>	
<p>THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE NORTHEAST LLC. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.</p>	<p><b>T-Mobile</b></p> <p>35 GRIFFIN ROAD BLOOMFIELD, CT 06002 OFFICE: (860)-692-7100</p>	<p>DESIGN TYPE: <b>RAW LAND</b></p>	<p>APR FILING NUMBER: CTFF632</p>
	<p>ALL-POINTS TECHNOLOGY CORPORATION</p> <p>3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 WWW.ALLPOINTSTECH.COM</p> <p>PHONE: (860)-663-1697 FAX: (860)-663-0935</p>	<p>REVISIONS:</p> <p>REV.1: 11/12/12: FOR REVIEW: SMC</p> <p>REV.2: 11/16/12: FOR FILING: SMC</p> <p>REV.3: 12/11/12: TOWN'S COMMENTS: SMC</p> <p>REV.4: 12/17/12: CSC INTERROGATORIES: SMC</p> <p>REV.5:</p> <p>REV.6:</p>	<p>DRAWN BY: SMC</p> <p>CHECKED BY: SMC</p>
		<p>SHEET NUMBER: <b>C-1</b></p>	

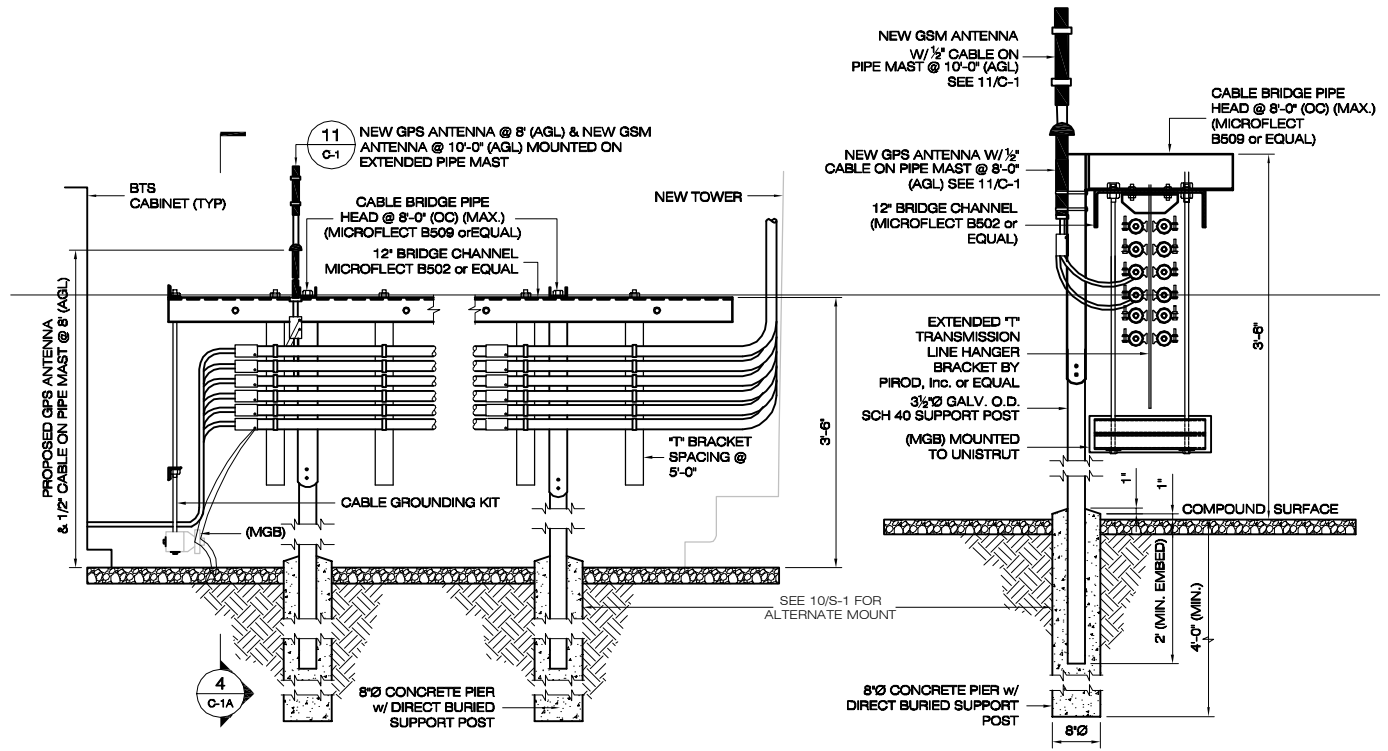


**2 HAUNCHED SLAB PLAN**  
SCALE: 1/4" = 1'-0"



**2 HAUNCHED SLAB DETAIL**  
SCALE: 1/2" = 1'-0"

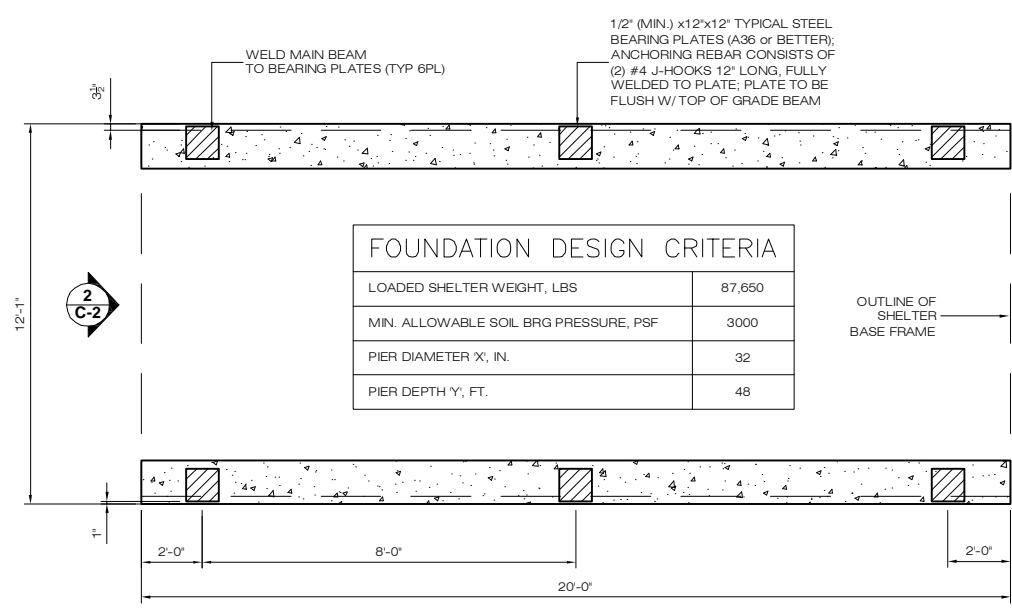
- NOTES:
1. CONCRETE SHALL BE Fc = 4,500 PSI (MIN.) @ 28 DAYS WITH MAXIMUM WATER/CEMENT (W/C) RATIO = 0.45 AND AIR ENTRAINMENT IN ACCORDANCE WITH IBC SECTION 1904 "DURABILITY REQUIREMENTS".
  2. DEFORMED REINFORCING BARS SHALL BE FABRICATED WITHOUT SPLICES. SUPPORT BAR MAT ON CONCRETE BRICK.
  3. ALL INTERSECTING BARS SHALL BE TIED. TURN ENDS OF TIE WIRE AWAY FROM EXPOSED SURFACES.



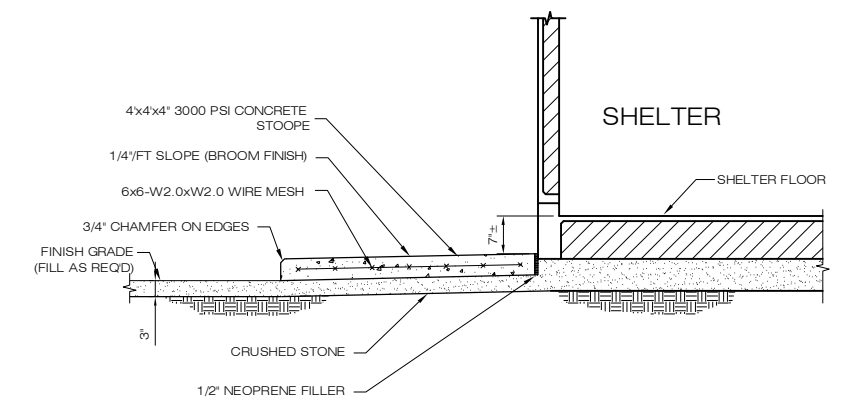
**3 CABLE BRIDGE DETAIL**  
SCALE: N.T.S.

**4 SECTION VIEW**  
SCALE: N.T.S.

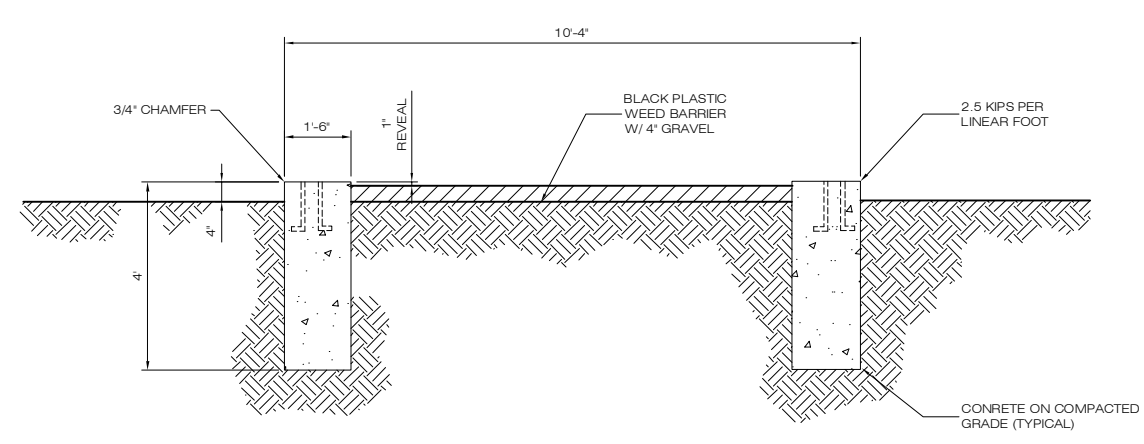
 <b>MESSAGE CENTER MANAGEMENT</b> 40 WOODLAND STREET HARTFORD, CT 06105 OFFICE: (888) 973-7483	<b>T-MOBILE SITE NUMBER:</b> <b>CTFF632</b>	<b>DEVELOPMENT &amp; MANAGEMENT PLAN</b>		<b>T-MOBILE EQUIPMENT DETAILS</b>	
	<b>APT FILING NUMBER:</b> <b>CT-255T-830</b>	<b>MCM DITTMAR ROAD</b> <b>4 DITTMAR ROAD</b> <b>REDDING, CT 06896</b>			
THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE NORTHEAST LLC. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.	 <b>35 GRIFFIN ROAD</b> <b>BLOOMFIELD, CT 06002</b> <b>OFFICE: (860)-692-7100</b>		<b>DESIGN TYPE:</b>  <b>RAW LAND</b>	<b>APT FILING NUMBER:</b> CT-255T-830 <b>APT DRAWING NUMBER:</b> CTFF632 <b>DRAWN BY:</b> SMC <b>CHECKED BY:</b> SMC	<b>SCALE:</b> AS NOTED <b>DATE:</b> 03/15/11
	 <b>ALL-POINTS TECHNOLOGY CORPORATION</b> 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 WWW.ALLPOINTSTECH.COM		<b>REVISIONS:</b> REV.1: 11/12/12: FOR REVIEW: SMC REV.2: 11/16/12: FOR FILING: SMC REV.3: 12/11/12: TOWN'S COMMENTS: SMC REV.4: 12/17/12: CSC INTERROGATORIES: SMC REV.5: REV.6:	<b>SHEET NUMBER:</b>  <b>C-1A</b>	



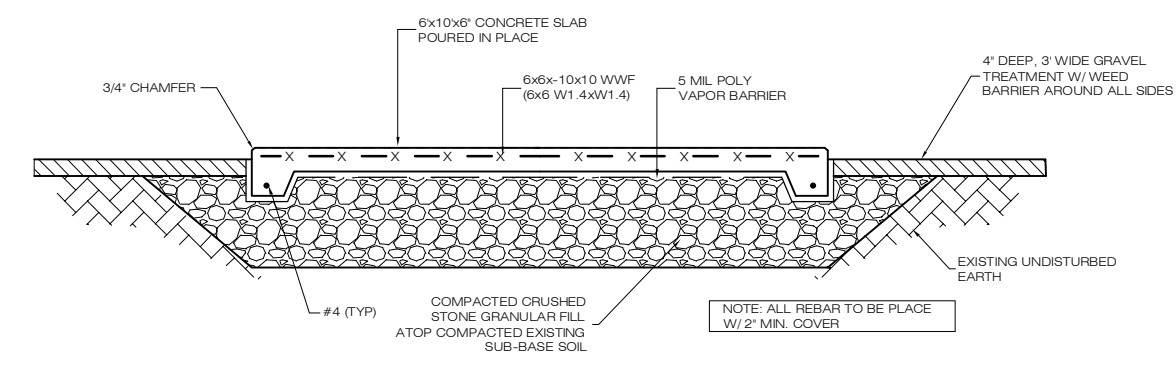
**1 FOUNDATION PLAN**  
SCALE: NTS



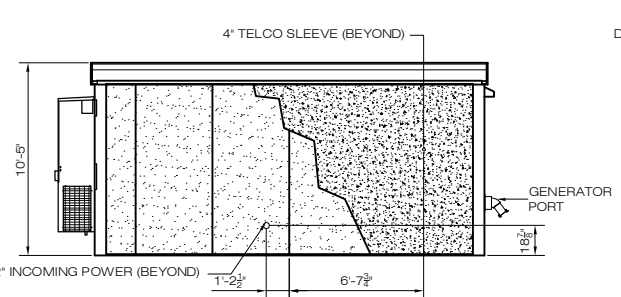
**4 CONCRETE STOOP DETAIL**  
SCALE: NTS



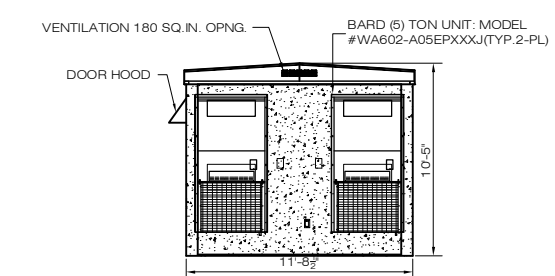
**2 GRADE BEAM FOUNDATION SECTION**  
SCALE: NTS



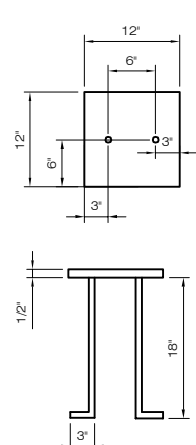
**3 GENERATOR PAD FOUNDATION PLAN**  
SCALE: 1/2" = 1'-0"



