CITY OF FORT LAUDERDALE **ENGINEERING DIVISION** 

PERMIT NO. CC13-12

**District 3** 

APPLICATION TO INSTALL AT GRADE
COMMUNICATIONS SERVICE FACILITIES

Applio	cant Nam	e and Job Nu	mber_Crown Castl				
Job A	ddress a	nd Location_4	121 NW 12 Street	/1200 N	1W 5 m +	We	
Desci	ription of	Work Installi	ng cabinet and util	ity pole within rig	ht-of-way.		
Antici	pated sta	art and end da	tes of work6/1/13	- 45 days			
<b>x</b>	below (Code) Crown	grade, in acc	ordance with Sect a qualified expert(s	tion 25-100.1.B.3 ) is attached.	3 of the City of F	ort Lauderdale Co	ns service facilities ode of Ordinances attach supporting
	C.1 Size)	☐ C.2 (Height)	☐ C.3 (Front Yard)	☐ C.4 (Corner Yard)	☐ C.6 (Separation)	□C.7 (Exist. Facility)	C.12 (Collector)
X X X As ar correct	require Notice one hu with So The pr dated A land associ Crown The pr way.	ements in Sector of the pendinundred fifty (1) ection 25-100. Toposed site w 04/04/2013 escaping main ation is attach a Castle shall broposed at grant pendinundred first consecutive first cons	tion 25-100.1 of the g application has be 50) feet of the production has be 50) feet of the production of the code. It is a maintained by the commitment of	e Code been provided to posed site and to y Crown Castle in le with the City E ent letter from th on. maintaining lands ed on the attache	all property owner to the relevant how a accordance with ngineer e adjacent prope caping ed plans are comp	rs abutting public remeowner association the approved Grant release to the approved Grant release to the approved in the approved in the approved in the approved and release to the approved in the approved approved in the approved approved in the approved	ties conform to the ights-of-way within ion, in accordance iffiti Mitigation Plan evant home owner the public rights-of-ents are true and
Arn Printe	nando H d Name n to and s		Crown Castle Age		ure of Authorized  May  My Commission	Crown Cas <u>tle Age</u>	nt
		EXPIRES: S	September 03, 2016			(Do not w	rite below this line)
		proval date	by ation plan is requi			, Subject to the fo	llowing conditions:
Final	Permit a	approval date	eby		Final Inspectio	n dateb	ру
		eering Permits g work at (954	Division 24 hours 828-5649				

### REVIEW CHECKLIST FOR CABINETS IN RIGHTS-OF-WAY

Ρ	е	rn	ni	it	١	١c	).	C	C.	13	-	12	

×	<b>Application</b>	Package	complete -	- 3 sets	(JJ)	١
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Verified addresses of property owners and HOA to which notice was provided Random audit of package to property owners Feasibility letter, site plan, landscaping plan, aerial photo, 5 pictures Easement and property information provided

X	CC memo provided to Commission (JJ)
	15-Day Call up Memo to Commission (JJ)

## Criteria for cabinets in Rights-of-Way

- <del>-</del>	Plan Review Checklist	Comments	
	Evaluation and approval of any waivers identified on application (size, height, corner yard, > 3 cabinets per block, modification of existing cabinet, conflict with future sidewalk)		<i>(</i>
X	Sum of H + W + L not greater than 124" and H not greater than 5'-8"	H=70/168 padah	the Actai
X	Cabinet not in front yard		
X	Proposed landscaping is in accordance with plan on file with City		
x	If landscaping is to be maintained by Property Owner, Agreement has been provided	Crown Castle	
X	Landscaping plan has been checked by Dave Genarro		
X	New cabinet is at least 2 feet from other cabinets, poles, etc.		
X	Cabinet not in sight triangle (sight triangle may be reduced to 10 feet)		
X	ADA requirements met	$\mathcal{N}\mathcal{P}$	
x	Roadside recovery setback met (per Florida Green Book)		
X	Cabinet/landscaping is at least one foot from sidewalk	NP	
х	Cabinet would not conflict with future sidewalk	OR	
X	Field face cabinet to R/W	<u> </u>	
	Field Inspection Checklist	Comments	•
	Type and location of topographic features shown on permit plan are consistent with field conditions		
	H + W + L not greater than 124" and H not greater than 5'-8"		
	There are no conflicts with existing utility lines and new cabinet location would not hinder access to utilities or be within excavation trench over the pipe		
	New cabinet is at least 2 feet from other cabinets, poles, etc.		
	New cabinet is not in sight triangle – visual check performed in field		
	ADA requirements met – minimum clearances/slopes measured		
	Roadside recovery setback measured		
	Cabinet/landscaping (measured) is at least one foot from sidewalk		
	Landscaping is per permit plans and effectively screens cabinet		
	Cabinet would not conflict with future sidewalk		
	Dimensions for cabinet location measured		
	Not more than three communication cabinets per block (unless waiver approved)		
	Electrical Permit – Final inspection passed		



Crown Castle

8555 NW 64<sup>th</sup> Street

Miami, Florida 33166-2628

MelissaP.Anderson@crowncastle.com

Office 786-899-5911

Mobile 561-310-9261

Fax 305-591-1469

www.crowncastle.com

April 4, 2013

City Engineer
City of Ft. Lauderdale
100 N. Andrews Avenue
Ft. Lauderdale, Florida 33301

Re: Crown Castle NG East Inc. Application for Exemption from Below Grade Requirement

Dear City Engineer:

CC:

In accordance with Section 25-100.1(b) of the city's Communications Rights-of-Way Ordinance (the "Ordinance"), Crown Castle NG East Inc. ("Crown Castle") submits this application for an exemption from the below grade requirement. As is set forth in the attached letter from Wayne Waldron, Director of Implementation for Crown Castle in the Southeastern Region, an exemption is appropriate, as a hardship would result from the imposition of the requirement. Placing the communications service facility described in the attached right-of-way permit application ("Facility") below grade is: 1. technologically infeasible; 2. a below grade facility is not available in the marketplace; and 3. all reasonable alternatives have been exhausted.

Given that Crown Castle has shown by a preponderance of the evidence that a hardship would result if an exemption were not granted, Crown Castle requests that City Engineer grant an exemption from Section 25-100.1(b) of the city's code.

Very Truly Yours,

Melissa P. Anderson

**Government Relations Counsel** 

Southeastern Region

Wayne Waldron, Director of Implementation

# ATTACHMENT 1 Certification in Support of Application to City of Ft. Lauderdale for Exemption from Below Grade Requirement

My name is Wayne W. Waldron and my title with Crown Castle is Director of Implementation for the Southeastern Region.

My background and experience in the telecommunications field is as follows: Prior to joining Crown Castle served as Division Manager of 7 state Southwest Division for utility construction (telephone, electric, water, gas, sewer, CATV) firm Henkels and McCoy, Inc. of Blue Bell PA for 10 years, Operations Controller managing Long Island Sound Crossing project for Pirelli Cable Systems of Florham Park NJ for 3 years, Vice President of Liberty General Contracting providing utility construction services in Pottstown PA for 4 years, Vice President of Construction and Engineering for RCN Corporation of Princeton NJ overseeing installation of fiber cabling for telephone, CATV and internet services for 7 years.

My education and training includes but is not limited to: Received Bachelors of Science in Business Administration with a major in Accounting from Temple University in 1980. I have taken continuing education courses in Fiber Optic Technology from Oklahoma State University, Effective Management from Harvard University, Electrical Design from University of Texas Arlington.

Given my education, background and experience, I am an expert regarding communications equipment and, in particular, regarding the communications equipment necessary for Crown Castle to pursue the current planned installation of a DAS network in Ft. Lauderdale. The communications service facility (Facility) that is described in the attached right-of-way permit application is necessary for the current DAS network. The Facility will house active electronics. Based upon my expertise, I hereby certify that placing the Facility below grade is technologically infeasible, that a below grade facility is not available in the marketplace and that all reasonable alternatives have been exhausted. Accordingly, Crown Castle requests an exemption from the below grade requirement contained in Section 25-100.1(b) of the city's code.

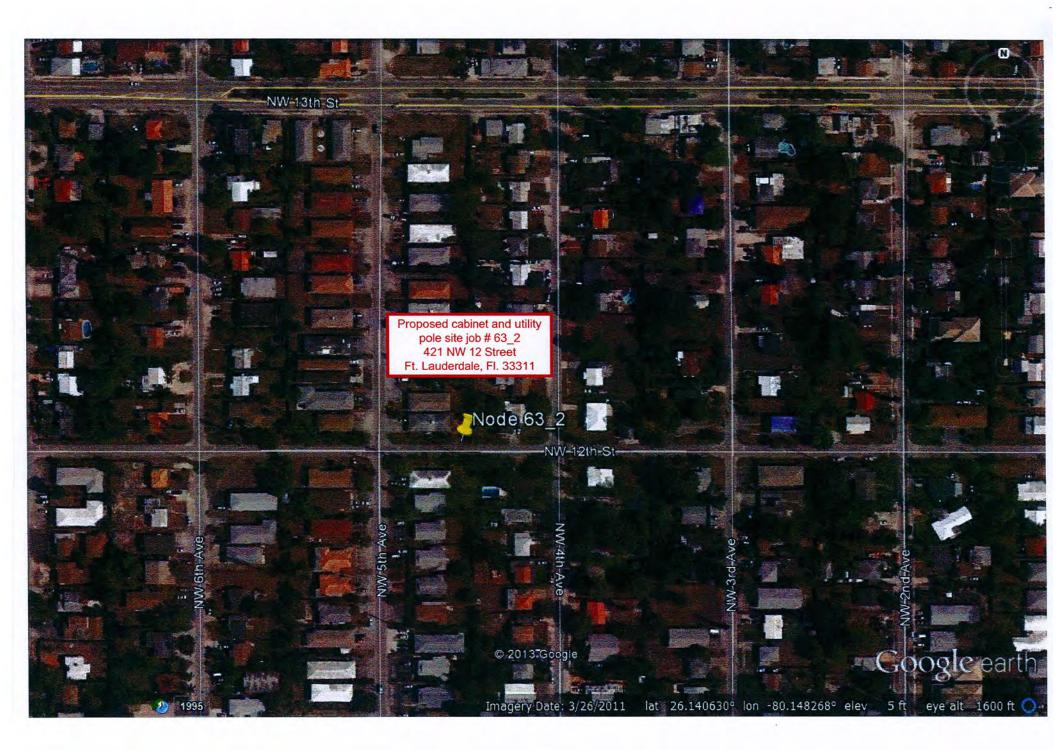
Wayne W. Waldron

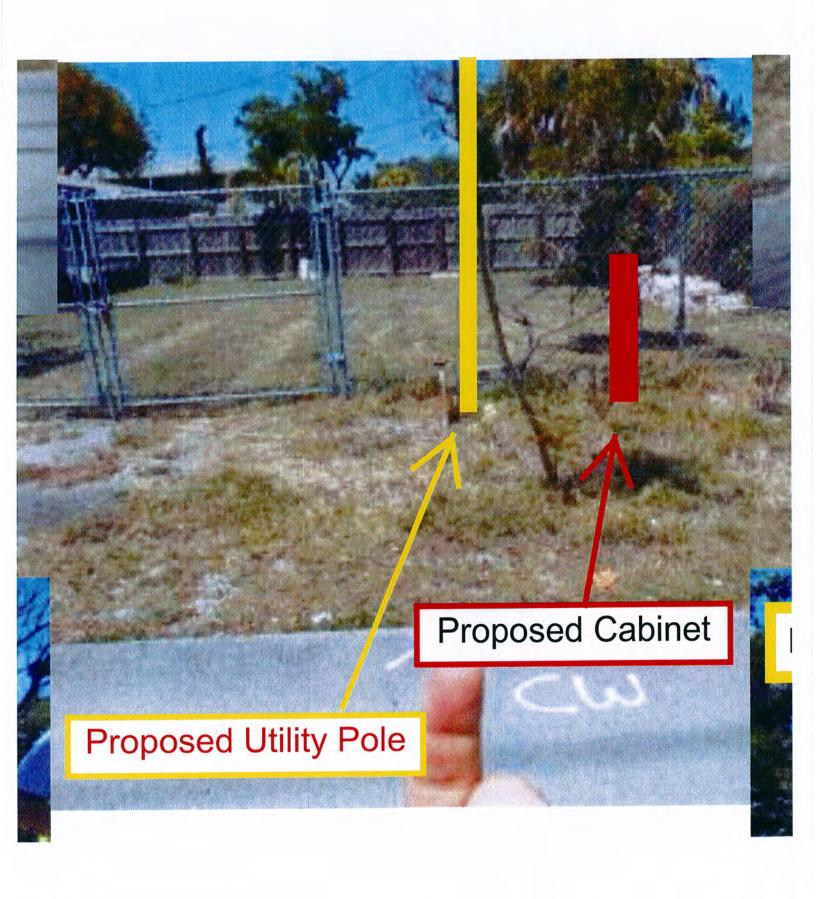
Director of Implementation Southeastern Region

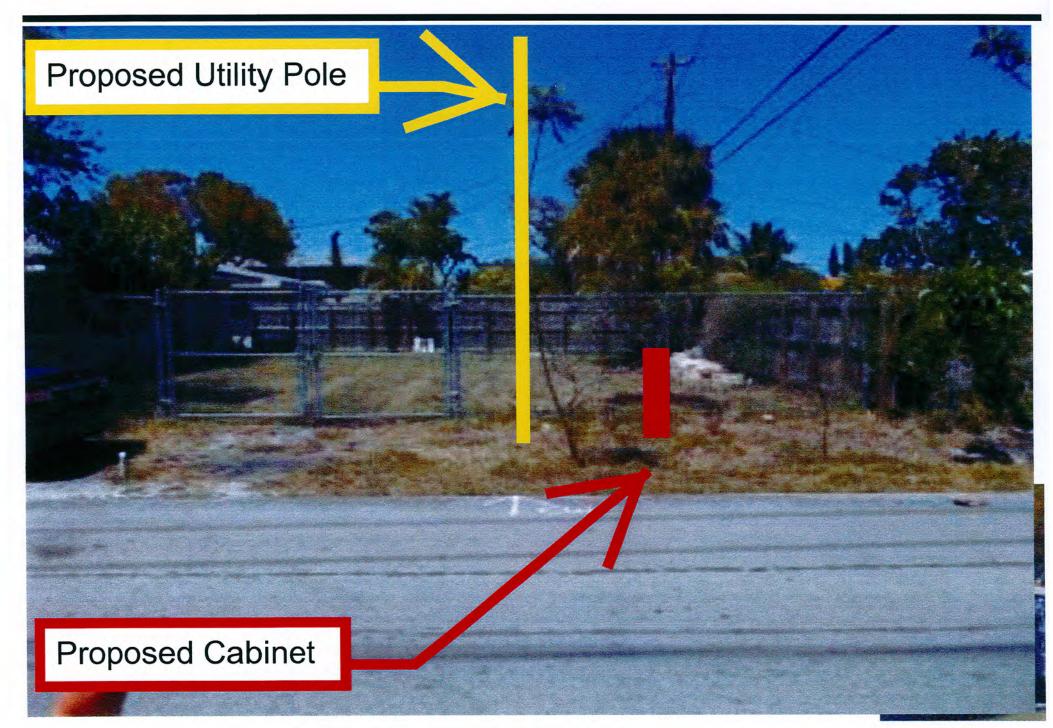
### Crown Castle NG East Inc. Graffiti Mitigation Plan

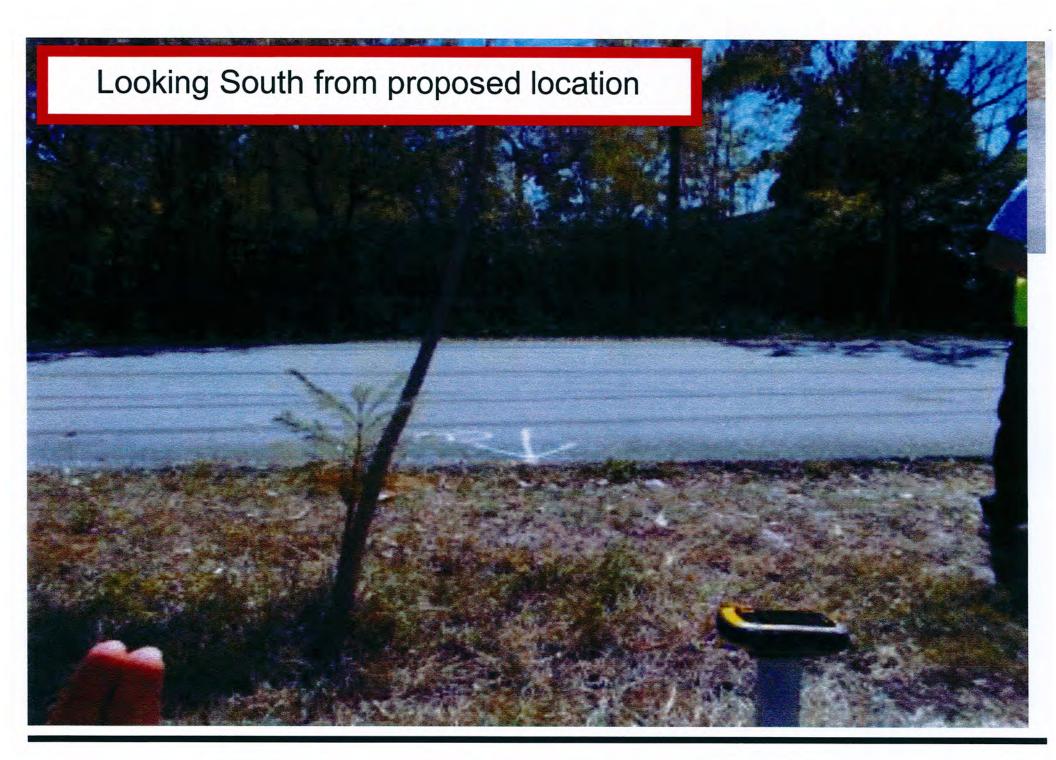
Pursuant to the City of Ft. Lauderdale's Communications Service Facility Right-of-Way Ordinance No. C-07-108, this Graffiti Mitigation Plan describes how Crown Castle NG East Inc. ("Crown Castle") will maintain communications service facilities governed by the Ordinance free from graffiti, including inspecting them no less frequently than every 90 days and removing graffiti within 7 working days from receipt of notice thereof from the City.

