	SHEET INDEX
NO.	DESCRIPTION
T1	TITLE SHEET
C1	SITE SURVEY
C1A	GENERAL NOTES
C2	OVERALL SITE PLAN
C3	DETAILED SITE PLAN
C4	ELEVATION VIEW
C5	DETAILS
C6	DETAILS
C7	SHELTER DETAILS
C8	FOUNDATION PLAN
E1	ELECTRIC & TELCO LAYOUT
E2	GROUNDING LAYOUT
E3	ELECTRIC & TELCO NOTES
E4	GROUNDING DETAILS

#### DRIVING DIRECTIONS

DIRECTIONS FROM NEAREST MAJOR CITY (UTICA, NY)

- HEAD EAST TOWARD ST PAUL ST
- USE THE LEFT 2 LANES TO TURN LEFT AT THE 1ST CROSS STREET ONTO ST PAUL
- 3. TURN LEFT AT THE 1ST CROSS STREET AT CUMBERLAND ST
- 4 TAKE THE INNER LOOP W RAMP
- TAKE I-490 E TO NY-332 S IN FARMINGTON. TAKE EXIT 44 FROM I-90 E
- MERGE ONTO INNER LOOP
- 7. USE THE LEFT LANE TO MERGE ONTO I-490 E TOWARD INNER LOOP
- 8. TAKE THE EXIT ON THE LEFT ONTO I-90 E
- 9. USE THE RIGHT 2 LANES TO TAKE EXIT 44 FOR NY-332 TOWARD CANANDAIGUA
- CONTINUE ON NY-332 S. TAKE NEW MICHIGAN RD, COOLEY RD, HICKOX RD, NY-21 S AND SENECA POINT RD TO MONKS RD IN CANANDAIGUA
- 11. CONTINUE ONTO NY-332 S
- 12. TURN LEFT ONTO NEW MICHIGAN RD 13. TURN LEFT ONTO N BLOOMFIELD RD
- 14. TURN RIGHT ONTO COOLEY RD
- 15. CONTINUE ONTO HICKOX RD
- 16. TURN RIGHT ONTO NY-21 S
- 17. TURN LEFT ONTO SENECA POINT RD 18. TURN RIGHT ONTO MONKS RD
- 19. DESTINATION WILL BE ON THE RIGHT

# **RG&E**

# NEW COMMUNICATIONS TOWER

SITE NAME

# RGE – ROCHESTER GAS & ELECTRIC

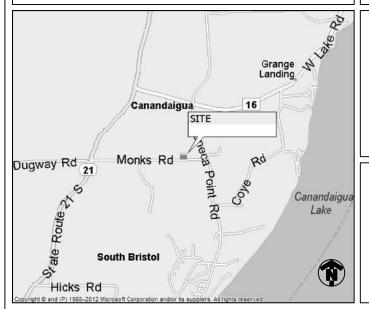
SITE ADDRESS 5850 MONKS ROAD CANANDAIGUA, NY 14424

STRUCTURE TYPE **MONOPOLE TOWER** 



UNDERGROUND SERVICE ALERT CALL TOLL FREE 1-800-962-7962

#### LOCATION MAP PROJECT TEAM





Phone: 518-690-0790 | Fax: 518-690-0793

www.infinigy.com

PROJECT MANAGER

#### **ENGINEER**

- HANDICAP ACCESS REQUIREMENTS ARE NOT REQUIRED
- FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
- FACILITY HAS NO PLUMBING OR REFRIGERANTS
- THIS FACILITY SHALL MEET OR EXCEED ALL FAA AND FCC REGULATORY REQUIREMENTS
- ALL NEW MATERIAL SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR UNLESS OTHERWISE NOTED. EQUIPMENT FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR

- INSTALLATION OF NEW COMMUNICATIONS TOWER
- INSTALLATION OF NEW EQUIPMENT SHELTER ON GRADE AND ASSOCIATED COAXIAL CABLING TO PROPOSED ANTENNAS
- · CIVIL SITE WORK

#### PROJECT SUMMARY

RGE-ROCHESTER GAS & ELECTRIC SITE NAME:

SITE ADDRESS: 5850 MONKS ROAD CANANDAIQUA, NY 14424

<u>S/B/L:</u> 153.00/1/35.00

ZONING DISTRICT:

SUBJECT PARCEL SIZE: 233'x200' (±1.06 ACRES)

COUNTY: ONTARIO COUNTY

SITE COORDINATES:

(NAD 83) LATITUDE: 42\* 45' 54.22" LONGITUDE: -77° 20° 28.39° (NAD 83) (AMSL) **GROUND ELEV.:** ±1197'

JURISDICTION:

PROPERTY OWNER: RG&E - ROCHESTER GAS & ELECTRIC

89 EAST AVE

APPLICANT: RG&E - ROCHESTER GAS & ELECTRIC 89 EAST AVE

ROCHESTER, NY 14604

RG&E - ROCHESTER GAS & ELECTRIC PROJECT MANAGER:

89 EAST AVE ROCHESTER, NY 14604

PETE STRITZINGER CONTACT: (585) 590-0724

ENGINEER: 1033 WATERVLIET SHAKER ROAD

ALBANY, NY 12205

MIKE LANE CONTACT: (518) 690-0790

THE MURRAY LAW FIRM LEGAL COUNSEL: 10 MAXWELL DRIVE

CLIFTON PARK, NY 12065 CONTACT:

JACQUELINE PHILLIPS MURRAY, ESQ. (518) 688-0755

NY BUILDING CODE BUILDING CODE:

UNIFORM BUILDING CODE BUILDING OFFICIALS & CODE ADMINISTRATORS

UNIFORM MECHANICAL CODE UNIFORM PLUMBING CODE LOCAL BUILDING CODE

CITY/COUNTY ORDINANCES

ELECTRICAL CODE: NATIONAL ELECTRICAL CODE

### ENGINEER'S LICENSE

#### **CERTIFICATION STATEMENT:**

HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NEW YORK

LICENSED ENGINEER - STATE OF NEW YORK

#### APPROVALS

	APPROVALS		ı
PLANNING BOARD CHAIR		DATE	
HIGHWAY SUPERINTENDENT		DATE	
BUILDING INSPECTOR		DATE	
TOWN ENGINEER		DATE	ļ
PROPERTY:		DATE	
RF:		DATE	
CONSTRUCTION:		DATE	
SITE OWNER:		DATE	

# $\bigcirc$ FING

Designed: MSL Date: 12/13/16 Checked: MSL Date: 12/13/16

Project Title

RGE - ROCHESTER **GAS & ELECTRIC** 

> 5850 MONKS ROAD CANANDAIQUA, NY 14424



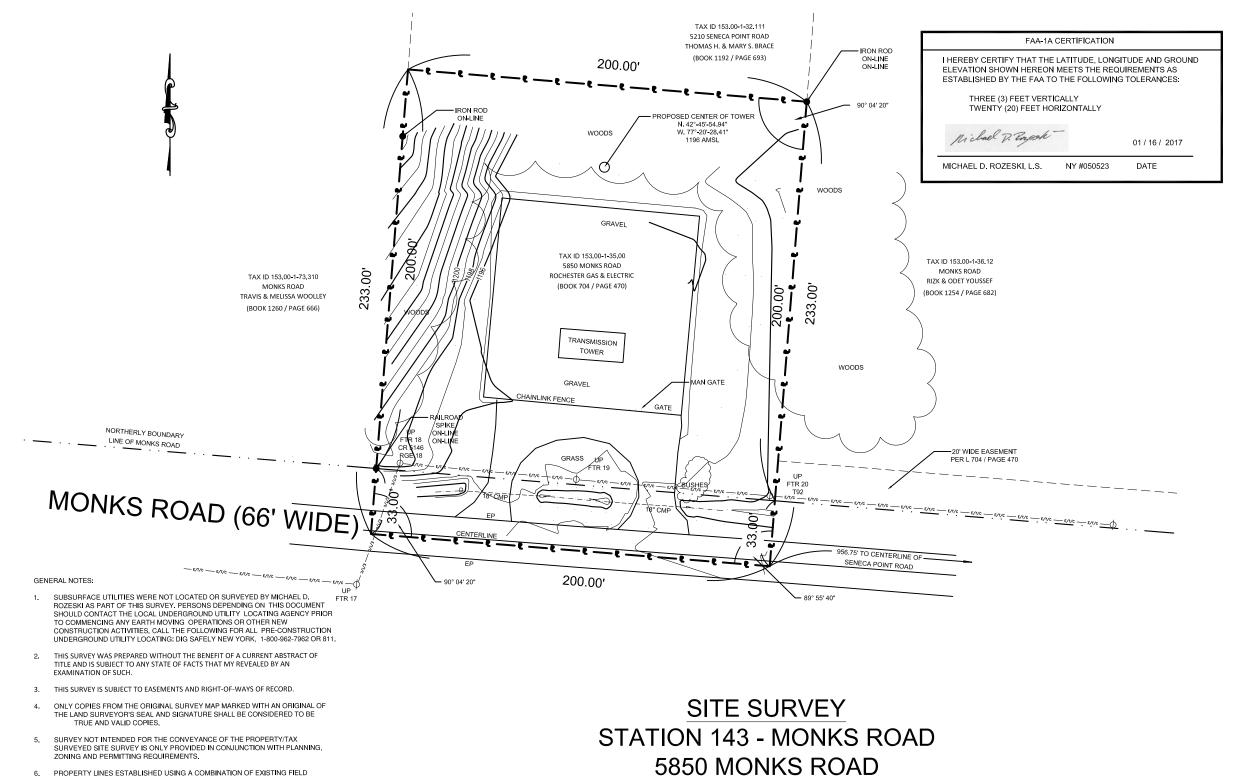
AS NOTED

Date:

Drawing Title

TITLE SHEET

**T1** 



MONUMENTATION, PARENT PARCEL AND ADJOINERS DEEDS.

SURVEY OF LOTS SHOWN OUTSIDE OF SAID ROCHESTER GAS &

RECORD DOCUMENTS.

EXISTING SITE CONDITIONS SUBVEY IS BASED ON A FIELD DATA COLLECTED ON DECEMBER 13, 2016. BOUNDARY INFORMATION SHOWN THEREON IS COMPILED FROM SAID COLLECTED FIELD DATA AND ONTARIO COUNTY CLERK'S OFFICE

ADDITIONAL BOUNDARY INFORMATION SHOWN HEREON IS BASED ON ONTARIO

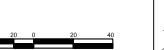
COUNTY GIS DATA AS OF DECEMBER 13, 2016 AND IS NOT INTENDED TO BE CONSTRUED AS HAVING BEEN OBTAINED AS THE RESULT OF A FIELD BOUNDARY

PRIMARY GEODETIC SURVEY CONTROL WAS ESTABLISHED FROM AN ON GROUND SURVEY USING GLOBAL POSITIONING SYSTEM (GPS) ON DECEMBER 10, 2016.

THE SUBJECT ROCHESTER GAS & ELECTRIC CORPORATION PARCEL SHOWN IS LISTED AS TAX PARCEL 153.00-1-35.000 IN THE ONTARIO COUNTY GIS DATABASE

LOCATED WITHIN THE TOWN OF CANANDAIQUA.