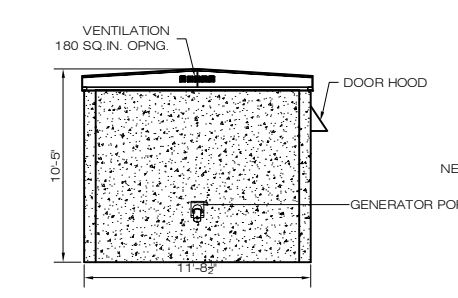
**5 SOUTHERN ELEVATION**  
SCALE: NTS



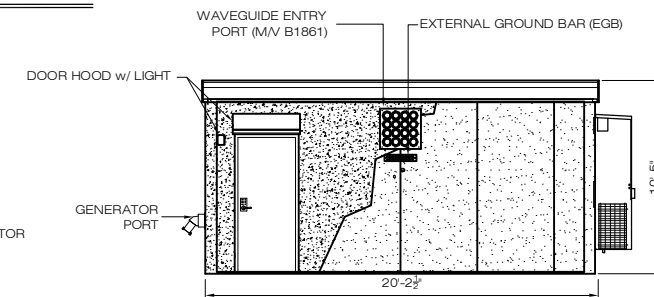
**6 WESTERN ELEVATION**  
SCALE: NTS



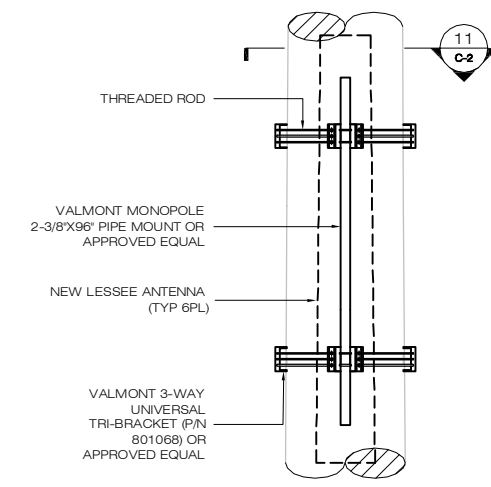
**7 BEARING PLATE DETAIL**  
SCALE: NTS



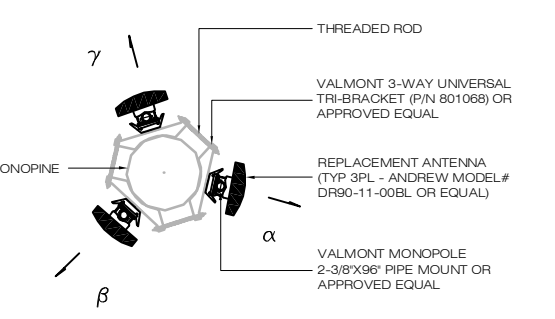
**8 EASTERN ELEVATION**  
SCALE: NTS



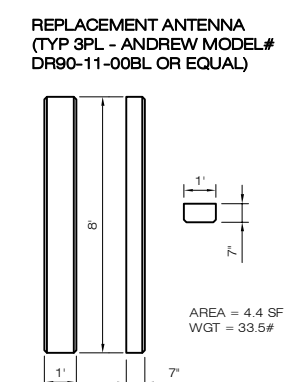
**9 NORTHERN ELEVATION**  
SCALE: NTS



**10 ANTENNA MOUNT**  
SCALE: 1/2" = 1'-0"



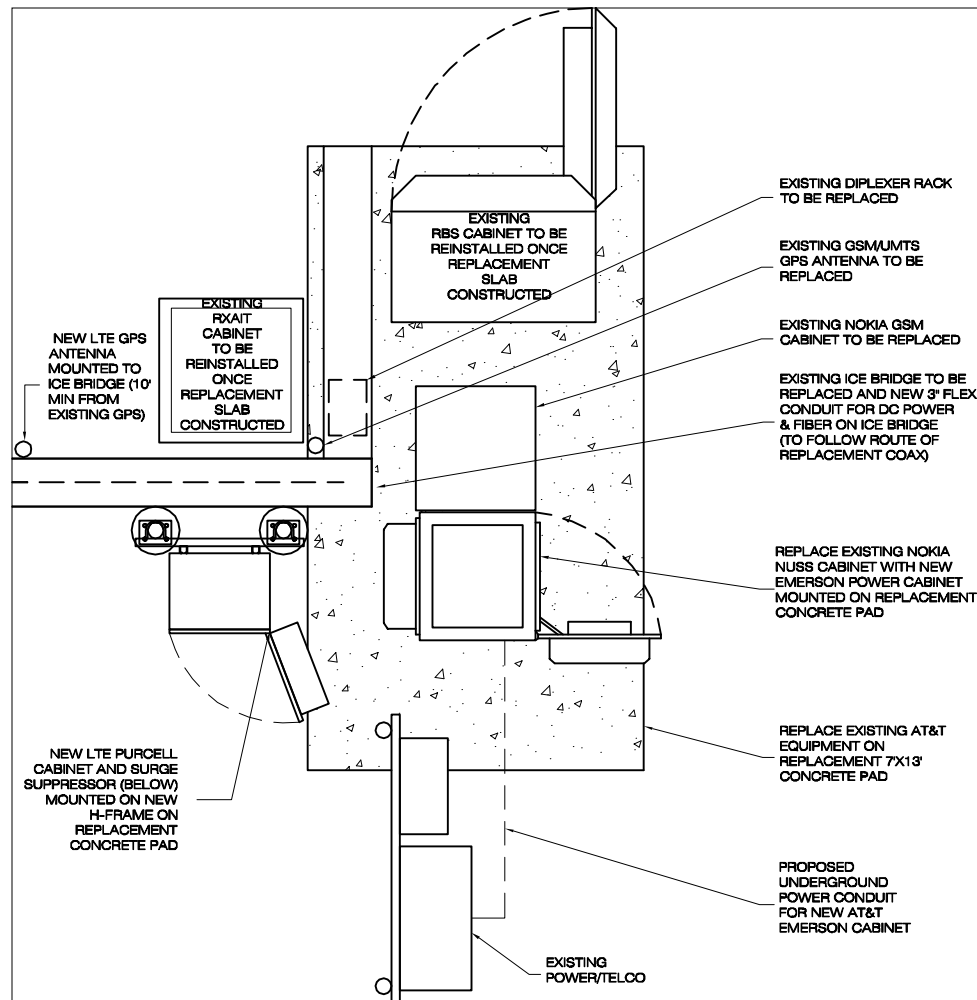
**11 ANTENNA PLAN**  
SCALE: 1/4" = 1'-0"



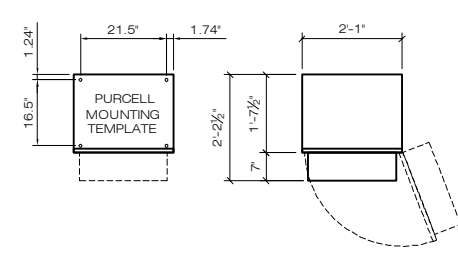
**12 ANTENNA SPEC**  
SCALE: 1/4" = 1'-0"

DESIGN LOAD CRITERIA	
EQUIPMENT SHELTER SHALL BE DESIGNED AND MANUFACTURED TO MEET ALL STATE AND LOCAL CODES. ITS LAYOUT SHALL BE COORDINATED WITH CARRIERS.	
DESIGN BASIS	CONNECTICUT
GOVERNING CODE	STATE BUILDING CODE
DESIGN LIVE LOADS	250 PSF (ASCE 7-02)
IMPORTANCE CATEGORY	II
SNOW LOAD:	
GROUND SNOW LOAD (Pg)	30 PSF
IMPORTANCE FACTOR	1.0
EXPOSURE FACTOR (Ce)	1.0
THERMAL FACTOR (Ct)	1.0
WIND LOAD:	
BASIC WIND LOAD	100 MPH (3 SECOND GUST)
EXPOSURE GROUP	B
IMPORTANCE FACTOR	1.00
EQUIPMENT LOAD:	
EQUIPMENT DL	38,000 LBS
SEISMIC DESIGN PARAMETERS:	
SEISMIC USE GROUP	II
MCE SPECTRAL ACCELERATION SHORT (Sa)	0.354
MCE SPECTRAL ACCELERATION SHORT (S1)	0.089
SITE CLASS	C
IMPORTANCE FACTOR	1.0

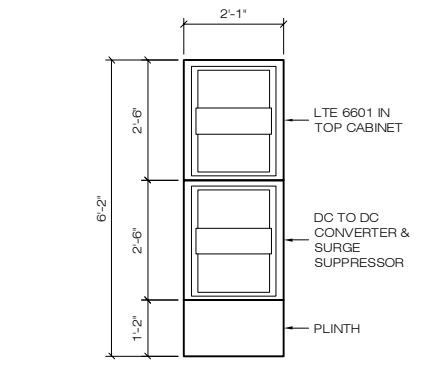
<p><b>MESSAGE CENTER MANAGEMENT</b> 40 WOODLAND STREET HARTFORD, CT 06105 OFFICE: (888) 973-7483</p>	<p>T-MOBILE SITE NUMBER: <b>CTFF632</b></p> <p>APT FILING NUMBER: <b>CT-255T-830</b></p>	<p>DEVELOPMENT &amp; MANAGEMENT PLAN</p> <p><b>MCM DITTMAR ROAD 4 DITTMAR ROAD REDDING, CT 06896</b></p>	<p><b>SPRINT/NEXTEL EQUIPMENT DETAILS</b></p>
	<p><b>T-Mobile</b></p> <p>35 GRIFFIN ROAD BLOOMFIELD, CT 06002 OFFICE: (860)-692-7100</p>	<p>DESIGN TYPE:</p> <p><b>RAW LAND</b></p>	<p>APT FILING NUMBER: CT-255T-830</p> <p>APT DRAWING NUMBER: CTFF632</p> <p>DRAWN BY: SMC</p> <p>CHECKED BY: SMC</p> <p>SCALE: AS NOTED</p> <p>DATE: 03/15/11</p>
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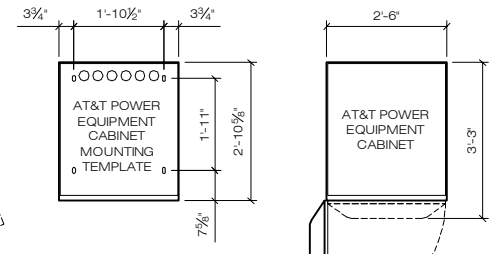
**EQUIPMENT PLAN**  
SCALE: 1/2" = 1'-0"



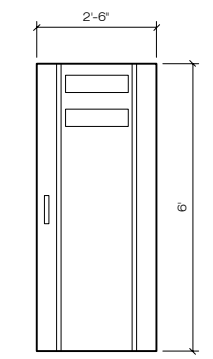
**SPECIFICATIONS:**  
74"± TALL x 25"± WIDE x 26.5"± DEEP  
WEIGHT: 600 LBS.



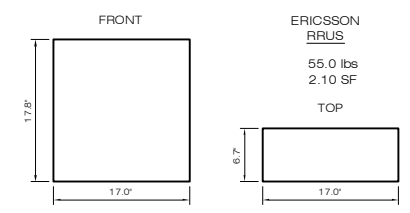
**1 PURCELL W/ 14" PLINTH EQUIPMENT CABINET**  
SCALE: 1/2" = 1'-0"



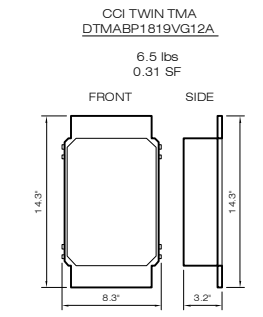
**SPECIFICATIONS:**  
72"± TALL x 30"± WIDE x 39"± DEEP  
WEIGHT: 1,109 LBS.  
WITH (3) STRINGS OF 180 AL SAFTELX NiCd BATTERIES



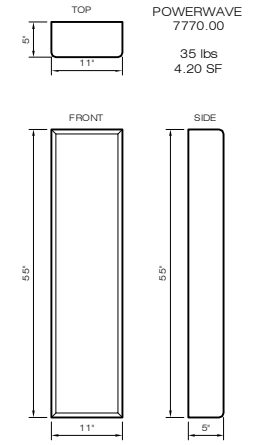
**2 AT&T RBA72 POWER & BATTERY EQUIPMENT CABINET**  
SCALE: 1/2" = 1'-0"



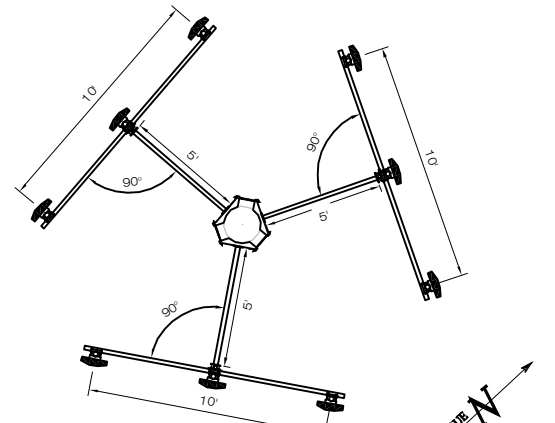
**3 TYPICAL RRUS**  
SCALE: 1" = 1'-0"



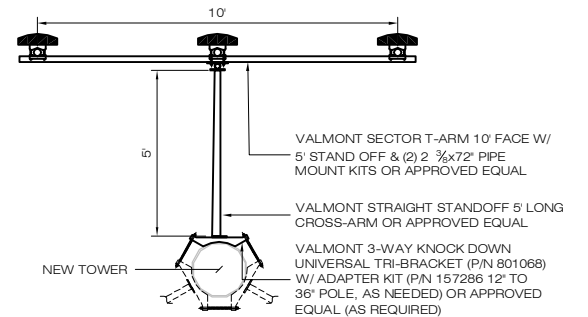
**4 TYPICAL TMA**  
SCALE: 1 1/2" = 1'-0"



**5 TYPICAL PANEL ANTENNA**  
SCALE: NTS



**6 ANTENNA PLAN**  
SCALE: 1/4" = 1'-0"

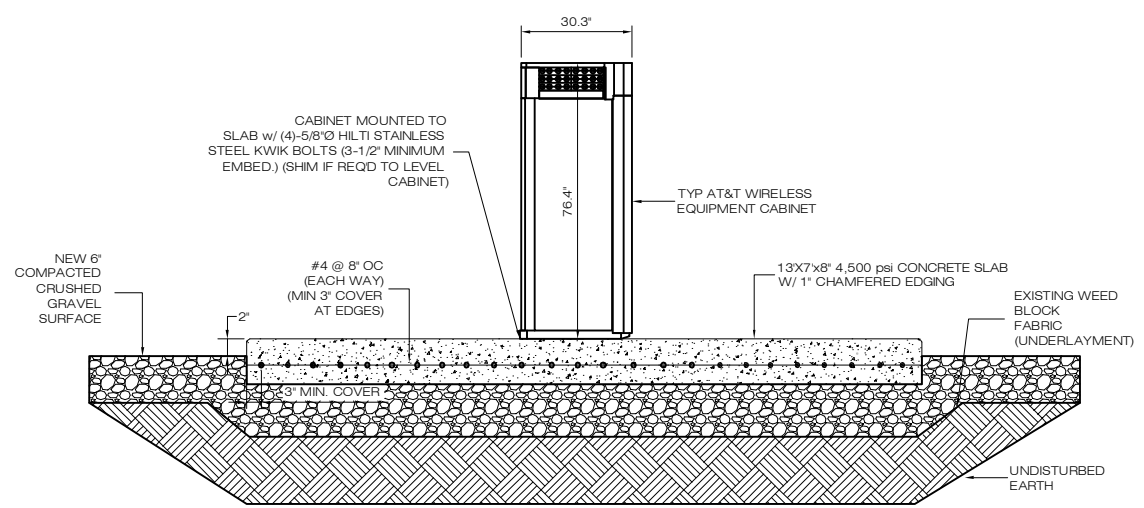


**7 ANTENNA MOUNT**  
SCALE: 1/2" = 1'-0"

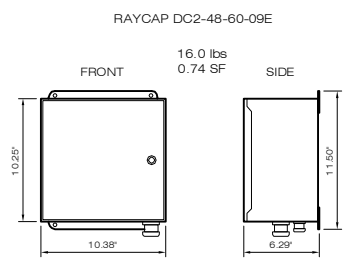
**DESIGN LOAD CRITERIA**

EQUIPMENT SHELTER SHALL BE DESIGNED AND MANUFACTURED TO MEET ALL STATE AND LOCAL CODES. ITS LAYOUT SHALL BE COORDINATED WITH CARRIERS.

DESIGN BASIS	CONNECTICUT STATE BUILDING CODE
GOVERNING CODE	250 PSF (ASCE 7-02)
DESIGN LIVE LOADS	II
IMPORTANCE CATEGORY	
SNOW LOAD:	
GROUND SNOW LOAD (Pg)	30 PSF
IMPORTANCE FACTOR	1.0
EXPOSURE FACTOR (Ce)	1.0
THERMAL FACTOR (Ct)	1.0
WIND LOAD:	
BASIC WIND LOAD	100 MPH (3 SECOND GUST)
EXPOSURE GROUP	B
IMPORTANCE FACTOR	1.00
EQUIPMENT LOAD:	
EQUIPMENT DL	10,500 LBS
SEISMIC DESIGN PARAMETERS:	
SEISMIC USE GROUP	II
MCE SPECTRAL ACCELERATION SHORT (Sa)	0.354
MCE SPECTRAL ACCELERATION SHORT (Si)	0.089
SITE CLASS	C
IMPORTANCE FACTOR	1.0



