



CITY COUNCIL REGULAR MEETING AGENDA

MONDAY NOVEMBER 18, 2019

MEETING TIME: 6:30 PM

1. Call to Order

2. Pledge of Allegiance

3. Roll Call

4. ****Consent Agenda****

All items listed under Consent Agenda are considered to be routine by Council and will be acted on by one motion. There will be no separate discussion of these items. If discussion is desired, that item will be removed from the Consent Agenda and will be considered separately.

- a. Approval of City Council Minutes from the October 15, 2019 Regular City Council Meeting.
- b. Approval of Accounts Payable; Checks Numbered 19196-19270.
- c. 3rd Quarter Financial Report – For Council Information.
- d. Orono Baseball Association – Temporary Gambling Permit.
- e. 2020 Contract for Accounting Services – Abdo Eick & Meyers.
- f. **RESOLUTION 19-1118-01**- Designating City Hall as the Polling Place for the 2020 Elections.
- g. Notice to Initiate Expiration of Agricultural Preserve Status for the Properties Identified by PID No.s 15-118-24-32-0003 and 15-118-24-33-000.
- h. Approval by City Council to not waive the monetary limits on Tort Liability.
- i. **RESOLUTION 19-1118-02** – Certifying Delinquent Sewer Service Charges.

5. Set Agenda – Anyone Not on the Agenda can be Placed Under Open/Misc.

6. Reports of Boards and Committees by Council and Staff.

7. AT&T (Applicant) requests that the City consider the following action for the property located at 3310 County Line Road, Independence, MN (PID No. 07-118-24-33-0004):

- a. **RESOLUTION NO. 19-1118-03** – considering a conditional use permit amendment to allow the colocation of new cellular antennas on the existing wireless tower located on the subject property and a variance to allow a second accessory structure on the property and the reduction of the requisite 40-foot rear yard setback.

8. John Hilbelink (Applicant/Owner) requests that the City consider the following action for the properties located at 5062 Perkinsville Road, Independence, MN (PID No.s 24-118-24-13-0005 and 24-118-24-13-0006):
 - a. **RESOLUTION NO. 19-1118-04** – Considering approval of a minor subdivision to allow a lot line rearrangement to move the existing line between the properties. The rearrangement would create “equal” properties on Perkinsville Road.
9. Concept plan and provide informal feedback relating to the proposed subdivision of the property located at 2236 South Lakeshore Drive. The proposed subdivision would create 28 single-family lots which includes the existing residence.
10. A proposed text amendment to the City of Independence Ordinances as follows:
 - a. **ORDINANCE NO. 2019-03 (Summary Ordinance 2019-03)** - Chapter 5, Section 530.01, Subd. 3 Accessory Uses – Considering an amendment to the maximum height of an accessory structure. The City will discuss increasing the permitted height of detached accessory structures.
11. Discussion/Approval Relating to City Hall Upgrades – Architectural Services.
12. Open/Misc.
13. Adjourn.

MINUTES OF A REGULAR MEETING OF THE
INDEPENDENCE CITY COUNCIL
TUESDAY, OCTOBER 15, 2019 –6:30 P.M.

1. CALL TO ORDER.

Pursuant to due call and notice thereof, a regular meeting of the Independence City Council was called to order by Mayor Johnson at 6:30 p.m.

3. ROLL CALL

PRESENT: Mayor Johnson, Councilors Spencer, Betts, McCoy and Grotting
ABSENT: City Attorney Vose
STAFF: City Administrator Kaltsas, Assistant to Administrator Horner, WHPS Chief Kroells
VISITORS: Sarah Borchers

4. ****Consent Agenda****

All items listed under Consent Agenda are considered to be routine by Council and will be acted on by one motion. There will be no separate discussion of these items. If discussion is desired, that item will be removed from the Consent Agenda and will be considered separately.

- a. Approval of City Council Minutes from the October 1, 2019 Regular City Council Meeting.
- b. Approval of Accounts Payable; Checks Numbered 19161-19195 (Check 19132 was voided).
- c. 3rd Quarter Building Permit Report.

Motion by Betts, second by McCoy to approve the Consent Agenda. Ayes: Johnson, Grotting, Betts, McCoy and Spencer. Nays: None. Absent: None. Abstain. None. MOTION DECLARED CARRIED.

Johnson noted Congressman Phillips expressed interest to tour before the next Highway 12 meeting.

5. SET AGENDA – ANYONE NOT ON THE AGENDA CAN BE PLACED UNDER OPEN/MISC.

6. REPORTS OF BOARDS AND COMMITTEES BY COUNCIL AND STAFF

Spencer attended the following meetings:

- Maple Plain Fire Department Steak Fry and Open House
- Loretto Fire Department Spaghetti dinner and Open House

Grotting attended the following meetings:

- Several meetings about data services within the City

McCoy attended the following meetings:

Betts attended the following meetings:

- West Hennepin Chamber of Commerce Meeting
- Fire Commission Meeting

Johnson attended the following meetings:

- Senior Community Services Technology Conference
- National League of Small Cities Conference Call
- Hennepin County Healthy Communities Quarterly Meeting
- Maple Plain Fire Department Steak Fry and Open House
- Pastor Meg's retirement celebration at First Presbyterian Church
- West Hennepin Chamber of Commerce
- Fire Commission Meeting
- American Legion Fall Meeting
- Northwest League of Municipalities Meeting
- Orono Healthy Youth Meeting
- Meeting with Staff of Metro Cities

Horner attended the following meetings:

- Two Meetings with Architects
- Met with Bank of Maple Plain
- Meeting with Staff of Metro Cities
- Met with the Orono Softball League

Kaltsas attended the following meetings:

- Working on getting a meeting with Commissioner Margaret Kelliher regarding Highway 12

7. Annual Visit from Orono School Board Member Sarah Borchers.

Borchers encouraged everyone to take a tour of the new Orono Activity Center. Borchers spoke about the technology levy. She said Minnesota does not have a designated amount for tech. The board has to ask voters for technology funds. Borchers said they are reaching out now to facilitate communication about the need for funding for K-12. It is about getting the right tools for students with everything from hardware to software. Technology for the future will be making sure the network is strong and reinforcing teacher training as well as enhancing cyber security. The increase equates to an additional \$8.00/ month on a \$400,000 valued home.

Johnson stated that the levies vary considerably across districts. Grotting asked about access to the internet and Borchers said some money goes to a more robust system. Borchers said it is a million dollars for tax payers for this levy.

Johnson thanked Borchers for attending and the update.

8. West Hennepin Public Safety Director, Gary Kroells, September 2019 Monthly Report.

for a complete report see the City Council packet

Kroells said there were 314 incidents reported in Independence for the month of September and 174 incidents in Maple Plain. Total incidents for both cities for the year to date are 5,092.

Kroells stated the delineators are in and contractors are being lined up to install per MnDOT. Power companies are getting ready to install signs and will begin November 1st. McCoy asked how many cameras would be between Independence and Delano. Kroells stated the exact number is not yet known but he did note there would be flashing lights installed that will flash when roads are slippery.

9. AT&T (Applicant) requests that the City consider the following action for the property located at 3310 County Line Road, Independence, MN (PID No. 07-118-24-33-0004):

- a. **RESOLUTION NO. 19-1015-01** – considering a conditional use permit amendment to allow the colocation of new cellular antennas on the existing wireless tower located on the subject property and a variance to allow a second accessory structure on the property and the reduction of the requisite 40-foot rear yard setback.

Kaltsas stated AT&T has requested more time so this will be tabled until the next meeting per Council's approval.

Motion by Betts, second by McCoy to table RESOLUTION NO. 19-1015-01 – considering a conditional use permit amendment to allow the colocation of new cellular antennas on the existing wireless tower located on the subject property and a variance to allow a second accessory structure on the property and the reduction of the requisite 40-foot rear yard setback for the property located at 3310 County Line Road, Independence, MN (PID No. 07-118-24-33-0004). Ayes: Johnson, Grotting, Betts, McCoy and Spencer. Nays: None. Absent: None. MOTION DECLARED CARRIED.

10. Discussion/Approval Relating to City Hall Upgrades – Architectural Services

Kaltsas stated the City has been holding off on making improvements to the City Hall/WHPS mechanical equipment and cosmetic needs (i.e. painting, carpet, etc.) for several years with the intent to undertake a larger and more comprehensive renovation/update project. The City should consider making improvements that include upgrades to the front entrance, carpet and flooring, interior and exterior painting, new HVAC equipment for WHPS, community room upgrades and storage and garage space upgrades.

Council provided direction to staff at our most recent workshop to further investigate and identify costs associated with updating City Hall and WHPS. Staff reached out to several architectural firms that specialize in municipal facilities and met with two of the firms to discuss the potential project in more detail. Both firms provided the City with a professional services proposal to analyze the existing building and provide high level concept plans and associated costs for making the desired improvements to the facility. Staff reviewed the proposals and found that the costs associated with both proposals is approximately \$14,000 taking into account estimated reimbursable expenses. The process for evaluating the facility and developing plans and cost estimates would take 6-8 weeks.

Based on the proposals provided, staff would like to move forward with BKV Architects. The majority of the costs associated with the fees (approximately \$10,000) would be taken from the remaining administration capital outlay budget for 2019. Staff will work to identify sources of funding for the remaining balance if billed in 2019 or would be able to accommodate the additional amount if it carried over to 2020. Staff believes that it would be beneficial for the City to begin this process in 2019 so that a 2020 project could potentially be realized. Both proposals are included in the packet for Council review.

Staff is seeking Council direction and recommending approval to move forward with hiring BKV Architects to provide preliminary professional design services associated with potential updates to City Hall and WHPS offices.

Johnson noted the recommended group was impressive and they like to have input from Staff and Council.

Motion by Spencer, second by McCoy approve a motion to move forward with BKV Architectural Firm for exploratory discussions regarding upgrades to City Hall. Ayes: Johnson, Grotting, Betts, McCoy and Spencer. Nays: None. Absent: None. MOTION DECLARED CARRIED.

11. Open/Misc.

12. Adjourn.

Motion by Grotting, second by Betts to adjourn at 7:20 p.m.

Respectfully Submitted,

Trish Gronstal
Recording Secretary

DRAFT

3rd Quarter Report

City of Independence
Independence, Minnesota

As of September 30, 2019

October 23, 2019

ACCOUNTANT'S COMPILATION REPORT

Honorable Mayor and City Council
City of Independence
Independence, Minnesota

Management is responsible for accompanying financial statements of the City of Independence, which comprise the budget to actual statement of revenues and expenditures for the General and enterprise funds as of September 30, 2019 in accordance with accounting principles generally accepted in the United States of America. We have performed a compilation engagement in accordance with *Statements on Standards for Accounting and Review Services* promulgated by the Accounting and Review Services Committee of the AICPA. We did not audit or review the financial statements nor were we required to perform any procedures to verify the accuracy or completeness of the information provided by management. Accordingly, we do not express an opinion, a conclusion, nor provide any form of assurance on these financial statements.

Management has elected to omit substantially all of the disclosures and the statement of cash flows required by accounting principles generally accepted in the United States of America. If the omitted disclosures and the statement of cash flows were included in the financial statements, they might influence the user's conclusions about the City's financial position, results of operations, and cash flows. Accordingly, the financial statements are not designed for those who are not informed about such matters.

Sincerely,

AEM FINANCIAL SOLUTIONS, LLC



AEM Financial Solutions™

October 23, 2019

Honorable Mayor and City Council
City of Independence
Independence, Minnesota

Dear Honorable Mayor and City Council:

We have reconciled all bank accounts through September 30, 2019 and reviewed activity in all funds. The following is a summary of our observations. All information presented is unaudited.

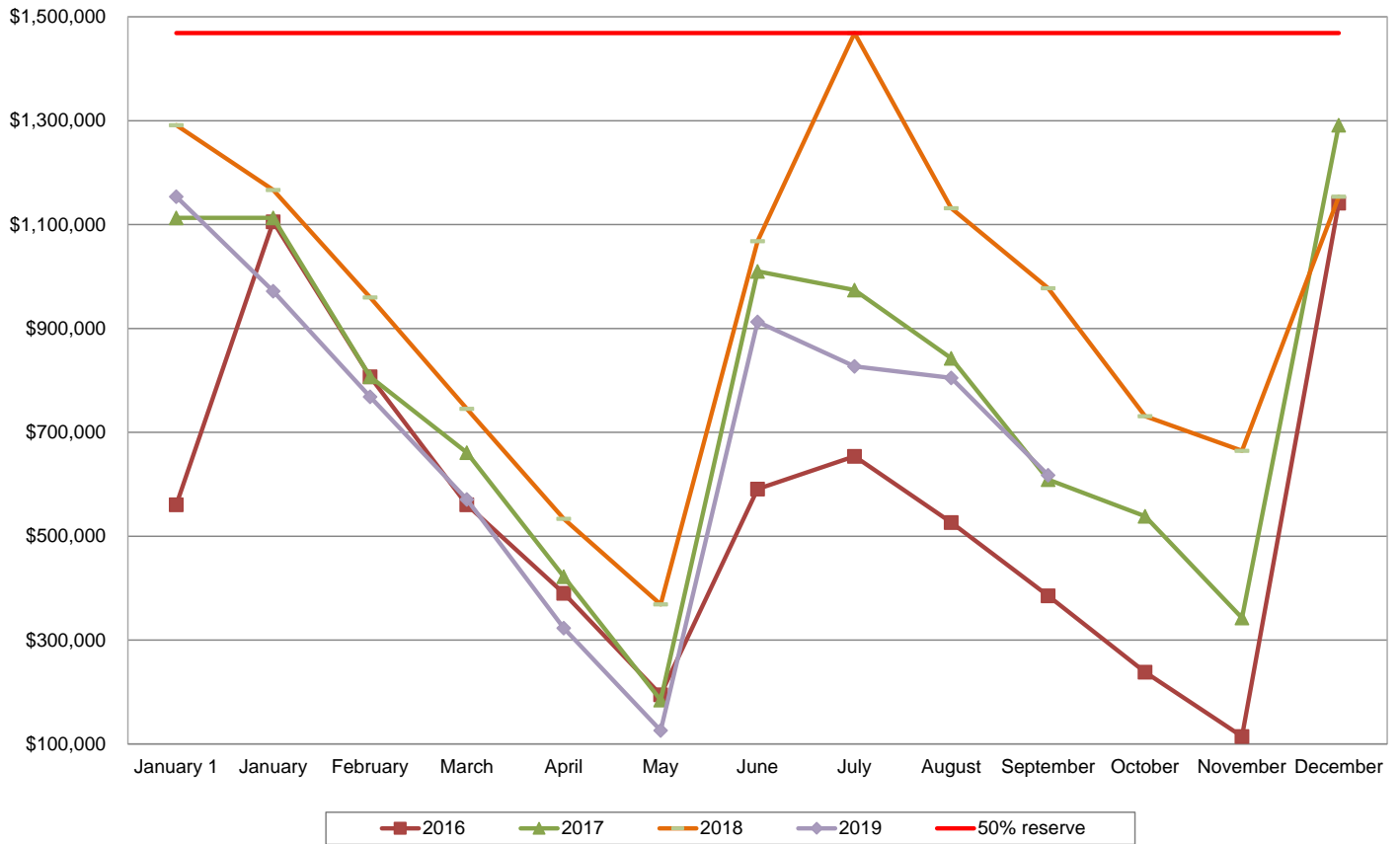
Cash and Investments

The City's cash and investment balances are as follows:

	09/30/2019	12/31/2018	Increase/ (Decrease)
Checking	\$ 167,287	\$ 273,194	\$ (105,908)
Investments (at Market Value)	1,411,108	1,891,626	(480,517)
Total Cash and Investments	\$ 1,578,395	\$ 2,164,820	\$ (586,425)

Investment Type	09/30/2019	12/31/2018	Increase/ (Decrease)
Checking	\$ 167,287	\$ 273,194	\$ (105,908)
Money Market	1,217,224	1,697,742	(480,517)
Negotiable CDs	193,884	193,884	-
Total Investments	\$ 1,578,395	\$ 2,164,820	\$ (586,425)

General Fund Cash Balances 2016 - 2019



General Fund

Receipts	YTD Budget	YTD Actual	Percent of YTD Budget	Disbursements	YTD Budget	YTD Actual	Percent of YTD Budget
Taxes	\$ 1,992,402	\$ 1,352,547	67.9 %	Legislative	\$ 17,292	\$ 14,489	83.8 %
Licenses and Permits	123,803	163,612	132.2	Election	3,188	-	-
Intergovernmental	12,000	25,840	215.3	City Clerk/Finance	333,094	334,369	100.4
Charges For Services	30,863	17,036	55.2	Legal Services	30,287	21,795	72.0
Fines and Forfeitures	35,805	32,006	89.4	Planning and Zoning	29,130	22,643	77.7
Miscellaneous Revenue	8,250	52,342	634.4	General Government Building	31,578	25,979	82.3
	<u>\$ 2,203,123</u>	<u>\$ 1,643,383</u>	<u>74.6 %</u>	Public Safety	1,136,327	1,103,935	97.1
Key				Building Inspector	84,231	88,053	104.5
↑	Varies more than 15% than budget positively			Public Works	430,921	476,581	110.6
↓	Varies more than 15% than budget negatively			Solid Waste	38,625	34,123	88.3
→	Within 15% of budget			Recreation/Community Service	5,670	3,292	58.1
				Park Maintenance	9,393	12,454	132.6
				Insurance	1,920	-	-
				Transfer Out	51,467	51,469	100.0
	<u>\$ 2,203,123</u>	<u>\$ 2,189,182</u>	<u>99.4 %</u>				

Current short-term rates being offered by financial institutions are very low as evidenced by the table of U.S. Treasury rates below. The U.S. Treasury rates provide a benchmark perspective for rate of return.

Date	Treasury Yields								
	1 mo	3 mo	6 mo	1 yr	2 yr	3 yr	5 yr	7 yr	10 yr
12/31/2010	0.07	0.12	0.19	0.29	0.61	1.02	2.01	2.71	3.30
12/30/2011	0.01	0.02	0.06	0.12	0.25	0.36	0.83	1.35	1.89
12/31/2012	0.02	0.05	0.11	0.16	0.25	0.36	0.72	1.18	1.78
12/31/2013	0.01	0.07	0.10	0.13	0.38	0.78	1.75	2.45	3.04
12/31/2014	0.03	0.04	0.12	0.25	0.67	1.10	1.65	1.97	2.17
12/31/2015	0.14	0.16	0.49	0.65	1.06	1.31	1.76	2.09	2.27
03/31/2016	0.18	0.21	0.39	0.59	0.73	0.87	1.21	1.54	1.78
06/30/2016	0.20	0.26	0.36	0.45	0.58	0.71	1.01	1.29	1.49
09/30/2016	0.20	0.29	0.45	0.59	0.77	0.88	1.14	1.42	1.60
12/31/2016	0.44	0.51	0.62	0.85	1.20	1.47	1.93	2.25	2.45
03/31/2017	0.74	0.76	0.91	1.03	1.27	1.50	1.93	2.22	2.40
06/30/2017	0.84	1.03	1.14	1.24	1.38	1.55	1.89	2.14	2.31
09/30/2017	0.96	1.06	1.20	1.31	1.47	1.62	1.92	2.16	2.33
12/31/2017	1.28	1.39	1.53	1.76	1.89	1.98	2.20	2.33	2.40
03/31/2018	1.63	1.73	1.93	2.09	2.27	2.39	2.56	2.68	2.74
06/30/2018	1.77	1.93	2.11	2.33	2.52	2.63	2.73	2.81	2.85
09/30/2018	2.12	2.19	2.36	2.59	2.81	2.88	2.94	3.01	3.05
12/31/2018	2.44	2.45	2.56	2.63	2.48	2.46	2.51	2.59	2.69
03/29/2019	2.43	2.40	2.44	2.40	2.27	2.21	2.23	2.31	2.41
06/28/2019	2.18	2.12	2.09	1.92	1.75	1.71	1.76	1.87	2.00
09/30/2019	1.91	1.88	1.83	1.75	1.63	1.56	1.55	1.62	1.68

Budget Summary

A more detailed analysis of funds is included as Attachment A.

Cash Balance Summary

A detailed view of department totals compared with budget is included as Attachment B.

Investment Summary

A detailed summary of current investments is included as Attachment C.

Enterprise Fund Summary

A detailed summary of enterprise fund financial results is included as Attachment D.

Revenue and Expenditures

A detail of revenues and expenditures is included

* * * * *

This information is unaudited and is intended solely for the information and use of management and City Council and is not intended and should not be used by anyone other than these specified parties.

If you have any questions or wish to discuss any of the items contained in this letter or the attachments, please feel free to contact us at your convenience. We wish to thank you for the continued opportunity to be of service and for the courtesy and cooperation extended to us by your staff.

Sincerely,

AEM FINANCIAL SOLUTIONS, LLC

People
+ Process®
Going
Beyond the
Numbers

City of Independence, Minnesota
Statement of Revenue and Expenditures -
Budget and Actual - General Fund (Unaudited)
For Nine Months Ended September 30, 2019

ATTACHMENT A

	Annual Budget 12/31/2019	Budget Thru 9/30/2019	Actual Thru 9/30/2019	Variance - Favorable (Unfavorable)	Percent Received or Expended Based on Budget Thru 9/30/2019
Revenues					
Taxes	\$ 2,656,535	\$ 1,992,402	\$ 1,352,547	\$ (639,855) *	67.9 %
Licenses and permits	165,070	123,803	163,612	39,809 (1)	132.2
Intergovernmental	16,000	12,000	25,840	13,840 (2)	215.3
Charges for services	41,150	30,863	17,036	(13,827) (3)	55.2
Fines and forfeitures	47,740	35,805	32,006	(3,799)	89.4
Miscellaneous revenue	11,000	8,250	52,342	44,092 (4)	634.4
Total Revenues	<u>2,937,495</u>	<u>2,203,123</u>	<u>1,643,383</u>	<u>(559,740)</u>	<u>74.6</u>
Expenditures					
Legislative	23,056	17,292	14,489	2,803	83.8
Election	4,250	3,188	-	3,188	-
City Clerk/finance	444,125	333,094	334,369	(1,275)	100.4
Legal services	40,382	30,287	21,795	8,492	72.0
Planning and zoning	38,840	29,130	22,643	6,487	77.7
General government building	42,104	31,578	25,979	5,599	82.3
Public safety	1,515,102	1,136,327	1,103,935	32,392	97.1
Building inspector	112,308	84,231	88,053	(3,822)	104.5
Public works	574,561	430,921	476,581	(45,660)	110.6
Solid waste	51,500	38,625	34,123	4,502	88.3
Recreation/community service	7,560	5,670	3,292	2,378	58.1
Park maintenance	12,524	9,393	12,454	(3,061)	132.6
Insurance	2,560	1,920	-	1,920	-
Total Expenditures	<u>2,868,872</u>	<u>2,151,656</u>	<u>2,137,713</u>	<u>13,943</u>	<u>99.4</u>
Transfers in	-	-	-	-	N/A
Transfers out	(68,623)	(51,467)	(51,469)	(2)	100.0
Excess Revenues (Expenditures)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (442,861)</u>	<u>\$ (545,799)</u>	

* Taxes are paid 40% in June, 30% in July and the remainder are paid in December.

Item Explanation of Items Percentage Received/Expended Less than 80% or Greater than 120% and \$ Variance Greater than \$10,000.

- (1) Increase in building permits during 3rd quarter.
- (2) Variance due to \$17,000 in Street Aid paid in July.
- (3) Vinland has not yet paid for 2nd or 3rd quarter police services.
- (4) Received \$45,000 fee for issuance of conduit debt for PHS Founders Ridge, Inc.

City of Independence, Minnesota
Unaudited Cash Balances by Fund
September 30, 2018, December 31, 2018 and September 30, 2019

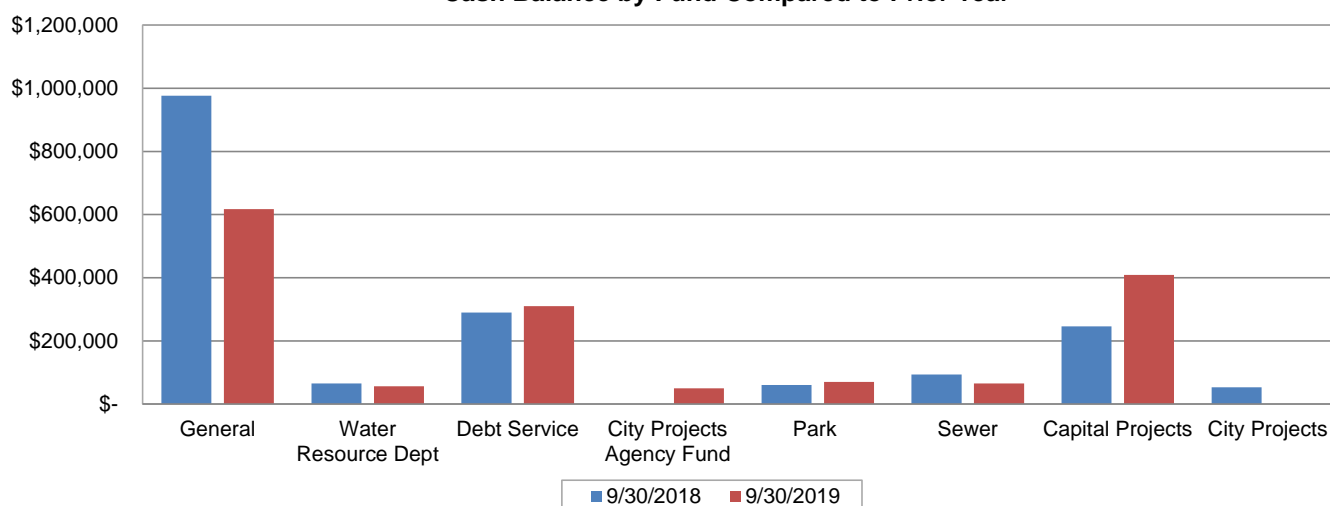
ATTACHMENT B

Fund		Balance 9/30/2018	Balance 12/31/2018	Balance 9/30/2019	YTD Change From 12/31/2018
100	General	\$ 976,157	\$ 1,153,674	\$ 617,289	(1) \$ (536,385)
200	Water Resource Department	65,284	88,828	56,499	(2) (32,329)
309	2006A GO Capital Improvement Bonds	111,553	64,661	122,669	(3) 58,008
311	Drake Drive Road Improvement	11,511	11,550	11,623	73
312	2007 Equipment Certificate	37,111	37,237	37,473	236
314	2015A G.O. Bond	93,057	183,119	101,748	(4) (81,371)
401	Building Capital	104,005	104,358	105,018	660
402	Road Capital Improvement	12,852	12,895	12,977	82
403	Equipment Capital Improvement	89,008	149,310	201,842	(5) 52,532
404	Administrative Capital	39,943	89,029	89,310	281
405	Park	60,341	60,677	70,262	9,585
414	2015 Street Improvement	36,315	36,438	36,668	230
430	City Projects Agency Fund	-	-	49,779	(6) 49,779
602	Sewer	93,449	121,814	65,238	(7) (56,576)
806	City Projects	53,076	51,230	-	(6) (51,230)
Total		<u>\$ 1,783,662</u>	<u>\$ 2,164,820</u>	<u>\$ 1,578,395</u>	<u>\$ (586,425)</u>

Item Explanation of Items Percentage Received/Expended Less than 80% or Greater than 120% and \$ Variance Greater than \$25,000.

- (1) The decrease is an expected result from the excess of expenditures over revenues which is the typical cash flow pattern of the city. Additional detail can be obtained in the statement of Revenues and Expenditures.
- (2) The total owed to the Pioneer Watershed for Operating Assessment and CIP has been paid for the year. This cost is usually offset by total tax settlements for the year.
- (3) 2019 Taxes received in July totaling \$62,265.
- (4) GO Tax Abatement Bond 2015A principal and interest payments of \$154,306, which were partially offset by the 1st half of the tax settlement received in June.
- (5) Transfer received from the General Fund to help fund capital purchases.
- (6) Reclass of CUP Escrows from fund 806 to Fund 430
- (7) See the Sewer Statement of Revenue and Expenditures for explanation.

Cash Balance by Fund Compared to Prior Year



Fund	
↓ General	→ Park
↓ Water resource dept	↓ Sewer
→ Debt service	↑ Capital projects
	↓ City Projects

Key

- ↑ Balance increased more than 10% over prior year
- ↓ Balance decreased more than 10% over prior year
- Balance within 10% of prior year

City of Independence, Minnesota
Schedule of Investments
For the Month Ending September 30, 2019

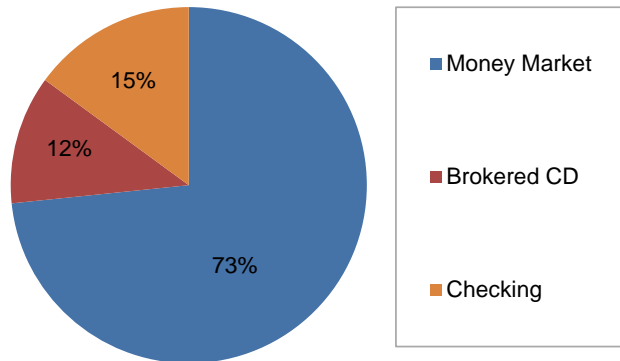
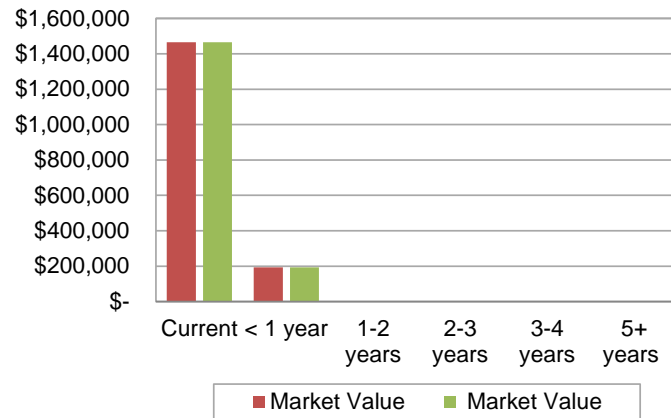
ATTACHMENT C

Description	Type	Market Value 1/1/2019	Deposits - Purchases	Expenditures - Sales	Transfers	Interest	Unadjusted Market Value 9/30/2019	Market Value 9/30/2019	Unrealized gain / loss
Checking	Checking	\$ 394,744.78	\$ 558,376.76	\$ (244,850.98)		\$ 146.98	\$ 247,940.53	\$ 247,940.53	\$ -
Money Market	Money Market	1,697,741.80	17,035.00	(500,000.00)		937.47	1,217,224.31	1,217,224.31	-
Brokered CD	Brokered CD	193,883.74					193,883.74	193,883.74	-
		2,286,370.32	575,411.76	(744,850.98)	-	1,084.45	1,659,048.58	1,659,048.58	-
I Cash and Investments		\$ 2,286,370.32	\$ 575,411.76	\$ (744,850.98)	\$ -	\$ 1,084.45	\$ 1,659,048.58	\$ 1,659,048.58	\$ -
							Deposits in Transit-GF	\$ 8,163.44	
							Outstanding Checks-GF	(88,817.52)	
							Timing Difference		
							Reconciled Balance	<u>\$ 1,578,394.50</u>	

City of Independence, Minnesota
Investments
For the Month Ending September 30, 2019

ATTACHMENT C

Maturities



Maturity	Unadjusted Market Value 9/30/2019	Market Value 9/30/2019	Variance 9/30/2019
Current	\$ 1,465,164.84	\$ 1,465,164.84	\$ -
< 1 year	193,883.74	193,883.74	-
1-2 years	-	-	-
2-3 years	-	-	-
3-4 years	-	-	-
5+ years	-	-	-
	<u>\$ 1,659,048.58</u>	<u>\$ 1,659,048.58</u>	<u>\$ -</u>

Weighted average Rate of return	0.94%	9/30/2019
Average Maturity (years)	0.00	9/30/2019

Investment Type	Market Value 9/30/2019
Money Market	\$ 1,217,224.31
Brokered CD	193,883.74
Savings	-
Government Securities	-
Municipal Securities	-
Checking	<u>247,940.53</u>
	<u>\$ 1,659,048.58</u>

Operating Account

O/S Deposits	\$ 8,163.44
O/S Checks	<u>(88,817.52)</u>
Reconciled Balance	<u>\$ 1,578,394.50</u>

City of Independence, Minnesota
Statement of Revenue and Expenses
Sewer Fund (Unaudited)
For Nine Months Ended September 30, 2019

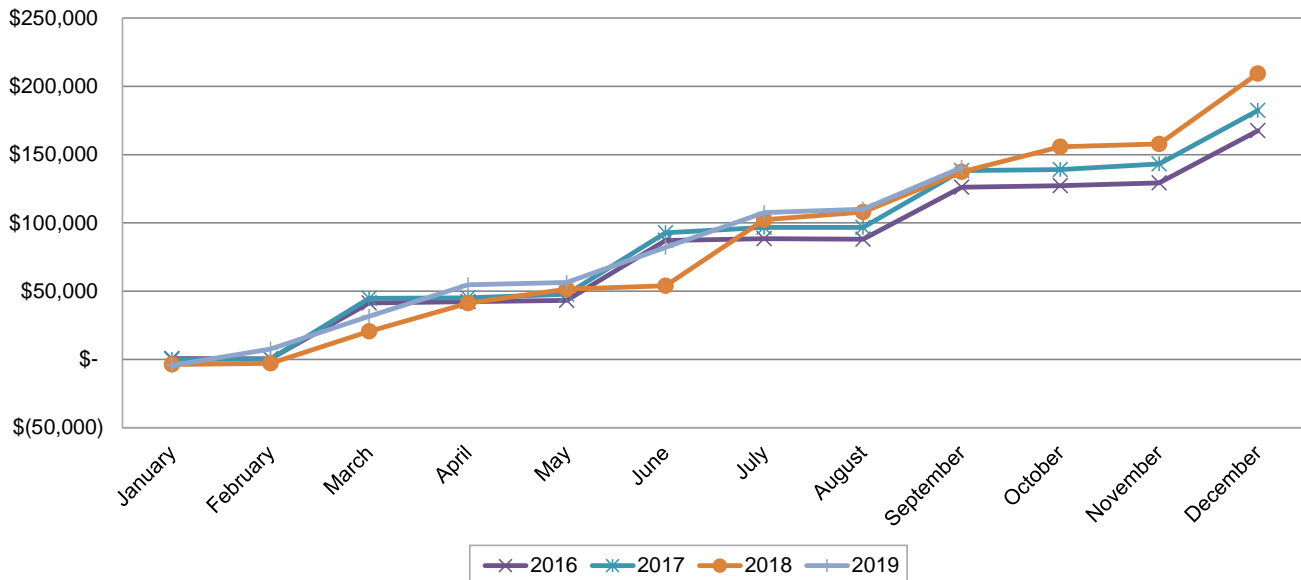
ATTACHMENT D

	Annual Budget 12/31/2019	Actual Thru 9/30/2018	Actual Thru 9/30/2019	Variance - Favorable (Unfavorable)	Percent Received or Expended Based on Actual Thru 9/30/2019
Revenues					
Charges for services	\$ 225,000	\$ 137,535	\$ 141,290	\$ 3,755	102.73 %
Property taxes	15,957	6,148	7,979	1,831	N/A
Special assessments	-	46,480	30,615	(15,865) (1)	N/A
Connection fees	13,200	-	3,860	3,860	N/A
Interest income	-	314	189	(125)	60.19
Total Revenues	254,157	190,477	183,933	(6,544)	96.56
Expenses					
Personal services	110,913	68,197	73,223	(5,026)	107.37
Supplies	1,855	1,465	956	509	65.26
Repairs and maintenance	21,860	15,048	8,549	6,499	56.81
Other services and charges	49,680	35,878	42,380	(6,502)	118.12
Insurance	3,574	2,828	2,726	102	96.39
Capital outlay	58,470	11,769	2,900	8,869	N/A
Debt service	80,000	80,000	80,000	-	100.00
Utilities	22,000	14,147	15,720	(1,573)	111.12
Depreciation	135,064	98,348	101,298	(2,950)	103.00
Interest expense	15,674	18,201	15,674	2,527	86.12
Total Expenses	499,090	345,881	343,426	2,455	99.29
Transfers in	-	-	-	-	N/A
Transfers out	-	-	-	-	N/A
Excess Revenues (Expenses)	(244,933)	(155,404)	(159,493)	(4,089)	102.63
Convert to Cash					
Depreciation	135,064	98,348	101,298	2,950	103.00
Bond principal	-	-	-	-	-
Net Estimated Cash Effect	\$ (109,869)	\$ (57,056)	\$ (58,195)	\$ (1,139)	102.00 %

Item Explanation of items percentage received/expended less than 80% or greater than 120% and \$ variance greater than \$10,000.

(1) Two early prepayments of special assessments were made in 2nd Quarter 2018.

Sewer Sales Comparison 2016 - 2019



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*Revenue Guideline©

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Current Period: September 2019

		2019 YTD Budget	2019 YTD Amt	September MTD Amt	2019 YTD Balance	% of YTD Budget
GENERAL FUND						
Active	R 100-31010 AD VALOREM TAXES	\$2,548,448.00	\$1,352,547.26	\$0.00	\$1,195,900.74	53.07%
Active	R 100-31020 DELINQUENT TAXES	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 100-31040 FISCAL DISPARITIES	\$108,087.00	\$0.00	\$0.00	\$108,087.00	0.00%
Active	R 100-32100 BUSINESS LICENSES	\$13,240.00	\$17,780.00	\$0.00	-\$4,540.00	134.29%
Active	R 100-32210 BUILDING PERMIT	\$146,260.00	\$109,868.87	\$14,027.78	\$36,391.13	75.12%
Active	R 100-32211 PLAN REVIEW FEES	\$0.00	\$30,703.40	\$3,821.37	-\$30,703.40	0.00%
Active	R 100-32240 ANIMAL LICENSES	\$570.00	\$420.00	\$0.00	\$150.00	73.68%
Active	R 100-32250 MISC. LICENSES & PER	\$5,000.00	\$4,840.00	\$350.00	\$160.00	96.80%
Active	R 100-33400 STATE GRANT	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 100-33401 LOCAL GOVERNMENT	\$8,000.00	\$534.50	\$0.00	\$7,465.50	6.68%
Active	R 100-33610 CTY. GRANTS & AID (S	\$0.00	\$17,035.00	\$0.00	-\$17,035.00	0.00%
Active	R 100-33620 COUNTY GRANTS & AI	\$8,000.00	\$8,270.00	\$0.00	-\$270.00	103.38%
Active	R 100-33630 C.D.B.G./MISC. CREDIT	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 100-34103 ZONING/SUBDIVISION	\$12,000.00	\$5,575.25	\$500.00	\$6,424.75	46.46%
Active	R 100-34104 WATER/RESOURCE FE	\$0.00	\$4,500.00	\$1,000.00	-\$4,500.00	0.00%
Active	R 100-34105 SALE-MAPS,PUBLICATI	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 100-34107 ASSESSMENT SEARCH	\$150.00	\$175.00	\$50.00	-\$25.00	116.67%
Active	R 100-34108 ADMINISTRATIVE CHA	\$28,000.00	\$6,639.00	\$0.00	\$21,361.00	23.71%
Active	R 100-34305 PUBLIC WORKS REIMB	\$600.00	\$88.20	\$44.10	\$511.80	14.70%
Active	R 100-34306 BUILDING INSPECTION	\$400.00	\$58.46	\$0.00	\$341.54	14.62%
Active	R 100-34307 PLANNING/ZONING REI	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 100-34308 LEGAL FEE/REIMB. DE	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 100-34309 ENG. FEE/REIMB. DEV	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 100-34310 MINNEHAHA WATERSH	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 100-35000 COURT FINES/DOG IMP	\$47,740.00	\$32,006.01	\$2,895.20	\$15,733.99	67.04%
Active	R 100-36100 SPECIAL ASSESS/INT (	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 100-36210 INTEREST EARNINGS	\$5,000.00	\$4,052.36	\$323.23	\$947.64	81.05%
Active	R 100-36220 INSURANCE PREMIUM	\$3,500.00	\$43.02	\$0.00	\$3,456.98	1.23%
Active	R 100-36230 MISC REVENUE/REFUN	\$500.00	\$47,396.47	\$45,000.00	-\$46,896.47	9479.29%
Active	R 100-36231 DONATIONS	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 100-36240 COMMUNITY CENTER	\$2,000.00	\$350.00	\$0.00	\$1,650.00	17.50%
Active	R 100-36242 PARK RENTAL FEE	\$0.00	\$500.00	\$0.00	-\$500.00	0.00%
Active	R 100-36250 SALES TAX (COLLECT	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 100-39100 SALE OF EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 100-39101 SALE OF LAND	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 100-39102 COMPENSATION FOR L	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 100-39200 TRANSFERS IN (GENE	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 100-39900 PROCEEDS FROM LEA	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Total GENERAL FUND		\$2,937,495.00	\$1,643,382.80	\$68,011.68	\$1,294,112.20	55.95%
WATER RESOURCE DEVELOPMENT						
Active	R 200-31010 AD VALOREM TAXES	\$61,350.00	\$32,759.57	\$0.00	\$28,590.43	53.40%
Active	R 200-31020 DELINQUENT TAXES	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 200-31040 FISCAL DISPARITIES	\$3,160.00	\$0.00	\$0.00	\$3,160.00	0.00%
Active	R 200-34103 ZONING/SUBDIVISION	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 200-34108 ADMINISTRATIVE CHA	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 200-36210 INTEREST EARNINGS	\$0.00	\$403.19	\$29.55	-\$403.19	0.00%
Active	R 200-36230 MISC REVENUE/REFUN	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 200-36261 EVENT REVENUES	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 200-39200 TRANSFERS IN (GENE	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Total WATER RESOURCE DEVELOPMENT		\$64,510.00	\$33,162.76	\$29.55	\$31,347.24	51.41%
DEBT SERV PUB SAF BLD 01						
Active	R 309-31010 AD VALOREM TAXES	\$124,530.00	\$62,265.00	\$0.00	\$62,265.00	50.00%
Active	R 309-36210 INTEREST EARNINGS	\$0.00	\$517.95	\$64.15	-\$517.95	0.00%
Total DEBT SERV PUB SAF BLD 01		\$124,530.00	\$62,782.95	\$64.15	\$61,747.05	50.42%

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Current Period: September 2019

		2019 YTD Budget	2019 YTD Amt	September MTD Amt	2019 YTD Balance	% of YTD Budget
DRAKE DR. ROAD IMPROVEMENT						
Active	R 311-36210 INTEREST EARNINGS	\$0.00	\$73.00	\$6.08	-\$73.00	0.00%
	Total DRAKE DR. ROAD IMPROVEMENT	\$0.00	\$73.00	\$6.08	-\$73.00	0.00%
GEO CERT. 2007 A.						
Active	R 312-36210 INTEREST EARNINGS	\$0.00	\$235.34	\$19.60	-\$235.34	0.00%
	Total GEO CERT. 2007 A.	\$0.00	\$235.34	\$19.60	-\$235.34	0.00%
2015A- GO BOND						
Active	R 314-31010 AD VALOREM TAXES	\$176,308.00	\$88,154.07	\$0.00	\$88,153.93	50.00%
Active	R 314-36210 INTEREST EARNINGS	\$0.00	\$312.03	\$53.21	-\$312.03	0.00%
	Total 2015A- GO BOND	\$176,308.00	\$88,466.10	\$53.21	\$87,841.90	50.18%
BUILDINGS CAPITAL IMPRMT FUND						
Active	R 401-36210 INTEREST EARNINGS	\$0.00	\$659.52	\$54.92	-\$659.52	0.00%
	Total BUILDINGS CAPITAL IMPRMT FUND	\$0.00	\$659.52	\$54.92	-\$659.52	0.00%
ROAD CAPITAL IMPROVEMENTS FUND						
Active	R 402-36210 INTEREST EARNINGS	\$0.00	\$81.51	\$6.79	-\$81.51	0.00%
Active	R 402-39203 TRANSFER IN	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
	Total ROAD CAPITAL IMPROVEMENTS FUND	\$0.00	\$81.51	\$6.79	-\$81.51	0.00%
EQUIPMENT CAPITAL IMPROVEMENTS						
Active	R 403-36210 INTEREST EARNINGS	\$0.00	\$1,064.20	\$105.56	-\$1,064.20	0.00%
Active	R 403-39200 TRANSFERS IN (GENE	\$0.00	\$51,467.24	\$5,718.58	-\$51,467.24	0.00%
	Total EQUIPMENT CAPITAL IMPROVEMENTS	\$0.00	\$52,531.44	\$5,824.14	-\$52,531.44	0.00%
ADMIN. CAPITAL FUND						
Active	R 404-36210 INTEREST EARNINGS	\$0.00	\$562.49	\$46.71	-\$562.49	0.00%
Active	R 404-39200 TRANSFERS IN (GENE	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
	Total ADMIN. CAPITAL FUND	\$0.00	\$562.49	\$46.71	-\$562.49	0.00%
PARK FUND						
Active	R 405-34780 PARK DEDICATION FEE	\$0.00	\$7,250.00	\$0.00	-\$7,250.00	0.00%
Active	R 405-36210 INTEREST EARNINGS	\$0.00	\$411.69	\$36.75	-\$411.69	0.00%
Active	R 405-36230 MISC REVENUE/REFUN	\$0.00	\$1,743.29	\$309.23	-\$1,743.29	0.00%
	Total PARK FUND	\$0.00	\$9,404.98	\$345.98	-\$9,404.98	0.00%
2015 STREET IMPROVEMENT						
Active	R 414-36210 INTEREST EARNINGS	\$0.00	\$230.28	\$19.18	-\$230.28	0.00%
	Total 2015 STREET IMPROVEMENT	\$0.00	\$230.28	\$19.18	-\$230.28	0.00%
CITY PROJECTS AGENCY FUND						
Active	R 430-34115 REFUNDABLE DEPOSIT	\$0.00	\$15,500.00	\$750.00	-\$15,500.00	0.00%
Active	R 430-34116 NON REFUNDABLE DE	\$0.00	\$12,200.32	\$750.00	-\$12,200.32	0.00%
Active	R 430-39201 TRANSFERS IN	\$0.00	\$20,612.82	\$0.00	-\$20,612.82	0.00%
Active	R 430-39999 Prior Period Adjustment	\$0.00	\$40,339.41	\$0.00	-\$40,339.41	0.00%
	Total CITY PROJECTS AGENCY FUND	\$0.00	\$88,652.55	\$1,500.00	-\$88,652.55	0.00%
SEWER FUND						
Active	R 602-31010 AD VALOREM TAXES	\$15,957.00	\$7,978.61	\$0.00	\$7,978.39	50.00%
Active	R 602-31040 FISCAL DISPARITIES	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 602-34108 ADMINISTRATIVE CHA	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 602-34401 SEWER CONNECTION	\$13,200.00	\$3,860.00	\$0.00	\$9,340.00	29.24%
Active	R 602-34408 USER AVAIL. CHG.	\$0.00	\$9,164.00	\$1,738.00	-\$9,164.00	0.00%
Active	R 602-34410 SEWER COMPLIANCE	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 602-36100 SPECIAL ASSESS/INT (	\$0.00	\$30,615.04	\$0.00	-\$30,615.04	0.00%
Active	R 602-36101 PRINCIPLE	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 602-36210 INTEREST EARNINGS	\$0.00	\$189.47	\$34.12	-\$189.47	0.00%
Active	R 602-37200 TRANSFERS IN (GENE	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 602-37210 COLLECTION & GRAVIT	\$208,000.00	\$123,140.91	\$25,978.89	\$84,859.09	59.20%
Active	R 602-37220 RESIDENTIAL CLUSTE	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 602-37230 ON-SITE SYSTEMS	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 602-37240 CLUSTER MOUND	\$0.00	12 \$0.00	\$0.00	\$0.00	0.00%

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***Revenue Guideline©**

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Current Period: September 2019

		2019 YTD Budget	2019 YTD Amt	September MTD Amt	2019 YTD Balance	% of YTD Budget
Active	R 602-37250 COMMERCIAL	\$17,000.00	\$8,215.48	\$2,794.16	\$8,784.52	48.33%
Active	R 602-37260 SALE OF FIXED ASSET	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 602-37270 DEL UTILITIES - CITY P	\$0.00	\$769.19	\$2.00	-\$769.19	0.00%
Active	R 602-37600 STREET TO HOUSE CO	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 602-39203 TRANSFER IN	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 602-39999 Prior Period Adjustment	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
	Total SEWER FUND	<u>\$254,157.00</u>	<u>\$183,932.70</u>	<u>\$30,547.17</u>	<u>\$70,224.30</u>	<u>72.37%</u>
CITY PROJECTS FUND						
Active	R 806-36230 MISC REVENUE/REFUN	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 806-39200 TRANSFERS IN (GENE	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	R 806-39203 TRANSFER IN	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
	Total CITY PROJECTS FUND	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>0.00%</u>
	Report Total	\$3,557,000.00	\$2,164,158.42	\$106,529.16	\$1,392,841.58	60.84%

CITY OF INDEPENDENCE

*Expenditure Guideline©

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Current Period: September 2019

		2019	2019	September	Enc	2019	% of YTD
		YTD Budget	YTD Amt	MTD Amt	Current	YTD Balance	Budget
GENERAL FUND							
Active	E 100-41000-100 MAYOR'S SALAR	\$3,000.00	\$2,250.00	\$750.00	\$0.00	\$750.00	75.00%
Active	E 100-41000-103 COUNCIL SALAR	\$7,200.00	\$5,400.00	\$1,800.00	\$0.00	\$1,800.00	75.00%
Active	E 100-41000-122 FICA(6.2) MEDIC	\$780.00	\$585.23	\$195.08	\$0.00	\$194.77	75.03%
Active	E 100-41000-331 CONFERENCE &	\$9,000.00	\$4,403.27	\$0.00	\$0.00	\$4,596.73	48.93%
Active	E 100-41000-360 WORKERS COM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 100-41000-361 INSURANCE	\$1,196.00	\$1,296.98	\$0.00	\$0.00	-\$100.98	108.44%
Active	E 100-41000-405 MISCELLANEOU	\$230.00	\$225.00	\$0.00	\$0.00	\$5.00	97.83%
Active	E 100-41000-433 DUES & SUBSC	\$1,650.00	\$328.65	\$80.65	\$0.00	\$1,321.35	19.92%
Active	E 100-41410-102 WAGES (PART-T	\$1,500.00	\$0.00	\$0.00	\$0.00	\$1,500.00	0.00%
Active	E 100-41410-210 OPERATING SU	\$1,000.00	\$0.00	\$0.00	\$0.00	\$1,000.00	0.00%
Active	E 100-41410-350 PRINTING & PUB	\$750.00	\$0.00	\$0.00	\$0.00	\$750.00	0.00%
Active	E 100-41410-351 BALLOT PRINTIN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 100-41410-405 MISCELLANEOU	\$1,000.00	\$0.00	\$0.00	\$0.00	\$1,000.00	0.00%
Active	E 100-41500-101 WAGES (FULL-TI	\$49,825.00	\$33,439.87	\$3,991.29	\$0.00	\$16,385.13	67.11%
Active	E 100-41500-102 WAGES (PART-T	\$35,855.00	\$25,967.76	\$2,951.50	\$0.00	\$9,887.24	72.42%
Active	E 100-41500-121 PERA	\$6,426.00	\$4,756.72	\$525.57	\$0.00	\$1,669.28	74.02%
Active	E 100-41500-122 FICA(6.2) MEDIC	\$6,554.00	\$4,832.31	\$533.94	\$0.00	\$1,721.69	73.73%
Active	E 100-41500-131 CITY PAID BENE	\$24,398.00	\$21,764.90	\$4,549.48	\$0.00	\$2,633.10	89.21%
Active	E 100-41500-200 OFFICE SUPPLI	\$4,500.00	\$4,623.81	\$816.21	\$0.00	-\$123.81	102.75%
Active	E 100-41500-301 AUDITING FEES	\$10,578.00	\$10,270.00	\$0.00	\$0.00	\$308.00	97.09%
Active	E 100-41500-302 ADMINISTRATIO	\$93,536.00	\$53,504.25	(\$17,827.25)	\$0.00	\$40,031.75	57.20%
Active	E 100-41500-305 CPA FEES	\$68,180.00	\$52,027.61	\$5,731.66	\$0.00	\$16,152.39	76.31%
Active	E 100-41500-310 OTHER CONSUL	\$15,000.00	\$11,500.50	\$17,914.25	\$0.00	\$3,499.50	76.67%
Active	E 100-41500-313 UNCOLLECTED	\$0.00	\$2,777.96	\$0.00	\$0.00	-\$2,777.96	0.00%
Active	E 100-41500-315 ASSESSOR'S FE	\$60,000.00	\$65,000.00	\$65,000.00	\$0.00	-\$5,000.00	108.33%
Active	E 100-41500-321 COMMUNICATIO	\$3,976.00	\$3,761.43	\$328.28	\$0.00	\$214.57	94.60%
Active	E 100-41500-322 POSTAGE	\$1,650.00	\$904.30	\$0.00	\$0.00	\$745.70	54.81%
Active	E 100-41500-331 CONFERENCE &	\$1,600.00	\$527.22	\$87.42	\$0.00	\$1,072.78	32.95%
Active	E 100-41500-350 PRINTING & PUB	\$13,000.00	\$9,678.70	\$474.34	\$0.00	\$3,321.30	74.45%
Active	E 100-41500-360 WORKERS COM	\$8,576.00	\$7,263.20	\$0.00	\$0.00	\$1,312.80	84.69%
Active	E 100-41500-361 INSURANCE	\$1,404.00	\$1,341.81	\$0.00	\$0.00	\$62.19	95.57%
Active	E 100-41500-404 MAINT.&REPAIR	\$4,240.00	\$0.00	\$0.00	\$0.00	\$4,240.00	0.00%
Active	E 100-41500-405 MISCELLANEOU	\$1,500.00	\$1,291.23	\$4.95	\$0.00	\$208.77	86.08%
Active	E 100-41500-433 DUES & SUBSC	\$9,279.00	\$4,516.33	\$2,313.33	\$0.00	\$4,762.67	48.67%
Active	E 100-41500-560 CAPITAL OUTLA	\$20,000.00	\$11,333.16	\$177.00	\$0.00	\$8,666.84	56.67%
Active	E 100-41500-570 CAPITAL OUTLA	\$0.00	\$182.78	\$0.00	\$0.00	-\$182.78	0.00%
Active	E 100-41500-602 LEASE/PURCHA	\$4,048.00	\$3,103.63	\$456.87	\$0.00	\$944.37	76.67%
Active	E 100-41600-304 CIVIL, LEGAL (K	\$16,882.00	\$7,993.21	\$1,886.00	\$0.00	\$8,888.79	47.35%
Active	E 100-41600-306 PROSECUTION (	\$22,000.00	\$11,754.67	\$2,233.15	\$0.00	\$10,245.33	53.43%
Active	E 100-41600-312 CODIFICATION	\$1,500.00	\$2,047.58	\$0.00	\$0.00	-\$547.58	136.51%
Active	E 100-41600-405 MISCELLANEOU	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 100-41900-307 PLANNER CONT	\$25,074.00	\$17,827.25	\$0.00	\$0.00	\$7,246.75	71.10%
Active	E 100-41900-311 WATER RESOU	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 100-41900-360 WORKERS COM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 100-41900-361 INSURANCE	\$5,246.00	\$4,511.23	\$0.00	\$0.00	\$734.77	85.99%
Active	E 100-41900-405 MISCELLANEOU	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 100-41920-311 WATER RESOU	\$1,090.00	\$0.00	\$0.00	\$0.00	\$1,090.00	0.00%
Active	E 100-41920-320 WATER RESOU	\$7,430.00	\$304.50	\$0.00	\$0.00	\$7,125.50	4.10%
Active	E 100-41940-321 COMMUNICATIO	\$13,534.00	\$5,922.78	\$408.55	\$0.00	\$7,611.22	43.76%
Active	E 100-41940-360 WORKERS COM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 100-41940-361 INSURANCE	\$2,456.00	\$3,377.16	\$0.00	\$0.00	-\$921.16	137.51%
Active	E 100-41940-380 ELECTRIC & GA	\$12,000.00	\$4,659.51	(\$1,580.86)	\$0.00	\$7,340.49	38.83%
Active	E 100-41940-384 GARBAGE PICK-	\$1,270.00	\$864.32	\$0.00	\$0.00	\$405.68	68.06%
Active	E 100-41940-401 MAINT.&REPAIR	\$12,154.00	\$6,140.00	\$388.36	\$0.00	\$5,844.00	51.92%

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		2019	2019	September	Enc	2019	% of YTD
		YTD Budget	YTD Amt	MTD Amt	Current	YTD Balance	Budget
Active	E 100-41940-402 MUSEUM	\$150.00	\$0.00	\$0.00	\$0.00	\$150.00	0.00%
Active	E 100-41940-403 GROUND MAINT	\$540.00	\$311.80	\$0.00	\$0.00	\$228.20	57.74%
Active	E 100-41940-405 MISCELLANEOU	\$0.00	\$4,218.63	\$231.21	\$0.00	-\$4,218.63	0.00%
Active	E 100-41940-510 C.O.(LAND & BL	\$0.00	\$315.00	\$195.00	\$0.00	-\$315.00	0.00%
Active	E 100-42000-405 MISCELLANEOU	\$1,190.00	\$0.00	\$0.00	\$0.00	\$1,190.00	0.00%
Active	E 100-42000-440 POLICE CONTR	\$1,119,531.00	\$824,105.77	\$88,393.18	\$0.00	\$295,425.23	73.61%
Active	E 100-42000-442 PRISONER BOO	\$1,650.00	\$2,793.00	\$0.00	\$0.00	-\$1,143.00	169.27%
Active	E 100-42000-450 FIRE PROTECTI	\$392,731.00	\$277,036.61	\$19,871.67	\$0.00	\$115,694.39	70.54%
Active	E 100-42000-461 BUILDING CODE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 100-42400-101 WAGES (FULL-TI	\$75,009.00	\$58,790.44	\$6,642.32	\$0.00	\$16,218.56	78.38%
Active	E 100-42400-104 WAGES - TEMP	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 100-42400-121 PERA	\$5,626.00	\$4,699.48	\$498.18	\$0.00	\$926.52	83.53%
Active	E 100-42400-122 FICA(6.2) MEDIC	\$5,738.00	\$4,763.90	\$504.85	\$0.00	\$974.10	83.02%
Active	E 100-42400-131 CITY PAID BENE	\$15,092.00	\$11,451.00	\$957.93	\$0.00	\$3,641.00	75.87%
Active	E 100-42400-200 OFFICE SUPPLI	\$700.00	\$209.47	\$175.99	\$0.00	\$490.53	29.92%
Active	E 100-42400-212 VEHICLE OPER.	\$800.00	\$474.28	\$72.36	\$0.00	\$325.72	59.29%
Active	E 100-42400-310 OTHER CONSUL	\$500.00	\$279.35	\$0.00	\$0.00	\$220.65	55.87%
Active	E 100-42400-321 COMMUNICATIO	\$1,957.00	\$1,261.37	\$184.14	\$0.00	\$695.63	64.45%
Active	E 100-42400-331 CONFERENCE &	\$1,400.00	\$1,612.73	\$49.42	\$0.00	-\$212.73	115.20%
Active	E 100-42400-360 WORKERS COM	\$3,430.00	\$2,905.28	\$0.00	\$0.00	\$524.72	84.70%
Active	E 100-42400-361 INSURANCE	\$1,326.00	\$1,450.75	\$0.00	\$0.00	-\$124.75	109.41%
Active	E 100-42400-433 DUES & SUBSC	\$300.00	\$155.00	\$0.00	\$0.00	\$145.00	51.67%
Active	E 100-42400-570 CAPITAL OUTLA	\$430.00	\$0.00	\$0.00	\$0.00	\$430.00	0.00%
Active	E 100-43100-101 WAGES (FULL-TI	\$168,575.00	\$149,736.93	\$14,154.18	\$0.00	\$18,838.07	88.83%
Active	E 100-43100-102 WAGES (PART-T	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 100-43100-121 PERA	\$12,643.00	\$9,808.13	\$1,061.84	\$0.00	\$2,834.87	77.58%
Active	E 100-43100-122 FICA(6.2) MEDIC	\$12,896.00	\$10,064.42	\$1,080.21	\$0.00	\$2,831.58	78.04%
Active	E 100-43100-131 CITY PAID BENE	\$34,950.00	\$25,599.66	\$2,347.94	\$0.00	\$9,350.34	73.25%
Active	E 100-43100-210 OPERATING SU	\$660.00	\$32.98	\$0.00	\$0.00	\$627.02	5.00%
Active	E 100-43100-212 VEHICLE OPER.	\$23,180.00	\$18,475.57	\$1,817.49	\$0.00	\$4,704.43	79.70%
Active	E 100-43100-217 SIGNS	\$4,000.00	\$4,045.07	\$0.00	\$0.00	-\$45.07	101.13%
Active	E 100-43100-218 UNIFORMS	\$2,800.00	\$2,465.08	\$235.80	\$0.00	\$334.92	88.04%
Active	E 100-43100-219 CULVERTS	\$5,000.00	\$7,542.89	\$0.00	\$0.00	-\$2,542.89	150.86%
Active	E 100-43100-220 MAINT.&REPAIR	\$23,000.00	\$22,815.33	\$1,906.93	\$0.00	\$184.67	99.20%
Active	E 100-43100-223 MAINT.& REPAIR	\$4,780.00	\$3,898.84	\$436.29	\$0.00	\$881.16	81.57%
Active	E 100-43100-224 ROAD MAINT.MA	\$70,019.00	\$62,252.15	\$0.00	\$0.00	\$7,766.85	88.91%
Active	E 100-43100-226 BLACKTOP MAIN	\$43,713.00	\$38,540.12	\$0.00	\$0.00	\$5,172.88	88.17%
Active	E 100-43100-227 EQUIPMENT RE	\$1,030.00	\$375.00	\$0.00	\$0.00	\$655.00	36.41%
Active	E 100-43100-240 SMALL TOOLS &	\$330.00	\$0.00	\$0.00	\$0.00	\$330.00	0.00%
Active	E 100-43100-303 ENGINEERING	\$4,500.00	\$5,988.00	\$4,393.00	\$0.00	-\$1,488.00	133.07%
Active	E 100-43100-321 COMMUNICATIO	\$5,603.00	\$4,442.00	\$660.84	\$0.00	\$1,161.00	79.28%
Active	E 100-43100-331 CONFERENCE &	\$1,060.00	\$0.00	\$0.00	\$0.00	\$1,060.00	0.00%
Active	E 100-43100-350 PRINTING & PUB	\$3,500.00	\$1,157.50	\$0.00	\$0.00	\$2,342.50	33.07%
Active	E 100-43100-360 WORKERS COM	\$8,576.00	\$7,263.20	\$0.00	\$0.00	\$1,312.80	84.69%
Active	E 100-43100-361 INSURANCE	\$7,267.00	\$9,441.83	\$0.00	\$0.00	-\$2,174.83	129.93%
Active	E 100-43100-380 ELECTRIC & GA	\$10,135.00	\$6,163.28	\$314.30	\$0.00	\$3,971.72	60.81%
Active	E 100-43100-381 STREET LIGHTI	\$2,915.00	\$2,524.60	\$104.46	\$0.00	\$390.40	86.61%
Active	E 100-43100-384 GARBAGE PICK-	\$480.00	\$0.00	\$0.00	\$0.00	\$480.00	0.00%
Active	E 100-43100-405 MISCELLANEOU	\$260.00	\$55.50	\$0.00	\$0.00	\$204.50	21.35%
Active	E 100-43100-407 SNOW REMOVA	\$28,140.00	\$4,971.07	\$0.00	\$0.00	\$23,168.93	17.67%
Active	E 100-43100-408 DUST CONTROL	\$71,029.00	\$61,039.84	\$0.00	\$0.00	\$9,989.16	85.94%
Active	E 100-43100-412 BRUSH & TREE	\$15,000.00	\$0.00	\$0.00	\$0.00	\$15,000.00	0.00%
Active	E 100-43100-413 SALES/FUEL TA	\$520.00	\$0.00	\$0.00	\$0.00	\$520.00	0.00%
Active	E 100-43100-415 SAC CHARGES	\$560.00	\$0.00	\$0.00	\$0.00	\$560.00	0.00%
Active	E 100-43100-418 WEED CONTRO	\$3,000.00	\$150.00	\$0.00	\$0.00	\$3,000.00	0.00%

