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Canadian
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Garde côtière
canadienne



Reference Project #: EWT 8055-489 – Rondeau MCTS

Date of Issue: August 12, 2016

RFQ – Telecommunication Tower Maintenance and Engineered Inspection

Scope of work

Canadian Coast Guard (CCG) has a requirement for maintenance and inspection of the telecommunication tower at our Rondeau VHF radio site. Maintenance work includes replacement of the existing top-mount obstruction light beacon and controller, as well as guy tension adjustments.

Tower Inspection and Maintenance

The successful bidder will be required to perform full tower inspections on the telecommunication style tower in Rondeau. The successful bidder shall also be adequately trained and prepared to adjust guy tensions to within specification while at site performing the inspection.

Obstruction Lighting

The current TWR LEDBEACON 2 obstruction lighting is to be replaced with a Dialight D464-A13-001 top mounted beacon. Replace lighting controller, new controller to be 'RLC-201-UNI' by ITL, LLC. If needed to account for a different current draw from the new light. The contractor is responsible for reviewing this ahead of time and identifying any potential problems to CCG.

Existing mid-level, cables, and photocell may be -reused.

Field Work

Site work must be coordinated with a Canadian Coast Guard representative who will have a representative on site during the work. Consultant must have minimum of 2 people on site for the visit; 1 tower climber and 1 tower rescuer. Both shall be trained and qualified as applicable. Note that any Fall Arrest system found on the given towers is to be used for climbing tower only, not for work positioning, in accordance with manufacturer's instructions.

The successful bidder shall be required to perform an inspection on 1 guyed tower in Rondeau. All items discussed in Appendix D of CAN/CSA S-37-13 shall be thoroughly investigated.

The successful bidder shall also adjust guy tension for the tower as needed.

Report

Inspection report to include commentary on all items discussed in Appendix D, CSA S-37-13, and accompanying photographs of all observed areas of deficiency. Although the engineer will be subcontractor to the contractor responsible for this scope of work, the report shall be addressed to the Canadian Coast Guard.

Report must be stamped by a P. Eng. licensed to practice in Ontario, and shall be provided in soft copy (.pdf). Photographs need only be included within report.





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It is required that the completed report identifies that the tower tension and alignment is within CSA S37-13 requirements. A report identifying anything to the contrary will not be accepted.

Tower Details

Height: 200' VHF

Manufacturer: Netricom

Year of Installation: 2012

Site Location and Accessibility

The site is located in Rondeau, ON and can be accessed through municipal roadways. It should be noted that the lane into the site will not be maintained during the winter. Should there be snow present the contractor will be responsible for plowing. Maps and photographs of the site have been provided in Appendix A and B.

All costs associated with the mobilization, operating, and demobilizing of the site must be included in the quoted price. In responding to this RFQ, bidders acknowledge that they have made their own assessment of the difficulties of accessing and undertaking the assignment at this location.

General Requirements

Perform work in accordance with the National Building Code of Canada (NBC) and any other code of provincial or local application. In the case of any conflict or discrepancy, the more stringent requirements will apply.

Meet or exceed the requirements of:

1. Contract documents;
2. Specified standards, codes and referenced documents;
3. S37-01; Antennas, Towers and Antenna-supporting structures.

Health and Safety

The contractor must execute the works identified herein in strict conformance with the requirements set forth in the following:

1. Canadian Labour Code Part II – January 2008
2. Ontario Occupational Health and Safety Act and Regulations

The contractor must have an existing corporate health and safety policy and must be registered and in good standing with the Worker's Compensation and Insurance Board (WSIB).

Submittals

Contractors must provide the following to Canadian Coast Guard within 5 days after award and prior to commencing any work:

1. A signed corporate safety statement, or a signed corporate safety policy;
2. Current WSIB clearance certificate;
3. Proof of general liability insurance;
4. Project specific safety plan.





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Firms that have previously submitted policies to CCG are excluded from this requirement; however, must indicate when, and for which project, their policies were last submitted.

Schedule

Field work may commence as soon as possible upon award. Contractors shall provide the Canadian Coast Guard with notice 5 business days prior to requiring access to the sites. All modifications must be completed and reports received no later than March 31, 2017.

Quote Structure

Provide a lump sum quotation including all provisions to fully complete the requirements of this RFQ. Please list H.S.T. separately.

Background Information

Appendix A – Site Location

Appendix B – Photos

Appendix C – Site and Tower Drawings





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APPENDIX A SITE LOCATION



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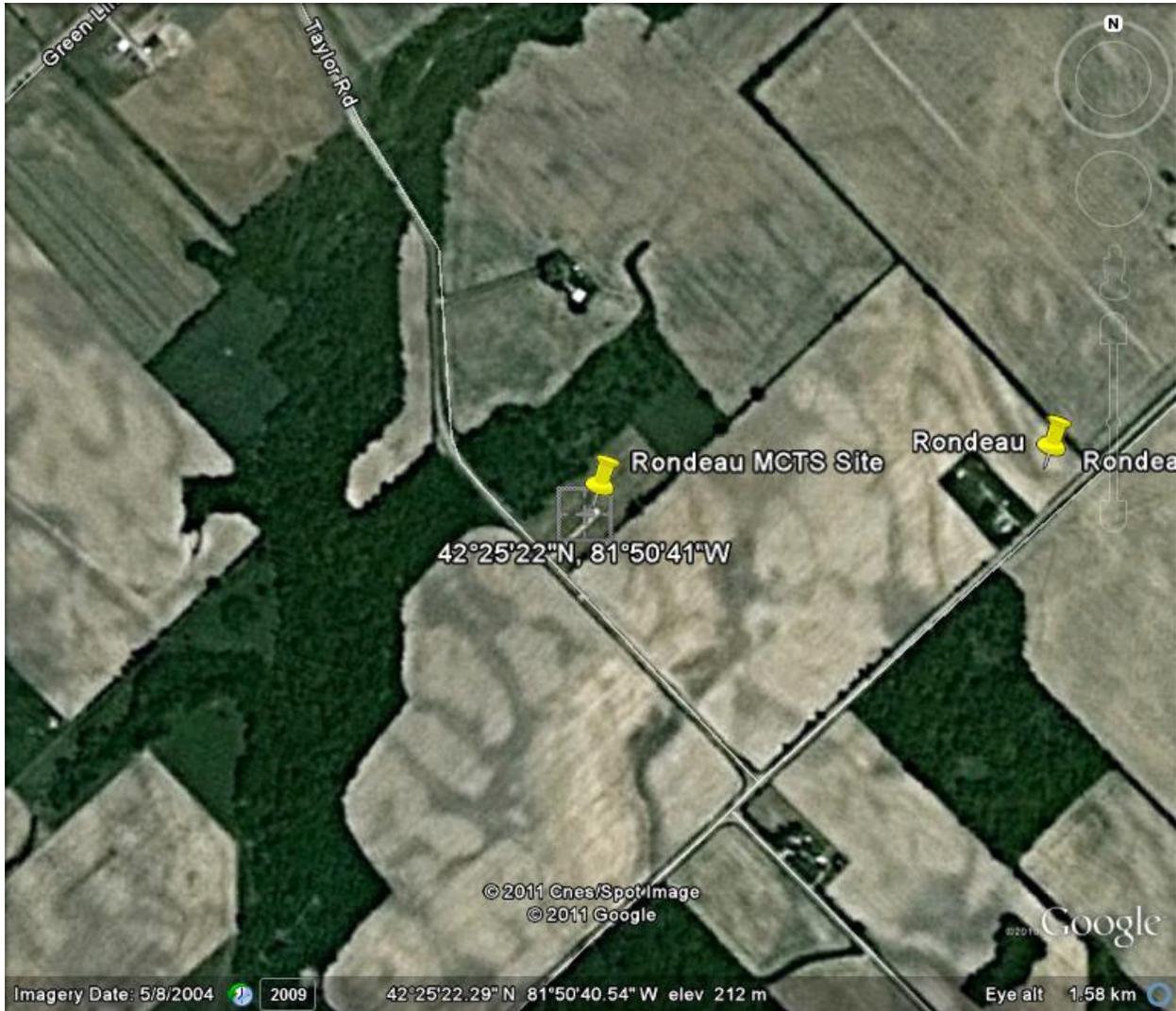


Figure 1: Site Location of Rondeau MCTS

Rondeau, ON - 42°25'22" N, 81°50'41" W





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APPENDIX B PHOTOS



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Figure 2: Rondeau Site



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APPENDIX C TOWER DRAWINGS



Canada

GENERAL

1. THE GENERAL STRUCTURAL NOTES ARE INTENDED TO AUGMENT THE DRAWINGS AND SPECIFICATIONS. SHOULD CONFLICTS EXIST BETWEEN THE DRAWINGS, SPECIFICATIONS AND/OR THE GENERAL STRUCTURAL NOTES, THE STRICTEST PROVISION SHALL GOVERN.
2. WHERE THE DESIGN STANDARDS ARE INDICATED WITHOUT A RELEASE DATE, THE MOST RECENT VERSION SHALL APPLY.
3. PRIOR TO STARTING THE WORK, THE CONTRACTOR SHALL ADVISE THE TOWER OWNER AND THE ENGINEER OF RECORD IN WRITING OF ANY ABNORMALITY OR DAMAGES OBSERVED ON THE EXISTING TOWER THAT ARE NOT INDICATED IN THESE DRAWINGS. ALL OTHER ABNORMALITIES OR DAMAGES BROUGHT TO THE ENGINEER AND OWNERS ATTENTION AFTER THE START OF THE WORK ON THE TOWER SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE AND TO THE OWNER'S SATISFACTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE TO TAKE AND VERIFY ALL DIMENSIONS AND CONDITIONS OF THE EXISTING STRUCTURE IN THE SITE AND COMPARE THESE DIMENSIONS AND CONDITIONS WITH THOSE SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL ADVISE THE ENGINEER OF RECORD, OF ANY CONFLICTS OR OMISSION NOTED ON SITE. THE CONTRACTOR SHALL CARRY OUT THIS VERIFICATION BEFORE THE PREPARATION OF SHOP DRAWINGS AND FABRICATION OF THE NEW ELEMENTS AS INDICATED IN THIS DRAWING PACKAGE.
5. EXCEPT AS NOTED OTHERWISE, THE CONTRACTOR IS RESPONSIBLE FOR THE MANUFACTURING, SUPPLY AND INSTALLATION OF ALL THE NEW ELEMENTS SHOWN ON THE DRAWINGS.
6. THE CONTRACTOR SHALL SUBMIT THE SHOP DRAWINGS OF ALL NEW ELEMENTS PRIOR TO FABRICATION, FOR APPROVAL BY THE ENGINEER OF RECORD.
7. THE CONTRACTOR SHALL PERFORM ALL THE WORK DESCRIBED IN THE SCOPE OF WORK IN ENTIRE CONFORMITY WITH THIS DRAWING PACKAGE. ANY PROPOSED CHANGES BY THE CONTRACTOR RELATIVE TO THE DRAWINGS (e.g. DIFFERENT MEMBER SIZES, LENGTHS, CONFIGURATION, ETC.) SHALL BE SUBMITTED TO THE TOWER OWNER AND ENGINEER OF RECORD FOR APPROVAL PRIOR TO THEIR FABRICATION AND/OR INSTALLATION. ANY CHANGES MADE BY THE CONTRACTOR WITHOUT PRIOR APPROVAL WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. IN THIS CASE, THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY EXPENSE AND COSTS RELATED TO THE MEASUREMENT ON SITE OF THE "AS-BUILT" CONDITIONS, THE VERIFICATION OF THE CHANGES AND REVISION OF DRAWINGS TO ACCOUNT FOR THESE CHANGES. ANY FURTHER MODIFICATION REQUIRED DUE TO THESE CHANGES WILL BE AT THE CONTRACTOR'S EXPENSE AND TO THE OWNER'S SATISFACTION.

FOUNDATIONS

1. THE FOUNDATION DESIGN IS BASED ON THE LOADS SHOWN ON THE DESIGN PROFILE AND THE SOIL REPORT. SEE THE FOUNDATION DRAWINGS FOR REFERENCES TO SOIL PARAMETERS AND SOILS REPORT.
2. WHERE SITE CONDITIONS DIFFER FROM THESE DRAWINGS, CONSULT THE ENGINEER OF RECORD RESPONSIBLE FOR THE FOUNDATION DESIGN.
3. A REPRESENTATIVE OF THE ENGINEER OR THE OWNER SHALL INSPECT THE FOUNDATION INSTALLATION TO ENSURE COMPLIANCE WITH THE PLANS.
4. THE CONTRACTOR IS RESPONSIBLE TO CHECK AREA FOR LOCATIONS OF UNDERGROUND PIPES, CABLES, CONDUIT, ETC. PRIOR TO EXCAVATION.
5. ALL WORK SHALL BE DONE IN ACCORDANCE WITH LOCAL CODES AND SAFETY REGULATION REQUIREMENTS. PROCEDURES FOR PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION AND UTILITIES SHALL BE ESTABLISHED PRIOR TO COMMENCEMENT OF FOUNDATION WORK.
6. BRACING, SHORING, AND SLOPING OF EXCAVATIONS SHALL BE DONE IN ACCORDANCE WITH ALL LOCAL AND FEDERAL CODES, SAFETY REGULATIONS AND SOILS REPORT RECOMMENDATIONS.
7. WELDING OF REINFORCING STEEL AND EMBEDMENT IS PROHIBITED UNLESS OTHERWISE NOTED ON DRAWINGS.
8. CONCRETE COVERAGE OVER ALL STEEL SHALL CONFORM TO CSA A23.1 APPLICABLE BUILDING CODE MINIMUM REQUIREMENTS AND AS SHOWN ON STRUCTURAL DETAILS. THE MINIMUM CLEAR CONCRETE COVER OVER REBAR SHALL BE 75mm.
9. A REPRESENTATIVE OF THE ENGINEER OR THE OWNER SHALL INSPECT BOTTOM OF EXCAVATION PRIOR TO PLACING THE STEEL REINFORCING CAGE AND CONCRETE, TO INSURE NO SIGNIFICANT AMOUNTS OF LOOSE SOIL OR FOREIGN MATERIAL REMAINS.
10. SPACING DEVICES SHALL BE USED AS REQUIRED TO MAINTAIN THE SIDE CLEARANCE BETWEEN THE STEEL REINFORCEMENT AND EXCAVATION WALL.
11. CONCRETE SHALL BE PLACED INTO EXCAVATION WITHOUT UNDUE DELAY, WITH THE USE OF A CHUTE OR HOPPER DEVICE TO DIRECT THE CONCRETE TO FALL WITHIN THE CENTER OF THE STEEL CAGE. CONCRETE SHALL NOT BE ALLOWED TO HIT THE STEEL CAGE IN A MANNER WHICH WOULD CAUSE SEGREGATION OF THE MATERIAL.
12. BACK FILL SHALL BE PLACED IN 225-300mm HORIZONTAL LIFTS AND COMPACTED TO A MINIMUM 95% OF STANDARD PROCTOR DRY DENSITY. THE FILL MATERIAL SHALL BE FREE OF LARGE ROCKS, WASTE, AND DEBRIS AND SHALL BE PLACED AT OR NEAR THE OPTIMUM MOISTURE CONTENT. ALSO REFER TO THE SOIL REPORT FOR RECOMMENDED BACKFILL/COMPACTED FILL PROCEDURES.
13. THE CONTRACTOR SHALL INFORM THE REPRESENTATIVE OF THE ENGINEER AND/OR OWNER A SPECIFIC TIME WHEN THE WORKS ARE READY TO BE INSPECTED, AND BEFORE ANY CONCRETE POURING.

CAST-IN-PLACE CONCRETE

1. THE CONTRACTOR IS FULLY RESPONSIBLE FOR REINFORCED CONCRETE WORKS.
2. CONCRETE MATERIAL AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF CSA A23.1 TESTING METHODS SHALL CONFORM TO CSA A23.2.
3. ALL CONCRETE SHALL HAVE A MINIMUM SPECIFIED 28-DAY COMPRESSIVE STRENGTH OF 30MPa, UNLESS OTHERWISE NOTED.
4. RECOMMENDED CONCRETE SLUMP 75mm TO 125mm, WITH ENTRAINED AIR OF 5% TO 7%.
5. ALL REINFORCING STEEL BARS SHALL CONFORM TO CSA G30.18, AND HAVE A YIELD STRENGTH OF 400MPa, UNLESS OTHERWISE NOTED.
6. LAPS, ANCHORAGES AND SPLICES SHALL COMPLY WITH THE REQUIREMENTS OF CSA A23.3.
7. CONCRETE TESTS, SLUMP AND PLACEMENT SHALL BE INSPECTED BY A THIRD PARTY INSPECTION FIRM.

FIELD ERECTION

1. THE CONTRACTOR IS FULLY RESPONSIBLE OF IMPLEMENTING ERECTION PROCEDURES AND QUALITY CONTROL MEASURES TO ENSURE A SAFE WORK CONDITION. ALL WORK SHALL BE DONE IN ACCORDANCE OF CANADA LABOUR CODE PART II.
2. THE CONTRACTOR IS EXPECTED TO BE EXPERIENCED ON THE INSTALLATION OF STRUCTURES FOR THE TELECOM INDUSTRY.
3. ANY WORK INVOLVING THE TEMPORARY REMOVAL OF EXISTING MEMBERS SHALL BE DONE ONLY BY QUALIFIED AND EXPERIENCED PERSONNEL AND FOLLOWING APPROVED ERECTION PROCEDURES.
4. ALL PRECAUTIONS AND EFFORTS SHALL BE TAKEN TO ENSURE THE TOWER STABILITY DURING THE INSTALLATION PROCESS.
5. ERECTION METHODS AND TOLERANCES SHALL COMPLY WITH STANDARD CSA S37. MINIMUM RECOMMENDED WEATHER CONDITIONS THAT SHOULD BE OBSERVED TO ENSURE A SAFE WORKING CONDITION SHALL BE: WIND NOT TO EXCEED 30 km/h AND NO THUNDERSTORMS FORECASTED.
6. THE TOWER SHALL BE PLUMBED IN CALM WEATHER CONDITIONS.
7. UPON COMPLETION OF ALL WORK, THE SITE SHALL BE CLEARED OF ALL DEBRIS AS REQUIRED, AND ANY SURPLUS MATERIAL NOT REMOVED FROM THE SITE SHALL BE NEATLY STORED IN AN AREA DESIGNED BY THE OWNER OR THE OWNER'S REPRESENTATIVE.

GUY WIRES

1. GUY WIRES SHALL BE EITHER GRADE 180 STRAND (CSA G12, DESIGNATED AS GS), EXTRA HIGH-STRENGTH STRAND (ASTM A475, DESIGNATED AS EH), OR BRIDGE STRAND (ASTM A586, DESIGNATED AS BS), LEFT-HAND LAY CABLES AS DESIGNATED ON PLANS WITH FINISH MEETING RESPECTIVE SPECIFICATIONS.
2. ALL GUY FITTINGS SHALL BE GALVANIZED PER CSA G164 OR ASTM A123 AND SHALL BE SUITABLY HEAT TREATED (NORMALIZED OR ANNEALED).
3. GROUNDING ON THE GUY'S AT ANCHORS SHALL MEET MINIMUM CSA STANDARD S37 REQUIREMENTS AND CUSTOMER SPECIFICATION IF APPLICABLE.

STRUCTURAL STEEL

1. ALL STEEL FABRICATION AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE CSA STANDARDS CSA S16.1 AND CSA S37.
2. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH STANDARD CSA W59 AND USING E49XX (Fu=450 MPa) ELECTRODES. ALL WELDING TO BE PERFORMED IN A CWB REGISTERED SHOP. FIELD-WELDING IS NOT PERMITTED UNLESS NOTED OTHERWISE.
3. ALL NEW STEEL SHALL CONFORM TO CSA G40.20/G40.21 300W AND 350W AS INDICATED IN THE DRAWINGS.
4. ALL NEW BOLTS, WASHERS AND NUTS SHALL CONFORM TO ASTM 325 UNLESS NOTED OTHERWISE. ALL CONNECTIONS TO BE BEARING WITH THE BOLT THREADS OUTSIDE POSSIBLE SHEAR PLANES. ALL BOLTS SHALL BE TIGHTENED USING THE TURN-OF-THE-NUT METHOD AS DESCRIBED IN THE SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. DO NOT RE-USE EXISTING BOLTS ONCE REMOVED. THREADED CONNECTIONS OTHER THAN HIGH STRENGTH BOLTS SHALL HAVE A MEANS TO PREVENT LOOSENING. ACCEPTABLE METHODS ARE LOCK WASHER OR LOCK NUTS.
5. ALL U-BOLTS HAVE TO BE MINIMUM SAE J429 GRADE 2 OR EQUIVALENT WITH ROLLED THREADS. CUT THREADS ARE NOT ACCEPTABLE. EACH THREADED PART OF THE U-BOLT SHALL HAVE A ROUND FLAT WASHER ASTM F436, A SPRING LOCK WASHER EXTRA DUTY TYPE CONFORMING TO ANSI B27.1 AND A SAE GRADE 2 HEX NUT.
6. THE FINISHED DIAMETER OF BOLT HOLES SHALL NOT BE MORE THAN 2mm LARGER THAN THE NOMINAL BOLT DIAMETER UNLESS NOTED OTHERWISE.
7. CUT EDGES SHALL BE TRUE, SMOOTH AND FREE FROM EXCESSIVE BURRS AND RAGGED BREAKS. SHEARED EDGES OF THICK PLATES SHALL BE PLANNED TO A DEPTH OF 6mm. RE-ENTRANT CUTS SHALL BE AVOIDED ; IF USED, THEY SHALL BE FILLETED BY DRILLING PRIOR TO CUTTING.
8. TOLERANCES AS INDICATED IN CSA S16.1 SHALL BE CAREFULLY FOLLOWED DURING FABRICATION.
9. PRIOR TO GALVANIZING, ALL FABRICATED STEEL SHALL BE THOROUGHLY SHOP INSPECTED.
10. EXCEPT WHERE NOTED OTHERWISE, ALL NEW STEEL MEMBERS, BOLTS AND HARDWARE SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH STANDARD CSA G164. DOUBLE-DIPPING IN GALVANIZING BATHS IS NOT PERMITTED.
11. ANY DAMAGES TO GALVANIZED SURFACES AND AROUND FIELD-DRILLED HOLES SHALL BE CLEANED AND TOUCHED-UP WITH TWO COATS OF ZINC-RICH PAINT IN ACCORDANCE WITH STANDARD CSA G189.
12. ALL STEEL FABRICATION AND INSTALLATION SHALL USE THE GAUGE LINES AND END DISTANCES FROM THE TABLES BELOW UNLESS NOTED OTHERWISE ON DETAIL DRAWINGS.

END DISTANCES:

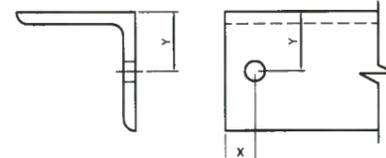
Bolt Size (in)	End Distance (in) [X]	End Distance (mm) [X]
1/2	1	25
5/8	1.181	30
3/4	1.377	35
7/8	1.574	40

Note:

For 5/8" single bolt connected 5mm (3/16") thick diagonal or horizontal members, the end distance is 35mm (1.377").

ANGLE GAUGE LINES (from heel to hole center):

Ang. Size (in)	Ang. Size (mm)	Gauge (in) [Y]	Gauge (mm) [Y]
L2x2	L51x51	1.102	28
L2-1/2x2-1/2	L64x64	1.377	35
L3x3	L76x76	1.574	40
L3-1/2x3-1/2	L89x89	1.771	45
L4x4	L102x102	1.968	50
L5x5	L127x127	2.559	65



FILE NO. 0163462

REVISIONS				
REV.	DESCRIPTION	DWN	CHK	APP

DWG REFERENCE	



MISSISSAUGA, ON, CANADA
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FISHERIES AND OCEANS CANADA
GENERAL NOTES
60m RG24
COAST GUARD RONDEAU MCTS, ON

DWN: YNL	CHK'D: SJD	DATE: Jan/19/2012
ENGR: CAG	ENGR APP'D:	
DRAWING NO: 24-SSGL-N01-01		REV: 0

Jan/25/2012 10:06:00 AM

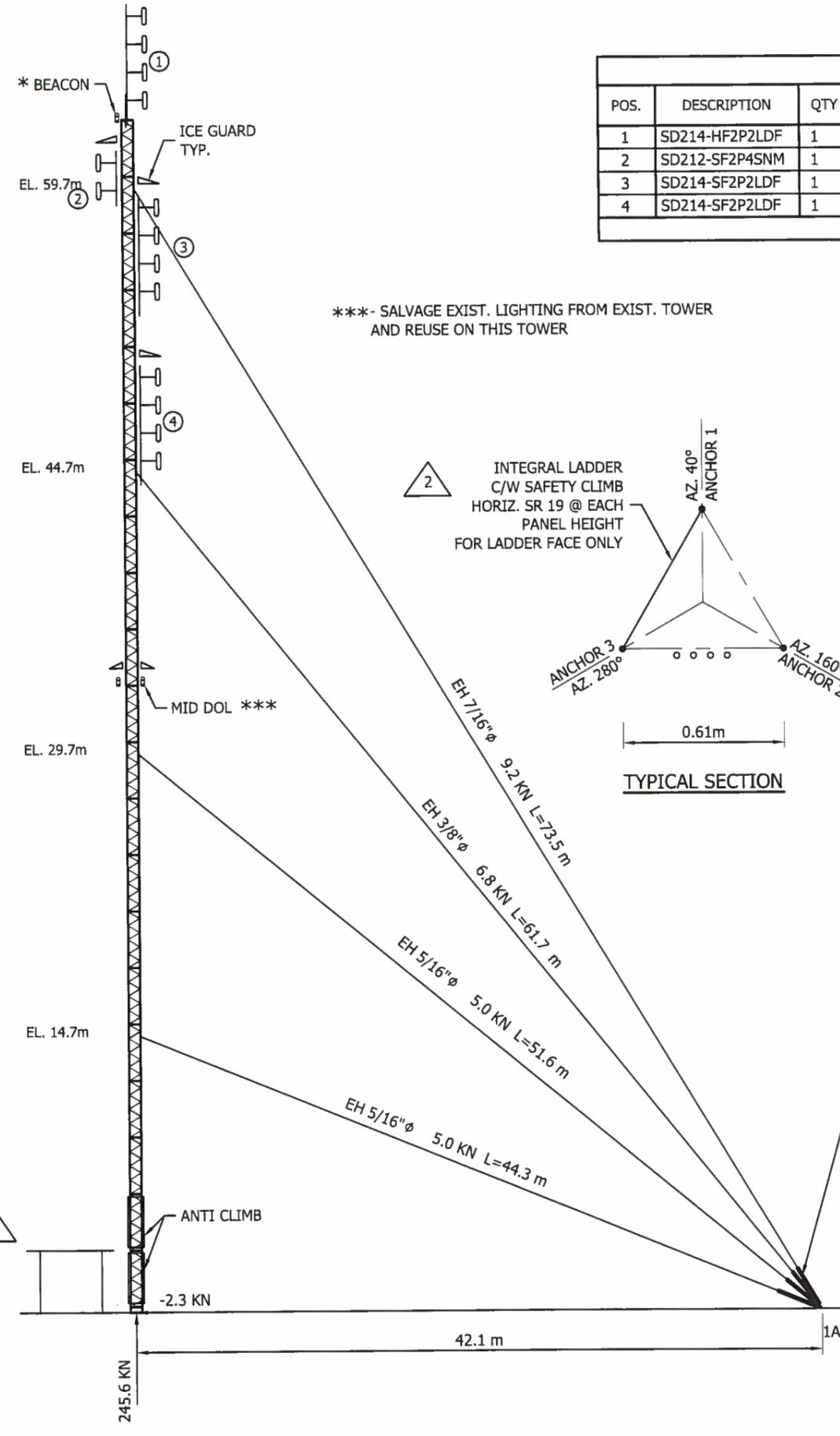
1/25/2012

DESIGN SPECIFICATION: CSA-S37-01
 WIND PRESSURE: 450.0 Pa
 RADIAL ICE: 25.0 mm
 IMPORTANCE FACTOR: 1
 SERVICEABILITY FACTOR: 1

SECTION NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
LEGS GRADE = 300W																					
DIAGONALS GRADE = 300W																					
HORIZONTALS GRADE = 300W																					
PAINT																					

ELEVATIONS (m)
 0.3, 3.3, 6.3, 9.3, 12.3, 15.3, 18.3, 21.3, 24.3, 27.3, 30.3, 33.3, 36.3, 39.3, 42.3, 45.3, 48.3, 51.3, 54.3, 57.3, 60.3, 63.3

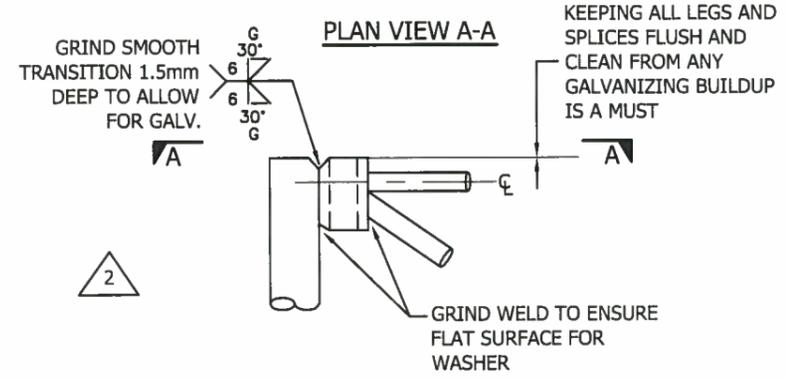
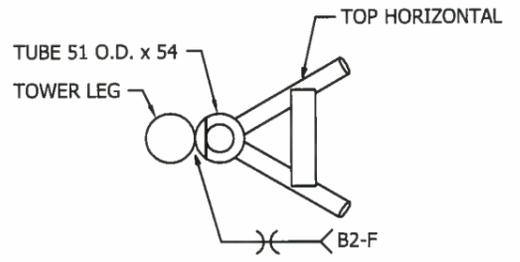
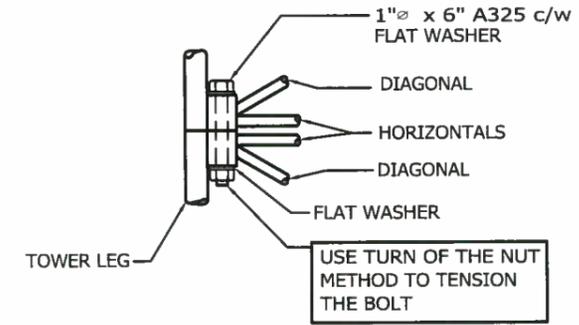
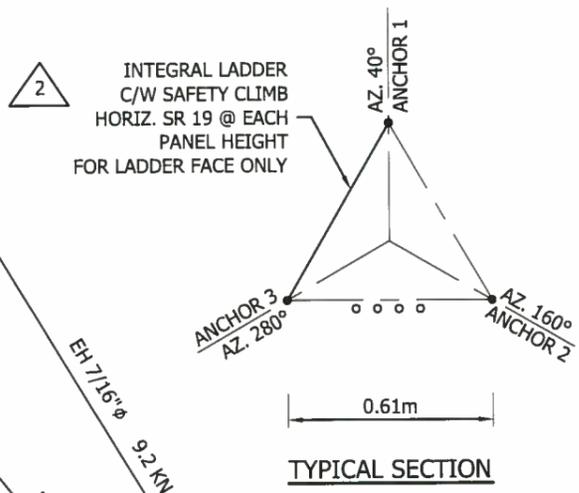
A = StarBase
 B = 24212A
 * = SR 19 (AT TOP & BOTTOM AT EACH SECTION)



POS.	DESCRIPTION	QTY	ELEVATION	Tx LINE	QTY	AZIMUTH	COMMENTS	STATUS
1	SD214-HF2P2LDF	1	66.05 m	AVA5-50	1	135°		I
2	SD212-SF2P4SNM	1	59.44 m	AVA5-50	1	0°		I
3	SD214-SF2P2LDF	1	56.38 m	AVA5-50	1	135°		I
4	SD214-SF2P2LDF	1	47.24 m	AVA5-50	1	135°		I

STATUS: E-EXISTING, F-FUTURE, I-INITIAL

***- SALVAGE EXIST. LIGHTING FROM EXIST. TOWER AND REUSE ON THIS TOWER



ANCHOR	AZIMUTH	RADIUS (m)	ELEV. (m)	VERT. (KN)	HORIZ. (KN)	AXIAL (KN)	ANGLE
1A	40.0°	42.09	-1.3	83.2	96.1	126.8	40.9°
2A	160.0°	41.00	-0.4	84.1	96.1	127.7	41.1°
3A	280.0°	42.21	-1.4	83.2	96.1	126.8	40.9°

REACTIONS FACTORED AS PER CSA-S37-01
 ANCHOR REACTIONS
 HORIZ. AXIAL @ ANGLE
 VERT.