5850 MONKS ROAD CANANDAIQUA, NY 14424



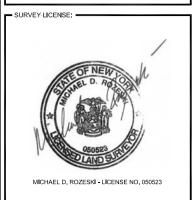




# INFINIGY Build. Deliver.

Albany, NY 12205 Office # (518) 690-0790 Fax # (518) 690-0793

JOB NUMBER XXX-XXX



DRAWING NOTICE:

IT IS A VIOLATION OF ARTICLE 145 OF THE NYS FDUCATION LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER FROM INFINIGY, TO ALTER THIS DOCUMENT.

REVISIONS:					
DESCRIPTION		DATE	BY	REV	
CITE NAME:					

STATION 143 - MONKS ROAD

5850 MONKS ROAD CANANDAIQUA, NY 14424 ONTARIO COUNTY

SHEET DESCRIPTION: -

SITE SURVEY

#### GENERAL NOTES

- ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
- 2. DO NOT CHANGE SIZE NOR SPACING OF STRUCTURAL ELEMENTS.
- 3. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
- 4. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY
- 5. BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
- 6. DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
- 7. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE APPROVAL
- 8. EACH CONTRACTOR SHALL COOPERATE WITH THE OWNER'S REPRESENTATIVE, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
- 9. IT IS 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
- 10. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A NEAT AND ORDERLY SITE, YARD AND GROUNDS. REMOVE AND DISPOSE OFF SITE ALL RUBBISH, WASTE MATERIALS, LITTER, AND ALL FOREIGN SUBSTANCES. REMOVE PETRO-CHEMICAL SPILLS, STAINS AND OTHER FOREIGN DEPOSITS. RAKE GROUNDS TO A SMOOTH EVEN-TEXTURED SURFACE.
- 1. THE PLANS SHOW SOME KNOWN SUBSURFACE STRUCTURES. ABOVE-GROUND STRUCTURES AND/OR UTILITIES BELIEVED TO EXIST IN
  THE WORKING AREA, EXACT LOCATION OF WHICH MAY VARY FROM
  THE LOCATIONS INDICATED. IN PARTICULAR, THE CONTRACTOR
  IS WARNED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF
  SUCH PIPELINES, SUBSURFACE STRUCTURES AND/OR UTILITIES IN THE AREA MAY BE SHOWN OR MAY NOT BE SHOWN; AND IT SHALL BE HIS RESPONSIBILITY TO PROCEED WITH GREAT CARE IN EXECUTING ANY WORK. (3) WORKING DAYS BEFORE YOU DIG, DRILL OR BLAST, CALL 1–800–922–4455
- 12. THE OWNER OR OWNER'S REPRESENTATIVE SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT THE EXPRESSED APPROVAL OF THE OWNER OR OWNER'S REPRESENTATIVE.
- 13. THE CONTRACTOR IS INSTRUCTED TO COOPERATE WITH ANY AND ALL OTHER CONTRACTORS PERFORMING WORK ON THIS JOB SITE DURING THE PERFORMANCE OF THIS CONTRACT.
- 14. THE CONTRACTOR SHALL RESTORE ALL PUBLIC OR PRIVATE PROPERTY DAMAGED OR REMOVED TO AT LEAST AS GOOD OF CONDITION AS BEFORE DISTURBED AS DETERMINED BY THE OWNER OR OWNER'S
- 15. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIRED PERMITS.
- 16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, AND INCURRING THE COST OF ALL REQUIRED PERMITS, INCLUDING, BUT NOT LIMITED TO, THE BUILDING PERMIT, INSPECTIONS, CERTIFICATES. ETC.
- 17. THE CONTRACTOR SHALL PROTECT EXISTING PROPERTY LINE MONUMENTATION. ANY MONUMENTATION DISTURBED OR DESTROYED, AS JUDGED BY THE OWNER OR OWNER'S REPRESENTATIVE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE UNDER THE SUPERVISION OF A LICENSED LAND SURVEYOR.
- 18. ALL TRENCH EXCAVATION AND ANY REQUIRED SHEETING AND SHORING SHALL BE DONE IN ACCORDANCE OSHA REGULATIONS FOR CONSTRUCTION.
- 19. CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING AND THE MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF WORK.
- 20. ALL UTILITY WORK INVOLVING CONNECTIONS TO EXISTING SYSTEMS SHALL BE COORDINATED WITH THE OWNER OR OWNER'S REPRESENTATIVE AND THE UTILITY OWNER. NOTIFY THE OWNER OR OWNER'S REPRESENTATIVE AND THE UTILITY OWNER BEFORE EACH AND EVERY CONNECTION TO EXISTING SYSTEMS IS MADE.
- 21. MAINTAIN FLOW FOR ALL EXISTING UTILITIES.
- 22. ALL SITE FILL SHALL MEET SELECTED FILL STANDARDS AS DEFINED BY THE OWNER OR OWNER'S REPRESENTATIVE ON THE DRAWINGS.
- 23. CONTRACTOR SHALL GRADE ALL AREAS ON THE SITE TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE EQUIPMENT PAD AND THE TOWER.
- 24. ALL IMPROVEMENTS TO CONFORM WITH LOCAL JURISDICTION CONSTRUCTION STANDARDS AND SPECIFICATIONS, LATEST EDITION.

#### STRUCTURAL STEEL NOTES

- 1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS"
- 2. ALL INTERIOR STRUCTURAL STEEL USED SHALL BE, WHEN DELIVERED, FINISHED WITH ONE COAT FABRICATOR'S NON-LEAD, RED OXIDE PRIMER. PRIMING SHALL BE PERFORMED AFTER SHOP FABRICATION TO THE GREATEST EXTENT POSSIBLE. ALL DINGS, SCRAPES, MARS, AND WELDS IN THE PRIMED AREAS SHALL BE REPAIRED BY FIELD TOUCH-UP PRIOR TO COMPLETION OF THE WORK.
- 3. ALL EXTERIOR STEEL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH SPECIFICATION ASTM A36 UNLESS OTHERWISE NOTED. GALVANIZING SHALL BE PERFORMED AFTER SHOP FABRICATION TO THE GREATEST EXTENT POSSIBLE. ALL DINGS, SCRAPES, MARS, AND WELDS IN THE GALVANIZED AREAS SHALL BE REPAIRED BY FIELD TOUCH-UP PRIOR TO COMPLETION OF THE WORK.
- 4. DO NOT PLACE HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
- CONNECTIONS:
- A. ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS 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.
- B. BOLTED CONNECTIONS SHALL USE BEARING TYPE GALVANIZED ASTM A325 BOLTS (3/4" DIA) AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
- C. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIA. GALVANIZED ASTM A 307 BOLTS UNLESS NOTED OTHERWISE.
- D. CONNECTION DESIGN BY FABRICATOR WILL BE SUBJECT TO REVIEW AND APPROVAL BY ENGINEER.

#### CONCRETE NOTES

- 1. 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"; ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE";
- 2. MIX DESIGN SHALL BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO PLACING CONCRETE.
- 3. CONCRETE SHALL BE NORMAL WEIGHT, 6% AIR ENTRAINED (±1.5%) WITH A MAXIMUM 4" SLUMP, AND HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI UNLESS OTHERWISE NOTED.
- 4. MAXIMUM AGGREGATE SIZE SHALL BE 1".
- 5. THE FOLLOWING MATERIALS SHALL BE USED:

PORTLAND CEMENT: REINFORCEMENT: NORMAL WEIGHT AGGREGATE: WATER

ADMIXTURES:

ASTM C 150, TYPE I ASTM A 185 DRINKARI F NON-CHLORIDE CONTAINING

- 6. REINFORCING DETAILS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ACI 315.
- 7. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
- 8. 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 #5 AND SMALLER & WWF ......1 1/2 IN.

CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND: SLAR AND WALL ..3/4 IN. BEAMS AND COLUMNS 1/2 IN

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

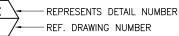
- 10. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURES WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE.
- 11. CURING COMPOUNDS SHALL CONFORM TO ASTM C-309.
- 12. ADMIXTURES SHALL CONFORM TO THE APPROPRIATE ASTM STANDARD AS REFERENCED IN ACI-301.
- 13. DO NOT WELD OR TACKWELD REINFORCING STEEL.
- DOWELS, ANCHOR BOLTS, EMBEDDED STEEL, ELECTRICAL CONDUITS, PIPE SLEEVES, GROUNDS AND ALL OTHER EMBEDDED ITEMS AND FORMED DETAILS SHALL BE IN PLACE BEFORE START OF CONCRETE PLACEMENT.
- 15. LOCATE ADDITIONAL CONSTRUCTION JOINTS REQUIRED TO FACILITATE CONSTRUCTION AS ACCEPTABLE TO ENGINEER. PLACE REINFORCEMENT CONTINUOUSLY THROUGH JOINT.
- 16. REINFORCEMENT SHALL BE COLD BENT WHENEVER BENDING IS REQUIRED.
- 17. PLACE CONCRETE IN A UNIFORM MANNER TO PREVENT THE FORMATION OF COLD JOINTS AND OTHER PLANES OF WEAKNESS. VIBRATE THE CONCRETE TO FULLY EMBED REINFORCING. DO NOT USE VIBRATORS TO TRANSPORT CONCRETE THROUGH CHUTES OR FORMWORK.
- 18. DO NOT PLACE CONCRETE IN WATER, ICE, OR ON FROZEN GROUND.
- 19. DO NOT ALLOW CONCRETE SUBBASE TO FREEZE DURING CONCRETE CURING AND SETTING PERIOD. OR FOR A MINIMUM OF 14 DAYS AFTER PLACEMENT.
- 20. FOR COLD-WEATHER AND HOT-WEATHER CONCRETE PLACEMENT, CONFORM TO APPLICABLE ACI CODES AND RECOMMENDATIONS. IN EITHER CASE, MATERIALS CONTAINING CHLORIDE, CALCIUM, SALTS, ETC. SHALL NOT BE USED. PROTECT FRESH CONCRETE FROM WEATHER FOR 7 DAYS MINIMUM.

#### CIVIL LEGEND

	<u> </u>	
EXISTING	FENCE	PROPOSED × × ×
F	UNDERGROUND ELECTRIC	
т	UNDERGROUND TELEPHONE	
OVERHEAD WIRES	( OVERHEAD TELEPHONE	
—— OH——	OVERHEAD ELECTRIC	
250	5' OR 10' CONTOUR LINE	250
	1' OR 2' CONTOUR LINE	202
120.5 OR x	SPOT ELEVATION	120.5 OR x
	PRIMARY PROPERTY OR R.O.W.	
	LEASE LINE	
	EASEMENT	
Ø	UTILITY POLE	Ø
<b>N</b>	TELEPHONE PEDESTAL	
	CURB	
	ASPHALT PAVEMENT	
	BUILDING	
*	TREES, SHRUBS, BUSHES	<b>○</b>







REF. DRAWING NUM	Date: 	
	APPROVALS	Drawing Title
LANNING OARD CHAIR	DATE	GENERAL
IIGHWAY :UPERINTENDENT	DATE	NOTES
BUILDING NSPECTOR	DATE	Drawing Number
OWN NGINEER	DATE	C1A

 $\mathbb{C}$ C Ě

IS A VIOLATION OF ARTICLE 145 OF THE NY DUCATION LAW FOR ANY PERSON UNLESS HEY ARE ACTING UNDER THE DIRECTION C LICENSED PROFESSIONAL ENGINEER FRO INFINIGY, TO ALTER THIS DOCUMENT.