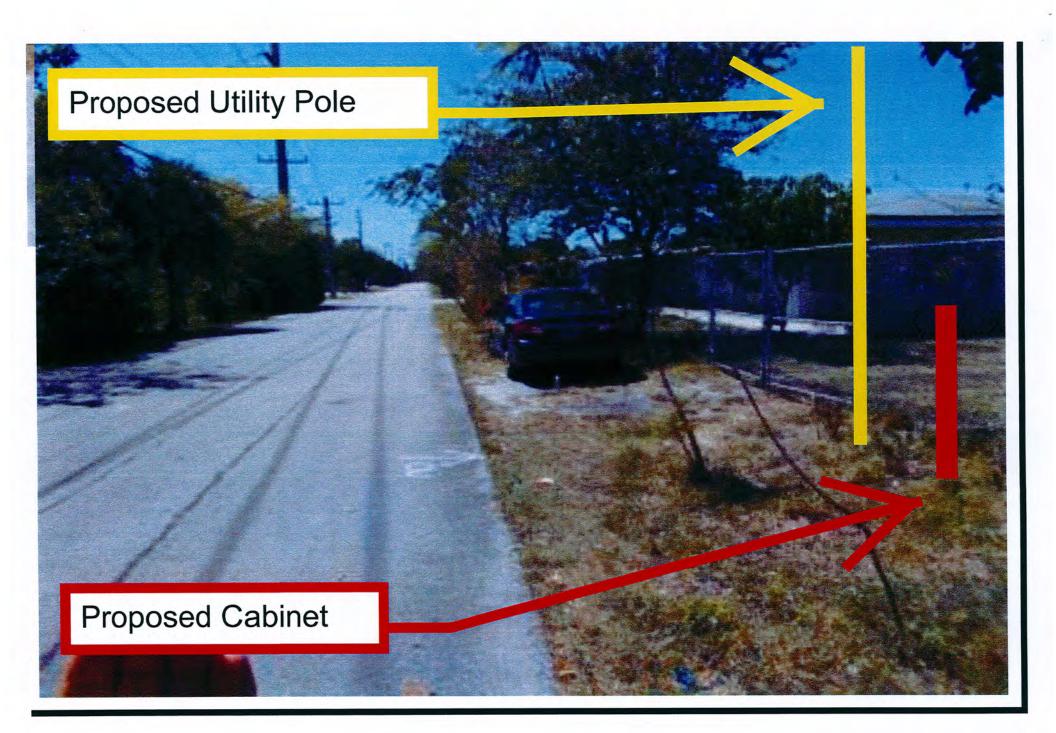
Crown Castle removes graffiti found on its equipment cabinets, including when graffiti is found by Crown Castle personnel or brought to Crown Castle's attention by other parties. Crown Castle removes graffiti with either mineral spirits or paint thinner. A rag is soaked with the solvent and rubbed lightly over graffiti. The solvents will remove spray paint and permanent marker, which are the most difficult forms of graffiti to remove. In cases where the graffiti cannot be cleaned or where Crown Castle determines that paint is the better option, matching paint is applied. The Crown Castle contact person for graffiti issues is Armando Hernandez. His contact information is: office: 786 899-5914 Cell: 813 447-0333.

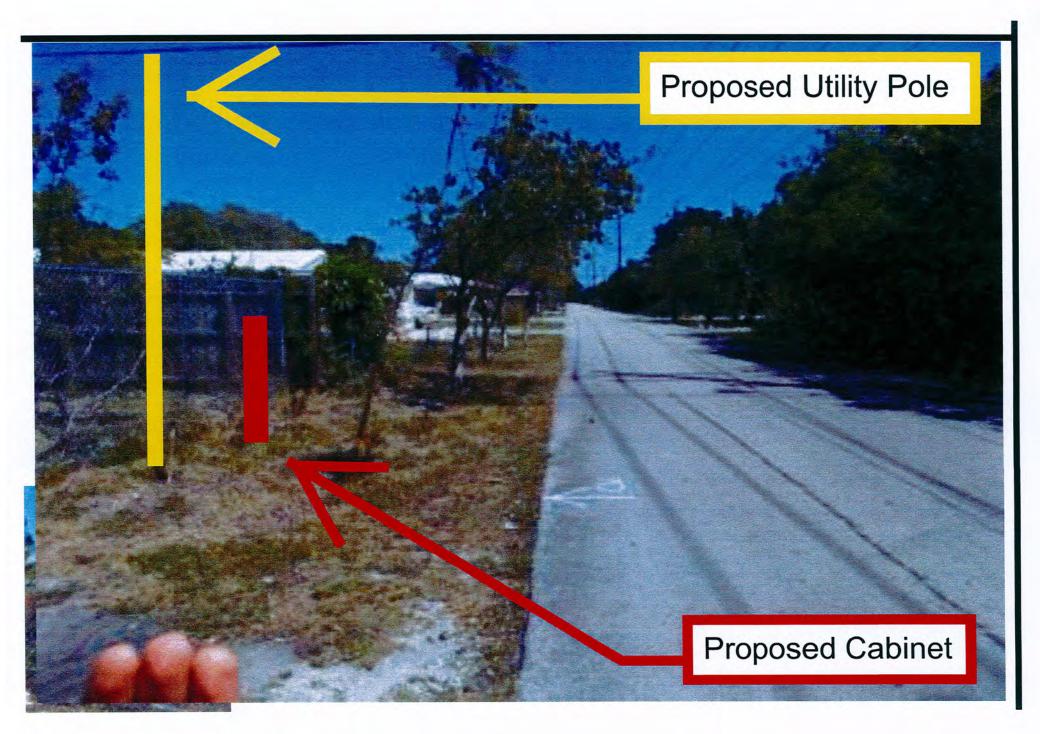












### Notice of Right-of-Way Permit Application Submitted to City of Ft. Lauderdale

Dear Brad Laird,

This letter is to inform you that Crown Castle NG East Inc. has submitted a right-of-way permit application to the City of Ft. Lauderdale for the placement of a communications facility in City rights-of-way adjacent to the following property address: 421 NW 12<sup>th</sup> Street Fort Lauderdale, Fl. 33311

Crown Castle NG East Inc. is sending this notice to you as provided in City Ordinance No. C-07-108, which requires that notice of right-of-way permit application for the communications facility be provided to certain parties in the vicinity of the right-of-way.

A drawing showing the proposed placement and location is attached. The permit application may be reviewed at the City engineer's Office located at City Hall 100 N. Andrews Avenue.

The communications facility will enable Crown Castle NG East Inc. to offer new and enhanced communications services to customers in your neighborhood.

If you have any questions, please feel free to contact me at (305) 728-0154

Sincerely,

Armando Hernandez

Site Development Manager

### Notice of Right-of-Way Permit Application Submitted to City of Ft. Lauderdale

Dear S J Chaner,

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Sincerely,

Armando Hernandez

Site Development Manager

### Notice of Right-of-Way Permit Application Submitted to City of Ft. Lauderdale

Dear Steven Stagon,

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Sincerely,

Armando Hernandez

Site Development Manager

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Lauderdale Manors H.O.A.,

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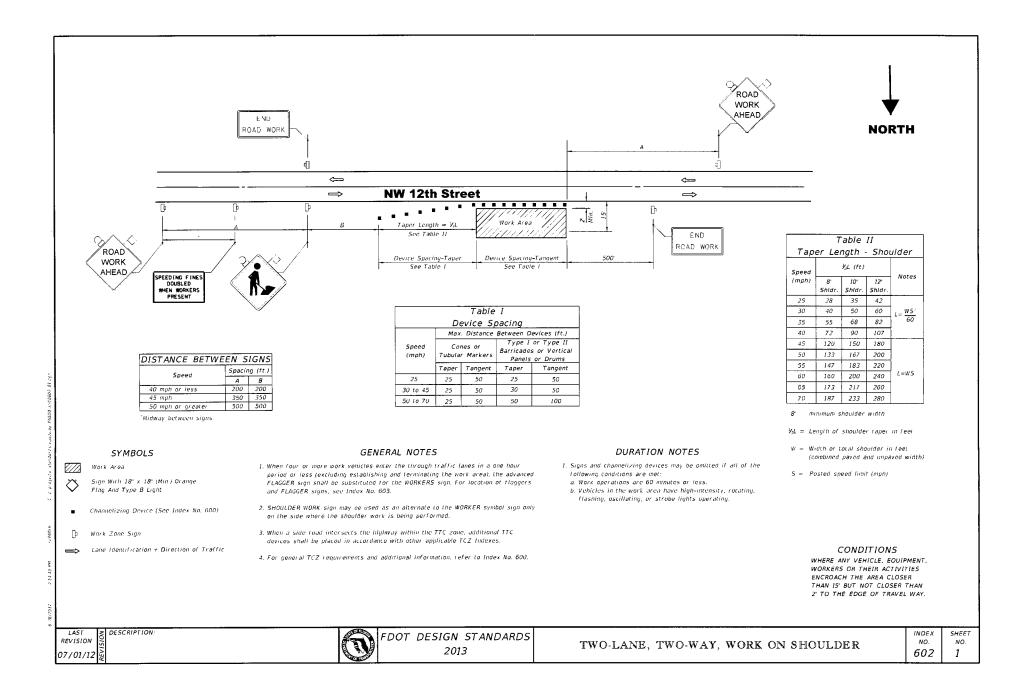
Sincerely,

Armando Hernandez

Site Development Manager

# **TEMPORARY MODIFICATION OF TRAFFIC (MOT) ROUTING FORM**

APPLICANT/ADDRESS/PHONE:	PERMIT NO.
Crown Castle NG East, Inc. 8555 NW 64th Street Miami, Fl. 33166	(PROVIDED BY CITY AT TIME OF PERMIT APPLICATION)
813-447-0333	PROJECT NAME/ADDRESS:SFL 63_2
<ul> <li>This routing form should be completed "PERMIT").</li> </ul>	and submitted as an attachment to the above-referenced permit (hereinafter
<ul> <li>Obtaining signatures on this routing form only after issuance of the PERMIT, subjeting the This form is for MOT's within rights-of-way under Broward County jurights-of-way under Broward County jurights-of-way</li> </ul>	does not constitute any approvals by the City. The MOT may be implemented of to satisfaction of all prerequisite conditions. If the MOT or detour routes affect insdiction, the County's form (available on the City website) should also be not attached. If the detours affect FDOT right-of-way, a permit from FDOT must
<ul> <li>If work is taking place in County or FD</li> </ul>	OOT R/W, an MOT permit is not required from the City. However, PERMIT sked to provide two weeks advance notice of any closures or detours to the
Specific dates and times requested for MOT	implementation:
Begin E	End
the construction, deliveries, staging areas, if are not permitted in the right-of-way). Plea work.  421 NW 12th Street approximately 145'	d address, names of affected streets, why MOT is necessary, nature of cranes will be used, etc. (staging and storage of materials/equipment use note if additional sheets have been attached for the description of East of NW 5th Avenue. Work on shoulder.
to new 45' wood utility pole.	t and new 45 wood utility pole. Attach Grown Gastie antenna
<u>Describe MOT</u> , the number of lanes affecte are necessary, if flagmen will be provided, i	d on each street, if metered parking spaces will be displaced, if detours
the description of MOT.	this request. Please note if additional sheets have been attached for work hours 8am - 4pm.
the description of MOT.	this request. Please note if additional sheets have been attached for
FDOT 602. Daily  Attach: MOT plan prepared by a cert	this request. Please note if additional sheets have been attached for work hours 8am - 4pm.
Attach: MOT plan prepared by a cert appropriate for the complexity of there is a conflict with a higher public purpose.	this request. Please note if additional sheets have been attached for work hours 8am - 4pm.  ified worksite traffic control technician or traffic control supervisor (as of the job), with a copy of current certification.  is found to adversely affect public safety and/or public convenience or
Attach: MOT plan prepared by a cert appropriate for the complexity of there is a conflict with a higher public purpoper PERMIT may be temporarily suspended or public property of the MOT plan shall be in accordance with public property of the MOT	this request. Please note if additional sheets have been attached for work hours 8am - 4pm.  ified worksite traffic control technician or traffic control supervisor (as of the job), with a copy of current certification.  is found to adversely affect public safety and/or public convenience or ose, the APPLICANT may be required to modify the MOT plan or the permanently revoked at any time with reasonable notice from the City.  Incrovisions of the latest edition of Part IV of the Manual of Uniform Traffic and FDOT Design Standards. Compliance with the requirements of the
Attach: MOT plan prepared by a cert appropriate for the complexity.  If implementation of an approved PERMIT there is a conflict with a higher public purp PERMIT may be temporarily suspended or public purpoprior of the MOT plan shall be in accordance with public polycomes for Streets and Highways a approved plan shall be the responsibility of the model.	this request. Please note if additional sheets have been attached for work hours 8am - 4pm.  ified worksite traffic control technician or traffic control supervisor (as of the job), with a copy of current certification.  is found to adversely affect public safety and/or public convenience or ose, the APPLICANT may be required to modify the MOT plan or the permanently revoked at any time with reasonable notice from the City.  Provisions of the latest edition of Part IV of the Manual of Uniform Trafficand FDOT Design Standards. Compliance with the requirements of the he APPLICANT.  Armando Hernandez / Site Development Manager
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Attach: MOT plan prepared by a cert appropriate for the complexity of there is a conflict with a higher public purpoper PERMIT may be temporarily suspended or public property of the MOT plan shall be in accordance with public polycontrol Devices for Streets and Highways a approved plan shall be the responsibility of the control Devices for Streets and Highways approved plan shall be the responsibility of the control Devices for Streets and Highways approved plan shall be the responsibility of the control Devices for Streets and Highways approved plan shall be the responsibility of the control Devices for Streets and Highways approved plan shall be the responsibility of the control Devices for Streets and Highways approved plan shall be the responsibility of the control Devices for Streets and Highways approved plan shall be the responsibility of the control Devices for Streets and Highways approved plan shall be the responsibility of the control Devices for Streets and Highways approved plan shall be the responsibility of the control Devices for Streets and Highways approved plan shall be the responsibility of the control Devices for Streets and Highways approved plan shall be the responsibility of the control Devices for Streets and Highways approved plan shall be the responsibility of the control Devices for Streets and Highways approved plan shall be the responsibility of the control Devices for Streets and Highways approved plan shall be the responsibility of the control Devices for Streets and Highways approved plan shall be the responsibility of the control Devices for Streets and Highways approved plan shall be the responsibility of the control Devices for Streets and Highways approved plan shall be the responsibility of the control Devices for Streets and Highways approved plan shall be the responsibility of the control Devices for Streets and Highways approved plan shall be the responsibility of the control Devices for Streets and Highways approved plan shall be the responsibility of the control Device	this request. Please note if additional sheets have been attached for work hours 8am - 4pm.  ified worksite traffic control technician or traffic control supervisor (as of the job), with a copy of current certification.  is found to adversely affect public safety and/or public convenience or ose, the APPLICANT may be required to modify the MOT plan or the permanently revoked at any time with reasonable notice from the City.  Incrovisions of the latest edition of Part IV of the Manual of Uniform Traffic and FDOT Design Standards. Compliance with the requirements of the he APPLICANT.  Armando Hernandez / Site Development Manager (Print Name/Title)  ed herein, Armando Hernandez (APPLICANT) agrees to rt Lauderdale for any damages, claims or injuries that may result from





CLIENT :

**CROWN CASTLE SFL63\_2** 

ADDRESS:

CLIENT SITE ID#:

421 NW 12TH STREET FORT LAUDERDALE, FLORIDA 33311

SITE TYPE:

**NEW WOOD POLE** 

PROPERTY	INFORMATION
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JURISDICTION:

PROPERTY OWNER:

SITE COORDINATES:

26.14033\* -80.14869\*

CITY OF FORT LAUDERDALE

CROWN CASTLE 8555 NW 64TH STREET

MIAMI, FL 33166

PROJECT MANAGEMENT FIRM: ADDRESS: CROWN CASTLE 8555 NW 64TH STREET MIAMI, FL 33166

PROJECT TEAM

ENGINEERING FIRM: ADDRESS:

CONTACT:

AW SOLUTIONS, INC. 300 CROWN OAK CENTRE DR. LONGWOOD, FL 32750 SHANE HAFNER 407.260.0231 EXT. 120

PHONE: FLORIDA COA#: 26983

#### DESIGN CRITERIA;

- FLORIDA BUILDING CODE 2010 AND ASCE 7-10. WIND LOAD PER ASCE 7-10. ULTIMATE WIND SPEED: 170 MPH.
- BUILDING RISK CATEGORY: II. WIND EXPOSURE: C.
- DEAD LOAD:
- A. EQUIPMENT WEIGHT PER MANUFACTURER DATA.