FILE NO. 0163462

REV.	DESCRIPTION	DWN	CHK	APP
1	LADDER FACE CHANGE TO NORTH FACE DATE: Jan/26/2012	YNL	SJD	CAG
2	SPLICE CONNECTION DETAIL ADDED DATE: Feb/07/2012	YNL	SJD	CAG

DWG REFERENCE

LICENSED PROFESSIONAL ENGINEER
 FEB 07 2012
 C. A. GALVEZ
 PROVINCE OF ONTARIO

NETRICOM
 MISSISSAUGA, ON, CANADA
 +1 905 275 8510 www.netricom.com

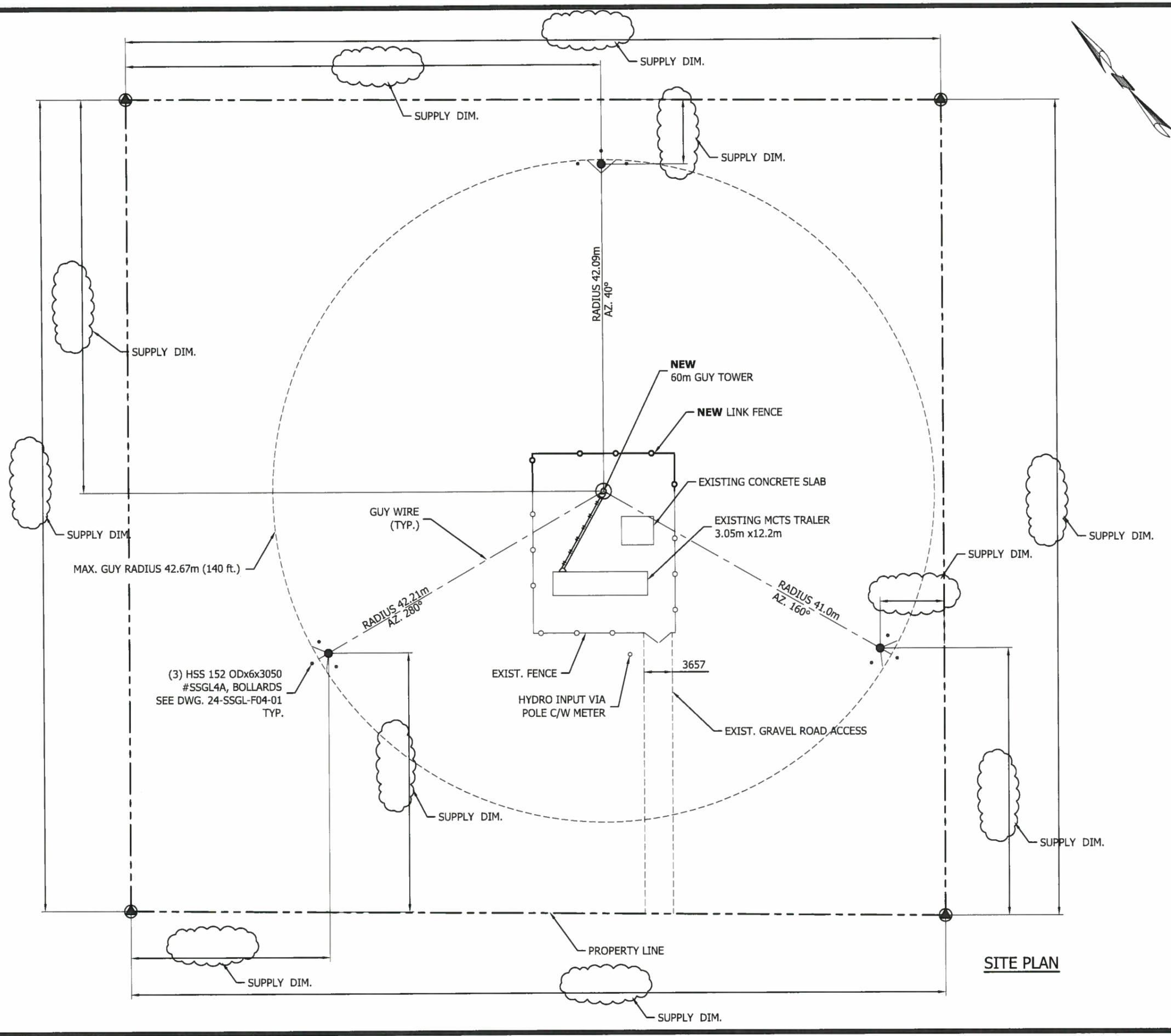
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FISHERIES AND OCEANS CANADA
 TOWER PROFILE
 60m RG24
 COAST GUARD RONDEAU MCTS, ON

DWN: YNL	CHK'D: SJD	DATE: Jan/09/2012
ENGR: CAG	ENGR APP'D:	

DRAWING NO: 24-SSGL-E01-01
 REV: 2

Feb/07/2012 4:50:39 PM



FILE NO.	0163462		
REVISIONS			
REV.	DESCRIPTION	DWN	CHK APP

DWG REFERENCE	
24-SSGL-S02-01	
24-SSGL-F04-01	



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FISHERIES AND OCEANS CANADA
SITE PLAN

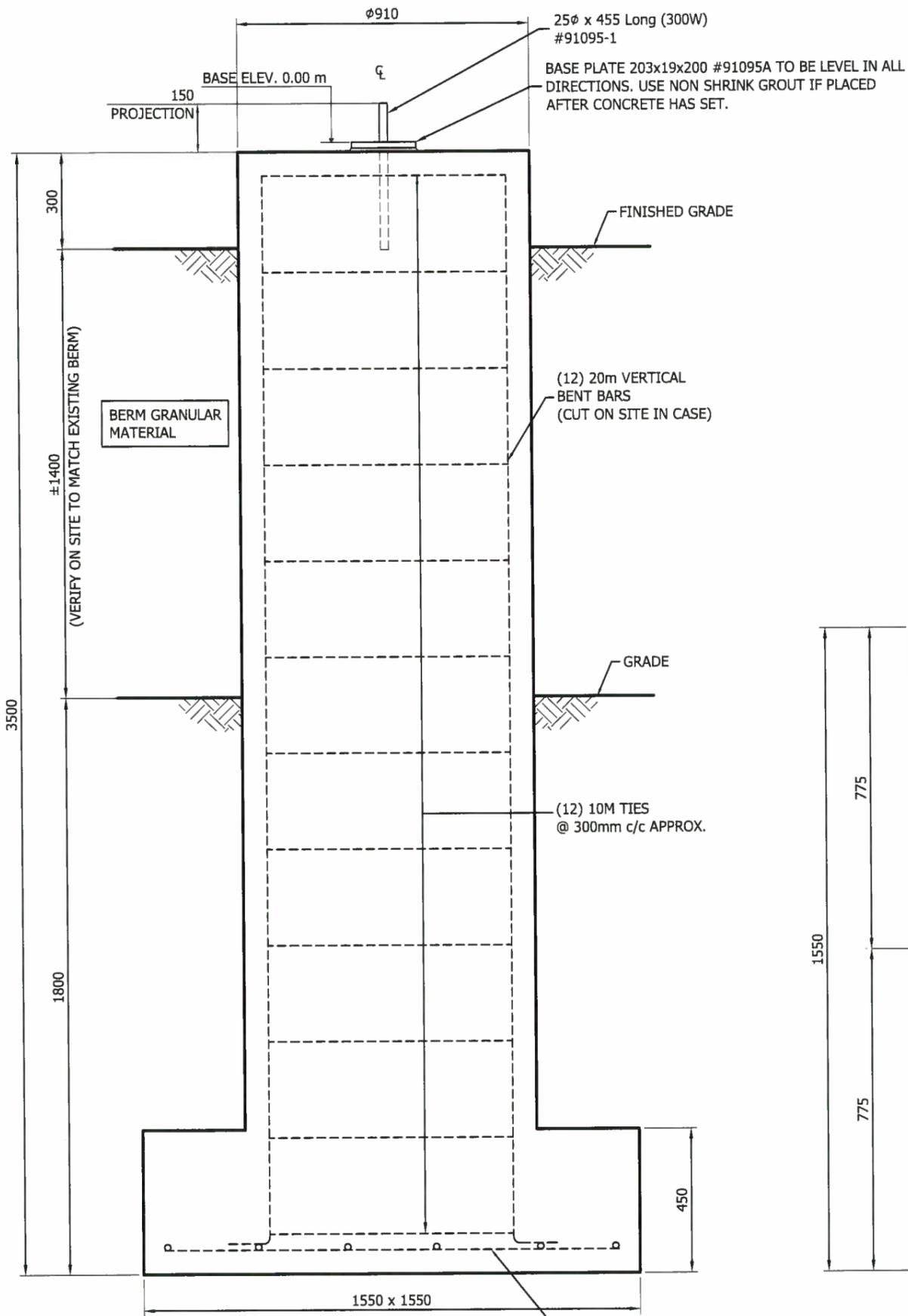
COAST GUARD RONDEAU MCTS, ON

DWN:	YNL	CHK'D:	SJD	DATE:	Jan/12/2012
ENG'R:	CAG	ENG'R APP'D:			
DRAWING NO:	24-SSGL-S01-01			REV:	0

Jan/25/2012 10:06:07 AM

1 (Erection)

SITE PLAN



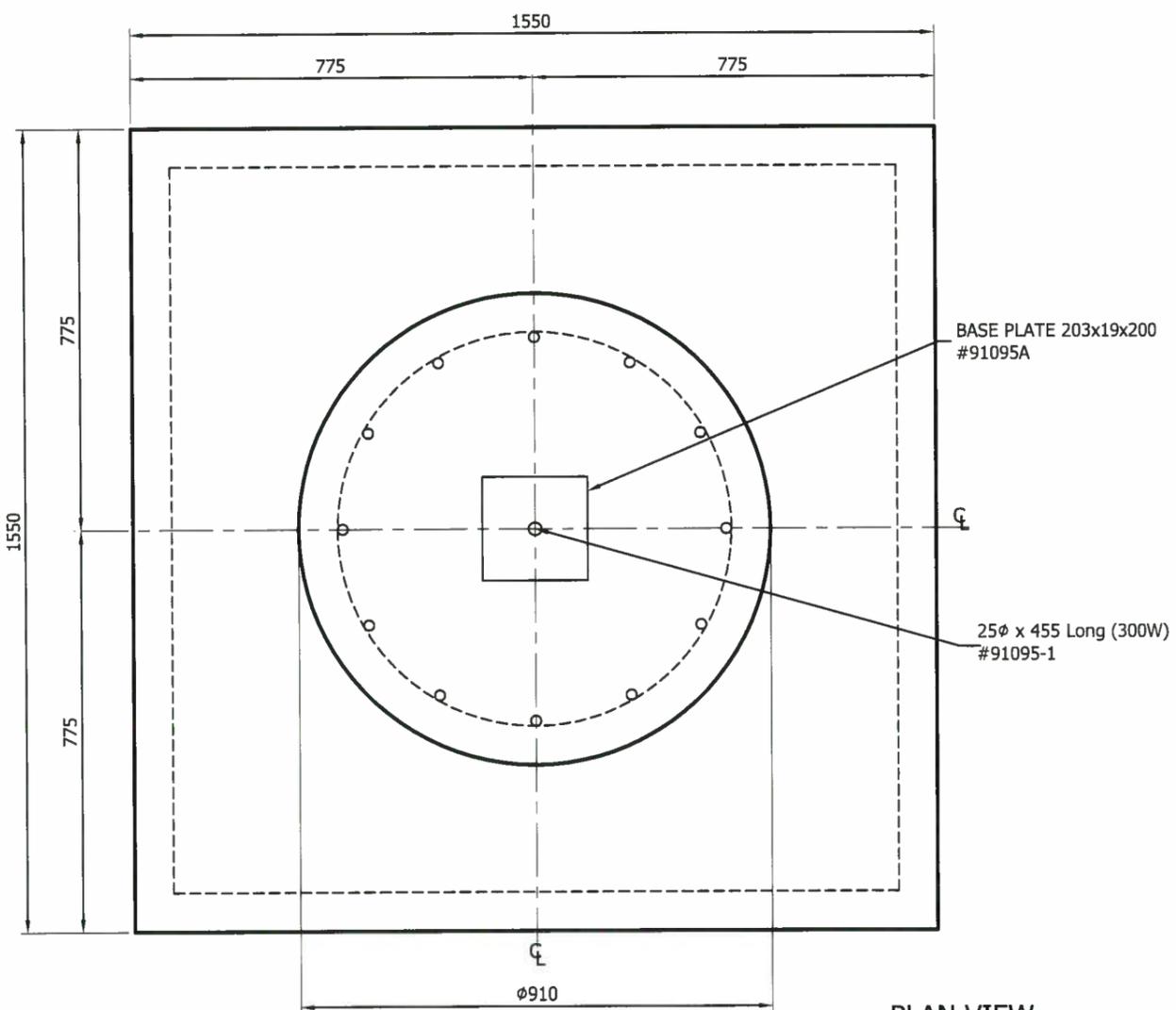
TOWER BASE ELEVATION VIEW

- DESIGN REACTIONS:

MAST BASE	BARE	ICED
• DOWNLOAD	130.07 kN	245.63 kN
• SHEAR	1.96 kN	2.31 kN

 GUY ANCHORS :

• UPLIFT	56.05 kN	84.07 kN
• SHEAR	57.38 kN	96.08 kN
- DESIGN BASED ON SOIL REPORT BY TROW , FILE NO. LON00011197, DATED MARCH, 2011.
- SUMMARY OF SOIL CONDITIONS:
 - FROST DEPTH : 1.2m
 - DESIGN WATER TABLE: 1.0m
 - ALLOWABLE BEARING CAPACITY 240 kPa (FACTOR OF SAFETY : N/A)
 - BACKFILL MATERIAL:
 - RE-USE EXISTING SELECTED EXCAVATED MATERIAL COMPLETE WITH IMPORTED GRANULAR MATERIAL TYPE "A"
 - BACKFILL WEIGHT (DRY) : 21 kN/m³.
 - BACKFILL WEIGHT (SUBMERGED) : 9.8 kN/m³.
 - COMPACT IN LAYERS NOT TO EXCEED 300mm TO 95% OF MODIFIED DRY PROCTOR DENSITY.
- FINISH GRADE IS TO BE 150mm ABOVE ORIGINAL GROUND LEVEL.
- DRAWING NOT TO SCALE. ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE. THE REBARS SHOWN ARE FOR ILLUSTRATION PURPOSE ONLY.
- CONCRETE:
 - f_c = 30 MPa AT 28 DAYS
 - f_y = 400 MPa
 - V_c = 3.1 m³ (MAST BASE) / 0.8 m³ (EACH GUY ANCHOR)
- FOR ANCHOR BOLT INFORMATION, SEE FOUNDATION TEMPLATE DRAWING.
- REFER TO COMPOUND LAYOUT DWG. FOR POSTION OF W/G BRIDGE PIER FOUNDATION. (IF APPLICABLE)
- REFER TO SOILS REPORT FOR EXCAVATION CONDITIONS.
- FOR REBARS CUTTING CHART, SEE DWG 24-SSGL-F05-01.



PLAN VIEW

FILE NO. 0163462

REVISIONS				
REV.	DESCRIPTION	DWN	CHK	APP
1	THE HEIGHT OF FOUNDATION WAS 2100mm.	YNL	SJD	CAG
DATE: Jan/26/2012				

DWG REFERENCE
24-SSGL-F05-01



NETRICOM

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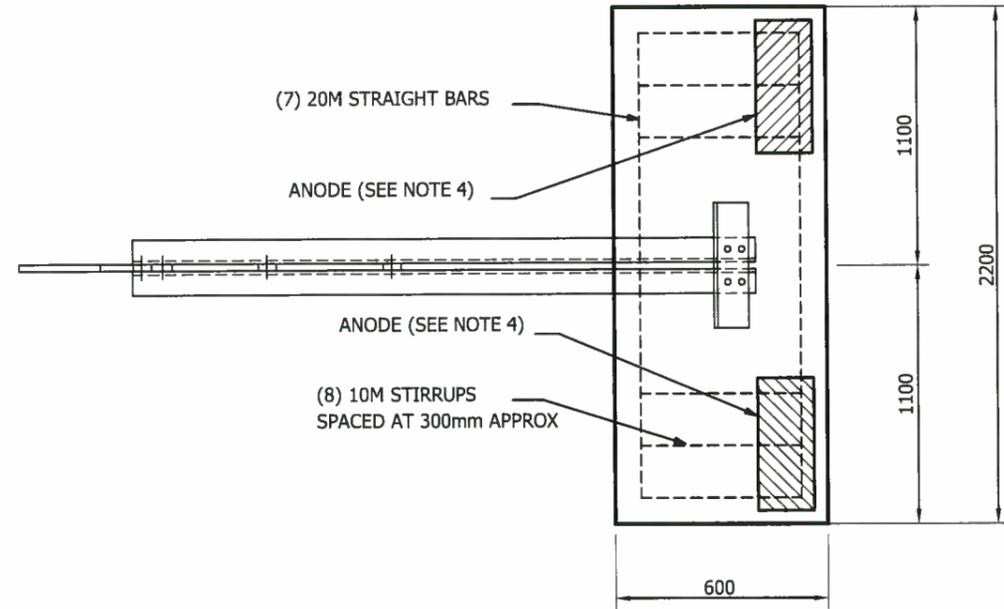
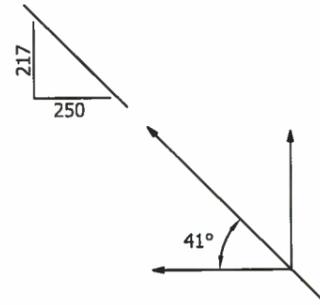
FISHERIES AND OCEANS CANADA
TOWER FOUNDATION
TOWER BASE
COAST GUARD RONDEAU MCTS, ON

DWN: YNL	CHK'D: SJD	DATE: Jan/10/2012
ENG'R: CAG	ENG'R APP'D:	
DRAWING NO: 24-SSGL-F01-01		REV: 1

Jan/30/2012 4:25:33 PM

1/30/2012

* -91034E C100x8 (STD. CHANNEL SIZE)
(FABRICATOR SUPPLIED C100x11)



PLAN VIEW

GUY RADIUS (SEE TOWER PROFILE)

2531

SECURE ANODE LEAD TO EQUALIZER PLATE WITH GROUND LUG (RADIANT #150068) AND 1/4" x 1 1/2" Gr 5

EQUALIZER PLATE 327x13x327 # EQ1BBCC

(2) 3/4" x 2-1/2" A325

BERM

GRADE

SECURE ANODE LEAD TO ANCHOR SHAFT WITH BLACK NYLON TIES

ANODE LEAD

BACK TO BACK CHANNELS C 100x11 - # 91034E *

WELL TAMPED BACKFILL

(2) R.F. SPACERS #110191 c/w (2) 5/8" x 2-1/2" A325 BOLT Assy

1000 (40") MIN.

300 (12") MIN.

2500

ANODE (SEE NOTE 4) (RADIANT #190056)

(2) L 127x89x10 MK. #91034A c/w (8) 1/2" x 2" A325 AND BEVELLED WASHERS

UNDISTURBED SOIL (SEE NOTE 3)

600

GENERAL NOTES:

1. CONCRETE CONSTRUCTION AND REINFORCING NOTES ARE SHOWN ON REBAR LIST DRAWING.
2. WHEN GROUND ELEVATIONS ARE DIFFERENT THAN SPECIFIED, SEE DRAWING 91B111-E01 TO CALCULATE CHANGES TO RADIUS DUE TO VARIATIONS. IF THERE ARE VARIATIONS, BEFORE INSTALLING ANCHORS ADVISE ENGINEERING DEPARTMENT OF THE VARIANCE AND CONFIRM THAT NO FURTHER CHANGES ARE REQUIRED.
3. BOTTOM AND FRONT OF CONCRETE ANCHOR BLOCK SHALL BE POURED AGAINST UNDISTURBED SOIL. IF IT IS NOT POSSIBLE, BACKFILL TO BE COMPACTED IN SMALL LIFTS TO MEET CSA-S37-01.
4. ANODES SHALL BE INSTALLED MEETING THE FOLLOWING REQUIREMENTS:
 - a) ANODES MUST BE BELOW THE FROST LINE.
 - b) KEEP ANODES 300mm (12") AT MINIMUM AWAY FROM CONCRETE BLOCK.
 - c) KEEP ANODES 1000mm (40") AT MINIMUM AWAY FROM ANCHOR STEEL.
 - d) ANODES CAN BE PLACED IN ANY POSITION PROVIDED IT MEETS CONDITIONS (a), (b) & (c).
 - e) IF ANODES CANNOT MEET REQUIREMENTS OF (a), (b) & (c) CONTACT ENGINEERING DEPARTMENT FOR INSTRUCTIONS.
5. ESTIMATED VOLUME OF CONCRETE = 0.8 cu m PER ANCHOR.
6. DESIGN BASED ON SOIL REPORT FILE NO. LON00011197, DATED MAR, 2011. BY TROW.

FILE NO. 0163462				
REVISIONS				
REV.	DESCRIPTION	DWN	CHK	APP
1	ADD DIM. 376mm	YNL	SJD	CAG
DATE: Jan/27/2012				

DWG REFERENCE	24-SSGL-F05-01



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FISHERIES AND OCEANS CANADA
FOUNDATION
EARTH ANCHOR
COAST GUARD RONDEAU MCTS, ON

DWN:	YNL	CHK'D:	SJD	DATE:	Jan/11/2012	
ENG'R:	CAG	ENG'R APP'D:				
DRAWING NO:	24-SSGL-F02-01				REV:	1

Jan/30/2012 4:25:36 PM

Erection

GENERAL NOTES:

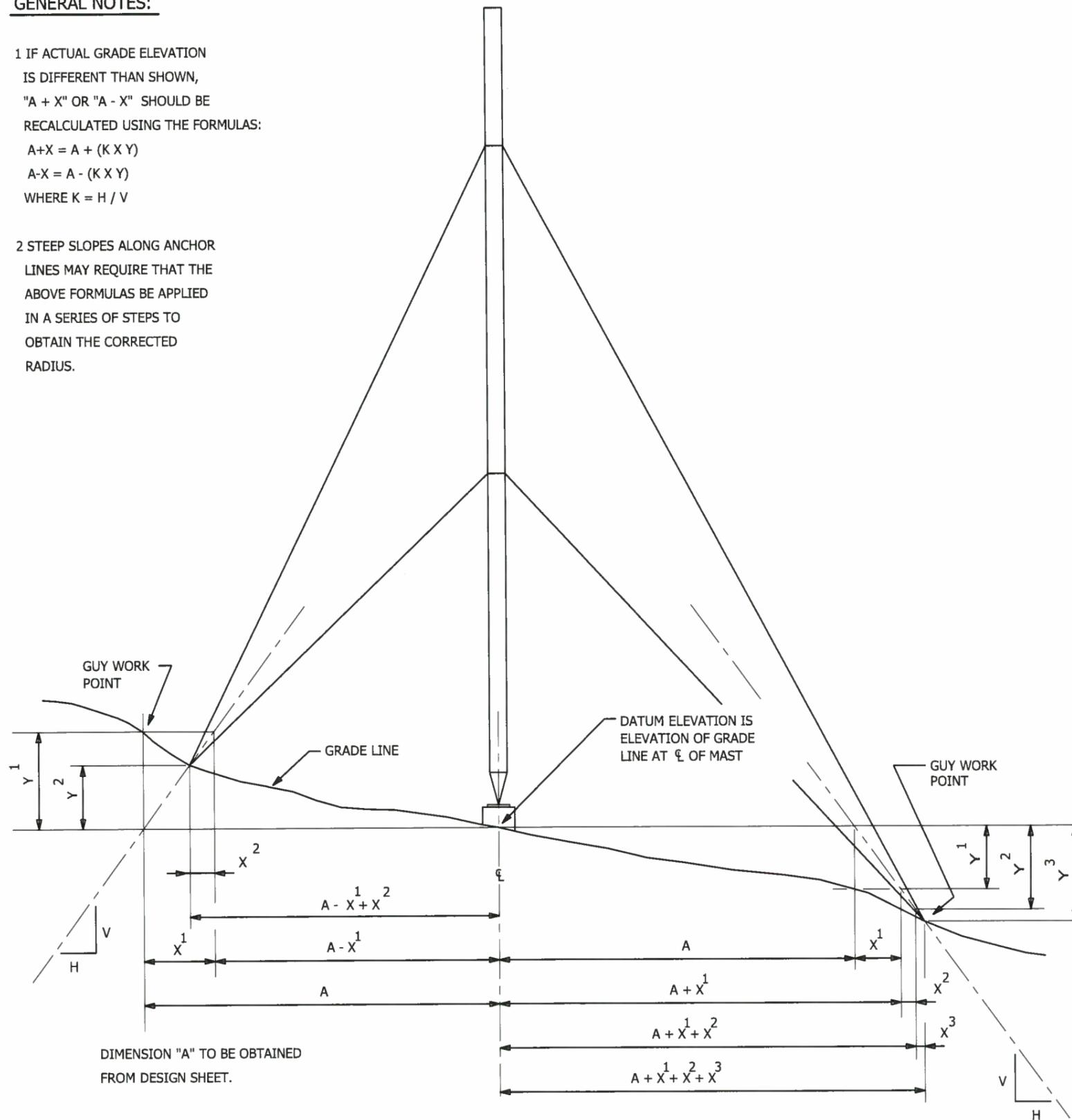
1 IF ACTUAL GRADE ELEVATION IS DIFFERENT THAN SHOWN, "A + X" OR "A - X" SHOULD BE RECALCULATED USING THE FORMULAS:

$$A+X = A + (K \times Y)$$

$$A-X = A - (K \times Y)$$

$$\text{WHERE } K = H / V$$

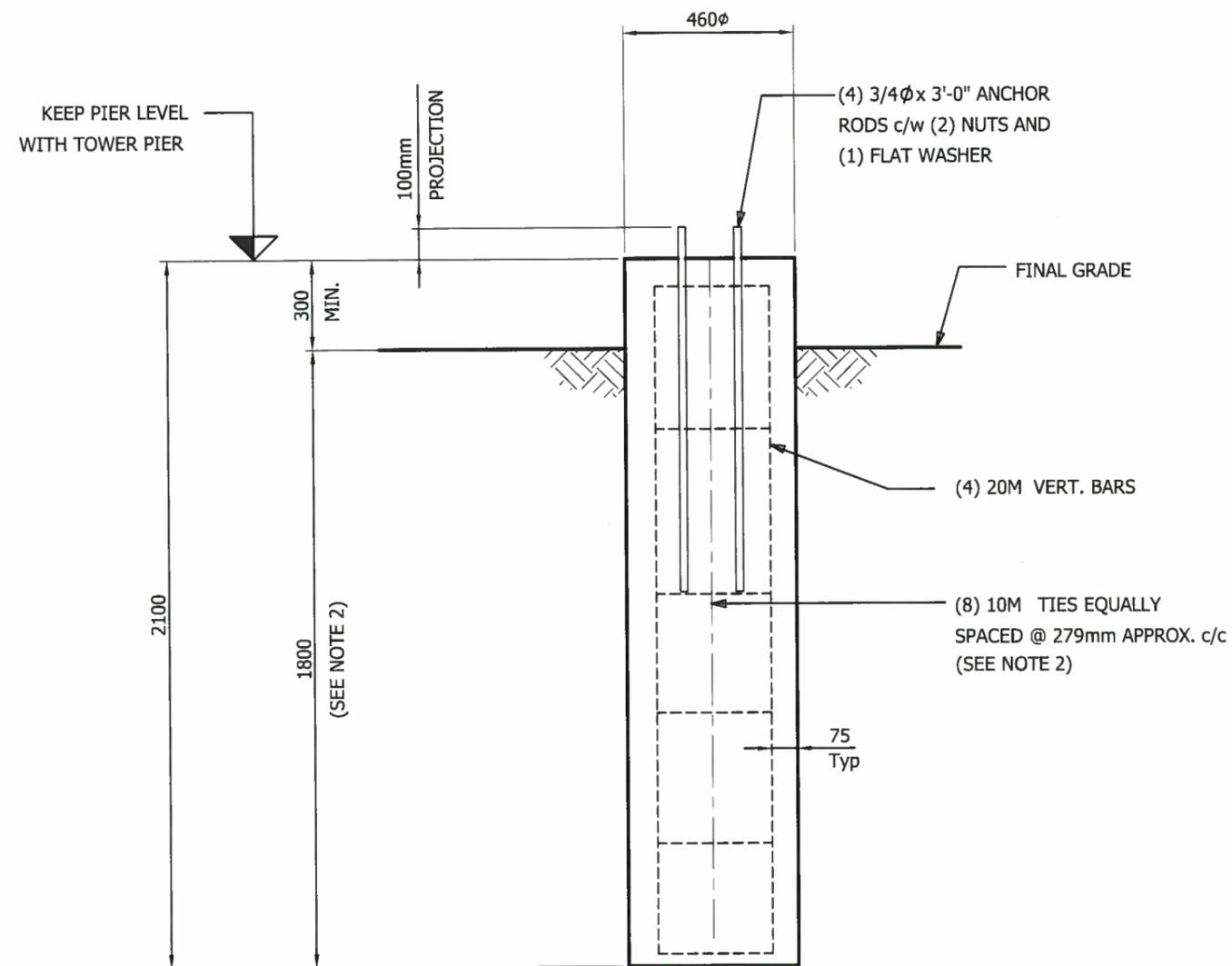
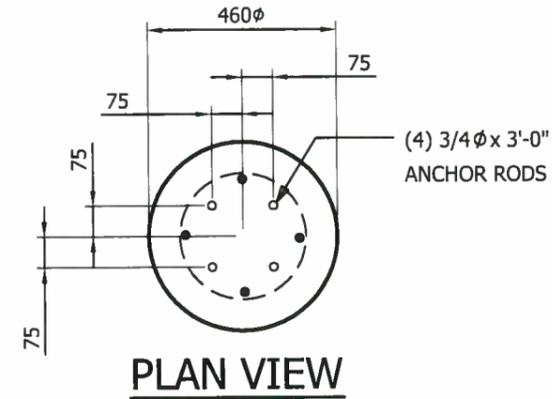
2 STEEP SLOPES ALONG ANCHOR LINES MAY REQUIRE THAT THE ABOVE FORMULAS BE APPLIED IN A SERIES OF STEPS TO OBTAIN THE CORRECTED RADIUS.



DIMENSION "A" TO BE OBTAINED FROM DESIGN SHEET.

FILE NO. 0163462				
REVISIONS				
REV.	DESCRIPTION	DWN	CHK	APP
1	UPDATED TITLE BLOCK REV'D DWG NUMBER WAS 91A111_E01 DATE: Aug/02/2000	DWW		
2	REVISED DRAWING TO NEW TITLE BLOCK. DRAWING NUMBER WAS 91B111_E01. DATE: Oct/24/2002	JTB	JTB	T.S
DWG REFERENCE				
ANCHOR LOCATING DIAGRAM				
MISSISSAUGA, ON, CANADA +1 905 275 8510 www.netricom.com				
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FISHERIES AND OCEANS CANADA ANCHOR LOCATING DIAGRAM COAST GUARD RONDEAU MCTS, ON				
DWN:	STL	CHKD:	M.L	DATE: May/06/1993
ENG'R:	T.S	ENG'R APP'D:	T.S	
DRAWING NO:	91B111-E01			REV: 2

FILE NO.	0163462		
REVISIONS			
REV.	DESCRIPTION	DWN	CHK APP



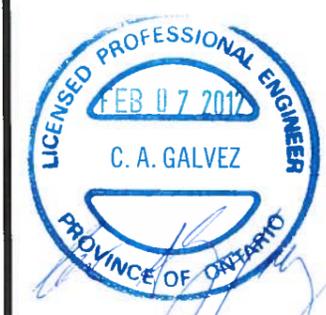
GENERAL NOTES:

1. CONCRETE CONSTRUCTION AND REINFORCING NOTES ARE SHOWN ON THE REBAR DRAWING. SEE DWG. 24-SSGL-F05-01.
2. WHEN A TX-BRIDGE PIER IS LOCATED WITHIN THE AREA OF A TOWER BASE PAD, THE BRIDGE PIER REBAR SHOULD BE TIED INTO THE TOWER PAD REBAR.