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		2019 YTD Budget	2019 YTD Amt	September MTD Amt	Enc Current	2019 YTD Balance	% of YTD Budget
Active	E 100-43100-420 GOPHER STATE	\$1,910.00	\$963.20	\$114.80	\$0.00	\$946.80	50.43%
Active	E 100-43100-430 SAFETY PROGR	\$1,910.00	\$1,800.00	\$0.00	\$0.00	\$110.00	94.24%
Active	E 100-43100-433 DUES & SUBSC	\$620.00	\$0.00	\$0.00	\$0.00	\$620.00	0.00%
Active	E 100-43100-570 CAPITAL OUTLA	\$0.00	\$15,118.32	\$0.00	\$0.00	-\$15,118.32	0.00%
Active	E 100-43100-720 TRANSFERS OU	\$68,623.00	\$51,467.24	\$5,718.58	\$0.00	\$17,155.76	75.00%
Active	E 100-43200-383 RECYCLING EXP	\$51,500.00	\$33,907.86	\$4,244.22	\$0.00	\$17,592.14	65.84%
Active	E 100-43200-405 MISCELLANEOU	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 100-43200-410 EQUIPMENT RE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 100-43200-411 CLEAN-UP DAY	\$0.00	\$215.03	\$0.00	\$0.00	-\$215.03	0.00%
Active	E 100-45100-120 COMMUNITY EV	\$6,900.00	\$3,292.00	\$0.00	\$0.00	\$3,608.00	47.71%
Active	E 100-45200-409 YOUTH GROUPS	\$660.00	\$0.00	\$0.00	\$0.00	\$660.00	0.00%
Active	E 100-45300-210 OPERATING SU	\$1,090.00	\$99.79	\$99.79	\$0.00	\$990.21	9.16%
Active	E 100-45300-220 MAINT.&REPAIR	\$6,201.00	\$8,822.00	\$1,782.00	\$0.00	-\$2,621.00	142.27%
Active	E 100-45300-230 EQUIPMENT PU	\$560.00	\$0.00	\$0.00	\$0.00	\$560.00	0.00%
Active	E 100-45300-310 OTHER CONSUL	\$560.00	\$0.00	\$0.00	\$0.00	\$560.00	0.00%
Active	E 100-45300-361 INSURANCE	\$3,223.00	\$3,532.70	\$0.00	\$0.00	-\$309.70	109.61%
Active	E 100-45300-380 ELECTRIC & GA	\$660.00	\$0.00	\$0.00	\$0.00	\$660.00	0.00%
Active	E 100-45300-405 MISCELLANEOU	\$230.00	\$0.00	\$0.00	\$0.00	\$230.00	0.00%
Active	E 100-49240-375 CLAIM DEDUCTI	\$560.00	\$0.00	\$0.00	\$0.00	\$560.00	0.00%
Active	E 100-49240-620 AGENCY FEES	\$2,000.00	\$0.00	\$0.00	\$0.00	\$2,000.00	0.00%
Active	E 100-49300-720 TRANSFERS OU	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Total GENERAL FUND		\$2,937,495.00	\$2,189,181.81	\$252,438.69	\$0.00	\$748,313.19	74.53%
WATER RESOURCE DEVELOPMENT							
Active	E 200-41920-303 ENGINEERING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 200-41920-309 PIONEER-SARA	\$49,500.00	\$49,500.20	\$0.00	\$0.00	-\$0.20	100.00%
Active	E 200-41920-310 OTHER CONSUL	\$1,090.00	\$0.00	\$0.00	\$0.00	\$1,090.00	0.00%
Active	E 200-41920-320 WATER RESOU	\$2,180.00	\$12,430.59	\$5,502.80	\$0.00	-\$10,250.59	570.21%
Active	E 200-41920-350 PRINTING & PUB	\$810.00	\$0.00	\$0.00	\$0.00	\$810.00	0.00%
Active	E 200-41920-433 DUES & SUBSC	\$0.00	\$530.00	\$0.00	\$0.00	-\$530.00	0.00%
Active	E 200-41920-570 CAPITAL OUTLA	\$10,930.00	\$0.00	\$0.00	\$0.00	\$10,930.00	0.00%
Total WATER RESOURCE DEVELOPMENT		\$64,510.00	\$62,460.79	\$5,502.80	\$0.00	\$2,049.21	96.82%
DEBT SERV PUB SAF BLD 01							
Active	E 309-47000-601 BOND PRINCIPA	\$110,000.00	\$0.00	\$0.00	\$0.00	\$110,000.00	0.00%
Active	E 309-47000-611 INTEREST EXPE	\$8,600.00	\$4,300.00	\$0.00	\$0.00	\$4,300.00	50.00%
Active	E 309-47000-620 AGENCY FEES	\$0.00	\$475.00	\$0.00	\$0.00	-\$475.00	0.00%
Total DEBT SERV PUB SAF BLD 01		\$118,600.00	\$4,775.00	\$0.00	\$0.00	\$113,825.00	4.03%
2015A- GO BOND							
Active	E 314-43121-620 AGENCY FEES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 314-47000-601 BOND PRINCIPA	\$145,000.00	\$145,000.00	\$0.00	\$0.00	\$0.00	100.00%
Active	E 314-47000-611 INTEREST EXPE	\$24,363.00	\$24,362.50	\$0.00	\$0.00	\$0.50	100.00%
Active	E 314-47000-620 AGENCY FEES	\$0.00	\$475.00	\$0.00	\$0.00	-\$475.00	0.00%
Total 2015A- GO BOND		\$169,363.00	\$169,837.50	\$0.00	\$0.00	-\$474.50	100.28%
BUILDINGS CAPITAL IMPRMT FUND							
Active	E 401-41940-103 COUNCIL SALAR	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 401-41940-530 CAPITAL OUTLA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 401-41940-580 CAPITAL OUTLA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Total BUILDINGS CAPITAL IMPRMT FUND		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
ROAD CAPITAL IMPROVEMENTS FUND							
Active	E 402-49450-303 ENGINEERING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 402-49450-304 CIVIL, LEGAL (K	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 402-49450-350 PRINTING & PUB	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 402-49450-530 CAPITAL OUTLA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 402-49450-620 AGENCY FEES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Total ROAD CAPITAL IMPROVEMENTS FUND		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
EQUIPMENT CAPITAL IMPROVEMENTS							

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		2019 YTD Budget	2019 YTD Amt	September MTD Amt	Enc Current	2019 YTD Balance	% of YTD Budget
Active	E 403-43100-590 CAPITAL OUTLA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Total EQUIPMENT CAPITAL IMPROVEMENTS		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
ADMIN. CAPITAL FUND							
Active	E 404-43121-303 ENGINEERING	\$0.00	\$281.30	\$281.30	\$0.00	-\$281.30	0.00%
Active	E 404-43121-304 CIVIL, LEGAL (K	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 404-43121-310 OTHER CONSUL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 404-43121-530 CAPITAL OUTLA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 404-43121-720 TRANSFERS OU	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Total ADMIN. CAPITAL FUND		\$0.00	\$281.30	\$281.30	\$0.00	-\$281.30	0.00%
PARK FUND							
Active	E 405-45100-720 TRANSFERS OU	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Total PARK FUND		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
CITY PROJECTS AGENCY FUND							
Active	E 430-41900-303 ENGINEERING	\$0.00	\$4,317.33	\$0.00	\$0.00	-\$4,317.33	0.00%
Active	E 430-41900-304 CIVIL, LEGAL (K	\$0.00	\$2,926.60	\$289.50	\$0.00	-\$2,926.60	0.00%
Active	E 430-41900-307 PLANNER CONT	\$0.00	\$11,844.00	\$0.00	\$0.00	-\$11,844.00	0.00%
Active	E 430-41900-310 OTHER CONSUL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 430-41900-311 WATER RESOU	\$0.00	\$765.44	\$0.00	\$0.00	-\$765.44	0.00%
Active	E 430-41900-810 REFUND & REIM	\$0.00	\$12,846.72	\$0.00	\$0.00	-\$12,846.72	0.00%
Active	E 430-41900-999 PRIOR PERIOD	\$0.00	\$6,173.58	\$0.00	\$0.00	-\$6,173.58	0.00%
Total CITY PROJECTS AGENCY FUND		\$0.00	\$38,873.67	\$289.50	\$0.00	-\$38,873.67	0.00%
SEWER FUND							
Active	E 602-49450-101 WAGES (FULL-TI	\$80,022.00	\$50,841.38	\$4,125.24	\$0.00	\$29,180.62	63.53%
Active	E 602-49450-121 PERA	\$6,476.00	\$4,112.60	\$309.38	\$0.00	\$2,363.40	63.51%
Active	E 602-49450-122 FICA(6.2) MEDIC	\$6,606.00	\$4,194.88	\$315.58	\$0.00	\$2,411.12	63.50%
Active	E 602-49450-131 CITY PAID BENE	\$17,809.00	\$14,074.52	\$2,380.06	\$0.00	\$3,734.48	79.03%
Active	E 602-49450-210 OPERATING SU	\$1,060.00	\$160.76	\$0.00	\$0.00	\$899.24	15.17%
Active	E 602-49450-301 AUDITING FEES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 602-49450-303 ENGINEERING	\$0.00	\$10,295.00	\$7,411.00	\$0.00	-\$10,295.00	0.00%
Active	E 602-49450-304 CIVIL, LEGAL (K	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 602-49450-310 OTHER CONSUL	\$0.00	\$404.00	(\$4,890.00)	\$0.00	-\$404.00	0.00%
Active	E 602-49450-331 CONFERENCE &	\$900.00	\$0.00	\$0.00	\$0.00	\$900.00	0.00%
Active	E 602-49450-360 WORKERS COM	\$858.00	\$726.32	\$0.00	\$0.00	\$131.68	84.65%
Active	E 602-49450-361 INSURANCE	\$2,156.00	\$1,999.54	\$0.00	\$0.00	\$156.46	92.74%
Active	E 602-49450-375 CLAIM DEDUCTI	\$560.00	\$0.00	\$0.00	\$0.00	\$560.00	0.00%
Active	E 602-49450-380 ELECTRIC & GA	\$22,000.00	\$15,720.47	\$157.16	\$0.00	\$6,279.53	71.46%
Active	E 602-49450-401 MAINT.&REPAIR	\$21,860.00	\$8,549.32	\$0.00	\$0.00	\$13,310.68	39.11%
Active	E 602-49450-404 MAINT.&REPAIR	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Active	E 602-49450-405 MISCELLANEOU	\$1,650.00	\$0.00	\$0.00	\$0.00	\$1,650.00	0.00%
Active	E 602-49450-414 METRO COUNCI	\$42,000.00	\$31,105.62	\$3,456.18	\$0.00	\$10,894.38	74.06%
Active	E 602-49450-415 SAC CHARGES	\$4,000.00	\$0.00	\$0.00	\$0.00	\$4,000.00	0.00%
Active	E 602-49450-416 DEPRECIATION	\$135,064.00	\$101,297.99	\$11,255.33	\$0.00	\$33,766.01	75.00%
Active	E 602-49450-417 LICENSES & PE	\$100.00	\$0.00	\$0.00	\$0.00	\$100.00	0.00%
Active	E 602-49450-433 DUES & SUBSC	\$795.00	\$795.00	\$795.00	\$0.00	\$0.00	100.00%
Active	E 602-49450-560 CAPITAL OUTLA	\$560.00	\$0.00	\$0.00	\$0.00	\$560.00	0.00%
Active	E 602-49450-570 CAPITAL OUTLA	\$57,910.00	\$2,900.00	\$0.00	\$0.00	\$55,010.00	5.01%
Active	E 602-49450-601 BOND PRINCIPA	\$80,000.00	\$80,000.00	\$0.00	\$0.00	\$0.00	100.00%
Active	E 602-49450-611 INTEREST EXPE	\$15,674.00	\$15,673.75	\$0.00	\$0.00	\$0.25	100.00%
Active	E 602-49450-620 AGENCY FEES	\$1,030.00	\$575.00	\$0.00	\$0.00	\$455.00	55.83%
Active	E 602-49450-999 PRIOR PERIOD	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Total SEWER FUND		\$499,090.00	\$343,426.15	\$25,314.93	\$0.00	\$155,663.85	68.81%
CITY PROJECTS FUND							
Active	E 806-49300-720 TRANSFERS OU	\$0.00	\$20,612.82	\$0.00	\$0.00	-\$20,612.82	0.00%
Total CITY PROJECTS FUND		\$0.00	\$20,612.82	\$0.00	\$0.00	-\$20,612.82	0.00%
Report Total		\$3,789,058.00	\$2,829,449.04	\$283,827.22	\$0.00	\$959,608.96	74.67%

City of Independence
Accounting Services Contract Renewal

To: City Council
From: Mark Kaltsas, City Administrator
Meeting Date: November 18, 2019

Discussion:

The City's contract with Abdo Eick & Meyers to provide accounting services will end this year. The services provided to the City continue to fully satisfy all financial and accounting needs. Services include daily accounting, billing, utility billing, accounts payable, budgeting and long range financial planning. Staff believes that the daily accounting, budgeting, planning, support and solutions provided by AEM provide the City with a high level of service for a fair value. The proposed contract renewal is for three years and would run through 2022.

Requested Action:

It is recommended that the City Council approve the renewal contract with AEM as presented for three years.

ATTACHMENTS: Accounting Services Proposal

Accounting Services Proposal

City of Independence

November 8, 2019



5201 Eden Avenue Suite 250 Edina, MN 55436
P: (952) 835.9090 • F: (952) 835.3261

100 Warren Street Suite 600 Mankato, MN 56001
P: (507) 625.2727 • F: (507) 389.9139
www.aemcpas.com



AEM Financial Solutions™

September 5, 2019

Mark Kaltsas, City Administrator
City of Independence
1920 County Rd 90
Independence, Minnesota 55359

Dear Mark,

Thank you for the opportunity to submit this proposal to the City of Independence, Minnesota (the City) for accounting services. Based on our past experience with cities of comparable size and complexity, we believe our structured contract with defined outcomes offered through AEM Financial Solutions, LLC (AEMFS) would provide the City with excellent accounting services.

We believe our solution will continue to result in the City receiving high level information, continual improvement of processes and allow the City to keep overall costs stable. Our proposal is based on the needs of the City laid out in the request for proposal and the experiences we have had working with other cities. The proposal outlines the scope of services we believe will address the needs of the City.

The term of this contract shall be from January 1, 2020 through December 31, 2022.

An AEMFS representative will be in the City offices as necessary to perform responsibilities as noted on the Scope of Services page. Services will also be performed remotely as necessary.

Investment by the City for services is indicated in the financial page.

AEMFS would like to thank the City for the opportunity. We look forward to exceeding your expectations and continuing our long-term, mutually beneficial relationship.

Sincerely,

AEM Financial Solutions, LLC
an Abdo, Eick & Meyers, LLP Company

Steven R. McDonald, CPA
Managing Partner

Jean D. McGann, CPA
President, AEM Financial Solutions, LLC
Partner, Abdo, Eick & Meyers, LLP

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AEM Financial Solutions™



Government Experience

You can have confidence in our 10 years of consulting services, over 55 years of quality accounting services and partnership in the government space. Since 1963, we've served cities just like yours. With an unwavering commitment to streamlining processes, training staff, and finding technology-based solutions, we proudly offer excellence in city consulting and auditing.

Out of our 160-strong, talented staff, over 40 team members are 100% focused on government clients, including services for over 100 cities and other governmental entities. By serving cities across Minnesota, we have become experts in the nuances of how to best support your city.

Our expertise affords you a consulting experience that is painless. We do this by communicating up front, coming better prepared, and being available throughout the year to support you.

Our Process

Our methods are centered around incorporating technology to deliver unparalleled solutions for government organizations. In addition to our consulting experience, our firm expertly performs outsourcing for governments giving us a wealth of experience in a consulting role. We don't believe in a one-size-fits-all mentality. So together, we'll focus on the needs that are relevant to your city and provide the right services to meet them with a customized methodology based on your needs. We're focused on developing creative, customized solutions to help your city mitigate costs and boost efficiency.

Our Focus

Through continuous training and growth opportunities, we've established an environment with a focus on serving city governments. We spend more than 100 hours training and onboarding to ensure success for our clients.

We truly hope that you allow us to be your partner. Together, we'll go beyond the numbers to best support your city.

Our Financial Management and Consulting Services Include:

- Arbitrage compliance
- Budget process development
- Capital improvement planning
- Cash flow analysis
- Cost containment processes
- Debt management plans
- ERP system consulting
- Finance Director services
- Financial management plans
- Financial reporting and analysis
- Fleet: Operations and replacement rate analysis
- Interim accounting and financial services
- Internal control evaluation
- Long-term strategic planning
- Payroll processing
- Policy development
- Process flows and efficiencies
- Project management
- Quarterly and monthly reporting to management
- Reconciliations
- Software implementation
- Utility/fee analysis
- Year-end audit preparation and financial statement preparation

Our Qualifications

- ✓ GFOA and MnGFOA Association members
- ✓ Government operations training
- ✓ MSRB Municipal Advisor Qualified Representatives (Series 50)
- ✓ Consulting services for over 100 cities
- ✓ We've assisted many municipalities in preparing for the GFOA's Certificate of Achievement for Excellence awards in financial reporting



Outsourced Finance Director

Building relationships to become a valuable extension of your organization is what our Financial Solutions team will be ardently focused on when we work with you. When you employ our team, you gain a fresh perspective on a broad range of topics — you'll have one point of contact but a whole team of people bringing you value. With that said, we've had the opportunity to over 100 clients in the Midwest. Among the support we provide, Outsourced Finance Director Services are a primary focus of our team. We offer this service for a broad range of cities with populations ranging from 800-25,000 in size.

Acting as outsourced finance directors and controllers requires a broad ranges of skills and experience. We bring a unique set of skills and experience as former government auditors, finance directors and controllers.. Through this lens, we implement processes and procedures to improve your organization's daily operations. Our experience translates to insights that streamline the audit and budget process and internal controls, consequently reducing audit findings and improving efficiencies. Ultimately, this will save your community time and money.

Process

When you select our team, our process is made simple — for you and for your employees. First, we meet with your city administration to understand the challenges you face. We then analyze your financial statements, review budgets, and connect with your auditors to understand your financial position from their perspective. This give us a holistic view to formulate a plan and propose how we can best support you.

Once our proposal is accepted, we'll work with key stakeholders to understand cash flow, investments, and begin fulfilling proposal initiatives. Together we'll identify priorities and begin implementation.

Qualifications

Our people make the difference- we have five members on our team who have passed the Series 50 exam. These registered municipal advisors will manage your bonds, investments, and strategic planning initiatives. Out of 16 members in our Financial Solutions group, 60% of their work is focused on outsourced Finance Director services.

The majority of our team members have worked in government organizations and public accounting bringing you a fresh perspective backed by relevant experience. We're confident that AEM has the right expertise, team support, and recommendations to help your city grow. We look forward to supporting you and your team.





Technology

AEM Technology

We believe technology should enhance our service offerings, making our work less intrusive, our time with you more productive and keep everyone's data more secure. Our use of technology in providing financial accounting services enables us to streamline our work.. It also helps us to automate certain functions of accounting services so we are free to spend more time analyzing our results and working directly with you.

AEM takes the security of our data and our clients data very seriously. A number of systems are in place to ensure the safety of your organization's data with us. We operate in a completely remote hosted environment. This not only allows us to work from any computer, anywhere, any time, but also provides large scale, cutting edge technology and security for your data. Your data is housed in a secure data warehouse, not on laptops or local servers.

It also means:

- ✓ All firm staff use dual authentication for every login to our remote environment
- ✓ Our data is saved on redundant servers so if one server fails, another server immediately takes over
- ✓ Our data is backed up continually
- ✓ All email and embedded links are scanned for viruses prior to landing in our inbox

Our remote host vendor works exclusively with public accounting firms. Their client base includes approximately 300 firms. They maintain a Service Organization Control 2 (SOC 2) report covering their organizational controls over security, processing integrity, etc. This report is available if you'd like to review it.





Your Team

In assembling our team to serve the City of Independence, we have assigned experienced individuals who know and understand your unique financial accounting needs. Our proposed delivery team has substantial experience working with cities similar to the City of Independence. Our team members and their respective experience are briefly profiled below. Full biographies for the team are located on the following pages.



Steve McDonald

Managing Partner

29



Jean McGann

President and Partner

20



Andrea Worcester

Client Services Senior
Accountant

4





Team Bios

Team Member

Background & Expertise



Steven McDonald, CPA

Managing Partner

steven.mcdonald@aemCPAs.com

Direct Line (952) 715.3002

Mr. McDonald joined the Firm in 1991 after graduating from Minot State University with a Bachelor of Science Degree in Accounting. He currently serves as Managing Partner and during his tenure the firm has grown to a top 20 Minnesota accounting firm and a top 200 firm in the United States. Steve's vision of continuous improvement and responsiveness to client needs has resulted leading the firm through several strategic mergers and acquisitions, new service line and industry segment development, and annual double digit growth.

Affiliations

- Young Presidents Organization
- Edina Community Foundation - Treasurer
- Minnesota Youth Hockey Association - Volunteer

Education

- Bachelor of Science in Accounting, Minot State University
- Continuing professional education as required by AICPA

Professional Memberships

- American Institute of Certified Public Accountants (AICPA)
- Minnesota Society of Certified Public Accountants
- Minnesota Government Finance Officers Association

Qualifications

- Advising clients on strategies that ensure sustainability and profitability
- Structuring merger and acquisition transactions
- Identify new business opportunities and structures that maximize growth
- Develop process improvements that lead to greater communication and efficiencies
- Regional and national speaker on topics relating to strategic planning, business development and internal controls



AEM Financial Solutions™



Team Bios

Team Member

Background & Expertise



Jean McGann, CPA

Partner | Abdo, Eick & Meyers LLP

President | AEM Financial Solutions, LLC

Registered Municipal Advisor

jean.mcgann@aemfs.com

Direct Line (952) 715.3059

Jean joined the Firm in 2013. She is licensed to practice as a CPA in Minnesota. Jean leads the Financial Solutions group providing financial management services, day-to-day accounting and customized solutions for local governments, businesses, nonprofit agencies and professional service firms.

Affiliations

- Mentor for the Business Program at the Minnesota Center for Advanced Professional Studies (MNCAPS)
- Finance and audit committee member for Project for Pride in Living

Education

- Bachelor of Arts, Buena Vista University, Storm Lake, Iowa
- Continuing professional education as required by AICPA and Government Accountability Office

Professional Memberships

- American Institute of Certified Public Accountants (AICPA)
- Minnesota Society of Certified Public Accountants (MNCPA)
- Minnesota Government Finance Officers Association
- Government Finance Officers Association of the United States and Canada

Qualifications

- 20 years of experience in finance and auditing
- Over 8 years of experience in operations management
- Highly skilled in strategic planning and financial forecasting
- Experience in identifying and implementing cost containment processes, efficiencies and streamlining processes
- Policy development, internal control evaluation and project management experience
- MSRB Municipal Advisor Qualified Representative (Series 50)



AEM Financial Solutions™



Team Bios

Team Member

Background & Expertise



Andrea Worcester, CPA

Client Services Senior Accountant

andrea.worcester@aemfs.com

Andrea Worcester joined the firm in 2019 as a Client Services Senior Accountant after serving as an Accountant for the City of New Brighton. She specializes in Utility Billing, Cash Receipting, Accounts Payable, Account Receivable, and Financial Reporting.

Education

- Bachelor of Science in Accounting & Finance, Metropolitan State University
 - ✓ Minor in Economics
- Continuing professional education

Professional Memberships

- Minnesota Government Financial Officers Association

Qualifications

- 4 years of experience working with local government in finance in an accountant role as a Utility Billing Clerk and Accountant
- Previous experience with JD Edwards



AEM Financial Solutions™



Value

We at AEM help cities achieve their financial goals.

Fees are based on the assumption and limitations outlined in the scope of work that follows below. Below are the fees for our services.

<u>Service Period</u>	<u>Monthly Investment</u>	<u>Annual Investment</u>
January 1, 2020 – December 31, 2020	\$ 5,300	\$ 63,600
January 1, 2021 – December 31, 2021	5,435	65,220
January 1, 2022 – December 31, 2022	5,570	66,840

Initial invoice will be sent within 10 days of the execution of this agreement. Monthly installment fees will be invoiced throughout the remainder of this contract.

We do not believe in charging for phone calls or emails during the year. When our communications identify additional service needs we will provide you with an expected fee range.



SCOPE OF SERVICES

AEMFS Contract Task	Client Responsibility	Frequency
Cash and Investment Monitoring		
Reconcile cash and investments	Review and approve	Monthly
Review Monthly to ensure timely and accurately balance		Monthly
Verify bank has proper amount of collateral pledged to City's account	Request monthly collateral statement from the bank	Monthly
Review cash flow to ensure proper amounts are available for operations		Monthly
Accounts Payable		
Prepare batch A/P for City Council approval	Administrator to review and approve	Monthly
Prepare recap for City Council approval at council meetings		Monthly
Review coding of invoices done by department heads		Monthly
Issue vendor checks		Monthly
Review monthly budget to actual report for coding errors	Review and provide input	Monthly
Annual Reporting		
Complete Financial Reporting Form to the Office of the State Auditor		June
Ensure Tax Increment Finance District Reports to the Office of the State Auditor are completed	Provide prior year tax increment Financing District Reports	August
Property Tax Levy Report to the Minnesota Department of Revenue		December
PT Form 280 to the Minnesota Department of Revenue (if required)		September

SCOPE OF SERVICES (Continued)

AEMFS Contract Task	Client Responsibility	Frequency
Annual Budget Preparation		
Preliminary meeting with City management on budget objectives and strategy		April
Prepare a City management's recommended property tax levy along with a general outline of the City budgeted fund including any potential budget funding gaps. This will include the all funds summary and preparation of all budget documents.		May – August
Assist in presenting preliminary budget to Council prior to the deadline of September 30		August
Assist with the certification of the final of the tax levy to the County and Minnesota Department of Revenue		December
Utility Billing		
Manage rate changes in billing system		Annual
Process utility billing		Quarterly
Miscellaneous Tasks		
Provide oversight in recording/accounting for transaction		Weekly
Attend Council meeting for quarterly reports and budget discussions		As needed
Update Council, Administrator and Staff of new accounting standards		On-going
Provide assistance in reporting and closing out grant programs		Monthly
Respond to surveys and information requests as they are received from outside sources such as the League of MN Cities and Government Finance Officers Association		On-going
Monitor compliance for assigned activities		On-going
Prepare Sales Tax reports		On-going



What Our Clients Say

Client References

We have long-term relationships with many cities in Minnesota. Our clients listed below serve as a sample of references of those we serve as their Finance Director. Additional references are available upon request.

City of New Hope

Kirk McDonald 763.531.5112

Engagement partner – Jean McGann

City of Crystal

Anne Norris | 763.531.1140

Engagement partner – Jean McGann

City of Oak Grove

Loren Wickham | 763.404.7075

Engagement partner – Jean McGann

City of Wyoming

Robb Linwood | 651.462.0575

Engagement partner – Jean McGann





Why AEM?

Abdo, Eick & Meyers, LLP, established in 1963, has a professional staff of more than 150 in its Edina and Mankato offices. The two offices serve clients of all sizes and industries. Our services include audits, reviews and compilations, monthly accounting, tax planning and preparation, management advisory services and HR Outsourcing, to name a few. In addition, Abdo, Eick & Meyers, LLP is recognized as one of the Top 150 firms in the United States and the 13th largest firm in Minnesota.

We're here because our clients need solutions to their challenges--not a commodity product. Through our dedication to teamwork, development and relationships, we will help our clients thrive. The investments into our People + Process make a difference for you, our valued client. We focus on the challenges and needs that are relevant to your business or government agency. This allows us to be thoughtful in our approach in providing you with the best solutions, and leave you assured in the value of our deliverable.

The Firm is a member of the American Institute of Certified Public Accountants Division of Firms and has received an unmodified opinion on its Peer Review. Our Peer Review, which included nonprofit, was completed in 2017 and resulted in a pass rating.

The Firm has not had any federal or state desk reviews or field reviews of its audits in the last three years. We have had no disciplinary action taken or pending against the Firm during the past three years with state regulatory bodies or professional organizations.

We maintain library facilities which include current professional literature and specific information for the industries we serve. The Firm library is also reviewed as part of the external quality review program. The Firm has in-house training programs specific to our nonprofit clients. We also perform auditing and accounting updates for our clients that are organized by our staff. These practices ensure the quality of our staff over the term of engagement.



We Listen

You will know you're in the right hands well before delivery, but be assured that we will get you a great value for the investment of your time.



We Engage

Active engagement with DFK International and domestic industry associations allows us to provide maximum value to your organization.



We Deliver

Combining our internal expertise and technological resources with what we've learned about you allows us to deliver a solution that exceeds your expectations.



Appendix A



Agreement for Financial Services

THIS AGREEMENT, is made and entered into on November 8, 2019 by and between the City of Independence, Minnesota (hereinafter referred to as the "City"), and AEM Financial Solutions LLC (hereinafter referred to as the "Contractor").

Articles of Agreement & Recitals

WHEREAS, the City is authorized and empowered to secure from time to time certain professional services through contracts with qualified consultants; and

WHEREAS, the Contractor understands and agrees that:

1. The Contractor will act as an Independent Contractor in the performance of all duties under this Agreement. Accordingly, the Contractor shall be responsible for payment of all taxes, including federal, state and local taxes and professional/business license fees arising out of the Contractor's activities;
2. The Contractor shall have no authority to bind the City for the performance of any services or to obligate the City. The Contractor is not an agent, servant, or employee of the City and shall not make any such representations or hold himself/herself out as such;
3. The Contractor shall be the exclusive outsourced accounting service provider for the City during the term of this Agreement;
4. The Contractor shall perform all professional services in a competent and professional manner, acting in the best interests of the City at all times.
5. The Contractor shall not accrue any continuing contract rights for the services performed under this contract.

NOW THEREFORE, in consideration of the mutual covenants and promises contained herein, it is agreed as follows:

ARTICLE I

INCORPORATION OF RECITALS

The recitals and agreement set forth above are hereby incorporated into this Agreement.

ARTICLE II

LIABILITY INSURANCE

Section 1 Liability Insurance: The Contractor shall obtain professional liability insurance, at their expense with liability insurance coverage minimums in the amount of \$2,000,000, which Contractor must secure and maintain during the term of this Agreement. Contractor will provide City with proof of liability insurance coverage under this Agreement in writing upon request by the City.

AGREEMENT FOR FINANCIAL SERVICES - CONTINUED

ARTICLE III

DURATION OF THE AGREEMENT

Section 1 Duration: This Agreement shall commence upon date of execution by all parties and will remain in effect until December 31, 2022 unless earlier terminated as provided in Sections 2 and 3.

Section 2 City's Termination Rights: City may terminate this Agreement upon sixty (60) days written notice in the event the City determines in its sole discretion that it is not in the City's best interest to continue using Contractor's services. The City may terminate on ten (10) days written notice of the Contractor fails to perform its obligations under this Agreement.

Section 3 Contractor's Termination Rights: Contractor may terminate this Agreement upon thirty (30) days written notice to City in the event City does not pay Contractor compensation as required under Article 5, Section 9 within fifteen (15) days after invoice is received by City. In the event of non-payment within thirty (30) days, Contractor shall give City an opportunity to cure the default by giving a notice of such non-payment and an additional five (5) days after the City's receipt of the notice to remit such payment, prior to giving a notice of termination. Contractor can also terminate the Agreement with one hundred twenty (120) days written notice if the Contractor believes it is in its best interests to terminate the Agreement.

ARTICLE IV

RENEWAL OF THE AGREEMENT

Section 1 Renewal Period: Not less than ninety (90) days prior to the expiration of this Agreement, the City may provide written notice of intent to renew this Agreement for an additional term of up to three years upon terms and conditions agreed upon by both parties to the Agreement. If no such renewal agreement is executed by the parties, the Agreement terminates without further action of either party on December 31, 2022.

ARTICLE V

GENERAL

Section 1 Authorized City Agent: The City's authorized agent for the purpose of administration of this Agreement is the City Administrator. Said agent shall have final authority for approval and acceptance of the Contractor's services performed under this Agreement and shall further have responsibility for administration of the terms and conditions of this Agreement. All notices under this Agreement shall be sent to the person and address indicated below on the signature lines.

Section 2 Amendments: No amendments or variations of the terms and conditions of this Agreement shall be valid unless in writing and signed by the parties.

Section 3 Assignability: The Contractor's rights and obligations under this Agreement are not assignable or transferable.

AGREEMENT FOR FINANCIAL SERVICES - CONTINUED

ARTICLE V - CONTINUED

GENERAL - CONTINUED

Section 4 Data: Any data or materials, including, but not limited to, reports, studies, photographs, negatives, or any and all other documents prepared by the Contractor or its outside consultants in the performance of the Contractor's obligations under this Agreement shall be the exclusive property of the City, and any such data and materials shall be remitted to the City by the Contractor upon completion, expiration, or termination of this Agreement. Further, any such data and materials shall be treated and maintained by the Contractor and its outside consultants in accordance with applicable federal, state and local. Further, Contractor will have access to data collected or maintained by the City to the extent necessary to perform Contractor's obligations under this Agreement. Contractor agrees to maintain all data obtained from the City in the same manner as the City is required under the Minnesota Government Data Practices Act, Minnesota Statutes Chapter 13 or other applicable law (hereinafter referred to as the "Act"). Contractor will not release or disclose the contents of data classified as not public to any person except at the written direction of the City. Upon receipt of a request to obtain and/or review data as defined in the Act, Contractor will immediately notify the City. The City shall provide written direction to Contractor regarding the request within a reasonable time, not to exceed fifteen (15) days. The City agrees to indemnify, hold harmless and defend Contractor for any liability, expense, cost, damages, claim, and action, including attorneys' fees, arising out of or related to Contractor's complying with the City's direction. Subject to the aforementioned, Contractor agrees to defend and indemnify the City from any claim, liability, damage or loss asserted against the City as a result of Contractor's failure to comply with the requirements of the Act. Upon termination and/or completion of this Agreement, Contractor agrees to return all data to the City, as requested by the City.

Section 5 Entire Agreement: This Agreement is the entire agreement between the City and the Contractor and it supersedes all prior written or oral agreements. There are no other covenants, promises, undertakings, or understandings outside of this Agreement other than those specifically set forth. Any term, condition, prior course of dealing, course of performance, usage of trade, understanding, or agreement purporting to modify, vary, supplement, or explain any provision of this Agreement is null and void and of no effect unless in writing and signed by representatives of both parties authorized to amend this Agreement.

Section 6 Severability: All terms and covenants contained in this Agreement are severable. In the event any provision of this Agreement shall be held invalid by any court of competent jurisdiction, this Agreement shall be interpreted as if such invalid terms or covenants were not contained herein and such holding shall not invalidate or render unenforceable any other provision hereof.

Section 7 Contractor Fiscal Decision Waiver: Contractor is responsible for providing the City with timely and accurate financial recommendations and information that allows City Council the ability to make final financial decisions. Contractor will provide final financial recommendations but is not responsible for the final decisions made regarding financial matters.

Section 8 City Employment of Contractors Employees; Should the City desire to employ the Contractors employee that is assigned to the City during the term of this Agreement, it must have the written consent of the Contractor to enter into a City employee contract with the Contractors employee. Should the Contractor agree to such arrangement, the agreement will include a payment equal to 50% of the annual contracted cost, in addition to the annual contracted cost already paid to the Contractor. This restriction on employment applies only during the term of this agreement.

AGREEMENT FOR FINANCIAL SERVICES - CONTINUED

ARTICLE V - CONTINUED

GENERAL - CONTINUED

Section 9 Compensation: The parties agree that the Contractor shall be paid compensation for the services provided hereunder, payable for work performed in accordance with this Agreement, based on the fees indicated in Table 1 and under the attached scope of services. Additional fees will not be incurred without prior approval of the City.

<u>Service Period</u>	<u>Monthly Investment</u>	<u>Annual Investment</u>
January 1, 2020 – December 31, 2020	\$ 5,300	\$ 63,600
January 1, 2021 – December 31, 2021	5,435	65,220
January 1, 2022 – December 31, 2022	5,570	66,840

Initial invoice will be sent within 10 days of the execution of this agreement. Monthly installment fees will be invoiced throughout the remainder of this contract.

Section 10 Additional Services: Should the City request additional services in addition to the Contracted Services, the Contractor will provide the City with proposed fees for the services to be provided. The City shall provide a written or electronic confirmation prior to the proposed services implementation.

Section 11 Outside Contractors: It shall be the responsibility of Contractor to compensate any other outside consultants retained or hired by Contractor to fulfill their obligations under this Agreement and shall be responsible for their work and Contractor, by using outside contractors, shall not be relieved of its obligations under this Agreement.



Appendix B



Agreement for the Provision of Professional Services

WHEREFORE, this Agreement was entered into on the date set forth below and the undersigned, by execution hereof, represent that they are authorized to enter into this Agreement on behalf of the respective parties and state that this Agreement has been read by them and that the undersigned understand and fully agree to each, all and every provision hereof, and hereby, acknowledge receipt of a copy hereof.

City of Independence
1920 County Rd 90
Independence, Minnesota 55359

Name _____

Title _____

Name _____

Title _____

Date _____

AEM Financial Solutions, LLC
5201 Eden Ave. Suite 250
Edina, Minnesota 55436

Name Steve McDaniel

Title Managing Partner

Date November 8, 2019





RESOLUTION NO. 19-1118-01

RESOLUTION DESIGNATING THE 2020 POLLING PLACE

WHEREAS, Minnesota Statutes 204B.16, subd.1 requires the governing body of each municipality to designate polling places within their city by December 31 each year.

NOW, THEREFORE, BE IT RESOLVED THAT THE CITY COUNCIL OF THE CITY OF INDEPENDENCE, hereby designates the following polling place for elections conducted in the city in 2020:

Independence City Hall
1920 County Road 90
Independence, MN 55359

Passed and Adopted by the Council on this 18th day of November, 2019.

This resolution was adopted by the City Council of the City of Independence on this 18th day of November, 2019 by a vote of _____ ayes and _____ nays.

Marvin Johnson, Mayor

ATTEST:

Mark Kaltsas, City Administrator

**NOTICE INITIATING EXPIRATION OF AN
AGRICULTURAL PRESERVE**

COUNTY OF: Hennepin and _____
(Other planning and/or zoning authority, if applicable)

1. PRINT OR TYPE NAME(S) AND ADDRESS(ES) OF RECORD OWNER(S)
(Use this space only if applicable.)

Fred W. Pagenkopf Jr.
505 Milbert Road
Minnetonka, MN 55305

Owner(s) is ("X" one):

- ☒ Individual
☐ Legal Guardian
☐ Family Farm Corporation
☐ Other
(Specify) _____

2. PRINT OR TYPE NAME(S) AND ADDRESS(ES) OF CONTRACT FOR DEED SELLER(S) (VENDORS)
(Use this space only if applicable.)

3. PRINT OR TYPE NAME(S) AND ADDRESS(ES) OF CONTRACT FOR DEED BUYER(S) (VENDEES)
(Use this space only if applicable.)

4. TYPE OF PROPERTY ("X" one):
☒ Abstract
☐ Registered (Torrens).

5. COMPLETE LEGAL DESCRIPTION OF THE LAND. (If Torrens property, use the description from the Certificate of Title, verbatim. If Abstract property, use the description from the abstract or deed, or get it from your county auditor. Use an additional sheet if extra space is needed. Be sure to state your parcel identification number and circle whether or not your property is homesteaded.

Parcel Identification Number: 15-118-24-33-0001
15-118-24-32-0003

Homestead or Non-Homestead
(Circle one)

Legal Description:

That part of the S 1/4 lying E of SW 1/4 lying E of R R
R&W Ex Road

That part of S 1/2 of N 1/2 of SW 1/4 lying W of road and that
part of N 1/2 of S 1/2 of SW 1/4 lying W of road Ex Rd.

6. TOTAL ACRES: 35.9+55.99=91.89

7. DATE OF EXPIRATION OF AGRICULTURAL PRESERVE:
November 19, 2027
(Must be at least eight years after the last notarized date in either No. 9 or No. 10.)

8. DATE OF EXPIRATION OF PROPERTY TAX CREDITS: _____

This is to notify the landowner(s) of the parcel(s) of land described in this notice that said land will be taken out of agricultural preserve status because the agricultural land preservation plan and official controls of the planning and/or zoning authority have been amended so that the land is no longer designated for exclusive long-term agricultural use and is no longer eligible to be an Agricultural Preserve. The agricultural land preservation plan and official controls were amended in accordance with Minn. Stat. Section 40A.071.

State of Minnesota)
) SS
County of)
The foregoing instrument was acknowledged before me
this _____ day of _____, 20____,
by _____
(Print or type same name and title at left.)

_____ of _____
(Signature and Title or Position of Local Planning and/or Zoning
authority.)

_____ of _____

Signature of Notary Public
Commission Expires _____

10. IF LANDOWNER-INITIATED:
This is to notify the county that the agricultural preserve status of the land described in this notice shall expire on the date specified in No. 7 unless this notice is rescinded by the Landowner(s) within the first two years following execution of this notice.

IN WITNESS HEREOF, the parties to this agreement have caused this instrument to be executed on the day and year first above written. (To be signed in the presence of a notary public with exact same name as on page 1.)

Witnessed Signature of Record Fee Owner(s):

_____ Fred W. Pagenkopf Jr. _____

State of Minnesota)
) SS
County of Hennepin)
The foregoing instrument was acknowledged before me this 19th day of November, 2019,
by
Fred W. Pagenkopf Jr.
(Print or type exact name(s) with marital status or identity as on page 1.)

Signature of Notary Public
Commission Expires _____

Witnessed Signature of Contract for Deed Vendor(s) (Sellers), if any:

State of)
) SS
County of)

The foregoing instrument was acknowledged before me this _____ day of _____, 20____,
by _____

(Print or type exact name(s) with marital status or identity as on page 1.)

Signature of Notary Public
Commission Expires _____

Witnessed Signature of Contract for Deed Vendee(s) (Buyers) if any:

State of _____)
County of _____) SS

The foregoing instrument was acknowledged before me this _____ day of _____, 20____,
by _____

(Print or type exact name(s) with marital status or identity as on page I.)

Signature of Notary Public
Commission Expires _____

City of Independence

League of Minnesota Cities Insurance Trust Tort Liability Waiver

To: City Council
From: Mark Kaltsas, City Administrator
Meeting Date: November 18, 2019

Discussion:

Each year the City is required to decide whether to waive the monetary limits on Tort Liability established by MN Statutes, to the extent of the limits of liability coverage obtained from the LMCIT. The City has historically made the determination to not waive the monetary limits based on discussion with the Counsel.

Requested Action:

It is recommended that the City Council not waive the monetary limits on Tort Liability established by MN Statutes, to the extent of the limits of liability coverage obtained from the LMCIT.

ATTACHMENTS: LMCIT Waiver Form



CONNECTING & INNOVATING
SINCE 1913

LIABILITY COVERAGE – WAIVER FORM

Members who obtain liability coverage through the League of Minnesota Cities Insurance Trust (LMCIT) must complete and return this form to LMCIT before the member's effective date of coverage. Return completed form to your underwriter or email to pstech@lmc.org.

The decision to waive or not waive the statutory tort limits must be made annually by the member's governing body, in consultation with its attorney if necessary.

Members who obtain liability coverage from LMCIT must decide whether to waive the statutory tort liability limits to the extent of the coverage purchased. The decision has the following effects:

- *If the member does not waive the statutory tort limits*, an individual claimant could recover no more than \$500,000 on any claim to which the statutory tort limits apply. The total all claimants could recover for a single occurrence to which the statutory tort limits apply would be limited to \$1,500,000. These statutory tort limits would apply regardless of whether the member purchases the optional LMCIT excess liability coverage.
- *If the member waives the statutory tort limits and does not purchase excess liability coverage*, a single claimant could recover up to \$2,000,000 for a single occurrence (under the waive option, the tort cap liability limits are only waived to the extent of the member's liability coverage limits, and the LMCIT per occurrence limit is \$2,000,000). The total all claimants could recover for a single occurrence to which the statutory tort limits apply would also be limited to \$2,000,000, regardless of the number of claimants.
- *If the member waives the statutory tort limits and purchases excess liability coverage*, a single claimant could potentially recover an amount up to the limit of the coverage purchased. The total all claimants could recover for a single occurrence to which the statutory tort limits apply would also be limited to the amount of coverage purchased, regardless of the number of claimants.

Claims to which the statutory municipal tort limits do not apply are not affected by this decision.

LMCIT Member Name: _____

Check one:

- ☐ The member **DOES NOT WAIVE** the monetary limits on municipal tort liability established by [Minn. Stat. § 466.04](#).
- ☐ The member **WAIVES** the monetary limits on municipal tort liability established by [Minn. Stat. § 466.04](#), to the extent of the limits of the liability coverage obtained from LMCIT.

Date of member's governing body meeting: _____

Signature: _____ Position: _____



RESOLUTION NO. 19-1118-02

RESOLUTION CERTIFYING DELINQUENT SEWER SERVICE CHARGE AS SPECIAL ASSESSMENTS

WHEREAS, the records of the billing department of the City of Independence lists certain accounts delinquent for the year 2019 (a copy of which is with the City Clerk); and

WHEREAS, the consumer has been notified of the delinquent account according to the legal requirement of the law; and

WHEREAS, Minnesota Statutes authorizes collection of delinquent accounts by certification to the county tax rolls for collection.

NOW, THEREFORE, BE IT RESOLVED by the City Council of Independence, Minnesota to direct the County Auditor of Hennepin County to place the delinquent accounts, consisting of principal and interest thereon at the rate of 5% of the payable 2019 tax rolls.

List of Delinquent Accounts

<u>Address</u>	<u>Amount</u>
5695 Lake Sarah Heights Dr.	1,277.18
5725 Lake Sarah Heights Dr.	1,277.18
5275 County Road 11	462.34
3690 Independence Road	401.48
3925 Independence Road	382.36
5515 Lake Sarah Heights Dr.	266.20
3162 Independence Road	266.20
4885 Perkinsville Road	242.00

This resolution was adopted by the City Council of the City of Independence on this 18th day of November 2019, by a vote of ____ ayes and ____ nays.

Marvin Johnson, Mayor

ATTEST:

Mark Kaltsas, City Administrator

City of Independence

Request for an Amendment to the Conditional Use Permit to Allow New Antennas on the Existing Telecommunications Tower, Site Plan Approval and a Variance to Permit More than One Accessory Building Per Telecommunications Tower Requirements

To: City Council
From: Mark Kaltsas, City Planner
Meeting Date: November 18, 2019
Applicant: AT&T Wireless
Owner: Delano United Methodist Church
Location: 3310 County Line Road

Request:

1. AT&T/SAC Wireless (Applicant) and Delano United Methodist Church (Owner) request that the City consider the following actions for the property located at 3310 County Line Road (PID No. 07-118-24-33-0004):
 - a. A Conditional Use Permit Amendment to allow collocation on the existing telecommunications tower.
 - b. A Variance to allow more than one accessory building per tower site and a reduced rear yard setback.
 - c. Site plan approval for the proposed site layout.

Property/Site Information:

The property is located on the east side of County Line Road, just north of TH 12. The property is comprised of the existing church building and parking lot, open space and wetlands. The property has the following characteristics:

Property Information for 3310 County Line Road
Zoning: *Agriculture*
Comprehensive Plan: *Agriculture*
Acreage: 6.89 Acres

3310 County Line Road



Discussion:

The applicant is seeking an amendment to the existing conditional use permit, site plan approval and variance to allow new antennas and to be located on the existing telecommunications tower and a new accessory structure to be located at the base of the tower. There is an existing Conditional Use Permit which was granted by the City in 2001 approving the site plan to allow the tower to be installed. In 2013, the City approved an amendment to allow Verizon Wireless to locate new antennas and accessory equipment building on the property. In 2014, the City granted approval to AT&T to allow the colocation and site plan for new antennas on the existing tower. AT&T did not install the antennas that were approved.

The applicant is again proposing to install new antennas on the existing tower as well as locate the associated equipment at the base of the tower. Given the proposed improvements, an amendment to the conditional use permit is required.

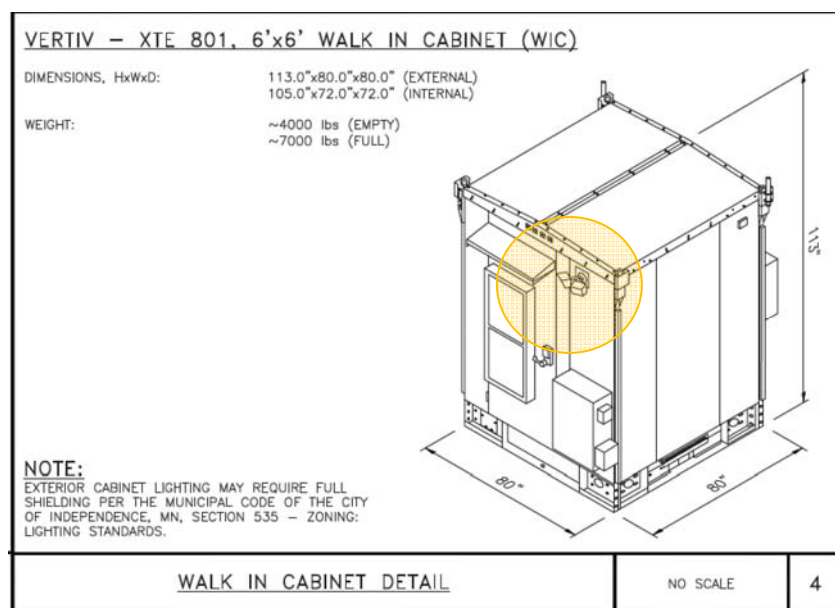
520.09 Subd. 8. If a conditional use permit holder wishes to alter or extend the operation or to change the conditions of the permit, the city will evaluate the permit holder's compliance with the existing permit conditions. Any change involving structural alterations, enlargement, intensification of use, or similar change not specifically permitted by the conditional use permit issued requires an amended conditional use permit. An amended conditional use permit application must be administered in a manner similar to that required for a new conditional use permit.

The City has criteria relating to the location (setbacks), site improvements and landscaping for new telecommunications tower development. In this case, the tower already has a conditional use permit. The location and setbacks for the existing tower were approved by the initial conditional use permit. There are several factors that should be considered relating to the site plan approval and variance:

1. The applicant is proposing to install new base equipment that is located within a fenced area at the base of the tower. The equipment would be located within a steel cabinet and the generator would be mounted to a pad on the ground, but otherwise not enclosed. The previous proposal (2014 and approved by the City) proposed to locate the equipment within a prefabricated equipment shelter similar to that used by Verizon on this site. Verizon Wireless has an approximate 300 SF equipment shelter which houses all of the requisite base equipment and a generator already on the property. Staff would like direction from the City relating to whether or not all of the proposed equipment and generator should be located in a prefabricated building similar to that Verizon already has on the property? In either case, the proposed cabinet is considered an accessory structure that would count as a second accessory structure on the property.
2. The applicant is proposing to remove some of the existing landscaping and add additional landscaping to the site. The location of the proposed equipment does not currently impact any of the surrounding properties. In the future, the subject property and adjacent property to the east could be redeveloped. The applicant has updated the landscape plan to reflect the recommendation made by staff and the Planning Commission.
3. The City will need to grant a variance from the rear property line to allow the location of the equipment cabinet within the requisite 40-foot setback. The applicant is noting the proposed equipment cabinet would be located 9'-7" from the rear property line. The location of the existing tower would likely not allow for any structure to meet the requisite setback. The City granted a

similar variance in 2013 to allow the Verizon structure to be located within the requisite 40-foot setback.

4. Commissioners recommended that the proposed generator be removed from the site or enclosed in a sound mitigating enclosure. The applicant has revised the plans to now show the generator being enclosed in a level 2 sound enclosure (see generator cut sheet attached to this report).
5. The plans show that the proposed enclosure will have an exterior light. The applicant has provided the City with a cut sheet of the proposed light that does not meet applicable standards. The applicant will need to provide a revised plan and cut sheet with an approved light fixture. The fixture cannot have any portion of the light source visible from a height of 4 feet. In order to achieve this standard, the proposed light will have to be oriented parallel to the ground and be a full cut-off type fixture.



6. The plans show the at the proposed equipment area will be enclosed by a chain link fence. The height of the proposed fence is 6 feet with an additional 1 foot barbed wire section. It appears that the proposed fence will tie into the existing fence already located on the property.
7. The proposed new antennas would be located below the height of the existing Verizon antennas. The Verizon antennas are located at a height of 181 feet. The proposed AT&T antennas would be located at a height of 172 feet.

The City can grant a variance if it determines that it meets the criteria for granting a variance as established by ordinance. The criteria for granting a variance are as follows:

520.21. Standards for granting variances. Subdivision 1. The City Council may grant a variance from the terms of this zoning code, including restrictions placed on nonconformities, in cases where: 1) the variance is in harmony with the general purposes and intent of this zoning code; 2)

the variance is consistent with the comprehensive plan; and 3) the applicant establishes that there are practical difficulties in complying with the zoning code (Amended, Ord. 2011-08)

Subd. 2. An applicant for a variance must demonstrate that there are practical difficulties in complying with the zoning code. For such purposes, "practical difficulties" means:

- (a) The property owner proposes to use the property in a reasonable manner not permitted by the zoning code;*
- (b) the plight of the property owner is due to circumstances unique to the property not created by the landowner;*
- (c) the variance, if granted, will not alter the essential character of the locality.*

Economic considerations alone do not constitute practical difficulties. Practical difficulties include, but are not limited to, inadequate access to direct sunlight for solar energy systems. (Amended, Ord. 2011-08)

Subd. 3. The City Council shall not grant a variance to permit a use that is not allowed under the zoning code based on the zoning classification of the affected property. (Amended, Ord. 2011-08)

520.23. Conditions and restrictions. The board of adjustments may recommend and the City Council may impose conditions on a variance. Conditions must be directly related to and must bear a rough proportionality to the impact created by the variance. (Amended, Ord. 2011-08)

Any amendment to an existing CUP must meet the same requirements established for granting a new CUP. The criteria for granting a conditional use permit are clearly delineated in the City's Zoning Ordinance (Section 520.11 subd. 1, a-i) as follows:

- 1. The conditional use will not adversely affect the health, safety, morals and general welfare of occupants of surrounding lands.*
- 2. The proposed use will not have a detrimental effect on the use and enjoyment of other property in the immediate vicinity for the proposes already permitted or on the normal and orderly development and improvement of surrounding vacant property for uses predominant in the area.*
- 3. Existing roads and proposed access roads will be adequate to accommodate anticipated traffic.*
- 4. Sufficient off-street parking and loading space will be provided to serve the proposed use.*
- 5. The proposed conditional use can be adequately serviced by public utilities or on-site sewage treatment, and sufficient area of suitable soils for on-site sewage treatment is available to protect the city from pollution hazards.*
- 6. The proposal includes adequate provision for protection of natural drainage systems, natural topography, tree growth, water courses, wetlands, historic sites and similar ecological and environmental features.*

7. *The proposal includes adequate measures to prevent or control offensive odor, fumes, dust, noise, or vibration so that none of these will constitute a nuisance.*
8. *The proposed condition use is consistent with the comprehensive plan of the City of Independence.*
9. *The proposed use will not stimulate growth incompatible with prevailing density standards.*

The existing tower has a conditional use permit. The new antennas will be located just below those approved for Verizon Wireless. The proposed equipment cabinet and generator are not consistent with the existing enclosed equipment shelter used by Verizon on this site. Enclosing the proposed ground equipment and generator inside of a building would be consistent with the plans approved for the Verizon Wireless equipment shelter. Landscaping will further mitigate the impacts of the proposed equipment shelter. It should be noted that the existing and adjacent properties to the south, east and north are guided for Urban Commercial by the City's 2030 Comprehensive Plan.

In the existing zoning district, telecommunication towers are permitted as a conditional use. Resulting traffic, noise, and other measureable impacts should not be incrementally amplified as a result of the proposed new antennas and associated base site improvements. The City will need to determine if the requested amendment to the conditional use permit, site plan and variance meet all of the aforementioned conditions and restrictions.

Neighbor Comments:

The City has not received any written comments regarding the proposed amendment to the conditional use permit, site plan approval or variance.

Planning Commission Discussion:

Commissioners discussed the proposed request and asked questions of staff and the petitioner. Commissioners discussed the proposed plan relating to the generator and whether or not it should be enclosed. Commissioners also discussed the proposed landscape plan. Commissioners recommended approval to the City Council with several additional conditions. Commissioners recommended that the applicant add 4 additional evergreen trees to the plan. Commissioners recommended that the proposed generator be removed from the site or enclosed in a sound mitigating enclosure.

Recommendation:

The Planning Commission recommended approval of the request for an amendment to the conditional use permit, site plan approval and variance with the following findings and conditions:

1. The proposed conditional use permit amendment, site plan review and variance meet all applicable conditions and restrictions stated Chapter V, Section 510, Zoning, in the City of Independence Zoning Ordinance.

2. The conditional use permit will be reviewed annually by the City to ensure conformance with the conditions set forth in the resolution.
3. This amendment approves new antennas, site improvements (as indicated on the approved site plan, attached hereto) and associated base equipment.
4. The proposed generator shall be enclosed in a level 2 sound enclosure as proposed and shown on the approved plan set.
5. Prior to consideration by the City Council, the applicant shall provide the City with the following items:
 - a. Cut sheets and updated plan set showing the proposed lighting. All lighting shall be required to meet applicable City requirements.
6. The applicant shall pay for all costs associated with the City's review and processing of the requested amendment to the conditional use permit and site plan review.
7. The City Council may revoke the conditional use permit if the applicant violates any of the conditions set forth in the conditional use permit.