  3. SEISMIC LOAD DOES NOT GOVERN THIS DESIGN.

**DRAWING** INDEX

SHEET	SHEET DESCRIPTION	REV
T1	TITLE SHEET	1
C1	SITE PLAN	1
C1.1	SITE PLAN ENLARGEMENT	1
C1.2	LANDSCAPE MITIGATION PLAN	1
C2	ELEVATION	1
C3	DETAILS	1
C4	DETAILS	1
SP1	SPECIFICATIONS	1
SP2	SPECIFICATIONS	1

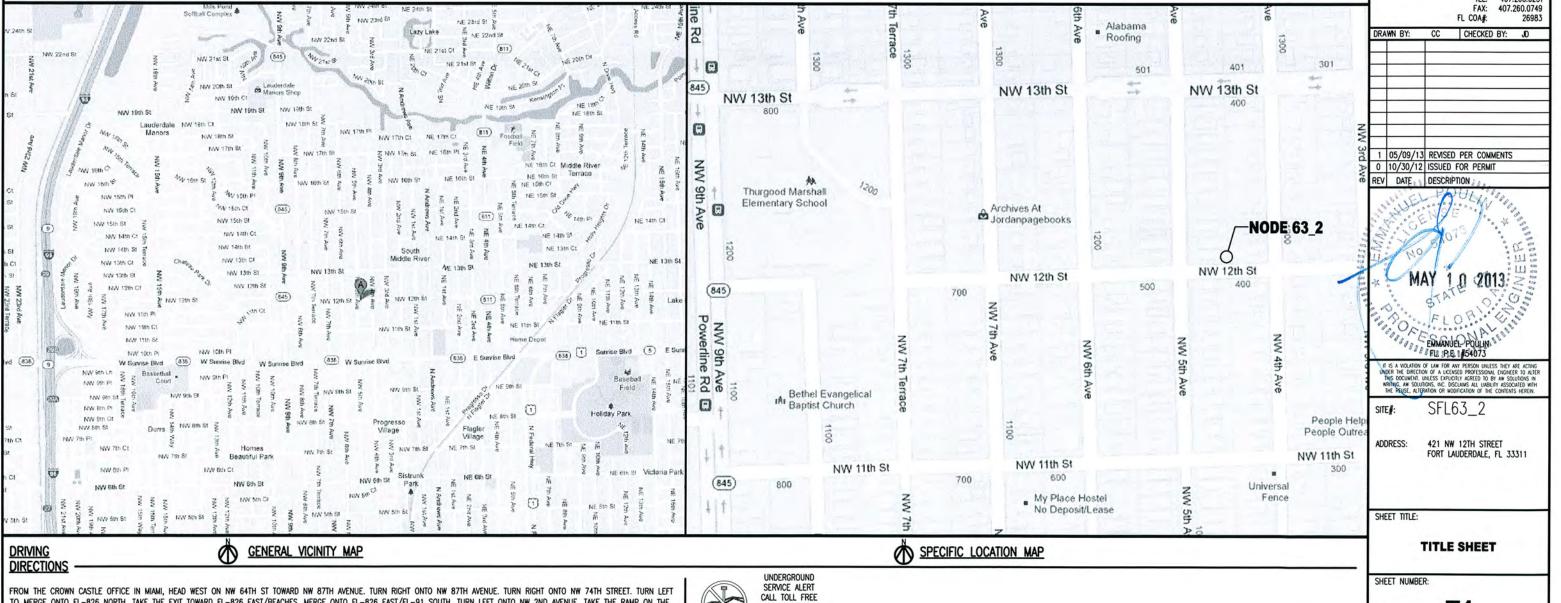
LS	OVAL	PPR	A
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PROJECT MANAGER UTILITY:

DATE:

INTERNATIONAL 🛨

300 CROWN OAK CENTRE DRIVE LONGWOOD, FL 32750



TO MERGE ONTO FL-826 NORTH. TAKE THE EXIT TOWARD FL-826 EAST/BEACHES. MERGE ONTO FL-826 EAST/FL-91 SOUTH. TURN LEFT ONTO NW 2ND AVENUE. TAKE THE RAMP ON THE LEFT ONTO 1-95 NORTH. TAKE EXIT 29A TO MERGE ONTO FL-838 E/W SUNRISE BLVD. TURN LEFT ONTO NW 7TH AVENUE. TAKE THE 2ND RIGHT ONTO NW 12TH STREET. DESTINATION WILL BI ON THE LEFT.



1-800-432-4770 48 HOURS BEFORE YOU DIG

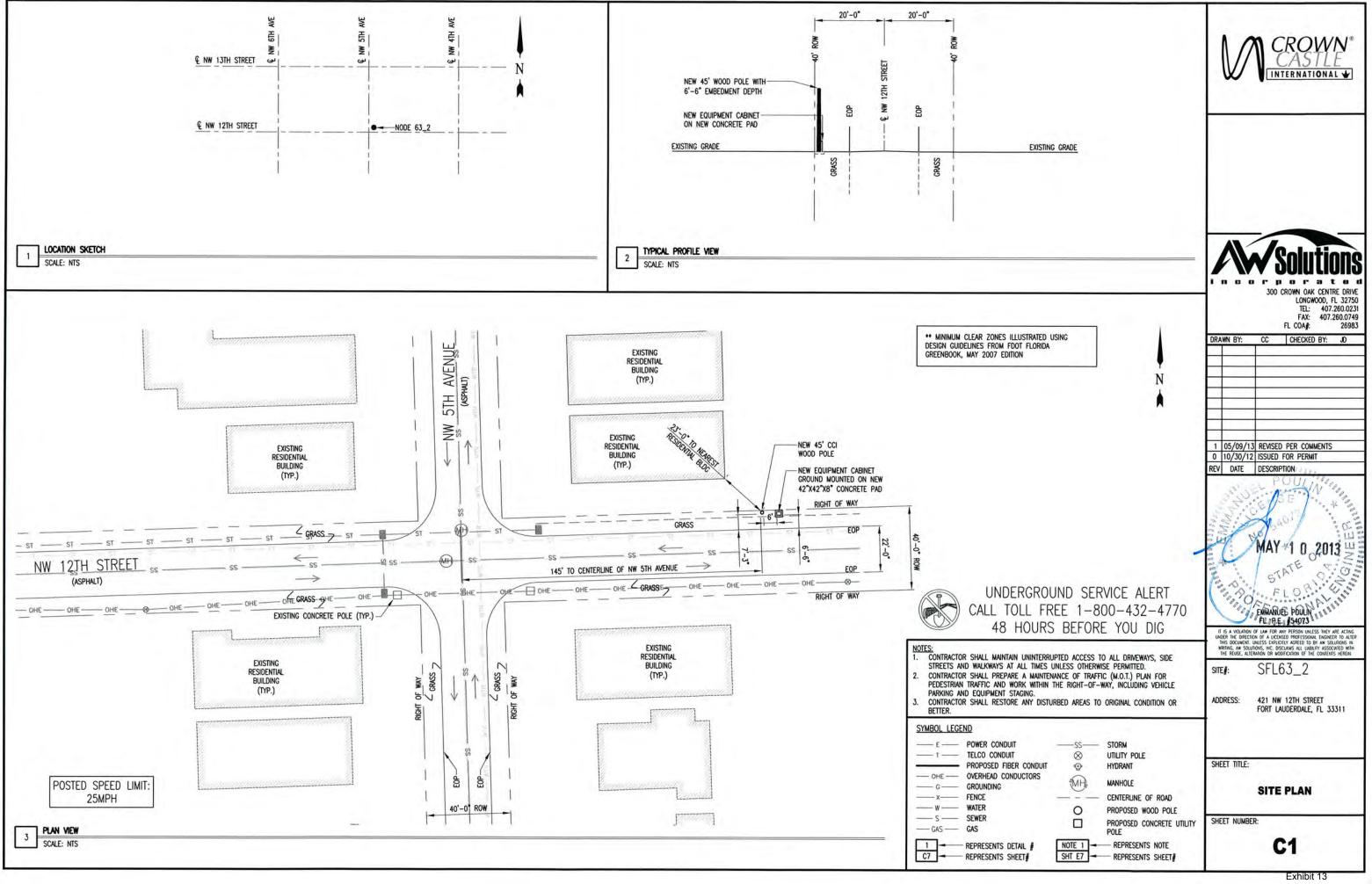
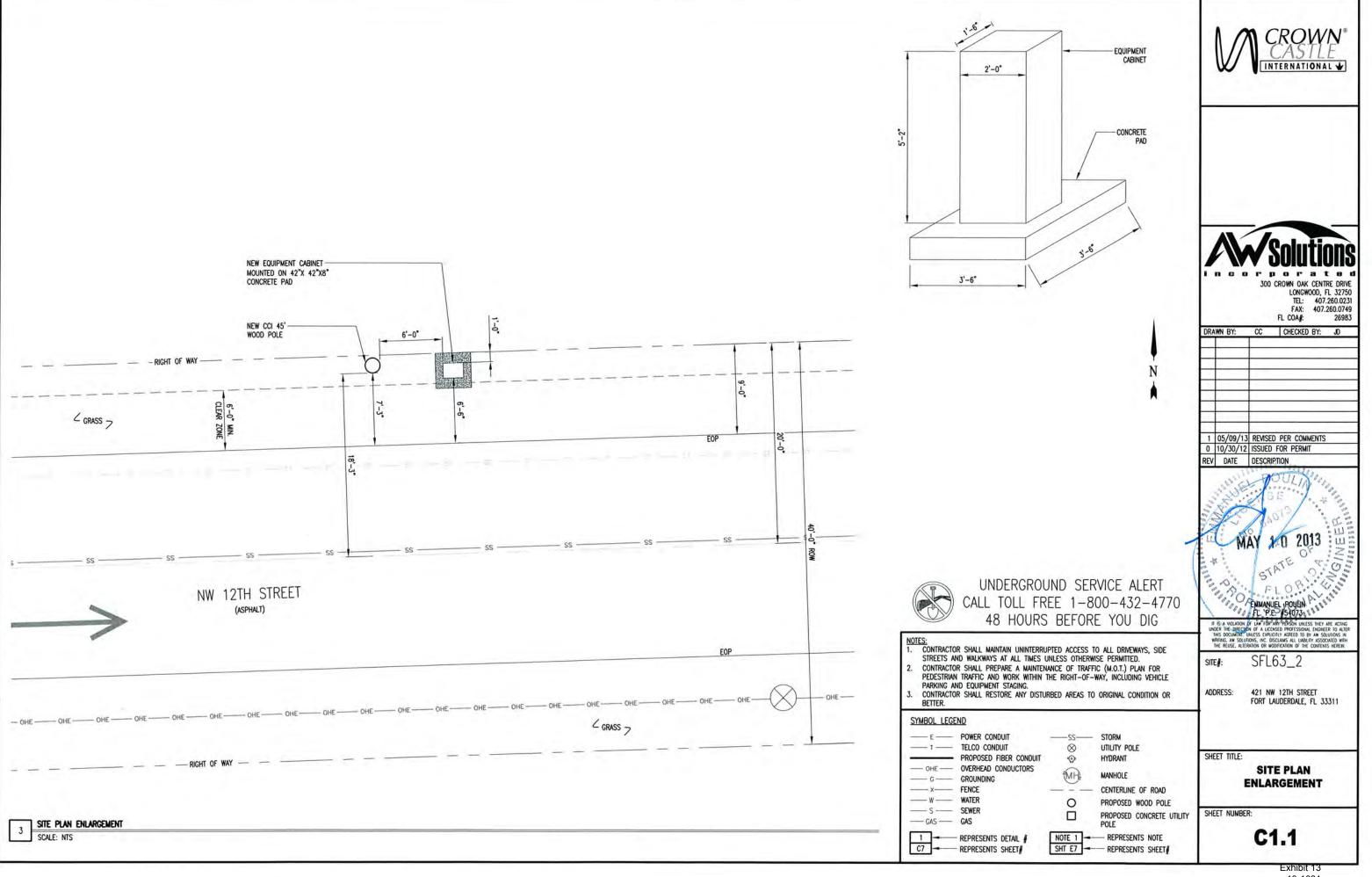
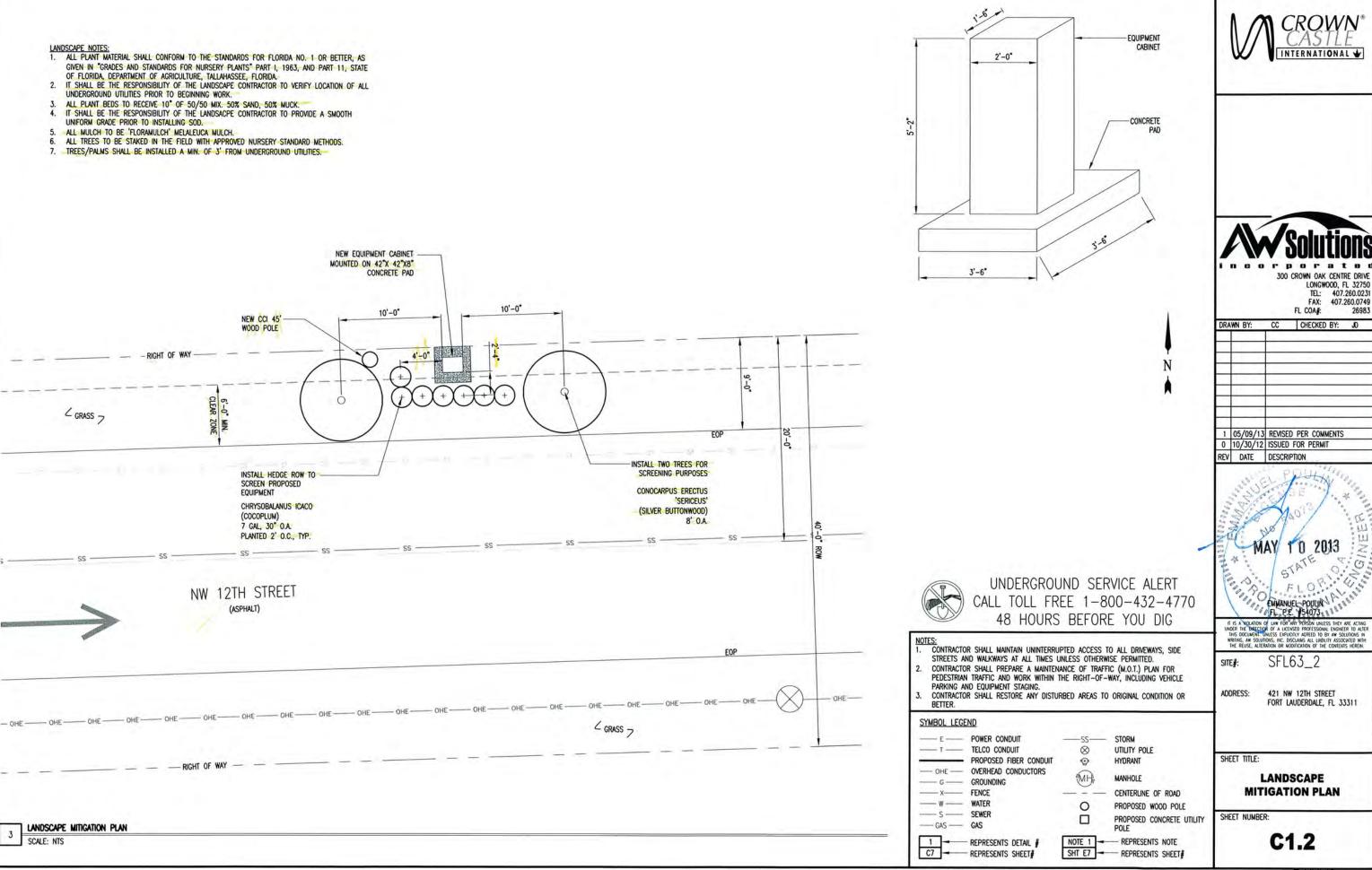
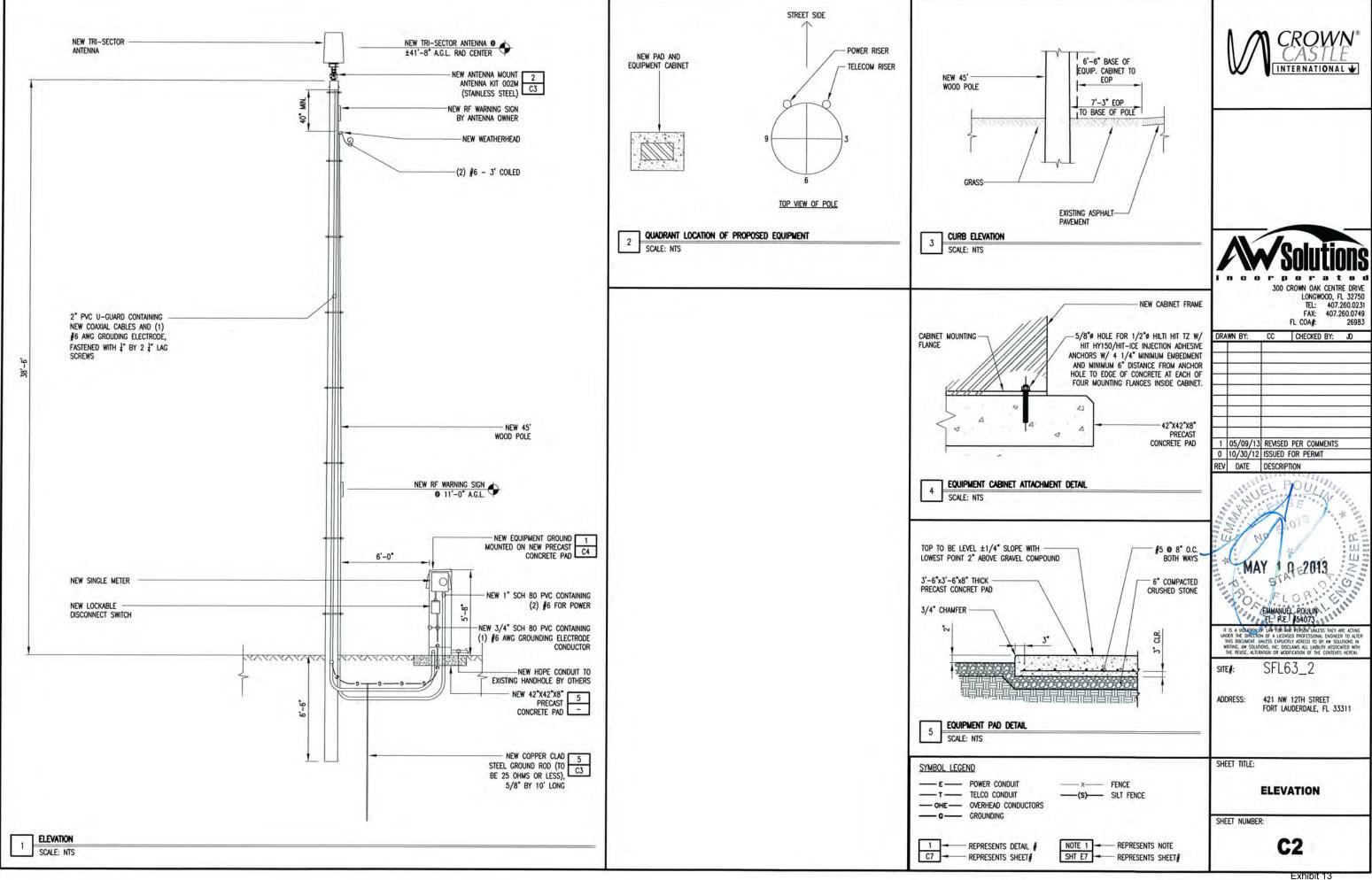


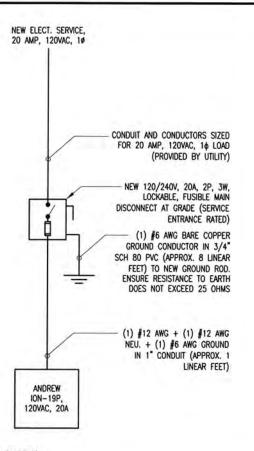
Exhibit 13 13-1621 Page 19 of 26



13-1621 Page 20 of 26







### RISER DIAGRAM

SCALE: NTS

- SHORT CIRCUIT CURRENT RATING OF FUSIBLE MAIN DISCONNECT: 100kA. PER FLORIDA BUILDING CODE 2010: FEEDER CONDUCTORS ARE SIZED FOR A
- PER FLORIDA BUILDING CODE 2010: BRANCH CIRCUIT CONDUCTORS ARE SIZED FOR A MAXIMUM VOLTAGE DROP OF 3% AT DESIGN LOAD. HOWEVER, THIS DESIGN CONTAINS NO BRANCH CIRCUITS.
- ALL ABOVE GRADE CONDUIT IS TO BE UV RESISTANT SCHEDULE 80 PVC. ALL

INSTALL UTILITY PULLBOXES PER NEC.