Tx LINE BRIDGE PIER

Est Concrete Volume=0.35 cu m

DWG REFERENCE	
24-SSGL-F05-01	



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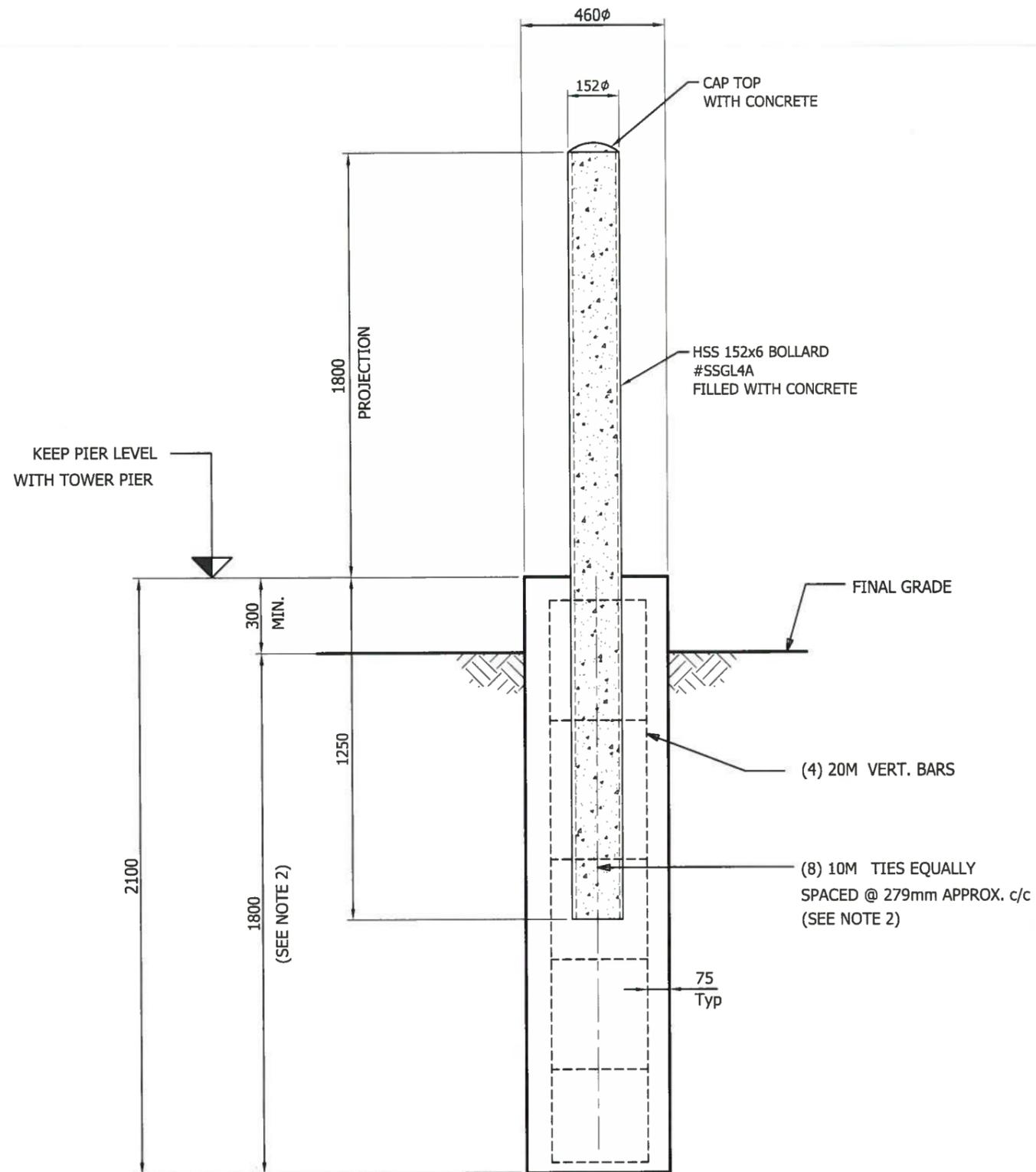
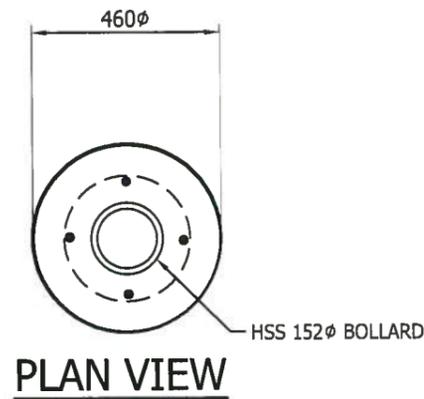
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FISHERIES AND OCEANS CANADA
FOUNDATION
TX BRIDGE PIER
COAST GUARD RONDEAU MCTS, ON

DWN:	YNL	CHK'D:	SJD	DATE:	Jan/12/2012
ENGR:	CAG	ENGR APP'D:			
DRAWING NO:	24-SSGL-F03-01			REV:	0

Jan/25/2012 10:06:20 AM

lirection



GENERAL NOTES:

1. CONCRETE CONSTRUCTION AND REINFORCING NOTES ARE SHOWN ON THE REBAR DRAWING. SEE DWG. 24-SSGL-F05-01.

BOLLARD FOUNDATION

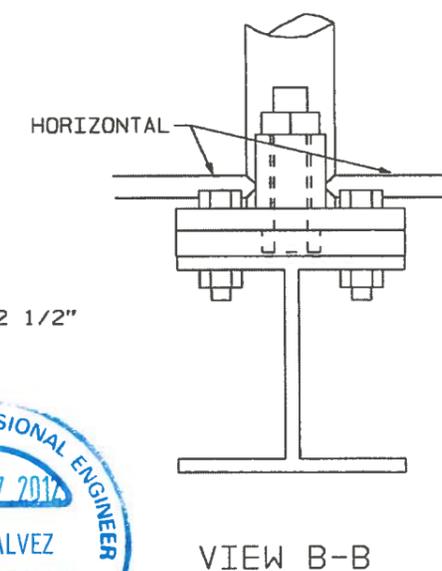
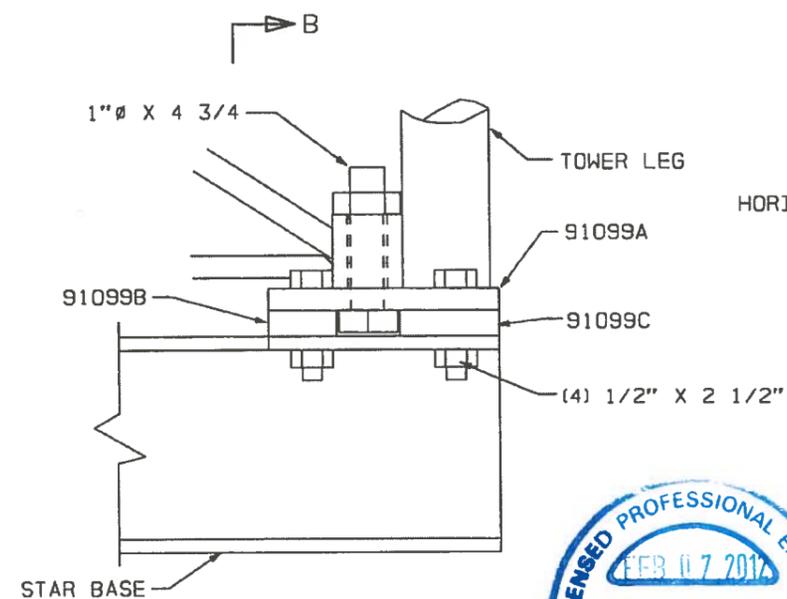
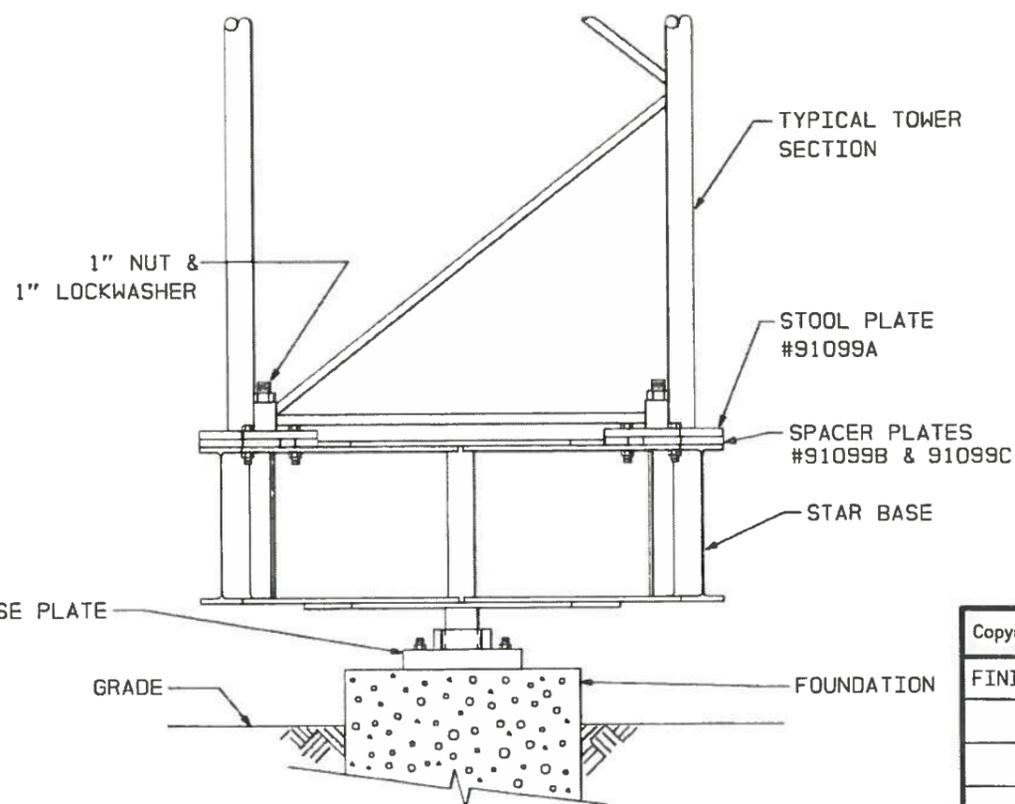
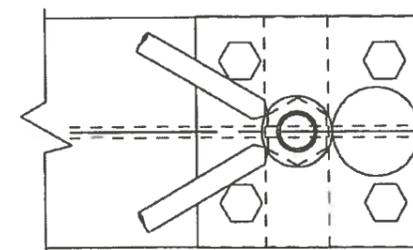
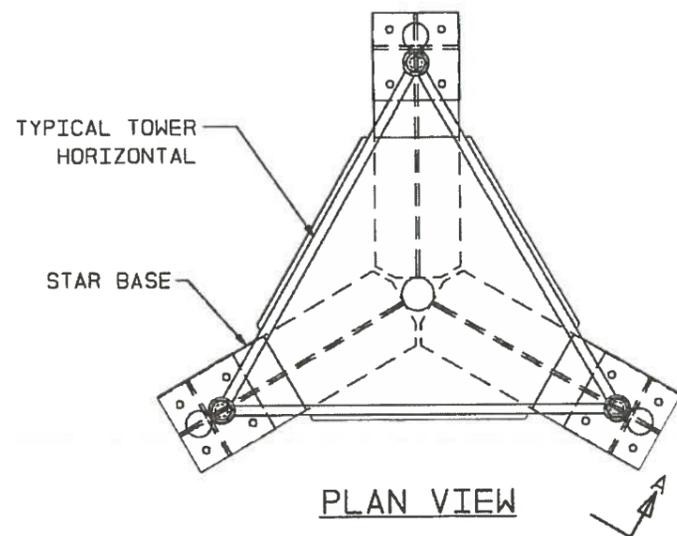
Est Concrete Volume=0.4 cu m

FILE NO. 0163462			
REVISIONS			
REV.	DESCRIPTION	DWN	CHK APP
DWG REFERENCE			
24-SSGL-F05-01			
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FISHERIES AND OCEANS CANADA FOUNDATION BOLLARD FOUNDATION COAST GUARD RONDEAU MCTS, ON			
DWN:	CHK'D:	DATE:	
YNL	SJD	Jan/19/2012	
ENGR:	ENGR APP'D:		
CAG			
DRAWING NO:			REV:
24-SSGL-F04-01			0

Jan/25/2012 10:06:22 AM

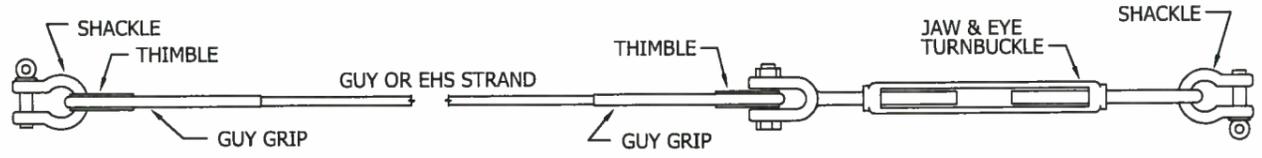
(Erection)

FILE NO.
LRM24



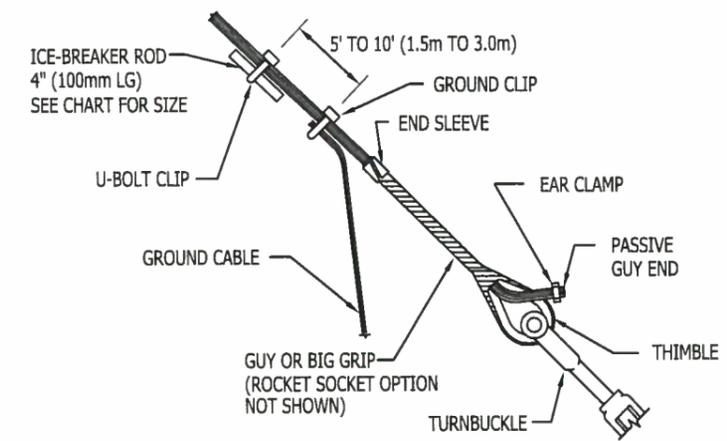
Copyright - duplication, recording, disclosure, and use is prohibited without the written consent of LeBLANC & ROYLE TELCOM INC.							A																			
FINISH: HOT DIP GALVANIZED			TOLERANCES: SEE DWG. ES.12				 LeBLANC & ROYLE TELCOM INC. 514 CHARTWELL ROAD, P.O. BOX 880 OAKVILLE, ONTARIO, CANADA L6J 5C5																			
<table border="1"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table>																							LRM24 SERIES MAST			
<table border="1"> <tr> <td>0</td><td>1993 04/20</td><td> </td><td>STL</td><td>JRB</td><td>RKA</td><td>SCALE</td><td>DRAWING NO.</td><td>REV.</td></tr> <tr> <td>REV.</td><td>DATE</td><td> </td><td>DRWN</td><td>CHK'D</td><td>APP'D</td><td>N.T.S.</td><td>24B216_E01</td><td>0</td></tr> </table>							0	1993 04/20		STL	JRB	RKA	SCALE	DRAWING NO.	REV.	REV.	DATE		DRWN	CHK'D	APP'D	N.T.S.	24B216_E01	0	STAR BASE INSTALLATION	
							0	1993 04/20		STL	JRB	RKA	SCALE	DRAWING NO.	REV.											
REV.	DATE		DRWN	CHK'D	APP'D	N.T.S.	24B216_E01	0																		

FILE NO.	0163462		
REVISIONS			
REV.	DESCRIPTION	DWN	CHK APP



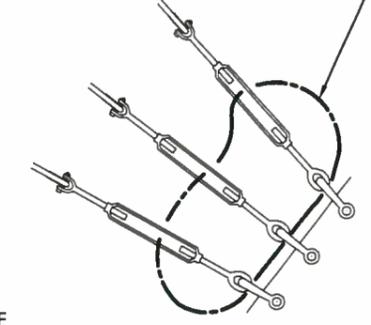
TYPE A - GUY OR EHS STRAND ASSEMBLY

NOTE: SHOWN IS THE OPTIMUM METHOD OF SECURING GUY AND GRIP ENDS WITH END SLEEVES AND EAR CLAMPS. END SLEEVES MAY BE SUBSTITUTED WITH EAR CLAMPS, BUT THEY MUST BE SLIPPED ON THE STRAND BEFORE THE GRIP IS INSTALLED. TO INSTALL EAR CLAMPS, USE 8-10" LINEMAN'S PLIERS OR OETIKER PINCERS.



GRIP CONNECTION & ICE BREAKER Assy
(BOTTOM END ONLY)

LOOP THROUGH BODY OF TURNBUCKLE AND SHACKLE AT ANCHOR PLATE



TURNBUCKLE ANTI-ROTATION

REPRESENTATION ONLY
ACTUAL ANCHOR MAY DIFFER FROM ABOVE

GUY ELEVATION	GUY AZIMUTH	GUY SIZE (in)	GUY TYPE	SHACKLE SIZE	TURNBUCKLE	THIMBLE	GUY GRIP OR ROCKET SOCKET	END SLEEVE PART #	EAR CLAMP PART #	ACTUAL LENGTH	SUPPLIED LENGTH	GUY WEIGHT	GUY QTY	TAG No	REEL No	POSITION OFF	ICE-BREAKER		
																	U-BOLT CLIP	ROD	ROD Dia
14.66m	40°	5/16 EHS	A	3/8***	5/8 x 12 J&E	3/8	5/16	140159	140169	45.0m	51.0m	16 kg	1	-----	-----	-----	140002	91261A	3/8"
14.66m	160°	5/16 EHS	A	3/8***	5/8 x 12 J&E	3/8	5/16	140159	140169	44.0m	50.0m	16 kg	1	-----	-----	-----	140002	91261A	3/8"
14.66m	280°	5/16 EHS	A	3/8***	5/8 x 12 J&E	3/8	5/16	140159	140169	45.0m	51.0m	16 kg	1	-----	-----	-----	140002	91261A	3/8"
29.66m	40°	5/16 EHS	A	3/8***	5/8 x 12 J&E	3/8	5/16	140159	140169	52.0m	58.0m	19 kg	1	-----	-----	-----	140002	91261A	3/8"
29.66m	160°	5/16 EHS	A	3/8***	5/8 x 12 J&E	3/8	5/16	140159	140169	51.0m	57.0m	18 kg	1	-----	-----	-----	140002	91261A	3/8"
29.66m	280°	5/16 EHS	A	3/8***	5/8 x 12 J&E	3/8	5/16	140159	140169	53.0m	59.0m	19 kg	1	-----	-----	-----	140002	91261A	3/8"
44.66m	40°	3/8 EHS	A	1/2	5/8 x 12 J&E	3/8	3/8	140160	140170	63.0m	69.0m	29 kg	1	-----	-----	-----	140003	91261A	3/8"
44.66m	160°	3/8 EHS	A	1/2	5/8 x 12 J&E	3/8	3/8	140160	140170	61.0m	67.0m	29 kg	1	-----	-----	-----	140003	91261A	3/8"
44.66m	280°	3/8 EHS	A	1/2	5/8 x 12 J&E	3/8	3/8	140160	140170	63.0m	69.0m	29 kg	1	-----	-----	-----	140003	91261A	3/8"
59.66m	40°	7/16 EHS	A	1/2	3/4 x 18 J&E	1/2 - 9/16	7/16	140161	140170	74.0m	80.0m	49 kg	1	-----	-----	-----	140004	91261A	3/8"
59.66m	160°	7/16 EHS	A	1/2	3/4 x 18 J&E	1/2 - 9/16	7/16	140161	140170	73.0m	79.0m	48 kg	1	-----	-----	-----	140004	91261A	3/8"
59.66m	280°	7/16 EHS	A	1/2	3/4 x 18 J&E	1/2 - 9/16	7/16	140161	140170	75.0m	81.0m	49 kg	1	-----	-----	-----	140004	91261A	3/8"

DWG REFERENCE	



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FISHERIES AND OCEANS CANADA
GUY ASSEMBLY
COAST GUARD RONDEAU MCTS, ON

DWN:	YNL	CHK'D:	SJD	DATE:	Jan/10/2012
ENG'R:	CAG	ENG'R APP'D:			
DRAWING NO:	24-SSGL-E02-01			REV:	0

- GENERAL NOTES:**
- "SUPPLIED LENGTH" INCLUDES EXTRA CABLE TO ALLOW FOR BOTTOM CONNECTION AND DROP OFF IN GROUND LEVEL. (Approx 20')
 - VERIFY ALL GUY RADII AND ELEVATIONS RELATIVE TO TOWER BASE BEFORE CUTTING GUY LENGTHS.
 - MOUNT U-BOLT CLIP WITH THE SADDLE ON THE LOAD SIDE OF THE STRAND.
 - ALL GUY HARDWARE PROVIDES 100% EFFICIENCY RATING (UNLESS NOTED OTHERWISE).

- * = TOP THIMBLE SUPPLIED WITH MECHANICAL SPLICE (OR INCLUDED IN THE CLOSED SPELTER SOCKET)
- ** = SUPPLIED WITH ROCKET SOCKET
- *** = SHACKLE SIZE AT ANCHOR (BOTTOM) END. TOWER (TOP) END SHACKLE IS 1/2".

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I:\erickson

STANDARD INITIAL TENSIONS ARE AT 10 C
 TOWER BASE ELEVATION = 0.00
 Dimensions are in (METERS) unless specified otherwise.

GUY DATA: GUY HEIGHT 14.656 GUY DIAMETER (in.) 0.3125

ANCHOR NAME	1A	2A	3A
ANCHOR AZIMUTH	40.00	160.00	280.00
RADIUS	42.09	41.00	42.21
ELEVATION	-1.31	-0.41	-1.41

GUY DATA: GUY HEIGHT 29.656 GUY DIAMETER (in.) 0.3125

ANCHOR NAME	1A	2A	3A
ANCHOR AZIMUTH	40.00	160.00	280.00
RADIUS	42.09	41.00	42.21
ELEVATION	-1.31	-0.41	-1.41

TEMP. (C)	GUY TENSION			TIME FOR 10 PULSES			GUY TENSION			TIME FOR 10 PULSES		
	(KIPS)	(KN)	(SEC.)	(KIPS)	(KN)	(SEC.)	(KIPS)	(KN)	(SEC.)	(KIPS)	(KN)	(SEC.)
-40	1.96	8.72	5.28	1.96	8.70	5.13	1.96	8.72	5.30	1.96	8.72	5.30
-30	1.79	7.98	5.52	1.79	7.96	5.36	1.79	7.98	5.54	1.79	7.98	5.54
-20	1.63	7.23	5.80	1.62	7.21	5.63	1.63	7.23	5.82	1.63	7.23	5.82
-10	1.46	6.48	6.12	1.45	6.46	5.95	1.46	6.48	6.14	1.46	6.48	6.14
00	1.29	5.74	6.50	1.29	5.72	6.32	1.29	5.74	6.53	1.29	5.74	6.53
10	1.12	4.99	6.97	1.12	4.97	6.78	1.12	4.99	7.00	1.12	4.99	7.00
20	0.95	4.24	7.56	0.95	4.22	7.35	0.95	4.24	7.58	0.95	4.24	7.58
30	0.79	3.50	8.32	0.78	3.48	8.10	0.79	3.50	8.35	0.79	3.50	8.35
40	0.62	2.75	9.38	0.61	2.73	9.13	0.62	2.75	9.41	0.62	2.75	9.41

TEMP. (C)	GUY TENSION			TIME FOR 10 PULSES			GUY TENSION			TIME FOR 10 PULSES		
	(KIPS)	(KN)	(SEC.)	(KIPS)	(KN)	(SEC.)	(KIPS)	(KN)	(SEC.)	(KIPS)	(KN)	(SEC.)
-40	1.75	7.77	6.49	1.74	7.73	6.33	1.75	7.78	6.51	1.75	7.78	6.51
-30	1.62	7.21	6.74	1.61	7.18	6.57	1.62	7.22	6.76	1.62	7.22	6.76
-20	1.50	6.65	7.01	1.49	6.63	6.84	1.50	6.66	7.03	1.50	6.66	7.03
-10	1.37	6.10	7.33	1.37	6.08	7.14	1.37	6.10	7.35	1.37	6.10	7.35
00	1.25	5.54	7.68	1.24	5.53	7.48	1.25	5.54	7.71	1.25	5.54	7.71
10	1.12	4.98	8.10	1.12	4.98	7.88	1.12	4.98	8.12	1.12	4.98	8.12
20	0.99	4.42	8.59	1.00	4.43	8.35	0.99	4.42	8.62	0.99	4.42	8.62
30	0.87	3.86	9.18	0.87	3.88	8.92	0.87	3.86	9.21	0.87	3.86	9.21
40	0.74	3.31	9.92	0.75	3.33	9.62	0.74	3.30	9.95	0.74	3.30	9.95

PULSES & TENSIONS AT + 10.0 % OF DESIGN VALUES
 ** MAXIMUM ALLOWABLE **

-40	2.07	9.22	5.13	2.07	9.20	4.99	2.07	9.22	5.15	2.07	9.22	5.15
-30	1.91	8.48	5.35	1.90	8.45	5.20	1.91	8.48	5.37	1.91	8.48	5.37
-20	1.74	7.73	5.61	1.73	7.71	5.45	1.74	7.73	5.63	1.74	7.73	5.63
-10	1.57	6.98	5.90	1.56	6.96	5.73	1.57	6.98	5.92	1.57	6.98	5.92
00	1.40	6.24	6.24	1.40	6.21	6.06	1.40	6.24	6.26	1.40	6.24	6.26
10	1.23	5.49	6.65	1.23	5.47	6.46	1.23	5.49	6.67	1.23	5.49	6.67
20	1.07	4.74	7.15	1.06	4.72	6.95	1.07	4.74	7.17	1.07	4.74	7.17
30	0.90	4.00	7.79	0.89	3.97	7.58	0.90	4.00	7.81	0.90	4.00	7.81
40	0.73	3.25	8.63	0.73	3.23	8.40	0.73	3.25	8.66	0.73	3.25	8.66

PULSES & TENSIONS AT + 10.0 % OF DESIGN VALUES
 ** MAXIMUM ALLOWABLE **

-40	1.86	8.27	6.30	1.85	8.23	6.14	1.86	8.27	6.31	1.86	8.27	6.31
-30	1.73	7.71	6.52	1.73	7.68	6.35	1.73	7.71	6.54	1.73	7.71	6.54
-20	1.61	7.15	6.77	1.60	7.13	6.59	1.61	7.16	6.79	1.61	7.16	6.79
-10	1.48	6.59	7.05	1.48	6.58	6.86	1.48	6.60	7.07	1.48	6.60	7.07
00	1.36	6.04	7.36	1.36	6.03	7.17	1.36	6.04	7.38	1.36	6.04	7.38
10	1.23	5.48	7.72	1.23	5.48	7.52	1.23	5.48	7.75	1.23	5.48	7.75
20	1.11	4.92	8.15	1.11	4.93	7.92	1.11	4.92	8.17	1.11	4.92	8.17
30	0.98	4.36	8.65	0.98	4.38	8.40	0.98	4.36	8.68	0.98	4.36	8.68
40	0.85	3.80	9.25	0.86	3.83	8.98	0.85	3.80	9.28	0.85	3.80	9.28

PULSES & TENSIONS AT - 10.0 % OF DESIGN VALUES
 ** MINIMUM ALLOWABLE **

-40	1.85	8.23	5.44	1.84	8.21	5.28	1.85	8.23	5.45	1.85	8.23	5.45
-30	1.68	7.48	5.70	1.68	7.46	5.54	1.68	7.48	5.72	1.68	7.48	5.72
-20	1.51	6.73	6.01	1.51	6.71	5.84	1.51	6.73	6.03	1.51	6.73	6.03
-10	1.35	5.98	6.37	1.34	5.97	6.19	1.35	5.98	6.39	1.35	5.98	6.39
00	1.18	5.24	6.81	1.17	5.22	6.61	1.18	5.24	6.83	1.18	5.24	6.83
10	1.01	4.49	7.35	1.01	4.47	7.14	1.01	4.49	7.37	1.01	4.49	7.37
20	0.84	3.74	8.04	0.84	3.73	7.82	0.84	3.74	8.07	0.84	3.74	8.07
30	0.67	3.00	8.98	0.67	2.98	8.74	0.67	3.00	9.01	0.67	3.00	9.01
40	0.51	2.25	10.35	0.50	2.23	10.08	0.51	2.25	10.39	0.51	2.25	10.39

PULSES & TENSIONS AT - 10.0 % OF DESIGN VALUES
 ** MINIMUM ALLOWABLE **

-40	1.64	7.27	6.71	1.63	7.24	6.55	1.64	7.28	6.73	1.64	7.28	6.73
-30	1.51	6.72	6.98	1.50	6.69	6.81	1.51	6.72	7.00	1.51	6.72	7.00
-20	1.38	6.16	7.29	1.38	6.13	7.11	1.38	6.16	7.31	1.38	6.16	7.31
-10	1.26	5.60	7.64	1.26	5.58	7.44	1.26	5.60	7.66	1.26	5.60	7.66
00	1.13	5.04	8.05	1.13	5.03	7.84	1.13	5.04	8.07	1.13	5.04	8.07
10	1.01	4.48	8.53	1.01	4.48	8.30	1.01	4.48	8.56	1.01	4.48	8.56
20	0.88	3.92	9.11	0.88	3.93	8.86	0.88	3.92	9.14	0.88	3.92	9.14
30	0.76	3.37	9.83	0.76	3.38	9.54	0.76	3.36	9.86	0.76	3.36	9.86
40	0.63	2.81	10.75	0.64	2.83	10.42	0.63	2.80	10.79	0.63	2.80	10.79

FILE NO. 0163462			
REVISIONS			
REV.	DESCRIPTION	DWN	CHK APP
DWG REFERENCE			
MISSISSAUGA, ON, CANADA +1 905 275 8510 www.netricom.com			
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FISHERIES AND OCEANS CANADA GUY TENSION CHART COAST GUARD RONDEAU MCTS, ON			
DWN:	YNL	CHK'D:	SJD
ENG'R:	CAG	DATE:	Jan/09/2012
ENG'R APP'D:			
DRAWING NO:	24-SSGL-E03-01		REV: 0

Jan/30/2012 4:25:46 PM

1 (vertical)

STANDARD INITIAL TENSIONS ARE AT 10 C
 TOWER BASE ELEVATION = 0.00
 Dimensions are in (METERS) unless specified otherwise.

GUY DATA: GUY HEIGHT 44.656 GUY DIAMETER (in.) 0.3750

ANCHOR NAME 1A 2A 3A
 ANCHOR AZIMUTH 40.00 160.00 280.00
 RADIUS 42.09 41.00 42.21
 ELEVATION -1.31 -0.41 -1.41

GUY DATA: GUY HEIGHT 59.656 GUY DIAMETER (in.) 0.4375

ANCHOR NAME 1A 2A 3A
 ANCHOR AZIMUTH 40.00 160.00 280.00
 RADIUS 42.09 41.00 42.21
 ELEVATION -1.31 -0.41 -1.41

TEMP. (C)	GUY TENSION			TIME FOR 10 PULSES			GUY TENSION			TIME FOR 10 PULSES		
	(KIPS)	(KN)	(SEC.)	(KIPS)	(KN)	(SEC.)	(KIPS)	(KN)	(SEC.)	(KIPS)	(KN)	(SEC.)
-40	2.08	9.24	8.20	2.07	9.20	8.03	2.08	9.25	8.22	2.08	9.25	8.22
-30	1.97	8.76	8.42	1.96	8.74	8.24	1.97	8.77	8.44	1.97	8.77	8.44
-20	1.86	8.28	8.66	1.86	8.27	8.47	1.86	8.29	8.68	1.86	8.29	8.68
-10	1.75	7.80	8.92	1.75	7.80	8.72	1.75	7.80	8.94	1.75	7.80	8.94
00	1.65	7.32	9.20	1.65	7.34	8.99	1.65	7.32	9.22	1.65	7.32	9.22
10	1.54	6.84	9.52	1.54	6.87	9.28	1.54	6.84	9.54	1.54	6.84	9.54
20	1.43	6.36	9.86	1.44	6.40	9.61	1.43	6.36	9.89	1.43	6.36	9.89
30	1.32	5.88	10.25	1.33	5.94	9.98	1.32	5.88	10.28	1.32	5.88	10.28
40	1.21	5.40	10.69	1.23	5.47	10.39	1.21	5.39	10.72	1.21	5.39	10.72

TEMP. (C)	GUY TENSION			TIME FOR 10 PULSES			GUY TENSION			TIME FOR 10 PULSES		
	(KIPS)	(KN)	(SEC.)	(KIPS)	(KN)	(SEC.)	(KIPS)	(KN)	(SEC.)	(KIPS)	(KN)	(SEC.)
-40	2.63	11.71	10.31	2.62	11.66	10.14	2.63	11.71	10.33	2.63	11.71	10.33
-30	2.52	11.21	10.54	2.52	11.19	10.35	2.52	11.21	10.56	2.52	11.21	10.56
-20	2.41	10.72	10.77	2.41	10.72	10.57	2.41	10.72	10.80	2.41	10.72	10.80
-10	2.30	10.22	11.03	2.30	10.25	10.81	2.30	10.25	11.05	2.30	10.25	11.05
00	2.19	9.73	11.30	2.20	9.77	11.07	2.19	9.73	11.33	2.19	9.73	11.33
10	2.07	9.23	11.59	2.09	9.30	11.34	2.07	9.23	11.62	2.07	9.23	11.62
20	1.96	8.73	11.91	1.98	8.83	11.63	1.96	8.73	11.94	1.96	8.73	11.94
30	1.85	8.24	12.26	1.88	8.35	11.95	1.85	8.24	12.29	1.85	8.24	12.29
40	1.74	7.74	12.63	1.77	7.88	12.30	1.74	7.74	12.67	1.74	7.74	12.67

PULSES & TENSIONS AT + 10.0 % OF DESIGN VALUES
 ** MAXIMUM ALLOWABLE **

-40	2.23	9.93	7.92	2.22	9.89	7.75	2.23	9.94	7.93	2.23	9.94	7.93
-30	2.12	9.45	8.11	2.12	9.42	7.94	2.13	9.45	8.13	2.13	9.45	8.13
-20	2.02	8.97	8.33	2.01	8.96	8.14	2.02	8.97	8.34	2.02	8.97	8.34
-10	1.91	8.49	8.56	1.91	8.49	8.36	1.91	8.49	8.57	1.91	8.49	8.57
00	1.80	8.00	8.81	1.80	8.02	8.60	1.80	8.01	8.83	1.80	8.01	8.83
10	1.69	7.52	9.08	1.70	7.56	8.86	1.69	7.52	9.10	1.69	7.52	9.10
20	1.58	7.04	9.38	1.59	7.09	9.14	1.58	7.04	9.40	1.58	7.04	9.40
30	1.48	6.56	9.71	1.49	6.62	9.45	1.47	6.56	9.74	1.47	6.56	9.74
40	1.37	6.08	10.08	1.38	6.16	9.80	1.37	6.08	10.11	1.37	6.08	10.11

PULSES & TENSIONS AT + 10.0 % OF DESIGN VALUES
 ** MAXIMUM ALLOWABLE **

-40	2.84	12.63	9.93	2.83	12.59	9.77	2.84	12.63	9.95	2.84	12.63	9.95
-30	2.73	12.13	10.13	2.73	12.12	9.95	2.73	12.13	10.15	2.73	12.13	10.15
-20	2.62	11.64	10.34	2.62	11.65	10.15	2.62	11.63	10.37	2.62	11.63	10.37
-10	2.51	11.14	10.57	2.51	11.18	10.36	2.50	11.14	10.59	2.50	11.14	10.59
00	2.39	10.65	10.81	2.41	10.70	10.58	2.39	10.64	10.83	2.39	10.64	10.83
10	2.28	10.15	11.06	2.30	10.23	10.82	2.28	10.14	11.09	2.28	10.14	11.09
20	2.17	9.66	11.34	2.19	9.76	11.07	2.17	9.64	11.37	2.17	9.64	11.37
30	2.06	9.16	11.63	2.09	9.28	11.35	2.06	9.15	11.67	2.06	9.15	11.67
40	1.95	8.67	11.96	1.98	8.81	11.64	1.94	8.65	11.99	1.94	8.65	11.99