- 1				
	6	REVISED PER COMMENT	MAP	3/9/1
	5	REVISED PER COMMENT	MAP	3/9/1
	4	REVISED PER COMMENT	MAP	3/9/1
	3	REVISED PER COMMENT	MAP	3/7/13
	2	REVISED PER COMMENT	MAP	3/6/1
ı	1	REVISED PER COMMENT	SKB	3/1/17
ı	0	ISSUED FOR REVIEW	SKB	12/13/1
ı	No.	Submittal / Revision	App'd	Date
-				

SKB Date: 12/13/16 Designed: MSL Date: 12/13/16 hecked: MSL Date: 12/13/16

roject Title

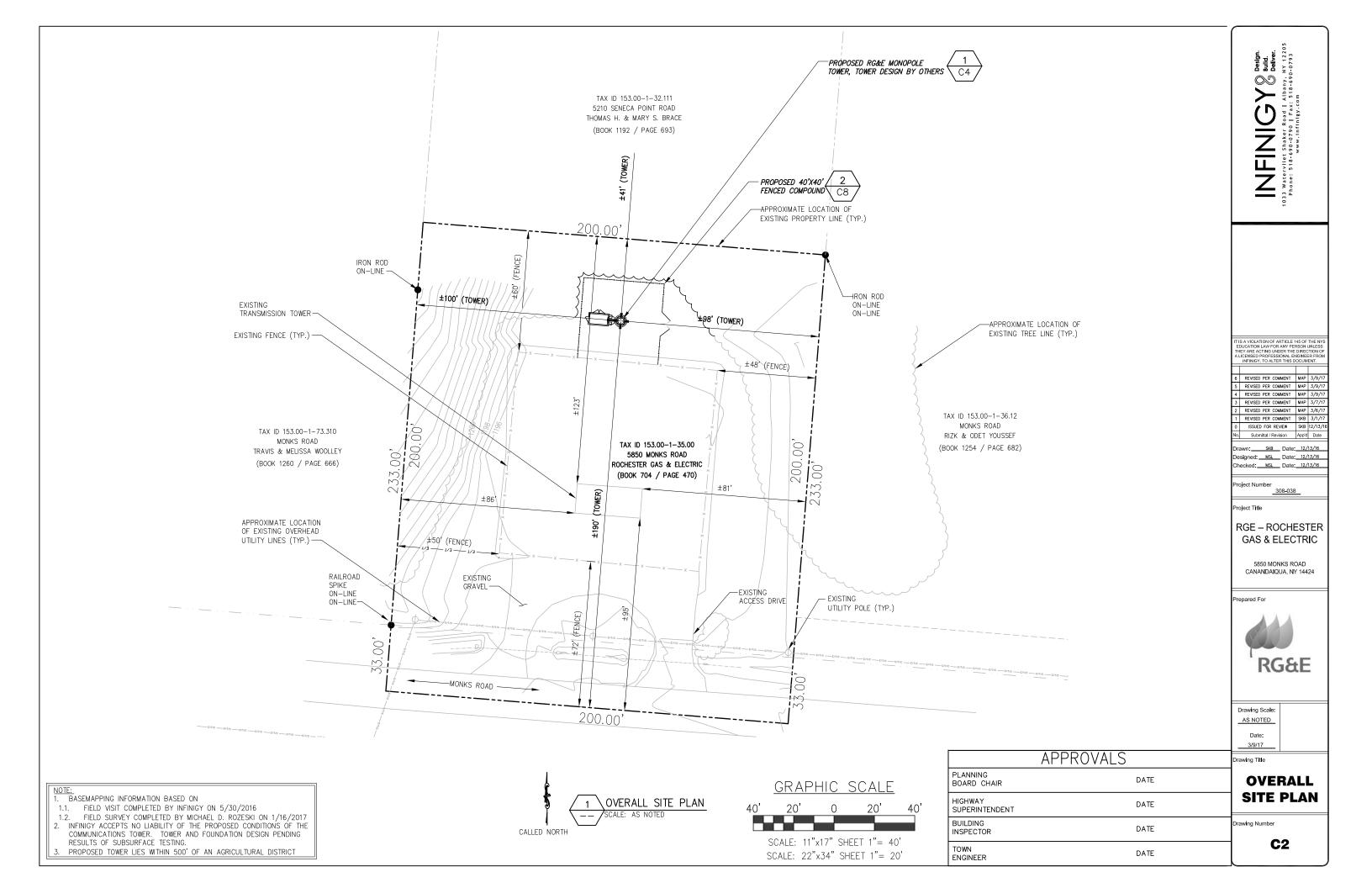
RGE - ROCHESTER **GAS & ELECTRIC** 

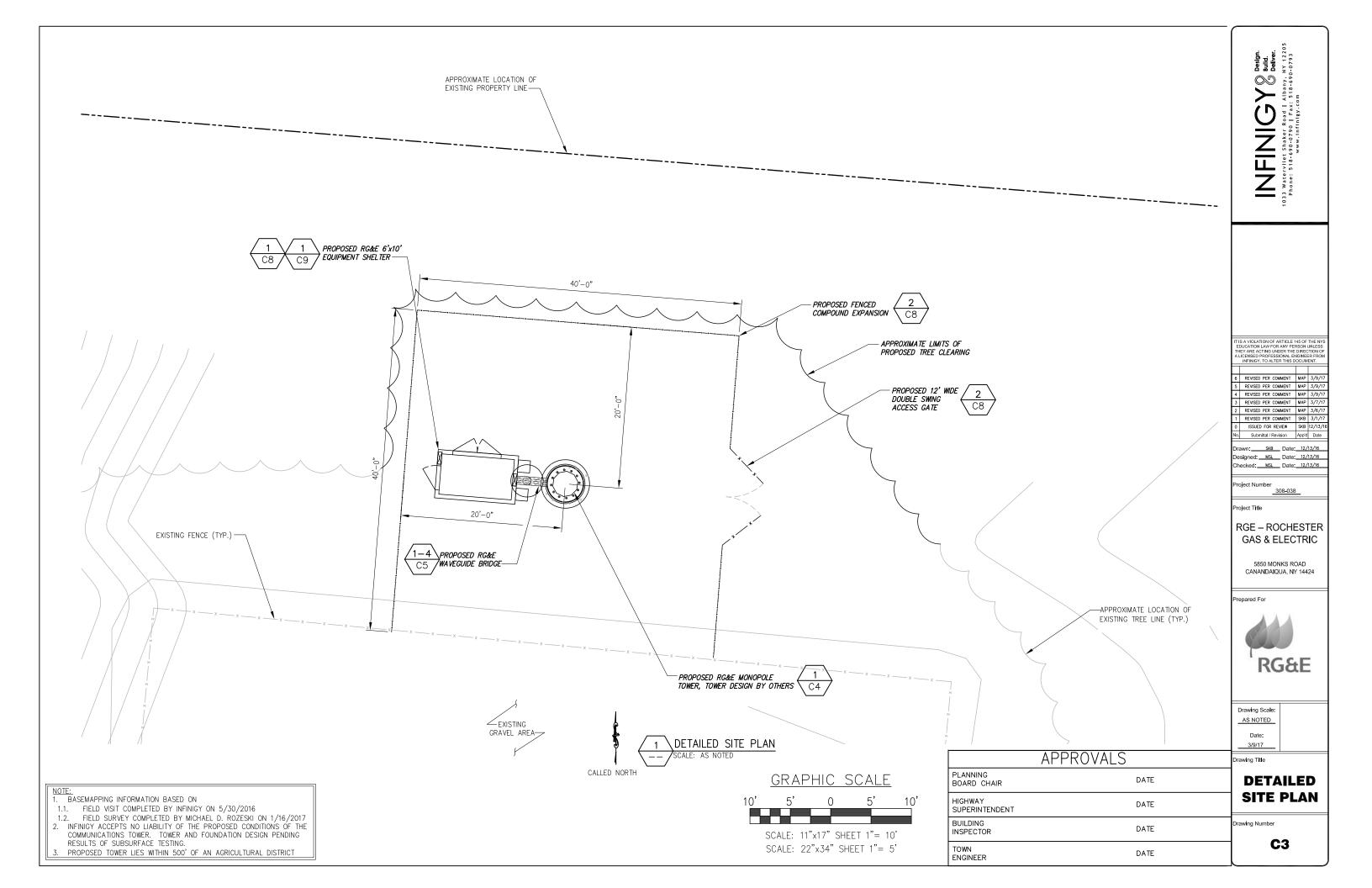
5850 MONKS ROAD CANANDAIQUA, NY 14424

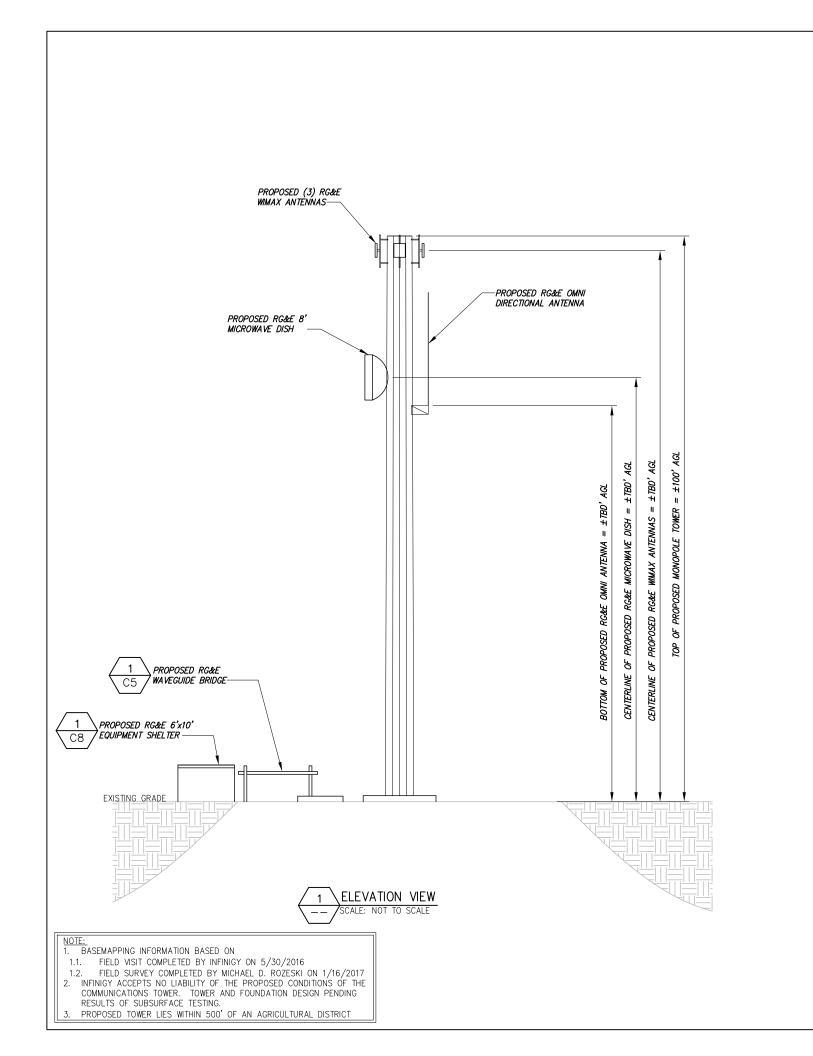
enared For



AS NOTED







DETAIL PENDING FINAL RF DESIGN

2 MW ORIENTATION PLAN

-- SCALE: NOT TO SCALE

DETAIL
PENDING
FINAL RF
DESIGN



IT IS A VIOLATION OF ARTICLE 145 OF THE NYS EDUCATION LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER THE DIRECTION OF