Attachments:

1. Application and Project Narrative
2. Proposed Plan Set
3. **Resolution No. 19-1118-03**



RESOLUTION NO. 19-1118-03

A RESOLUTION GRANTING APPROVAL OF AN AMENDMENT TO THE CONDITIONAL USE PERMIT, VARIANCE AND SITE PLAN APPROVAL FOR THE TELECOMMUNICATIONS TOWER AND EQUIPMENT LOCATED AT 3310 COUNTY LINE ROAD

WHEREAS, the City of Independence (the “City”) is a municipal corporation under the laws of Minnesota; and

WHEREAS, the City adopted a comprehensive plan in 2010 to guide the development of the community; and

WHEREAS, the City has adopted a zoning ordinance and other official controls to assist in implementing the comprehensive plan; and

WHEREAS, AT&T Wireless (the “Applicant”) submitted a request for an amendment to the Conditional Use Permit, Variance and Site Plan Review to allow new antennas to be installed on the existing telecommunications tower and a new equipment shelter to be placed on the property located at 3310 County Line Road (PID No. 07-118-24-33-0004) (the “Property”); and

WHEREAS, the Property is zoned Agriculture; and

WHEREAS, the Property is legally described on attached Exhibit A; and

WHEREAS the requested amendment to the Conditional Use Permit, Variance and Site Plan meets all requirements, standards and specifications of the City of Independence zoning ordinance for Agriculture property; and

WHEREAS the Planning Commission held a public hearing on September 17, 2019 to review the application for an amendment to the Conditional Use Permit, Variance and Site Plan, following mailed and published noticed as required by law; and

WHEREAS, the City Council has reviewed all materials submitted by the Applicant; considered the oral and written testimony offered by the applicant and all interested parties; and has now concluded that the application is in compliance with all applicable standards and can be considered for approval; and

WHEREAS, the initial Conditional Use Permit was issued in December 2013.

WHEREAS, this amendment adds additional provisions to the previous Conditional Use Permit for this property and all previous conditions shall remain in force.

NOW, THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF INDEPENDENCE, MINNESOTA, that it should and hereby does approve the application by AT&T Wireless for an amendment to the Conditional Use Permit, Variance and Site Plan Approval per the City's zoning regulations with the following conditions:

1. The proposed conditional use permit amendment, site plan review and variance meet all applicable conditions and restrictions stated Chapter V, Section 510, Zoning, in the City of Independence Zoning Ordinance.
2. The conditional use permit will be reviewed annually by the City to ensure conformance with the conditions set forth in the resolution.
3. This amendment approves new antennas, site improvements (as indicated on the approved site plan, attached hereto as Exhibit B) and associated base equipment.
4. Prior to consideration by the City Council, the applicant shall provide the City with the following items:
 - a. Cut sheets and updated plan set showing the proposed lighting. All lighting shall be required to meet applicable City requirements.
 - b. Updated plans that further depict the required sound mitigating enclosure for the generator. If no enclosure is provided, the generator shall be removed from the plans.
5. The applicant shall pay for all costs associated with the City's review and processing of the requested amendment to the conditional use permit, variance and site plan review.
6. The City Council may revoke the conditional use permit if the applicant violates any of the conditions set forth in the conditional use permit.

This resolution was adopted by the City Council of the City of Independence on this 18th day of November 2019, by a vote of ____ ayes and ____ nays.

Marvin Johnson, Mayor

ATTEST:


Mark Kaltsas, City Administrator

EXHIBIT A
(Legal Description)

EXHIBIT B

(Approved Site Plan)

SITE PHOTO



PROJECT INFORMATION

SITE ADDRESS:

3310 COUNTY LINE ROAD SE
DELANO, MN 55328

COUNTY

HENNEPIN

SITE NAME:

DELANO COUNTY LINE

AT&T SITE ID

MNL01123

FA NUMBER:

11571089

PACE NUMBER:

MRUMW004702
MRUMW025729
MRUMW025728

PTN NUMBER:

3511A0DSL0
3511A0H5SG
3511A0H5SH

USID NUMBER:

229192

LATITUDE (NAD 83):

45° 02' 14.198" N
45.037277

LONGITUDE (NAD 83):

93° 45' 54.700" W
-93.765194

GROUND ELEVATION:

970.1' AMSL

ZONING DISTRICT:

CITY OF INDEPENDENCE

TOWER OWNER:

DELANO UNITED METHODIST CHURCH
3310 COUNTY LINE ROAD SE
INDEPENDENCE, MN 55328

OWNER SITE NAME:

DELANO COUNTY LINE

OWNER SITE NUMBER:

NA

LANDLORD CONTACT:

MARTY HOWES
(763) 258-6969
HOWESMD@YAHOO.COM

GROUND OWNER:

GROUND OWNER

OCCUPANCY GROUP:

U

CONSTRUCTION TYPE:

I-B

AT&T PROJECT MANAGER:

PETER MCENERY
(952) 258-9629
PM753T@ATT.COM

B&V SITE ACQUISITION MANAGER:

KATE HUNTER
(612) 206-7756
HUNTERK@BV.COM

B&V CONSTRUCTION MANAGER:

MITCH LONNIE
(952) 896-0880
LONNIEEM@OVERLANDCONTRACTING.COM

B&V LEAD ENGINEER:

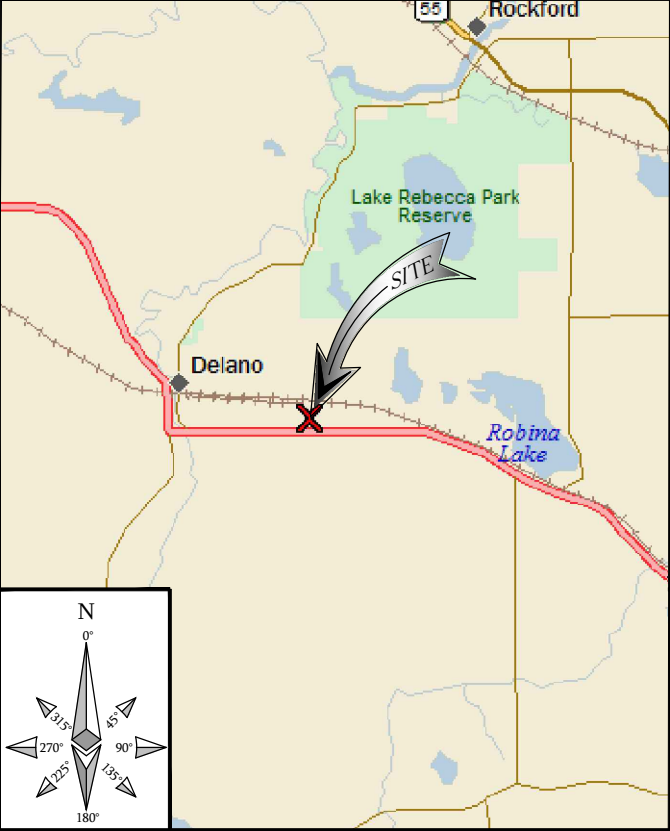
CASEY TIJERINA
(952) 896-0842
TIJERINACL@BV.COM

AT&T
MOBILITY
PROJECT: NSB - WIC
AT&T SITE ID: MNL01123
FA#: 11571089
PACE#: MRUMW004702
PTN#: 3511A0DSL0

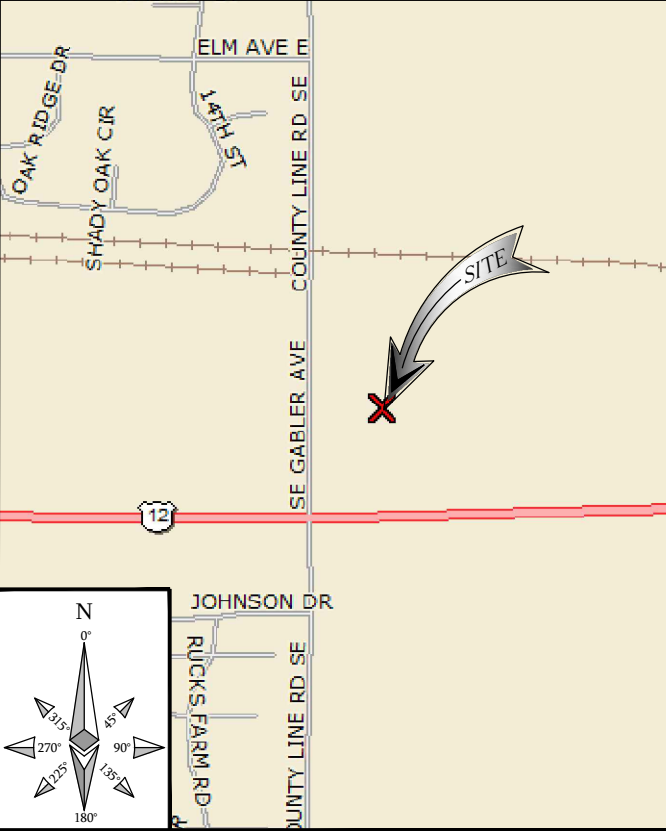
DELANO COUNTY LINE
DELANO, MN 55328

AREA MAP

VICINITY MAP



LOCAL MAP



DIRECTING DIRECTIONS

DIRECTIONS FROM AT&T OFFICE:

GO STRAIGHT (SOUTH SOUTHWEST) ON SOUTHTOWN DR TURN RIGHT (WEST SOUTHWEST) ONTO W 80TH ST TURN RIGHT (NORTH) ONTO CR 17 KEEP RIGHT (NORTHWEST) ONTO I-494 RAMP TAKE EXIT 19B KEEP RIGHT (WEST NORTHWEST) ONTO US 12 RAMP KEEP RIGHT (WEST NORTHWEST) ONTO BELTLINE EXPY TURN RIGHT (NORTH) ONTO SE GABLER AVE ARRIVE 3310 COUNTY LINE ROAD SE, DELANO, MN 55328.

ENGINEERING

2012 INTERNATIONAL BUILDING CODE
2017 NATIONAL ELECTRIC CODE
2015 MINNESOTA BUILDING CODE
TIA/EIA-222-G OR LATEST EDITION


REFERENCE MATERIALS

THESE LTE DRAWINGS ARE BASED ON AT&T RFDS DOCUMENT DATED 11/19/18.
CONTRACTOR SHALL USE THE LATEST VERSION OF THE RFDS WITH THE CONSTRUCTION DRAWINGS PER THE SCOPE OF WORK.


DRAWING INDEX

SHEET NO:	SHEET TITLE	REV
COVER	TITLE SHEET	1
C-1	OVERALL SITE PLAN	1
C-2	COMPOUND PLAN	1
C-3	EMI-WIC PLATFORM WITH GENERATOR	1
C-4	SITE DETAILS	1
C-5	SITE DETAILS	1
C-6	CHAINLINK FENCE DETAILS	1
C-7	SIGNAGE DETAILS	1
C-8	SPECIAL INSPECTIONS	1
C-9	CONCRETE WORK NOTES	1
C-10	SITE WORK AND DRAINAGE NOTES	1
T-1	TOWER ELEVATION	1
T-2	ANTENNA CONFIGURATION	1
T-3	ANTENNA AND RRH REQUIREMENTS	1
T-4	TOWER EQUIPMENT DETAILS	1
T-5	COAX COLOR CODING	1
T-6	COAX COLOR CODING	1
T-7	TOWER SECTION NOTES	1
E-1	OVERALL ELECTRICAL PLAN	1
E-2	ELECTRICAL DETAILS	1
E-3	ONE-LINE GROUNDING DIAGRAM	1
E-4	COMPOUND GROUNDING DIAGRAM	1
E-5	GROUNDING DETAILS	1
E-6	GROUNDING DETAILS	1
E-7	GROUNDING DETAILS	1
E-8	ELECTRICAL SECTION NOTES	1
N-1	LEGEND AND ABBREVIATIONS	1
N-2	GENERAL NOTES	1
LS-1	LANDSCAPE PLAN	1

11"x17" PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED




TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN MINNESOTA, CALL GOPHER STATE ONE CALL
TOLL FREE: 1-800-252-1166 OR
FAX A LOCATE: 1-800-236-4967
MIN STATUTE REQUIRES MIN OF 48 HOURS NOTICE BEFORE YOU EXCAVATE



-THESE PLANS CONFORM TO ALL OF THE REQUIREMENTS CALLED OUT IN THE JURISDICTION PLANNING AND ZONING FOR ANTENNAS AND SUPPORT STRUCTURES WHERE SITE IS LOCATED.
-SUBCONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING CONDITIONS ON SITE. IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO PERFORMING ANY WORK OR BE RESPONSIBLE FOR THE SAME

AT&T
MOBILITY

7900 XERXES AVE S
3RD FLOOR
BLOOMINGTON MN 55431



BLACK & VEATCH

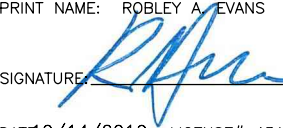
BLACK & VEATCH CORPORATION
7760 FRANCE AVENUE SOUTH
SUITE 1200
BLOOMINGTON, MN 55435

PROJECT NO: 129049.4004

DRAWN BY: VPB

CHECKED BY: JAT

REV	DATE	DESCRIPTION
1	10/14/19	CITY COMMENTS
0	07/24/19	ISSUED FOR CONSTRUCTION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
PRINT NAME: ROBLEY A. EVANS
SIGNATURE: 
DATE: 10/14/2019 LICENSE# 43119 EXP. 6/20
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DELANO COUNTY LINE
MNL01123
3310 COUNTY LINE ROAD SE
DELANO, MN 55328
NSB - WIC

SHEET TITLE
TITLE SHEET

SHEET NUMBER
COVER

THE PURPOSE OF THIS DRAWING IS
TO SHOW HOW THE DEVELOPED SITE
RELATES TO THE PARENT PARCEL
AND ADJACENT PROPERTIES.

7900 XERXES AVE S
3RD FLOOR
BLOOMINGTON MN 55431



BLACK & VEATCH CORPORATION
7760 FRANCE AVENUE SOUTH
SUITE 1200
BLOOMINGTON, MN 55435

CHECKED BY: JAT

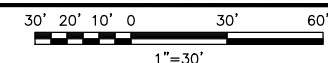
1	10/14/19	CITY COMMENTS
0	07/24/19	ISSUED FOR CONSTRUCTION
REV	DATE	DESCRIPTION

DATE: 0/14/2019 LICENSE# 43119
EXP. 6/20

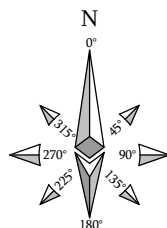
DELANO COUNTY LINE
MNL01123
3310 COUNTY LINE ROAD SE
DELANO, MN 55328
NSB - WIC

OVERALL SITE PLAN

C-1



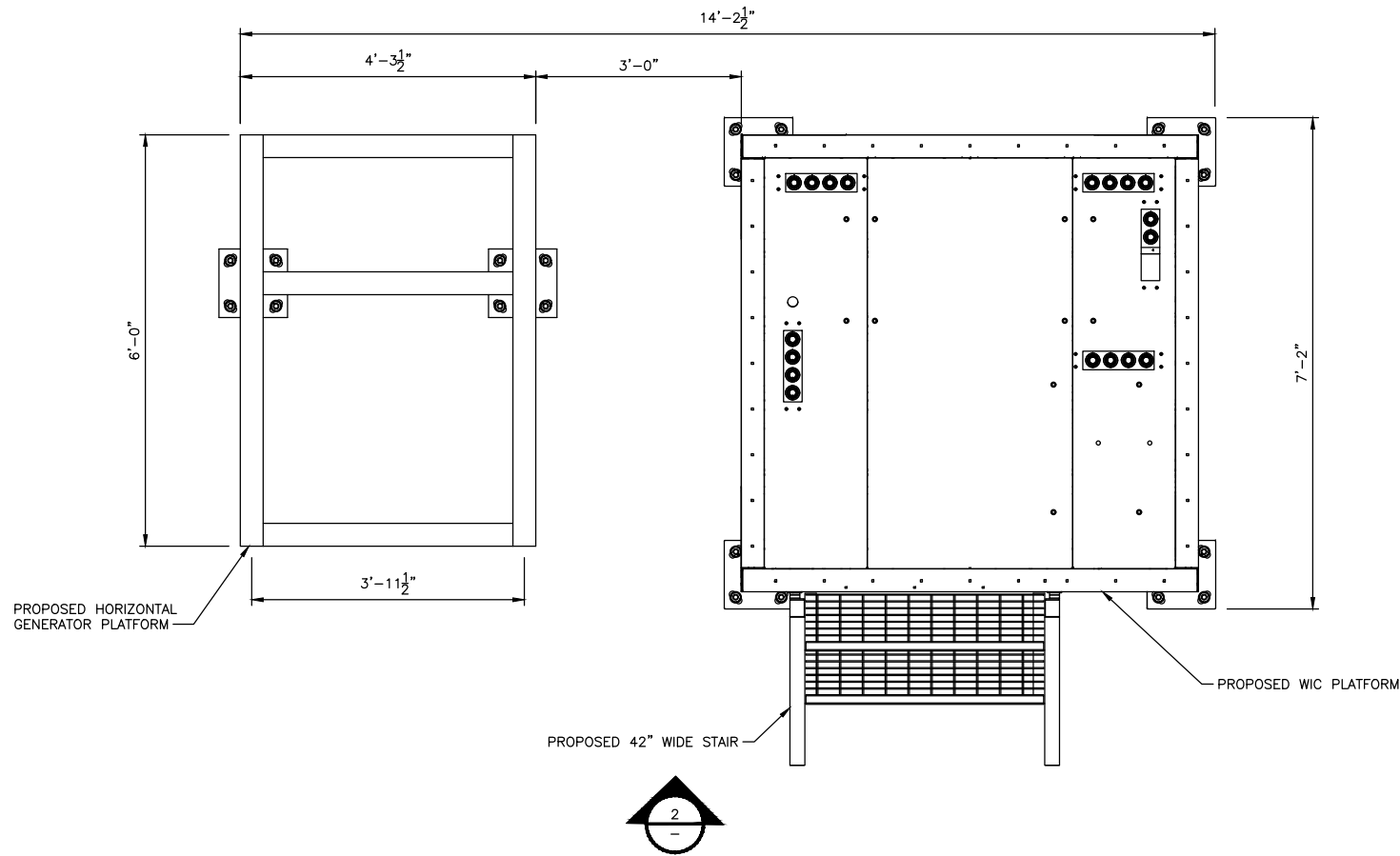
NOTES



4' 2' 0 4'

$1/4" = 1' - 0"$

C-2

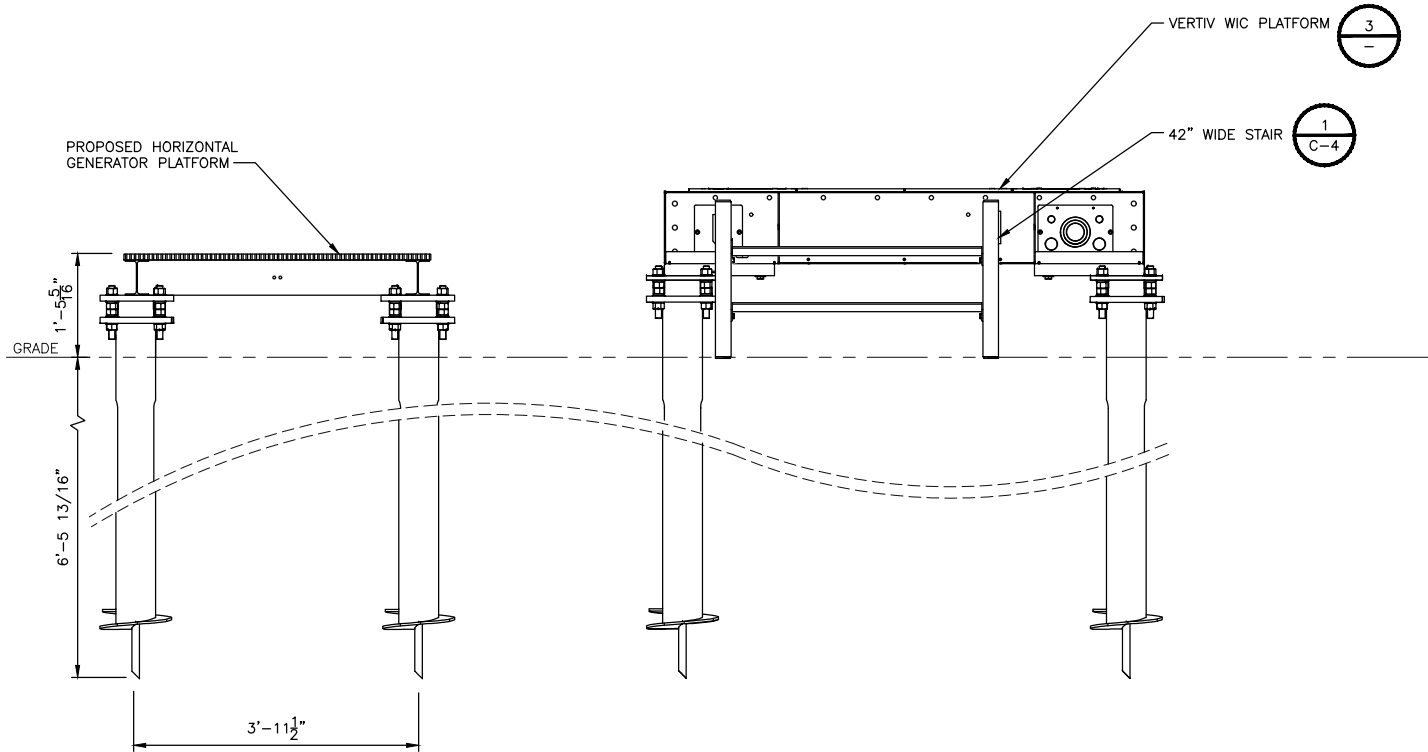


WIC PLATFORM LAYOUT PLAN

NO SCALE

1

NOTE:
1. DRAWINGS ARE FOR GRAPHIC REPRESENTATION OF THE FINAL ASSEMBLY. CONTRACTOR MUST REFERENCE MANUFACTURERS DRAWINGS PRIOR TO CONSTRUCTION.

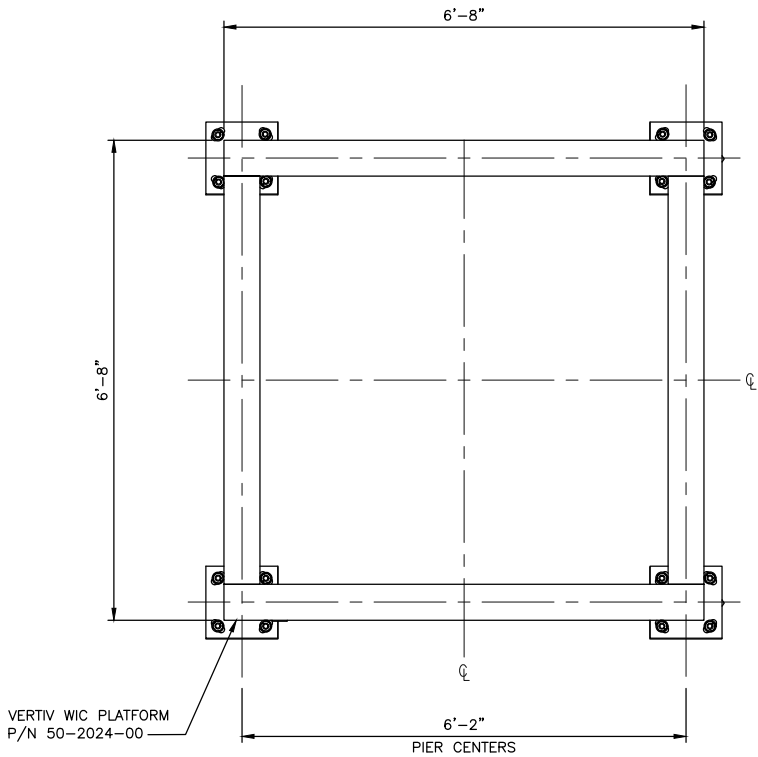


WIC PLATFORM ELEVATION

NO SCALE

2

NOTE:
1. DRAWINGS ARE FOR GRAPHIC REPRESENTATION OF THE FINAL ASSEMBLY. CONTRACTOR MUST REFERENCE MANUFACTURERS DRAWINGS PRIOR TO CONSTRUCTION.
2. PLATFORM SHOWN IS FOR THE VERTIV WALK-IN-CABINET P/N F2016017-P.FORM-FC (FULLY ASSEMBLED) OR F2016019-P.FORM-PC (BUILD ON SITE)



WIC PLATFORM PLAN

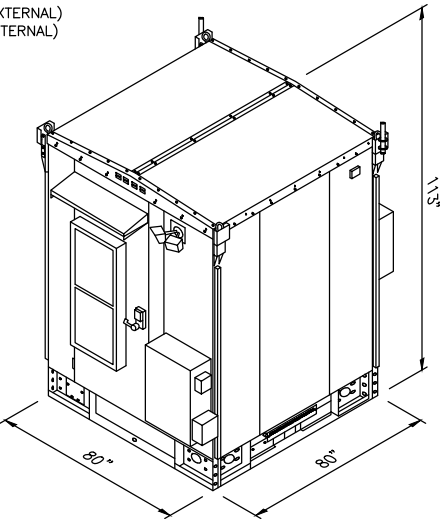
NO SCALE

3

VERTIV - XTE 801, 6'x6' WALK IN CABINET (WIC)

DIMENSIONS, HxWxD: 113.0"x80.0"x80.0" (EXTERNAL)
105.0"x72.0"x72.0" (INTERNAL)

WEIGHT: ~4000 lbs (EMPTY)
~7000 lbs (FULL)



NOTE:
EXTERIOR CABINET LIGHTING MAY REQUIRE FULL SHIELDING PER THE MUNICIPAL CODE OF THE CITY OF INDEPENDENCE, MN, SECTION 535 - ZONING: LIGHTING STANDARDS.

WALK IN CABINET DETAIL

NO SCALE

4

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BLACK & VEATCH

BLACK & VEATCH CORPORATION
7760 FRANCE AVENUE SOUTH
SUITE 1200
BLOOMINGTON, MN 55435

PROJECT NO: 129049.4004
DRAWN BY: VPB
CHECKED BY: JAT

REV	DATE	DESCRIPTION
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PRINT NAME: ROBLEY A. EVANS

SIGNATURE:

DATE: 10/14/2019 LICENSE# 43119
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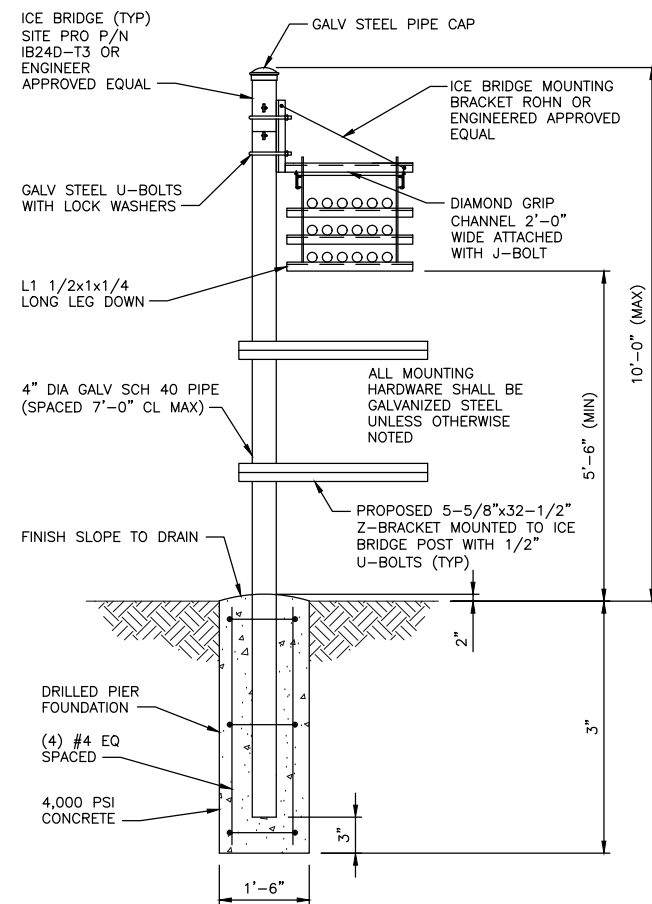
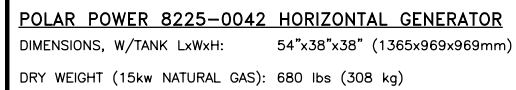
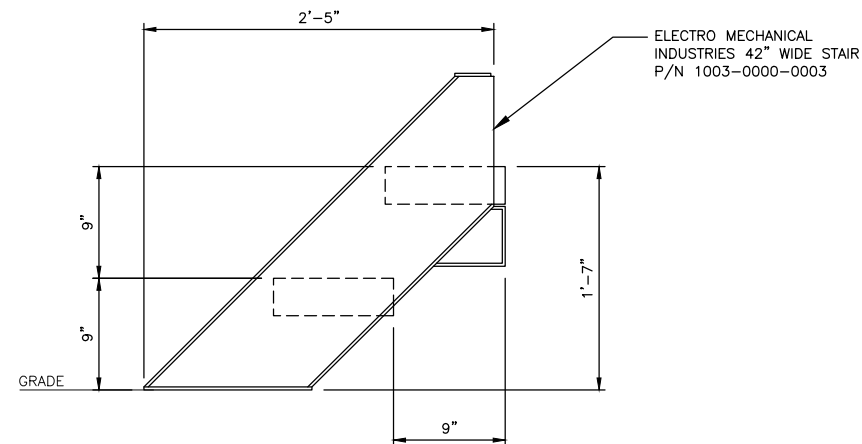
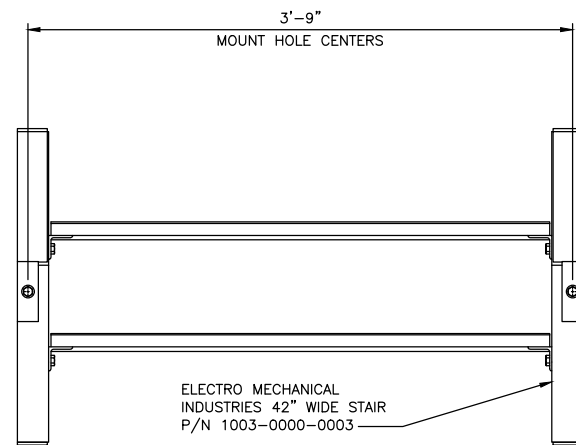
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NSB - WIC

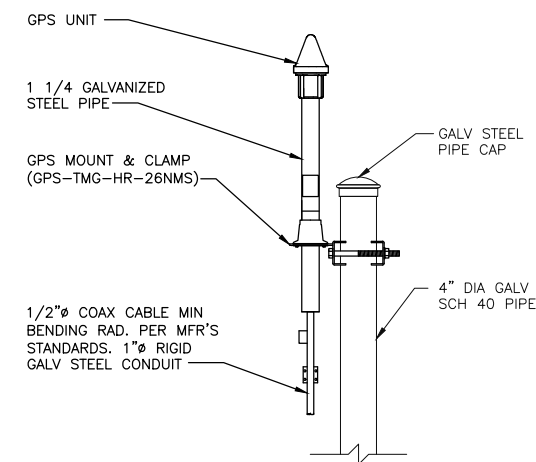
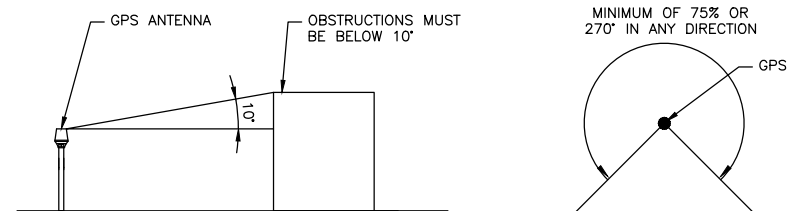
SHEET TITLE
EMI - WIC
PLATFORM
W/GENERATOR

SHEET NUMBER

C-3



1. IT IS CRITICAL THAT THE GPS ANTENNA IS MOUNTED SUCH THAT IT IS WITHIN 2 DEGREES OF VERTICAL AND THE BASE OF THE ANTENNA IS WITHIN 2 DEGREES OF LEVEL.
2. DO NOT SWEEP TEST GPS ANTENNA.
3. PLACE PROPOSED GPS ANTENNA A MIN. OF 10' (3 METER) HORIZONTALLY FROM ALL EXISTING TRANSMITTING ANTENNAS.
4. THE GPS ANTENNA MOUNT IS DESIGNED TO FASTEN TO A STANDARD 3/4" DIAMETER, SCHEDULE 40, GALVANIZED STEEL OR STAINLESS STEEL PIPE. THE PIPE MUST NOT BE THREADED AT THE ANTENNA MOUNT END. THE PIPE SHALL BE CUT TO THE REQUIRED LENGTH (MINIMUM OF 18") USING A HAND OR ROTARY PIPE CUTTER TO ASSURE A SMOOTH AND PERPENDICULAR CUT. A HACK SAW SHALL NOT BE USED. THE CUT PIPE END SHALL BE DEBURRED AND SMOOTH EDGES IN ORDER TO SEAL AGAINST THE NEOPRENE GASKET ATTACHED TO THE ANTENNA MOUNT.



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SIGNATURE: [Signature]

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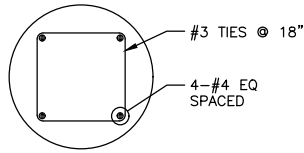
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SHEET TITLE

SITE DETAILS

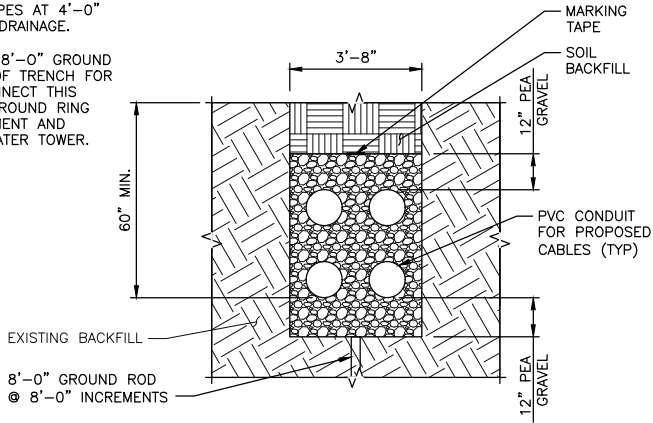
SHEET NUMBER

C-4



NOTES

1. A MINIMUM OF 4" MUST BE MAINTAINED BETWEEN THE PVC PIPE AND THE SIDES OF THE TRENCHES.
2. CONTRACTOR TO DRILL 2" HOLES OF BOTTOM HALF OF PVC PIPES AT 4'-0" INCREMENTS FOR WATER DRAINAGE.
3. CONTRACTOR TO INSTALL 8'-0" GROUND ROD IN ENTIRE LENGTH OF TRENCH FOR PVC PIPE AND MUST CONNECT THIS GROUND FIELD TO THE GROUND RING AROUND THE BTS EQUIPMENT AND AROUND THE EXISTING WATER TOWER.



H-FRAME FOOTING

NO SCALE

1

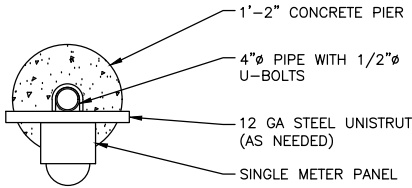
PVC & TRENCHING SECTION DETAIL

NO SCALE

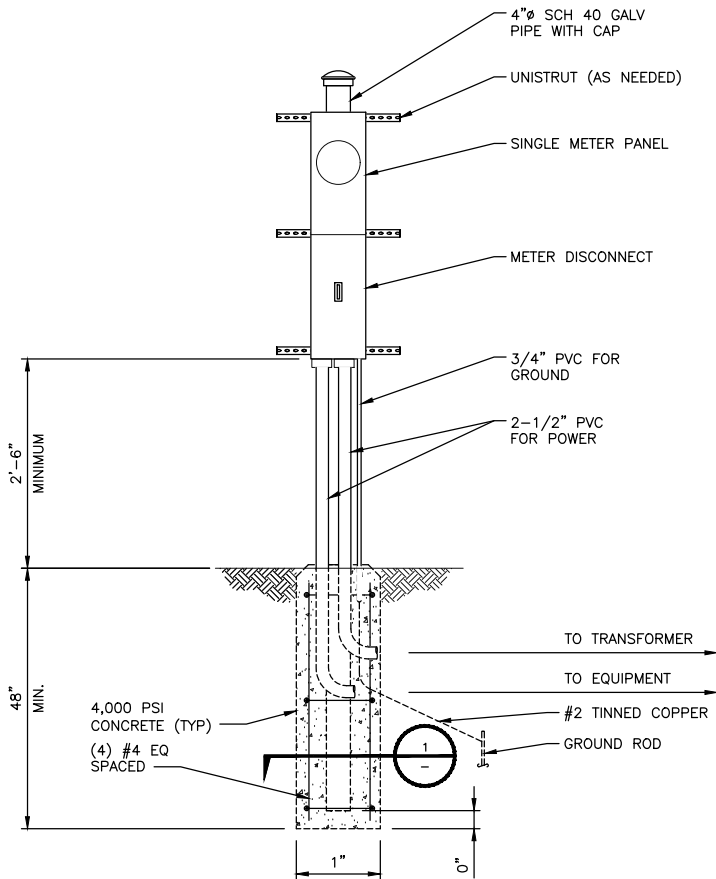
2

NOTES

1. ADDITIONAL UNISTRUT REQUIRED FOR INSTALLATION OF EQUIPMENT ON BACK OF PPC RACK.
2. LIGHTING PANEL - MAIN LUGS ONLY, WITH (6) SIX POLES. PROVIDE AND INSTALL (6) SIX SINGLE POLE 20AMP BREAKERS.



H-FRAME PLAN VIEW
NO SCALE



H-FRAME DETAIL

NO SCALE

3

NOT USED

4

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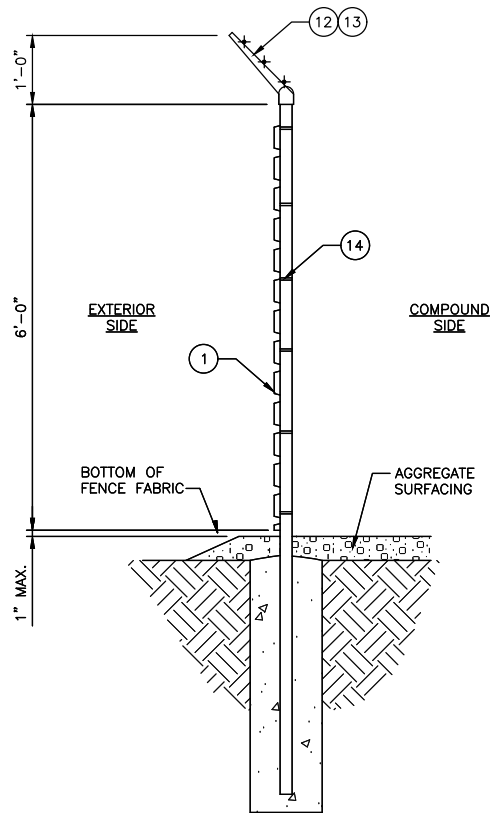
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NSB - WIC

SHEET TITLE

SITE DETAILS

SHEET NUMBER

C-5



- 1 CHAIN LINK RESIDENTIAL FABRIC: 11-1/2 GAUGE, 2-1/4" MESH; GALVANIZED ASTM-A392, CLASS 2; TWISTED SELVAGE ON TOP, KNUCKLED ON BOTTOM.
- 2 LINE POSTS: 2-1/2" O.D. PIPE, 16 GAUGE (GALVANIZED) PER ASTM-F1083.
- 3 CORNER, END AND BRACE POSTS: 2-7/8" O.D. PIPE, SCHEDULE 40 (GALVANIZED).
- 4 TOP RAIL: 1-5/8" O.D. 17 GAUGE PIPE (GALVANIZED) PER ASTM-F1083.
- 5 BRACE RAIL: 1-5/8" O.D. 17 GAUGE PIPE (GALVANIZED).
- 6 DIAGONAL TRUSS ROD: 3/8" GALVANIZED ROD WITH TURNBUCKLE.
- 7 TENSION BAR: 3/16" X 3/4" GALVANIZED FLAT BAR.
- 8 BOTTOM TENSION WIRE: GALVANIZED OR ALUMINUM COATED COIL SPRING WIRE, 7 GAUGE.
- 9 GATE POSTS: 2-7/8" O.D. SCHEDULE 40 PIPE (GALVANIZED).
- 10 COMBINATION PADLOCK ACCORDING TO AT&T REQUIREMENTS.
- 11 GATE FRAMES: 1-7/8" O.D. SCHEDULE 40 PIPE (GALVANIZED).
- 12 BARBED WIRE SUPPORT ARM: SINGLE ARM TYPE (GALVANIZED). ARM SHALL BE INCLINED OUTWARD AT AN ANGLE OF 45 DEGREES.
- 13 BARBED WIRE: GALVANIZED, ASTM A121 CLASS 3; THREE 14 GAUGE MINIMUM STEEL WIRES WITH 4 POINT ROUND 14 GAUGE BARBS SPACED 4" APART.
- 14 FABRIC TIES: ALUMINUM BANDS OR WIRES. FABRIC SHALL BE ATTACHED TO THE TOP RAIL AND BOTTOM TENSION WIRE AT 24" CENTERS AND TO THE POSTS AT 15" CENTERS, ALL ON THE COMPOUND SIDE OF THE FENCE.

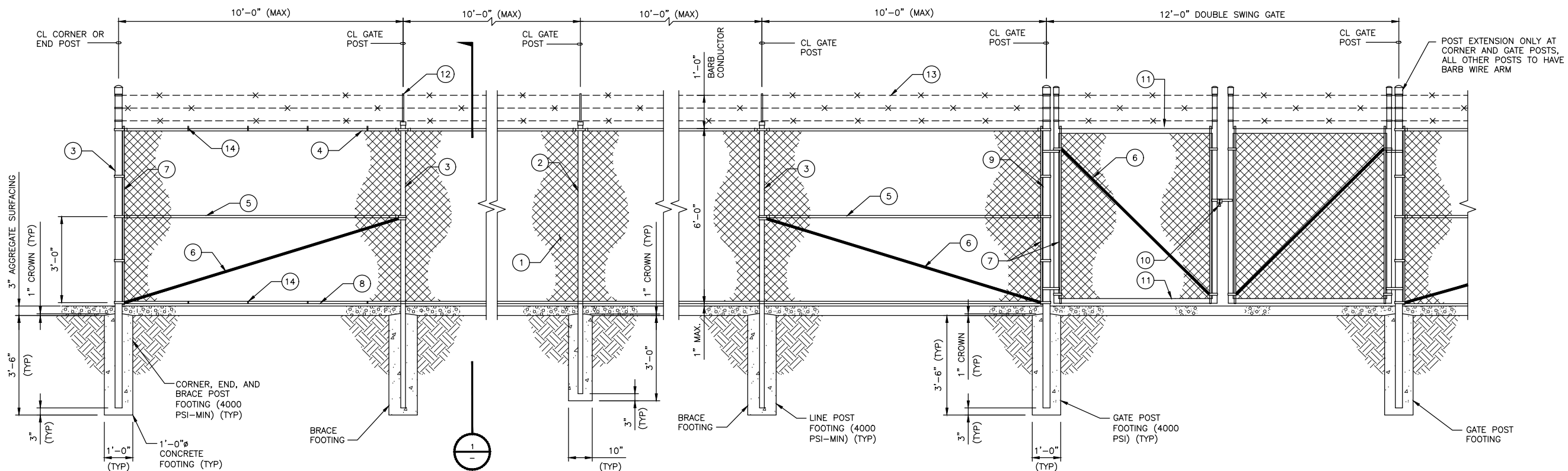
- 15 MISCELLANEOUS:
 - A. RAIL COUPLINGS: SLEEVE TYPE, 6" LONG EXPANSION SPRING EVERY FIFTH COUPLING.
 - B. POST TOPS: PRESSED STEEL, MALLEABLE IRON WITH PRESSED STEEL EXTENSION ARM, OR ONE-PIECE ALUMINUM CASTING; WITH HOLE FOR TOP, ALL DESIGNED TO FIT OVER THE OUTSIDE OF THE POSTS AND TO PREVENT ENTRY OF MOISTURE INTO TUBULAR POSTS.
 - C. LATCHES SHALL BE FORKED TYPE AND SHALL BE ARRANGED FOR PADLOCKING WITH THE PADLOCK ACCESSIBLE FROM BOTH SIDES OF THE GATE.
 - D. KEEPERS SHALL CONSIST OF MECHANICAL DEVICES FOR SECURING AND SUPPORTING THE FREE END OF THE GATES WHEN IN THE FULL OPEN POSITION. KEEPERS SHALL BE MOUNTED ON 2-7/8" O.D. PIPE POSTS FILLED WITH CONCRETE AND SET IN CONCRETE FOUNDATIONS.
 - E. INSTALL FENCING PER ASTM-F567.
 - F. INSTALL SWING GATES PER ASTM-F900.
 - G. LOCAL ORDINANCE OF BARBED WIRE PERMIT REQUIREMENT SHALL BE COMPLETED IF REQUIRED.
 - H. USE GALVANIZED HIG-RING WIRE TO MOUNT ALL SIGNS.
 - I. ALL SIGNS MUST BE MOUNTED ON INSIDE OF FENCE.
 - J. ALL POSTS SHALL HAVE "MUSHROOM" SLEEVE EMBEDDED IN CONCRETE.

CHAINLINK FENCE SECTION

NO SCALE

1

MATERIAL DESCRIPTION



CHAINLINK FENCE ELEVATION

NO SCALE

2

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DELANO, MN 55328
NSB - WIC

SHEET TITLE
CHAINLINK FENCE
DETAILS

SHEET NUMBER
C-6

LIST OF SPECIAL INSPECTIONS	
	LIST OF ITEMS REQUIRING SPECIAL INSPECTIONS
<ul style="list-style-type: none">INSPECTION OF REINFORCING STEEL, INCLUDING PRE-STRESSING TENDONS, AND PLACEMENT PER SECTION 1910.4 OF THE IBC.INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS PER SECTION 1909.1 OF THE IBC.AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATED SPECIMENS FOR STRENGTH TEXT, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE PER SECTION 1910.10 OF THE IBC.INSPECTIONS OF SOILS PER TABLE 1705.6 OF THE IBC.	

TABLE 1704.3					
VERIFICATION AND INSPECTION		CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCE
1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS:					
a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	—	X	ACI 360, SEC. A3.3, APPLICABLE ASTM MATERIAL STANDARDS	—	
b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	—	X	—	—	
2. INSPECTION OF HIGH-STRENGTH BOLTING:					
a. SNUG-TIGHT JOINTS	—	X	ACI 360, SEC. A3.3, APPLICABLE ASTM MATERIAL STANDARDS	1704.3.3	
b. PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITH MATCHMARKING, TWIST-OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION.	—	X			
c. PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCHMARKING OR CALIBRATED WRENCH METHODS OF INSTALLATION.	X	—			
3. MATERIAL VERIFICATION OF STRUCTURAL STEEL AND COLD-FORMED STEEL DECK:					
a. FOR STRUCTURAL STEEL, IDENTIFICATION MARKINGS TO CONFORM TO AISC 360.	—	X	ACI 360, SEC. M5.5		
b. FOR OTHER STEEL, IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	—	X	APPLICABLE ASTM MATERIAL STANDARDS		
c. MANUFACTURER'S CERTIFIED TEST REPORTS.	—	X			
4. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:					
a. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.	—	X	AISC 360, SEC. A3.5 AND APPLICABLE AWS A5 DOCUMENTS	—	
b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	—	X	—	—	
5. INSPECTION OF WELDING:					
a. STRUCTURAL STEEL AND COLD-FORMED STEEL DECK:					
1. COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELDS.	X	—	AWS D1.1	1704.3.1	
2. MULTIPASS FILLET WELDS.	X	—			
3. SINGLE-PASS FILLET WELDS > 5/16".	X	—			
4. PLUG AND SLOT WELDS.	X	—			
5. SINGLE-PASS FILLET WELDS ≤ 5/16".	—	X			
6. FLOOR AND DECK WELDS.	—	X	AWS D1.3		
b. REINFORCING STEEL:					
1. VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706.	—	X	AWS D1.4 ACI 318: SEC. 3.5.2	—	
2. REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR REINFORCEMENT.	X	—			
3. SHEAR REINFORCEMENT.	X	—			
4. OTHER REINFORCING STEEL.	—	X			
6. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE:					
a. DETAILS SUCH AS BRACING AND STIFFENING.	—	X	—	1704.3.2	
b. MEMBER LOCATIONS.	—	X			
c. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.	—	X			

TABLE 1704.7		
REQUIRED VERIFICATION AND INSPECTION OF SOILS		
VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODIC DURING TASK LISTED
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	—	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	—	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	—	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	—
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	—	X

TABLE 1705.3					
REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION					
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCE	
1. INSPECTION OF REINFORCING STEEL, INCLUDING PRE-STRESSING TENDONS, AND PLACEMENT	—	X	ACI 318: 3.5, 7.1–7.7	1910.4	
2. INSPECTION OF REINFORCING STEEL WELDING ON ACCORDANCE WITH TABLE 1704.3, ITEM 5b.	—	—	AWS D1.4 ACI 318: 3.5.2	—	
3. INSPECTION OF BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED WHERE STRENGTH DESIGN IS USED.	—	—	ACI 318: 8.1.3, 21.2.8	1908.5, 1909.1	
4. INSPECTION OF ANCHORS INSTALLED IN HARDED CONCRETE.	—	X	ACI 318: 3.8.6, 8.1.3, 21.2.8	1909.1	
5. VERIFYING USE OF REQUIRED DESIGN MIX.	—	X	ACI 318: Ch 4, 5.2–5.4	1904.2, 1910.2, 1910.3	
6. AT THE TIME FRESH CONCRETE IS STAMPED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	—	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	1910.10	
7. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	—	ACI 318: 5.9, 5.10	1910.6, 1910.7, 1910.8	
8. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	X	—	ACI 318: 5.9, 5.10	1910.9	
9. INSPECTION OF PRE-STRESSED CONCRETE: a. APPLICATION OF PRE-STRESSING FORCES. b. GROUTING OF BONDED PRE-STRESSING TENDONS IN THE SEISMIC-FORCE RESISTING SYSTEM.	—	—	ACI 318: 18.20 ACI 318: 18.18.4	—	
10. ERECTION OF PRECAST CONCRETE MEMBERS.	—	—	ACI 318: Ch. 16	—	
11. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLAB.	—	X	ACI 318: 6.2	—	
12. INSPECT FRAMEWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	—	X	ACI 318: 6.1.1	—	

TABLE 1705.6		
REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION		
VERIFICATION AND INSPECTION	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	—	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	—	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	—	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	—
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	—	X

SPECIAL INSTRUCTIONS

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BLACK & VEATCH

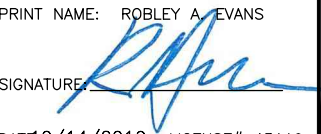
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MNL01123

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DELANO, MN 55328
NSB – WIC

SHEET TITLE

SPECIAL INSPECTIONS

SHEET NUMBER

C-8

PART 1 – GENERAL

- 1.1 SCOPE:
- A.

FORM WORK, REINFORCING STEEL, ACCESSORIES, CAST-IN PLACE CONCRETE, FINISHING, CURING AND TESTING FOR STRUCTURAL CONCRETE FOUNDATIONS.
- 1.2 REFERENCES:
- A.

ACI (AMERICAN CONCRETE INSTITUTE)

1.

ACI 301 SPECIFICATION FOR STRUCTURAL CONCRETE FOR BUILDINGS.

2.

ACI 304 RECOMMENDED PRACTICE FOR MEASURING, MIXING, TRANSPORTING AND PLACING CONCRETE.

3.

ACI 305 RECOMMENDED PRACTICE FOR HOT WEATHER CONCRETING.

4.

ACI 306 RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING.

5.

ACI 308 STANDARD PRACTICE FOR CURING CONCRETING.

6.

ACI 309 STANDARD PRACTICE FOR CONSOLIDATION OF CONCRETE.

7.

ACI 318 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.

8.

ACI 347 RECOMMENDED PRACTICE FOR CONCRETE FORMWORK DRILL PIERS.

B.

ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS). THE APPLICABLE STANDARDS OF THE AMERICAN SOCIETY FOR TESTING AND MATERIALS ARE LISTED IN THE ACI STANDARDS AND ARE A PART OF THIS SPECIFICATION.

PART 2 – PRODUCTS

- 2.1 REINFORCING MATERIALS:
- A.

REINFORCING BARS: ASTM A615, GRADE 60, PROPOSED DEFORMED BILLET-STEEL BARS, PLAIN FINISH.
- B.

FURNISH CHAIRS, BOLSTERS, BAR SUPPORTS, SPACERS AS REQUIRED FOR SUPPORT OF REINFORCING STEEL AND WIRE FABRIC.
- 2.2 CONCRETE MATERIALS:
- A.

PORTLAND CEMENT SHALL BE TYPE II, CONFORMING TO ASTM C-150.
- B.

AGGREGATE SHALL CONFORM TO ASTM C-33.

1.

FINE AGGREGATE SHALL BE UNIFORMLY GRADED, CLEAN SHARP, WASHED NATURAL, OR CRUSHED SAND, FREE FROM ORGANIC IMPURITIES.

2.

COARSE AGGREGATE SHALL BE NATURAL WASHED GRAVEL OR WASHED CRUSHED ROCK HAVING HARD, STRONG, DURABLE PIECES, FREE FROM ADHERENT COATINGS.

3.

MAXIMUM SIZE OF COARSE AGGREGATE SHALL BE 3/4 INCH IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM C-33 GRADATION SIZE NO. 67.

C.

WATER USED IN CONCRETE MIX SHALL BE POTABLE, CLEAN, AND FREE FROM OILS, ACIDS, SALTS, CHLORIDES, ALKALI, SUGAR, VEGETABLE, OR OTHER INJURIOUS SUBSTANCES.

D.

THE CONCRETE SHALL CONTAIN AN AIR-ENTRAINING ADMIXTURE COMPLYING WITH THE REQUIREMENTS OF ASTM C-260 AND ACI 212. 1R AND A WATER- REDUCING ADMIXTURE COMPLYING WITH THE REQUIREMENTS OF ASTM C-494 AND ACI 212. 1R. ADMIXTURES SHALL BE PURCHASED AND BATCHED IN LIQUID SOLUTION. THE USE OF CALCIUM CHLORIDE OR AN ADMIXTURE CONTAINING CALCIUM CHLORIDE IS PROHIBITED. ADMIXTURES SHALL BE OF THE SAME MANUFACTURER TO ASSURE COMPATIBILITY. ACCEPTABLE MANUFACTURERS ARE:

1.

W.R. GRACE

2.

SIKA CORP.

3.

MASTER BUILDERS

4.

EUCLID CHEMICAL CO.

5.

APPROVED EQUAL

E.

CURING COMPOUND SHALL CONFORM TO ASTM C309, TYPE I, ID, CLASS A AND B AND ASTM C171 AS APPLICABLE.

2.3 CONCRETE MIX:

A.

PROPORTION CONCRETE MIX IN ACCORDANCE WITH REQUIREMENTS OF ACI 301. THE STRENGTH OF CONCRETE SHALL BE AS INDICATED ON THE DRAWINGS. WHERE STRENGTH IS NOT CLEARLY INDICATED, CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI.

B.

THE CONCRETE MIX SHALL BE DESIGNED FOR A MAXIMUM SLUMP OF THREE INCHES (PLUS OR MINUS 1-INCH) AT THE POINT OF DISCHARGE. MIXES OF THE STIFFEST CONSISTENCY THAT CAN BE EFFICIENTLY PLACED SHALL BE USED.

C.

ALL CONCRETE SHALL BE TO SIX PERCENT (6%) AIR ENTRAINED (PLUS OR MINUS 1%).

D.

ALL STRUCTURAL CONCRETE SHALL CONTAIN A WATER-REDUCING AGENT.
- PART 3 – EXECUTION
- 3.1 GENERAL:

A.

CONSTRUCT AND ERECT THE FORM WORK IN ACCORDANCE WITH ACI 301 AND ACI 347.

B.

COLD-WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 306.

C.

HOT-WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 305.

3.2 INSERTS, EMBEDDED COMPONENTS AND OPENINGS:

A.

CONTRACTOR SHALL CHECK ALL CIVIL, ARCHITECTURAL, STRUCTURAL AND ELECTRICAL DRAWINGS FOR OPENINGS, SLEEVES, ANCHOR BOLTS, INSERTS AND OTHER ITEMS TO BE BUILT INTO THE CONCRETE WORK.

B.

COORDINATE THE WORK OF OTHER SECTION IN FORMING AND SETTING OPENINGS. RECESSES, SLOTS, CHASES, ANCHORS, INSERTS AND OTHER ITEMS TO BE EMBEDDED.
- C.

EMBEDDED ITEMS SHALL BE SET ACCURATELY IN LOCATION, ALIGNMENT, ELEVATION AND PLUMBNESS, LOCATE AND MEASURE FROM ESTABLISHED SURVEYED REFERENCE BENCHMARKS.

D.

EMBEDDED ITEMS SHALL BE ANCHORED INTO PLACE IN A MANNER TO PREVENT MOVEMENT DURING CONCRETE PLACEMENT AND CONSOLIDATION. COMPONENTS FORMING A PART OF A COMPLETE ASSEMBLY SHALL BE ALIGNED BEFORE ANCHORING INTO PLACE. PROVIDE TEMPORARY BRACING, ANCHORAGE, AND TEMPLATES AS REQUIRED TO MAINTAIN THE SETTING AND ALIGNMENT.

3.3 REINFORCEMENT PLACEMENT:

A.

PLACE REINFORCEMENT ACCORDING TO CHECKED AND RELEASED DRAWINGS AND IN ACCORDANCE WITH ACI 301 AND ACI 318.

B.

ACCURATELY POSITION, SUPPORT AND SECURE REINFORCEMENT AGAINST DISPLACEMENT FROM FORM WORK CONSTRUCTION OR CONCRETE PLACEMENT AND CONSOLIDATION. SUPPORT REINFORCING ON METAL CHAIRS, RUNNERS, BOLSTERS, SPACERS AND HANGERS.

C.

SPICES OF REINFORCING BARS SHALL BE CLASS B UNLESS SHOWN OTHERWISE ON THE DRAWINGS. SPICES SHALL BE STAGGERED. FULL DEVELOPMENT LENGTH SHALL BE PROVIDED ACROSS JOINTS.

D.

LOCATE REINFORCING TO PROVIDE CONCRETE COVER AND SPACING SHOWN ON THE DRAWINGS. MINIMUM COVER SHALL BE AS REQUIRED BY ACI 318.

E.

WELDING OF AND TO ANY REINFORCING MATERIALS INCLUDING TACK WELDING OF CROSSING BARS IS STRICTLY PROHIBITED.

3.4 CONCRETE PLACEMENT:

A.

PRIOR TO PLACING CONCRETE, THE FORMS AND REINFORCEMENT SHALL BE THOROUGHLY INSPECTED; ALL TEMPORARY BRACING, TIES AND CLEATS REMOVED; ALL OPENINGS FOR UTILITIES PROPERLY BOXED; ALL FORMS PROPERLY SECURED IN THERE CORRECT POSITION AND MADE TIGHT. ALL REINFORCEMENT AND EMBEDDED ITEMS SHALL BE SECURED IN THEIR PROPER LOCATIONS. ALL OLD AND DRY CONCRETE AND DIRT SHALL BE CLEANED OFF AND ALL STANDING WATER AND OTHER FOREIGN MATERIAL REMOVED.

B.

PLACING CONCRETE SHALL BE IN ACCORDANCE WITH ACI 301 AND ACI 304 AND SHALL BE CARRIED OUT AT SUCH A RATE THAT THE CONCRETE PREVIOUSLY PLACED IS STILL PLASTIC AND INTEGRATED WITH THE FRESHLY PLACED CONCRETE. CONCRETING ONCE STARTED, SHALL BE CARRIED ON AS A CONTINUOUS OPERATION UNTIL THE SECTION IS COMPLETED. NO COLD JOINTS SHALL BE ALLOWED.

C.

ALL CONCRETE SHALL BE THOROUGHLY CONSOLIDATED AND COMPACTED BY VIBRATION SPACING, RODDING, OR FORKING DURING THE OPERATION OF PLACING AND DEPOSITING IN ACCORDANCE WITH ACI 309. THE CONCRETE SHALL BE THOROUGHLY WORKED AROUND REINFORCEMENT, EMBEDDED ITEMS, AND INTO THE CORNER OF THE FORMS SO AS TO ELIMINATE ALL AIR AND STONE POCKETS.

3.5 FINISHING:

A.

FINISHING OF THE FLOOR SLABS SHALL BE IN ACCORDANCE WITH ACI 302.1 SECTION 7.2 WITH A MINIMUM OF THREE TROWELINGS. THE SLAB FINISH TOLERANCE AS MEASURED IN ACCORDANCE WITH ASTM E 1155 SHALL HAVE AN OVERALL TEST NUMBER FOR FLATNESS, FF= 20 AND FOR LEVEL, FL=15. THE MINIMUM LOCAL NUMBER FOR FLATNESS, FF= 15 AND FOR LEVEL, FL=10.

B.

SURFACE OF FLOOR SLAB SHALL RECEIVE TWO COATS OF CLEAR SEALER/HARDENER.

C.