PULSES & TENSIONS AT - 10.0 % OF DESIGN VALUES
 ** MINIMUM ALLOWABLE **

-40	1.92	8.56	8.52	1.91	8.51	8.35	1.93	8.57	8.54	1.93	8.57	8.54
-30	1.82	8.08	8.77	1.81	8.05	8.58	1.82	8.08	8.78	1.82	8.08	8.78
-20	1.71	7.60	9.04	1.70	7.58	8.84	1.71	7.60	9.06	1.71	7.60	9.06
-10	1.60	7.12	9.33	1.60	7.12	9.12	1.60	7.12	9.35	1.60	7.12	9.35
00	1.49	6.64	9.66	1.49	6.65	9.43	1.49	6.64	9.68	1.49	6.64	9.68
10	1.38	6.16	10.02	1.39	6.18	9.78	1.38	6.16	10.05	1.38	6.16	10.05
20	1.28	5.68	10.43	1.29	5.72	10.16	1.28	5.67	10.46	1.28	5.67	10.46
30	1.17	5.19	10.90	1.18	5.25	10.60	1.17	5.19	10.93	1.17	5.19	10.93
40	1.06	4.71	11.43	1.08	4.78	11.09	1.06	4.71	11.46	1.06	4.71	11.46

PULSES & TENSIONS AT - 10.0 % OF DESIGN VALUES
 ** MINIMUM ALLOWABLE **

-40	2.42	10.78	10.74	2.41	10.73	10.57	2.42	10.79	10.76	2.42	10.79	10.76
-30	2.31	10.29	10.99	2.31	10.26	10.80	2.31	10.29	11.01	2.31	10.29	11.01
-20	2.20	9.79	11.26	2.20	9.79	11.06	2.20	9.79	11.28	2.20	9.79	11.28
-10	2.09	9.30	11.55	2.09	9.32	11.33	2.09	9.29	11.58	2.09	9.29	11.58
00	1.98	8.80	11.87	1.99	8.84	11.62	1.98	8.80	11.89	1.98	8.80	11.89
10	1.87	8.31	12.21	1.88	8.37	11.94	1.87	8.30	12.24	1.87	8.30	12.24
20	1.76	7.81	12.58	1.78	7.90	12.29	1.75	7.80	12.61	1.75	7.80	12.61
30	1.64	7.32	12.99	1.67	7.42	12.66	1.64	7.30	13.03	1.64	7.30	13.03
40	1.53	6.82	13.44	1.56	6.95	13.08	1.53	6.81	13.48	1.53	6.81	13.48

FILE NO.	0163462		
REVISIONS			
REV.	DESCRIPTION	DWN	CHK APP

DWG REFERENCE	



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FISHERIES AND OCEANS CANADA
 GUY TENSION CHART
 COAST GUARD RONDEAU MCTS, ON

DWN:	YNL	CHK'D:	SJD	DATE:	Jan/09/2012
ENG'R:	CAG		ENG'R APP'D:		
DRAWING NO:	24-SSGL-E03-02			REV:	0

Jan/30/2012 4:25:49 PM

1Erection

NOTE:

1. a) PRIOR TO MAKING A GROUND SYSTEM CONNECTION CLEAN THE CONNECTION PARTS OF PAINT OR OTHER FOREIGN MATTER.
 b) ALL BURNDY CONNECTORS AND CONNECTING WIRE OR CABLE PARTS THAT COME IN CONTACT WITH THE BURNDY CONNECTOR SHALL BE CLEANED OF ALL RUST, OXIDE OR DIRT AND THEN GIVEN A LIBERAL APPLICATION OF NO-OX-ID 'A' SPECIAL SEALING COMPOUND PRIOR TO COMPLETING THE CONNECTIONS. (ABOVE GRADE ONLY)
2. ALL GROUND WIRE BELOW GRADE ARE TO BE #4/0 STR. COPPER TINNED WIRE UNLESS NOTED.
3. ALL GROUND WIRE ABOVE GRADE ARE TO BE #4/0 STR. COPPER TINNED WIRE UNLESS NOTED.
4. WHERE THERE IS A CONTINUOUS FLOW OF 4/0 GROUND WIRE (ie. LOOP AROUND TOWER CONNECT WIRE TO ROD WITH CADWELD MOLD #GYE-182Q SHOT #115.
5. WHERE THERE IS A SINGLE SPLICE OF WIRE TO WIRE USE MOLD #SSC-2Q, SHOT #90.
6. WHERE THERE IS WIRE TO WIRE CONNECTION USE CADWELD MOLD #TAC-2Q2Q, SHOT #150.
7. IN ROCK CONDITIONS, CONTRACTOR TO SUPPLY 300mm OF OVERBURDEN FOR EXPOSED COPPER WIRE WHERE EVER POSSIBLE.
8. BOLT DOWN COPPER WIRE TO ROCK AT 1m INTERVALS, WHERE APPLICABLE.
9. GROUND RODS WHICH CANNOT BE PROPERLY DRIVEN INTO THE OVERBURDEN (VERTICALLY) SHALL BE PLACED IN A 76mm (3") DIA. DRILLED HOLE FILLED WITH BENTONITE PROCEDURE:
 - a) DRILL 76mm HOLE IN ROCK 3.0m DP. CLEAN OUT HOLE.
 - b) POUR WATER APPROX. 1/3 OF THE WAY UP HOLE.
 - c) INSERT GROUND ROD.
 - d) ADD BENTONITE POWDER INTO HOLE ALTERNATING WITH WATER UNTIL HOLE IS FILLED.

REFER TO FILE. #EWT-8055-489-1
 DWG. #C-05 FOR EXISTING GROUNDING SCHEMATIC

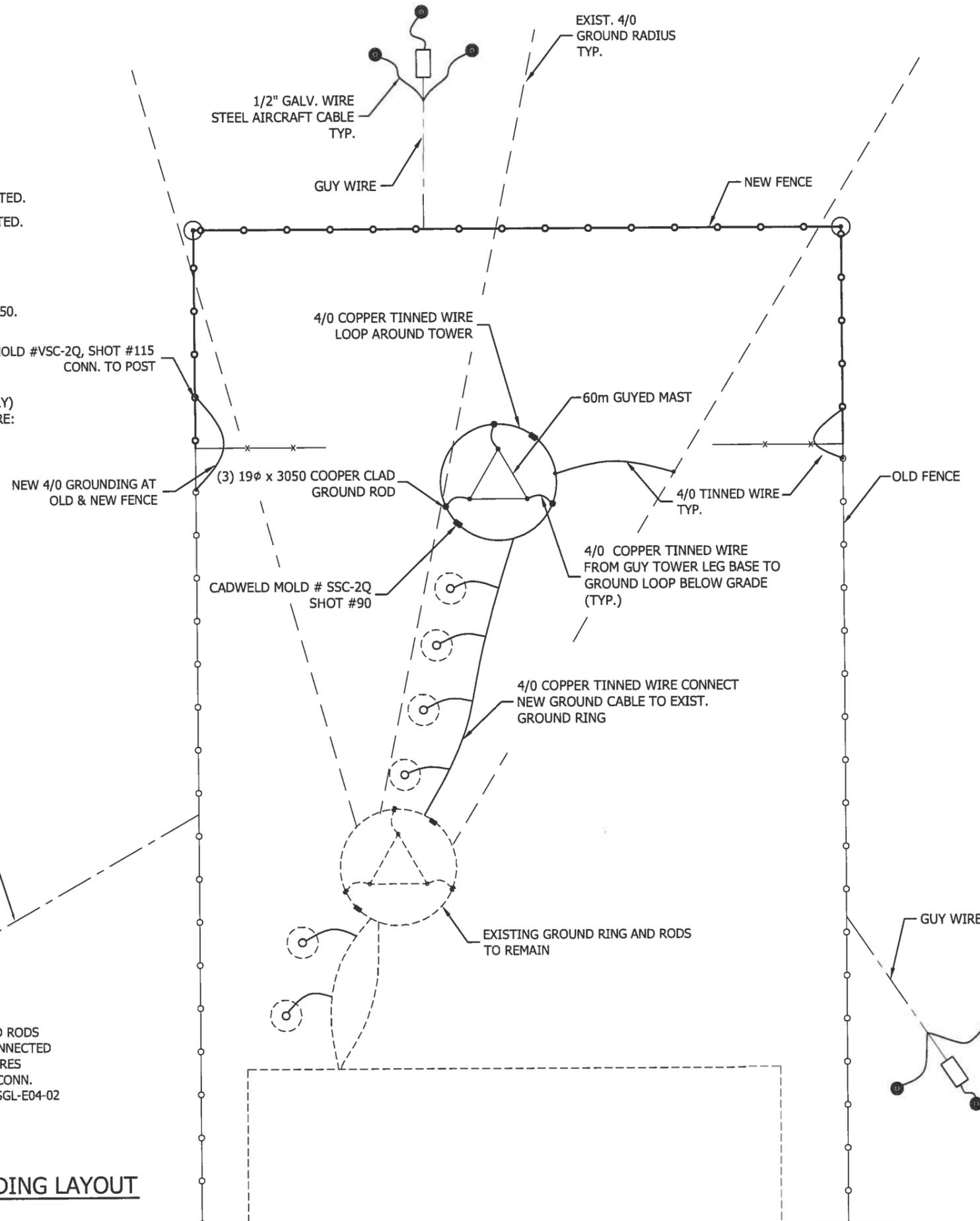
(3) 19φ x 3050 GALV. STEEL GROUND ROD TYP.

COMPRESSION CONNECTOR #150018 TYP.

SEE DWG. 24-SSGL-E04-02 FOR GROUNDING AT ANCHOR TYP.

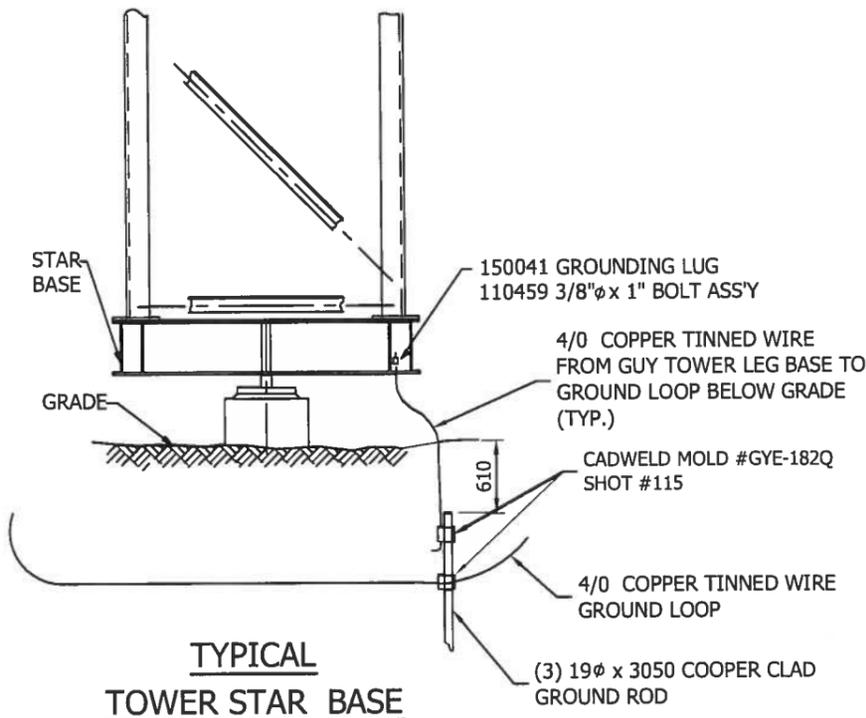
ALL (3) GROUND RODS HAVE TO BE CONNECTED TO THE GUY WIRES WITH BURNDY CONN. SEE DWG. 24-SSGL-E04-02

GROUNDING LAYOUT

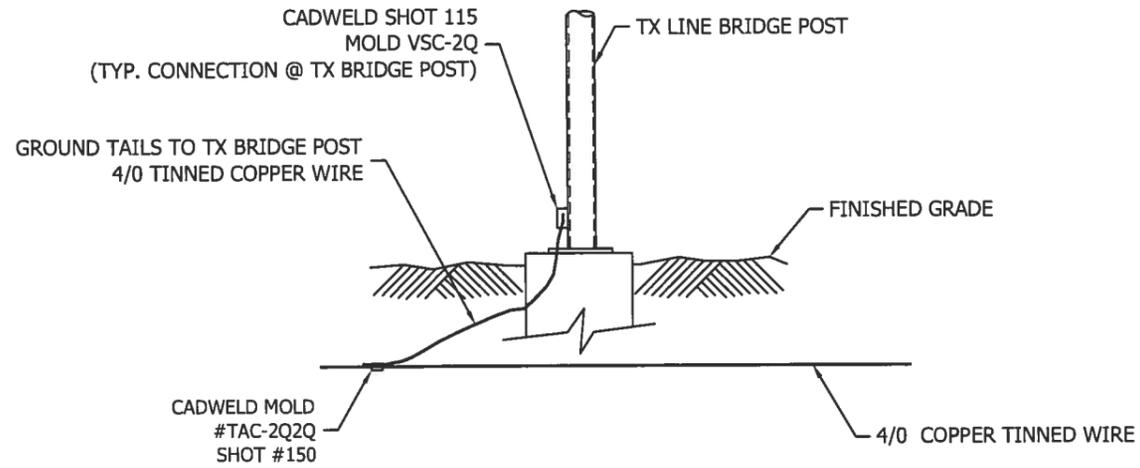


FILE NO. 0163462				
REVISIONS				
REV.	DESCRIPTION	DWN	CHK	APP
1	REVISED NOTES	YNL	SJD	CAG
DATE: Jan/26/2012				
DWG REFERENCE				
24-SSGL-E04-02				
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FISHERIES AND OCEANS CANADA GROUNDING GROUNDING BELOW GRADE COAST GUARD RONDEAU MCTS, ON				
DWN:	CHK'D:	DATE:		
YNL	SJD	Jan/20/2012		
ENG'R:	ENG'R APP'D:			
CAG				
DRAWING NO:				REV:
24-SSGL-E04-01				1

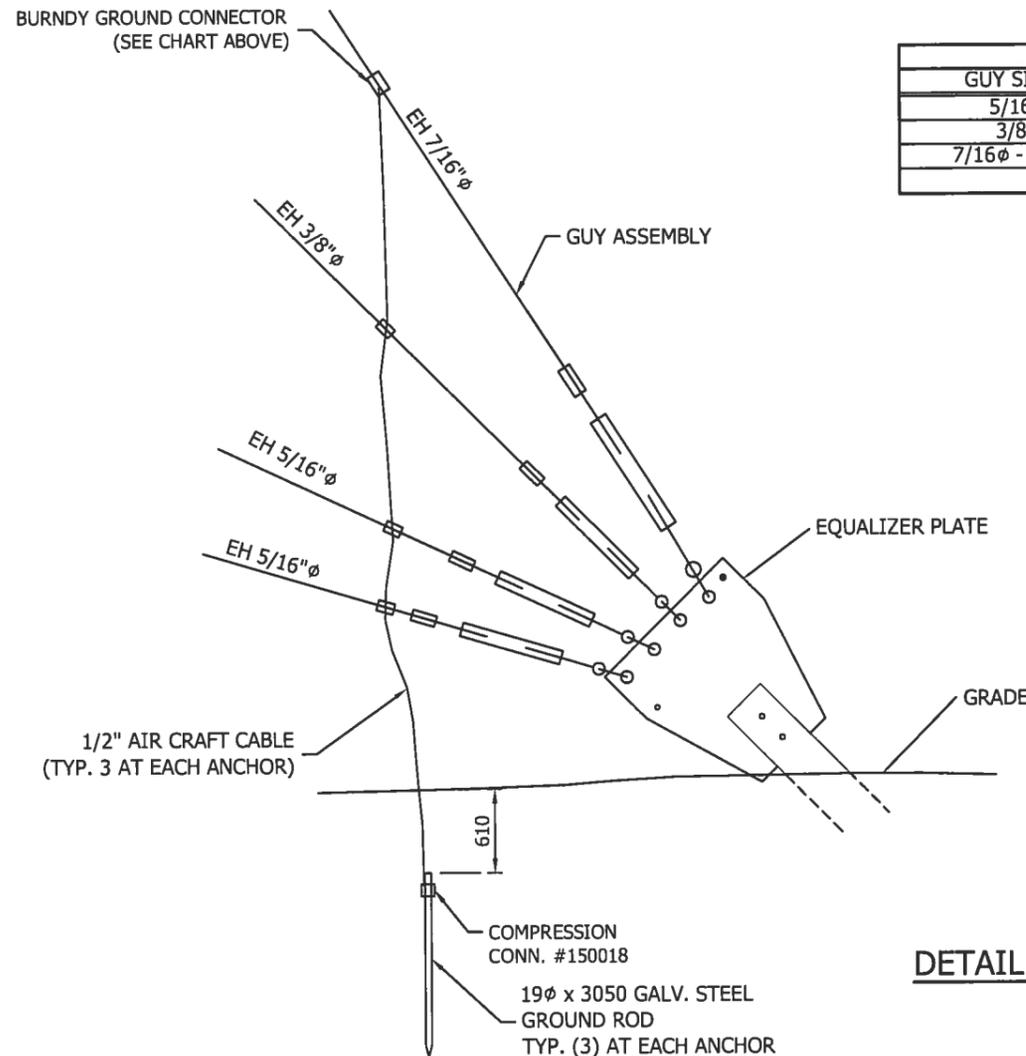
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**TYPICAL
TOWER STAR BASE**



Tx BRIDGE POST GROUNDING



DETAIL @ GUY ANCHORS

TABLE 1		
GUY SIZE	CONNECTOR	BURNDY NO.
5/16φ	150003	KSU28
3/8φ	150003	KSU28
7/16φ - 1/2φ	150003	KSU28

FILE NO.	0163462		
REVISIONS			
REV.	DESCRIPTION	DWN	CHK APP

DWG REFERENCE	



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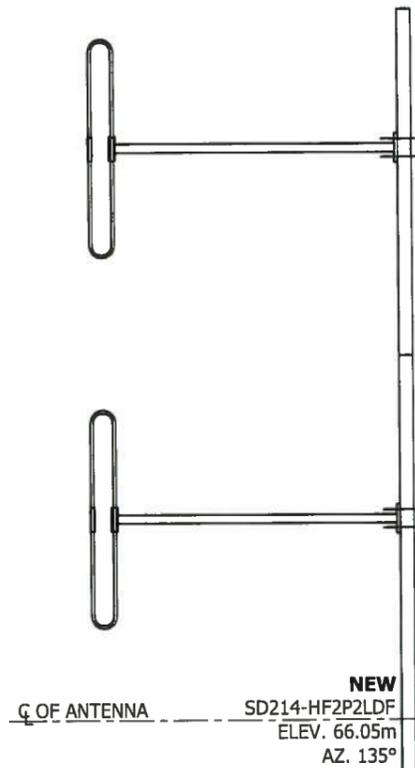
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FISHERIES AND OCEANS CANADA
GROUNDING
GROUNDING ABOVE GRADE
COAST GUARD RONDEAU MCTS, ON

DWN: YNL	CHK'D: SJD	DATE: Jan/19/2012
ENG'R: CAG	ENG'R APP'D:	

DRAWING NO: 24-SSGL-E04-02	REV: 0
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STANDARD-MAST TYPE TOWER RADIAN



NEW
SD214-HF2P2LDF
ELEV. 66.05m
AZ. 135°

CL OF ANTENNA



HSS 73 ODx6x1830
#91080A

PARALLEL PIPE TO PIPE CLAMP
KIT #SMT010-1
SEE DWG. 91B240-E01
(TYP.)

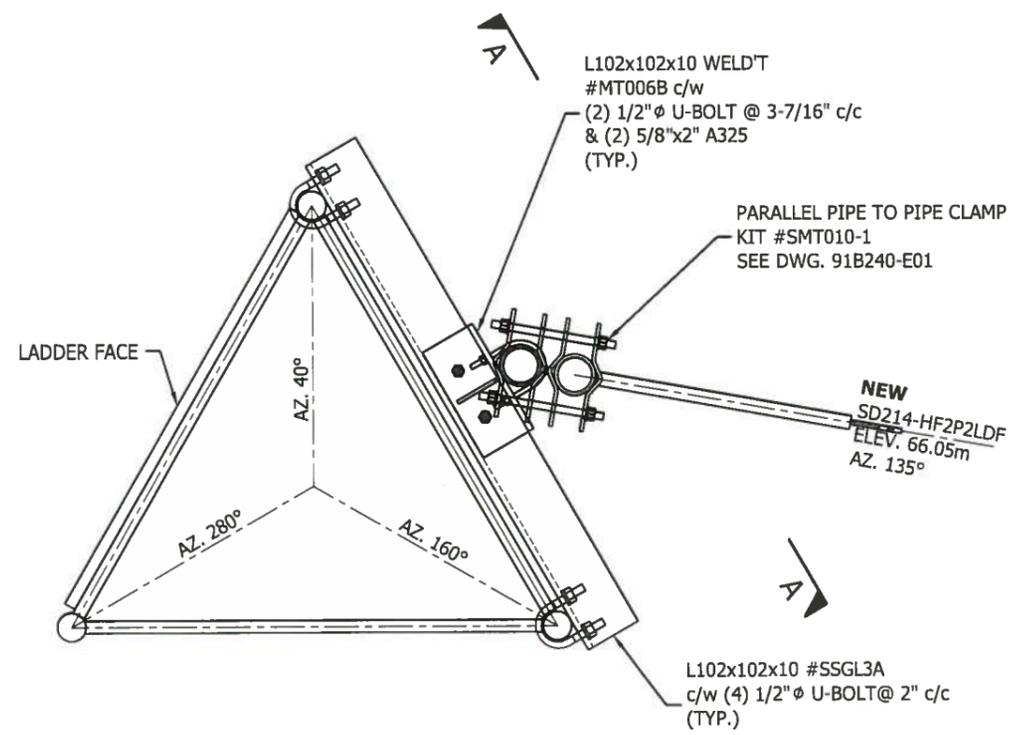
L102x102x10 WELD'T
#MT006B c/w
(2) 1/2" φ U-BOLT @ 3-7/16"
c/c & (2) 5/8"x2" A325
(TYP.)

EL. 63.3m -
TOP OF TOWER

850
APPROX.
SECTION #21 #24ASD0D
LEG SR32

L102x102x10 #SSGL3A
c/w (4) 1/2" φ U-BOLT @ 2" c/c
(TYP.)

ELEVATION VIEW A-A



LADDER FACE

AZ. 40°

AZ. 280°

AZ. 160°

L102x102x10 WELD'T
#MT006B c/w
(2) 1/2" φ U-BOLT @ 3-7/16" c/c
& (2) 5/8"x2" A325
(TYP.)

PARALLEL PIPE TO PIPE CLAMP
KIT #SMT010-1
SEE DWG. 91B240-E01

NEW
SD214-HF2P2LDF
ELEV. 66.05m
AZ. 135°

L102x102x10 #SSGL3A
c/w (4) 1/2" φ U-BOLT @ 2" c/c
(TYP.)

PLAN VIEW

FILE NO. 0163462

REVISIONS				
REV.	DESCRIPTION	DWN	CHK	APP

DWG REFERENCE
91B240-E01



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FISHERIES AND OCEANS CANADA
ANTENNA MOUNT
SD214-HF2P2LDF @ EL. 66.05m
COAST GUARD RONDEAU MCTS, ON

DWN: YNL	CHK'D: SJD	DATE: Jan/19/2012
ENG'R: CAG	ENG'R APP'D:	
DRAWING NO: 24-SSGL-E05-01		REV: 0

Jan/30/2012 4:25:59 PM

Erection

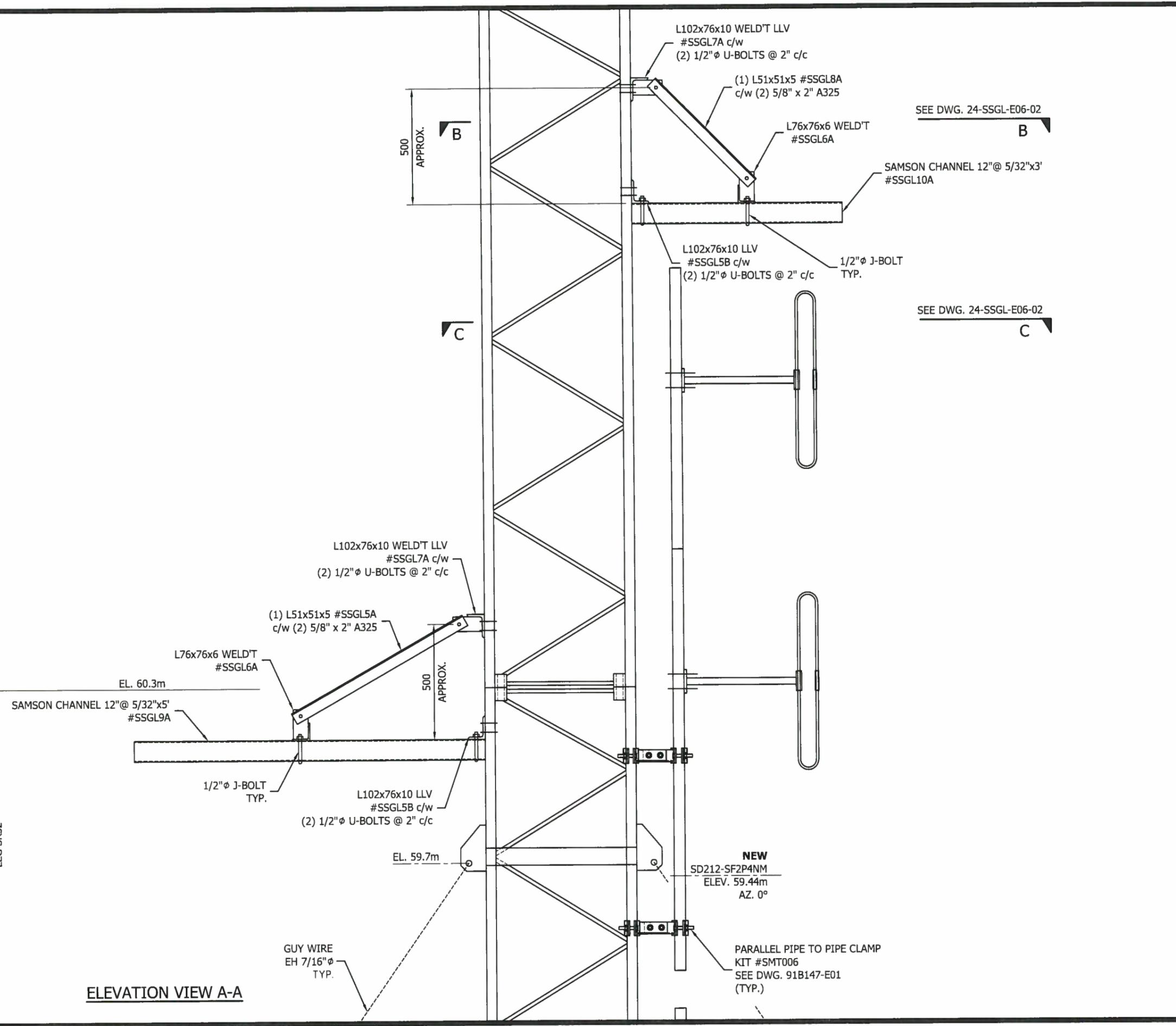
Jan/30/2012 4:26:02 PM

Envision

SECTION #21 #24ASD0D
LEG SR32

SECTION #20 #24AAA0D
LEG SR32

ELEVATION VIEW A-A



SEE DWG. 24-SSGL-E06-02

SEE DWG. 24-SSGL-E06-02

FILE NO.	0163462			
REVISIONS				
REV.	DESCRIPTION	DWN	CHK	APP

DWG REFERENCE	
91B147-E01	
24-SSGL-E06-02	



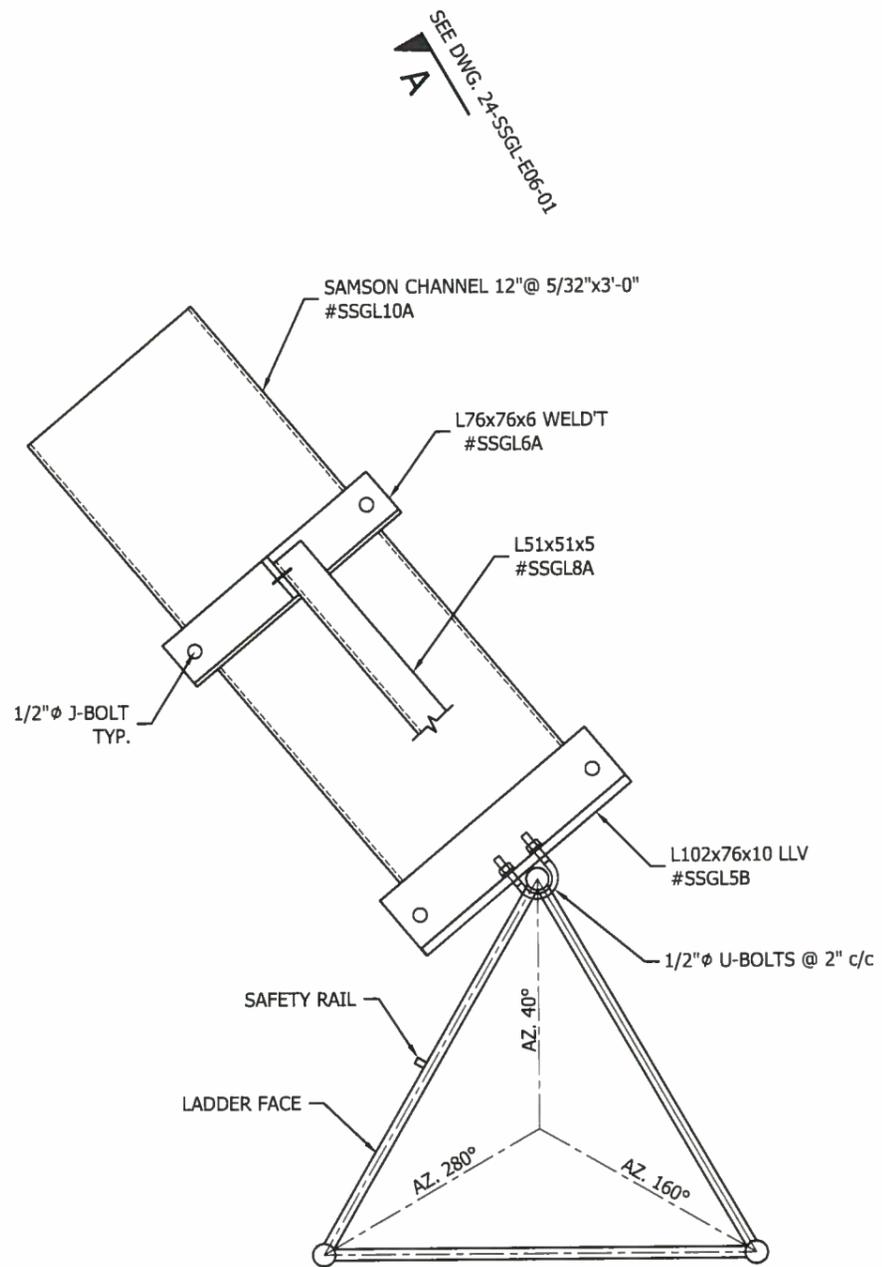
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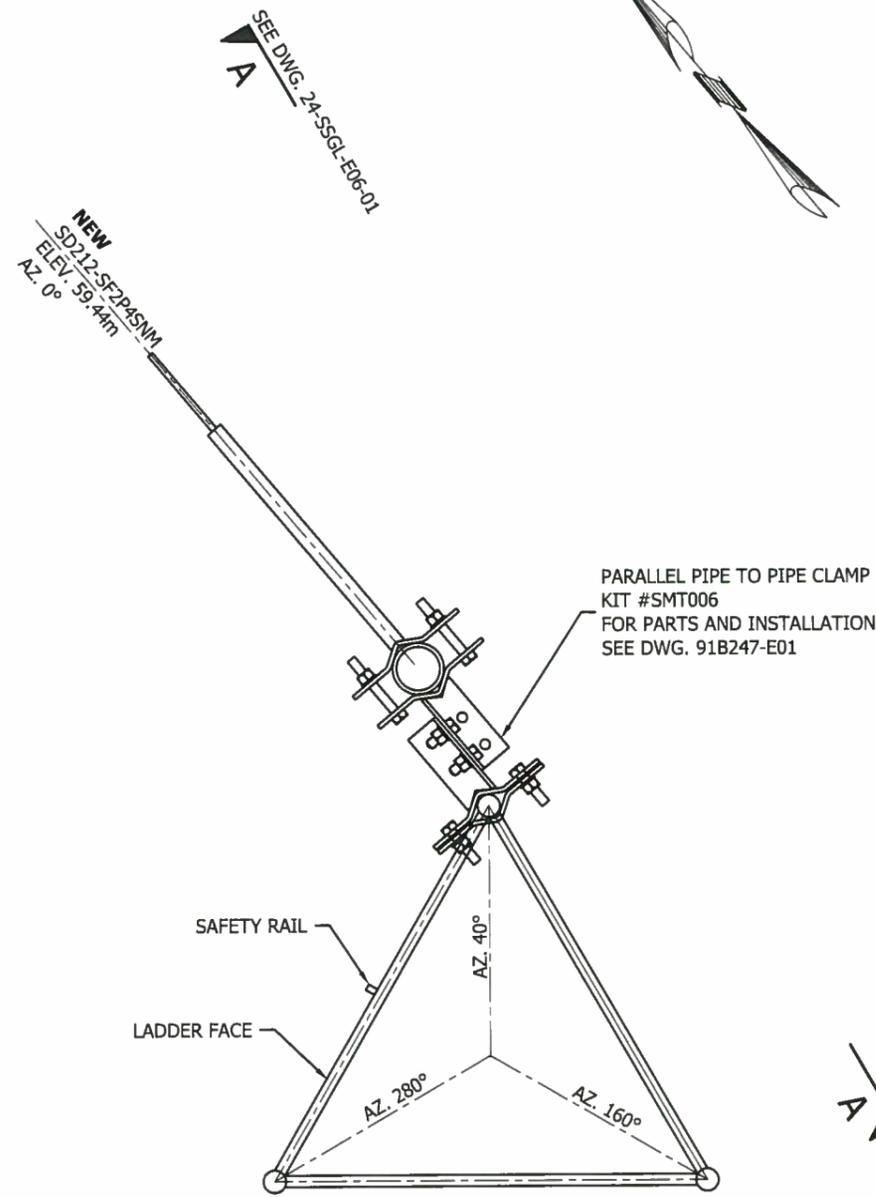
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FISHERIES AND OCEANS CANADA
ANTENNA MOUNT
SD212-SF2P4SNM @ EL. 59.44m
COAST GUARD RONDEAU MCTS, ON

