

**City of West Liberty Public Library
Notice and Call of Public Meeting
West Liberty Public Library Board of Trustees
January 19, 2022, at 7 pm:
West Liberty Public Library Meeting Room and
Online via Zoom -- Meeting ID: 889-369-1600
Public Notice is hereby given**

To attend the meeting via Zoom:

<https://zoom.us/j/8893691600>

Meeting ID: 889-369-1600 Phone: +1 312 626 6799 US

That the above-mentioned governmental body will meet at the date, time, and place about set out. The tentative agenda for said meeting is as follows:

- I. Call to Order**
- II. Approval of Agenda**
- III. Approval of Minutes**
- IV. Public Discussion**
- V. Financial Report**
- VI. Director's Report**
- VII. Announcements from Members**
- VIII. Old Business**
 - 1. Electrical Bid**
 - 2. Railing Bid**
 - 3. V&K Timeline**
- IX. New Business**
 - 1. Appointment of Temporary Officers**
 - 2. Policy Adoption: Social Media**
 - 3. Continuing Education: Trustee Handbook Ch. 5 – Approving and Monitoring the Budget**
- X. Adjourn Meeting**

Next meeting Wednesday, February 16 at 7 pm.

West Liberty Public Library Minutes

Date, time: December 15, 2021 7:00pm

Present at meeting: Dick Brand, Aly Henderson, Father Martin, Shannon McMichael, Virginia Mieke, Larry Miller, library director Allie Paarsmith, and member of the public Carly Duytchaver.

- I) **Call to Order** by President Mieke at 7:00pm
- II) **Approval of Agenda:** Approval: Brand, Henderson 5-0
- III) **Approval of Minutes:** Approval: Brand, McMichael 5-0
- IV) **Public Discussion:** none
- V) **Financial Report:** to be put on file
- VI) **Director's Report:** The report included that All American Concrete has confirmed that they would subcontract the railing project and that youth behavior has improved.
- VII) **Announcements from Members:** none
- VIII) **Old Business:**
 - a. **Trustee Nomination:** The Board went to closed session at 7:10. Approval: McMichael, Miller 5-0. The Board returned to open session at 7:33. Approval: Brand, McMichael 5-0. There was a motion to nominate Maria Lugo: Approval: Miller, McMichael 5-0. There was a motion to nominate Vanessa Espinoza: Approval: Brand, Miller 5-0.
 - b. **Climate Engineers Contract Renewal:** motion to approve the contract: Approval: Brand, Henderson 5-0.
 - c. **D.C. Taylor Contract Renewal:** motion to approve the contract: Approval: Miller, McMichael 5-0.
 - d. **Computer Quote:** motion to approve the Dell quote: Approval: Henderson, Brand 5-0.
- IX) **New Business**
 - a. **Charitable Fund Usage:** motion to approve the purchase list: Approval: Miller, Brand 5-0.
 - b. **Meeting Room Renovation Plans and Schedule:** comments were given to director for future feedback and follow up.
- X) **Adjournment** by Miller, McMichael at 8:02pm.

West Liberty Public Library
Profit & Loss Detail
 November 2021

Type	Date	Num	Name	Memo	Paid Amount
Ordinary Income/Expense					
Income					
4400 · Intergovernmental					
4471 · Local Comm Library Allocation					
General Jo...	11/29/21	C38336	City of Atalissa	City of Atalissa	2,500.00
Total 4471 · Local Comm Library Allocation					2,500.00
Total 4400 · Intergovernmental					2,500.00
4700 · Misc					
4799 · Other Misc Revenue					
General Jo...	11/29/21	C38336		Sale of old computers	380.00
General Jo...	11/29/21	C38336		Library Revenue	112.92
General Jo...	11/29/21	C38336		Library Revenue	406.29
Total 4799 · Other Misc Revenue					899.21
Total 4700 · Misc					899.21
Total Income					3,399.21
Gross Profit					3,399.21
Expense					
6000 · Personal Services					
6010 · Wages-Full Time					
General Jo...	11/05/21	P01616		Payroll ending 10/30/2021	5,934.50
General Jo...	11/19/21	P01619		Payroll ending 11/13/2021	5,934.50
General Jo...	11/22/21	P01622		Sick leave PY 11/22/2021	3,632.98
Total 6010 · Wages-Full Time					15,501.98
6020 · Wages-Part Time					
General Jo...	11/05/21	P01616		Payroll ending 10/30/2021	640.50
General Jo...	11/19/21	P01619		Payroll ending 11/13/2021	897.10
Total 6020 · Wages-Part Time					1,537.60
6040 · Wages-Over Time					
General Jo...	11/05/21	P01616		Payroll ending 10/30/2021	2.96
General Jo...	11/19/21	P01619		Payroll ending 11/13/2021	1.48
Total 6040 · Wages-Over Time					4.44
Total 6000 · Personal Services					17,044.02
6100 · Employee Benefits					
6110 · FICA-City Contribution					
General Jo...	11/05/21	A26738		FICA W/H	399.66
General Jo...	11/05/21	A26738		Medicare W/H	93.47
General Jo...	11/19/21	A26765		FICA W/H	415.49
General Jo...	11/19/21	A26765		MEDICARE W/H	97.18
General Jo...	11/23/21	A26847		FICA W/H	225.23
General Jo...	11/23/21	A26847		MEDICARE W/H	52.59
Total 6110 · FICA-City Contribution					1,283.62
6130 · IPERS-City Contribution					
General Jo...	11/19/21	A26766		IPERS	586.93
General Jo...	11/19/21	A26766		IPERS	588.68
Total 6130 · IPERS-City Contribution					1,175.61
6140 · ICMA-City Contribution					
General Jo...	11/05/21	A26741		Deferred Comp	78.75
General Jo...	11/19/21	A26770			78.75
Total 6140 · ICMA-City Contribution					157.50

West Liberty Public Library
Profit & Loss Detail
November 2021

Type	Date	Num	Name	Memo	Paid Amount
6150 · Group Medical Insurance					
General Jo...	11/19/21	A26767		Employer life/disability	92.49
General Jo...	11/19/21	A26771		Employer health insurance	2,078.64
General Jo...	11/19/21	A26775		Employer admin	58.10
Total 6150 · Group Medical Insurance					2,229.23
Total 6100 · Employee Benefits					4,845.96
6300 · Repair, Mtnc, Utilities					
6310 · Building/Ground Maintenance					
General Jo...	11/08/21	A26696	Bosch Pest Cont...	Bosch pest control	16.20
Total 6310 · Building/Ground Maintenance					16.20
6371 · Utility Services					
General Jo...	11/04/21	A26710	MidAmerican En...	Midamerican	377.00
Total 6371 · Utility Services					377.00
Total 6300 · Repair, Mtnc, Utilities					393.20
6400 · Contractual Services					
6407 · Professional & Consortia Fees					
Bill	11/23/21	2120228	State of Iowa- Li...	Copy catalog	268.00
Total 6407 · Professional & Consortia Fees					268.00
6415 · Rentals & Leases					
Bill	11/23/21	457434868	Marco Technolo...	Contract	79.88
Bill	11/23/21	457434868	Marco Technolo...	Overage	75.16
Bill	11/23/21	457434868	Marco Technolo...	Freight	5.00
Total 6415 · Rentals & Leases					160.04
Total 6400 · Contractual Services					428.04
6500 · Commodities					
6502 · Books, Audiovisual Materials					
Bill	11/23/21	06497CP21...	Overdrive	e-books	33.97
Bill	11/23/21	06497CP21...	Overdrive	e-audiobooks	36.92
Total 6502 · Books, Audiovisual Materials					70.89
6507 · Operating Supplies					
Bill	11/30/21	AB0067750...	Adobe	Adobe Acrobat subscripti...	9.54
Total 6507 · Operating Supplies					9.54
6521 · Janitorial Supplies					
Bill	11/23/21	173338	Great Western S...	2 furniture polish	11.08
Bill	11/23/21	173338	Great Western S...	1 100 trash bags	56.70
Bill	11/23/21	173338	Great Western S...	4 Bathroom cleaner	14.76
Bill	11/23/21	173338	Great Western S...	1 case glass & hard surf...	44.76
Bill	11/23/21	173338	Great Western S...	Freight	18.00
Bill	11/23/21	173653	Great Western S...	1 case foam soap	54.57
Bill	11/23/21	173653	Great Western S...	Freight	18.00
Total 6521 · Janitorial Supplies					217.87
Total 6500 · Commodities					298.30

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01/15/22

Cash Basis

West Liberty Public Library
Profit & Loss Detail
November 2021

Type	Date	Num	Name	Memo	Paid Amount
6700 · Capital Outlay					
6728 · Capital Improvements					
Bill	11/23/21	7576	Library Furniture...	additional shelving	5,634.64
Bill	11/23/21	6421-4	V&K Inc	Submitted 11/19/21	1,205.00
Total 6728 · Capital Improvements					6,839.64
Total 6700 · Capital Outlay					6,839.64
Total Expense					29,849.16
Net Ordinary Income					-26,449.95
Net Income					-26,449.95

West Liberty Public Library
Profit & Loss Detail
 December 2021

Type	Date	Num	Name	Memo	Paid Amount
Ordinary Income/Expense					
Income					
4400 · Intergovernmental					
4470 · County Library Allocation					
General Jo...	12/14/21	C38438	Muscatine County	Muscatine County Audito...	7,750.00
Total 4470 · County Library Allocation					7,750.00
Total 4400 · Intergovernmental					7,750.00
Total Income					7,750.00
Gross Profit					7,750.00
Expense					
6000 · Personal Services					
6010 · Wages-Full Time					
General Jo...	12/07/21	P01661		Payroll ending 11/27/21	5,934.50
General Jo...	12/16/21	P01664		Payroll ending 12/11/21	5,934.50
General Jo...	12/30/21	P01667			5,934.50
Total 6010 · Wages-Full Time					17,803.50
6020 · Wages-Part Time					
General Jo...	12/07/21	P01661		Payroll ending 11/27/21	892.00
General Jo...	12/16/21	P01664		Payroll ending 12/11/21	920.00
General Jo...	12/30/21	P01667			832.00
Total 6020 · Wages-Part Time					2,644.00
6040 · Wages-Over Time					
General Jo...	12/07/21	P01661		Payroll ending 11/27/21	30.90
General Jo...	12/16/21	P01664		Payroll ending 12/11/21	24.55
Total 6040 · Wages-Over Time					55.45
Total 6000 · Personal Services					20,502.95
6100 · Employee Benefits					
6110 · FICA-City Contribution					
General Jo...	12/03/21	A26887		FICA W/H	416.99
General Jo...	12/03/21	A26887		MEDICARE W/H	97.53
General Jo...	12/17/21	A26965		FICA W/H	418.33
General Jo...	12/17/21	A26965		FICA W/H	97.82
General Jo...	12/30/21	A27059		FICA W/H	417.67
General Jo...	12/30/21	A27059		MEDICARE W/H	97.69
Total 6110 · FICA-City Contribution					1,546.03
6130 · IPERS-City Contribution					
General Jo...	12/30/21	A27060		IPERS	588.54
General Jo...	12/30/21	A27060		IPERS	600.30
General Jo...	12/30/21	A27060		IPERS	591.37
Total 6130 · IPERS-City Contribution					1,780.21
6140 · ICMA-City Contribution					
General Jo...	12/03/21	A26890			78.75
General Jo...	12/17/21	A26968			78.75
Total 6140 · ICMA-City Contribution					157.50
6150 · Group Medical Insurance					
General Jo...	12/17/21	A26966		Employer life/disability	92.49
General Jo...	12/30/21	A27063		Employer health insurance	2,078.64
General Jo...	12/30/21	A27066		Employer admin	58.10
General Jo...	12/30/21	A27066		Employer self insurance	536.96
Total 6150 · Group Medical Insurance					2,766.19
Total 6100 · Employee Benefits					6,249.93

West Liberty Public Library
Profit & Loss Detail
December 2021

Type	Date	Num	Name	Memo	Paid Amount
6300 · Repair, Mtnce, Utilities					
6310 · Building/Ground Maintenance					
General Jo...	12/10/21	A26912	Bosch Pest Cont...	Bosch pest control	16.20
Total 6310 · Building/Ground Maintenance					16.20
6350 · Equipment Repairs/Maintenance					
Bill	12/30/21	88311557	Johnson Controls	Fire extinguisher inspecti...	240.00
Total 6350 · Equipment Repairs/Maintenance					240.00
6371 · Utility Services					
General Jo...	12/10/21	A26926	MidAmerican En...	Midamerican	377.00
Total 6371 · Utility Services					377.00
Total 6300 · Repair, Mtnce, Utilities					633.20
6400 · Contractual Services					
6415 · Rentals & Leases					
Bill	12/30/21	459887303	Marco Technolo...	Submitted 12/16/21	118.65
Total 6415 · Rentals & Leases					118.65
6426 · Enrichment Programs					
Bill	12/30/21	19FC-H9Q1...	Amazon	Submitted 12/16/21	79.00
Bill	12/30/21	1JWD-KD7...	Amazon	Submitted 12/16/21	57.98
Bill	12/30/21	1LVC-4LJV...	Amazon	Mod Podge	69.81
Total 6426 · Enrichment Programs					206.79
Total 6400 · Contractual Services					325.44
6500 · Commodities					
6502 · Books, Audiovisual Materials					
Bill	12/30/21	2036330810	Baker & Taylor	3 titles for Racial Justice ...	17.97
Bill	12/30/21	2036330810	Baker & Taylor	5 titles for adult collection	66.42
Bill	12/30/21	2036330810	Baker & Taylor	Processing	19.68
Bill	12/30/21	2036330810	Baker & Taylor	4 patron requests	57.39
Bill	12/30/21	2036283897	Baker & Taylor	1 title racial justice grant	5.99
Bill	12/30/21	2036283897	Baker & Taylor	Processing	9.51
Bill	12/30/21	2036283897	Baker & Taylor	10 patron requests	120.33
Bill	12/30/21	2036274765	Baker & Taylor	Submitted 12/16/21	89.70
Bill	12/30/21	2036308042	Baker & Taylor	Submitted 12/16/21	331.05
Bill	12/30/21	2036358829	Baker & Taylor	Submitted 12/16/21	121.44
Bill	12/30/21	06497CP21...	Overdrive	Submitted 12/16/21	112.79
Bill	12/30/21	06497CP21...	Overdrive	Submitted 12/16/21	304.94
Bill	12/30/21	34446	Advantage Archi...	Microfilm 2014-2020 & di...	2,100.00
Bill	12/30/21	34448	Advantage Archi...	Newspaper Digitization	14,355.00
Bill	12/30/21	2885	Sioux City Public...	Damaged ILL Item	25.00
Total 6502 · Books, Audiovisual Materials					17,737.21
6507 · Operating Supplies					
Bill	12/30/21	1MYF-JVFJ...	Amazon	inker for cash register	6.78
Bill	12/30/21	10886	Cardinal Sign & ...	Signs for Bookmobile	40.00
General Jo...	12/30/21	A26915	Fred's Feed	Fred's Feed	40.00
Total 6507 · Operating Supplies					86.78
6521 · Janitorial Supplies					
Bill	12/30/21	13MH-639M...	Amazon	Submitted 12/16/21	139.33
Total 6521 · Janitorial Supplies					139.33
Total 6500 · Commodities					17,963.32

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01/15/22

Cash Basis

West Liberty Public Library
Profit & Loss Detail
December 2021

Type	Date	Num	Name	Memo	Paid Amount
6700 · Capital Outlay					
6728 · Capital Improvements					
Bill	12/30/21	6421-2	V&K Inc	Meeting Room	1,872.00
Bill	12/30/21	6421-5	V&K Inc	Submitted 12/16/21	764.00
Total 6728 · Capital Improvements					<hr/> 2,636.00
Total 6700 · Capital Outlay					<hr/> 2,636.00
Total Expense					<hr/> 48,310.84
Net Ordinary Income					<hr/> -40,560.84
Net Income					<hr/> <hr/> -40,560.84

West Liberty Public Library
FY to Last Month Profit & Loss
 July through December 2021

	Jul - Dec 21
Ordinary Income/Expense	
Income	
4400 · Intergovernmental	
4470 · County Library Allocation	7,750.00
4471 · Local Comm Library Allocation	2,500.00
Total 4400 · Intergovernmental	10,250.00
4700 · Misc	
4705 · Contributions - Gifts	18,510.55
4799 · Other Misc Revenue	919.21
Total 4700 · Misc	19,429.76
Total Income	29,679.76
Gross Profit	29,679.76
Expense	
6000 · Personal Services	
6010 · Wages-Full Time	91,489.37
6020 · Wages-Part Time	16,661.35
6040 · Wages-Over Time	618.61
Total 6000 · Personal Services	108,769.33
6100 · Employee Benefits	
6110 · FICA-City Contribution	8,178.11
6130 · IPERS-City Contribution	9,348.97
6140 · ICMA-City Contribution	1,113.75
6150 · Group Medical Insurance	15,940.18
Total 6100 · Employee Benefits	34,581.01
6300 · Repair, Mtnc, Utilities	
6310 · Building/Ground Maintenance	630.80
6350 · Equipment Repairs/Maintenance	9,217.17
6371 · Utility Services	6,974.61
6373 · Telephone Expense	499.77
Total 6300 · Repair, Mtnc, Utilities	17,322.35
6400 · Contractual Services	
6407 · Professional & Consortia Fees	2,874.98
6415 · Rentals & Leases	945.77
6426 · Enrichment Programs	2,074.47
Total 6400 · Contractual Services	5,895.22
6500 · Commodities	
6502 · Books, Audiovisual Materials	27,144.76
6504 · Minor Equipment	30,086.03
6507 · Operating Supplies	3,298.65
6521 · Janitorial Supplies	357.20
Total 6500 · Commodities	60,886.64
6700 · Capital Outlay	
6728 · Capital Improvements	18,232.44
Total 6700 · Capital Outlay	18,232.44
Total Expense	245,686.99
Net Ordinary Income	-216,007.23
Net Income	-216,007.23

CITY OF WEST LIBERTY
 REVENUE & EXPENSE REPORT (UNAUDITED)
 AS OF: DECEMBER 31ST, 2021

001-GENERAL FUND
 CULTURE & RECREATION
 LIBRARY

50.00% OF YEAR COMP.

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	% OF BUDGET	BUDGET BALANCE
<u>TAXES</u>					
001-4-410-4-4090 LOCAL OPTION SALES TAX	80,000.00	0.00	0.00	0.00	80,000.00
TOTAL TAXES	80,000.00	0.00	0.00	0.00	80,000.00
<u>USE OF MONEY & PROPERTY</u>					
001-4-410-4-4302 INTEREST INCOME - LIBR	500.00	0.00	0.00	0.00	500.00
TOTAL USE OF MONEY & PROPERTY	500.00	0.00	0.00	0.00	500.00
<u>INTERGOVERNMENTAL</u>					
001-4-410-2-4470 COUNTY LIBRARY ALLOCATI	14,000.00	7,750.00	7,750.00	55.36	6,250.00
001-4-410-2-4471 LOCAL COMM LIBRARY ALLO	4,000.00	0.00	2,500.00	62.50	1,500.00
001-4-410-4-4433 STATE SHARED REVENUE/EN	0.00	0.00	0.00	0.00	0.00
TOTAL INTERGOVERNMENTAL	18,000.00	7,750.00	10,250.00	56.94	7,750.00
<u>MISCELLANEOUS</u>					
001-4-410-1-4799 OTHER MISC REVENUE	70,000.00	0.00	919.21	1.31	69,080.79
001-4-410-2-4705 CONTRIBUTIONS - GIFTS/G	0.00	0.00	2,010.55	0.00	(2,010.55)
TOTAL MISCELLANEOUS	70,000.00	0.00	2,929.76	4.19	67,070.24
<u>OTHER FINANCING USES</u>					
001-4-410-4-4821 CAPITAL LOAN PROCEEDS	0.00	0.00	0.00	0.00	0.00
TOTAL OTHER FINANCING USES	0.00	0.00	0.00	0.00	0.00
TOTAL LIBRARY	168,500.00	7,750.00	13,179.76	7.82	155,320.24

001-GENERAL FUND

CULTURE & RECREATION
LIBRARY

50.00% OF YEAR COMP.

DEPARTMENTAL EXPENDITURES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	% OF BUDGET	BUDGET BALANCE
<u>PERSONAL SERVICES</u>					
001-6-410-1-6010 WAGES-FULL TIME	154,360.00	17,803.50	91,489.37	59.27	62,870.63
001-6-410-1-6020 WAGES-PART TIME	30,800.00	2,644.00	16,661.35	54.10	14,138.65
001-6-410-1-6040 WAGES-OVER TIME	500.00	55.45	618.61	123.72 (	118.61)
TOTAL PERSONAL SERVICES	185,660.00	20,502.95	108,769.33	58.59	76,890.67
<u>EMPLOYEE BENEFITS</u>					
001-6-410-1-6110 FICA-CITY CONTRIBUTION	9,975.00	1,546.03	8,178.21	81.99	1,796.79
001-6-410-1-6130 IPERS-CITY CONTRIBUTION	11,800.00	1,780.21	9,348.97	79.23	2,451.03
001-6-410-1-6140 ICMA-CITY CONTRIBUTION	7,200.00	157.50	1,113.75	15.47	6,086.25
001-6-410-1-6150 GROUP MEDICAL INSURANCE	35,000.00	2,766.19	18,555.80	53.02	16,444.20
001-6-410-1-6152 GROUP MEDICAL INSURANCE	0.00	0.00	0.00	0.00	0.00
001-6-410-1-6160 WORKER'S COMPENSATION I	1,900.00	0.00	0.00	0.00	1,900.00
001-6-410-1-6181 UNIFORMS,ALLOWANCES	50.00	0.00	0.00	0.00	50.00
TOTAL EMPLOYEE BENEFITS	65,925.00	6,249.93	37,196.73	56.42	28,728.27
<u>STAFF DEVELOPMENT</u>					
001-6-410-1-6210 DUES & MEMBERSHIP FEES	100.00	0.00	0.00	0.00	100.00
001-6-410-1-6220 SUBSCRIPTIONS, PUBL & E	3,300.00	0.00	0.00	0.00	3,300.00
001-6-410-1-6230 TRAINING	0.00	0.00	0.00	0.00	0.00
001-6-410-1-6240 CONFERENCE & TRAVEL EXP	0.00	0.00	0.00	0.00	0.00
TOTAL STAFF DEVELOPMENT	3,400.00	0.00	0.00	0.00	3,400.00
<u>REPAIR, MTNCE, UTILITIES</u>					
001-6-410-2-6310 BUILDING/GROUND MAINTEN	2,200.00	16.20	653.14	29.69	1,546.86
001-6-410-2-6350 EQUIPMENT REPAIRS/MAINT	10,000.00	240.00	9,188.22	91.88	811.78
001-6-410-2-6371 UTILITY SERVICES-ELEC,G	10,000.00	377.00	8,240.25	82.40	1,759.75
001-6-410-2-6373 TELEPHONE EXPENSE	3,000.00	0.00	749.66	24.99	2,250.34
TOTAL REPAIR, MTNCE, UTILITIES	25,200.00	633.20	18,831.27	74.73	6,368.73
<u>CONTRACTUAL SERVICES</u>					
001-6-410-2-6407 PROFESSIONAL & CONS FEE	7,000.00	0.00	2,068.00	29.54	4,932.00
001-6-410-2-6408 TORT LIABILITY INSURANC	1,900.00	0.00	0.00	0.00	1,900.00
001-6-410-2-6415 RENTALS & LEASES	1,100.00	118.65	989.68	89.97	110.32
001-6-410-2-6426 ENRICHMENT PROGRAMS	1,000.00	206.79	1,769.66	176.97 (	769.66)
001-6-410-2-6429 PROPERTY TAX EXPENSE	0.00	0.00	0.00	0.00	0.00
TOTAL CONTRACTUAL SERVICES	11,000.00	325.44	4,827.34	43.88	6,172.66
<u>COMMODITIES</u>					
001-6-410-2-6502 BOOKS, AUDIOVISUAL, MATER	15,000.00	17,737.21	26,894.13	179.29 (	11,894.13)
001-6-410-2-6504 MINOR EQUIPMENT	3,800.00	0.00	0.00	0.00	3,800.00
001-6-410-2-6507 OPERATING SUPPLIES	2,140.00	740.50	4,898.34	228.89 (	2,758.34)
001-6-410-2-6508 POSTAGE	100.00	0.00	0.00	0.00	100.00
001-6-410-2-6521 JANITORIAL SUPPLIES	0.00	139.33	357.20	0.00 (	357.20)
001-6-410-2-6599 MISCELLANEOUS EXPENSE	0.00	0.00	0.00	0.00	0.00
TOTAL COMMODITIES	21,040.00	18,617.04	32,149.67	152.80 (	11,109.67)

CITY OF WEST LIBERTY
 REVENUE & EXPENSE REPORT (UNAUDITED)
 AS OF: DECEMBER 31ST, 2021

001-GENERAL FUND
 CULTURE & RECREATION
 LIBRARY

50.00% OF YEAR COMP.

DEPARTMENTAL EXPENDITURES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	% OF BUDGET	BUDGET BALANCE
CAPITAL OUTLAY					
001-6-410-3-6726 CAPITAL EQUIP RESERVE	0.00	0.00	0.00	0.00	0.00
001-6-410-3-6727 CAPITAL EQUIPMENT	0.00	0.00	0.00	0.00	0.00
001-6-410-3-6728 CAPITAL IMPROVEMENTS	<u>63,000.00</u>	<u>2,636.00</u>	<u>13,309.64</u>	<u>21.13</u>	<u>49,690.36</u>
TOTAL CAPITAL OUTLAY	63,000.00	2,636.00	13,309.64	21.13	49,690.36
TOTAL LIBRARY	375,225.00	48,964.56	215,083.98	57.32	160,141.02

134-LIBRARY TRUST
 FINANCIAL SUMMARY

50.00% OF YEAR COMP.

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	% OF BUDGET	BUDGET BALANCE
<u>REVENUE SUMMARY</u>					
<u>CULTURE & RECREATION</u>					
LIBRARY	0.00	0.00	16,500.00	0.00 (	16,500.00)
LIBRARY BUILDING PROJECT	500.00	0.00	561.33	112.27 (	61.33)
KENNETH MOSHER TRUST	0.00	0.00	0.00	0.00	0.00
WILMA DUTTON TRUST	0.00	0.00	0.00	0.00	0.00
VIRGINIA BARCLAY TRUST	0.00	0.00	0.00	0.00	0.00
ELIASON TRUST	0.00	0.00	0.00	0.00	0.00
TOTAL CULTURE & RECREATION	500.00	0.00	17,061.33	3,412.27 (	16,561.33)
<u>ENTERPRISE</u>					
OPERATIONS-ENTERPRISE	0.00	0.00	0.00	0.00	0.00
TOTAL ENTERPRISE	0.00	0.00	0.00	0.00	0.00
TOTAL REVENUES	500.00	0.00	17,061.33	3,412.27 (	16,561.33)
=====					
<u>EXPENDITURE SUMMARY</u>					
<u>CULTURE & RECREATION</u>					
LIBRARY	0.00	0.00	36,086.59	0.00 (	36,086.59)
LIBRARY BUILDING PROJECT	0.00	0.00	0.00	0.00	0.00
KENNETH MOSHER TRUST	0.00	0.00	0.00	0.00	0.00
WILMA DUTTON TRUST	0.00	0.00	0.00	0.00	0.00
VIRGINIA BARCLAY TRUST	0.00	0.00	0.00	0.00	0.00
ELIASON TRUST	0.00	0.00	0.00	0.00	0.00
TOTAL CULTURE & RECREATION	0.00	0.00	36,086.59	0.00 (	36,086.59)
<u>ENTERPRISE</u>					
OPERATIONS-ENTERPRISE	0.00	0.00	0.00	0.00	0.00
TOTAL ENTERPRISE	0.00	0.00	0.00	0.00	0.00
<u>OTHER ACTIVITIES</u>					
TRANSFERS OUT	70,000.00	0.00	0.00	0.00	70,000.00
TOTAL OTHER ACTIVITIES	70,000.00	0.00	0.00	0.00	70,000.00
TOTAL EXPENDITURES	70,000.00	0.00	36,086.59	51.55	33,913.41
=====					
REVENUES OVER/(UNDER) EXPENDITURES	(69,500.00)	0.00 (	19,025.26)	(	50,474.74)

CITY OF WEST LIBERTY
 REVENUE & EXPENSE REPORT (UNAUDITED)
 AS OF: DECEMBER 31ST, 2021

134-LIBRARY TRUST
 CULTURE & RECREATION
 LIBRARY

50.00% OF YEAR COMP.

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	% OF BUDGET	BUDGET BALANCE
<u>MISCELLANEOUS</u>					
134-4-410-2-4705 CONTRIBUTIONS - GIFTS/G	0.00	0.00	16,500.00	0.00 (	16,500.00)
134-4-410-2-4710 RAGBRAI FUNDRAISING	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
TOTAL MISCELLANEOUS	0.00	0.00	16,500.00	0.00 (	16,500.00)
<u>OTHER FINANCING USES</u>					
134-4-410-4-4830 TRANSFERS IN	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
TOTAL OTHER FINANCING USES	0.00	0.00	0.00	0.00	0.00
TOTAL LIBRARY	0.00	0.00	16,500.00	0.00 (	16,500.00)

CITY OF WEST LIBERTY
 REVENUE & EXPENSE REPORT (UNAUDITED)
 AS OF: DECEMBER 31ST, 2021

134-LIBRARY TRUST
 CULTURE & RECREATION
 LIBRARY BUILDING PROJECT

50.00% OF YEAR COMP.

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	% OF BUDGET	BUDGET BALANCE
<u>TAXES</u>					
134-4-411-4-4090 LOCAL OPTION SALES TAX	0.00	0.00	0.00	0.00	0.00
TOTAL TAXES	0.00	0.00	0.00	0.00	0.00
<u>USE OF MONEY & PROPERTY</u>					
134-4-411-4-4300 INTEREST INCOME	500.00	0.00	536.33	107.27 (	36.33)
134-4-411-4-4302 INTEREST INCOME - LIBR	0.00	0.00	0.00	0.00	0.00
TOTAL USE OF MONEY & PROPERTY	500.00	0.00	536.33	107.27 (	36.33)
<u>MISCELLANEOUS</u>					
134-4-411-2-4705 CONTRIBUTIONS - GIFTS/G	0.00	0.00	25.00	0.00 (	25.00)
134-4-411-2-4707 CONTRIBUTIONS - BUILDIN	0.00	0.00	0.00	0.00	0.00
134-4-411-2-4710 REIMBURSEMENTS	0.00	0.00	0.00	0.00	0.00
TOTAL MISCELLANEOUS	0.00	0.00	25.00	0.00 (	25.00)
TOTAL LIBRARY BUILDING PROJECT	500.00	0.00	561.33	112.27 (	61.33)

CITY OF WEST LIBERTY
 REVENUE & EXPENSE REPORT (UNAUDITED)
 AS OF: DECEMBER 31ST, 2021

134-LIBRARY TRUST
 CULTURE & RECREATION
 KENNETH MOSHER TRUST

50.00% OF YEAR COMP.

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	% OF BUDGET	BUDGET BALANCE
<u>MISCELLANEOUS</u>					
134-4-412-2-4705 CONTRIBUTIONS - GIFTS/G	0.00	0.00	0.00	0.00	0.00
TOTAL MISCELLANEOUS	0.00	0.00	0.00	0.00	0.00
<hr/>					
TOTAL KENNETH MOSHER TRUST	0.00	0.00	0.00	0.00	0.00

CITY OF WEST LIBERTY
 REVENUE & EXPENSE REPORT (UNAUDITED)
 AS OF: DECEMBER 31ST, 2021

134-LIBRARY TRUST
 CULTURE & RECREATION
 WILMA DUTTON TRUST

50.00% OF YEAR COMP.

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	% OF BUDGET	BUDGET BALANCE
<u>MISCELLANEOUS</u>					
134-4-413-2-4705 CONTRIBUTIONS - GIFTS/G	0.00	0.00	0.00	0.00	0.00
TOTAL MISCELLANEOUS	0.00	0.00	0.00	0.00	0.00
<hr/>					
TOTAL WILMA DUTTON TRUST	0.00	0.00	0.00	0.00	0.00

CITY OF WEST LIBERTY
REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: DECEMBER 31ST, 2021

134-LIBRARY TRUST
CULTURE & RECREATION
VIRGINIA BARCLAY TRUST

50.00% OF YEAR COMP.

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	% OF BUDGET	BUDGET BALANCE
<u>MISCELLANEOUS</u>					
134-4-414-2-4705 CONTRIBUTIONS - GIFTS/G	0.00	0.00	0.00	0.00	0.00
TOTAL MISCELLANEOUS	0.00	0.00	0.00	0.00	0.00
<hr/>					
TOTAL VIRGINIA BARCLAY TRUST	0.00	0.00	0.00	0.00	0.00

CITY OF WEST LIBERTY
 REVENUE & EXPENSE REPORT (UNAUDITED)
 AS OF: DECEMBER 31ST, 2021

134-LIBRARY TRUST
 CULTURE & RECREATION
 ELIASON TRUST

50.00% OF YEAR COMP.

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	% OF BUDGET	BUDGET BALANCE
<u>MISCELLANEOUS</u>					
134-4-415-2-4705 CONTRIBUTIONS - GIFTS/G	0.00	0.00	0.00	0.00	0.00
TOTAL MISCELLANEOUS	0.00	0.00	0.00	0.00	0.00
<hr/>					
TOTAL ELIASON TRUST	0.00	0.00	0.00	0.00	0.00
<hr/>					
TOTAL CULTURE & RECREATION	500.00	0.00	17,061.33	3,412.27 (	16,561.33)

CITY OF WEST LIBERTY
 REVENUE & EXPENSE REPORT (UNAUDITED)
 AS OF: DECEMBER 31ST, 2021

134-LIBRARY TRUST
 ENTERPRISE
 OPERATIONS-ENTERPRISE

50.00% OF YEAR COMP.

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	% OF BUDGET	BUDGET BALANCE
<u>INTERGOVERNMENTAL</u>					
134-4-810-3-4405 SOLID WASTE SWAP GRANT	0.00	0.00	0.00	0.00	0.00
TOTAL INTERGOVERNMENTAL	0.00	0.00	0.00	0.00	0.00
<hr/>					
TOTAL OPERATIONS-ENTERPRISE	0.00	0.00	0.00	0.00	0.00
<hr/>					
TOTAL ENTERPRISE	0.00	0.00	0.00	0.00	0.00
<hr/>					
TOTAL REVENUES	500.00	0.00	17,061.33	3,412.27 (	16,561.33)
	=====	=====	=====	=====	=====

CITY OF WEST LIBERTY
REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: DECEMBER 31ST, 2021

134-LIBRARY TRUST
CULTURE & RECREATION
LIBRARY

50.00% OF YEAR COMP.

DEPARTMENTAL EXPENDITURES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	% OF BUDGET	BUDGET BALANCE
<u>CONTRACTUAL SERVICES</u>					
134-6-410-2-6407 PROFESSIONAL & CONS FEE	0.00	0.00	806.98	0.00 (	806.98)
134-6-410-2-6426 LIBRARY TRUST ENRICHMEN	0.00	0.00	150.14	0.00 (	150.14)
TOTAL CONTRACTUAL SERVICES	0.00	0.00	957.12	0.00 (	957.12)
<u>COMMODITIES</u>					
134-6-410-2-6502 BOOKS,AUDIOVISUAL,MATER	0.00	0.00	0.00	0.00	0.00
134-6-410-2-6504 MINOR EQUIPMENT	0.00	0.00	35,129.47	0.00 (	35,129.47)
134-6-410-2-6507 OPERATING SUPPLIES	0.00	0.00	0.00	0.00	0.00
134-6-410-2-6509 RAGBRAI EXPENSES	0.00	0.00	0.00	0.00	0.00
TOTAL COMMODITIES	0.00	0.00	35,129.47	0.00 (	35,129.47)
<u>CAPITAL OUTLAY</u>					
134-6-410-3-6728 CAPITAL IMPROVEMENTS	0.00	0.00	0.00	0.00	0.00
TOTAL CAPITAL OUTLAY	0.00	0.00	0.00	0.00	0.00
TOTAL LIBRARY	0.00	0.00	36,086.59	0.00 (	36,086.59)

CITY OF WEST LIBERTY
 REVENUE & EXPENSE REPORT (UNAUDITED)
 AS OF: DECEMBER 31ST, 2021

DEPARTMENTAL EXPENDITURES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	% OF BUDGET	BUDGET BALANCE
134-LIBRARY TRUST					
CULTURE & RECREATION					
LIBRARY BUILDING PROJECT					
50.00% OF YEAR COMP.					
<hr/>					
EXP CATG 68					
134-6-411-4-6801 BOND PRINCIPAL	0.00	0.00	0.00	0.00	0.00
134-6-411-4-6851 BOND INTEREST EXPENSE	0.00	0.00	0.00	0.00	0.00
TOTAL EXP CATG 68	0.00	0.00	0.00	0.00	0.00
<hr/>					
TOTAL LIBRARY BUILDING PROJECT	0.00	0.00	0.00	0.00	0.00

CITY OF WEST LIBERTY
 REVENUE & EXPENSE REPORT (UNAUDITED)
 AS OF: DECEMBER 31ST, 2021

DEPARTMENTAL EXPENDITURES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	50.00% OF YEAR COMP. % OF BUDGET	BUDGET BALANCE
<u>STAFF DEVELOPMENT</u>					
134-6-412-1-6240 CONFERENCE & TRAVEL EXP	0.00	0.00	0.00	0.00	0.00
TOTAL STAFF DEVELOPMENT	0.00	0.00	0.00	0.00	0.00
<u>CONTRACTUAL SERVICES</u>					
134-6-412-2-6407 PROFESSIONAL & CONS FEE	0.00	0.00	0.00	0.00	0.00
TOTAL CONTRACTUAL SERVICES	0.00	0.00	0.00	0.00	0.00
<u>COMMODITIES</u>					
134-6-412-2-6502 BOOKS,AUDIOVISUAL,MATER	0.00	0.00	0.00	0.00	0.00
134-6-412-2-6507 OPERATING SUPPLIES	0.00	0.00	0.00	0.00	0.00
TOTAL COMMODITIES	0.00	0.00	0.00	0.00	0.00
<u>CAPITAL OUTLAY</u>					
134-6-412-3-6727 CAPITAL EQUIPMENT	0.00	0.00	0.00	0.00	0.00
134-6-412-3-6728 CAPITAL IMPROVEMENTS	0.00	0.00	0.00	0.00	0.00
TOTAL CAPITAL OUTLAY	0.00	0.00	0.00	0.00	0.00
 TOTAL KENNETH MOSHER TRUST	 0.00	 0.00	 0.00	 0.00	 0.00

CITY OF WEST LIBERTY
REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: DECEMBER 31ST, 2021

134-LIBRARY TRUST
CULTURE & RECREATION
WILMA DUTTON TRUST

50.00% OF YEAR COMP.

DEPARTMENTAL EXPENDITURES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	% OF BUDGET	BUDGET BALANCE
<u>COMMODITIES</u>					
134-6-413-2-6507 OPERATING SUPPLIES	0.00	0.00	0.00	0.00	0.00
TOTAL COMMODITIES	0.00	0.00	0.00	0.00	0.00
TOTAL WILMA DUTTON TRUST	0.00	0.00	0.00	0.00	0.00

CITY OF WEST LIBERTY
 REVENUE & EXPENSE REPORT (UNAUDITED)
 AS OF: DECEMBER 31ST, 2021

134-LIBRARY TRUST
 CULTURE & RECREATION
 VIRGINIA BARCLAY TRUST

50.00% OF YEAR COMP.

DEPARTMENTAL EXPENDITURES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	% OF BUDGET	BUDGET BALANCE
<u>REPAIR, MTNCE, UTILITIES</u>					
134-6-414-2-6310 BUILDING/GROUND MAINTEN	0.00	0.00	0.00	0.00	0.00
TOTAL REPAIR, MTNCE, UTILITIES	0.00	0.00	0.00	0.00	0.00
<u>COMMODITIES</u>					
134-6-414-2-6504 MINOR EQUIPMENT	0.00	0.00	0.00	0.00	0.00
134-6-414-2-6507 OPERATING SUPPLIES	0.00	0.00	0.00	0.00	0.00
TOTAL COMMODITIES	0.00	0.00	0.00	0.00	0.00
TOTAL VIRGINIA BARCLAY TRUST	0.00	0.00	0.00	0.00	0.00

CITY OF WEST LIBERTY
 REVENUE & EXPENSE REPORT (UNAUDITED)
 AS OF: DECEMBER 31ST, 2021

134-LIBRARY TRUST
 CULTURE & RECREATION
 ELIASON TRUST

50.00% OF YEAR COMP.

DEPARTMENTAL EXPENDITURES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	% OF BUDGET	BUDGET BALANCE
<u>REPAIR, MTNCE, UTILITIES</u>					
134-6-415-2-6310 BUILDING/GROUND MAINTEN	0.00	0.00	0.00	0.00	0.00
TOTAL REPAIR, MTNCE, UTILITIES	0.00	0.00	0.00	0.00	0.00
<u>COMMODITIES</u>					
134-6-415-2-6504 MINOR EQUIPMENT	0.00	0.00	0.00	0.00	0.00
134-6-415-2-6507 OPERATING EXPENSE	0.00	0.00	0.00	0.00	0.00
TOTAL COMMODITIES	0.00	0.00	0.00	0.00	0.00
TOTAL ELIASON TRUST	0.00	0.00	0.00	0.00	0.00
TOTAL CULTURE & RECREATION	0.00	0.00	36,086.59	0.00 (	36,086.59)

CITY OF WEST LIBERTY
REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: DECEMBER 31ST, 2021

134-LIBRARY TRUST
ENTERPRISE
OPERATIONS-ENTERPRISE

50.00% OF YEAR COMP.

DEPARTMENTAL EXPENDITURES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	% OF BUDGET	BUDGET BALANCE
<hr/>					
<u>CAPITAL OUTLAY</u>					
134-6-810-3-6750	0.00	0.00	0.00	0.00	0.00
TOTAL CAPITAL OUTLAY	0.00	0.00	0.00	0.00	0.00
<hr/>					
TOTAL OPERATIONS-ENTERPRISE	0.00	0.00	0.00	0.00	0.00
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TOTAL ENTERPRISE	0.00	0.00	0.00	0.00	0.00

CITY OF WEST LIBERTY
 REVENUE & EXPENSE REPORT (UNAUDITED)
 AS OF: DECEMBER 31ST, 2021

134-LIBRARY TRUST
 OTHER ACTIVITIES
 TRANSFERS OUT

50.00% OF YEAR COMP.