**S** 

**INFINIGY** 

6	REVISED PER COMMENT	MAP	3/9/1
5	REVISED PER COMMENT	MAP	3/9/1
4	REVISED PER COMMENT	MAP	3/9/1
3	REVISED PER COMMENT	MAP	3/7/1
2	REVISED PER COMMENT	MAP	3/6/1
1	REVISED PER COMMENT	SKB	3/1/1
0	ISSUED FOR REVIEW	SKB	12/13/
No.	Submittal / Revision	App'd	Date

 Drawn:
 SKB
 Date:
 12/13/16

 Designed:
 MSL
 Date:
 12/13/16

 Checked:
 MSL
 Date:
 12/13/16

Project Number

\_\_\_\_\_

Project Title

RGE – ROCHESTER GAS & ELECTRIC

> 5850 MONKS ROAD CANANDAIQUA, NY 14424

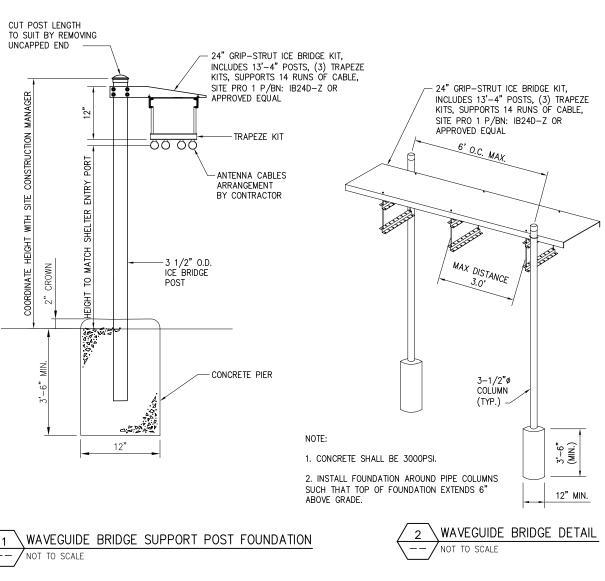
Prepared For



Drawing Scale:
AS NOTED

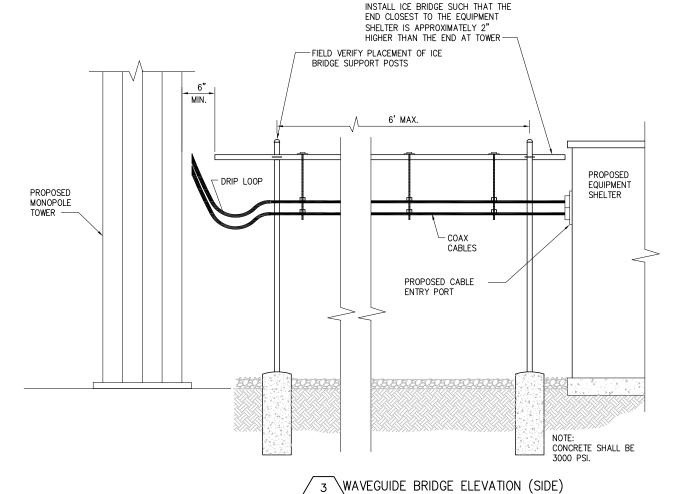
Date:
3/9/17

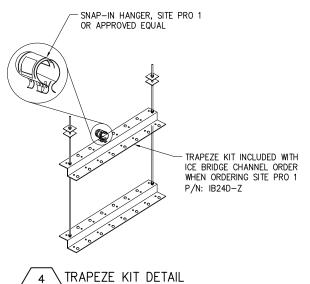
	APPROVALS	Drawing Title	
PLANNING BOARD CHAIR	DATE	ELEVATIO	N
HIGHWAY SUPERINTENDENT	DATE	VIEW	
BUILDING INSPECTOR	DATE	Drawing Number	
TOWN ENGINEER	DATE	C4	



## NOTES:

- WHEN USING COMPONENTS AS SHOWN IN STANDARD DETAILS, MAXIMUM ALLOWABLE SPAN BETWEEN SUPPORTS ON A CONTINUOUS SINGLE SECTION OF BRIDGE CHANNEL SHALL BE 9 FEET FOR 10 FEET BRIDGE CHANNEL.
- 2. WHEN USING COMPONENTS FOR SPLICING BRIDGE CHANNEL SECTIONS, THE SPLICE SHOULD BE PROVIDED AT THE SUPPORT, IF POSSIBLE, OR AT A MAXIMUM OF 2
- 3. WHEN USING COMPONENTS, SUPPORT SHOULD BE PROVIDED AS CLOSE AS POSSIBLE TO THE ENDS OF ICE BRIDGES, WITH A MAXIMUM CANTILEVER DISTANCE OF 2 FEET FROM THE SUPPORT TO THE FREE END OF THE ICE BRIDGE.
- 4. CUT BRIDGE CHANNEL SECTIONS SHALL HAVE RAW EDGES TREATED WITH A MATERIAL TO RESTORE THESE EDGES TO THE ORIGINAL CHANNEL, OR EQUIVALENT, FINISH.
- 5. ICE BRIDGES MAY BE CONSTRUCTED WITH COMPONENTS FROM OTHER MANUFACTURERS, PROVIDED THE MANUFACTURER'S INSTALLATION GUIDELINES ARE FOLLOWED.
- 6. DEVIATIONS FROM STANDARDS FOR COMPONENT INSTALLATIONS ARE PERMITTED WITH THE RESPECTIVE MANUFACTURER'S APPROVAL.
- 7. DEVIATIONS FROM ICE BRIDGE FOUNDATIONS REQUIRE ENGINEERING APPROVAL.





NOT TO SCALE

**APPROVALS** PLANNING BOARD CHAIR DATE HIGHWAY DATE SUPERINTENDENT BUILDING DATE

INSPECTOR

**ENGINEER** 

 $\bigcirc$ FNG

ΤI	S A VIOLATION OF ARTICLE 1	45 OF	THE NYS			
ΕI	DUCATION LAW FOR ANY PER	RSON	UNLESS			
	THEY ARE ACTING UNDER THE DIRECTION OF					
Αl	A LICENSED PROFESSIONAL ENGINEER FROM					
	INFINIGY, TO ALTER THIS D	OCUM	ENT.			
7						

6	REVISED PER COMMENT	MAP	3/9,
5	REVISED PER COMMENT	MAP	3/9,
4	REVISED PER COMMENT	MAP	3/9,
3	REVISED PER COMMENT	MAP	3/7,
2	REVISED PER COMMENT	MAP	3/6,
1	REVISED PER COMMENT	SKB	3/1/
0	ISSUED FOR REVIEW	SKB	12/13
No.	Submittal / Revision	App'd	Dat

Drawn: <u>SKB</u> Date: 12/13/16
Designed: <u>MSL</u> Date: 12/13/16 hecked: MSL Date: 12/13/16

RGE - ROCHESTER **GAS & ELECTRIC** 

> 5850 MONKS ROAD CANANDAIQUA, NY 14424



AS NOTED

rawing Title

**DETAILS** 

DATE

rawing Number

**C**5

#### GRADING & EXCAVATING NOTES:

- ALL EXCAVATIONS ON WHICH CONCRETE IS TO BE PLACED SHALL BE SUBSTANTIALLY HORIZONTAL ON UNDISTURBED AND UNFROZEN SOIL AND BE FREE FROM LOOSE MATERIAL AND EXCESS GROUNDWATER. DEWATERING FOR EXCESS GROUNDWATER SHALL BE PROVIDED IF REQUIRED.
- CONCRETE FOUNDATIONS SHALL NOT BE PLACED ON ORGANIC MATERIAL. IF SOUND SOIL IS NOT REACHED AT THE DESIGNATED EXCAVATION DEPTH, THE UNSATISFACTORY SOIL SHALL BE EXCAVATED TO ITS FULL DEPTH AND EITHER BE REPLACED WITH MECHANICALLY COMPACTED GRANULAR MATERIAL OR THE EXCAVATION BE FILLED WITH CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE
- ANY EXCAVATION OVER THE REQUIRED DEPTH SHALL BE FILLED WITH EITHER MECHANICALLY COMPACTED GRANULAR MATERIAL OR CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE FOUNDATION. CRUSHED STONE MAY BE USED TO STABILIZE THE BOTTOM OF THE EXCAVATION. STONE, IF USED, SHALL NOT BE USED AS COMPILING CONCRETE THICKNESS.
- AFTER COMPLETION OF THE FOUNDATION AND OTHER CONSTRUCTION BELOW GRADE, AND BEFORE BACKFILLING, ALL EXCAVATIONS SHALL BE CLEAN OF UNSUITABLE MATERIAL SUCH AS VEGETATION, TRASH, DEBRIS, AND SO FORTH FOR ANY FILLING OPERATION.
- REMOVE ALL VEGETATION, TOPSOIL, DEBRIS, WET AND UNSATISFACTORY SOIL MATERIALS, OBSTRUCTIONS, AND DELETERIOUS MATERIALS FROM GROUND SURFACE PRIOR TO PLACING FILLS. PLOW, STRIP, OR BREAK UP SLOPED SURFACES STEEPER THAN THAN 1 VERTICAL TO 4 HORIZONTAL SO FILL MATERIAL WILL BOND WITH EXISTING SURFACE. WHEN SUBGRADE OR EXISTING GROUND SURFACE TO RECEIVE FILL HAS A DENSITY LESS THAN THAT REQUIRED FOR FILL, BREAK UP GROUND SURFACE TO DEPTH REQUIRED PULVERIZE, MOISTURE—CONDITION OR AFRATE SOIL AND RECOMPACT TO REQUIRED
- 6. USE APPROVED MATERIALS CONSISTING OF EARTH, LOAM, SANDY CLAY, SAND -BE FREE FROM CLODS OR STONES OVER 2-1/2" MAXIMUM DIMENSIONS -BE PLACED IN 6" LAYERS AND COMPACTED TO 95% STANDARD PROCTOR EXCEPT IN GRASSED/LANDSCAPED AREAS, WHERE 90% STANDARD PROCTOR
- REPLACE EXISTING GRAVEL SURFACING ON AREAS FROM WHICH GRAVEL SURFACING IS REMOVED DURING CONSTRUCTION OPERATIONS. GRAVEL SURFACING SHALL BE REPLACED TO MATCH EXISTING ADJACENT GRAVEL SURFACING AND SHALL BE OF THE SAME THICKNESS. SURFACES OF GRAVEL SURFACING SHALL BE FREE FROM CORRUGATIONS AND WAVES. EXISTING GRAVEL SURFACING MAY BE EXCAVATED SEPARATELY AND REUSED IF INJURIOUS AMOUNTS OF EARTH, ORGANIC MATTER, OR OTHER DELETERIOUS MATERIALS ARE REMOVED PRIOR TO REUSE. FURNISH ALL ADDITIONAL GRAVEL RESURFACING MATERIAL AS REQUIRED. BEFORE GRAVEL SURFACING IS REPLACED, SUBGRADE SHALL BE GRADED TO CONFORM TO REQUIRED SUBGRADE ELEVATIONS, AND LOOSE OR DISTURBED MATERIALS SHALL BE THOROUGHLY COMPACTED. DEPRESSIONS IN THE SUBGRADE SHALL BE FILLED AND COMPACTED WITH APPROVED SELECTED MATERIAL. GRAVEL SURFACING MATERIAL MAY BE USED FOR FILLING DEPRESSIONS IN THE SUBGRADE. SUBJECT TO ENGINEER'S APPROVAL
- DAMAGE TO EXISTING STRUCTURES AND UTILITIES RESULTING FROM CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED/REPLACED TO OWNER'S SATISFACTION AT CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULE WITH PROPERTY OWNER SO AS TO AVOID INTERRUPTIONS TO PROPERTY OWNER'S OPERATIONS.
- 10. ENSURE POSITIVE DRAINAGE DURING AND AFTER COMPLETION OF CONSTRUCTION.
- 11. ALL CUT AND FILL SLOPES SHALL BE MAXIMUM 3 HORIZONTAL TO 1 VERTICAL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING SITE VEHICLE TRAFFIC AS TO NOT ALLOW VEHICLES LEAVING THE SITE TO TRACK MUD ONTO PUBLIC STREETS. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING PUBLIC STREETS DUE TO MUDDY VEHICLES LEAVING