DWN:	YNL	CHK'D:	SJD	DATE:	Jan/24/2012
ENG'R:	CAG	ENG'R APP'D:			
DRAWING NO:	24-SSGL-E06-01			REV:	0



PLAN VIEW B-B



PLAN VIEW C-C

FILE NO. 0163462

REVISIONS				
REV.	DESCRIPTION	DWN	CHK	APP

DWG REFERENCE	91B147-E01
	24-SSGL-E06-01



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FISHERIES AND OCEANS CANADA
ANTENNA MOUNT
SD212-SF2P4SNM @ EL. 59.44m
COAST GUARD RONDEAU MCTS, ON

DWN:	YNL	CHK'D:	SJD	DATE:	Jan/26/2012
ENGR:	CAG	ENGR APP'D:			

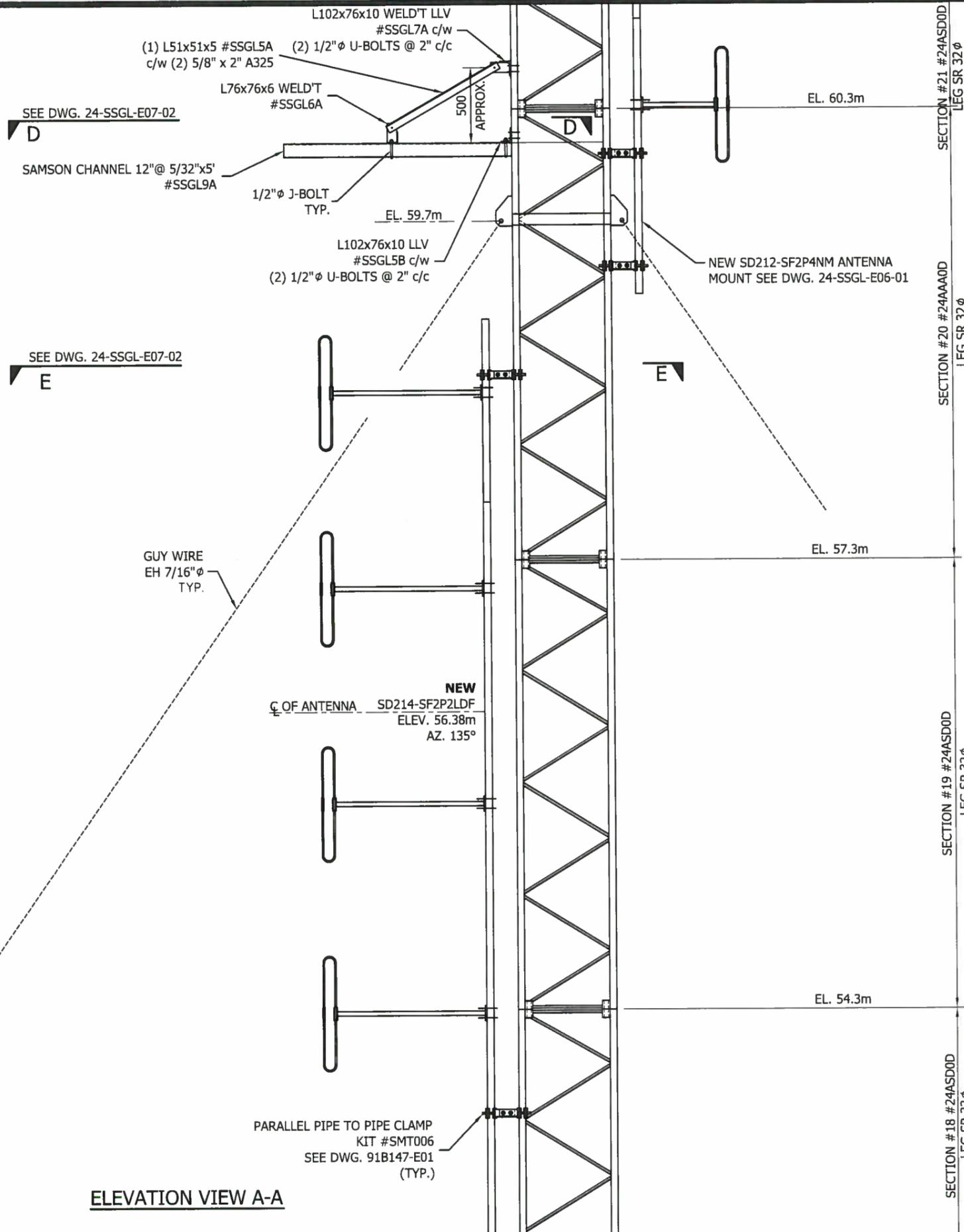
DRAWING NO:	24-SSGL-E06-02	REV:	0
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Jan/30/2012 4:26:05 PM

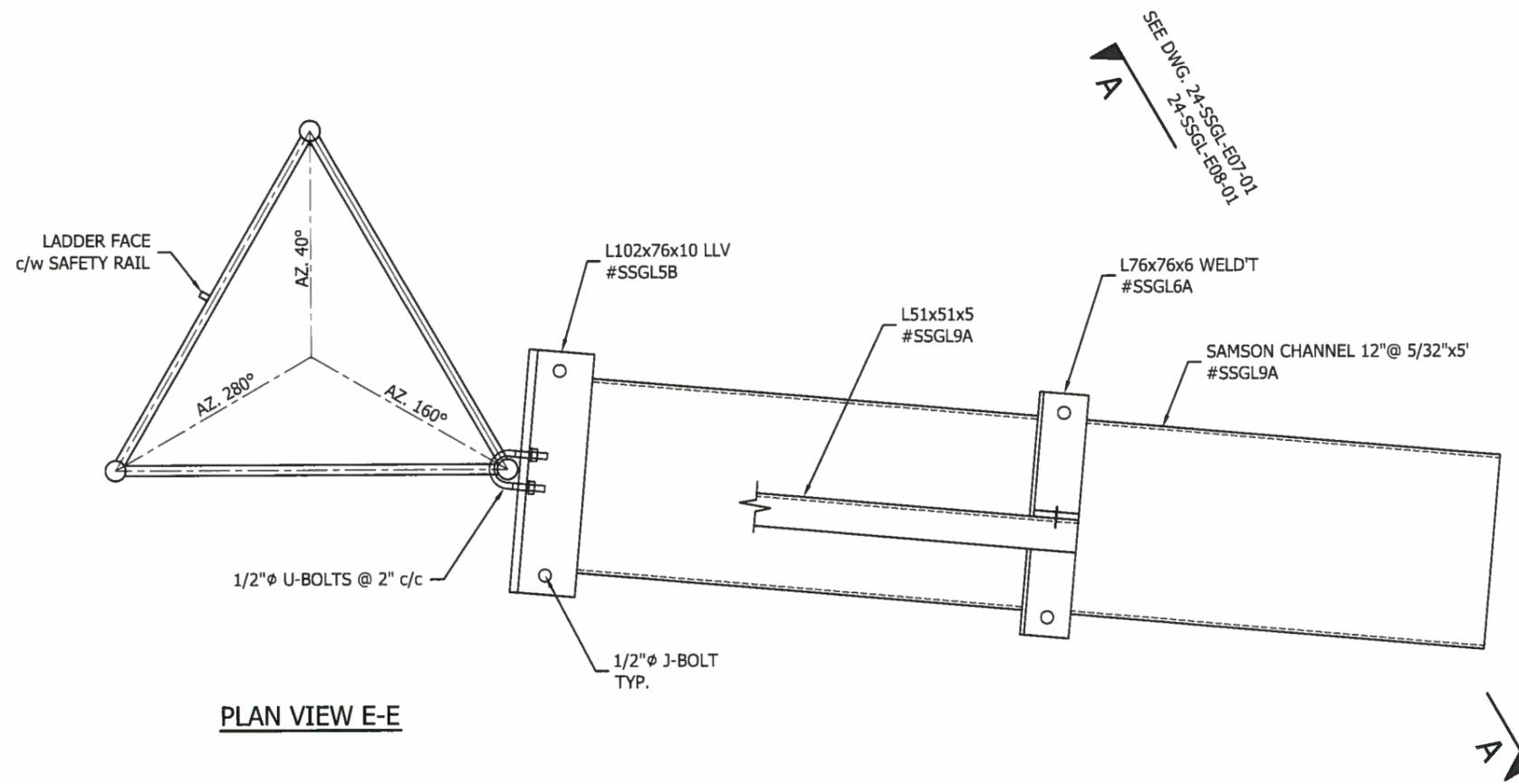
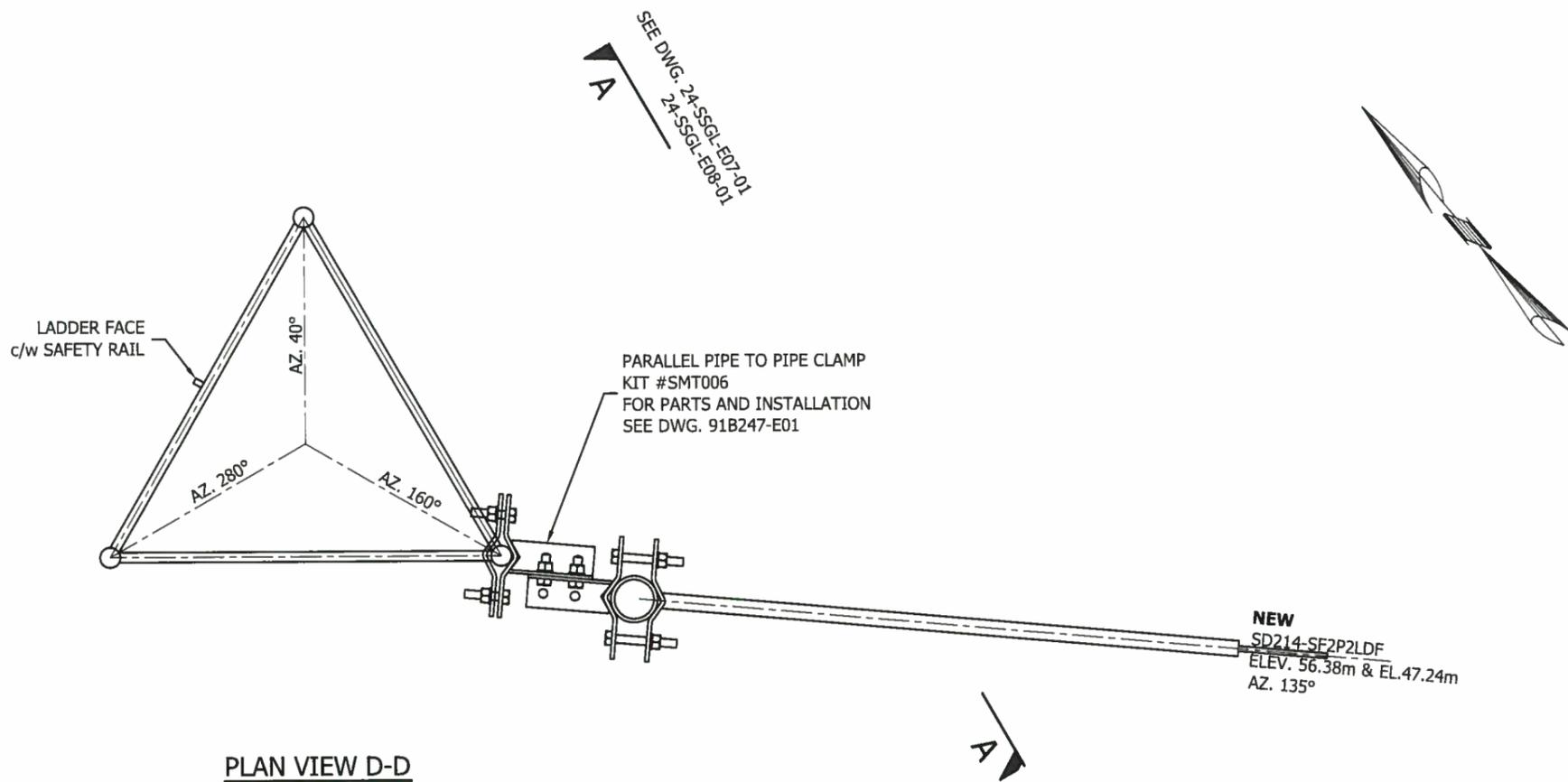
netricom

Jan/30/2012 4:26:09 PM

1:erection



FILE NO. 0163462			
REVISIONS			
REV.	DESCRIPTION	DWN	CHK APP
DWG REFERENCE			
91B147-E01			
24-SSGL-E06-01			
24-SSGL-E07-02			
MISSISSAUGA, ON, CANADA +1 905 275 8510 www.netricom.com			
Copyright - Duplication, recording, disclosure and use is prohibited			
FISHERIES AND OCEANS CANADA ANTENNA MOUNT SD214-SF2P2LDF @ EL. 56.38m COAST GUARD RONDEAU MCTS, ON			
DWN:	CHK'D:	DATE:	
YNL	SJD	Jan/24/2012	
ENG'R:	ENG'R APP'D:		
CAG			
DRAWING NO:			REV:
24-SSGL-E07-01			0



FILE NO. 0163462				
REVISIONS				
REV.	DESCRIPTION	DWN	CHK	APP
DWG REFERENCE				
91B147-E01				
24-SSGL-E07-01				
24-SSGL-E08-01				
NETRICOM MISSISSAUGA, ON, CANADA +1 905 275 8510 www.netricom.com				
Copyright - Duplication, recording, disclosure and use is prohibited				
FISHERIES AND OCEANS CANADA ANTENNA MOUNT SD214-SF2P2LDFNM COAST GUARD RONDEAU MCTS, ON				
DWN:	YNL	CHK'D:	SJD	DATE: Jan/26/2012
ENGR:	CAG	ENGR APP'D:		
DRAWING NO: 24-SSGL-E07-02				REV: 0

Jan/26/2012 4:26:12 PM

Erection

SEE DWG. 24-SSGL-E07-02

D

SAMSON CHANNEL 12" @ 5/32"x5" #SSGL9A

(1) L51x51x5 #SSGL5A
c/w (2) 5/8" x 2" A325

L76x76x6 WELD'T #SSGL6A

L102x76x10 WELD'T LLV #SSGL7A c/w
(2) 1/2" φ U-BOLTS @ 2" c/c

500 APPROX.

1/2" φ J-BOLT TYP.

L102x76x10 LLV #SSGL5B c/w
(2) 1/2" φ U-BOLTS @ 2" c/c

SEE DWG. 24-SSGL-E07-02

E

PARALLEL PIPE TO PIPE CLAMP KIT #SMT006
SEE DWG. 91B147-E01 (TYP.)

NEW
SD214-SF2PLDF
ELEV. 47.24m
AZ. 135°

☐ OF ANTENNA

EL. 48.3m

EL. 45.3m

EL. 44.7m -

GUY WIRE EH 3/8" φ TYP.

ELEVATION VIEW A-A

D

E

SECTION #17 #24ASD0D
LEG SR 32

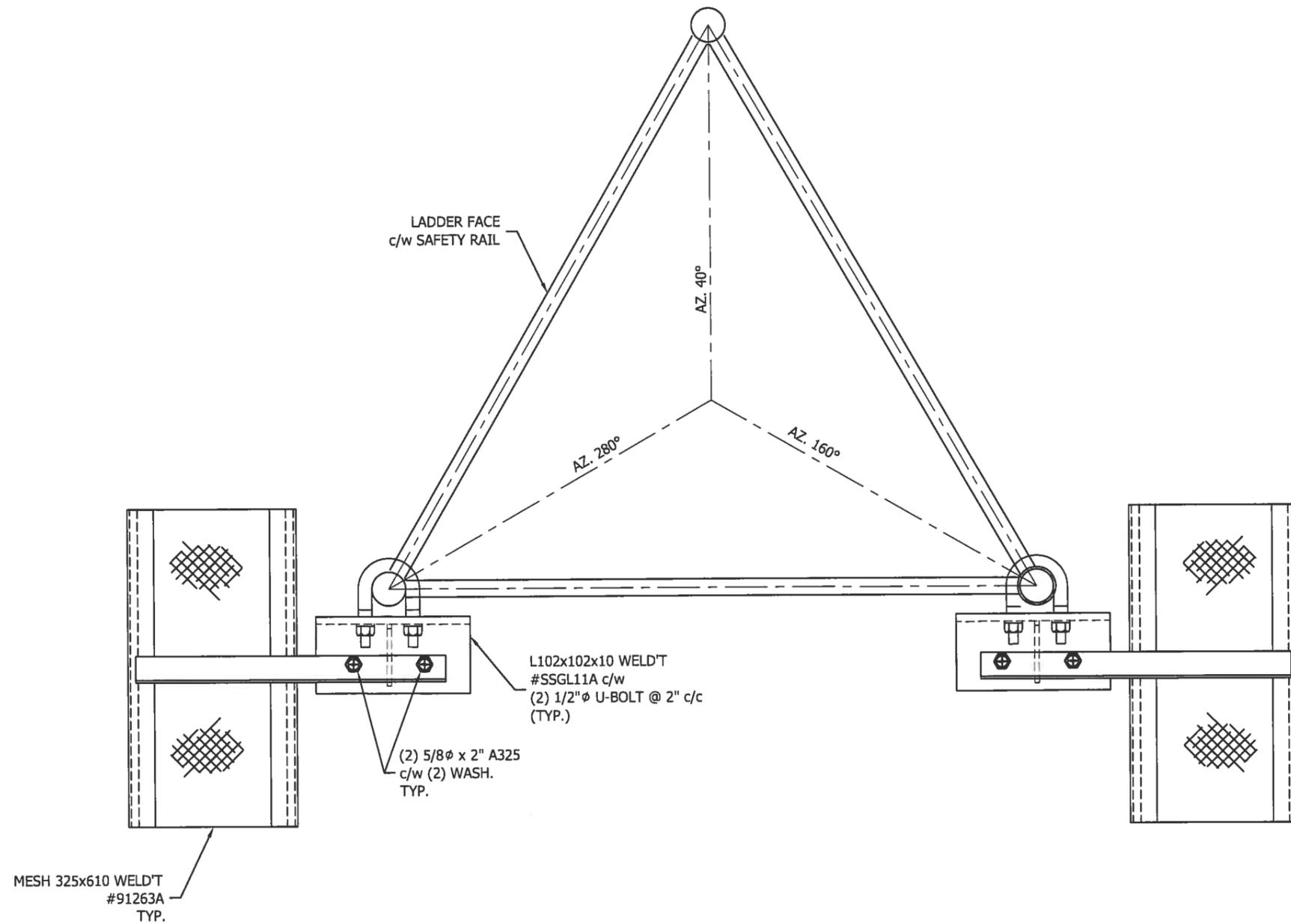
SECTION #16 #24ASD0D
LEG SR 32 φ

SECTION #15 #24AAA0D
LEG SR 32

FILE NO. 0163462				
REVISIONS				
REV.	DESCRIPTION	DWN	CHK	APP
DWG REFERENCE				
91B147-E01				
24-SSGL-E07-02				
				
				
MISSISSAUGA, ON, CANADA +1 905 275 8510 www.netricom.com				
Copyright - Duplication, recording, disclosure and use is prohibited				
FISHERIES AND OCEANS CANADA ANTENNA MOUNT SD214-SF2P2LDF @ EL. 47.24m COAST GUARD RONDEAU MCTS, ON				
DWN:	YNL	CHK'D:	SJD	DATE: Jan/25/2012
ENG'R:	CAG	ENG'R APP'D:		
DRAWING NO: 24-SSGL-E08-01				REV: 0

Jan/30/2012 4:26:15 PM

1/30/2012

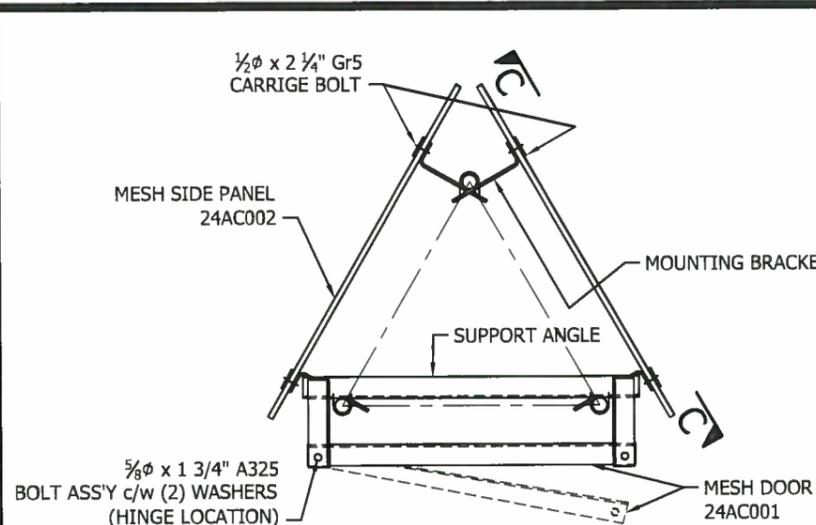


PLAN VIEW @ MIDDLE OF TOWER
ABOVE MID DOL. LIGHTS

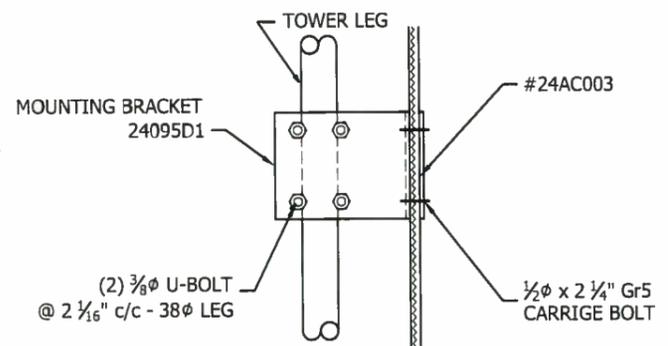
FILE NO. 0163462				
REVISIONS				
REV.	DESCRIPTION	DWN	CHK	APP
DWG REFERENCE				
 MISSISSAUGA, ON, CANADA +1 905 275 8510 www.netricom.com				
Copyright - Duplication, recording, disclosure and use is prohibited				
FISHERIES AND OCEANS CANADA LIGHTING DOL LIGHT ICE GUARD INSTALLTION COAST GUARD RONDEAU MCTS, ON				
DWN:	YNL	CHK'D:	SJD	DATE: Jan/27/2012
ENG'R:	CAG	ENG'R APP'D:		
DRAWING NO: 24-SSGL-E09-01				REV: 0

Jan/30/2012 4:26:18 PM

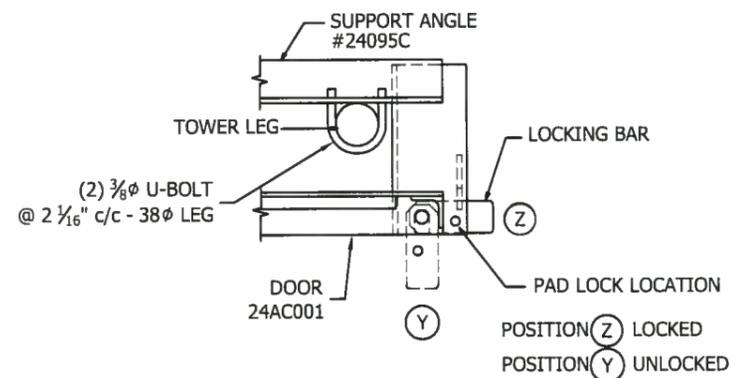
1Erection\



PLAN VIEW

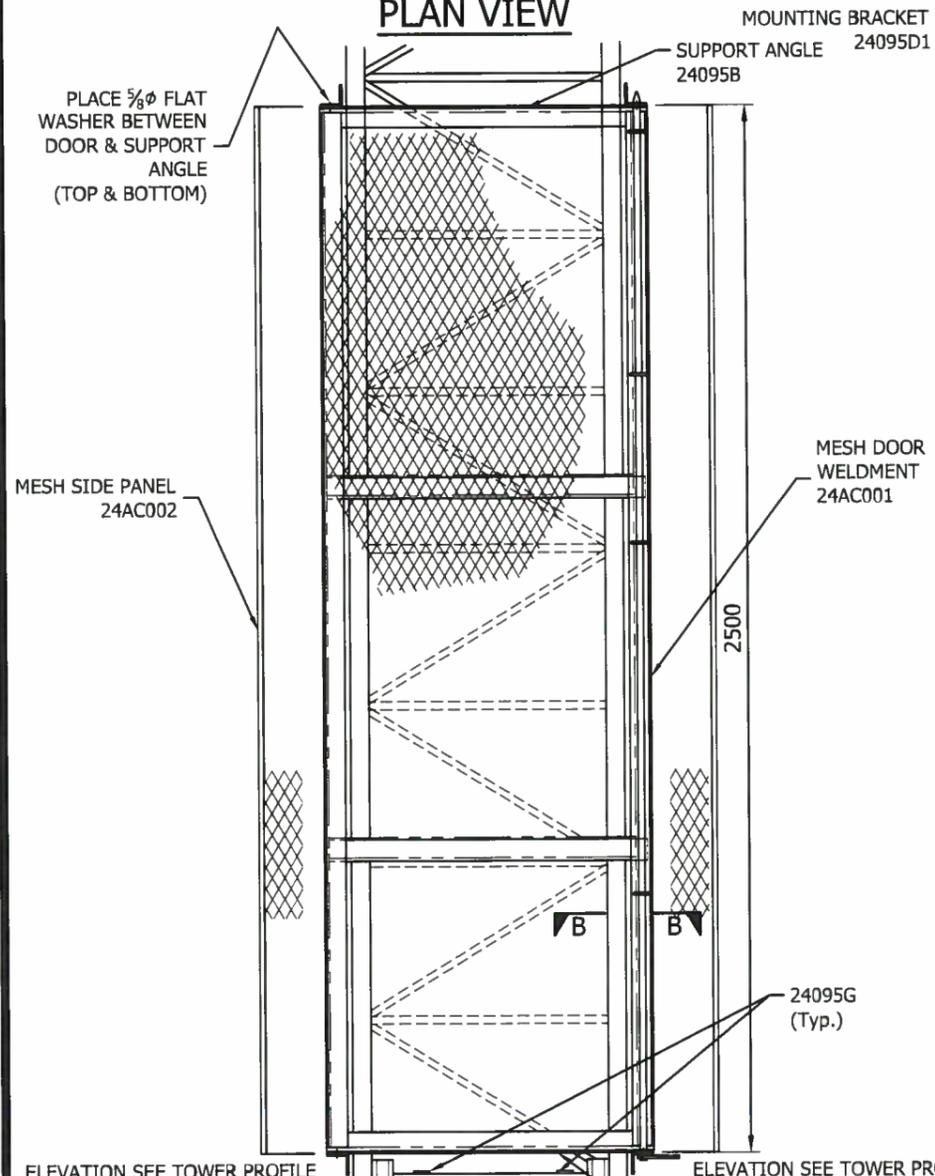


SECTION VIEW A-A

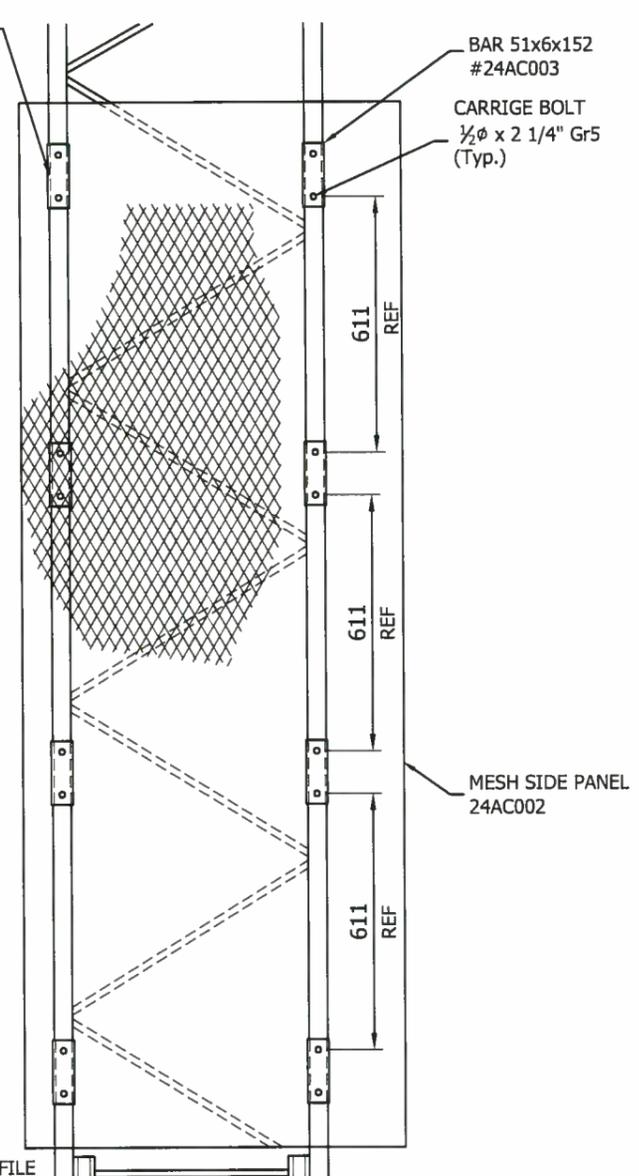


SECTION VIEW B-B

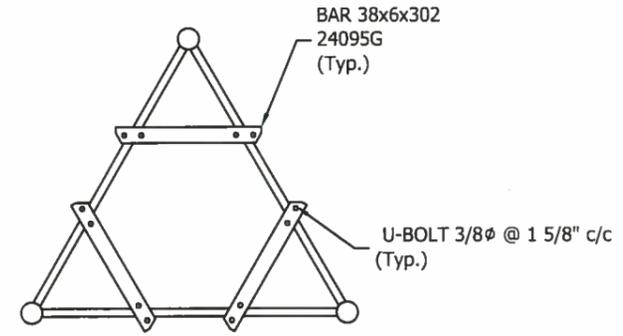
LOCKING METHOD



ELEVATION
CLIMBING FACE



ELEVATION C-C



PLAN VIEW
AT BOTTOM ELEVATION

- NOTES:**
1. LOCATE BOTTOM OF ANTI-CLIMB AT THE ELEVATION SEE DWG. 24-SSGL-E01-01.
 2. SUPPORT ANGLES ARE TO BE MOUNTED BELOW TOWER HORIZONTALS.
 3. ANTI-CLIMB CAN BE USED ON RG24 SERIES MAST WITH 32 ϕ TO 44 ϕ LEGS.