DEPARTMENTAL EXPENDITURES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	% OF BUDGET	BUDGET BALANCE
<u>TRANSFERS</u>					
134-6-910-5-6910 TRANSFERS OUT - INTERFU	70,000.00	0.00	0.00	0.00	70,000.00
TOTAL TRANSFERS	70,000.00	0.00	0.00	0.00	70,000.00
<hr/>					
TOTAL TRANSFERS OUT	70,000.00	0.00	0.00	0.00	70,000.00
<hr/>					
TOTAL OTHER ACTIVITIES	70,000.00	0.00	0.00	0.00	70,000.00
TOTAL EXPENDITURES	70,000.00	0.00	36,086.59	51.55	33,913.41
<hr/>					
REVENUES OVER/(UNDER) EXPENDITURES	(69,500.00)	0.00	(19,025.26)		(50,474.74)

West Liberty Public Library
Unpaid Bills Detail
 All Transactions

Type	Date	Num	Memo	Due Date	Aging	Open Balance
Amazon						
Bill	12/28/21	1RGV-RD4...		01/27/22		33.58
Bill	01/04/22	17HW-VVL...		02/03/22		16.75
Total Amazon						50.33
American Library Association						
Bill	01/12/22	2263154		03/31/22		175.00
Total American Library Association						175.00
Baker & Taylor						
Bill	12/27/21	2036411712		01/26/22		1,678.16
Bill	12/28/21	2036412606		01/27/22		524.97
Bill	12/29/21	2036425689		01/28/22		175.38
Bill	12/30/21	2036429718		01/29/22		1,087.40
Bill	01/04/22	2036378385		02/03/22		78.47
Bill	01/06/22	2036442798		02/05/22		241.11
Bill	01/12/22	2036459975		02/11/22		240.74
Bill	01/13/22	2036464356		02/12/22		208.64
Total Baker & Taylor						4,234.87
Dan's Doors						
Bill P...	09/13/21	A26383	Submitted by 7/15/...			-142.18
Total Dan's Doors						-142.18
Dell						
Bill	12/31/21	10548889429		01/30/22		2,720.02
Total Dell						2,720.02
Iowa Division of Labor and Stats						
Bill	10/31/21	180722		11/15/21	61	120.00
Total Iowa Division of Labor and Stats						120.00
Office Express						
Bill	11/01/21	197404-0		12/01/21	45	40.58
Total Office Express						40.58
Overdrive						
Bill	12/31/20	06497CP21...		12/31/20	380	321.01
Total Overdrive						321.01
TOTAL						7,519.63

Proposed Budget FY23

Account Number	Account Name	Amount	Notes
6-410-1-6010	WAGES-FULL TIME	\$ 160,937.53	
6-410-1-6020	WAGES-PART TIME	\$ 31,969.60	
6-410-1-6040	WAGES-OVER TIME	\$ 500.00	
6-410-1-6110	FICA-CITY CONTRIBUTION	\$ 11,960.24	\$ 72,877.79
6-410-1-6130	IPERS-CITY CONTRIBUTION	\$ 16,817.55	
6-410-1-6140	ICMA-CITY CONTRIBUTION	\$ 7,200.00	Left number same. Not sure what the actual is
6-410-1-6150	GROUP MEDICAL INSURANCE-HEALTH	\$ 35,000.00	Left number same. Not sure what the actual is
6-410-1-6152	GROUP MEDICAL INSURANCE-LIFE/D	\$ -	
6-410-1-6160	WORKER'S COMPENSATION INSURANCE	\$ 1,900.00	Left number same. Not sure what the actual is
6-410-1-6181	UNIFORMS	\$ -	
6-410-1-6210	DUES & MEMBERSHIP FEES	\$ 388.00	ARSL 2 + ALA 100 + ILA 3 staff
6-410-1-6220	SUBSCRIPTIONS	\$ 343.28	Library Journal, Compact Copyright, Book Repair Second Edition, Arranging & Describing Archives and manuscripts
6-410-1-6230	TRAINING	\$ -	
6-410-1-6240	CONFERENCE & TRAVEL EXPENSES	\$ 65.00	ILA \$65x1
6-410-2-6310	BUILDING/GROUND MAINTENANCE	\$ 3,000.00	
6-410-2-6350	EQUIPMENT REPAIRS/MAINTENANCE	\$ 10,000.00	
6-410-2-6371	UTILITY SERVICES-ELEC	\$ 5,000.00	If city covers utilities provided by city
6-410-2-6373	TELEPHONE EXPENSE	\$ 3,000.00	
6-410-2-6407	PROF. & CONS FEES	\$ 7,700.00	6000 (antelope) 1200 Marcive, 500 padding
6-410-2-6408	TORT LIABILITY INSURANCE	\$ 1,900.00	Left number same. Not sure what the actual is
6-410-2-6415	RENTALS & LEASES	\$ 1,200.00	
6-410-2-6426	ENRICHMENT PROGRAMS	\$ 5,600.00	Children's: kits, Wednesday programs, family programs qrtly, storytime supplies, SRP kids, wkly programs for kids and for teens; Adult
6-410-2-6429	PROPERTY TAX EXPENSE	\$ -	
6-410-2-6502	BOOKS-AUDIO	\$ 18,000.00	aproximately 5% of budget
6-410-2-6504	MINOR EQUIPMENT	\$ -	
6-410-2-6507	OPERATING SUPPLIES	\$ 8,000.00	
6-410-2-6508	POSTAGE	\$ 250.00	
6-410-2-6521	JANITORIAL SUPPLIES	\$ 1,500.00	
6-410-2-6599	MISCELLANEOUS EXPENSE	\$ -	
6-410-3-6726	CAPITAL EQUIP RESERVE	\$ 3,000.00	
6-410-3-6728	CAPITAL IMPROVEMENTS	\$ 27,000.00	
Total		\$ 362,231.20	

Taxes	696,590.00
Library %	22%
Taxes to Library	153,249.80

Library Revenue:

Employee Benefits - Taxes	78,100.00	
Tort Liability Taxes	1,900.00	
State/County/Local/Misc	24,764.00	
		Split between Parks and Library 165,000/2
Local Option Sales Tax	80,000.00	
20% General Fund	127,602.00	
Transfer In Library Reserve	50,000.00	
Total Revenue	362,366.00	

Library Expenses:

Budgeted	<u>362,231.20</u>
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Expenses (Over)/Under Revenue	\$134.80
Debt Levy Library Bond	\$101,092.50
Bond Fees	\$500.00

Library Director's Report

January 2020

Agenda:

Today we will be reviewing electrical bids for converting the exterior lights to LED, a bid for the west exterior stair railing and reviewing the timeline for the meeting room. We will also be discussing the appointment of temporary officers, adopting a social media policy, and learning about the Board's role in the budget process.

Board of Trustees

Please welcome our new Trustees: Vanessa Espinoza and Maria Lugo. As of writing this report, I am still working on recruiting a man to fill Father Martin's vacancy. We will have applicants for the February meeting, or we will return to the two women interested in joining.

Building and Technology:

We have bids from Kessler and Roth to review for the exterior LED conversion. As of writing this report, I have not heard from Ken Wright and I believe the railing project will need to wait for the spring thaw.

A reminder that my due date is April 30, so I will be focusing on existing projects and putting any other projects we had scheduled on hold until after my parental leave.

New computers have been installed and are working smoothly.

Staff and Volunteers:

The collaboration between WLPL, the U of I School of Library and Information Science, and the U of I School of Social Work is moving forward. I have submitted a letter of collaboration for a PhD student to work on assessing the needs of our community and library. This process will occur during Summer and Fall, with the understanding that this cannot interfere with our Summer Reading Program or take time away from staffing the library during my absence.

Speaking of my absence, I am dealing with some health complications compounding with my pregnancy. It is a stressful time, and I would appreciate patience and goodwill as I near my due date. I will likely be taking some time to work from home as well as taking time off as needed. The rest of my pregnancy, I will be focusing on wrapping up existing projects, establishing procedures, and other tasks to make my leave as easy as possible for my staff and for our patrons. Please check in and continue to communicate with me, and follow-up with a call or email if you feel I am neglecting anything.

Collections and Materials:

Due to a miscommunication, we have an abundance of materials to catalog and process. This is very exciting for our patrons, but will put a strain on staff. As a result, we have established some written procedures for acquisitions that have been reviewed with those who are ordering library materials and ordering procedures will be reviewed with all purchasing staff.

Finances:

We received a \$5,000 grant from Proctor & Gamble. The grant was titled [INSERT TITLE HERE] and was partially funded. Staff will be focusing on spending this money before the end of April.

Programming and Outreach:

Programming and attendance is steady. Ali is continuing our Pageturners Book Club Our D&D group has resumed their weekly meetings

Library Materials Added and Withdrawn

Added	Jul-21	Jul-20	Aug-21	Aug-20	Sep-21	Sep-20	Oct-21	Oct-20	Nov-21	Nov-20	Dec-21	Dec-20	Jan-22	Jan-21	Feb-22	Feb-21	Mar-22	Mar-21	Apr-22	Apr-21	May-22	May-21	Jun-22	Jun-21
Books	204	26	13	96	81	141	21	109	65	271	322	149	251	105		41		257		118		54		216
Audio	0	0	0	23	0	0	0	0	0	0	1	0	1	0		0		0		2		4		0
Video	2	0	3	1	1	0	0	0	1	15	2	0	0	1		6		54		4		57		78
Other	0	0	1	0	0	4	0	0	0	23	5	1	1	0		1		2		0		3		8
Total	206	26	17	120	82	145	21	109	66	309	330	150	253	106	0	48	0	313	0	124	0	118	0	302
Running	206	26	223	146	305	291	326	400	392	709	722	859	975	965	975	1013	975	1326	975	1450	975	1568	975	1870
Withdrawn	Jul-21	Jul-20	Aug-21	Aug-20	Sep-21	Sep-20	Oct-21	Oct-20	Nov-21	Nov-20	Dec-21	Dec-20	Jan-22	Jan-21	Feb-22	Feb-21	Mar-22	Mar-21	Apr-22	Apr-21	May-22	May-21	Jun-22	Jun-21
Books	5	0	99	9	17	432	403	1	196	16		460		1		2		8		1		5		18
Audio	0	0	0	81	0	5	1	0	0	0		3		0		0		0		0		0		0
Video	0	0	0	0	0	16	1	0	0	0		9		0		0		0		0		0		0
Other	0	0	0	0	0	0	0	0	0	0		24		48		0		0		0		0		0
Total	5	0	99	90	17	453	405	1	196	16	0	496	0	49	0	2	0	8	0	1	0	5	0	18
Running	5	0	104	90	121	543	526	544	722	560	722	1056	722	1105	722	1107	722	1115	722	1116	722	1121	722	1139

Circulation by Collection

Circ by Collection	Jul-21	Jul-20	Aug-21	Aug-20	Sep-21	Sep-20	Oct-21	Oct-20	Nov-21	Nov-20	Dec-21	Dec-20
Adult Books	335	N/A	332	N/A	306	N/A	213	N/A	194	N/A	193	N/A
YA Books	62	N/A	74	N/A	24	N/A	24	N/A	40	N/A	25	N/A
Children's Books	500	N/A	400	N/A	489	N/A	671	N/A	501	N/A	453	N/A
Video	8	N/A	12	N/A	52	N/A	63	N/A	53	N/A	69	N/A
Children's Video	2	N/A	15	N/A	10	N/A	30	N/A	17	N/A	23	N/A
Audio	0	N/A	1	N/A	1	N/A	3	N/A	2	N/A	2	N/A
Children's Audio	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Serials	0	0	0	0	1	0	0	1	0	N/A	0	N/A
Computer	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	25	N/A	25	N/A
Others	328	N/A	514	N/A	282	N/A	254	N/A	185	N/A	102	N/A
Children's Others	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
ILL	?	17	14	27	19	46	45	22	25	N/A	20	N/A
Total	1235	508	1362	388	1184	499	1303	494	1042	355	912	496

Circulation by Patron Location

Circ by Patron Location	Jul-21	Jul-20	Aug-21	Aug-20	Sep-21	Sep-20	Oct-21	Oct-20	Nov-21	Nov-20	Dec-21	Dec-20
Atalissa	8	1	9	1	7	0	27	3	28	0	9	0
Rural Muscatine County	213	189	232	115	199	158	280	144	215	151	202	164
Nichols	8	2	2	0	15	11	12	10	11	8	0	4
Open Access	16	9	51	4	59		80	14	55	10	36	10
West Liberty	990	307	1065	268	904	330	904	323	733	186	665	318
Total	1235	508	1359	388	1184	499	1303	494	1042	355	912	496

New Patrons	Jul-21	Jul-20	Aug-21	Aug-20	Sep-21	Sep-20	Oct-21	Oct-20	Nov-21	Nov-20	Dec-21	Dec-20
Atalissa	0	0	0	0	3		2		3		0	
Rural Muscatine County	4	7	0	1		2	1	1	1		0	
Nichols	0	0	0	0		3	2		1			
Open Access	1	0	1	0	4		3	1	4	2		
West Liberty	7	2	11	1	7	4	8	3	7	5	3	2
Total	12	9	12	2	14	9	16	5	16	7	3	2

Programming Stats	Program Type			
Month	Children's	Young Adult	Adult/Family	Grand Total
July	108	141		249
August	71			71
September	140	24	25	189
October	139	38	83	260
November	65		6	71
December	8		15	23
Grand Total	531	203	129	863

Estimate



Date	Estimate #
11/15/2021	532

Name / Address

West Liberty Library

Project
Outside Lights

Item	Qty	Description	U/M	Rate	Total
Labor Rate 75hr	8	Estimated labor to convert outdoor fixtures to led.	hr	75.00	600.00
16 ELECTRICAL	8	LED lamps		70.74	565.92
Labor Rate 75hr	6	Estimated labor to replace 3 emergency lights upstairs and 3 emergency lights downstairs.	hr	75.00	450.00
16 ELECTRICAL	6	Emergency lights		62.75	376.50
Labor Rate 75hr	2	Replace lamps in vestibule	hr	75.00	150.00
16 ELECTRICAL	2	Replacement lamps		42.60	85.20
16 ELECTRICAL	1	Miscellaneous materials		100.00	100.00
BUCKET TRUCK SERVICES	4		hr	90.00	360.00
		Emailed 11-16-21			
This estimate is only good for 30 days.			Total	\$2,687.62	

KESSLER ELECTRIC
 501 E. 3RD ST.
 WEST LIBERTY IA 52776
 Phone: 319-627-4319 Fax: 319-627-4081

PROPOSAL

PROPOSAL #	1871	PAGE	1
DATE	01/07/2022		
DESC	LED LIGHTING		
LOC	400 N SPENCER ST. WEST LIBERTY IA 52776		
CONTACT	ALLISON PARSMITH		
PHONE	319-627-2084		

CUSTOMER
WEST LIBERTY LIBRARY 400 N SPENCER ST. WEST LIBERTY IA 52776

RETRO-FIT LED LIGHTING INCLUDES:	
1 20W LED RETROFIT LIGHTING FOR FOUR RECESSED LIGHTS AND ONE HANGING FIXTURE IN ENTRY	2,560.00
2 36W LED RETROFIT LIGHTS FOR PARKING LOT POLES	1,220.00

We Propose hereby to furnish material and labor - complete in accordance with these specifications for the sum of: **\$3,780.00**
 Three Thousand Seven Hundred Eighty Dollars And 00 Cents

Payable as follows:

Authorized Signature: *Mike Kessler* **Date:** *1/7/2022*

Note: This Proposal may be withdrawn by us if not accepted within 30 Days

All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays are beyond our control. Owner to carry fire, tornado, and other necessary insurance. Our workers are fully covered by Workman's Compensation Insurance.

ACCEPTANCE OF PROPOSAL - The Prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Signature: **Date:**



VEENSTRA & KIMM INC.

1800 5th Avenue
Rock Island, Illinois 61201

309.786.7590 // 877.241.8010
www.v-k.net

**PROPOSED SCHEDULE
FOR**

**WEST LIBERTY PUBLIC LIBRARY
BUILDING IMPROVEMENTS 2021
WEST LIBERTY, IOWA**

January 19, 2022	Library Approve Plans and Specifications, Set Public Hearing
January 24, 2022	Post Notice to Bidders and Post Public Hearing to Paper
February 1, 2022	Public Hearing on Plans and Specifications (>4<21)
February 10, 2022	Prebid Meeting (2:00 pm) at Library
February 22, 2022	Receive Bids for Project (>13<45) (2:00 pm)
March 1, 2022	City Council Review of Library Recommendation to Award Contract
March 2022	Notice to Proceed
June 30, 2022	Final Completion Date

SPECIFICATIONS

FOR

PUBLIC LIBRARY BUILDING IMPROVEMENTS 2021

WEST LIBERTY, IOWA



SPECIFICATIONS
FOR
PUBLIC LIBRARY BUILDING IMPROVEMENTS 2021
WEST LIBERTY, IOWA

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Architect under the laws of the State of Iowa.

Signed:

Date:

Tara M. Goldsberry, AIA
Iowa License No. 07307
My license renewal date is June 30, 2022



Divisions covered by this seal:

1, 2, 6, 7, 8, 9 and 11

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa

Signed:

Date:

Jacob D. Lucas, P.E.
Iowa License No. 23240
My license renewal date is December 31, 2022



Divisions covered by this seal:

15 and 16

Prepared by
VEENSTRA & KIMM, INC.
Rock Island
Illinois

INDEX

PUBLIC LIBRARY BUILDING IMPROVEMENTS 2021
WEST LIBERTY, IOWA

<u>TITLE</u>	<u>PAGE</u>
NOTICE OF PUBLIC HEARING AND BID LETTING	NH-1
OFFICIAL NOTICE TO BIDDERS	NB-1
INSTRUCTIONS TO BIDDERS	IB-1
PROPOSAL	P-1
BIDDER STATUS FORM	
BID BOND	BB-1
CONTRACT	C-1
PERFORMANCE, PAYMENT AND MAINTENANCE BOND	PPM-1
GENERAL CONDITIONS	GC-1
SPECIAL CONDITIONS	SC-1
PLANS LIST	PL-1
DETAILED SPECIFICATIONS	

DIVISION 1 - GENERAL REQUIREMENTS

01010	GENERAL PROVISIONS	01010-1
01040	SPECIAL CONSTRUCTION	01040-1
01150	MEASUREMENT AND PAYMENT	01150-1
01300	SUBMITTALS	01300-1
01310	CONSTRUCTION PROGRESS SCHEDULES	01310-1
01500	TEMPORARY CONSTRUCTION FACILITIES AND UTILITIES	01500-1
01600	MATERIAL AND EQUIPMENT	01600-1
01720	PROJECT RECORD DOCUMENTS	01720-1

DIVISION 2 – EXISTING CONDITIONS

02050	DEMOLITION	02050-1
-------	------------	---------

DIVISION 6 – WOOD, PLASTICS AND COMPOSITES

06100	ROUGH CARPENTRY	06100-1
06200	FINISH CARPENTRY	06200-1

DIVISION 7 – THERMAL AND MOISTURE PROTECTION

07900	JOINT SEALERS	07900-1
-------	---------------	---------

DIVISION 8 - OPENINGS

08110	STEEL DOORS AND FRAMES	08110-1
08210	FLUSH WOOD DOORS	08210-1
08710	DOOR HARDWARE	08710-1
08800	GLAZING	08800-1

DIVISION 9 - FINISHES

09250	GYPSUM BOARD	09250-1
09300	TILE	09300-1
09652	LUXURY VINYL TILE	09652-1
09655	RESILIENT BASE	09655-2
09900	PAINTING	09900-1

DIVISION 11-EQUIPMENT

11460	KITCHEN CABINETS & COUNTERTOPS	11460-1
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DIVISION 15 - MECHANICAL

15010	MECHANICAL GENERAL PROVISIONS	15010-1
15050	BASIC MATERIALS AND METHODS	15050-1
15250	INSULATION	15250-1
15400	PLUMBING	15400-1

DIVISION 16 - ELECTRICAL

16050	ELECTRICAL REQUIREMENTS	16050-1
16070	HANGERS AND SUPPORTS	16070-1
16110	ELECTRICAL RACEWAY SYSTEMS	16110-1
16120	WIRES AND CABLES	16120-1
16140	WIRING DEVICES	16140-1
16450	GROUNDING	16450-1
16500	LIGHTING	16500-1

NOTICE OF PUBLIC HEARING AND BID LETTING

NOTICE OF PUBLIC HEARING ON PROPOSED PLANS AND SPECIFICATIONS, AND PROPOSED FORM OF CONTRACT FOR THE "PUBLIC LIBRARY BUILDING IMPROVEMENTS 2021" PROJECT FOR THE CITY OF WEST LIBERTY, IOWA, AND CALLING FOR THE TAKING OF BIDS FOR SUCH CONSTRUCTION.

Notice is hereby given that at 7:30 p.m. Central Time on Tuesday, February 1, 2022, in the West Liberty City Hall, 409 N. Calhoun Street, there will be a public hearing on the proposed plans, specifications, form of contract, and estimate of cost of the "Public Library Building Improvements 2021" project. Any persons interested may appear and file objections to the proposed plans, specifications, form of contract, or cost of such improvement. Proposed drawings, specifications, and form of contract may be examined at City Hall.

A non-mandatory pre-bid meeting will be held on February 10, 2022 at 2:00 PM local time in the West Liberty Public Library, 400 N. Spencer Street, West Liberty, Iowa.

Sealed bids will be received by the City at the Public Library, 400 N. Spencer Street, West Liberty, Iowa until 2:00 PM local time on Tuesday, February 22, 2022, at which time and place they will be opened and publicly read or at such later time and place as may then be fixed.

Bids will be considered by the City at a public meeting to be held at City Hall at 7:30 p.m. local time on Tuesday, March 1, 2022, or at such later time and place as may then be fixed. The proposed construction shall generally consist of the following work:

1. Base Bid No. 1: Public Library Building Improvements 2021, including:

Construct interior building renovations including all materials, labor, and equipment for demolition, walls, floorings, ceilings, doors, windows, ductwork, electrical, painting, and other miscellaneous associated work including cleanup and disposal. Renovations include updating finishes in Kitchenette and adding a passthrough window; creating new storage spaces in Multi-Use Room; updates in Storage Room include removing demising wall, adding new concrete ramp, door and wall opening into Storytime/Gaming Room; updating wall finishes in Storytime/Gaming Room.

Bidding documents may be examined at Veenstra & Kimm, Inc. 1800 5th Avenue, Rock Island, Illinois and at City Hall, 409 N. Calhoun Street, West Liberty, Iowa.

Complete project bidding documents can be requested from Veenstra & Kimm, Inc. 3000 Westown Parkway, West Des Moines, Iowa 50266, 515-225-8000. Digital copies of bidding documents are available.

Each Bidder shall accompany the Bid with a Bid security, in a separate envelope, as security that the successful bidder will enter into a contract for the work bid upon. The bidder's security shall be in an amount equivalent to five percent (5%) and shall be in the form of a cashier's or certified check drawn on a bank in Iowa or a bank chartered under the laws of the United States of America, or a certified bank share draft drawn on a credit union in Iowa or chartered under the laws of the United States of America or a bid bond with corporate surety satisfactory to the City. The successful bidder will furnish after the award of the contract a corporate surety bond or bonds, acceptable to the City, for the faithful performance of the contract, in an amount equivalent to one hundred percent (100%) of the amount of the contract.

Pursuant to Iowa Code Sections: 422.42 (15) & (16), and 422.47 (5), tax exempt certificates and authorization letters will be issued to the successful bidder and subcontractors thereby exempting the successful bidder and subcontractors from having to pay sales tax on this project. Sales tax shall not be added to any bid submitted.

By virtue of statutory authority, a preference will be given to products and provisions grown and coal produced within the State of Iowa, and to Iowa labor to the extent lawfully required under Iowa law.

Iowa law provides that on public improvements a resident bidder shall be allowed preference against a nonresident bidder from a state or foreign country which gives or requires a preference to bidders from that state or foreign country. The preference so allowed shall be equivalent to the preference given or required by the state or foreign country in which the nonresident bidder is a resident.

It is the intent of the City to award the contract to the lowest responsible, responsive bidder provided the bid has been submitted in accordance with the bidding requirements. The City reserves the right to waive informalities or irregularities. The City reserves the right to accept or reject any or all bids.

No Bid shall be withdrawn for a period of 60 days after the scheduled opening of the bids without the consent of Owner. Published upon order of the City Council of West Liberty, Iowa.

David Haugland
City Manager

OFFICIAL NOTICE TO BIDDERS

NOTICE OF PUBLIC HEARING ON PROPOSED PLANS AND SPECIFICATIONS, AND PROPOSED FORM OF CONTRACT FOR THE "PUBLIC LIBRARY BUILDING IMPROVEMENTS 2021" PROJECT FOR THE CITY OF WEST LIBERTY, IOWA, AND CALLING FOR THE TAKING OF BIDS FOR SUCH CONSTRUCTION.

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Bidding documents may be examined at Veenstra & Kimm, Inc. 1800 5th Avenue, Rock Island, Illinois, and at West Liberty City Hall, 409 N. Calhoun Street, West Liberty, Iowa.

Copies of the Bidding documents may be obtained by Bidders and Sub-bidders at VEENSTRA & KIMM, INC. 3000 Westown Parkway, West Des Moines, Iowa 50266, 515-225-8000, in accordance with the Instructions to Bidders. Electronic plans and specifications may be emailed to the contractor. Arrangements for emailing plans will be through VEENSTRA & KIMM, INC.

Each Bidder shall accompany the Bid with a Bid security, in a separate envelope, as security that the successful bidder will enter into a contract for the work bid upon. The bidder's security shall be in an amount equivalent to five percent (5%) and shall be in the form of a cashier's or certified check drawn on a bank in Iowa or a bank chartered under the laws of the United States of America, or a certified bank share draft drawn on a credit union in Iowa or chartered under the laws of the United States of America or a bid bond with corporate surety satisfactory to the City. The successful bidder will furnish after the award of the contract a corporate surety bond or bonds, acceptable to the City, for the faithful performance of the contract, in an amount equivalent to one hundred percent (100%) of the amount of the contract.

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Published upon order of the Council of West Liberty, Iowa.

David Haugland
City Manager

INSTRUCTIONS TO BIDDERS

PUBLIC LIBRARY BUILDING IMPROVEMENTS 2021 WEST LIBERTY, IOWA

INDEX

- | | |
|------------------------------|--|
| 1. DEFINITION OF TERMS | 10. CONTRACT TERMINATION |
| 2. CONTRACT DOCUMENTS | 11. TAXES |
| 3. METHOD OF BIDDING | 12. PREFERENCE FOR LABOR AND MATERIALS |
| 4. QUALIFICATIONS OF BIDDERS | 13. IOWA RECIPROCAL PREFERENCE |
| 5. SUBMISSION OF BIDS | 14. PAYMENT |
| 6. WITHDRAWAL OF BIDS | 15. APPROVAL OF MATERIALS |
| 7. BID SECURITY | 16. PERIOD OF GUARANTEE AND BOND |
| 8. EXAMINATION OF WORK | |
| 9. EXECUTION OF CONTRACT | |

1. DEFINITION OF TERMS

- 1.1 "Owner", and "City" shall mean the City of West Liberty, Iowa, acting through the City Council or an authorized representative of the City Council.
- 1.2 "Person" shall mean any individual, partnership, society, association, joint stock company, corporation, estate, receiver, trustee, assignee or referee, whether appointed by a court or otherwise, and any combination of individuals.
- 1.3 "Bidder" shall mean any person who submits a proposal to furnish the work described in the Contract Documents.
- 1.4 "Contractor" shall mean the person with whom the Owner may enter into contract for the execution of the work specified.
- 1.5 "Subcontractor" shall mean the person supplying materials, labor, equipment and appurtenances for the work, such person having contractual relations with the Contractor, but not with the Owner.
- 1.6 "Engineer" shall mean Veenstra & Kimm, Inc., with offices in West Des Moines, Iowa, and Rock Island, Illinois.
- 1.7 "Standard Drawings" shall mean construction detail drawings bound with these specifications.

- 1.8 "Work" shall mean the work to be done and the equipment, supplies and materials to be furnished under the contract, unless some other meaning is indicated by the context.
- 1.9 "Or Equal" shall follow manufacturers' names used to establish standards and, if not stated, is implied.

2. CONTRACT DOCUMENTS

- 2.1 Contract Documents, sometimes referred to as the "plans and specifications", shall mean and include the following parts as used herein:
 - 2.1.1 Notice of Public Hearing and Bid Letting
 - 2.1.2 Official Notice to Bidders
 - 2.1.3 Instructions to Bidders
 - 2.1.4 Proposal
 - 2.1.5 Bid Bond
 - 2.1.6 Contract
 - 2.1.7 Performance, Payment and Maintenance Bond
 - 2.1.8 General Conditions
 - 2.1.9 Special Conditions
 - 2.1.10 Plans List
 - 2.1.11 Detailed Specifications
 - 2.1.12 Plans listed in the Specifications
 - 2.1.13 Numbered addenda issued to the foregoing.

3. METHOD OF BIDDING

- 3.1 Bidders shall submit unit price and lump sum bids as required for work covered by the plans and specifications. Prices shall cover complete work and include all costs incidental thereto, unless indicated otherwise.
- 3.2 Bids will be computed using quantities shown in proposal. Unit price quantities are approximate and only for comparison of bids. Engineer retains right to change location, quantities and combination of units as may be required during progress of construction. Compensation due Contractor will be computed on basis of final quantities of completed work.

- 3.3 In the event of discrepancies between unit prices and unit price extensions listed in bidder's proposal, unit price shall govern, and unit price extensions shall be corrected, as necessary, for agreement with unit prices.
- 3.4 Unit prices for payment items included in the specifications, but not listed in the proposal, will be negotiated, if needed.

4. QUALIFICATIONS OF BIDDERS

- 4.1 Bidders shall be prepared to satisfy Owner as to integrity, experience, adequacy of equipment and personnel, and financial ability to perform work specified.
- 4.2 If successful bidder is a non-Iowa corporation, he shall submit proof to Owner prior to execution of contract that he has been authorized by Secretary of State to do business in Iowa.
- 4.3 Bidders upon request shall submit evidence of current registration as a contractor with Iowa Department of Labor.

5. SUBMISSION OF BIDS

- 5.1 Bidders shall submit the Proposal stamped "Official Bid". The Proposal stamped "Official Bid" is considered the original Proposal and shall be used for bidding. Submit in a sealed envelope. Envelope shall bear return address of the bidder and shall be addressed as follows:

To:
West Liberty Public Library
400 N. Spencer Street
West Liberty, Iowa 52776

Proposal for:
Public Library Building
Improvements 2021

- 5.2 Bids shall be signed by a legally authorized representative of the bidder.
- 5.3 Bidders shall submit the specified bid security included with the Proposal.
- 5.4 Mark each envelope with "Sealed Bid. Do Not Open."

6. WITHDRAWAL OF BIDS

6.1 A bidder may withdraw his bid at any time prior to scheduled closing time for a receipt of bids, but no bid shall be withdrawn for a period of 30 calendar days thereafter.

7. BID SECURITY

7.1 Each bid shall be accompanied by bid security in the form and amount as set out in the Notice to Bidders.

7.2 Bid security shall be enclosed in the sealed envelope with the bid, or in a separate sealed envelope.

7.3 The bid security shall be forfeited and become the property of the Owner in case the bidder fails or refuses to enter into contract and to furnish bond within 10 calendar days after his proposal shall have been accepted.

7.4 Bid security of the unsuccessful bidders will be returned as soon as the successful bidder is determined and has entered into a contract; bid security of successful bidder will be returned upon execution of contract and furnishing of bond.

7.5 Bidders shall use bid bond form included with specifications.

8. EXAMINATION OF WORK

8.1 Bidders shall familiarize themselves with the specifications and with all conditions which will affect construction. It will be assumed that bidders have made a personal examination of the job and the physical conditions affecting the work.

9. EXECUTION OF CONTRACT

9.1 The successful bidder shall enter into a written contract with the Owner, within 10 days after acceptance of his proposal on the forms included with these specifications, for the performance of the work awarded to him.

9.2 The contract, when executed, shall be deemed to include the entire agreement between the parties hereto, and the Contractor shall not claim any modification thereof resulting from any representation or promise made at any time by any representative of the Owner or any other person.

10. CONTRACT TERMINATION

10.1 Provisions of law, as contained in Chapter 573A of the Code of Iowa shall apply to and be a part of this contract. Chapter 573A provides for termination of contracts for construction of public improvements when construction or work thereon is stopped because of a national emergency. The provisions of Chapter 573A shall be binding upon all parties thereto, including subcontractors and sureties upon any bond given or filed in connection therewith.

11. TAXES

11.1 Bidders shall include in proposals all amounts payable by Contractor or Owner on account of taxes imposed by any taxing authority upon sale, purchase or use of materials and equipment covered by the contract. All taxes of foregoing descriptions shall be paid by Contractor.

11.2 After delivery of materials and equipment, Contractor shall submit to Owner a statement (Iowa Department of Revenue Form 35-002) of all taxes of foregoing descriptions which he has paid on materials and equipment incorporated in complete construction.

11.3 Successful bidder is subject to payment of Iowa income tax on income from this work in amounts prescribed by law. If successful bidder is a non-Iowa partnership, individual or association, he shall furnish evidence prior to execution of contract, that bond or securities have been posted with the Iowa Department of Revenue in the amount required by law.

12. PREFERENCE FOR LABOR AND MATERIALS

12.1 Contractor shall observe the laws of the State of Iowa with regard to preference for labor and materials. So far as may be done under the law, Contractor shall give preference to labor residing in the vicinity of the City of West Liberty, Iowa, and to local concerns in purchase of materials, insurance, and bonds.

13. IOWA RECIPROCAL PREFERENCE

13.1 In accordance with the requirements of the Iowa Department of Labor all bidders must submit a fully completed Bidder Status Form. The Bidder Status Form must be included with and is considered an essential attachment to the Proposal. Any Proposal that does not include a fully completed Bidder Status Form may result in the Proposal being determined non-responsive.

14. PAYMENT

14.1 Payment will be made as set forth in Notice to Bidders.

14.2 Payment will be made on the basis of estimates prepared by Contractor and approved by Engineer, solely for the purpose of payment; approval by Engineer shall not be deemed approval of workmanship or materials.

15. APPROVAL OF MATERIALS

15.1 Approval of substitutions of any materials or equipment other than that specified shall be obtained in writing from Engineer. Otherwise, it will be assumed Contractor will furnish materials or equipment specified.

16. PERIOD OF GUARANTEE AND BOND

16.1 Contractor shall guarantee work for a period of 2 years from date of final acceptance as provided for in the Code of Iowa. Surety bond furnished by Contractor shall run for a like period.

PROPOSAL

PUBLIC LIBRARY BUILDING IMPROVEMENTS 2021
WEST LIBERTY, IOWA

Name of Bidder _____

Address of Bidder _____

To: City Council
City of West Liberty
409 N. Calhoun Street
West Liberty, Iowa 52776

The undersigned bidder submits herewith bid security amounting to five percent (5%) of the total amount of the bid which shall become the property of the City of West Liberty should the undersigned fail or refuse to execute a contract and to furnish bond as called for in the specifications within the time provided.

The undersigned bidder, having examined the Contract Documents, and having familiarized himself with the nature and location of the work to be done and the conditions under which the work will be performed, hereby proposes to provide the required labor, services and materials and to perform the work described in the specifications, and addenda ____, ____, ____, ____, and ____, within the time and for the sum or sums stated hereinafter on attached proposal schedule, which proposal schedule is hereby made a part of this Proposal.

The undersigned bidder certifies that this proposal is made in good faith, without collusion or connection with any other person or persons bidding on the work.

The undersigned bidder states that this proposal is made in conformity with the specifications and agrees that in the event of any discrepancies or differences between any conditions of his proposal and the specifications prepared by VEENSTRA & KIMM, INC., that the provisions of the latter shall prevail.

Bidder _____

By _____

Title _____

PROPOSAL SCHEDULE

1. PUBLIC LIBRARY BUILDING IMPROVEMENTS 2021

Construct interior building renovations including all materials, labor, and equipment for demolition, walls, floorings, ceilings, doors, windows, ductwork, electrical, painting, and other miscellaneous associated work including cleanup and disposal. Renovations include updating finishes in Kitchenette and adding a passthrough window; creating new storage spaces in Multi-Use Room; updates in Storage Room include removing demising wall, adding new concrete ramp, door and wall opening into Storytime/Gaming Room; updating wall finishes in Storytime/Gaming Room for the lump sum of

_____ Dollars (\$_____).

2. The work under the contract shall commence within ten (10) days of written Notice to Proceed and all work shall be substantially completed by June 30, 2022.
3. Liquidated damages in the amount of Two Hundred Fifty Dollars (\$250.00) per calendar day will be assessed for each day the project is not fully completed after June 30, 2022 until the date the project is finished.
4. Required attachments:
 - Bidder Status Form
 - Bid Bond

Bidder Status Form**To be completed by all bidders****Part A**

Please answer "Yes" or "No" for each of the following:

- Yes No My company is authorized to transact business in Iowa.
(To help you determine if your company is authorized, please review the worksheet on the next page).
- Yes No My company has an office to transact business in Iowa.
- Yes No My company's office in Iowa is suitable for more than receiving mail, telephone calls, and e-mail.
- Yes No My company has been conducting business in Iowa for at least 3 years prior to the first request for bids on this project.
- Yes No My company is not a subsidiary of another business entity or my company is a subsidiary of another business entity that would qualify as a resident bidder in Iowa.

If you answered "Yes" for each question above, your company qualifies as a resident bidder. Please complete Parts B and D of this form.

If you answered "No" to one or more questions above, your company is a nonresident bidder. Please complete Parts C and D of this form.

To be completed by resident bidders**Part B**

My company has maintained offices in Iowa during the past 3 years at the following addresses:

Dates: ____ / ____ / ____ to ____ / ____ / ____ Address: _____

City, State, Zip: _____

Dates: ____ / ____ / ____ to ____ / ____ / ____ Address: _____

City, State, Zip: _____

Dates: ____ / ____ / ____ to ____ / ____ / ____ Address: _____

You may attach additional sheet(s) if needed. City, State, Zip: _____

To be completed by non-resident bidders**Part C**

1. Name of home state or foreign country reported to the Iowa Secretary of State:

2. Does your company's home state or foreign country offer preferences to resident bidders, resident labor force preferences or any other type of preference to bidders or laborers? Yes No

3. If you answered "Yes" to question 2, identify each preference offered by your company's home state or foreign country and the appropriate legal citation.

You may attach additional sheet(s) if needed.

To be completed by all bidders**Part D**

I certify that the statements made on this document are true and complete to the best of my knowledge and I know that my failure to provide accurate and truthful information may be a reason to reject my bid.

Firm Name: _____

Signature: _____ Date: _____

You must submit the completed form to the governmental body requesting bids per 875 Iowa Administrative Code Chapter 156. This form has been approved by the Iowa Labor Commissioner.

Worksheet: Authorization to Transact Business

This worksheet may be used to help complete Part A of the Resident Bidder Status form. If at least one of the following describes your business, you are authorized to transact business in Iowa.

- Yes No My business is currently registered as a contractor with the Iowa Division of Labor.
- Yes No My business is a sole proprietorship and I am an Iowa resident for Iowa income tax purposes.
- Yes No My business is a general partnership or joint venture. More than 50 percent of the general partners or joint venture parties are residents of Iowa for Iowa income tax purposes.
- Yes No My business is an active corporation with the Iowa Secretary of State and has paid all fees required by the Secretary of State, has filed its most recent biennial report, and has not filed articles of dissolution.
- Yes No My business is a corporation whose articles of incorporation are filed in a state other than Iowa, the corporation has received a certificate of authority from the Iowa secretary of state, has filed its most recent biennial report with the secretary of state, and has neither received a certificate of withdrawal from the secretary of state nor had its authority revoked.
- Yes No My business is a limited liability partnership which has filed a statement of qualification in this state and the statement has not been canceled.
- Yes No My business is a limited liability partnership which has filed a statement of qualification in a state other than Iowa, has filed a statement of foreign qualification in Iowa and a statement of cancellation has not been filed.
- Yes No My business is a limited partnership or limited liability limited partnership which has filed a certificate of limited partnership in this state, and has not filed a statement of termination.
- Yes No My business is a limited partnership or a limited liability limited partnership whose certificate of limited partnership is filed in a state other than Iowa, the limited partnership or limited liability limited partnership has received notification from the Iowa secretary of state that the application for certificate of authority has been approved and no notice of cancellation has been filed by the limited partnership or the limited liability limited partnership.
- Yes No My business is a limited liability company whose certificate of organization is filed in Iowa and has not filed a statement of termination.
- Yes No My business is a limited liability company whose certificate of organization is filed in a state other than Iowa, has received a certificate of authority to transact business in Iowa and the certificate has not been revoked or canceled.

BID BOND

KNOW ALL MEN BY THESE PRESENTS: That we,

_____ as
of _____

Principal and _____ of _____
as Surety, are held and firmly bound unto the City of West Liberty, Iowa, hereinafter defined as
Obligee, in the penal sum of five percent (5%) of the total amount of the bid
(\$_____), for which payment said Principal and Surety bind themselves, their heirs,
executors, administrators, successors, and assigns jointly and severally, firmly by these
presents.

The condition of the above obligation is such that whereas the Principal has submitted to the
City of West Liberty, Iowa, a certain bid, in a sealed envelope, and hereby made a part hereof to
enter into a contract in writing, for: Public Library Building Improvements 2021.

NOW THEREFORE, if the said bid by said Principal be accepted, and the Principal shall enter into
a contract with the Obligee in accordance with the terms of such bid, and give such bond as
may be specified in the contract documents with good and sufficient surety for the faithful
performance of such contract, for the prompt payment of labor and material furnished in the
prosecution thereof, and for the maintenance of said improvements as may be required
therein, then this obligation shall become null and void or in the event of the failure of the
Principal to enter such contract and give such bond, the Principal shall pay to the Obligee the
full amount of the bid bond, together with court costs, attorney's fees, and any other expense
of recovery.

Signed and sealed this _____ day of _____, 2022.

By _____
Principal

By _____
Contractor's Signature

By _____
Surety

By _____
Attorney-in-Fact

CONTRACT

THIS AGREEMENT, made and entered into this _____ day of _____, 20____, by and between the City of West Liberty, Iowa, party of the first part, hereinafter referred to as the "Owner", and

_____ party of the second part, hereinafter referred to as the "Contractor".

WITNESSETH: THAT WHEREAS, the Owner has heretofore caused to be prepared certain specifications and proposal blanks, dated the _____ day of _____, 20____, for Public Library Building Improvements 2021 under the terms and conditions therein fully stated and set forth, and,

WHEREAS, said specifications and proposal blanks accurately and fully describe the terms and conditions upon which the Contractor is willing to perform the work specified:

NOW, THEREFORE, IT IS AGREED:

1. That the Owner hereby accepts the proposal of the Contractor for the work, as follows:

Construct interior building renovations including all materials, labor, and equipment for demolition, walls, floorings, ceilings, doors, windows, ductwork, electrical, painting, and other miscellaneous associated work including cleanup and disposal. Renovations include updating finishes in Kitchenette and adding a passthrough window; creating new storage spaces in Multi-Use Room; updates in Storage Room include removing demising wall, adding new concrete ramp, door and wall opening into Storytime/Gaming Room; updating wall finishes in Storytime/Gaming Room.

2. That this contract consists of the following component parts which are made a part of this agreement and contract as fully and absolutely as if they were set out in detail in this contract:

2.1 Contract Documents, including:

- 2.1.1 Notice of Public Hearing and Bid Letting
- 2.1.2 Official Notice to Bidders
- 2.1.3 Instructions to Bidders
- 2.1.4 Proposal
- 2.1.5 Bid Bond
- 2.1.6 Performance, Payment and Maintenance Bond
- 2.1.7 General Conditions
- 2.1.8 Special Conditions
- 2.1.9 Plans List
- 2.1.10 Detailed Specifications
- 2.1.11 Plans listed in the Specifications
- 2.1.12 Numbered addenda issued to the foregoing.

2.2 This Instrument.

2.3 The above components are complementary and what is called for by one shall be as binding as if called for by all.

3. That payments are to be made to the Contractor in accordance with and subject to the provisions embodied in the documents made a part of this contract.

4. That this contract is executed in triplicate.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hand and seals the date first written above.

CONTRACTOR

CITY OF WEST LIBERTY, IOWA

By _____

Title _____

ATTEST:

Title _____

Mayor

ATTEST:

City Manager

PERFORMANCE, PAYMENT AND MAINTENANCE BOND

KNOW ALL MEN: That we, _____
of _____, hereinafter called the Principal, and

hereinafter called the surety, are held and firmly bound unto the City of West Liberty, Iowa,
hereinafter called the Owner in the sum of

Dollars (\$_____), for the payment whereof the Principal and Surety bind
themselves, their heirs, executors, administrators, successors and assigns, jointly and severally,
firmly, by these presents.

WHEREAS, the principal has, by means of a written Agreement dated _____,
20____, entered into a Contract with the Owner for Public Library Building Improvements 2021,
which Agreement includes a guarantee of all work against defective workmanship and materials
for a period of two (2) years from the date of final acceptance of the work by the Owner, a copy
of which Agreement is by reference made a part hereof;

NOW, THEREFORE, the condition of this Obligation is such that, if the Principal shall faithfully
perform the Contract on his part and shall fully indemnify and save harmless the Owner from all
costs and damage which he may suffer by reason of failure so to do and shall fully reimburse
and repay the Owner all outlay and expense which the Owner may incur in making good any
such default,

And Further, that if the Principal shall pay all persons who have contracts directly with the
Principal for labor or materials, failing which such persons shall have a direct right of action
against the Principal and Surety under this Obligation, subject to the Owner's priority,

Then this Obligation shall be null and void, otherwise it shall remain in full force and effect.

Provided, however, that no suit, action or proceeding by reason of any default whatever shall
be brought on this Bond after three (3) years from the date of final acceptance of the work.

And Provided, that any alterations which may be made in the terms of the Contract, or in the
work to be done under it, or the giving by the Owner of any extension of time for the
performance of the Contract, or any other forbearance on the part of either the Owner or the
Principal to the other shall not in any way release the Principal and the Surety, or either of
them, their heirs, executors, administrators, successors or assigns from their liability hereunder,
notice to the Surety of any such alteration, extension or forbearance being hereby waived.

And Further Provided, the Principal and Surety on this Bond hereby agree to pay all persons,
firms, or corporations having contracts directly with the Principal or with subcontractors all just
claims due them for labor performed or material furnished, in the performance of the Contract
on account of which this Bond is given, when the same are not satisfied out of the portion of
the contract price which the Owner shall retain until completion of the improvements, but the
Principal and Surety shall not be liable to said
persons, firms, or corporations unless the claims of said claimants against said portions of the
contract price shall have been established as provided by law.

The Surety on this Bond shall be deemed and held, any contract to the contrary
notwithstanding, to consent without notice:

Performance, Payment and Maintenance Bond

- a. To the extension of time to the Principal in which to perform the Contract.
- b. To changes in the plans, specifications, or Contract, when such changes do not involve an increase of more than twenty percent (20%) of the total contract price and shall then be released only as to such excess increase.
- c. That no provision of this Bond or of any other contract shall be valid which limits to less than three (3) years from the date of final acceptance of the work the right to sue on this Bond for defects in workmanship or materials not discovered or known to the Owner at the time such work was accepted.

The Bond is executed in triplicate.