#### GENERAL EROSION & SEDIMENT CONTROL NOTES:

- THE SOIL EROSION AND SEDIMENT CONTROL MEASURES AND DETAILS AS SHOWN HEREIN AND STIPULATED WITHIN STATE STANDARDS SHALL BE FOLLOWED AND INSTALLED IN A MANNER SO AS TO MINIMIZE SEDIMENT LEAVING THE SITE.
- PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, THE LIMITS OF LAND DISTURBANCE SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS.
- EROSION CONTROL DEVICES SHALL BE INSTALLED BEFORE GROUND DISTURBANCE OCCURS. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THOSE SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
- THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS.
  ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
- CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED. CONTRACTOR SHALL CLEAN OUT ALL SEDIMENT PONDS WHEN REQUIRED BY THE ENGINEER OR THE LOCAL JURISDICTION INSPECTOR. CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
- THE CONTRACTOR SHALL REMOVE ACCUMULATED SILT WHEN THE SILT IS WITHIN 12" OF THE TOP OF THE SILT FENCE.
- FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB SITE UNTIL SUCH MEASURES ARE
- SILT BARRIERS TO BE PLACED AT DOWNSTREAM TOE OF ALL CUT AND FILL SLOPES.
- ALL CUT AND FILL SLOPES MUST BE SURFACED ROUGHENED AND VEGETATED WITHIN SEVEN (7) DAYS OF THEIR CONSTRUCTION.
- CONTRACTOR SHALL REMOVE ALL EROSION & SEDIMENT CONTROL MEASURES AFTER COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER.
- THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND-DISTURBING ACTIVITIES.

FERTILIZER MIX						
APPLICATION	PPLICATION N, #/ACRE P2 O5, #/ACRE K2O, #/ACRE					
1st	60 - 90	120 - 180	120 - 180	50		
2nd	60	120	120	-		

#### NOTE:

- GRASS AND MULCH ALL DISTURBED AREAS

#### HYDRAULIC SEEDING EQUIPMENT

WHEN HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS USED, NO GRADING AND SHAPING OR SEEDBED PREPARATION WILL BE REQUIRED. THE FERTILIZER, SEED AND WOOD CELLULOSE FIBER MULCH WILL BE MIXED WITH WATER AND APPLIED IN A SLURRY. ALL SLURRY INGREDIENTS MUST BE COMBINED TO FORM A HOMOGENEOUS MIXTURE, AND SPREAD UNIFORMLY OVER THE AREA WITHIN ONE HOUR AFTER MIXTURE IS MADE. STRAW OR HAY MULCH AND ASPHALT EMULSION WILL BE APPLIED WITH BLOWER-TYPE MULCH SPREADING EQUIPMENT WITHIN 24 HOURS AFTER SEEDING, THE MULCH WILL BE SPREAD UNIFORMLY OVER THE AREA, LEAVING ABOUT 25 PERCENT OF THE GROUND SURFACE EXPOSED.

#### CONVENTIONAL SEEDING EQUIPMENT

GRADE, SHAPE AND SMOOTH WHERE NEEDED TO PROVIDE FOR SAFE EQUIPMENT OPERATION AT SEEDING TIME AND FOR MAINTENANCE PURPOSES. THE LIME AND FERTILIZER IN DRY FORM WILL BE SPREAD UNIFORMLY OVER THE AREA IMMEDIATELY BEFORE SEEDBED PREPARATION. A SEEDBED WILL BE PREPARED BY SCARIFYING TO A DEPTH OF 1 TO 4 INCHES AS DETERMINED ON SITE. THE SEEDBED MUST BE WELL PULVERIZED, SMOOTHED AND FIRMED. SEEDING WILL BE DONE WITH CULTIPACKER—SEEDER, DRILL, ROTARY SEEDER OR OTHER MECHANICAL OR HAND SEEDER. SEED WILL BE DISTRIBUTED UNIFORMLY OVER A FRESHLY PREPARED SEEDBED AND COVERED LIGHTLY. WITHIN 24 HOURS AFTER SEEDING, STRAW OR HAY MULCH WILL BE SPREAD UNIFORMLY OVER THE AREA, LEADING ABOUT 25 PERCENT OF THE GROUND SURFACE EXPOSED. MULCH WILL BE SPREAD WITH BLOWER-TYPE MULCH EQUIPMENT OR BY HAND AND ANCHORED IMMEDIATELY AFTER IT IS SPREAD. A DISK HARROW WITH THE DISK SET STRAIGHT OR A SPECIAL PACKER DISK MAY BE USED TO PRESS THE MULCH INTO THE SOIL.

**FNGINFFR** 

 $\bigcirc$ FING

IS A VIOLATION OF ARTICLE 145 OF THE NY EDUCATION LAW FOR ANY PERSON UNLESS HEY ARE ACTING UNDER THE DIRECTION OF LICENSED PROFESSIONAL ENGINEER FROM INFINIGY, TO ALTER THIS DOCUMENT.

6	REVISED PER COMMENT	MAP	3/9/1
5	REVISED PER COMMENT	MAP	3/9/1
4	REVISED PER COMMENT	MAP	3/9/1
3	REVISED PER COMMENT	MAP	3/7/1
2	REVISED PER COMMENT	MAP	3/6/1
1	REVISED PER COMMENT	SKB	3/1/1
0	ISSUED FOR REVIEW	SKB	12/13/
No.	Submittal / Revision	App'd	Date

rawn: \_\_\_\_\_SKB \_\_ Date: \_12/13/16 Designed: MSL Date: 12/13/16 hecked: \_\_\_MSL\_\_ Date: \_\_12/13/16