SEPARATION DIMENSION TO BE VERIFIED WITH LOCAL UTILITY CO. REQUIREMENTS.

MAXIMUM VOLTAGE DROP OF 2% AT DESIGN LOAD OF 20A. ALL CONDUCTORS ARE TO BE COPPER WIRE WITH INSULATION TYPE XHHW. BELOW GRADE CONDUIT IS TO BE SCHEDULE 40 PVC.

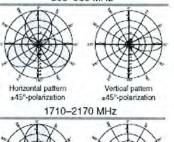
# KUTHREIM SCALA DIVISION

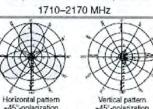
Kathrein's dual band antennas are ready for 3G applications, covering all existing wireless bands as well as all spectrum under consideration for future systems, AMPS, PCS and 3G/UMTS.

- Wide band operation.
- · Exceptional intermodulation characteristics.
- High strength fiberglass radome.
- · Internal diplexers allow the +45° polarization (upper and lower bands) to be combined on one connector and the -45° polarization (upper and lower bands) to be combined on a second connector for each antenna.

Frequency range	806-960 MHz 1710-2170 MHz
VSWR	<1.5:1
Impedance	50 ohms
Intermodulation (2x20w)	IM3: <-150 dBc
Polarization	+45° upper and lower band -45° upper and lower band
Connector	6 x 7-16 DIN female
Isolation intrasystem intersystem	>30 dB >40 dB (806-960 // 1710-2170 MHz)
Radome color	Brown, gray or dark gray (custom colors available at additional cost)
Weight	50 lb (22.7 kg)
Height	24 inches (609 mm)
Radome diameter	16 inches (407 mm)
Equivalent flat plate area	1.6 ft² (0.148 m²)
Wind survival rating*	100 mph (160 kph)
Shipping dimensions	32 x 20 x 19 inches (813 x 508 x 483 mm)
Shipping weight	52 lb (23.6 kg)
Mounting	Designed to be mounted on top of a utility pole using a custom mounting bracker supplied by the customer.







A.	10
em	Vertical p
ion	±45°-pola

		CELO DAGE TO
	1850-1990 MHz	1920-2170 MHz
	13.3 dBi	13.6 dBi
wer)	>25 dB (co-polar) >22 dB (total power)	>25 d8 (bo-polar) >22 d8 (total power)
C)	200 watts (at 50°C)	200 watts (at 50°C)
-	60° (half-power)	60° (half-power)
	18° (half-power)	17.5° (half-power)
	atilies a sin	

NEW TRI-SECTOR ANTENNA

- (1) #6 AWG GROUND IN

NEW LIGHTNING ARRESTOR

3/4" CONDUIT

Specifications: 1710-1880 MHz 806-866 MHz 824-894 MHz 880-960 MHz 11.8 dBi 11.4 dBi 12.5 dBi >23 dB (co-polar) >23 dB (co-polar) >25 dB (co-polar) >20 dB (total power) >20 dB (total power) >22 dB (total power) Front-to-back ratio >25 dB (co-polar) >22 dB (total pow (180° = 30°) Maximum input power 250 watts (at 50°C) 250 watts (at 50°C) 250 watts (at 50°C) 200 watts (at 50 +45° and -45° polarization 67° (half-power) 66° (half-power) 64<sup>s</sup> (half-power) 66° (half-power) +45° and -45° polarization 34° (half-power) vertical beamwidth 33° (half-power) 30° (half-power) 20° (half-power) Cross polar ratio Main direction 25 dB (typical) 16 dB (typical) >10 dB 18 dB (typical) >10 dB 20 dB (typical) > 10 dB

GRADE

SCALE: NTS

ANTENNA GROUNDING SCHEMATIC



### ANTENNA SPECIFICATIONS

SCALE: NTS



1 05/09/13 REVISED PER COMMENTS 0 10/30/12 ISSUED FOR PERMIT

INTERNATIONAL &

300 CROWN OAK CENTRE DRIVE

FL COA#:

DRAWN BY: CC CHECKED BY: JO

LONGWOOD, FL 32750

TEL: 407.260.0231 FAX: 407.260.0749

26983

IT IS A MOLATON OF LAW TOR MAY PERSON UNITES THEY ARE ACTING UNDER THE LIBETION OF A LICENSED PROTESSONAL ROOMER TO ALTE HIS DOCUMENT, MUNISC SPATIOLY ASSETS OF MY SOLUTIONS WHITE OF MY SOLUTIONS WE WITH A MY SOLUTION WITH THE RESE, ALTERNION OF WOODTHON HOW TO CONTINUE FERSON.

SFL63\_2 SITE#:

ADDRESS:

421 NW 12TH STREET FORT LAUDERDALE, FL 33311

SHEET TITLE:

**DETAILS** 

SHEET NUMBER:

C3

FINISHED GRADE, STONE, ASPHALT,-RESTORE SURFACE TO MATCH CONCRETE PAVING OR SOD. MATCH SLOPE ORIGINAL CONDITION AND THICKNESS OF EXISTING SURFACE UNDISTURBED COMPACTED BACKFILL (SUITABLE ON SITE MATERIAL) 6" WARNING TAPE TELCO CONDUIT WHERE APPLICABLE (REFER TO NOTE 4) 6" MIN. NEW UNDERGROUND CONDUIT(S) TRENCHING DETAIL (IF APPLICABLE, REFER TO SITE PLAN) SCALE: NTS PROVIDE SCHEDULE 40 PVC CONDUIT BELOW GRADE EXCEPT AS NOTED BELOW. PROVIDE SCHEDULE 80 PVC CONDUIT AND ELBOWS AT STUB UP LOCATIONS (i.e. SERVICE POLE, BTS EQUIPMENT, ETC.).

CONDUIT/TUBING CONTAINING FIBER OPTIC CABLING TO BE FILLED WITH GEL TO PREVENT WATER PENETRATION, COMMONLY REFERRED TO AS "ICKY PICK."

LPA ASSEMBI

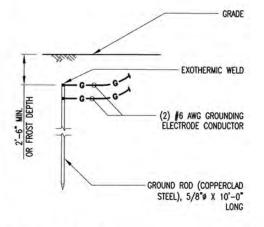
(3) 5/8" (TOP OF POLE DIAMETER) STAINLESS STEEL HARDWARD BOLT, SQUARE

"NOT" SUPPLIED IN KIT.

WASHER AND FASTENER (NUT).

ANTENNA MOUNTING KIT (002M)

SCALE: NTS

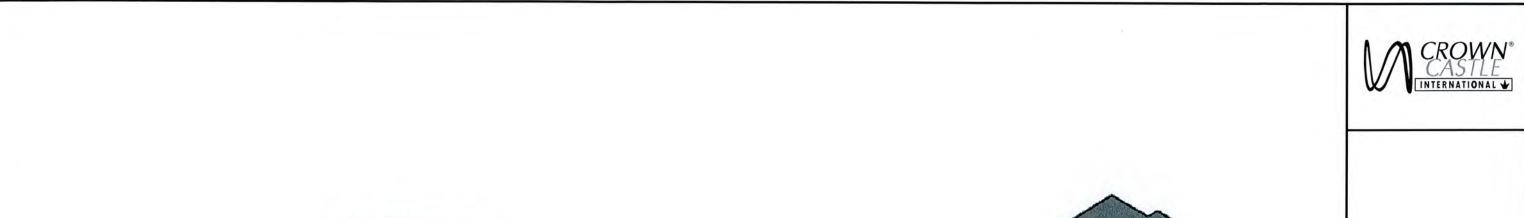


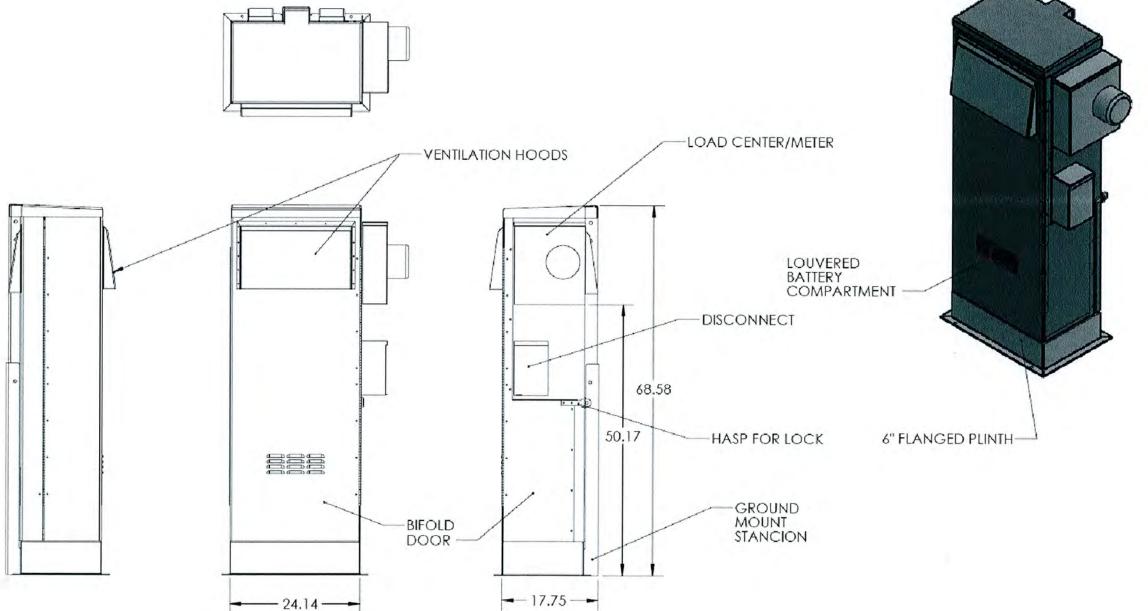
GROUND ROD DETAIL

5 SCALE: NTS

GROUND ROD TO BE DRIVEN 10' VERTICALLY.

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24.14

SHROUD KIT LOSH-BBU-1 GROUND MOUNT

1 SCALE: NTS



300 CROWN OAK CENTRE DRIVE LONGWOOD, FL 32750 TEL: 407.260.0231 FAX: 407.260.0749 FL COA#: 26983

DRAWN BY: CC CHECKED BY: JD

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REV DATE DESCRIPTION

SFL63\_2 SITE#:

421 NW 12TH STREET FORT LAUDERDALE, FL 33311

SHEET TITLE:

**DETAILS** 

SHEET NUMBER:

C4

13-1621

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L - GENERAL PROMISIONS
1.1 - CONTRACT OVERNOW
1. THE INTENTION OF THE DOCUMENTS IS TO SHOW THE COMPLETE INSTALLATION AND TO INCLUDE ALL LABOR AND
1. THE INTENTION OF THE DOCUMENTS IS TO SHOW THE COMPLETE INSTALLATION AND TO INCLUDE ALL LABOR AND THE PROPER EXECUTION AND THE INTENTION OF THE DOCUMENTS IS 10 SHOW THE COMPLETE INSTALLATION AND TO INCLUDE ALL USOR AND MATERIALS REASONABLY NECESSARY, WHETHER OR NOT SPECIFICALLY INDICATED, FOR THE PROPER EXECUTION COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT. THE INTENT OF THIS DOCUMENT IS NOT TO DESIGN THE MEANS AND METHODS OF PROCEDURE OF THE WORK. THIS CONTRACTOR SHALL SUPERMISE AND COORDINATE / WORK, USING HIS PROFESSOR FOR CEDURE OF AN SOALS. HE IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, TECHNIQUES, PROCEDURES, SEQUENCING AND COORDINATING ALL PORTIONS OF THE WORK UNDER THE

ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING CODES: STANDARDS

Supplements:

FBC — Florida Building code 2010

ASC — American Institute of Steel Construction specifications

REE — Institute of Electrical and Electronics Districts

REC — National Electrical Code

NEMA — National Electrical Code

NEMA — NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION

UL - UNDERWRITERS LABORATORIES
HSPC - NATIONAL STANDARD PLUMBING CODE

INC - INTERNATIONAL MECHANICAL CODE

INC — International rechanical code
 NPPA — NATIONAL RISE PROTECTION ASSOCIATION
 OSHA — OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
 ANSI/TIA — TELECOMMUNICATIONS INDUSTRY ASSOCIATION — 222—G STANDARD
 ALL GOVERNING STATE, COUNTY AND LOCAL CODES AND ORDINANCES
 THE MOST STRINGENT CODE WILL APPLY IN THE CASE OF DISCREPANCIES OR DIFFERENCES IN THE CODE

THE ENGINEERING DRAWINGS SHOW PRINCIPAL AREAS WHERE WORK MUST BE ACCOMPLISHED UNDER THIS CONTRACT.

THE ENGREEPING DIVANINGS SHAW PHANCIPIA. AREAS WHERE WORK MUST BE ACCOMPLISHED UNDER THIS CONTRACT, 
NEODENTIA. WORK MAY ALSO DE RECESSINY IN AREAS NOT SHOWN ON THE ENGINEERING FORWARDS DUE TO CHANGES 
AFFECTING EXISTING ELECTRICAL OR OTHER SYSTEMS. SUCH INCIDENTIAL WORK IS ALSO A PART OF THIS CONTRACT, 
REPORT THOSE AREAS AND ASCERTIAN WHAT IS NEEDED TO DO THAT WORK IN ACCORDANCE WITH THE CONTRACT 
REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER. 
DO NOT SCALE DRAWNICS. ALL DIMENSIONS TAKE PRECEDENCE OVER SCALE. 
MINOR DEVALUTIONS FROM THE DESIGN LYDOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK 
HOWEVER, NO CHANGE THAT ALTER THE CHARACTER INTENT OF THE DESIGN WILL BE MADE OR PERMITTED BY THE 
MINOR DEVALUTION.

HOMERE, MICHOLTA CHANCE GOOD.

GENERAL CYLL, STRUCTURAL, ELECTRICAL AND ANTENNA DRAIMINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, EACH CONTRACTOR MUST REFER TO ALL DRAIMINGS. ALL COORDINATION SHALL BE THE RESPONSIBILITY OF THE GENERAL

controctor.

The general notes contained herein are part of the plans and specifications, and are to be complied with in all respects. The most restrictive notes specified are to take precedence. Certain sections of the general notes may not apply to every site. The contractor is to comply with all applicable general. NOTES IN ALL RESPECTS

ALL GENERAL NOTES AND STANDARD DETAILS ARE THE MINIMUM REQUIREMENT TO BE USED IN CONDITIONS WHICH ARE

ALL GENERAL NOTES AND STANDARD DETAILS ARE THE MINIMUM REQUIREMENT TO BE USED IN CONDITIONS WHICH ARE NOT SPECIFICALLY SHOWN OHTERWISE.

REPRESENTATION OF TRUE NORTH OTHER THAN THOSE FOUND ON THE PLOT OF THE SURVEY DRAWING SHALL NOT BE USED TO IDENTIFY OR ESTABLISH THE BEARNING OF THE TRUE NORTH AT THE SITE. THE CONTRACTOR SHALL RELY SOLELY ON THE PLOT OF THE SURVEY DRAWING AND ANY SURVEYOR'S MARKING AT THE SITE FOR THE ESTABLISHMENT OF THE RIVE NORTH, AND SHALL NOTIFY THE ENGINEER PROOF TO PROCEDING WITH THE WORTH FOR THE STEADLISHMENT OF THE WORTHOO PRANCES AND THE TRUE WORTH OF PROMISS ELEMENTS OF THE WORKNO EDAMINGS. AND THE TRUE WORTH ORDERINGUES ELEMENTS OF THE WORKNO EDAMINGS AND THE TRUE WORTH ORDERINGUES ELEMENTS OF THE WORKNO EDAMINGS AND THE TRUE WORTH ORDERINGUES ELEMENTS OF THE WORKNO EDAMINGS AND THE TRUE WORTH ORDERINGUES AND EDEPLIED ON THE CALL SURVEY. THE CONTRACTOR SHALL ASSUME SOLE LUBBLITY FOR MY FAILURE TO MOTHEY THE

THE CONTRACTOR SHALL USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND

THE CONTRACTOR SHALL USE ADEQUATE MINIBERS OF SKULED WORKING MIND ARE THORRUSHLY TRAINED AND EXPERIENCED IN THE NECESSAN'C CARFES, AND MHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK. THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONTRUCTION OF THE PROJECT, INJUDIONS SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR FURTHER AGREES TO INDEANIFY AND HOLD THE DESIGN ENGINEER HARMLESS FROM ANY AND ALL LABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL SAFETY PRECAUTIONS AND REGULATIONS SUCH AS

THE CONTINUED STATE DEFINED THE PROCRESS OF THE WORK. THE REGISTER WILL NOT ADMEDITED WHITE SOUTH AS SISTA COMPLIANCE DURING THE PROCRESS OF THE WORK. THE REGISTER WILL NOT ADMED FOR PROVIDE DIRECTION AS IO SAFETY PRECAUTIONS AND PROCRAMS. CTOR SHALL ASSUME COMPLETE RESPONSIBILITY OF THE SECURITY OF THE SITE UNTIL COMPLETION OF THE

Construction.