Signed and Sealed this _____ day of _____, 20____.

PRINCIPAL:

Contractor

Signature

Title

SURETY:

Surety Company

Signature, Attorney-in-Fact

Name of Attorney-in-Fact

Company Name

Company Address (Including Zip Code)

Company Telephone Number

GENERAL CONDITIONS

INDEX

- | | |
|--|--|
| 1. CONTRACT DOCUMENTS | 17. TESTS |
| 2. SURETY BOND | 18. TIME |
| 3. CONTRACTOR'S RESPONSIBILITY | 19. DELAYS |
| 4. SUBCONTRACTS | 20. CHANGES |
| 5. CONTRACTOR'S EMPLOYEES | 21. EXTRA WORK |
| 6. PERMITS AND REGULATIONS | 22. OWNERSHIP OF MATERIALS |
| 7. PATENTS | 23. OTHER CONTRACTS |
| 8. GUARANTEE | 24. OWNER'S RIGHT TO DO WORK |
| 9. SHOP DRAWINGS | 25. OWNER'S RIGHT TO TERMINATE
CONTRACT |
| 10. THE ENGINEER | 26. CONTRACTOR'S RIGHT TO STOP WORK
OR TERMINATE CONTRACT |
| 11. PLANS AND SPECIFICATIONS | 27. PAYMENTS WITHHELD |
| 12. INTERPRETATION OF PLANS AND
SPECIFICATIONS | 28. ACCEPTANCE AND FINAL PAYMENT |
| 13. DECISIONS BY ENGINEER | 29. SUSPENSION OF WORK |
| 14. WORKMANSHIP AND MATERIALS | 30. CLEANING UP |
| 15. ON-SITE REVIEW OR OBSERVATION | 31. HAZARDOUS MATERIALS |
| 16. RESIDENT ENGINEER AND/OR
ENGINEER TECHNICIANS | 32. IOWA HAZARDOUS CHEMICAL RISKS
RIGHT-TO-KNOW LAW |

1. CONTRACT DOCUMENTS

- 1.1 All documents listed or identified as part of contract are each and all essential and component parts of agreement between Owner and Contractor.
- 1.2 Contract Documents shall be signed in triplicate by Owner and Contractor.
- 1.3 Contract Documents are complementary, and what is called for by anyone shall be as binding as if called for by all. The intention of documents is to include all labor and materials, equipment and transportation necessary for proper execution of work. It is not intended that materials or work not covered by or properly inferable from any heading, branch, class or trade of the specifications shall be supplied unless distinctly noted. Materials or work described in words, which have a well-known technical or trade meaning, shall be held to refer to such recognized standards.

2. SURETY BOND

2.1 Contractor shall furnish a good and sufficient surety bond in full amount of contract prior to signing contract. Surety bond shall guarantee faithful performance of all provisions of contract and payment of all bills and obligations arising from said contract. Should surety become irresponsible during time contract is in force, Owner may require additional and sufficient sureties. Contractor shall furnish said additional sureties to satisfaction of Owner within ten (10) days after written notice to do so. In default thereof, contract may be suspended as hereinafter provided.

3. CONTRACTOR'S RESPONSIBILITY

3.1 Contractor shall assume full responsibility for safekeeping of all materials and equipment and for all unfinished work until final acceptance by Owner. Materials and equipment which are damaged or destroyed from any cause shall be replaced at Contractor's expense.

3.2 Contractor shall indemnify and save harmless Owner against any liens filed for non-payment of Contractor's bills in connection with contract work. Contractor shall furnish Owner satisfactory evidence that all persons who have done work or furnished materials, equipment, or service of any type, under the contract have been fully paid prior to acceptance of work by Owner.

3.3 Contractor shall erect and maintain such barriers and lights as will prevent accidents as a consequence of its work. It shall indemnify and save harmless the Owner and its agents from all suits brought against Contractor for any injuries received or sustained by any person or persons by or through Contractor, its servants, or agents, in construction of work, or by or in consequence of any acts or omissions or negligence in performing contract work.

4. SUBCONTRACTS

4.1 Contractor shall not assign, sub-let or transfer the whole or any part of work herein specified without written consent of Owner. Assignment, sub-letting or transfer shall not relieve Contractor from its responsibilities set forth herein.

4.2 Detailed specifications are separated into titled parts for convenience or reference and to facilitate letting of contracts and subcontracts. Such arrangement shall not obligate Engineer to establish limits on contracts between Contractors and subcontractors.

5. CONTRACTOR'S EMPLOYEES

- 5.1 Contractor shall personally supervise its work or provide a capable superintendent satisfactory to Engineer. Superintendent shall be authorized to receive instructions from Engineer.
- 5.2 Incompetent or incorrigible employees shall be dismissed by the Contractor or its representative when requested by Engineer. Such dismissed persons shall not be permitted to return to work without written consent of Engineer.
- 5.3 Contractor shall give preference to local labor in execution of this contract, insofar as is practicable.

6. PERMITS AND REGULATIONS

- 6.1 In execution of work specified herein, Contractor shall conform to regulations and ordinances of any governmental body which may apply in execution of specified work. Contractor shall obtain such permits and licenses as may be required for construction of work.

7. PATENTS

- 7.1 All fees or royalties for patented inventions, equipment or arrangements used in construction or erection of work, or any part thereof, shall be included in contract price. Contractor shall protect and hold harmless Owner against any and all claims or litigation by reason of infringement of any patent rights on any materials, equipment of construction furnished by Contractor.

8. GUARANTEE

- 8.1 Contractor shall guarantee all work against faulty workmanship and materials for the period specified after date of final acceptance of work by Owner unless otherwise set out in "SPECIAL CONDITIONS" or "INSTRUCTIONS TO BIDDERS". Contractor shall repair or replace any defective workmanship and materials in a manner acceptable to Owner, without expense to Owner, within ten (10) days after written notification by Owner of such defect. If said repairs or replacements are not made within ten (10) days, Owner may make said repairs or replacements and charge the cost to Contractor.

8.2 Contractor shall provide Owner with a good and sufficient surety maintenance bond in the full amount of contract prior to signing contract. Maintenance bond shall run for the period specified from time of acceptance to protect Owner from faulty workmanship and materials as outlined in preceding paragraph.

9. SHOP DRAWINGS

9.1 Contractor shall provide Engineer with drawings, data and information regarding materials or equipment specified, or as may be called for by Engineer, for its review, within a reasonable time after award of contract. After review, Engineer shall return to Contractor one copy within a reasonable time after receipt.

9.1.1 Submit 5 copies of all shop drawing submittals.

9.2 Fabrication and shipment of materials or equipment prior to Engineer's review of drawings, data and information mentioned above shall be at Contractor's risk.

10. THE ENGINEER

10.1 Engineer shall make general observation of work as agent of Owner. Engineer's general observation shall not be construed that it shall direct or control operations of Contractor.

11. PLANS AND SPECIFICATIONS

11.1 Engineer shall provide Contractor with 5 sets of plans and specifications after execution of contract. If additional plans and specifications are required, Contractor shall compensate Engineer for costs of printing.

11.2 Engineer shall provide Contractor with additional and supplemental plans as may be required to show details of construction after approval of manufacturers' drawings and data on materials and equipment.

11.3 Engineer will provide Contractor with such revised plans and specifications as may be required to show any authorized changes or extra work.

12. INTERPRETATION OF PLANS AND SPECIFICATIONS

- 12.1 Plans and specifications shall be interpreted by Engineer or Architect. Its decision shall be final and binding on all parties concerned.
- 12.2 Contractor will not be allowed to take advantage of errors or omissions in plans and specifications. Engineer will provide full instructions when errors or omissions are discovered.

13. DECISIONS BY ENGINEER

- 13.1 Engineer shall make decisions, in writing, on claims between Contractor and Owner within a reasonable time after presentation. Such decisions shall be regarded as final except for appropriate legal recourse.

14. WORKMANSHIP AND MATERIALS

- 14.1 All work done and all materials and equipment furnished by Contractor shall conform to plans and specifications. Competent labor and tradesmen shall be used on all work. Experienced manufacturers' representatives shall be used to supervise installation of equipment.
- 14.2 In absence of detailed specifications in other sections, all materials shall conform to standards of American Society for Testing Materials.
- 14.3 Wherever items of materials or equipment are specified by a manufacturer's name and type, or equal, it is the intent that materials or equipment of other manufacturers, equal in quality and performance, may be substituted. Such substitution may be made only with written authorization of Engineer.
- 14.4 Wherever items of materials or equipment are specified by a manufacturer's name and type, or equal, and additional features of items are specifically required by specifications, additional features specified shall be provided whether or not they are normally included in standard manufacturer's items listed.
- 14.5 Wherever items of materials or equipment are specified by a manufacturer's name and type, or equal, and specified items are or become obsolete and no longer available, Contractor shall provide acceptable equal items which are currently available at no change in contract price.

- 14.6 When proposing "or equal" items or substitutions, Contractor shall furnish general arrangement drawings, full descriptive data, manufacturer's specifications and such performance data as required to satisfy Engineer that materials or equipment proposed are equal to that specified. Burden of proof of equality shall be responsibility of Contractor.
- 14.7 Whenever items of materials or equipment are specified by a manufacturer's name and type and "or equal" is not listed, Contractor shall provide specified equipment without substitution, unless prior approval of Engineer is obtained for any substitution.
- 14.8 Contractor shall abide by Engineer's decision when proposed substitutes of material or equipment are deemed to be unacceptable and in such an event Contractor shall furnish items of equipment or materials specified.
- 14.9 Engineer reserves right to consider such factors as overall project arrangement, overall project cost, and similar factors in determining whether proposed substitutions will be acceptable.
15. ON-SITE REVIEW OR OBSERVATION
- 15.1 All materials used and all work done by Contractor shall be subject at all times to review, observation, tests and approval by Engineer. Contractor shall furnish samples of materials for observation and tests as requested by Engineer. Contractor shall furnish any information required concerning nature or source of any proposed materials or equipment.
- 15.2 Construction, fabrication and manufacture of equipment or materials specified herein may be observed by Engineer at plant or factory.
- 15.3 Materials, equipment or work which do not satisfactorily meet specifications may be condemned by Engineer by written notice to Contractor. Condemned materials, equipment or work shall be promptly removed and replaced.
- 15.4 Defective materials, equipment or work may be rejected by Engineer at any time prior to final acceptance by Owner even though said defective items may have been previously overlooked.

16. RESIDENT ENGINEER AND/OR ENGINEER TECHNICIANS

- 16.1 Resident engineer and/or engineer technicians may be appointed by Engineer or Owner to ensure that work is performed in accordance with plans and specifications.
- 16.2 Resident engineer and/or engineer technicians shall have authority to notify Contractor in writing of work which is not being properly performed. Contractor shall be liable for any work determined by Engineer as not being properly performed.
- 16.3 Resident engineer and/or engineer technicians shall have no authority to permit deviation from plans and specifications and Contractor shall be liable for any deviations made without written order from Engineer.

17. TESTS

- 17.1 Tests shall be performed by Contractor upon materials and equipment specified, to determine if the materials and equipment meet requirements of specifications, conditions of operation and guarantees of Contractor.
- 17.2 Equipment shall be subject to factory tests specified herein. Certified evidence of tests shall be furnished when requested by Engineer.
- 17.3 Tests shall be made in accordance with standards of American Society of Mechanical Engineers, Institute of Electrical and Electronic Engineers, American Society for Testing Materials, and other recognized standards.

18. TIME

- 18.1 Contractor shall commence work within time specified and shall complete work within time specified in contract.

19. DELAYS

- 19.1 Delays caused by injunction or legal actions, damages by elements, or other causes beyond control of Contractor (of which Owner shall be sole judge) shall entitle Contractor to a reasonable extension of time within which to complete work.
- 19.2 Application for extension of time shall be made to Owner by Contractor and shall state reasons for request for extension of time.

- 19.3 No extension of time shall be valid unless made in writing by Owner.
- 19.4 Normal weather conditions shall not form the basis of request for extension of time. Abnormal weather conditions shall form basis of request for extension of time only to the delay in excess of that resulting from normal weather conditions.

20. CHANGES

- 20.1 Engineer shall have the right to make changes in location and quantities of work as may be deemed advisable with consent of Owner and without notice to sureties on Contractor's bond.
- 20.2 No change shall be made under this paragraph which will increase or decrease total contract amount more than twenty percent (20%) of original contract price and no changes shall be made in plan of improvement that would necessitate additional or different construction processes and equipment.
- 20.3 Amount due Contractor shall be adjusted for changes in following manner:
 - 20.3.1 Where unit prices have been bid, these unit prices shall be used to compute adjustment in compensation.
 - 20.3.2 Where no such unit prices have been bid, Engineer and Contractor shall negotiate a reasonable adjustment in Contractor's compensation. Limitations on compensation in 21.2 of "21. EXTRA WORK" shall apply to changes where compensation is negotiated.
 - 20.3.3 No changes shall be authorized unless they are shown on revised plans or in written instructions of Engineer.
 - 20.3.4 Authorized changes which require additional time to complete shall entitle Contractor to proportionate extension of time to completion which shall be determined by Engineer.

21. EXTRA WORK

- 21.1 Required extra work not specified under this contract shall be done at an agreed price satisfactory to Contractor and Owner, or on basis of actual cost of work plus not more than fifteen percent (15%) for Contractor's overhead and profit. Actual cost shall include expense for equipment, materials, and labor and shall include no overhead items or profit. Where extra work is done by a subcontractor, with approval of Owner, there may be included in Contractor's actual cost, ten percent (10%) for subcontractor's profit.
- 21.2 The term "extra work" as used herein shall not be construed to apply to changes described in "20. CHANGES".
- 21.3 No compensation shall be allowed Contractor for extra work unless such work has been authorized in writing by Engineer and approved by Owner.
- 21.4 Contractor shall submit a statement of costs to Engineer for approval when extra work is performed on an actual cost plus basis. After such a statement is approved, Engineer shall certify its correctness to Owner.

22. OWNERSHIP OF MATERIALS

- 22.1 All materials and work covered by partial payments shall become sole property of Owner, but this provision shall not be construed as relieving Contractor from sole responsibility for all materials and work for which payments have been made, for restoration of damaged work, or as a waiver of rights of Owner to require fulfillment of all terms of contract.

23. OTHER CONTRACTS

- 23.1 Owner reserves right to let other contracts in connection with this work. Contractor shall afford other contractors' reasonable opportunity for introduction and storage of their materials and execution of their work, and shall properly connect and coordinate its work with theirs.
- 23.2 When proper execution of Contractor's work depends upon work of another contractor, it shall inspect other work and report any defects to Engineer. Contractor's failure to inspect and report shall constitute an acceptance of other contractor's work except for defects which may develop in work after completion.

23.3 To ensure proper execution of its subsequent work, Contractor shall measure work already in place and shall at once report to the Engineer any discrepancy between the executed work and drawings.

24. OWNER'S RIGHT TO DO WORK

24.1 If Contractor neglects to prosecute work properly or fails to perform any provision of this contract, Owner, after three (3) days' written notice to Contractor, may, without prejudice to any other remedy it may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor, provided, however, that Engineer shall approve both such action and amount charged to Contractor.

25. OWNER'S RIGHT TO TERMINATE CONTRACT

25.1 Owner, upon certification of Engineer that there is sufficient cause to justify termination of contract, may, without prejudice to any other right or remedy, and after giving Contractor seven (7) days' notice may terminate employment of Contractor for any of following reasons:

25.1.1 Contractor makes a general assignment for benefit of its creditors, or if adjudged a bankrupt.

25.1.2 Receiver is appointed on account of Contractor's insolvency.

25.1.3 Contractor persistently or repeatedly fails or refuses, except when extension of time to complete is granted, to provide enough skilled workmen or proper materials.

25.1.4 Contractor fails to make prompt payment to subcontractors for material or labor.

25.1.5 Contractor persistently disregards laws and ordinances or instructions of Engineer.

25.1.6 Contractor violates a provision of contract.

25.2 If Owner terminates employment of Contractor, it shall take possession of premises and all materials, tools, and appliances thereon. It shall finish work by whatever method it may deem expedient. In such case Contractor shall not be entitled to receive any further payment until work is finished.

25.3 If unpaid balance of contract price exceeds expense of finishing the work including compensation for additional managerial and administrative services, excess shall be paid to Contractor. If expense exceeds unpaid balance, Contractor shall pay difference to Owner. Expense incurred by Owner as herein provided, and damage incurred through Contractor's default, shall be certified by Engineer.

26. CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE CONTRACT

26.1 If Engineer fails to issue any certificate for payment within fifteen (15) days after it is due, or if Owner fails to pay to Contractor within thirty (30) days of its maturity and presentation, any sum certified by Engineer, then Contractor may, upon seven (7) days simultaneous written notice to Owner and Engineer, stop work or terminate this contract. If Contractor elects to stop work by written notice, work shall be resumed promptly upon payment by Owner. If Contractor elects to terminate this contract by written notice it shall recover from Owner payment for all work executed to date of notice and any loss sustained upon any plant or materials plus a reasonable profit.

27. PAYMENTS WITHHELD

27.1 Engineer may withhold or nullify the whole or a part of payment certificate, on account of subsequently discovered evidence, to such extent as may be necessary to protect Owner from loss on account of:

27.1.1 Defective work not remedied.

27.1.2 Claims filed or reasonable evidence indicating probable filing of claims.

27.1.3 Failure of Contractor to make payments properly to subcontractors or for materials or labor.

27.1.4 A reasonable doubt that contract can be completed for balance then unpaid.

27.1.5 Damage to another contractor.

27.1.6 Claims of Owner for liquidated damages.

27.2 Payments shall be made for amounts withheld when above grounds are removed.

28. ACCEPTANCE AND FINAL PAYMENT

- 28.1 When work has been satisfactorily completed, Engineer will certify Contractor's final estimate stating that work has been completed in accordance with terms and conditions thereof with qualifications, if any, as stated. Balance found to be due Contractor according to the terms of payment shall be paid by Owner as provided in contract, provided, however, that any state laws which designate manner of final payment shall be followed in lieu of manner of final payment outlined above.
- 28.2 Making and acceptance of final payment shall constitute a waiver of all claims by Owner, except those arising from unsettled liens, from faulty work or materials appearing after final payment or from requirements of the specifications, and of all claims by Contractor, except those previously made and still unsettled.

29. SUSPENSION OF WORK

- 29.1 Owner may suspend the work, or any part thereof, at any time, by giving ten (10) days' written notice to Contractor. The work shall be resumed by Contractor within ten (10) days after date fixed in written notice from Owner to Contractor to do so.
- 29.2 If work, or any part thereof, shall be suspended and if Owner does not give written notice to Contractor to resume work within one (1) year of date of suspension, Contractor may abandon suspended portion of work. Contractor will be entitled to estimates and payments for all work done on the portions so abandoned, if any.

30. CLEANING UP

- 30.1 Contractor shall keep premises free from accumulations of waste material or rubbish caused by its employees or work. After completion of work it shall remove all its rubbish and all its tools, scaffolding and surplus materials from work site. It shall leave its work "broom clean" or its equivalent, unless more exactly specified. In case of dispute the Owner may remove rubbish and charge costs to Contractor as Engineer shall determine to be just.

31. HAZARDOUS MATERIALS

31.1 The use of Asbestos Construction Building Materials (ACBM) is specifically prohibited. The Contractor, suppliers, and subcontractors shall warrant that all products used are asbestos free. In the event that a specified product contains asbestos, it shall be the responsibility of the Contractor to notify the Owner so that an appropriate substitution can be made in a timely manner so as not to delay the project.

31.2 The Contractor shall provide the Owner a certificate that warrants that no materials, products, items or equipment contains any asbestos upon completion of the work of this Contract. If asbestos is found to exist in any of the materials, products, items or equipment provided as part of this Contract, the Contractor shall be financially responsible for all costs resulting from removal in accordance with an Owner approved method and replacement of an asbestos free condition to finished drawings and specifications. The financial responsibility of the Contractor shall not terminate with the end of the surety maintenance bond period, but shall continue through the life of the facility.

31.3 Appendix A includes two reports from Environmental Services, Inc. showing no detection of asbestos in the existing ceiling tiles.

32. IOWA HAZARDOUS CHEMICAL RISKS RIGHT-TO-KNOW LAW

32.1 Owner's responsibility:

32.1.1 Owner shall provide to the Contractor a list of known hazardous chemicals within the project site to which their employees may be exposed and suggestions for appropriate protective measures.

32.2 Contractor's responsibility:

32.2.1 Contractor shall inform his/her employees of the Iowa Hazardous Chemical Risks Right-to-Know Law.

32.2.2 Contractor shall provide to the Owner a list of known hazardous chemicals that they anticipate will be used on site as well as all pertinent information relating to employee protection. Contractor's Material Safety Data Sheets (MSDS) shall be available to Owner upon request.

SPECIAL CONDITIONS

PUBLIC LIBRARY BUILDING IMPROVEMENTS 2021 WEST LIBERTY, IOWA

INDEX

- | | |
|---------------------------------------|--|
| 1. INTENT | 8. CONSTRUCTION FACILITIES BY CONTRACTOR |
| 2. INTERRUPTIONS TO SERVICE | 9. INSURANCE BY CONTRACTOR |
| 3. LOCATION | 10. CONTRACTOR'S RESPONSIBILITY |
| 4. CONSTRUCTION LIMITS | 11. LINE AND GRADE |
| 5. ORDER OF CONSTRUCTION | 12. EMPLOYMENT PRACTICES |
| 6. SERVICE FACILITIES | |
| 7. STORAGE OF MATERIALS AND EQUIPMENT | |

1. INTENT

- 1.1 To supplement the provisions of the GENERAL CONDITIONS by outlining special conditions applicable to project.

2. INTERRUPTIONS TO SERVICE

- 2.1 It is necessary that the police building remain in continuous operation during construction except as noted on plans or specified hereinafter. Select order and methods of construction which will not interfere with police operations. Interrupt service only with approval of Owner and Engineer.
- 2.2 Existing utilities shall remain in substantially continuous operation during construction, including water, sewer, power and gas lines.
- 2.3 Do work which will interrupt utility service only at times approved by Engineer; hold interruptions of service to minimum.

3. LOCATION

- 3.1 Work is located at the Public Library in West Liberty, Iowa.

4. CONSTRUCTION LIMITS

- 4.1 Confine movements of equipment and personnel, storage of materials, and all other construction operations to inside the police and City Hall building or to construction limits shown on plans

5. ORDER OF CONSTRUCTION

- 5.1 Provide Engineer with proposed schedule of construction showing dates of starting and completing various portions of work.
- 5.2 Coordinate work with Owner and Engineer to assure orderly and expeditious progress of the work.
- 5.3 Contractor shall establish schedule of working hours for construction, subject to approval of Engineer.
- 5.4 Schedule construction to minimize use of street barricades and detours; clean up each portion of work as it is completed.

6. SERVICE FACILITIES

- 6.1 Water, electricity, compressed air, and other services shall be furnished by Contractor to meet own requirements.

7. STORAGE OF MATERIALS AND EQUIPMENT

- 7.1 Some storage space for materials and equipment will be available.
- 7.2 Storage areas shall be subject to approval of Owner and Engineer.
- 7.3 Store materials and equipment in manner which will preserve their quality and fitness.

8. CONSTRUCTION FACILITIES BY CONTRACTOR

- 8.1 Provide telephone at which Contractor can be reached by Owner or Engineer at all times during the working day; provide liaison between telephone and construction personnel for expeditious handling of messages.

Special Conditions

- 8.2 Provide suitable storage necessary for proper storage of materials and equipment.
 - 8.3 Location of all construction facilities, including project construction plant and yard, subject to approval by Engineer; remove all construction facilities upon completion of work.
 - 8.4 Provide and maintain suitable sanitary facilities for construction personnel for duration of work; remove upon completion of work.
 - 8.5 Provide fence, barricades, and/or watchmen to prevent access of unauthorized persons to site where work is in progress.
 - 8.6 Provide telephone number(s) at which responsible representative of Contractor can be contacted evenings, weekends and holidays in event of emergency.
9. INSURANCE BY CONTRACTOR
- 9.1 Provide and maintain insurance throughout construction period in the following minimum amounts:
 - 9.1.1 Workmen's compensation and occupational disease insurance in accordance with laws of the State of Iowa covering all employees who perform any obligations assumed under the contract.
 - 9.1.2 Public liability and property damage liability insurance covering all operations under the contract; limits of bodily injury or death not less than \$500,000 for one person and \$1,000,000 for each accident; for property damage, not less than \$250,000 for each accident and \$500,000 aggregate for accidents during the policy period.
 - 9.1.3 Automobile liability insurance on all self-propelled vehicles used in connection with the contract, whether owned, non-owned, or hired; public liability limits of not less than \$500,000 for one person and \$1,000,000 for each accident; property damage limit of \$500,000 for each accident.
 - 9.2 Owner shall have right at any time to require public liability insurance and property damage liability insurance greater than required in above paragraphs. Additional premiums payable solely as result of such additional insurance shall be added to bid price.

- 9.3 Furnish certificates of insurance to Engineer made in favor of Owner showing compliance with foregoing requirements.
- 9.4 Owner reserves the right to approve insurance company.
- 9.5 Notification in event of liability or damage: upon the occurrence of any event, the liability for which is herein assumed, the Contractor agrees to forthwith notify the Owner, in writing, such happening, which notice shall forthwith give the details as to the happening, the cause as far as can be ascertained, the estimate of loss or damage done, the names of witnesses, if any, and stating the amount of any claim.

10. CONTRACTOR'S RESPONSIBILITY

- 10.1 There shall be no liability upon public officials, Engineer or his authorized assistants, either personally or as an official of the Owner, it being understood that in such matters he acts as an agent and representative of the Owner in carrying out any of the provisions of the contract or in exercising any power or authority granted him thereby.
- 10.2 Contractor agrees to hold harmless and indemnify the Owner and Engineer and their employees or agents against any liability sustained by reason of the work or the handling or storing of materials therefor when such liability arises out of negligent acts, errors or omissions of the Contractor, its employees or agents; failing to do so, any judgment against or settlements resulting therefrom shall become a lien against any funds due Contractor.
- 10.3 In the event any provisions in the contract are violated by the Contractor or any of its subcontractors, the Owner may serve written notice upon the Contractor and its surety of their intention to terminate such contract. Such notice shall contain a statement of the reasons for such action and unless within 10 days after the serving of such notice upon the Contractor such violation shall cease and satisfactory arrangements for correcting be made, the contract shall, upon expiration of said 10 days cease and terminate.

Special Conditions

- 10.3.1 In the event of such termination, the Owner shall immediately serve notice thereof upon the surety and Contractor and the surety shall have the right to take over and perform the contract, provided, however, that if the surety does not commence the performance thereof within 30 days, the Owner may take over the work and prosecute the same to completion by contract for the account and at the expenses of the Contractor and the Contractor and its surety shall be liable to the Owner for any excess cost occasioned the Owner thereby; in such event, the Owner may take possession of and utilize such materials, appliances and plant as may be on the site of the project and necessary in completing the work.
- 10.4 If suit is brought by the Owner for the breach of any provisions of this contract, the Contractor agrees to pay all costs in connection with suit, including reasonable attorney fees, whether or not the suit proceeds to judgment.

11. LINE AND GRADE

- 11.1 Construct to construct to plans or as specified hereinafter.
- 11.2 Contractor shall perform staking for location, elevation and grade of construction.
- 11.3 These conditions supersede conflicting provisions of GENERAL CONDITIONS.
- 11.4 Contractor shall preserve all monuments, reference points, stakes and benchmarks set by Engineer. In case of destruction by Contractor's negligence or carelessness, he will be charged with resulting expense of replacement, and responsibility for any mistakes or loss of time caused thereby.

12. EMPLOYMENT PRACTICES

- 12.1 Contractor, or his subcontractors, shall not employ any person whose physical or mental condition is such that his employment will endanger the health and safety of himself or others employed on the project.

PLANS LIST

PUBLIC LIBRARY BUILDING IMPROVEMENTS 2021
WEST LIBERTY, IOWA

1. PLANS

1.1 The work shall conform to the following drawings which constitute the "plans" and are an integral part of the Contract Documents.

<u>Title</u>	<u>Drawing Number</u>	<u>Revision Number</u>
INDEX AND TITLE SHEET	10-C-1	
NOTES	10-A-1	
BUILDING PLANS	10-A-2	
ENLARGED STORAGE ROOM & KITCHENETTE PLANS	10-A-3	
KITCHENETTE SECTIONS	10-A-4	
STORAGE ROOM SECTIONS	10-A-5	
KITCHENETTE ELEVATIONS	10-A-6	
ELECTRICAL PLAN	10-E-1	
BUILDING PLUMBING PLAN	10-M-1	
ELECTRICAL SCHEDULES	99-E-1	

DETAILED SPECIFICATIONS

SECTION 01010

GENERAL PROVISIONS

INDEX

PART 1 - GENERAL

1.01	FORM	1.08	MATERIALS TESTS
1.02	INTENT	1.09	FIELD TESTS
1.03	INTERPRETATION	1.10	DEFECTIVE EQUIPMENT
1.04	WORK INCLUDED	1.11	RESPONSIBILITY OF CONTRACTOR
1.05	STARTING AND COMPLETION DATES	1.12	BARRICADES AND LIGHTS
1.06	PLANS AND SPECIFICATIONS	1.13	PRECONSTRUCTION CONFERENCE
1.07	STANDARDS AND CODES	1.14	FINAL REVIEW AND ACCEPTANCE

PART 1 - GENERAL

1.01 FORM

- A. Detailed specifications are in outline form and include incomplete sentences. Omission of words or phrases is intentional. Supply omitted words or phrases by inference.

1.02 INTENT

- A. To set forth requirements of performance, type of construction desired and standards of materials and construction.
- B. To require Contractor to furnish and install materials and perform all work and services described in Contract Documents, unless otherwise specifically indicated.
- C. To require Contractor to perform complete work in spite of omission of specific reference to any minor component part.
- D. To provide for new materials and equipment unless otherwise indicated.

1.03 INTERPRETATION

- A. Report any errors or ambiguities in specifications to Engineer as soon as detected; Engineer will answer questions regarding and interpret intended meaning of specifications; his interpretation shall be accepted as final.

1.04 WORK INCLUDED

- A. Furnish labor, materials and equipment to construct Police and City Hall Building Improvements as set out in Notice of Hearing and Letting.

1.05 START AND COMPLETION DATES

- A. Commence work within 10 calendar days after date set forth in written Notice to Proceed. Complete within time set forth in Notice of Hearing and Letting.
- B. Provide adequate personnel and equipment to perform work within time or before completion date set out in Notice of Hearing and Letting.
- C. Order all material and equipment immediately after award of contract. Notify Owner and Engineer of scheduled delivery dates for all materials and equipment. Promptly act to accomplish one of the following if Owner and Engineer, in consultation with Contractor, determine delivery dates to be unsatisfactory:
 - 1. Substitute alternate materials and equipment with approval of Owner and Engineer.
 - 2. Expedite delivery of materials and equipment.
- D. Extensions of contract period will be given consideration upon written request of Contractor. Request must include clear, concise reasons for requesting extension and provide data and relevant information to support reasons for extension.
 - 1. Owner expects work to be complete and ready for final acceptance within completion time prior to completion date specified.
 - 2. No extension of contract period will be granted for problems caused by deliveries of materials or equipment.
 - 3. The phrase "complete and ready for final acceptance" is interpreted to mean all items of construction, surface restoration and clean-up have been accomplished to the satisfaction of the Owner and Engineer prior to the completion date for the contract. So-called "punch list" items are included in this definition and must be completed prior to the completion date for the contract.

1.06 PLANS AND SPECIFICATIONS

- A. Engineer will furnish 5 sets of plans and specifications after award of contract. Contractor shall compensate Engineer for printing costs for additional copies required.
- B. Subcontractors and suppliers will be furnished copies of plans and specifications only at request of Contractor.
- C. Provide 1 set of plans and specifications for each foreman or superintendent in charge of each crew on job.

1.07 STANDARDS AND CODES

- A. Do work in accordance with best present day construction practices.

- B. Unless specifically noted to contrary, conform with and test in accordance with applicable sections of latest revisions of codes and standards of following:
 - 1. Air Moving and Conditioning Association (AMCA).
 - 2. American Association of State Highway and Transportation Officials (AASHTO).
 - 3. American Concrete Institute (ACI).
 - 4. American Gas Association (AGA).
 - 5. American Gear Manufacturers Association (AGMA).
 - 6. American Institute of Steel Construction (AISC).
 - 7. American National Standards Institute (ANSI).
 - 8. American Plywood Association (APA).
 - 9. American Society of Civil Engineers (ASCE).
 - 10. American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE).
 - 11. American Society of Mechanical Engineers (ASME).
 - 12. American Society for Testing and Materials (ASTM).
 - 13. American Standards Association (ASA).
 - 14. American Water Works Association (AWWA).
 - 15. American Welding Society (AWS).
 - 16. Anti-friction Bearing Manufacturers Association (AFBMA).
 - 17. Architectural Woodwork Quality Standards (AWI).
 - 18. California Redwood Association (CRA).
 - 19. Factory Mutual Corporation (FM).
 - 20. Federal Specifications (FS).
 - 21. Hoist Manufacturer's Institute (HMI).
 - 22. Hydraulic Institute (HI).
 - 23. Industrial Fasteners institute (IFI).
 - 24. Industrial Risk Insurers (IRI).
 - 25. Institute of Electrical and Electronic Engineers (IEEE).
 - 26. Insulated Power Cable Engineers Association (IPCEA).
 - 27. Internal Combustion Engine Institute (ICEI).
 - 28. Illinois Department of Transportation (IDOT); latest edition of standard specifications and addenda.
 - 29. Illinois Occupational Safety and Health Act (820 ILCS 219)
 - 30. Manual of Accident Prevention in Construction by Associated General Contractors of America, Inc. (AGC).
 - 31. Mining Enforcement and Safety Administration (MESA).
 - 32. National Association of Architectural Metal Manufacturers (NAAMM).
 - 33. National Electrical Manufacturers Association (NEMA).
 - 34. National Electrical Safety Code (NESC).
 - 35. National Fire Protection Association, Inc. (NFPA).
 - 36. National Fire Protection Associations' National Electrical Code (NEC).
 - 37. National Fluid Power Association (NFPA).
 - 38. National Institute for Occupational Safety and Health (NIOSH).

39. National Lumber Manufacturers Association (NLMA).
40. National Safety Council (NSC).
41. National Woodwork Manufacturers Association (NWMA).
42. Occupational Safety and Health Act of 1970 (Public Law 91-596) (OSHA).
43. Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA).
44. Society of Automotive Engineers (SAE).
45. Steel Door Institute (SDI).
46. Steel Structures Painting Council (SSPC).
47. Underwriters' Laboratories, Inc. (UL).
48. West Coast Lumber Inspection Bureau (WCLB).
49. Western Wood Products Association (WWPA).
50. Standards and codes of the State of Illinois and applicable local standards and codes of the Village of Cambridge, Illinois.
51. Other standards and codes which may be applicable to acceptable standards of the industry for equipment, materials and installation under the contracts.

1.08 MATERIALS TESTS

- A. Includes all materials tests or tests specified hereinafter.
- B. Employ approved testing laboratory to show that construction materials comply with specifications.
- C. Provide samples of materials required for laboratory tests and pay cost of all tests including transportation charges on samples.
- D. Incorporate no materials in work until laboratory tests have been furnished which show materials comply with specifications.
- E. All materials subject to testing, inspection and rejection at the site by Engineer.
- F. Pay all costs of retesting when test results indicate non-compliance with contract requirements.
- G. Laboratory tests specified herein include the following:
 1. Structural steel: certified copies of mill tests; ASTM A36.
 2. Aluminum-alloy: certify that properties conform to specifications.
 3. Galvanizing: certify that zinc coatings conform to specifications for all equipment.
 4. Cement: bin sample for entire requirement, ASTM C150.
 5. Concrete aggregates: one sample of each, ASTM C33.
 6. Two concrete compression cylinders from trial batch for each proposed mix, ASTM C39; test one at 7 days, one at 28 days; test cylinders during construction.
 7. Reinforcing steel: certify that steel conforms to ASTM A615 for grade specified.
 8. Ductile iron pipe: certify that pipe conforms to ANSI/AWWA C151/A21.51.
 9. Steel and galvanized steel pipe: certify that pipe conforms to ASTM A53.

10. Stainless steel pipe: certify that pipe conforms to ASTM A312, ASTM A778, and ASTM A774.
11. Copper tubing: certify that pipe conforms to ASTM B88.
12. Polyvinylchloride pipe: certify that pipe conforms to ASTM D1785, ASTM D1248 and AWWA C900.
13. Other pipe: certify that pipe conforms to applicable specifications.

H. Concrete Components:

1. Test or verify in writing make up of concrete in each concrete truck load delivered and poured at site.
2. Verify gallons of water per sack of cement.
3. Verify sacks of cement per cubic yard of concrete.
4. Verify admixtures used per ASTM designations.
5. Test for inches of slump per ASTM C143 and C172.
6. Test for percent air content per ASTM C231 or C173 and C172.

I. Reinforcing steel: furnish original and 1 copy of certified test report by manufacturer.

J. Provide sampling and testing of excavated materials to determine moisture-density relations of soils and perform moisture and density tests during construction as specified hereinafter.

K. See Section 01300 - Submittals, for other requirements.

1.09 FIELD TESTS

- A. After installation is complete, supervise operation of equipment for 30 days to assure proper functioning; make necessary observations, tests and adjustments; replace or repair defective parts; notify Engineer when installation is considered complete, in operating condition and ready for testing.
- B. Engineer will conduct certain tests deemed necessary to determine that equipment functions properly and that guarantees are met.
- C. Test piping and valves as specified hereinafter.
- D. If performance guarantees or requirements are not met during tests, make necessary corrections, repairs or replacements; demonstrate to Engineer that work meets performance guarantees or requirements.

1.10 DEFECTIVE EQUIPMENT

- A. Owner retains right to operate equipment until defects are corrected and guarantees satisfied.
- B. Owner reserves right to operate rejected equipment or other work until replaced, without cost for depreciation, use or wear.
- C. Remove equipment or other work from operation for examination, adjustment or change at times approved by Engineer.

1.11 RESPONSIBILITY OF CONTRACTOR

- A. Protection of his work.
- B. Protection of all property from injury or loss resulting from his operations.
- C. Replace or repair objects sustaining damage, injury or loss to satisfaction of Owner and Engineer.
- D. Without limiting GENERAL REQUIREMENTS of Contract Documents, protect fences, sidewalks, street, pavements, alleys, pipe, conduit, utilities, trees, shrubs and structures.
- E. Cooperate with Owner, Engineer and representative of utilities in locating underground utility lines and structures. Incorrect, inaccurate or inadequate information concerning location of utilities or structures shall not relieve Contractor of responsibility for damage thereto caused by his operations.
- F. Keep cleanup current with construction operations.
- G. Comply with all federal, State of Iowa and City of West Liberty, Iowa, laws and ordinances.
- H. Provide and maintain sanitary facilities for construction personnel for duration of work; remove upon completion of work.
- I. Notify Engineer 48 hours prior to expected time for operations requiring construction observation services.
- J. Cooperate with independent testing firm; furnish samples of materials, design mix, equipment, tools, storage and assistance as requested.

1.12 BARRICADES AND LIGHTS

- A. Erect and maintain barricades and lights and/or provide watchmen for protection and warning of pedestrians; all barricades, lights and/or watchmen at expense of Contractor.
- B. Location and arrangement: conform to ordinances and laws; meet approval of Owner and Engineer.

1.13 PRECONSTRUCTION CONFERENCE

- A. Soon after award of contract and prior to the start of construction, attend a preconstruction conference with representative of the Owner to define the requirements for contract administration and construction operation.
- B. Contact the Engineer who will determine the time, date and place of the conference.

1.14 FINAL REVIEW AND ACCEPTANCE

- A. Notify Engineer when installation is considered to be complete and ready for final review.
- B. Owner will accept work and make final payment to Contractor.
 - 1. When Engineer has certified that he has reviewed the work of Contractor and stated that the work is complete and in substantial conformance with specifications.
 - 2. When Contractor has filed with Owner and Engineer documents called for in specifications.
 - 3. When all governmental agencies involved have indicated, in writing, that work is complete and acceptable.

PART 2 - PRODUCTS

Not Applicable.

PART 3 - EXECUTION

Not Applicable.

END OF SECTION

SECTION 01040

SPECIAL CONSTRUCTION

INDEX

PART 1 - GENERAL

- 1.01 DESCRIPTION
- 1.02 COOPERATION WITH OTHERS
- 1.03 DEMOLITION AND REMOVAL
- 1.04 ORDER OF WORK

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Procedures outlined below are not intended to fully cover all special procedures or emergencies which may arise during construction but are offered as an aid to Contractor in planning work; Contractor will cooperate with Owner and Engineer to minimize inconvenience, construction delays and interruptions to continuous operation of existing police and City Hall facility.
- B. Determine location of utilities and piping before starting work; locations of covered appurtenances shown are approximate and not guaranteed by Owner or Engineer.
- C. Arrange with operating utilities for relocation or temporary removal of utilities in conflict with construction and for services needed during construction.
- D. Submit complete schedule after award of contract for planning, controlling, and completing construction of project. Include list of promised delivery dates for major equipment items. Schedule project on basis of promised delivery dates for major equipment items.
 - 1. Contractor will be expected to provide adequate personnel and equipment to perform work within specified time of construction.
 - 2. If delays in delivery of major equipment become apparent, notify Owner and Engineer promptly; take action to accomplish one of the following:
 - a. Substitute alternate equipment with approval of Owner and Engineer.
 - b. Expedite delivery of equipment.
 - 3. Extensions of contract period will be given consideration upon written request of Contractor; request must include valid supporting data and bona fide reasons for requesting extension; inclement weather is not justification for extending contract period; Owner expects work to be complete and ready for final acceptance within completion time specified.

1.02 COOPERATION WITH OTHERS

- A. Cooperate with state and federal regulatory agencies in matters under their jurisdiction over construction operations.
- B. Cooperate with local governmental agencies; secure necessary building permits and arrange for inspections at proper times.
- C. Advise all utilities prior to excavating; arrange for field locates of utilities by utility representatives.

1.03 DEMOLITION AND REMOVAL

- A. Remove waste, rubble and debris from site; dispose of in accordance with all State and Federal regulations.
- B. Contractor responsible for obtaining suitable disposal site. Cost is incidental to construction.

1.04 ORDER OF WORK

- A. Prepare detailed construction procedure schedule after award of contract.
- B. Work with Owner and Engineer to establish workable construction schedule after award of contract. Schedule must be approved by Engineer prior to commencing construction activities.
- C. Police station must remain in continuous operation during construction except as required to make connections to new facilities. The sequence of events is a suggestion and is not intended to direct the Contractor's means, methods, and techniques or approach to completing the work. Other construction sequences could be acceptable.
- D. Schedule required interruptions to facilities with Owner and Engineer.
- E. Provide Owner 48 hours' notice of any interruption of operation; coordinate with Owner.
- F. Construction sequence as noted on plans.

PART 2 - PRODUCTS

Not Applicable.

PART 3 - EXECUTION

Not Applicable.

END OF SECTION

SECTION 01150

MEASUREMENT AND PAYMENT

INDEX

PART 1 - GENERAL

- 1.01 SCOPE
- 1.02 QUANTITY VARIATIONS
- 1.03 FAILURE TO SUBMIT MANUALS,
PARTS LISTS, SPARE PARTS AND
TOOLS
- 1.04 SCHEDULE OF VALUES

PART 1 - GENERAL

1.01 SCOPE

- A. No separate payment will be made for work covered in the specifications except as set forth below. Include all work in lump sum bid for constructing headworks building improvements.
- B. If items not included in lump sum bid for constructing headworks building Improvements are required during construction, contract price shall be adjusted on basis of unit price negotiated between Engineer and Contractor and approved by Owner.

1.02 QUANTITY VARIATIONS

- A. No separate payment will be made for changes in quantities of items included in lump sum bid for construction of headworks building improvements except as set forth below. Contract unit prices shall include all costs for each item of work.
- B. If quantities of items are changed from those upon which bid is based, contract price shall be adjusted on basis of unit price negotiated between Engineer and Contractor and approved by Owner.

1.03 FAILURE TO SUBMIT MANUALS, PARTS LISTS, SPARE PARTS AND TOOLS

- A. Failure to submit manuals, parts lists, spare parts and tools as defined in Section 01300 - Submittals within 40 days after return of shop drawings to Contractor will result in payment retention of \$2,000 for each equipment item up to an aggregate sum of \$50,000; retained payments will be relinquished after appropriate manuals, parts lists and tools are received and reviewed by Engineer.