FILE NO.	0163462		
REVISIONS			
REV.	DESCRIPTION	DWN	CHK APP

DWG REFERENCE	



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FISHERIES AND OCEANS CANADA
ANTI-CLIMB
MESH TYPE ANTI-CLIMB
COAST GUARD RONDEAU MCTS, ON

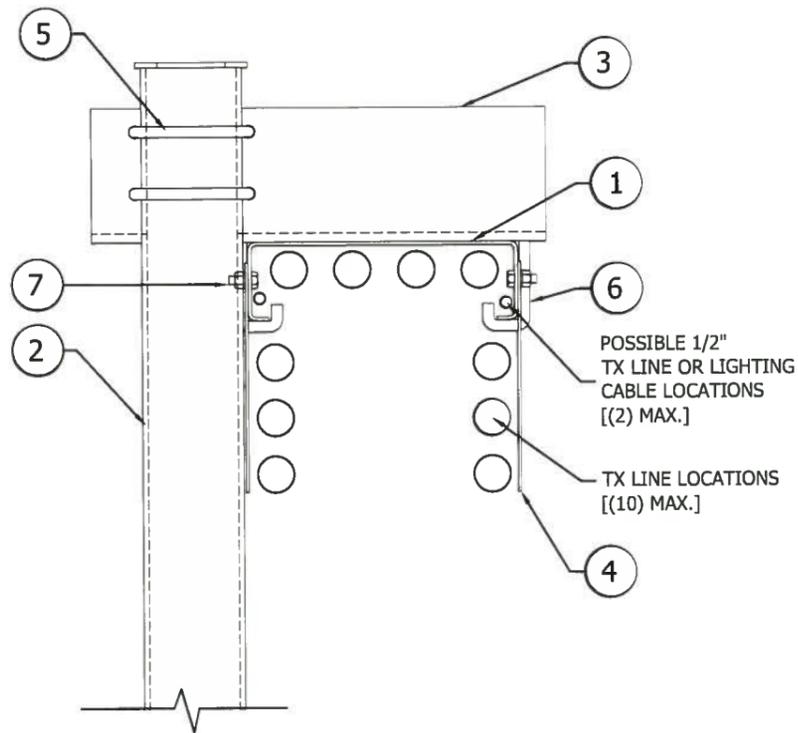
DWN:	YNL	CHK'D:	SJD	DATE:	Feb/07/2012
ENG'R:	CAG		ENG'R APP'D:		
DRAWING NO:	24-SSGL-E10-01			REV:	0

DOOR 2.5m

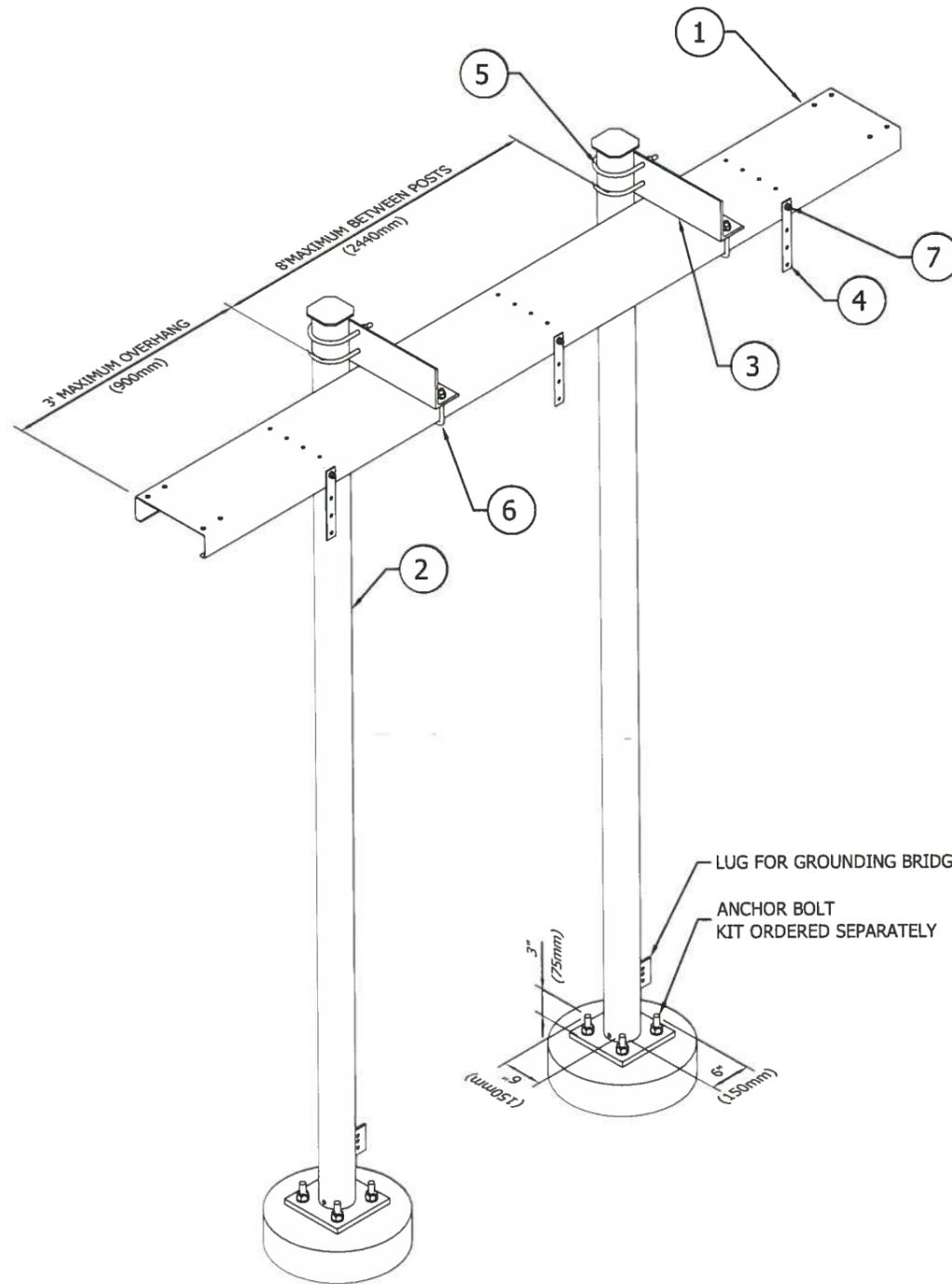
Feb/07/2012 4:50:42 PM

[function]

BILL OF MATERIAL KIT #STB001-S				
ITEM	QTY.	PART NO.	DESCRIPTION	Wt./lb
1	1	91171B	SAMSON CHANNEL 12"@5/32"x10'	115#
2	2	91166F2	HSS 4 1/2"ODx11' WELD'T	226#
3	2	TX001A	BRACE ARM L 6x4x3/8"	40#
4	6	91171C	PL. 1 1/2"x1/8"	6#
5	4	110260	1/2"□ U-BOLTS @ 5 1/16"c/c	
6	4	111041	1/2"□ SQUARE J-BOLTS	
7	6	110459	3/8"□x1"GR.5 BOLT ASS'Y	
TOTAL				390#



END VIEW



NOTE:

WHEN DETERMINING END OVERHANG, CONSIDER LOCATION OF EXISTING TOWER AND BUILDING FOUNDATION.

FILE NO.	0163462		
REVISIONS			
REV.	DESCRIPTION	DWN	CHK APP

DWG REFERENCE	



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FISHERIES AND OCEANS CANADA
TX LINE BRIDGE
10' SINGLE w POST & BASE PLATE
COAST GUARD RONDEAU MCTS, ON

DWN:	HHR	CHK'D:	JMC	DATE:	Jul/05/2000
ENG'R:	RKA	ENG'R APP'D:			
DRAWING NO:	TB001-E01			REV:	0

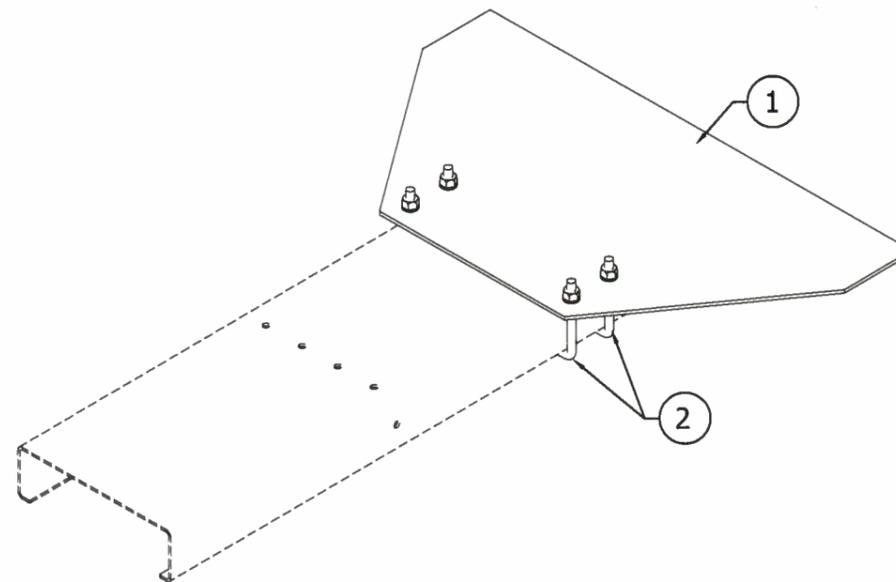
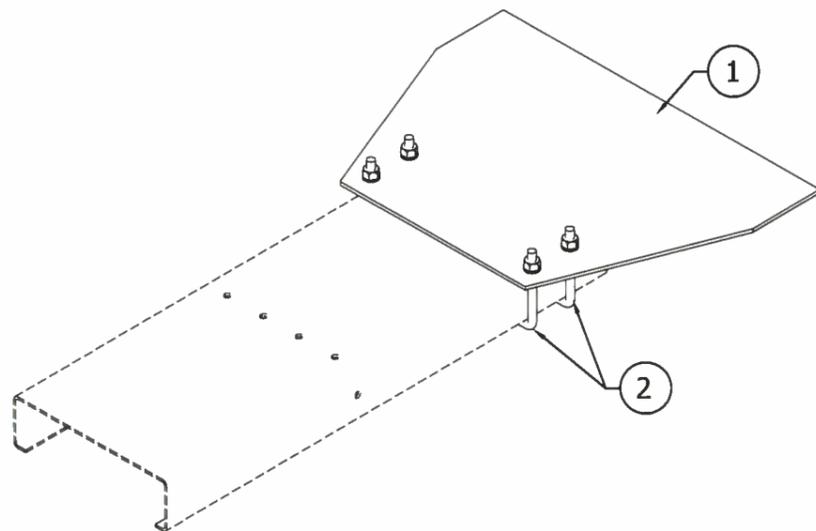
Nov/01/2002 4:25:08 PM

Erection

FILE NO.				
0163462				
REVISIONS				
REV.	DESCRIPTION	DWN	CHK	APP
1	REVISED U-BOLT PART NUMBER. 110963 TO PART NUMBER 111041. DATE: Jan/10/2002	JTB	JMC	D.A
2	PART # TB006A1 WAS #TB006A. PART # TB006B1 WAS #TB006B. DATE: Apr/09/2003	JTB	J.K	

BILL OF MATERIAL KIT #STB006-C				
ITEM	QTY.	PART NO.	DESCRIPTION	Wt./lb
1	1	TB006A1	PL. 2'x1/4" (460x6x630mm)	27#
2	4	111041	1/2" □ SQUARE J-BOLTS	

BILL OF MATERIAL KIT #STB006-D				
ITEM	QTY.	PART NO.	DESCRIPTION	Wt./lb
1	1	TB006B1	PL. 3'x1/4" (460x6x840mm)	34#
2	4	111041	1/2" □ SQUARE J-BOLTS	



DWG REFERENCE



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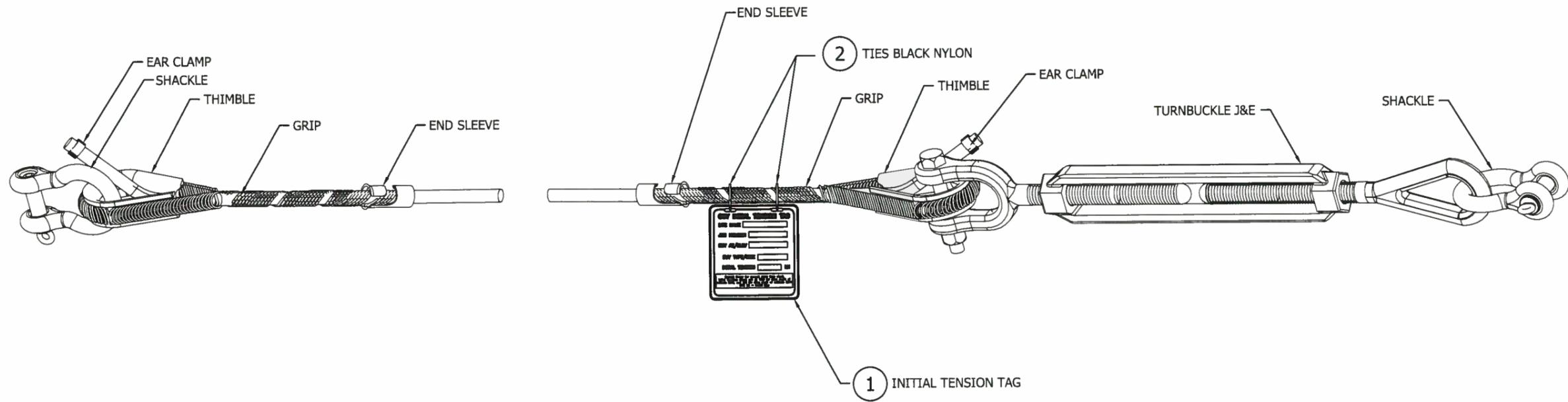
FISHERIES AND OCEANS CANADA
TX LINE BRIDGE
ACCESSORIES END PLATE 2' & 3'
COAST GUARD RONDEAU MCTS, ON

DWN: HHR	CHK'D: JMC	DATE: Jul/05/2000
ENG'R: RKA	ENG'R APP'D:	
DRAWING NO: TB006-E03		REV: 2

Apr/10/2003 3:19:25 PM

Erection

BILL OF MATERIAL KIT #KMCGY-GUYTAG			
ITEM	QTY.	PART NO.	DESCRIPTION
1	3	GY008B	GUY WIRE INITIAL TENSION TAG
2	7	100109	TIES BLACK NYLON



FILE NO.	0163462		
REVISIONS			
REV.	DESCRIPTION	DWN	CHK APP

DWG REFERENCE	



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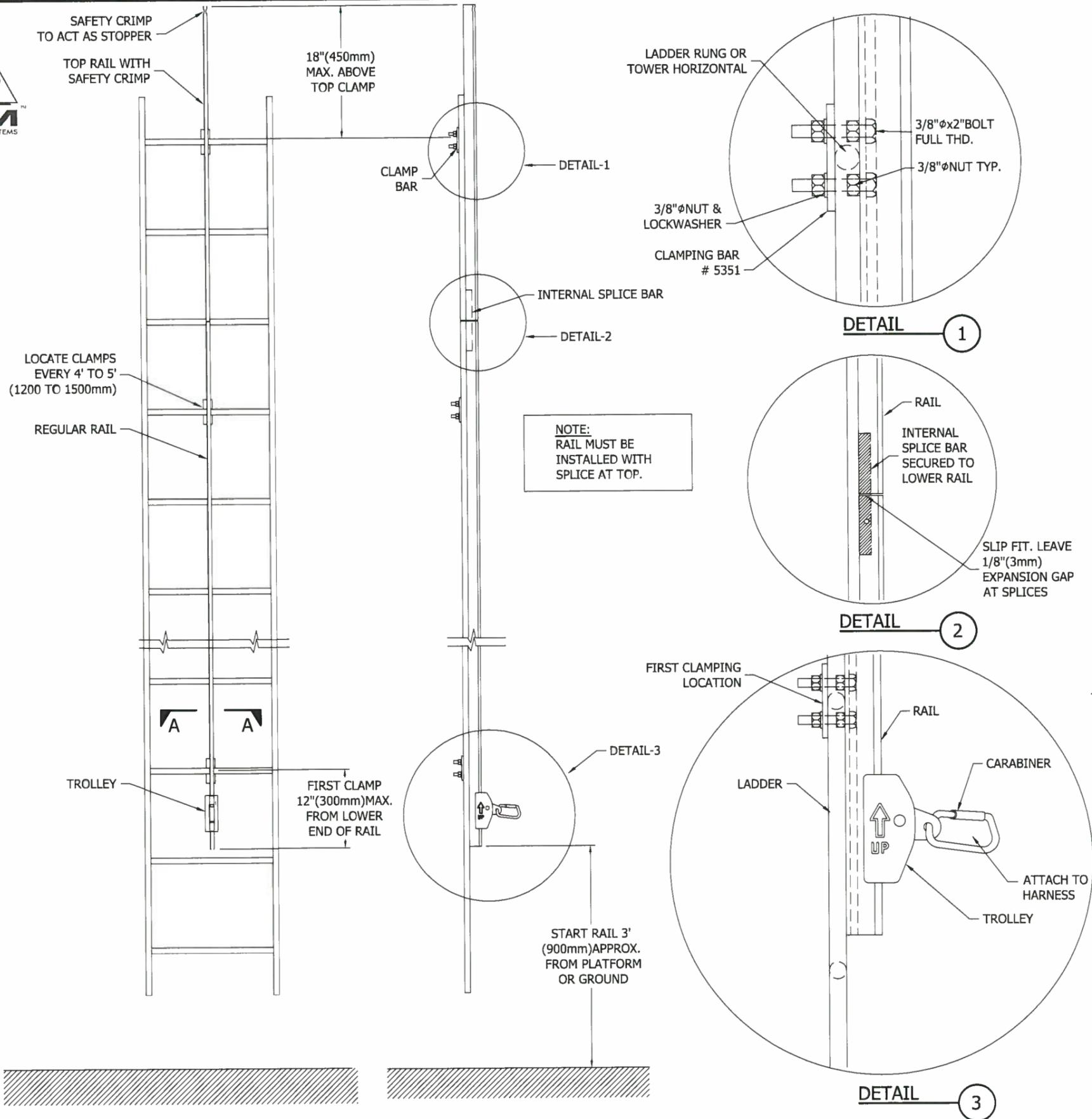
FISHERIES AND OCEANS CANADA
GUY
INITIAL TENSION TAG ASSEMBLY
COAST GUARD RONDEAU MCTS, ON

DWN:	O.R	CHK'D:	JWF	DATE:	Mar/02/2004
ENG'R:	J.K	ENG'R APP'D:			

DRAWING NO:	GY009-E01	REV:	0
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Mar/02/2004 3:28:16 PM

1/rev001



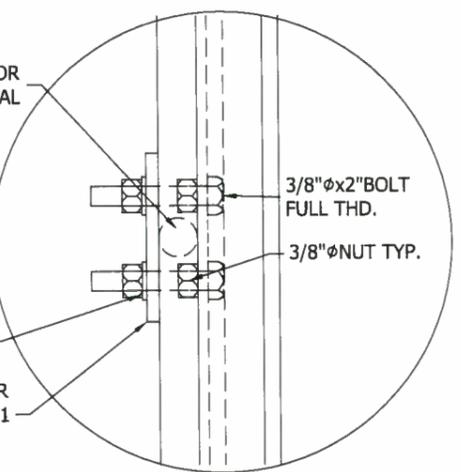
INSTALLATION INSTRUCTIONS:

START BOTTOM RAIL APPROXIMATELY 3'(900mm) FROM BOTTOM OF LADDER OR BASE STARTING POSITION. LOCATE RAIL AT CENTER OF LADDER OR CLIMBWAY TO ALLOW BALANCED FOOT PLACEMENT.

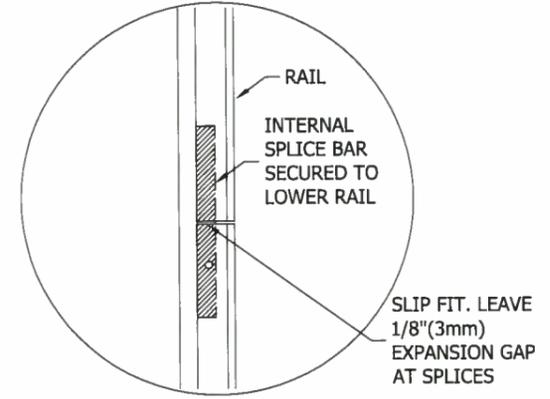
ATTACH THE FIRST CLAMP 1'(300mm) FROM THE LOWER END OF THE BOTTOM RAIL SECTION. PLACE CLAMPS EVERY 4' TO 5' (1200 TO 1500mm) AS LADDER OR CLIMBWAY RUNGS PERMIT. LOCATE TOP CLAMP ON TOP RUNG AS ILLUSTRATED IN DRAWING. RAIL CAN SAFELY EXTEND 18\"(450mm)MAX. ABOVE TOP CLAMP TO PERMIT SAFE ARRIVAL AT TOP OF LADDER. FOR BEST RESULTS, PLACE BOLTS IN CONTINUOUS T-SLOT AND FINGER TIGHTEN AT APPROXIMATE LOCATIONS BEFORE RAISING RAIL SECTIONS INTO PLACE. RAISE AND SECURE THE FIRST RAIL BEFORE CONTINUING WITH INTERMEDIATE RAILS. LEAVE 1/8\"(3mm) OPEN AT EACH RAIL SPLICE JOINT FOR EXPANSION AND CONTRACTION. INSTALL AND SECURE TOP RAIL c/w CRIMP TO ACT AS SAFETY STOP.

FOR HEIGHT ADJUSTMENT, CUT BOTTOM OF TOP RAIL ONLY.

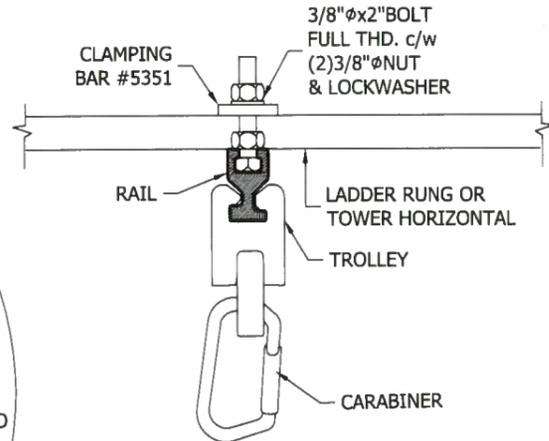
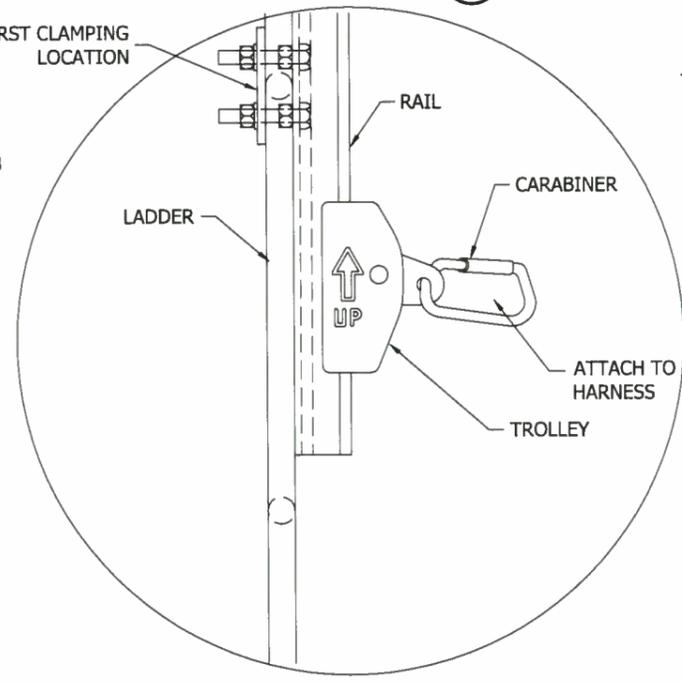
DETAIL 1



DETAIL 2



DETAIL 3



VIEW A-A

NOTE:
RAIL MUST BE INSTALLED WITH SPLICE AT TOP.

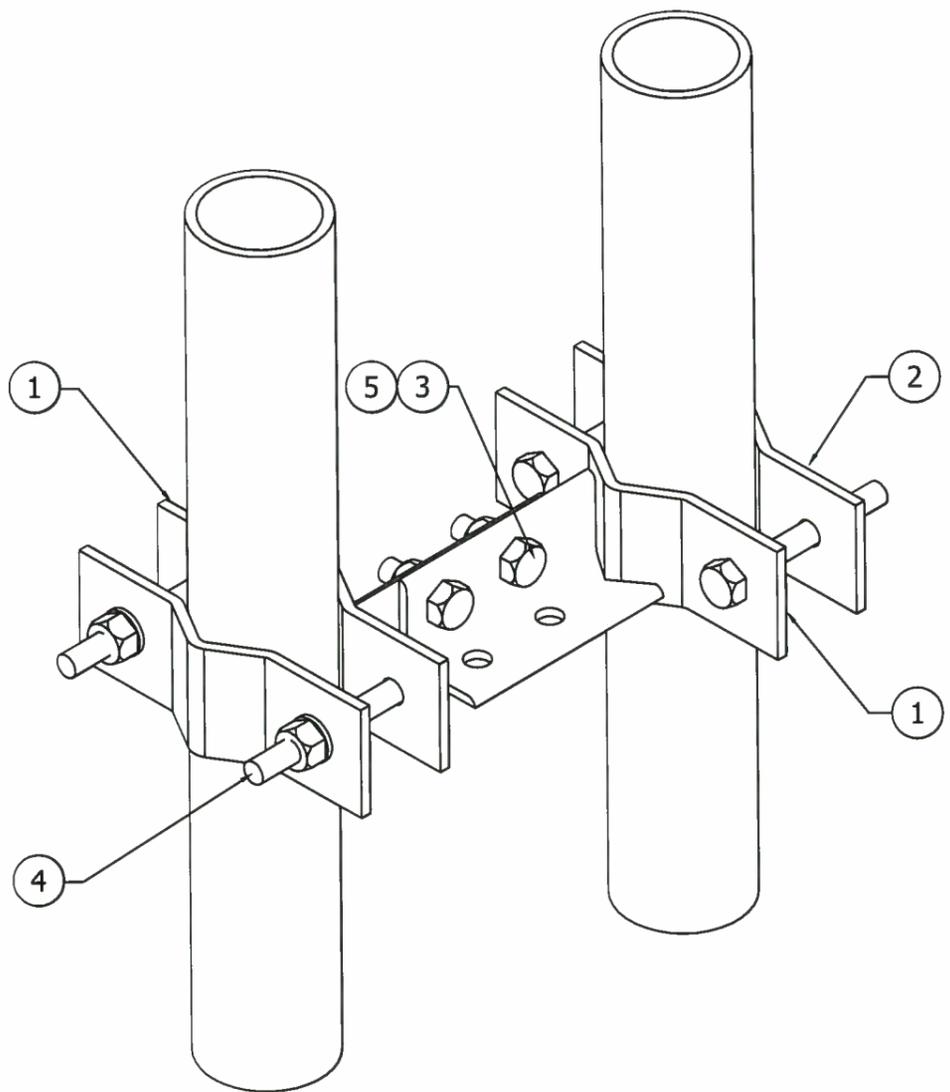
FILE NO. 0163462				
REVISIONS				
REV.	DESCRIPTION	DWN	CHK	APP
1	PAL NUT CHANGED TO ANCO NUT. DATE: Jan/01/2001	HHR	JMC	D.A
2	TITLE BLOCK CHANGED TO RADIAN FROM LeBLANC. DATE: Jan/18/2002	JMC	D.A	DJA
3	REMOVED BOLT ASSY AT TOP RAIL AND REPLACED WITH CRIMP TO ACT AS SAFETY STOP. REVISED NOTE. DATE: May/05/2003	JTB	J.K	
4	REVISED INSTALLATION INSTRUCTION NOTE. DATE: Dec/18/2003	JTB	J.K	
5	REPLACED RAM TROLLEY VERSION 1 c/w SWIVEL HOOK, WITH RAM TROLLEY VERSION 2 c/w CARABINER. DATE: Jan/13/2004	JTB	J.K	J.K
6	CERTIFICATION NOTE ADDED. DATE: Jan/09/2009	JBL	SJD	JSH
DWG REFERENCE				
<p>NETRICOM MISSISSAUGA, ON, CANADA +1 905 275 8510 www.netricom.com</p>				
Copyright - Duplication, recording, disclosure and use is prohibited				
<p>FISHERIES AND OCEANS CANADA SAFETY CLIMB RAM RAIL COAST GUARD RONDEAU MCTS, ON</p>				
DWN:	HHR	CHK'D:	D.A	DATE: Jun/05/2003
ENG'R:	RKA	ENG'R APP'D:		
DRAWING NO:	CL001-E01			REV: 6

6 THE RAM RAIL SYSTEM IS CERTIFIED TO CSA Z 259.2.1. AND MEETS OR EXCEEDS THE REQUIREMENTS OF ANSI Z 359.1

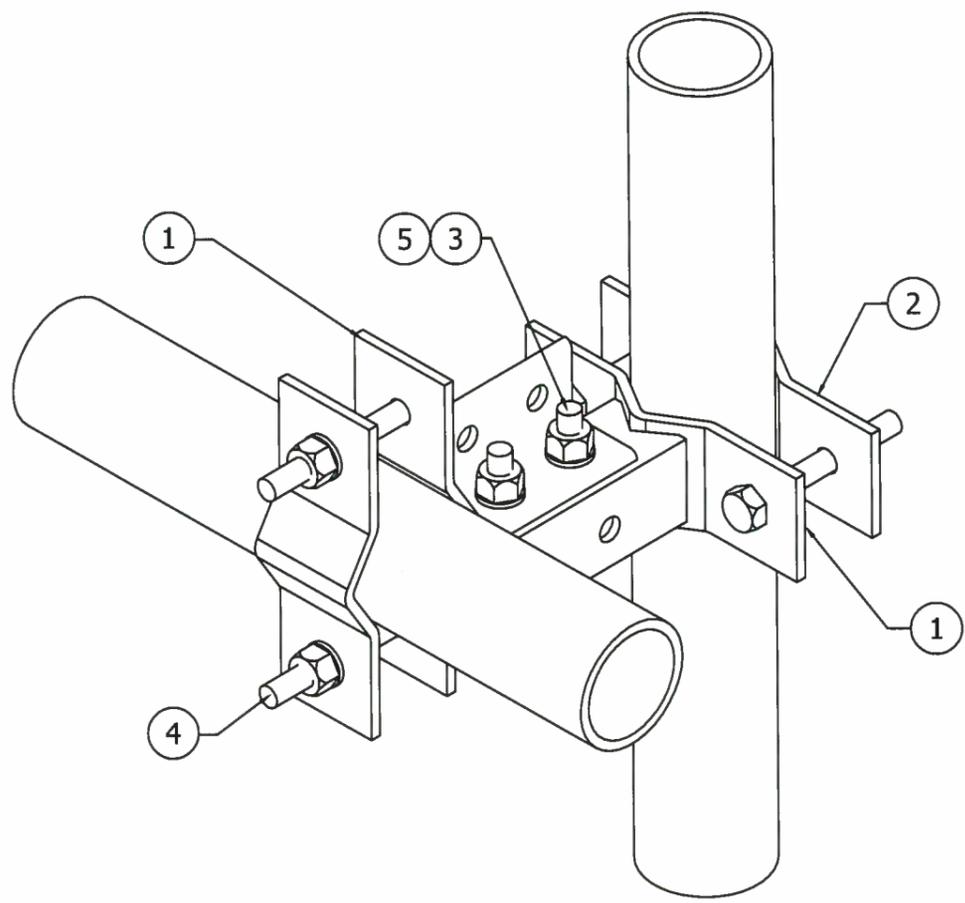
Jan/13/2009 6:24:38 PM

Erection

Jun/23/2003 10:34:15 AM



PARALLEL ARRANGEMENT



PERPENDICULAR ARRANGEMENT

BILL OF MATERIAL KIT#SMT006				
ITEM	QTY.	PART NO.	DESCRIPTION	Wt./lb
1	2	91147A-1	L 2"x2"x1/4" WELD'T	4#
2	2	91239A	BENT BAR 1 1/2"x1/4"	2#
3	2	110002	1/2" ϕ x1 1/2" A325	1#
4	4	110946	1/2" ϕ x4" FULL THD. BOLTS	1#
5	2	110203	1/2" LOCK WASHER	0#
TOTAL				9#

FILE NO. 0163462				
REVISIONS				
REV.	DESCRIPTION	DWN	CHK	APP
1	DWG NO. CHANGED WAS 91A147-E01. KIT CHART ADDED. BOLT CHART REMOVED. ISOMETRIC VIEW ADDED. FULL THD. BOLTS. DATE: Jun/08/2000	HHR	JMC	T.A
2	PART 110819 REPLACED BY 110002 AND 110203. DATE: Jun/13/2003	MGC	J.K	
DWG REFERENCE				
91B147-M01				
MISSISSAUGA, ON, CANADA +1 905 275 8510 www.netricom.com				
Copyright - Duplication, recording, disclosure and use is prohibited				
FISHERIES AND OCEANS CANADA PIPE CLAMP FOR 1 1/2"OD TO 2 7/8"OD (38 TO 73mm) COAST GUARD RONDEAU MCTS, ON				
DWN:	KPB	CHK'D:	JMC	DATE: May/27/1994
ENGR:		ENGR APP'D:		
DRAWING NO:				REV:
91B147-E01				2

iEnaction

FILE NO. 0163462

REVISIONS			
REV.	DESCRIPTION	DWN	CHK APP

KIT # SLT002-1 1 1/4" - 3" RND 2 1/2" - 3" 60° V				
ITEM	QTY.	PART NO.	DESCRIPTION	WT./lb
1	2	LT004C	BAR 2 1/2" x 1/4" [64x6 mm]	4#
2	4	110946	1/2" x 4" FULLY THR'D BOLT	1#
3	4	110364	1/4" x 1 1/2" BOLT ASS'Y GR5	1#
4	2	TX005F	BENT BAR 2" x 1/4" [51 x 6 mm]	2#
TOTAL				8#

KIT # SLT002-2 3 1/2" - 6" RND 3 1/2" - 6" 60° V				
ITEM	QTY.	PART NO.	DESCRIPTION	WT./lb
1	2	LT004D	BAR 2 1/2" x 1/4" [64x6 mm]	6#
2	4	111073	1/2" x 7" FULLY THR'D BOLT	1#
3	4	110364	1/4" x 1 1/2" BOLT ASS'Y GR5	1#
4	2	TX005G	BENT BAR 2" x 1/4" [51 x 6 mm]	2#
TOTAL				10#

KIT # SLT002-3 6 1/8" - 8" RND 8" 60° V				
ITEM	QTY.	PART NO.	DESCRIPTION	WT./lb
1	2	LT004D	BAR 2 1/2" x 1/4" [64x6 mm]	6#
2	4	111001	1/2" x 9" FULLY THR'D BOLT	1#
3	4	110364	1/4" x 1 1/2" BOLT ASS'Y GR5	1#
4	2	TX005H	BENT BAR 2" x 1/4" [51 x 6 mm]	4#
TOTAL				12#