ABOVE GRADE WALL SURFACES SHALL HAVE A SMOOTH FORM FINISH AS DEFINED IN CHAPTER 10 OF ACI 301.

3.6 CURING:

A.

FRESHLY DEPOSITED CONCRETE SHALL BE PROTECTED FROM PREMATURE DRYING AND EXCESSIVELY HOT AND COLD TEMPERATURES AND SHALL BE MAINTAINED WITH MINIMUM MOISTURE LOSS AT A RELATIVELY CONSTANT TEMPERATURE FOR A PERIOD OF TIME NECESSARY FOR THE HYDRATION OF THE CEMENT AND PROPER HARDENING OF THE CONCRETE.

B.

CONCRETE SHALL BE KEPT CONTINUOUSLY MOIST AT LEAST OVERNIGHT, IMMEDIATELY FOLLOWING THE INITIAL CURING. BEFORE THE CONCRETE HAS DRIED, ADDITIONAL CURING SHALL BE ACCOMPLISHED BY ONE OF THE FOLLOWING MATERIALS OR METHODS:

1.

PONDING OR CONTINUOUS SPRINKLING.

2.

ABSORPTIVE MAT OR FABRIC KEPT CONTINUOUSLY WET.

3.

NON-ABSORPTIVE FILM (POLYETHYLENE) OVER PREVIOUSLY SPRINKLED SURFACE.

4.

SAND OR OTHER COVERING KEPT CONTINUOUSLY WET.

5.

CONTINUOUS STEAM (NOT EXCEEDING 150° F) OR VAPOR MIST BATH.

6.

SPRAYED-ON CURING COMPOUND APPLIED IN TWO COATS, SPRAYED IN PERPENDICULAR DIRECTION.

C.

THE FINAL CURING SHALL CONTINUE UNTIL THE CUMULATIVE NUMBER OF DAYS OR FRACTION THEREOF, NOT NECESSARILY CONSECUTIVE, DURING WHICH TEMPERATURE OF THE AIR IN CONTACT WITH CONCRETE IS ABOVE 50° F HAS TOTALED SEVEN (7) DAYS. CONCRETE SHALL NOT BE PERMITTED TO FREEZE DURING THE CURING PERIOD. RAPID DRYING AT THE END OF THE CURING PERIOD SHALL BE PREVENTED.

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PROJECT NO:	129049.4004
DRAWN BY:	VPB
CHECKED BY:	JAT

1	10/14/19	CITY COMMENTS
0	07/24/19	ISSUED FOR CONSTRUCTION
REV	DATE	DESCRIPTION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: ROBLEY A. EVANS

SIGNATURE:

DATE: 10/14/2019 LICENSE# 43119
EXP. 6/20

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

DELANO COUNTY LINE
MNL01123
3310 COUNTY LINE ROAD SE
DELANO, MN 55328
NSB – WIC

SHEET TITLE
CONCRETE WORK
NOTES

SHEET NUMBER

C-9

CONCRETE WORK NOTES

PART 1 – GENERAL

CLEARING, GRUBBING, STRIPPING, EROSION CONTROL, SURVEY, LAYOUT, SUBGRADE PREPARATION AND FINISH GRADING AS REQUIRED TO COMPLETE THE PROPOSED WORK SHOWN IN THESE PLANS.

1.1 REFERENCES:

- A. DOT (STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION–CURRENT EDITION).
- B. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS).
- C. OSHA (OCCUPATION SAFETY AND HEALTH ADMINISTRATION).

1.2 INSPECTION AND TESTING:

- A. FIELD TESTING OF EARTHWORK COMPACTION AND CONCRETE CYLINDERS SHALL BE PERFORMED BY CONTRACTORS INDEPENDENT TESTING LAB. THIS WORK TO BE COORDINATED BY THE CONTRACTOR.
- B. ALL WORK SHALL BE INSPECTED AND RELEASED BY THE GENERAL CONTRACTOR WHO SHALL CARRY OUT THE GENERAL INSPECTION OF THE WORK WITH SPECIFIC CONCERN TO PROPER PERFORMANCE OF THE WORK AS SPECIFIED AND/OR CALLED FOR ON THE DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REQUEST TIMELY INSPECTIONS PRIOR TO PROCEEDING WITH FURTHER WORK THAT WOULD MAKE PARTS OF WORK INACCESSIBLE OR DIFFICULT TO INSPECT.

1.3 SITE MAINTENANCE AND PROTECTION:

- A. PROVIDE ALL NECESSARY JOB SITE MAINTENANCE FROM COMMENCEMENT OF WORK UNTIL COMPLETION OF THE SUBCONTRACT.
- B. AVOID DAMAGE TO THE SITE AND TO EXISTING FACILITIES, STRUCTURES, TREES, AND SHRUBS DESIGNATED TO REMAIN. TAKE PROTECTIVE MEASURES TO PREVENT EXISTING FACILITIES THAT ARE NOT DESIGNATED FOR REMOVAL FROM BEING DAMAGED BY THE WORK.
- C. KEEP SITE FREE OF ALL PONDING WATER.
- D. PROVIDE EROSION CONTROL MEASURES IN ACCORDANCE WITH STATE DOT AND EPA REQUIREMENTS.
- E. PROVIDE AND MAINTAIN ALL TEMPORARY FENCING, BARRICADES, WARNING SIGNALS AND SIMILAR DEVICES NECESSARY TO PROTECT AGAINST THEFT FROM PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION. REMOVE ALL SUCH DEVICES UPON COMPLETION OF THE WORK.
- F. EXISTING UTILITIES: DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED BY THE OWNER OR OTHERS, EXCEPT WHEN PERMITTED IN WRITING BY THE ENGINEER AND THEN ONLY AFTER ACCEPTABLE TEMPORARY UTILITY SERVICES HAVE BEEN PROVIDED.
 - 1. PROVIDE A MINIMUM 48–HOUR NOTICE TO THE ENGINEER AND RECEIVE WRITTEN NOTICE TO PROCEED BEFORE INTERRUPTING ANY UTILITY SERVICE.

PART 2 – PRODUCTS

- 2.1 SUITABLE BACKFILL: ASTM D2321 (CLASS I, II, III OR IV) FREE FROM FROZEN LUMPS, REFUSE, STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.2 NON–POROUS GRANULAR EMBANKMENT AND BACKFILL: ASTM D2321 (CLASS III, IVA OR IVB) COARSE AGGREGATE. FREE FROM FROZEN LUMPS, REFUSE, STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.3 POROUS GRANULAR EMBANKMENT AND BACKFILL: ASTM D2321 (CLASS IA, IB OR II) COARSE AGGREGATE FREE FROM FROZEN LUMPS, REFUSE, STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.4 SELECT STRUCTURAL FILL: GRANULAR FILL MATERIAL MEETING THE REQUIREMENTS OF ASTM E850–95. FOR USE AROUND AND UNDER STRUCTURES WHERE STRUCTURAL FILL MATERIAL ARE REQUIRED.
- 2.5 GRANULAR BEDDING AND TRENCH BACKFILL: WELL–GRADED SAND MEETING THE GRADATION REQUIREMENTS OF ASTM D2487 (SE OR SW–SM).
- 2.6 COARSE AGGREGATE FOR ACCESS ROAD SUBBASE COURSE SHALL CONFORM TO ASTM D2940.
- 2.7 UNSUITABLE MATERIAL: HIGH AND MODERATELY PLASTIC SILTS AND CLAYS (LL>45). MATERIAL CONTAINING REFUSE, FROZEN LUMPS, DEMOLISHED BITUMINOUS MATERIAL, VEGETATIVE MATTER, WOOD, STONES IN EXCESS OF 3 INCHES IN ANY DIMENSION, AND DEBRIS AS DETERMINED BY THE CONSTRUCTION MANAGER. TYPICALLY THESE WILL BE SOILS CLASSIFIED BY ASTM AS: PT, MH, CH, OH, ML, AND OL.
- 2.8 GEOTEXTILE FABRIC: MIRAFI 500X OR ENGINEER APPROVED EQUAL.
- 2.9 PLASTIC MARKING TAPE: SHALL BE ACID AND ALKALI RESISTANT POLYETHYLENE FILM SPECIFICALLY MANUFACTURED FOR MARKING AND LOCATING UNDERGROUND UTILITIES; 6 INCHES WIDE WITH A MINIMUM THICKNESS OF 0.004 INCH. TAPE SHALL HAVE MINIMUM STRENGTH OF 1500 PSI IN BOTH DIRECTIONS AND MANUFACTURED WITH INTEGRAL CONDUCTORS, FOIL BACKING OR OTHER MEANS TO ENABLE DETECTION BY A METAL DETECTOR WHEN BURIED UP TO 3 FEET DEEP. THE METALLIC CORE OF THE TAPE SHALL BE ENCASED IN A PROTECTIVE JACKET OR PROVIDED WITH OTHER MEANS TO PROTECT IT FROM CORROSION. TAPE COLOR SHALL BE RED FOR ELECTRIC UTILITIES AND ORANGE FOR TELECOMMUNICATION UTILITIES.

PART 3 – EXECUTION

3.1 GENERAL:

- A. BEFORE STARTING GENERAL SITE PREPARATION ACTIVITIES, INSTALL EROSION AND SEDIMENT CONTROL MEASURES. THE WORK AREA SHALL BE CONSTRUCTED AND MAINTAINED IN SUCH CONDITION THAT IN THE EVENT OF RAIN THE SITE WILL BE DRAINED AT ANY TIME.
- B. BEFORE ALL SURVEY, LAYOUT, STAKING, AND MARKING, ESTABLISH AND MAINTAIN ALL LINES, GRADES, ELEVATIONS AND BENCHMARKS NEEDED FOR EXECUTION OF THE WORK.
- C. CLEAR AND GRUB THE AREA WITHIN THE LIMITS OF THE SITE. REMOVE TREES, BRUSH, STUMPS, RUBBISH AND OTHER DEBRIS AND VEGETATION RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE SITE AREA TO BE CLEARED.
 - 1. REMOVE THE FOLLOWING MATERIALS TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE ORIGINAL GROUND SURFACE: ROOTS, STUMPS, AND OTHER DEBRIS, BRUSH, AND REFUSE EMBEDDED IN OR PROTRUDING THROUGH THE GROUND SURFACE, RAKE, DISK OR PLOW THE AREA TO A DEPTH OF NO LESS THAN 6 INCHES, AND REMOVE TO A DEPTH OF 12 INCHES ALL ROOTS AND OTHER DEBRIS THEREBY EXPOSED.
 - 2. REMOVE TOPSOIL MATERIAL COMPLETELY FROM THE SURFACE UNTIL THE SOIL NO LONGER MEETS THE DEFINITION OF TOPSOIL. AVOID MIXING TOPSOIL WITH SUBSOIL OR OTHER UNDESIRABLE MATERIALS.
 - 3. EXCEPT WHERE EXCAVATION TO GREATER DEPTH IS INDICATED, FILL DEPRESSIONS RESULTING FROM CLEARING, GRUBBING AND DEMOLITION WORK COMPLETELY WITH SUITABLE FILL.
- A. REMOVE FROM THE SITE AND DISPOSE IN AN AUTHORIZED LANDFILL ALL DEBRIS RESULTING FROM CLEARING AND GRUBBING OPERATIONS. BURNING WILL NOT BE PERMITTED.

- B. PRIOR TO EXCAVATING, THOROUGHLY EXAMINE THE AREA TO BE EXCAVATED AND/OR TRENCHED TO VERIFY THE LOCATIONS OF FEATURES INDICATED ON THE DRAWINGS AND TO ASCERTAIN THE EXISTENCE AND LOCATION OF ANY STRUCTURE, UNDERGROUND STRUCTURE, OR OTHER ITEM NOT SHOWN THAT MIGHT INTERFERE WITH THE PROPOSED CONSTRUCTION. NOTIFY THE CONSTRUCTION MANAGER OF ANY OBSTRUCTIONS THAT WILL PREVENT ACCOMPLISHMENT OF THE WORK AS INDICATED ON THE DRAWINGS.
- C. SEPARATE AND STOCK PILE ALL EXCAVATED MATERIALS SUITABLE FOR BACKFILL. ALL EXCESS EXCAVATED AND UNSUITABLE MATERIALS SHALL BE DISPOSED OF OFF–SITE IN A LEGAL MANNER.

3.2 BACKFILL:

- A. AS SOON AS PRACTICAL, AFTER COMPLETING CONSTRUCTION OF THE RELATED STRUCTURE, INCLUDING EXPIRATION OF THE SPECIFIED MINIMUM CURING PERIOD FOR CAST–IN–PLACE CONCRETE, BACKFILL THE EXCAVATION WITH APPROVED MATERIAL TO RESTORE THE REQUIRED FINISHED GRADE.
 - 1. PRIOR TO PLACING BACKFILL AROUND STRUCTURES, ALL FORMS SHALL BE REMOVED AND THE EXCAVATION CLEANED OF ALL TRASH, DEBRIS, AND UNSUITABLE MATERIALS.
 - 2. BACKFILL BY PLACING AND COMPACTING SUITABLE BACKFILL MATERIAL OR SELECT GRANULAR BACKFILL MATERIAL WHEN REQUIRED IN UNIFORM HORIZONTAL LAYERS OF NO GREATER THAN 8–INCHES LOOSE THICKNESS AND COMPACTED. WHERE HAND OPERATED COMPACTORS ARE USED, THE FILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 4 INCHES IN LOOSE DEPTH AND COMPACTED.
 - 3. WHENEVER THE DENSITY TESTING INDICATES THAT THE CONTRACTOR HAS NOT OBTAINED THE SPECIFIED DENSITY, THE SUCCEEDING LAYER SHALL NOT BE PLACED UNTIL THE SPECIFICATION REQUIREMENTS ARE MET UNLESS OTHERWISE AUTHORIZED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL TAKE WHATEVER APPROPRIATE ACTION IS NECESSARY, SUCH AS DISKING AND DRYING, ADDING WATER, OR INCREASING THE COMPACTIVE EFFORT TO MEET THE MINIMUM COMPACTION REQUIREMENTS.
- B. THOROUGHLY COMPACT EACH LAYER OF BACKFILL TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 698.

3.3 TRENCH EXCAVATION:

- A. UTILITY TRENCHES SHALL BE EXCAVATED TO THE LINES AND GRADES SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE GENERAL CONTRACTOR. PROVIDE SHORING, SHEETING AND BRACING AS REQUIRED TO PREVENT CAVING OR SLOUGHING OF THE TRENCH WALLS.
- B. EXTEND THE TRENCH WIDTH A MINIMUM OF 6 INCHES BEYOND THE OUTSIDE EDGE OF THE OUTERMOST CONDUIT.
- C. WHEN SOFT YIELDING, OR OTHERWISE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, BACKFILL AT THE REQUIRED TRENCH TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE REQUIRED ELEVATION AND BACKFILL WITH GRANULAR BEDDING MATERIAL.

3.4 TRENCH BACKFILL:

- A. PROVIDE GRANULAR BEDDING MATERIAL IN ACCORDANCE WITH THE DRAWINGS AND THE UTILITY REQUIREMENTS.
- B. NOTIFY THE GENERAL CONTRACTOR 24 HOURS IN ADVANCE OF BACKFILLING.
- C. CONDUCT UTILITY CHECK TESTS BEFORE BACKFILLING. BACKFILL AND COMPACT TRENCH BEFORE ACCEPTANCE TESTING.
- D. PLACE GRANULAR TRENCH BACKFILL UNIFORMLY ON BOTH SIDES OF THE CONDUITS IN 6–INCH UNCOMPACTED LIFTS UNTIL 12 INCHES OVER THE CONDUITS. SOLIDLY RAM AND TAMP BACKFILL INTO SPACE AROUND CONDUITS.
- E. PROTECT CONDUIT FROM LATERAL MOVEMENT, IMPACT DAMAGE, OR UNBALANCED LOADING.
- F. ABOVE THE CONDUIT EMBEDMENT ZONE, PLACE AND COMPACT SATISFACTORY BACKFILL MATERIAL IN 8–INCH MAXIMUM LOOSE THICKNESS LIFTS TO RESTORE THE REQUIRED FINISHED SURFACE GRADE.
- G. COMPACT FINAL TRENCH BACKFILL TO A DENSITY EQUAL TO OR GREATER THAN THAT OF THE EXISTING UNDISTURBED MATERIAL IMMEDIATELY ADJACENT TO THE TRENCH BUT NO LESS THAN A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 698.

3.5 AGGREGATE ACCESS ROAD:

- A. CLEAR, GRUB, STRIP AND EXCAVATE FOR THE ACCESS ROAD TO THE LINES AND GRADES INDICATED ON THE DRAWINGS. SCARIFY TO A DEPTH OF 6 INCHES AND PROOF–ROLL. ALL HOLES, RUTS, SOFT PLACES AND OTHER DEFECTS SHALL BE CORRECTED.
- B. THE ENTIRE SUBGRADE SHALL BE COMPACTED TO NOT LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE MODIFIED PROCTOR TEST, ASTM D 1557.
- C. AFTER PREPARATION OF THE SUBGRADE IS COMPLETE THE GEOTEXTILE FABRIC (MIRAFI 500X) SHALL BE INSTALLED TO THE LIMITS INDICATED ON THE DRAWINGS BY ROLLING THE FABRIC OUT LONGITUDINALLY ALONG THE ROADWAY. THE FABRIC SHALL NOT BE DRAGGED ACROSS THE SUBGRADE. PLACE THE ENTIRE ROLL IN A SINGLE OPERATION, ROLLING OUT AS SMOOTHLY AS POSSIBLE.
 - 1. OVERLAPS PARALLEL TO THE ROADWAY WILL BE PERMITTED AT THE CENTERLINE AND AT LOCATIONS BEYOND THE ROADWAY SURFACE WIDTH (I.E. WITHIN THE SHOULDER WIDTH) ONLY. NO LONGITUDINAL OVERLAPS SHALL BE LOCATED BETWEEN THE CENTERLINE AND THE SHOULDER. PARALLEL OVERLAPS SHALL BE A MINIMUM OF 3 FEET WIDE.
 - 2. TRANSVERSE (PERPENDICULAR TO THE ROADWAY) OVERLAPS AT THE END OF A ROLL SHALL OVERLAP IN THE DIRECTION OF THE AGGREGATE PLACEMENT (PREVIOUS ROLL ON TOP) AND SHALL HAVE A MINIMUM LENGTH OF 3 FEET.
 - 3. ALL OVERLAPS SHALL BE PINNED WITH STAPLES OR NAILS A MINIMUM OF 10 INCHES LONG TO INSURE POSITIONING DURING PLACEMENT OF AGGREGATE. PIN LONGITUDINAL SEAMS AT 25 FOOT CENTERS AND TRANSVERSE SEAMS EVERY 5 FEET.
- D. THE AGGREGATE BASE AND SURFACE COURSES SHALL BE CONSTRUCTED IN LAYERS NOT MORE THAN 4 INCH (COMPACTED) THICKNESS. AGGREGATE TO BE PLACED ON GEOTEXTILE FABRIC SHALL BE END–DUMPED ON THE FABRIC FROM THE FREE END OF THE FABRIC OR OVER PREVIOUSLY PLACED AGGREGATE. THE FIRST LIFT SHALL BE BLADED DOWN TO A THICKNESS OF 8 INCHES PRIOR TO COMPACTION. AT NO TIME SHALL EQUIPMENT, EITHER TRANSPORTING THE AGGREGATE OR GRADING THE AGGREGATE, BE PERMITTED ON THE ROADWAY WITH LESS THAN 4 INCHES OF MATERIAL COVERING THE FABRIC.
- E. THE AGGREGATE SHALL BE IMMEDIATELY COMPACTED TO NOT LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE MODIFIED PROCTOR TEST, ASTM D 1557 WITH A TAMPING ROLLER, OR WITH A PNEUMATIC–TIRE ROLLER, OR WITH A VIBRATORY MACHINE OR ANY COMBINATION OF THE ABOVE. THE TOP LAYER SHALL BE GIVEN A FINAL ROLLING WITH A THREE–WHEEL OR TANDEM ROLLER.

3.6 FINISH GRADING:

- A. PERFORM ALL GRADING TO PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES AND SMOOTH, EVEN SURFACE DRAINAGE OF THE ENTIRE AREA WITHIN THE LIMITS OF CONSTRUCTION. GRADING SHALL BE COMPATIBLE WITH ALL SURROUNDING TOPOGRAPHY AND STRUCTURES.
- B. UTILIZE SATISFACTORY FILL MATERIAL RESULTING FROM THE EXCAVATION WORK IN THE CONSTRUCTION OF FILLS, EMBANKMENTS AND FOR REPLACEMENT OF REMOVED UNSUITABLE MATERIALS.

- C. ACHIEVE FINISHED GRADE BY PLACING A MINIMUM OF 4 INCHES OF 1/2” – 3/4” CRUSHED STONE ON TOP SOIL STABILIZER FABRIC.
- D. REPAIR ALL ACCESS ROADS AND SURROUNDING AREAS USED DURING THE COURSE OF THIS WORK TO THEIR ORIGINAL CONDITION.

3.7 ASPHALT PAVING ROAD:

- MINNESOTA:
 - A. SECTION 2321 – MN/DOT ROAD–MIXED BITUMINOUS SURFACE.
 - B. SECTION 2360 – MN/DOT PLANT MIXED ASPHALT PAVEMENT.

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PRINT NAME: ROBLEY A. EVANS

SIGNATURE: 

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EXP. 6/20

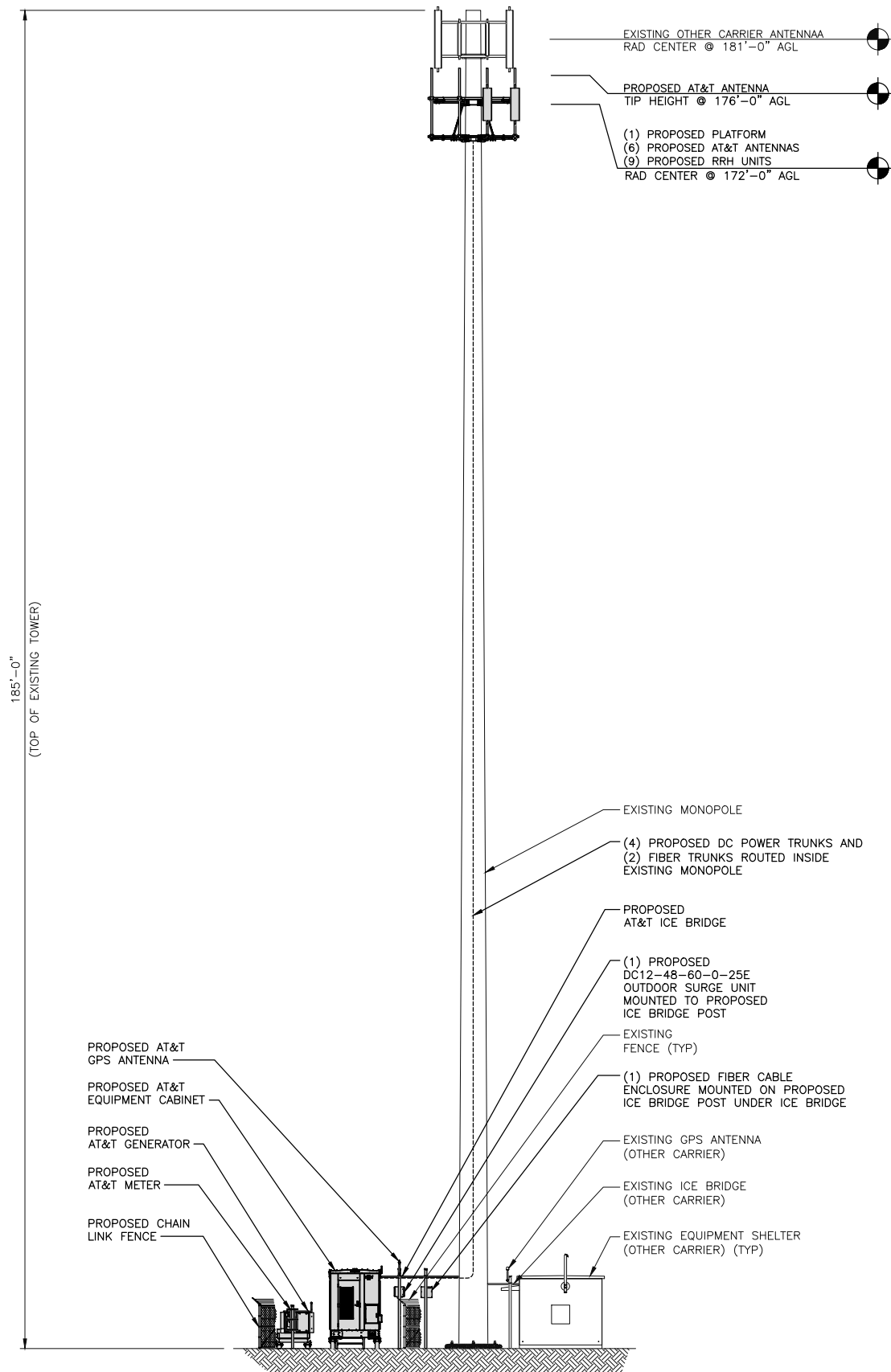
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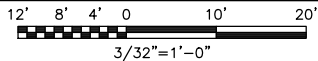
SHEET TITLE
SITE WORK AND
DRAINAGE NOTES

SHEET NUMBER

C-10



PROPOSED TOWER WEST ELEVATION



1

STRUCTURAL NOTE

THIS IS NOT AN ALL-INCLUSIVE LIST. CONTRACTOR SHALL UTILIZE SPECIFIED EQUIPMENT PART OR ENGINEER APPROVED EQUIVALENT. CONTRACTOR SHALL VERIFY ALL NEEDED EQUIPMENT TO PROVIDE A FUNCTIONAL SITE.

THE PROJECT GENERALLY CONSISTS OF THE FOLLOWING:

PROPOSED-TOWER:
INSTALL (1) SABRE C10855721C MONOPOLE PLATFORM (OR ENGINEER APPROVED EQUAL)
INSTALL (6) COMMScope NNH4-65C-R6-V3 ANTENNAS
INSTALL (9) LTE RRH UNITS
INSTALL (2) RAYCAP DC6-48-60-18-8C-EV SURGE UNITS
INSTALL (4) DC POWER TRUNKS
INSTALL (2) FIBER TRUNKS

PROPOSED-PLATFORM:
INSTALL (1) VERTIV XTE 801 CABINET, W/EQUIPMENT (NEQ200060)
INSTALL (1) GPS KIT
INSTALL (1) POLAR POWER GENERATOR WITH PLATFORM

PROPOSED-SITE:
INSTALL (1) ROSENBERGER FB-15-ABOX FIBER ENCLOSURE
INSTALL (1) RAYCAP DC12-48-60-0-25E OUTDOOR SURGE
INSTALL APPROXIMATELY 11'-6" OF ICE BRIDGE

PROPOSED-LANDSCAPING:
INSTALL (1) 2.5" CALIPER FREEMAN MAPLE
INSTALL (4) 18' BLACK HILLS SPRUCE
INSTALL (4) 10' BLACK HILLS SPRUCE

AT&T TO VERIFY
REQUIRED PLATFORM
EQUIPMENT.

PROJECT DESCRIPTION

- FENCE NOT ENTIRELY SHOWN FOR CLARITY.
- WHEN STACKING CABLES 3 OR MORE DEEP, USE STACKABLE SNAP-INS, TALLEY PART NUMBER SSH-158-3 (OR ENGINEER APPROVED EQUAL)

NOTES

THE PASSING MOUNT ANALYSIS FOR THE EXISTING MOUNTS WAS COMPLETE BY BLACK & VEATCH ON FEBRUARY 06, 2019. THE MOUNTING SYSTEM HAS SUFFICIENT CAPACITY FOR THE EXISTING AND PROPOSED LOADING OBSERVED ON THESE CONSTRUCTION DRAWINGS.

MOUNT ANALYSIS NOTE

THE PASSING STRUCTURAL ANALYSIS FOR THE EXISTING STRUCTURE WAS COMPLETED BY BLACK & VEATCH ON FEBRUARY 05, 2019.

AT&T
MOBILITY

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3RD FLOOR
BLOOMINGTON MN 55431



BLACK & VEATCH

BLACK & VEATCH CORPORATION
7760 FRANCE AVENUE SOUTH
SUITE 1200
BLOOMINGTON, MN 55435

PROJECT NO: 129049.4004
DRAWN BY: VPB
CHECKED BY: JAT

REV	DATE	DESCRIPTION
1	10/14/19	CITY COMMENTS
0	07/24/19	ISSUED FOR CONSTRUCTION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

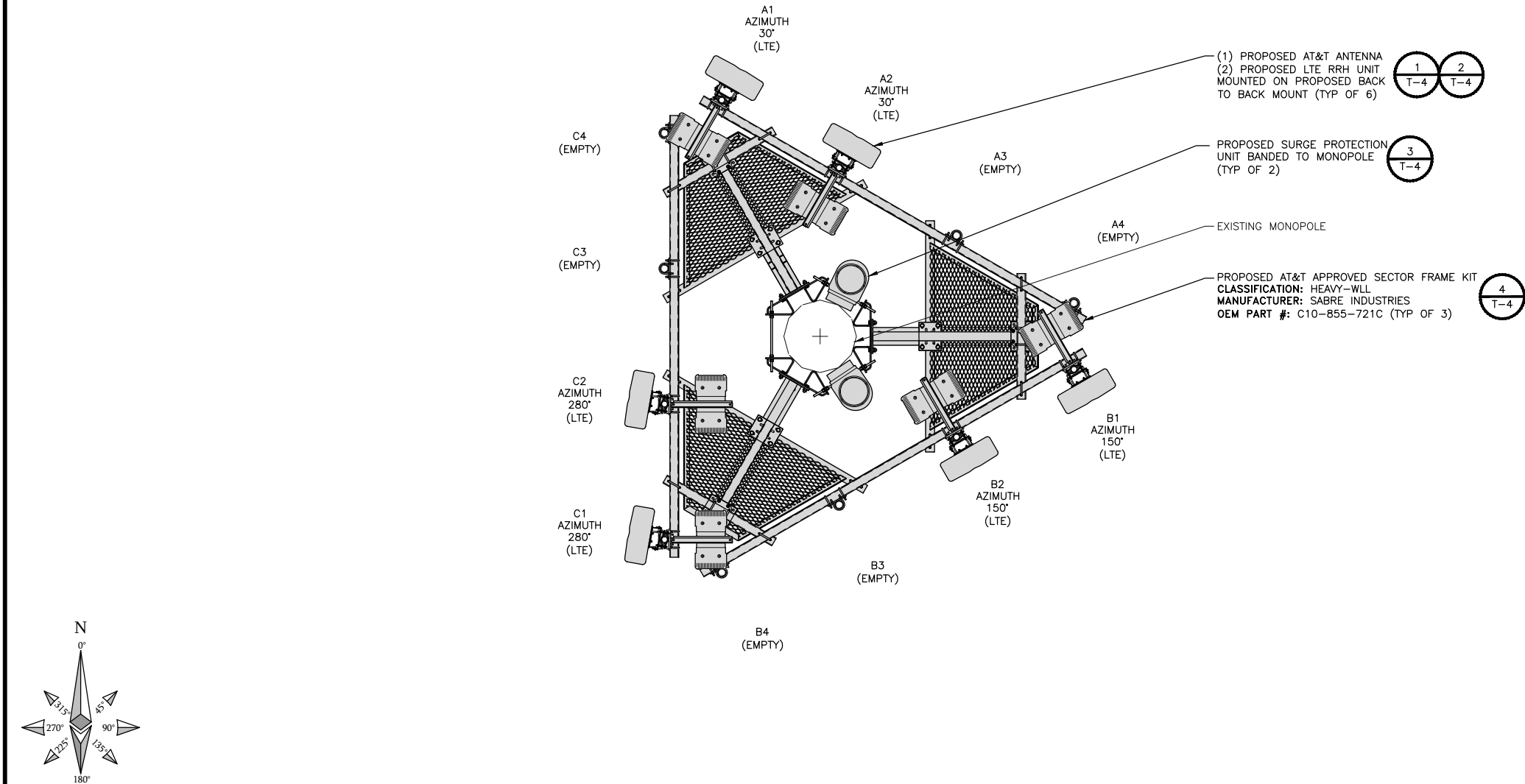
PRINT NAME: ROBLEY A. EVANS
SIGNATURE: [Signature]
DATE: 10/14/2019 LICENSE# 43119 EXP. 6/20

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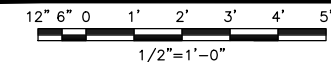
DELANO COUNTY LINE
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SHEET TITLE
TOWER ELEVATION

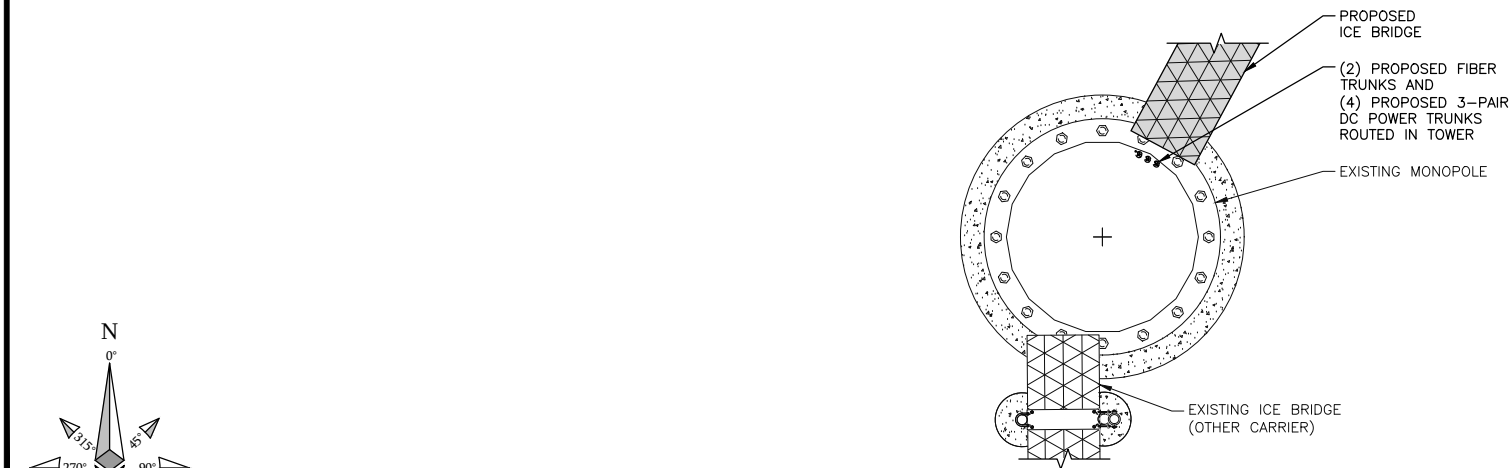
SHEET NUMBER
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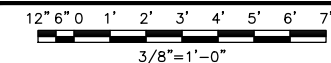
ANTENNA LAYOUT PLAN



1



COAX ROUTING DIAGRAM



2

A MOUNT ANALYSIS WAS NOT PERFORMED AS A PART OF THE SCOPE OF WORK INCLUDED IN THESE CONSTRUCTION DRAWINGS.

MOUNT ANALYSIS NOTE

1. RAYCAP DC6-48-60-18-8C-EV SURGE SUPPRESSOR WILL ROUTE POWER AND FIBER TO EACH SECTORS TOWER MOUNTED RRHS.

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SIGNATURE:

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SHEET TITLE
ANTENNA
CONFIGURATION

SHEET NUMBER

T-2

NOTES

FINAL ANTENNA AND TRANSMISSION EQUIPMENT REQUIREMENTS (VERIFY WITH LATEST RFDS)														
SECTOR	RAD CENTER	POSITION	ANTENNA TILT		AZIMUTH	ANTENNA MODEL	TECHNOLOGY	RRH / TMA	SURGE & DISTRIBUTION					
			MECH	ELEC					MODEL	CABLE (QTY) TYPES				
A	172'	1	0°	2°	30°	COMMScope NNH4-65C-R6-V3	LTE	AIRSCALE DUAL RRH 4T4R B12/B14 320W AHLBA RRH4X25 WCS-4R	(2) RAYCAP DC6-48-60-18-8C-EV	(4) 3-PAIR DC POWER (2) 18-PAIR FIBER				
		2	0°	2°	30°	COMMScope NNH4-65C-R6-V3	LTE	AIRSCALE RRH 4T4R B5 160W AHCA AIRSCALE DUAL RRH 4T4R B25/B66 320W AHFIB						
		3												
		4												
B	172'	1	0°	2°	150°	COMMScope NNH4-65C-R6-V3	LTE	AIRSCALE DUAL RRH 4T4R B12/B14 320W AHLBA RRH4X25 WCS-4R			(2) RAYCAP DC6-48-60-18-8C-EV	(4) 3-PAIR DC POWER (2) 18-PAIR FIBER		
		2	0°	2°	150°	COMMScope NNH4-65C-R6-V3	LTE	AIRSCALE RRH 4T4R B5 160W AHCA AIRSCALE DUAL RRH 4T4R B25/B66 320W AHFIB						
		3												
		4												
C	172'	1	0°	2°	280°	COMMScope NNH4-65C-R6-V3	LTE	AIRSCALE DUAL RRH 4T4R B12/B14 320W AHLBA RRH4X25 WCS-4R					(2) RAYCAP DC6-48-60-18-8C-EV	(4) 3-PAIR DC POWER (2) 18-PAIR FIBER
		2	0°	2°	280°	COMMScope NNH4-65C-R6-V3	LTE	AIRSCALE RRH 4T4R B5 160W AHCA AIRSCALE DUAL RRH 4T4R B25/B66 320W AHFIB						
		3												
		4												

1. CONTRACTOR IS TO REFER TO AT&T'S MOST CURRENT RADIO FREQUENCY DATA SHEET (RFDS) PRIOR TO CONSTRUCTION.
2. CONTRACTOR TO USE ROSENBERGER FIBER LINE HANGER COMPONENTS (OR ENGINEER APPROVED EQUAL).

NOTES

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BLACK & VEATCH

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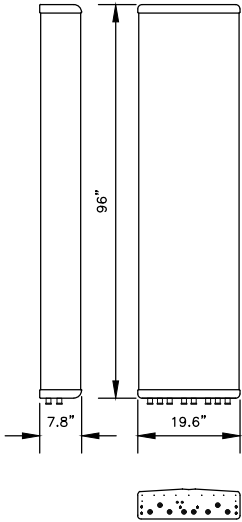
SHEET TITLE
ANTENNA AND RRH
REQUIREMENTS

SHEET NUMBER

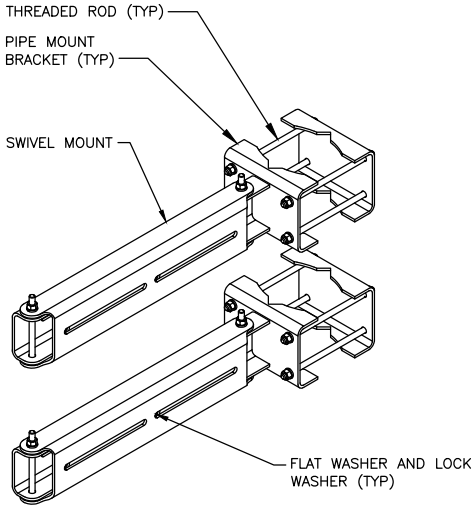
T-3

COMMSCOPE NNH4-65C-R6-V3

DIMENSIONS, HxWxD.in(mm): 96"x19.6"x7.8" (2438x498x197mm)
WEIGHT (W/O MOUNTING BRACKETS): 102.1 lbs (46.3 kg)
CONNECTOR: (12) 4.3-10 FEMALE

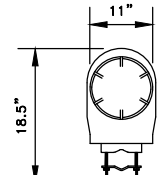


ROSENBERGER D218RRUDSM

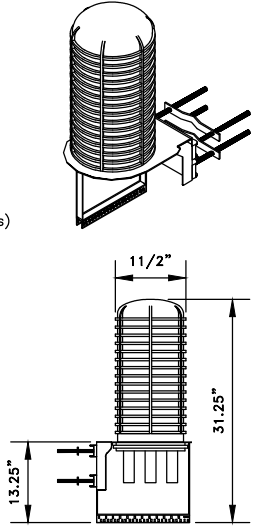
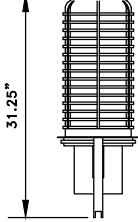


RAYCAP DC6-48-60-18-8C-EV

DIMENSIONS, DxH: 280x794mm (11"x31.25")
NOMINAL OPERATING VOLTAGE: 48 VDC
NOMINAL DISCHARGE CURRENT: 20 kA 8/20µs
MAXIMUM DISCHARGE CURRENT: 60 kA 8/20µs
MAXIMUM CONTINUOUS OPERATING VOLTAGE: 75 VDC
VOLTAGE PROTECTION RATING: 400 V
WIND LOADING: 150 MPH SUSTAINED (105.7 lbs)
195 MPH GUST (213.6 lbs)
TOTAL WEIGHT: 32.8 lbs



CONTRACTOR TO USE "THREAD LUBRICANT" ON MOUNTING BOLTS DURING INSTALLATION



ANTENNA SPECIFICATION

NO SCALE

1

DUAL RRH MOUNTING DETAIL

NO SCALE

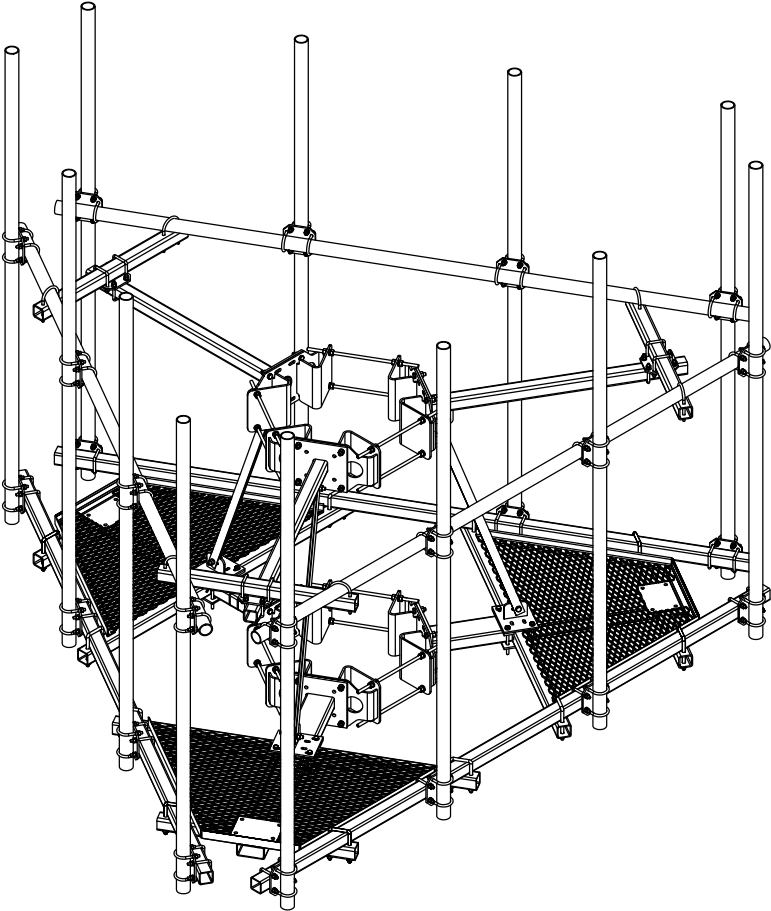
2

DC SURGE SUPPRESSOR DETAIL

NO SCALE

3

MANUFACTURER PART NO.	DESCRIPTION	WEIGHT (lbs)
SABRE C10-855-721C	12'-0" HD TENSION PLATFORM W/(12) 2-7/8" O.D. x 10'-0" MTG PIPES	2959



NOTES

1. THIS DETAIL IS INCLUDED FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL REFER TO MANUFACTURER DETAILS FOR SPECIFIC PART ORDERING AND INSTALLATION.

SABRE 12'-0" HD M.O.V.E. PLATFORM

NO SCALE

4

NOT USED

NO SCALE

7

NOT USED

NO SCALE

8

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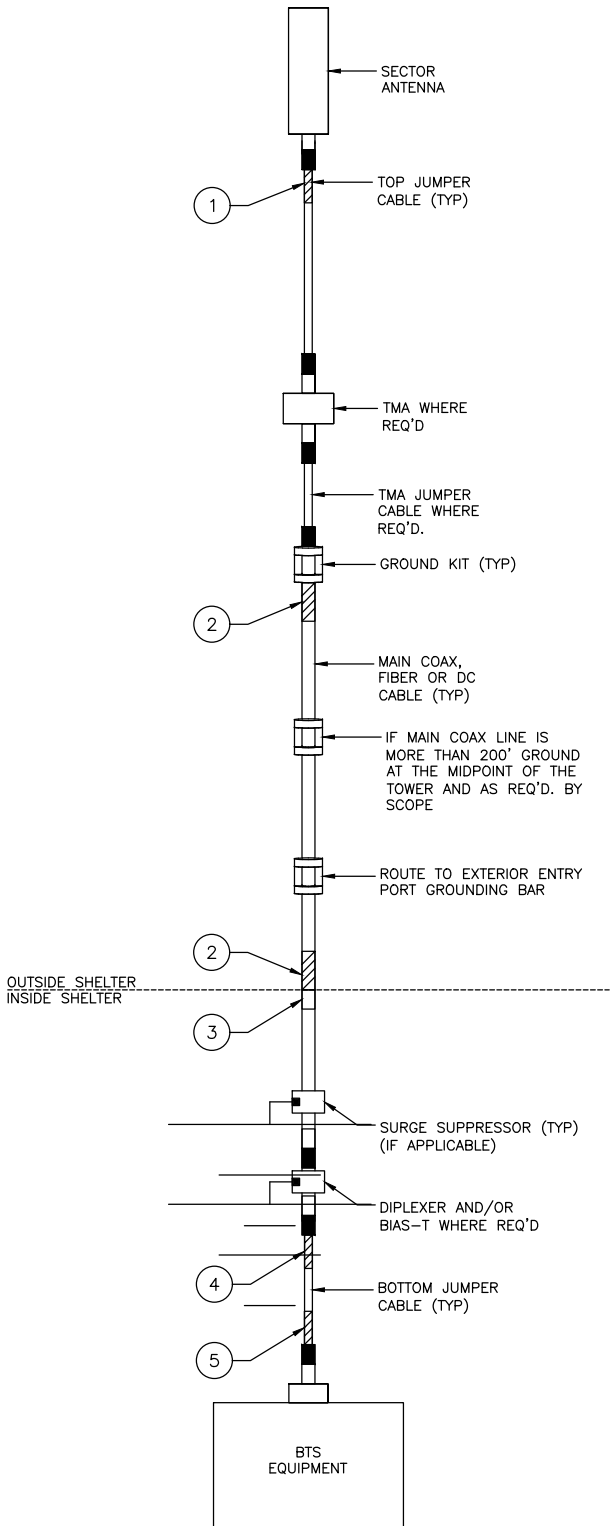
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SHEET TITLE
TOWER EQUIPMENT
DETAILS

SHEET NUMBER

T-4

AT&T Coax and Jumper Color Code Chart for MNP						
AT&T Main Line Coax and Jumper Color Code Chart for MNP						
Sector	Technology	Frequency	TX / RX	Sector Color/ Main Line	Freq Color	
Alpha (X)	GSM	850	TXM / RXM	1 Red	1 Orange	Any line that has main line coax will be marked with sector color first and frequency second (typically GSM/UMTS).
Alpha (X)	GSM	850	TXD / RXD	3 Red	1 Orange	
Alpha (X)	GSM	1900	TXM / RXM	1 Red	1 Violet	
Alpha (X)	GSM	1900	TXD / RXD	3 Red	1 Violet	
Alpha (X)	UMTS	850	TXM / RXM	2 Red	1 Orange	
Alpha (X)	UMTS	850	TXD / RXD	4 Red	1 Orange	
Alpha (X)	UMTS	1900	TXM / RXM	2 Red	1 Violet	
Alpha (X)	UMTS	1900	RXD / RXD	4 Red	1 Violet	
AT&T LTE/UMTS RRH at top of tower Jumper Color Code Chart for MNP						
Sector	Technology	Frequency	TX / RX	Freq Color	Sector Color	
Alpha (X)	LTE	700 B/C	TXM / RXM	1 Green	2 Red	Color coding of jumpers that have RRHs on top of tower will have the frequency color first then the sector color. Color coding for LTE/UMTS with RRHs on top of tower will only happen on coax from LTE RRH to antenna. Power and fiber lines will be color coded with alternating gray/white (add a stripe for multiple runs) from ground to distro box (DC-6/FC-12) then tagged with written tags to RRH. If DC-2s are in line then you tag all breakout points appropriately.
Alpha (X)	LTE	700 B/C	TXD / RXD	2 Green	2 Red	
Alpha (X)	LTE	700 D/E	TXM / RXM	3 Green	2 Red	
Alpha (X)	LTE	700 D/E	TXD / RXD	4 Green	2 Red	
Alpha (X)	LTE	850	TXM / RXM	3 Orange	2 Red	
Alpha (X)	LTE	850	TXD / RXD	4 Orange	2 Red	
Alpha (X)	UMTS	850	TXM / RXM	1 Orange	2 Red	
Alpha (X)	UMTS	850	RXD / RXD	2 Orange	2 Red	
Alpha (X)	LTE	1900 PCS	TXM / TXM	1 Violet	2 Red	
Alpha (X)	LTE	1900 PCS	TXD / TXD	2 Violet	2 Red	
Alpha (X)	LTE	1900 PCS	RXM / RXM	3 Violet	2 Red	
Alpha (X)	LTE	1900 PCS	RXD / RXD	4 Violet	2 Red	
Alpha (X)	UMTS	1900	TXM / RXM	1 Violet	3 Red	
Alpha (X)	UMTS	1900	RXD / RXD	2 Violet	3 Red	
Alpha (X)	LTE	2100 AWS	TXM / TXM	1 Gray	2 Red	
Alpha (X)	LTE	2100 AWS	TXD / TXD	2 Gray	2 Red	
Alpha (X)	LTE	2100 AWS	RXM / RXM	3 Gray	2 Red	
Alpha (X)	LTE	2100 AWS	RXD / RXD	4 Gray	2 Red	
Alpha (X)	LTE	2300 WCS	TXM / RXM	1 Yellow	2 Red	
Alpha (X)	LTE	2300 WCS	TXD / RXD	2 Yellow	2 Red	
Alpha (X)	LTE	2300 WCS	TXM / RXM	3 Yellow	2 Red	
Alpha (X)	LTE	2300 WCS	TXD / RXD	4 Yellow	2 Red	
AT&T Main Line Coax and Jumper Color Code Chart for MNP						
Sector	Technology	Frequency	TX / RX	Sector Color/ Main Line	Freq Color	
Beta (Y)	GSM	850	TXM / RXM	1 White	1 Orange	Any line that has main line coax will be marked with sector color first and frequency second (typically GSM/UMTS).
Beta (Y)	GSM	850	TXD / RXD	3 White	1 Orange	
Beta (Y)	GSM	1900	TXM / RXM	1 White	1 Violet	
Beta (Y)	GSM	1900	TXD / RXD	3 White	1 Violet	
Beta (Y)	UMTS	850	TXM / RXM	2 White	1 Orange	
Beta (Y)	UMTS	850	TXD / RXD	4 White	1 Orange	
Beta (Y)	UMTS	1900	TXM / RXM	2 White	1 Violet	
Beta (Y)	UMTS	1900	RXD / RXD	4 White	1 Violet	
AT&T LTE/UMTS RRH at top of tower Jumper Color Code Chart for MNP						
Sector	Technology	Frequency	TX / RX	Freq Color	Sector Color	
Beta (Y)	LTE	700 B/C	TXM / RXM	1 Green	2 White	Color coding of jumpers that have RRHs on top of tower will have the frequency color first then the sector color. Color coding for LTE/UMTS with RRHs on top of tower will only happen on coax from LTE RRH to antenna. Power and fiber lines will be color coded with alternating gray/white (add a stripe for multiple runs) from ground to distro box (DC-6/FC-12) then tagged with written tags to RRH. If DC-2s are in line then you tag all breakout points appropriately.
Beta (Y)	LTE	700 B/C	TXD / RXD	2 Green	2 White	
Beta (Y)	LTE	700 D/E	TXM / RXM	3 Green	2 White	
Beta (Y)	LTE	700 D/E	TXD / RXD	4 Green	2 White	
Beta (Y)	LTE	850	TXM / RXM	3 Orange	2 White	
Beta (Y)	LTE	850	TXD / RXD	4 Orange	2 White	
Beta (Y)	UMTS	850	TXM / RXM	1 Orange	2 White	
Beta (Y)	UMTS	850	RXD / RXD	2 Orange	2 White	
Beta (Y)	LTE	1900 PCS	TXM / TXM	1 Violet	2 White	
Beta (Y)	LTE	1900 PCS	TXD / TXD	2 Violet	2 White	
Beta (Y)	LTE	1900 PCS	RXM / RXM	3 Violet	2 White	
Beta (Y)	LTE	1900 PCS	RXD / RXD	4 Violet	2 White	
Beta (Y)	UMTS	1900	TXM / RXM	1 Violet	3 White	
Beta (Y)	UMTS	1900	RXD / RXD	1 Violet	4 White	
Beta (Y)	LTE	2100 AWS	TXM / TXM	1 Gray	2 White	
Beta (Y)	LTE	2100 AWS	TXD / TXD	2 Gray	2 White	
Beta (Y)	LTE	2100 AWS	RXM / RXM	3 Gray	2 White	
Beta (Y)	LTE	2100 AWS	RXD / RXD	4 Gray	2 White	
Beta (Y)	LTE	2300 WCS	TXM / RXM	1 Yellow	2 White	
Beta (Y)	LTE	2300 WCS	TXD / RXD	2 Yellow	2 White	
Beta (Y)	LTE	2300 WCS	TXM / RXM	3 Yellow	2 White	
Beta (Y)	LTE	2300 WCS	TXD / RXD	4 Yellow	2 White	
AT&T Main Line Coax and Jumper Color Code Chart for MNP						
Sector	Technology	Frequency	TX / RX	Sector Color/ Main Line	Freq Color	
Gamma (Z)	GSM	850	TXM / RXM	1 Blue	1 Orange	Any line that has main line coax will be marked with sector color first and frequency second (typically GSM/UMTS).
Gamma (Z)	GSM	850	TXD / RXD	3 Blue	1 Orange	
Gamma (Z)	GSM	1900	TXM / RXM	1 Blue	1 Violet	
Gamma (Z)	GSM	1900	TXD / RXD	3 Blue	1 Violet	
Gamma (Z)	UMTS	850	TXM / RXM	2 Blue	1 Orange	
Gamma (Z)	UMTS	850	TXD / RXD	4 Blue	1 Orange	
Gamma (Z)	UMTS	1900	TXM / RXM	2 Blue	1 Violet	
Gamma (Z)	UMTS	1900	RXD / RXD	4 Blue	1 Violet	
AT&T LTE/UMTS RRH at top of tower Jumper Color Code Chart for MNP						
Sector	Technology	Frequency	TX / RX	Freq Color	Sector Color	
Gamma (Z)	LTE	700 B/C	TXM / RXM	1 Green	2 Blue	Color coding of jumpers that have RRHs on top of tower will have the frequency color first then the sector color. Color coding for LTE/UMTS with RRHs on top of tower will only happen on coax from LTE RRH to antenna. Power and fiber lines will be color coded with alternating gray/white (add a stripe for multiple runs) from ground to distro box (DC-6/FC-12) then tagged with written tags to RRH. If DC-2s are in line then you tag all breakout points appropriately.
Gamma (Z)	LTE	700 B/C	TXD / RXD	2 Green	2 Blue	
Gamma (Z)	LTE	700 D/E	TXM / RXM	3 Green	2 Blue	
Gamma (Z)	LTE	700 D/E	TXD / RXD	4 Green	2 Blue	
Gamma (Z)	LTE	850	TXM / RXM	3 Orange	2 Blue	
Gamma (Z)	LTE	850	TXD / RXD	4 Orange	2 Blue	
Gamma (Z)	UMTS	850	TXM / RXM	1 Orange	2 Blue	
Gamma (Z)	UMTS	850	RXD / RXD	2 Orange	2 Blue	
Gamma (Z)	LTE	1900 PCS	TXM / TXM	1 Violet	2 Blue	
Gamma (Z)	LTE	1900 PCS	TXD / TXD	2 Violet	2 Blue	
Gamma (Z)	LTE	1900 PCS	RXM / RXM	3 Violet	2 Blue	
Gamma (Z)	LTE	1900 PCS	RXD / RXD	4 Violet	2 Blue	
Gamma (Z)	UMTS	1900	TXM / RXM	1 Violet	3 Blue	
Gamma (Z)	UMTS	1900	RXD / RXD	1 Violet	4 Blue	
Gamma (Z)	LTE	2100 AWS	TXM / TXM	1 Gray	2 Blue	
Gamma (Z)	LTE	2100 AWS	TXD / TXD	2 Gray	2 Blue	
Gamma (Z)	LTE	2100 AWS	RXM / RXM	3 Gray	2 Blue	
Gamma (Z)	LTE	2100 AWS	RXD / RXD	4 Gray	2 Blue	
Gamma (Z)	LTE	2300 WCS	TXM / RXM	1 Yellow	2 Blue	
Gamma (Z)	LTE	2300 WCS	TXD / RXD	2 Yellow	2 Blue	
Gamma (Z)	LTE	2300 WCS	TXM / RXM	3 Yellow	2 Blue	
Gamma (Z)	LTE	2300 WCS	TXD / RXD	4 Yellow	2 Blue	



1. THE ANTENNA SYSTEM COAX SHALL BE LABELED WITH VINYL TAPE.
2. THE STANDARD IS BASED ON EIGHT COLORED TAPES—RED, BLUE, GREEN, YELLOW, ORANGE, BROWN, WHITE, AND VIOLET. THESE TAPES MUST BE 3/4" WIDE & UV RESISTANT SUCH AS SCOTCH 35 VINYL ELECTRICAL COLOR CODING TAPE AND SHOULD BE READILY AVAILABLE TO THE ELECTRICIAN OR CONTRACTOR ON SITE.
3. USING COLOR BANDS ON THE CABLES, MARK ALL RF CABLE BY SECTOR AND CABLE NUMBER AS SHOWN ON "CABLE COLOR CHART".
4. WHEN AN EXISTING COAXIAL LINE THAT IS INTENDED TO BE A SHARED LINE BETWEEN TECHNOLOGIES IS ENCOUNTERED, THE CONTRACTOR SHALL REMOVE THE EXISTING COLOR CODING SCHEME AND REPLACE IT WITH THE COLOR CODING STANDARD. IN THE ABSENCE OF AN EXISTING COLOR CODING AND TAGGING SCHEME, OR WHEN INSTALLING PROPOSED COAXIAL CABLES, THIS GUIDELINE SHALL BE IMPLEMENTED AT THAT SITE REGARDLESS OF TECHNOLOGY.
5. ALL COLOR CODE TAPE SHALL BE 3M-35 AND SHALL BE INSTALLED USING A MINIMUM OF (3) THREE WRAPS OF TAPE AND SHALL BE NEATLY TRIMMED AND SMOOTHED OUT SO AS TO AVOID UNRAVELING.
6. ALL COLOR BANDS INSTALLED AT THE TOP OF THE TOWER SHALL BE A MINIMUM OF 3" WIDE, AND SHALL HAVE A MINIMUM OF 3/4" OF SPACE BETWEEN EACH COLOR.
7. ALL COLOR CODES SHALL BE INSTALLED SO AS TO ALIGN NEATLY WITH ONE ANOTHER FROM SIDE-TO-SIDE.
8. IF EXISTING CABLES AT THE SITE ALREADY HAVE A COLOR CODING SCHEME AND THEY ARE NOT INTENDED TO BE REUSED OR SHARED WITH THE NEW TECHNOLOGY, THE EXISTING COLOR CODING SCHEME SHALL REMAIN UNTOUCHED.

CABLE COLOR CODING & IDENTIFICATION NOTES

ALL RF AND DC CABLE SHALL BE MARKED AS PER CABLE MARKING LOCATIONS TABLE BELOW:

CABLE MARKING LOCATIONS TABLE	
NO	LOCATIONS
1	EACH TOP-JUMPER SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS.
2	EACH MAIN COAX SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS NEAR THE TOP-JUMPER CONNECTION AND WITH (1) SET OF 3/4" WIDE COLOR BANDS JUST PRIOR TO ENTERING THE BTS OR TRANSMITTER BUILDING.
3	CABLE ENTRY PORT ON THE INTERIOR OF THE SHELTER.
4	ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF THE BOTTOM JUMPER.
5	ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF THE BOTTOM JUMPER.