**8 AT&T EQUIPMENT SLAB SECTION VIEW**  
SCALE: NTS

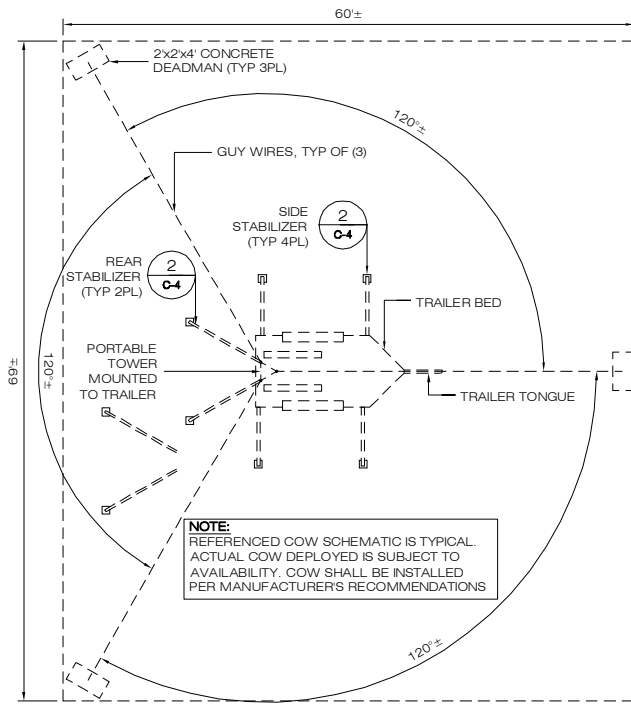


**9 TYPICAL SURGE SUPPRESSOR**  
SCALE: 1 1/2" = 1'-0"

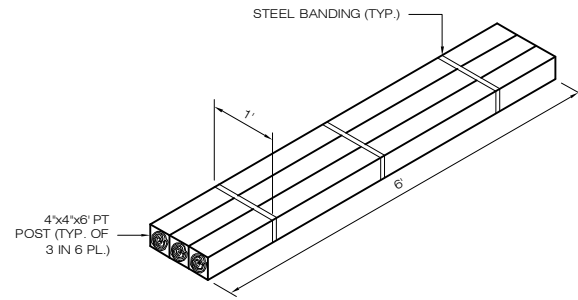


**10 TYPICAL GPS UNIT**  
SCALE: 1 1/2" = 1'-0"

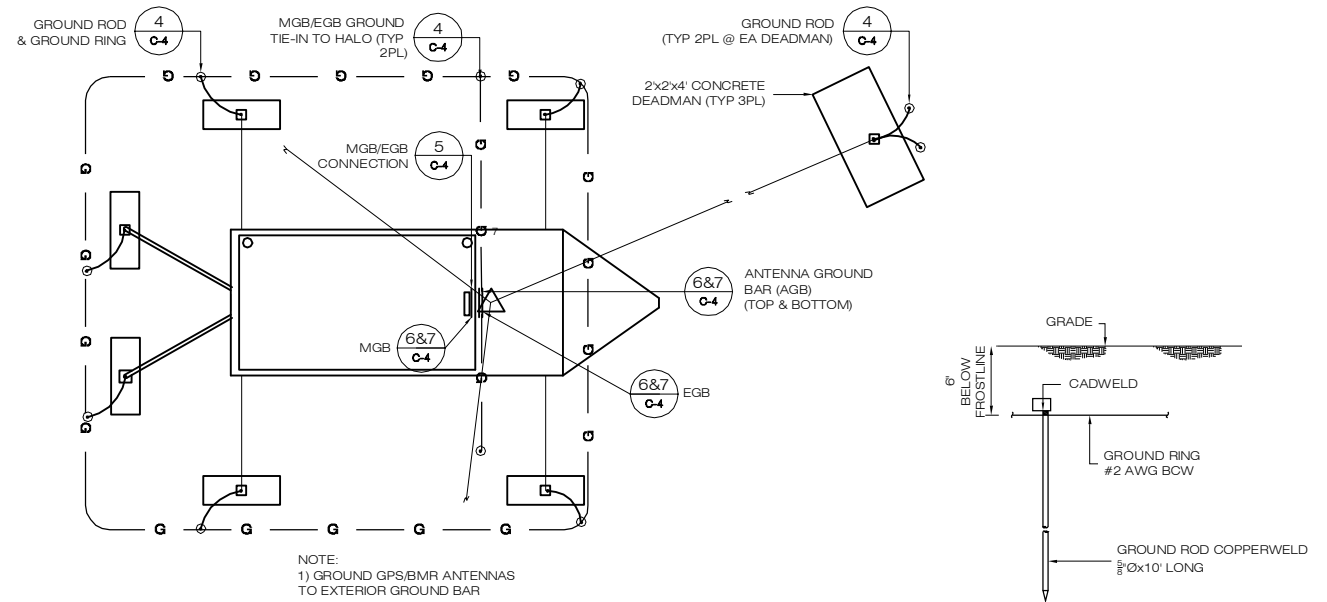
 <b>MESSAGE CENTER MANAGEMENT</b> 40 WOODLAND STREET HARTFORD, CT 06105 OFFICE: (888) 973-7483	<b>T-MOBILE SITE NUMBER:</b> <b>CTFF632</b>	<b>DEVELOPMENT &amp; MANAGEMENT PLAN</b> <b>MCM DITTMAR ROAD</b> <b>4 DITTMAR ROAD</b> <b>REDDING, CT 06896</b>	<b>AT&amp;T EQUIPMENT DETAILS</b>
	<b>APT FILING NUMBER:</b> <b>CT-255T-830</b>	<b>DESIGN TYPE:</b> <b>RAW LAND</b>	<b>APT FILING NUMBER:</b> CT-255T-830 <b>APT DRAWING NUMBER:</b> CTFF632 <b>DRAWN BY:</b> SMC <b>CHECKED BY:</b> SMC
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 <b>ALL-POINTS TECHNOLOGY CORPORATION</b> 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 WWW.ALLPOINTSTECH.COM PHONE: (860)-663-1697 FAX: (860)-663-0935			



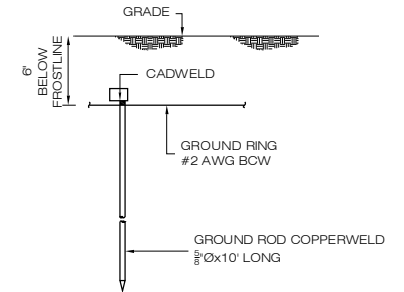
**1 COW PLAN VIEW**  
SCALE: 1" = 10'-0"



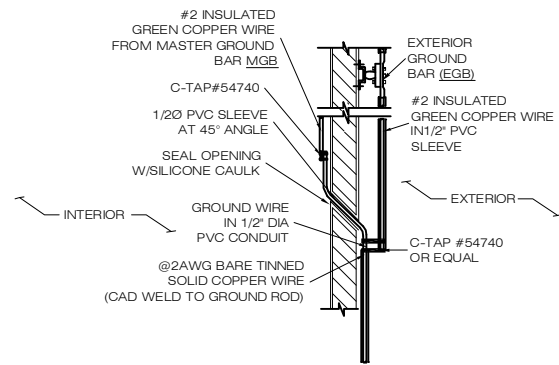
**2 OUTRIGGER CRIBBING**  
SCALE: NTS



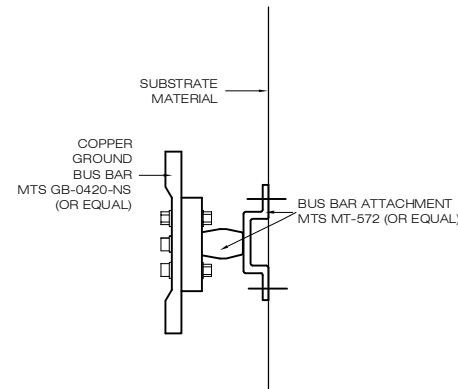
**3 GROUNDING PLAN**  
SCALE: NTS



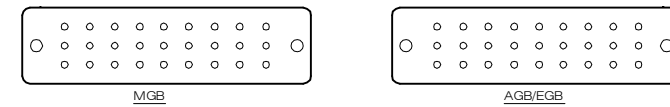
**4 GROUND ROD DETAIL**  
SCALE: NTS



**5 MGB/EGB CONNECTION DETAIL**  
SCALE: NTS



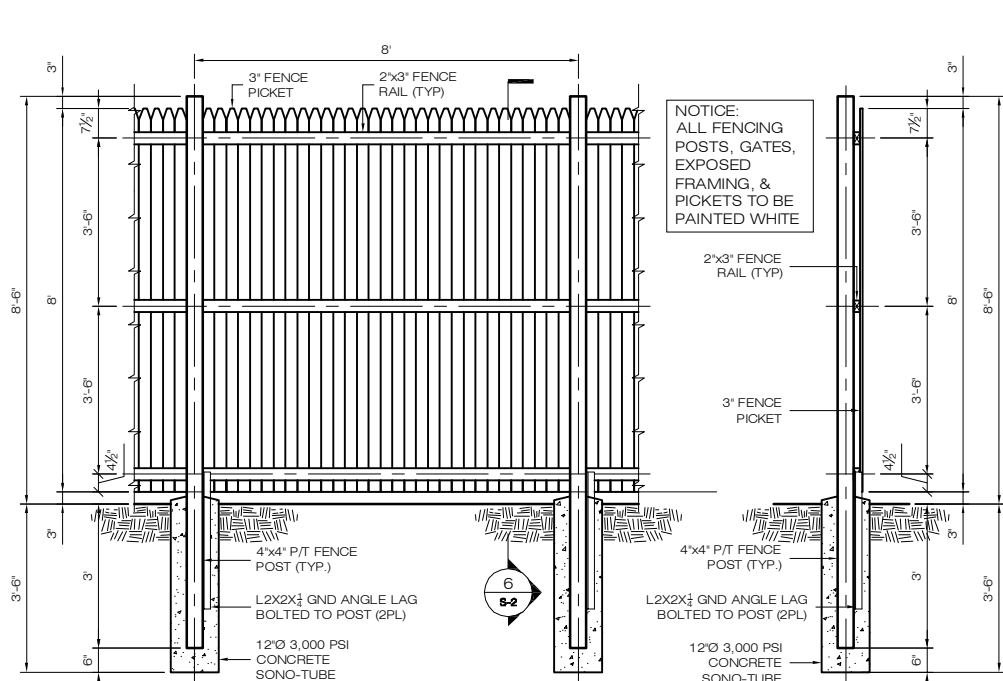
**6 GROUND BAR MOUNTING DETAIL**  
SCALE: NTS



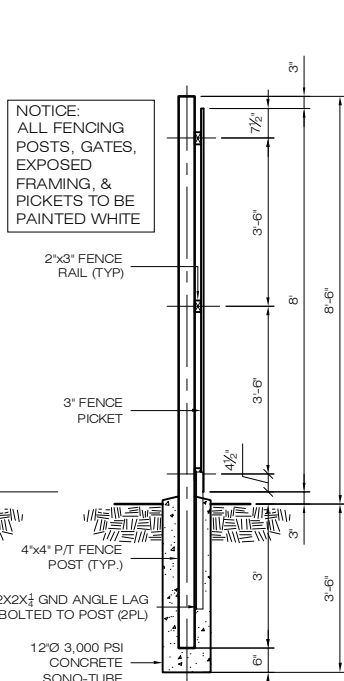
<b>GROUNDING SPECIFICATIONS:</b> 1) ALL CONDUCTORS 2 AWG W/ 2 HOLE LUGS. 2) ALL FIELD SIZED LUGS MUST CONFORM W/ NEMA STANDARDS. 3) NO CAD WELDS TO GROUND BAR. 4) DOUBLE UP COAX GROUND LEADS ON BACKSIDE OF GROUND BAR AS NECESSARY. 5) COPPER BUS BAR: MTS GB0420-NH 4x20x1/4" (OR EQUAL)	<b>NOTES:</b> 1) MGB = MASTER GROUND BAR 2) AGB = ANTENNA GROUND BAR 3) EGB = EXTERIOR GROUND BAR 4) FOR CONNECTION, SEE DETAIL (5/C-4)	<b>MGB:</b> 1) HALO RING 2) SPARE 3) RADIO EQUIPMENT 4) POLYPHASE BAR	<b>AGB/EGB:</b> 1) EXISTING GROUND RING 2) MASTER GROUND BAR 3) GPS COAX 4) COAX
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**7 GROUND BARS**  
SCALE: NTS

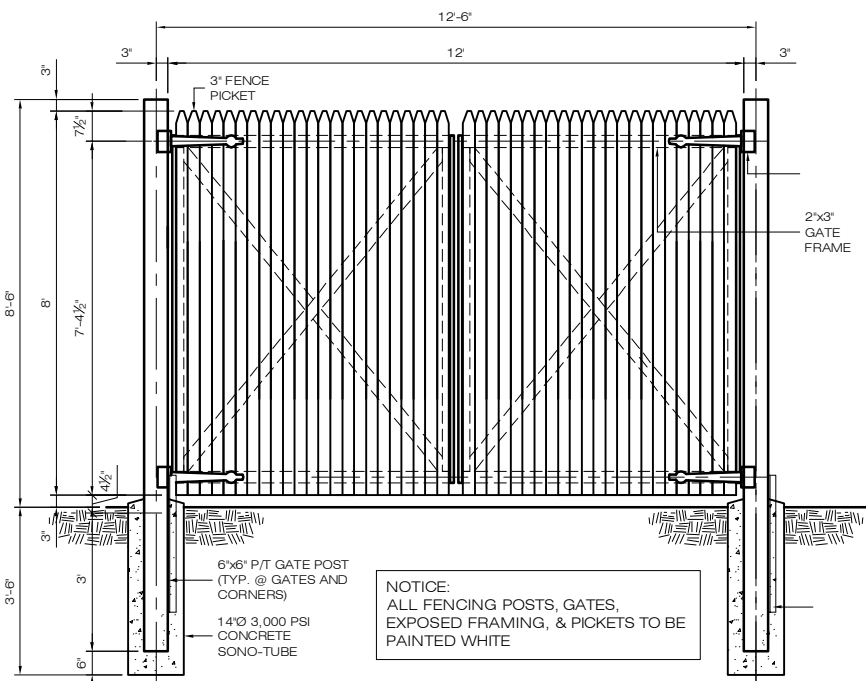
 <b>MESSAGE CENTER MANAGEMENT</b> 40 WOODLAND STREET HARTFORD, CT 06105 OFFICE: (888) 973-7483	<b>T-MOBILE SITE NUMBER:</b> <b>CTFF632</b>	<b>DEVELOPMENT &amp; MANAGEMENT PLAN</b> <b>MCM DITTMAR ROAD</b> <b>4 DITTMAR ROAD</b> <b>REDDING, CT 06896</b>	<b>TEMPORARY COW DEPLOYMENT</b>
	<b>APT FILING NUMBER:</b> <b>CT-255T-830</b>	<b>DESIGN TYPE:</b> <b>RAW LAND</b>	<b>APT FILING NUMBER:</b> CT-255T-830 <b>APT DRAWING NUMBER:</b> CTFF632 <b>DRAWN BY:</b> SMC <b>CHECKED BY:</b> SMC
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	 <b>ALL-POINTS TECHNOLOGY CORPORATION</b> 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 WWW.ALLPOINTSTECH.COM	PHONE: (860)-663-1697 FAX: (860)-663-0935	



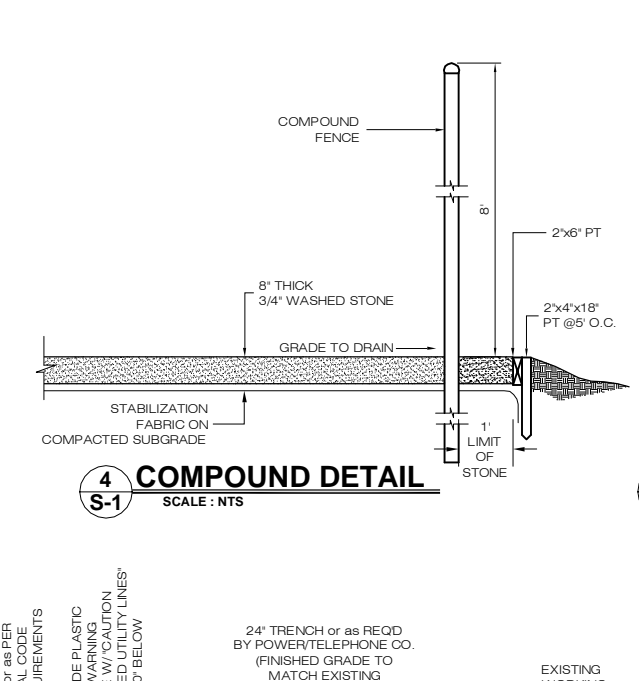
**1 COMPOUND FENCE DETAIL**  
S-1 SCALE: 1/2" = 1'-0"



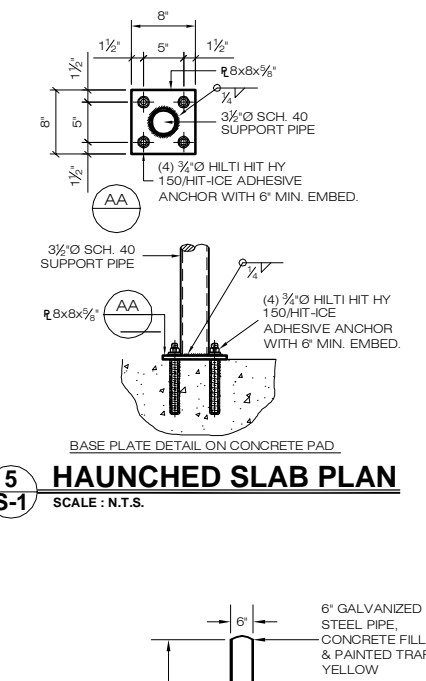
**2 FENCE DETAIL**  
S-1 SCALE: 1/2" = 1'-0"



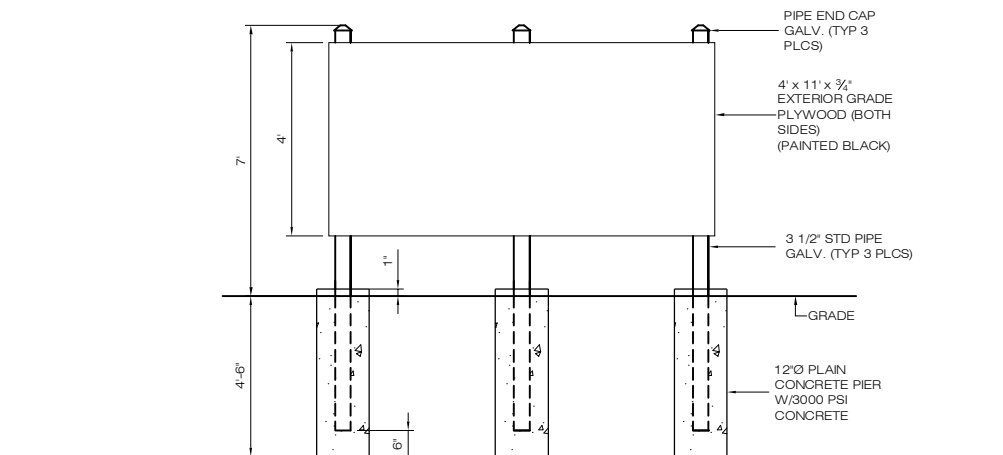
**3 COMPOUND GATE DETAIL**  
S-1 SCALE: 1/2" = 1'-0"



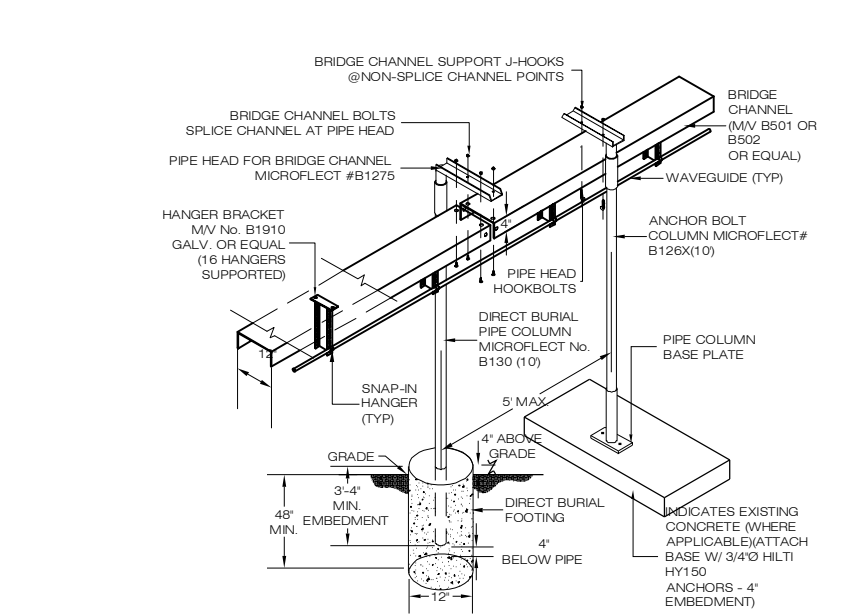
**4 COMPOUND DETAIL**  
S-1 SCALE: N.T.S.