The Contractor's responsibility to examine all plan sheets and specifications and coordinate his work with the work of all other contractors to ensure that work progression is not interrupted. The Contractor is instructed to cooperate with any and all other contractors performing work on this

. THE CONTRACTOR IS INSTRUCTED TO COOPERATE WITH ANY AND ALL OTHER CONTRACTORS PERFORMING WORK ON THIS JOB SITE DURING THE PERFORMANCE OF THIS CONTRACT TO AVXID DELAYS IN THE CONTRACT SCHEDULE OR OTHER WORK PERFORMED IN THE WCINITY OF THE CONSTRUCTION AREA.

THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE TO THE PROPERTY OWNER WELL IN ADVANCE OF THE STARTING DATE OF THE WORK THE OWNER SHALL ALSO BE NOTIFIED OF A CHANGE IN THE CONSTRUCTION SCHEDULE.

THE CONTRACTOR SHALL COMPLY WITH ALL REQUIRED PERMITS.

FACH CONTRACTOR OF RECORD, AND SHALL PROVIDE THE JURISDICTION METHAL ALL PROOF REQUIRED TO OPERATE AS THE CONTRACTOR OF RECORD, AND SHALL PROVIDE THE JURISDICTION WITH ALL PROOF REQUIRED TO OPERATE AS THE CONTRACTOR IN THIS JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GRITANING, AND INCURRENCE THE OCST OF ALL PERMINED PERMITS. SCHEDULES SCHEDULES TO PERMIT AND INCURRENCE THE OCST OF ALL PERMITS DEPORTED RESPONSIBLE FOR GRITANING. AND INCURRENCE THE OCST OF ALL PERMITS DEPORTED RESPONSIBLE FOR GRITANING. AND INCURRENCE THE OCST OF ALL PERMITS DEPORTED RESPONSIBLE FOR PERMITS WORD.

COST OF ALL REQUIRED PERMITS, INSPECTIONS, CERTIFICATIONS, ETC. PRIOR TO BEGIN THE WORK.
THE CONTRACTOR IS RESPONSIBLE FOR PROYDING AMPLE NOTICE TO THE BUILDING INSPECTION DEPARTMENT TO

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AMPLE NOTICE TO THE BUILDING INSPECTION DEPARTMENT TO 
SCHIDULE THE REQUIRED INSPECTIONS. A MINIMAL OF 48 HOURS OF HORICE SHOULD BE GRAPH TO ANTHORITIES. AN 
EXTENSION IN THE CONTRACT SCHEDULE WILL NOT BE GRAPHED DUE TO DELAY CAUSED BY INSPECTIONS. 
EACH CONTRACTOR IS RESPONSIBLE FOR APPLICATION AND PAYMENT OF CONTRACTOR LICENSES, BONDS AND 
INSURANCES. DOCUMENTAIN SHALL BE PROVIDED TO THE OWNER PROX TO THE WORKE. 
A COPY OF THE APPROVED PLANS SHALL BE KEPT IN A PLACE SPECIFIED BY THE CONTRINION AGENCY, AND BY LAW 
SHALL BE ANALIZED FOR INSPECTION AT ALL TIMES. IT IS THE CONTRACTOR RESPONSIBILITY TO ENSURE ALL 
CONSTRUCTION SETS REFLECT THE SAME INFORMATION AS THE APPROVED PLANS. THE CONTRACTOR SHALL ALSO 
MAINTAIN ONE SET OF PLANS AT THE SITE FOR THE PURPOSE OF DOCUMENTING ALL AS-BUILTS CHANGES, REVISIONS, 
ADDENDA, OR CHANGES ORDERS.

THE CONTRACTOR IS TO PROVIDE THE OWNER WITH A FULL SET OF RECORD DRAWNINGS WITH ACTUAL DIMENSIONS, 
ROUTING AND CIRCUITS UPON COMPRETION OF CONSTRUCTION.

THE CONTROLLOR IS OF PROPRIET OWNER WITH A FOLL SET OF RECORD DEGININGS WITH AUTOR. DIMENSIONS, ROUTING AND CIRCUITS UPON COMPLETION OF CONSTRUCTION.

THE CONTROLLOR IS TO CONTROL BOTH LOCAL POWER AND TELEPHONE UTILITY COMPANIES BEFORE CONSTRUCTION BEGINS TO GOORGE SERVICE, GERMA WID PAY ALL FEES ASSOCIATED WITH CONSTRUCTION, SCHEDULE INSTALLATION OF SERVICE, COORDINATE CONDUIT RUN/TERMINATION POINT AND GREAM ANY FIELD MATERIALS THAT MAY BE SUPPLIED BY THE UTILITY COMPANIES AND INSTALLED BY THE CONTRACTORS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY BRACING SHORING TIES FORM WORK AND THE

PROTECTION OF ALL WORK DURING CONSTRUCTION TO AVOID DAMAGE, COLLAPSE, DISTORTION, MISALIGNMENT AND

ALTERATION OF ROOMING MARRANTIES.

THE CONTRACTOR IS RESPONSIBLE TO PROVIDE TEMPORARY POWER, WATER AND TOILET FACILITIES AS REQUIRED BY THE PROPERTY OWNER OR GOSPENING AGENCY.

THE CONTRACTOR SHALL MONITOR ALL EXISTING STRUCTURES DURING CONSTRUCTION.

THE CONTRACTOR SHALL DOORDMATE THE FINAL DIMENSIONS OF ANY TYPE OF BEAM LAYOUT WITH THE FOOTPRINT OF THE NEW EQUIPMENT BEFORE ORDERING ANY MATERIALS.

ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN SAFE CONDITIONS PROOF TO INSTALLATIONS, AND SHALL BE OF THE BEST GRAVE AND OF THE SAME MANUFACTUREST THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT.

ALL MATERIALS MUST BE STORED IN A LEYEL AND DRY LOCATION AND IN A MANNER THAT WILL NOT DESTRUCT THE FLOW OF OTHER MORK RELATED OR NOT TO THIS CONTRACT. ANY EQUIPMENT OR MATERIALS STORACE MUST MEET ALL RECOMMENDATIONS OF THE MANUFACTUREST. THE CONTRACTOR SHALL INSPECT THOROUGHLY ALL MATERIALS AND EQUIPMENT PROOF TO FINAL INSTALLATION. DAMAGED EQUIPMENT OR MATERIALS SHALL NOT BE INSTALLED PERMANDACTUREST. WHE COMPANIENT OR MATERIALS SHALL NOT BE INSTALLED PERMANDACTUREST.

ALL MATERIALS SHALL BE INSTALLED FOR THE MANUFACTUREST WISTRUCTIONS.

TELEPHONE NUMBERS, NO SIGN SHALL BE LOCATED ON THE TOWER.

12. ALL EQUIPMENT SHALL BE INSTALLED LEVEL AND PLUMB.

2 EXISTING CONDITIONS AND STRUCTURES BEFORE BEGINNING WORK AT THE STIE, THE CONTRACTOR SHALL INSPECT THE EXISTING COMPOUND OR BUILDING AND DETERMINE THE EXTENT OF EXISTING FINISHES, SPECIALIES, EQUIPMENT AND OTHER ITEMS WHICH MUST BE REMOVED AND REINSTALLED IN ORDER TO PERFORM THE WORK UNDER THIS CONTRACT. THE CONTRACTOR MUST VERIFY ALL DIMENSIANS, COMUNIONS AND ELEVATIONS BEFORE STATING WORK NO EXTRA CHARGE OR COMPENSITION SHALL BE ALLOWED DUE TO DIFFERENCES BETWEEN ACIDE. DIMENSIANS AND DIMENSIONS INDICATED ON THE CONSTITUCTION DRAWNICS. ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ENCINEER AND SHALL BE RESOLVED BEFORE PROCEEDING WITH THE WORK. ALL WORK SHALL BE PERFORMED IN A WORKMARILIE MANNER IN ACCORDANCE WITH ACCEPTED CONSTRUCTION PRACTICES.
BY SUBMITTING A BID FOR THIS WORK, THE CONTRACTOR ACKNOWLEDGES THAT HE HAS THOROUGHLY REVIEWED AND UNDERSTOOD THE CONSTRUCTION DOCUMENTS, WISTED THE SITE AND IS FAMILIAR WITH THE CONDITIONS ENCOUNTERED AT THE SITE. DIMENSIONS, CONDITIONS AND ELEVATIONS BEFORE STARTING WORK, NO EXTRA CHARGE OR COMPENSATION SHALL BE

AT THE STIE.

THE CONTRACTOR, IF ANAROSED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY
MATTER OR THING WHICH SUCH THE CONTRACTOR MIGHT NOT HAVE FULLY INFORMED HIMSELF PRIOR TO BIDDING.

NO PLEA OF ICNOCRACIC OF CONDITIONS THAT EXIST, OR OF DEPICULIES THAT MAY BE ENCOUNTERED OR OF ANY
OTHER RELEVANT MATTER CONCERNING THE WORK TO BE PERFORMED WILL BE ACCEPTED AS A REASON FOR ANY
FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL THE REQUIREMENTS OF THE CONTRACT

IT IS UNDERSTOOD BY THE OWNER THAT THE CONTRACTOR IN SUBMITTING HIS BID, WARRANTS THAT HE HAS CAREFULLY THE STREAM THE SITE OF THE PROJECT TO ACQUAINT HINSELF WITH THE SURROUNDING PROPERTIES, THE MEANS OF APPROACH TO THE SITE, THE CONDITIONS OF THE ACTUAL JOB SITE, THE FACILITIES FOR DELIVERING, STORING, PLACING,

HANDLING AND THE REMOVAL OF MATERIALS AND EQUIPMENT AND ANY AND ALL DIFFICULTIES THAT MAY BE ENCOUNTERED DURING THE EXECUTION OF THE ALL WORK IN ACCORD WITH THE CONTRACT DOCUMENTS. THE LOCATION OF EXISTING UNDERGOUND UTILITIES HAVE NOT BEEN MERRIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR IS RESPONSIBLE FOR HAVING ALL HOMERGROUND UTILITIES LOCATED WITHIN THE LUMITS OF CONSTRUCTION AND ACCEPTS FULL RESPONSIBILITY FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED THE CONTRACTOR FAULURE TO LOCATE ALL UNDERGOUND UTILITIES BEFORE COMMENCING WORK.
SHOULD ANY ERROR OR INCONSISTENCY APPEAR IN THE DRIMMENS OR SPECIFICATIONS, THE CONTRACTOR BEFORE PROCEEDING WITH THE WORK MUST AMPEAR IN THE DRIMMENS OR SPECIFICATIONS, THE CONTRACTOR SPONSIBLE FOR PROCEEDING MITH THE WORK MUST AND IN NO CASE PROCEED WITH THE WORK IN UNCERTAINTY OR WITH INSPIREDIENT DRAWNINGS. IT HE CONTRACTOR AND EACH SUBCONTRACTOR SHALL BE RESPONSIBLE FOR VERRICATION OF ALL MEASUREMENTS AT THE SITE BEFORE CORDINARY MAY MATERIALS OR DOING ANY WORK NO EXTRA CHARGE OR CONSIDERATION SHALL BE ALLOWED UP TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWNING ANY DISCREPANCY IN DIMENSIONS WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE ENGREE AND THE OWNER REPRESENTAINE FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT THE EXPRESSED APPROVAL OF THE

owner or its representative. TRADE, PRODUCT NAMES OR MANUFACTURER'S NAMES OR CATALOG NUMBERS AND INDICATIONS OF EXISTING PRODUCT

TROUGH PRODUCT MANUS OR MANUSACTURER'S MANUS OR CATAGO ROMBERS AND INDICATIONS OF EXISTING PRODUCT TYPES SHOWN ON THE DRAWNESS ARE BELIEVED TO BE ACCURATE. IF THEY ARE DISCOVERED TO BE INACCURATE, HORFY ENGINEERS IMMEDIATELY AND DO HOT PROCEED WITHOUT INSTRUCTIONS. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGES WHICH MAY OCCUR DURING CONSTRUCTION. ANY DAMAGES TO HEW OR EXISTING SURFACES, STRUCTURES OR EQUIPMENT SHALL BE INACQUATELY REPAIRED OR REPLACING ANY DAMAGES AREAS. THE COST OF REPAIRING OR REPLACING ANY DAMAGES AREAS. THE COST OF REPAIRING OR REPLACING ANY DAMAGES AREAS. AND EFFORTS TO PROTECT THE STRUCTURAL INTEGRITY

THE CONTRACTOR SHALL TAKE ALL PRECUITIONARY MEASURES AND EFFORTS TO PROTECT THE STRUCTURAL INTEGRITY OF EXISTING STRUCTURES. WHEN WORK IS PERFORMED IN THE WORNITY OF EXISTING STRUCTURES. THE STRUCTURAL INTEGRITY AND STABILITY SHALL BE MONITORED AT ALL TIMES DURING EVERY PHASE OF THE CONSTRUCTION. HE CONTRACTOR SHALL BE MOTHER TO BE SUBMINE VERY PHASE OF THE CONSTRUCTION. HE CONTRACTOR SHALL PROTECT LOSTING PROPERTY LINE MONIMINITATION. ANY MONIMINITATION DISTURBED OR DESTINCTION, AS JUDGED BY THE OWNERS OR OWNER'S REPRESENTATIVE SHALL BE REPLACE AT THE CONTRACTOR'S EXPERT AS NOTED IN THE PLANS. HE CONTRACTOR SHALL BE MATCHED IN FORM, TEXTURE, MATERIAL AND PAINT COLOR EXCEPT AS NOTED IN THE PLANS. THE CONTRACTOR SHALL NEW ANTENNAS ALL SUBSTACE CONTRACTOR SHALL BE MATCHED IN FORM, TEXTURE, MATERIAL AND PAINT FOR ANTENNAS. ALL SUBSTACE CONTRACTOR SHALL BE REDUCED POOR TO PAINTING NEW SUBFRACES. THE PLANS SHOW SOME KNOWN SUBSTREACE STRUCTURES, ABOVE-GROUND STRUCTURES MOJ/OR UTILITIES BELIEVED TO EXIST IN THE WORKING AREA, EXACT LOCATION OF WHICH MAY WAY FROM THE LOCATIONS MONOCATED. TO PARTICULAR, THE CONTRACTOR IS WARNED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SICH PREFUNCTION. AND THE SHOWN SHOW SHALL BE STRUCTURES AND/OR UTILITIES BELIEVED TO EXECUTIVE SHOWN ON THE MORNING STRUCTURES AND/OR UTILITIES OF THE AREA MAY BE SHOWN OR MAY NOT BE SHOWN, AND IT SHALL BE RESPONDED THE CONTRACTOR SHALL BE RESPONDED THE CONTRACTOR SHALL BE RESPONDED THE CONTRACTOR OR MATCHED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SICH PREFUNCTS. SUBSTREAMED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SICH PREFUNCTS. SUBSTREAMED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SICH PREFUNCTS. ALL BE THE RESPONDED THE COURT OF GROUND SHOWLD BE RESPONDED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SICH PREFUNCTS. ALL BE STRUCTURED TO THE WORK SHALL BE RECEIVED TO THE WORK SHALL BE RESPONDED THE COURTED TO THE WORK SHALL.

THE UNDERGROUND SERVICES ALERT NUMBER ON SHEET TI AT THE REQUIRED TIME.

AL DISTRING ACTIVE SEWER, MATER GAS, ELECTRIC, AND OTHER TUTILITIES WHERE EXCOUNTERED IN THE WORK SHALL BE PROTECTED AT ALL TIMES, WHERE REJUCATED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE REJUCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE CONTRICTOR WHEN EXCAVATING OR PIER RESILING AROUND OR NEAR TUTILITIES. THE CONTRICTOR SHALL PROVIDE SHETY TRAINING FOR THE WORKING CREW. IF AN INACTIVE ELECTRICAL, TELEPHONE, SEVER, WATER OR ANY OTHER UTILITY AND CAP, PLUE OR OTHERWISE TERMINATE THE EXECUTION OF THE WORK, THE CONTRICTOR IS TO BENOVE THE UTILITY AND CAP, PLUE OR OTHERWISE TERMINATE THE UTILITY AT A POINT WHERE IT NO LONGER CONFLICT WITH THE WORK. THE UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE UTILITY COMPANIES RECOMMENDATIONS AND PER LOCAL AUTHORITY HAVING JURISDICTION.

ALL UTILITY WORK INVOLVING CONNECTIONS TO EXISTING SYSTEMS SHALL BE COORDANIED WITH THE OWNER OR OWNER'S REPRESENTATIVE AND THE UTILITY OWNER BEFORE EACH AND EVERY CONNECTION TO EXISTING SYSTEMS IS MADE.

aultain flow for all existing utilities.

He contractor shall restore all public or private property damaged or removed to at least as good foodding to be presentative. 

Foodding as before distributed as determined by the owner or owner's representative. 