DWG REFERENCE	

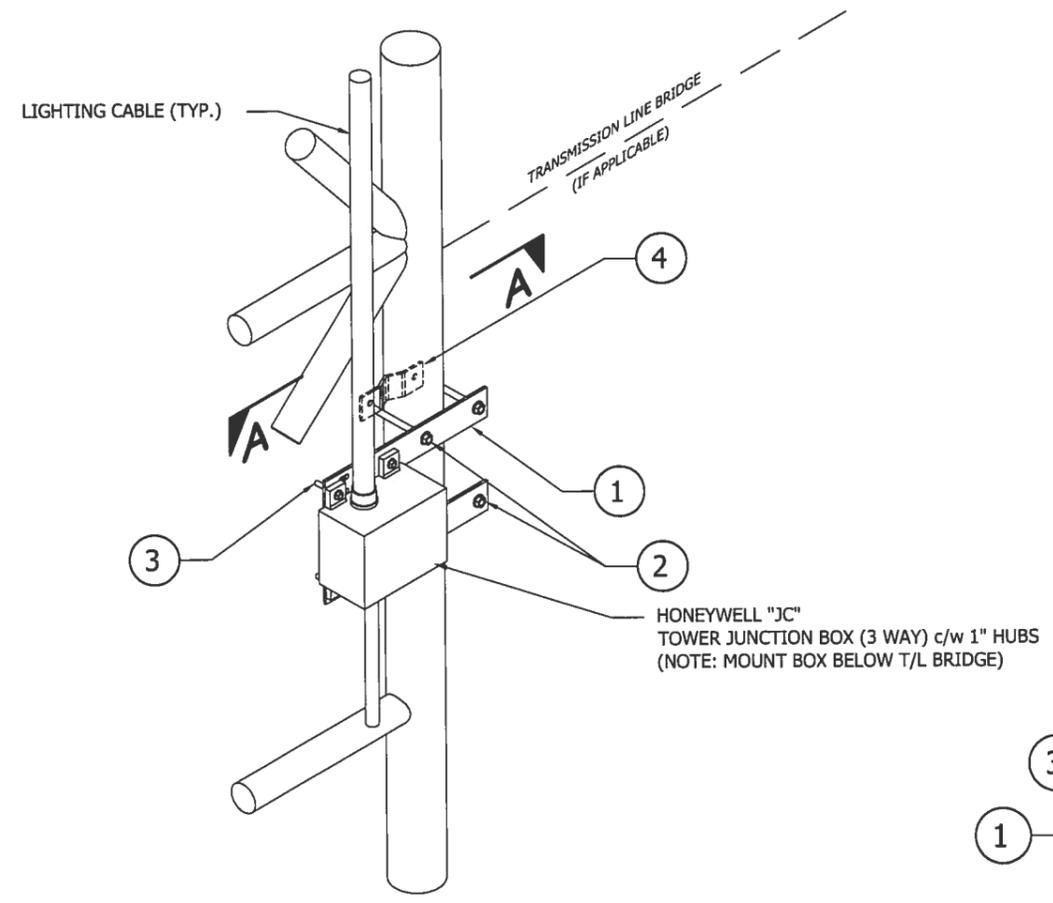
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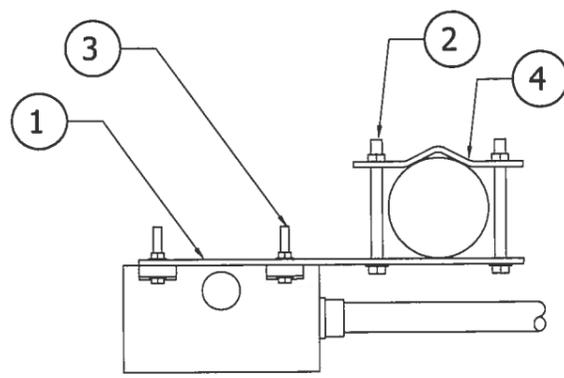
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FISHERIES AND OCEANS CANADA
LIGHTING
"JC" TOWER JUNCTION BOX
COAST GUARD RONDEAU MCTS, ON

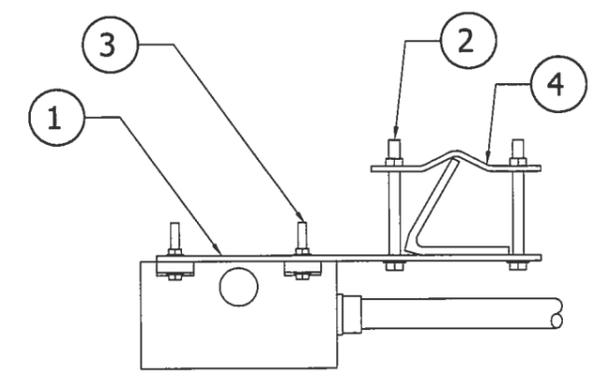
DWN: JTB	CHK'D: JMC	DATE: Mar/13/2002
ENG'R: D.A	ENG'R APP'D:	
DRAWING NO: LT004-E02		REV: 0



T.J.B. INSTALLATION DETAIL



SECTION A-A
ROUND LEG

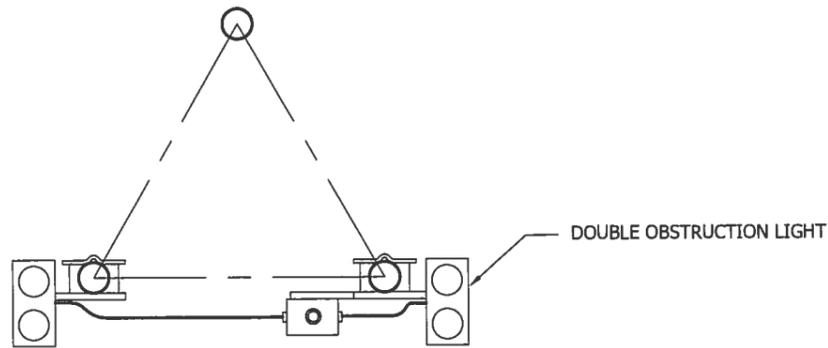


SECTION A-A
60° ANGLE LEG

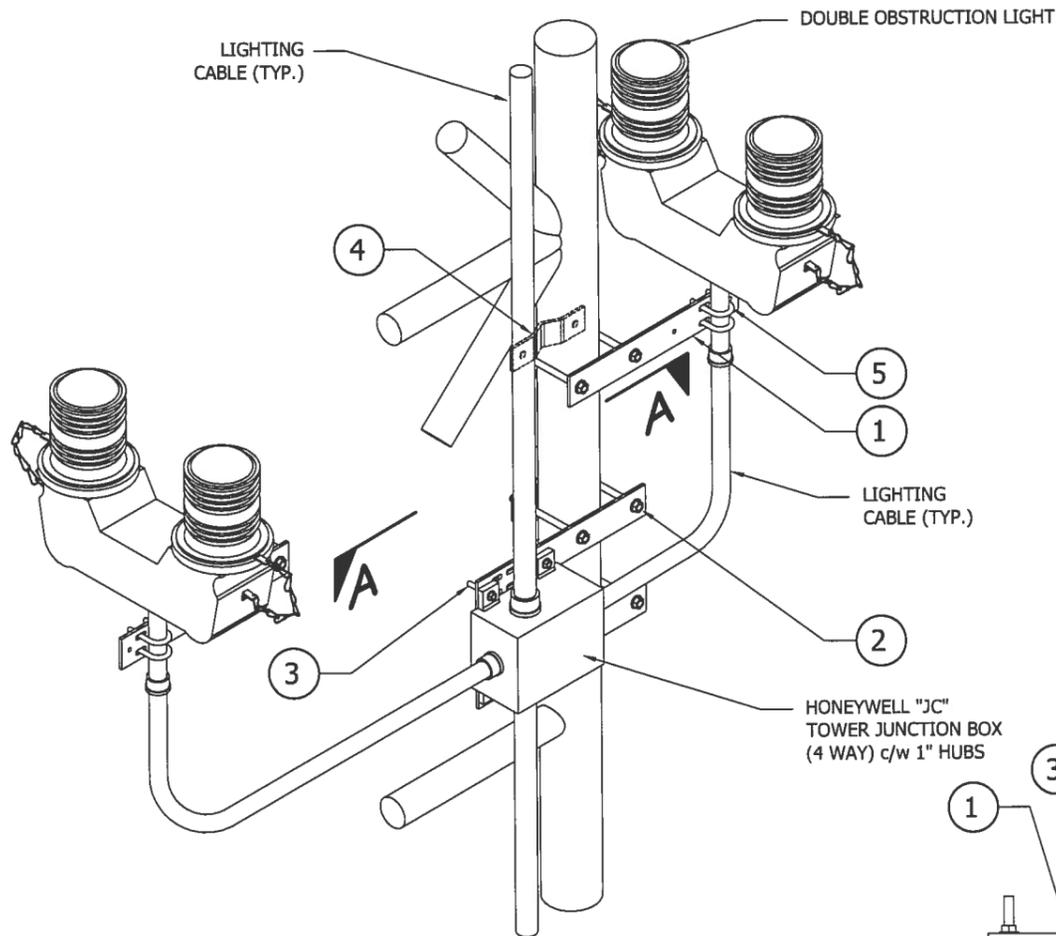
NOTE:
WIRING DIAGRAM AND FIXTURE LOCATIONS ARE INDICATED ON HONEYWELL DRAWINGS SUPPLIED WITH LIGHTING KITS (IF APPLICABLE).

Sep/09/2002 4:05:10 PM

Erection\



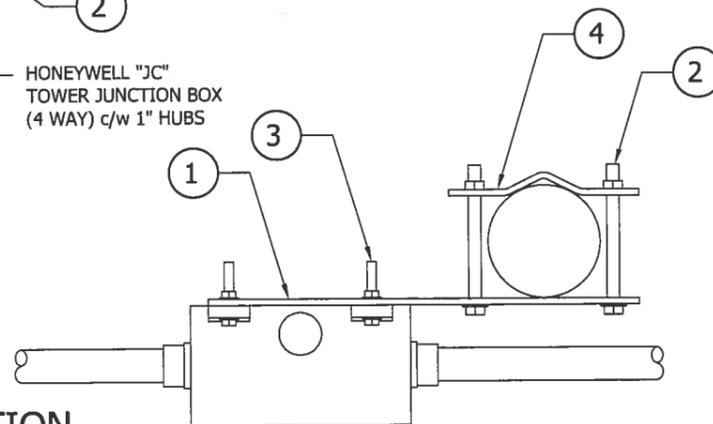
TOP VIEW



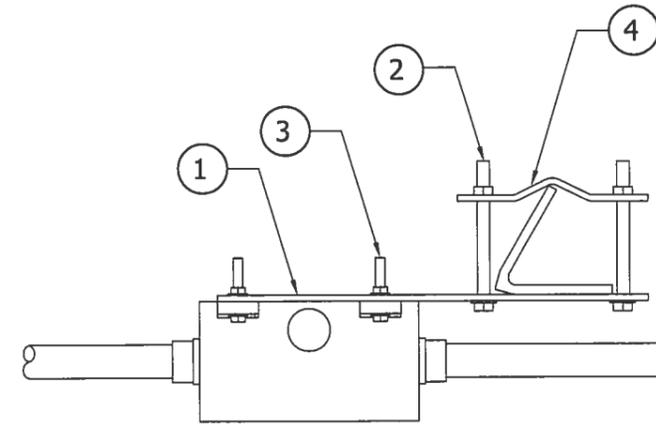
(2) DOUBLE OBSTRUCTION LIGHT INSTALLATION

NOTE:

WIRING DIAGRAM AND FIXTURE LOCATIONS ARE INDICATED ON HONEYWELL DRAWINGS SUPPLIED WITH LIGHTING KITS (IF APPLICABLE).



SECTION A-A
ROUND LEG



SECTION A-A
60° ANGLE LEG

KIT # SLT003-1 1 1/4" - 3" RND 2 1/2" - 3" 60° V				
ITEM	QTY.	PART NO.	DESCRIPTION	WT./lb
1	4	LT004C	BAR 2 1/2" x 1/4" [64x6 mm]	8#
2	8	110946	1/2" x 4" FULLY THR'D BOLT	1#
3	4	110364	1/4" x 1 1/2" GR.5 H.D.G BOLT ASS'Y	1#
4	4	TX005F	BENT BAR 2" x 1/4" [51 x 6 mm]	4#
5	4	110249	3/8" U BOLT ASS'Y @ 2 1/16" c/c	1#
TOTAL				15#

KIT # SLT003-2 3 1/2" - 6" RND 3 1/2" - 6" 60° V				
ITEM	QTY.	PART NO.	DESCRIPTION	WT./lb
1	4	LT004D	BAR 2 1/2" x 1/4" [64x6 mm]	12#
2	8	111073	1/2" x 7" FULLY THR'D BOLT	1#
3	4	110364	1/4" x 1 1/2" GR.5 H.D.G BOLT ASS'Y	1#
4	4	TX005G	BENT BAR 2" x 1/4" [51 x 6 mm]	4#
5	4	110249	3/8" U BOLT ASS'Y @ 2 1/16" c/c	1#
TOTAL				19#

KIT # SLT003-3 6 1/8" - 8" RND 8" 60° V				
ITEM	QTY.	PART NO.	DESCRIPTION	WT./lb
1	4	LT004D	BAR 2 1/2" x 1/4" [64x6 mm]	12#
2	8	111001	1/2" x 9" FULLY THR'D BOLT	1#
3	4	110364	1/4" x 1 1/2" GR.5 H.D.G BOLT ASS'Y	1#
4	4	TX005H	BENT BAR 2" x 1/4" [51 x 6 mm]	8#
5	4	110249	3/8" U BOLT ASS'Y @ 2 1/16" c/c	1#
TOTAL				23#

FILE NO.	0163462		
REVISIONS			
REV.	DESCRIPTION	DWN	CHK APP

DWG REFERENCE	



MISSISSAUGA, ON, CANADA
+1 905 275 8510 www.netricom.com

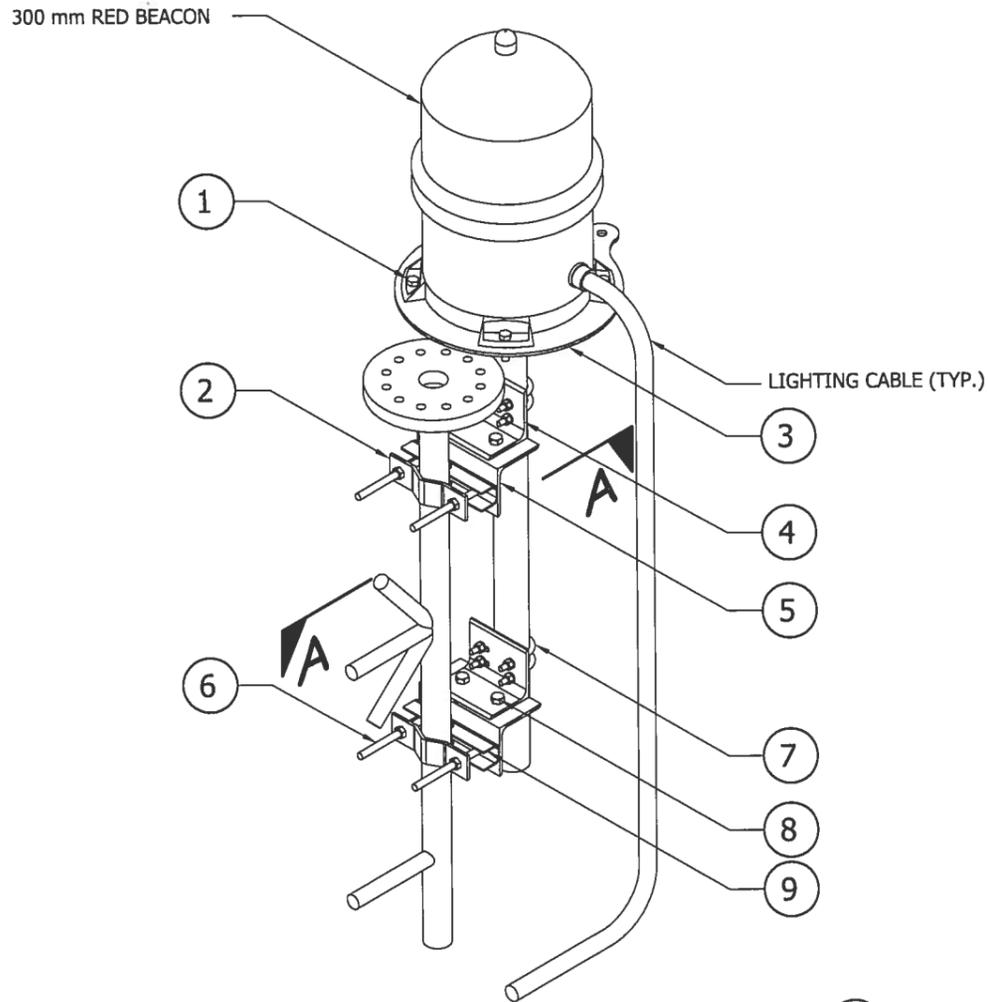
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FISHERIES AND OCEANS CANADA
LIGHTING
(2) DOUBLE OBSTRUCTION LIGHT
COAST GUARD RONDEAU MCTS, ON

DWN:	JTB	CHK'D:	JMC	DATE:	Mar/13/2002
ENG'R:	D.A	ENG'R APP'D:	J.K		
DRAWING NO:	LT004-E03			REV:	0

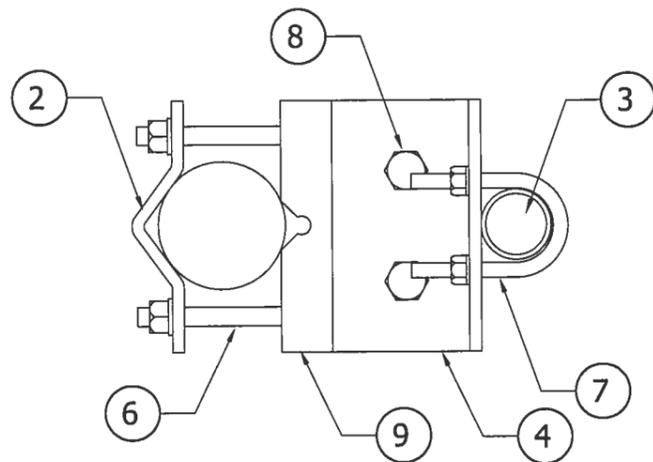
Jun/02/2005 10:27:45 AM

Erection

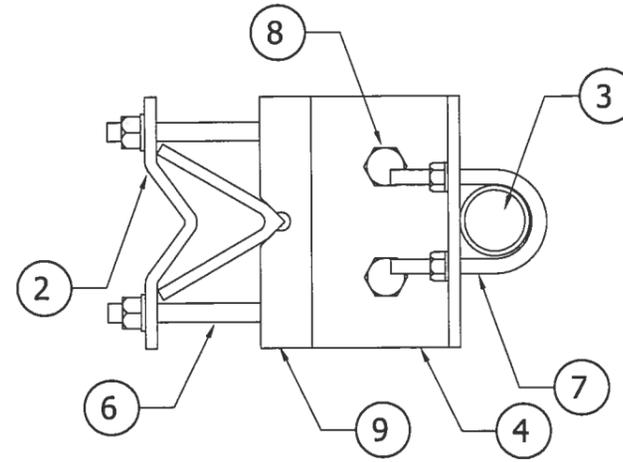


BEACON INSTALLATION DETAIL

TOP OF TOWER



SECTION A-A
ROUND LEG



SECTION A-A
60° ANGLE LEG

NOTE:
WIRING DIAGRAM AND FIXTURE LOCATIONS ARE INDICATED ON HONEYWELL DRAWINGS SUPPLIED WITH LIGHTING KITS (IF APPLICABLE).

KIT # SLT004-1 1 1/4" - 3" RND 2 1/2" - 3 1/2" 60° V					
ITEM	QTY.	PART NO.	DESCRIPTION	WT./lb	
1	4	110011	5/8" x 2" BOLT ASS'Y A325	1#	
2	2	TX005F	BENT BAR 2" x 1/4" [51 x 6 mm]	2#	
3	1	LT004H1	HSS 2 7/8" OD x 3'-4" WELD'T (73 OD x 1000mm)	31#	
4	2	91064A	L 3" x 3" x 1/4" (L 76 x 76 x 6mm)	4#	
5	2	LT004G	L 4" x 4" x 1/4" (L 102 x 102 x 6mm)	8#	
6	4	111003	1/2" x 5 1/2" FULLY THR'D BOLT ASS'Y	1#	
7	4	110252	3/8" U BOLT ASS'Y @ 2 13/16" c/c	1#	
8	4	110002	1/2" x 1 1/2" BOLT ASS'Y A325	1#	
9	2	LT004E	BENT PLATE 4 1/8" x 1/8" [105x3 mm]	4#	
TOTAL				53#	

KIT # SLT004-2 3 1/2" - 6" RND 4" - 6" 60° V					
ITEM	QTY.	PART NO.	DESCRIPTION	WT./lb	
1	4	110011	5/8" x 2" BOLT ASS'Y A325	1#	
2	2	TX005G	BENT BAR 2" x 1/4" [51 x 6 mm]	2#	
3	1	LT004H1	HSS 2 7/8" OD x 3'-4" WELD'T (73 OD x 1000mm)	31#	
4	2	91064A	L 3" x 3" x 1/4" (L 76 x 76 x 6mm)	4#	
5	2	LT004J	L 4" x 4" x 1/4" (L 102 x 102 x 6mm)	12#	
6	4	111001	1/2" x 9" FULLY THR'D BOLT ASS'Y	1#	
7	4	110252	3/8" U BOLT ASS'Y @ 2 13/16" c/c	1#	
8	4	110002	1/2" x 1 1/2" BOLT ASS'Y A325	1#	
9	2	LT004F	BENT PLATE 4 1/8" x 1/8" [105x3 mm]	6#	
TOTAL				59#	

KIT # SLT004-3 6 1/8" - 8" RND 8" 60° V					
ITEM	QTY.	PART NO.	DESCRIPTION	WT./lb	
1	4	110011	5/8" x 2" BOLT ASS'Y A325	1#	
2	2	TX005H	BENT BAR 2" x 1/4" [51 x 6 mm]	4#	
3	1	LT004H1	HSS 2 7/8" OD x 3'-4" WELD'T (73 OD x 1000mm)	31#	
4	2	91064A	L 3" x 3" x 1/4" (L 76 x 76 x 6mm)	4#	
5	2	LT004J	L 4" x 4" x 1/4" (L 102 x 102 x 6mm)	12#	
6	4	111002	1/2" x 10 1/2" FULLY THR'D BOLT ASS'Y	1#	
7	4	110252	3/8" U BOLT ASS'Y @ 2 13/16" c/c	1#	
8	4	110002	1/2" x 1 1/2" BOLT ASS'Y A325	1#	
9	2	LT004F	BENT PLATE 4 1/8" x 1/8" [105x3 mm]	6#	
TOTAL				61#	

FILE NO. 0163462

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
1	REVISED BOM. ITEM LT004H1 WAS LT004H. DATE: Jul/21/2003	JTB	NNR	J.K

DWG REFERENCE

NETRICOM
MISSISSAUGA, ON, CANADA
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FISHERIES AND OCEANS CANADA
LIGHTING
TOP BEACON MOUNT
COAST GUARD RONDEAU MCTS, ON

DWN: JTB	CHK'D: JMC	DATE: Mar/19/2002
ENGR: D.A	ENGR APP'D: J.K	
DRAWING NO: LT004-E04		REV: 1

Jun/02/2005 4:55:48 PM

Materials List

R55MATLIS RCS0002

YLI

Ship To: 984020 Coast Guard Rondeau MCTS, ON
 Project Number: 0163462 Coast Guard Rondeau MCTS, ON
 Customer : 983756 Fisheries and Oceans Canada

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST
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EMBEDDED MATERIAL

B01 BASE FOUNDATION MATERIAL

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST
1	94131	2.0000				BASE FOUNDATION MATERIAL				REL
2	94131	4.0000	91095-1	1	PC	25 Dia. Rod X 455 Long Gr 300W (renumbered from 5270-1)	NO DWG	4.16	1.89	REL
3	94131	6.0000	91095A	1	PC	PI 203x19x200 (300W) (renumbered from 5270)	91B095-M01	14.00	6.35	REL

B02 GUY ANCHOR MATERIAL

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST
4	94131	8.0000				EARTH ANCHOR				REL
5	94131	12.0000	91034E	6	PC	C 100 x 8 x 4000 (300W) Earth Anchor	91B034-M01	498.00	225.89	REL
6	94131	14.0000	91034A	6	PC	L 127x89x10x350 (350W)	91B034-M01	72.00	32.66	REL
7	94131	16.0000	110191	9	PC	RING FILL .50" LG HDG (SMALL) (13mm LG) FOR 1/2 to 3/4 BOLT	A816-M01	.45	.20	REL
8	94131	18.1000	110013	6	PC	Bolt Assy 5/8x2-1/2 in A325 Ga		2.76	1.25	REL
9	94131	22.0000	110004	24	PC	Bolt Assy 1/2 X 2 in A325 Galv		5.76	2.61	REL
10	94131	24.0000	110399	24	PC	Bevel Washer 1/2 (Mall.) Galv		1.89	.86	REL
11	94131	26.0000	150068	3	PC	Grd Lug Wire To Plate (HD) Tinned (0 Str-8 Str)(1/4 Bolt)				REL
12	94131	28.0000	110364	3	PC	Bolt Assy 1/4x1-1/2 in Gr5 Gal				REL
13	94131	30.0000	190056	6	PC	Zinc Anode (102 Dia x1525) c/w 25' #12 Sol THW Lead Wire		240.00	108.86	REL
14	94131	32.0000	100109	24	PC	Ties Black Nylon				REL
15	94131	72.0000				BOLLARDS AROUND GUY ANCHOR				REL
16	94131	74.2000	SSGL4A-O	9	PC	HSS 152 ODx6x3050 (350W) Plain Galvanized Material	24-SSGL-M04-01	1,386.00	628.68	REL

B03 TX BRIDGE FOUNDATION MATERIAL

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST
17	94131	34.0000				TX BRIDGE FOUNDATION MATERIAL				REL
18	94131	37.0000	KCFNDTXBR	6	PC	Tx Bridge Foundation Anchor Bolts				REL

Materials List

Ship To: 984020 Coast Guard Rondeau MCTS, ON
 Project Number: 0163462 Coast Guard Rondeau MCTS, ON
 Customer : 983756 Fisheries and Oceans Canada

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST
		38.0400	110242 24 PC			Thd Rod 3/4 X 3' Galv is	A307 (GRADE 2)	88.56	40.17	REL
		38.0500	110148 54 PC			HEX NUT 3/4 (10 UNC) 2H GALV	(SAME AS R-230020) (1 LB)	2.70	1.22	REL
		38.0600	110208 30 PC			Hardened Washer 3/4 (F436) Gal	(SAME AS R-250017G)	2.40	1.09	REL
								93.66	42.48	

B05 GROUNDING BELOW GRADE MATERIAL

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST
19	94131	38.0000				TOWER GROUNDING BELOW GRADE				REL
20	94131	40.1000	150247	40	MT	Grd Wire 4/0 Str Copper Tinned		85.60	38.83	REL
21	94131	42.0000	150048	3	PC	Grd Rod 3/4 X 10' Copper		42.00	19.05	REL
22	94131	44.0000	150033	4	PC	Weld Metal #115				REL
23	94131	46.0000	150032	2	PC	Weld Metal #90				REL
24	94131	50.2000	150035	18	PC	Weld Metal #150				REL
25	94131	52.0000	NOTE 86	1	PC	ONE MOLD TAC2Q2Q c/w FRAME SUPPLIED BY FIELD CREW				REL
26	94131	54.0000	NOTE 89	1	PC	ONE MOLD SSC-2Q SUPPLIED BY FIELD CREW				REL
27	94131	56.0000	NOTE 90	1	PC	ONE MOLD GTC-182Q SUPPLIED BY FIELD CREW		2.20	1.00	REL
28	94131	58.0000				ANCHOR GROUNDING BELOW GRADE				REL
29	94131	60.2000	91045B	9	PC	BAR 19 DIAx3048 (300W) Grd Rod Galvanized (was 5461-10)	91B045_M01	140.40	63.68	REL
30	94131	61.0000	150018	9	PC	Grd Conn Wire To Rod (Comp) (2 Str-250 Kcmil) (3/4 OD)				REL
31	94131	76.0000	151000	80	MT	1/2" Galvanized Wire Steel aircraft cable				REL

STRUCTURE

C02 SECTIONS

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST
32	94146	2.0000				STRUCTURES				REL
33	94146	4.0000	24212A	1	PC	Star Base Weldment 550kN	24B212_M01	130.00	58.97	REL
34	94146	6.0000	24DSD0D-O	3	PC	LRM24 STD SECT 3000 LG LEG 38 DIA DIAG 16 DIA W/TX	24DSD0D	873.00	395.99	REL
35	94146	8.0000	24DSD0D-W	1	PC	LRM24 STD SECT 3000 LG LEG 38 DIA DIAG 16 DIA W/TX	24DSD0D	291.00	132.00	REL

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Materials List

R55MATLIS RCS0002

Ship To: 984020 Coast Guard Rondeau MCTS, ON

Project Number: 0163462 Coast Guard Rondeau MCTS, ON

YLI

Customer : 983756 Fisheries and Oceans Canada

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	REL
36	94146	10.0000	24DAA0D-W	1	PC	LRM24 GUY SECT 3000 LG LEG 38 DIA DIAG 16 DIA W/TX	SEE BOM	306.00	138.80	REL
37	94146	14.0000	24ASD0D-W	6	PC	RG24 STD SECT 3000 LG LEG 32 DIA, DIAG 16 DIA W/ Tx	24ASD0D	1,380.00	625.96	REL
38	94146	16.0000	24ASD0D-O	7	PC	RG24 STD SECT 3000 LG LEG 32 DIA, DIAG 16 DIA W/ Tx	24ASD0D	1,610.00	730.28	REL
39	94146	18.0000	24AAA0D-W	1	PC	RG24 GUY SECT 3000 LG LEG 32 DIA DIAG 16 DIA W/ Tx	SEE BOM	247.00	112.04	REL
40	94146	20.0000	24AAA0D-O	2	PC	RG24 GUY SECT 3000 LG LEG 32 DIA DIAG 16 DIA W/ Tx	SEE BOM	494.00	224.07	REL
41	94146	21.0000				SPLICE BOLTS				REL
42	94146	21.1000	91099A	3	PC	FB 178 x 16 x 166 (300W)	91B099-M01	24.00	10.89	REL
43	94146	22.0000	91099B	3	PC	FB 51 x 16 x 166 (300W)	91B099-M01	6.00	2.72	REL
44	94146	24.0000	91099C	3	PC	FB 76 x 16 x 166 (300W)	91B099-M01	9.00	4.08	REL
45	94146	28.0000	110063	3	PC	Bolt Assy 1 inx4-3/4 in A325 G		5.64	2.56	REL
46	94146	29.0000	110006	13	PC	Bolt Assy 1/2x2-1/2 in A325 Ga		3.51	1.59	REL
47	94146	30.0000	110215	3	PC	LOCK WASHER 1 IN (SPRING) GALV (25mm Dia) (SAME AS R-250047)		.27	.12	REL
48	94146	32.0000	110066	64	PC	Bolt Assy 1 inx 6 in A325		138.24	62.70	REL
49	94146	34.0000	110214	64	PC	Hardened Washer 1 in (F436) Ga (SAME AS R-250075G)		5.12	2.32	REL
50	94146	36.0000	NAMEPL	1	PC	Name Plate	MS001-M01	.10	.05	REL

Line Number	Part Number	Qty	U/M	Description	Additional Descripton	Drawing Number	Weight (LBS)	Weight (KGS)	ST
36.0100	MS001	1	PC	Tower Name Plate Blank		MS001-M01			REL

51	94146	36.2000	110247	1	PC	U-Bt Assy 3/8x1-1/4 in C/C Gal	91B017-M01	.19	.09	REL
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C09 GUY LINK PLATES AND PINS

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST
52	94146	40.0000				EQ. PL.				REL
53	94146	42.0000	EQ1BBCC	3	PC	PL327X13X327 (300W) WELD'T	EQ1BBCC-M01	63.00	28.58	REL
54	94146	44.0000	110027	7	PC	Bolt Assy 3/4x2-1/2 in A325 Ga		4.83	2.19	REL

C10 GUY WIRE AND HARDWARE MATERIAL

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST
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Materials List