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BLOOMINGTON, MN 55435

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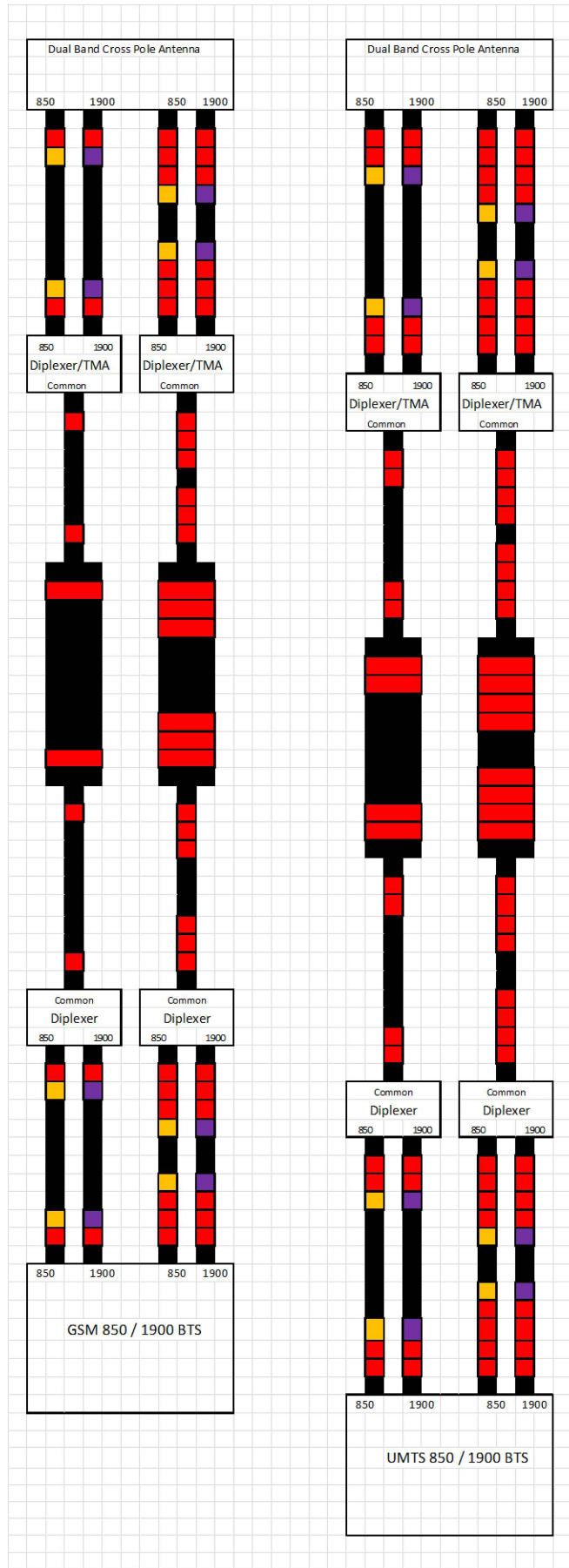
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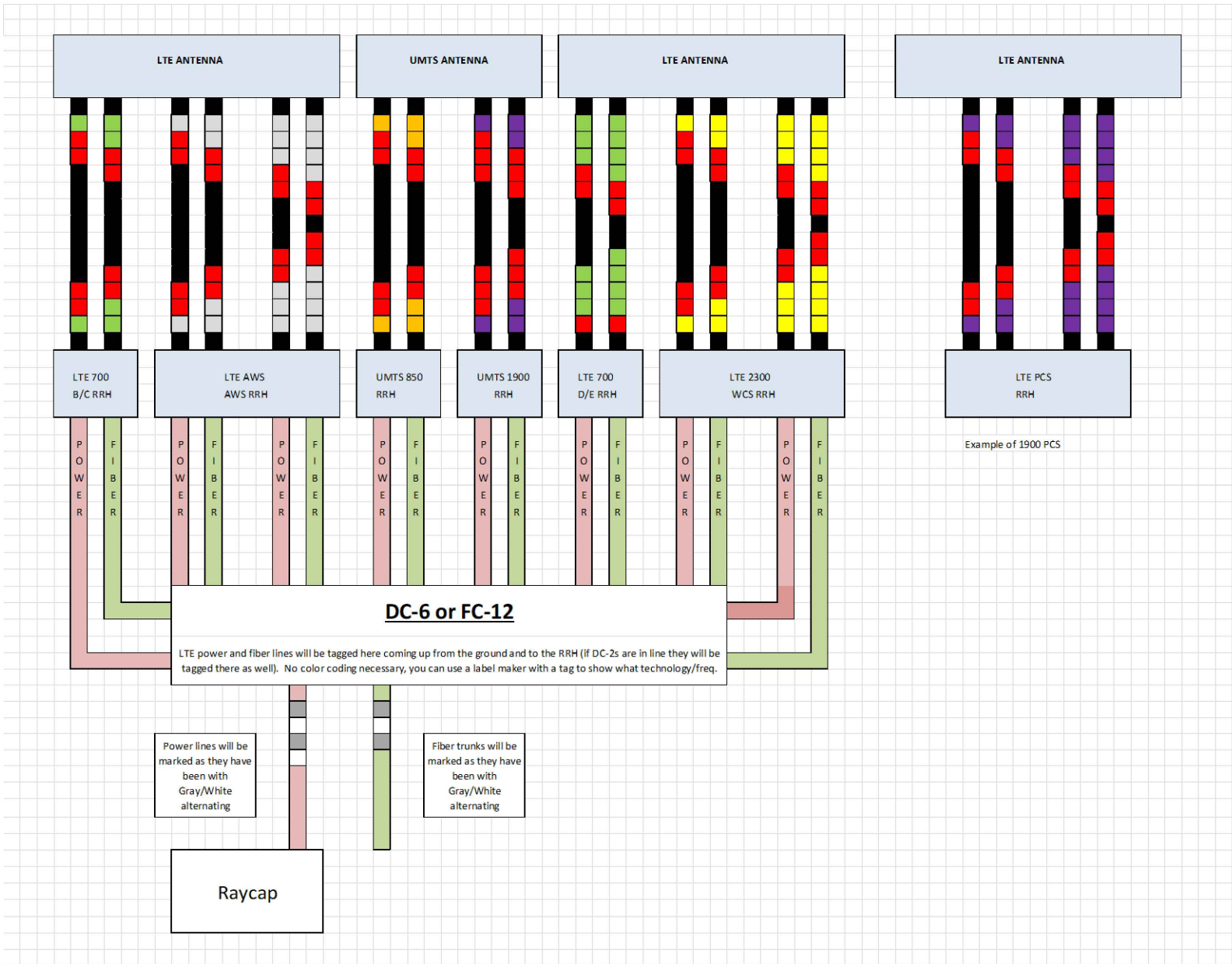
COAX COLOR CODING

SHEET NUMBER

T-5



ALPHA SECTOR COAX COLORS



ALPHA SECTOR LTE/UMTS RRHS AT THE TOP

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COAX COLOR CODING

SHEET NUMBER

T-6

PART 1 – GENERAL

- 1.1SCOPE:
- A. PROVIDE FABRICATION AND ERECTION OF STRUCTURAL STEEL AND OTHER ITEMS AS SHOWN ON THE DRAWINGS OR REQUIRED BY OTHER SECTIONS OF THESE SPECIFICATIONS.
- 1.2REFERENCES:
- A. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC). MANUAL OF STEEL CONSTRUCTION (13TH EDITION), ALLOWABLE STRESS DESIGN (ASD).

B. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM).
ASTM A36: STRUCTURAL STEEL
ASTM A53: PIPE, STEEL BLACK AND HOT DIPPED, ZINC–COATED WELDED AND SEAMLESS.
ASTM A108: STEEL BARS, CARBON, COLD FINISHED, STANDARD QUALITY.
ASTM A123: ZINC (HOT–DIPPED GALVANIZED) COATING ON IRON AND STEEL PRODUCTS.
ASTM A307: CARBON STEEL BOLTS AND STUDS, 60,000 PSI TENSILE STRENGTH.
ASTM A325: HIGH–STRENGTH BOLT FOR STRUCTURAL STEEL JOINTS.
ASTM A490: HEAT–TREATED, STRUCTURAL STEEL BOLTS, 150 (KSI) (1035MPA) TENSILE STRENGTH.
ASTM A500: COLD–FORMED WELDED AND SEAMLESS CARBON STEEL STRUCTURAL TUBING IN ROUNDS AND SHAPES.
ASTM A563: CARBON AND ALLOY STEEL NUTS.
ASTM B695: COATINGS OF ZINC MECHANICALLY DEPOSITED ON IRON AND STEEL.
ASTM F436: HARDENED STEEL WASHERS.
ASTM F959: COMPRESSIBLE–WASHER–TYPE DIRECT TENSION INDICATOR FOR USE WITH STRUCTURAL FASTENERS.

C. AMERICAN WELDING SOCIETY (AWS):
AWS A5.1: COVERED CARBON STEEL ARC WELDING ELECTRODES.
AWS A5.5: LOW ALLOY STEEL COVERED ARC WELDING ELECTRODES.
AWS D1.1: STRUCTURAL WELDING CODE – STEEL.

D. RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RCSC): "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS OR ASTM A490 BOLTS" AS ENDORSED BY AISC.

E. STEEL STRUCTURES PAINTING COUNCIL (SSPC):
SSPC–SP3: POWER TOOL CLEANING.
SSPC–PAINT 11: RED IRON OXIDE, ZINC CHROME, RAW LINSEED OIL OR ALKYD PAINT.
- 1.3SUBMITTALS:
- A. SUBMIT THE FOLLOWING FOR APPROVAL:

1. FABRICATION AND ERECTION DRAWINGS SHOWING ALL DETAILS, CONNECTIONS, MATERIAL DESIGNATIONS, AND ALL TOP STEEL ELEVATIONS.

B. WELDERS SHALL BE QUALIFIED AS PRESCRIBED IN AWS D1.1.

PART 2 – PRODUCTS

- 2.1STRUCTURAL STEEL:
- A. SHAPES, PLATES AND BARS SHALL CONFORM TO ASTM A36 AND ASTM A992.

B. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B. STEEL PIPE SHALL CONFORM TO ASTM A53, TYPE E OR S, GRADE B.
- 2.2ANCHOR BOLTS:
- A. ANCHOR BOLTS SHALL CONFORM TO ASTM A307 WITH HEAVY HEXAGONAL NUTS.
- 2.3BOLTS:
- A. COMMON (MACHINE) BOLTS SHALL CONFORM TO ASTM A307 GRADE A AND NUTS TO ASTM A563. ONE COMMON BOLT ASSEMBLY SHALL CONSIST OF A BOLT, A HEAVY HEX NUT, AND A HARDENED WASHER.

B. HIGH STRENGTH BOLT SHALL CONFORM TO ASTM A325, ONE HIGH STRENGTH BOLT ASSEMBLY SHALL CONSIST OF A HEAVY HEX STRUCTURAL BOLT, A HEAVY HEX NUT, A HARDENED WASHER CONFIRMING WITH ASTM F436 AND A DIRECT TENSION INDICATOR CONFORMING WITH STM F959. THE HARDENED WASHER SHALL BE INSTALLED AGAINST THE ELEMENT TURNED IN TIGHTENING.UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL CONNECTIONS SHALL BE BEARING TYPE CONNECTIONS.
- 2.4WELDING ELECTRODES:
- A. WELDING ELECTRODES SHALL COMPLY WITH AWS D1.1 USING A5.1 OR A5.5 E70XX AND SHALL BE COMPATIBLE WITH THE WELDING PROCESS SELECTED.
- 2.5PRIMER:
- A. PRIMER SHALL BE RED OXIDE–CHROMATE PRIMER COMPLYING WITH SSPC PAINT SPECIFICATION NO. 11.

PART 3 – EXECUTION

- 3.1FABRICATION:
- A. SHOP FABRICATE AND ASSEMBLY MATERIALS AS SPECIFIED HEREIN.

1. FABRICATE ITEMS OF STRUCTURAL STEEL IN ACCORDANCE WITH THE AISC–ASD SPECIFICATION, AND AS INDICATED ON THE APPROVED SHOP DRAWINGS.

2. ALL EXPOSED STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED PER ASTM.

3. PROPERLY MARK AND MATCH–MARK MATERIALS FOR FIELD ASSEMBLY AND FOR IDENTIFICATION AS TO LOCATION FOR WHICH INTENDED.

4. FABRICATE AND DELIVER IN A SEQUENCE WHICH WILL EXPEDITE ERECTION AND MINIMIZE FIELD HANDLING OF MATERIALS.

5. WHERE FINISHING IS REQUIRED, COMPLETE THE ASSEMBLY, INCLUDING THE WELDING OF UNITS, BEFORE START OF FINISHING OPERATIONS.

6. PROVIDE FINISH SURFACE OF MEMBERS EXPOSED IN THE FINAL STRUCTURE FREE FROM MARKINGS, BURNS, AND OTHER DEFECTS.

B. PROVIDE CONNECTIONS AS SPECIFIED HEREIN:

1. PROVIDE BOLTS AND WASHERS OF TYPES AND SIZE REQUIRED FOR COMPLETION OF FIELD ERECTION. USE 3/4 INCH DIAMETER A325 BOLTS UNLESS NOTED OTHERWISE.

2. INSTALL HIGH STRENGTH THREADED FASTENERS IN ACCORDANCE WITH RCSC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR ASTM A490 BOLTS."

3. WELDED CONSTRUCTION SHALL COMPLY WITH AWS D1.1 FOR PROCEDURES, APPEARANCE, QUALITY OF WELD, AND METHODS USED IN CORRECTING WELDED WORK.
4. THE FABRICATOR SHALL FURNISH AND INSTALL ERECTION CLIPS FOR FIT–UP OF WELDED CONNECTIONS.
5. DOUBLE ANGLE MEMBERS SHALL HAVE WELDED FILLERS SPACED IN ACCORDANCE WITH CHAPTER E4 OF THE AISC–ASD SPECIFICATION.
6. GUSSET AND STIFFENER PLATES SHALL BE 3/8 INCH THICK MINIMUM.
- 3.2PRIMING:
- A. STRUCTURAL STEEL SHALL BE PRIMED AS SPECIFIED HEREIN, UNLESS SHOWN OTHERWISE ON THE DRAWINGS.

B. STRUCTURAL STEEL SURFACE PREPARATION SHALL CONFORM TO SSPC–SP3, "POWER TOOL CLEANING."

C. SURFACE PREPARATION AND PRIMER SHALL BE IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE AS INCLUDED IN THE ASD MANUAL OF STEEL CONSTRUCTION.

D. MATERIALS SHALL REMAIN CLOSED UNTIL REQUIRED FOR USE, MANUFACTURER’S POT–LIFE REQUIREMENTS SHALL BE STRICTLY ADHERED TO.

E. PRIMER SHALL BE APPLIED TO DRY, CLEAN, PREPARED SURFACE AND UNDER FAVORABLE CONDITIONS IN ACCORDANCE WITH MANUFACTURER’S INSTRUCTIONS. UNLESS OTHERWISE RECOMMENDED BY THE MANUFACTURER PRIMING SHALL NOT BE DONE WHEN AMBIENT TEMPERATURE IS LESS THAN 50 DEGREES F. THE RELATIVE HUMIDITY IS MORE THAN 90 PERCENT, OR THE SURFACE TEMPERATURE IS LESS THAN 5 DEGREES F ABOVE THE DEW POINT.

F. GENERALLY ALL PRIMER SHALL BE SPRAY APPLIED. BRUSH OR ROLLER APPLICATION SHALL BE RESTRICTED TO TOUCHUP AND TO AREAS NOT ACCESSIBLE BY SPRAY GUN.

G. PRIMER SHALL BE UNIFORMLY APPLIED WITHOUT RUNS, SAGS, SOLVENT BLISTERS, DRY SPRAY OR OTHER BLEMISHES. ALL BLEMISHES AND OTHER IRREGULARITIES SHALL BE REPAIRED OR REMOVED AND THE AREA RE–COATED. SPECIAL ATTENTION SHALL BE PAID TO CREVICES, WELD LINES, BOLT HEADS, CORNERS, EDGES, ETC., TO OBTAIN THE REQUIRED NOMINAL FILM THICKNESS.

H. THE DRY FILM THICKNESS OF THE PRIMER SHALL BE 2.0 MILS.

I. IF THE PRIMER IS DAMAGED BY WELDING OR PHYSICAL ABUSE, THE AREA SHALL BE TOUCHED–UP AND REPAIRED. THE TOUCHUP PAINT SHALL BE COMPATIBLE WITH THE APPLIED PRIMER WITH MINIMUM DRY FILM THICKNESS OF 1.5 MILS.
- 3.3INSTALLATION:
- A. INSTALLATION OF STRUCTURAL STEEL SHALL COMPLY WITH AISC "CODE OF STANDARD PRACTICE."

B. STRUCTURAL FIELD WELDING SHALL BE DONE BY THE ELECTRIC SUBMERGED OR SHIELDED METAL ARC PROCESS. WELDED CONSTRUCTION SHALL COMPLY WITH AWS D1.1.

C. PROVIDE ANCHOR BOLTS AND OTHER CONNECTORS REQUIRED FOR SECURING STRUCTURAL STEEL TO ELEVATOR SHAFT WALLS AND OTHER IN–PLACE WORK. PROVIDE TEMPLATES AND OTHER DEVICES NECESSARY FOR PRESETTING BOLTS AND ANCHORS TO ACCURATE LOCATIONS.

D. SPLICE MEMBERS ONLY WHERE INDICATED ON THE DRAWINGS.

E. ANY GAS CUTTING TORCHES HAVE TO BE APPROVED IN WRITING BY THE PROJECT STRUCTURAL ENGINEER.

F. PROVIDE TEMPORARY SHORING BRACING WITH CONNECTIONS OF SUFFICIENT STRENGTH TO BEAR IMPOSED LOADS. REMOVE TEMPORARY CONNECTIONS AND MEMBERS WHEN PERMANENT MEMBERS ARE IN PLACE AND THE FINAL CONNECTIONS HAVE BEEN MADE.

G. ALIGN AND ADJUST MEMBERS, AND OTHER SURFACES WHICH WILL BE IN PERMANENT CONTACT, BEFORE ASSEMBLY.

H. HIGH–STRENGTH BOLTS AS A MINIMUM, SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED IN THE LATEST AISC SPECIFICATION. ALL HIGH–STRENGTH BOLTS SPECIFIED ON THE DESIGN DRAWINGS TO BE USED IN PRETENSIONED OR SLIP–CRITICAL JOINTS SHALL BE TIGHTENED TO A BOLT TENSION NOT LESS THAN THAT GIVEN IN AISC TABLE J3.1. INSTALLATION SHALL BE BY ANY OF THE FOLLOWING METHODS: TURN–OF NUT METHOD, A DIRECT–TENSION–INDICATOR, TWIST–OFF–TYPE TENSION–CONTROL BOLT, CALIBRATED WRENCH, OR ALTERNATIVE DESIGN BOLT.

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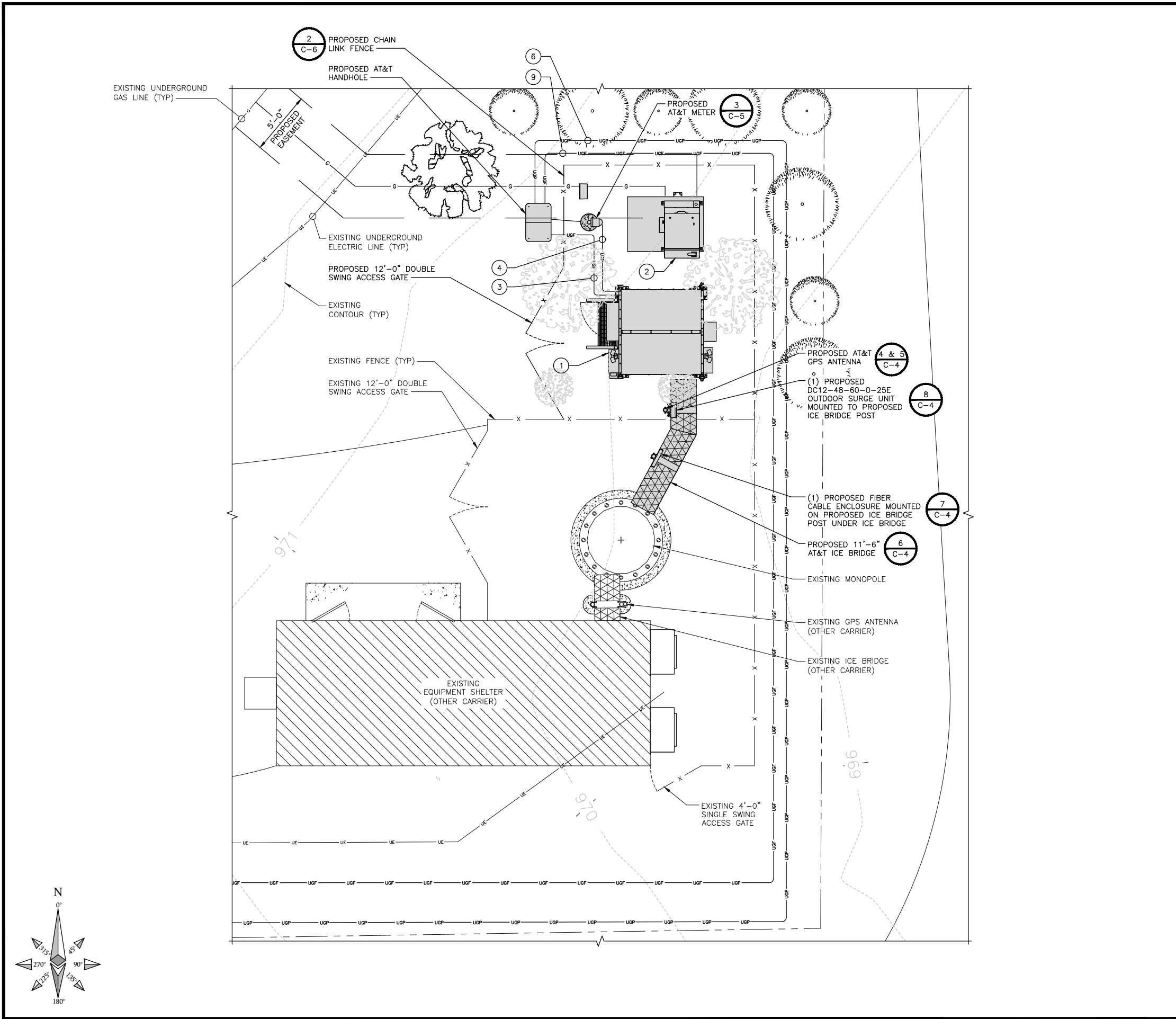
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SHEET TITLE
TOWER SECTION
NOTES

SHEET NUMBER

T-7



NOTE:
CONTRACTOR AND FCM TO VERIFY DESIGN SHOWN ON DRAWINGS WITH DESIGN PROVIDED BY LEC AND EXISTING SITE CONDITIONS PRIOR TO THE START OF CONSTRUCTION. IF DISCREPANCIES ARE NOTED, CONTRACTOR OR FCM TO NOTIFY BLACK & VEATCH OF DISCREPANCIES PRIOR TO CONSTRUCTION START.

- PROPOSED AT&T EQUIPMENT CABINET ON PLATFORM.
- PROPOSED GENERATOR ON PLATFORM.
- PROVIDE AND INSTALL (3) 1-1/4" HDPE CONDUIT WITH LONG SWEEPS FOR FIBER FROM PROPOSED HAND HOLE TO PROPOSED PLATFORM.
- PROPOSED POWER IN PROPOSED 2-1/2" SCH 40 HDPE CONDUIT, FROM PROPOSED METER TO PROPOSED FUSIBLE DISCONNECT AT CABINET. (FIELD VERIFY LOCATION)
- METER AT UTILITY H-FRAME.
- CONTRACTOR TO COORDINATE POWER FEED, CONDUIT SIZE AND UTILITY LOCATIONS OF POWER ENTERING METER WITH LOCAL UTILITY PROVIDER.
- PROPOSED HOFFMAN BOX ADDED TO UTILITY H-FRAME.
- PROVIDE AND INSTALL (3) 1-1/4" HDPE CONDUIT WITH LONG SWEEPS FOR FIBER FROM PROPOSED HAND HOLE TO PROPOSED HOFFMAN BOX.
- PROVIDE AND INSTALL (3) 1-1/4" HDPE CONDUIT WITH LONG SWEEPS FOR FIBER FROM PROPOSED HAND HOLE AT COMPOUND TO PROPOSED HAND HOLE IN RIGHT-OF-WAY.
- PROPOSED HAND HOLE.
- PROPOSED FIBER IN SINGLE 1-1/4" HDPE CONDUIT FROM PROPOSED HAND HOLE IN RIGHT-OF-WAY TO PROPOSED MEET-ME-POINT.
- EDGE OF ACCESS DRIVE.
- APPROXIMATE RIGHT-OF-WAY LOCATION. (CONTRACTOR TO VERIFY)
- PROPOSED HAND HOLE AT RIGHT-OF-WAY FOR FIBER.
- PROPOSED MEET-ME-POINT

- ALL CONDUIT IN COMPOUND TO SWITCH TO SCH 80 WHEN CROSSING AN ACCESS POINT OR AREA FOR VEHICLE TRAFFIC (FIELD VERIFY LOCATION)
- PULL STRING TO BE INSTALLED IN ALL PROPOSED CONDUIT.
- WHEN BORING, CHANGE CONDUIT TO 4" HDPE CONDUIT.
- THE CONDUIT ROUTING IS DIAGRAMMATICALLY SHOWN ON THE PLANS AND ARE ONLY APPROXIMATIONS. THE EXACT LOCATION AND ROUTING SHALL BE FIELD VERIFIED.
- ALL ELECTRICAL EQUIPMENT AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED LAMICOID NAMEPLATES, INDICATING THE CIRCUITS ORIGIN AND ALL EQUIPMENT TERMINATIONS.
- CONTRACTOR SHALL PROVIDE STRAIN-RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES, COAX CABLES, AND RET CONTROL CABLES. CABLE STRAIN-RELIEFS, CABLE SUPPORTS SHALL BE APPROVED FOR THE PURPOSE. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
- ALL CONDUITS SHALL BE INSTALLED IN COMPLIANCE WITH THE 2017 NATIONAL ELECTRIC CODE (NEC) OR AS REQUIRED BY THE LOCAL JURISDICTION, WHICHEVER IS THE MOST STRINGENT.
- EXISTING UTILITIES MUST BE PROTECTED DURING CONSTRUCTION OF THE PROPOSED IMPROVEMENTS

NOTES

FENCE	— X — X —
LEASE AREA	— — — — —
PROPOSED ICE BRIDGE	
EXISTING ICE BRIDGE	
OVERHEAD POWER	— OHP — OHP —
UNDERGROUND POWER	— UGP — UGP —
OVERHEAD UTILITIES	— OHU — OHU —
UNDERGROUND FIBER AND POWER	— UGF/P — UGF/P —
UNDERGROUND FIBER	— UGF — UGF —

LEGEND

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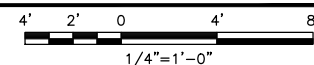
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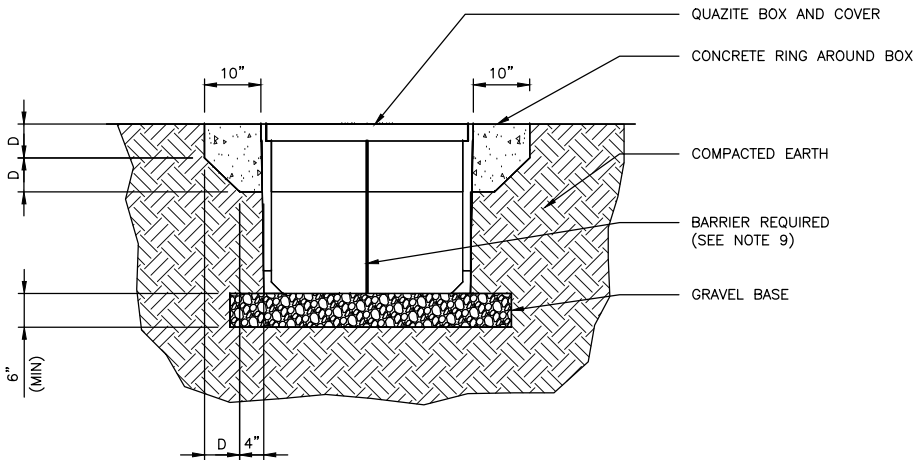
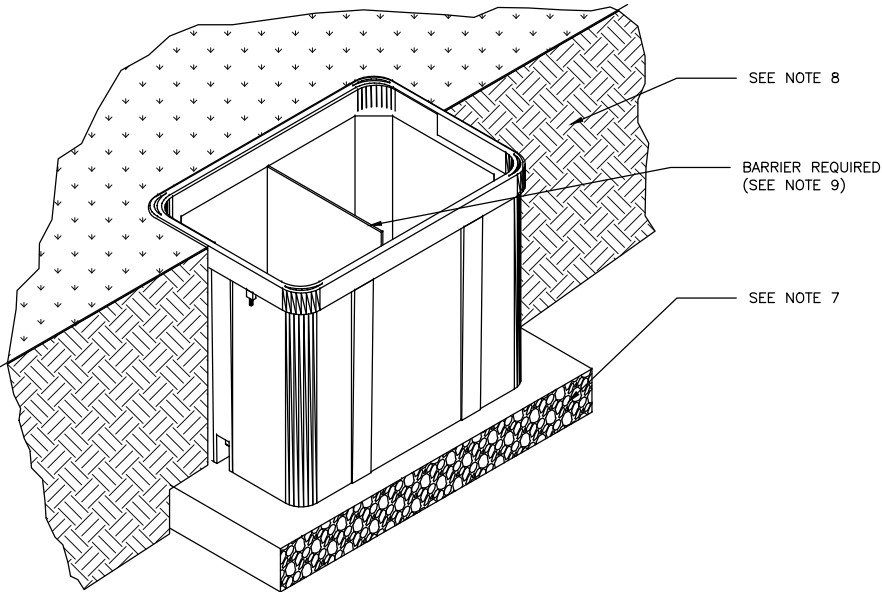
SHEET TITLE
OVERALL
ELECTRICAL PLAN

SHEET NUMBER

E-1

OVERALL ELECTRICAL PLAN





1. CONCRETE COLLARS MAY BE DESIRED FOR INSTALLATIONS IN DRIVEWAYS, PARKING LOTS AND OFF-ROADWAY APPLICATIONS WHERE SUBJECT TO OCCASIONAL NON-DELIBERATE TRAFFIC. THIS APPLIES TO BOXES MADE FROM ANY MATERIAL TO PROVIDE ADDED PROTECTION FOR THE TOP LID. THIS IS NOT NECESSARY IN GRASSY AREAS OR AREAS SUBJECT TO PEDESTRIAN TRAFFIC.
2. CONCRETE ENCASEMENT TO BE 3,000 PSI MIN.
3. CONCRETE ENCASEMENT COLLAR DIMENSION "D" TO BE EQUAL TO DESIGN PAVEMENT DEPTH.
4. PAVEMENT AND SUBGRADE TO BE SHOWN ON THE ENGINEERING PLANS.
5. EXCAVATE THE HOLE APPROXIMATELY 6 TO 8" DEEPER THAN SUGGESTED HAND HOLE BURIAL DEPTH.
6. COMPACT THE SUBSOIL WITH A BACK-HOE OR A HYDRAULIC TAMPER. ADD APPROXIMATELY 6 TO 8" OF GRAVEL TO THE BOTTOM OF HOLE.
7. PLACE THE HAND HOLE ON THE LEVELED GRAVEL BED. LEVEL THE HAND HOLE.
8. BACK-FILL WITH LOOSE EARTH MATERIAL UP TO THE TOP SURFACE OF THE HAND HOLE. DO NOT BACK-FILL WITH CHUNKS OF FROZEN MATERIAL OR LARGE ROCKS NEXT TO THE GROUND SLEEVE. PACK THE BACK-FILL MATERIAL BY FOOT TAMPING, NO MACHINE TAMPING.
9. PROVIDE BARRIER HUBBELL QUAZITE # PG 2436BC30 OR APPROVED 24"x36"x30" UL TIER 22 HAND HOLE.

CONCRETE COLLAR APPLICATION
MOUNTED IN COMPACTED SOIL

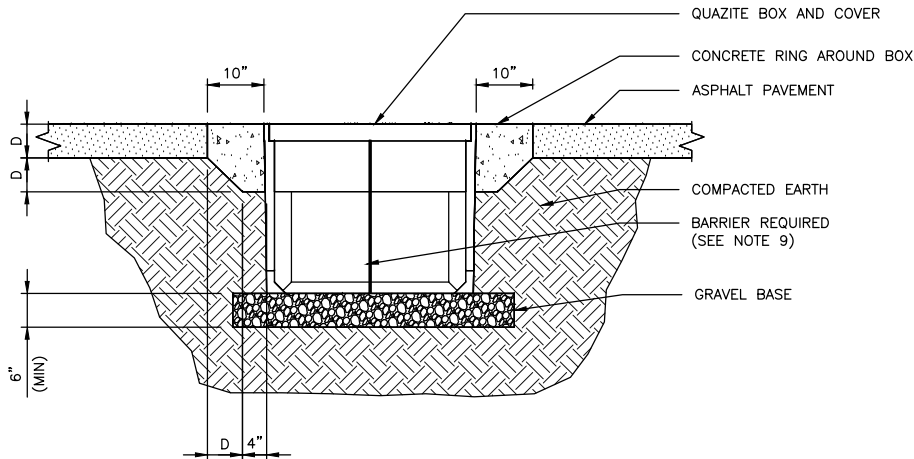
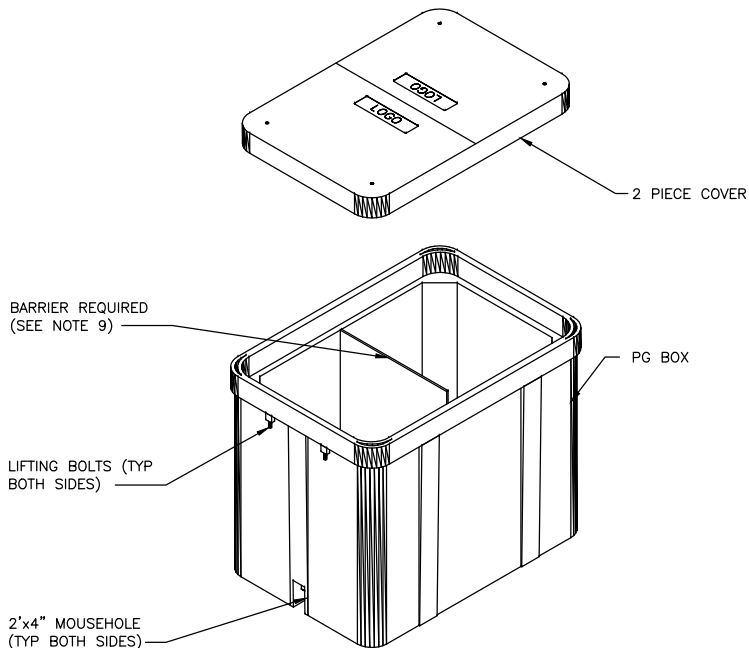
NO SCALE

1

CONCRETE COLLAR APPLICATION MOUNTED IN COMPACTED SOIL

NO SCALE

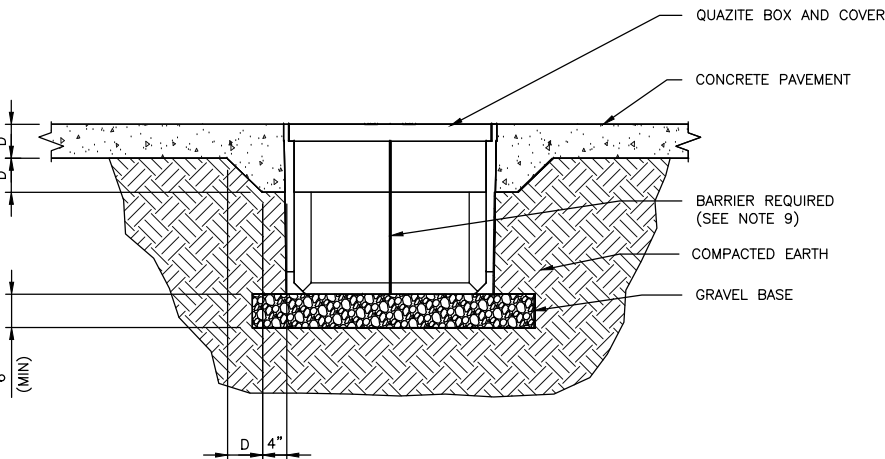
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CONCRETE COLLAR APPLICATION MOUNTED IN ASPHALT PAVEMENT

NO SCALE

4



PG BOX WITH NO CONCRETE COLLAR MOUNTED IN CONCRETE PAVEMENTS

NO SCALE

5

QUAZITE PG BOX WITH 2 PIECE COVER

NO SCALE

3

NOTES

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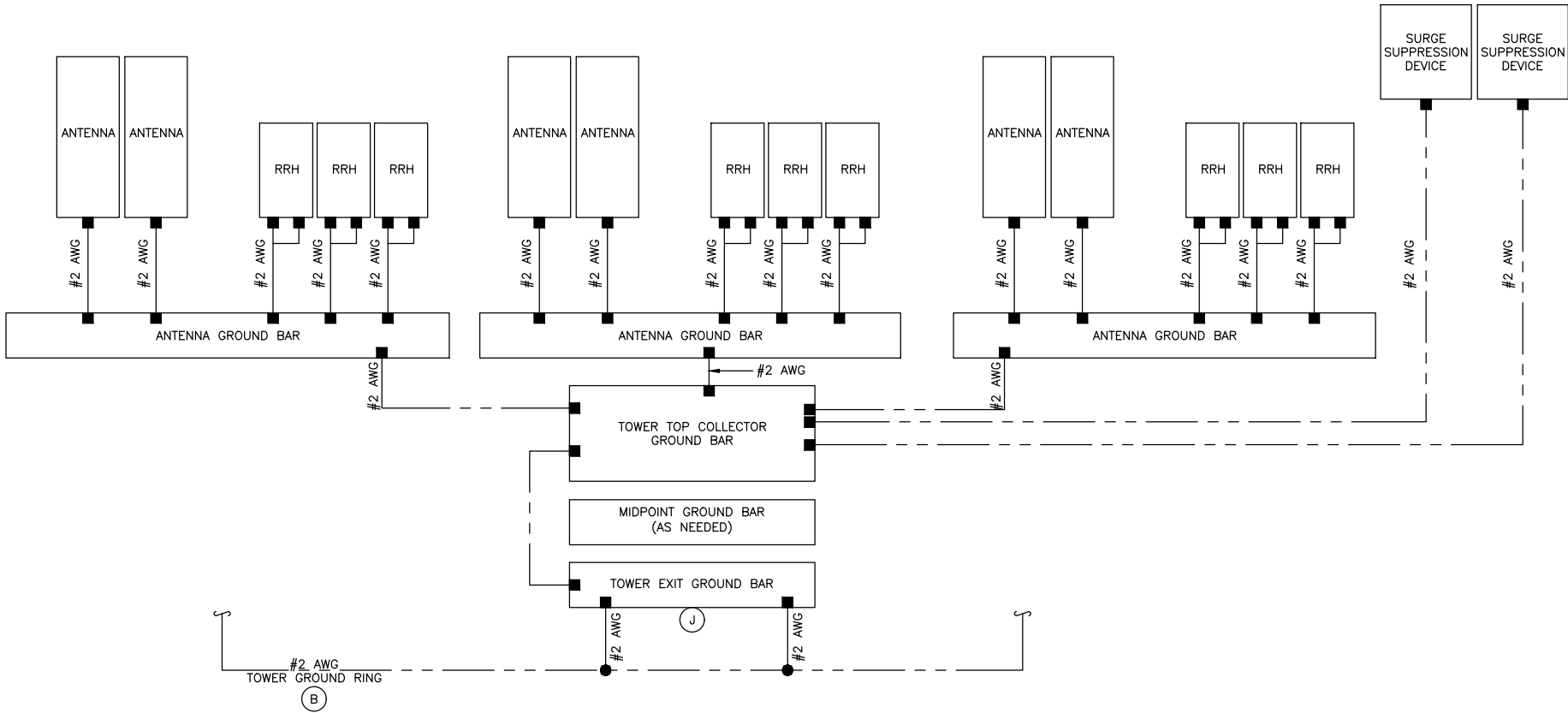
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SHEET TITLE
ELECTRICAL DETAILS

SHEET NUMBER

E-2



- EXOTHERMIC CONNECTION
- MECHANICAL CONNECTION
- GROUND ROD
- TEST GROUND ROD WITH INSPECTION SLEEVE

LEGEND

1. GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY. FOR GROUNDING DETAILS SEE DRAWINGS E-5 THROUGH E-7.
2. CONTRACTOR SHALL GROUND ALL EQUIPMENT AS A COMPLETE SYSTEM. GROUNDING SHALL BE IN COMPLIANCE WITH NEC SECTION 250 AND AT&T GROUNDING AND BONDING REQUIREMENTS (ATT-TP-76416) AND MANUFACTURER'S SPECIFICATIONS.
3. ALL GROUND CONDUCTORS SHALL BE COPPER; NO ALUMINUM CONDUCTORS SHALL BE USED.
4. FOR ALCATEL-LUCENT 850 AND 1900 RRH's, TWO GROUNDS ARE REQUIRED (TOP AND BOTTOM).

NOTES

- EXTERIOR GROUND RING:** #2 AWG SOLID COPPER, BURIED AT A DEPTH OF AT LEAST 30 INCHES BELOW GRADE, OR 6 INCHES BELOW THE FROST LINE AND APPROXIMATELY 24 INCHES FROM THE EXTERIOR WALL OR FOOTING. (ATT-TP-76416 2.2.3.5/7.5.1)
- TOWER GROUND RING:** THE GROUND RING SYSTEM SHALL BE INSTALLED AROUND AN ANTENNA TOWER'S LEGS, AND/OR GUY ANCHORS. WHERE SEPARATE SYSTEMS HAVE BEEN PROVIDED FOR THE TOWER AND THE BUILDING, AT LEAST TWO BONDS SHALL BE MADE BETWEEN THE TOWER RING GROUND SYSTEM AND THE BUILDING RING GROUND SYSTEM USING MINIMUM #2 AWG SOLID COPPER CONDUCTORS. (ATT-TP-76416 7.5.1)
- INTERIOR GROUND RING:** #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTOR EXTENDED AROUND THE PERIMETER OF THE EQUIPMENT AREA. ALL NON-TELECOMMUNICATIONS RELATED METALLIC OBJECTS FOUND WITHIN A SITE SHALL BE GROUNDED TO THE INTERIOR GROUND RING WITH #6 AWG STRANDED GREEN INSULATED CONDUCTOR. (ATT-TP-76416 7.6.4)
- BOND TO INTERIOR GROUND RING:** #2 AWG SOLID TINNED COPPER WIRE PRIMARY BONDS SHALL BE PROVIDED AT LEAST AT FOUR POINTS ON THE INTERIOR GROUND RING, LOCATED AT THE CORNERS OF THE BUILDING. (ATT-TP-76416 7.5.2.2)
- GROUND ROD:** UL LISTED COPPER CLAD STEEL, MINIMUM 5/8" DIAMETER BY EIGHT FEET LONG. ALL GROUND RODS MAY BE INSTALLED WITH INSPECTION SLEEVES. GROUND RODS SHALL BE DRIVEN TO THE DEPTH OF GROUND RING CONDUCTOR. (ATT-TP-76416 1.4 / 2.2.3.10)
- CELL REFERENCE GROUND BAR:** POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO GROUND RING WITH (2) #2 SOLID TINNED COPPER CONDUCTORS. (ATT-TP-76416 7.6.7)
- HATCH PLATE GROUND BAR:** BOND TO THE INTERIOR GROUND RING WITH TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS. WHEN A HATCH-PLATE AND A CELL REFERENCE GROUND BAR ARE BOTH PRESENT, THE CRGB MUST BE CONNECTED TO THE HATCH-PLATE AND TO THE INTERIOR GROUND RING USING TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS.
- EXTERIOR CABLE ENTRY PORT GROUND BARS:** LOCATED AT THE ENTRANCE TO THE CELL SITE BUILDING. BOND TO GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTORS WITH AN EXOTHERMIC WELD AND INSPECTION SLEEVE. (ATT-TP-76416 7.6.7.2)
- TOWER EXIT GROUND BAR:** #2 AWG SOLID TINNED COPPER BOND TO THE TOWER GROUND RING. (ATT-TP-76416 7.5.5)
- TELCO GROUND BAR:** BOND TO BOTH CELL REFERENCE GROUND BAR AND EXTERIOR GROUND RING. (ATT-TP-76416 7.6.8)
- FRAME BONDING:** THE BONDING POINT FOR TELECOM EQUIPMENT FRAMES SHALL BE THE GROUND BUS THAT IS NOT ISOLATED FROM THE EQUIPMENTS METAL FRAMEWORK. BOND THE FRAME GROUND BUS TO THE "I" SECTION OF THE CELL REFERENCE GROUND BAR. (ATT-TP-76416 7.8)
- INTERIOR UNIT BONDS:** METAL FRAMES, CABINETS AND INDIVIDUAL METALLIC UNITS LOCATED WITHIN THE AREA OF THE INTERIOR GROUND RING REQUIRE A #6 AWG STRANDED GREEN INSULATED COPPER BOND TO THE INTERIOR GROUND RING. (ATT-TP-76416 7.12.3.1)
- FENCE AND GATE GROUNDING:** METAL FENCES WITHIN 7 FEET OF THE EXTERIOR GROUND RING OR OBJECTS BONDED TO THE EXTERIOR GROUND RING SHALL BE BONDED TO THE GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTOR AT AN INTERVAL NOT EXCEEDING 25 FEET. BONDS SHALL BE MADE AT EACH GATE POST AND ACROSS GATE OPENINGS. (ATT-TP-76416 7.12.2.2)
- EXTERIOR UNIT BONDS:** METALLIC OBJECTS, EXTERNAL TO OR MOUNTED TO THE BUILDING, SHALL BE BONDED TO THE EXTERIOR GROUND RING. (ATT-TP-76416 7.12.2)
- ICE BRIDGE SUPPORTS:** EACH ICE BRIDGE LEG SHALL BE BONDED TO THE GROUND RING WITH #2 AWG BARE TINNED COPPER CONDUCTOR. PROVIDE EXOTHERMIC WELDS AT BOTH THE ICE BRIDGE LEG AND BURIED GROUND RING. (ATT-TP-76416 7.4.2.6)
- DURING ALL DC POWER SYSTEM CHANGES** INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICES CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH A MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR (CRGB) PER TP76300 SECTION H 6 AND TP76416 FIGURE 7-11 REQUIREMENTS.

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BLACK & VEATCH

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SUITE 1200
BLOOMINGTON, MN 55435

PROJECT NO:	129049.4004
DRAWN BY:	VPB
CHECKED BY:	JAT

1	10/14/19	CITY COMMENTS
0	07/24/19	ISSUED FOR CONSTRUCTION
REV	DATE	DESCRIPTION

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PRINT NAME: ROBLEY A. EVANS

SIGNATURE:

DATE: 10/14/2019 LICENSE# 43119
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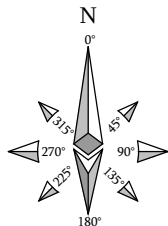
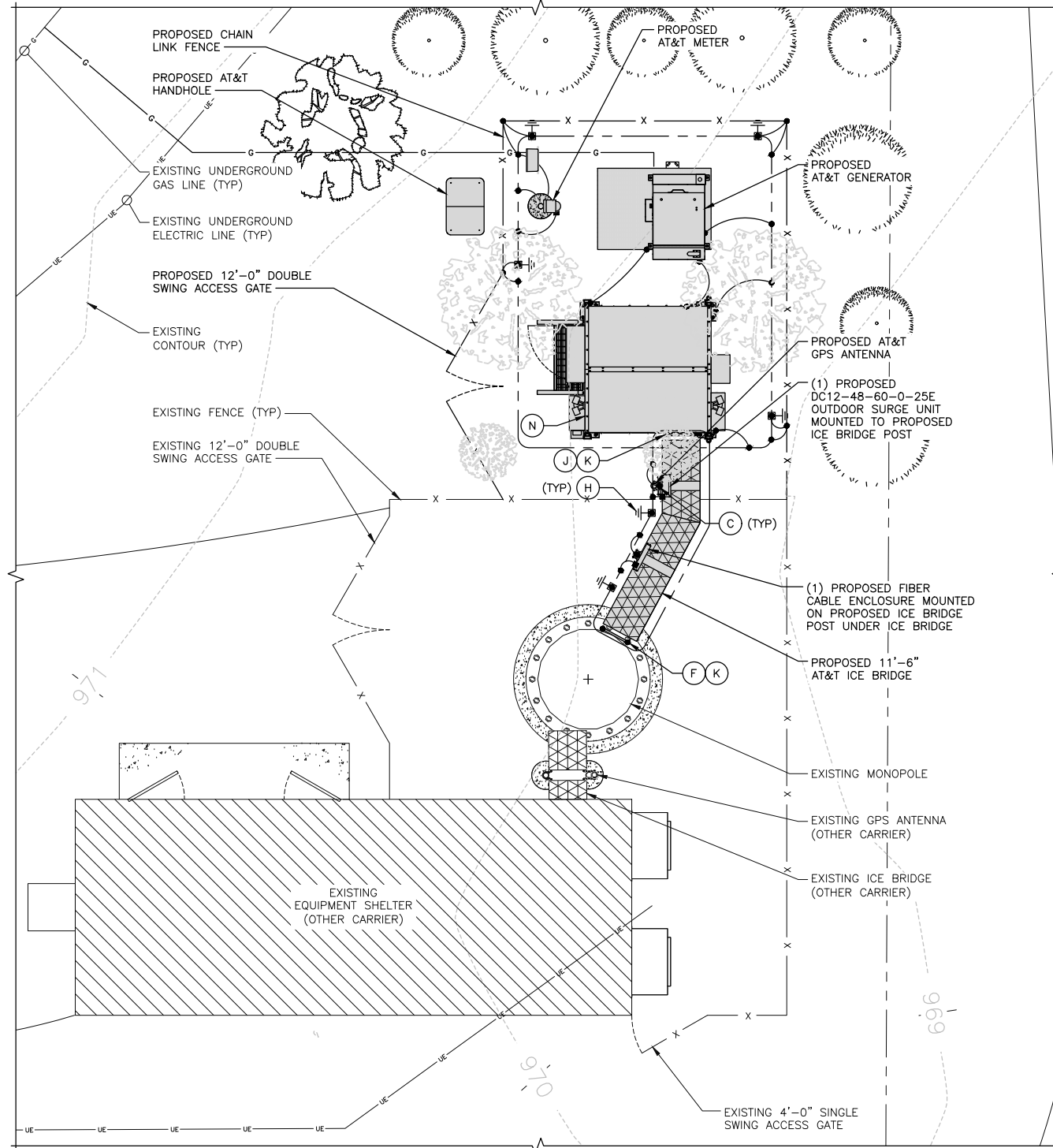
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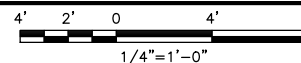
SHEET TITLE
ONE-LINE
GROUNDING DIAGRAM

SHEET NUMBER

E-3



COMPOUND GROUNDING PLAN



1

KEYNOTES

- (A) GROUNDING BAR: EXTEND TWO (2) #2 AWG TINNED CU CONDUCTOR FROM BURIED GROUNDING RING UP TO THE HATCHPLATE GROUNDING BAR AND MAKE A MECHANICAL CONNECTION.
- (B) GROUND ROD: COPPER CLAD STEEL 5/8" (10) TEN FEET LONG. ALL GROUNDING RODS MAY BE INSTALLED WITH INSPECTION SLEEVES.
- (C) ICE BRIDGE SUPPORT POST GROUNDING: EXTEND #2 AWG TINNED CU CONDUCTOR FROM BURIED GROUNDING RING TO ALL ICE BRIDGE SUPPORT POSTS AND EXOTHERMICALLY WELD.
- (D) FENCE GROUNDING: IF FENCE IS WITHIN 6' OF GROUNDING RING, EXTEND #2 AWG TINNED CU CONDUCTOR FROM BURIED GROUNDING RING TO FENCE POSTS EXOTHERMICALLY WELDED. FENCING FABRIC SHALL BE GROUNDED AT ADJACENT CORNER POST. (2) REQ'D. GROUND INTERMEDIATE POST TO MAINTAIN 25'-0" MAX SPACING.
- (E) PROPOSED TOWER GROUNDING: EXTEND TWO (2) #2 AWG TINNED CU CONDUCTOR FROM BURIED GROUNDING RING AND CONNECT TO THE PROPOSED TOWER. FOLLOW MANUFACTURERS RECOMMENDATIONS FOR GROUNDING CONNECTIONS TO THE TOWER. (APPLICABLE TO NEW TOWERS ONLY.)
- (F) ANTENNA GROUNDING BAR: EXTEND TWO (2) #2 AWG TINNED CU CONDUCTOR FROM BURIED GROUNDING RING AND CONNECT TO THE PROPOSED ANTENNA GROUNDING BAR. MOUNT GROUNDING BAR DIRECTLY TO TOWER. SECURE TO TOWER WITH STAINLESS STEEL MOUNTING MATERIAL.
- (G) GATE GROUNDING: EXTEND #2 AWG TINNED CU CONDUCTOR FROM BURIED GROUNDING RING TO GATE POSTS AND EXOTHERMICALLY WELD. SEE DETAIL G-6.
- (H) TEST GROUND ROD WITH INSPECTION SLEEVE: COPPER CLAD STEEL 5/8" DIA. TEN (10) FEET LONG WITH INSPECTION SLEEVE.
- (J) MASTER GROUNDING BAR: EXTEND TWO (2) #2 AWG TINNED CU CONDUCTORS FROM BURIED GROUNDING RING UP TO MASTER GROUNDING BAR & MAKE A EXOTHERMIC CONNECTIONS.
- (K) GROUNDING BAR LOCK BOX: TESCO PART # 351546: INSTALL PER MANUFACTURER REQUIREMENTS.
- (L) TIE INTO EXISTING GROUNDING RING: (2) REQ'D
- (M) ANTENNA GROUNDING BAR: EXTEND TWO (2) #2 AWG TINNED CU CONDUCTOR FROM BURIED GROUNDING RING AND CONNECT TO THE PROPOSED ANTENNA GROUNDING BAR. MOUNT GROUNDING BAR DIRECTLY TO TOWER. SECURE TO TOWER WITH STAINLESS STEEL MOUNTING MATERIAL.
- (N) PROPOSED EQUIPMENT CABINET: SEE MANUFACTURER SPECIFICATIONS FOR ALL INTERIOR EQUIPMENT GROUNDING.

1. GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY. FOR GROUNDING DETAILS SEE DRAWINGS E-4 THROUGH E-6.
2. TESTING SHALL BE PERFORMED AT ALL SITES WHERE MODIFICATIONS OR ADDITIONS ARE MADE TO THE EXISTING GROUNDING SYSTEM AND SHALL BE IN ACCORDANCE WITH AT&T GROUNDING AND BONDING STANDARDS TP-76416. THE CONTRACTOR SHALL SUPPLY AT&T WITH RESULTS FROM PRE-CONSTRUCTION AND POST-CONSTRUCTION OHM TESTING (GROUNDING) RESULTS AND BE IN COMPLIANCE WITH AT&T GROUNDING AND BONDING STANDARDS TP-76416.
3. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A "FALL OF POTENTIAL" TEST ON THE PROPOSED SUPPLEMENTAL GROUNDING FIELD PRIOR TO FINAL CONNECTION OF THE GROUNDING SYSTEM TO EQUIPMENT. THE TEST SHALL BE PERFORMED BY A QUALIFIED AND CERTIFIED TESTING AGENT. PROVIDE INDEPENDENT TEST RESULTS TO THE PROJECT MANAGER FOR REVIEW. THE GROUNDING SYSTEM RESISTANCE TO EARTH GROUNDING SHALL NOT EXCEED (5) OHMS. IF THE GROUNDING TEST EXCEEDS THE MAXIMUM OF (5) OHMS, THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ADDITIONAL GROUNDING RODS AND CONNECTIONS AS REQUIRED TO MEET THE (5) OHMS' MAXIMUM.
4. THE INSPECTOR HAVING JURISDICTION SHALL INSPECT ALL GROUNDING CONNECTIONS FOR TIGHTNESS. EXOTHERMIC WELDED CONNECTIONS SHALL BE APPROVED BEFORE BEING PERMANENTLY CONCEALED.
5. FOR ALL CONNECTIONS TO THE GROUNDING RING, SEE THE SHELTER MANUFACTURER'S DRAWINGS.
6. WHEN AN EXISTING METER RACK IS UTILIZED AND A NEW METER IS INSTALLED IN THE EXISTING METER RACK, THE GROUNDING RODS, AND GROUNDING CONDUCTORS OF THE EXISTING GROUNDING RING, SHALL BE EXTENDED TO THE PROPOSED GROUNDING RING AND BECOME A COMPLETE GROUNDING SYSTEM.
7. CONTRACTOR SHALL GROUND ALL EQUIPMENT INCLUDING ANTENNAS, RET MOTORS, TMA'S, COAX CABLES AND RET CONTROL CABLES AS A COMPLETE SYSTEM. GROUNDING SHALL BE EXECUTED BY QUALIFIED WIREMEN IN COMPLIANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
8. FOR GROUNDING INSTALLATIONS WHICH HAVE A LIMITED AREA AND IS BEING REQUIRED TO BE INSTALLED WITHIN THE LEASE AREA ONLY, THE GROUNDING RING CONDUCTORS CAN BE INSTALLED UNDER THE SHELTER'S FOOTINGS.
8. MAIN GROUNDING CONDUCTORS SHALL BE ROUTED AND BONDED TO ALL EFFECTIVE GROUNDING PATHS IN ACCORDANCE WITH AT&T GROUNDING AND BONDING SPECIFICATION 6.8.2 STATED IN TP-76416. THE NEW GROUNDING SYSTEM SHALL BE BONDED (2 PLACES) TO ALL EXISTING GROUNDING SYSTEMS, INCLUDING BUT NOT LIMITED TO BUILDING STEEL STRUCTURE, LIGHTNING PROTECTION SYSTEMS, BUILDING MAIN GROUNDING SYSTEM AND/OR MAIN WATER SUPPLY IF APPLICABLE.
9. BUILDINGS AND/OR NEW TOWERS GREATER THAN 75 FEET IN HEIGHT AND THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 AWG COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY). SEE AT&T GROUNDING AND BONDING STANDARDS TP-76416 SPECIFICATION 6.3.2.2.