1.04 SCHEDULE OF VALUES

- A. Submit to Engineer Schedule of Values allocated to various portions of work.
- B. Upon request of Engineer, support values with data which will substantiate their correctness.
- C. Schedule of Values shall be used only as basis for Contractor's application for progress payment.
- D. Type schedule on 8-1/2" x 11" white paper; Contractor's standard forms and automated printout will be considered for approval by Engineer upon Contractor's request. Identify schedule with:
 - 1. Title of project and location.
 - 2. Engineer and Engineer's project number.
 - 3. Name and address of Contractor.
 - 4. Contract designation.
 - 5. Date of submission.
- E. Schedule shall list installed value of component parts of work in sufficient detail to serve as basis for computing values for progress payments during construction.
- F. Follow table of contents of this project manual as format for listing component items.
 - 1. Identify each line item with number and title of respective specification section.
- G. For each specification division, list subvalues of major materials, equipment or operation under division.
- H. Provide separate listing of items of General Requirements (Division 1), such as bonds, insurance premiums, job mobilization, field supervision and layout, construction facilities and temporary controls, contingency allowance, construction schedule, O&M data, record drawings, and submittals.
- I. For various portions of work:
 - 1. Each item shall include directly proportional amount of Contractor's overhead and profit.
 - 2. For items on which progress payments will be requested for stored materials, break down value into:
 - a. Cost of materials delivered and unloaded, with taxes paid.
 - b. Total installed value including Contractor's overhead and profit.
- J. Sum of values listed in schedule shall equal total contract sum.

PART 2 - PRODUCTS

Not Applicable.

PART 3 - EXECUTION

Not Applicable.

END OF SECTION

SECTION 01300

SUBMITTALS

INDEX

PART 1 – GENERAL

- 1.01 INFORMATION FOR ENGINEER
- 1.02 SHOP DRAWINGS
- 1.03 INSTRUCTION MANUALS, PARTS LISTS AND TOOLS

PART 1 - GENERAL

- 1.01 INFORMATION FOR ENGINEER
 - A. After award of contract submit following information and drawings for Engineer's review. Total number of reviewed copies required for distribution: 5 plus copies required by Contractor.
 - 1. Certified materials tests as described in Section 01010 - General Provisions.
 - 2. Certified outline, general arrangement, assembly, installation, foundation arrangement and anchor bolt detail drawings for all major equipment listed in proposal and for other equipment where specified.
 - 3. Manufacturer's specifications and catalog data for all items of equipment including treatment equipment, electrical controls, heating and ventilating equipment, plumbing fixtures, valves, pipe, fittings, castings and appurtenances and other special items.
 - 4. Certified performance data and operating characteristics for pumps prior to delivery to job site from shop tests performed on pumps furnished in accordance with Hydraulic Institute.
 - 5. Shop drawings showing reinforcing steel details, structural steel and aluminum, beams, grating, supports, prefabricated piping, and other items.
 - 6. Schematic diagrams of all control circuits.
 - 7. Detailed wiring diagrams.
 - 8. Such other information as Engineer may request and information as specified with equipment.
 - B. Within 15 days after award of contract, provide construction schedule, showing dates of starting and completing various portions of work and dollar value of each portion of work.
 - C. Within 30 days after initiation of construction, provide written schedules of estimated monthly payments for contractor and subcontractors; revise schedules whenever variations exceed 10%.
 - D. Provide 2 copies of following information:
 - 1. Contract price breakdown of lump sum bid for use in preparation of periodic payment estimates.
 - 2. Purchase orders and subcontracts without prices.

3. Shipping papers for all materials.
4. All materials test reports.
5. Concrete mix designs; submit 8 days before proposed mix is to be used.

1.02 SHOP DRAWINGS

- A. Intent of Engineer's review: to assist Contractor in interpreting plans and specifications.
- B. Contractor's responsibility: to check drawings prior to submission for coordination and conformance with contract; do not submit without checking.
- C. Equipment checking is only for general conformance with design concept of project and general compliance with information given in contract documents. Any action shown is subject to requirements of plans and specifications. Contractor is responsible for dimensions which must be confirmed and correlated at job site; fabrication processes and techniques of construction; coordination of work with that of all other trades; and satisfactory performance of work.
- D. Prior to submission of shop drawings and catalog data to Engineer: affix Contractor's stamp with signature of responsible person to show that material submitted has been checked and approved by Contractor. Shop drawings submitted without appropriate stamp and signature will be returned unreviewed.
- E. Do not install or otherwise incorporate any equipment on project until shop drawings, if required, have been reviewed and so designated by Engineer.
- F. Contractor's responsibility for errors and omissions in submittals is not relieved by Engineer's review of submittals.
- G. Whenever items of materials or equipment are specified by a manufacturer's name and type and "or equal" is not listed, Contractor shall provide specified equipment without substitution, unless prior approval of Engineer is obtained for any substitution.
- H. Contractor shall abide by Engineer's decision when proposed substitute of material or equipment are deemed to be unacceptable and in such an event Contractor shall furnish items of equipment or materials specified.
- I. Engineer reserves right to consider such factors as overall project arrangement, overall project cost, and similar factors in determining whether proposed substitutions will be acceptable.

1.03 INSTRUCTION MANUALS, PARTS LISTS AND TOOLS

- A. Furnish 5 complete sets of manufacturer's instructions for installation, operation and maintenance of equipment furnished; include assembly drawings and parts lists with exploded views of equipment parts and identification symbols or part numbers for all replaceable parts and assemblies, recommended spare parts list, lubricant guide, preventative maintenance and troubleshooting procedures; submit manuals to Engineer within 30 days after return of shop drawings by Engineer to Contractor; manuals subject to Engineer's review.
- B. Furnish special tools, jigs and fixtures necessary for installation, operation, lubrication, repair, preventative maintenance, or troubleshooting of equipment.

PART 2 - PRODUCTS

Not Applicable.

PART 3 - EXECUTION

Not Applicable.

END OF SECTION

SECTION 01310

CONSTRUCTION PROGRESS SCHEDULES

INDEX

PART 1 - GENERAL

- 1.01 DESCRIPTION
- 1.02 FORM OF SCHEDULE
- 1.03 CONTENT OF SCHEDULE
- 1.04 SCHEDULE REVISIONS
- 1.05 DELAYS AND RECOVERY
- 1.06 SUBMITTAL REQUIREMENTS

PART 1 - GENERAL

- 1.01 DESCRIPTION
 - A. Prepare and submit to Engineer for review, estimated construction progress schedule.
 - B. No work shall be performed between 7:00 P.M. and 7:00 A.M., nor on legal holidays without permission of Owner.
 - C. Night work may be established by Contractor as regular procedure with permission of Owner. Such permission, however, may be revoked at any time by Owner if Contractor fails to maintain adequate equipment and supervision for proper prosecution and control of work at night.
- 1.02 FORM OF SCHEDULE
 - A. Prepare schedule in form of horizontal bar chart.
 - 1. Provide separate horizontal bar for each trade, activity, or operation.
 - 2. Horizontal time scale: identify first workday of each week.
 - 3. Scale and spacings to allow space for notations and future revisions.
 - B. Format of listings: chronological order of start of each item of work.
 - C. Identification of listings: by major specification section numbers.
- 1.03 CONTENT OF SCHEDULE
 - A. Construction Progress Schedule:
 - 1. Show complete sequence of construction by activity.
 - 2. Coordinate progress schedule with submittal schedule.

3. Show dates for beginning and completion of each major element of construction and installation dates for major items of equipment. Elements shall include, but not be limited to:
 - a. Material and equipment order, manufacturer, delivery, installation, and checkout, including allowance items.
 - b. Performance tests and supervisory services activity.
 - c. Piping, ductwork, and wiring installation.
 - d. Structural steel erection.
 - e. Electrical work activity.
 - f. Heating, ventilating, and air conditioning work activity.
 - g. Plumbing work activity.
 - h. Subcontractor's items of work
 - i. Final cleanup.
 - j. Allowance for inclement weather.
 - k. Demolition
 - l. Miscellaneous concrete placement.
4. Show projected percentages of completion for each item as of first day of each month.

1.04 SCHEDULE REVISIONS

- A. Revise construction progress schedule every 30 days to reflect changes in progress of work.
- B. Indicate progress of each activity at date of schedule revision.
- C. Show changes occurring since previous revised submittal.
 1. Major changes in scope.
 2. Activities modified since previous submittal.
 3. Revised projections of progress and completion.
 4. Other identifiable changes.
- D. Provide narrative report defining:
 1. Problem areas, anticipated delays, and impact on schedule.
 2. Corrective action recommended and its effect.
- E. Submit to Engineer.

1.05 DELAYS AND RECOVERY

- A. If, at any time during project, Contractor fails to complete activity by its latest scheduled completion date, Contractor shall, within 3 working days, submit to Engineer written statements as to how and when work force will be reorganized to return contract to current construction schedule.

- B. Whenever it becomes apparent from progress evaluation and updated schedule data that milestone completion dates or contract completion dates will not be met, Contractor shall take some or all of the following actions.
 - 1. Increase construction staffing in such quantities and crafts as shall substantially eliminate backlog of work.
 - 2. Increase number of working hours per shift, shifts per workday, workdays per week, amount of construction equipment or combination of foregoing sufficient to substantially eliminate backlog of work.
 - 3. Reschedule work items to achieve concurrency of accomplishment.
- C. Addition of equipment or construction forces, increasing working hours or any other method, manner, or procedure to return to current construction progress schedule not considered justification for amending contract documents or treated as acceleration.

1.06 SUBMITTAL REQUIREMENTS

- A. For initial submittal of construction schedule and subsequent revisions thereof, furnish 5 copies of schedule to Engineer.
- B. Failure to submit construction schedule on timely basis as previously noted shall be considered cause for withholding progress payments otherwise due under contract.

PART 2 - PRODUCTS

Not Applicable.

PART 3 - EXECUTION

Not Applicable.

END OF SECTION

SECTION 01500

TEMPORARY CONSTRUCTION FACILITIES AND UTILITIES

INDEX

PART 1 - GENERAL

- 1.01 DESCRIPTION
- 1.02 REQUIREMENTS OF REGULATORY AGENCIES

PART 2 - PRODUCTS

- 2.01 TEMPORARY ELECTRICITY AND LIGHTING
- 2.02 TEMPORARY TELEPHONE SERVICE
- 2.03 WATER FOR CONSTRUCTION AND TESTING
- 2.04 SANITARY FACILITIES
- 2.05 TEMPORARY FIRE PROTECTION
- 2.06 TEMPORARY SITE WORK
- 2.07 DAMAGE TO EXISTING PROPERTY
- 2.08 SECURITY
- 2.09 TEMPORARY PARKING
- 2.10 TEMPORARY FENCING
- 2.11 FIELD OFFICES AND BUILDINGS
- 2.12 OWNER'S USE

PART 3 - EXECUTION

- 3.01 GENERAL
- 3.02 REMOVAL

PART 1 - GENERAL

- 1.01 DESCRIPTION

- A. Provide and maintain temporary facilities and utilities required for construction; remove on completion of work.

- 1.02 REQUIREMENTS OF REGULATORY AGENCIES

- A. National Fire Protection Association (NFPA):
 - 1. National Electric Code (NEC), NFPA No. 70, and Iowa amendments.
- B. Comply with federal, state, and local codes and regulations, and with utility company requirements.

PART 2 - PRODUCTS

2.01 TEMPORARY ELECTRICITY AND LIGHTING

A. General:

1. Temporary lighting shall be sufficient to enable Contractor to complete work and enable Engineer to check work as it is being performed. Illumination shall meet or exceed state code requirements.
2. After substantial completion of permanent electrical system and building wiring, permanent receptacles may be used during finishing work.

B. Responsibilities:

1. Provide, maintain, and remove temporary electric service facilities.
2. Facilities exposed to weather shall be weatherproof type and electrical equipment enclosure locked to prevent access by unauthorized personnel.
3. Pay for installation of temporary services including poles, transformer charges, and metering.
4. Patch affected surfaces and structures after temporary services removed.
5. Arrange with local electric utility for temporary electric service subject to their requirements and approval.
6. Register meter in Contractor's name.
7. Provide lamps, wiring, switches, sockets, and similar equipment required for temporary lighting and small power tools.
8. Pay for electrical energy consumed for construction purposes including operation of ventilating equipment, heating of buildings, and testing and operating equipment after permanent wiring installed, until final acceptance by Engineer or until occupancy by Owner.
9. Provide and pay for service to temporary offices.

2.02 TEMPORARY TELEPHONE SERVICE

- A. Arrange with local telephone service company to provide telephone service throughout duration of work.
- B. Locate telephone in job construction office for local calls.

2.03 WATER FOR CONSTRUCTION AND TESTING

- A. Water available at project site at no charge in reasonable quantities. Make arrangements to obtain suitable water.

2.04 SANITARY FACILITIES

- A. Provide temporary sanitary toilet facilities conforming to state and local health and sanitation requirements, in sufficient number for use by Contractor's employees.
- B. Maintain in sanitary condition and properly supply with toilet paper.

2.05 TEMPORARY FIRE PROTECTION

- A. Provide and maintain in working order, minimum of 1 fire extinguisher on each floor of each building, and such other fire protective equipment and devices as would be reasonably effective in extinguishing fires during early stages by personnel at project site.
- B. Comply with NFPA, federal, state, local and other applicable requirements.

2.06 TEMPORARY SITE WORK

- A. Provide and maintain temporary roadways necessary to carry out construction operations in clean, dust free, snow free, ice free, drivable condition.
- B. Provide and maintain temporary site drainage and stormwater controls.
- C. Exercise caution to minimize increase in suspended solids and turbidity in surface waters within and adjacent to construction area. Do not deposit spoils in surface waters. Control and minimize sediment runoff and excavation erosion to surface waters.

2.07 DAMAGE TO EXISTING PROPERTY

- A. Be responsible for replacing or repairing damage to existing buildings, sidewalks, roads, parking lot surfacing, and other existing assets.
- B. Contractor shall have option of having Owner contract for such work and have cost deducted from contract amount.

2.08 SECURITY

- A. Security not provided by Owner.
- B. Contractor shall be held responsible for loss or injury to persons or property where his work is involved and shall provide security and take precautionary measures to protect Contractor's and Owner's interests.

2.09 TEMPORARY PARKING

- A. Parking on construction site in designated areas may be provided as approved by Engineer and Owner.
- B. Make arrangements for additional parking area for employee's vehicles if required.
- C. Costs involved in obtaining this parking area shall be borne by Contractor.

2.10 TEMPORARY FENCING

- A. Provide temporary fencing sufficient to prevent trespass by Contractor's employees and suppliers onto private property and by public onto construction site.
- B. Materials shall be sufficiently durable to be effective for duration of construction period.

2.11 FIELD OFFICES AND BUILDINGS

- A. If required by Contractor, erect where designated by Engineer and maintain in good condition, temporary field office and tool storage building(s) for Contractor's use.
 - 1. Tool storage building(s) shall be of ample size to provide space for tools and equipment. Building(s) shall be neat and well-constructed, surfaced with plywood, drop siding, masonite or other similar material, well painted and void of advertisements.

2.12 OWNER'S USE

- A. Upon acceptance of work, or portion of work defined and certified as substantially completed by Engineer, and Owner commences full-time successful operation of facility or portion thereof, Owner will pay cost for utilities used for Owner's operation. Contractor shall continue to pay for utilities used until final acceptance of work, except as provided herein. However, heat for heating building as required for construction purposes shall still be paid by Contractor unless, due to occupancy by Owner, more heat shall be required either due to increased temperature or lengthened duration, in which case Owner will bear difference in cost.

PART 3 - EXECUTION

3.01 GENERAL

- A. Comply with applicable requirements specified herein.

- B. Maintain and operate systems to ensure continuous service.
- C. Modify and extend systems as work progress requires.

3.02 REMOVAL

- A. Completely remove temporary materials, equipment, signs, and structures when no longer required.
- B. In unfinished areas, clean and repair damage caused by temporary installations or use of temporary facilities, restore drainage, and evenly grade, seed or plant as necessary to provide appearance equal to or better than original.
- C. In finished areas, restore existing or permanent facilities used for temporary services to specified, or to original, condition.

END OF SECTION

SECTION 01600

MATERIAL AND EQUIPMENT

INDEX

PART 1 - GENERAL

- 1.01 DESCRIPTION
- 1.02 SUBSTITUTIONS
- 1.03 REUSE OF EXISTING MATERIAL
- 1.04 MANUFACTURER'S INSTRUCTIONS
- 1.05 TRANSPORTATION AND HANDLING
- 1.06 STORAGE, PROTECTION, AND
MAINTENANCE
- 1.07 INSTALLATION, INSTRUCTIONAL,
AND POST STARTUP SERVICES
- 1.08 SPECIAL TOOLS AND LUBRICATING
EQUIPMENT
- 1.09 LUBRICATION
- 1.10 GUARDS

PART 1 - GENERAL

- 1.01 DESCRIPTION
 - A. Material and equipment incorporated into work:
 - 1. Conform to applicable specifications and standards.
 - 2. Comply with size, make, type, and quality specified or as specifically approved by shop drawings, Engineer, or another submittal.
 - B. Manufactured and fabricated materials and equipment:
 - 1. Design, fabricate, and assemble in accordance with engineering and shop practices standard with industry.
 - 2. Manufacture like parts of duplicate units to standard sizes and gauges, to be interchangeable.
 - 3. Two or more items of same kind shall be identical, by same manufacturer.
 - 4. Material and equipment shall be suitable for service conditions.
 - 5. Equipment capabilities, sizes, and dimensions shown or specified shall be adhered to, unless variations are specifically approved, in writing, in accordance with General Conditions.
 - 6. Equipment shall be adapted to best economy in power consumption and maintenance. Parts and components shall be proportioned for stresses occurring during continuous or intermittent operation, and for additional stresses occurring during fabrication or installation.

7. Design so working parts readily accessible for inspection and repair, easily duplicated, and replaced.
- C. Do not use material or equipment for any purpose other than for which it is designed or specified.

1.02 SUBSTITUTIONS

A. Substitutions:

1. Contractor's requests for changes in equipment and materials from those required by Contract Documents are considered "requests for substitutions" and subject to Contractor's representations and review provisions of Contract Documents when one of the following conditions are satisfied:
 - a. Where request directly related to "or equal" clause or other language of same effect in specifications.
 - b. Where required equipment or material cannot be provided within Contract Time, but not as result of Contractor's failure to pursue work promptly or coordinate various activities properly.
 - c. Where required equipment or material cannot be provided in manner compatible with other materials of work or cannot be properly coordinated therewith.
2. Contractor's options:
 - a. Compatibility of options: Where more than one choice available as options for Contractor's selection of equipment or material, select option compatible with other equipment and materials already selected.
 - b. Standards, codes, and regulations: Where compliance with imposed standard, code or regulation required, select from among products which comply with requirements of those standards, codes, and regulations.
 - c. "Or Equal": For material or equipment specified by naming one or more equipment manufacturer and "or equal," Contractor shall submit request for substitution for any equipment or manufacturer not specifically named. Submit in accordance with GENERAL CONDITIONS, paragraph 1.15, and these General Requirements.
 - d. Two or more manufacturers: For equipment or material specified by naming several manufacturers, select any one of manufacturers named. Do not provide or offer to provide unnamed manufacturer or equipment.
 - e. Single manufacturer or material: For equipment or material specified by naming only one manufacturer or material, there is no option.

B. Conditions which are not substitutions:

1. Requirements for substitutions do not apply to Contractor options on materials and equipment provided in specifications.
2. Revisions to Contract Documents, where requested by Owner or Engineer, are "changes" not "substitutions."

3. Contractor's determination of and compliance with governing regulations and orders issued by governing authorities do not constitute substitutions or basis for change orders, except as provided for in Contract Documents.

1.03 REUSE OF EXISTING MATERIAL

- A. Except as specifically indicated or specified, do not use materials and equipment removed from existing structures in new work.
- B. For material and equipment specifically indicated or specified to be reused in work:
 1. Use special care in removal, handling, storage, and reinstallation to ensure proper function in completed work.
 2. Arrange and pay for transportation, storage, and handling of products which require off-site storage, restoration, or renovation.
 3. Off-site storage areas and buildings shall conform to requirements of this section.

1.04 MANUFACTURER'S INSTRUCTIONS

- A. Installation of equipment and materials shall comply with manufacturer's instructions. Obtain and distribute printed copies of such instructions to parties involved in installation, including 2 copies to Engineer.
 1. Maintain 1 set of complete instructions at job site during installation and until completion of work.
- B. Handle, install, connect, clean, condition, and adjust materials and equipment in accordance with manufacturer's written instructions and in conformity with specifications.
 1. Should job conditions or specified requirements conflict with manufacturer's instructions, consult Engineer for further instructions.
 2. Do not proceed with work without written instructions.

1.05 TRANSPORTATION AND HANDLING

- A. Arrange deliveries of materials and equipment in accordance with Construction Progress Schedule, coordinate to avoid conflict with work and conditions at site.
 1. Deliver materials and equipment in undamaged condition, in manufacturer's original containers or packaging, with identifying labels intact and legible.
 2. Protect bright machined surfaces, such as shafts and valve faces, with heavy coat of grease prior to shipment.

3. Immediately upon delivery, inspect shipments to ensure compliance with Contract Documents and approved submittals, and products have been protected and are undamaged.
- B. Provide equipment and personnel to handle materials and equipment by methods recommended by manufacturer to prevent soiling or damage to materials or equipment, or packaging.

1.06 STORAGE, PROTECTION, AND MAINTENANCE

- A. On-site storage areas and buildings shall conform to requirements of Section 01500 - Temporary Construction Facilities and Utilities.
- B. Owner assumes no responsibility for materials and equipment stored in buildings or on site or at another location approved in writing. Contractor assumes full responsibility for damage due to storage of materials and equipment.
- C. Interior storage:
 1. Store materials and equipment in accordance with manufacturer's instructions, with seals and labels intact and legible.
 2. Store materials and equipment subject to damage by elements in weathertight enclosures.
 3. Maintain temperature and humidity within ranges required by manufacturer's instructions.
- D. Exterior storage:
 1. Store fabricated materials and equipment above ground, on blocking or skids, to prevent soiling or staining. Cover materials and equipment subject to deterioration with impervious sheet coverings, provide adequate ventilation to avoid condensation.
 2. Store loose granular materials in well-drained area on solid surfaces to prevent mixing with foreign matter.
 3. Materials such as pipe, reinforcing and structural steel, and equipment shall be stored on pallets or racks, off ground.
- E. Inspection and maintenance:
 1. Arrange storage in manner providing easy access for inspection, maintenance, and inventory.
 2. Make periodic inspections of stored materials and equipment to ensure materials and equipment maintained under specified conditions and free from damage or deterioration, and coverings in place and in condition to provide required protection.
 3. Perform maintenance on stored materials and equipment in accordance with manufacturer's written instructions and in presence of Owner or Engineer.

- a. Notify Engineer 24 hours before performance of maintenance.
 - b. Submit report of completed maintenance and condition of coverings to Engineer with each Application for Payment.
 - c. Failure to perform maintenance, to notify Engineer of intent to perform maintenance or to submit maintenance report may result in rejection of material or equipment.
- F. Contractor shall assume responsibility for protection of completed construction and repair and restore damage to completed work equal to original condition.
- G. Wheeling of loads over floors, with or without plank protection, not permitted in anything except rubber tired wheelbarrows, buggies, trucks, or dollies. This applies to finished floors and exposed concrete floors, as well as those covered with composition tile or other applied surfacing.
- H. Where structural concrete is also finished surface, avoid marking or damaging surface.

1.07 INSTALLATION, INSTRUCTIONAL, AND POST STARTUP SERVICES

A. General:

- 1. This article covers on-site services of supplier's or manufacturer's representatives provided by Contractor during construction, equipment startup, and training of Owner's personnel for equipment or facility operation as specifically required in specification section for equipment or system.
- 2. Include and pay costs for supplier's or manufacturer's services, including, but not limited to, those specified.

B. Installation services:

- 1. Where installation services called for in specifications, provide competent and experienced technical representatives of manufacturers of equipment and systems to resolve assembly or installation procedures attributable to, or associated with, equipment furnished.
- 2. After equipment installed, representatives shall perform initial equipment and system adjustment and calibration to conform to specifications and manufacturer's requirements and instructions.

C. Instructional services:

- 1. Where training called for in specifications, provide competent and experienced technical representative of supplier to provide detailed instructions to Owner's personnel for operation of equipment. Training services shall include pre-startup and equipment startup, classroom, and on-site equipment instruction, as stated in specifications.

2. Coordinate pre-startup training periods with Engineer and supplier's representative.
 - a. Notify Engineer at least 48 hours before training sessions are to begin so Engineer can make arrangements with Owner's operating personnel.
 - b. Reschedule canceled training sessions 48 hours in advance.
3. Similar types of equipment differing in model, size or manufacturer shall require equal service time as stated in Part 1 of specific specification section.
4. Complete pre-startup training 14 days prior to actual facility startup.
5. Operation and maintenance data shall constitute basis of instruction.
 - a. Review data contents with personnel in full detail to explain aspects of operations and maintenance.

D. Post startup services:

1. After equipment/system in operation for at least 6 months, but no longer than 11 months, each equipment manufacturer or authorized equipment representative shall make final inspection where so required in specifications. Final inspection will provide assistance to Owner's operating personnel in making adjustments or calibrations required to ensure equipment or system operating in conformance with design, manufacturer, and specifications.

1.08 SPECIAL TOOLS AND LUBRICATING EQUIPMENT

- A. Furnish, in accordance with manufacturer's recommendations, special tools required for checking, testing, parts replacement, and maintenance. Special tools are those specially designed or adapted for use on parts of equipment, and not customarily and routinely carried by maintenance mechanics.
- B. Deliver to Owner when unit placed into operation and after operating personnel have been properly instructed in operation, repair, and maintenance of equipment.
- C. Tools and lubricating equipment shall be of quality compatible to equipment manufacturer has furnished.

1.09 LUBRICATION

- A. Where lubrication required for proper operation of equipment, incorporate necessary and proper provisions in equipment in accordance with manufacturer's requirements. Where possible, lubrication shall be automated and positive.
- B. Where oil used, reservoir shall be of sufficient capacity to supply unit for 24-hour period.

1.10 GUARDS

- A. Provide necessary guards to meet federal, state, and local requirements. Construct guards of expanded metal where possible.

PART 2 - PRODUCTS

Not Applicable.

PART 3 - EXECUTION

Not Applicable.

END OF SECTION

SECTION 01720

PROJECT RECORD DOCUMENTS

INDEX

PART 1 - GENERAL

- 1.01 DESCRIPTION
- 1.02 MAINTENANCE OF DOCUMENTS
AND SAMPLES
- 1.03 RECORD DOCUMENTS
- 1.04 SUBMITTALS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Maintain at site one record copy of:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change orders and other modifications to Contract.
 - 5. Engineer field orders, written instructions, or clarifications.
 - 6. Approved submittals.
 - 7. Field test records.
 - 8. Construction photographs.
 - 9. All associated permits.
 - 10. Certificates of inspection and approvals.

1.02 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Store documents and samples in Contractor's field office apart from documents for construction.
 - 1. Provide files and racks for storage of documents.
 - 2. Provide secure storage space for storage of samples.
- B. Maintain documents in clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
- C. Make documents and samples available at all times for inspection by Engineer.
- D. Failure to properly maintain record documents may be reason to delay a portion (up to 5%) of progress payments until records comply with Contract Documents.

1.03 RECORD DOCUMENTS

- A. Maintain record set of Drawings and Specifications legibly changed to transfer approved modifications in completed work that differ from Contract Documents.
- B. Label each document "PROJECT RECORD" in neat, largely printed letters.
- C. Record information concurrently with construction progress.
 - 1. Do not conceal any work until required information recorded.
 - 2. Record changes made by Written Agreement, Field Order, Change Order or Work Directive Change.
- D. Drawings:
 - 1. General:
 - a. Depths of various elements of foundation in relation to finish first floor datum.
 - b. Horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - c. Location of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of structure.
 - d. Field changes.
 - e. Details not on original drawings.
 - f. Location and identification of exposed interior piping.
 - 2. Electrical:
 - a. Horizontal and vertical locations and size of underground cable, conduit, and duct runs dimensioned from established building lines.
 - b. Plan locations and size of interior concealed and exposed feeders.
 - c. Size and location of access panels.
 - d. Departures from original drawings and electrical work revisions.

1.04 SUBMITTALS

- A. At Substantial Completion:
 - 1. Deliver one marked up set of drawings to Engineer for use in preparation of record drawings.
- B. Accompany submittals with transmittal letter in duplicate, containing:
 - 1. Date.
 - 2. Project title and number.
 - 3. Contractor's name and address.
 - 4. Title of record document.
 - 5. Signature of Contractor or authorized representative.

PART 2 - PRODUCTS

Not Applicable.

PART 3 - EXECUTION

Not Applicable.

END OF SECTION

SECTION 02050

DEMOLITION

INDEX

PART 1 - GENERAL

- 1.01 DESCRIPTION
- 1.02 DEFINITIONS
- 1.03 JOB CONDITIONS

PART 2 – PRODUCTS

NOT APPLICABLE

PART 3 - EXECUTION

- 3.01 GENERAL
- 3.02 DEMOLITION OPERATIONS
- 3.02 REMOVAL OPERATIONS
- 3.04 ABANDONMENT OPERATIONS
- 3.03 DISPOSAL

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This section includes, but is not limited to:
 - 1. Removal and salvage of electrical, HVAC, plumbing, and mechanical equipment.
 - 2. Rerouting utilities to remain.
 - 3. Shutting off, capping, and abandonment of utilities and underground piping.
 - 4. Demolition and removal of structures.
 - 5. Disposal of debris.

1.02 DEFINITIONS

- A. Demolition: Remove existing structure down to point as specified or noted.
- B. Removal: Remove portions of existing structure or utility as noted.
- C. Abandonment: Remove existing utility from service. Fully disconnect from portions of utility remaining in service. Remove all portions of utility being abandoned from influence zones of structures or buried piping. Plug ends of buried piping being abandoned with concrete.
- D. Influence Zone: Area bound by 1.5 horizontal to 2 vertical slopes extending outward from one foot beyond outer edges of foundation, pavement, or piping.

1.03 JOB CONDITIONS

- A. Prior to demolition of structures, accomplish following:
 - 1. Owner release of such structure.
 - 2. Salvage equipment scheduled for reuse in new work.

3. Survey and record condition of existing facilities to remain in place that may be affected by demolition operations. After demolition operations are completed, survey conditions again and restore facilities to pre-demolition condition at no additional cost to Owner. Conduct surveys in presence of Engineer.

B. Protection:

1. Do not close or obstruct streets, walks, and other facilities occupied and used by Owner without prior written permission from Owner and other authorities having jurisdiction.
2. Maintain structural stability of structures adjacent to or affected by work of this contract.
3. Maintain in service and protect from damage existing facilities, utilities, and equipment indicated to remain or adjacent work areas.

C. Utilities:

1. Notify utilities prior to razing operations to permit them to disconnect, remove, and/or relocate any equipment serving existing facilities.

D. Salvageable Materials and Equipment:

1. Owner shall have first right to salvageable material and equipment.
2. Salvaged material and equipment to be retained by Owner shall be delivered to location requested by Owner at Water Treatment Plant site.
3. Materials to be reused: none except as requested by Owner.
4. Materials to be salvaged: none except as requested by Owner.
5. Equipment and materials not scheduled to be salvaged or reused in new work shall become property of Contractor and legally disposed of off-site.

E. Schedule:

1. Perform demolition and removal work so as not to interfere with Owner's operations.
2. Coordinate demolition and removal work so new construction work installed before, during, and after work of this section may commence without undue delay.

PART 2 - PRODUCTS

Not Applicable.

PART 3 - EXECUTION

3.01 GENERAL

- A. Coordinate with Owner at least two weeks prior to any demolition.

3.02 DEMOLITION OPERATIONS

- A. Remove existing interior walls and finishes, mechanical, electrical, and plumbing as shown on drawings.
- B. Provide cutting openings in floors and walls of structure remaining in place as needed for new plumbing and mechanical. Coordinate with Engineer prior to work.
- C. Plug or cap utility drains and other piping in accordance with specified abandonment procedures.

3.03 REMOVAL OPERATIONS

- A. Remove existing concrete, steel and masonry to extent indicated on drawings. Provide smooth, straight joint, or cut line. Make cuts parallel with walls and/or floors. Patch walls, floors, and ceilings with non-shrink grout.
- B. Remove utilities and equipment to elevations and locations shown on drawings and plug and seal permanently with steel cap, concrete plug or other approved method in accordance with specified abandonment procedures.
- C. Provide temporary shoring and bracing to transfer loads of existing construction to remain from construction being removed.

3.04 ABANDONMENT OPERATIONS

- A. Abandon utilities and underground piping within limits noted.
- B. Abandon disconnected utilities and underground piping within influence zone of proposed underground piping and proposed structures.
- C. Provide compatible cap for pressurized type piping. Provide thrust blocks for caps unless piping has fully restrained joints.
- D. Provide concrete plugs for gravity type piping. Plug shall be Class B. Plug shall be at least 2' thick.

3.05 DISPOSAL

- A. Legally dispose of sludge, debris, and other undesirable and unsalvageable material resulting from demolition operations off-site.

END OF SECTION

SECTION 06100

ROUGH CARPENTRY

INDEX

PART 1 – GENERAL

- 1.01 DESCRIPTION
- 1.02 QUALITY ASSURANCE
- 1.03 SUBMITTALS
- 1.04 DELIVERY AND STORAGE

PART 2 - PRODUCTS

- 2.01 MATERIALS

PART 3 – EXECUTION

- 3.01 GENERAL REQUIREMENTS
- 3.02 GENERAL FRAMING
- 3.03 OPENINGS
- 3.04 PROTECTIVE WORK

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work includes rough carpentry for mounting panels, blocking, rough hardware and fasteners.
- B. Related work specified elsewhere.
 - 1. Section 06200 – Finish Carpentry.
 - 2. Section 08110 – Steel Doors & Frames.
 - 3. Section 09900 – Painting.
 - 4. Section 11460 – Cabinets and Countertops.

1.02 QUALITY ASSURANCE

- A. Codes and Standards:
 - 1. In addition to complying with the pertinent codes and regulations of governmental agencies having jurisdiction, unless otherwise specifically directed or permitted by the Engineer, comply with:
 - a. "Product Use Manual" of the Western Wood Products Association for selection and use of products included in that manual.
 - b. "Plywood Specification and Grade Guide" of the American Plywood Association.
 - 2. If required by Code, wood shall be treated to meet the requirements for "Fire Retardant Treated Woods."

1.03 SUBMITTALS

- A. None required.

1.04 DELIVERY AND STORAGE

- A. Deliver all materials to the job site properly marked to identify the intended use.
- B. Store in a manner to maintain identification and to prevent damage.

PART 2- PRODUCTS

2.01 MATERIALS

- A. Dimension lumber: construction grade Douglas Fir #2 or Southern Pine.
 - 1. Material to be straight and uniform.
 - 2. Moisture content not to exceed 18%.
- B. Treated lumber: chromated copper arsenate (CCA) Type C; minimum retention 0.25 lbs. per cubic foot. Wood species: West Coast Fir.
- C. Plywood:
 - 1. Structural Grade C-D Douglas Fir, exterior glue.
 - 2. MDO-INT-APA or particleboard with suitable smooth face may be used if surface is to receive paint.
 - 3. Exterior grade treated plywood where noted on drawings.
- D. Rough hardware:
 - 1. Steel items:
 - a. Comply with ASTM A78 or ASTM A36.
 - b. Use galvanized at exterior locations.
 - 2. Machine bolts: comply with ASTM A307.
 - 3. Lag bolts: comply with Fed. Spec. FF-B-561C.
 - 4. Nails:
 - a. Use common except as otherwise noted.
 - b. Comply with Fed. Spec. FF-N-1.
 - c. Use galvanized at exterior locations, and when used in treated lumber.
- E. Adhesives:
 - 1. Use common water-resistant types except as otherwise noted.
 - 2. Use only adhesive recommended by the product manufacturer for the use intended.
- F. Provide all other materials, not specifically described, but required for complete and proper installation, as selected by the Contractor subject to the review of Engineer.

PART 3 - EXECUTION

3.01 GENERAL REQUIREMENTS

- A. Coordination:
 - 1. Throughout progress of work, coordinate as required with all other trades to ensure that proper and adequate interface is provided to receive the work of this section.

- B. Workmanship:
 - 1. General: All rough carpentry shall produce joints true, tight and well nailed, with all members assembled in accordance with the drawings and with all pertinent codes and regulations.
 - 2. Selection of lumber pieces:
 - a. Carefully select all members. Select individual pieces so that knots and obvious defects will not interfere with placing bolts or proper nailing or making connections.
 - b. Cut out and discard all defects which will render a piece unable to serve its intended function. Lumber may be rejected, whether or not it has been installed, for excessive warp, twist, bow, crook, mildew, fungus, or mold, as well as improper cutting and fitting.
 - 3. Shimming:
 - a. Excessive shimming, with wood, of sills, door frames, lintels, etc. is to be minimized by proper selection, fabrication, and installation of material.

- C. Treated Lumber:
 - 1. For use in areas where moisture may be present.
 - 2. For all wood bucks and nailing grounds in, or in contact with concrete or masonry.
 - 3. Preservative treated material shall be used for all inserts embedded in concrete, concealed members, insulation stops, curbs and other components that will be subject to the possibility of decay.

3.02 GENERAL FRAMING

- A. In accordance with highest standards of the industry. Nail securely, plumb, and true, brace as required. Conventional framing details shall conform to the 2015 International Building Code Chapter 23. Minimum fastener requirements shall comply with Table 2304.9.1.

- B. In addition to all framing operations normal to fabrication and erection indicated on the drawings, provide all framing, backing, and blocking required for work of other trades.

- C. Provide all blocking required to support all items of finish materials: railings, counters, shelf supports, grab bars, etc.

- D. Provide bucks, grounds, blocking, bridging, curb, plates, etc., bolted to wood, steel, masonry, or concrete.
- E. Provide furring, studding, sheeting, headers, nail strips, etc.
- F. Provide subframes for casework and millwork.
- G. On all framing members to receive a finished wall or ceiling, align the finish subsurface to vary not more than 1/8" from the plane of surfaces of adjacent framing and furring members.
- H. Installation of plywood:
 - 1. Place all plywood with face grain perpendicular to supports and continuous over at least two supports, except where otherwise specifically indicated on the drawings.
 - 2. Center joints accurately over supports. Unless otherwise specifically shown on the drawings, stagger the end joints of plywood panels to achieve a minimum of continuity of joints.
 - 3. Protection of plywood: protect all plywood from moisture by use of waterproof coverings until the plywood has in turn been covered with the next succeeding component or finish.
- I. Fastening:
 - 1. Nailing:
 - a. Use only common wire nails or spikes of the dimension required to provide penetration into the piece receiving the point of not less than 1/2 the length of the nail or spike provided, however, 16d nails may be used to connect two pieces of 2" nominal thickness.
 - b. Do all nailing without splitting wood. Pre-drill as required. Replace all split members.
 - c. Nail roof and wall sheeting with 10d nails at 6" OC at edges and 12" OC at intermediate supports.
 - 2. Bolting: drill holes 1/16" larger in diameter than the bolts being used. Drill straight and true from one side only. Bolt threads shall not bear on wood. Use washers under head and nut where both bear on wood; use washers under all nuts.
 - 3. Screws: for lag screws and wood screws, pre-bore holes same diameter as root of thread; enlarge holes to shank diameter for length of shank. Screw do not drive, all lag screws and wood screws.

3.03 OPENINGS

- A. Cut openings for all other trades.

3.04 PROTECTIVE WORK

- A. Provide barricades and/or fences for the protection of persons and property.
- B. Provide temperature, weather and dust control barriers on all building levels affected by the construction.
- C. Provide protection of finished work:
 - 1. Edges.
 - 2. Corners.
 - 3. Surfaces.
 - 4. Etc.

END OF SECTION

SECTION 06200

FINISH CARPENTRY

INDEX

PART 1 - GENERAL

- 1.01 DESCRIPTION
- 1.02 QUALITY ASSURANCE
- 1.03 SUBMITTALS
- 1.04 DELIVERY AND STORAGE

PART 2 - PRODUCTS

- 2.01 MATERIALS

PART 3 - EXECUTION

- 3.01 COORDINATION
- 3.02 WORKMANSHIP

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work includes installation of required finish carpentry.
- B. Related work specified elsewhere:
 - 1. Section 06100 - Rough Carpentry.
 - 2. Section 09900 - Painting.

1.02 QUALITY ASSURANCE

- A. Perform finish carpentry work in accordance with the "Quality Standards" of the Architectural Woodwork Institute (AWI).

1.03 SUBMITTALS

- A. General: comply with pertinent provisions of Section 01300 – Submittals.
- B. Shop drawings for millwork shall indicate materials, component profiles, fastening, jointing details and accessories to large scale.
- C. Samples of all finish.

1.04 DELIVERY AND STORAGE

- A. Deliver all materials to the job site properly marked to identify the structure for which it is intended. Marking shall correspond to marking indicated on the shop drawings. Store in a manner to maintain identification and to prevent damage.

- B. Do not deliver millwork until site conditions are adequate and ready to receive and protect delivered items.
- C. Replacements: In the event of damage, immediately make all necessary repairs and replacements subject to the approval of the Engineer at no additional cost to Owner.
- D. Protection:
 - 1. Use all means necessary to protect materials of this section before, during and after installation and to protect work and materials of all other trades.
 - 2. Protect finish carpentry items from damage by excessive changes in moisture content.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Lumber:
 - 1. Softwood lumber: PS 20; graded in accordance with requirements of AWI; maximum moisture content of ten percent (10%) for interior work.
 - 2. Hardwood lumber: PS 58; graded in accordance with requirements of AWI; maximum moisture content of ten percent (10%).
- B. Sheet materials:
 - 1. Interior softwood plywood:
 - a. Custom grade in accordance with AWI; ND-INT-APA, NN where both faces are exposed.
 - b. MDO-INT-APA or particleboard with suitable smooth face may be used if surface is to receive opaque finish.
 - 2. Wood particleboard:
 - a. CS-236; composed of wood chips with water resistant adhesive of grade to suit application; sanded faces.
 - 3. Plastic laminate:
 - a. FS-L-P508F, Grade HP, Class 1, color as selected.
 - 4. Solid surfacing material: as specified in Section 04200 – Unit Masonry.
- C. Other materials:
 - 1. Provide all other materials, not specifically described, but required for complete and proper installation, as selected by the Contractor subject to the review of Engineer.

PART 3 - EXECUTION

3.01 COORDINATION

- A. Throughout progress of work, coordinate as required with all other trades to ensure that proper and adequate interface is provided to receive the work of this section.

3.02 WORKMANSHIP

- A. General Requirements:
 - 1. Furnish all rough and finish hardware, accessories, scribe strips, screws, connector blocks and strips, cleats, brads, etc., to provide a complete and operable installation.
 - 2. All units shall fit snugly together and shall be rigidly secured to each other, to the tops and to any sub-bases.
 - 3. All methods of attachment shall be such as to avoid any sharp points, burrs, etc., which might bruise or cause laceration in hands, inserted within cases.
 - 4. All plumbing and electric fittings, trim, piping, etc., will be furnished and installed by others, but this Contractor shall provide holes, openings, etc., and shall make necessary provisions for installing such items in the Finish Carpentry.
 - 5. Produce joints which are true, tight, and well fastened with all members assembled in accordance with the drawings.
 - 6. Jointing:
 - a. Make joints to conceal shrinkage; miter exterior joints; cope interior joints; miter or scarf end-to-end joints.
 - b. Install trim in pieces as long as possible, jointing only where solid support is obtained.
 - 7. Fastening:
 - a. Install items straight, true, level, plumb and firmly anchored in place.
 - b. Where blocking or backing is required, coordinate as necessary with other trades to ensure placement of required backing and blocking in a timely manner.
 - c. Fasteners shall be concealed unless condition will not allow and alternate method of fastening is approved by Engineer.
 - d. On exposed work, set fasteners for plugs.
 - e. Screw, do not drive, wood screws; except that screws may be started by driving and then screwed home.

B. Finishing:

1. No coarse grained sandpaper mark, hammer mark, or other imperfection will be accepted.
2. Seal all concealed surfaces.
3. Prime paint contact surfaces of items and assemblies in contact with cementitious materials.

END OF SECTION

SECTION 07900

JOINT SEALERS

INDEX

PART 1 - GENERAL

- 1.01 DESCRIPTION
- 1.02 SYSTEM PERFORMANCES
- 1.03 SUBMITTALS
- 1.04 PRE-APPLICATION MEETING
- 1.05 REFERENCES
- 1.06 DELIVERY, STORAGE, AND HANDLING
- 1.07 PROJECT CONDITIONS

PART 2 - PRODUCTS

- 2.01 MATERIALS, GENERAL
- 2.02 SEALANTS
- 2.03 PREPARATORY MATERIALS
- 2.04 JOINT SEALANT BACKING

PART 3 - EXECUTION

- 3.01 INSPECTION
- 3.02 PREPARATION
- 3.03 INSTALLATION
- 3.04 FIELD QUALITY CONTROL
- 3.05 CLEANING AND REPAIRING
- 3.06 CORRECTION OF DEFICIENCIES
- 3.07 SCHEDULE

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work includes:
 - 1. Cleaning and preparation of joint surfaces.
 - 2. Sealants and backing materials.
 - 3. Sealant installation.
- B. Products specified to be furnished and installed elsewhere:
 - 1. Pertinent sections under which systems are specified: sealants integral with systems.
- C. Related work specified elsewhere:
 - 1. Section 08800 – Glazing.
 - 10. Section 09900 – Painting.
 - 11. Division 15 – Mechanical.
 - 12. Division 16 – Electrical.