Rotect physicid subfaces including jambs and heads of openings used as passageways through which EQUIPMENT AND MATERIALS WILL PASS

PROVIDE PROTECTION FOR EQUIPMENT ROOM SURFACES PRIOR TO ALLOWING FOUIPMENT OR MATERIALS TO BE MOVED. OVER SUCH SURFACES. MAINTAIN FINISHED SURFACES CLEAN, UNARMED AND SUITABLY PROTECTED UNTIL JOB SITE IS ACCEPTED BY THE

under. In the event of damage to an egisting structure, the contractor shall notify the owner or its representative imaediately, and then promptly make all replacements and repairs to the satisfaction of the owner. The owner may elect to use a third party contractor to perform the sepairs. All expenses associated with the repairs and replacements shall be paid by the general contractor selected for this

ADOITIONAL TIME REQUIRED TO SECURE REPLACEMENT AND MAKE REPAIRS WILL NOT BE CONSIDERED BY THE OWNER TO JUSTIFY AN EXTENSION IN THE CONTRACT TIME FOR COMPLETION

ACCESS
USE MOST DIRECT ROUTE FROM PUBLIC STREET AS AGREED TO BY COMPOUND OR BUILDING OWNER. FOR ACCESS TO AN EXISTING BUILDING INTERIOR, USE LOADING DOCK AS AGREED TO BY BUILDING OWNER.
COORDINATE WITH SITE OWNER CONSTRUCTION SCHEDULE & SITE ACCESS. ENSURE THAT THE OWNER OF PARENT PARCEL IS NOTIFIED IN WRITTING OF CONSTRUCTION ACTIVITIES.
A LIST OF WORKERS INVOLVED IN THIS PROJECT SHALL BE PROVIDED TO THE PROPERTY OWNER OR ITS

THE CONTRACTOR SHALL COORDINATE ALL SPECIAL CONSIDERATIONS OF CONSTRUCTION SUCH AS NOISY OPERATION,

THE CONTRACTOR SHALL COORDINATE BALL SPECIAL CONSTRUCTION START RECEIVED AS MOSTY OPERATION, INTERREPTION OF ANY MECHANICAL AND/OR ELECTRICAL SERVICES, MATERIAL DELIVERES AND STORAGE, STRANGIA AREA, CRANE LIFTS WITH THE OWNER PROOF TO THE START OF THE WORK.

CONTRACTOR SHALL COORDINATE WITH AN OWNER REPRESENTATIVE, THE TEMPORARY REMOVAL OF FENCE, LANDSCAPING & ANY EXPECTED DAMAGE TO ACCESS ROAD OR ADJACENT REPAIR OF PROPERTY PROOF TO COMMENCING THE WORK, THE CONTRACTOR SHALL COORDINATE WORK HOURS & STRANG AREAS WITH OWNER.

CONTRACTOR SHALL COORDINATE WORK HOURS & STRANG AREAS WITH OWNER.

CONTRACTOR SHALL COORDINATE WORK HOURS & STRANG AREAS WITH OWNER.

1.4 SITE MAINTENANCE
1. REMOVE STAINING OR REACTIVE MATERIALS FROM NEW AND EXISTING SURFACES IMMEDIATELY, REMOVE HAZARDOUS ACCUMULATIONS OF DEBRIS PROMPTLY, AT LEAST DAILY. CONFINE DUST PRODUCING OPERATIONS DURING CUTTIN DRILLING, PAINTING AND FINISHING. THERE SHOULD BE NO OVER SPRAYING PAINT IN PARKING AREA VACUUM

IMMEDIATELY AFTER COURLETION.

THERE SHALL NOT DE ANY CREATION OF NOISE OUTSIDE THE NORMAL HOURS OF 7 AM TO 6 PM, UNLESS OTHERWISE AGREED UPON WITH THE OWNER. NOISE SHOULD BE KEPT TO A MINIMUM THROUGHOUT CONSTRUCTION. NOISE AND DISTING BUILDING STRUCTURE VIBRATION GENERATED BY CONSTRUCTION PROCEDURES, EQUIPMENT, TOOL AND OPERATIONS ARE TO BE KEPT TO A PRACTICABLE MINIMUM, WHERE USE OF HIGH NOISE LEVEL EQUIPMENT IS UNANGOMBLE, AND CAN BE HEARD, CONFINE TO HOURS BEFORE 7 A.M. AND AFTER 6 P.M. MONDAY THROUGH FRIDAY

OR AS AGREED TO BY FILLIUDING OWNER THE CONTRACTOR IS TO PROMOE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OR 2 ABC THE COMMONIOR IS DEPROVALE PORTABLE FIRE EXTINABILITIES WITH A POUTING OF NOT LESS THAN 2-A OR 2 ABC WITHIN 75T OF TRAVEL TO ALL PORTIONS OF THE CONSTRUCTION AREA.
THE CONTRACTOR IS RESPONSIBLE FOR MANTANING A HEAT AND ORDERLY STIE, YARD AND GROUNDS, REMOVE AND DISPOSE LEGALLY OFF STE ALL RUBBISH, MASTE MATERIALS, LITTER, AND ALL FOREIGN SUBSTANCES. REMOVE PETROCHEMICAL SPILLS, STANS AND CITIES FOREIGN DEPOSITS. RATE GROUNDS TO A SMOOTH EVEN-TEXTURED

suifale. At project completion, remove temporary services, construction equipment, tools and facilities, mockups, temporary structures, surruis materials, debris, and rubbish from building owners property. Put site in NEAT, orderly condition, ready for use. Leave roof areas, pipe spaces and other spaces clean and free

FROM DEBRIS ON A DALY BASIS.

THE SITE MOYOR BUILDING SECURITY SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION IN ORDER TO PREVENT UNAUTHORIZED PERSONS FROM EMERING THE PREMISES. DUSTING AND NEW EQUIPMENT AND MATERIALS REMAIN THE CONTRACTOR'S RESPONSIBILITY AT ALL TIME DURING CONSTRUCTION.

THE TEXANT'S INGRESS AND EGRESS OF THE SITE AND/OR BUILDING SHALL BE MAINTAINED THROUGHOUT

9. THE CONTRACTOR SHALL TAKE ALL MEASURE NECESSARY TO MAINTAIN POLLUTION CONTROL COMPLY WITH ALL coverning regulation pertaining to environmental protection, and promptly remove all debris and ACCUMULATION OF MATERIALS RESULTING FROM THE WORK.

TIMEORITY FACILITIES
THE CONTRACTOR SHALL CONSIDER THAT WATER, POWER AND LIGHT ARE NOT AVAILABLE AT THIS SITE, WHEN PERSUMENT POWER IS ESTRAILSHED, ALL CONTRACTORS MAY USE THE SERVICE CONNECTION FOR PRODUCTION WORK ONLY, PROVIDED THAT ELECTRICAL CORDS AND CONNECTIONS ARE FURNISHED BY THE CONTRACTORS AND ARE DISCONNECTED AND PROPERTY STORED DURING NON-WORKING HOURS.
THE CONTRACTOR IS RESPONSIBLE TO PROVIDE TEMPORARY POWER, WATER AND TOILET FACILITIES AS REQUIRED BY THE

PROPERTY OWNER OR GOVERNING AGENCY.

— DEMOLITION AND EXISTING STRUCTURAL ALTERATION

1 DEMOLITION SPECIFICS

GENERAL CONTRACTOR IS TO DEMOLISH AND REMOVE FROM SITE (AND DISPOSE OF APPROPRIATELY) ALL ITEMS NOTED

FOR DEMOLITION IN THE ARCHITECTURAL, COMIL, ELECTRICAL AND/OR STRUCTURAL DRAWNICS, INCLUDING BELOW GRADE

FOUNDATION AND STRUCTURES. CONTRACTOR SHALL COORDINATE WITH THE OWNER REPRESENTATIVE THE DISPOSAL OF

CENTRAL CONTRACTOR IS TO EXERCISE UTBOST CARE DURING DEBOUTTON AND PROMPTLY INFORM THE ENGINEER OF

ward.

General Contractor is solely responsible for the shoring, bracing, promoing lateral support, and for mantaning the integrity of the eigning structure during all phases of the demolition and construction and small provide, if required, signed & scaled shop drawings, by a registered professional engineer for the shoring of all walls, beads, subbs, roof joists, or other elevated structural items, that are

HAWING THE SUPPORT BELOW HOTED FOR DEMOLITION.
ANY DAMAGE DUE TO DEMOLITION, OR OTHER CONSTRUCTION ACTIVITIES, DONE TO ANY EXISTING SURFACE TO REMAIN SHALL BE REPAIRED TO MATCH EXISTING AT NO ADDITIONAL COST TO THE OWNER.

SHALL BE REPARKED TO MAINT EASING AT THE ASSISTANT OF THE STRUCTURAL ELEMENTS UNLESS
1. DO NOT DRILL OR CUIT EXISTING FLOOR JOISTS, BRANS, COLUMNS OR OTHER STRUCTURAL ELEMENTS UNLESS
SPEORECALLY MIDICATED DRILL SLASS WHERE APPROVED, CORE DRILL CIRCULAR OPENINGS THROUGH CONCRETE SLAB,
LINE ORILL FOR RECTANGULAR OPENINGS, MAKE OPENINGS OF PROPER SIZE FOR CONDUIT, DUCTS, PIPES AND OTHER
TIELS PASSING THROUGH OPENINGS, MAKE ALL NEW HOLES OR OPENINGS BE WEATHER TIGHT OR FIRE SAFE AS
THE STRUCTURE OF THROUGH OPENINGS. MAKE ALL NEW HOLES OR OPENINGS BE WEATHER TIGHT OR FIRE SAFE AS REQUIRED BY LOCAL BUILDING CODES & ORDINANCES.
PREPARE, SUBJUIT AND RECEIVE APPROVAL OF SLEEVES AND OPENING DRAWINGS BEFORE LOCATING SLEEVES AND

the entire project. Seal water tight and protect with fire proofing materials new sleeves and openings through roofs,

Floors and Invertical Chases as required by code and industry standards. All floor and wall Profestations store is exally with fire retainant compound deleting u. Causola.

The controlor shall promoe the fire amasikul approved materials to fill/sol, penetrations through

FIRE RATED ASSEMBLIES

FIRE MILD ASSEMBLES.

WHERE CUTTING OF EXISTING SURFACES OR REMOVAL OF EXISTING FINISHES IS REQUIRED TO PERFORM THE WORK UNDER THIS CONTRACT AND A NEW FINISH IS NOT INDICATED, FILL RESULTING OPENINGS AND PATCH THE SURFACE AFTER DOING THE WORK AND FINISH TO MATCH ADJUCENT EXISTING SURFACES.

EXCEPT IN SPACE WHERE NO WORK UNDER THIS CONTRACT IS REQUIRED, EXICLOSE EXISTING AND NEW CONDUITS,

DUCTS. PIPES AND SIMILAR ITEMS IN FURRING WHERE SUCH ITEMS PASS THROUGH FINISHED SPACES WHETHER OR NOT FURRING IS INDICATED.

Funding is inducated.

ALL concrete and masonry penetrations shall be done using rotary action only (no hammering action).

X-rays are to be taken proof to drilling.

X-rays are to be taken proof to drilling.

Core locations if required shall be chosen so as to and cutting any reinforcing bars. Frestop floor

Or wall ponetration with two hour rated sealant to meet ul causoas. Provide Weathersproofing of any

REPAIR, PATCH, FINISH AND/OR REFINISH AS APPLICABLE TO MATCH ADJACENT EXISTING FINISHES THOSE EXISTING REPAIR, PATCH, FINISH AND/OR RETINISH AS APPLICABLE TO MATCH ADJACENT DISTING FINISHES THOSE DISTING 
SUBFACES DUAMED OR NEW PROPOSED SURFACES DURING PERFORMANCE OF THE WORK UNDER THIS CONTRACT. 
WHERE COMDUTS, DUCTS, PIPES AND SMILLAR TIEMS ARE SHOW TO BE INSTALLED IN EXISTING WALLS OR PARTITIONS. 
NEATLY CHASE THE WALLS OR PARTITIONS. INSTALL THE TIMES AND PATCH THE WALLS OR PARTITIONS TO MAKE THE 
INSTALLATION NOT DISCERNIBLE IN THE FINISHED WORK. 
WHERE A NEW CUTTING IS NOT SCHEDULED, INSTALL NEW CONDUITS AND PIPES IN EVERY CLSE, AND NEW DUCT 
WHERE POSSIBLE ABOVE EXISTING CEILING. REMOYE EXISTING CEILING AS INECESSARY. AFTER INSTALLATION OF 
CONCEALED WORK, REINSTALL REMOYED CEILING AND PATCH AND REPINISH TO MATCH ADJACENT UNREMOYED CEILINGS. 
REPAIR ALL METAL SURFACES THAT HAVE BEEN CUT OR DAMAGED BY REMOYING ANY EXISTING RUST AND APPLYING 
OUR DALVARATION.

L. CLARRING AND GRUBBING

CLEARING OF TREES AND VECETATION ON THE SITE SHOULD BE HELD TO A MINIMUM. ONLY THE TREES NECESSARY FOR THE CONSTRUCTION OF THE FACILITY SHALL BE REDAYED. ANY DAMAGES TO PROPERTY OUTSIDE THE CONSTRUCTION LIMIT SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL: PROTECT EXISTING TREES, MEGISTAIN, LANDSCHING MATERIALS AND SITE IMPROVEMENTS NOT SCHEDULED FOR CLEARING OR REMOVAL WHICH MOCH BE DIAMAGED BY CONSTRUCTION ACTIVITIES. TRIAL EXISTING TREES AND VECETATION AS RECOMMENDED BY THE ARBORST FOR PROTECTION USING CONSTRUCTION. CLEAR AND GRUE STUMPS, VEGETATION, DEBRIS, RUBBISH, DESIGNATED TREES AND SITE IMPROVEMENT.

CLEAR AND GRUE STUMPS, VEGETATION, DEBRIS, RUBBISH, DESIGNATED TREES AND SITE IN STEPP AND STOOKPILE TOPSOIL.

PROTECT TEMPORARILY ADJACENT PROPERTY, STRUCTURES, BENCHMARKS AND MONUMENTS. MARK DESIGNATED TREES AND VEGETATION DURING CONSTRUCTION ACTIVITIES.
PROMDE TEMPORARY EROSON CONTROL SATIATION CONTROL AND DUST CONTROL.
REMOVE AND LECALLY DISPOSE OF CLEARED MATERIALS.

2 EXCAVATION AND BACKFILL
ALL SUITABLE BORROW MATERIAL FOR BACK FILL OF THE SITE SHALL BE INCLUDED IN THE BID. EXCESS TOPSOIL AND
UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF SITE AT LOCATION APPROVED BY COVERNING AGENCIES PROOF TO DISPOSAL.

ALL SITE FILL SHALL MEET SELECTED FILL STANDARDS AS DEFINED BY THE OWNER'S REPRESENTATIVE ON THE DRAWNOS OR GEOTECHNICAL REPORT RECOMMENDATIONS.

DRAWINGS OR GEOTECHNICAL REPORT RECOMMENDATIONS.
THIS PROJECT INCLUDES:

- EXCANATION, TRENCHING, FILLING, COMPACTING AND GRADING FOR STRUCTURES, SITE IMPROVEMENTS, ACCESS

ALL MATERIALS FOR SUBBASE, DRAINAGE FILL, BACK FILL AND GRAVEL FOR SLABS, PAVEMENT AND ROCK EXCAVATION WITHOUT BLASTING.

 ROCK EXCAVATION WITHOUT BLASTING.
 SUPPLY OF ADDITIONAL MATERIALS FROM OFF SITE AS REQUIRED.
 REMOVAL AND LEGAL DISPOSAL OF EXCAVATED MATERIALS AS REQUIRED.
 LAYERS THAT REQUIRE COMPACTION SHALL HAVE A MAXIMUM THICKNESS OF 6 INCHES.
 COMPACTING UNDER STRUCTURES, BUILDING SLABS, STEPS, PAVIDLENT AND WALKWAYS SHALL BE 95% MAXIMUM SITY, ASTAIL D-1557, TESTED IN EACH OF THE COMPACTING LAYERS AT EACH COMPACTING SITE, OR AT LEAST IN EACH 100CU. PER YARDS OF MATERIAL VOLUME. HE COMPACTING UNDER LAWNS OR UNPAVED AREAS SHALL BE 85% MAXIMUM DENSITY, ASTM 01557. THE COMPACTED LAYERS SHALL NOT EXCEED 8 INCHES.

AREAS THAT DO NOT MEET ASTM D-1557 REQUIREMENTS MUST BE RECOMPACTED AT THE CONTRACTOR'S EXPENSES

AREAS THAT DO NOT MEET ASTU D-1557 REQUIREDENTS MUST BE RECOMPACTED AT THE CONTRACTOR'S EXPENSES.
ALL TRENCH EXCURATIONS AND JAY PROURED SHEETING AND SHORING SHALL BE DONE IN ACCORDANCE WITH OSHA
REGULATIONS FOR CONSTRUCTION.
WHERE UNSTABLE SOIL CONDITIONS EDST, LINE THE GRUBBED AREAS WITH GEOTEXTILE FABRIC (MIRAT 500X OR
APPROVED EQUIVALENT) PROR TO PLACING FILL OR BASE MATERIAL.
THE USE OF EXPLOSIVE IS PROHIBITED ON SITE.
ALL EXCANATION ON WHICH CONCRETE IS TO BE PLACED SHALL BE SUBSTANTIAL HORIZONTIAL, UNDISTURBED AND BE
FREE FROM LOOSE MATERIAL AND EXCESS GROUND WATER. DENATERING FOR EXCESS GROUND WATER SHALL BE

PROMDED IF REQUIRED. 13. ANY EXCAVATION OVER THE REQUIRED DEPTH SHALL BE FILLED WITH OTHER MECHANICALLY COMPACTED GRANILIAN MATERIAL OR CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE FOUNDATION. CRUSHED STONE MAY BE US STABILIZE THE BOTTOM OF THE EXCAVATION. STONE, IF USED, SHALL NOT BE USED AS COMPILING CONCRETE

BACK FILL USE APPROVED MATERIALS CONSISTING OF LOAM, SANDY CLAY, SAND, GRAVEL OR SOFT SHALE AND SHALL BE FREE FROM CLOOS OR STOMES OWER 2 \( \frac{N}{2} \).