NOTES

- EXOTHERMIC TYPE CONNECTIONS
- COMPRESSION TYPE CONNECTIONS
- ⊗ CHEMICAL ELECTROLYTIC GROUNDING SYSTEM
- ⊥-⊥ GROUND ROD WITH INSPECTION SLEEVE
- ⊥-⊥ T TEST GROUND ROD WITH INSPECTION SLEEVE
- ⊥ EXOTHERMIC WITH INSPECTION SLEEVE
- GROUNDING CONDUCTOR
- GROUNDING BAR

LEGEND

AT&T
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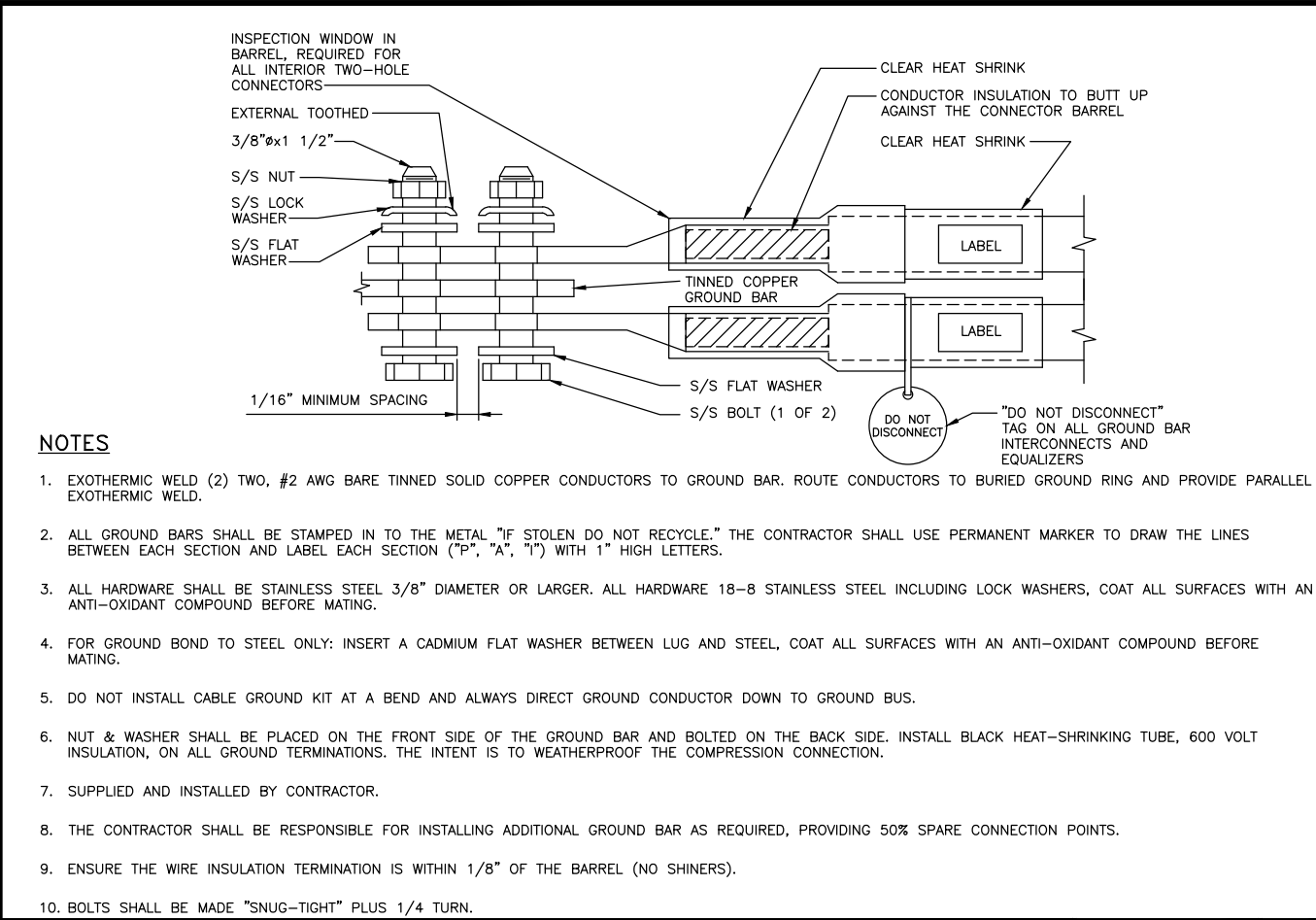
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SHEET TITLE
COMPOUND
GROUNDING PLAN

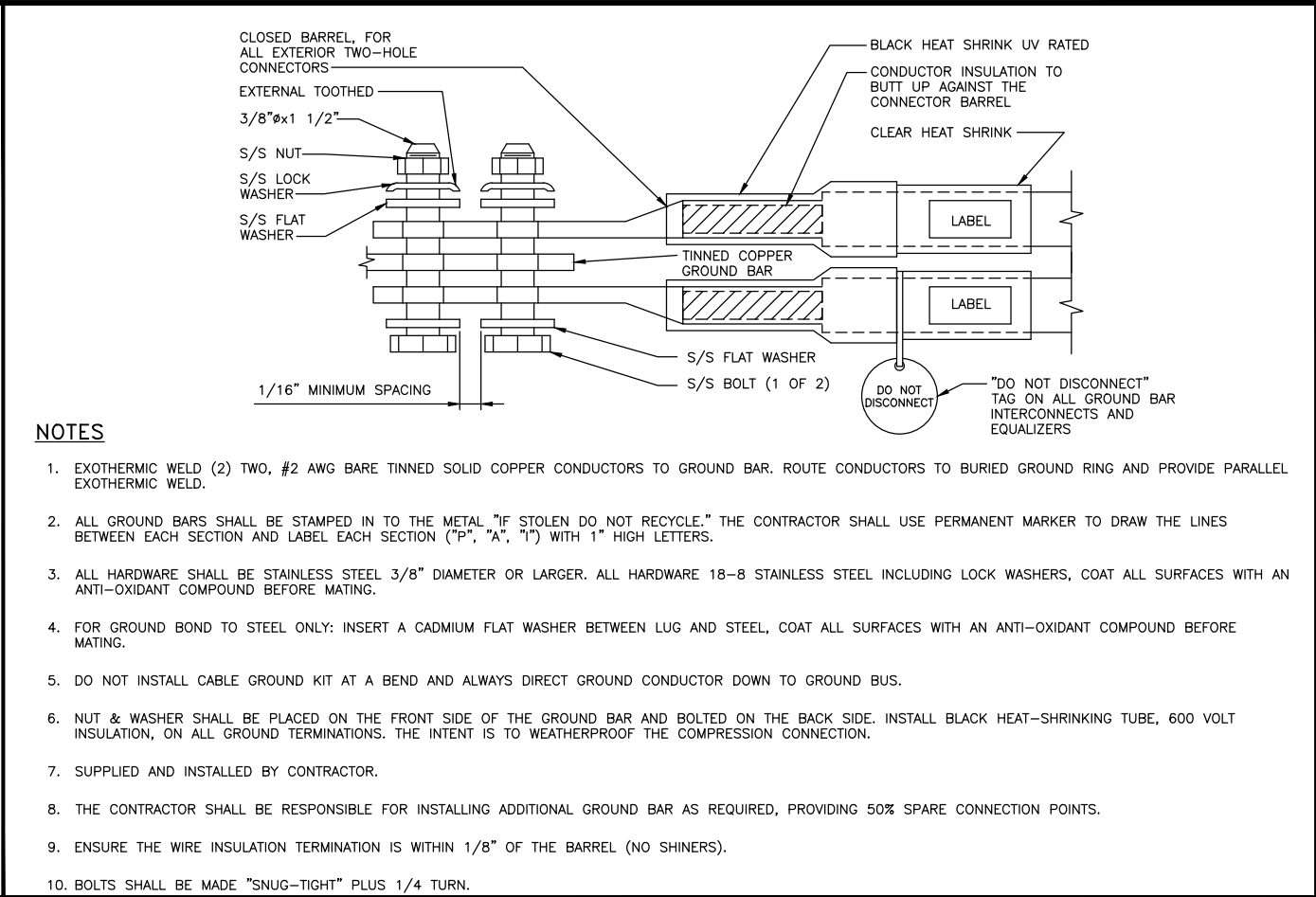
SHEET NUMBER

E-4



NOTES

- EXOTHERMIC WELD (2) TWO, #2 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUND BAR. ROUTE CONDUCTORS TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
- ALL GROUND BARS SHALL BE STAMPED IN TO THE METAL "IF STOLEN DO NOT RECYCLE." THE CONTRACTOR SHALL USE PERMANENT MARKER TO DRAW THE LINES BETWEEN EACH SECTION AND LABEL EACH SECTION ("P", "A", "I") WITH 1" HIGH LETTERS.
- ALL HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
- FOR GROUND BOND TO STEEL ONLY: INSERT A CADMIUM FLAT WASHER BETWEEN LUG AND STEEL, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND CONDUCTOR DOWN TO GROUND BUS.
- NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE. INSTALL BLACK HEAT-SHRINKING TUBE, 600 VOLT INSULATION, ON ALL GROUND TERMINATIONS. THE INTENT IS TO WEATHERPROOF THE COMPRESSION CONNECTION.
- SUPPLIED AND INSTALLED BY CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED, PROVIDING 50% SPARE CONNECTION POINTS.
- ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).
- BOLTS SHALL BE MADE "SNUG-TIGHT" PLUS 1/4 TURN.



NOTES

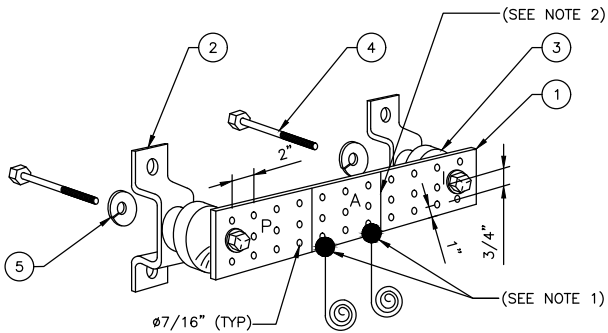
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- ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).
- BOLTS SHALL BE MADE "SNUG-TIGHT" PLUS 1/4 TURN.

INTERIOR TWO HOLE LUG DETAIL	NO SCALE	1
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EXTERIOR TWO HOLE LUG DETAIL	NO SCALE	2
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NEWTON INSTRUMENT COMPANY, INC. BUTNER, N.C.			
NO	REQUIRED	PART NUMBER	DESCRIPTION
1	1	HAGAR TGBI-14420C OR A.L.T 382227	GALVANIZED STEEL GROUND BAR * (1/4" x 4" x 20)
2	2	A-6056	WALL MOUNTING BRACKET
3	2	3061-4	INSULATORS
4	2	3012-1	5/8"-11x1" H.H.C.S. BOLTS
5	4	3015-8	5/8" LOCKWASHER

* HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION.



EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION

SECTION "P" - SURGE PROTECTORS

- (EC) CELL REFERENCE GROUND BAR (IF COLLOCATED)
- (EC) GENERATOR FRAMEWORK (IF AVAILABLE) (#2 AWG)
- (EC) TELCO GROUND BAR (#2 AWG)
- (EC) COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (3/0)
- (EC) FIBER GROUND BAR (#2 AWG)
- (EC) POWER ROOM REFERENCE GROUND BAR (#2 AWG)
- (AT&T) RECTIFIER FRAMES

SECTION "A" - SURGE ABSORBERS

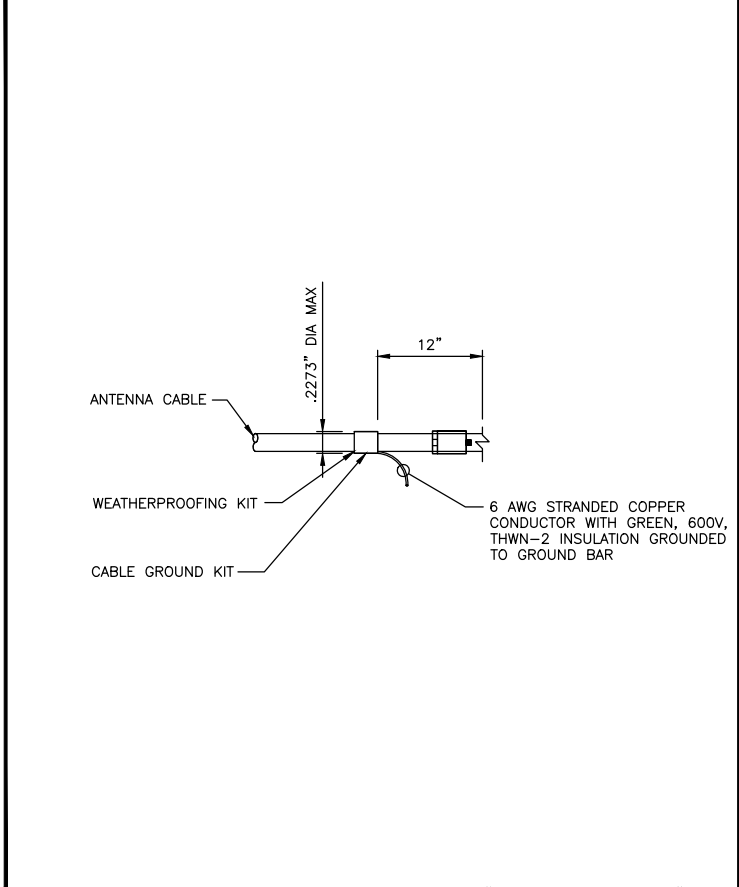
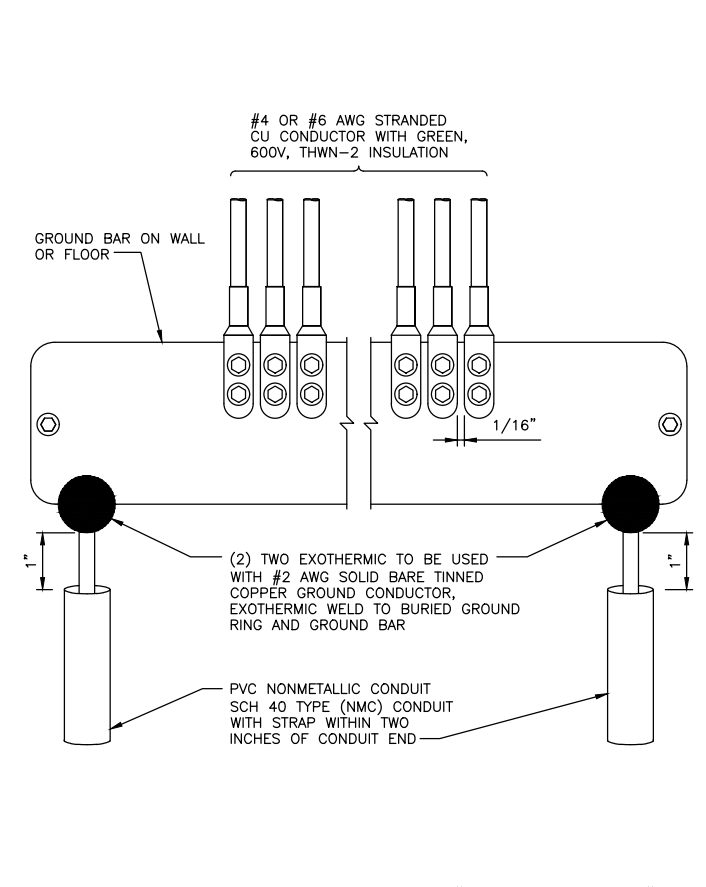
- (EC) INTERIOR GROUND RING (#2 AWG)
- (EC) EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (#2 AWG)
- (EC) METALLIC COLD WATER PIPE (IF AVAILABLE) (1/0 AWG)
- (EC) BUILDING STEEL (IF AVAILABLE) (1/0 AWG)

SECTION "I" - ISOLATED GROUND ZONE

- (AT&T) ALL ISOLATED GROUND REFERENCE
- (AT&T) GROUND WINDOW BAR

DETAIL NOTES

- EXOTHERMICALLY WELD #2 AWG BARE TINNED SOLID COPPER CONDUCTOR TO GROUND BAR. ROUTE CONDUCTOR TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
- THE INSTALLER SHALL USE PERMANENT MARKER TO DRAW THE LIKE BETWEEN SECTION AND LABEL EACH SECTION ("P", "A", "I" WITH 1" HIGH LETTERS



REFERENCE GROUNDING BAR DETAIL	NO SCALE	3
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GROUNDING BAR DETAIL	NO SCALE	4
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CONNECTION OF CABLE GROUNDING KIT TO ANTENNA CABLE	NO SCALE	5
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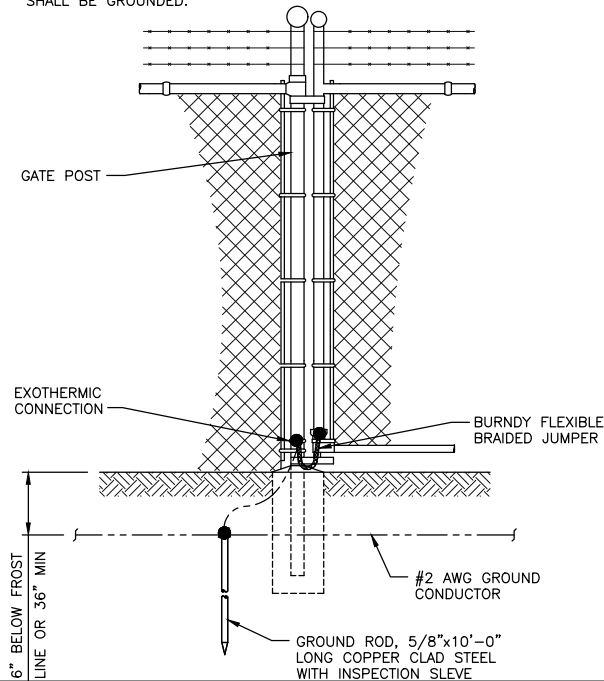
SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

E-5

1. ALL METAL FENCE POSTS SHALL BE GROUNDED.
2. GROUND LINE POSTS ADJACENT TO CORNER POSTS, THEN, GROUND LINE POSTS OR FENCE FABRIC AT 25' INTERVALS. (NO GROUNDS ON CORNER POSTS REQ'D)
3. WHEN A FENCE IS EXISTING AND FENCE POSTS HAVE BEEN VERIFIED TO BE GROUNDED, BUT REQUIRE FENCE TO BE GROUNDED FOR AT&T SPECIFICATION THE FENCING FABRIC SHALL BE GROUNDED.

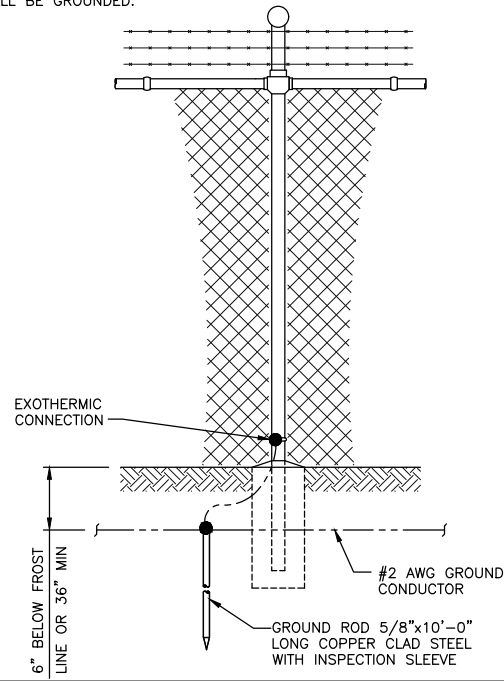


GATE AND GATE POST FENCE
GROUNDING DETAIL

NO SCALE

1

1. ALL METAL FENCE POSTS SHALL BE GROUNDED.
2. GROUND LINE POSTS ADJACENT TO CORNER POSTS, THEN, GROUND LINE POSTS OR FENCE FABRIC AT 25' INTERVALS. (NO GROUNDS ON CORNER POSTS REQ'D)
3. WHEN A FENCE IS EXISTING AND FENCE POSTS HAVE BEEN VERIFIED TO BE GROUNDED, BUT REQUIRE FENCE TO BE GROUNDED FOR AT&T SPECIFICATION THE FENCING FABRIC SHALL BE GROUNDED.



TANGENT POST FENCE
GROUNDING DETAIL

NO SCALE

2

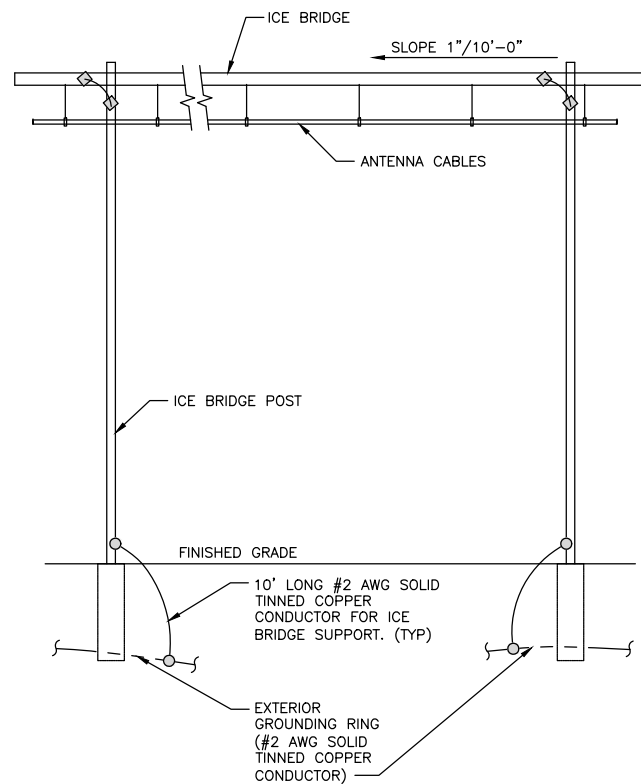
NOT USED

NO SCALE

3

NOTES

1. NUMBER OF GROUND BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATION, AND CONNECTION ORIENTATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED, PROVIDING 50% SPARE CONNECTION POINTS.
2. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND CONDUCTOR DOWN TO GROUND BAR.
3. GROUND KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
4. WEATHER PROOFING SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
5. PROVIDE GROUND KIT 6" BEFORE TURN TRANSITION FROM TOWER TO ICE BRIDGE.
6. WHEN THE SCOPE OF WORK REQUIRES THE ADDITION OF A GROUND BAR TO AN EXISTING TOWER, THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE TOWER OWNER PRIOR TO MOUNTING THE GROUND BARS TO THE TOWER.
7. EXTEND TWO (2) #2 AWG TINNED CU CONDUCTOR FROM BURIED GROUND RING AND CONNECT TO THE PROPOSED TOWER. FOLLOW MANUFACTURERS RECOMMENDATIONS FOR GROUND CONNECTIONS TO THE TOWER. (APPLICABLE TO NEW TOWERS ONLY.)



ICE BRIDGE DETAIL

NO SCALE

4

NOT USED

NO SCALE

5

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PRINT NAME: ROBLEY A. EVANS

SIGNATURE: 

DATE: 10/14/2019 LICENSE# 43119
EXP. 6/20

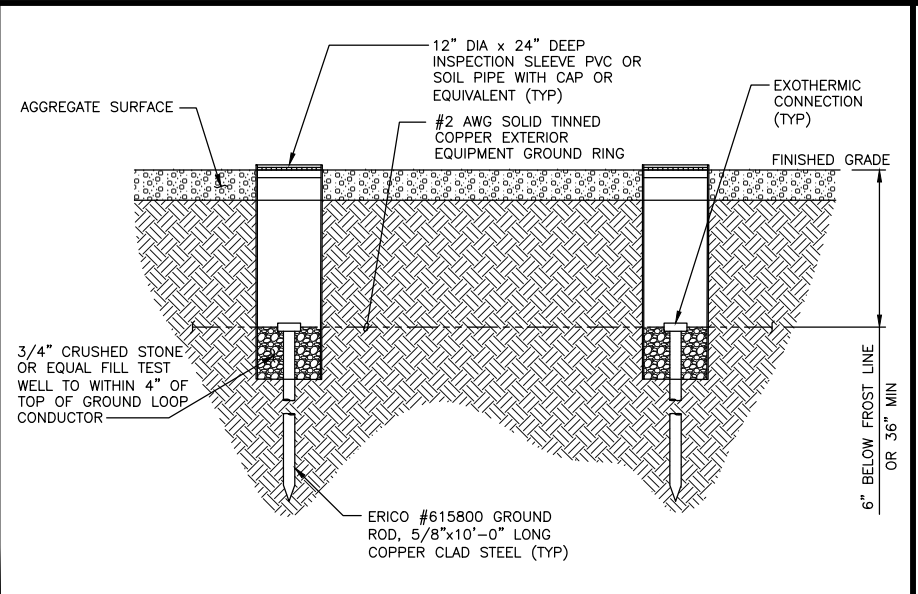
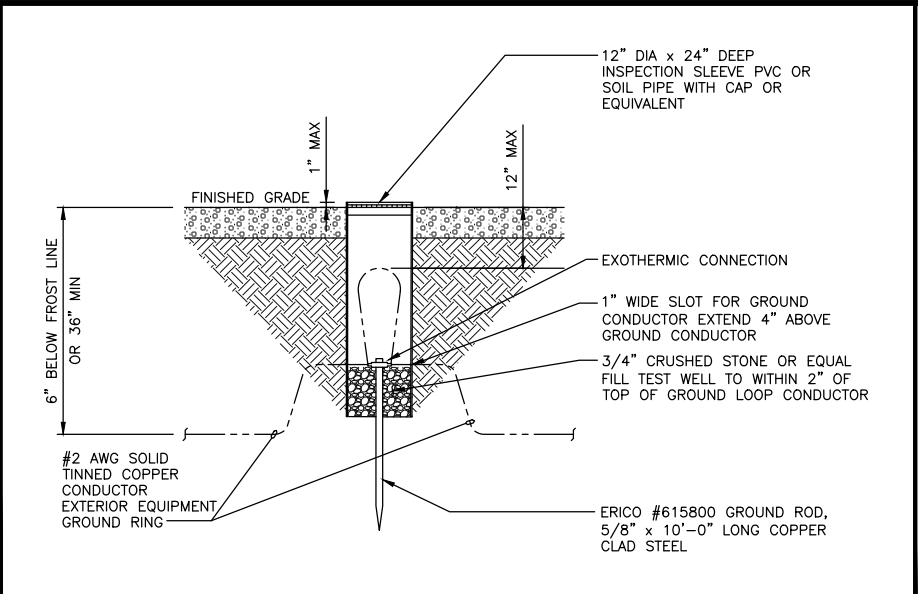
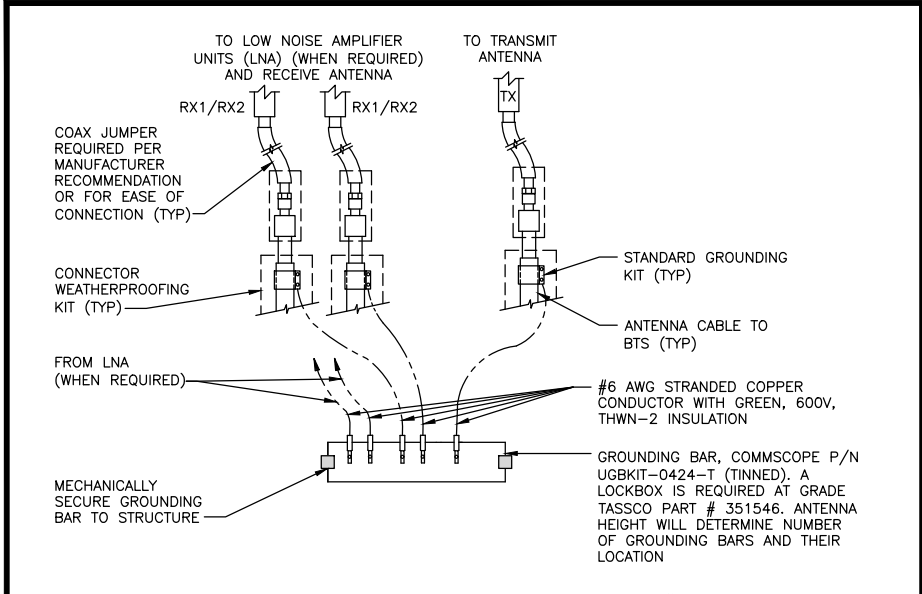
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DELANO COUNTY LINE
MNL01123
3310 COUNTY LINE ROAD SE
DELANO, MN 55328
NSB - WIC

SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER

E-6



ANTENNA GROUNDING BAR DETAIL

NO SCALE

1

TEST GROUND ROD WITH INSPECTION SLEEVE DETAIL

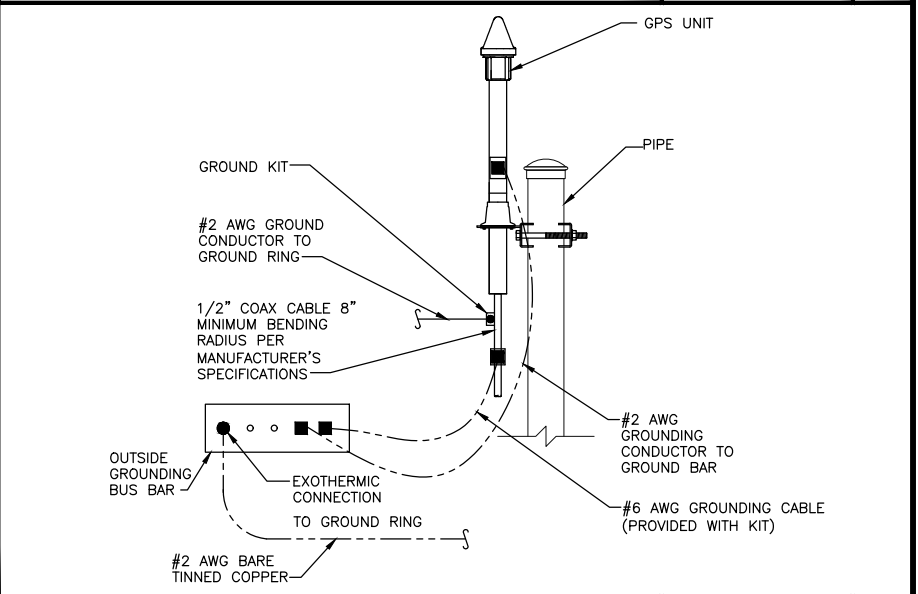
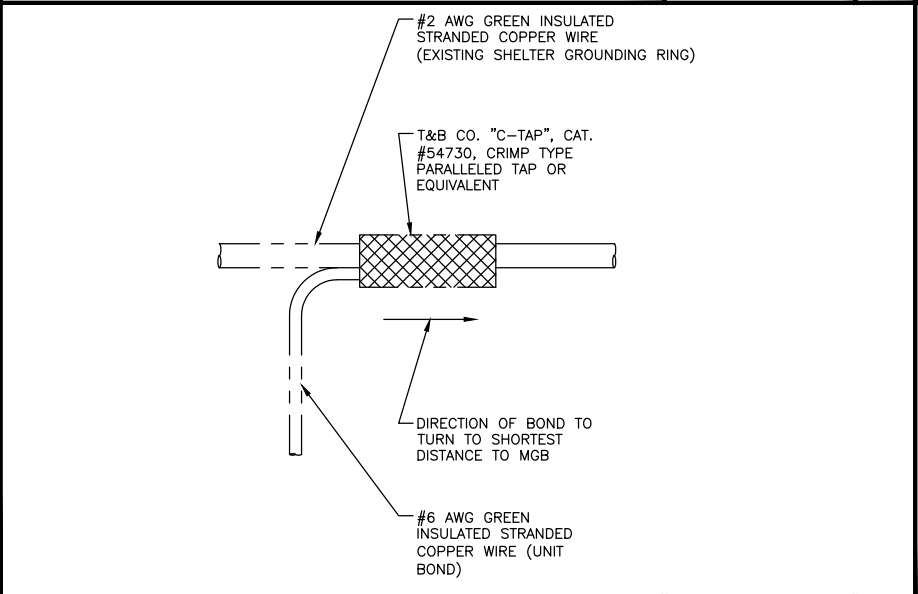
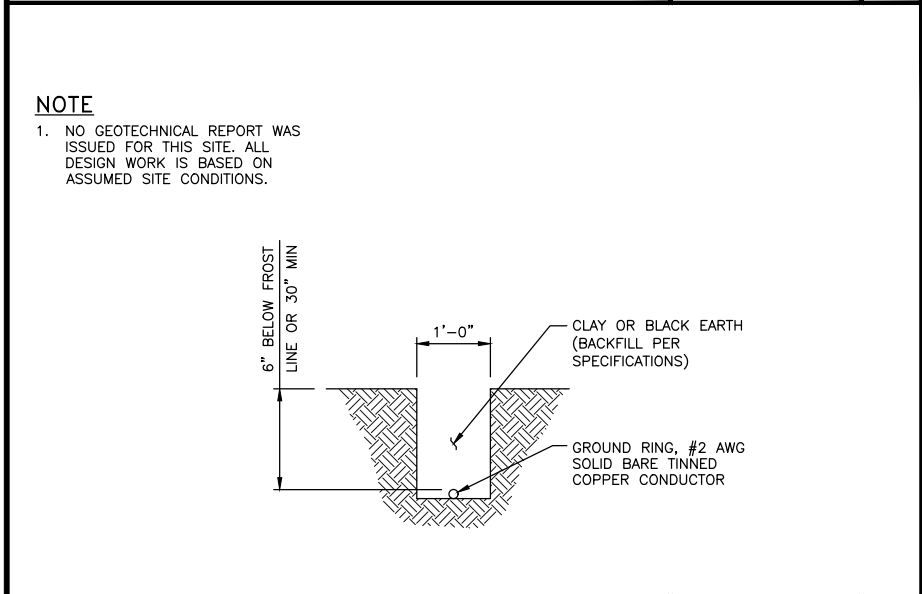
NO SCALE

2

GROUNDING ROD WITH INSPECTION SLEEVE DETAIL

NO SCALE

3



GROUNDING RING TRENCH DETAIL

NO SCALE

4

GROUNDING WIRE CONNECTION DETAIL

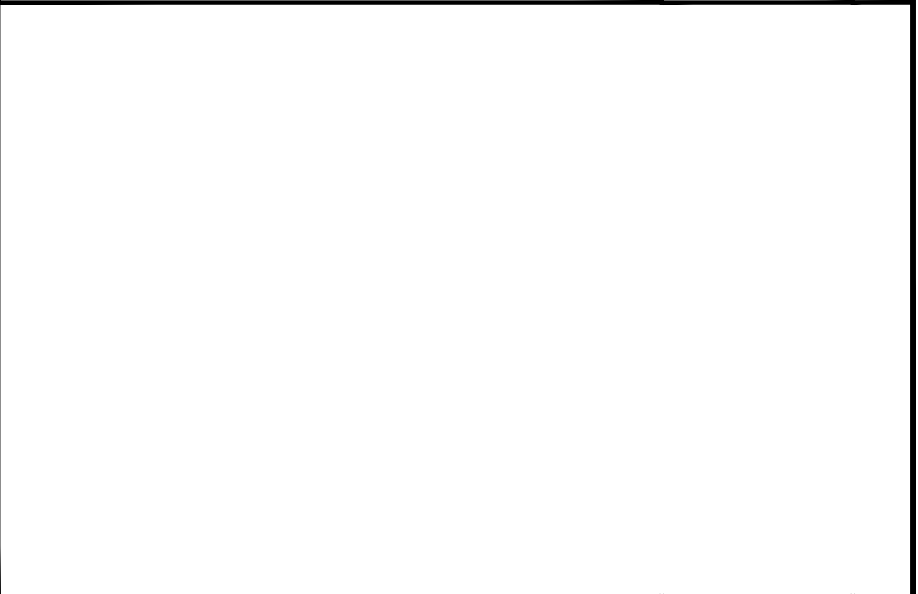
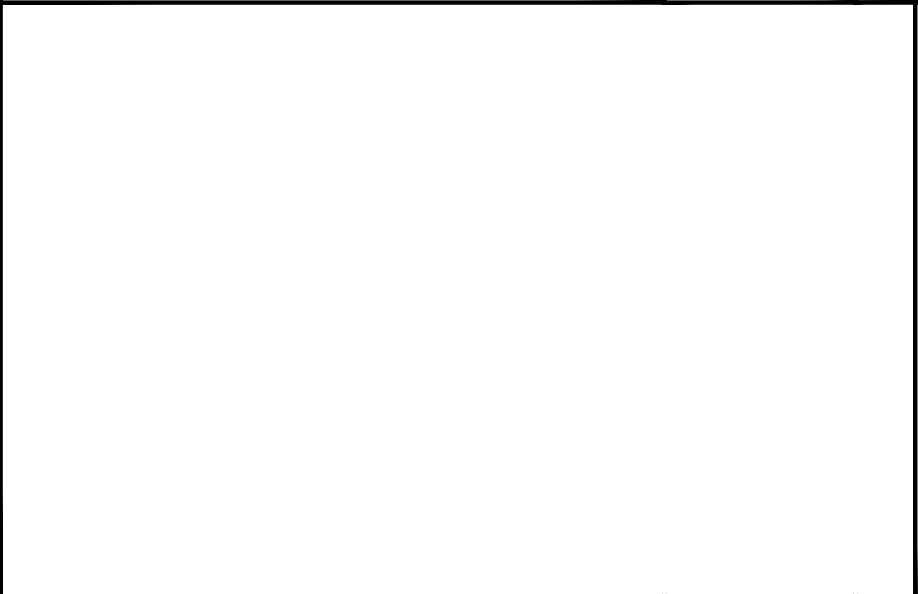
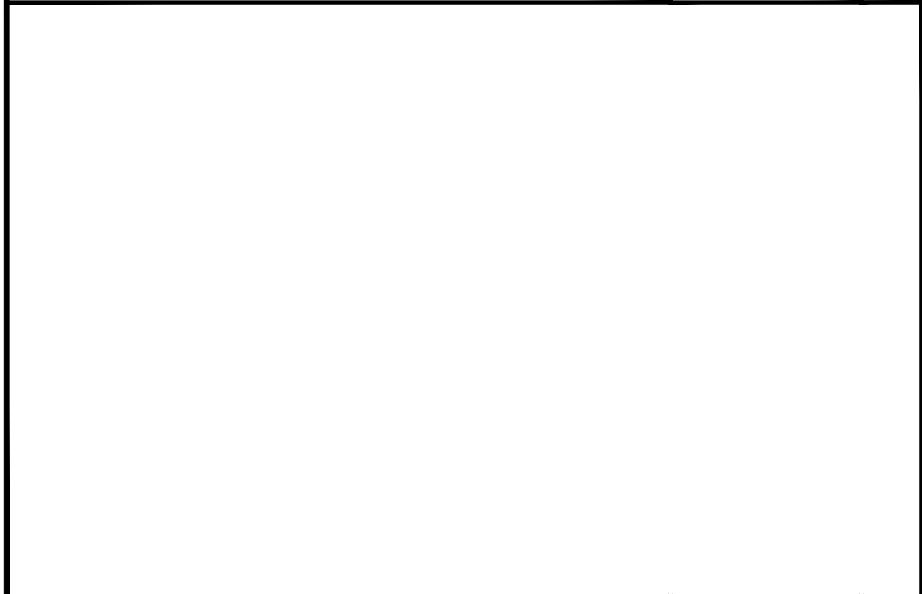
NO SCALE

5

LTE GPS ANTENNA GROUNDING DETAIL

NO SCALE

6



NOT USED

NO SCALE

7

NOT USED

NO SCALE

8

NOT USED

NO SCALE

9

**AT&T
MOBILITY**

7900 XERXES AVE S
3RD FLOOR
BLOOMINGTON MN 55431

BLACK & VEATCH

BLACK & VEATCH CORPORATION
7760 FRANCE AVENUE SOUTH
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PROJECT NO:	129049.4004
DRAWN BY:	VPB
CHECKED BY:	JAT

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SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

E-7

PART 1 – GENERAL

- 1.1GENERAL CONDITIONS:
- A.

CONTRACTOR SHALL INSPECT THE EXISTING SITE CONDITIONS PRIOR TO SUBMITTING BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTORS FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.
- B.

THE CONTRACTOR SHALL OBTAIN PERMITS, LICENSES, MAKE ALL DEPOSITS, AND PAY ALL FEES REQUIRED FOR THE CONSTRUCTION PERFORMANCE FOR THE WORK UNDER THIS SECTION.
- C.

DRAWINGS SHOW THE GENERAL ARRANGEMENT OF ALL SYSTEMS AND COMPONENTS COVERED UNDER THIS SECTION. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS. DRAWING SHALL NOT BE SCALED TO DETERMINE DIMENSIONS.
- 1.2LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES.
- A.

ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, AND ALL APPLICABLE LOCAL LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES. CONDUIT BENDS SHALL BE THE RADIUS BEND FOR THE TRADE SIZE OF CONDUIT IN COMPLIANCE WITH THE LATEST EDITIONS OF NEC.
- 1.3REFERENCES:
- A.

THE PUBLICATIONS LISTED BELOW ARE PART OF THIS SPECIFICATION. EACH PUBLICATION SHALL BE THE LATEST REVISION AND ADDENDUM IN EFFECT ON THE DATE. THIS SPECIFICATION IS ISSUED FOR CONSTRUCTION UNLESS OTHERWISE NOTED. EXCEPT AS MODIFIED BY THE REQUIREMENT SPECIFIED HEREIN OR THE DETAILS OF THE DRAWINGS, WORK INCLUDED IN THIS SPECIFICATION SHALL CONFORM TO THE APPLICABLE PROVISION OF THESE PUBLICATIONS.
1.

ANSI/IEEE (AMERICAN NATIONAL STANDARDS INSTITUTE)
2.

ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS)
3.

ICEA (INSULATED CABLE ENGINEERS ASSOCIATION)
4.

NEMA (NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION)
5.

NFPA (NATIONAL FIRE PROTECTION ASSOCIATION)
6.

OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION)
7.

UL (UNDERWRITERS LABORATORIES INC.)
8.

AT&T GROUNDING AND BONDING STANDARDS TP-76416
- 1.4SCOPE OF WORK
- A.

WORK UNDER THIS SECTION SHALL CONSIST OF FURNISHING ALL LABOR, MATERIAL, AND ASSOCIATED SERVICES REQUIRED TO COMPLETE REQUIRED CONSTRUCTION AND BE OPERATIONAL.
- B.

ALL ELECTRICAL EQUIPMENT UNDER THIS CONTRACT SHALL BE PROPERLY TESTED, ADJUSTED, AND ALIGNED BY THE CONTRACTOR.
- C.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATING, DRAINING, TRENCHES, BACKFILLING, AND REMOVAL OF EXCESS DIRT.
- D.

THE CONTRACTOR SHALL FURNISH TO THE OWNER WITH CERTIFICATES OF A FINAL INSPECTION AND APPROVAL FROM THE INSPECTION AUTHORITIES HAVING JURISDICTION.
- E.

THE CONTRACTOR SHALL PREPARE A COMPLETE SET OF AS-BUILT DRAWINGS, DOCUMENT ALL WIRING EQUIPMENT CONDITIONS, AND CHANGES WHILE COMPLETING THIS CONTRACT. THE AS-BUILT DRAWINGS SHALL BE SUBMITTED AT COMPLETION OF THE PROJECT.

PART 2 – PRODUCTS

- 2.1GENERAL:
- A.

ALL MATERIALS AND EQUIPMENT SHALL BE UL LISTED, NEW, AND FREE FROM DEFECTS.
- B.

ALL ITEMS OF MATERIALS AND EQUIPMENT SHALL BE ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION AS SUITABLE FOR THE USE INTENDED.
- C.

ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
- D.

ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 10,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PER THE GOVERNING JURISDICTION.
- 2.2MATERIALS AND EQUIPMENT:
- A.

CONDUIT:
1.

RIGID METAL CONDUIT (RMC) SHALL BE HOT-DIPPED GALVANIZED INSIDE AND OUTSIDE INCLUDING ENDS AND THREADS AND ENAMELED OR LACQUERED INSIDE IN ADDITION TO GALVANIZING.
2.

LIQUDTIGHT FLEXIBLE METAL CONDUIT SHALL BE UL LISTED.
3.

CONDUIT CLAMPS, STRAPS AND SUPPORTS SHALL BE STEEL OR MALLEABLE IRON. ALL FITTINGS SHALL BE COMPRESSION AND CONCRETE TIGHT TYPE. GROUNDING BUSHINGS WITH INSULATED THROATS SHALL BE INSTALLED ON ALL CONDUIT TERMINATIONS.
4.

NONMETALLIC CONDUIT AND FITTINGS SHALL BE SCHEDULE 40 PVC. INSTALL USING SOLVENT-CEMENT-TYPE JOINTS AS RECOMMENDED BY THE MANUFACTURER.
- B.

CONDUCTORS AND CABLE:
1.

CONDUCTORS AND CABLE SHALL BE FLAME-RETARDANT, MOISTURE AND HEAT RESISTANT THERMOPLASTIC, SINGLE CONDUCTOR, COPPER, TYPE THHN/THWN-2, 600 VOLT, SIZE AS INDICATED, #12 AWG SHALL BE THE MINIMUM SIZE CONDUCTOR USED.
2.

#10 AWG AND SMALLER CONDUCTOR SHALL BE SOLID OR STRANDED AND #8 AWG AND LARGER CONDUCTORS SHALL BE STRANDED.
3.

SOLDERLESS, COMPRESSION-TYPE CONNECTORS SHALL BE USED FOR TERMINATION OF ALL STRANDED CONDUCTORS.
4.

STRAIN-RELIEF SUPPORTS GRIPS SHALL BE HUBBELL KELLEMS OR APPROVED EQUAL. CABLES SHALL BE SUPPORTED IN ACCORDANCE WITH THE NEC AND CABLE MANUFACTURER'S RECOMMENDATIONS.
5.

ALL CONDUCTORS SHALL BE TAGGED AT BOTH ENDS OF THE CONDUCTOR, AT ALL PULL BOXES, J-BOXES, EQUIPMENT AND CABINETS AND SHALL BE IDENTIFIED WITH APPROVED PLASTIC TAGS (ACTION CRAFT, BRADY, OR APPROVED EQUAL).
- C.

DISCONNECT SWITCHES:
1.

DISCONNECT SWITCHES SHALL BE HEAVY DUTY, DEAD-FRONT, QUICK-MAKE, QUICK-BREAK, EXTERNALLY OPERABLE, HANDLE LOCKABLE AND INTERLOCK WITH COVER IN CLOSED POSITION, RATING AS INDICATED, UL LABELED FURNISHED IN NEMA 3R ENCLOSURE, SQUARE-D OR ENGINEER APPROVED EQUAL.
- D.

CHEMICAL ELECTROLYTIC GROUNDING SYSTEM:
1.

INSTALL CHEMICAL GROUNDING AS REQUIRED. THE SYSTEM SHALL BE ELECTROLYTIC MAINTENANCE FREE ELECTRODE CONSISTING OF RODS WITH A MINIMUM #2 AWG CU EXOTHERMICALLY WELDED PIGTAIL, PROTECTIVE BOXES, AND BACKFILL MATERIAL. MANUFACTURER SHALL BE LYNCOLE XIT GROUNDING ROD TYPES K2-(*)CS OR K2L-(*)CS (*) LENGTH AS REQUIRED.
2.

GROUND ACCESS BOX SHALL BE A POLYPLASTIC BOX FOR NON-TRAFFIC APPLICATIONS, INCLUDING BOLT DOWN FLUSH COVER WITH "BREATHER" HOLES, XIT MODEL #XB-22. ALL DISCONNECT SWITCHES AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED LAMICOID NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS ID NUMBERING, AND THE ELECTRICAL POWER SOURCE.
3.

BACKFILL MATERIAL SHALL BE LYNCONITE AND LYNCOLE GROUNDING GRAVEL.

- E.
- SYSTEM GROUNDING:
1.

ALL GROUNDING COMPONENTS SHALL BE TINNED AND GROUNDING CONDUCTOR SHALL BE #2 AWG BARE, SOLID, TINNED, COPPER. ABOVE GRADE GROUNDING CONDUCTORS SHALL BE INSULATED WHERE NOTED.
2.

GROUNDING BUSSES SHALL BE BARE, TINNED, ANNEALED COPPER BARS OF RECTANGULAR CROSS SECTION. STANDARD BUS BARS MGB, SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. THEY SHALL NOT BE FABRICATED OR MODIFIED IN THE FIELD. ALL GROUNDING BUSES SHALL BE IDENTIFIED WITH MINIMUM 3/4" LETTERS BY WAY OF STENCILING OR DESIGNATION PLATE.
3.

CONNECTORS SHALL BE HIGH-CONDUCTIVITY, HEAVY DUTY, LISTED AND LABELED AS GROUNDING CONNECTORS FOR THE MATERIALS USED. USE TWO-HOLE COMPRESSION LUGS WITH HEAT SHRINK FOR MECHANICAL CONNECTIONS. INTERIOR CONNECTIONS USE TWO-HOLE COMPRESSION LUGS WITH INSPECTION WINDOW AND CLEAR HEAT SHRINK.
4.

EXOTHERMIC WELDED CONNECTIONS SHALL BE PROVIDED IN KIT FORM AND SELECTED FOR THE SPECIFIC TYPES, SIZES, AND COMBINATIONS OF CONDUCTORS AND OTHER ITEMS TO BE CONNECTED.
5.

GROUND RODS SHALL BE COPPER-CLAD STEEL WITH HIGH-STRENGTH STEEL CORE AND ELECTROLYTIC-GRADE COPPER OUTER SHEATH, MOLTEN WELDED TO CORE, 5/8"x10'-0". ALL GROUNDING RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES.
6.

INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS IN COMPLIANCE WITH THE AT&T SPECIFICATIONS AND NEC. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, PULLBOXES, DISCONNECT SWITCHES, STARTERS, AND EQUIPMENT CABINETS.
- F.

OTHER MATERIALS:
1.

THE CONTRACTOR SHALL PROVIDE OTHER MATERIALS, THOUGH NOT SPECIFICALLY DESCRIBED, WHICH ARE REQUIRED FOR A COMPLETELY OPERATIONAL SYSTEM AND PROPER INSTALLATION OF THE WORK.
2.

PROVIDE PULL BOXES AND JUNCTION BOXES WHERE SHOWN OR REQUIRED BY NEC.
- G.

PANELS AND LOAD CENTERS:
1.

ALL PANEL DIRECTORIES SHALL BE TYPEWRITTEN.

PART 3 – EXECUTION

- 3.1GENERAL:
- A.

ALL MATERIAL AND EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- B.

EQUIPMENT SHALL BE TIGHTLY COVERED AND PROTECTED AGAINST DIRT OR WATER, AND AGAINST CHEMICAL OR MECHANICAL INJURY DURING INSTALLATION AND CONSTRUCTION PERIODS.
- 3.2LABOR AND WORKMANSHIP:
- A.

ALL LABOR FOR THE INSTALLATION OF MATERIALS AND EQUIPMENT FURNISHED FOR THE ELECTRICAL SYSTEM SHALL BE INSTALLED BY EXPERIENCED WIREMEN, IN A NEAT AND WORKMAN-LIKE MANNER.
- B.

ALL ELECTRICAL EQUIPMENT SHALL BE ADJUSTED, ALIGNED AND TESTED BY THE CONTRACTOR AS REQUIRED TO PRODUCE THE INTENDED PERFORMANCE.
- C.

UPON COMPLETION OF WORK, THE CONTRACTOR SHALL THOROUGHLY CLEAN ALL EXPOSED EQUIPMENT, REMOVE ALL LABELS AND ANY DEBRIS, CRATING OR CARTONS AND LEAVE THE INSTALLATION FINISHED AND READY FOR OPERATION.
- 3.3COORDINATION:
- A.

THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRICAL ITEMS WITH THE OWNER-FURNISHED EQUIPMENT DELIVERY SCHEDULE TO PREVENT UNNECESSARY DELAYS IN THE TOTAL WORK.
- 3.4INSTALLATION:
- A.

CONDUIT:
1.

ALL ELECTRICAL WIRING SHALL BE INSTALLED IN CONDUIT AS SPECIFIED. NO CONDUIT OR TUBING OF LESS THAN 3/4 INCH TRADE SIZE.
2.

PROVIDE RIGID PVC SCHEDULE 80 CONDUITS FOR ALL RISERS, RMC OTHERWISE NOTED. EMT MAY BE INSTALLED FOR EXTERIOR CONDUITS WHERE NOT SUBJECT TO PHYSICAL DAMAGE.
3.

INSTALL SCHEDULE 40 PVC CONDUIT WITH A MINIMUM COVER OF 24" UNDER ROADWAYS, PARKING LOTS, STREETS, AND ALLEYS. CONDUIT SHALL HAVE A MINIMUM COVER OF 18" IN ALL OTHER NON-TRAFFIC APPLICATIONS (REFER TO 2008 NEC, TABLE 300.5).
4.

USE GALVANIZED FLEXIBLE STEEL CONDUIT WHERE DIRECT CONNECTION TO EQUIPMENT WITH MOVEMENT, VIBRATION, OR FOR EASE OF MAINTENANCE. USE LIQUID TIGHT, FLEXIBLE METAL CONDUIT FOR OUTDOOR APPLICATIONS. INSTALL GALVANIZED FLEXIBLE STEEL CONDUIT AT ALL POINTS OF CONNECTION TO EQUIPMENT MOUNTED ON SUPPORT TO ALLOW FOR EXPANSION AND CONTRACTION.
5.

A RUN OF CONDUIT BETWEEN BOXES OR EQUIPMENT SHALL NOT CONTAIN MORE THAN THE EQUIVALENT OF THREE QUARTER-BENDS. CONDUIT BEND SHALL BE MADE WITH THE UL LISTED BENDER OR FACTORY 90 DEGREE ELBOWS MAY BE USED.
6.

FIELD FABRICATED CONDUITS SHALL BE CUT SQUARE WITH A CONDUIT CUTTING TOOL AND REAMED TO PROVIDE A SMOOTH INSIDE SURFACE.
7.

PROVIDE INSULATED GROUNDING BUSHING FOR ALL CONDUITS.
8.

CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL CONDUITS DURING CONSTRUCTION. TEMPORARY OPENINGS IN THE CONDUIT SYSTEM SHALL BE PLUGGED OR CAPPED TO PREVENT ENTRANCE OF MOISTURE OR FOREIGN MATTER. CONTRACTOR SHALL REPLACE ANY CONDUITS CONTAINING FOREIGN MATERIALS THAT CANNOT BE REMOVED.
9.

ALL CONDUITS SHALL BE SWABBED CLEAN BY PULLING AN APPROPRIATE SIZE MANDREL THROUGH THE CONDUIT BEFORE INSTALLATION OF CONDUCTORS OR CABLES. CONDUIT SHALL BE FREE OF DIRT AND DEBRIS.
10.

INSTALL PULL STRINGS IN ALL CLEAN EMPTY CONDUITS. IDENTIFY PULL STRINGS AT EACH END.
11.

INSTALL 2" HIGHLY VISIBLE AND DETECTABLE TAPE 12" ABOVE ALL UNDERGROUND CONDUITS AND CONDUCTORS.
12.

CONDUITS SHALL BE INSTALLED IN SUCH A MANNER AS TO INSURE AGAINST COLLECTION OF TRAPPED CONDENSATION.
13.

PROVIDE CORE DRILLING AS NECESSARY FOR PENETRATIONS TO ALLOW FOR RACEWAYS AND CABLES TO BE ROUTED THROUGH THE BUILDING. DO NOT PENETRATE STRUCTURAL MEMBERS. SLEEVES AND/OR PENETRATIONS IN FIRE RATED CONSTRUCTION SHALL BE EFFECTIVELY SEALED WITH FIRE RATED MATERIAL WHICH SHALL MAINTAIN THE FIRE RATING OF THE WALL OR STRUCTURE. FIRE STOPS AT FLOOR PENETRATIONS SHALL PREVENT PASSAGE OF WATER, SMOKE, FIRE, AND FUMES. ALL MATERIAL SHALL BE UL APPROVED FOR THIS PURPOSE.
- B.

CONDUCTORS AND CABLE:
1.

ALL POWER WIRING SHALL BE COLOR CODED AS FOLLOWS:
- | | |
|-------------|--------------------------|
| DESCRIPTION | 208/240/120 VOLT SYSTEMS |
| PHASE A | BLACK |
| PHASE B | RED |
| PHASE C | BLUE |
| NEUTRAL | WHITE |
| GROUNDING | GREEN |
2.

SPLICES SHALL BE MADE ONLY AT OUTLETS, JUNCTION BOXES, OR ACCESSIBLE RACEWAY CONDUITS APPROVED FOR THIS PURPOSE.
3.

PULLING LUBRICANTS SHALL BE UL APPROVED. CONTRACTOR SHALL USE NYLON OR HEMP ROPE FOR PULLING CONDUCTOR OR CABLES INTO THE CONDUIT.
4.

CABLES SHALL BE NEATLY TRAINED, WITHOUT INTERLACING, AND BE OF SUFFICIENT LENGTH IN ALL BOXES & EQUIPMENT TO PERMIT MAKING A NEAT ARRANGEMENT. CABLES SHALL BE SECURED IN A MANNER TO AVOID TENSION ON CONDUCTORS OR TERMINALS. CONDUCTORS SHALL BE PROTECTED FROM MECHANICAL INJURY AND MOISTURE. SHARP BENDS OVER CONDUIT BUSHINGS IS PROHIBITED. DAMAGED CABLES SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

- C.

DISCONNECT SWITCHES:
1.

INSTALL DISCONNECT SWITCHES LEVEL AND PLUMB. CONNECT TO WIRING SYSTEM AND GROUNDING SYSTEM AS INDICATED.
- D.

GROUNDING:
1.

ALL METALLIC PARTS OF ELECTRICAL EQUIPMENT WHICH DO NOT CARRY CURRENT SHALL BE GROUNDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE BUILDING MANUFACTURER, AT&T GROUNDING AND BONDING STANDARDS TP-76416, ND-00135, AND THE NATIONAL ELECTRICAL CODE.
2.

PROVIDE ELECTRICAL GROUNDING AND BONDING SYSTEM INDICATED WITH ASSEMBLY OF MATERIALS, INCLUDING GROUNDING ELECTRODES, BONDING JUMPERS AND ADDITIONAL ACCESSORIES AS REQUIRED FOR A COMPLETE INSTALLATION.
3.

ALL GROUNDING CONDUCTORS SHALL PROVIDE A STRAIGHT DOWNWARD PATH TO GROUND WITH GRADUAL BEND AS REQUIRED. GROUNDING CONDUCTORS SHALL NOT BE LOOPED OR SHARPLY BENT. ROUTE GROUNDING CONNECTIONS AND CONDUCTORS TO GROUND IN THE SHORTEST AND STRAIGHTEST PATHS POSSIBLE TO MINIMIZE TRANSIENT VOLTAGE RISES.
4.

BUILDINGS AND/OR NEW TOWERS GREATER THAN 75 FEET IN HEIGHT AND WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 AWG COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY). SEE STANDARD 6.3.2.2.
5.

TIGHTEN GROUNDING AND BONDING CONNECTORS, INCLUDING SCREWS AND BOLTS, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUES FOR CONNECTORS AND BOLTS. WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT AVAILABLE, TIGHTEN CONNECTIONS TO COMPLY WITH TIGHTENING TORQUE VALUES SPECIFIED IN UL TO ASSURE PERMANENT AND EFFECTIVE GROUNDING.
6.

CONTRACTOR SHALL VERIFY THE LOCATIONS OF GROUNDING TIE-IN-POINTS TO THE EXISTING GROUNDING SYSTEM. ALL UNDERGROUND GROUNDING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC WELD PROCESS AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
7.

ALL GROUNDING CONNECTIONS SHALL BE INSPECTED FOR TIGHTNESS. EXOTHERMIC WELDED CONNECTIONS SHALL BE APPROVED BY THE INSPECTOR HAVING JURISDICTION BEFORE BEING PERMANENTLY CONCEALED.
8.

APPLY CORROSION-RESISTANT FINISH TO FIELD CONNECTIONS AND PLACES WHERE FACTORY APPLIED PROTECTIVE COATINGS HAVE BEEN DESTROYED. USE KOPR-SHIELD ANTI-OXIDATION COMPOUND ON ALL COMPRESSION GROUNDING CONNECTIONS.
9.

A SEPARATE, CONTINUOUS, INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED IN ALL FEEDER AND BRANCH CIRCUITS.
10.

BOND ALL INSULATED GROUNDING BUSHINGS WITH A BARE #6 AWG GROUNDING CONDUCTOR TO A GROUND BUS.
11.

DIRECT BURIED GROUNDING CONDUCTORS SHALL BE INSTALLED AT A NOMINAL DEPTH OF 36" MINIMUM BELOW GRADE, OR 6" BELOW THE FROST LINE, USE THE GREATER OF THE TWO DISTANCES.
12.

ALL GROUNDING CONDUCTORS EMBEDDED IN OR PENETRATING CONCRETE SHALL BE INSTALLED IN SCHEDULE 40 PVC CONDUIT.
13.

THE INSTALLATION OF CHEMICAL ELECTROLYTIC GROUNDING SYSTEM IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. REMOVE SEALING TAPE FROM LEACHING AND BREATHER HOLES. INSTALL PROTECTIVE BOX FLUSH WITH GRADE.
14.

DRIVE GROUND RODS UNTIL TOPS ARE A MINIMUM DISTANCE OF 36" DEPTH OR 6" BELOW FROST LINE, USING THE GREATER OF THE TWO DISTANCES.
15.

IF COAX ON THE ICE BRIDGE IS MORE THAN 6 FT. FROM THE GROUNDING BAR AT THE BASE OF THE TOWER, A SECOND GROUNDING BAR WILL BE NEEDED AT THE END OF THE ICE BRIDGE, TO GROUND THE COAX CABLE GROUNDING KITS AND IN-LINE ARRESTORS.
16.

CONTRACTOR SHALL REPAIR, AND/OR REPLACE, EXISTING GROUNDING SYSTEM COMPONENTS DAMAGED DURING CONSTRUCTION AT THE CONTRACTORS EXPENSE.
- 3.5

ACCEPTANCE TESTING:
- A.

CERTIFIED PERSONNEL USING CERTIFIED EQUIPMENT SHALL PERFORM REQUIRED TESTS AND SUBMIT WRITTEN TEST REPORTS UPON COMPLETION.
- B.

WHEN MATERIAL AND/OR WORKMANSHIP IS FOUND NOT TO COMPLY WITH THE SPECIFIED REQUIREMENTS, THE NON-COMPLYING ITEMS SHALL BE REMOVED FROM THE PROJECT SITE AND REPLACED WITH ITEMS COMPLYING WITH THE SPECIFIED REQUIREMENTS PROMPTLY AFTER RECEIPT OF NOTICE FOR NON-COMPLIANCE.
- C.

TEST PROCEDURES:
1.

ALL FEEDERS SHALL HAVE INSULATION TESTED AFTER INSTALLATION, BEFORE CONNECTION TO DEVICES. THE CONDUCTORS SHALL TEST FREE FROM SHORT CIRCUITS AND GROUNDS. TESTING SHALL BE FOR ONE MINUTE USING 1000V DC. PROVIDE WRITTEN DOCUMENTATION FOR ALL TEST RESULTS.
2.

PRIOR TO ENERGIZING CIRCUITRY, TEST WIRING DEVICES FOR ELECTRICAL CONTINUITY AND PROPER POLARITY CONNECTIONS.
3.

MEASURE AND RECORD VOLTAGES BETWEEN PHASES AND BETWEEN PHASE CONDUCTORS AND NEUTRALS. SUBMIT A REPORT OF MAXIMUM AND MINIMUM VOLTAGES.
4.

PERFORM GROUNDING TEST TO MEASURE GROUNDING RESISTANCE OF GROUNDING SYSTEM USING THE IEEE STANDARD 3-POINT "FALL-OF-POTENTIAL" METHOD. PROVIDE PLOTTED TEST VALUES AND LOCATION SKETCH. NOTIFY THE ENGINEER IMMEDIATELY IF MEASURED VALUE IS OVER 5 OHMS.