1.02 SYSTEM PERFORMANCES

- A. Provide joint sealers that have been produced and installed to establish and maintain watertight and airtight continuous seals.

1.03 SUBMITTALS

- A. Submit Manufacturer's literature of the material to be used for approval. Submitted information shall include:
 - 1. Complete materials list of all items proposed to be furnished and installed under this section.
 - 2. Manufacturer's specifications and other data required to demonstrate compliance with the specified requirements.
 - 3. Manufacturer's recommended methods of installation.
 - 4. Standard color charts for each item as applicable.
- B. See Section 01300 - Submittals for additional requirements.

1.04 PRE-APPLICATION MEETING

- A. Before any sealants are installed, hold meeting at job site between Engineer's representative and Contractor or his representative in charge of caulking operation; representative of manufacturer of materials to be used should also be present.
- B. Using materials and equipment which will be employed on project, demonstrate methods which will be used to install each type of joint required on project.

1.05 REFERENCES

- A. ASTM C790 - Recommended practices for Use of Latex Sealing Compounds.
- B. ASTM C804 - Recommended Practice for Use of Solvent-Release Type Sealants
- C. ASTM C834 - Latex Sealing Compounds.
- D. ASTM C920 - Elastomeric Joint Sealants.
- E. ASTM C962 - Use of Elastomeric Joint Sealants.
- F. ASTM E814 - Fire Tests of Through-Penetration Fire Stops.
- G. FS TT-S-00230C - Sealing Compounds, Synthetic-Rubber Base, Single Component, Chemically Curing.
- H. SWI - Sealant & Waterproofers Institute: Guide Specifications.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in original unopened containers or bundles with labels informing about manufacturer, product name and designation, color, expiration period for use, pot life, curing time, and mixing instructions for multi-component materials.
- B. Store and handle materials in compliance with manufacturers' recommendations to prevent their deterioration or damage due to moisture, high or low temperatures, contaminants, or other causes.

1.07 PROJECT CONDITIONS

- A. Environmental Conditions:
 - 1. Do not proceed with installation of joint sealers under the following conditions:
 - a. When ambient and substrate temperature conditions are outside the limits permitted by joint sealer manufacturers.
 - b. When joint substrates are wet due to rain, frost, condensation, or other causes.
- B. Joint Width Conditions:
 - 1. Do not proceed with installation of joint sealers where joint widths are less than allowed by joint sealer manufacturer for application indicated.
- C. Joint Substrate Conditions:
 - 1. Do not proceed with installation of joint sealers until contaminants capable of interfering with their adhesion are removed from joint substrates.

PART 2 - PRODUCTS

2.01 MATERIALS, GENERAL

- A. Compatibility:
 - 1. Provide joints sealers, joint fillers and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.
- B. Colors:
 - 1. Provide color of exposed joint sealers as selected by Architect.

2.02 SEALANTS

- A. Type 1A: Polyurethane, elastomeric, sealant/adhesive; Sikaflex-1a, Pecora Synthacalk, or equal.
- B. Type 2A: Urethane, Two-Part, Self-Leveling; ASTM C920, Type M, Grade P, Class 25; Pecora "Urexpan NR-200", Sikaflex 2CSL, Tremco "THC900", or Vulkem "255".
- C. Type 2B: Urethane, Two-Part, Non-Sag, ASTM C920, Type M, Grade NS, Class 25; Pecora "Dynatrol II", Sikaflex 2C NS EZ-Mix, Tremco "Dymeric", or Sonneborn "NPII".
- D. Type 2C: Urethane, One-Part, Self-Leveling; ASTM C920, Type S, Grade P, Class 25; Pecora Urexpan NR-201", Vulkem "45", or Sika "1A SL".
- E. Type 2D: Urethane, One-Part, Non-Sag; ASTM C920, Type S, Grade=NS, Class 25; Pecora "Dynatrol I", Tremco "Dymonic", or Sika "1A".
- F. Type 3: Silicone, One-Part, Low Modulus; ASTM C920, Type S, Grade NS, Class 25; 40; Pecora "864", Dow Corning "790", or GE "Gesil N".
- G. Type 4: Acrylic Polymeric, One-Part; FS TT-S-00230C, Type II, Class B; non-sag; non-bleeding and non-staining; Tremco "Mono", Pecora "60+ Unicrylic", or PTI "767".
- H. Type 5: Acrylic Latex Polymer, One-Part; ASTM C834; non-sag, premium quality; Pecora "AC-20", Tremco "Acrylic latex", or Sonneborn Sonolac".
- I. Type 6: Acoustical Sealant, One Part; acrylic latex polymer, non-sag, acoustically tested; Pecora "AC-20 Acoustical Sealant", Tremco "Acoustical Sealant", or USG "Acoustical Sealant".
- J. Type 9A: Preformed Tape: Butyl-polyisobutylene, similar and equal to Tremco 440.
- K. Type 9B: Precompressed polyester polyurethane foam sealant; similar and equal to Will-Seal Construction Foams, Troy, MI - Will-Seal 150G.
- L. Intumescent Fire Barrier Penetration Sealing System: ASTM E814 fire rated equal to fire rating of penetrated construction; UL listed; similar and equal to 3M Series 7900.
- M. Silicone RTV Foam Sealant: Two-part foamed-in-place silicone foam; ASTM E814 fire rated equal to fire rating of penetrated construction; UL listed; similar and equal to Dow Corning 3-6548.
- N. Sealant Colors: as selected by Engineer from manufacturer's standards.

2.03 PREPARATORY MATERIALS

- A. Primer: non-staining type, recommended by sealant manufacturer to suit application.
- B. Joint cleaner: noncorrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
- C. Backing rod: round, closed-cell, foam rod recommended by sealant manufacturer; diameter 30 to 50 percent larger than joint width to assure a friction fit.
- D. Fire barrier: similar and equal to Tremco/Manville Cerablanket-FS.
- E. Bond breaker: pressure sensitive tape recommended by sealant manufacturer to suit application.

2.04 JOINT SEALANT BACKING

- A. General:
 - 1. Provide sealant backings of material and type which are non-staining; are compatible with joint substrates, sealants, primers and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- B. Plastic Foam Joint Fillers:
 - 1. Preformed, compressible, resilient, non-waxing, non-extruding strips of flexible, non-gassing plastic foam of material indicated below; nonabsorbent to water and gas; and of size, shape and density to controls sealant depth and otherwise contribute to producing optimum sealant performance.
 - a. Either open-cell polyurethane foam or closed-cell polyethylene foam, unless otherwise indicated, subject to approval of sealant manufacturer.
 - 2. Backing material shall be of proper size and placed in all joints where practicable.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Examine the areas and conditions under which work of this section will be performed.
- B. Correct conditions detrimental to the proper and timely completion of the work.
- C. Do not proceed until unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. All surfaces in contact with sealant shall be dry, sound, well-brushed, and wiped free from dust.
- B. Use solvent to remove oil and grease, wiping the surfaces with clean rags.
- C. Where surfaces have been treated and/or existing sealant remains, remove the surface treatment and/or existing sealant by wire brushing. Care shall be used when brushing existing surface so as to not damage surfaces which will not be concealed by sealant.
- D. Perform preparation in accordance with ASTM C962 recommendations.
- E. Protect elements surrounding the work of this section from damage or disfiguration.
- F. Remove all laitance and mortar from the joint cavity.
- G. Where backstop is required, insert the approved backup material in the joint cavity to the required depth.
- H. Use only the primer recommended by the sealant manufacturer and approved by the Engineer for the particular installation; apply the primer in strict accordance with the manufacturer's recommendations.
- I. Protect surfaces which will be exposed to view as required to prevent damage or discoloration of exposed surfaces.

3.03 INSTALLATION

- A. Comply with ASTM C804 for solvent release and ASTM C790 for latex base sealants.
- B. Install sealant in accordance with ASTM C962, SWI recommendations, and manufacturer's instructions.
- C. Measure joint dimensions and size materials to achieve required width/depth ratios.
- D. Install joint backing to achieve a neck dimension no greater than 1/3 of joint width; no thicker than 1/2" (12.7 mm) and no thinner than 1/8" (3 mm), unless otherwise recommended by manufacturer. For joints through fire rated construction, use fire barrier in lieu of joint backing at face of joint with greater fire exposure.
- E. Install bond breaker where joint backing not used.

- F. Vent completely sealed cavities back of sealant and joint backing with 1/4" (6 mm) ID plastic tubing 6' to 10' (1.8 to 3 m) oc horizontally at bottom and top of cavity and approximately 10' (3 m) oc in vertical joints; position tube to slope downward to outside, unless otherwise required to prevent entry of water into cavity space, with outer end no more than 1/8" (3 mm) beyond surface at sides of joint.
- G. Mix two-part sealants in accordance with manufacturer's directions.
- H. Apply sealant within recommended application temperature range. Consult manufacturer when sealant cannot be applied within this temperature range.
- I. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
- J. Tool joints neat and true using tooling solution recommended by sealant manufacturer; produce smooth concave surface.

3.04 FIELD QUALITY CONTROL

- A. Provide for replacing 3 LF of each type of joint after cuts have been made for field quality control verification.

3.05 CLEANING AND REPAIRING

- A. Clean adjacent surfaces free of sealant or soil resulting from this work as work progresses; leave finished work neat and clean.
- B. Repair or replace defaced or disfigured finishes caused by work of this section.

3.06 CORRECTION OF DEFICIENCIES

- A. One year after substantial completion of work, examine exterior sealant joints and prepare list of deficiencies to be corrected. Correct deficiencies in accordance with SWI recommendations and manufacturer's instructions.

3.07 SCHEDULE

- A. Schedule is list of principal locations only. Refer to drawing details for locations not specifically scheduled.
- B. Exterior:
 1. Perimeters of exterior openings where frames meet exterior facade of building: Type 2B, 2D, 3, or 4.
 2. Expansion and control joints in exterior surfaces of precast and cast-in-place concrete walls: Type 2B, 2D, or 9B.
 3. Control and expansion joints in exterior surfaces of unit masonry walls: Type 2B, 2D, or 9B.

4. Exterior joints in horizontal concrete wearing surfaces: 2A or 2C.
5. Bedding for watertight surface application of metal items: Type 9A.
6. Along both sides of metal coping, wall flashing: Type 2B, 2D, 3 or 4.

C. Interior:

1. Seal interior perimeters of exterior openings: Type 2B, 2D, or 3.
2. Control and expansion joints in interior face of exterior cast-in-place concrete walls: Type 2B, 2D, or 3.
3. Control and expansion joints in interior face of exterior unit masonry walls: Type 2B, 2D, 3 or 9B.
4. Interior control and expansion joints in floor surfaces: Type 2A, or 2C.
5. Perimeters of interior frames, where detailed: Type 1B, 1D, 2B, 2D, or 3.
6. Interior masonry vertical control joints (block-to-block, block-to-concrete, and intersecting masonry walls); Type 2B, 2D, 3, or 9B.
7. Joints at tops of non-load bearing masonry walls at underside of concrete structure: Type 2B, 2D, 5, 6, or 9B.
8. Perimeter of bath fixtures (sinks, water closets, basins, vanities): Type 2B, 2D, 3 or 5.
9. Penetrations through Fire Rated Constructions: Intumescent Fire Barrier Penetration Sealing System. Silicone RTV Foam Sealant.

END OF SECTION

SECTION 08110

STEEL DOORS AND FRAMES

INDEX

PART 1 - GENERAL

- 1.01 DESCRIPTION
- 1.02 QUALITY CRITERIA
- 1.03 FIRE RATINGS
- 1.04 SUBMITTALS
- 1.05 DELIVERY, STORAGE AND HANDLING

PART 2 - PRODUCTS

- 2.01 MATERIALS
- 2.02 FABRICATION OF DOORS
- 2.03 FABRICATION OF FRAMES
- 2.04 PREPARATION FOR FINISH
HARDWARE
- 2.05 SHOP PAINTING AND FINAL
COATINGS

PART 3 - EXECUTION

- 3.01 INSTALLATION
- 3.02 CLEARANCES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This section describes the following:
 - 1. Standard grade flush steel doors as scheduled on plans.
 - 2. Pressed steel frames as scheduled on plans.
 - a. Set-up and welded frames for openings in masonry interior and exterior construction.
 - 3. Fire rated steel doors and frames as scheduled on plans.
- B. Related work specified elsewhere:
 - 1. Section 08710 – Door Hardware.
 - 2. Section 08800 – Glazing.
 - 3. Section 09900 – Painting.
- C. Manufacturers: Ceco Corporation; Curries; Steelcraft, Division of American Standard Company; Trussbilt, Inc.; Fenestra; or equal.

1.02 QUALITY CRITERIA

- A. Unless otherwise specifically indicated on plans, doors and frames must meet following standards:
 - 1. Standard grade doors: SDI 100.
 - 2. Set-up and welded, knock-down: SDI 100.

3. Fire rated doors and frames: NFPA.
4. Hardware locations: NAAMM Standard CHM-2.

1.03 FIRE RATINGS

- A. Scheduled label is minimum.
- B. UL label required on door and frame where scheduled.
- C. If any door or frame scheduled to be fire rated cannot qualify for specified labeling, advise Engineer.

1.04 SUBMITTALS

- A. Submit product data including:
 1. Manufacturer's descriptive literature.
 2. Manufacturer's installation instructions.
- B. Submit complete shop drawings which include:
 1. A suitable schedule of doors and frames, including illustrations, sizes, type and materials.
 2. Complete construction and anchorage details.
 3. Location, size and installation details for glass, grilles and louvers in doors.
 4. Accessories and preparations for installing hardware, including reinforcement, locations and tolerances.
- C. Submit certification by recognized independent testing laboratory:
 1. Paint complies with specified performance requirements.
 2. Thermal insulated U factor of full size operating door unit complies with specified performance requirements.
 3. Sound insulated NR factor of full size operating door unit complies with specified performance requirements.
- D. Samples:
 1. Reference to properly labeled samples on file with Engineer will be accepted.
 2. Submit samples which include:
 - a. Minimum 12" x 12" section of door showing internal construction, edge detail and reinforcement for hinges.
 - b. 12" x 12" corner section of each type of frame showing corner construction.
 - c. Full size example of each type of anchor.
- E. See Section 01300 - Submittals for additional requirements.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Provide spreaders, separators, wrappings, banding, or other packaging; protect all items.
- B. Store doors and frames upright, in protected dry area, minimum 1" off ground or floor and with minimum 1/4" space between individual items.
- C. Any special storage or handling requirements of manufacturer takes precedence.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Steel sheet:
 - 1. Free from scale, pits or other defects; level for door and panel face sheets.
 - 2. Cold rolled: ASTM A366.
 - 3. Galvanealed: ASTM A5, zinc coating in accordance with ASTM A525, Class A60, not less than 0.60 oz. per square foot.
 - 4. Galvanized: ASTM A526, zinc coating in accordance with ASTM A525, Class G90, not less than 0.90 oz. per square foot.
 - 5. Hot rolled: ASTM A569, pickled and annealed.
- B. Steel sheet or plate for anchors and hardware reinforcement: mild or low-carbon steel.
- C. Gum rubber bumpers: Glynn-Johnson Silencers GJ 64, or equal.
- D. Paint: rust-inhibitive metallic oxide, zinc chromate, or synthetic resin primer which will withstand 200 hour salt spray test and 200 hr. humidity test, in accordance with ASTM B117 (Fed. Std. 141, Methods 6061 & 6201).
- E. Bituminous compound: FS TT-C-494, Type II (solvent type, acid resistant coating).

2.02 FABRICATION OF DOORS

- A. General:
 - 1. Finished door strong and rigid, neat in appearance, free from defects with plain surfaces smooth and free from warp or buckle; flatness tolerance 1/16" including diagonal.
 - 2. Cut-outs reinforced and properly framed for glass and grilles.
 - 3. Edge clearances, plus or minus 1/32", except as follows:
 - a. 1/8" between door and frame at head and jambs.
 - b. Maximum 1/4" between door and threshold.
 - c. 1/8" between meeting edges of pair of doors.

d. Maximum 5/8" between door and floor without threshold.

B. Doors:

1. Standard Grade.
2. Full flush or seamless construction with no visible seams or joints on faces.
3. 18 gauge, minimum 0.0449" cold rolled or galvanized steel face sheets.
4. Stiffen face plates by one of following:
 - a. Channel, Z or hat shaped members, minimum 0.0449" thick, extending full height of door at maximum 6" oc or forming fully welded unitized grid with 4 vertical and 8 horizontal members; weld each member to both face plates at close intervals; spring clip attachment to one face plate not acceptable.
 - b. Truss-formed inner core of sheet metal, minimum 0.015" thick, welded to both face plates every 2-3/4" horizontally and vertically over entire surface on both sides.
 - c. Full honeycomb core laminated to both face plates with water resistant adhesive; honeycomb material crushing strength not less than 4,000 psf; lamination must withstand not less than 1,100 psf in shear.
 - d. Steel channel perimeter reinforcing and expanded polystyrene full core laminated to both face plates; lock and hinge rail reinforcing minimum 0.070" and end channels minimum 0.0568"; welded to both face plates.
5. Fill spaces between and/or around reinforcing members with mineral wool sound deadening material or sound deaden with non-combustible resin-base mastic applied to interior of face sheets unless sound deadening is provided by core.
6. For door with sound insulation or thermal insulated interior (U factor not greater than 0.39) for full size operating unit without openings, provide one of the following:
 - a. Fill spaces between and/or around reinforcing members with mineral wool sound deadening and insulation material after all interior surfaces have been prime coated.
 - b. Fill spaces between and/or around reinforcing members with inorganic non-combustible batt type insulating material after interior surfaces have been sound deadened with non-combustible synthetic resin-base mastic.
 - c. Exterior doors shall have insulation cores.
7. Continuous channel, minimum 0.0449" thick, or heavy vinyl cap at top of door set to close edge flush with edge of faces; securely attach to both face sheets.
8. Prepare doors to receive 1/4" glass or safety glass according to door schedule.
9. Astragals for pairs of doors shall be integral with the strike edge of the active door leaf.

2.03 FABRICATION OF FRAMES

A. General:

1. Break-form with profiles and shapes free of warp, buckles, fractures, or other defects.
2. Set frames so face trim does not overlap face of wall, provide trim profile with reverse back bend to assure uniform 3/8" x 3/8" joint between trim face and wall to receive sealant specified under Section 07900 - Joint Sealers.
3. Mullions and/or rail members must be fully closed tubular shapes with no visible seams or joints.
4. Finish frame strong and rigid, neat in appearance and free from defects; frames with weld dimples showing on finished surfaces will be rejected.
5. Punch frame and provide rubber silencers for each door; 3 required on lock side of single door frames.
6. Prepare doors to receive glass or safety glass according to door schedule.

B. Set-up and welded frames:

1. Required for frames installed prior to construction of wall or partition for openings in interior masonry walls and partitions.
2. Form from minimum 16 gauge (0.0568") cold rolled or hot rolled steel sheet.
3. Corner joints must have all contact edges closed tight, with trim faces mitered, continuously welded and finished smooth; design must include rigid interlock to maintain alignment during assembly.
4. Weld joints between faces of abutting members securely and finish smooth.
5. Provide adjustable jamb anchors for masonry walls of not less than 16 gauge steel: 3 anchors for frames up to 7'-6" high.
6. Provide clip angle floor anchors of not less than 16 gauge steel at each jamb, with holes for floor bolts.

C. Knock-down frames:

1. Required for frames installed in prepared openings in concrete walls or partitions after wall or partition is constructed.
2. Form from minimum 16 gauge (0.0568") cold rolled or hot rolled steel sheet.
3. Corner joints must have die mitered trim face and rigid interlocking design to maintain alignment of parts, hairline joints.
4. Provide internal expanding type adjustable jamb anchors.
5. Provide rigid base anchor at each jamb, complete with suitable spacer.

2.04 PREPARATION FOR FINISH HARDWARE

- ### A.
1. Mortise, reinforce, drill and tap doors and frames for hardware in accordance with reviewed hardware schedule and templates.

- B. Locate top of top hinge 5" below finish head of door frame, bottom of bottom hinge 10" above finish floor (i.e. surface under decorative floor covering, if any), and intermediate hinge or hinges so they are equally spaced between top and bottom hinges.
- C. Hinge backset must be 3/16" for 4-1/2" wide butts.
- D. Locate following items so their centerline is listed distance above finished floor:
 - 1. Knob, cross bar of exit device and thumb piece of handle set: 3'-2".
 - 2. Pull: 3'-6".
 - 3. Push bar: 3'-6".
 - 4. Cylinder of deadlock: 4'-0".
- E. Locate closers, overhead holders, and specialized purpose products in accordance with manufacturer's directions.
- F. Install metal reinforcements for both concealed and surface applied hardware:
 - 1. Minimum 7 gauge (0.1793") for floor hinges and pivots.
 - 2. Minimum 10 gauge (0.1345") for hinges.
 - 3. Minimum 12 gauge (0.1046") for exit devices, surface applied door closers and overhead stops and holders.
 - 4. Minimum 14 gauge (0.0747") for locks, latches and bolts (surface and flush); minimum 16 gauge (0.0598") combination welded strike cover box and reinforcing, with strike mounting screw holes deformed to provide threads equivalent to 12 gauge, are also acceptable.
 - 5. Install with concealed connections designed to develop full strength of reinforcement.
- G. Cover boxes of minimum 26 gauge steel required back of all cut-outs on all frames.
- H. Hardware preparations must be accurately located; tolerances in accordance with SDI 117.

2.05 SHOP PAINTING AND FINAL COATINGS

- A. Refer to Section 09900 for painting preparation and coating requirements.
- B. Do not paint until exposed surfaces are level and smooth.
- C. Clean and chemically treat surfaces to assure adhesion of paint.
- D. Apply metal filler to eliminate weld scars or other blemishes.

- E. Apply primer to all ferrous metal surfaces, including:
 - 1. Ferrous metal surfaces that will be concealed after installation.
 - 2. Surfaces concealed within doors; not required for surfaces coated with mastic sound deadening.
- F. Primer must thoroughly cover all surfaces without runs, sags, smears or other defects.
- G. Door and frame color selected by Architect/Owner.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Set frame plumb, square and in true alignment.
- B. Secure frame adequately to retain its position and scheduled opening dimensions to 1/32" tolerance during construction of wall or partition.
- C. Secure floor clips with two bolts at each jamb.
- D. Properly place and secure jamb anchors for welded frames as wall or partition is placed.
- E. Erect, adjust and anchor knock-down in accordance with manufacturer's directions.
- F. Where frame is detailed to receive mortar grout, coat inside of frame with bituminous compound.

3.02 CLEARANCES

- A. Conform to following edge clearances:
 - 1. Between doors and frames at heads and jambs: 1/8".
 - 2. Door sill where no threshold is used: 3/8" maximum.
 - 3. Door sills where threshold is used: 3/4" maximum above finished floor.
 - 4. Between edges of pairs of doors: 1/8".

END OF SECTION

SECTION 08210

FLUSH WOOD DOORS

INDEX

PART 1 - GENERAL

- 1.01 RELATED DOCUMENTS
- 1.02 SUMMARY
- 1.03 ACTION SUBMITTALS
- 1.04 QUALITY ASSURANCE
- 1.05 DELIVERY, STORAGE AND HANDLING
- 1.06 FIELD CONDITIONS
- 1.07 WARRANTY

PART 2 - PRODUCTS

- 2.01 MANUFACTURERS
- 2.02 FLUSH WOOD DOORS,
GENERAL
- 2.03 VENEER-FACED DOORS FOR
TRANSPARENT FINISH
- 2.04 LIGHT FRAMES AND LOUVERS
- 2.05 FABRICATION
- 2.06 SHOP PRIMING
- 2.07 FACTORY FINISHING

PART 3 - EXECUTION

- 3.01 EXAMINATION
- 3.02 INSTALLATION
- 3.03 ADJUSTING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Section Includes:
 - 1. Solid-core doors with wood-veneer faces.
 - 2. Factory finishing flush wood doors.
 - 3. Factory machining for hardware.
- B. Related Requirements:
 - 1. Section 06100 – Rough Carpentry.
 - 2. Section 06200 – Finish Carpentry.
 - 3. Section 08710 – Door Hardware.
 - 4. Section 08800 – Glazing.
 - 5. Section 09900 – Painting.

1.03 ACTION SUBMITTALS

- A. Product Data: For each type of door, include details of core and edge construction, and trim for openings. Include factory-finishing specifications.
- B. Shop Drawings: Indicate location, size, and hand of each door; elevation of each kind of door; construction details not covered in Product Data; and the following:
 - 1. Dimensions and locations of blocking.
 - 2. Dimensions and locations of mortises and holes for hardware.
 - 3. Dimensions and locations of cutouts.
 - 4. Undercuts.
 - 5. Requirements for veneer matching.
 - 6. Doors to be factory finished and finish requirements.
 - 7. Fire-protection ratings for fire-rated doors.
- C. Samples for Initial Selection: For factory-finished doors.
- D. Samples for Verification:
 - 1. Factory finishes applied to actual door face materials, approximately 8 by 10", for each material and finish. For each wood species and transparent finish, provide set of three samples showing typical range of color and grain to be expected in finished work.
 - 2. Frames for light openings, 6" long, for each material, type, and finish required.

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer that is certified for chain of custody by an FSC-accredited certification body when FSC certified wood is specified.
- B. Vendor Qualifications: A vendor that is certified for chain of custody by an FSC-accredited certification body when FSC wood is specified.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Comply with requirements of referenced standard and manufacturer's written instructions.
- B. Package factory finished wood veneer doors individually in plastic bags or cardboard cartons.
- C. Package raw (unfinished) wood veneer doors and plastic laminate faced doors with factory standard paper or cardboard slip sheets between each individual door leaf.

- D. Mark each door on the top rail with the opening number, door handling, and door construction, including face veneer type used on Shop Drawings. Do not apply any information to the bottom rail.

1.06 FIELD CONDITIONS

- A. Environmental Limitations: Do not deliver or install doors until spaces are enclosed and weather tight, wet work in spaces is complete and dry, and HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during remainder of construction period.

1.07 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace doors that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Warping (bow, cup, or twist) more than 1/4" in a 42-by-84" section of a 1.75" thick door.
 - b. Telegraphing of core construction in face veneers exceeding 0.01" in a 3" span.
 - 2. Warranty shall also include installation and finishing that may be required due to repair or replacement of defective doors.
 - 3. Warranty Period for Solid-Core Interior Doors: Life of installation.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. TruDoor Solid Core Door
- B. Cleary Millwork
- C. Graham
- D. Or approved equal.

2.02 FLUSH WOOD DOORS, GENERAL

- A. Quality Standard: In addition to requirements specified, comply with WDMA I.S.1-A, "Architectural Wood Flush Doors."
- B. Low-Emitting Materials: Fabricate doors with adhesives and composite wood products that do not contain added urea formaldehyde.

- C. WDMA I.S.1-A Performance Grade: Extra Heavy Duty.
 - 1. All doors must meet specified WDMA performance duty level, including face screw holding requirement. Surface applied hardware shall be installed with screws; through-bolts are not acceptable.
- D. Fire-Rated Wood Doors: Doors complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252.

2.03 VENEER-FACED DOORS FOR TRANSPARENT FINISH

- A. Interior Solid-Core Doors:
 - 1. Grade: Custom (Grade A faces).
 - 2. Species: White Ash, White Oak, or White Maple.
 - 3. Cut: Rotary cut.
 - 4. Match between Veneer Leaves: Book match.
 - 5. Assembly of Veneer Leaves on Door Faces: Running match.
 - 6. Pair and Set Match: Provide for doors hung in same opening. Provide sets of up to four doors.
 - 7. Exposed Vertical Edges: Same species as faces or a compatible species.
 - 8. Retain one of five options in "Core" Subparagraph below.
 - 9. Core: Structural composite lumber.
 - 10. WDMA I.S.1-A Performance Grade: Extra Heavy Duty.

2.04 LIGHT FRAMES AND LOUVERS

- A. Factory Glazing: Refer to Section 08800 – Glazing for glass view panels in flush wood doors. Factory install glass as required. Fill glazing bead nail holes in factory finished doors.
- B. Metal Frames for Light Openings in Fire-Rated Doors: Manufacturer's standard frame formed of 0.048" thick, cold-rolled steel sheet with baked-enamel or powder-coated; and approved for use in doors of fire-protection rating indicated.

2.05 FABRICATION

- A. Factory fit doors to suit frame-opening sizes indicated. Comply with clearance requirements of referenced quality standard for fitting unless otherwise indicated.
 - 1. Comply with NFPA 80 requirements for fire-rated doors.

- B. Factory machine doors for hardware that is not surface applied. Locate hardware to comply with DHI-WDHS-3. Comply with final hardware schedules, door frame Shop Drawings, BHMA-156.115-W, and hardware templates.
 - 1. Coordinate with hardware mortises in metal frames to verify dimensions and alignment before factory machining.
 - 2. Metal Astragals: Factory machine astragals and formed-steel edges for hardware for pairs of fire-rated doors.

- C. Transom and Side Panels: Fabricate matching panels with same construction, exposed surfaces, and finish as specified for associated doors. Finish bottom edges of transoms and top edges of rabbeted doors same as door stiles.
 - 1. Fabricate door and transom panels with full-width, solid-lumber meeting rails. Provide factory-installed spring bolts for concealed attachment into jambs of metal door frames.

- D. Openings: Factory cut and trim openings through doors.
 - 1. Light Openings: Trim openings with moldings of material and profile indicated.
 - 2. Glazing: Factory install glazing in doors indicated to be factory finished. Comply with applicable requirements in Section 08800 – Glazing.
 - 3. Louvers: Factory install louvers in prepared openings.

2.06 SHOP PRIMING

- A. Doors for Transparent Finish: Factory finish door faces and vertical stile edges with stain (if required).

2.07 FACTORY FINISHING

- A. General: Comply with referenced quality standard for factory finishing. Complete fabrication, including fitting doors for openings and machining for hardware that is not surface applied, before finishing.
 - 1. Finish faces, all four edges, edges of cutouts, and mortises. Stains and fillers may be omitted on top and bottom edges, edges of cutouts, and mortises.

- B. Factory finish doors.

- C. Transparent Finish:
 - 1. Grade: Premium.
 - 2. Finish: WDMA TR-6 catalyzed polyurethane.
 - 3. Staining: As selected by Architect from manufacturer's full range.
 - 4. Effect: Open-grain finish .
 - 5. Sheen: Satin.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine doors and installed door frames, with Installer present, before hanging doors.
 - 1. Verify that installed frames comply with indicated requirements for type, size, location, and swing characteristics and have been installed with level heads and plumb jambs. Any deficiencies must be corrected prior to door installation.
 - 2. Reject doors with defects.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. Hardware: For installation, see Section 08710 - Door Hardware.
- B. Installation Instructions: Install doors to comply with manufacturer's written instructions and referenced quality standard, and as indicated.
 - 1. Install fire-rated doors according to NFPA 80.
 - 2. Install smoke- and draft-control doors according to NFPA 105.
- C. Factory-Fitted Doors: Align in frames for uniform clearance at each edge.
- D. Factory-Finished Doors: Do not trim factory-finished doors to width.

3.03 ADJUSTING

- A. Operation: Correct any deficiency that prohibits doors from swinging or operating freely. Do not remove hinge screws after initial insertion. Shims used for alignment purposes must be inserted between hinge and frame. Do not insert shims between hinge and door.
- B. To prevent stile failure, ensure that door closers are properly adjusted and do not limit the door opening swing. Limit door opening swing only with a properly located stop.
- C. Finished Doors: Replace doors that are damaged or that do not comply with requirements. Doors may be repaired or refinished if Work complies with requirements and shows no evidence of repair or refinishing.

END OF SECTION

SECTION 08710

DOOR HARDWARE

INDEX

PART 1 - GENERAL

- 1.01 DESCRIPTION
- 1.02 REFERENCES
- 1.03 SUBMITTALS
- 1.04 DELIVERY, STORAGE AND HANDLING
- 1.05 KEYING

PART 2 - PRODUCTS

- 2.01 MANUFACTURERS
- 2.02 MATERIALS

PART 3 - EXECUTION

- 3.01 EXAMINATION
- 3.02 INSTALLATION
- 3.03 HARDWARE SCHEDULE

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work includes:
 - 1. Furnish all finish hardware, thresholds and weatherstripping, and associated items shown on the drawings and specified herein.
- B. Preparations for hardware are specified under the following sections:
 - 1. Section 08110 – Steel Doors and Frames.
 - 2. Section 08210 – Flush Wood Doors.
- C. Related work specified elsewhere:
 - 1. Section 08800 – Glazing.

1.02 REFERENCES

- A. ANSI A115.1 - Door and Frame Preparation for Mortise Door Locks for 1-3/4" Doors.
- B. ANSI A117.1 - Making Building and Facilities Accessible to, and Usable by, Physically Handicapped People.
- C. ANSI A156.1 - Butts and Hinges.
- D. ANSI A156.3 - Exit Devices.
- E. ANSI A156.4 - Door Controls (Closers).

- F. ANSI A156.5 - Auxiliary Locks and Associated Products.
- G. ANSI A156.6 - Architectural Door Trim.
- H. ANSI A156.13 - Mortise Locks and Latches.
- I. ANSI A156.16 - Auxiliary Hardware.
- J. BHMA 1301 - Materials and Finishes Standard.

1.03 SUBMITTALS

- A. Schedules:
 - 1. Hardware schedules, complete in all details including:
 - a. Door numbers, types, sizes, locations and hands.
 - b. Hardware items, manufacturers, quantities, catalog designations, sizes and finishes.
 - c. Keying.
- B. Samples and certifications: Upon request of the Engineer, submit samples for approval as described in Section 01300.

1.04 DELIVERY, STORAGE AND HANDLING

- A. Ship hardware to site in form most convenient for use; label each unit to show hardware heading and door number.
- B. Include screws or other attachments in package with unit.
- C. Furnish templates to manufacturer whose work is to be fitted for hardware being furnished.

1.05 KEYING

- A. Coordinate keying with Owner.
- B. Keys must be delivered direct to Owner by hardware supplier.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Hinges: Stanley, Hager, Lawrence, Ives or McKinney.
- B. Closers: LCN, Norton, Yale, or Dorma.
- C. Locksets and latchsets: Best, Corbin, Russwin, Sargent, Schlage, or Yale.
- D. Exit devices: Sargent or Von Duprin.
- E. Electric strikes: Von Duprin or Adams-Rite.
- F. Push bars, pulls, bumpers, and miscellaneous hardware shall be similar and equal to products listed in Hardware Schedule.
- G. Thresholds: American Abrasive Metals, Reese, Wooster, or Zero.

2.02 MATERIALS

- A. Hinges:
 - 1. For reverse bevel doors with lock provide non-removable pins.
 - 2. Five knuckle (ball bearing type).
- B. Locksets and latch sets:
 - 1. Locksets and latch sets shall comply with ANSI A156.13, Grade 1 or 2, U.L. listed.
 - 2. Trim: similar and equal to Schlage ALX Series, Saturn (SAT)-#06 design.
 - 3. Finish: US32D (brushed stainless steel) or US26D (satin chrome).
- C. Closers:
 - 1. Comply with ANSI A156.4, Grade 1, U.L. listed.
 - 2. Similar and equal to LCN 4040 series.
 - 3. Painted finish: to match door hardware; see schedule.
 - 4. Closer fluid: requiring no seasonal adjustment for temperatures ranging from 120° to -30°F.
- D. Strikes for locks and latches:
 - 1. Wrought box type, with lip of proper length.
 - 2. Provide aluminum or stainless steel boxes for strikes on aluminum frame members.
 - 3. Electric strikes shall coordinate and operate with selected lockset or latch set.

- E. Kickplates and mop plates:
 - 1. Stainless steel, 0.050" thick, beveled 4 sides.
 - 2. 2" narrower than door on stop side of single doors.
 - 3. Countersink screw holes; provide stainless screws.
- F. Templates: coordinated with appropriate ANSI A115 standards.
- G. Attachment screws and bolts:
 - 1. Appropriate for intended use; finish same as hardware item.
- H. Other materials: provide all other materials, not specifically described, but required for a complete and proper installation, as selected by the Contractor subject to review of the Engineer.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that doors and frames are ready to receive work and dimensions are as indicated.

3.02 INSTALLATION

- A. Install hardware in accordance with manufacturer's instructions.
- B. Use templates provided by hardware item manufacturer.
- C. Drill and tap metal to receive surface applied items.
- D. After fitting, remove sight exposed items for painting and finishing of doors and frames. When painting and finishing is complete, reinstall and adjust to optimum operation. Replace defective or damaged parts.

3.03 HARDWARE SCHEDULE

- A. Furnish the following hardware headings in the quantities indicated on the drawings or required for a complete and proper installation.
- B. Reference manufacturer's abbreviations:
 - 1. Adams-Rite (A)
 - 2. Hiawatha (H)
 - 3. Ives (I)
 - 4. LCN (L)
 - 5. Reese (R)
 - 6. Schlage (SG)

7. Stanley (ST)
8. Von Duprin (V)
9. Medeco (M)

C. See drawings for Hardware Groups.

END OF SECTION

SECTION 08800

GLAZING

INDEX

PART 1 - GENERAL

- 1.01 DESCRIPTION
- 1.02 SUBMITTALS
- 1.03 DELIVERY, STORAGE AND HANDLING
- 1.04 ENVIRONMENTAL CONDITIONS
- 1.05 WARRANTY

PART 2 - PRODUCTS

- 2.01 QUALITY ASSURANCE
- 2.02 MATERIALS

PART 3 - EXECUTION

- 3.01 CONDITION OF SURFACES
- 3.02 GLAZING
- 3.03 PROTECTION AND CLEANING

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This section describes glass for doors and windows and glass block.
- B. Related work specified elsewhere:
 - 1. Section 08110 - Steel Doors and Frames.
 - 2. Section 08210 – Flush Wood Doors.

1.02 SUBMITTALS

- A. Submit under provisions of Section 01300 – Submittals.
- B. Product data: indicate structural, physical, and environmental characteristics, size limitations, special handling or installation requirements. Identify glazing sealant colors available. Identify products same as package labels.

1.03 DELIVERY, STORAGE AND HANDLING

- A. Deliver products to site, store and protect.
- B. Protect edges of glass and glass block units from chipping or other damage.

1.04 ENVIRONMENTAL CONDITIONS

- A. Temperature of contact surfaces for glazing compound and surrounding air: minimum 41°F.
- B. Should glazing become unavoidable at temperatures below 41°F., consult Engineer.

1.05 WARRANTY

- A. Provide written warranty, signed by vendors, installing firms, and Contractor, with responsibility of each party identified, stating:

"We, the undersigned, warrant sealed insulating glass units to remain free from spacer frame migration, interpane dusting or misting for minimum 5 years from date of substantial completion of the work and, promptly upon notification from Owner, to replace units that exhibit these defects."

PART 2 - PRODUCTS

2.01 QUALITY ASSURANCE

- A. Conform to International Building Code Exposure B for design loads.
- B. Conform to ANSI Z97.1, and applicable provisions of Federal Standard 16CFR1201 for safety glazing.
- C. Certified through IGCC to ASTM E2190 in accordance with ASTM E2188 and E2189.
- D. Eliminate tempered glass containing nickel sulfide stones by quality control measures equal to "heat soaking" at sufficient temperature and duration to break glass containing nickel sulfide stones.

2.02 MATERIALS

- A. Tempered Glass:
 - 1. ¼" thickness, clear.
 - 2. Glass in doors, sidelights or vision panels within 18" of the floor shall be tempered in accordance with SGCC standards.
- B. Glazing Compound for Stop Glazing:
 - 1. Acrylic terpolymer compound for glazing set with steel stops.
 - a. Tremco Mono, DAP Acrylic Sealant, Pecora 60 Plus Unicrylic, or equal.
 - b. Color: as selected by Engineer.

- C. Setting Blocks: 70-90 durometer neoprene; size to limit load from glass to 15 psi, but not shorter than 4".
- D. Spacer Shims: 40-50 durometer neoprene, or cork and rubber Rhopac, Inc. #72210 P/S, or equal.
- E. Centering Blocks: 40 durometer neoprene.
- F. Preformed Compression Gaskets:
 - 1. Required for aluminum windows.
 - 2. Closed cell neoprene extrusion (ASTM C509-70) with serrated surface on face in contact with glass and sized for in place compression of minimum 25% and sufficient to provide watertight seal.
 - 3. Slightly oversize lengths and heat lengths and vulcanize.
 - 4. Coat exposed surfaces with hypalon in color to match setting.
 - 5. Pressure sensitive adhesive to hold gasket in place during glazing operations.
 - 6. In place compressed gasket must have slight upward bevel.

PART 3 - EXECUTION

3.01 CONDITION OF SURFACES

- A. Surfaces contacted by glazing compound must be clean, dry and, if other than corrosion resistant metal, properly primed.
- B. No glazing over wet paint or finish; minimum 24 hours drying time.
- C. Do not glaze sash until alignment has been checked and operating ventilators adjusted; removal of glass and reglazing, required to make adjustments, must be at no cost to Owner.
- D. Aluminum surfaces in contact with glazing compound must be free of lacquer.

3.02 GLAZING

- A. General:
 - 1. Edges of all glass must be clean cut, not nipped or seamed.
 - 2. Support each light over 6 SF in size on two setting blocks.
 - a. Locate between quarter points and not less than 1/8 of the width (minimum 6") from vertical edges.
 - b. Space symmetrically around center of light.
 - 3. Place minimum 2" to 3" long spacer shims along stop edges of each light.
 - a. Space shims 18" to 24" oc, not less than 2 shims along each edge, to maintain minimum 1/8" clearance at both faces of glass.

- b. Locate symmetrically top to bottom and side to side.
 - c. Shims must have at least 1/8" bite on glass and, where glass laps sight-openings by 3/8" or more, 1/4" clearance from sight line.
 - 4. Install centering blocks at each jamb to prevent pane from walking.
 - 5. Glass must lap edges of sight-opening not less than 1/4" for lights under 50 'united inches'; 3/8" for lights between 50 and 100 'united inches'; 1/2" for lights over 100 'united inches'.
 - 6. Glass edge clearance must not be less than that recommended by glass manufacturer.
 - 7. Glaze operating sash in closed position; protect sash against operation until compound has developed firm set.
- B. Stop Glazing:
- 1. Heel bead with acrylic compound, unless specified otherwise.
 - 2. Maintain properly dusted void between edges of insulating glass and rabbet.
 - 3. Completely seal between faces of glass and stops with compound; tool surface of compound with slight taper; do not undercut.
- C. Compression Type Gaskets:
- 1. Handle and install gaskets in strict accordance with manufacturer's directions.
 - 2. Glaze in accordance with gasket manufacturer's recommendations; setting blocks required under insulating glass.

3.03 PROTECTION AND CLEANING

- A. Protect completed glazing and glass block from damage by alkaline materials, welding sparks, or other construction operations.
- B. Remove all spots, spatters, and stains.
- C. Clean and polish all glass and glass blocks just prior to final inspection.
- D. Replace damaged or broken glass and glass blocks without cost to Owner.
- E. Remove all debris from premises.

END OF SECTION

SECTION 09250

GYPSUM BOARD

INDEX

PART 1 - GENERAL

- 1.01 DESCRIPTION
- 1.02 REFERENCES
- 1.03 SUBMITTALS
- 1.04 DELIVERY, STORAGE AND HANDLING

PART 2 - PRODUCTS

- 2.01 MANUFACTURERS
- 2.02 MATERIALS
- 2.03 ACCESSORIES

PART 3 - EXECUTION

- 3.01 INSTALLATION - FURRING
- 3.02 INSTALLATION - STUDS
- 3.03 INSTALLATION - CEILING
FRAMING
- 3.04 INSTALLATION - GYPSUM BOARD
- 3.05 JOINT TREATMENT

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work includes:
 - 1. Furring channels.
 - 2. Gypsum board with taped and sanded joint treatment.
 - 3. Stud framing.
 - 4. Ceiling framing.
- B. Related work specified elsewhere:
 - 1. Section 06100 – Rough Carpentry.
 - 2. Section 09300 - Tile.
 - 3. Section 09670 – Decorative Epoxy Floor
 - 4. Section 09900 - Painting.

1.02 REFERENCES

- A. ASTM C36 - Specifications for Gypsum Board.
- B. GA 201 - Using Gypsum Board for Walls and Ceilings.
- C. GA 216 - Recommended Specifications for the Application and Finishing of Gypsum Board.

1.03 SUBMITTALS

- A. Product data:
 - 1. Complete materials list of products to be furnished and installed under this section.
- B. See Section 01300 – Submittals for additional requirements.