oject Numbe

roject Title

#### RGE - ROCHESTER **GAS & ELECTRIC**

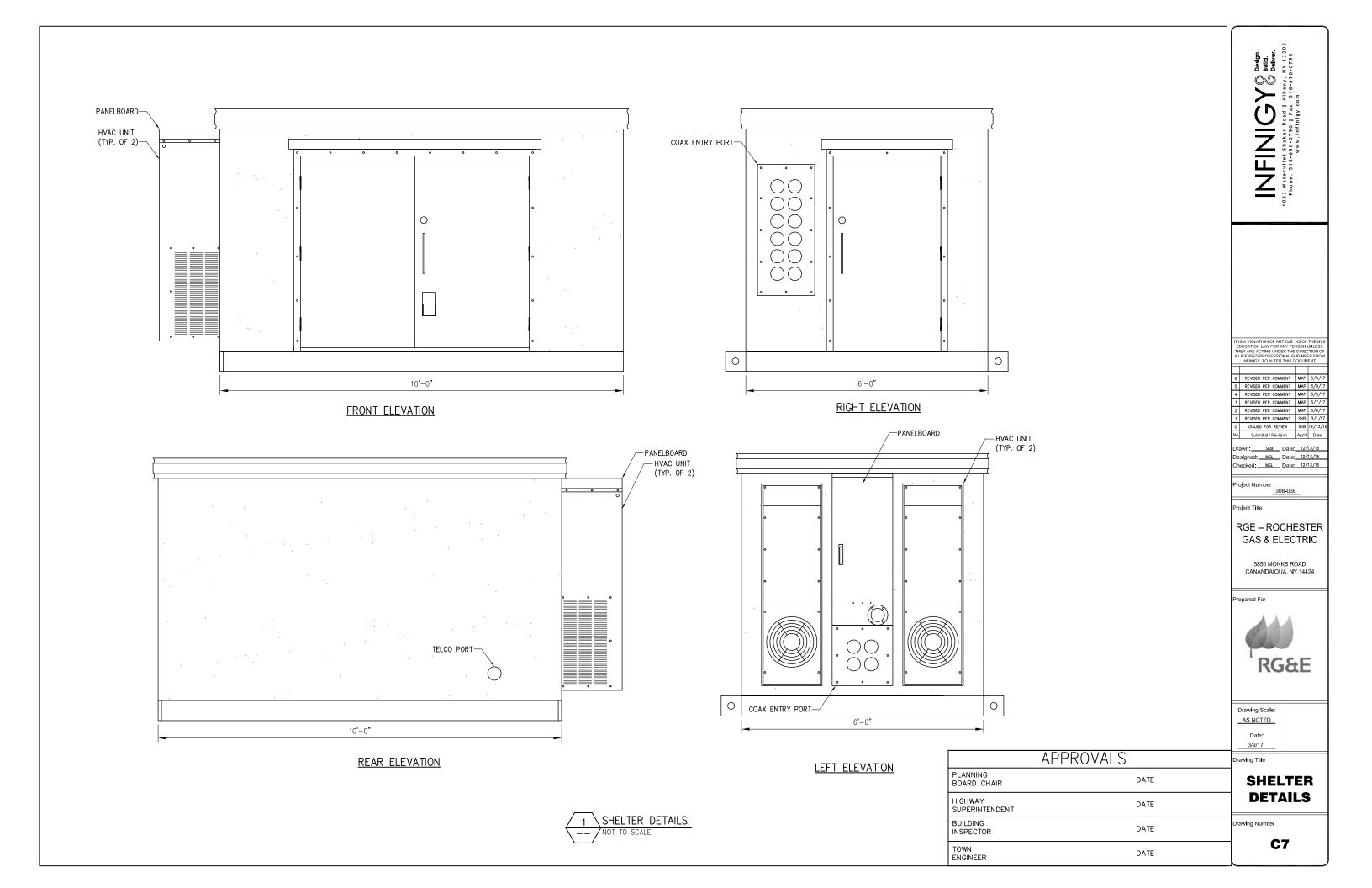
5850 MONKS ROAD CANANDAIQUA, NY 14424

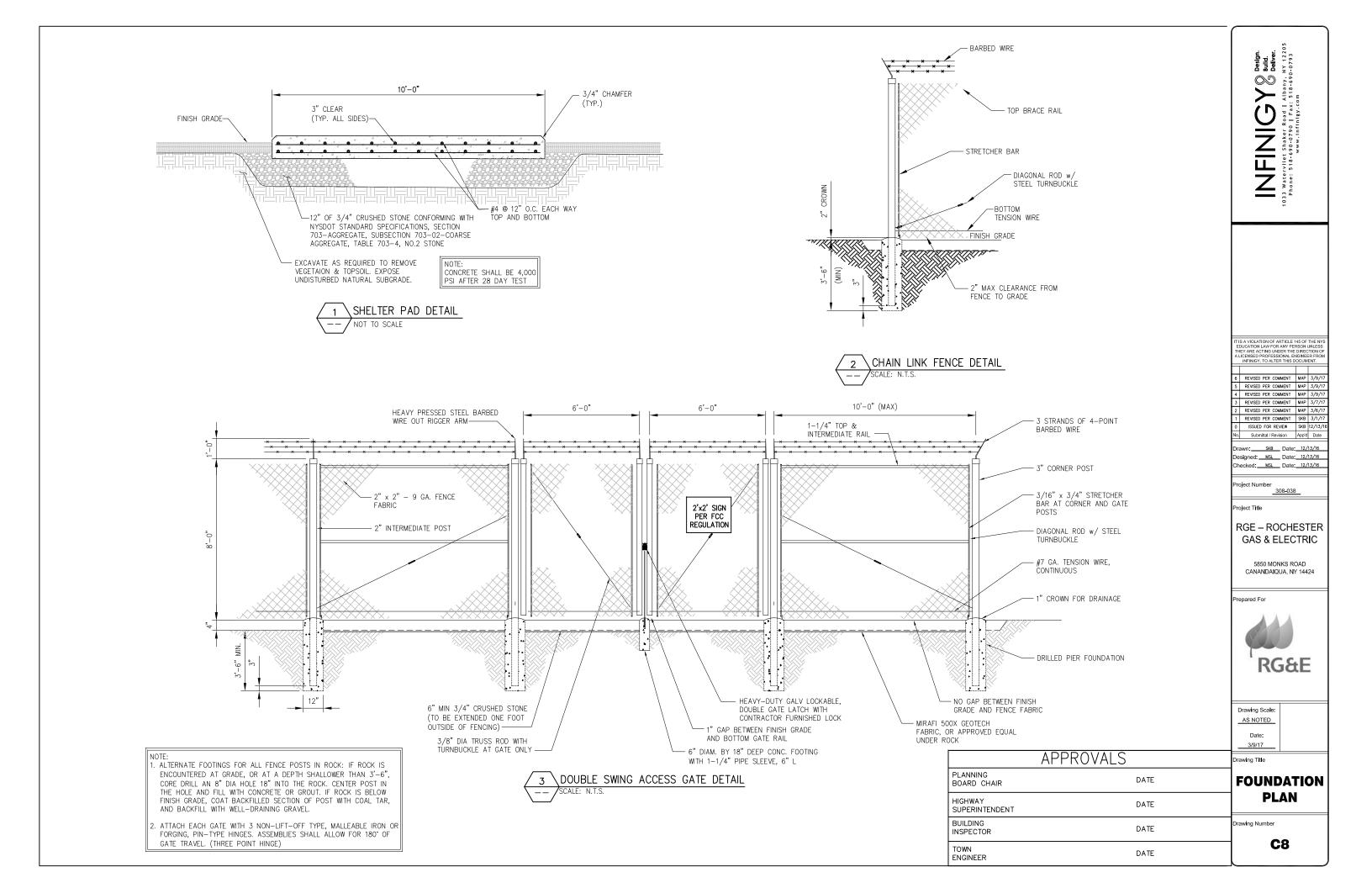
epared For



Drawing Scale AS NOTED Date: 3/9/17

**APPROVALS** rawing Title PLANNING DATE BOARD CHAIR **DETAILS** HIGHWAY DATE SUPERINTENDENT BUILDING awing Number DATE INSPECTOR C<sub>6</sub> DATE

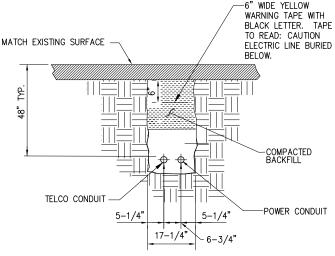




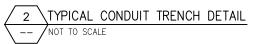
#### INCOMING POWER AND TELEPHONE SERVICE NOTES: -PROPOSED RG&E 140' MONOPOLE TOWER. TOWER DESIGN BY OTHERS 1. CONNECTION TO EXISTING UTILITIES AND INCOMING POWER AND TELEPHONE SERVICES IS FOR CONCEPT ONLY. THE CONTRACTOR SHALL COORDINATE THE ACTUAL LOCATION WITH THE ELECTRIC AND TELEPHONE UTILITIES AND CARRIER 2. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ARRANGEMENTS WITH THE ELECTRIC AND TELEPHONE UTILITIES TO ENSURE TO A TIMELY INSTALLATION OF THE INCOMING POWER AND TELEPHONE SERVICES. THE CARRIER WILL OBTAIN AN ELECTRIC SERVICE ORDER (ESO) FOR THIS SITE PRIOR TO THE CONTRACTOR INITIATING ANY WORK ON-SITE 3. THE INCOMING ELECTRIC SERVICE SHALL BE INSPECTED BY THE AUTHORITY HAVING JURISDICTION AND A CERTIFICATE OF SUCH INSPECTION SHALL BE FURNISHED TO THE CARRIER WITH A COPY FORWARDED TO THAT UTILITY. 4. ANY UTILITY CHARGES ASSOCIATED WITH THIS SITE SHALL BE PAID BY THE CARRIER AND NO CHARGES, THEREFORE SHALL ACCRUE TO THE CONTRACTOR. 5. COORDINATE METER SOCKET REQUIREMENTS AND UTILITY METER ENCLOSURE WITH CARRIER. AND ELECTRIC UTILITY. 6. INCOMING ELECTRIC SERVICES SHALL BE IN CONFORMANCE WITH THE UTILITIES STANDARDS (LATEST EDITION). 7. INSTALL PULL ROPES IN ALL CONDUITS UNLESS NOTED OTHERWISE. PROPOSED RG&E 6'x10' PROPOSED ABOVE GROUND EQUIPMENT SHELTER— COAX CABLE TO TOWER, 8. CONDUIT RUNS SHALL HAVE ONE 18"x18"x8" TRAFFIC RATED PULLBOX AFTER 270 EXACT LOCATION TBD DEGREES OF BEND. 9. CONDUIT RUNS SHALL HAVE A PULLBOX WITH A MAXIMUM SPACING OF 500 LINEAR PROPOSED POWER IN PROPOSED (1) 4" SCH 40 PVC CONDUIT, CONTRACTOR TO COORDINATE CODED DRAWING NOTES: CONNECTION AND FEEDER SIZE WITH LOCAL UTILITY COMPANY (FIELD VERIFY LOCATION)-COORDINATE EXACT LOCATION WITH UTILITY COMPANY. STUB UP POWER AND TELEPHONE CONDUITS AS DIRECTED BY UTILITY COMPANY. REFER TO EQUIPMENT SPECIFICATIONS FOR ELECTRICAL REQUIREMENTS. (1) 4" SCH 40 PVC POWER CONDUIT WITH PULLWIRE FROM PROPOSED EQUIPMENT AREA TO EXISTING POWER SOURCE. EXACT ROUTING TO BE COORDINATED WITH UTILITY COMPANY AND CONTRACTOR TO FIELD COORDINATE CONDUIT STUB-UP LOCATION. STUB-UP 6" ABOVE GRADE AT EXISTING POWER SOURCE & EQUIPMENT AREA. PROPOSED TELCO WITH (2) 25 PAIR CAT 5 ICKY PICK (1) 4" SCH 40 PVC TELCO CONDUITS WITH PULL STRINGS (25 CONDUCTOR IN PROPOSED 4" SCH 40 PVC CONDUIT, SUBCONTRACTOR TO COORDINATE CONNECTION WITH PAIRS), CAT 5 RATED, ROUTED FROM PROPOSED EQUIPMENT LOCAL TELEPHONE COMPANY (FIELD VERIFY LOCATION) AREA TO EXISTING TELCO SOURCE, EXACT ROUTING AND STUB-UP LOCATION TO BE FIELD COORDINATED WITH UTILITY COMPANY. STUB-UP 6" ABOVE GRADE AT TELCO DEMARC & EQUIPMENT AREA. ALL TELCO CONDUITS SHALL USE LONG SWEEPS AT BENDS. -FXISTING TRANSMISSION TOWER **ABBREVIATIONS** AWG AMERICAN WIRE GAUGE BFG BELOW FINISH GRADE BARE TINNED STRANDED BTS EXISTING FENCE (TYP. С CONDUIT CAB CABINET DLO DIESEL LOCOMOTIVE CABLE DWG DRAWING EGR EXTERIOR GROUND RING EXTERIOR ISOLATED GROUND BAR EIGB GROUND EXISTING UTILITY HALO INTERIOR GROUND RING POLE (TYP.) MIGB MAIN ISOLATED GROUND BAR MGN MULTI-GROUNDED NEUTRAL MSC MOBILE SWITCHING CENTER MTS0 MOBILE TELEPHONE SWITCHING OFFICE **PLANNING** POLYVINYL CHLORIDE BOARD CHAIR PVC GRAPHIC SCALE RGS RIGID GALVANIZED STEEL HIGHWAY SS STAINLESS STEEL 10 SUPERINTENDENT SELF SUPPORTING TOWER SST BUILDING **TGR** TOWER GROUND RING ELECTRIC & TELCO LAYOUT INSPECTOR TYP. TYPICAL SCALE: AS NOTED SCALE: 11"x17" SHEET 1"= 10' SCALE: 22"x34" SHEET 1"= 5' CALLED NORTH **ENGINEER**

#### **GENERAL ELECTRICAL NOTES:**

- 1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF THE NATIONAL ELECTRICAL CODE AND ALL LOCAL AND STATE CODES, LAWS, AND ORDINANCES.
- 2. ALL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40 UNLESS OTHERWISE INDICATED. CONDUITS EXPOSED ABOVE GROUND SHALL BE RIGID GALVANIZED STEEL. ALL UNDERGROUND CONDUIT SHALL TRANSITION FROM PVC TO RIGID ABOVE GRADE. PROVIDE 36" SEPARATION BETWEEN UNDERGROUND POWER AND TELEPHONE CONDUITS. SUPPLY UTILITY MARKING TAPE BURIED 12" BELOW GRADE ALONG ENTIRE LENGTH OF UNDERGROUND CONDUITS.
- 3. ALL CONDUCTORS SHALL BE COPPER WITH THHN/THWN INSULATION. CONTROL CONDUCTORS SHALL BE STRANDED, POWER & LIGHTING CONDUCTORS SHALL BE SOLID FOR #10 & #12 CONDUCTORS AND STRANDED FOR ALL OTHER SIZES.
- 4. ELECTRICAL DRAWINGS ARE IN PART DIAGRAMMATIC. COORDINATE ELECTRICAL WORK WITH SITE CONDITIONS.
- LOCATE ALL UNDERGROUND UTILITIES BEFORE TRENCHING. IF CONFLICTS ARISE, CONTACT UTILITY COMPANY AND ENGINEER
- 6. ALL EXPOSED CONDUITS SHALL HAVE WEATHERPROOF CAPS NOT DUCT TAPE.
- 7. PROVIDE 200 LB TEST PULL WIRES IN EACH TELEPHONE AND
- 8. PULL BOXES SHALL BE INSTALLED AS NEEDED PER NEC UTILITY REQUIREMENTS.