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PROJECT NO:	129049.4004
DRAWN BY:	VPB
CHECKED BY:	JAT

1	10/14/19	CITY COMMENTS
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PRINT NAME: ROBLEY A. EVANS

SIGNATURE:

DATE: 10/14/2019 LICENSE# 43119
EXP. 6/20
















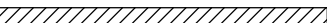



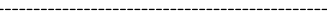


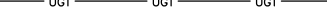
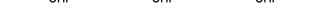






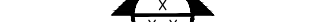




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DELANO COUNTY LINE
MNL01123
3310 COUNTY LINE ROAD SE
DELANO, MN 55328
NSB – WIC

SHEET TITLE
ELECTRICAL SECTION
NOTES

SHEET NUMBER

E-8

EXOTHERMIC CONNECTION	
MECHANICAL CONNECTION	
CHEMICAL ELECTROLYTIC GROUNDING SYSTEM	
TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM	
EXOTHERMIC WITH INSPECTION SLEEVE	
GROUNDING BAR	
GROUND ROD	
TEST GROUND ROD WITH INSPECTION SLEEVE	
POLE	
EXISTING HAND HOLE	
PROPOSED HAND HOLE	
MANHOLE	
TELCO PEDESTAL	
TRANSFORMER	
CHAINLINK FENCE	
WOOD/WROUGHT IRON FENCE	
WALL STRUCTURE	
LEASE AREA	
PROPERTY LINE (PL)	
RIGHT-OF-WAY	
SETBACKS	
WATER LINE	
UNDERGROUND POWER	
UNDERGROUND TELCO	
OVERHEAD POWER	
OVERHEAD TELCO	
UNDERGROUND FIBER/POWER	
UNDERGROUND FIBER	
FIBER LINE	
EXISTING GRADING	
PROPOSED GRADING	
ELEVATION REFERENCE	
DETAIL REFERENCE	
SECTION REFERENCE	
BREAKLINE	
LEGEND	

AB	ANCHOR BOLT	INT	INTERIOR
ABV	ABOVE	LB(S)	POUND(S)
AC	ALTERNATING CURRENT	LF	LINEAR FEET
ADDL	ADDITIONAL	MAS	MASONRY
AFF	ABOVE FINISHED FLOOR	MAX	MAXIMUM
AFG	ABOVE FINISHED GRADE	MB	MACHINE BOLT
AIC	AMPERAGE INTERRUPTION CAPACITY	MECH	MECHANICAL
ALUM	ALUMINUM	MFR	MANUFACTURER
ALT	ALTERNATE	MGB	MASTER GROUND BAR
ANT	ANTENNA	MIN	MINIMUM
APPROX	APPROXIMATE	MISC	MISCELLANEOUS
ARCH	ARCHITECTURAL	MTL	METAL
ATS	AUTOMATIC TRANSFER SWITCH	MTS	MANUAL TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE	MW	MICROWAVE
BATT	BATTERY	(N)	NEW
BLDG	BUILDING	NEC	NATIONAL ELECTRIC CODE
BLK	BLOCK	NO.(#)	NUMBER
BLKG	BLOCKING	NTS	NOT TO SCALE
BM	BEAM	OC	ON CENTER
BTC	BARE TINNED COPPER CONDUCTOR	OPNG	OPENING
BOF	BOTTOM OF FOOTING	(P)	PROPOSED
CAB	CABINET	P/C	PRECAST CONCRETE
CANT	CANTILEVERED	PCS	PERSONAL COMMUNICATION SERVICES
CEC	CALIFORNIA ELECTRIC CODE	PCU	PRIMARY CONTROL UNIT
CHG	CHARGING	PRC	PRIMARY RADIO CABINET
CLG	CEILING	PP	POLARIZING PRESERVING
CLR	CLEAR	PSF	POUNDS PER SQUARE FOOT
COL	COLUMN	PSI	POUNDS PER SQUARE INCH
COMM	COMMON	PT	PRESSURE TREATED
CONC	CONCRETE	PWR	POWER CABINET
CONSTR	CONSTRUCTION	QTY	QUANTITY
DBL	DOUBLE	RAD	RADIUS
DC	DIRECT CURRENT	RECT	RECTIFIER
DEPT	DEPARTMENT	REF	REFERENCE
DF	DOUGLAS FIR	REINF	REINFORCEMENT
DIA	DIAMETER	REQ'D	REQUIRED
DIAG	DIAGONAL	RET	REMOTE ELECTRIC TILT
DIM	DIMENSION	RMC	RIGID METALLIC CONDUIT
DWG	DRAWING	RRH	REMOTE RADIO HEAD
DWL	DOWEL	RRU	REMOTE RADIO UNIT
(E)	EXISTING	RWY	RACEWAY
EA	EACH	SCH	SCHEDULE
EC	ELECTRICAL CONDUCTOR	SHT	SHEET
EL	ELEVATION	SIAD	SMART INTEGRATED DEVICE
ELEC	ELECTRICAL	SIM	SIMILAR
EMT	ELECTRICAL METALLIC TUBING	SPEC	SPECIFICATION
ENG	ENGINEER	SQ	SQUARE
EQ	EQUAL	SS	STAINLESS STEEL
EXP	EXPANSION	STD	STANDARD
EXT	EXTERIOR	STL	STEEL
FAB	FABRICATION	STRUCT	STRUCTURAL
FF	FINISH FLOOR	TEMP	TEMPORARY
FG	FINISH GRADE	THK	THICKNESS
FIF	FACILITY INTERFACE FRAME	TMA	TOWER MOUNTED AMPLIFIER
FIN	FINISH(ED)	TN	TOE NAIL
FLR	FLOOR	TOA	TOP OF ANTENNA
FDN	FOUNDATION	TOC	TOP OF CURB
FOC	FACE OF CONCRETE	TOF	TOP OF FOUNDATION
FOM	FACE OF MASONRY	TOP	TOP OF PLATE (PARAPET)
FOS	FACE OF STUD	TOS	TOP OF STEEL
FOW	FACE OF WALL	TOW	TOP OF WALL
FS	FINISH SURFACE	TVSS	TRANSIENT VOLTAGE SUPPRESSION SYSTEM
FT	FOOT	TYP	TYPICAL
FTG	FOOTING	UG	UNDERGROUND
GA	GAUGE	UL	UNDERWRITERS LABORATORY
GEN	GENERATOR	UNO	UNLESS NOTED OTHERWISE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	UMTS	UNIVERSAL MOBILE TELECOMMUNICATIONS
GLB	GLUE LAMINATED BEAM		SYSTEM
GLV	GALVANIZED	UPS	UNINTERRUPTIBLE POWER SYSTEM
GLV	GALVANIZED		(DC POWER PLANT)
GPS	GLOBAL POSITIONING SYSTEM	VIF	VERIFIED IN FIELD
GND	GROUND	W	WIDE
GSM	GLOBAL SYSTEM FOR MOBILE	W/	WITH
HDR	HEADER	WCS	WIRELESS CALL SERVER
HGR	HANGER	WD	WOOD
HVAC	HEAT/VENTILATION/AIR CONDITIONING	W.P.	WORK POINT
HT	HEIGHT	WP	WEATHERPROOF
IGR	INTERIOR GROUND RING	WT	WEIGHT
IN	INCH		
ABBREVIATIONS		NOT USED	

**AT&T
MOBILITY**

7900 XERXES AVE S
3RD FLOOR
BLOOMINGTON MN 55431


BLACK & VEATCH

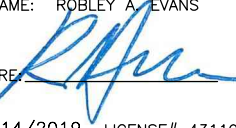
BLACK & VEATCH CORPORATION
7760 FRANCE AVENUE SOUTH
SUITE 1200
BLOOMINGTON, MN 55435

PROJECT NO:	129049.4004
DRAWN BY:	VPB
CHECKED BY:	JAT

1	10/14/19	CITY COMMENTS
0	07/24/19	ISSUED FOR CONSTRUCTION
REV	DATE	DESCRIPTION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: ROBLEY A. EVANS

SIGNATURE: 

DATE: 10/14/2019 LICENSE# 43119 EXP. 6/20

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DELANO COUNTY LINE
MNL01123
3310 COUNTY LINE ROAD SE
DELANO, MN 55328
NSB – WIC

SHEET TITLE
**LEGEND AND
ABBREVIATIONS**

SHEET NUMBER
N-1

GENERAL CONSTRUCTION

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
GENERAL CONTRACTOR – OVERLAND CONTRACTING INC. (B&V)
CONTRACTOR: (CONSTRUCTION)
OWNER – AT&T
2. ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND AT&T PROJECT SPECIFICATIONS.
3. GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
4. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
5. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
7. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
10. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFIRM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
11. GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
12. ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
13. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. CONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.
14. WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
15. CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
16. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
17. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
18. GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.
19. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
20. THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
21. THE GENERAL CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OT 2-A-10-B-C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
22. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.
23. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
24. THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.
25. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
26. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUNDING. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
27. THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.
28. ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
29. ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
30. CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
31. CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
32. THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITAT (NO HANDICAP ACCESS REQUIRED).
33. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.
34. NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
35. ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST REVISION AT&T MOBILITY GROUNDING STANDARD "TECHNICAL SPECIFICATION FOR CONSTRUCTION OF GSM/GPRS WIRELESS SITES" AND "TECHNICAL SPECIFICATION FOR FACILITY GROUNDING". IN CASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATION AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.

36. CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
37. CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
38. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
39. NO WHITE STROBE LIGHTS ARE PERMITTED. LIGHTING IF REQUIRED, WILL MEET FAA STANDARDS AND REQUIREMENTS.
40. ALL COAXIAL CABLE INSTALLATIONS TO FOLLOW MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

ANTENNA MOUNTING

1. DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/TIA-222 OR APPLICABLE LOCAL CODES.
2. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS NOTED OTHERWISE.
3. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS NOTED OTHERWISE.
4. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
5. ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK NUTS, DOUBLE NUTS AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.
6. CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION AND GROUNDING.
7. ALL UNUSED PORTS ON ANY ANTENNAS SHALL BE TERMINATED WITH A 50-OHM LOAD TO ENSURE ANTENNAS PERFORM AS DESIGNED.
8. PRIOR TO SETTING ANTENNA AZIMUTHS AND DOWNTILTS, ANTENNA CONTRACTOR SHALL CHECK THE ANTENNA MOUNT FOR TIGHTNESS AND ENSURE THAT THEY ARE PLUMB. ANTENNA AZIMUTHS SHALL BE SET FROM TRUE NORTH AND BE ORIENTED WITHIN +/- 5% AS DEFINED BY THE RFDS. ANTENNA DOWNTILTS SHALL BE WITHIN +/- 0.5% AS DEFINED BY THE RFDS. REFER TO ND-00246.
9. JUMPERS FROM THE TMA_s MUST TERMINATE TO OPPOSITE POLARIZATION'S IN EACH SECTOR.
10. CONTRACTOR SHALL RECORD THE SERIAL #, SECTOR, AND POSITION OF EACH ACTUATOR INSTALLED AT THE ANTENNAS AND PROVIDE THE INFORMATION TO AT&T.
11. TMA_s SHALL BE MOUNTED ON PIPE DIRECTLY BEHIND ANTENNAS AS CLOSE TO ANTENNA AS FEASIBLE IN A VERTICAL POSITION.

TORQUE REQUIREMENTS

1. ALL RF CONNECTIONS SHALL BE TIGHTENED BY A TORQUE WRENCH.
2. ALL RF CONNECTIONS, GROUNDING HARDWARE AND ANTENNA HARDWARE SHALL HAVE A TORQUE MARK INSTALLED IN A CONTINUOUS STRAIGHT LINE FROM BOTH SIDES OF THE CONNECTION.

A. RF CONNECTION BOTH SIDES OF THE CONNECTOR.

B. GROUNDING AND ANTENNA HARDWARE ON THE NUT SIDE STARTING FROM THE THREADS TO THE SOLID SURFACE. EXAMPLE OF SOLID SURFACE: GROUND BAR, ANTENNA BRACKET METAL.
3. ALL 8M ANTENNA HARDWARE SHALL BE TIGHTENED TO 9 LB-FT (12 NM).
4. ALL 12M ANTENNA HARDWARE SHALL BE TIGHTENED TO 43 LB-FT (58 NM).
5. ALL GROUNDING HARDWARE SHALL BE TIGHTENED UNTIL THE LOCK WASHER COLLAPSES AND THE GROUNDING HARDWARE IS NO LONGER LOOSE.
6. ALL DIN TYPE CONNECTIONS SHALL BE TIGHTENED TO 18-22 LB-FT (24.4 - 29.8 NM).
7. ALL N TYPE CONNECTIONS SHALL BE TIGHTENED TO 15-20 LB-IN (1.7 - 2.3 NM).

FIBER & POWER CABLE MOUNTING

1. THE FIBER OPTIC TRUNK CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY. WHEN INSTALLING FIBER OPTIC TRUNK CABLES INTO A CABLE TRAY SYSTEM, THEY SHALL BE INSTALLED INTO AN INTER DUCT AND A PARTITION BARRIER SHALL BE INSTALLED BETWEEN THE 600 VOLT CABLES AND THE INTER DUCT IN ORDER TO SEGREGATE CABLE TYPES. OPTIC FIBER TRUNK CABLES SHALL HAVE APPROVED CABLE RESTRAINTS EVERY (60) SIXTY FEET AND SECURELY FASTENED TO THE CABLE TRAY SYSTEM. NFPA 70 (NEC) ARTICLE 770 RULES SHALL APPLY.
2. THE TYPE TC-ER CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY AND SHALL BE SECURED AT INTERVALS NOT EXCEEDING (6) SIX FEET. AN EXCEPTION; WHERE TYPE TC-ER CABLES ARE NOT SUBJECT TO PHYSICAL DAMAGE, CABLES SHALL BE PERMITTED TO MAKE A TRANSITION BETWEEN CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY WHICH ARE SERVING UTILIZATION EQUIPMENT OR DEVICES, A DISTANCE OF (6) SIX FEET SHALL NOT BE EXCEEDED WITHOUT CONTINUOUS SUPPORTING. NFPA 70 (NEC) ARTICLES 336 AND 392 RULES SHALL APPLY.
3. WHEN INSTALLING OPTIC FIBER TRUNK CABLES OR TYPE TC-ER CABLES INTO CONDUITS, NFPA 70 (NEC) ARTICLE 300 RULES SHALL APPLY.

COAXIAL CABLE NOTES

1. TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.
2. CONTRACTOR SHALL VERIFY THE DOWN-TILT OF EACH ANTENNA WITH A DIGITAL LEVEL.
3. CONTRACTOR SHALL CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION. REFER TO "ANTENNA SYSTEM LABELING STANDARD" ND-00027 LATEST VERSION.
4. ALL JUMPERS TO THE ANTENNAS FROM THE MAIN TRANSMISSION LINE SHALL BE 1/2" DIA. LDF AND SHALL NOT EXCEED 6'-0".
5. ALL COAXIAL CABLE SHALL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE, IN AN APPROVED MANNER, AT DISTANCES NOT TO EXCEED 4'-0" OC.
6. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING BOTH THE INSTALLATION AND GROUNDING OF ALL COAXIAL CABLES, CONNECTORS, ANTENNAS, AND ALL OTHER EQUIPMENT.
7. CONTRACTOR SHALL WEATHERPROOF ALL ANTENNA CONNECTORS WITH SELF AMALGAMATING TAPE. WEATHERPROOFING SHALL BE COMPLETED IN STRICT ACCORDANCE WITH AT&T STANDARDS.
8. CONTRACTOR SHALL GROUND ALL EQUIPMENT. INCLUDING ANTENNAS, RET MOTORS, TMA_s, COAX CABLES, AND RET CONTROL CABLES AS A COMPLETE SYSTEM. GROUNDING SHALL BE EXECUTED BY QUALIFIED WIREMEN IN COMPLIANCE WITH MANUFACTURER'S SPECIFICATION AND RECOMMENDATION.

9. CONTRACTOR SHALL PROVIDE STRAIN-RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES, COAX CABLES, AND RET CONTROL CABLES. CABLE STRAIN-RELIEFS AND CABLE SUPPORTS SHALL BE APPROVED FOR THE PURPOSE. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
10. CONTRACTOR TO VERIFY THAT EXISTING COAX HANGERS ARE STACKABLE SNAP IN HANGERS. IF EXISTING HANGERS ARE NOT STACKABLE SNAP IN HANGERS THE CONTRACTOR SHALL REPLACE EXISTING HANGERS WITH NEW SNAP IN HANGERS IF APPLICABLE.

GENERAL CABLE AND EQUIPMENT NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ANTENNA, TMA_s, DIPLEXERS, AND COAX CONFIGURATION, MAKE AND MODELS PRIOR TO INSTALLATION.
2. ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S RECOMMENDATIONS.
3. CONTRACTOR SHALL REFERENCE THE TOWER STRUCTURAL ANALYSIS/DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION/ROUTING.
4. ALL OUTDOOR RF CONNECTORS/CONNECTIONS SHALL BE WEATHERPROOFED, EXCEPT THE RET CONNECTORS, USING BUTYL TAPE AFTER INSTALLATION AND FINAL CONNECTIONS ARE MADE. BUTYL TAPE SHALL HAVE A MINIMUM OF ONE-HALF TAPE WIDTH OVERLAP ON EACH TURN AND EACH LAYER SHALL BE WRAPPED THREE TIMES. WEATHERPROOFING SHALL BE SMOOTH WITHOUT BUCKLING. BUTYL BLEEDING IS NOT ALLOWED.
5. IF REQUIRED TO PAINT ANTENNAS AND/OR COAX:

A. TEMPERATURE SHALL BE ABOVE 50° F.

B. PAINT COLOR MUST BE APPROVED BY BUILDING OWNER/LANDLORD.

C. FOR REGULATED TOWERS, FAA/FCC APPROVED PAINT IS REQUIRED.

D. DO NOT PAINT OVER COLOR CODING OR ON EQUIPMENT MODEL NUMBERS.
6. ALL CABLES SHALL BE GROUNDED WITH COAXIAL CABLE GROUND KITS. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS.

A. GROUNDING AT THE ANTENNA LEVEL.

B. GROUNDING AT MID LEVEL, TOWERS WHICH ARE OVER 200'-0", ADDITIONAL CABLE GROUNDING REQUIRED.

C. GROUNDING AT BASE OF TOWER PRIOR TO TURNING HORIZONTAL.

D. GROUNDING OUTSIDE THE EQUIPMENT SHELTER AT ENTRY PORT.

E. GROUNDING INSIDE THE EQUIPMENT SHELTER AT THE ENTRY PORT.
7. ALL PROPOSED GROUND BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUND BAR DOWNLEADS A MINIMUM DISTANCE OF 4'-0" BELOW GROUND BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ANTENNA AND THE COAX CONFIGURATION IS THE CORRECT MAKE AND MODELS, PRIOR TO INSTALLATION.
9. ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S SPECIFICATION & RECOMMENDATIONS.
10. ANTENNA CONTRACTOR SHALL FURNISH AND INSTALL A 12'-0" STAND-OFF SECTOR ANTENNA MOUNT, OR 14'-16" PLATFORM WITH HANDRAIL, INCLUDING ALL HARDWARE AS REQUIRED AND NOTED ON DRAWINGS.

AT&T
MOBILITY

7900 XERXES AVE S
3RD FLOOR
BLOOMINGTON MN 55431



BLACK & VEATCH

BLACK & VEATCH CORPORATION
7760 FRANCE AVENUE SOUTH
SUITE 1200
BLOOMINGTON, MN 55435

PROJECT NO: 129049.4004

DRAWN BY: VPB

CHECKED BY: JAT

1	10/14/19	CITY COMMENTS
0	07/24/19	ISSUED FOR CONSTRUCTION
REV	DATE	DESCRIPTION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: ROBLEY A. EVANS

SIGNATURE:

DATE: 10/14/2019 LICENSE# 43119
EXP. 6/20

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

DELANO COUNTY LINE
MNL01123
3310 COUNTY LINE ROAD SE
DELANO, MN 55328
NSB – WIC

SHEET TITLE

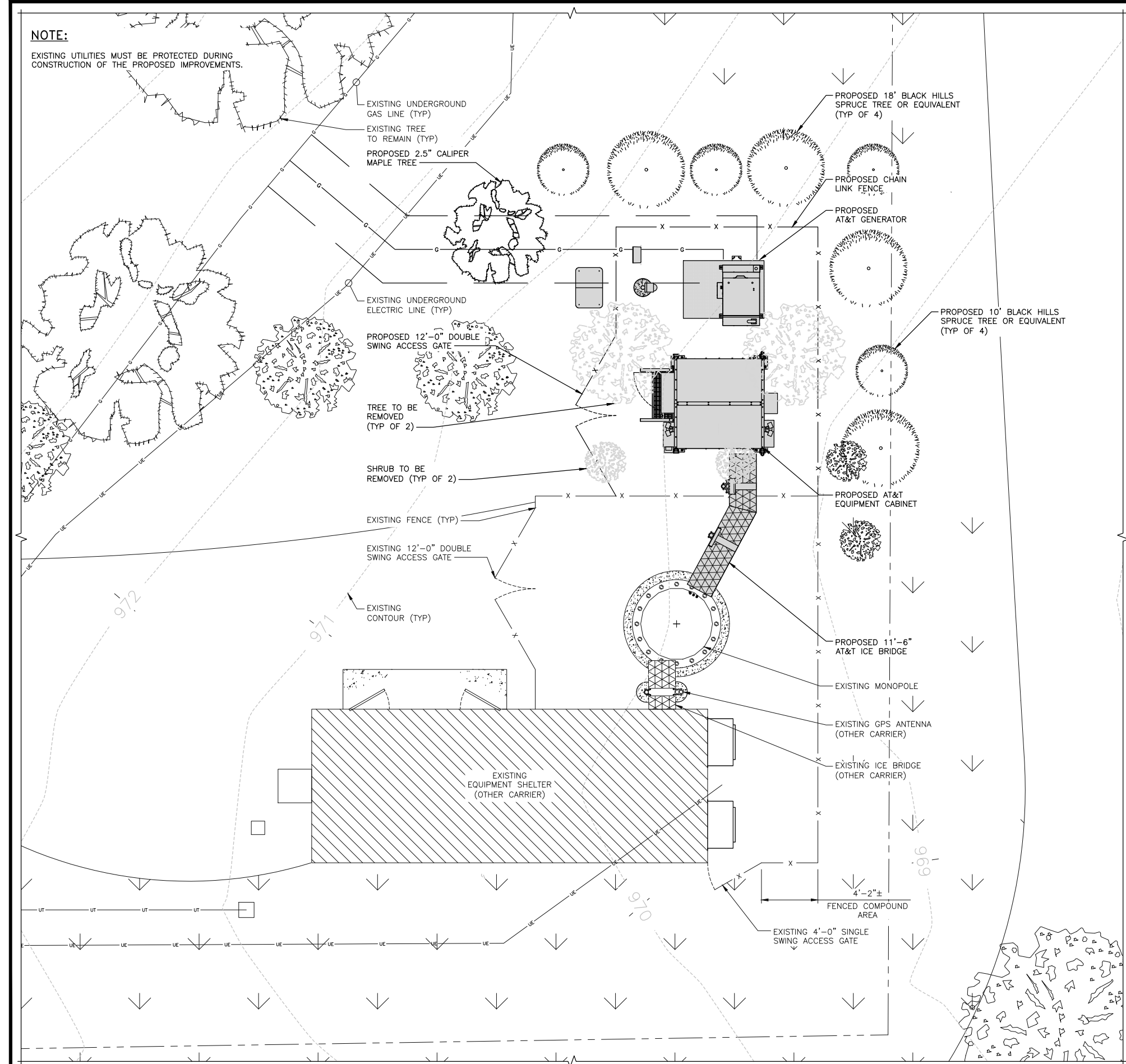
GENERAL NOTES

SHEET NUMBER

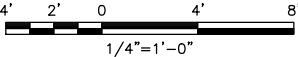
N-2

GENERAL NOTES

NOTE:
EXISTING UTILITIES MUST BE PROTECTED DURING CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.



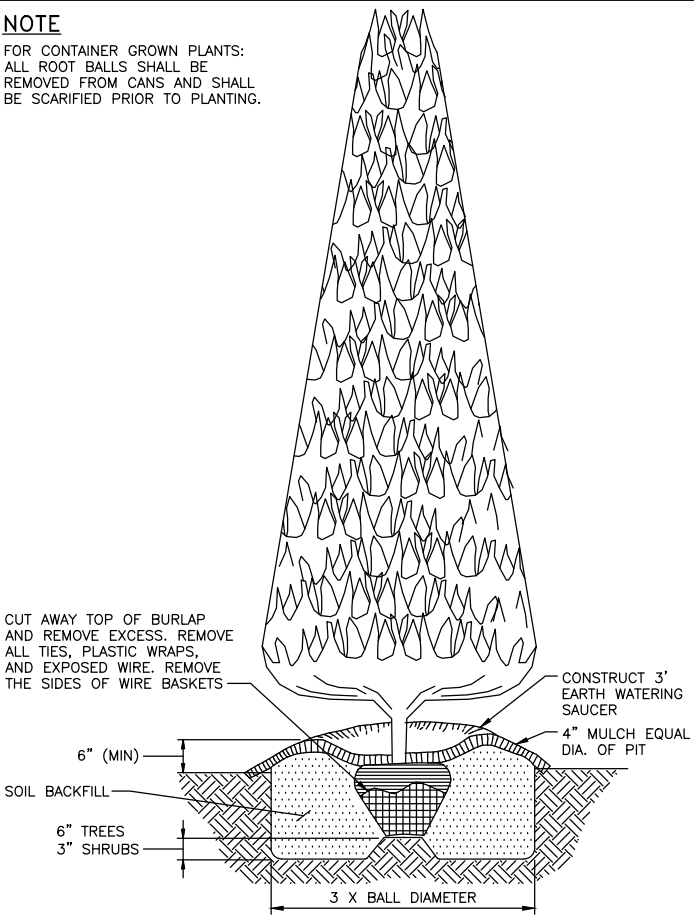
LANDSCAPE PLAN



1

NOTE

FOR CONTAINER GROWN PLANTS:
ALL ROOT BALLS SHALL BE
REMOVED FROM CANS AND SHALL
BE SCARIFIED PRIOR TO PLANTING.



PLANTING DETAIL

NO SCALE

2

1. IF TRANSFORMERS, GROUND-MOUNTED HVAC UNITS, UTILITY PEDESTALS, ETC. ARE NOT SHOWN ON THE SITE PLAN, ADDITIONAL LANDSCAPING/SCREENING MAY BE REQUIRED BASED UPON FIELD CONDITIONS DISCOVERED VIA THE SITE INSPECTION MADE BY STAFF PRIOR TO ISSUANCE OF THE CO, OR FINAL INSPECTION, AS APPLICABLE.
2. ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PEST AND DISEASE.
3. ALL PLANTS MUST BE CONTAINER-GROWN OR BALLED AND BURLAPPED AS SPECIFIED.
4. ALL TREES MUST BE STRAIGHT TRUNKED, FULL HEADED AND MEET ALL REQUIREMENTS SPECIFIED.
5. ALL PLANTS ARE SUBJECT TO THE APPROVAL OF THE OWNER'S REPRESENTATIVE BEFORE, DURING AND AFTER INSTALLATION.
6. ALL TREES MUST BE GUYED OR STAKED.
7. ALL PLANTS AND PLANTING AREAS MUST BE COMPLETELY MULCHED AS SPECIFIED.
8. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING COURSE OF WORK. EXISTING UTILITIES MUST BE PROTECTED DURING CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO UTILITIES.
9. THE CONTRACTOR IS RESPONSIBLE FOR FULLY MAINTAINING ALL PLANTING AREAS (INCLUDING, BUT NOT LIMITED TO: WATERING, SPRAYING, MULCHING, FERTILIZATION, ETC.) UNTIL THE WORK IS FULLY ACCEPTED.
10. THE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF (1) ONE YEAR BEGINNING AT THE DATE OF TOTAL ACCEPTANCE. THE CONTRACTOR SHALL PROMPTLY MAKE ALL REPLACEMENTS BEFORE OR AT THE END OF THE GUARANTEE PERIOD.
11. THE OWNER'S REPRESENTATIVE WILL APPROVE THE STAKED LOCATION OF ALL PLANT MATERIAL PRIOR TO INSTALLATION.
12. AFTER BEING DUG AT THE NURSERY SOURCE, ALL TREES IN LEAF SHALL BE ACCUMULATED FOR TWO (2) WEEKS UNDER A MIST SYSTEM PRIOR TO INSTALLATION.
13. ANY PLANT MATERIAL THAT DIES, TURNS BROWN OR DEFOOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, SIZE AND MEETING ALL SPECIFICATIONS.
14. STANDARDS SET FORTH IN "AMERICAN STANDARD FOR NURSERY STOCK". LATEST EDITION REPRESENTS GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIAL.
15. ALL REQUIRED TREE PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO GRADING OR EXCAVATING.
16. UNDISTURBED BUFFERS SHALL BE REPLANTED TO BUFFER STANDARDS WHERE SPARSELY VEGETATED OR WHERE DISTURBED AT APPROVED UTILITY CROSSINGS. REPLANTING IS SUBJECT COUNTY ARBORIST APPROVAL.

PLANTING NOTES

AT&T
MOBILITY

7900 XERXES AVE S
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BLOOMINGTON MN 55431



BLACK & VEATCH

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REV	DATE	DESCRIPTION
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DELANO COUNTY LINE
MNL01123
3310 COUNTY LINE ROAD SE
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NSB - WIC

SHEET TITLE
LANDSCAPE PLAN

SHEET NUMBER
LS-1

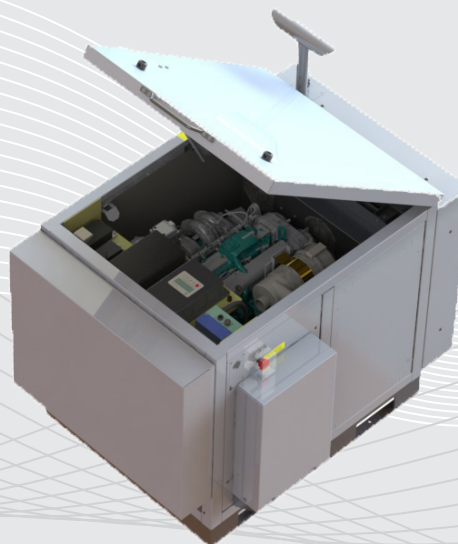
20 KW GASEOUS DC GENERATOR PART NUMBER 8220-100-NG/LPG-20-03

All APUs include:

- Ethernet module with SNMP
- Powder coated aluminum enclosure
- V-belt driven radiator fan
- 5 Year Warranty

Options available:

- Electric radiator fans
- Level 2 sound enclosure
- 8-alarm relay board
- Oil refining kit



Standards:

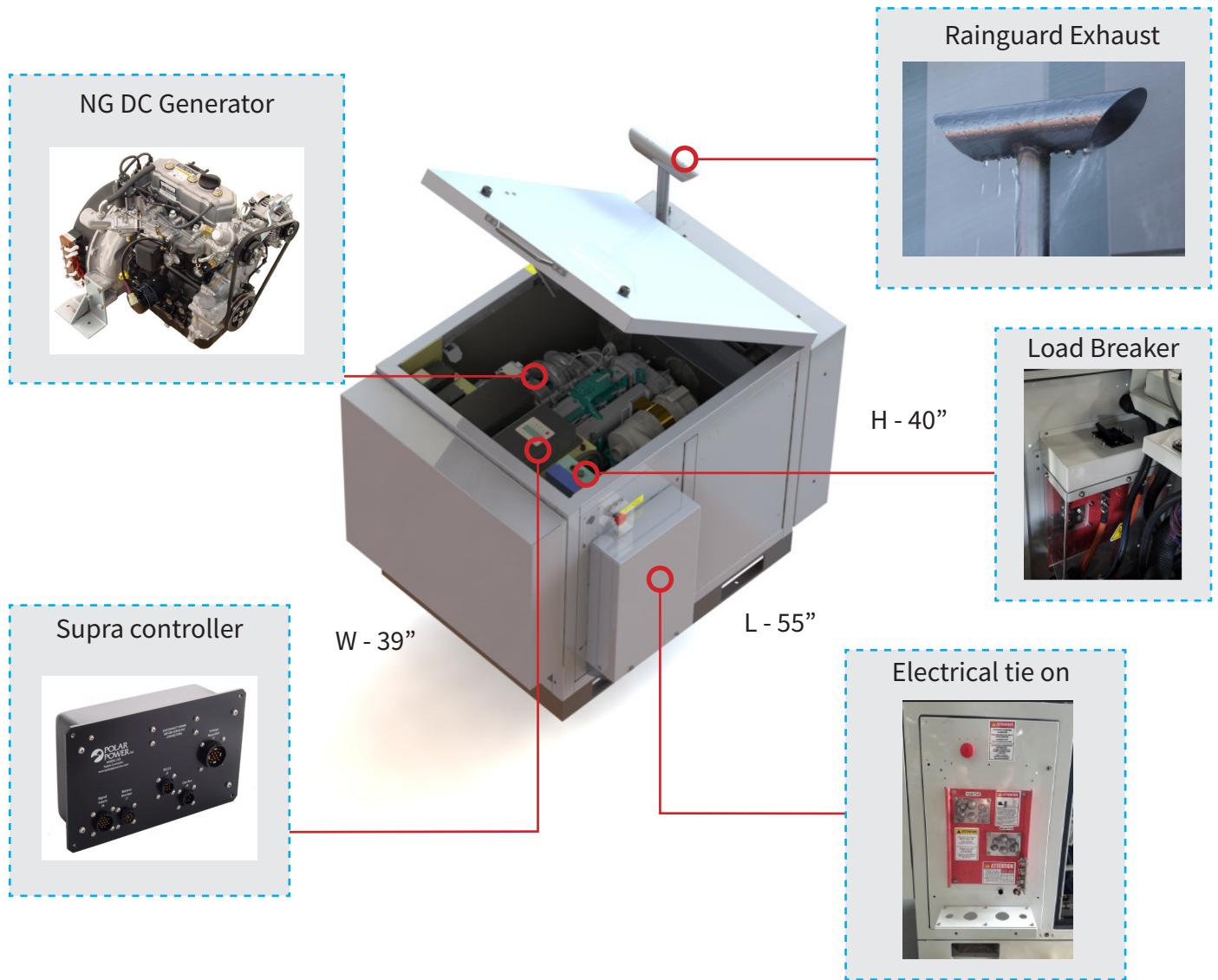
- *UL STD 2200*
- *EPA Compliant*



Founded in 1979 Polar Power specialized in solar photovoltaic systems, solar air conditioning and refrigeration. We developed and provided photovoltaic charging controls for telecommunications in the 1980s along with DC generators for the military. In 1994 we were first to provide DC generators with remote control and monitoring to the telecommunications industry.

Polar's success is based on engineering generators to meet the very specific needs of each application. Telecom site optimization is best met with the DC generator technology as the loads and batteries are DC. It makes no sense to install an AC generator and convert the output to DC. The AC generators are designed for a wide range of applications and they are not specifically produced for telecom applications so there are issues with reliability, space, and fuel efficiency.

Polar can save you considerable time and cost in permitting, installing, purchasing, and maintaining a backup generator. We reduce CAPEX and OPEX costs while improving backup reliability.



SMALL FOOTPRINT.

Polar's DC generator is considerably smaller in size than an AC generator. You can now backup sites that could not accommodate an AC generator. Smaller also means less cost for space leasing.

LOW MAINTENANCE.

LOW ACOUSTIC NOISE. <67 dBA @ 7 meters, and low vibration so as not to disturb the local residents or building landlords.

CORROSION RESISTANT. All-aluminum enclosure with stainless hardware for low maintenance, and long service life.

FUEL EFFICIENT. Up to 85% fuel savings due to smaller engine displacement, high efficiency alternator, and variable speed operation.

ADVANCED MONITORING. Remote diagnostics, control, and monitoring. Ethernet and RS232 standard, with SNMP.

RODENT RESISTANT. Small animals can quickly destroy a generator set by gnawing on wires, fuel lines, radiator hoses, etc. Cooling air inlets and outlets have perforated aluminum screens to keep small rodents and large insects out. Stainless steel wire braid is placed over fuel and radiator lines to prevent damage.

LONG LIFE. Controls and wire harnesses are designed to exceed a 20 year life. Higher grade, longer life electrical wire (UL 3173), weather tight connectors, gold plated connector pins on signal circuits. No transfer switches are required.

SPECIFICATIONS PN 8220-100-G-20-03

Engine

Engine Model	Ford TSG 415
Cylinders	4 In-line
Displacement (L)	1.5
Bore (in./mm)	3.11/79
Stroke (in./mm)	3.01/76.4
Intake Air System	Naturally Aspirated
Engine HP	47
Emissions	U.S. EPA Tier 4
Emissions Compliance	EPA Certified
Variable RPM	2300 to 2800

Engine lubrication system

Oil Filter Type	Full flow spin-on canister
Oil Capacity (L)	3.78
Oil Pressure Switch	Yes
Oil Pressure Transducer	Optional

Fuel consumption NG

[*Note: Calculated Values]

Output (kW)	Flow Rate in BTU/hr
10	211,000
15	340,000
20	470,000

Fuel Consumption LPG

[*Note: Calculated Values]

Output (kW)	gal/hr	L/hr
4	0.97	3.67
5	1.1	4.16
6	1.26	4.77
8	1.69	6.4
9	1.945	7.36
10	2.2	8.33
12	2.52	9.54
15	3.55	13.44
20	5.1	19.3

Engine cooling system

Type	Pressurized Aluminum Radiator
Water Pump	Belt-driven, Pre-lubed, self-sealing
Fan Type	Electric Fans
Airflow CFM	1300
Fan Mode	Pusher
Temperature Sensor	Yes

Environmental

Operating Temperature (°C/°F)	-40 to 72 / -40 to 162
Operating Humidity %	100
Cold Start Aids	Spark Plugs

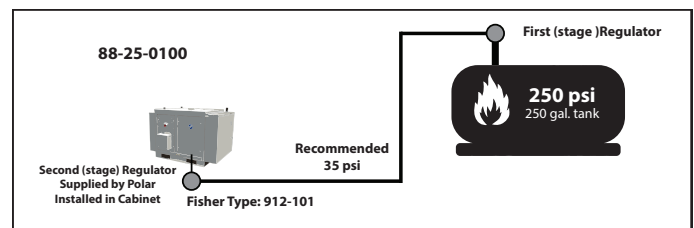
Optional: manifold heater available for temperatures < -40 °F

Power adjustment for conditions

Temperature Deration	2% derate for every 5.6 °C (10 °F) above 25 °C (77 °F)
Altitude Deration	4% derate for every 300 m (1000 ft) above 91 m (300 ft)

Fuel system

Type	LPG or Natural Gas
Fuel Pump Type	Fuel Solenoid Replacement
Fuel Tank/Line	Supplied by customer
Max fuel flow rate (BTU/hr)	470,000



Minimum	Recommended	Maximum
0.14 psi	0.39 psi	0.5 psi
4 in H2O	11 in H2O	13.9 in H2O
10 mbar	27.4 mbar	34.5 mbar

Engine cooling

System coolant capacity (gal/L)	2.2/8.3
Maximum operation air temperature on radiator (°C/°F)	54/129
Maximum ambient temperature (°C/°F)	49/120

Exhaust

Exhaust flow at rated output (cfm/cmm)	90/2.55
Exhaust temperature at rated output (°C/°F)	480/900

Alternator

Alternator Model	8220
Type	Permanent Magnets, NdFeB
Weight (lb/kg)	46.5/21
Regulation Type	Variable engine speed
Stator	3 phase/32 poles
Overcurrent Protection (A)	20 kW - 500
Disconnect Means	Pull fuse block or Circuit breaker
Voltage Range (VDC)	44 to 60
Alternator Exhaust Flow (cfm/cmm)	130 to 180 / 3.68 to 5.1
MTBF (hr)	100,000+

Enclosure

Model	88-25-0100
Type	Weather Protective
Materials	Powder coated aluminum
Door Hardware	Three Point with Padlock Hasp, and Removable Side Panels
Mounting	Secure Mounting Tabs
Dims.	L 55" x W 39" x H 40" (Height 54" including Exhaust)

Optional: L2 option

Weight

Dry Weight (lb/kg)	698.9/317
--------------------	-----------

Starter Supercapacitor

Model	20-16-0001
Storage Rating (Ah)	500
Voltage (VDC)	13-14.4
Weight (lb/kg)	12.1/5.5
Operating Temperature (°C/°F)	-40 to 65 / -40 to 149
Service Life (year)	10 to 15

Charger

Model	00-10-0015
Input Voltage (VDC)	37 to 62
Output Voltage (VDC)	14 to 14.4
Recharge time from 0 VDC (min)	10
Recharge time from 8 VDC (min)	2
Weight (lb/kg)	2.2/1

Standards

Certification	Intertek 400376
UL Listing	UL STD 2200
Standards	CSA STD C22.2 No. 100

Controller features

Controller Type.....	Supra Model 250
4-Line Plain Text OLED Display.....	Simple user interface for ease of operation
Engine Run Hours Indication.....	Standard
Programmable Start Delay.....	Standard
Run/Alarm/Maintenance Logs.....	Standard
Engine Start Sequence.....	Cyclic cranking: 5 sec on, 45 sec rest (3 attempts maximum)
Starter Supercapacitor Charger.....	Standard
Automatic Voltage Regulation with Over and Under Voltage Protection.....	Standard
Automatic Low Oil Pressure/High Oil Temperature Shutdown.....	Standard
Overcrank/Overspeed.....	Standard
Automatic High Engine Temperature Shutdown.....	Standard
Field Upgradeable Firmware.....	Standard
Glow Plug Delay	Automatic With Temperature
Engine Start Delay.....	Adjustable, Set at 60 sec
Return to Utility Delay.....	Adjustable, Set at 60 sec
Engine Cool-down.....	Adjustable, Set at 60 sec
Exerciser.....	Programmable

Monitoring

Alarm monitoring and remote control through Ethernet.

Contact closure alarm board

Shutdown Alarm.....	Standard
Warning Alarm.....	Standard
Engine Run.....	Standard
E-Stop Depressed.....	Standard

SOUND DATA



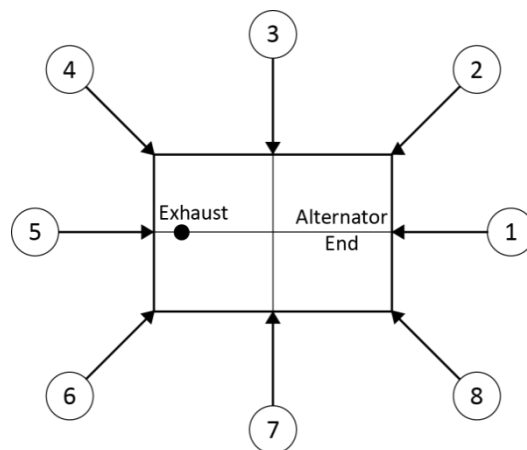
Type of Test	Sound Test	Serial No.	--
Test No.	01	Controller serial No.	--
Generator model	8220-100-NG-20-03	Observer	CHRIS ASHKAR
Enclosure model	Horizontal – 100	Date	1/25/2019 – 5:30 am
Alternator	8220-1-65-1	Nominal Speed / V / I	2800 RPM / 370A / 55V
Engine	Ford TSG415	Firmware	3.0.0.19

Sound Pressure Levels in dB(A)

*Disclaimer: Testing conducted in outdoor and uncontrolled environment

*Baseline taken for Ambient noise levels

Position	Overall Level	Frequency Spectrum Levels								
		Center Frequency (Hz)								
		31.5	63	125	250	500	1000	2000	4000	8000
1	70.1	32.0	35	50.2	53.0	55.0	53.0	49.0	66.0	40.0
2	68.0	30.8	35.6	44.5	45.6	51.3	49.5	46.3	67.6	41.0
3	63.9	30.1	33.5	42.5	52.5	52.8	49.9	45.9	48.0	41.9
4	62.9	31.6	30.0	42.8	51.2	46.6	45.9	40.5	48.8	37.0
5	62.8	30.6	33.2	48.5	52.3	48.5	50.1	43.7	51.6	39.6
6	63.3	31.0	31.2	46.5	48.3	49.7	49.3	44.2	48.3	39.8
7	68.1	30.2	34.6	44.8	51.2	54.6	50.1	44.4	47.2	39.5
8	69.2	31.0	36.4	49.8	52.1	52.9	49.7	43.1	63.6	37.2
Average	66.0	30.9	33.7	46.2	50.8	51.4	49.7	44.6	55.1	39.5
Baseline	49.1	--	--	41.0	33.2	36.5	35.4	--	--	--



Notes:

- Generator operating at full rated load
- Generator configuration includes quiet exhaust system
- All measurement positions are 7 m (23 ft.) from center of generator set and 1 m (3.3 ft.) height
- Test conducted outside on an asphalt surface, **temperature 45°F, humidity 52%, wind 1 mph, barometer 30 inHg.**
- Meter used - Phonic PAA2, Serial No. OGA0H80208

[illegible]

8





249 E. Gardena Blvd., Gardena, CA 90248
Tel.: +1(310)8309153 • Fax: +1(310)7192385
info@polarpowerinc.com • www.polarpower.com

City of Independence

Request for a Minor Subdivision to Allow a Lot Line Rearrangement on the Properties Generally Located at 5062 Perkinsville Road

<i>To:</i>	City Council
<i>From:</i>	Mark Kaltsas, City Planner
<i>Meeting Date:</i>	November 18, 2019
<i>Applicant:</i>	John Hilbelink
<i>Owner:</i>	John Hilbelink
<i>Location:</i>	5062 Perkinsville Road

Request:

John Hilbelink (Applicant/Owner) requests that the City consider the following action for the properties located at 5062 Perkinsville Road, Independence, MN (PID No.s 24-118-24-13-0005 and 24-118-24-13-0006):

- a. A minor subdivision to allow a lot line rearrangement to move the existing line between the properties. The rearrangement would create "equal" properties on Perkinsville Road.

Property/Site Information:

The properties are located on the north side of Perkinsville Road and just west of the intersection of Perkinsville Road and South Lakes Shore Dr. The eastern property has an existing home and the western property has a detached accessory structure. The property has the following characteristics:

Property Information: 5062 Perkinsville Road (PID No. 24-118-24-13-0005)

Zoning: *RR-Rural Residential*

Comprehensive Plan: *RR-Rural Residential*

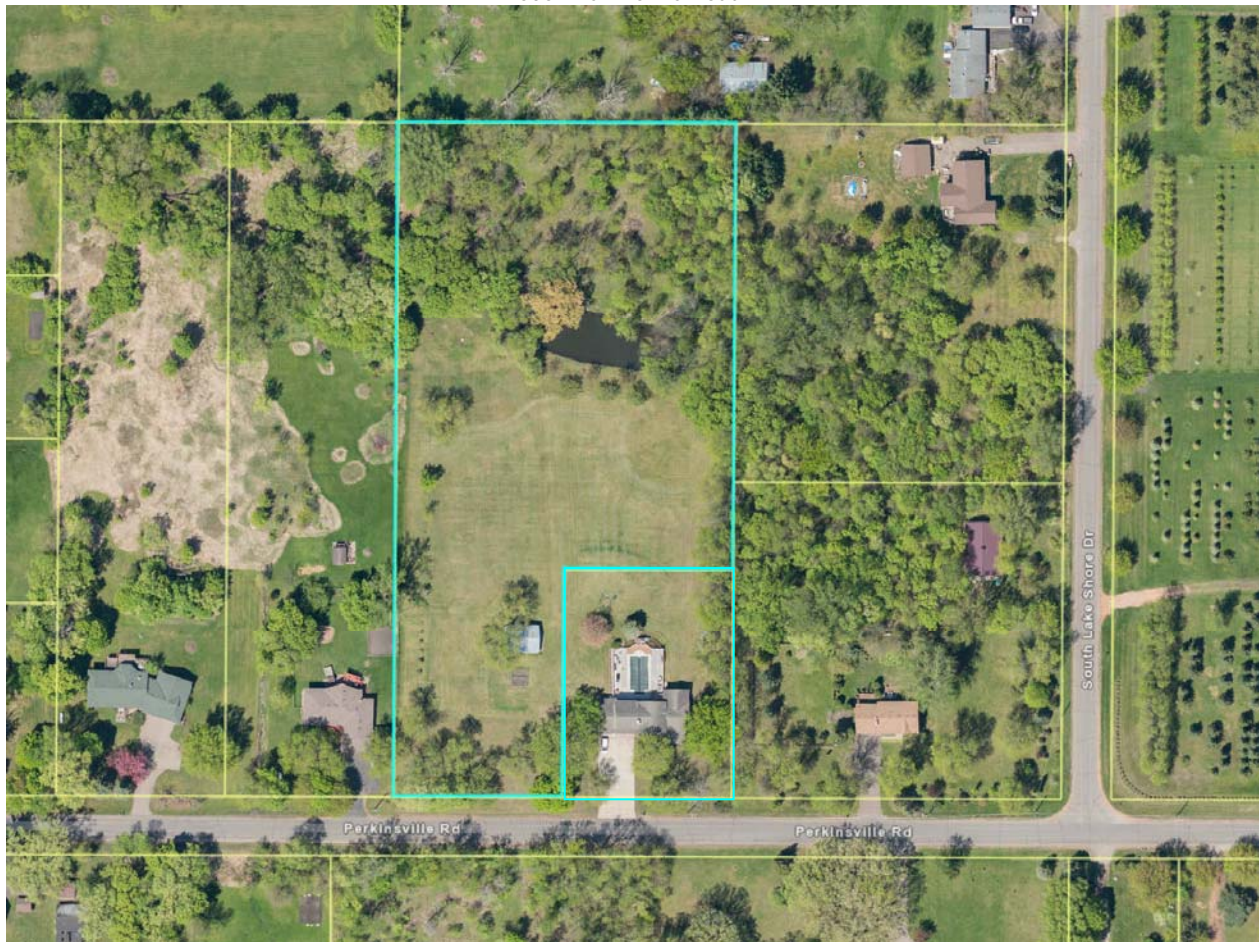
Acreage: Before – 1.00 acres
 After – 2.65 acres (*Proposed Tract B*)

Property Information: Unassigned Address (PID No. 24-118-24-13-0006)

Zoning: *RR-Rural Residential*

Comprehensive Plan: *RR-Rural Residential*

Acreage: Before – 4.30 acres
 After – 2.65 acres (*Proposed Tract A*)



Discussion:

The applicant is seeking a minor subdivision to allow a lot line rearrangement that would expand the 5062 Perkinsville Road property by approximately 1.65 acres and reduce the property identified by PID No. 24-118-24-13-0006 by the same. The applicant owns both of the subject properties. The common property line that is currently located to the north of the 5062 property would be “straightened” to create to equal properties.

Both properties are considered to be legal non-conforming lots of record. Both properties have approximately 165 feet of frontage on a public right of way. The minimum frontage required by ordinance is 200 LF for the smaller parcel and 250 LF for the larger parcel. In addition, detached accessory structures are not permitted on a property without a principal structure (residence). In the before and after conditions both properties would meet all applicable structure setbacks. The proposed after condition would not create any new non-conformities relating to setbacks, property size or road frontage minimums.

The applicant is in the process of updating the existing septic system that serves the eastern parcel (existing residence). In reviewing the possible locations for a new septic system, it was identified that the

best location would be located on the adjoining property. Even though both properties are under the same ownership, the City notified the Applicant that a permanent easement would need to be provided and recorded across the adjoining property if the septic site was going to be located on the adjacent property. Based on this discussion, the Applicant is seeking a minor subdivision to rearrange the property lines to accommodate a new septic site on the same property as the existing residence.

Staff has reviewed the request and offers the following information for consideration by the Planning Commission:

1. The lot line rearrangement would create two equal lots that are in keeping with the general configuration and size of the adjacent lots.
2. No new non-conformities would be created, and the legal non-conforming/conforming status of each respective property does not change in the before or after conditions.
3. There is an existing detached accessory structure located on the western parcel that is proposed to remain in the after condition. While the non-conforming condition of the property is not being intensified as a result of the minor subdivision, staff is seeking direction from the Planning Commission and City Council pertaining to this non-conformity.
4. The City did suggest that the Applicant consider connecting the existing home to the City's sanitary sewer line located at the intersection of South Lake Shore Drive and Perkinsville Road. The Applicant did review this possibility and decided to move forward with replacing the existing on-site septic system. There are several challenges to connecting at the closest location due to the pipe being a force main.
5. The Applicant would be providing the City with the requisite perimeter drainage and utility easements for both properties.
6. The proposed Tract A is a buildable lot of record in both the before and after conditions.

Neighbor Comments:

The City has not received any written or verbal comments pertaining to the request for a lot line rearrangement.

Planning Commission Discussion:

Commissioners reviewed the request and asked questions of the applicant and staff. Commissioners asked about the existing accessory structure and whether or not anyone had provided comments to the City. It was noted that there were no comments provided to the City relating to the application. Commissioners asked about the historical use of the property and the location of the original homestead. Commissioners found that the request to rearrange the existing lot line would be in keeping with the

character of the neighborhood. Planning Commission also found that the impact of the existing legal non-conforming accessory structure would not be increased in the after condition.

Recommendation:

The Planning Commission recommended approval of the requested minor subdivision to allow a lot line rearrangement with the following findings and conditions:

1. The proposed minor subdivision to allow a lot line rearrangement request meets all applicable conditions and restrictions stated Chapter V, Sections 500 and 510, Planning and Land Use Regulations and Zoning, in the City of Independence Zoning Ordinance.
2. The Applicant shall pay for all costs associated with the City's review of the requested minor subdivision.
3. City Council approval of the requested minor subdivision shall be subject to the Applicant providing and executing the requisite drainage and utility easements.
4. The Applicant shall record the subdivision, easements and City Council Resolution with the county within six (6) months of approval.

Attachments:

1. **Resolution 19-1118-04**
2. Application
3. Survey (Before and After Conditions Shown on the Same Survey)



RESOLUTION 19-1118-04

A RESOLUTION APPROVING A MINOR SUBDIVISION TO ALLOW A LOT LINE REARRANGEMENT FOR THE PROPERTIES GENERALLY LOCATED AT 5062 PERKINSVILLE ROAD

WHEREAS, the City of Independence (the “City”) is a municipal corporation under the laws of Minnesota; and

WHEREAS, the City adopted a Comprehensive Plan in 2010 to guide the development of the community; and

WHEREAS, the City has adopted a Zoning and Subdivision Ordinance and other official controls to assist in implementing the Comprehensive Plan; and

WHEREAS, John Hibelink (Applicant/Owner) has submitted a request for a minor subdivision to allow a lot line rearrangement for the properties generally located at 5062 Perkinsville Road in Independence, MN (PID No.s 24-118-24-13-0005 and 24-118-24-13-0006); and

WHEREAS, the Properties are legally described and further depicted on attached **Exhibit A**; and

WHEREAS, the Properties are both zoned RR-Rural Residential; and

WHEREAS the requested minor subdivision meets all requirements, standards and specifications of the City of Independence subdivision and zoning ordinance for Agriculture Property; and

WHEREAS the Planning Commission held a public hearing on October 15, 2019 to review the application for a minor subdivision, following mailed and published noticed as required by law; and

WHEREAS, the City Council has reviewed all materials submitted by the Applicant; considered the oral and written testimony offered by the applicant and all interested parties; and has now concluded that the application is in compliance with all applicable standards and can be considered for approval.

NOW, THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF INDEPENDENCE, MINNESOTA, that it should and hereby does approve the application by

John Hibelink for a minor subdivision to allow lot line rearrangement per the City's subdivision and zoning regulations with the following conditions:

1. The proposed minor subdivision to allow a lot line rearrangement request meets all applicable conditions and restrictions stated Chapter V, Sections 500 and 510, Planning and Land Use Regulations and Zoning, in the City of Independence Zoning Ordinance.
2. The Applicant shall pay for all costs associated with the City's review of the requested minor subdivision.
3. Access to CSAH 6 will require the review and approval of Hennepin County.
4. The Applicant shall provide the City with the legal descriptions and execute and record the requisite perimeter drainage and utility easements with the county within six (6) months of approval.
5. The Applicant shall record the subdivision and City Council Resolution with the county within six (6) months of approval.

This resolution was adopted by the City Council of the City of Independence on this 18th day of November 2019, by a vote of ____ ayes and ____ nays.

Marvin Johnson, Mayor

ATTEST:

Mark Kaltsas, City Administrator

EXHIBIT A

EXISTING PROPERTY DESCRIPTIONS:

Existing PID No. 2411824130006 (Doc. No. T05517796)

The West 330 feet of the East 660 feet of the South 700 feet of the Southwest Quarter of the Northeast Quarter, Section 24, Township 118, Range 24, except the East 165 feet of the South 264 feet thereof, according to the recorded plat thereof on file and of record in the office of the Register of Titles, Hennepin County, Minnesota.

Existing PID No. 2411824130005 (Doc. No. T05517796)

The South 264 feet of the West 165 feet of the East 495 feet of the Southwest Quarter of the Northeast Quarter of Section 24, Township 118 North, Range 24 West of the 5th principle meridian, Hennepin County, Minnesota.

PROPOSED PROPERTY DESCRIPTIONS:

Proposed Tract A

The West 165 feet of the East 660 feet of the South 700 feet of the Southwest Quarter of the Northeast Quarter of Section 24, Township 118, Range 24, Hennepin County, Minnesota.

Subject to an easement for drainage and utility purposes, over, under and across the west 10 feet, the north 10 feet and the east 10 feet thereof and also the north 10 feet of the south 51 feet thereof.

Subject to the easement described in Document No. 2254258, dated April 18, 1992, and of record in the Office of the Register of Titles, Hennepin County, Minnesota.

Proposed Tract B

The West 165 feet East 495 feet of the South 700 feet of the Southwest Quarter of the Northeast Quarter of Section 24, Township 118, Range 24, Hennepin County, Minnesota

Subject to an easement for drainage and utility purposes, over, under and across the west 10 feet, the north 10 feet and the east 10 feet thereof and also the north 10 feet of the south 51 feet thereof.

Subject to the easement described in Document No. 2254258, dated April 18, 1992, and of record in the Office of the Register of Titles, Hennepin County, Minnesota.



PLANNING APPLICATION

Case No. _____

Type of application

- ☐ Standard ☐ Staff Approval ☐ Plan Revision ☐ Amended ☐ Reapplication
- ☐ Rezoning ☐ Conditional Use Permit ☐ Variance ☐ Ordinance Amendment ☒ Subdivision
- ☐ Preliminary Development Plan ☐ Interim Use Permit ☐ Comprehensive Plan Amendment
- ☐ Final Development Plan ☐ Final Site & Building Plan ☐ Other _____

Site Location— Additional addresses on back and legal description attached

Property address 5062 Perkinsville Rd

PID

2411824130006
2411824130005

Proposal -Full documentation must accompany application

Lot line Rearrangement to adjust the two lots to be
conforming, at 2.65 acres per Lot. Rather than
1 acre and 4.3 acres

Applicant

Name John Hilbelink Email john.hilbelink@gmail.com

Address 5062 Perkinsville Road, Independence, MN 55359

Phone 612-300-7832 Additional phone/contact _____

Printed Name _____ Signature [Signature]

Owner Information (if different from applicant)

Name _____ Email _____

Address _____

Phone _____ Additional phone/contact _____

Printed Name _____ Signature _____

Office Use Only

Date 9/6/2019 Application Amount 1,250 Check # 1161 Accepted By [Signature]

Escrow Paid 750~ Check # 1161 Date Accepted by Planner _____

City of Independence

The Independence City Code was established to protect both current and future residents from the negative impacts of improper development and to ensure a positive future for the city. The land use application review is the mechanism that allows the city to examine proposed uses to ensure compatibility with the surrounding environment, natural or otherwise. It is important to understand that a proposed use may be acceptable in some circumstances, but unacceptable in others— all applications are reviewed on a case-by-case basis.

Minnesota State Statute 15.99 requires local governments to review an application within 15 days of its submission to determine if an application is complete and/ or if additional information is needed to adequately review the subject request. ***To ensure an expedited review, applicants shall schedule a pre-application meeting with the City Planner/ Administrator at least one week prior to submittal.*** Most applications have a review period of 60 days, with the City's ability to extend an additional 60 days if necessary due to insufficient information or schedule.

Application for Planning Consideration Fee Statement

The City of Independence has set forth a fee schedule for the year 2019 by City Ordinance. However, projects of large scope that include two or more requests will be required to provide a larger deposit than the resolution sets forth as set by the City Administrator. The fees collected for land use projects are collected as deposits. All invoices associated with each land employ application will be billed to the applicant within 30 days upon receipt by the City for each project. The City of Independence often utilizes consulting firms to assist in the review of projects. The consultant and City rates are noted on the current fee schedule. By signing this form, the applicant recognizes that he/ she is solely responsible for any and all fees associated with the land use application from the plan review stage to the construction monitoring stage through to the release of any financial guarantee for an approved project. If a project is denied by the City Council or withdrawn by the applicant, the fees associated for the project until such denial or withdrawal, remain the applicant's responsibility.