1.04 DELIVERY, STORAGE AND HANDLING

- A. General: Deliver all materials and accessories to the job site in manufacturer's protective packaging with labels intact and legible. Comply with manufacturer's instructions for storage and handling.
- B. Replacements: In the event of damage, immediately make all necessary repairs and replacements subject to the approval of the Engineer and at no additional cost to the Owner.
- C. Protection: Use all means necessary to protect materials of this section before, during and after installation and to protect work and materials of all other trades.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. USG Corporation.
- B. Gold Bond Building Products.
- C. Georgia-Pacific.
- D. Or equal.

2.02 MATERIALS

- A. Studs and Tracks:
 - 1. Galvanized, wide flange punched steel studs, 18 gauge for exterior walls and 25 gauge for interior walls.
 - 2. Wood studs, see Section 06100 – Rough Carpentry.
- B. Furring Channels:
 - 1. Galvanized, 25 gauge.
 - 2. Sizes:
 - a. 7/8" channels.
 - b. 1-1/2" Z-channels.

- c. 1-1/2" cold-rolled channels.
- C. Gypsum Board Types: ASTM C36 fire resistant Type X, 5/8" thick, maximum permissible length, ends square cut, tapered edges. Provide moisture resistant coating where used in wet environments.

2.03 ACCESSORIES

- A. Corner Beads: metal.
- B. Edge Trim: GA 201 and GA 216, Types L and LC metal beads.
- C. Control Joints: metal.
- D. Fasteners: GA 201 and GA 216, Type S flathead, shouldered, hardened screws.
- E. Joint Materials: GA 201 and GA 216 reinforcing tape, joint compound, adhesive and water.

PART 3 - EXECUTION

3.01 INSTALLATION - FURRING

- A. Install furring in accordance with GA 201 and GA 216.
- B. Metal furring spacing: 16" (400 mm) on center, unless otherwise noted.

3.02 INSTALLATION - STUDS

- A. Install studding in accordance with GA 201 and GA 216.
- B. Stud spacing: 16" on center.

3.03 INSTALLATION - CEILING FRAMING

- A. Install in accordance with GA 201 and GA 216.
- B. Coordinate location of hangers with other work. Install ceiling framing independent of walls, columns, and above ceiling work.
- C. Laterally brace entire suspension system.

3.04 INSTALLATION - GYPSUM BOARD

- A. Install two layers of gypsum board in accordance with GA 201 and GA 216 as shown on drawings.
- B. Fasten gypsum board to furring or framing with screws.
- C. Place control joints consistent with lines of building spaces as directed.
- D. Place corner beads at both horizontal and vertical external corners. Use longest practical length. Place edge trim where gypsum board abuts dissimilar materials.

3.05 JOINT TREATMENT

- A. Tape, fill and sand all joints, edges, and corners to produce smooth surface with no ridges or high points ready to receive finishes.
- B. Feather coats onto adjoining surfaces so that camber is maximum 1/16" feather corner coats out from 8" to 10" on each side of corner.
- C. Maximum variation from flatness: 1/8" in 10' in any direction.

END OF SECTION

SECTION 09300

TILE

INDEX

PART 1 - GENERAL

- 1.01 DESCRIPTION
- 1.02 REFERENCES
- 1.03 SUBMITTALS
- 1.04 DELIVERY, STORAGE AND HANDLING

PART 2 - PRODUCTS

- 2.01 MANUFACTURERS
- 2.02 TILE MATERIALS
- 2.03 SETTING MATERIALS
- 2.04 GROUT MATERIALS

PART 3 - EXECUTION

- 3.01 EXAMINATION AND PREPARATION
- 3.02 LAYOUT
- 3.03 INSTALLATION
- 3.04 CLEANING
- 3.05 PROTECTION

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work includes:
 - 1. Glazed ceramic tile: wall location noted on drawings.
- B. Related work specified elsewhere:
 - 1. Section 09250 - Gypsum Board.

1.02 REFERENCES

- A. ANSI/TCA A137.1 - American National Standard Specifications for Ceramic Tile.
- B. ANSI/TCA A118.4 - American National Standard Specifications for Ceramic Tile Mortars.
- C. ANSI/TCA A118.6 - American National Standard Specification for Ceramic Tile Grouts.

1.03 SUBMITTALS

- A. See Section 01300 – Submittals for additional requirements.
- B. Shop drawings: Indicate tile layout, sizes, perimeter conditions, junctions with dissimilar materials and thresholds.

- C. Product data: Provide material specifications, characteristics, and instructions for using adhesives and grouts.
- D. Samples: Submit manufacturer's standard tile and grout colors.
- E. Maintenance instructions: include recommended cleaning methods, cleaning materials, stain removal methods and polishes and waxes.

1.04 DELIVERY, STORAGE AND HANDLING

- A. Delivery and storage: Deliver all materials to the job site in their original, unopened containers with all labels intact and legible at time of use. Store in a manner to maintain identification and to prevent damage.
- B. Replacements: In the event of damage, immediately make all necessary repairs and replacements subject to the approval of the Engineer at no additional cost to the Owner.
- C. Protection: Use all means necessary to protect materials of this section before, during and after installation and to protect work and materials of all other trades.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Daltile or approved equal.

2.02 TILE MATERIALS

- A. Ceramic tile:
 - 1. Tile: ANSI/TCA A 137.1; rectangular shape; Daltile, Color Wheel Collection; Color: Artic White; wall tile 4" x 12".
 - 2. Stainless Steel Schluter trim at top.

2.03 SETTING MATERIALS

- A. Thinset Mortar Materials: ANSI/TCA A118.4 latex modified with H.B. Fuller Acrylic Thinset Additive No. 868.

2.04 GROUT MATERIALS

- A. Wall: ANSI/TCA A118.6 unsanded wall grout. Color as selected by Architect/Owner.

PART 3 - EXECUTION

3.01 EXAMINATION AND PREPARATION

- A. Clean all surfaces free from coating, curing membranes, oil, greases, wax, and dust.
- B. Seal substrate surface cracks with filler.
- C. Surface to receive tile shall be smooth, level at the required finish elevation, without more than 1/8" in 10' - 0" variation from level or slopes shown.

3.02 LAYOUT

- A. Determine locations of all movement joints before starting tile work.
- B. Lay out all tile work so as to minimize cuts less than one-half (1/2) tile in size.
- C. Locate tile cuts in floor and wall so as to be least conspicuous.
- D. Align all joints to give straight uniform grout lines parallel with walls. Do not interrupt tile pattern through openings.

3.03 INSTALLATION

- A. Use all products in strict accordance with manufacturer's recommendations and directions.
- B. Make all joints watertight, without voids, cracks, excess mortar, or grout.
- C. Cut and fit tile tight to all penetration, align floor and base joints.
- D. All setting methods shall be as described by ANSI/TCA A118.4.

3.04 CLEANING

- A. Rinse tile work thoroughly with clean water before and after chemical cleaners. Clean all tile work free of grout film upon completion.
- B. Apply sealant to junctions of dissimilar materials and dissimilar planes.

3.05 PROTECTION

- A. Prohibit all foot and wheel traffic from using newly tiled floors for a minimum of four (4) days.
- B. Cover all tile floors with heavy-duty, non-staining construction paper, masked in place or 6 mil polyethylene sheets.

END OF SECTION

SECTION 09652

RESILIENT LUXURY VINYL TILE FLOORING

INDEX

PART 1 – GENERAL

- 1.01 SECTION INCLUDES
- 1.02 REFERENCES
- 1.03 SUBMITTALS
- 1.04 QUALITY ASSURANCE
- 1.05 DELIVERY, STORAGE AND HANDLING
- 1.06 PROJECT CONDITIONS
- 1.07 SEQUENCING
- 1.08 WARRANTY

PART 2 – PRODUCTS

- 2.01 MANUFACTURERS
- 2.02 RESILIENT TILE FLOORING

PART 3 - EXECUTION

- 3.01 EXAMINATION
- 3.02 PREPARATION
- 3.03 INSTALLATION
- 3.04 PROTECTION

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Resilient tile flooring.

1.02 REFERENCES

- A. American Concrete Institute (ACI):
 - 1. ACI 302.1R - Guide to Concrete Floor and Slab Construction.
 - 2. ACI 302.2R - Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials.
- B. ASTM International (ASTM):
 - 1. ASTM D 2047 - Standard Test Method for Static Coefficient of Friction of Polish-Coated Flooring Surfaces as Measured by the James Machine.
 - 2. ASTM E 648 / NFPA 253 - Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source.
 - 3. ASTM E 662 - Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials.
 - 4. ASTM F 710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.
 - 5. ASTM F 970 - Standard Test Method for Measuring Recovery Properties of Floor Coverings after Static Loading.
 - 6. ASTM F 1066 - Standard Specification for Vinyl Composition Floor Tile.
 - 7. ASTM F 2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes.
 - 8. ASTM F 3010 - Standard Practice for Two-Component Resin Based Membrane-Forming Moisture Mitigation Systems for Use Under Resilient Floor Coverings.

1.03 SUBMITTALS

- A. Submit under provisions of Section 01300 - Administrative Requirements.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (152 mm) square representing actual product, color, and patterns.

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum 5 year experience manufacturing similar products.
- B. Installer Qualifications: Trained journeymen with a minimum of three years successful experience in the installation of resilient flooring.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store products in manufacturer's unopened packaging bearing the brand name and manufacturer's identification until ready for installation.
- B. Store rolls of sheet goods in a secured upright position. Store materials in dry spaces protected from the weather, with ambient temperatures not less than 55°F (12.8°C) or more than 85°F (29.4°C).
- C. Handle materials to avoid damage.

1.06 PROJECT CONDITIONS

- A. Follow manufacturer's recommendations.

1.07 SEQUENCING

- A. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

1.08 WARRANTY

- A. Warranty: Provide manufacturer's standard limited warranty.

PART 2 – PRODUCTS

2.01 MANUFACTURERS

- A. Acceptable Manufacturer: Mannington Commercial, 1844 US Highway 41 SE, Calhoun, GA 30701; 706-629-7301; www.manningtoncommercial.com

- B. Or approved equal.

2.02 RESILIENT TILE FLOORING

A. Luxury Tile Flooring:

1. Basis of Design: Mannington, The Drift – Stone.
 - a. Wear Layer: 30 mil.
 - b. Wear Layer: Quantum Guard Elite.
 - c. Overall Thickness: 2.5mm.
 - d. Slip Resistance per ASTM D 2047: Dry: 0.6.
 - e. Static Load Limit per ASTM F970: 2000 lbs per sq in (13790 kPa).
 - f. Short Term and Residual Indentation per ASTM F1914: Pass.
 - g. Color Stability:
 - h. Light per ASTM F1515: Pass.
 - i. Heat per ASTM F1514: Pass.
 - j. Dimensional Stability per ASTM F2199: Pass.
 - k. Flexibility per ASTM F137: Pass.
 - l. Fire Performance:
 - i) ASTM E 648: Tested Class I.
 - ii) ASTM E 662: Less than 450.
 - m. Chemical Resistance per ASTM F925: Tested.
 - n. Tile Size: 12" x 24".
 - i) Color: To be selected by Owner and Architect.

B. Accessories:

1. Subfloor Filler and Leveler:
 - a. Per manufacturer's recommendations.
2. Adhesives:
 - a. Per manufacturer's recommendations.

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- B. Confirm concrete slabs conform to ACI 302.1R and ACI 302.2R.
- C. Perform moisture tests on concrete floors regardless of the age or grade level. Verify concrete substrate is dry in accordance with ASTM F 2170, in strict accordance with instructions.

3.02 PREPARATION

- A. Clean surfaces thoroughly prior to installation.

- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
 - 1. Concrete per ASTM F 710.
 - 2. Other Monolithic Floors; ASTM F 1482
- C. When patching, a moisture tolerant patching compound must always be used.

3.03 INSTALLATION

- A. Install in accordance with Mannington Commercial Installation Practices, and in proper relationship with adjacent materials.

3.04 PROTECTION

- A. Protect installed products until completion of project.
- B. Cleaning: Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products. Clean installed products in accordance with manufacturer's instructions prior to Owner's acceptance. Remove construction debris from project site and legally dispose of debris.
- C. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 09655

RESILIENT BASE MATERIAL

INDEX

PART 1 - GENERAL

- 1.01 SECTION INCLUDES
- 1.02 REFERENCES
- 1.03 SUBMITTALS
- 1.04 DELIVERY, STORAGE, AND PROTECTION
- 1.05 ENVIRONMENTAL REQUIREMENTS

PART 2 - PRODUCTS

- 2.01 MATERIALS – BASE
- 2.02 ACCESSORIES

PART 3 - EXECUTION

- 3.01 EXAMINATION
- 3.02 PREPARATION
- 3.03 INSTALLATION - BASE
- 3.04 CLEANING
- 3.05 PROTECTION OF FINISHED WORK

PART 1 - GENERAL

- 1.01 SECTION INCLUDES
 - A. Resilient base.
 - B. Installation accessories.
- 1.02 REFERENCES
 - A. ASTM F 1861 - Standard Specification for Resilient Wall Base.
- 1.03 SUBMITTALS
 - A. Verification Samples: Submit two samples illustrating color and pattern for vinyl base.
 - B. See Section 01300 – Submittals for additional information.
- 1.04 DELIVERY, STORAGE, AND PROTECTION
 - A. Protect roll materials from damage by storing on end.

1.05 ENVIRONMENTAL REQUIREMENTS

- A. Maintain temperature in storage area between 55°F. and 90°F.
- B. Store materials for not less than 48 hours prior to installation in area of installation at a temperature of 70°F. to achieve temperature stability. Thereafter, maintain conditions above 55°F.

PART 2 - PRODUCTS

2.01 MATERIALS – BASE

- A. Resilient Base: ASTM F 1861, TV vinyl; top set Style B, Cove, and as follows:
 - 1. Height: 4".
 - 2. Thickness: 0.125" thick.
 - 3. Finish: Satin.
 - 4. Length: Roll.
 - 5. Color: Color as selected from manufacturer's standards.
 - 6. Manufacturers:
 - a. Burke/Mannington; or approved equal.

2.02 ACCESSORIES

- A. Primers and Adhesives: Waterproof; types recommended by flooring manufacturer.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces are dust-free, and free of substances which would impair bonding of adhesive materials to surfaces.

3.02 PREPARATION

- A. Clean substrate.

3.03 INSTALLATION - BASE

- A. Fit joints tightly and make vertical. Maintain minimum dimension of 18" between joints.
- B. Miter or cope internal corners. At external corners, 'V' cut back of base strip to 2/3 of its thickness and fold. At exposed ends, use pre-molded units.

C. Install base on solid backing. Bond tightly to wall and floor surfaces.

D. Scribe and fit to door frames and other interruptions.

3.04 CLEANING

A. Remove excess adhesive from floor, base, and wall surfaces without damage.

B. Clean, seal, and wax resilient flooring products in accordance with manufacturer's instructions.

3.05 PROTECTION OF FINISHED WORK

A. Prohibit traffic on resilient flooring for 48 hours after installation.

END OF SECTION

SECTION 09900

PAINTING

INDEX

PART 1 – GENERAL

- 1.01 DESCRIPTION
- 1.02 QUALITY ASSURANCE
REQUIREMENTS
- 1.03 SUBMITTALS
- 1.04 DELIVERY, STORAGE AND
HANDLING
- 1.05 ENVIRONMENTAL CONDITIONS

PART 2 – PRODUCTS

- 2.01 MATERIALS
- 2.02 COLORS
- 2.03 MIXING AND TINTING

PART 3 - EXECUTION

- 3.01 INSPECTION
- 3.02 PREPARATION OF SURFACES
- 3.03 APPLICATION
- 3.04 FIELD QUALITY CONTROL
- 3.05 PROTECTION AND CLEANING
- 3.06 PAINTING SCHEDULE

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This section describes painting and protective coatings of exterior and interior surfaces, equipment and piping.
- B. Painting, as used herein, includes application of paints, enamels, fillers, stains, varnishes, sealers, or other coatings required for use as prime, intermediate or finish coats, as specified herein under painting schedule.
- C. Unless specifically specified elsewhere, following surfaces are not to be painted.
 - 1. Pipe, conduit and ducts in concealed spaces or buried.
 - 2. Stainless steel and aluminum surfaces except as noted otherwise hereinafter.
 - 3. Glass, vitreous enamel and chrome plated items.
 - 4. Brass, bronze and copper.
 - 5. Rubber, plastic and fiberglass.
 - 6. Conduit and ducts on unpainted surfaces.
 - 7. Concrete floors (refer to Section 09652 – Resilient Luxury Vinyl Tile Flooring).
 - 8. Concrete except as shown in Painting Schedule and Room finish Schedule.
- D. Shop prime coat is specified in the drawings on Sheet 10-A-1 under Notes.

- E. Factory paint or pre-finish all equipment as specified herein unless specifically stated otherwise under equipment item specification.
- F. Factory pre-finish certain miscellaneous items as specified elsewhere or per approved manufacturer's standard; colors selected by Engineer.

1.02 QUALITY ASSURANCE REQUIREMENTS

- A. Include following on label of containers:
 - 1. Name of manufacturer.
 - 2. Manufacturer's stock name, type and number.
 - 3. Color.
- B. Include following on label of containers or furnish information with materials list in form that will readily relate it to material in container:
 - 1. Instructions for reducing, where applicable.
 - 2. Detailed pigment/vehicle ratios.
 - 3. Any special storage or application instructions.

1.03 SUBMITTALS

- A. Materials List:
 - 1. Submit complete list of materials and painting schedule for all coats required for each type of surface; deliver no material to job site until list is reviewed by Engineer.
 - 2. List in form permitting identification by container labels.
 - 3. Note recommended dry film thickness, type system, finish and surface preparation for each coat and each system on list.
 - 4. With list, furnish published current price list containing all grades of each type of paint specified and produced by manufacturer.
 - 5. Submit complete catalog describing all painting systems and types available and proposed.

1.04 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to job site in original unopened containers with labels intact.
- B. Store only acceptable materials at job site and per manufacturer's recommendations for storage conditions including temperatures.
- C. When stored in structure under contract, protect floor and walls of storage area from spatter or discoloration.

- D. Store in well ventilated area, away from excessive heat, sparks, flame, or direct sunshine; provide safeguards to prevent fire.

1.05 ENVIRONMENTAL CONDITIONS

- A. Comply with manufacturer's recommendations as to temperature, humidity, and surface conditions under which coating, or coating system can be applied.
- B. Do not apply finish in areas where dust is being or likely to be generated.
- C. Do not apply paint on exterior surface exposed to hot sun or when surface temperature exceeds 105°F.
- D. Apply all finishes under adequate illumination.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. General:
 - 1. Finish materials: product of manufacturer who maintains laboratory under direction of qualified chemist and who maintains strict quality control.
 - 2. Except where quality is established by definite criteria, finish materials must be best of their respective types produced by manufacturer.
 - 3. Coating system for each surface type: product of single manufacturer.
 - 4. Primer used to touch-up shop-applied prime coat: same type as shop coat.
 - 5. Coatings used to touch-up factory prefinished items: same type as factory's finish coating.
 - 6. Thinning and tinting materials: as recommended by manufacturer of material to be thinned or tinted.
- B. Gloss (paint and enamel): measured on Gardner-Hunter Reflectometer using 60° Calibrated Gloss Standard, the following apply:
 - 1. Flat finish: 10° or less.
 - 2. Eggshell finish: 10° to 35°.
 - 3. Semi-gloss finish: 35° to 70°.
 - 4. Gloss finish: 65° and up.

2.02 COLORS

- A. Color all coats as directed by Engineer.
- B. Color prime coats to contrast at least two shades on scale of ten with substrate being primed, except for enamels.

- C. Tint undercoats to approximate final color to assure uniform finish color, but with sufficient variation to distinguish between coats.

2.03 MIXING AND TINTING

- A. Deliver paints and enamels ready-mixed to job site except where manufacturer recommends otherwise.
- B. Job tint and mix only when acceptable to Engineer.
- C. Use adequate means and take all precautions necessary to protect floor and adjacent wall surfaces during tinting and mixing operation.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Examine surfaces scheduled to be painted for conditions that will adversely affect execution, performance, or quality of work and which cannot be corrected by normal cleaning, sanding, and filling of cracks and nail holes.
- B. Do not proceed with surface preparation or coating application until conditions are suitable; application of paint or other coating to surface constitute acceptance of that surface.

3.02 PREPARATION OF SURFACES

- A. General:
 1. Prior to coating existing and new surfaces, representative of paint supplier shall visit site to inspect condition of existing and new surfaces. Representatives from paint suppliers, painting subcontractor and Engineer shall view existing surfaces and discuss preparation procedures. Subsequent to site visit, paint supplier representative shall submit report listing recommended surface preparation procedures to Engineer for approval.
 2. Remove foreign material and stains which will adversely affect adhesion or appearance of applied coating and make sure that surface is sufficiently dry; follow recommendations of paint manufacturer.
 3. Roughen gloss on existing painted surfaces by sanding or etching to provide proper tooth for adhesion of paint.
 4. Remove mold or mildew completely, wash surface with neutralizing solution, rinse and allow it to dry before painting.
 5. Test to determine moisture content of surface to be painted.
 6. Perform an adhesion test after proper cure to demonstrate the coating adheres to the substrate.

- B. Metals:
1. Completely remove oil and grease with solvent recommended by manufacturer and wipe dry with clean cloths.
 2. Remove mill scale, rust and defective paint down to sound surface or bare metal as recommended by paint manufacturer.
 - a. SSPC-SP-6 Chemical Blast Cleaning.
 - b. SSPC-SP-7 Brush Off Blast Cleaning (NACE No. 4).
 - c. SSPC-SP-10 Near-White Blast Cleaning.
 - d. SSPC-SP-11 Bare Metal Power Tool Cleaning.
 3. Pretreat galvanized surfaces with zinc phosphate solution; Galvaprep No. 5, or equal.
 4. Wash exterior mill finish aluminum with mineral spirits or turpentine and allow to weather for month before painting; in lieu of weathering, roughen surface with steel wool.
- C. Concrete:
1. Remove dirt, loose particles, excess mortar and any film left from form oil or curing compound. On existing walls and ceiling remove all coatings and prepare surface for new coatings.
 - a. SSPC-SP-13 Preparation of Concrete.
 2. Fill cracks and irregularities with portland cement grout to provide uniform surface per manufacturer's recommendations and per SSPC SP-13/NACE6.
 3. Test for dryness.

3.03 APPLICATION

- A. Do not apply initial coat until moisture content of surface is within limitations recommended by paint manufacturer.
- B. Apply materials without thinning, adulteration or change unless otherwise specified, recommended by manufacturer or approved by Engineer.
- C. Apply by brush, roller or spraying equipment; spray application not permitted unless adequate precautions are taken to protect all items and surfaces not intended to be coated.
1. Spread or flow each coat smooth and even to film thickness recommended by manufacturer, without runs, sags, skips, excessive brush marks, or other defects.
 2. Keep materials free from skins or lumps and well stirred during use.
 3. Keep equipment clean, free from contaminants and suitable for finish required.
- D. Comply with manufacturer's recommendations for drying time between coats; if not stated, dry for minimum 48 hours for exterior paint and minimum 24 hours for interior paint.

- E. Sand and dust between coats to remove defects visible from distance of 5'; for enamel, use fine sandpaper or steel wool and clean between coats to produce an even, smooth finish unless otherwise specified.
- F. Joints must present uniform appearance after painting, either completely open or completely closed.
- G. Leave all parts of moldings clean and true to detail with no undue build-up of paint in corners.
- H. Make edges adjoining other materials or other colors clean and sharp with no overlapping.
- I. Where colors differ between adjoining rooms or spaces and where door frames are to match wall colors, change color at doors.
- J. Touch up suction or hot spots in first coat on concrete before applying second coat.
- K. Final coat must have solid hiding and/or uniform appearance.
- L. Where 100% polyurethane is specified, strictly follow manufacturer's specifications for surface preparation and application.

3.04 FIELD QUALITY CONTROL

- A. Notify Engineer when surface preparation is complete and when each coat has been applied for inspection of work before succeeding specified coat is applied; if succeeding coat is applied without Engineer's approval, no credit will be given for applied coat and Contractor must recoat work in question.

3.05 PROTECTION AND CLEANING

- A. Carefully protect adjacent work and materials.
- B. Remove paint from floors, glass, or other surfaces not specified to receive paint.
- C. When painting is complete, remove from premises all debris that are result of painting operations.

3.06 PAINTING SCHEDULE

- A. Following general surface painting requirements and General Painting Schedule are not necessarily complete and do not limit scope of work.

- B. Once proposed materials list with complete painting schedule is received, Engineer will specify specific painting systems with number of coats, dry film thicknesses and colors.

- C. Interior metals:
 - 1. Paint steel doors and frames, overhead structural steel door tracks and accessory items, exposed items specified in the Drawings on Sheet 10-A-1 under Notes, diffusers, grilles, panel boxes, pipes and pipe supports.
 - 2. Painting not required for factory finished diffusers and grilles at acoustical ceilings and corrosion resistant metals (aluminum and stainless steel) except items specifically noted to be painted.
 - 3. Prime coating:
 - a. Touch-up weld burns and abrasions in shop applied prime coat.
 - b. Prime items which have not been shop primed, including pipe and conduit installed by Mechanical and Electrical Subcontractors where required, with primer recommended by manufacturer as best suited for surface being primed and finish coat(s) specified.
 - c. Where required for proper adhesion or to assure complete hiding by finish coat(s) specified, prime prefinished or prime coated diffusers, grilles, electric panels, switch boxes, conduit and ducts installed on or adjacent to ceilings and walls which are to be painted.
 - d. Use only primers recommended by finish coat manufacturer.
 - 4. On diffusers, grilles, panels, boxes, pipe supports, conduit and ducts apply same finish coat(s) as required for adjacent wall or ceiling surface.

- D. Duct and equipment insulation covers:
 - 1. Painting of items installed and covered by Mechanical Subcontractor.
 - 2. One coat vinyl type primer-sealer.
 - 3. Finish coat(s) same as adjacent wall or ceiling surface.

- E. Paint materials as manufactured by Tnemec, per General Painting Schedule, equivalent by Carboline, PPG, or equal.

GENERAL PAINTING SCHEDULE

<u>Surface</u>	<u>Generic Types</u>	<u>Intended Use</u>	<u>Manufacturer's System Numbers</u>
<u>Inside Metal</u> Doors, frames, miscellaneous metals, structural steel, etc.	HDP Acrylic Gloss	General	Prime Coat: Tnemec Series 27WB Typoxy @4.0 mils D.F.T. 2 Finish Coats: Tnemec Series 1028-(color) Enduratone @ 2.5 mils D.F.T. per coat.
All Others	Epoxy-Polyamidoamine	General	Prime Coat: Tnemec Series N69-(color) Hi-Build Epoxoline II @ 4.0 - 6.0 mils D.F.T. Finish Coat: Tnemec Series N69-(color) Hi-Build Epoxoline II @ 4.0 - 6.0 mils D.F.T.
<u>Interior Concrete/Concrete Masonry</u> Dry Areas.	Acrylic Epoxy	Dense Surface Primer Finish Coat	Series 113 Tuffcoat @ 4-6 mils D.F.T. Series 113 Tuffcoat @ 4-6 mils D.F.T.
If porous surface primer is required use 1254 Epoxoblock WB.			
<u>Inside Gypsum Board: New Walls and Ceiling</u>	Acrylic Emulsion	Building Interior	Self-priming Tnemecryl 2 cpats @ 3.0 mils D.F.T. each.

END OF SECTION

SECTION 11460

KITCHEN CABINETS & COUNTERTOPS

INDEX

PART 1 – GENERAL

- 1.01 SECTION INCLUDES
- 1.02 RELATED SECTIONS
- 1.03 REFERENCES
- 1.04 SUBMITTALS
- 1.05 QUALITY ASSURANCE
- 1.06 DELIVERY, STORAGE AND HANDLING
- 1.07 PROJECT CONDITIONS
- 1.08 SEQUENCING

PART 2 – PRODUCTS

- 2.01 MANUFACTURERS
- 2.01 MATERIALS

PART 3 – EXECUTION

- 3.01 EXAMINATION
- 3.02 PREPARATION
- 3.03 INSTALLATION
- 3.04 PROTECTION

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Kitchen Cabinets and Countertops.

1.02 RELATED SECTIONS

- A. Section 06100- Rough Carpentry
- B. Division 15 - Mechanical.
- C. Division 16 - Electrical.

1.03 REFERENCES

- A. ASTM International
 - 1. ASTM C97 – Absorption and Bulk Specific Gravity of Dimensional Stone
 - 2. ASTM C99 – Modulus of Rupture of Dimensional Stone
 - 3. ASTM C170 – Compressive Strength of Dimensional Stone
 - 4. ASTM C531 – Linear Shrinkage and Coefficient of Thermal Expansion of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes
 - 5. ASTM C880 – Flexural Strength of Dimensional Stone
 - 6. ASTM C1028 – Static Coefficient of Friction of Ceramic Tile and Other like Surfaces by the Horizontal Dynamometer Pull-Meter Method
 - 7. ASTM E84 – Surface Burning Characteristics of Building Materials

B. American National Standards Institute (ANSI)

1. ANSI Z124.6 – Stain Resistance
2. ANSI/N 42.14 – Radiation

1.04 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 1. Preparation instructions and recommendations.
 2. Storage and handling requirements and recommendations.
 3. Installation methods.
- C. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
- D. Verification Samples: For each finish product specified, two samples, representing actual product and finish.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum 5 year experience manufacturing similar products.
- B. Installer Qualifications: Minimum 2 year experience installing similar products.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store products in manufacturer's unopened packaging bearing the brand name and manufacturer's identification until ready for installation.
- B. Handling: Handle materials to avoid damage.

1.07 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.08 SEQUENCING

- A. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Acceptable Manufacturers:

1. Aristokraft, PO Box 420, Jasper, Indiana 47547, ; www.aristokraft.com
2. Vadara Quartz Surfaces; Ph. 1-844-482-3272; www.vadaraquartz.com
3. Or approved equal.

2.02 MATERIALS

A. Cabinets:

1. Cabinets basis of Design: Aristokraft Base and Wall Cabinets
 - a. Standard overlay
 - b. Solid wood dovetail drawer construction
 - c. ½" plywood cabinet construction
 - d. ¾" adjustable shelves
 - e. 6 way adjustable soft close hinges
 - f. Full extension soft close drawer slides
 - g. Benton Door Style
 - h. Slab Drawer Style
 - i. 30" tall wall cabinets with decorative crown moulding
 - j. Include touch up kit
 - k. Finish panel on all exposed cabinet ends
 - l. Hardware for doors and drawers: Pull; style and color selected by Owner and Architect
2. Color: To be selected from manufacturer's stained wood or painted colors.
3. Installation per manufacturer's recommendations.

B. Countertops:

1. Countertop basis of design: Vadara quartz
 - a. Composition: 90% + percent crushed quartz aggregate combined with resins and pigments and fabricated into slabs using a vacuum vibro-compaction process.
 - b. Thickness: Nominal ¾"
 - c. Size: Slab shall be not less than 63 x 120 inches to minimize the number of joints used in installation.
 - d. Identification: Material shall be labeled with slab information and imprinted with a manufacturer's identifying mark on the back.

2. Manufacturer's Performance Data

PRODUCT TEST	TYPICAL RESULT	REFERENCE
Slab Size	63"x120" or 63" x 126"	
Thickness & Weight	2cm-498/538lbs 3cm-800/839lbs	
Gloss	47% minimum	
Mohs Scale of Hardness	6-7	
Density	2.4g/cm ³	ASTM C-97
Water Absorption	<0.03%	ASTM C-97
Abrasion Resistance	208	ASTM C-501
Flexural Strength	>5,300 psi	ASTM D-790
Impact Resistance	0.35 ft-lb/inch	ASTM D-256
Compressive Strength	24,000-27,500	ASTM C-170
Freeze-Thaw Resistance	No effect – 15 cycles	ASTM C-1026
Coefficient of Friction	Dry- 0.84/Wet- 0.6	ASTM C-1028
Stain Resistance	Pass	ANSI Z 124.6
Chemical Resistance	Pass	ANSI Z 124.6
Cigarette Test	Pass	ANSI Z 124.6
Surface Burning	Class A	ASTM E-84
Fungal/Bacteria Resistance	No Growth	ASTM G-21
High Temperature Resistance	Pass	NEMA LD3-3.6

3. Color: To be selected by Owner and Architect from Ebbs and Flows or Divine Natural Majesty design collections.
4. Exposed edges and Corners: Square
5. Backsplash and side splash: 4" high.
6. Installation per manufacturer's recommendations.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.03 INSTALLATION

- A. Install in accordance with manufacturer's instructions and in proper relationship with adjacent construction. Test for proper operation and adjust until satisfactory results are obtained.

3.04 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 15010

MECHANICAL GENERAL PROVISIONS

INDEX

PART 1 - GENERAL

- 1.01 DESCRIPTION
- 1.02 PLANS
- 1.03 LEAK DAMAGE
- 1.04 INTENT
- 1.05 MATERIAL LIST SHEET
- 1.06 PROTECTION OF EQUIPMENT AND MATERIALS
- 1.07 VERIFICATION OF EXISTING UTILITIES PIPING AND EQUIPMENT AND EXAMINATION OF SITE
- 1.08 LAYING OUT OF THE WORK
- 1.09 COORDINATION
- 1.10 LUBRICATION
- 1.11 ACCESS
- 1.12 CUTTING AND PATCHING
- 1.13 TESTS
- 1.14 PERMITS
- 1.15 NOISE
- 1.16 CLEANING AND ADJUSTING
- 1.17 RECORD DRAWINGS
- 1.18 OPERATION AND MAINTENANCE MANUALS
- 1.19 OPERATING INSTRUCTIONS
- 1.20 CODES AND STANDARDS
- 1.21 COMPLETION REQUIREMENTS

PART 1 - GENERAL

- 1.01 DESCRIPTION
 - A. Provide mechanical work, complete and operable, in accordance with the Contract Documents.
 - B. Mechanical General Provisions requirements specifically applicable to Division 15 sections, in addition to Division 1 requirements.
 - C. Wherever Mechanical General Provisions requirements conflict with any provisions of the General Requirements, Supplementary Conditions or Special Conditions, Mechanical General Provisions requirements shall take precedence.

1.02 PLANS

- A. The plans and specifications cover the extent and general arrangements of the various systems subject to the individual characteristics of the equipment with regard to size, arrangement, etc. The plans are diagrammatical and are not intended to include all of the details or dimensions. Where no figures or dimensions are noted, the plans shall be accurately followed. Exceptions to or conflicts between the plans and specifications shall be brought to the Engineer's attention at least 7 days before bidding date.

1.03 LEAK DAMAGE

- A. The contractor shall be responsible for damage to the work of other contractors or to the building, or to its contents, people, etc., caused by leaks in any of the equipment or material installed by him through equipment or material failures or disconnected pipes or fittings, and shall make, at his own expense, all repairs or replacement required as a result of such damage.

1.04 INTENT

- A. It is the intention of these specifications and plans to call for finished work, tested and ready for use and operation by the Owner. Wherever the word "provide" is used, it shall mean "furnish and install complete and ready for use".

1.05 MATERIAL LIST SHEET

- A. Submit a Material List Sheet within 48 hours after bids are received. Material List Sheet shall contain names of manufacturer for all major pieces of mechanical equipment.
- B. Certain equipment and systems have been specified with 2 or more particular makes. For such equipment, the bidder shall indicate on the material list sheet, which of the particular makes he intends to use. If the bidder does not indicate which particular make he proposes to use, if more than one manufacturer's name is listed per item, or if a manufacturer's name other than those listed is indicated, the first make specified shall be used in the construction of the building.
- C. Bidders wishing to obtain approval on brands other than those specified by name shall refer to Section 01300 - Submittals.

1.06 PROTECTION OF EQUIPMENT AND MATERIALS

- A. Provide protection against weather, rain, windstorms, frost, ice, heat, and other natural phenomenon so as to maintain all material and equipment free from injury or damage including physical damage of any nature. This shall include the erection of any temporary shelters to protect adequately any equipment stored on the site, and the covering of equipment in the completed building with protective coverings.

1.07 VERIFICATION OF EXISTING UTILITIES PIPING AND EQUIPMENT AND EXAMINATION OF SITE

- A. Verify the location of all piping and equipment and call to the attention of the Engineer any and all discrepancies which involve additional work before signing of the contract.
- B. After the contract is signed, any additional work required for the complete and working job shall be provided at no additional cost, unless specifically noted in the contract documents to the contrary.
- C. Locations, sizes, capacities, etc., of all piping shall be verified prior to doing any other work on piping systems which are to connect to new piping systems. Any work rendered unusable by failure to comply with this provision shall be replaced at no cost.
- D. Piping as mentioned in this division of the specifications shall be understood to include water, sewer and other piping systems necessary to the continued operation of any and all new or existing systems and equipment, whether on a temporary or permanent basis as noted elsewhere in the contract documents.
- E. Prior to submitting proposals for this work, each contractor bidding shall first examine the site and all conditions thereon and/or therein. All proposals shall take into consideration all such conditions as may affect the work under this Contract.

1.08 LAYING OUT OF THE WORK

- A. Layout work on the premises and make proper provision for the other work. The exact location of each item shall be determined by reference to the general plans, by measurements at the building and in cooperation with other contractors. The Contractor shall be responsible for accurately locating all openings for ducts, pipes, etc., and access doors required.

1.09 COORDINATION

- A. Any interferences with other trades shall be corrected before the work proceeds. Coordinate location of plumbing and mechanical equipment with structural conditions.
- B. The mechanical and electrical portions of the work shall have precedence over one another in accordance with the following sequence:
 - 1. Soil and waste piping.
 - 2. Ductwork.
 - 3. Electrical bus duct and cable trays.
 - 4. Electrical wiring.

1.10 LUBRICATION

- A. All equipment requiring lubrication shall have a label or plate permanently attached to the equipment indicating type of lubrication required and recommended frequency of lubrication. All equipment shall be fully and properly lubricated at the time of final acceptance of the facility.

1.11 ACCESS

- A. Generally, all concealed valves, filters, thermostats, mixing valves, pumps and other items of equipment requiring maintenance and/or operation are located above accessible type ceilings. Should any concealed valves, pumps, etc., be inaccessibly located, furnish access doors with flush screwdriver operated lock. Doors shall be of the type suited to the construction into which they are to be installed.
- B. Provide access to filters such that filters can be serviced without interruption; provide suitable access doors or panels.

1.12 CUTTING AND PATCHING

- A. All cutting and patching required under this Division shall be done under this Division. Subcontract the performance of cutting and patching to tradesmen skilled in the trade required.

1.13 TESTS

- A. All systems shall be tested in the presence of the Engineer and local authorities having jurisdiction in a manner required by regulation. No work shall be covered before tests are made.
- B. Refer to individual sections for testing requirements.
- C. When not indicated, test all piping hydrostatically at 1-1/2 times the maximum working pressure but in no case less than 50 psi for a period of 5 hours.

1.14 PERMITS

- A. Obtain all required permits. Pay for all permits, certificates and licenses required to commence the work and arrange for inspections required by local authorities.

1.15 NOISE

- A. All mechanical equipment and devices shall operate without objectionable noise in the occupied portions of the building. HVAC components shall be installed not to exceed noise criterion of NC-35.

1.16 CLEANING AND ADJUSTING

- A. Upon completion of the entire system, it shall be thoroughly cleaned and treated as specified. Place the entire system in operation in the presence of the Engineer or his representative and instruct the operator in all details of operation before acceptance.
- B. Interior of all ductwork shall be cleaned of all construction dirt prior to placing fans in operation.

1.17 RECORD DRAWINGS

- A. See Division 01 for record drawing requirements.

1.18 OPERATION AND MAINTENANCE MANUALS

- A. Furnish required number of complete sets of manufacturer's instructions for installation, operation and maintenance of all materials and equipment furnished.
- B. Completely identify each manual by showing at least the following information:
 - 1. Name, address and phone number of supplier.
 - 2. Name, address and phone number of manufacturer.
 - 3. Name of project as it appears on the title sheet of these specifications.
- C. Include all guarantees and warranties issued.
- D. Include a lubrication list showing type of lubricant and lubrication schedule for all equipment.
- E. Include a valve list showing valve tag number, service and location.

1.19 OPERATING INSTRUCTIONS

- A. Instruct the Owner's operating personnel in the proper operation of all equipment items and systems. At the beginning of the first cooling and heating season, start the equipment and operate until satisfactory operation and performance is achieved.

1.20 CODES AND STANDARDS

- A. Equipment, devices, apparatus, systems and installations shall be entirely suitable and safe for each intended application and be in full compliance with applicable standards, rules, regulations, codes, ordinances, etc., of municipal, county and state governments and local utilities, including Iowa State Building, Mechanical, Fire and Plumbing Codes. They shall also comply with OSHA and all applicable requirements of the following for the particular type of installation:
 - 1. Electrical Equipment and Wiring: National Electrical Code.

2. Duct Installations and Fire Dampers: NFPA, SMACNA Manuals, Uniform Mechanical Code.
3. Fans, Blowers and Other Air Moving Devices: AMCA, SMACNA Manual.

1.21 COMPLETION REQUIREMENTS

- A. Before acceptance and final payment, provide:
 1. Accurate record drawings showing in red ink on blueline prints furnished for that purpose all changes from the original plans made during installation of the work. Drawings shall be filed with the Engineer when the work is complete.
 2. Balancing report.
 3. Operation and maintenance manuals.
 4. Operating instructions to the operating personnel.

END OF SECTION

SECTION 15050

BASIC MATERIALS AND METHODS

INDEX

PART 1 - GENERAL

1.01 DESCRIPTION

PART 2 - PRODUCTS

2.01 MATERIALS

PART 3 - EXECUTION

3.01 INSTALLATION

3.02 WELDING

3.03 PIPE IDENTIFICATION

3.04 VALVE IDENTIFICATION

3.05 IDENTIFICATION OF
EQUIPMENT

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This section describes basic materials and methods of "Mechanical" work shown on plans.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Pipe and fittings:
1. Cast iron soil pipe:
 - a. Service weight hub and spigot or no-hub according to ANSI 112.5.1, ASTM A74.12 and Commercial Standard 188-66.
 - b. Double seal elastomeric compression type joint conforming to ASTM C564 for pipe with hub and plain end spigot or,
 - c. Mechanical coupling with neoprene gasket and all stainless steel shield and clamps conforming to ASTM C-564 for pipe with plain ends.
 2. Steel pipe:
 - a. Galvanized or black, ASTM A120 or A53, Grade B.
 - b. Cast iron screwed pipe fittings: 125 lb. and 250 lb. fittings conforming to ANSI B16.4.
 - c. Malleable iron screwed pipe fittings: 150 lb. and 300 lb. fittings conforming to ANSI B16.3.
 - d. Unions: ground joint bronze to iron seat, malleable iron union, threads conforming to ANSI B2.1 and material conforming to ASTM A197 Grade 32510 for 150 lb. WSP and 300 lb. WOG non-shock service.
 - e. Flanges: 125 lb. standard cast iron or malleable iron conforming to ANSI B16.1 and 250 lb. extra heavy cast iron or malleable iron.

- f. Gaskets: provide gaskets with all flanged joints; 1/16" thick, corrugated metallic ring gaskets; paint outside of gasket with graphite and oil before installing; provide with all flanged joints.
 - g. Insulating flanges and unions: install insulating flanges and unions at all connections between ferrous and non-ferrous piping materials or piping and equipment, providing cathodic protection by complete insulation; Capital Manufacturing Co., Epco Sales Co., or equal.
 - h. Welding fittings: Grade B carbon steel conforming to ASTM A234.WPB and ANSI Standards B16.9 and B16.28; permanently mark each fitting with manufacturers name or trademark, size, wall thickness or schedule number and material grade identification; install in accordance with manufacturer's recommendations.
 - i. Mechanical pipe couplings and fittings: Victaulic, or equal pipe couplings and fittings may be used in piping systems above grade to connect mechanical equipment to piping systems.
3. Copper pipe:
- a. Type K and L, hard or soft, conforming to ASTM B88; Type DWV conforming to ANSI B306.
 - b. Fittings: wrought copper or bronze, pressure type conforming to ANSI B16.22; cast bronze fittings conforming to ANSI B16.23 on DWV pipe.
 - c. Solder: ANSI/ASTM B32, Grade 95TA, or Silverbrite 100 containing 95.5% tin, 4% copper and 0.5% silver.
4. Ductile Iron Pipe:
- a. Thickness: Class 53 per AWWA C151 for sizes 3" through 12".
 - b. Cement mortar lining per AWWA C104, 1/16" standard bituminous lining seal coated per ANSI A21.4.
 - c. Fittings: Class 250 per AWWA C110; cement mortar lined per AWWA C104; flanged fittings for joints in buildings and structures; use mechanical type joints in direct buried piping per AWWA C111 or flange fitted.
5. PVC Sewer Pipe and Fittings: Type I normal impact resins in conformance with ASTM D2665 and ASTM B16.12. with Solvent Welded Socket Type fittings complying with ASTM D2564 or molded threads only fittings. Use tape or lubricant specifically intended for use with PVC plastic pipe.
6. Polyvinyl Chloride (pvc) pressure Pipe:
- a. Material: Conforming to ASTM D1784, Class 12454 B.
 - b. Manufacture pipe according to ASTM D1785; minimum pipe Schedule 80.
 - c. Conform Fittings to following:
 - (1) ASTM D2467 for socket type.
 - (2) ASTM D2464 for threaded type.
 - d. Manufacture valves out of same pvc Class 12454 B molding compound as fittings to assure compatibility.
 - e. Join all socket type connections with cement complying with ASTM 2855.
 - f. All piping system components must be products of one manufacturer.