R55MATLIS RCS0002

Ship To: 984020 Coast Guard Rondeau MCTS, ON

Project Number: 0163462 Coast Guard Rondeau MCTS, ON

YLI

Customer : 983756 Fisheries and Oceans Canada

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)		
55	94146	46.0000				GUY LEVEL #1 @ EL. 14.7m				REL	
56	94146	48.0000	142265	160	MT	GUY STRAND 5/16 EHS Galv. A475 CL-A		104.96	47.61	REL	
57	94146	50.0000	SGY001-1	3	EA	5/16" DIA GUY & EHS STRAND ASS Dwg# GY007_E01	GY007-E01			REL	
		<u>Line Number</u>	<u>Part Number</u>	<u>Qty</u>	<u>U/M</u>	<u>Description</u>	<u>Additional Descripton</u>	<u>Drawing Number</u>	<u>Weight (LBS)</u>	<u>Weight (KGS)</u>	<u>ST</u>
		50.0100	140013	6	PC	Guy Grip 5/16 Galv (Black)	(Steel Uniformed Guy End)		4.56	2.07	REL
		50.0200	140037	3	PC	Shackle 1/2 Screw Pin Galv	2 ton (24k Ultimate Strength)		2.22	1.01	REL
		50.0300	140036	3	PC	Shackle 3/8 Screw Pin Galv	1 ton (12k Ultimate Strength)		.93	.42	REL
		50.0400	140074	6	PC	Heavy Thimble 3/8 Galv	Crosby G-414 Closed		1.26	.57	REL
		50.0500	140054	3	PC	Turnbuckle 5/8 X 12 in J&E Gal	(17.5 k Ultimate Strength)		11.34	5.14	REL
		50.0600	140159	6	PC	End Sleeve 5/16 Guy Grip Galv	(SAME AS R-GC65128)				REL
		50.0700	140169	6	PC	Ear Clamp 5/16 Guy					REL
								20.31	9.21		
58	94146	52.0000	KGY516C	3	PC	5/16 Strand Size Ice Brkr c/w S.R 100mm & (1) U-Bolt Clips				REL	
		<u>Line Number</u>	<u>Part Number</u>	<u>Qty</u>	<u>U/M</u>	<u>Description</u>	<u>Additional Descripton</u>	<u>Drawing Number</u>	<u>Weight (LBS)</u>	<u>Weight (KGS)</u>	<u>ST</u>
		52.0100	140003	3	PC	U-Bolt Clip 3/8 Galv FORGED			1.41	.64	REL
		52.0200	91261A	3	PC	3/8 Dia SRx100 Lg. (300W)	91A261_M01		.42	.19	REL
								1.83	.83		
59	94146	54.0000				GUY LEVEL #2 @ EL.29.7m				REL	
60	94146	56.0000	142265	183	MT	GUY STRAND 5/16 EHS Galv. A475 CL-A		120.05	54.45	REL	
61	94146	58.0000	SGY001-1	3	EA	5/16" DIA GUY & EHS STRAND ASS Dwg# GY007_E01	GY007-E01			REL	
		<u>Line Number</u>	<u>Part Number</u>	<u>Qty</u>	<u>U/M</u>	<u>Description</u>	<u>Additional Descripton</u>	<u>Drawing Number</u>	<u>Weight (LBS)</u>	<u>Weight (KGS)</u>	<u>ST</u>
		58.0100	140013	6	PC	Guy Grip 5/16 Galv (Black)	(Steel Uniformed Guy End)		4.56	2.07	REL
		58.0200	140037	3	PC	Shackle 1/2 Screw Pin Galv	2 ton (24k Ultimate Strength)		2.22	1.01	REL
		58.0300	140036	3	PC	Shackle 3/8 Screw Pin Galv	1 ton (12k Ultimate Strength)		.93	.42	REL
		58.0400	140074	6	PC	Heavy Thimble 3/8 Galv	Crosby G-414 Closed		1.26	.57	REL
		58.0500	140054	3	PC	Turnbuckle 5/8 X 12 in J&E Gal	(17.5 k Ultimate Strength)		11.34	5.14	REL
		58.0600	140159	6	PC	End Sleeve 5/16 Guy Grip Galv	(SAME AS R-GC65128)				REL
		58.0700	140169	6	PC	Ear Clamp 5/16 Guy					REL
								20.31	9.21		
62	94146	60.0000	KGY516C	3	PC	5/16 Strand Size Ice Brkr c/w S.R 100mm & (1) U-Bolt Clips				REL	
		<u>Line Number</u>	<u>Part Number</u>	<u>Qty</u>	<u>U/M</u>	<u>Description</u>	<u>Additional Descripton</u>	<u>Drawing Number</u>	<u>Weight (LBS)</u>	<u>Weight (KGS)</u>	<u>ST</u>
		60.0100	140003	3	PC	U-Bolt Clip 3/8 Galv FORGED			1.41	.64	REL
		60.0200	91261A	3	PC	3/8 Dia SRx100 Lg. (300W)	91A261_M01		.42	.19	REL
								1.83	.83		

7922825 Canada Inc. (NETRICOM)

02/07/12 16:56:13

Materials List

R55MATLIS RCS0002

Ship To: 984020 Coast Guard Rondeau MCTS, ON

YLI

Project Number: 0163462 Coast Guard Rondeau MCTS, ON

Customer : 983756 Fisheries and Oceans Canada

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)		
63	94146	62.0000				GUY LEVEL #3 @ EL.44.7m				REL	
64	94146	64.0000	142261	215	MT	GUY STRAND 3/8 EHS Galv. A475 CL-A		211.56	95.96	REL	
65	94146	66.0000	SGY001-2	3	EA	3/8" DIA GUY & EHS STRAND ASS. Dwg# GY0007_E01	GY007-E01			REL	
		<i>Line Number</i>	<i>Part Number</i>	<i>Qty</i>	<i>U/M</i>	<i>Description</i>	<i>Additional Descripition</i>	<i>Drawing Number</i>	<i>Weight (LBS)</i>	<i>Weight (KGS)</i>	<i>ST</i>
		66.0100	140014	6	PC	Guy Grip 3/8 Galv (Orange)	(Steel Uniformed Guy End)		6.90	3.13	REL
		66.0200	140037	6	PC	Shackle 1/2 Screw Pin Galv	2 ton (24k Ultimate Strength)		4.44	2.01	REL
		66.0300	140074	6	PC	Heavy Thimble 3/8 Galv	Crosby G-414 Closed		1.26	.57	REL
		66.0400	140054	3	PC	Turnbuckle 5/8 X 12 in J&E Gal	(17.5 k Ultimate Strength)		11.34	5.14	REL
		66.0500	140160	6	PC	End Sleeve 3/8 Guy Grip Galv	(SAME AS R-GC65264)				REL
		66.0600	140170	6	PC	Ear Clamp 3/8 - 7/16 Guy		3.00	1.36	REL	
								26.94	12.21		
66	94146	68.0000	KGY38C	3	PC	3/8 Strand Size Ice Brkr c/w S.R 100mm & (1) U-Bolt Clips				REL	
		<i>Line Number</i>	<i>Part Number</i>	<i>Qty</i>	<i>U/M</i>	<i>Description</i>	<i>Additional Descripition</i>	<i>Drawing Number</i>	<i>Weight (LBS)</i>	<i>Weight (KGS)</i>	<i>ST</i>
		68.0100	140003	3	PC	U-Bolt Clip 3/8 Galv FORGED		1.41	.64	REL	
		68.0200	91261A	3	PC	3/8 Dia SRx100 Lg. (300W)	91A261_M01	.42	.19	REL	
								1.83	.83		
67	94146	70.0000				GUY LEVEL #4 @ EL.59.7m				REL	
68	94146	72.0000	142260	252	MT	GUY STRAND 7/16 EHS Galv. A475 CL-A		330.62	149.97	REL	
69	94146	74.0000	SGY001-3	3	EA	7/16" DIA GUY & EHS STRAND ASS Dwg# GY0007_E01	GY007-E01			REL	
		<i>Line Number</i>	<i>Part Number</i>	<i>Qty</i>	<i>U/M</i>	<i>Description</i>	<i>Additional Descripition</i>	<i>Drawing Number</i>	<i>Weight (LBS)</i>	<i>Weight (KGS)</i>	<i>ST</i>
		74.0100	140015	6	PC	Guy Grip 7/16 Galv (Green)	(Steel Uniformed Guy End)		10.80	4.90	REL
		74.0200	140037	6	PC	Shackle 1/2 Screw Pin Galv	2 ton (24k Ultimate Strength)		4.44	2.01	REL
		74.0300	140075	6	PC	Heavy Thimble 1/2 - 9/16" Galv	Crosby G-414 Closed		3.06	1.39	REL
		74.0400	140056	3	PC	Turnbuckle 3/4 X 18 in J&E Gal	(26 k Ultimate Strength)		21.00	9.53	REL
		74.0500	140161	6	PC	End Sleeve 7/16 Guy Grip Galv	(SAME AS R-GC65265)				REL
		74.0600	140170	6	PC	Ear Clamp 3/8 - 7/16 Guy		3.00	1.36	REL	
								42.30	19.19		
70	94146	76.0000	KGY716C	3	PC	7/16 Strand Size Ice Brkr c/w S.R 100mm & (1) U-Bolt Clips				REL	
		<i>Line Number</i>	<i>Part Number</i>	<i>Qty</i>	<i>U/M</i>	<i>Description</i>	<i>Additional Descripition</i>	<i>Drawing Number</i>	<i>Weight (LBS)</i>	<i>Weight (KGS)</i>	<i>ST</i>
		76.0100	140004	3	PC	U-Bolt Clip 7/16 Galv FORGED		2.28	1.03	REL	
		76.0200	91261A	3	PC	3/8 Dia SRx100 Lg. (300W)	91A261_M01	.42	.19	REL	
								2.70	1.22		
71	94146	78.0000	KMCGY-GUYTAG	4	PC	Guy Wire Initial Tension Tag	GY009-E01			REL	

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Materials List

R55MATLIS RCS0002

Ship To: 984020 Coast Guard Rondeau MCTS, ON
 Project Number: 0163462 Coast Guard Rondeau MCTS, ON
 Customer : 983756 Fisheries and Oceans Canada

YLI

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST
		78.0100	GY008B	12	PC	Guy Wire Intial Tension Tag	Aluminum Blank (Single Cable) GY008-M02			REL
		78.0200	100109	28	PC	Ties Black Nylon				REL
		78.0300	GY009-E01	4	PC	GUY TAG INSTALLATION				REL
72	94146	80.0000	KCGY001	3	PC	Turnb. Loc. Mat'l (3/16"Chain) FOR (1) ANCHOR ONLY	N/A			REL
		80.0100	140108	21	MT	Chain 3/16 Link Galv	Crosby	31.50	14.29	REL
		80.0200	140001	3	PC	U-Bolt Clip 1/4 Galv FORGED		.60	.27	REL
								32.10	14.56	
73	94146	82.0000	140500	12	PC	Guy Guard (Yellow) - Plastic 3" Diax8' lg w/ Loop-Lock Pins				REL

ACCESSORIES

K03 TX LINE BRIDGE LINE MOUNTS

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST
74	94197	2.0000				TX LINE BRIDGE MOUNTS				REL
75	94197	4.0000	STB001-S	3	KI	10' SINGLE TX-BRIDGE Dwg# TB001_E01	TB001_E01			REL
		4.0100	91171B	3	PC	Formed C305 X 4 X 3048(300W)	91B171-M01	345.00	156.49	REL
		4.0200	91166F2	6	PC	HSS114 O.D Weld't X 3350 (renumbered from 91166F1)	91B166-M01	720.00	326.59	REL
		4.0300	TX001A	6	PC	L 152X102X10X513 (300W)	TX001_M01	132.00	59.87	REL
		4.0400	91171C	18	PC	Pl. 38 X 3 X 260 (230G)	91B171-M02	18.00	8.16	REL
		4.0500	110260	12	PC	U-Bt Assy 1/2x5-1/16 in C/C Ga	91B017-M03	10.56	4.79	REL
		4.0600	111041	12	PC	J-Bolt Assy 1/2-13 X 5 in Squa Galvanized	91B334_M02	4.80	2.18	REL
		4.0700	110459	18	PC	Bolt Assy 3/8 X 1 in Gr5 Galv		.72	.33	REL
		4.0800	TB001_E01	3	PC	DWG. 10' SINGLE TX-BRIDGE				REL
								1,231.08	558.41	
76	94197	6.0000	91171B	1	PC	Formed C305 X 4 X 3048(300W)	91B171-M01	115.00	52.16	REL
77	94197	8.0000	91171C	4	PC	Pl. 38 X 3 X 260 (230G)	91B171-M02	4.00	1.81	REL
78	94197	10.0000	110459	4	PC	Bolt Assy 3/8 X 1 in Gr5 Galv		.16	.07	REL
79	94197	12.0000	STB006-F	3	KI	Tx-BR Splice Connection Kit Dwg# TB006_E05	TB006_E05			REL
		12.0100	91170D	6	PC	L 64 X 64 X 6 X 260 (350W) (renumbered from 5363-4)	91B170_M01	21.84	9.91	REL
		12.0200	110001	24	PC	Bolt Assy 1/2x1-1/4 in A325 Ga [M12x32]		4.80	2.18	REL

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Materials List

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Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST
		12.0300	110203	24	PC	LOCK WASHER 1/2 (SPRING) GALV	[M12] (SAME AS R-250083)	.46	.21	REL
								27.10	12.30	
80	94197	13.0000	STB006-D	2	KI	3' End Plate For Tx-Bridge Dwg# TB006_E03	TB006_E03			REL
		14.0100	TB006B1	2	PC	PL 460x6x840 (300W)	Dwg# TB006-M01 TB006-M01	68.00	30.84	REL
		14.0200	111041	8	PC	J-Bolt Assy 1/2-13 X 5 in Squa	Galvanized 91B334_M02	3.20	1.45	REL
								71.20	32.29	

K05 ANTENNA MOUNT MATERIAL

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST
81	94197	14.0000				SD214 ANTENNA @ EL. 66.05m				REL
82	94197	16.0000	SSGL3A	2	PC	L102x102x10x723(350W)	24-SSGL-M03-01	50.00	22.68	REL
83	94197	18.0000	91080A	1	PC	HSS 73 ODx6x1830+/-25mm (350W) Plain Galvanized Material	NO DWG	42.00	19.05	REL
84	94197	20.0000	SMT010-1	2	EA	PARALLEL PIPE TO PIPE CLAMP Dwg# 91B240_E01	91B240-E01			REL
		20.0100	91240A	2	PC	Clamp Weldment	(renumbered from 5064) 91B240-M02	6.80	3.08	REL
		20.0200	91239A	4	PC	Bar 64x6x198 (230W) Bent	(renumbered from 5014) 91B239_M01	5.20	2.36	REL
		20.0300	110143	8	PC	HEX NUT 1/2 (13 UNC) 2H GAL		.56	.25	REL
		20.0400	110203	8	PC	LOCK WASHER 1/2 (SPRING) GALV	[M12] (SAME AS R-250083)	.15	.07	REL
		20.0500	91B240_E01	2	EA	PARALLEL PIPE TO PIPE CLAMP				REL
								12.71	5.76	
85	94197	22.0000	MT006B	2	PC	L 102x102x10x214 Weld't	MT006-M02	14.00	6.35	REL
86	94197	26.0000	110520	8	PC	U-Bt Assy 1/2 X 2 in C/C GALV	91B017-M03	4.40	2.00	REL
87	94197	28.0000	110257	4	PC	U-Bt Assy 1/2x3-7/16 in C/C Ga	91B017-M03	2.76	1.25	REL
88	94197	30.0000	110011	4	PC	Bolt Assy 5/8 X 2 in A325 Galv		1.64	.74	REL
89	94197	32.0000				SD212 ANTENNA @ EL. 59.44m				REL
90	94197	34.0000	SMT006	2	EA	PIPE CLAMP ASS'Y 38-73mm OD Dwg# 91B147_E01	91B147-E01			REL
		34.0100	91147A-1	4	PC	Angle Weldment	L 51x51x6x130 WELD (300W) 91B147-M01	9.20	4.17	REL
		34.0200	91239A	4	PC	Bar 64x6x198 (230W) Bent	(renumbered from 5014) 91B239_M01	5.20	2.36	REL
		34.0300	110002	4	PC	Bolt Assy 1/2x1-1/2 in A325 Ga		.84	.38	REL

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Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST
		34.0400	110203	4	PC	LOCK WASHER 1/2 (SPRING) GALV	[M12] (SAME AS R-250083)	.08	.03	REL
		34.0500	110946	8	PC	Bolt Assy LW 1/2 x 4 in A449	GR 5 Fully Threaded - Galv'd	2.64	1.20	REL
		34.0600	91B147_E01	2	EA	PIPE CLAMP ASS'Y 38-73mm OD				REL
								17.96	8.14	
91	94197	36.0000				SD214 ANTENNA @ EL.56.38m				REL
92	94197	38.0000	SMT006	2	EA	PIPE CLAMP ASS'Y 38-73mm OD	91B147-E01			REL
						Dwg# 91B147_E01				
		38.0100	91147A-1	4	PC	Angle Weldment	L 51x51x6x130 WELD (300W)	9.20	4.17	REL
		38.0200	91239A	4	PC	Bar 64x6x198 (230W) Bent	(renumbered from 5014)	5.20	2.36	REL
		38.0300	110002	4	PC	Bolt Assy 1/2x1-1/2 in A325 Ga		.84	.38	REL
		38.0400	110203	4	PC	LOCK WASHER 1/2 (SPRING) GALV	[M12] (SAME AS R-250083)	.08	.03	REL
		38.0500	110946	8	PC	Bolt Assy LW 1/2 x 4 in A449	GR 5 Fully Threaded - Galv'd	2.64	1.20	REL
		38.0600	91B147_E01	2	EA	PIPE CLAMP ASS'Y 38-73mm OD				REL
								17.96	8.14	
93	94197	40.0000				SD214 ANTENNA @ EL. 47.24m				REL
94	94197	42.0000	SMT006	2	EA	PIPE CLAMP ASS'Y 38-73mm OD	91B147-E01			REL
						Dwg# 91B147_E01				
		42.0100	91147A-1	4	PC	Angle Weldment	L 51x51x6x130 WELD (300W)	9.20	4.17	REL
		42.0200	91239A	4	PC	Bar 64x6x198 (230W) Bent	(renumbered from 5014)	5.20	2.36	REL
		42.0300	110002	4	PC	Bolt Assy 1/2x1-1/2 in A325 Ga		.84	.38	REL
		42.0400	110203	4	PC	LOCK WASHER 1/2 (SPRING) GALV	[M12] (SAME AS R-250083)	.08	.03	REL
		42.0500	110946	8	PC	Bolt Assy LW 1/2 x 4 in A449	GR 5 Fully Threaded - Galv'd	2.64	1.20	REL
		42.0600	91B147_E01	2	EA	PIPE CLAMP ASS'Y 38-73mm OD				REL
								17.96	8.14	
95	94197	44.0000				ICE GUARD FOR ANT.@ EL. 59.44m				REL
96	94197	46.0000	SSGL10A	1	PC	Formed Channel 305 X 4 X 914	NO DWG	69.00	31.30	REL
97	94197	48.0000	SSGL8A	1	PC	L51x51x5x614 (350W)	24-SSGL-M08-01	7.00	3.18	REL
98	94197	50.0000	SSGL6A	1	PC	L 76X76X6x380 Weld't	24-SSGL-M06-01	8.00	3.63	REL
99	94197	54.0000	SSGL5B	1	PC	L102x76x10x380 (350W)	24-SSGL-M05-01	11.00	4.99	REL
100	94197	56.0000	SSGL7A	1	PC	L 102X76X10x148 Weld't	24-SSGL-M07-01	6.00	2.72	REL
101	94197	58.0000	111041	4	PC	J-Bolt Assy 1/2-13 X 5 in Squa Galvanized	91B334_M02	1.60	.73	REL
102	94197	60.0000	110520	4	PC	U-Bt Assy 1/2 X 2 in C/C GALV	91B017-M03	2.20	1.00	REL

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Ship To: 984020 Coast Guard Rondeau MCTS, ON

Project Number: 0163462 Coast Guard Rondeau MCTS, ON

Customer : 983756 Fisheries and Oceans Canada

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	REL
103	94197	62.0000	110011	3	PC	Bolt Assy 5/8 X 2 in A325 Galv		1.23	.56	REL
104	94197	64.0000				ICE GUARD FOR ANT. @ EL. 56.38 & 47.24m				REL
105	94197	66.0000	SSGL9A	2	PC	Formed Channel 305 X 4 X 1524	NO DWG	196.00	88.90	REL
106	94197	68.0000	SSGL5A	2	PC	L51x51x5x855 (350W)	24-SSGL-M05-01	14.00	6.35	REL
107	94197	70.0000	SSGL7A	2	PC	L 102X76X10x148 Weld't	24-SSGL-M07-01	12.00	5.44	REL
108	94197	72.0000	SSGL6A	2	PC	L 76X76X6x380 Weld't	24-SSGL-M06-01	16.00	7.26	REL
109	94197	74.0000	SSGL5B	2	PC	L102x76x10x380 (350W)	24-SSGL-M05-01	22.00	9.98	REL
110	94197	76.0000	111041	8	PC	J-Bolt Assy 1/2-13 X 5 in Squa Galvanized	91B334_M02	3.20	1.45	REL
111	94197	78.0000	110520	8	PC	U-Bt Assy 1/2 X 2 in C/C GALV	91B017-M03	4.40	2.00	REL
112	94197	80.0000	110011	5	PC	Bolt Assy 5/8 X 2 in A325 Galv		2.05	.93	REL
113	94197	92.0000				ICE GUARD AT MIDDLE OF TOWER FOR DOL				REL
114	94197	94.1000	91263A	2	PC	Ice-Guard Weldment	91B263_M01	40.00	18.14	REL
115	94197	94.2000	SSGL11A	2	PC	L 102x102x10x154 Weld't	24-SSGL-M11-01	10.00	4.54	REL
116	94197	94.3000	110520	4	PC	U-Bt Assy 1/2 X 2 in C/C GALV	91B017-M03	2.20	1.00	REL
117	94197	94.4000	110011	5	PC	Bolt Assy 5/8 X 2 in A325 Galv		2.05	.93	REL

K07 SAFETY CLIMB MATERIAL

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST	
118	94197	84.0000				SAFETY CLIMB MATERIAL				REL	
119	94197	86.0000	SCL001-1	10	KI	20' RAM SAFE RAIL C/W HRDWARE Dwg# CL001_E01	CL001-E01			REL	
		<i>Line Number</i>	<i>Part Number</i>	<i>Qty</i>	<i>U/M</i>	<i>Description</i>	<i>Additional Descripton</i>	<i>Drawing Number</i>	<i>Weight (LBS)</i>	<i>Weight (KGS)</i>	<i>ST</i>
		86.0100	CL001A	10	PC	RAM Safety Climb Rail X20'	CL001-M01	189.80	86.09	REL	
		86.0200	5351	50	PC	Bar 25 X 6 X 67	A372	15.50	7.03	REL	
		86.0300	110995	100	PC	BOLT 3/8x2 in GR2 FULL THREAD	HDG			REL	
		86.0400	110997	200	PC	Hex Nut 3/8 Gr2 Galv	Finished hex nuts	8.00	3.63	REL	
		86.0500	110197	100	PC	Lock Washer 3/8 (Spring) Galv	(SAME AS R-250082)	1.00	.45	REL	
		86.0600	CL001_E01	10	PC	DWG. RAM SAFETY RAIL				REL	
								214.30	97.20		
120	94197	88.0000	SCL001-4	1	KI	10' RAM SAFE RL C/W HRDWRE-TOP	CL001-E01	9.00	4.08	REL	

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Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST	
Dwg# CL001_E01											
		Line Number	Part Number	Qty	U/M	Description	Additional Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST
		88.0100	CL001D	1	PC	RAM Safety Rail X 10'- TOP		CL001-M01	9.49	4.30	REL
		88.0200	5351	3	PC	Bar 25 X 6 X 67		A372	.93	.42	REL
		88.0300	110995	6	PC	BOLT 3/8x2 in GR2 FULL THREAD	HDG				REL
		88.0400	110997	12	PC	Hex Nut 3/8 Gr2 Galv	Finished hex nuts		.48	.22	REL
		88.0500	110197	6	PC	Lock Washer 3/8 (Spring) Galv	(SAME AS R-250082)		.06	.03	REL
		88.0600	CL001_E01	1	PC	DWG. RAM SAFETY RAIL					REL
									10.96	4.97	
121	94197	90.0000	160372	1	PC	RAM Trolley V1 c/w Swivel Hook Include Operating Instruction			2.00	.91	REL

K08 ANTI-CLIMB MATERIAL

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST
122	94197	142.0000				ANTI-CLIMB MATERIAL				REL
123	94197	169.1000				MATERIAL FOR TWO ANTICLIMBS				REL
124	94197	170.0000	24AC001	2	PC	DOOR WELDMENT	24-AC001-M01	280.00	127.01	REL
125	94197	172.0000	24AC002	4	PC	STRUCTURAL MESH 910x2500 Lg	24-AC002-M01	416.00	188.69	REL
126	94197	174.0000	24AC003	32	PC	BAR 51x6x152 (300W)	24-AC003-M01	32.00	14.51	REL
127	94197	176.0000	24095B	2	PC	L 76x51x5x802 Weld (300W)	24B095M02	24.00	10.89	REL
128	94197	178.0000	24095C	2	PC	L 76x51x5x802 Weld (300W)	24B095M02	24.00	10.89	REL
129	94197	180.0000	24095D1	32	PC	Bent Bar 152x6x260 (230G)	24B095-M04	128.00	58.06	REL
130	94197	182.0000	24095G	6	PC	Bar 38x6x302 (230W)	24B095-M04	6.00	2.72	REL
131	94197	184.0000	110249	80	PC	U-Bt Assy 3/8x2-1/16 in C/C Ga	91B017-M01	23.20	10.52	REL
132	94197	186.0000	111132	70	PC	Carriage bolt Assy 1/2 x2 1/4" Gr5 Galv.		70.00	31.75	REL
133	94197	188.0000	110248	12	PC	U-Bt Assy 3/8x1-5/8 in C/C Gal	91B017-M01	2.40	1.09	REL
134	94197	190.0000	110010	6	PC	Bolt Assy 5/8x1-3/4 in A325 Ga		2.34	1.06	REL
135	94197	192.0000	110205	6	PC	HARDENED WASHER 5/8 (F436) Galv		.30	.14	REL
136	94197	194.0000	160144	2	PC	Padlock WITH LONG HASP Alike, Pin Tumbler, Key #3753				REL

K09 LIGHTING & ELECTRICAL MATERIAL

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST
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Ship To: 984020 Coast Guard Rondeau MCTS, ON
 Project Number: 0163462 Coast Guard Rondeau MCTS, ON
 Customer : 983756 Fisheries and Oceans Canada

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	REL	
137	94197	154.0000	TOP BEACON MOUNT								REL
138	94197	156.0000	SLT004-1	1	PC	TOP BECN MNT KIT 1 1/4 -3 RND 2 1/2-3 1/2 60V Dwg#LT004_E04	LT004_E04	53.00	24.04	REL	
		<i>Line Number</i>	<i>Part Number</i>	<i>Qty</i>	<i>U/M</i>	<i>Description</i>	<i>Additional Descripiton</i>	<i>Drawing Number</i>	<i>Weight (LBS)</i>	<i>Weight (KGS)</i>	<i>ST</i>
		156.0100	110011	4	PC	Bolt Assy 5/8 X 2 in A325 Galv			1.64	.74	REL
		156.0200	TX005F	2	PC	BENT BAR 51x6x192 (300W)	(1 LB)	TX005_M05	2.00	.91	REL
		156.0300	LT004H1	1	PC	Beacon Mounting Pipe Weld't	60 OD HSS WELD'T x 1000 (350W)	LT004-M06	31.00	14.06	REL
		156.0400	91064A	2	PC	L 76x76x6x137 (300W)	(renumbered from 5476)	91B064-M01	4.00	1.81	REL
		156.0500	LT004G	2	PC	L 102x102x6x184 (300W)		LT004_M05	12.00	5.44	REL
		156.0600	111003	4	PC	Bolt Assy 1/2x12 in Gr2 HDG	Fully Threaded		3.08	1.40	REL
		156.0700	110252	4	PC	U-Bt Assy 3/8x2-13/16 in C/C Ga		91B017-M01	1.36	.62	REL
		156.0800	110002	4	PC	Bolt Assy 1/2x1-1/2 in A325 Ga			.84	.38	REL
		156.0900	LT004E	2	PC	BENT PL. 105x3x184 (300W)		LT004_M04	4.00	1.81	REL
		156.1000	LT004_E04	1	PC	DWG. TOP BECN MNT KIT					REL
								59.92	27.17		
139	94197	158.0000	D.O.L @1/2 TOWER HEIGHT								REL
140	94197	160.0000	SLT003-1	1	PC	DBL OBSTR MNT KIT 1 1/4 -3 RND 2 1/2 - 3 60 V Dwg#LT004_E03	LT004_E03	15.00	6.80	REL	
		<i>Line Number</i>	<i>Part Number</i>	<i>Qty</i>	<i>U/M</i>	<i>Description</i>	<i>Additional Descripiton</i>	<i>Drawing Number</i>	<i>Weight (LBS)</i>	<i>Weight (KGS)</i>	<i>ST</i>
		160.0100	LT004C	4	PC	BAR 64x6x417 (300W)		LT004_M03	8.00	3.63	REL
		160.0200	110946	8	PC	Bolt Assy LW 1/2 x 4 in A449	GR 5 Fully Threaded - Galv'd		2.64	1.20	REL
		160.0300	110364	4	PC	Bolt Assy 1/4x1-1/2 in Gr5 Gal					REL
		160.0400	TX005F	4	PC	BENT BAR 51x6x192 (300W)	(1 LB)	TX005_M05	4.00	1.81	REL
		160.0500	110249	4	PC	U-Bt Assy 3/8x2-1/16 in C/C Ga		91B017-M01	1.16	.53	REL
		160.0600	LT004_E03	1	PC	DWG. DBL OBSTR MNT KIT					REL
								15.80	7.17		
141	94197	162.0000	BOTTOM JUNCTION BOX MOUNT								REL
142	94197	164.0000	SLT002-1	1	PC	TJB MNTING KIT 1 1/4 - 3 RND 2 1/2 - 3 60 V Dwg#LT004_E02	LT004_E02	8.00	3.63	REL	
		<i>Line Number</i>	<i>Part Number</i>	<i>Qty</i>	<i>U/M</i>	<i>Description</i>	<i>Additional Descripiton</i>	<i>Drawing Number</i>	<i>Weight (LBS)</i>	<i>Weight (KGS)</i>	<i>ST</i>
		164.0100	LT004C	2	PC	BAR 64x6x417 (300W)		LT004_M03	4.00	1.81	REL
		164.0200	110946	4	PC	Bolt Assy LW 1/2 x 4 in A449	GR 5 Fully Threaded - Galv'd		1.32	.60	REL
		164.0300	110364	4	PC	Bolt Assy 1/4x1-1/2 in Gr5 Gal					REL
		164.0400	TX005F	2	PC	BENT BAR 51x6x192 (300W)	(1 LB)	TX005_M05	2.00	.91	REL
		164.0500	LT004_E02	1	PC	DWG. TJB MNTING KIT					REL
								7.32	3.32		
143	94197	166.0000	TOP JUNCTION BOX MOUNT								REL
144	94197	168.0000	SLT002-1	1	PC	TJB MNTING KIT 1 1/4 - 3 RND 2 1/2 - 3 60 V Dwg#LT004_E02	LT004_E02	8.00	3.63	REL	

7922825 Canada Inc. (NETRICOM)

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Materials List

R55MATLIS RCS0002

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Ship To: 984020 Coast Guard Rondeau MCTS, ON
 Project Number: 0163462 Coast Guard Rondeau MCTS, ON
 Customer : 983756 Fisheries and Oceans Canada

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST
		Line Part								
		Number Number	Qty U/M		Description	Additional Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST
		168.0100	LT004C	2	PC	BAR 64x6x417 (300W)	LT004_M03	4.00	1.81	REL
		168.0200	110946	4	PC	Bolt Assy LW 1/2 x 4 in A449	GR 5 Fully Threaded - Galv'd	1.32	.60	REL
		168.0300	110364	4	PC	Bolt Assy 1/4x1-1/2 in Gr5 Gal				REL
		168.0400	TX005F	2	PC	BENT BAR 51x6x192 (300W)	(1 LB)	2.00	.91	REL
		168.0500	LT004_E02	1	PC	DWG. TJB MNTING KIT				REL
								7.32	3.32	

K16 GROUNDING MATERIAL ABOVE GRADE

Ref.	Order	Line Num	Item Number	Quantity	U/M	Description	Drawing Number	Weight (LBS)	Weight (KGS)	ST
145	94197	104.0000				TOWER GROUNDING ABOVE GRADE				REL
146	94197	106.1000	150396	3	PC	Grd Lug Wire To Plate (4/0 Str-2 Str) (3/8 Bolt)				REL
147	94197	108.0000	110459	3	PC	Bolt Assy 3/8 X 1 in Gr5 Galv		.12	.05	REL
148	94197	110.0000				GROUNDING AT FENCE POST				REL
149	94197	112.0000	150247	5	MT	Grd Wire 4/0 Str Copper Tinned		10.70	4.85	REL
150	94197	114.0000	150033	4	PC	Weld Metal #115				REL
151	94197	115.0000	NOTE 25	1	PC	ONE MOLD VSC-2Q-V5C SUPPLIED BY FIELD CREW				REL
152	94197	118.0000				ANODE LEAD TO EQ. PL				REL
153	94197	120.0000	150068	3	PC	Grd Lug Wire To Plate (HD) Tinned (0 Str-8 Str)(1/4 Bolt)				REL
154	94197	122.0000				ANCHOR GROUNDING ABOVE GRADE				REL
155	94197	128.0000	150003	36	PC	Grd Conn 7/16 - 1/2 GS #40HPS				REL
156	94197	130.0000				TX LINE BRIDGE GROUNDING				REL
157	94197	133.0000	150033	6	PC	Weld Metal #115		.01		REL
158	94197	140.1000	NOTE 26	1	PC	ONE MOLD VSC-2Q SUPPLIED BY FIELD CREW				REL
Total Weight								12,586.66	5,709.16	

END OF MATERIALS LIST REPORT