I UNDERSTAND THE FEE STATEMENT AND RESPONSIBILITIES ASSOCIATED WITH THIS LAND USE APPLICATION:

Applicant Signature: 

Date: September 5th 2019

Owner Signature (if different): _____

Date: _____

Legend

- Found Iron Monument
- Set Iron Monument (LS 48328)
- ⊙ Soil Boring

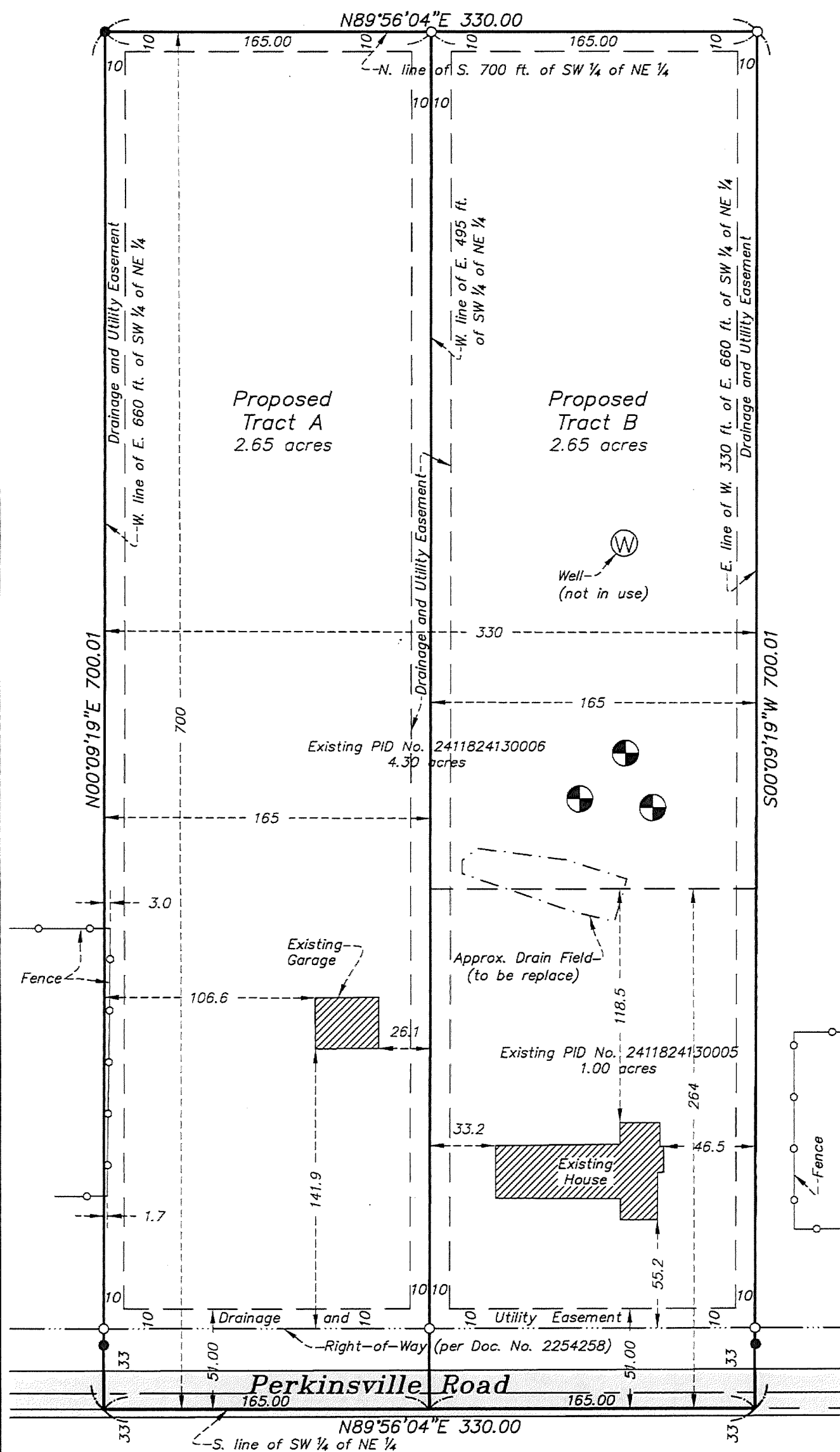
Prepared for:

John Hilbelink

SCALE



1 inch = 60 feet



Bearings based on assumed datum. Note: Current well in service located within existing house (per client).

SCHOBORG
LAND SERVICES
INC.

763-972-3221
www.SchoboraLand.com

8997 Co. Rd. 13 SE
Delano, MN 55328

I hereby certify that this certificate of survey was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

Kelly L. Brouwer
Kelly L. Brouwer

Date: August 2, 2019 Registration No. 48328

Existing PID No. 2411824130006 (Doc. No. T05517796)
The West 330 feet of the East 660 feet of the South 700 feet of the Southwest Quarter of the Northeast Quarter, Section 24, Township 118, Range 24, except the East 165 feet of the South 264 feet thereof, according to the recorded plat thereof on file and of record in the office of the Register of Titles, Hennepin County, Minnesota.

*Existing PID No. 2411824130005 (Doc. No. T05517796)
The South 264 feet of the West 165 feet of the East 495 feet of the Southwest
Quarter of the Northeast Quarter of Section 24, Township 118 North, Range 24
West of the 5th principle meridian, Hennepin County, Minnesota.*

Proposed Tract A
The West 165 feet of the East 660 feet of the South 700 feet of the Southwest Quarter of the Northeast Quarter of Section 24, Township 118, Range 24, Hennepin County, Minnesota.

Subject to an easement for drainage and utility purposes, over, under and across the west 10 feet, the north 10 feet and the east 10 feet thereof and also the north 10 feet of the south 51 feet thereof.

Subject to the easement described in Document No. 2254258, dated April 18, 1992, and of record in the Office of the Register of Titles, Hennepin County, Minnesota.

Proposed Tract B East 495 feet of the South 700 feet of the Southwest Quarter of the The West 165 feet of Section 24, Township 118, Range 24, Hennepin County, Minnesota.

Subject to an easement for drainage and utility purposes, over, under and across the west 10 feet, the north 10 feet and the east 10 feet thereof and also the north 10 feet of the south 51 feet thereof.

Subject to the easement described in Document No. 2254258, dated April 18, 1992, and of record in the Office of the Register of Titles, Hennepin County, Minnesota.

Job Number: 8912

Book/Page: LL

Survey Date: 7/26/19

Drawing Name: hilbelink.dwg

Drawn by: DMS

Revisions:

City of Independence
Concept Plan Review for a Proposed 28 Unit
Subdivision on the Subject Properties Generally Located
at 2236 South Lake Shore Drive and to be Known as Bristol Shores

<i>To:</i>	City Council
<i>From:</i>	Mark Kaltsas, City Planner
<i>Meeting Date:</i>	November 18, 2019
<i>Applicant:</i>	OP Fund 5, LP (The Excelsior Group)
<i>Owner:</i>	Clifford L. Otten Trust
<i>Location:</i>	2236 South Lake Shore Drive

Request:

OP Fund 5, LP (Applicant) and Clifford L. Otten Trust (Owner) request that the City consider the following review/discussion for the property located at 2236 South Lake Shore Dr. (PID No. 24-118-24-11-0012) in Independence, MN:

- a. Concept plan review relating to the proposed subdivision of the subject property. The concept plan proposes 28 single-family sewerer residential lots.

Property/Site Information:

The property is located on the north side of Perkinsville Road and in-between South Lake Shore Drive and County Road 19. The property has frontage on Lake Independence and is comprised primarily of agriculture land. There are two homes on the subject property along with several detached accessory buildings. The property is comprised of densely wooded areas, wetlands and tillable acreage.

Property Information: **2236 South Lake Shore Drive**
Zoning: *Agriculture (S-Shoreland Overlay)*
Comprehensive Plan: *Rural Residential*
Acreage: ~48 acres



Discussion:

The applicant originally came forward to the City in May of 2018 with a concept plan for a 96-unit subdivision. The applicant has now submitted a new concept plan for a 28-unit subdivision based on the discussion and direction provided to the applicant by the City during the process. The applicant is now asking the City to again consider and provide feedback relating to a new concept plan for the proposed subdivision of the subject properties. A concept plan allows the City the opportunity to initially review the proposed subdivision and provide feedback and comments to the applicant prior to the submittal of any formal applications for the development of the property.

The City has discussed the potential subdivision and current 28-unit development with the applicant. In addition, upon receipt of the current submittal, the City sent a letter to surrounding residents offering an opportunity for them to individually meet with the City to discuss the plan and provide feedback and general comments relating to the subject property and its development. A more detailed account of the comments and discussion is provided later in this report.

In order for the City to ultimately consider approval of a plan similar to the proposed concept plan, the following steps would be required:

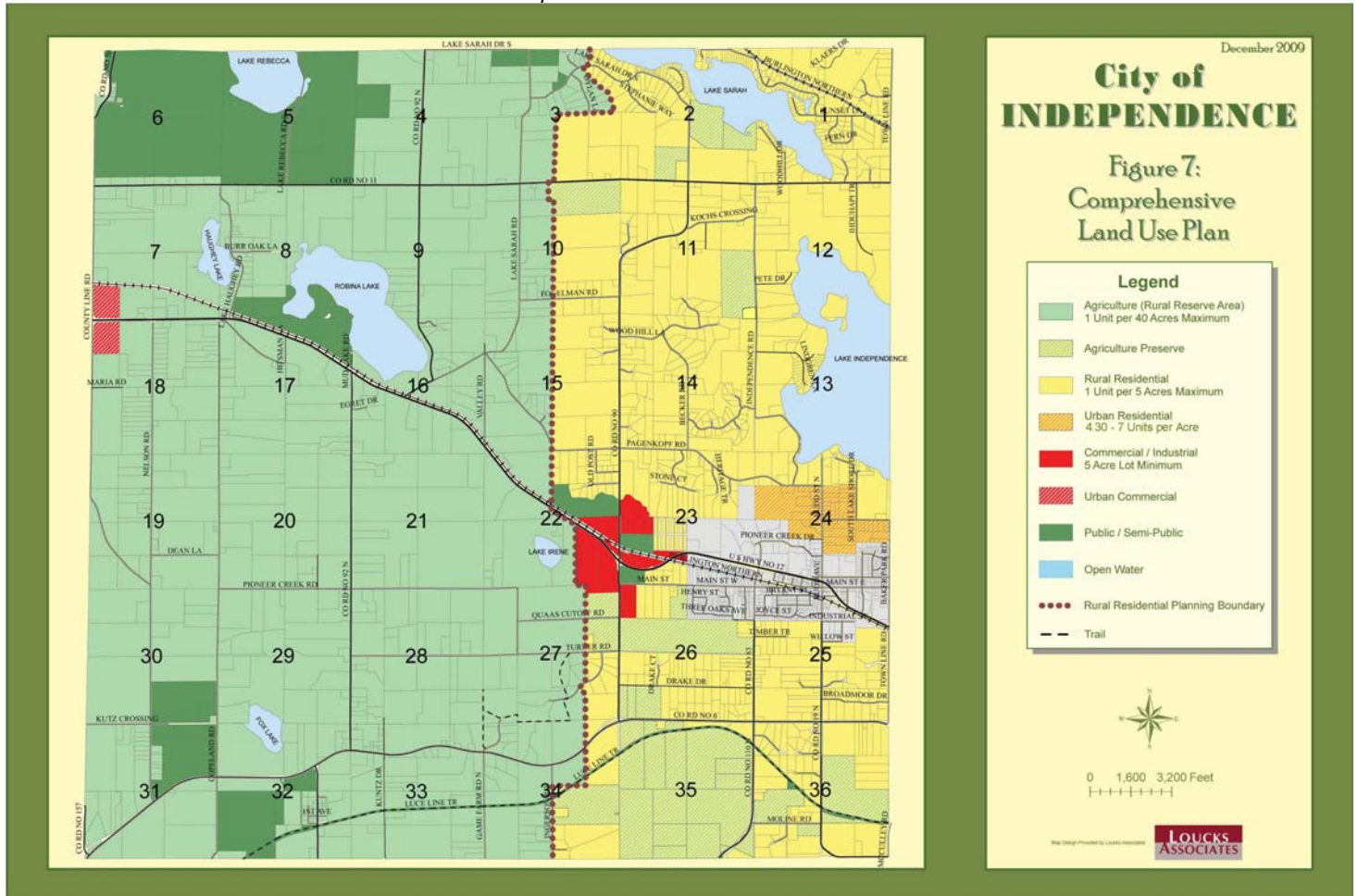
1. Amend the Comprehensive Plan.
 - a. This would change the guided land use from RR-Rural Residential to something that allows a sewer density that would be more than 1 unit per 5 acres.
2. Prepare and adopt an ordinance amendment which would allow for the new land use designation of sewer density on the portion of the property outside of the S-Shoreland Overlay District. The City would develop the standards for the new zoning district. Standards would include minimum lot size, minimum building setbacks, design standards, minimum home square footage, accessory structure standards and setbacks, landscaping requirements and all other similar and related standards pertaining to development within the zoning district.
3. Rezone the property to the new zoning district.
4. Consider Preliminary Plat approval.
5. Consider Final Plat approval.

Comprehensive Plan/Rezoning

The City's adopted 2030 and proposed 2040 plan identify this property as Rural Residential with limited sewer service. The rural residential designation allows for a general development density of 1 unit per 5 acres. The portion of the property that is located within the Shoreland Overlay zoning district could potentially be developed in accordance with the requisite shoreland standards. These standards generally allow for property within the shoreland overlay (1,000 feet from the OHWL) to be developed as one (1) acre lots. The City has noted that the property is currently served by the existing sanitary sewer which runs along two sides of the property (South Lake Shore and Perkinsville Road). The City has stated that an

amendment to the Comprehensive Plan will need to occur after final approval of the 2040 Comprehensive Plan. This plan is still in the process of being reviewed and approved. The City will ultimately need to determine how this parcel is guided moving forward.

2030 Comprehensive Land Use Plan

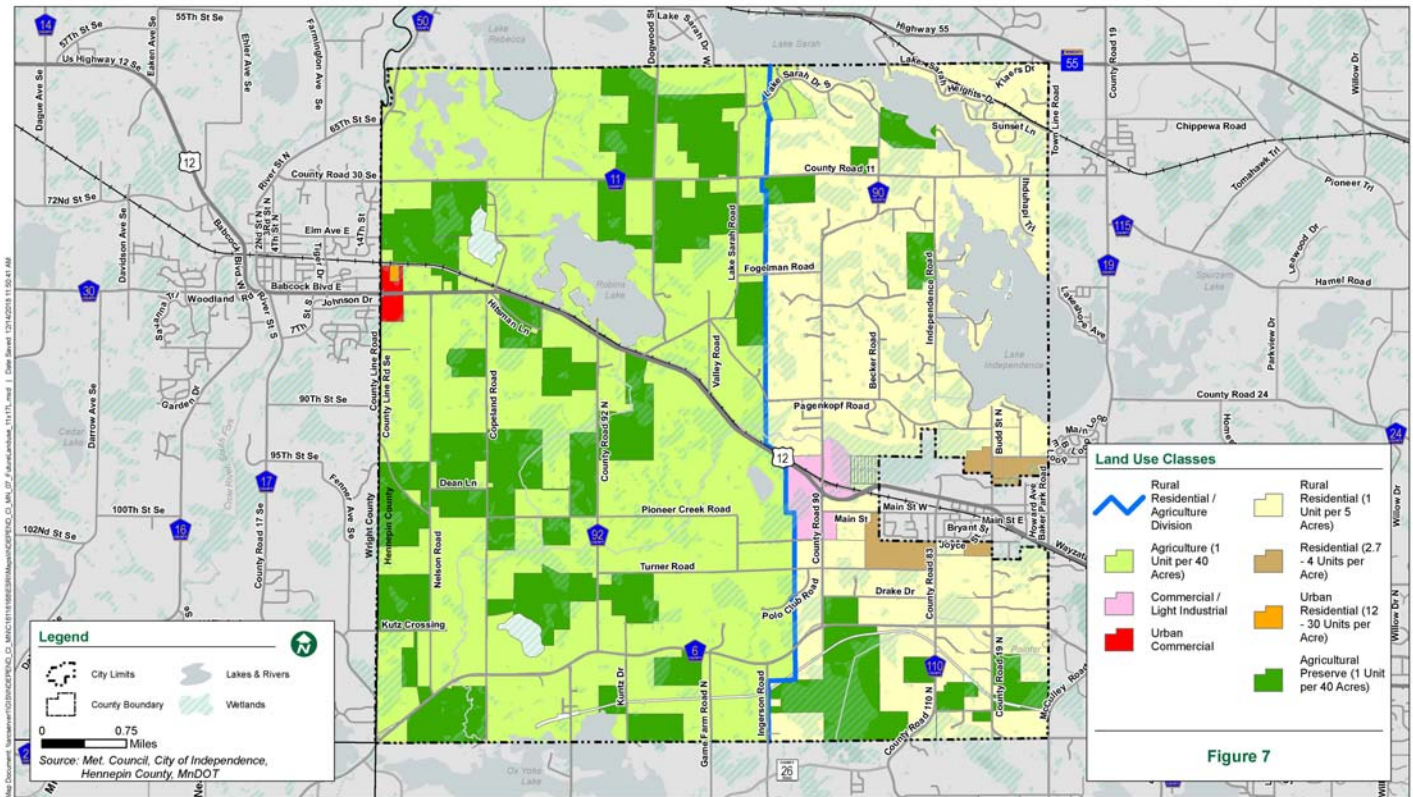


DRAFT 2040 Comprehensive Land Use Plan



2040 Comprehensive Plan
Independence, MN

Future Land Use
December 2018



Proposed Subdivision Concept Plan

The applicant has prepared a concept plan for review by the City. The City has preliminarily reviewed this plan and provided initial comments and feedback to the applicant. One of the initial questions asked by the City was how many lots could be developed on the property based on the current guidance of the property. The current guided designation would allow this property to be rezoned to Rural Residential with a portion of the property falling under the S-Shoreland Overlay (all property within 1,000 feet of the OHWL of Lake Independence). In order to determine the actual number of lots permitted under current zoning, a property layout would need to be prepared. There are approximately 26 acres located within the area governed by the S-Shoreland Overlay. The number of lots that this area would yield is likely between 18-22 lots given the lakeshore, existing topography and configuration of the property covered by the overlay district. For the remaining 22 acres the number of lots that could be developed would be governed by the Rural Residential standards shown below. 22 acres could yield 4-5 lots depending on the exact acreage remaining land. The total number of lots that could be realized on this property utilizing the current zoning standards is estimated to be between 20-30.

Subd. 3. Density. Lots of record in the rural residential district may be divided or subdivided into the following maximum number of lots, said maximum number to include the lot for any existing dwelling unit or other principal use: (Amended, Ord. 2010-01)

<u>Area of Lot of Record</u>	<u>Maximum Number of Lots Permitted</u>
7.5 acres or less	One
7.6 through 12.5 acres	Two
12.6 through 17.5 acres	Three
17.6 through 22.5 acres	Four
22.6 through 27.5 acres	Five
27.6 through 32.5 acres	Six
32.6 through 37.5 acres	Seven
37.6 through 42.5 acres	Eight
42.6 through 47.5 acres	Nine, plus one addn. lot for every five addn. acres of land.

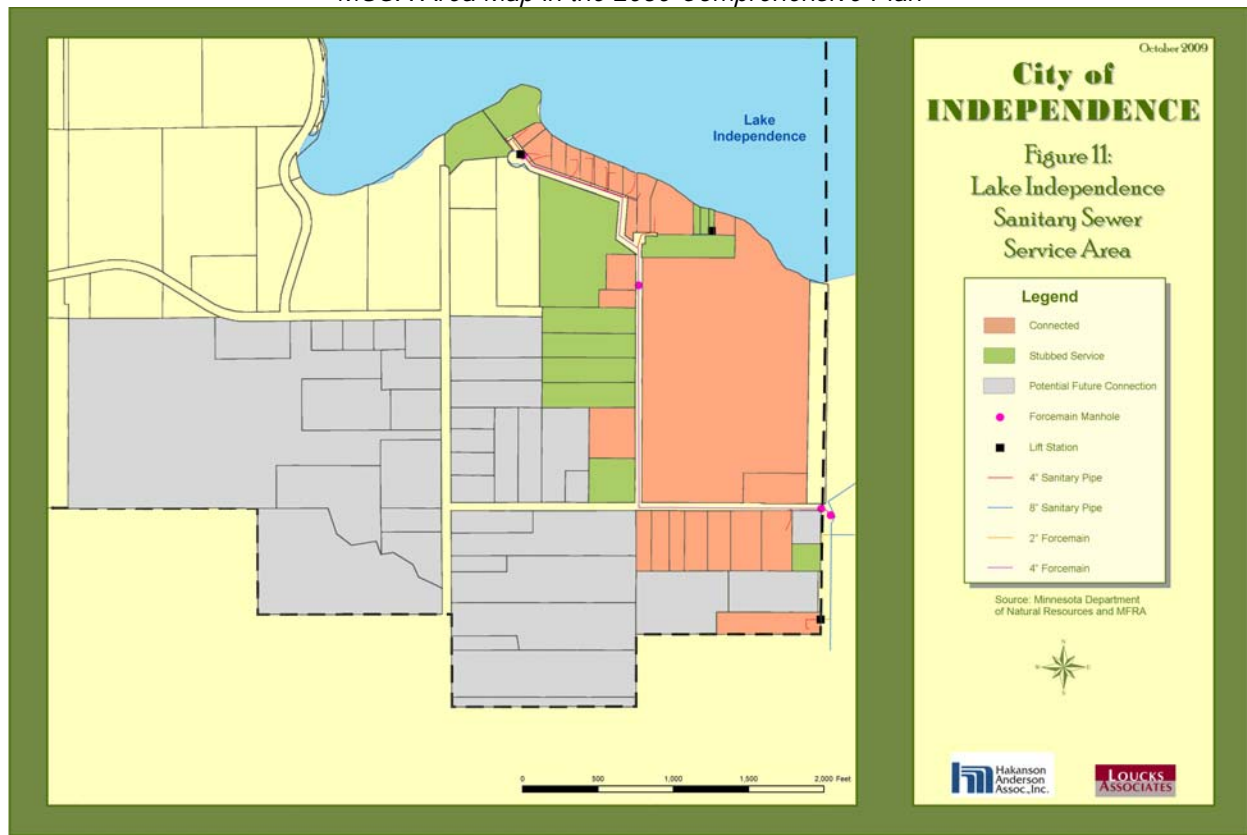
Concept Plan Considerations:

The City identified the need to determine if there was potential and physical sewer capacity to accommodate a development of this type. In addition, the City noted that traffic on County Road 29 and Perkinsville Road should be further evaluated to understand potential development impacts.

The City conceptually reviewed the existing sewer system and met with the Metropolitan Council relating to the possibility of developing this property. The Metropolitan Council noted that there is a limited regional system capacity until 2020 when upgrades to the regional lift station (LS 63) will be online. It was generally acknowledged by the Metropolitan Council that property was included in their future sewer area and was also included in the Metropolitan Urban Service Area (MUSA) in the City's 2030 Comprehensive Plan. The relatively low density (less than 3 units per acre) of the proposed subdivision could present a challenge to gaining approval by the Metropolitan Council and will need to be further evaluated should the project move forward. Review of the City's sanitary sewer system identified the potential capacity to service the proposed subdivision. Some upgrades and or system improvements would likely be necessary for this development to occur.

The City also completed a traffic analysis pertaining to the potential impacts of the development of the property based on a 96-unit development. Generally, the traffic analysis found that there was capacity on CSAH 29 and Perkinsville Road to accommodate development of this parcel. Any development of this property would have potential traffic impacts to Perkinsville Road and County Road 29. The City will have to further evaluate the potential traffic impacts should the development of this property move forward.

MUSA Area Map in the 2030 Comprehensive Plan



The initial review of the subdivision contemplates a high-level review only of the proposed concept development plan. A detailed review of the storm water, grading, traffic impacts and infrastructure details will be completed prior to consideration of any future applications. The City does not formally approve or deny a concept plan. The concept plan review will provide direction and comments to the applicant for their use during the preparation of future applications. The following comments should be considered by the City:

1. The initial plan reviewed by the City identified lots that would have direct access onto South Lake Shore Drive. The City noted that access to any development should occur via an internal access road that comes off of Perkinsville Road. The applicant revised the concept plan to show lots with access only from a new internal loop road. The City noted that a development of this size would need to have two points of access into the development and a second road connection onto South Lake Shore is proposed.
2. The proposed concept plan indicates six lots with riparian access (frontage or access) on Lake Independence. Any lot directly abutting the lake would need to comply with applicable shoreland overlay standards. The shoreland overlay requires a minimum lot size of 1 acre and a minimum shoreland lot width of 100 linear feet. The subject property has approximately 700 linear feet of shoreline on Lake Independence. One of the proposed lots would have a narrow 30-foot-wide

access. Additional review relating to slopes, bluffs and general grading of the proposed riparian lots would be required if the develop moves forward.

3. The proposed layout shows that those lots with direct shoreland would be developed so that the homes could be located at the top of the existing slope. This is preferable to previous layouts where the proposed building pads were located closer to the lakeshore which would have likely had significant impacts to the existing topography and vegetation.
4. All of the proposed lots (it is understood that one is labeled at .99) would be a minimum of 1 acre in size and connected to City sanitary sewer.
5. The City initiated and completed a traffic study relating specifically to this concept development plan (see attached traffic study). The traffic study looked at the potential impacts of an approximate 100-unit development on the intersection of Perkinsville Road and County Road 19. The study considered the development of this property into typical single-family homes. Traffic counts were taken on County Road 19 and Perkinsville Road to establish some baseline traffic data. It should be noted that the study only considered the impacts of the development of the subject property and not any future development/redevelopment of the surrounding area. The primary focus looked at the impacts during peak am and peak pm traffic hours. The study found that that peak hour traffic impacts would be minimal based on the level of service currently identified at the intersection. It was indicated in the study that the level of service at the key intersection would be no less than a "B" in the fully developed condition. The City would want to further investigate the impacts of this development on the surrounding areas should further consideration be sought by the applicant. One point that should be noted is that the study considered all of the proposed lots to be typical single-family homes. Should the City consider a "senior villa" type product, the potential number of peak am, and pm trips would likely decrease.
6. The surrounding area has a mixture of lot types, sizes and densities. A quick analysis of the approximately 21 surrounding (abutting) properties indicates that the average lot size is close to 1.5 acres with the smallest property being 0.2 acres. The nearby properties located on Lake Independence (within 1,000 feet of the subject property) also range in size with the average lots size being approximately 0.5 acres. The approximate net density of the abutting properties is approximately .75 units per acre.
7. The proposed development would preserve a buffer and open space area along Perkinsville and South Lake Shore Drive. This area could be bermed and planted to help screen the proposed development from the surrounding properties. More development of this area/berming/planting would be needed if this development were to move forward.
8. The City and Watershed have standards relating to storm water management and water quality. The City would work to ensure that any development of this property would meet all applicable standards relating to storm water management and water quality. Due to the unique nature of this property and the fact that the applicant is asking the City to consider allowing for reduced lot standards for a portion of the property, increased or enhanced water quality management of the stormwater associated with this development could be requested.

9. The subject property has a significant natural feature that consists of a wooded “ravine” that runs from west to southeast through the northern portion of the property. This natural feature should be further defined and potentially preserved by any development of this property.

Natural Resource Area



10. The proposed concept subdivision would be subject to the City's park dedication requirements. No park land dedication is shown on the concept plans. The City should provide feedback relating to possible park dedication on the subject property. The City may want to incorporate a trail and/or sidewalk within the development and to the east to provide access to Baker Park. Discussion relating to park dedication should be provided by the City. The standard park dedication requirement of \$3,500 per lot would otherwise be applicable to all newly developed lots.

Individual Neighbor Discussion:

As noted earlier in this report, the City met or talked with approximately 10 neighboring property owners in more detail about the proposed development. These meetings provided a great deal of insight, concerns and recommendations relating to the development of this property. The following summary of the comments and discussions is provided for consideration by the Planning Commission and City Council. There may have been additional comments or questions asked during the meetings that is not summarized below and was unintentionally not included.

Stormwater:

1. There is a general concern expressed by many of the residents pertaining to stormwater quality and runoff from the existing property and any future development. Lake Independence is currently an impaired water body. Any development of the property should be carefully reviewed to ensure that water quality is improved.
 - a. It was noted that there is a significant amount of water that runs off of the property to the west and also directly off the property into the lake on the north in several areas.

Traffic:

2. There is a general concern expressed by many of the residents pertaining to increased traffic on both South Lake Shore and Perkinsville Road.
 - a. Many comments were made relating to the speed of vehicles traveling on Perkinsville Road and that there are limited sight lines to the west when turning onto or off of South Lake Shore.
 - b. Many comments were provided relating to the poor visibility and difficulty with turning onto or off of CSAH 29 from/onto Perkinsville.

Density/Layout/Lakeshore:

3. Questions were asked relating to why the City would consider allowing an increased number of units on the property rather than what is permitted by the current zoning ordinance. There was some discussion that this property is somewhat unique due to the fact that sanitary sewer borders two sides of the property and its proximity to the lake. The City has generally found that it is beneficial to require the development of sewer lots within close proximity to lakes.
 - a. Several comments were made relating to the character of the surrounding properties and that the proposed lots were generally smaller than the properties on Perkinsville and a part of South Lake Shore that is directly adjacent.
 - b. Concerns were expressed relating to the two lots that directly adjoin South Lake Shore and whether or not they could be eliminated and or moved so that there is a continual buffer along the entire South Lake Shore frontage.

- c. A general comment was made that the proposed development has 2-5 more lots than what would be acceptable.
- d. Many comments were provided relating to the desire to minimize the number of potential docks on Lake Independence. It was asked if multiple docks could be installed on the Lake and whether or not any of the lakeshore properties would have common access. It was noted that the City did not regulate the number of docks, but that the intent of the current design would be to have no common access lots.

Natural Resource Preservation:

- 4. Comments were made regarding the existing vegetation and topographical features of the site and how/if they would be preserved. It was noted that the City does not have specific tree preservation requirements, but clear cutting of properties is not permitted. The City also discussed the possibility of including other measures that could preserve trees, slopes, ravines, etc. within the development.
- 5. There were comments made relating to the existing nursery trees located on the property and whether or not some could be preserved.

Sanitary Sewer:

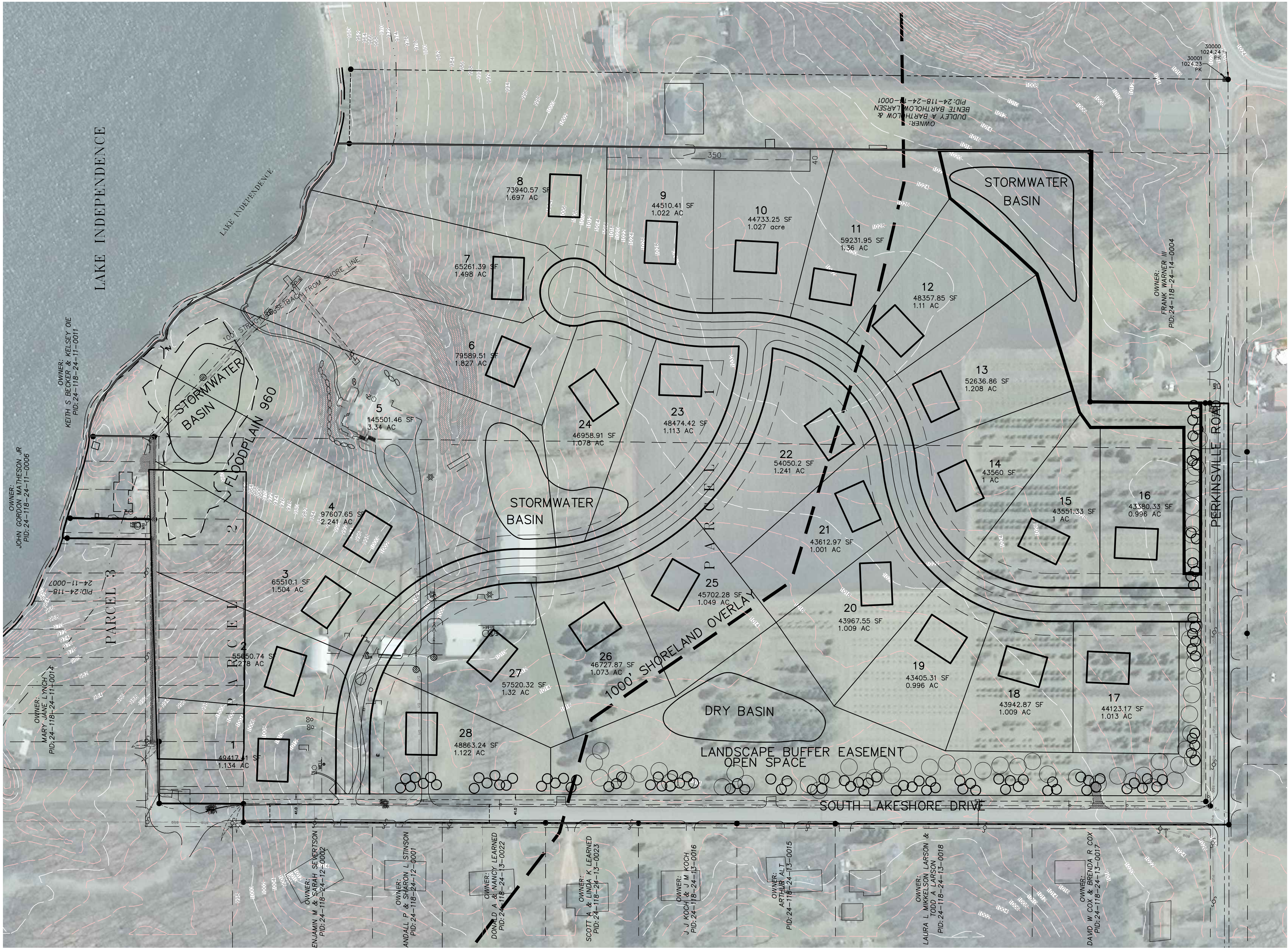
- 6. Questions were asked regarding any potential impacts or costs to the City or residents relating to additional connections being added to the sanitary sewer. It was noted that the City would likely require an update to the existing lift station located on the property to accommodate the proposed development.

Recommendation:

The applicant is seeking feedback from the City Council pertaining to the concept plan for a 28-lot development. No formal action can be taken by the City on the concept plan. There are many steps that will need to be taken for any development of this property to occur. The adoption of the 2040 Comprehensive Plan will likely not be completed until Spring of 2020.

Attachments:

- 1. Application
- 2. Concept Site Plan



SITE DATA:

GROSS AREA: ±48 ACRES

EXISTING ZONING: RURAL RESIDENTIAL
EXISTING GUIDE PLAN: RURAL RESIDENTIAL

PROPOSED ZONING: PUD
PROPOSED GUIDE PLAN: TBD

SHORELAND OVERLAY DATA:
LAKE INDEPENDENCE IS A RECREATIONAL DEV. LAKE (RD)

RD REQUIREMENTS:
LOT AREA: 1 ACRE
LOT WIDTH: 100' AT FRONT SETBACK AND LAKE FRONTAGE
STRUCTURE SETBACK FROM OHW: 100'

PROPOSED SHORELAND OVERLAY LOTS:
LOT AREA: MINIMUM 1 ACRE
LOT WIDTH: 100' AT FRONT SETBACK AND LAKE FRONTAGE
STRUCTURE SETBACK FROM OHW: 100'

PROPOSED NON SHORELAND OVERLAY LOTS:
WIDTH: 100'
AREA: 1 ACRE
FRONT SETBACK: 25'
REAR SETBACK: 25'
SIDE SETBACK: 15' CORNER, 7.5' INTERIOR

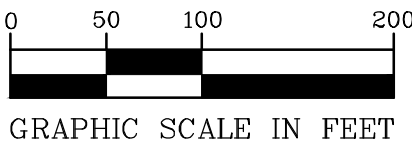
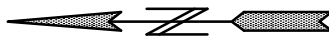
PROPOSED OPEN SPACE: ±6.95 ACRES

TOTAL LENGTH CENTERLINE: 2,625

PROPOSED LOTS: 28
EXISTING HOME: 1
LAKE LOTS (EXCLUDING EXISTING HOME): 5
REMAINING LOTS: 22

STORMWATER MANAGEMENT REQUIREMENTS

- MAINTAIN FLOW RATES FOR 2,10 AND 100 YEAR STORMS
- ABSTRACT 1.1" STORMWATER GENERATED BY NEW IMPERVIOUS SURFACE BIOFILTRATION
SOIL AMENDMENT (0.5" CREDIT OVER AMENDED AREA)
PRESERVE NATURAL AREAS (0.5"CREDIT OVER CONSERVATION AREA)
EXCESS WETLAND BUFFER (0.5" CREDIT OVER EXCESS BUFFER AREA)
- NO INCREASE IN TOTAL PHOSPHOROUS AND TOTAL SUSPENDED SOLIDS



City of Independence
Consideration to Amend City's Zoning Ordinance

<i>To:</i>	City Council
<i>From:</i>	Mark Kaltsas, City Planner
<i>Meeting Date:</i>	November 18, 2019

A proposed text amendment to the City of Independence Ordinances as follows:

- a. Chapter 5, Section 530.01, Subd. 3 Accessory Uses – Considering an amendment to the maximum height of an accessory structure. The City will discuss increasing the permitted height of detached accessory structures.

Accessory Structure Height

Staff has determined that it is possible to establish a “Review Committee” that would likely be comprised of several members of the Planning Commission and City Council to review requests for accessory structures that exceed the maximum height permitted in the zoning ordinance. Details of the “Committee” makeup will be considered and approved by Council and will likely include 2 Planning Commissioners and 1 Council Member. The intent would be that the “Committee” would meet once a month if needed. The cost of an application would be nominal and no public hearing would be conducted. The actual fee would be incorporated into the City’s fee schedule. Staff has been working with the City’s attorney to develop an ordinance for consideration by the Planning Commission and the City Council.

The proposed ordinance considers establishment of several specific criteria which must be satisfied prior to consideration by the “Committee”. If a proposal meets the criteria, the “Committee” will have the ability to review and approve an increased building height or if not approved recommend that the applicant apply for a variance. Any application that does not meet the initial criteria would have the option of applying for a variance.

Planning Commissioners have reviewed the proposed ordinance language and provided feedback and direction on several occasions. Planning Commissioners recommended approval of the ordinance with a few minor changes that have now been incorporated into the proposed ordinance. to review the proposed draft language and provide discussion and feedback at the meeting. The draft ordinance is attached for review and consideration by the City Council. Should the Council adopt the ordinance, staff will amend the fee schedule and prepare a new application that corresponds to the ordinance.

Original Discussion on Accessory Building Heights:

In 2013 the City updated the accessory structure ordinance to establish a more proportional relationship between the amount of detached accessory structure square footage allowed on a property and the size of the property. In practice, the new ordinance has worked well and there have been no variances granted relating to the size of a detached accessory structure since the amendment. One area of the ordinance that was changed at the same time was the maximum height permitted for detached accessory structures. The City has received concerns and comments from property owners relating to the maximum height permitted. The City has also granted two (2) variances relating to the maximum height of detached accessory structures. The general concern is that the maximum height permitted varies based on the height of the principal structure. If a resident has a single-level home, the maximum height of a detached accessory structure is limited to the single-level home height. This causes some issues for residents with larger properties that would like to have a larger detached accessory structure but have a single-level home.

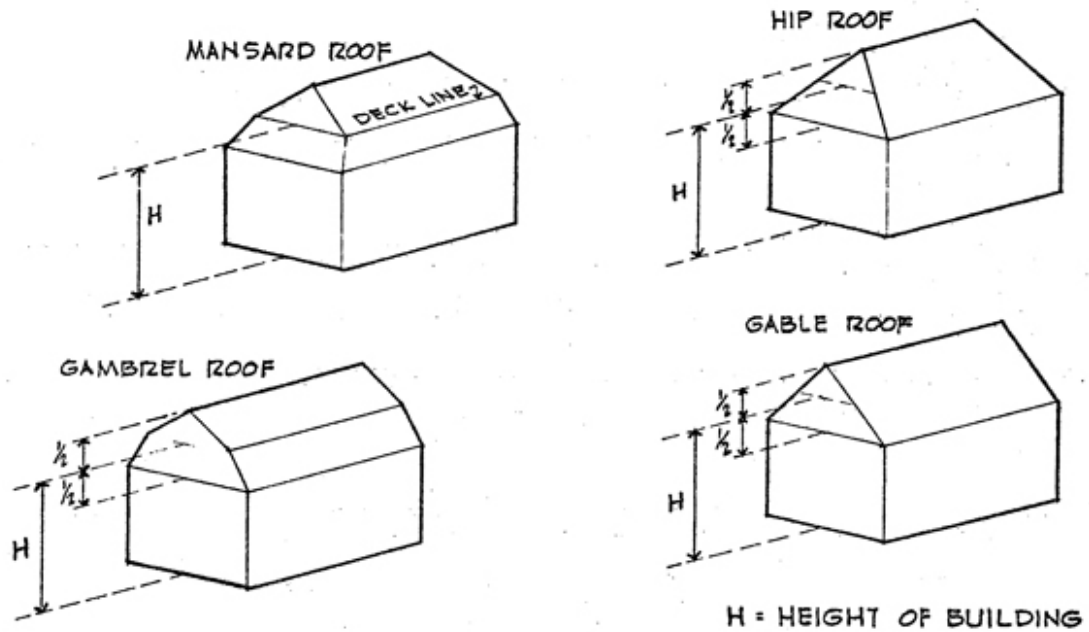
Staff has looked at the permitted heights of accessory structures from surrounding communities.

City Accessory Structure Comparison Table	
Jurisdiction	Height
Independence	height of principle structure
Winsted	1 story/16 feet
Delano	20 feet or height of principal***
Waconia	20 feet***
Minnetrista	height of principal structure
Mound	height of principal structure
Mayer	17 feet
Maple Plain	1 story/16 feet***
Victoria	24 feet/12 feet
Watertown	12 feet
* Cannot be located in front yard	
** Over 1,000 requires CUP	
*** Measured to Peak of roof	

It should be noted that not all communities allow as large of a detached accessory structure as the City of Independence. Staff would like to further discuss the maximum permitted height of detached accessory structures with the Planning Commission.

The City's current ordinance states the following:

³ The height of an accessory structure shall not exceed the height of the principle structure. The height of the principle and accessory structure shall be measured in accordance with the definition provided in this ordinance, Section 510.05, Subdivision 10.



In application of the ordinance over the past 5 years, the City has consistently had requests for detached accessory structures that have heights (measured to the midpoint of the roof) in the 20-25-foot range. Many of the single-level homes measure closer to 17-20 feet in height measured to the midpoint of the roof. This typically leaves single-level property owners with an issue when considering building a detached accessory structure.

When the City considered the height in 2013, there was a general consensus that detached accessory structures should be proportional and subordinate to the principle structure on the property. In order to help achieve the subordinate relationship, the maximum height of the detached accessory structure was limited. Due to the wide array of property size, building architecture and other factors, many of the proposed detached accessory structures do not have a significant relationship with the principle structure.

ORDINANCE NO. 2019-03

**CITY OF INDEPENDENCE
COUNTY OF HENNEPIN**

STATE OF MINNESOTA

**AMENDING SECTION 530 OF THE INDEPENDENCE CITY CODE RELATING TO
ACCESSORY USES**

**THE CITY COUNCIL OF THE CITY OF INDEPENDENCE, HENNEPIN COUNTY,
MINNESOTA, ORDAINS:**

SECTION 1. The Independence City Code, Chapter IV, Section 530 is revised to include the following:

530.01. - Agricultural District established.

Subd. 1. *Purpose.* The agricultural district is established for the purpose of promoting continued farming of agricultural lands.

Subd. 2. *Permitted uses.* The following uses are permitted in the Agricultural District:

- (a) Agriculture and horticulture;
- (b) Feedlots and poultry facilities;
- (c) Farm drainage and irrigation systems;
- (d) Forestry;
- (e) Public recreation;
- (f) Single-family dwellings

Subd. 3. *Accessory uses.* The following accessory uses are permitted in the Agricultural District:

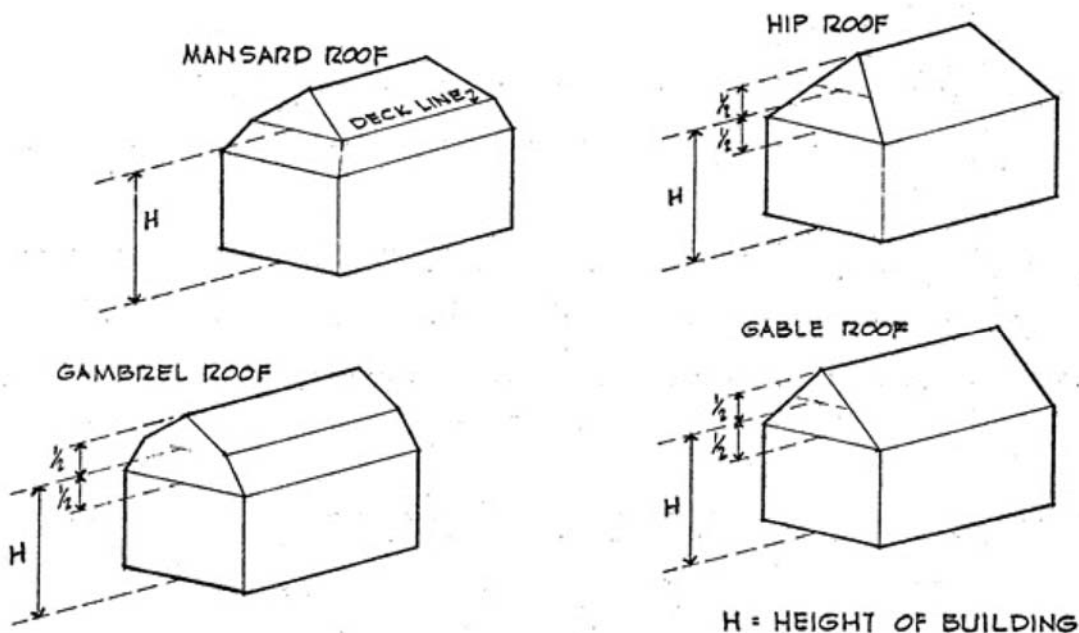
- (a) Private garages for single-family dwellings,
- (b) Home occupations operated in accordance with subsection 515.09 of this zoning code;
- (c) Fences;
- (d) Detached agricultural storage buildings, barns, or other structures, accessory to an existing single-family dwelling and subject to the following criteria:
 - 1. No accessory building or structure shall be constructed on any residential lot prior to the time of construction of the principal building to which it is accessory.
 - 2. Accessory buildings or structures of 120 square feet or less are exempt from the total square footage.
 - 3. The total square footage of all accessory structures on an individual property shall not exceed the following standards:

	Lots of record	Building Size ¹
(1)	2½ acres or less	1,850 square feet or 2% of lot area ² (whichever is greater)
(2)	Greater than two and one-half acres but less than 10 acres	2% of lot area ²
(3)	Ten or more acres	No requirement

¹ Building size shall be calculated by determining the footprint of the building.

² Percentage of lot area shall be based on the buildable land. Buildable land must be contiguous and not separated by streams, wetlands, slopes in excess of ten percent or other physical impediments. In no instance shall the total impervious surface area of any lot exceed 25 percent.

³ The height of an accessory structure shall not exceed the height of the principle structure, except as provided in footnote 4. The height of the principle and accessory structure shall be measured in accordance with the definition provided in this ordinance, section 510.05, subdivision 10.



⁴ An accessory structure may exceed the height of the principle structure if the accessory structure meets all applicable criteria of the Section and the following conditions are met:

- (1) Building plans containing any proposed accessory structure with a height exceeding that of the principle structure must be submitted to the City in advance of work to confirm compliance with this Section.
 - (2) The City Council may establish an Accessory Building Height Review Committee to review building plans submitted for any proposed accessory structure with a height exceeding that of the principle structure to ensure compliance with the following:
 - a. On properties that are 2.5 acres or less, the proposed accessory structure must be located to the rear of the principle structure.
 - b. The proposed accessory structure must be detached and separated by a minimum distance of 75 feet from the principle structure.
 - c. The proposed accessory structure must meet the principle structure setbacks from all property lines.
 - d. The applicant shall provide with the application, the written consent of 100% of the owners or occupants of privately or publicly owned real estate directly abutting the premises for which the permit is being requested (on forms provided by the City). Where a street separates the premises for which the permit is being requested from other neighboring property, no consent is required from the owners or occupants of property located on the opposite side of the street. Where an abutting property consists of a multiple dwelling, the applicant need only obtain the written consent of the owner or manager, or other person in charge of the building.
- (e) Retail sales, on a seasonal basis of agricultural and horticultural products grown on the premises by a person who occupies the premises as a principal residence, provided that the applicant apply for and receive an administrative permit from the city prior to commencing any sales of products. All applications shall meet and comply with all of the following standards:
- (1) Adequate off-street parking is provided for the number of persons reasonably anticipated to be on the site at any one time;
 - (2) The hours of operation must be limited so as not to unreasonably interfere with the character of the surrounding area and the neighboring property owners' peaceful enjoyment of their properties;
 - (3) The following signs may be permitted: one permanent on-site sign of no greater than 32 square feet in area per surface and having no greater than two surfaces, two temporary off-site signs of no greater than eight square feet in area per surface and having no greater than two surfaces and such other signs as city may reasonably determine to not interfere with public safety or the character of the surrounding area;
 - (4) Any new accessory structure constructed for the purpose of such sales and any adjacent parking area must satisfy those requirements as to setback, size, appearance and screening as the city may reasonably determine for purposes of protecting public safety and the character of the surrounding area;
 - (5) Greenhouses may not be artificially lit between the hours of 9:00 p.m. and 7:00 a.m. unless shielded so as to prevent any light from escaping in any direction;

- (6) Such requirements, including application of dust control materials and grading of roadways, as the city reasonably determine are necessary in order to minimize the impact of any increase in traffic on city roadways as a result of such sales being conducted on the premises;
 - (7) All applicable federal, state and local statutes, ordinances, codes and regulations, including, but without limitation, all applicable health and safety regulations, must be complied with.
- (f) Aeration or decorative windmills provided the following performance standards are satisfied:
- (1) Permit required. A building permit shall be required for the construction of a recreational or aeration windmill.
 - (2) Minimum lot size requirement. Lot must be 5 acres in total area or larger.
 - (3) Setback requirements. The windmill must be setback from all property lines and residential structures, ten feet plus the height of the windmill.
 - (4) Height restrictions. The maximum height of the windmill, as measured to the top of the highest point of the structure or blade) must not exceed the height of the principal structure or 35 feet, whichever is less.
 - (5) Stability. The windmill shall be installed to withstand a wind force of 90 miles per hour.
 - (6) The function of the windmill can only be used for the purpose of water aeration or decoration and not for any other on or off-site use; including the generation of electric power, either for use or sale.
 - (7) No more than one windmill shall be permitted per property.
 - (8) Windmills less than ten feet in height shall not require a permit.

Subd. 4. *Conditional uses.* The following conditional uses may be permitted in the Agricultural District, by action of the city council pursuant to subsections 520.09, 520.11 and 520.13.

- (a) Accessory dwelling units;
- (b) Riding stables;
- (c) Bunkhouses;
- (d) Farrieries;
- (e) Detached agricultural storage buildings, barns, or other accessory structures that exceed the size limitations of subdivision 3(d) of this subsection;
- (f) Kennels;
- (g) Local government buildings;
- (h) Churches;
- (i) Cemeteries;
- (j) Extraction;

- (k) Essential services;
- (l) Temporary use of a mobile home or camper as a dwelling unit during construction of a permanent dwelling for a period not to exceed six calendar months;
- (m) Wind energy conversion systems (WECS);
- (n) Commercial indoor storage in existing farm buildings, provided:
 - (1) The applicant establishes that the building has been in continuous use for agricultural purposes for at least ten years preceding the application for the conditional use permit;
 - (2) The building is located on property that is owner-occupied; and
 - (3) The applicant establishes that the structure cannot be economically used for agricultural purposes.
- (o) Guest houses and non-rental guest apartments;
- (p) Commercial golf courses;
- (q) Telecommunications towers approved pursuant to section 540 of this Code;
- (r) Forestry products processing, provided that:
 - (1) The operation of the conditional use must be on a lot that is being used as an occupied single-family dwelling;
 - (2) The lot upon which the conditional use is operated must be not less than ten acres in area;
 - (3) The area devoted to the conditional use, including buildings, parking, storage area, and all related uses may not exceed 15,000 square feet or 12 percent of the size of the lot, whichever is smaller, subject to existing accessory building standards.
- (s) Polo grounds.
- (t) Catering business, provided that:
 - (1) The business is subordinate to the principal use of the property as a residence;
 - (2) No materials, equipment or parts used in the business may be stored on the premises other than within the dwelling unit or accessory structure;
 - (3) No signs relating to the business may be visible from the exterior of the dwelling unit or accessory structure except signs that are permitted under subsection 550.09, subdivision 2 of this zoning ordinance;
 - (4) No exterior alterations may be made to the dwelling unit to accommodate the business except those alterations customarily found with the dwelling units on lots of similar size within the district;
 - (5) No traffic shall be generated by the business beyond what is reasonable and normal for the area in which it is located;

- (6) The hours and days during which the business is conducted on the premises is limited so as not to unreasonably interfere with the residential character of the surrounding areas;
- (7) No over the counter retail sales may occur on-site.
- (u) New wireless support structures for small wireless facilities.

Subd. 5. *Animal assisted therapy operation.* AAT may be permitted as a conditional use by action of the city council pursuant to subsections 520.09, 520.11 and 520.13 of the zoning ordinance, subject to the following additional conditions:

- (a) The applicant shall provide proof of insurance in an amount and with such coverage as the city attorney deems reasonable, and shall thereafter maintain such insurance.
- (b) The applicant shall provide proof of licensing or appropriate educational attainment and training in AAT for all therapists delivering services at the site. This requirement shall be continuing and the city may request such proof on a periodic basis for all therapists then delivering services.
- (c) The applicant shall provide documentation and a site plan describing the AAT program(s) to be delivered. Such documentation shall include a description of the goal-directed process and criteria for evaluating the effectiveness of the program(s).
- (d) The applicant shall identify all species of animals that will be present at the site and used in delivering AAT. No other species of animals shall be allowed with the city's approval.
- (e) For parcels of less than ten acres, the maximum density of animal units is two acres for the first animal unit and one additional acres for each additional animal unit.
- (f) Other than the delivery of AAT, no commercial or business activities may be conducted on the site except the production of agricultural products in de minimis amounts as a result of the delivery of AAT.
- (g) The city may periodically inspect the site without notice.

530.05. - Rural Residential District established.

Subd. 1. *Established.* The Rural Residential District is established for the purpose of providing for residential development affording enjoyment of the rural life style.

Subd. 2. *Permitted uses.* The following uses are permitted in the Rural Residential District:

- (a) Single-family dwellings;
- (b) Commercial agriculture;
- (c) Public recreation;
- (d) Horticulture;
- (e) Forestry.

Subd. 3. *Accessory uses.* The following accessory uses are permitted in the Rural Residential District:

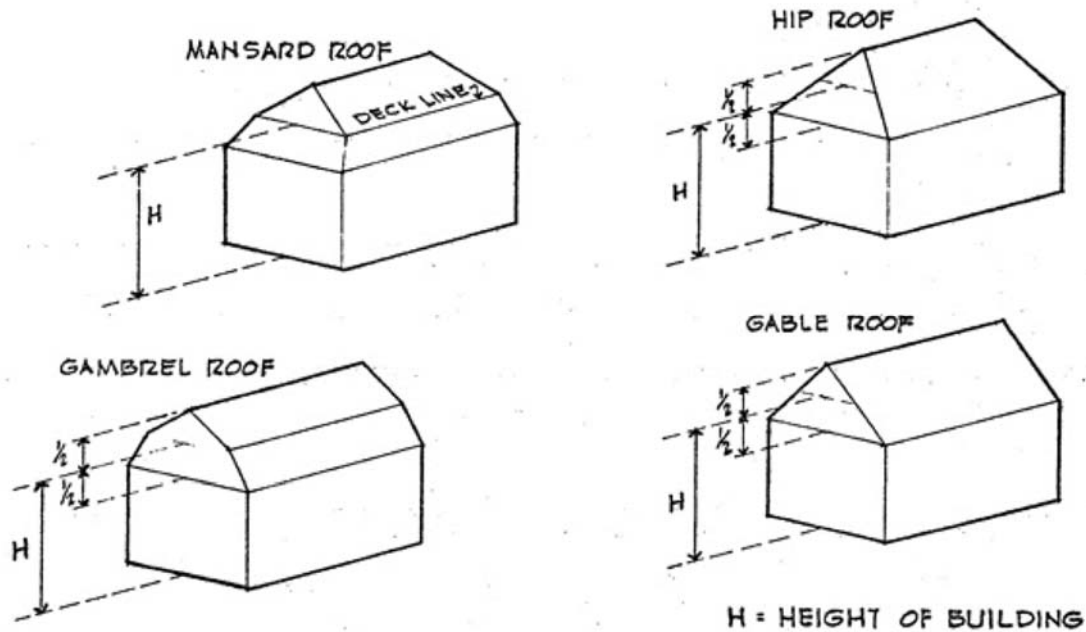
- (a) Private fences, gardening and landscaping;
- (b) Recreation equipment;
- (c) Home occupations operated in accordance with subsection 515.09 of this zoning code;
- (d) Non-commercial greenhouses;
- (e) Private garage, additional storage buildings, barns or other structures, accessory to an existing single-family dwelling and subject to the following criteria:
 - 1. No accessory building or structure shall be constructed on any residential lot prior to the time of construction of the principal building to which it is accessory.
 - 2. Accessory buildings or structures of 120 square feet or less are exempt from the total square footage.
 - 3. The total square footage of all accessory structures on an individual property shall not exceed the following standards:

	Lots of Record	Building Size ¹
(1)	2½ acres or less	1,850 square feet or 2% of lot area ² (whichever is greater)
(2)	Greater than two and one-half acres but less than 10 acres	1,850 square feet
(3)	Ten or more acres	No Requirement

¹ Building size shall be calculated by determining the footprint of the building.

² Percentage of lot area shall be based on the buildable land. Buildable land must be contiguous and not separated by streams, wetlands, slopes in excess of ten percent or other physical impediments. In no instance shall the total impervious surface area of any lot exceed 25 percent.

³ The height of an accessory structure shall not exceed the height of the principle structure, except as provided in footnote 4. The height of the principle and accessory structure shall be measured in accordance with the definition provided in this ordinance, section 510.05, subdivision 10.



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- (1) Building plans containing any proposed accessory structure with a height exceeding that of the principle structure must be submitted to the City in advance of work to confirm compliance with this Section.
- (2) The City Council may establish an Accessory Building Height Review Committee to review building plans submitted for any proposed accessory structure with a height exceeding that of the principle structure to ensure compliance with the following:
 - a. On properties that are 2.5 acres or less, the proposed accessory structure must be located to the rear of the principle structure.
 - b. The proposed accessory structure must be detached and separated by a minimum distance of 75 feet from the principle structure.
 - c. The proposed accessory structure must meet the principle structure setbacks from all property lines.

Subd. 4. *Conditional uses.* The following conditional uses may be permitted in the Rural Residential District by action of the city council pursuant to subsections 520.09, 520.11, and 520.13 of this Code:

- (a) Cluster development meeting the standards of subdivision 6 of this section;
- (b) Kennels;
- (c) Nurseries;
- (d) Commercial recreation;
- (e) Local government buildings;
- (f) Churches;

- (g) Cemeteries;
- (h) Essential services;
- (i) Temporary use of a mobile home as a dwelling unit during construction of a permanent dwelling for a period not to exceed six calendar months;
- (j) Guest houses and non-rental guest apartments;
- (k) Telecommunications towers approved pursuant to section 540 of this Code; and
- (l) New wireless support structures for small wireless facilities.

SECTION 2. This ordinance shall be in force and effect after enactment and publication as required by law.

Adopted this 18th day of November, 2019, by the Independence City Council.

Marvin Johnson, Mayor

ATTEST:

Mark Kaltsas, City Administrator

SUMMARY ORDINANCE NO. 2019-03

**CITY OF INDEPENDENCE
COUNTY OF HENNEPIN**

STATE OF MINNESOTA

**AMENDING SECTION 530 OF THE INDEPENDENCE
CITY CODE RELATING TO ACCESSORY USES**

NOTICE IS HEREBY GIVEN that on November 18, 2019, Ordinance No. 2019-03, was adopted by the City Council of the City of Independence, Minnesota.

NOTICE IS FURTHER GIVEN that, because of the lengthy nature of Ordinance No. 2019-03, the following summary of the ordinance has been prepared for publication.

NOTICE IS FURTHER GIVEN that the ordinance adopted by the City Council amends Chapter 5, Section 530 of the Independence City Code relating to accessory uses by updating standards the maximum height of an accessory structure. The ordinance more clearly defines the standards and process for determining allowable maximum accessory structure heights.

A printed copy of the entire ordinance is available for inspection by any person during the City's regular office hours at the City of Independence City Hall.

APPROVED for publication by the City Council of the City of Independence, Minnesota on this 18th day of November 2019.

CITY OF INDEPENDENCE

Marvin D. Johnson, Mayor

ATTEST:

Mark Kaltsas, City Administrator