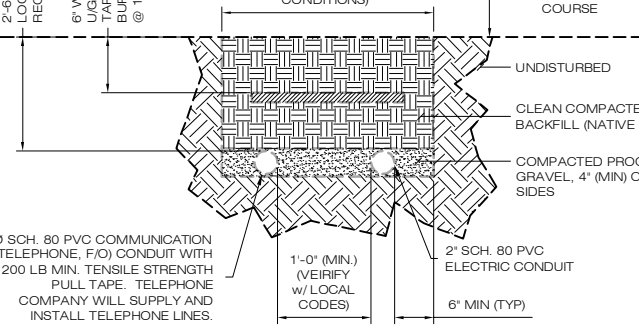
**5 HAUNCHED SLAB PLAN**  
S-1 SCALE: N.T.S.



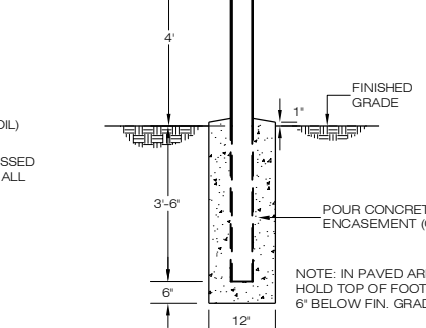
**6 UTILITY BACKBOARD DETAIL**  
S-1 SCALE: N.T.S.



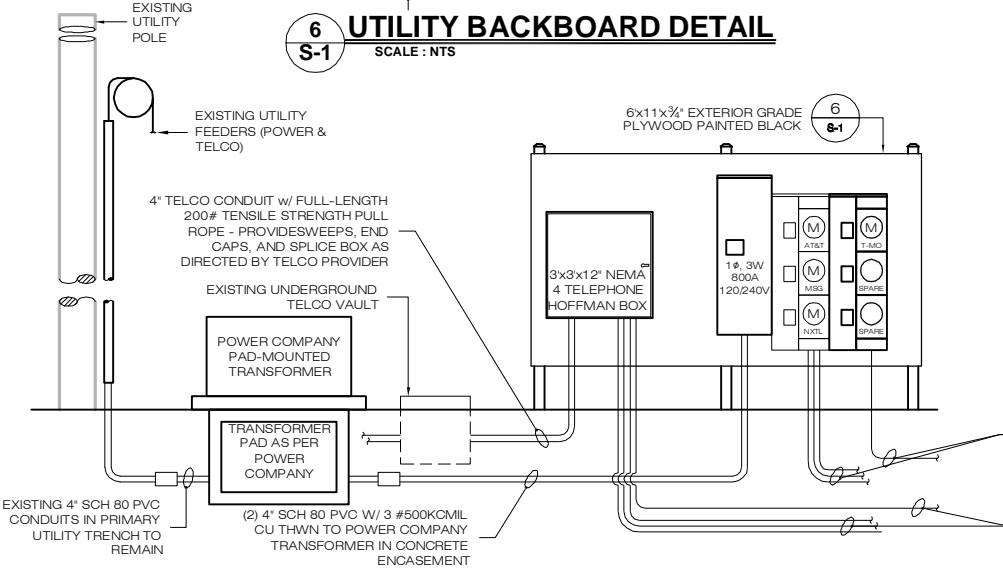
**7 CABLE BRIDGE & COAX HANGER DETAIL**  
S-1 SCALE: N.T.S.



**8 SECONDARY TRENCH DETAIL**  
S-1 SCALE: N.T.S.



**9 BOLLARD DETAIL**  
S-1 SCALE: N.T.S.



**8 UTILITY RISER**  
S-1 SCALE: N.T.S.

<p><b>MESSAGE CENTER MANAGEMENT</b> 40 WOODLAND STREET HARTFORD, CT 06105 OFFICE: (888) 973-7483</p>	<p>T-MOBILE SITE NUMBER: <b>CTFF632</b></p> <p>APT FILING NUMBER: <b>CT-255T-830</b></p>	<p>DEVELOPMENT &amp; MANAGEMENT PLAN</p> <p><b>MCM DITTMAR ROAD 4 DITTMAR ROAD REDDING, CT 06896</b></p>	<p><b>COMPOUND DETAILS</b></p>
	<p><b>T-Mobile</b></p> <p>35 GRIFFIN ROAD BLOOMFIELD, CT 06002 OFFICE: (860)-692-7100</p>	<p>DESIGN TYPE:</p> <p><b>RAW LAND</b></p>	<p>APT FILING NUMBER: CT-255T-830</p> <p>APT DRAWING NUMBER: CTFF632</p> <p>DRAWN BY: SMC</p> <p>CHECKED BY: SMC</p> <p>SCALE: AS NOTED</p> <p>DATE: 03/15/11</p>
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## GENERAL NOTES:

- ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL COMPLY WITH THE STANDARDS AND SPECIFICATIONS OF THE TOWN OF REDDING AND OTHER GOVERNMENTAL AGENCIES, AS APPLICABLE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS BEFORE COMMENCING WORK. THE CONTRACTOR SHALL FOLLOW CONDITIONS OF ALL APPLICABLE PERMITS AND WORK IN ACCORD WITH OSHA REGULATIONS.
- UTILITY INFORMATION SHOWN ON THE PLAN IS BASED ON VISIBLE FIELD EVIDENCE AND AVAILABLE RECORDS. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR IS ADVISED THAT THESE DRAWINGS MAY NOT ACCURATELY DEPICT AS-BUILT LOCATIONS AND OTHER UNKNOWN STRUCTURES. THE CONTRACTOR SHALL THEREFORE DETERMINE THE EXACT LOCATION OF EXISTING UNDERGROUND ELEMENTS AND EXCAVATE WITH CARE AFTER CALLING MARKOUT SERVICE AT 1-800-922-4455 (72) HOURS BEFORE DIGGING, DRILLING OR BLASTING. CARE SHALL BE TAKEN NOT TO DISTURB EXISTING UTILITIES AND SERVICE CONNECTIONS (OR PORTIONS THERE OF) TO REMAIN. CONTRACTOR IS RESPONSIBLE FOR REPAIRING OR REPLACING STRUCTURES OR UTILITIES DAMAGED BY HIS OPERATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF NEW SERVICE CONNECTIONS AND SHALL COORDINATE WORK WITH THE APPROPRIATE UTILITY COMPANY.
- ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, FIBER OPTIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER.
- EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE, BUT NOT BE LIMITED TO:
  - FALL PROTECTION,
  - CONFINED SPACE ENTRY,
  - ELECTRICAL SAFETY, AND
  - TRENCHING & EXCAVATION.
- ELECTRIC SERVICE SHALL BE COORDINATED WITH CONNECTICUT LIGHT & POWER (CL & P).
- ALL ELEVATIONS SHOWN ARE IN N.G.V. DATUM 1929.
- IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- CONTRACTOR SHALL PROTECT EXISTING PAVED AND GRAVEL SURFACES, CURBS, LANDSCAPE AND STRUCTURES AND RESTORE SITE TO PRECONSTRUCTION CONDITION WITH AS GOOD, OR BETTER, MATERIALS. NEW MATERIALS SHALL MATCH EXISTING THICKNESS AND TYPE.
- THE CONTRACTOR SHALL SHORE ALL TRENCH EXCAVATION GREATER THAN 5 FEET IN DEPTH OR LESS WHERE SOIL CONDITIONS ARE DEEMED UNSTABLE. ALL SHEETING AND/OR SHORING METHODS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR MANAGING GROUNDWATER LEVELS IN THE VICINITY OF EXCAVATIONS TO PROTECT ADJACENT PROPERTIES AND NEW WORK. GROUNDWATER SHALL BE DRAINED IN ACCORDANCE WITH LOCAL SEDIMENTATION & EROSION CONTROL GUIDELINES.
- EXCAVATION
 

CONTRACTOR SHALL GRADE ONLY AREAS SHOWN TO BE MODIFIED HEREIN AND ONLY TO THE EXTENT REQUIRED TO SHED OVERLAND WATER FLOW AWAY FROM SITE. ALL SLOPES SHALL NOT BE STEEPER THAN 3:1 (HORIZ:VERT), UNO.

BEDROCK SUBGRADE SHOULD NOT BE STEEPER THAN 4H:1V. HIGH SPOTS IN BEDROCK SUBGRADES MAY NEED TO BE REMOVED AND LOW SPOTS MAY BE FILLED WITH LEAN CONCRETE OR MINUS 3/4" CRUSHED STONE TO PROVIDE A LEVEL SURFACE. BEDROCK SUBGRADES DO NOT REQUIRE PROOFROLLING.

SEDIMENTATION AND EROSION CONTROLS SHOWN AND SPECIFIED SHALL BE ESTABLISHED BEFORE STRIPPING EXISTING VEGETATION.

ORGANIC MATERIAL AND DEBRIS SHALL BE STRIPPED AND STOCKPILED BEFORE ADDING FILL MATERIAL.

NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

ALL FILL SHALL BE PLACED IN EIGHT INCH LIFTS AND COMPACTED IN PLACE. STRUCTURAL FILL SHALL BE COMPACTED TO 95% MAXIMUM MODIFIED PROCTOR DRY DENSITY TESTED IN ACCORDANCE WITH ASTM D1557, METHOD C.

EXCAVATIONS FOR FOOTINGS SHALL BE CUT LEVEL TO THE REQUIRED DEPTH AND TO UNDISTURBED SOIL. REPORT UNSUITABLE SOIL CONDITIONS TO THE ENGINEER.

STRUCTURAL FILL BE TESTED FOR MOISTURE CONTENT AND COMPACTION DURING PLACEMENT. SHOULD THE RESULTS OF THE IN-PLACE DENSITY TESTS INDICATE THE SPECIFIED MOISTURE OR COMPACTION LIMITS HAVE NOT BEEN MET, THE AREA REPRESENTED BY THE TEST SHOULD BE REWORKED AND RETESTED, AS REQUIRED, UNTIL THE SPECIFIED MOISTURE AND COMPACTION REQUIREMENTS ARE ACHIEVED.

EQUIPMENT CABINETS MAY BE SUPPORTED ON SLABS-ON-GRADE UNDERLAIN BY AT LEAST A 12-INCH THICKNESS OF COMPACTED STRUCTURAL FILL OR MINUS 3/4-INCH CRUSHED STONE PLACED ON THE EXISTING FILL, THE SURFACE OF WHICH SHOULD BE THOROUGHLY COMPACTED AND CLEAR OF ORGANIC MATTER.

THE AREA UNDERLYING THE SLABS SHOULD BE ROUGH GRADED AND THEN THOROUGHLY PROOFROLLED WITH A VIBRATORY ROLLER OR HEAVY PLATE COMPACTOR PRIOR TO FINAL GRADING AND PLACEMENT OF STRUCTURAL FILL OR MINUS 3/4-INCH CRUSHED STONE.

A SOIL UNIT WEIGHT OF 100 LBS PER CUBIC FOOT (PCF) SHOULD BE USED FOR ENGINEERED FILL OVERLYING THE FOOTINGS.

TRENCH EXCAVATIONS SHALL BE BACKFILLED AT THE END OF EACH DAY.

SURPLUS MATERIAL SHALL BE REMOVED FROM THE SITE.

TOWER FOUNDATION EXCAVATION, BACKFILL AND COMPACTION SHALL BE IN ACCORD WITH TOWER MANUFACTURERS DESIGNS AND SPECIFICATIONS

14. MATERIALS  
NATIVE GRAVEL MATERIAL MAY BE USED FOR TRENCH BACKFILL WHERE SELECT MATERIAL IS NOT SPECIFIED. GRAVEL MATERIAL FOR CONDUIT TRENCH BACKFILL SHALL NOT CONTAIN ROCK GREATER THAN 2 INCHES IN DIAMETER.

BANK OR CRUSHED GRAVEL SHALL CONSIST OF TOUGH, DURABLE PARTICLES OF CRUSHED OR UNCRUSHED GRAVEL FREE OF SOFT, THIN, ELONGATED OR LAMINATED PIECES AND MEET THE GRADATION.

FILL SHOULD MEET THE FOLLOWING MATERIAL PROPERTY REQUIREMENTS:

FILL TYPE (1)	USCS CLASSIFICATION	ACCEPTABLE LOCATION FOR PLACEMENT
STRUCTURAL FILL	GW (2)	ALL LOCATIONS AND ELEVATIONS. THE WEATHERED BEDROCK MAY BE SELECTIVELY RE-USED AS STRUCTURAL FILL, PROVIDED IT MEET THE GRADATION REQUIREMENTS IN NOTE 2, BELOW.
COMMON FILL	VARIES (3)	COMMON FILL MAY BE USED FOR SITE GRADING TO WITHIN 12 INCHES OF FINISHED GRADE. COMMON FILL SHOULD NOT BE USED UNDER SETTLEMENT SENSITIVE STRUCTURES. THE WEATHERED BEDROCK MAY BE RE-USED AS COMMON FILL PROVIDED IT IS FREE OF ORGANICS AND CAN BE ADEQUATELY COMPACTED.

1. COMPACTED STRUCTURAL FILL SHOULD CONSIST OF APPROVED MATERIALS THAT ARE FREE OF ORGANIC MATTER AND DEBRIS. FROZEN MATERIAL SHOULD NOT BE USED. FILL SHOULD NOT BE PLACED ON A FROZEN SUBGRADE.

2. IMPORTED STRUCTURAL FILL SHOULD MEET THE FOLLOWING GRADATION:  
PERCENT PASSING BY WEIGHT

SIEVE SIZE	STRUCTURAL FILL
6"	100
3"	70-100
2"	(100)
3/4"	45-95
NO. 4	30-90
NO. 10	25-80
NO. 40	10-50
NO. 200	0-12

\* MAXIMUM 2-INCH PARTICLE SIZE WITHIN 12 INCHES OF THE UNDERSIDE OF FOOTINGS OR SLABS

3. COMMON FILL SHOULD HAVE A MAXIMUM PARTICLE SIZE OF 6 INCHES AND NO MORE THAN 25 PERCENT BY WEIGHT PASSING THE US NO. 200 SIEVE.

## SEDIMENTATION/EROSION

- THE CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES SHALL BE IN CONFORMANCE WITH THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL..
- CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION. THE FOLLOWING GENERAL CONDITIONS SHALL BE OBSERVED:
  - LIMITS OF CLEARING AND GRUBBING SHALL BE CLEARLY MARKED BEFORE COMMENCING WITH SUCH WORK.
  - EXISTING VEGETATION TO REMAIN SHALL BE PROTECTED AND REMAIN UNDISTURBED.
  - CLEARING AND GRADING SHALL BE SCHEDULED SO AS TO MINIMIZE THE SIZE OF EXPOSED AREAS AND THE LENGTH OF TIME THAT AREAS ARE EXPOSED.
  - TOPSOIL SHALL BE SPREAD TO FINISH GRADES AND SEEDED AS SOON AS FINISHED GRADES ARE ESTABLISHED. STRAW MULCH, JUTE NETTING OR MATS SHALL BE USED WHERE THE NEW SEED IS PLACED.
  - THE LENGTH AND STEEPNESS OF CLEARED SLOPES SHALL BE MINIMIZED TO REDUCE RUNOFF VELOCITIES.
  - RUNOFF SHALL BE DIVERTED AWAY FROM CLEARED SLOPES.
  - ALL SEDIMENT SHALL BE TRAPPED ON THE SITE.