- 1. NUMBER AND SIZE OF CONDUITS MAY VARY. REFER TO CONSTRUCTION DRAWINGS FOR CONDUIT SIZE AND LOCATION. CONFIRM DIMENSIONS SHOWN WITH UTILITY
- CONTRACTOR TO VERIFY IN FIELD THE LOCATION, SIZE, TYPE, AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO DIGGING THE SERVICE TRENCH. PROVIDE A MINIMUM OF 18" CLEARANCE BETWEEN PROPOSED UTILITIES AND EXISTING UTILITIES IN THE CASE OF UTILITY LINE CROSSINGS.



 $\bigcirc$ 

<u>り</u> フ

工

6	REVISED PER COMMENT	MAP	3/9
5	REVISED PER COMMENT	MAP	3/9
4	REVISED PER COMMENT	MAP	3/9
3	REVISED PER COMMENT	MAP	3/7
2	REVISED PER COMMENT	MAP	3/6
1	REVISED PER COMMENT	SKB	3/1
0	ISSUED FOR REVIEW	SKB	12/1
No.	Submittal / Revision	App'd	Da

Designed: MSL Date: 12/13/16 hecked: MSL Date: 12/13/16

RGE - ROCHESTER

5850 MONKS ROAD CANANDAIQUA, NY 14424

**GAS & ELECTRIC** 



AS NOTED

Date: 3/9/17

**APPROVALS** awing Title **ELECTRIC** DATE & TELCO LAYOUT DATE DATE

DATE

rawing Number

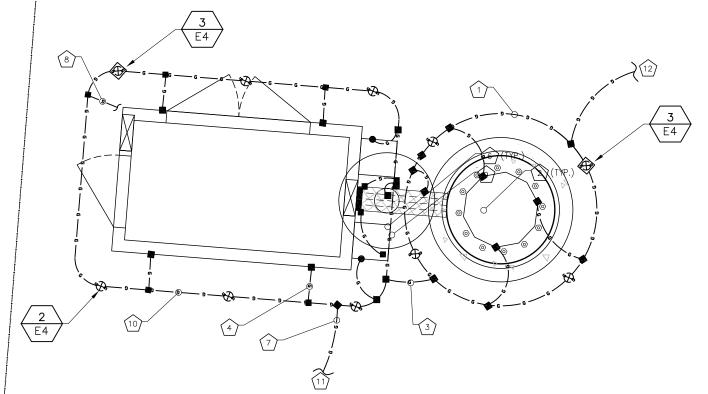
**E1** 

#### **GROUNDING SYMBOLS**

- ACCESS WELL
- GROUND ROD WITH ACCESS
- CADWELD TYPE CONNECTION
- COMPRESSION TYPE CONNECTION
- GROUND BAR
- G #2/0 BTS COPPER CONDUCTOR BURIED GROUND CABLE 30" BELOW GRADE
- #) INDICATES CODED NOTE

#### CODED DRAWING NOTES

- PROPOSED TOWER GROUND RING WITH #2/0 SOLID TINNED BCW.
- BOND PROPOSED TOWER GROUND RING TO PROPOSED TOWER WITH #2/0 SOLID TINNED BCW.
- BOND PROPOSED SHELTER GROUND RING TO PROPOSED TOWER GROUND RING WITH #2/0 SOLID TINNED BCW (TYP. OF (2) PLACES).
- BOND PROPOSED SHELTER GROUND RING TO PROPOSED SHELTER WITH #2/0 SOLID TINNED BCW (TYP. OF (4) PLACES).
- PROPOSED #2/0 AWG GROUND TO ANTENNA GROUND BAR. (NOT SHOWN FOR CLARITY)
- 6 BOND PROPOSED SHELTER GROUND BAR TO PROPOSED SHELTER WITH #2/0 SOLID TINNED BCW (TYP. OF (2) PLACES).
- PROPOSED #2/0 AWG GROUND TO HVAC UNIT (TYP OF (2) PLACES).
- 8 PROPOSED #2/0 AWG GROUND TO PANELBOARD.
- PROPOSED #2/0 AWG GROUND TO ICE BRIDGE.
- PROPOSED COMPOUND GROUND RING WITH #2/0 SOLID
- BOND PROPOSED SHELTER GROUND RING TO EXISTING & PROPOSED CHAIN LINK FENCE WITH #2/0 SOLID TINNED BCW
- BOND PROPOSED TOWER GROUND RING TO EXISTING & PROPOSED CHAIN LINK FENCE WITH #2/0 SOLID TINNED BCW



#### GENERAL GROUNDING NOTES:

- TO ENSURE PROPER BONDING, ALL CONNECTIONS SHALL BE AS FOLLOWS:

   #2/0 BARE TINNED SOLID COPPER CONDUCTOR: CADWELD TO RODS OR GROUND RING
  - LUGS AND BUS BAR (UNLESS NOTED OTHERWISE): SANDED CLEAN, COATED WITH OXIDE INHIBITOR AND BOLTED FOR MAXIMUM SURFACE CONTACT. ALL LUGS SHALL BE COPPER (NO ALUMINUM SHALL BE PERMITTED). PROVIDE LOCK WASHERS FOR ALL MECHANICAL CONNECTIONS FOR GROUND CONDUCTORS. USE STAINLESS STEEL HARDWARE THROUGHOUT.
- ALL GROUNDING CABLE IN CONCRETE OR THROUGH WALLS SHALL BE IN 2. 3/4" PVC CONDUIT. SEAL AROUND CONDUIT THROUGH WALLS. NO METALLIC CONDUIT SHALL BE USED FOR GROUNDING CONDUCTORS.
- 3. OWNER'S REPRESENTATIVE WILL INSPECT CADWELDS AND CONDUCT MEGGER TEST PRIOR TO BURIAL. MAXIMUM 5 OHMS RESISTANCE IS DECLURED.
- 4. DO NOT INSTALL GROUND RING OUTSIDE OF LEASED AREA.
- MAKE ALL GROUND CONNECTIONS AS SHORT AND DIRECT AS POSSIBLE. AVOID SHARP BENDS. ALL BENDS SHALL BE A MINIMUM 8" RADIUS AND NO GREATER THAN 90 DEGREES.
- 6. ALL CADWELDS TO BURIED GROUND RING SHALL BE THE PARALLEL TYPE, EXCEPT FOR THE GROUND RODS WHICH SHALL BE THE TEE TYPE.
- 7. BOND SERVICE CONDUITS TO GROUND RING AS THEY CROSS. DO NOT EXOTHERMICALLY WELD TO CONDUITS.
- 8. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER WHEN THE GROUNDING SYSTEM IS COMPLETE. THE CONSTRUCTION MANAGER SHALL INSPECT THE GROUNDING SYSTEM PRIOR TO BACKFILLING.
- THE MINIMUM SPACING BETWEEN GROUND RODS SHALL BE 10'-0" (MAX. 15'-0").
- 10. BOND CIGBE TO EXTERNAL GROUND RING WITH 2 RUNS OF #2 BARE, TINNED, SOLID COPPER CONDUCTOR IN PVC. CONNECT BAR END WITH 2 HOLE LUG, AND "CADWELD" THE OTHER END TO THE EXTERNAL GROUND ROD.
- 11. THE PREFERRED LOCATION FOR COAX GROUNDING IS AT THE BASE OF THE TOWER PRIOR TO THE COAX BEND. BONDING IS SHOWN ON THE ICE BRIDGE DUE TO DIFFICULTY WITH WELDING OR ATTACHING TO TOWER LEGS. CONTRACTOR SHALL ADVISE CONSTRUCTION MANAGER PRIOR TO PLACING CIGBE ON ICE BRIDGE IF MOUNTING TO TOWER LEG IS POSSIBLE.
- BONDING OF THE GROUNDED CONDUCTOR (NEUTRAL) AND THE GROUNDING CONDUCTOR SHALL BE AT THE SERVICE DISCONNECTING MEANS. BONDING JUMPER SHALL BE INSTALLED PER N.E.C. ARTICLE 250-30.

1033 Watervilet Shaker Road I A Phone: 518-690-0790 | Fax:

 $\mathbb{C}$ 

IS A VIOLATION OF ARTICLE 145 OF THE MYS DUCATION LAW FOR ANY PERSON UNLESS HEY ARE ACTING UNDER THE DIRECTION OF LICENSED PROFESSIONAL ENGINEER FROM INFINIGY, TO ALTER THIS DOCUMENT.

6	REVISED PER COMMENT	MAP	3/9/17
5	REVISED PER COMMENT	MAP	3/9/17
4	REVISED PER COMMENT	MAP	3/9/17
3	REVISED PER COMMENT	MAP	3/7/17
2	REVISED PER COMMENT	MAP	3/6/17
1	REVISED PER COMMENT	SKB	3/1/17
0	ISSUED FOR REVIEW	SKB	12/13/16
lo.	Submittal / Revision	App'd	Date

 Drawn:
 SKB
 Date:
 12/13/16

 Designed:
 MSL
 Date:
 12/13/16

 Checked:
 MSL
 Date:
 12/13/16

oject Number

oject Title

RGE – ROCHESTER GAS & ELECTRIC

> 5850 MONKS ROAD CANANDAIQUA, NY 14424

Prepared For

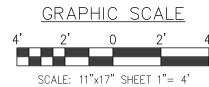


Drawing Scale
AS NOTED

Date: \_\_\_\_\_3/9/17

1 GROUNDING LAYOUT

CALLED NORTH



SCALE: 22"x34" SHEET 1"= 2'

**APPROVALS** rawing Title **PLANNING GROUNDING** DATE BOARD CHAIR **LAYOUT** HIGHWAY DATE SUPERINTENDENT BUILDING rawing Number DATE INSPECTOR **E2** DATE **ENGINEER** 

#### **GENERAL NOTES:**

#### 1. INSPECTIONS

- A. GENERAL: DURING AND UPON COMPLETION OF THE WORK, ARRANGE AND PAY ALL ASSOCIATED INSPECTIONS OF ALL ELECTRICAL WORK INSTALLED UNDER THIS CONTRACT IN ACCORDANCE WITH THE CONDITIONS OF THE CONTRACT. INSTALLATION SHALL COMPLY WITH APPLICABLE LAWS AND ORDINANCES, UTILITY COMPANY REQUIREMENTS, AND THE LATEST EDITION OF NEC, NFC, NEMA, OSHA, SBC, AND UL.
- B. INSPECTIONS REQUIRED: AS PER THE LAWS AND REGULATIONS OF THE LOCAL AND/OR STATE AGENCIES HAVING JURISDICTION AT THE PROJECT SITE.
- C. INSPECTION AGENCY: APPROVED BY THE LOCAL AND/OR STATE AGENCIES HAVING JURISDIC-TION AT THE PROJECT SITE.
- D. CERTIFICATES: SUBMIT ALL REQUIRED INSPECTION CERTIFICATES.