B. Valves:

1. Furnish valves for complete control of all risers, branches and each group of fixtures; in addition to valves shown on plans, furnish valves where required for proper servicing in connections at equipment; arrange valves for easy access.
2. Gate valves:
 - a. Screwed ends: 2" and smaller: bronze, rising stem, solid wedge disc, 125 psi SWP, 200 psi WOG; Crane 428, Jenkins 47, or equal.
 - b. Solder ends: 1-1/2" and smaller: bronze, rising stem, solid wedge disc, 125 psi SWP, 200 psi WOG; Crane 1334, Jenkins 1242, or equal.
3. Ball valves: bronze body, chrome plated bronze or brass ball, reinforced Teflon seat and seals, blow-out-proof design.
 - a. 1/4" through 3": Watts B-6000, Apollo No. 70, or equal.
 - b. Bubble tight shut-off; rated to 600 psi WOG 1/4" to 2" and 400 psi WOG 2-1/2" and 3", 150 psi stem.
 - c. Suitable for temperatures from -55°F. to +450°F.
 - d. Provide level type operating handle.
 - e. Solder, threaded or flanged ends as shown on plans or as required.

C. Pipe hangers:

1. Clevis type, ITT Grinnell Figure 260 or 269, Crane, or equal, unless otherwise specified; Grinnell CT-65, or equal, for copper tubing.
2. Where loading exceeds manufacturer's recommended maximum for clevis type hanger: steel pipe clamp, Grinnell Figure 212, Crane, or equal, or heavy steel pipe clamp, Grinnell Figure 216, Crane, or equal, as required for loading.
3. Dip all hangers in zinc chromate primer before installation.

D. Structural attachments:

1. To concrete: wedge type concrete insert for loads up to 1,200 lbs. use Grinnell Figure 281, F&S Central, or equal; for loads up to 1,430 lbs. use Grinnell Figure 282, Universal Concrete insert, F&S Central, or equal.
2. To steel: 2" and smaller: use "C" clamp with retaining clip, Grinnell Figure 87, F&S Central, or equal; 2-1/2" and larger: use beam clamp, Grinnell Figure 229, F&S Central, or equal.

E. Pipe protection shields:

1. Protect pipe at point of support by 360° insert of high density, 100 psi, waterproof calcium silicate encased in 360° sheet metal shield; insert same thickness as adjoining pipe insulation; shield length and minimum sheet metal gauge as shown below:

Pipe Size	Shield Length	Minimum Gauge
1/2 - 1-1/2	4	26
2 - 6	6	20

2. Manufacturer and model number: Pipe Shields, Inc. Model CS, or equal.
- F. Pipe penetration of walls, floors and beams:
1. Use calcium silicate insert for insulation; Pipe Shields, Inc. Model WFB-CS, or equal for insulated pipes and Pipe shields, Inc. No. WFB, or equal for Uninsulated pipes.
- G. Pipe and duct sleeves and escutcheons:
1. Provide sleeves for all pipes and ducts passing through foundations, walls, slabs, floors, ceilings, partitions or other building construction.
 2. Pipe sleeves: standard weight steel pipe with minimum 1/2" clear space around pipe passing through.
 3. Duct sleeves: minimum 18 gauge galvanized sheet steel with minimum 1/2" clear space around duct passing through.
 4. Size sleeves on insulated elements for overall outside dimension of insulation; do not interrupt insulation.
 5. Sleeves Passing Through Floor: Extend sleeve 2" above finished floor.
 6. Sleeves in Exterior Building Walls: Caulk space between pipe and sleeve with elastomeric caulking compound for weatherproof installation; when indicated seal annular space with link seal bolted gaskets as manufactured by Thunderline.
 7. Escutcheons: Concealed catch and latch type, chrome plated; size to fit outside continuous insulation on insulated pipes; Crane No. 10CP, or equal.
- H. Pipe, Duct and Conduit Penetration Sealants:
1. Seal all pipe, duct and conduit openings through floor and fire rated walls or partitions with Dow Corning 3-6548 Silicone RTV foam, or equal.
 2. Sealant used shall meet or exceed Fire Endurance Test as defined in ASME 119 and shall be UL listed; flame spread rating not to exceed 20.
 3. Apply the sealant as per manufacturer's recommendations; use Dow Corning 1200 RTV, or equal; prime coat to improve adhesion.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. General:
1. Lay out and install pipes, approximately as shown on plans, straight, plumb and as direct as possible, at right angles to or parallel with walls unless otherwise shown or approved.
 2. Keep pipes close to walls, partitions, ceilings and above ceiling structures; offset only where necessary unless otherwise directed.
 3. Locate groups of pipes parallel; space pipes to permit applying insulation and servicing of valves.
 4. Arrange and isolate pipes passing through walls or floors to comply with codes.
 5. Provide dielectric couplings where copper lines connect to iron or steel.

- B. Solder Joints: Cut pipe square using roller type tube cutter; burr ends, resize and polish to bright metal; melt solder or brazing alloy by contact with tube and fitting, not by flame directly.
- C. Fabricate screwed piping using sharp cutting, threading and reaming tools to maintain proper thread dimension and produce standard thread engagement; sealing and adhesive type compounds not allowed; coat exposed joints at threads with red lead at end of each day's work.
- D. Grading:
1. Water: Minimum 1/4" in 10', for draining system.
 2. Drainage: 1/4" per foot; may be 1/8" per foot for 4" and larger pipe.
- E. Horizontal Piping Supports:
1. Hanger Attachments to Cored Slabs: At slab joints wherever possible, at core spaces where not possible; attachments not permitted at ribs.
 2. Steel Piping:

Pipe Size (inches)	Rod Diameter (inches)	Maximum Spacing (feet)
Up to 1-1/4	3/8	8
1-1/2 to 2	3/8	10
1-1/2 to 3	1/2	10
4	5/8	10

3. Copper Piping:

Pipe Size (inches)	Rod Diameter (inches)	Maximum Spacing (feet)
Up to 1	3/8	6
1-1/4 to 2	3/8	8
1-1/2 and Above	1/2	8

4. Cast Iron Soil Pipe:

Pipe Size (inches)	Rod Diameter (inches)	Maximum Spacing (feet)
2 through 5	3/8	each joint
6 through 10	1/2	each joint
12 through 15	5/8	each joint

F. Unions:

1. Locate as shown, if not shown:
 - a. In bypasses around equipment.
 - b. Between shut-off and equipment in connections to equipment requiring disconnection for repair or replacement.
 - c. In drainage piping, only on inlet side of fixture trap.

G. Valves:

1. Locate as shown, if not shown:
 - a. In make-up lines to equipment.
 - b. In all take-offs from main lines.
2. Locate for ease of access and operation; stems horizontal to vertical position only.

- H. Escutcheons: Install on all pipes passing through walls, floors or ceilings and exposed to view except in mechanical rooms and unfinished spaces.

3.02 WELDING

- A. Comply with latest provisions of applicable codes.
- B. Welded Joints:
 1. Socket or butt welded.
 2. Branch may be welded into main without fittings where main is at least two sizes larger than branch.

3.03 PIPE IDENTIFICATION

- A. Label all piping installed under this Division.
- B. Identify with plastic clamp-on legends and arrows, Seton Nameplate Corporation, or equal, indicating pipe and direction of flow. Identification shall be color coded per ANSI/ASME A13.1 "Scheme for Identification of Piping Systems". Identification shall be located as follows:
 1. At each branch riser take-off.
 2. At least every 40'.
 3. At each penetration of wall.

3.04 VALVE IDENTIFICATION

- A. Identify valves by distinguishing numbers and letters. Attach 18 gauge polished brass tag to each valve, 1-1/2" diameter, stamped for appropriate service in 1/4" backfilled letters, with 1-3/4" No. 10 brass-s-hooks; furnish four copies of printed valve list showing tag letter, number, service and location; include a copy in each maintenance manual; deliver remaining charts to owner; tags as manufactured by Seton Nameplate Corp., Style 250-BL, or equal.

3.05 IDENTIFICATION OF EQUIPMENT

- A. Identify all plumbing and HVAC equipment by nameplates securely fastened to the equipment. Nameplate notation shall correspond to notations used on plans and specifications. Plates shall be aluminum, 2-1/2" x 3/4" with black enameled background with etches or engraved natural aluminum lettering; or engraved bakelite nameplates of 1/16" thick black engraving stock with white lettering and beveled edges as manufactured by Seton Nameplate Corporation, or equal.

END OF SECTION

SECTION 15250

INSULATION

INDEX

PART 1 - GENERAL

- 1.01 DESCRIPTION
- 1.02 SUBMITTALS
- 1.03 FIRE RATINGS

PART 2 - PRODUCTS

- 2.01 MATERIALS

PART 3 - EXECUTION

- 3.01 INSTALLATION

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This section describes insulation of mechanical equipment and piping as scheduled on plans. The following systems are included:
 - 1. Domestic cold and hot water piping.
 - 2. Plumbing vent piping.
 - 3. Ductwork.

1.02 SUBMITTALS

- A. Provide detailed submittals for all equipment furnished under this section.
- B. Refer to Section 01300 - Submittals for additional requirements.

1.03 FIRE RATINGS

- A. Maximum composite products ratings for insulation products: ASTM E84, NFPA 255, UL 723 and NFPA 90A.
 - 1. Flame spread: 25.
 - 2. Smoke developed: 50.
- B. Label or listing: UL label or listing, satisfactory test results from National Bureau of Standards, or satisfactory certified test report from an approved testing laboratory will be required to indicate that fire hazard ratings for materials proposed for use do not exceed those specified; when insulation, vapor barrier covering, wrapping materials and adhesives are applied separately in field, test each item individually.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Insulation types:

1. Type I-1: flexible foamed plastic pipe insulation, closed cell structure; temperature limits -40°F. to 220°F.; k value not to exceed 0.26 at 75°F.; permeability rating not to exceed 0.1; Armstrong Armaflex, Manville Aerotube, or equal.
2. Type I-2: preformed, sectional, fiberglass pipe insulation with factory applied all-purpose vapor retarder jacket with pressure sensitive adhesive closure; nominal density 4 lbs./cf; k value not to exceed 0.23 at 75°F.; permeability rating not to exceed 0.02; Owens Corning SSL II, Manville Micro Lok 650, or equal.
3. Type I-3: flexible glass fiber blanket insulation with factory applied vapor barrier foil facing; temperature limits of 40°F. to 250°F.; permeability rating not to exceed 0.02; Owens Corning T-150, Manville 800, or equal.
4. Type I-4: semi rigid, fiberglass sheet insulation with factory applied all purpose vapor retarder jacket with pressure sensitive adhesive closure; nominal density 3 lbs./cf; k value not to exceed 0.23 at 75°F.; permeability rating not to exceed 0.02; Manville 1000 series, or equal.

B. Adhesives, cements and mastics:

1. As recommended by insulation manufacturer unless noted otherwise.
2. 25/50 flame and smoke rating both liquid and dry state.
3. Benjamin-Foster, Chicago Mastic, Childers Products, 3M, or equal.

C. Staples: outward clinching type of 304 or 316 stainless steel.

D. Bands:

1. 3/4" nominal width metal with a minimum thickness of 0.07".
2. Aluminum, brass.

E. Pipe insulation protection jacket: 0.016" thick aluminum jacket with felt backing held in place with aluminum bands spaced on 12" centers.

F. Fittings, flanges, valves and similar devices:

1. Fiberglass insert precut to size and shape of appurtenance jacketed with premolded one-piece pvc cover.
2. Thickness and finish to match adjoining pipe insulation.
3. Manville Zeston, Thermazip, or equal.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Pipe surfaces must be clean and certified tight by Contractor before starting application of insulation.
- B. Comply with manufacturer's recommended application methods.
- C. Tightly butt joints; coat with cements and adhesives where required to ensure vapor barrier; pull jacketing tight and smooth and secure flaps and tape with recommended adhesive.
- D. Seal exposed edges of insulation with same material as jacket or facing.
- E. Insulate pipe fittings and valves with premolded sections, cut sections of pipe insulation or blanket insulation.
- F. Install pipe insulation continuous through wall and floor sleeves.
- G. Finished insulation product must be neat without any loose tape; sloppy insulation workmanship will not be acceptable.

END OF SECTION

SECTION 15400

PLUMBING

INDEX

PART 1 – GENERAL

1.01 DESCRIPTION

PART 2 – PRODUCTS

- 2.01 SANITARY WASTE, DRAIN AND VENT PIPING SYSTEM
- 2.02 DOMESTIC WATER PIPING SYSTEM
- 2.03 PLUMBING FIXTURES
- 2.04 ESCUTCHEONS

PART 3 – EXECUTION

- 3.01 INSTALLATION
- 3.02 TESTS
- 3.03 STERILIZATION OF PIPING

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This section describes plumbing systems complete, fully adjusted, and ready for use.
- B. Code requirements: plumbing systems shall comply with the local codes and ordinances.

PART 2 - PRODUCTS

2.01 SANITARY WASTE, DRAIN AND VENT PIPING SYSTEM

- A. Pipe and fittings:
 - 1. Below ground sanitary piping: service weight, hub and spigot cast iron soil pipe and fittings conforming to ASTM A74.
 - 2. Above ground sanitary piping: hubless cast iron soil pipe and fittings conforming to Cast Iron Soil Pipe Institute Specification 301.
 - 3. Drain or condensate drain piping: copper tubing, type DWV, ASTM B306, seamless hard drawn copper with cast bronze fittings.
 - 4. Vent piping: Schedule 40 steel pipe with standard cast iron fittings or service weight cast iron soil piping fittings with mechanical joints.
 - 5. PVC piping can be used in all buildings except Administration Building.

B. Cleanouts:

1. Furnish cleanouts with raised head bronze plugs as follows:

Location	Jay R. Smith	Josam No.
Grade	W-8300	58850
Equipment Room Floors	W-7010	56040
Finished Floors	W-7010	56000
Carpeted Floors	W-7010	56000-14
Drywalls	W-8550	58710-22
Tile Walls	W-8550	58740-22

2. Furnish wrench for removal of plugs.

C. Traps:

1. Provide traps for all equipment requiring connections to drainage system.
2. Place trap as near fixture as possible; do not double trap any fixture.

D. Lead flashings and shields:

1. Floor drains: install all floor drains except those installed in floors laid on ground or over crawl spaces, with 4 lb. sheet lead flashing extending 18" from drain in all directions.

2.02 DOMESTIC WATER PIPING SYSTEM

A. Pipe and fittings:

1. Pipe material: copper, seamless, ASTM B88, hard temper; Type L for above grade or floor and Type K below grade or floor.
2. Fittings: wrought copper or cast bronze.
3. Solder: ASTM B32 alloy grade 95 TA solder or silverbrite containing 95.5% tin, 4% copper and 0.5% silver.
4. Refer to process piping plans for further detail.

2.03 PLUMBING FIXTURES

- A. General: provide factory-fabricated fixtures of type, style and material indicated; for each type fixture, provide fixture trim, carriers, seats and valves as indicated and as required for complete installation.

B. Quality assurance:

1. Comply with ADA standards.
2. PDI compliance: comply with standards established by Plumbing and Drainage Institute.

- C. Refer to Plumbing Fixture Schedule on plans.

D. Accessories:

1. Furnish following accessories as required unless specified otherwise.
2. Lavatory traps: 1-1/4" chrome plated cast brass "P" traps with cleanout, brass nuts, 17 gauge chrome plated tubing and escutcheon; American Standard 4401.014, Crane 085260, Kohler K-9000, or equal.
3. Lavatory supplies: 1/2" x 12"; with chrome plated wheel handle angle supply stops, 3/8" OD chrome plated copper tube risers with escutcheon; American Standard 2303.154, Crane 85005, Kohler K7606, or equal.
4. Vacuum breaker: provide vacuum breakers where required by governing regulations, including locations where water outlets are equipped for hose attachment.
5. Carriers: provide carriers for fixtures as indicated.
6. Fixture bolt caps: provide manufacturer's standard exposed fixture bolt caps finished to match fixture finish.
7. Furnish shut-off valves on hot and cold water lines connecting to all plumbing fixtures.
8. Approved manufacturers:
 - a. Plumbing fixtures: Kohler, American Standard, Eljer.
 - b. Faucets: Delta, Speakman.
 - c. Emergency eye wash and showers: Guardian, Bradley.
 - d. Mop sinks: Fiat, Stern Williams.

2.04 ESCUTCHEONS

- A. Concealed catch and latch type, chrome plated; size to fit outside of insulation on insulated pipes and of sufficient flange to cover the opening completely; Crane No. 10CP, Homestead, or equal; install on all pipe penetrations exposed to view.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Sanitary, waste, vent, drain and storm piping:
1. Comply with requirements of local authority having jurisdiction; generally install horizontal drainage piping with slope not less than 1/4" per foot for 3" and smaller and at 1/8" per foot for 4" and larger.
 2. Cleanouts: provide cleanouts where indicated on plans, at each change in direction in soil, waste and drain lines and maximum 50' intervals on all straight runs within building; use long sweep bends, cleanout tees or combination Y and 1/8 bends for fittings; provide plugs with heavy cast brass set with graphite and oil compound; install covers flush with walls or floors and locate brass plugs readily accessible for removal.
 3. Vent flashings; furnish flashing and counter flashing of vent pipes passing through roof.

4. Frost and snow closure: increase vent sizes as shown on plans, 12" below roof.

B. Domestic water system:

1. Install cold water system pitched toward service shutoff valves; provide copper-to-steel insulating adapters where non-ferrous piping joins ferrous piping; install piping below frost depth (minimum of 5').
2. Cross-connections and interconnections: do not install any plumbing fixtures, devices or piping that will provide cross-connection or interconnection between potable water supply and polluted supply or waste such as drainage system or soil or waste pipe which will permit backflow of sewage or polluted water into potable water supply system.
3. Provide air chambers at each plumbing fixture on hot and cold branch supply lines; use air chambers not less than 12" long, capped, at least one pipe size larger than branch lines and drainable when branch line is drained.
4. Expansion and contraction of pipe: provide sufficient swing joints, expansion loops and/or devices necessary for flexible piping system; anchor horizontal runs over 50' in length to supporting construction at midpoint of run to force expansion evenly divided toward ends, or as indicated.
5. Install domestic water heater and vent termination kit where indicated on plans; extend drain piping to nearest floor drain.
6. Install sump pump where shown on drawings; install piping and valves as detailed.
7. Install water hammer arrestors where shown on drawings.

C. Plumbing fixtures and accessories:

1. Install plumbing fixtures level, plumb and parallel to walls; equally space fixtures in batteries unless indicated otherwise.
2. All exposed metal parts must have polished chrome plated finish unless indicated otherwise.
3. Polished chrome or other exposed finishes must not show tool marks.
4. Install hose bibbs, hose stations and wall hydrants on potable and non-potable water piping systems where shown.
5. Fixture backing plate or carrier shall be welded or bolted to studs on both sides of fixture mounting points.
6. Clamp hose bibbs and hose station firmly to wall using clamp assembly; provide warning sign at each hose bibb connected to non-potable water system or at each hose bibb located downstream of backflow preventer; if not shown on plans, install hose bibb at 3'-6" above floor.
7. Install wall hydrants as shown on plans; if not indicated on plans, install wall hydrants at 18"-24" above outside finished grade.

3.02 TESTS

- A. Test entire soil, waste, vent and storm system hydrostatically; plug all openings in soil, waste and vent lines, fill system or portion thereof, with water to roof level or minimum 10' and check all joints for water tightness.

- B. Test domestic water piping hydraulically before insulation is installed; fill system or section to be tested with water and pressurize to 150 psi or 1.5 times the working pressure for a period of 24 hours; repair any leakage located and repeat test until proven watertight.
- C. Air test gas piping system at 50 psi; use soap and water to detect leaks; piping to remain watertight for 24 hours.

3.03 STERILIZATION OF PIPING

- A. Upon completion of installation of domestic water piping system, flush out thoroughly and sterilize by introducing chlorine or solution of calcium hypochlorite mixture; fill piping with water, applying sterilizing agent proportionately at rate giving 50 ppm of chlorine; after lines have been filled for at least 3 hours, test for residual chlorine at extremities of line; if less than 5 ppm is indicated, drain system and repeat sterilization treatment; when tests show at least 5 ppm of residual chlorine, flush out system until all traces of chemical used are removed.

END OF SECTION

SECTION 16050

ELECTRICAL REQUIREMENTS

INDEX

PART 1 – GENERAL

- 1.01 THE REQUIREMENT
- 1.02 REFERENCE STANDARDS
- 1.03 SIGNAGE AND MARKINGS
- 1.04 PERMITS AND INSPECTION
- 1.05 CONTRACTOR SUBMITTALS
- 1.06 AREA DESIGNATIONS
- 1.07 TESTS
- 1.08 CONSTRUCTION SEQUENCING

PART 2 – PRODUCTS

- 2.01 GENERAL
- 2.02 MOUNTING HARDWARE
- 2.03 ELECTRICAL IDENTIFICATION

PART 3 – EXECUTION

- 3.01 GENERAL
- 3.02 CORE DRILLING
- 3.03 CONCRETE HOUSEKEEPING
PADS
- 3.04 EQUIPMENT ANCHORING
- 3.05 EQUIPMENT IDENTIFICATION
- 3.06 CLEANING

PART 1 - GENERAL

1.01 THE REQUIREMENT

- A. The Contractor shall provide electrical work, complete and operable, in accordance with the Contract Documents.
- B. The provisions of this section apply to all sections in Division 16, except as indicated otherwise.
- C. The work of this section is required for operation of electrically-driven equipment provided under specifications in other divisions. The Contractor's attention is directed to the requirement for proper coordination of the work of this section with the work of equipment specifications and the work of instrumentation sections.
- D. Concrete, excavation, backfill, and steel reinforcement required for encasement, installation, or construction of the work of the various sections of Division 16 is included as a part of the work under the respective sections, including duct banks, manholes, handholes, equipment housekeeping pads, and light pole bases.

1.02 REFERENCE STANDARDS

- A. The work of this section and all sections in Division 16 shall comply with the following as applicable:
 - 1. NEC (NFPA 70) National Electrical Code
 - 2. NETA International Electrical Testing Association
 - 3. NEMA 250 Enclosure for Electrical Equipment (1000 Volts Maximum)
- B. Electrical equipment shall be listed by and shall bear the label of Underwriters' Laboratories, Inc. (UL) or an independent testing laboratory acceptable to the local code enforcement agency having jurisdiction.
- C. Installation of electrical equipment and materials shall comply with OSHA Safety and Health Standards (29 CFR 1910 and 29 CFR 1926, as applicable), state building standards, and applicable local codes and regulations.
- D. Where the requirements of the specifications conflict with UL, NEMA, NFPA, or other applicable standards, the more stringent requirements shall govern.

1.03 SIGNAGE AND MARKINGS

- A. Identification: Provide danger, caution, and warning signs and equipment identification markings in accordance with applicable federal and state OSHA and NEC requirements.
- B. Local Disconnect Switches:
 - 1. Each local disconnect switch for motors and equipment shall be legibly marked to indicate its purpose unless the purpose is indicated by the location and arrangement.
- C. Warning Signs:
 - 1. 600 volts nominal, or less: Entrances to rooms and other guarded locations that contain live parts shall be marked with conspicuous signs prohibiting unqualified persons to enter.
- D. Isolating Switches: Isolating switches not interlocked with an approved circuit interrupting device shall be provided with a sign warning against opening them under load.

1.04 PERMITS AND INSPECTION

- A. Permits shall be obtained and inspection fees shall be paid according to the General Conditions.

- B. The Contractor shall pay connection and turn-on service charges required by the utility companies.

1.05 CONTRACTOR SUBMITTALS

- A. Furnish submittals in accordance with Division 01.
- B. Shop Drawings: Include the following:
 1. Complete material lists stating manufacturer and brand name of each item or class of material.
 2. Shop drawings for all grounding work not specifically indicated.
 3. Front, side, rear elevations, and top views with dimensional data.
 4. Location of conduit entrances and access plates.
 5. Component data.
 6. Connection diagrams, terminal numbers, internal wiring diagrams, conductor size, and cable numbers.
 7. Method of anchoring, weight.
 8. Types of materials and finish.
 9. Nameplates.
 10. Temperature limitations, as applicable.
 11. Voltage requirement, phase, and current, as applicable.
 12. Front and rear access requirements.
 13. Test reports.
 14. Grounding requirements.
 15. Catalog cuts or photocopies of applicable pages of bulletins or brochures for mass produced, non-custom manufactured material. Catalog data sheets shall be stamped to indicate the project name, applicable Section and paragraph, model number, and options. This information shall be marked in spaces designated for such data in the Engineer's stamp.
- C. Shop drawings shall be custom prepared. Drawings or data indicating "optional" or "as required" equipment are not acceptable. Options not proposed shall be crossed out or deleted from shop drawings.
- D. Owner's Manuals: Complete information in accordance with Division 01.
- E. Record Drawings: The Contractor shall show invert and top elevations and routing of all duct banks and concealed below-grade electrical installations. Record drawings shall be prepared, be available to the Engineer, and be submitted according to Division 01.

1.06 AREA DESIGNATIONS

A. General

1. Raceway system enclosures shall comply with Section 16110 - Electrical Raceway Systems.

Electric work specifically indicated in sections within any of the Specifications shall comply with those requirements.

AREA	NEMA ENCLOSURE CLASSIFICATION						
	1	3R	4X	7	9	12	Notes
Library Interior	X						

B. Material Requirements

1. NEMA 1, 3R, and 12 enclosures shall be steel coated with ANSI 61 grey paint unless noted otherwise on plans.

1.07 TESTS

- A. The Contractor shall be responsible for factory and field tests required by specifications in Division 16 and by the Engineer or other authorities having jurisdiction. The Contractor shall furnish necessary testing equipment and pay costs of tests, including replacement parts and labor, due to damage resulting from damaged equipment or from testing and correction of faulty installation.
- B. Where test reports are indicated, proof of design test reports for mass-produced equipment shall be submitted with the shop drawings, and factory performance test reports for custom-manufactured equipment shall be submitted and be approved prior to shipment. Field test reports shall be submitted for review prior to Substantial Completion.
- C. Equipment or material that fails a test shall be removed and replaced.

1.08 CONSTRUCTION SEQUENCING

- A. Continuance of existing library operation during construction is critical. Work shall be scheduled, subject to Owner's approval, to minimize any required shutdown time. The Contractor shall submit a written request, including sequence and duration of activities to be performed during any shutdown.
- B. Switching, safety tagging, etc., required for equipment shutdown and power outages shall be performed by the Contractor. In no case shall the Contractor begin any work without written authorization by the Engineer.

- C. The Contractor shall visit the Site before submitting a Bid to better acquaint itself with the work of this Contract. Lack of knowledge will not be accepted as a reason for granting extra compensation to perform the work.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Equipment and materials shall be new, shall be listed by UL, and shall bear the UL label where UL requirements apply. Equipment and materials shall be the products of experienced and reputable manufacturers in the industry. Similar items in the work shall be products of the same manufacturer. Equipment and materials shall be of industrial grade standard of construction.
- B. Where a NEMA enclosure type is indicated in a non-hazardous location, the Contractor shall utilize that type of enclosure, despite the fact that certain modifications such as cutouts for control devices may negate the NEMA rating.
- C. On devices indicated to display dates, the year shall be displayed as 4 digits.

2.02 MOUNTING HARDWARE

- A. Miscellaneous Hardware:
 - 1. Nuts, bolts, and washers shall be zinc plated steel.
 - 2. Threaded rods for trapeze supports shall be continuous threaded, zinc plated steel, 3/8" dia. minimum.
 - 3. Strut for mounting of conduits and equipment shall be galvanized steel. Where contact with concrete or dissimilar metals may cause galvanic corrosion, suitable non-metallic insulators shall be utilized to prevent such corrosion. Aluminum strut shall not be utilized for free standing support frames. Strut shall be as manufactured by Unistrut, B- Line, or equal.
 - 4. Anchors for attaching equipment to concrete walls, floors and ceilings shall be zinc plated steel expansion anchors, such as "Rawl-Bolt," "Rawl-Stud" or "Lok-Bolt" as manufactured by Rawl; similar by Star, or equal. Wood plugs shall not be permitted.
 - 5. Refer to Section 16070 – Hangers and Supports for additional details.

2.03 ELECTRICAL IDENTIFICATION

- A. Nameplates: Nameplates shall be fabricated from white-letter, black-face laminated plastic engraving stock, Formica type ES-1, or equal. Each shall be fastened securely, using fasteners of brass, cadmium plated steel, or stainless steel, screwed into inserts or tapped holes as required. Engraved characters shall be block style with no characters smaller than 1/8" top to bottom.

- B. Conductor and Equipment Identification: Conductor identification devices shall be either imprinted plastic-coated cloth marking devices such as manufactured by Brady, Thomas & Betts, or equal, or shall be heat-shrink plastic tubing, imprinted split-sleeve markers cemented in place, or equal.

PART 3 - EXECUTION

3.01 GENERAL

- A. Incidentals: The Contractor shall provide all materials and incidentals required for a complete and operable system, even if not required explicitly by the Specifications or the drawings. Typical incidentals are terminal lugs not furnished with vendor supplied equipment, compression connectors for cables, splices, junction and terminal boxes, and control wiring required by vendor furnished equipment to connect with other equipment indicated in the Contract Documents.
- B. Field Control of Location and Arrangement: The drawings diagrammatically indicate the desired location and arrangement of outlets, conduit runs, equipment, and other items. Exact locations shall be determined by the Contractor in the field based on the physical size and arrangement of equipment, finished elevations, and other obstructions. Locations on the drawings, however, shall be followed as closely as possible.
 - 1. Where "home runs" are shown, the Contractor shall route the conduits in accordance with the indicated installation requirements. Routings shall be exposed or encased as indicated, except that conduit in finished areas shall be concealed unless specifically indicated otherwise. Conduits encased in a slab shall be sized for conduit OD to not exceed one-third of the slab thickness and be laid out and spaced to not impede concrete flow.
 - 2. Conduit and equipment shall be installed in such a manner as to avoid all obstructions and to preserve head room and keep openings and passageways clear. Lighting fixtures, switches, convenience outlets, and similar items shall be located within finished rooms as indicated. Where the drawings do not indicate exact locations, such locations shall be determined by the Engineer. If equipment is installed without instruction and must be moved, it shall be moved without additional cost to the Owner. Lighting fixture locations shall be adjusted slightly to avoid obstructions and to minimize shadows.
 - 3. Wherever conduits and wiring for power circuits, lighting and receptacles are not indicated, it shall be the Contractor's responsibility to provide required conduits and wiring, based on the actual installed fixture layout and the circuit designations as indicated. Wiring shall be #12 AWG minimum, conduits shall be 3/4" minimum (exposed) and 1" minimum (encased). When circuits are combined in the same raceway, the Contractor shall derate conductor ampacities in accordance with NEC requirements.

- C. Workmanship: Materials and equipment shall be installed in strict accordance with printed recommendations of the manufacturer. Installation shall be accomplished by workers skilled in the work. Installation shall be coordinated in the field with other trades to avoid interferences.
- D. Protection of Equipment and Materials: The Contractor shall fully protect materials and equipment against damage from any cause. Materials and equipment, both in storage and during construction, shall be covered in such a manner that no finished surfaces will be damaged, marred, or splattered with water, foam, plaster, or paint. Moving parts shall be kept clean and dry. The Contractor shall replace or refinish damaged materials or equipment, including faceplates of panels and switchboard sections as part of the work.

3.02 CORE DRILLING

- A. The Contractor shall perform core drilling required for installation of raceways through concrete walls and floors. Locations of floor penetrations, as may be required, shall be based on field conditions. Verify all exact core drilling locations based on equipment actually furnished as well as exact field placement. To the extent possible, identify the existence and locations of encased raceways and other piping in existing walls and floors with the Owner prior to any core drilling activities. Damage to any encased conduits, wiring, and piping shall be repaired as part of the work.

3.03 CONCRETE HOUSEKEEPING PADS

- A. Concrete housekeeping pads shall be provided for indoor floor standing electrical equipment. Housekeeping pads for equipment, including future units, shall be 4" above surrounding finished floor or grade and 2" larger in both dimensions than the equipment, unless otherwise indicated.
- B. Concrete housekeeping curbs shall be provided for conduit stub-ups in indoor locations that are not concealed by equipment enclosures. Such curbing shall be 3" above finished floor or grade.

3.04 EQUIPMENT ANCHORING

- A. Floor supported, wall, or ceiling hung equipment and conductors shall be anchored in place by methods that will meet seismic requirements in the area where the project is located. Wall-mounted panels that weigh more than 500 lbs. or that are within 18" of the floor shall be provided with fabricated steel support pedestals. If the supported equipment is a panel or cabinet enclosed within removable side plates, it shall match supported equipment in physical appearance and dimensions. Transformers hung from 4" stud walls and weighing more than 300 lbs. shall have auxiliary floor supports.

- B. Leveling channels anchored to the concrete pad shall be provided for switchgear and pad-mounted transformer installations.
- C. Anchoring methods and leveling criteria in the printed recommendations of the equipment manufacturers are a part of the work of this Contract. Such recommendations shall be submitted as shop drawings under Section 01300 - Submittals.

3.05 EQUIPMENT IDENTIFICATION

- A. Equipment and devices shall be identified as follows:
 - 1. Nameplates shall be provided for panel boards, control and instrumentation panels, starters, switches, and pushbutton stations. In addition to nameplates, control devices shall be equipped with standard collar-type legend plates.
 - 2. Control devices within enclosures shall be identified as indicated. Identification shall be similar to the subparagraph above.
 - 3. Toggle switches which control loads out of sight of switch and multi-switch locations of more than 2 switches shall have suitable inscribed finish plates.
 - 4. Equipment names and tag numbers, where indicated on the drawings, shall be utilized on nameplates.
 - 5. The Contractor shall furnish typewritten circuit directories for panel boards; circuit directory shall accurately reflect the outlets connected to each circuit.

3.06 CLEANING

- A. Before final acceptance, the electrical work shall be thoroughly cleaned. Exposed parts shall be thoroughly cleaned of cement, plaster, and other materials. Oil and grease spots shall be removed with a non-flammable cleaning solvent. Such surfaces shall be carefully wiped and cracks and corners scraped out. Touch-up paint shall be applied to scratches on panels and cabinets. Electrical cabinets or enclosures shall be vacuum-cleaned.

END OF SECTION

SECTION 16070

HANGERS AND SUPPORTS

INDEX

PART 1 – GENERAL

- 1.01 THE REQUIREMENT
- 1.02 REFERENCES
- 1.03 REGULATORY REQUIREMENTS
- 1.04 CONTRACTOR SUBMITTALS

PART 2 – PRODUCTS

- 2.01 MATERIALS
- 2.02 MANUFACTURERS

PART 3 – EXECUTION

- 3.01 EXAMINATION
- 3.02 INSTALLATION

PART 1 - GENERAL

1.01 THE REQUIREMENT

- A. Conduit and equipment supports.
- B. Anchors and fasteners.

1.02 REFERENCES

- A. NECA - National Electrical Contractors Association.
- B. ANSI/NFPA 70 - National Electrical Code.

1.03 REGULATORY REQUIREMENTS

- A. Conform to requirements of ANSI/NFPA 70.
- B. Furnish products listed and classified by Underwriters Laboratories, Inc. as suitable for purpose specified and shown.

1.04 CONTRACTOR SUBMITTALS

- A. The Contractor shall submit shop drawings in accordance with Section 01300 - Submittals and Section 16050 - Electrical Requirements.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Materials and Finishes: Provide galvanized steel hangers, supports and anchors to provide complete corrosion resistance.
- B. Provide materials, sizes, and types of anchors, fasteners and supports to carry the loads of equipment and conduit.
- C. Anchors and Fasteners:
 - 1. Concrete Structural Elements:
 - a. Use steel or malleable iron concrete inserts set in place prior to placing new concrete.
 - b. Use expansion anchors not less than 1/4" bolt size and not less than 1-1/8" embedment in existing concrete.
 - 1) Use power set fasteners not less than 1/4 inch diameter with depth of penetration not less than 3 inches in existing concrete.
 - 2) Use vibration and shock resistant anchors and fasteners for attaching to concrete ceilings.
 - a) Steel Structural Elements: Use beam clamps or spring steel clips.
 - b) Concrete Surfaces: Use self-drilling anchors or expansion anchors.
 - c) Hollow Masonry, Plaster and Gypsum Board Partitions: Use toggle bolts and hollow wall fasteners.
 - d) Solid Masonry Walls: Use expansion anchors.
 - e) Sheet Metal: Use sheet metal screws.
 - f) Wood Elements: Use wood screws.

2.02 MANUFACTURERS

- A. Superstrut, Unistrut, B-line, or equal.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify all channels, fasteners, anchors and miscellaneous equipment are suitable for the application.

3.02 INSTALLATION

- A. Install products in accordance with manufacturer's instructions.

- B. Provide anchors, fasteners, and supports in accordance with NECA "Standard of Installation".
- C. Do not fasten supports to pipes, ducts, mechanical equipment and conduit.
- D. Obtain permission from Engineer before using powder-actuated anchors.
- E. Obtain permission from Engineer before drilling or cutting structural members.

END OF SECTION

SECTION 16110

ELECTRICAL RACEWAY SYSTEMS

INDEX

PART 1 – GENERAL

- 1.01 THE REQUIREMENT
- 1.02 CONTRACTOR SUBMITTALS

PART 2 – PRODUCTS

- 2.01 GENERAL
- 2.02 CONDUIT
- 2.03 FITTINGS AND BOXES
- 2.04 CONDUIT SCHEDULE

PART 3 – EXECUTION

- 3.01 GENERAL
- 3.02 CONDUIT

PART 1 - GENERAL

1.01 THE REQUIREMENT

- A. The Contractor shall provide electrical raceway systems, complete and in place, in accordance with the Contract Documents.

1.02 CONTRACTOR SUBMITTALS

- A. Furnish submittals in accordance with Section 01300 - Submittals, and Section 16050 - Electrical Requirements.
- B. Shop Drawings
 - 1. Complete catalog cuts of raceways, fittings, boxes, supports, and mounting hardware, marked where applicable to show proposed materials and finishes.
 - 2. Dimensioned layout drawings of cable tray routings, including elevations.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Pull and junction boxes, fittings, and other indicated enclosures that are dedicated to the raceway system shall comply with this section.
- B. Electrical raceways and associated fittings shall be UL listed and approved for the intended installation.

2.02 CONDUIT

- A. Rigid Galvanized Steel (RGS) Conduit:
 - 1. Rigid steel conduit shall be mild steel, hot-dip galvanized inside and out.
 - 2. Rigid steel conduit shall be manufactured in accordance with ANSI C80.1 - Rigid Steel Conduit, Zinc Coated, and UL-6.
 - 3. Suitable for use as exposed conduit in indoor applications.
 - 4. Manufacturers, or equal.
 - a. LTV Steel
 - b. Triangle
 - c. Wheatland Tube

- B. Liquidtight Flexible Conduit:
 - 1. Liquidtight flexible conduit shall be constructed of a flexible aluminum or galvanized metal core with a sunlight resistant thermoplastic outer jacket.
 - 2. Liquidtight flexible conduit shall be manufactured in accordance with UL-360 - Steel Conduits, Liquid-Tight Flexible.
 - 3. Suitable for use at equipment connections and applications where vibration is expected.
 - 4. Aluminum inner core shall be utilized when used when terminated to rigid aluminum raceways.
 - 5. Manufacturers, or equal.
 - a. Anaconda, Sealtite
 - b. Electriflex, Liguatite Type LA

- C. Electrical Metallic Tubing (EMT) will be acceptable where concealed.

2.03 FITTINGS AND BOXES

- A. General:
 - 1. Cast and malleable iron fittings for use with metallic conduit shall be the threaded type with 5 full threads.
 - 2. Fittings and boxes shall have neoprene gaskets and non-magnetic stainless steel screws. Covers shall be attached by means of holes tapped into the body of the fitting. Covers for fittings attached by means of clips or clamps will not be acceptable.
 - 3. Boxes larger than standard cast or malleable types shall be 304 stainless steel, NEMA 4X.
 - 4. In outdoor areas, conduit shall be terminated in raintight hubs as manufactured by Myers, O.Z. Gedney, Appleton, or equal. In other than outdoor areas, sealed locknuts and bushings shall be used.
 - 5. Conduit, fittings, and boxes in hazardous locations shall be suitable for the Class and Division indicated.

- B. Malleable Iron Fittings and Boxes:
 - 1. Fittings and boxes for use with galvanized steel conduit shall be of malleable iron or gray-iron alloy with zinc plating.
 - 2. Manufacturers, or equal.
 - a. O.Z. Gedney
 - b. Crouse-Hinds
 - c. Appleton

- C. Sheet Steel Boxes:
 - 1. Sheet steel boxes shall be galvanized steel outlet and switch boxes.
 - 2. Manufacturers, or equal.
 - a. Raco
 - b. Steel City
 - c. Appleton Electric

2.04 CONDUIT SCHEDULE

- A. Refer to Section 16050 for conduit system environmental ratings.

PART 3 - EXECUTION

3.01 GENERAL

- A. Wiring shall be run in raceway unless indicated otherwise.

- B. Raceways shall be installed between equipment as indicated. Raceway systems shall be electrically and mechanically complete before conductors are installed. Bends and offsets shall be smooth and symmetrical and shall be accomplished with tools designed for this purpose. Factory elbows shall be utilized wherever possible.

- C. Where raceway routings are indicated on plan views, follow those routings to the extent possible; Conduits shall be concealed in walls unless indicated otherwise; do not conceal conduits inside concrete floors unless shown specifically on drawings or authorized by the Engineer.

- D. Where raceways are indicated but routing is not indicated, such as home runs, raceway routings shall be the Contractor's choice and in strict accordance with the NEC and customary installation practice. Raceway shall be encased, exposed, concealed, or under floor as indicated; conduits in finished areas (offices, hallways etc.) shall be concealed unless specifically indicated otherwise.

- E. Routings shall be adjusted to avoid obstructions. Coordinate between trades prior to installation of raceways. Lack of such coordination shall not be justification for extra compensation, and removal and re-installation to resolve conflicts shall be by the Contractor as part of the work.
- F. Exposed raceways shall be installed parallel or perpendicular to structural beams.
- G. Install expansion fittings with bonding jumpers wherever raceways cross building expansion joints.
- H. Exposed raceways shall be installed at least 1/2" from walls or ceilings except that at locations above finished grade where damp conditions do not prevail, exposed raceways shall be installed 1/4" minimum from the face of walls or ceilings by the use of clamp backs or struts.
- I. Wherever contact with concrete or dissimilar metals can produce galvanic corrosion of equipment, suitable insulating means shall be provided to prevent such corrosion.

3.02 CONDUIT

- A. Exposed conduit shall be 3/4" minimum trade size. Encased conduit shall be 1" minimum trade size. Supports shall be installed at distances required by the NEC.
- B. Conduit shall not be encased in the bottom floor slab below grade.
- C. Concrete cover for conduit and fittings shall not be less than 1-1/2" for concrete exposed to earth or weather, or less than 3/4" for concrete not exposed to weather or in contact with the ground.
- D. Conduits passing through a slab, wall, or beam shall not impair significantly the strength of the construction.
- E. Conduits embedded within a slab, wall, or beam (other than those merely passing through) shall satisfy the following in accordance with NEC and ACI standards:
 - 1. Conduits with their fittings embedded within a column shall not displace more than 4% of the gross area of cross section.
 - 2. Conduits shall not be larger in outside dimension than one third the overall thickness of slab, wall, or beam in which embedded.
 - 3. Conduits shall not be spaced closer than 3 outside diameters on centers.
 - 4. Install embedded conduits in middle 1/3 of concrete slab.
- F. Conduit shall be placed so that cutting, bending, or displacing reinforcement from its proper location will not be required.

- G. Threads shall be coated with a conductive lubricant before assembly.
- H. Joints shall be tight, thoroughly grounded, secure, and free of obstructions in the pipe. Conduit shall be adequately reamed to prevent damage to the wires and cables inside. Strap wrenches and vises shall be used to install conduit to prevent wrench marks on conduit. Conduit with wrench marks shall be replaced.
- I. Wherever possible, conduit runs shall slope to drain at one or both ends of run. Wherever conduit enters substructures below grade, the conduit shall be sloped to drain water away from the structure. Extreme care shall be taken to avoid pockets or depressions in conduit.
- J. Installation of rigid steel conduit through a core-drilled hole in an exterior wall below grade shall utilize a sealing device as manufactured by Link Seal or equal.
- K. Connections to lay-in type grid lighting fixtures shall be made using flexible metal conduit not exceeding 4' in length. Connections to motors and other equipment subject to vibration shall be made with liquid-tight flexible conduit not exceeding 3' in length. Equipment subject to vibration that is normally provided with wiring leads shall be provided with a cast junction box for the make-up of connections.
- L. Conduit passing through walls or floors shall have plastic sleeves.
- M. Conduit, fittings, and boxes required in hazardous classified areas shall be suitably rated for the area and shall be provided in strict accordance with NEC requirements.
- N. Empty conduits shall be tagged at both ends to indicate the final destination. Where it is not possible to tag the conduit, destination shall be identified by a durable marking on an adjacent surface. A pull-cord shall also be installed in each empty conduit. This shall apply to conduits in floors, panels, manholes, equipment, etc.