3. SEDIMENTATION AND EROSION CONTROL (SEC) MEASURES SHOWN SHALL BE INSTALLED PRIOR TO LAND CLEARING, EXCAVATION OR GRADING OPERATIONS. REQUIREMENTS SPECIFIED SHALL BE MET PRIOR TO COMMENCING EARTH-WORK OPERATIONS.

4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN SEC MEASURES THROUGHOUT DURATION OF PROJECT UNTIL DISTURBED LAND IS THOROUGHLY VEGETATED.

5. FAILURE OF THE SEC SYSTEMS SHALL BE CORRECTED IMMEDIATELY AND SUPPLEMENTED WITH ADDITIONAL MEASURES AS NEEDED.

6. VEGETATIVE SEEDING: UON, AREA TO BE SEEDED SHALL BE LOOSE AND FRIABLE TO A DEPTH OF 3". TOPSOIL SHALL BE LOOSENEED BY RAKING OR DISKING BEFORE SEEDING. APPLY 50 Lbs. OF DOLOMITIC LIMESTONE AND 25 Lbs. OF 10-10-10 FERTILIZER PER 1000 SF. HARROW LIME AND FERTILIZER INTO LOOSE SOIL. APPLY COMMON BERMUDA AND RYE GRASS AT 50 Lbs/ACRE. USE CYCLONE SEED DRILL CULTIPACKER SEEDER OR HYDROSEEDER (SEED & FERTILIZER SLURRY) FOR STEEP SLOPES. IRRIGATE UNTIL VEGETATION IS COMPLETELY ESTABLISHED.

7. PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.

8. INSPECT AND MAINTAIN EROSION CONTROL MEASURES, AND REMOVE SEDIMENT THEREFROM ON A WEEKLY BASIS AND WITHIN TWELVE HOURS AFTER EACH STORM EVENT AND DISPOSE OF SEDIMENTS IN AN UPLAND AREA SUCH THAT THEY DO NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.

9. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOS.

10. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE SYSTEMS LOCATED ON SITE

11. APPROPRIATE MEANS SHALL BE USED TO CONTROL DUST DURING CONSTRUCTION.

12. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED TO PREVENT SOIL AND LOOSE DEBRIS FORM BEING TRACKED ONTO LOCAL ROADS. THE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED UNTIL THE SITE IS PERMANENTLY STABILIZED.

13. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES SHALL BE IN CONFORMANCE WITH THE STATE OF CONNECTICUT GUIDELINES FOR EROSION AND SEDIMENT CONTROL, AS AMENDED.

14. TEMPORARY SILT FENCE EROSION CONTROL BARRIER SHALL BE MAINTAINED THROUGHOUT SITE CONSTRUCTION. STOCKPILE ON SITE 100 FT. OF SILT FENCE FOR EMERGENCY USE. TEMPORARY EROSION BARRIERS SHALL REMAIN IN PLACE UNTIL PERMANENT VEGETATIVE GROUND COVER IS ESTABLISHED.

15. ALL DISTURBED AREAS OUTSIDE THE LIMITS OF THE EQUIPMENT LEASE AREA SHALL BE PERMANENTLY ESTABLISHED WITH A VEGETATIVE GROUND COVER.

16. STILLING BASIN SHALL BE UTILIZED FOR ANY DE-WATERING DISCHARGE WHICH MAY OCCUR DURING CONSTRUCTION OPERATIONS.

17. PROPOSED CONSTRUCTION IMPACTS AND PERMANENT IMPROVEMENTS SHALL NOT SIGNIFICANTLY IMPACT STORM WATER RUNOFF PATTERNS, VOLUME OR PEAK FLOW RATES. THE FLAT GRADE OF THE EQUIPMENT COMPOUND AND STONE SURFACE WILL PROMOTE STORM WATER INFILTRATION.

18. CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENTATION CONTROL MEASURES PRIOR TO ANY GRADING ACTIVITIES IN LOCATIONS SHOWN ON THESE DRAWINGS.

19. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.

20. IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.

21. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.

22. SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATION.

23. NO GREATER THAN 80,000 SQUARE FEET OF LAND SHALL BE EXPOSED AT ANY ONE TIME DURING DEVELOPMENT. WHEN LAND IS EXPOSED DURING DEVELOPMENT, THE EXPOSURE SHOULD BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME AND SHALL NOT EXCEED 10 DAYS. LAND SHOULD NOT BE LEFT EXPOSED DURING THE WINTER MONTHS.

24. ANY DISTURBED AREAS WHICH ARE TO BE LEFT TEMPORARILY, AND WHICH WILL BE REGRADED LATER DURING CONSTRUCTION SHALL BE MACHINE HAY MULCHED AND SEEDED WITH RYE GRASS TO PREVENT EROSION. HAY OR STRAW MULCH SHALL BE APPLIED TO ALL FRESHLY SEEDED AREAS AT A RATE OF 2 TONS PER ACRES. BALES SHALL BE UNSPOOLED, AIR-DRIED, AND FREE FROM WEED, SEEDS, AND ANY COARSE MATERIAL.

## STEEL NOTES & SPECIFICATIONS

### STEEL

- CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. THE ENGINEER SHALL BE NOTIFIED OF ANY CONDITIONS WHICH PRECLUDE COMPLETION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO LATEST EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
- STRUCTURAL AND MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A992 (FY-50 KSI), UNLESS OTHERWISE NOTED.
- STEEL PIPE SHALL CONFORM TO ASTM A500, GRADE B. STEEL PIPE DIAMETERS NOTED ON THE DRAWINGS ARE NOMINAL.
- STRUCTURAL CONNECTION BOLTS SHALL CONFORM TO ASTM A325. ALL BOLTS SHALL BE 3/4" DIAMETER MINIMUM AND SHALL HAVE MINIMUM OF TWO BOLTS, UNLESS NOTED OTHERWISE ON THE DRAWINGS. LOCK WASHER ARE NOT PERMITTED FOR A325 STEEL ASSEMBLIES.
- NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIAMETER GALVANIZED ASTM A 307 BOLTS UNLESS OTHERWISE NOTED.
- ALL STEEL MATERIAL EXPOSED TO WEATHER SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 'ZINC (HOT-DIPPED GALVANIZED) COATINGS' ON IRON AND STEEL PRODUCTS.
- ALL BOLTS ANCHORS AND MISCELLANEOUS HARDWARE EXPOSED TO WEATHER SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 'ZINC COATING (HOT-DIP) ON IRON AND STEEL HARDWARE.'
- DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY UP ALL DAMAGED GALVANIZED STEEL WITH COLD ZINC, 'GALVANOX', 'DRY GALV', 'ZINC IT', OR APPROVED EQUIVALENT, IN ACCORDANCE WITH MANUFACTURERS GUIDELINES. TOUCH UP DAMAGED NON GALVANIZED STEEL WITH SAME PAINT APPLIED IN SHOP OR FIELD.
- CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS, AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS 'STANDARD QUALIFICATION PROCEDURES'. ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC 'MANUAL OF STEEL CONSTRUCTION' 9TH EDITION. AT THE COMPLETION OF WELDING, ALL DAMAGE TO GALVANIZED COATING SHALL BE REPAIRED. SEE NOTE 9.

11. THE ENGINEER SHALL BE NOTIFIED OF ANY INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NON CONFORMING MATERIALS OR CONDITIONS TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE ENGINEER REVIEW.

12. APPLY A QUALITY CONCRETE SEALER SUCH AS THEROSEAL TO EXPOSED CONCRETE IN ACCORDANCE WITH MANUFACTURERS APPLICATIONS DIRECTIONS.

## SITE NOTES

1. ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY THE CONTRACTOR AND THE TESTING AGENCY PRIOR TO BEGINNING ANY MATERIAL ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND THE OWNER'S ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE CONSTRUCTION PROCEDURES.

2. DAMAGE BY THE CONTRACTOR TO UTILITIES OR PROPERTY OF OTHERS, INCLUDING EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CLIENT. FOR GRASSED AREAS, SEED AND MULCH SHALL BE ACCEPTABLE.

3. THE CONTRACTOR SHALL REWORK (DRY, SCARIFY, ETC.) ALL MATERIAL NOT SUITABLE FOR SUBGRADE IN ITS PRESENT STATE. IF THE MATERIAL, AFTER REWORKING, REMAINS UNSUITABLE THEN THE CONTRACTOR SHALL UNDERCUT THIS MATERIAL AND REPLACED WITH APPROVED MATERIAL AT HIS EXPENSE. ALL SUBGRADES SHALL BE PROOF ROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK PRIOR TO PAVING. ANY SOFT MATERIAL SHALL BE REWORKED AND REPLACED.

4. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL DITCHES, PIPES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTABLE BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURES IN OPERABLE CONDITION.

5. ALL DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE OWNER IMMEDIATELY IF DISCREPANCIES ARE DISCOVERED. THE CONTRACTOR SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.

6. CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM ALL APPLICABLE GOVERNMENTAL AGENCIES (NOT SUPPLIED BY OWNER).

7. ANY PERMITS WHICH MUST BE OBTAINED SHALL BE THE CONTRACTORS RESPONSIBILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS (NOT SUPPLIED BY OWNER).

8. ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES AND THE LATEST APPLICABLE CODES AND STANDARDS.

9. THE CONTRACTOR SHALL NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY, OR CITY) ENGINEER 24 HOURS PRIOR TO BEGINNING OF CONSTRUCTION.

10. CONTRACTOR RESPONSIBLE FOR CLOSING AND FILING ALL PERMITS ASSOCIATED WITH THE SITE.

11. THE SITE SHALL BE GRADED TO DISBURSE SURFACE WATER TO FLOW AWAY FROM THE EQUIPMENT AND TOWER AREAS.

12. ALL EXISTING AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO MATCH PRECONSTRUCTION CONDITIONS.

13. THE CONTRACTOR SHALL CONTACT 'CALL BEFORE YOU DIG' AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITIES COMMENCING.

## CONCRETE NOTES & SPECIFICATIONS

### CONCRETE

ALL CONCRETE CONSTRUCTION SHALL BE DONE IN ACCORD WITH AMERICAN CONCRETE INSTITUTE (ACI) CODES 301 & 318, LATEST REVISION.

TOWER FOUNDATION WORK SHALL BE IN ACCORDANCE WITH TOWER MANUFACTURERS DESIGNS AND SPECIFICATIONS.

ALL CONCRETE USED SHALL BE 4500 PSI (28 DAY COMP STRENGTH). THE CONCRETE MIX SHALL BE BASED ON USING THE FOLLOWING MATERIALS AND PARAMETERS:

PORTLAND CEMENT:ASTM C150, T1  
AGGREGATE: ASTM C33, 1 INCH MAX  
WATER: POTABLE  
ADMIXTURE: NON-CHLORIDE  
AIR: 6%  
SLUMP: 4 INCH  
UNLESS NOTED OTHERWISE

\*CONCRETE SUBJECT TO FREEZING AND THAWING SHALL HAVE A MAXIMUM WATER/CEMENT (W/C) RATIO OF 0.45 AND SHALL BE AIR ENTRAINED IN ACCORDANCE WITH IBC 2003 SECTION 1904 DURABILITY REQUIREMENTS.

ALL REINFORCING STEEL SHALL BE ASTM A615, GR 60 (DEFORMED) UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS B' AND ALL HOOKS SHALL BE ACI STANDARD UNO. REINFORCING BARS SHALL BE COLD BENT WHERE REQUIRED AND TIED (NOT WELDED).

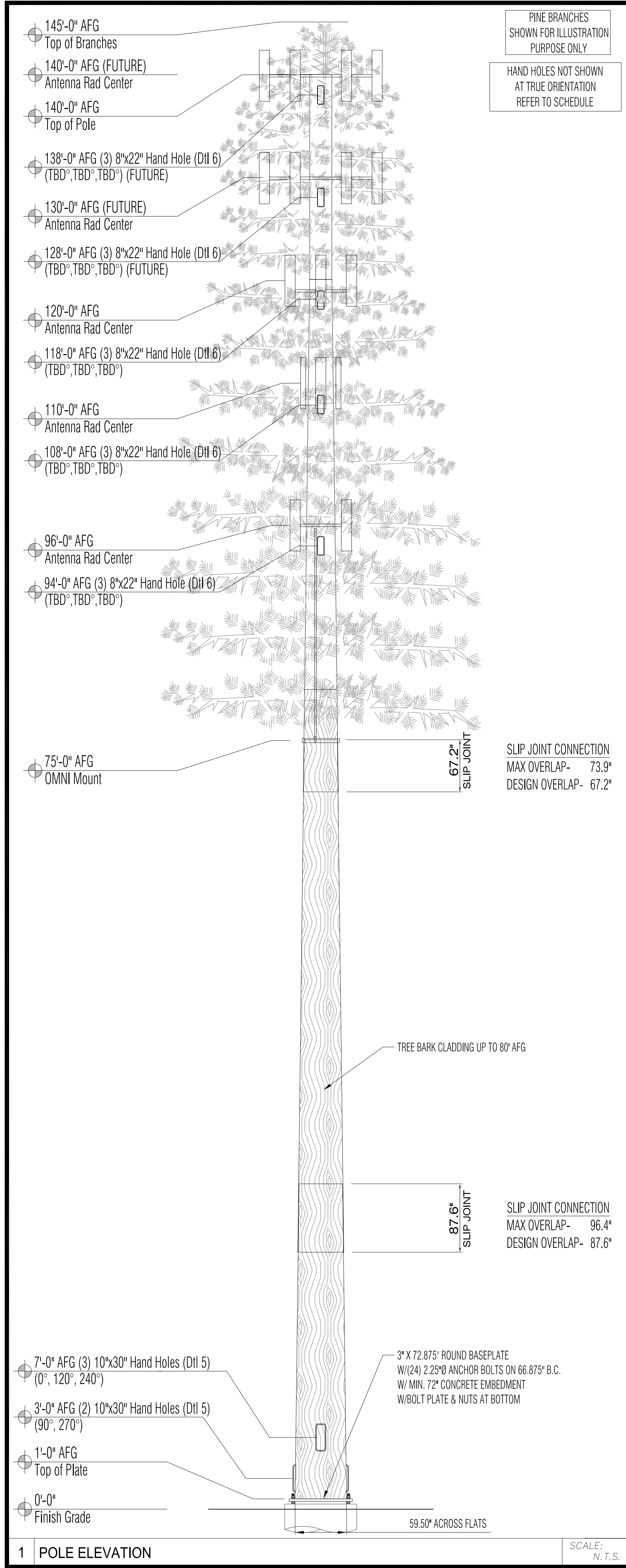
THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:  
CONCRETE CAST AGAINST EARTH = 3 IN.  
CONCRETE EXPOSED TO EARTH OR WEATHER:  
#6 AND LARGER = 2 IN.  
#5 AND SMALLER = 1 1/2 IN.  
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:  
SLAB AND WALL = 3/4 IN.  
BEAMS AND COLUMNS = 1 1/2 IN.

A 3/4 IN. CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OR CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

CONCRETE SHALL BE PLACED IN A UNIFORM MANNER AND CONSOLIDATED IN PLACE.

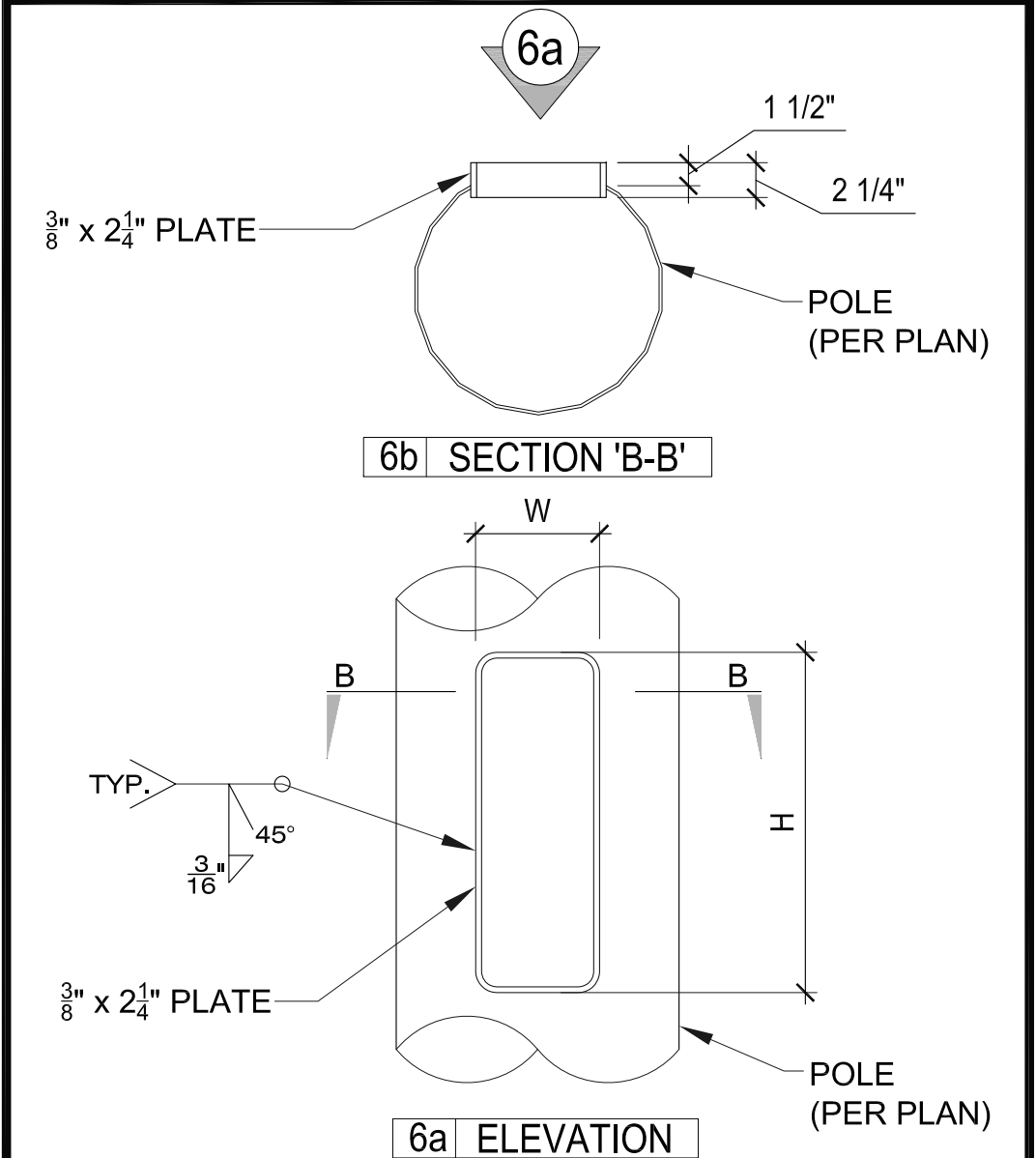
CONCRETE FOOTINGS SHALL BE CAST AGAINST LEVEL, COMPACTED, NON-FROZEN BASE SOIL FREE OF STANDING WATER.