#### 2. HANGERS AND SUPPORTS

- A. MATERIALS: ALL HANGERS, SUPPORTS, FASTENERS AND HARDWARE SHALL BE ZINC COATED OR OF EQUIVALENT CORROSION RESISTANCE BY TREATMENT OR INHERENT PROPERTY, AND SHALL BE MANUFACTURED PRODUCTS DESIGNED FOR THE APPLICATION. PRODUCTS FOR OUTDOOR USE SHALL BE HOT DIP GALVANIZED.
- B. TYPES: HANGERS, STRAPS, RISER SUPPORTS, CLAMPS, U-CHANNEL, THREADED RODS, ETC. AS INDICATED OR REQUIRED.
- C. INSTALLATION: RIGIDLY SUPPORT AND SECURE ALL MATERIALS, RACEWAY AND EQUIPMENT TO BUILDING STRUCTURE USING HANGERS, SUPPORTS AND FASTENERS SUITABLE FOR THE USE. MATERIALS AND LOADS ENCOUNTERED. PROVIDE ALL NECESSARY HARDWARE. PROVIDE CONDUIT SUPPORTS AT MAXIMUM 5 FT. O.C.
- D: STRUCTURAL MEMBERS: DO NOT CUT, DRILL, OR WELD ANY STRUCTURAL MEMBER EXCEPT AS SPECIFICALLY APPROVED BY THE ENGINEER.
- E. MISCELLANEOUS SUPPORTS: PROVIDE ANY ADDITIONAL STRUCTURAL SUPPORT STEEL BRACKETS, ANGLES, FASTENERS AND HARDWARE AS REQUIRED TO ADEQUATELY SUPPORT ALL ELECTRICAL MATERIALS AND EQUIPMENT.
- F. ONE HOLE STRAPS SHALL NOT BE USED FOR CONDUITS LARGER THAN 3/4 INCH.

#### 3. ENCLOSURES

A. NEMA 3R

#### 4. HOLES, SLEEVES AND OPENINGS

GENERAL: PROVIDE ALL HOLES, SLEEVES, AND OPENINGS REQUIRED FOR THE COMPLETION OF WORK AND RESTORE ALL SURFACES DAMAGED TO MATCH SURROUNDING SURFACES.

#### 5. CUTTING AND PATCHING

- A. GENERAL: PROVIDE ALL CUTTING, DRILLING, FITTING AND PATCHING NECESSARY FOR ACCOMPLISHING THE WORK. THIS INCLUDES ANY AND ALL WORK NECESSARY TO: UNCOVER WORK TO PROVIDE FOR THE INSTALLATION OF ILL TIMED WORK, REMOVE AND REPLACE DEFEC-TIVE WORK AND WORK NOT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- B. REPAIRS: REPAIR ANY AND ALL DAMAGE TO WORK OF OTHER TRADES CAUSED BY CUTTING AND PATCHING OPERATIONS, USING SKILLED MECHANICS OF THE TRADES INVOLVED.

#### 6. RACEWAY SYSTEMS

- A. FOR INITIAL ANCHOR TENANT: ALL CONDUIT AND ALL CONDUIT ELBOWS SHALL BE SCHEDULE 40 PVC UNLESS
- B. FOR FUTURE CARRIERS: ALL ABOVE GRADE CONDUIT AND ALL CONDUIT ELBOWS SHALL BE RIGID GALVANIZED STEEL UNLESS NOTED OTHERWISE. ALL BELOW GRADE CONDUIT (EXCEPT ELBOWS) SHALL BE SCHEDULE 40 PVC.
- TOWER LIGHT CIRCUIT FROM CONTROLLER TO LIGHTS SHALL BE SCHEDULE 40 PVC. RACEWAY BURIAL DEPTH SHALL BE AS PER NEC. USE CLEAN SAND BACKFILL FOR ALL BURIED RACEWAY SYSTEMS.

#### 7. CONDUCTORS

USE 98% CONDUCTIVITY COPPER WITH TYPE XHHW-2 INSULATION, 600 VOLT, COLOR CODED. USE SOLID CONDUCTORS FOR WIRE UP TO AND INCLUDING NO. 8 AWG, STRANDED CONDUCTORS FOR WIRE LARGER THAN NO. 8. USE PRESSURE—TYPE INSULATED TWIST—ON CONNECTORS FOR NO. 10 AWG AND SMALLER, SOLDERLESS MECHANICAL TERMINAL LUGS FOR NO. 8 AWG AND LARGER.

#### 8. ELECTRIC SERVICE

- A. GENERAL: COMPLY WITH AND COORDINATE ALL REQUIREMENTS OF THE UTILITY COMPANY.
- B. SHORT CIRCUIT RATINGS: PROVIDE EQUIPMENT WITH HIGHER FAULT CURRENT RATINGS AS NEEDED TO MATCH UTILITY COMPANY AVAILABLE FAULT CURRENT.

#### 9. TELEPHONE SERVICE

A. GENERAL: INSTALLATION SHALL BE IN ACCORDANCE WITH TELEPHONE UTILITY COMPANY'S RULES AND REGULATIONS. UTILIZE LONG SWEEP BENDS IN ALL TELEPHONE CONDUITS.

#### 10. GROUNDING SYSTEM

A. INSTALLATION: INSTALL AS INDICATED ON THE DRAWINGS AND AS REQUIRED. OWNER'S REPRESENTATIVE WILL INSPECT CADWELDS AND CONDUCT MEGGER TEST PRIOR TO BURIAL. MAXIMUM 5 OHMS RESISTANCE IS REQUIRED. USE CLEAN SAND AND CLAY BACKFILL FOR BURIED GROUND CONDUCTORS

#### 11. CHECKOUT, TESTING AND ADJUSTING

- A. CORRECTION/REPLACEMENT: AFTER TESTING BY CONTRACTOR, OWNER OR ENGINEER, CORRECT ANY DEFICIENCIES AND REPLACE MATERIALS AND EQUIPMENT SHOWN TO BE DEFECTIVE OR UNABLE TO PERFORM AT DESIGN OR RATED CAPACITY.
- B. POWER CONDUCTORS: CONTRACTOR SHALL CONDUCT A CONTINUITY & INSULATION TEST ON CONDUCTORS BETWEEN SERVICE DISCONNECT SWITCH & POWER CABINET.
- WHEN SITE POWER IS DERIVED FROM 3 PHASE SOURCE LOAD READINGS WILL BE TAKEN AND RECORDED TO MAINTAIN A BALANCED LOAD AT THE PRIMARY SOURCE. RECORDS SHALL BE TURNED TO THE OWNER'S REPRESENTATIVE.

 $\bigcirc$ FING

IS A VIOLATION OF ARTICLE 145 OF THE NY EDUCATION LAW FOR ANY PERSON UNLESS HEY ARE ACTING UNDER THE DIRECTION O LICENSED PROFESSIONAL ENGINEER FROM

6	REVISED PER COMMENT	MAP	3/9/1
5	REVISED PER COMMENT	MAP	3/9/1
4	REVISED PER COMMENT	MAP	3/9/1
3	REVISED PER COMMENT	MAP	3/7/13
2	REVISED PER COMMENT	MAP	3/6/1
1	REVISED PER COMMENT	SKB	3/1/17
0	ISSUED FOR REVIEW	SKB	12/13/1
No.	Submittal / Revision	App'd	Date

rawn: \_\_\_\_\_\_SKB\_\_ Date: 12/13/16 Designed: MSL Date: 12/13/16 Checked: MSL Date: 12/13/16

roject Number

roject Title

#### RGE - ROCHESTER **GAS & ELECTRIC**

5850 MONKS ROAD CANANDAIQUA, NY 14424

epared For

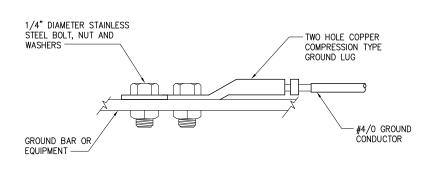


AS NOTED Date: 3/9/17

**APPROVALS** rawing Title **ELECTRIC** PLANNING DATE BOARD CHAIR & TELCO HIGHWAY **NOTES** DATE SUPERINTENDENT BUILDING awing Number DATE INSPECTOR **E3** DATE

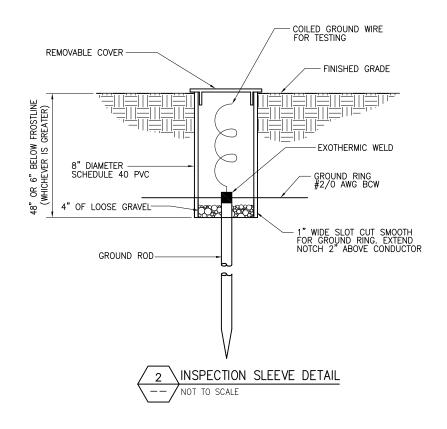
**FNGINFFR** 

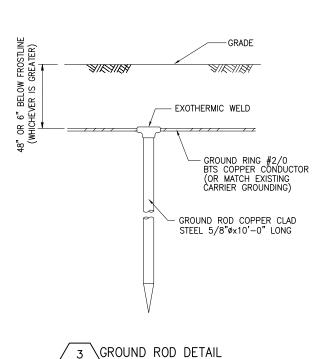




NOTE: ALL MECHANICAL EXTERNAL TERMINATION SURFACES SHALL BE TREATED WITH T&B KOPR-SHIELD CP8 ANTI-OXIDATION

EQUIPMENT GROUND CONNECTION





- 1				
	6	REVISED PER COMMENT	MAP	3/9/1
	5	REVISED PER COMMENT	MAP	3/9/1
	4	REVISED PER COMMENT	MAP	3/9/1
	3	REVISED PER COMMENT	MAP	3/7/13
	2	REVISED PER COMMENT	MAP	3/6/1
ı	1	REVISED PER COMMENT	SKB	3/1/17
ı	0	ISSUED FOR REVIEW	SKB	12/13/1
ı	No.	Submittal / Revision	App'd	Date
-				

Drawn: <u>SKB</u> Date: 12/13/16 Designed: <u>MSL</u> Date: 12/13/16 Checked: MSL Date: 12/13/16

roject Number

Project Title

RGE - ROCHESTER **GAS & ELECTRIC** 

> 5850 MONKS ROAD CANANDAIQUA, NY 14424



Drawing Scale: AS NOTED Date:

	APPROVALS	Drawing Title
PLANNING BOARD CHAIR	DATE	GROUNDING
HIGHWAY SUPERINTENDENT	DATE	DETAILS
BUILDING INSPECTOR	DATE	Drawing Number
TOWN ENGINEER	DATE	<b>E4</b>