AFTER COMPLETION OF THE FOUNDATION AND OTHER CONSTRUCTION BELOW GRADE AND BEFORE BACK FILLING, ALL EXCAVATIONS SHALL BE CLEM OF UNSUITABLE MATERIALS SUCH AS VEGETATION, DEBRIS, TRUSH AND ANY FOREIGN

MATERIAL MATICIPAL.

J. DORINAGE
THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE AWAY FROM BULLDING OR EQUIPMENT ON THE
SITE AT ALL TIMES, SILT AND EROSION CONTROL SHALL BE MAINTAINED ON THE DOWNSTREAM SIDE OF THE SITE AT ALL
TIMES, MAY DAMAGE TO ADJACENT PROPERTIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSES.
THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEMATERING AND THE MAINTENANCE OF SURFACE DRAINAGE DURING THE
OWNERS OF MEMORY.

any drain, field tile or drainage structure encountered during construction shall be returned to its original or better conditions after construction and be noted on the record document

3.4 EROSON CONTROL MEASURES MAY BE REQUIRED IN ADDITION TO THOSE SHOWN ON DRAWNESS WHERE DETERMINED

1. CONTRACTOR SHALL PROVIDE ALL EROSON AND SEDIMENTATION CONTROL MEASURES AS REQUIRED BY LOCAL CODES AND ORDINANCES TO PROTECT EMBANIMENTS FROM SOIL LOSS AND TO PREVENT ACQUIVILIATION OF SOIL AND SILT IN STREAMS AND DRAWNES PATHS LEAVING THE CONSTRUCTION AREA. THIS MAY INCLUDE SUCH MEASURES AS SILT FENCE, STRAW BALES, SEDIMENT BRARBERS AND CHECK DAMS.

2. EROSION CONTROL MEASURES MAY BE REQUIRED IN ADDITION TO THOSE SHOWN ON DRAWNES WHERE DETERMINED

NECESSARY BY ACTUAL SITE CONDITION PRIOR TO ANY OTHER CONSTRUCTION, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT EACH ENTRY TO OR FROM THE SITE

TO OR FROM THE SITE.

THE CONSTRUCTION EXIT SHALL BE MANTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD
ONTO PUBLIC ROSH TO WAYS. THIS MAY REQUIRE PERSONE TOP DRESSING WITH STONE AS CONDITIONS DELIAND,
SEPAR AND/OR CLEAN OUT OF ANY STRUCTURES USED TO TRAP SERMEMENS. ALL MATERIALS SPILLED, DROPPED
WASHED OR TRACKED FROM VEHICLE OF SITE OUTO ROMOMAY OR HITO STOSM DRAINS MUST BE ROMOVED.
MINEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION ENTRANCES/EXITS, ALL PERMETER ROSHON CONTROL
DEMOSS AND STORMMATER MANAGEMENT DEVICES SHALD EN INSTITLLED PRIOR TO ANY OTHER CONSTRUCTION.
ALL SILT BARRIERS MUST BE PLACED AS ACCESS IS OBTAINED DURRING CLEARING, NO CRAINING SHALL BE DONE UNTIL
SILT BARRIER INSTITLLATION AND DETERMINEN AFCENTISES ARE CONSTRUCTED. SILT BARRIERS SHALL BE PLACED AS ALL
DOWNSTREAM TOE OF CUT AND FILL SLOPES.

THE LOCATION OF SOME EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM WHAT IS SHOWN ON THE
APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE
PATTERNS. IT IS THE CONTRACTOR RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR DRAINAGE PATTERN CREATED
AT VAROUS STAGES DURING CONSTRUCTION. ANY DIFFICULTY IN CONTROL EROSION DURING ANY PHASE OF
CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER CREATED
AT VAROUS STAGES DURING CONSTRUCTION. ANY DIFFICULTY IN CONTROL EROSION DURING ANY PHASE OF
CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER MEMBERALE FIT EXPOSED FOR A

AT VAROUS STAGES DURING CONSTRUCTION. ANY DEFOCULTY IN CONTROL EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY, ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN (7) DAYS SHALL BE STABILIZED WITH TEMPORARY SEEDING.

8. THE CONSTRUCTION OF THE STEE WILL INITIALE WITH THE INSTALLATION OF EROSION CONTROL MEASURES SUFFICIENT TO CONTROL, SEDIMENT DEPOST AND EROSION. ALL SEDIMENT CONTROL WILL BE MANTIANED UNTIL ALL UPSTREAM GROUND WITHIN THE CONSTRUCTION AREA HAS BEEN CONFLICTELY STABILIZED WITH PERMANENT VEGETATION AND ALL ROADS AND DRAFWANS HAVE BEEN COMPLETED. THE CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.

9. FAULURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB STEE UNTIL SUCH MEASURES ARE CORRECTED.

UTILIZED FOR EROSON CONTROL.

11. ALL OPEN SWALES MUST BE GRASSED, AND RIP-RAP MUST BE PLACED AS REQUIRED TO CONTROL EROSON. ALL CUT
AND FILL SLOPES MUST BE SURFACE ROUGHENED AND VECETATED WITHIN (7) DAYS OF CONSTRUCTION.

12. SEEDING AND MUCHINE OF THE SITE MULL BE ACCOMPLISHED AS SOON AS POSSIBLE ATTER COMPLETION OF THE SITE
DEVELOPMENT. THE CONTRACTOR IS RESPONSIBLE FOR PROMOTING AND MAINTAINING AN ADEQUATE COVER OF

VEGETATION OVER THE SITE FOR A PERIOD OF ONE YEAR.
SEEDBED PREPARATION: AREA TO BE SEEDED SHALL BE LOOSE AND FRABLE TO A DEPTH OF AT LEAST 3". THE TOP LAYER SMALL BE LOOSENED BY RAKING, DISKING OR OTHER ACCEPTABLE MEM'S BEFORE SEEDING OCCURS. IN LIEU SOIL TEST RESULTS, APPLY SO LIBS. OF DOLOMING LIMESTONE AND 25 LBS. OF 10-10-10 FERTILIZER PER 1000 ST HAPROW OR DISK LIMESTONE AND 25 LBC. OF THE SLOPES LATTER THAP PROVIDED IN LIMESTONE, AND FERTILIZER FIRST DISK ST. OF AT LEAST 3" ON THE SLOPES LATTER THAP

14. SEEDING: APPLY 5-6 LBS. PER 1000 SF. OF KENTUCKY 31 TALL FESCUE. APPLY SEED UNFORMLY WITH A CYCLONE SEEDED DRILL CULTIPACKER SEEDER OR HYDROSEDER (SLURRY INCLUDES SEEDS AND FERTILIZER RECOMMENDED ON STEEP SLOPES ONLY) ON MOST, FIRM SEEDBED. MAXIMUM SEED DEPTH SHOULD BE 1/6" WHEN USING THE HYDROSEEDER METHOD. URBIGATE UNTIL VEGETATION IS FIRMLY ESTRAUSHED IF SOIL MOSTRIE IS NOT SUFFICIENT TO

SUPPRIT ADMINISTRATION AREAS, ALL SLOPES STEEPER THAN 2.5:1 AND LENGTH OF 10 FEET OR GREATER, AND CUTS AND FILLS WITHIN STREAM BUFFER, SHALL BE STABILIZED WITH THE APPROPRIATE EROSION CONTROL MATTING OR BLANKETS. BRAPAP SHALL BE CLEAN, HARD, SOUND, DURBLE, UNIFORM IN QUALITY, AND FREE OF MY DETRINIETIAL QUANTITY OF SOFT, FRANCE, THIN, ELONGATED OR LAMINATED PIECES, DISINTEGRATED MATERIAL, ORGANIC MATTER, OIL, ANDLI OR

OTHER DELETERIORIS SUBSTANCES 5 GRADING
THE CONTRACTOR SHALL SEED THE GRADED AREAS PER DOT STANDARDS. AN SI GEOSOLUTIONS LAND LOCK CS2
EROSSON CONTROL LANKET SHALL BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS.
THE CONTRACTOR SHALL PROMDE ADEQUATE WATERING TO ENSURE FAVORABLE GROWTH OF VEGETATION FOR A PEROD
OF 6 MONTHS.

ALL GROUNDING, UTILITIES AND UNDERGROUND EQUIPMENT EXPOSED BY GRADING SMALL BE REPLACED AND PROPERLY CONNECTED TO THE EXISTING PORTION OF THE EXISTING SYSTEM PER APPROVED CODES AND JURISDICTION

REQUIREMENTS.
THE GROWN TOLERANCE FOR FILL UNDER BUILDING SLABS SHALL BE ±½ INCH MEASURE WITH 10 FT STRAGHTEDGE.
THE GROWN TOLERANCES OUTSIDE BUILDING LINES SHALL BE ±1 INCH FOR LAWNS, UNPAVED AREAS AND WALKS; AND
±½ NICH UNDER PAVELENT.
THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING AND RE-GRADING ROADWAY AND/OR FIELD FOLLOWING THE

ANY FILLS PLACED ON EXISTING SLOPES THAT ARE GREATER THAN 10 HORIZONTAL TO 1 VERTICAL SHALL BE PROPERLY

ANT FILLS PLACEL ON EXISTING SLOPES THAT ARE GREATER THAN TO HORIZONTIAL TO 1 VERTICAL SHALL BE PROPERLY BENCHED INTO THE EXISTING SLOPE.

THE CONTRACTOR SHALL TIME SPECIAL CARE TO RE-GRADE THE SITE AND MONITOR THE STABILITY OF EMBANGMENT STEEPER THAN 1:3 AT ALL TIME DURING CONSTRUCTION.

PROTECT DISTING CRAVES SURFACING AND SUB-GRADE IN AREAS WHERE EQUIPMENT LOADS WILL OPERATE. USE PLANGING OR OTHER SUITABLE MATERIALS DESCRIBE TO SPREAD EQUIPMENT LOADS. REPAIR DAMAGE TO EXISTING GRAVEL SURFACING OR SUB-GROUE WHATE SUCH DAMAGE IS DUE TO THE CONTRACTOR OF PERATORS. DAMAGED GRAVEL SURFACING OR SUB-GROUE WHERE SUCH DAMAGE IS DUE TO THE CONTRACTOR OF PERATORS. DAMAGED GRAVEL SURFACING SHALL BE THE SAME TRANSPACE.

CONCRETE

CONTRAL
DESIGN AND CONSTRUCTION OF ALL CONCRETE ELEMENTS SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING

APPLICABLE CODES: ACI 301 — SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE

ACI 544.1R - BUILDING COUR REQUIREMENTS FOR REIMFORCED COMPRETE
ACI 544.1R - FIBER REIMFORCED CONORETE (IF SPECIFIE)
ACI 544.2R - MEASUREMENT OF PROPERTIES OF FIBER REIMFORCED CONCRETE (IF SPECIFIE)
ACI 544.2R - MEASUREMENT OF PROPERTIES OF FIBER REIMFORCED CONCRETE
CONCRETE SHALL BE NORMAL MEIGHT, 6% AIR ENTERWIND (+-1.5%) WITH A MAXIMUM OF 4 SLU
MINIMUM 28 DAY COMPRESSIVE SHALL BE 17.
THE FOLLOWING MATERIALS SHALL BE USED:
- POPELAND CHIEFT
- POPELAND CHIE SLUND AND HAVE A

ASTN C 150, TYPE I ASTN A 185 & A 615 ASTN C 33 DRINKABLE PORTLAND CIMENT: REINFORCEMEN NORMAL WEIGHT AGGREGATE: WATER: ADMIXTURES: NON-CHI ORIDE CONTAINING

\* ADMINISTRATE OF THE PROPERTY OF THE PROPERTY

AND ALL HOOKS SHALL BE STANDARD, UNO. E FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE.

CONCRETE CAST AGAINST EARTH: 3 IN. CONCRETE EXPOSED TO EARTH OR WEATHER:

CONCRETE EXPOSED TO EARTH OR WEATHER:

#6 AND LARGER 2 IN.

#5 AND SAULLER AND WHY: 1 ½ IN.

CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:

SLABS AND WALL ½ IN.

BEAUS AND COLUMNS: 1 ½ IN.

A CHAMIER OF ½ IN SHALL BE PROMOED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 10. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHORS SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED

I. INSTALLATION OF CONCRETE EXPANSION/MEDGE ANCHORS SHALL BE PER MANUFACTURER'S WRITTEN RECOGNALINDED PROCEDURE. THE ANCHOR BOOL, TOWNE OR ROO SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDDIENT DEPTH OR AS SHOWN ON THE DRAWNINS. NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRET.

CURRING COMPOUNDS SHALL CONFORM TO ASTIN C-309.

ADMINTURE SHALL CONFORM TO THE APPROPRIATE ASTAIN STANDARD AS REFERENCED IN ACI-301.

DO NOT WELD OR TACKINGLE REMPROPERIOR STEEL.

ALL DOWELS, ANCHORS BOLTS, EMBEDMENT STEEL, ELECTRICAL CONDUITS, PIPE SLEEVES, GROUNDS AND ALL OTHER EMBEDDED THES AND FORMED DETAILS SHALL BE IN PLACE BEFORE START OF CONCRETE PLACEMENT.

LOCATE ADDITIONAL CONSTRUCTION JOINTS REQUIRED TO FACILITATE CONSTRUCTION AS ACCEPTABLE TO THE ENGINEER.

PLACE REINFORCEMENT CONTINUOUSLY THROUGH JOIN REINFORCEDENT SHALL BE COLD BENT WHEN BENONG IS REQUIRED.
PLACE CONCRETE IN A UNIFORM MANNER TO PREVENT THE FORMATION OF COLD JOINTS AND OTHER PLANE OF WEAKINESS. WERRATER TO ORDERE TO FULLY EMBED REINFORCING. DO NOT USE VIBRATOR TO TRANSPORT CONCRETE THROUGH CHUTES OR FORMWORK.

INROUGH CHUIS OR FORWING.

DO NOT PLACE CONCRETE IN PONDING WATER, ICE, OR ON FROZEN GROUND.

FOR COLD WEATHER AND HOT WEATHER CONCRETE FUCCINENT, CONFORM TO APPLICABLE ACI CODES AND RECOMMISHOATIONS. IN EITHER CASE, MATERIALS CONTAINING CHLORIDE, CALCIUM, SALTS, ETC. SHALL NOT BE USED. PROTECT FRESH CONCRETE FROM WEATHER FOR 7 DAYS IMMINUM. FIBER REINFORCED CONCRETE MIX, IF SPECIFIED, SHALL INCLUDE 1 1/2 LBS OF FIBER PER CUBIC YARD.

REV DATE DESCRIPTION MAY 1 0 2013 EMMANUEL POULIN

1 05/09/13 REVISED PER COMMENTS

0 10/30/12 ISSUED FOR PERMIT

ncorporated

FL COA!

CC CHECKED BY: JD

300 CROWN OAK CENTRE DRIVE

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26983

INTERNATIONAL &

IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE ACTING NORTH THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER TO ALTE WRITING, AW SOLUTIONS, INC. DISCLAIMS ALL LIABILITY ASSOCIATED WITH THE REUSE, ALTERATION OR MODIFICATION OF THE CONTENTS HEREIN.

SITE#:

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SFL63\_2

421 NW 12TH STREET FORT LAUDERDALE, FL 33311

SHEET TITLE:

**SPECIFICATIONS** 

SHEET NUMBER

SP1

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JUNCTION BOXES: JUNCTION BOXES SHALL BE A MINIMUM SIZE OF 4 INCHES SQUARE BY 1-1/4 INCHES DEEP.

SUPROVINOUS SUPPORT.

PROVIDE APPROPRIATE WEATHERPROOFING MATERIALS FOR PENETRATIONS NEEDING TO BE SEALED FROM POTENTIAL WAITER MITRUSION. PROVIDE FIRE-PROOF MATERIALS FOR PENETRATIONS REQUIRING A FIRE RATED SEAL. REFER TO CUITING AND PATCHING NOTES UNDER SECTION 1 — CENERAL.

IF ANY ROOFING WORK IS TO BE PEDFORMED, THE CONTRACTOR SHALL USE THE BUILDING OWNER'S APPROVED ROOFING CONTRACTOR TO PREVENT VOIDING ANY EXISTING ROOFING WARRANTIES. ANY DAMAGE TO THE EXISTING ROOFING MEMBRANE SHALL BE REPAIRED IMMEDIATELY TO AVOID MOSTURE MITRUSON INTO THE BUILDING SHELL GENERAL PROVIDE ALL CUITING, DRULING, ITTING AND PATCHING RECESSARY FOR ACCOMPLISHING THE WORK, THIS INCLUDES REJOVAL AND REPLACEMENT OF DEFECTIVE WORK AND WORK NOT CONFORMING TO THE REQUIREMENTS OF

REPAIRS: REPAIR ANY AND ALL DAMAGE TO WORK OF OTHER TRADES CAUSED BY CUTTING AND PATCHING OPERATIONS,

ATCHING APPEARANCE OF EXISTING CONSTRUCTION.

MAIGHING REPLAYMENTS OF EXPERIENCE AND ASSESSMENT OF THE MAIGHT OF THE M

USING SKILLED MECHANICS OF THE TRADES INVOLVED.

DO NOT CUIT MAJOR STRUCTURAL ELEMENTS WITHOUT APPROVAL. PATCHING SHALL BE OF QUALITY EQUAL TO AND OF

NO BX, NC OR ROWER CASE SHALL BE PERMITTED.

EACH END OF EVERY POWER, GROUNDING AND IT CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-COOED INSULATION OF ELECTRICAL THE (SAI BEAND, 1/2 INCH PLASTIC ELECTRICAL TAP WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA AND MATCH EXISTING INSTALLATION REQUIREMENTS. ALL TE WIRPS SHALL BE CUT FLUSH WITH A PROPROVED CUTTING TOOL, REMOVE SHAPE DECIS.

ALL COMDUST SYZES SPECIFIED IN THIS DOCUMENT WERE DONE SO TAKING INTO ACCOUNT THE USE OF COPPER CONDUCTIONS.