 <b>MESSAGE CENTER MANAGEMENT</b> 40 WOODLAND STREET HARTFORD, CT 06105 OFFICE: (888) 973-7483	<b>T-MOBILE SITE NUMBER:</b> <b>CTFF632</b>	<b>DEVELOPMENT &amp; MANAGEMENT PLAN</b>  <b>MCM DITTMAR ROAD</b> <b>4 DITTMAR ROAD</b> <b>REDDING, CT 06896</b>	<b>NOTES &amp; SPECIFICATIONS</b>	
		<b>APT FILING NUMBER:</b> <b>CT-255T-830</b>	<b>DESIGN TYPE:</b>  <b>RAW LAND</b>	<b>APT FILING NUMBER: CT-255T-830</b> <b>APT DRAWING NUMBER: CTFF632</b>
	<b>35 GRIFFIN ROAD</b> <b>BLOOMFIELD, CT 06002</b> <b>OFFICE: (860)-692-7100</b>	<b>REVISIONS:</b>	<b>DRAWN BY: SMC</b> <b>CHECKED BY: SMC</b>	<b>SCALE: AS NOTED</b> <b>DATE: 03/15/11</b>
THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE NORTHEAST LLC. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.	 <b>ALL-POINTS</b> <b>TECHNOLOGY CORPORATION</b>	<b>REV.1: 11/12/12: FOR REVIEW: SMC</b> <b>REV.2: 11/16/12: FOR REVIEW: SMC</b> <b>REV.3: 12/11/12: TOWN'S COMMENTS: SMC</b> <b>REV.4: 12/17/12: CSC INTERROGATORIES: SMC</b> <b>REV.5:</b> <b>REV.6:</b>	<b>SHEET NUMBER:</b>  <h1>N-1</h1>	
3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 WWW.ALLPOINTSTECH.COM	PHONE: (860)-663-1697 FAX: (860)-663-0935			

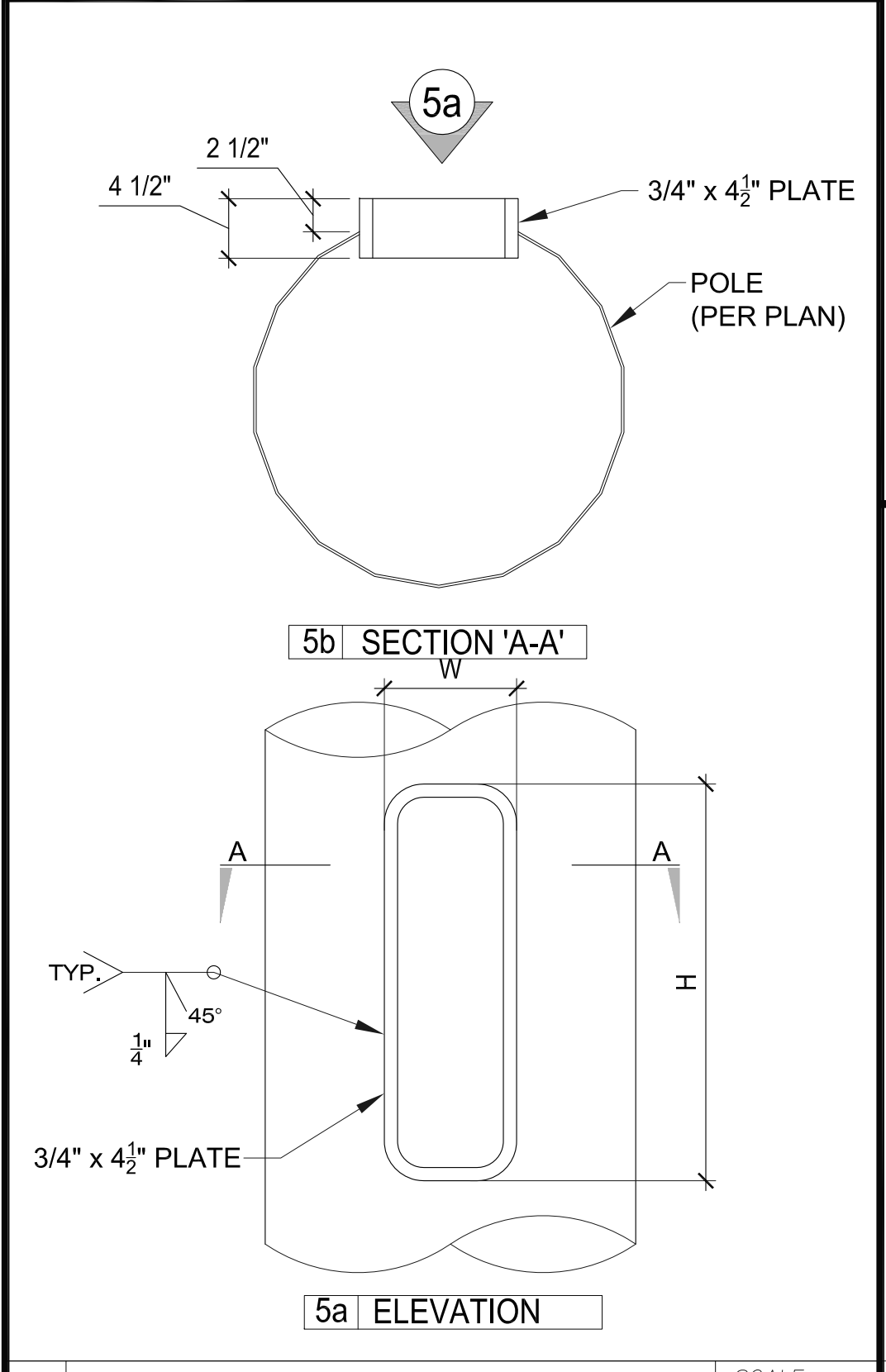


**COAX HAND/ACCESS HOLE SCHEDULE**

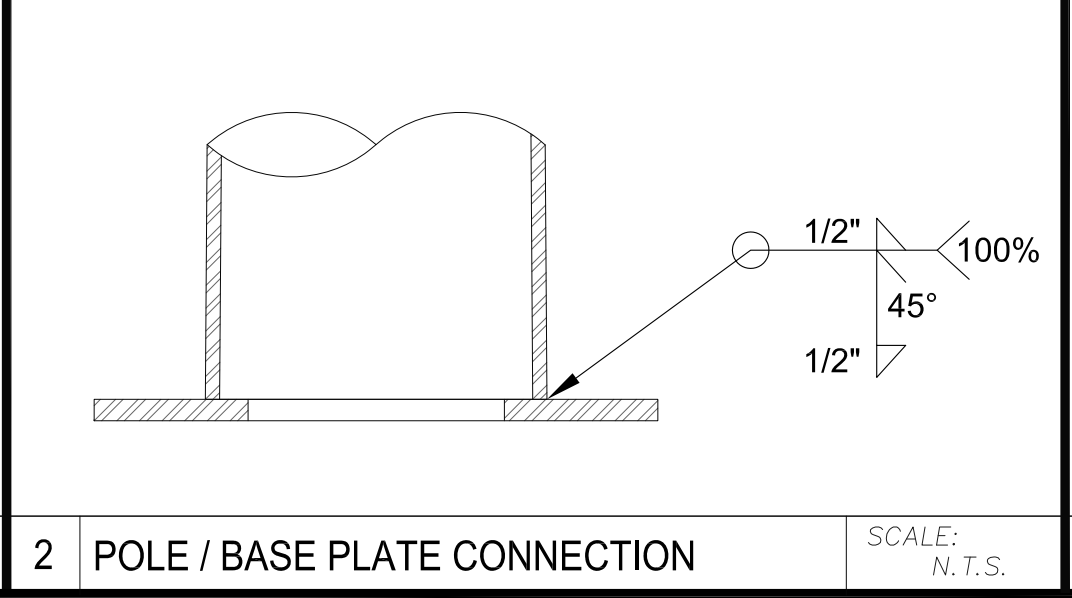
ELEV (AFG)	QTY	W (IN)	H (IN)	AZIMUTH
118'-0"	3	8	22	TBD°, TBD°, TBD°
108'-0"	3	8	22	TBD°, TBD°, TBD°
94'-0"	3	8	22	TBD°, TBD°, TBD°
138'-0"	3	8	22	FUTURE
128'-0"	3	8	22	FUTURE
7'-0"	3	10	30	0°, 120°, 240°
3'-0"	2	10	30	90°, 270°



6 COAX HAND HOLE DETAILS SCALE: N.T.S.



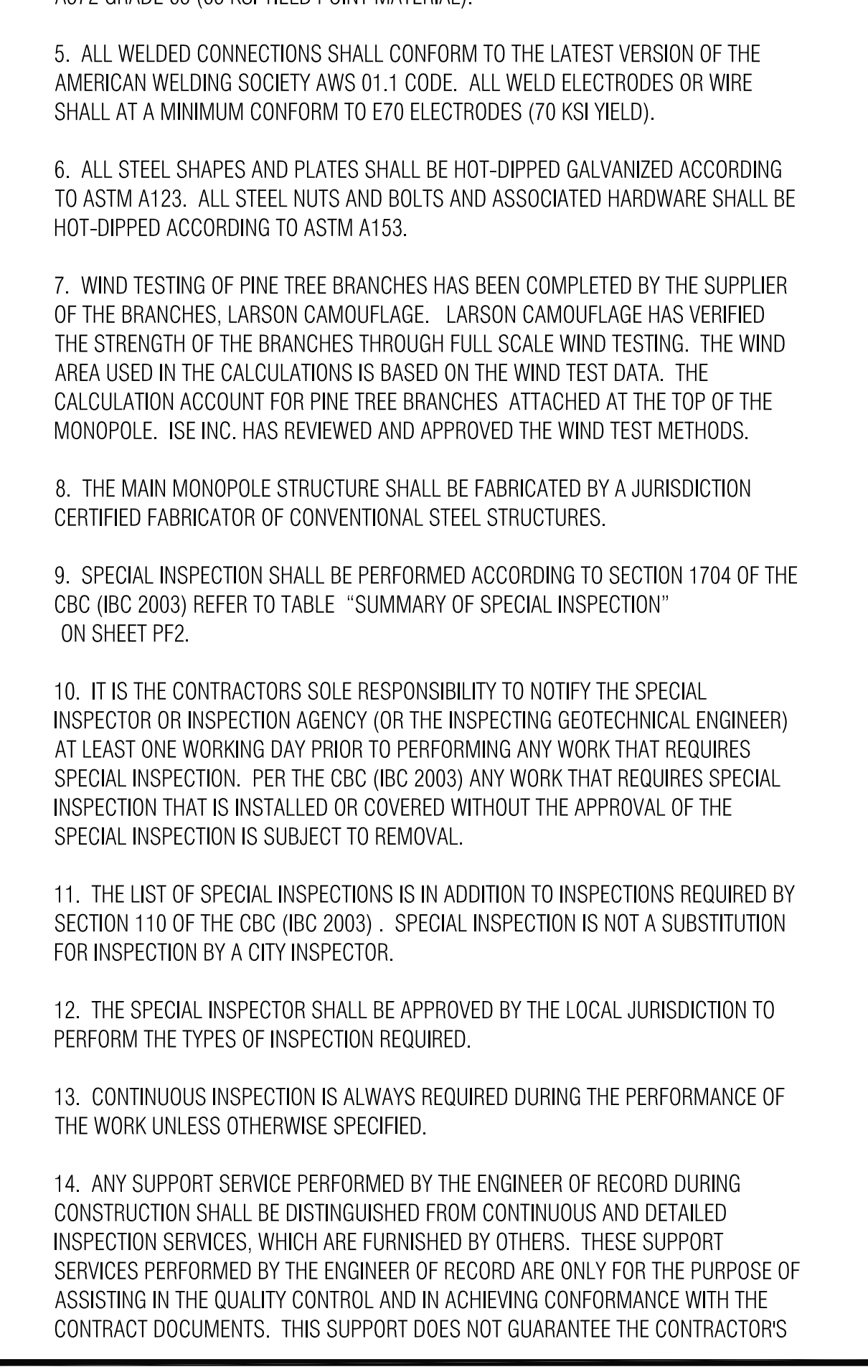
5 10" x 30" ACCESS HOLE DETAIL SCALE: N.T.S.



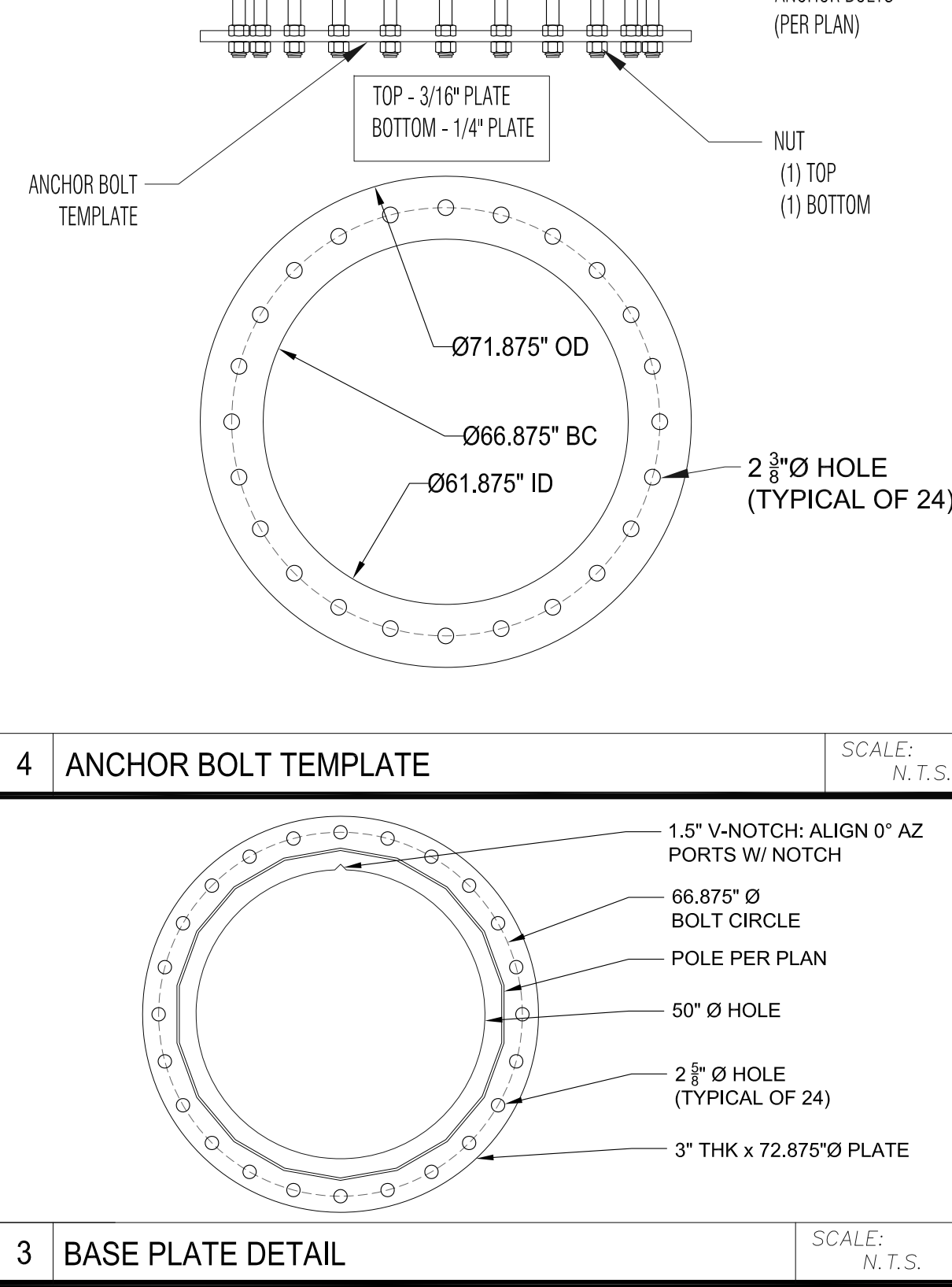
2 POLE / BASE PLATE CONNECTION SCALE: N.T.S.

**GENERAL NOTES:**

- ALL STEEL SHALL MEET THE REQUIREMENTS OF THE "STANDARD SPECIFICATIONS FOR STRUCTURAL STEEL" ASTM A36, UNLESS OTHERWISE NOTED ON THE STRUCTURAL PLANS OR BELOW.
- ALL ROUND STEEL PIPE SHALL MEET THE REQUIREMENTS OF ASTM A53 TYPE E OR S GRADE B (35 KSI YIELD POINT MATERIAL) OR ASTM A501 (36 KSI YIELD POINT MATERIAL).
- ALL TUBE STEEL (SQUARE OR RECTANGULAR) SHALL MEET THE REQUIREMENTS OF ASTM A500 GRADE B (46 KSI YIELD POINT MATERIAL).
- ALL POLYGON FORMED STEEL SHAFTS SHALL MEET THE REQUIREMENTS OF ASTM A572 GRADE 65 (65 KSI YIELD POINT MATERIAL).
- ALL WELDED CONNECTIONS SHALL CONFORM TO THE LATEST VERSION OF THE AMERICAN WELDING SOCIETY AWS 01.1 CODE. ALL WELD ELECTRODES OR WIRE SHALL AT A MINIMUM CONFORM TO E70 ELECTRODES (70 KSI YIELD).
- ALL STEEL SHAPES AND PLATES SHALL BE HOT-DIPPED GALVANIZED ACCORDING TO ASTM A123. ALL STEEL NUTS AND BOLTS AND ASSOCIATED HARDWARE SHALL BE HOT-DIPPED ACCORDING TO ASTM A153.
- WIND TESTING OF PINE TREE BRANCHES HAS BEEN COMPLETED BY THE SUPPLIER OF THE BRANCHES, LARSON CAMOUFLAGE. LARSON CAMOUFLAGE HAS VERIFIED THE STRENGTH OF THE BRANCHES THROUGH FULL SCALE WIND TESTING. THE WIND AREA USED IN THE CALCULATIONS IS BASED ON THE WIND TEST DATA. THE CALCULATION ACCOUNT FOR PINE TREE BRANCHES ATTACHED AT THE TOP OF THE MONOPOLE. ISE INC. HAS REVIEWED AND APPROVED THE WIND TEST METHODS.
- THE MAIN MONOPOLE STRUCTURE SHALL BE FABRICATED BY A JURISDICTION CERTIFIED FABRICATOR OF CONVENTIONAL STEEL STRUCTURES.
- SPECIAL INSPECTION SHALL BE PERFORMED ACCORDING TO SECTION 1704 OF THE CBC (IBC 2003) REFER TO TABLE "SUMMARY OF SPECIAL INSPECTION" ON SHEET PF2.
- IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO NOTIFY THE SPECIAL INSPECTOR OR INSPECTION AGENCY (OR THE INSPECTING GEOTECHNICAL ENGINEER) AT LEAST ONE WORKING DAY PRIOR TO PERFORMING ANY WORK THAT REQUIRES SPECIAL INSPECTION. PER THE CBC (IBC 2003) ANY WORK THAT REQUIRES SPECIAL INSPECTION THAT IS INSTALLED OR COVERED WITHOUT THE APPROVAL OF THE SPECIAL INSPECTION IS SUBJECT TO REMOVAL.
- THE LIST OF SPECIAL INSPECTIONS IS IN ADDITION TO INSPECTIONS REQUIRED BY SECTION 110 OF THE CBC (IBC 2003). SPECIAL INSPECTION IS NOT A SUBSTITUTION FOR INSPECTION BY A CITY INSPECTOR.
- THE SPECIAL INSPECTOR SHALL BE APPROVED BY THE LOCAL JURISDICTION TO PERFORM THE TYPES OF INSPECTION REQUIRED.
- CONTINUOUS INSPECTION IS ALWAYS REQUIRED DURING THE PERFORMANCE OF THE WORK UNLESS OTHERWISE SPECIFIED.
- ANY SUPPORT SERVICE PERFORMED BY THE ENGINEER OF RECORD DURING CONSTRUCTION SHALL BE DISTINGUISHED FROM CONTINUOUS AND DETAILED INSPECTION SERVICES, WHICH ARE FURNISHED BY OTHERS. THESE SUPPORT SERVICES PERFORMED BY THE ENGINEER OF RECORD ARE ONLY FOR THE PURPOSE OF ASSISTING IN THE QUALITY CONTROL AND IN ACHIEVING CONFORMANCE WITH THE CONTRACT DOCUMENTS. THIS SUPPORT DOES NOT GUARANTEE THE CONTRACTORS



4 ANCHOR BOLT TEMPLATE SCALE: N.T.S.



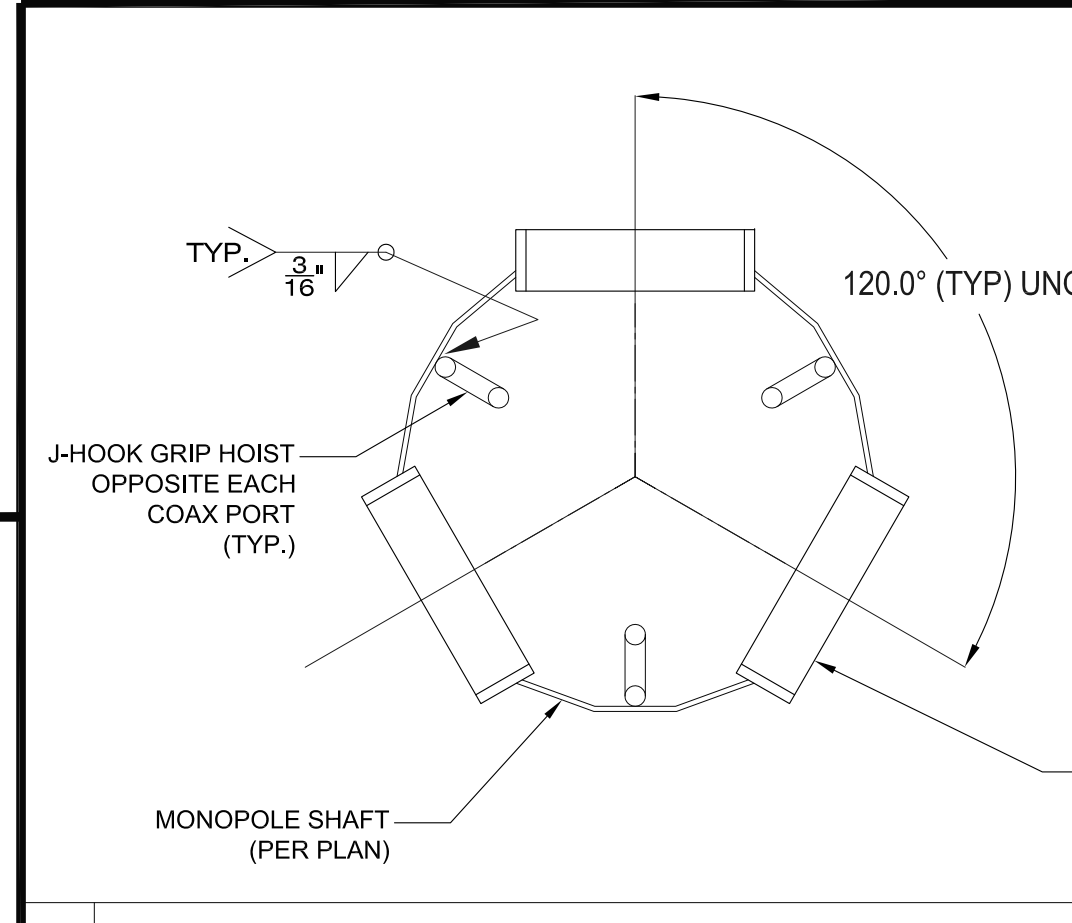
3 BASE PLATE DETAIL SCALE: N.T.S.

**GENERAL NOTES: (CONTINUED)**

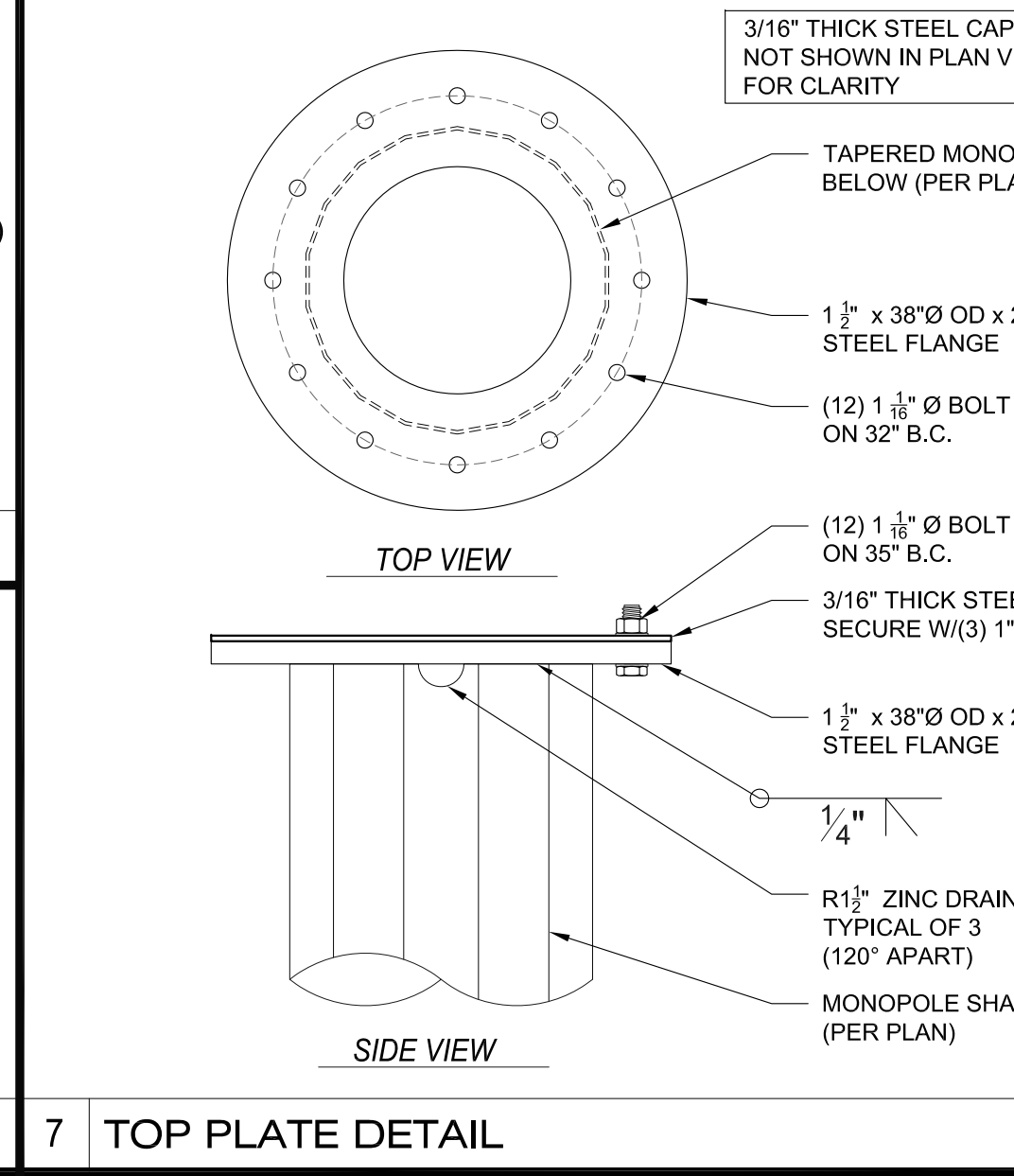
- THE ANTENNA MOUNT SHALL BE FABRICATED BY LARSON CAMOUFLAGE, LLC, OR AN APPROVED FABRICATOR OF CONVENTIONAL STEEL STRUCTURES.
- EACH ANTENNA MOUNT HAS BEEN DESIGNED FOR: WIND FORCE = 380#/, DEAD LOAD 200#.

**ERECTION NOTES:**

- ALL ANTENNA COAXIAL CABLES SHALL BE RUN INSIDE THE MONOPOLE SHAFT.
- THE CONTRACTOR SHALL INSTALL THE ANTENNA AND MOUNT AS REQUIRED BY THE OWNER.
- ALL ANCHOR BOLT NUTS SHALL BE TIGHTENED TO AISC SNUG TIGHT REQUIREMENTS. THE SNUG TIGHT CONDITION IS DEFINED AS THE TIGHTNESS THAT EXISTS WHEN ALL PLIES IN A JOINT ARE IN FIRM CONTACT. THIS MAY BE ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A MAN USING AN ORDINARY SPUD WRENCH.
- ALL GALVANIZED SURFACES THAT ARE DAMAGED BY ABRASIONS, CUTS, DRILLING OR FIELD WELDING DURING SHIPPING OR ERECTION SHALL BE TOUCHED UP WITH TWO COATS OF A COLD GALVANIZING COMPOUND MEETING THE REQUIREMENTS OF ASTM A780.
- THE ANCHOR BOLT TEMPLATES AND BASE PLATE WILL TYPICALLY HAVE AN AZIMUTH WELDED OR A NOTCH INDICATING THE CORRECT ORIENTATION OF THE ANCHOR BOLTS. THIS IS NECESSARY TO PROPERLY ORIENT THE MONOPOLE EXIT PORTS.
- ALL SLIP SPLICES SHALL BE JACKED TO WITHIN THE SLIP SPLICE DESIGN CRITERIA AS SHOWN ON THESE DRAWINGS. IF THE DESIGN SPLICE CANNOT BE ATTAINED ISE INC. SHALL BE CONTACTED.
- ALL A36 THREADED ROD AND U-BOLTS SHALL BE TIGHTENED TO AISC SNUG REQUIREMENTS. THE SNUG TIGHT CONDITION IS DEFINED AS THE TIGHTNESS THAT EXIST WHEN ALL PLIES IN A JOINT ARE IN FIRM CONTACT. THIS MAY BE ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A MAN USING AN ORDINARY SPUD WRENCH. A36 NUTS AND BOLTS TIGHTENING DO NOT REQUIRE SPECIAL INSPECTION.
- ANTENNA MOUNT SHALL NOT BE USED AS A CLIMBING DEVICE. WORKERS SHALL ALWAYS TIE OFF TO A SPECIFIED CLIMBING POINT.



8 J-HOOK INSIDE POLE AT COAX PORTS SCALE: N.T.S.



7 TOP PLATE DETAIL SCALE: N.T.S.

**PROJECT INFORMATION**

Date: December 17, 2012  
 ISE Job No. 5195-R2 By: GLH  
 Customer: Larson  
 Product: 140' Mono Pine  
 Site ID: MCM Dittmar Road (North Alternate)  
 Location: 4 Dittmar Road (North Alternate)  
 Redding, CT

**DESIGN CRITERION:**

2006/2009 IBC  
 EIA/TIA-222-F (2006) 85MPH (Fastest Mile)  
 EXP C, Topo Class I, Tower Class II

**DESIGN LOADS (Unfactored Base Wind Reactions)**

Moment =	4438.033	Ft-Kips
Shear =	44.678	Kips
Axial =	45.873	Kips

**POLE SPECIFICATIONS**

Section Shape	18-Sided Tapered
Pipe Taper	0.2931 IN/FT
Pole Material	ASTM A572-GR65
Base Plate	ASTM A572-50
Anchor Bolts	2.25" x 84" Long, A615-75

Pole Section	Length (ft.)	Weight (kips)	Tkns. (in.)	Lap Splice (in.)	Diameter Top (in.)	Diameter Bot (in.)
1	20.00	1.045	0.188	--	26.000	26.000
2	50.00	5.571	0.313	67.20	26.000	40.653
3	50.00	9.182	0.375	87.60	38.387	53.042
4	31.90	8.198	0.438	--	50.152	59.500

Mast Top: 0.356, 1.50, 38" OD Round w/20" ID  
 Base Plate: 1.917, 3.00, 72.875" OD Round w/50" ID

**APPURTENANCES**

Elevation (ft.)	(Qty)	Description
75 to 140'	(113)	Assorted 4", 6", 8", 10" Pine Limbs
140'	(3)	12 T-Arm w/ 5 S.O. (FUTURE)
140'	(12)	5 x 1' Panel Antenna (FUTURE)
130'	(3)	12 T-Arm w/ 5 S.O. (FUTURE)
130'	(12)	5 x 1' Panel Antenna (FUTURE)
120'	(3)	10 T-Arm w/ 5 S.O.
120'	(9)	APX18-2000-14-C
120'	(6)	14x10x4 TMA
110'	(3)	DR90-11-000BL w/ Pipe Mt
96'	(3)	10 T-Arm w/ 5 S.O.
96'	(9)	PH 7770.00
96'	(18)	14x10x4 TMA
96'	(12)	RRUS-11
96'	(3)	DC6-48-60-18-3F
75'	(1)	Collar Mount w/ 2 standoff
75'	(1)	dbSpectra DS1F06F36U-N

**DEFLECTIONS**

Elev. (ft.)	60 MPH Wind		85 MPH Wind	
	Lateral (in.)	Sway (")	Lateral (in.)	Sway (")
Top	41.151	2.632	82.411	5.272

SLIP JOINT IS A FRICTION CONNECTION THAT WILL TRANSFER DESIGN FORCES WHEN THE SPECIFIED OVERLAP IS ACHIEVED. ASSEMBLY CONTRACTOR SHALL BE EXPERIENCED AND FAMILIAR WITH TAPERED POLE ASSEMBLY. CONTRACTOR SHALL CONSPICUOUSLY MARK THE LOWER POLE SECTION FOR THE MAXIMUM, DESIGN, AND MINIMUM OVERLAP DISTANCES. CONTRACTOR SHALL SLIDE SECTIONS TOGETHER AND APPLY FORCES THROUGH JACKING OR END RAM TO ACHIEVE THE DESIGN OVERLAP.