CONDUCTORS.

7. EICCIRCAL SERVICE
GENERAL COMPLY WITH AND CO-ORDINATE ALL REQUIREMENTS OF THE UTILITY COMPANY.
SHORT CIRCUIT RATINGS: PROVIDE EQUIPMENT WITH HIGHER FAULT CURRENT RATINGS AS NEEDED TO MATCH UTILITY
COMPANY ANALAGE FAULT CURRENT.
CONTRACTOR TO REPRY UTILITY CO. FAULT CURRENT AND ENSURE THAT ALL EQUIPMENT MEETS FAULT CURRENT (AT A
MINIMUM ALL COMPINENT TO BE 10,000 AC).
THE CONTRACTOR IS RESPONSIBLE FOR MAKING ARRANGEMENTS WITH THE ELECTRIC UTILITY RELATINE TO A TIMELY
INSTALLATION OF THE NEW SERVICE AND PAYING ALL ASSOCIATED FESS.
DEMITIFICATION: IDENTITY SERVICE DISCONNECTION MEANS WITH PERMANENT NAMEPLATE.
THE LOCATION SHOWN FOR A UTILITY POLE OR CONNECTION TO NEW UTILITIES IS FOR CONCEPTUAL USE ONLY. THE
CONTRACTOR SHALL COORDINATE THE ACTUAL LOCATION WITH THE ELECTRIC UTILITY.
LOCATION AND ARRANGEMENTS: DRAWINGS INDICATE DUAGRAMMATICALLY THE DESIRED LOCATION OF EQUIPMENT,
FIXTURES, OUTLETS, ETC., AND ARE NOT TO BE SCALED. PROPER JUDGMENT MUST BE EXERCISED IN THE EXECUTION
TO ENSURE THE BEST POSSIBLE INSTALLATION.
PANEL AND DESTINBUTION BORND IDENTIFICATION. SWITCHERDARDS, PANELBOARDS, TRANSFORMERS AND DISTINBUTION
SECTIONS SHALL BE IDENTIFIED WITH ENGRAVED, WHITE ON BLACK, LAMINATED, RIGD PHENOLIC NAMEPLATES WITH 1/4
INCIDENTAL SERVICE.

INCH CHARACTERS, SECURELY AFTIKED TO FACE OF CABINET.

11. TILEPHONE SERVICE

1. GENERAL: INSTALLATION SHALL BE IN ACCORDANCE WITH TELEPHONE UTILITY COMPANY'S RULES AND REGULATIONS.

2. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ARRANGEMENTS WITH THE TELEPHONE UTILITY RELATIVE TO A TIMELY INSTALLATION OF THE INCOMING TELEPHONE SERVICES AND PATING ALL ASSOCIATED FEES.

3. METALLIC CONDUIT OR TUBING FOR TI LINES SHALL BE BONDED TO GROUND ON BOTH EDIOS.

1. THE LOCATION SHOWN FOR A TELEPHONE POLE OR CONNECTION TO THE TELCO DEADAR IS FOR CONCEPTUAL USE ONLY. THE CONTRACTOR SHALL COORDINATE THE ACTUAL LOCATION WITH THE TELEPHONE UTILITY.

11.9 CHECKOUT. TESTING AND AQUISTING

1. CRRECTION/REPLACEMENT: AFTER TESTING BY CONTRACTOR, OWNER OR ENGINEER, CORRECT ANY DEFICIENCIES AND REPLACE MATERIALS AND EQUIPMENT SHOWN TO BE DEPECTIVE OR UNABLE TO PERFORM AT DESIGN OR RATED CAPACITY.

CAPACITY.

POWER CONDUCTORS: CONTRACTOR SHALL CONDUCT A CONTINUITY AND INSULATION TEST ON CONDUCTORS BETWEEN SERVICE DISCONNECT SMITCH AND LOAD CENTER.

WHICH SITE POWER IS DERIVED FROM A 3-PHASE SOURCE, LOAD READINGS WILL BE TAKEN AND RECORDED TO MAINTAIN A BALANCED LOAD AT THE PRIMARY SOURCE. RECORDS SHALL BE RETURNED TO THE OWNER'S

REPRESENTATIVE.

11.10 PRACENAL SISTEMS / CONDUIT

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11.10 PROPRESOUND CONDUIT SHALL BE SCHEDULE 40 PVC CONDUIT BEFORE RSING ABOVE GRADE OR CONCRETE SLAB.

12.00 CALVANIZED STEEL CONDUIT CALVANIZED STEEL (RGS) CONDUIT OR SCHEDULE 80 PVC CONDUIT.

2. GRS CONDUITS, WHEN SPECIFED, SHALL MEET U.—8 FOR GALVANIZED STEEL ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THEOLOGY BIOD CONDUIT.

3. ELECTRICAL METALLIC TUBRING (EIT) OR RIGID, NONMETALLIC CONDUIT (RIGID PVC SCHEDULE 40, OR RIGID PVC SCHEDULE 40) CALVANIZED STEEL ALL FITTINGS SHALL BE SUITABLE FOR SCHEDULE SIDE FOR EXPOSED INDOOR LOCATIONS.

5. ELECTRICAL METALLIC TUBRING (EIT) OR RIGID NONMETALLIC CONDUIT (RIGID PVC SCHEDULE 40) SHALL BE USED FOR CYNMYSH PD INDOOR LOCATIONS.

CONDUCTED WHOOLE LOCATIONS.

UNQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.

MBRATION OCCURS OR FLEXIBILITY IS REEDED.
PULC AND CAP EACH END OF SPARE AND EMPTY CONDUITS AND PROVIDE TWO SEPARATE PULL STRINGS — 200 LB.
TEST POLYETHYLENE CORO.
ALL CONDUIT ENDIOS SHALL BE MINIMUM OF 24 INCH RADIUS.
ALL METALLIC RACEMYNS SHALL BE GROUNDED FER NEC.
THE CONTRACTOR SHALL FELL VERSY THE SEST AND LEAST DISRUPTIVE ROUTING OF CONDUITS, CABLE TRAYS AND DUCTS. CONDUIT ROUTING IS SHOWN AS A GUIDE ONLY, ACTUAL CONDUIT PLACEMENT IS TO BE DONE IN A PROFESSIONAL MANNER.

PROFESSIONAL MANIER.

1.1.11 BELOW GROCE

1. THIS SITE INCLUDES NOW CRITICAL UNDERGROUND ELECTRIC, TELEPHONE AND OTHER SERVICES IN THE WOMITY OF OTHER UNDERGROUND SERVICES AND EQUIPMENT SUPPORTS. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AXIOD SERVICE DISSUPTION TO THESE FACILITIES. THE CONTRACTOR SHALL ALSO CONTRACT ELECTRIC AND TELEPHONE, AND ALL OTHER APPROPRIATE ACENCIES PROR TO EXCAVATION AT THIS SITE.

2. PROR TO EXCAVATION, A UTILITY MANE OUT SHALL BE ONNE TO LOCATE DESTINE UNDERGROUNG UTILITIES. ALL UNDERGROUND UTILITIES MUST BE LOCATED AND MARKED OUT PROR TO ANY EXCAVATION WORK BEING PERFORMED. PHOTOS SHALL BE TAKEN OF ALL UNDERGROUND WORK AND GIVEN TO THE CARREE DURING THE SITE'S HANDOFF.

3. ALL TRENCHING AND EXCAVATION WITHIN EDISTING COMPOUNDS MUST BE PERFORMED BY TAKEN IN ACCORDANCE WITH THE OWNER'S SPECIFICATIONS. ANY OTHER METHODS OF DIGGING MUST RIFST BE APPROVED BY THE CONSTRUCTION MANAGER.

MANAGER.
ALL LOW VOLTAGE CONDUIT (600Y OR LESS) SHALL HAVE A MINIMUM BURAL DEPTH OF 24". ALL HIGH VOLTAGE
CONDUIT (600Y OR MORE) SHALL HAVE A MINIMUM BURAL DEPTH OF 36".
UNDERFROUND CONDUIT SHALL BE ENCASED IN REINFORCED CONCRETE IN AREAS OF VEHICLE TRAFFIC. CONCRETE
ENCASSIVERY SHALL BE "INHIMUM ALL ARCHUM AND BETWEEN CONDUITS.
ALL BURRED CONDUIT SHALL BE IDENTIFIED WITH ELECTRICAL MARKER TAPE. TAPE SHALL BE PLACED 12" ABOVE

CONDUIT FOR EASY IDENTIFICATION. 11.12 EQUIPMENT

THE MAIN CIRCUIT BREAKER SHALL BE RATED FOR STANDARD ALC. RATING HIGHER THAN INCOMING FOUIPMENT ALC. ALL EQUIPMENT SHALL BE BRACED FOR STANDARD ALC, RATING HIGHER THAN INCOMING FOR UTILITY CO.
THE CONTRACTOR SHALL PROMDE AN ITEMIZED CERTIFICATION TO THE CARRER OF ALL EQUIPMENT AND RELATED
HARRIWARE, SPECIFIED TO BE PURCHASED AND INSTALLED BY THE CONTRACTOR, WHERE ORDERED WITHIN 24 HRS OF

THE CONTRACTOR SHALL PROMOE AN TIBUAZED CERTIFICATION TO THE CARRER OF ALL EQUIPMENT AND RELATED HARDMANE, SPECIFIED TO BE PURCHASED AND INSTALLED BY THE CONTRACTOR, WHERE ORDERED WITHIN 24 HRS OF THE MOTICE TO PROCEED.

ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH ITS VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACTY PATHOS AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOURD AND CIRCUIT ID'S).

METAL RECEPTALE, SWITCH AND DEVCE BOXES SHALL BE GALVANAZED, EPOXY-COATED OR HON-CORRODORS; SHALL MEET OR EXCEED UL SHAA AND NEBAA OS 1; AND BE RATED NEBA 1 (OR BETTER) INDOORS OR WEATHER-PROTECTED (MP OR BETTER) OUTDOORS.

NONRETALLC RECEPTALE SWITCH AND DEVCE BOXES SHALL MEET OR EXCEED NEBA OS 2, AND BE RATED NEBA 1 (OR BETTER) INDOORS OR WEATHER-PROTECTED (WP OR BETTER) OUTDOORS.

11.13 TRANSPORT WATAGE SURGE SUPPRESSION (TVSS)

1. TYSS DEVICES FOR AC POWER SHALL BE INSTALLED IN ALL EXISTING FACILITIES THAT ARE MISSING TVSS DEVICES OR AVE UNSUITABLE TVSS DEVICES.

THE AC POWER COMMON MODE SURGE SUPPRESSOR SHALL BE CONNECTED TO THE COMMERCIAL POWER INPUT SIDE THE ACTIVITY COMMERCIAL POWER SUPPRESSOR SHALL BE CONNECTED TO THE COMMERCIAL POWER WHAT SIDE OF THE MANUAL TRANSFER SMITCH.

IN MARKETS WITH LIGHTNING ZONE > OR = TO 4, RF TVSS DEVICE SHALL BE INSTALLED AT THE ENTRANCE TO THE SHELTER OR AS CLOSE AS POSSIBLE TO THE BTS CABINET FOR OUTDOOR SITES, TO PROTECT AGAINST LIGHTNING AND

transient voltages. 4. A 11 transport tyss device shall be installed at all sites between the Niu and the Bis.

13 - RF AND TOWER APPLICITIONANCE INSTALLATION RELATED NOTES
13.1 COMPAL CABLE REQUIREMENTS.
13.1 COMPAL PROVIDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY FOR RECEIVING, INSTALLING, TESTING, AND
ADJUSTING ANTIDMA CABLES FROM THE ANTIDMA TO THE CONNECTIONS AT THE BASE TRANSMISSION SYSTEM (BTS).
THIS SHALL INCLUDE ALL EQUIPMENT SHOWN OR REQUIRED FOR A COMPLETE OPERATION SYSTEM. AMERINA
CABLES, CONNECTORS, AND FITTING SHALL BE THIRD PARTY FURNISHED COMPONENTS AS SHOWN ON THE BILL OF

2. CABLE HANGERS SHALL BE INSTALLED AT A MAXIMUM 4' SPACING.

COAXIAL CABLE LENGTHS SHALL BE FIELD MEASURED. INSTALLER SHALL NOTIFY CARRIER PRIOR TO PURCHASE OF CABLE OF THE OVERALL LENGTH REQUIRED.

COAXIAL CABLE TYPE AND DAMAETER SHALL BE VERRIED WITH CARRIER.

COAXIAL CABLE SHALL BE LEAGLED IN ACCORDANCE WITH CARRIER ELECTRICAL MATERIALS AND METHODS SPECIFICATIONS. ALL MAIN CABLES WILL BE COLOR CODED AT FOUR LOCATIONS: A) AT ANTENNA PROOF TO JUMPER, B) AT THE BOTTON OF THE TOWER, C) EXTERIOR PART OF THE WAVE CUIDE 'ENTIFY PORT (AT THE SHELTER/CARNET' WALL), (b) INTERIOR OF THE SHELTER/CARNET'.

PROVIDE AT LESST 6' OF SLACK IN THE MAIN COAXIAL CABLES AT THE ANTENNA END TO PROVIDE FOR FUTURE CONNECTOR PREPLACEMENT.

PROMOE AT LEAST 6' OF SLACK IN THE MAIN COADAL CABLES AT THE ANTENNA END TO PROVIDE. FOR FUTURE CONNECTOR REPLACEMENT.
INSTALL CONNECTORS TO COADAL CABLE AT BOTH ENDS (ANTENNA END AND BTS LOCATION).
UPON SUCCESSFUL COMPLETION OF THE SWEEP TEST, THE CONTRACTOR SHALL PROVIDE A WEATHERMORT SEAL ON THE COAX CABLES.
THE MINIMUM BENDING PROTUS FOR ALL ANTENNA CABLES SHALL BE AS SHOWN BELOW OR PER THE MANUFACTURER, WHICHEVER IS MORE CONSERVATIVE:

IN AIR OR CABLE TRAY IN CONDUIT

CABLES SHALL BE INSTALLED WITH THE MINIMUM NUMBER OF BENDS. CABLE SHALL NOT BE LEFT UNTERMINATED IN THE FIELD.

ALL MAIN CABLES WILL BE GROUNDED AT: A) THE ANTENNA, B) MIDDLE OF THE CABLE RUN IF OVER 200°, C) PROOR TO ENTERING EQUIPMENT SHELTER/CABRIET (MITHIN 1' OF ENTRY). GROUNDON RISTS — AFTER RISTALIATION OF GROUND STRAYS, THE CONNECTIONS SHALL BE MADE WEATHER TIGHT USING WEATHERPROOF KITS AS IDENTIFIED. GROUND PIGTALS SHALL BE BROUGHT OUT IN THE COMMINANCE DIRECTION FROM THE CONNECTION OT THE ANTENNA CABLE WITHOUT ANY SHAPP BENDS (MINIMUM RADIUS 10") AND CONNECTION SHALL BE MADE TO GROUNDING STSTEM.

13.2 ANTENNA RECURREMENTS.

1. AZIAUTHS ARE ORBITED CLOCKIMSE FROM TRUE NORTH.

2. CONFRACTOR SHALL VERBY ANTENNA TYPE, AZIMUTHS, AND DOWNTILTS WITH THE CARRIER PRIOR TO CONSTRUCTION.

3. THE MINIMUM DISH RAD CENTER HIGHT ABOVE THE ROOF SHALL BE 6"-8".

TOWER CLIMBING SAFETY CUIDELINES
TOWER CLIMBING SAFETY CUIDELINES
TOWER CLIMBING TRAINING COURSE PER CONTRACT SPECIFICATIONS PROR TO WORK ON THIS STRUCTURE.
CONTRACTOR MUST COMPLY WHY THE STANDARD "RF POWER AND LOCKOUT/TAGOUT" PROCEDURES BEFORE ALLOWING

CUMBERS ON THIS STRUCTURE.
TOWER CUMBERS WILL NOT BE ALLOWED TO ACCESS TOWER IN ADVERSE WEATHER CONDITIONS, INCLUDING HIGH WINDS,

CONTRACTOR OR CUMBERS SHALL INNEDIATELY REPORT MY CLIMBING EQUIPMENT OR CONDITIONS JUDGED INADEQUATE

OR UNSAFE.

EMERGENCY NUMBERS SHALL BE POSTED ON SITE AND ADVERTIZED TO CLIMBERS BEFORE THE BEGINNING OF THE

SAFETY MEETINGS SHALL TAKE PLACE EVERY MORNING BEFORE THE WORK DAY BEGINS.

SITE SPECIFIC NOTES

1/2" 7/8"

CONSTRUCTION INCLUDES: INSTALLATION OF COMMUNICATION EQUIPMENT

MITENIAS AND MOUNT INSTALLATION ON STRUCTURE
THE PROFESSIONALS INVOLVED ON THIS PROJECT ARE AS FOLLOWS: AW SOLUTIONS, INC.
300 CROWN OAK CENTRE DRIVE
LONGWOOD, FL 32750
PHONE 407.260.0231

LEGEND AND ABBREVIATIONS
AND AUTHORITY HAVING JURISDICTION
AWG AMERICAN WIRE GAUGE

BARE COPPER WIRE
BASE TRANSMISSION SYSTEM
COAX ISOLATED GROUND BAR, EXTERNAL DIAMETER ELECTRICAL METALLIC TUBING

GLOBAL POSTIONING SYSTEM
MASTER ISOLATED GROUND BAR
NATIONAL ELECTRIC CODE, LATEST ADOPTED EDITION POWER PROTECTION CABINET

INTERNATIONAL &



300 CROWN OAK CENTRE DRIVE LONGWOOD, FL 32750 TEL: 407,260,023 FAX: 407.260.0749 FL COAF:

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THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER DOCUMENT, UNLESS EXPLICITLY AGREED TO BY AW SOLUT

SFL63 2 SITE#:

421 NW 12TH STREET FORT LAUDERDALE, FL 33311

SHEET TITLE:

SPECIFICATIONS

SHEET NUMBERS

SP2

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