**9 SPLICE CONNECTION**

**EARTHQUAKE DESIGN DATA**

IMPORTANCE FACTOR (I):	1	
OCCUPANCY CATEGORY:	1	
S:	0.285	S <sub>w</sub> : 0.190
S:	0.066	S <sub>w</sub> : 0.044
SEISMIC DESIGN CATEGORY:	B	
SITE CLASS:	B	
DESIGN BASE SHEAR =	43.510 K (WIND)	
SEISMIC RESPONSE COEFFICIENT (C <sub>s</sub> ):	0.036	
RESPONSE MODIFICATION FACTOR (R):	1.50	

ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE PROCEDURE

**PROGRESS LOG**

D	12/14/12	Added Tree Bark Cladding to 80' afg	MG
C	9/24/12	New Loading a 96' & 75'	MG
B	9/17/12	New Branch Loading Redesign	MG
A	8/21/12	ISSUED TO CLIENT	MG

**SHEET INDEX**

PF1	POLE DETAILS
PF2	FOUNDATION DETAILS

**SHEET NUMBER** PF1 **PROGRESS** D

**DRAWING DATE** December 14, 2012

**LARSON CAMOUFLAGE**  
 1624 South Euclid Avenue  
 Tucson, AZ 85713  
 (520) 294-3900  
 www.larsoncamo.com

LARSON JOB #: 612800

**ISE Incorporated**  
 Structural & Civil Engineers  
 3470 W. Jasper Drive  
 Chandler, Arizona 85226  
 PHONE: 602-403-8614 FAX: 602-321-1283  
 www.ise-inc.biz  
 ISE JOB #: 5195-R2

**MCM DITTMAR ROAD (NORTH ALTERNATE)  
 140' MONO-PINE COMMUNICATIONS STRUCTURE  
 POLE DETAILS**

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**PROFESSIONAL ENGINEER**  
 PEN 20816  
 DEC 14 2012



FOUNDATION NOTES:

1. THE GEOTECHNICAL ENGINEER (OR THE APPROPRIATE INSPECTOR) SHALL INSPECT THE EXCAVATION PRIOR TO PLACING REINFORCING STEEL OR FORMS. THE GEOTECHNICAL ENGINEER (OR INSPECTOR) SHALL PROVIDE A NOTICE OF INSPECTION FOR THE BUILDING INSPECTOR FOR REVIEW AND RECORDS PURPOSE.

2. THE CONTRACTOR SHALL DETERMINE THE MEANS AND METHODS TO SUPPORT THE EXCAVATION DURING CONSTRUCTION. REFER TO THE GEOTECHNICAL REPORT FOR RECOMMENDATIONS.

3. THE CONTRACTOR SHALL READ THE GEOTECHNICAL REPORT AND SHALL CONSULT THE GEOTECHNICAL ENGINEER AS NECESSARY PRIOR TO CONSTRUCTION.

4. FOUNDATION DESIGN PER GEOTECHNICAL REPORT:

PREPARED BY: Terracon  
PROJECT NO.: J2115185  
DATE: November 7, 2011

5. ALL FOUNDATION CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH  $F_c = 4000$  PSI AT 28 DAYS. CONCRETE MIX SHALL BE DESIGNED BY AN APPROVED LABORATORY. CONCRETE SHALL HAVE A MAXIMUM WATER/CEMENT RATIO OF 0.45. ALL CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 318.

"THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", LATEST EDITION. CEMENT SHALL BE TYPE II, CONFORMING TO ASTM C-150. ALL AGGREGATE USED IN THE CONCRETE SHALL CONFORM TO ASTM C-33. MAXIMUM AGGREGATE SIZE TO BE 1 1/2".

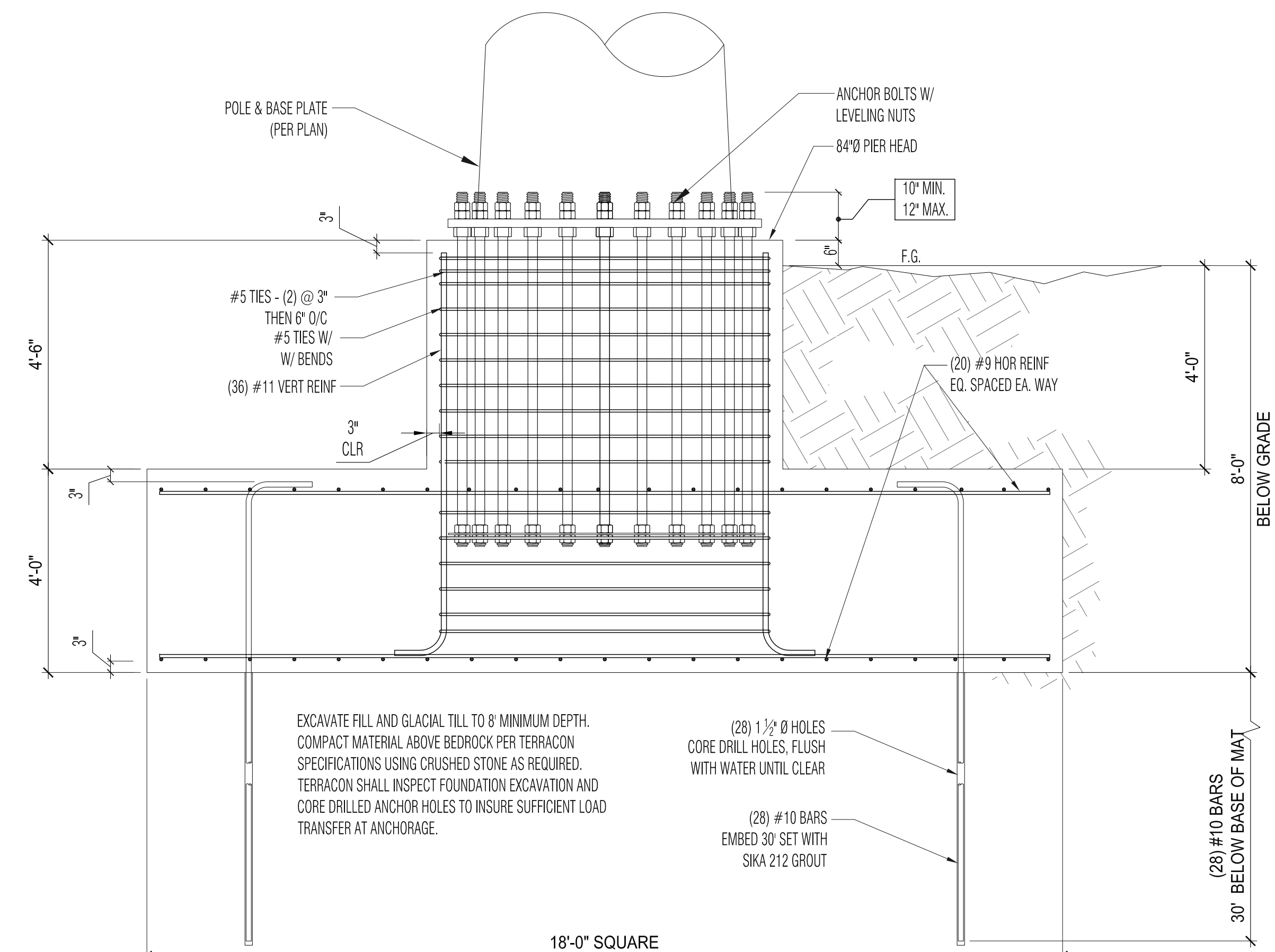
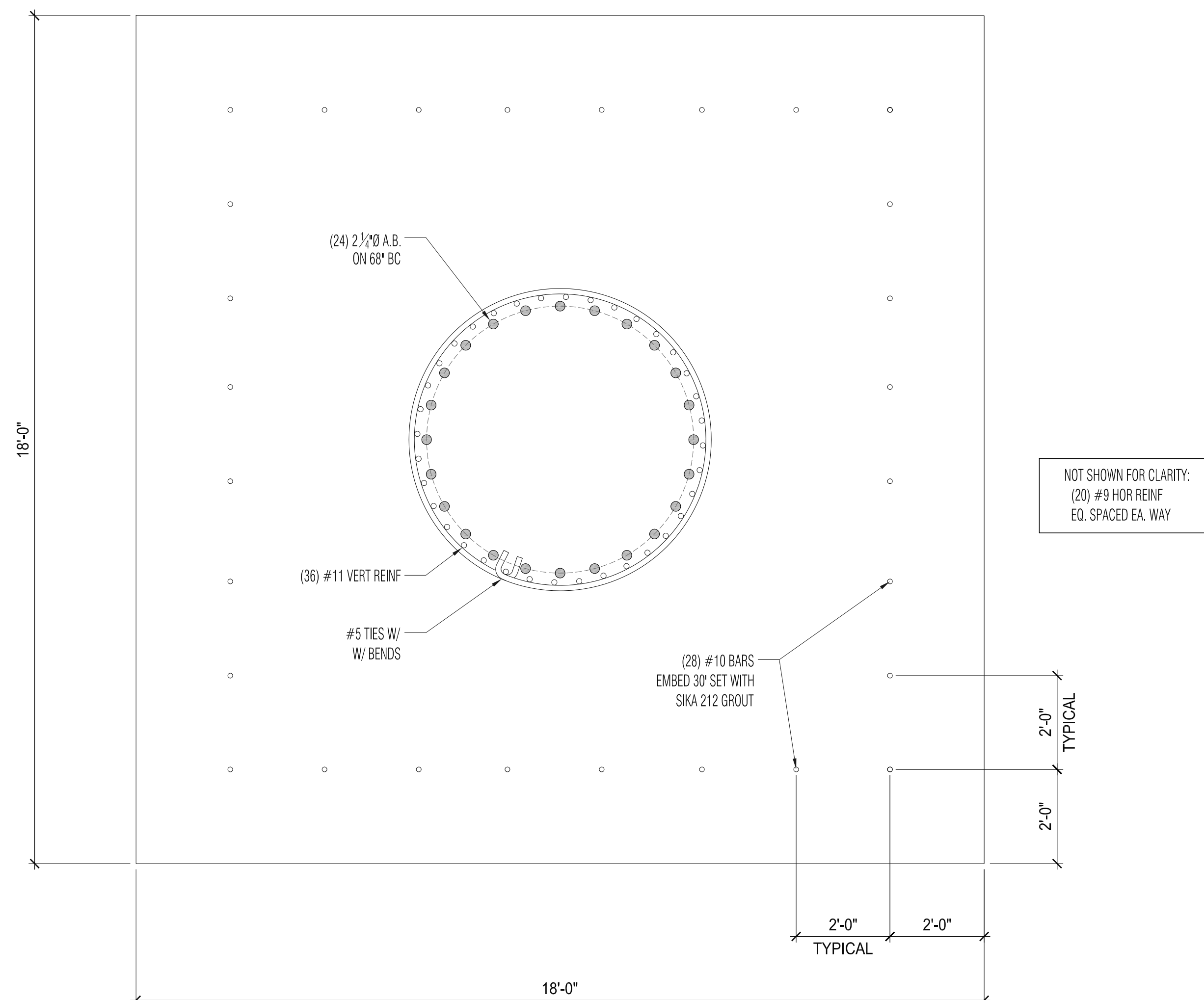
6. CAISSON FOUNDATION INSTALLATION SHALL BE IN ACCORDANCE WITH ACI 336, "STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF DRILLED PIERS", LATEST EDITION. MAT/PIER FOUNDATION INSTALLATION SHALL BE IN ACCORDANCE WITH ACI 318 LATEST EDITION. CONCRETE CYLINDERS SHALL BE MADE AND TESTED. A MINIMUM OF ONE (1) SET SHALL BE TAKEN FROM CONCRETE IN FOUNDATION. EACH SET SHALL CONSIST OF FOUR (4) CYLINDERS. ONE SHALL BE TESTED AT (7) DAYS, TWO SHALL BE TESTED AT TWENTY EIGHT (28) DAYS AND THE LAST CYLINDER SHALL BE A HOLD. ALL CYLINDERS SHALL BE TAKEN, PREPARED AND TESTED BY A TESTING LAB IN ACCORDANCE WITH ASTM STANDARDS C172, C31 AND C39.

7. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615. VERTICAL BARS SHALL BE GRADE 60, AND TIES OR STIRRUPS SHALL BE A MINIMUM OF GRADE 40. THE PLACEMENT OF ALL REINFORCEMENT SHALL CONFORM TO ACI 315, "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", LATEST EDITION, UNLESS OTHERWISE DETAILED ON THIS SHEET.

8. ESTIMATED CONCRETE VOLUME =  
PIER: N/A CUBIC YARDS  
MAT: 54.5 CUBIC YARDS

9. THE FOUNDATION HAS BEEN DESIGNED TO RESIST THE FOLLOWING UN-FACTORED LOADS  
MOMENT = 4533.8 FT-KIPS, SHEAR = 44.673 KIPS, AXIAL = 45.87 KIPS

10. SPECIAL INSPECTION REQUIRED PER TABLE "SUMMARY OF SPECIAL INSPECTION"



SUMMARY OF SPECIAL INSPECTIONS

NO.	DESCRIPTION OF TYPE OF INSPECTION REQUIRED, LOCATION, REMARKS, ETC	CONTINUOUS / PERIODIC
1)	FOUNDATION CONSTRUCTION:	
A.	- GEOTECHNICAL ENGINEER OF RECORD MAY SERVE AS THE SPECIAL INSPECTOR FOR THE FOUNDATION CONSTRUCTION	
B.	- SHALL VERIFY THE DIAMETER, DEPTH AND QUALITY OF EXCAVATION PRIOR TO THE CONCRETE PLACEMENT.	PERIODIC
C.	- SHALL VERIFY THE ON SITE SOILS ARE AS DETERMINED IN THE SOILS REPORT.	PERIODIC
2)	CAST IN PLACE CONCRETE (FOUNDATION):	
A.	- REINFORCING CAGE SHALL BE INSPECTED TO ENSURE THAT THE PROPER GEOMETRY, SIZE, LENGTH, QUANTITY AND GRADE MATERIAL ARE USED.	PERIODIC
B.	- ALL CONCRETE SHALL BE AS SPECIFIED BY ACI-318, LATEST EDITION TO ENSURE THE COMPRESSIVE STRENGTH IS ATTAINED AS DESCRIBED IN THE FOUNDATION NOTES.	
C.	- CONTINUOUS INSPECTION IS REQUIRED DURING THE CONCRETE PLACEMENT.	CONTINUOUS
3)	ANCHOR BOLTS INSTALLED IN CONCRETE:	
A.	- PLACEMENT SHALL BE ORIENTED ON PROPER BOLT CIRCLE AS SHOWN ON THE STRUCTURAL PLANS, WITH TOP AND BOTTOM TEMPLATES INSTALLED.	PERIODIC
B.	- SHALL BE PLUMB.	PERIODIC
C.	- SHALL HAVE A MINIMUM EMBEDMENT OF 6'-0" INTO FOUNDATION (12" MAXIMUM PROJECTION).	PERIODIC
D.	- SHALL BE TIGHTENED TO SNUG TIGHT CONDITION PER AISC STEEL MANUAL OF STEEL CONSTRUCTION.	PERIODIC

1 PIER FOUNDATION

SCALE: N.T.S.

LARSON JOB #: 612800

ISE Incorporated

Structural & Civil Engineers  
3470 W. Jasper Drive  
Chandler, Arizona 85226

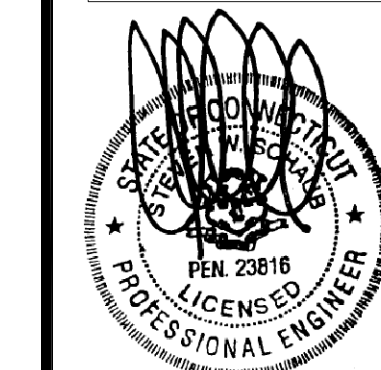
PHONE: 602-403-8614 FAX: 602-321-1283

www.ise-inc.biz

ISE JOB #: 5195-R2

MCM DITTMAR ROAD (NORTH ALTERNATE)  
140' MONO-PINE COMMUNICATIONS STRUCTURE  
FOUNDATION DETAILS

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PROGRESS LOG

D	12/14/12	Added Tree Bark Cladding to 80' aft	MG
B	10-4-12	ISSUED TO CLIENT	GH
A	8/21/12	ISSUED TO CLIENT	MG

SHEET NUMBER

PF2 D

DRAWING DATE  
December 14, 2012