END OF SECTION

SECTION 16120

WIRES AND CABLES

INDEX

PART 1 – GENERAL

- 1.01 THE REQUIREMENT
- 1.02 CONTRACTOR SUBMITTALS

PART 2 – PRODUCTS

- 2.01 GENERAL
- 2.02 POWER AND LIGHTING WIRE
- 2.03 CONTROL WIRE
- 2.04 ETHERNET DATA CABLE
- 2.05 CABLE TERMINATIONS

PART 3 – EXECUTION

- 3.01 GENERAL
- 3.02 INSTALLATION
- 3.03 SPLICES AND TERMINATIONS
- 3.04 CABLE IDENTIFICATION
- 3.05 TESTING

PART 1 - GENERAL

1.01 THE REQUIREMENT

- A. The Contractor shall provide wires and cable, complete and operable, in accordance with the Contract Documents.

1.02 CONTRACTOR SUBMITTALS

- A. The Contractor shall submit shop drawings in accordance with Section 01300 - Submittals and Section 16050 - Electrical Requirements.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Conductors, include grounding conductors, shall be copper. Aluminum conductor wire and cable will not be permitted. Insulation shall bear UL label, the manufacturer's trademark, and identify the type, voltage, and conductor size. All conductors except flexible cords and cables, fixture wires, and conductors that form an integral part of equipment such as motors and controllers shall conform to the requirements of Article 310 of the National Electric Code, latest edition, for current carrying capacity. Flexible cords and cables shall conform to Article 400, and fixture wires shall conform to Article 402. Wiring shall have wire markers at each end.

2.02 POWER AND LIGHTING WIRE

- A. Wire rated for 600 volts in duct or conduit for all power and lighting circuits shall be Class B Type XHHW cross-linked polyethylene conforming to UL-44 - UL Standard for Thermoset-Insulated Wires and Cables. THHN/THWN for all wires smaller than or equal to No. 4 AWG; XHHW insulation for all wires larger than No. 4 AWG.
- B. Conductors for feeders as defined in Article 100 of the NEC shall be sized to prevent a voltage drop exceeding 3% at the farthest outlet of power, heating, and lighting loads, or combinations of such loads, and where the maximum total voltage drop on both feeders and branch circuits to the farthest connected load does not exceed 5%.
- C. Conductors for branch circuits as defined in Article 100 of the NEC, shall be sized to prevent voltage drop exceeding 3% at the farthest connected load or combinations of such loads and where the maximum total voltage drop on both feeders and branch circuits to the farthest connected load does not exceed 5%.
- D. Wiring for 600 volt class power and lighting shall be as manufactured by General Cable, Okonite, or Rome Cable.

2.03 CONTROL WIRE

- A. Control wire in duct or conduit shall be the same type as power and lighting wire indicated above.
- B. Control wiring shall be No.14 AWG.

- C. Control wires at panels and cabinets shall be machine tool grade type MTW, UL approved, rated for 90 C. at dry locations, and be as manufactured by American, Carol Cable, or equal.

2.04 ETHERNET DATA CABLE

- A. Communication Cable
 1. Category 6 cable conforming to ANSI TIA/EIA-568-B.2-2001.
 2. Shielded with stranded conductors.
 3. 4 pair, 23 AWG; capable of transmitting data up to 1000 MBPS.
 4. Heavy duty oil and sunlight resistant PVC jacket with sequential markings at 2' interval; NEC rated and UL listed.
 5. Belden or equal.

2.05 CABLE TERMINATIONS

- A. Compression connectors shall be Burndy "Hi Lug", Thomas & Betts "Sta-Kon,", or equal. Threaded connectors shall be split bolt type of high strength copper alloy. Pressure type, twist-on connectors will not be acceptable.
- B. Pre-insulated fork tongue lugs shall be Thomas & Betts, Burndy, or equal.
- C. General purpose insulating tape shall be Scotch No. 33, Plymouth "Slip-knot", or equal. High temperature tape shall be polyvinyl as manufactured by Plymouth, 3M, or equal.
- D. Labels for coding 600 volt wiring shall be computer printable or pre-printed, self-laminating, self-sticking, as manufactured by W.H. Brady, 3M, or equal.

PART 3 - EXECUTION

3.01 GENERAL

- A. The Contractor shall provide and terminate all conductors except where indicated.

3.02 INSTALLATION

- A. Conductors shall not be pulled into raceway until raceway has been cleared of moisture and debris.
- B. Pulling tensions on raceway cables shall be within the limits recommended by the cable manufacturer. Wire pulling lubricant, where needed, shall be UL approved.
- C. Instrumentation, telephone and RS-485 cables shall not be run in the same raceway with power and control wiring except where specifically indicated.

- D. Wire in panels, cabinets, and wire ways shall be neatly grouped using nylon tie straps, and shall be fanned out to terminals.

3.03 SPLICES AND TERMINATIONS

A. General:

1. Wire taps and splices shall be properly taped and insulated according to their respective classes.
2. In general, there shall be no cable splices in underground manholes or pull boxes. If splices are necessary, the cables shall be brought aboveground and terminated in a NEMA 4X, stainless steel terminal or splice cabinet on a concrete pad. Splices in underground manholes and pull boxes may be made only with the approval of the Engineer.
3. Stranded conductors shall be terminated directly on equipment box lugs making sure that all conductor strands are confined within lug. Use forked-tongue lugs where equipment box lugs have not been provided.
4. Excess control and instrumentation wire shall be properly taped and terminated as spares.

B. Control Wire and Cable:

1. Control conductors shall be spliced or terminated only at the locations indicated and only on terminal strips or terminal lugs of vendor furnished equipment.
2. In junction boxes, motor control centers, and control panels, control wire and spare wire shall be terminated to terminal strips.

C. Instrumentation Wire and Cable:

1. Shielded instrumentation cables shall be grounded at one end only, preferably the receiving end on a 4-20 mA system.
2. Two- and three-conductor shielded cables installed in conduit runs which exceed available standard cable lengths may be spliced in pull boxes. Such cable runs shall have only one splice per conductor.

D. Power Wire and Cable:

1. All 120/208-volt, 120/240-volt, and 480/277-volt branch circuit conductors may be spliced in suitable fittings at locations determined by the Contractor.
2. Splices to motor leads in motor terminal boxes shall be wrapped with mastic material to form a mold and then shall be taped with a minimum of 2 layers of varnished cambric tape overtaped with a minimum of 2 layers of high temperature tape.

3.04 CABLE IDENTIFICATION

- A. General: Wires and cables shall be identified for proper control of circuits and equipment and to reduce maintenance effort. Identification shall appear within 3" of conductor terminals and at each pull or junction box.

- B. Identification Numbers: The Contractor shall assign to each control and instrumentation wire and cable a unique identification number. Numbers shall be assigned to all conductors having common terminals and shall be shown on "as built" drawings. "Control Conductor" shall be defined as any conductor used for alarm, annunciator, or signal purposes.
 - 1. Multiconductor cable shall be assigned a number which shall be attached to the cable at intermediate pull boxes and at stub-up locations beneath free-standing equipment. It is expected that the cable number shall form a part of the individual wire number. Individual control conductors and instrumentation cable shall be identified at pull points as described above. The instrumentation cable numbers shall incorporate the loop numbers assigned in the Contract Documents.
 - 2. All 120/208-volt conductors shall be color coded as follows: Phase A - black, Phase B - red, Phase C - blue, and Neutral - white.
 - 3. All 120/240-volt system conductors shall be color coded as follows: Line 1 - Black, Line 2 - Red, and Neutral - White.
 - 4. All 480/277- volt system conductors shall be color coded as follows: Phase A - Brown, Phase B - Orange, Phase C - Yellow, and Neutral - Gray.
 - 5. Color coding tape shall be used where colored insulation is not available. Branch circuit switch shall be yellow. Insulated ground wire shall be green, and neutral shall be gray. Color coding and phasing shall be consistent throughout the Site, but bars at panelboards, switchboards, and motor control centers shall be connected Phase A-B-C, top to bottom, or left to right, facing connecting lugs.
 - 6. General purpose AC control cables shall be red. General purpose DC control cables shall be blue.
 - 7. Spare cable shall be terminated on terminal screws and shall be identified with a unique number as well as with destination.
 - 8. Terminal strips shall be identified by computer printable, cloth, self-sticking marker strips attached under the terminal strip.

3.05 TESTING

- A. Cable Assembly and Testing: Cable assembly and testing shall comply with applicable requirements of ICEA Publication No. S-68-516 - Ethylene-Propylene-Rubber Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy. Factory test results shall be submitted with the shop drawings. The following field tests shall be the minimum requirements:
1. Power cable rated at 600 volts shall be tested for insulation resistance between phases and from each phase to a ground using a megohmmeter.
 2. Field testing shall be done after cables are installed in the raceways.
 3. Field tests shall be performed by a certified test organization acceptable to the cable manufacturer. Test results shall be submitted to the Engineer for review and acceptance.
 4. Cables failing the tests shall be replaced with a new cable or be repaired. Repair methods shall be as recommended by the cable manufacturer and shall be performed by persons certified by the industry.
- B. Continuity Test: Control and instrumentation cables shall be tested for continuity, polarity, undesirable ground, and origination. Such tests shall be performed after installation and prior to placing cables in service.

END OF SECTION

SECTION 16140

WIRING DEVICES

INDEX

PART 1 – GENERAL

- 1.01 THE REQUIREMENT
- 1.02 CONTRACTOR SUBMITTALS

PART 2 – PRODUCTS

- 2.01 GENERAL
- 2.02 LIGHTING SWITCHES
- 2.03 GENERAL PURPOSE RECEPTACLES
- 2.04 ENCLOSURES AND COVERS
- 2.05 NAMEPLATES

PART 3 – EXECUTION

- 3.01 GENERAL
- 3.02 CONNECTION
- 3.03 GROUNDING
- 3.04 FIELD TESTING

PART 1 - GENERAL

1.01 THE REQUIREMENT

- A. The Contractor shall provide wiring devices, complete and operable, in accordance with the Contract Documents.
- B. The requirements of Section 16050 – Electrical Requirements apply to this section.

1.02 CONTRACTOR SUBMITTALS

- A. Furnish submittals in accordance with Section 01300 - Submittals.
- B. Shop Drawings:
 - 1. Complete catalog cuts of switches, receptacles, enclosures, covers, and appurtenances, marked to clearly identify proposed materials.
 - 2. Documentation showing that proposed materials comply with the requirements of NEC and U.L.
 - 3. Documentation of the manufacturer's qualifications.

PART 2 - PRODUCTS

2.01 GENERAL

- A. All devices shall carry the U.L. label.

- B. General purpose duplex receptacles and toggle switch handles shall be brown everywhere. Receptacles shall be specification grade and conform to NEMA WD-1, Federal Specifications W-C-596E and W-S-896E, respectively.

2.02 LIGHTING SWITCHES

- A. Local branch switches shall be toggle type, rated at 20 amperes, 120-277 VAC, and shall be General Electric Cat. No. GE-5951-1 for single pole, GE-5953-1 for 3-way and GE-5954-1 for 4-way, or similar types as manufactured by Hubbell, Leviton, or equal.

2.03 GENERAL PURPOSE RECEPTACLES

- A. Duplex receptacles rated 125 V, 20 amp. shall be polarized 3 wire type for use with 3 wire cord with grounded lead and 1 designated stud shall be permanently grounded to the conduit system (NEMA 5-20R). Duplex 120 V receptacles shall be G.E. 5362, Hubbell 5362, or equal. Single receptacles shall be G.E. 4102, Hubbell 4102, or equal.
- B. Ground-fault circuit interrupting receptacles (GFCI's) shall be installed at outdoor locations as required by the NEC. GFCI's shall be duplex, specification grade, tripping at 5 mA. Ratings shall be 125 V, 20 amperes, NEMA WD-1, Configuration 5-20R, capable of interrupting 5,000 amperes without damage. Feed-through type GFCI's serving standard receptacles will not be permitted. GFCI's shall be as manufactured by Hubbell, Bryant, Leviton, or equal.
- C. Telephone jack: Leviton #40649, or equal; Type 625B4 modular 4 conductor jack.
- D. Two-Port Data port: Leviton #41688, or equal; 8 conductor jack.

2.04 ENCLOSURES AND COVERS

- A. Surface mounted switches and receptacles shall be in FS or FD type weatherproof conduit fittings.
- B. Switch and receptacle covers on surface mounted boxes shall be die cast copper-free aluminum.
- C. In finished areas, switch and receptacle boxes shall be provided with SUPER STAINLESS STEEL COVERS as manufactured by Harvey Hubbell, Arrow Hart, Bryant, or equal.
- D. In areas where cast boxes are used, switch and receptacle covers shall be Crouse-Hinds Catalogue No. DS185 and WLRD-1, or Adalet No. WSL and WRD, or equal.

2.05 NAMEPLATES

- A. Provide nameplates or equivalent markings on switch enclosures to indicate ON and OFF positions of each switch. ON and OFF for 3-way or 4-way switches is not acceptable. Provide receptacles for special purposes with nameplates indicating their use. Conform to requirements of Section 16050.

PART 3 - EXECUTION

3.01 GENERAL

- A. Perform work in accordance with the National Electrical Code.

3.02 CONNECTION

- A. Rigidly attach wiring devices in accordance with National Electrical Code, and as indicated, avoiding interference with other equipment.
- B. Securely fasten nameplates using screws, bolts, or rivets centered under or on the device, unless otherwise indicated.
- C. Furnish and install dedicated cabling for each port present at wall jack locations noted in the plans.

3.03 GROUNDING

- A. Ground all devices, including switches and receptacles, in accordance with NEC, ART 250, and Section 16450 - Grounding.
- B. Ground switches and associated metal plates through switch mounting yoke, outlet box, and raceway system.
- C. Ground flush receptacles and their metal plates through positive ground connections to outlet box and grounding system. Maintain ground to each receptacle by spring-loaded grounding contact to mounting screw or by grounding jumper, each making positive connection to outlet box and grounding system at all times.

3.04 FIELD TESTING

- A. Provide checkout, field, and functional testing of wiring devices in accordance with Section 16050.

- B. Test each receptacle for polarity and ground integrity with a standard receptacle tester.

END OF SECTION

SECTION 16450

GROUNDING

INDEX

PART 1 – GENERAL

- 1.01 THE REQUIREMENT
- 1.02 CONTRACTOR SUBMITTALS

PART 2 – PRODUCTS

- 2.01 GENERAL
- 2.02 GROUNDING SYSTEM

PART 3 – EXECUTION

- 3.01 GROUNDING

PART 1 - GENERAL

1.01 THE REQUIREMENT

- A. The Contractor shall provide the electrical grounding system, complete and operable, in accordance with the Contract Documents.
- B. The requirements of Section 16050 - Electrical Requirements apply to this section.
- C. Single Manufacturer: Like products shall be the end product of one manufacturer in order to achieve standardization of appearance, operation, maintenance, spare parts and manufacturer's services.

1.02 CONTRACTOR SUBMITTALS

- A. Furnish submittals in accordance with Section 01300 - Submittals and Section 16050 - Electrical Requirements.
- B. Shop Drawings: Manufacturer's product information for connections, clamps, and grounding system components, showing compliance with the requirements of this section.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Components of the grounding electrode system shall be manufactured in accordance with ANSI/UL 467 - Standard for Safety Grounding and Bonding Equipment, and shall conform to the applicable requirements of National Electrical Code Article 250 and local codes.

2.02 GROUNDING SYSTEM

- A. Buried cable-to-cable and cable-to-ground rod connections shall be made using exothermic welds by Cadweld, Enrico Products, or equal.
- B. Exposed grounding connectors shall be of the compression type (connector to cable), made of high copper alloy, and be manufactured specifically for the particular grounding application. The connectors shall be Burndy, O.Z. Gedney, or equal.
- C. Grounding clamps shall be used to bond each separately derived system to the grounding electrode conductors.
- D. Equipment Grounding Circuit Conductors:
 - 1. These conductors shall be the same type and insulation as the load circuit conductors. The minimum size shall be as outlined in Table 250.122 of the National Electrical Code, unless indicated otherwise.
 - 2. Metallic conduit systems shall have equipment grounding wires as well as being equipment grounding conductors themselves.
- E. Manufacturers of grounding materials shall be Copperweld, Blackburn, Burndy, or equal.

PART 3 - EXECUTION

3.01 GROUNDING

- A. Provide a separate grounding conductor, securely grounded in each raceway independent of raceway material.
- B. Provide a separate grounding conductor for each motor and connect at motor box. Do not use bolts securing motor box to frame or cover for grounding connectors.
- C. Size as given on the conduit schedule and in accordance with the NEC-Article 250.
- D. Route conductors inside raceway.
- E. Provide a grounding type bushing for secondary feeder conduits which originate from the secondary section of each MCC section, switchboard, or panelboard.
- F. Individually bond these raceways to the ground bus in the secondary section.
- G. Provide a green insulated wire as grounding jumper from the ground screw to a box grounding screw and, for grounding type devices, to equipment grounding conductor.

- H. Provide a separate grounding conductor in each individual raceway for parallel feeders.
- I. Interconnect the secondary switchgear neutral bus to the ground bus in the secondary switchgear compartment only at service entrance point or after a transformer.
- J. Bond cold water pipe system and building structure to separate grounding electrode per NEC.
- K. Provide the duct bank ground system indicated, including, trenching, splices, ground rods, and connections to equipment and structures.
- L. Measure ground impedance in accordance with IEEE STD 81 after installation but before connecting the electrode to the remaining grounding system.
- M. Low Voltage Grounded System (600V or less): A low voltage grounded system is a system where the local power supply is a transformer with the transformer secondary grounded.
 - 1. Grounding system connections for a premises wired system supplied by a grounded AC service shall have a grounding electrode connector connected to the grounded service conductor at each service, in accordance with the NEC.
 - 2. The grounded circuit conductor shall not be used for grounding non-current carrying parts of equipment, raceways, and other enclosures except where specifically listed and permitted by the NEC.
- N. Shield Grounding:
 - 1. Shielded instrumentation cable shall have its shield grounded at one end only unless shop drawings indicate the shield will be grounded at both ends.
 - 2. The grounding point shall be at the control panel or otherwise at the receiving end of the signal carried by the cable.
 - 3. Termination of shield drain wire shall be on its own terminal screw.
 - 4. Terminal screws shall be jumpered together using manufactured terminal block jumpers.
 - 5. Connection to the ground bus shall be via a green No. 12 conductor to the main ground bus for the panel.

END OF SECTION

SECTION 16500

LIGHTING

INDEX

PART 1 – GENERAL

- 1.01 REFERENCES
- 1.02 SUBMITTALS
- 1.03 REGULATORY REQUIREMENTS
- 1.04 DELIVERY, STORAGE, HANDLING

PART 2 – PRODUCTS

- 2.01 LUMINAIRES
- 2.02 EXIT SIGNS
- 2.03 LED DRIVERS AND BALLASTS

PART 3 – EXECUTION

- 3.01 INSTALLATION
- 3.02 FIELD QUALITY CONTROL
- 3.03 ADJUSTING
- 3.04 CLEANING
- 3.05 LIGHT FIXTURE SCHEDULE

PART 1 – GENERAL

1.01 REFERENCES

- A. All LED lighting products must be approved and listed on the Energy Star Qualified Commercial LED Lighting List For Lamps – (<http://www.energystar.gov/productfinder/product/certified-light-bulbs/results>). For Fixtures – (<http://www.energystar.gov/productfinder/product/certified-light-fixtures/results>).
- B. ANSI/NFPA 70 - National Electrical Code.
- C. ANSI/NFPA 101 - Life Safety Code.

1.02 SUBMITTALS

- A. Submit under provisions of Division 01.
- B. Product Data: Provide dimensions, ratings, and performance data.
- C. Manufacturer's Instructions: Indicate application conditions and limitations of use stipulated by product testing agency specified under Regulatory Requirements.

- D. Manufacturer's Instructions: Include instructions for storage, handling, protection, examination, preparation, and installation of product.

1.03 REGULATORY REQUIREMENTS

- A. Conform to requirements of ANSI/NFPA 70.
- B. Conform to requirements of NFPA 101.
- C. Furnish products listed and classified by Underwriters Laboratories, Inc. as suitable for purpose specified and shown.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect, and handle products to site under provisions of Division 01.
- B. Accept products on site. Inspect for damage.
- C. Protect luminaires and accessories from finish damage by handling carefully.

PART 2 - PRODUCTS

2.01 LUMINAIRES

- A. Furnish products as scheduled in plans.

2.02 EXIT SIGNS

- A. Directional Arrows: Universal type for field adjustment.
- B. Mounting: Universal, for field selection.

2.03 LED DRIVERS AND BALLASTS

- A. Suitable for LED light fixture submitted.
- B. Suitable for dimming where shown on drawings.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install surface mounted luminaires and exit signs plumb and adjust to align with building lines and with each other. Secure to prohibit movement.

- C. Install wall mounted luminaires at height indicated on Drawings.
- D. Bond products and metal accessories to branch circuit equipment grounding conductor.
- E. Install specified lamps in each luminaire.

3.02 FIELD QUALITY CONTROL

- A. Operate each luminaire after installation and connection. Inspect for proper connection and operation.

3.03 ADJUSTING

- A. Aim and adjust luminaires.
- B. Adjust exit sign directional arrows as indicated.
- C. Replace failed lamps with new lamps prior to Substantial Completion.

3.04 CLEANING

- A. Clean electrical parts to remove conductive and deleterious materials.
- B. Remove dirt and debris from enclosure.
- C. Clean photometric control surfaces as recommended by manufacturer.
- D. Clean finishes and touch up damage.

3.05 LIGHT FIXTURE SCHEDULE

- A. As scheduled on the Drawings.

END OF SECTION



WEST LIBERTY LIBRARY

STORYTIME ROOM CONCEPT

(not in contract)





WEST LIBERTY LIBRARY
STORYTIME MURALS AND NOOKS CONCEPT
(not in contract)



WEST LIBERTY LIBRARY

STORYTIME SEATING AND ACOUSTIC WALL TILE
(not in contract)





WEST LIBERTY LIBRARY
GAMING ROOM CONCEPT
(not in contract)



WEST LIBERTY LIBRARY

GAMING ROOM NOOKS, SEATING, AND ACCENT LIGHTING
(not in contract)





WEST LIBERTY LIBRARY

KITCHENETTE WITH PASS THROUGH WINDOW

(panels closed)





WEST LIBERTY LIBRARY

KITCHENETTE WITH PASS THROUGH WINDOW
(panels open)

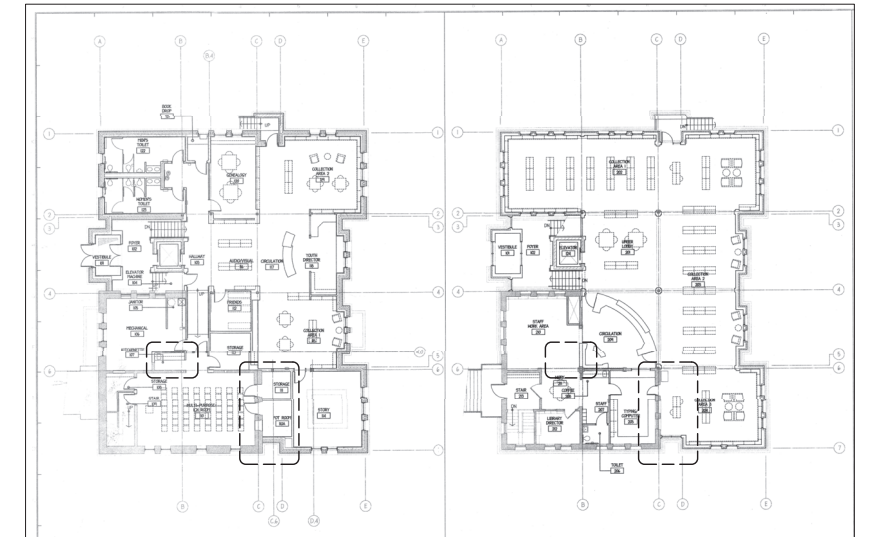




WEST LIBERTY LIBRARY
KITCHENETTE

PLOTTED: 1/19/22

WEST LIBERTY PUBLIC LIBRARY BUILDING IMPROVEMENTS 2021 400 N. SPENCER STREET WEST LIBERTY, IOWA 52776



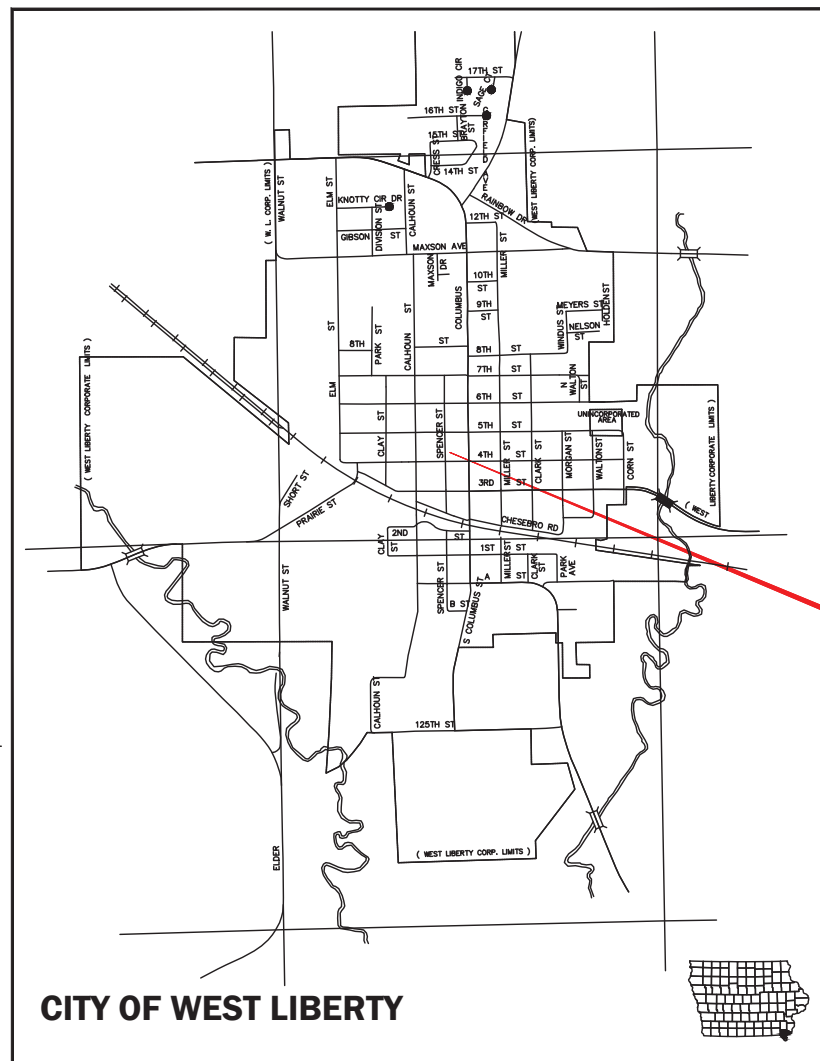
LOWER LEVEL

MAIN LEVEL

KEY PLAN

DRAWING INDEX

NO.	DRAWING TITLE
10-C-1	INDEX AND TITLE SHEET
10-A-1	NOTES
10-A-2	BUILDING PLANS
10-A-3	ENLARGED STORAGE ROOM AND KITCHENETTE PLANS
10-A-4	KITCHENETTE SECTIONS
10-A-5	STORAGE ROOM SECTIONS
10-A-6	KITCHENETTE ELEVATIONS
10-E-1	ELECTRICAL PLANS
10-M-1	PLUMBING PLANS
99-E-1	ELECTRICAL SCHEDULES



**PROJECT
LOCATION**

CITY OF WEST LIBERTY

VICINITY MAP
NOT TO SCALE



FILE PATH: \\wk-fs\projects\6421\West Liberty Library.dwg

DATE	REVISIONS	SCALE	AS SHOWN	 <p>WEST LIBERTY PUBLIC LIBRARY BUILDING IMPROVEMENTS 2021</p> <p>3000 Westown Parkway • West Des Moines, Iowa 50266-1320 515-225-8000 • 515-225-7848(FAX) • 888-241-8000(WATS)</p>	DWG. NO.	
		DRAWN	TMG		INDEX AND TITLE SHEET	
		CHECKED	TMG/VEA			10-C-1
		APPROVED	TMG			
		DATE	1/24/2022			
		ISSUED FOR	BIDDING	PROJECT	6421	

PLOTTED: 4/19/22

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NOTES

- THE SCOPE OF WORK FOR THE PROJECT SHALL INCLUDE ALL LABOR, MATERIALS, DEVICES, SUPPLIES, EQUIPMENT, AND OTHER FACILITIES NECESSARY FOR AND INCIDENTAL TO THE EXECUTION AND COMPLETION OF WORK DESCRIBED IN THESE DOCUMENTS.
- THE CONTRACTOR SHALL SECURE AND PAY FOR THE BUILDING PERMIT AND OTHER PERMITS AND GOVERNMENT FEES, LICENSES AND INSPECTIONS NECESSARY FOR PROPER EXECUTION AND COMPLETION OF WORK.
- THE CONTRACTOR SHALL PAY ALL FEDERAL, STATE, LOCAL AND ALL OTHER TAXES THAT ARE APPLICABLE TO THIS CONTRACT.
- THE CONTRACTOR SHALL SUPPLY ALL UTILITIES INCLUDING ELECTRICITY, WATER, RESTROOMS NEEDED FOR THE COMPLETION OF WORK.
- ALL WORK PERFORMED SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL BUILDING CODES AND REQUIREMENTS, AS WELL AS THE MOST RECENT REQUIREMENTS OF THE APPLICABLE ACCESSIBILITY CODES.
- THE GENERAL CONTRACTOR SHALL SUBMIT A WRITTEN GUARANTEE FOR THEIR MATERIALS AND WORKMANSHIP FOR ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE OF OWNER.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME GENERALLY FAMILIAR WITH THE JOB SITE AND VERIFY EXISTING CONDITIONS IN THE FIELD PRIOR TO PROCEEDING WITH WORK. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK. PLANS ARE SCHEMATIC IN NATURE. LAYOUT IS BASED ON BEST AVAILABLE INFORMATION.
- EXISTING CONDITIONS AND CONNECTIONS ARE BASED UPON INFORMATION TAKEN FROM LIMITED FIELD INVESTIGATIONS AND PARTIAL EXISTING BUILDING PLANS. CONTRACTOR SHALL MAKE REQUIRED ADJUSTMENTS TO SYSTEM COMPONENTS AS NECESSITATED BY ACTUAL FIELD CONDITIONS AT NO ADDITIONAL COST TO OWNER OR ARCHITECT. REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL FIELD CONDITIONS TO THE ARCHITECT BEFORE CONSTRUCTION BEGINS.
- CONTRACTOR TO VERIFY EXISTING DIMENSIONS; MEMBER TYPE, SIZE AND LOCATIONS; EXISTING FOUNDATIONS FOR THE EXISTING WALL DURING DEMOLITION. SUBMIT THIS INFORMATION TO ENGINEER FOR REVIEW & COMMENT PRIOR TO BEGINNING RECONSTRUCTION.
- THESE DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. WHERE LACK OF INFORMATION OR ANY DISCREPANCY SHOULD APPEAR IN THE DRAWINGS OR SPECIFICATIONS, THE G.C. SHALL REQUEST WRITTEN INTERPRETATION FROM THE ARCHITECT BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.
- NO CHANGES, MODIFICATIONS OR DEVIATIONS SHALL BE MADE FROM THE DRAWINGS OR SPECIFICATIONS WITHOUT FIRST SECURING WRITTEN PERMISSION FROM THE ARCHITECT.
- THE DEMOLITION WORK SHALL INVOLVE WORK ABOVE AND/OR BELOW THE FLOOR LEVEL WITHIN THE SCOPE. IT SHALL REQUIRE WORK INVOLVING REMOTE UTILITY LINES (PLUMBING, MECHANICAL, ELECTRICAL, COMMUNICATIONS, ETC.). ANY SUCH WORK SHALL BE INCLUSIVE OF ALL UTILITIES REQUIRED TO RESTORE THE AREA TO FULLY OPERATIONAL CONDITIONS IN COMPLIANCE WITH ALL APPLICABLE BUILDING AND SAFETY CODE REQUISITES. ALL WORK AS DESCRIBED IN THIS NOTE SHALL BE INCLUDED AS PART OF THE BASE CONTRACT PRICE.
- ITEMS LABELED NIC ARE "NOT IN CONTRACT".
- WHERE A SYSTEM OR ASSEMBLY IS CALLED FOR, ALL NECESSARY PARTS AND MATERIALS REQUIRED FOR A COMPLETE INSTALLATION/SYSTEM SHALL BE PROVIDED AND INSTALLED ACCORDING TO THE MANUFACTURERS INSTRUCTIONS.
- ALL SYSTEMS & MATERIALS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS, INSTRUCTIONS AND SPECIFICATIONS.
- PROVIDE ADEQUATE CONCEALED BLOCKING AND ANCHORING FOR ALL CEILING AND WALL MOUNTED EQUIPMENT, HARDWARE AND ACCESSORIES. COORDINATE WITH ALL TRADES THE LOCATIONS OF SLEEVES, BLOCKING OR OTHER PRESET ACCESSORIES INVOLVING OTHER TRADES.
- CONTRACTOR TO COORDINATE AND SCHEDULE WORK OF ALL TRADES SO AS TO NOT DELAY AT ANY PHASE OF COMPLETION, CONSTRUCTION DUE TO INTERCONNECTING WORK OR LATE SCHEDULING. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO ENSURE THAT ALL SUB-TRADES ARE FAMILIAR WITH THE COMPLETE CONSTRUCTION DOCUMENTS PACKAGE INCLUDING WORK THAT MAY OR MAY NOT BE PART OF THEIR SCOPE.
- COORDINATE PHASING OF PROJECT WITH OWNER. THE LIBRARY SHALL REMAIN IN OPERATION THROUGHOUT CONSTRUCTION. ELECTRICAL, HVAC AND PLUMBING SERVICES SHALL NOT BE INTERRUPTED. COORDINATE ACCESS TO WORK AREA WITH OWNER.
- ALL WORK MUST BE COORDINATED AND SCHEDULED WITH THE OWNER SO AS TO PROVIDE THE LEAST AMOUNT OF DISRUPTION OF BUILDING ACTIVITIES AS POSSIBLE.
- COORDINATE CONSTRUCTION LIMITS, STAGING, ACCESS BY CONTRACTORS AND BUILDING SAFETY REQUIREMENTS WITH OWNER PRIOR TO START OF CONSTRUCTION.

- ALL WORK SHALL BE PERFORMED WITH THE BEST ACCEPTED PRACTICES OF THE RESPECTED TRADES. ALL MATERIALS TO BE NEW (UNLESS OTHERWISE NOTED ON DRAWINGS) AND SHALL CONFORM TO CONTRACT DOCUMENTS.
- CONTRACTOR TO COORDINATE CUTTING & PATCHING OF ALL TRADES. MATCH EXISTING MATERIALS AS REQUIRED.
- EXISTING SURFACES TO BE PAINTED SHALL BE PATCHED, CAULKED, REPAIRED ON TRIM, WALLS, CRACKS AS REQUIRED FOR A UNIFORM LOOK.
- CONTRACTOR TO COORDINATE KEYING SYSTEMS AND ALL HARDWARE FUNCTIONS WITH OWNER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL CONSTRUCTION DEBRIS FROM PROJECT SITE AND SHALL PROVIDE DUMPSTERS ETC. AS REQUIRED. CONTRACTOR SHALL REMOVE ALL TEMPORARY ITEMS, TRASH, TOOLS, AND EXCESS MATERIALS AT THE COMPLETION OF WORK AND LEAVE THE ENTIRE PROJECT SITE IN A NEAT, CLEAN, ACCEPTABLE CONDITION.
- EXECUTION OF DEMOLITION SHALL PROGRESS IN SUCH A MANNER AS NOT TO INTERFERE WITH THE SAFETY AND CONVENIENCE OF THE PUBLIC AND THOSE AROUND THE SITE NOR TO CAUSE DAMAGE TO THE EXISTING BUILDING STRUCTURE.
- PRIOR TO TURNING THE COMPLETED PROJECT OVER TO THE OWNER, THE CONTRACTOR SHALL REMOVE ALL GREASE, DUST, DIRT, STAINS, LABELS, FINGERPRINTS AND OTHER FOREIGN MATERIALS FROM SIGHT, AND SWEEP, WET-MOP AND VACUUM ALL FLOORS.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY ELECTRICAL POWER, LIGHTING HEAT AND VENTILATION AS REQUIRED.
- THE GENERAL CONTRACTOR SHALL MAINTAIN A SAFE AND SECURE SITE DURING ALL PHASES OF CONSTRUCTION.
- ANY EXISTING UTILITIES TO BE ABANDONED SHALL BE PROPERLY DISCONNECTED, PLUGGED OR CAPPED, AS REQUIRED BY CODE AND SOUND CONSTRUCTION PRACTICE.
- UNLESS OTHERWISE NOTED, ELECTRICAL CONDUITS, PLUMBING LINES, ETC., SHALL BE RUN CONCEALED AND FRAMING SHALL BE ADEQUATE SIZE TO ACCOMPLISH RESULT WITHOUT CAUSING ANY VARIATIONS IN THE WALL PLANE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING BUILDINGS AND OTHER INSTALLATIONS THAT ARE TO REMAIN INTACT WHILE PERFORMING THE WORK. PROVIDE AND MAINTAIN FIRE EXTINGUISHERS ON PROJECT SITE DURING CONSTRUCTION.
- CONTRACTOR TO OBTAIN AND PROVIDE OWNER WITH COLOR SAMPLES FOR PROPER COLOR SELECTION AND FINAL APPROVAL OF ALL FINISHES PRIOR TO INSTALLATION.
- CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN PENETRATING EXISTING WALLS OR FLOOR/CEILING SLABS SO STRUCTURAL INTEGRITY OF SUCH ELEMENTS IS NOT DEGRADED. CONTRACTOR SHALL RESTORE EXISTING SURFACES SCHEDULED TO REMAIN THAT ARE AFFECTED BY SCOPE OF WORK. CONTRACTOR SHALL SEAL TIGHT ALL NEW PENETRATIONS IN WALLS AND FLOOR/CEILING SLABS TO PRESERVE THE REQUIRED FIRE RATING INTEGRITY.
- EXISTING CONCRETE FLOOR SLABS AND/OR SURFACES SHALL BE PREPARED TO RECEIVE NEW SCHEDULED FINISHES BY GRINDING, SCRAPING, FILLING, PATCHING, LEVELING, ETC. AS REQUIRED BY NEW FINISH MANUFACTURER'S RECOMMENDATIONS.
- PATCH AND REPAIR ALL EXISTING SURFACES DAMAGED BY DEMOLITION AND/OR INSTALLATION OF NEW WORK AND/OR UTILITIES, AS REQUIRED TO MATCH ADJACENT SURFACES AND/OR TO RECEIVE NEW SCHEDULED FINISHES.
- ITEMS SHOWN HALF-TONED (OR WITH GRAY LINES) ARE EXISTING ITEMS TO REMAIN. DEMOLISH AND REMOVE EXISTING CONDITIONS AS SHOWN BY DASHED LINE OR AS NOTED, UNLESS OTHERWISE NOTED. SEE OTHER GENERAL NOTES, REFERENCED NOTES AND DEMOLITION PLANS TO DETERMINE WHAT IS TO BE DONE WITH THOSE ITEMS REMOVED.
- ALL WALLS, DOORS, FURNISHINGS AND EQUIPMENT DENOTED WITH DASHED LINES ARE TO BE REMOVED. REFER TO PROPOSED PLAN LAYOUT FOR CLARIFICATION.
- EXISTING DOORS TO BE REMOVED AS DENOTED WITH DASHED LINES. REFER TO PROPOSED PLAN LAYOUT FOR CLARIFICATION.
- HAZARDOUS MATERIALS: IT IS NOT EXPECTED THAT HAZARDOUS MATERIALS WILL BE ENCOUNTERED IN THE WORK. IF MATERIALS SUSPECTED OF CONTAINING HAZARDOUS MATERIALS ARE ENCOUNTERED, DO NOT DISTURB AND IMMEDIATELY NOTIFY THE ARCHITECT AND THE OWNER.
- WHERE REMOVAL OF PARTITIONS OR NEW OPENINGS RESULTS IN ADJACENT SPACES BECOMING ONE, REWORK FLOORS, WALLS, CEILING TO PROVIDE SMOOTH PLACES WITHOUT BREAK, STEPS, OR BULKHEADS.
- ALL EXISTING HOLES/CRACKS IN SLAB AND THOSE RESULTING FROM THE CONSTRUCTION PROCESS SHALL BE FILLED /PREPARED AND SURFACE PATCHED SMOOTH AND LEVEL WITH ADJACENT FLOOR SURFACES, APPROPRIATE FIRE RATED MATERIALS THAT MEET CODE ARE TO BE USED.
- FURNISH, INSTALL, AND MAINTAIN DUST COVERINGS TO PREVENT THE SPREAD OF DUST BEYOND THE IMMEDIATE AREA WHERE DEMOLITION IS BEING PERFORMED. SEAL CONSTRUCTION ZONE TO PREVENT DUST, ODOR AND SIMILAR FROM CIRCULATING THROUGHOUT BUILDING, INCLUDING HVAC DUCTWORK.

- PRIOR TO THE START OF DEMOLITION WORK GENERAL CONTRACTOR SHALL DETERMINE THE LOCATION OF LOAD BEARING PARTITIONS AND COLUMNS AND PROVIDE TEMPORARY SUPPORTS AS REQUIRED BY REMOVAL OR RELOCATION OF SUCH PARTITIONS. G.C. TO ENSURE ALL TEMPORARY SUPPORTS ARE CARRIED TO SUFFICIENT BEARING MATERIALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND TEMPORARY RELOCATION OF ALL LIFE SAFETY SYSTEMS INCLUDING FIRE/SMOKE ALARM AS REQUIRED DURING DEMOLITION AND CONSTRUCTION PHASES.
- REMOVE ONLY NON-LOAD BEARING CONSTRUCTION AND PARTITIONS. CONTRACTOR TO VERIFY, PRIOR TO REMOVAL, THAT NO STRUCTURAL COMPONENTS, I.E. BEARING WALLS, BEAMS, HEADERS, ETC., SUPPORTING FLOOR, ROOF OR CEILING JOISTS ARE DESIGNATED FOR REMOVAL. CONTACT THE ARCHITECT PRIOR TO REMOVAL OF ANY CONSTRUCTION IN QUESTION OR DEVIATING FROM THE DESIGN INTENT. CONTRACTOR'S NON-CONTACT OF ARCHITECT PRIOR TO REMOVAL OF ANY WORK INDICATES HIS COMPLETE UNDERSTANDING THAT NO LOAD BEARING OR STRUCTURAL WORK IS BEING ALTERED UNDER THIS CONTRACT.
- REFER TO STRUCTURAL DRAWINGS FOR ALL STRUCTURAL DEMOLITION LOCATIONS & DETAILS.
- DO NOT DRILL OR CUT EXISTING FLOOR JOISTS, BEAMS, COLUMNS, OR OTHER STRUCTURAL MEMBERS, UNLESS SPECIFICALLY INDICATED.
- OPENINGS CREATED IN, OR CUTTING OF, ANY EXISTING SURFACES DURING CONSTRUCTION OR DAMAGED DURING CONSTRUCTION SHALL BE PATCHED SUCH THAT THE MATERIAL DOES NOT APPEAR TO HAVE BEEN DAMAGED, OR THE MATERIAL SHALL BE REPLACED.
- WHERE PERMANENT REMOVAL OF EXISTING MILLWORK, CASEWORK CABINETWORK, ACCESSORIES, EQUIPMENT, OR FURNISHINGS IS REQUIRED, AND PREVIOUSLY CONCEALED SURFACES ARE TO REMAIN EXPOSED, PATCH PREVIOUSLY CONCEALED SURFACES TO MATCH ADJACENT EXPOSED SURFACES AND PROVIDE A SMOOTH TRANSITION BETWEEN THE EXISTING AND PATCHED AREAS.
- WHERE NEW FINISHES ARE SHOWN TO BE A PART OF THE WORK, EXISTING FINISHES SHALL BE REMOVED IN ITS ENTIRETY AS REQUIRED TO INSTALL THE NEW FINISH.
- FLOOR AREAS THAT HAVE HAD THE EXISTING FLOOR FINISH REMOVED SHALL BE PREPARED TO RECEIVE THE A NEW FLOOR FINISH.
- ALL CUTTING AND CHANNELING OF EXISTING BUILDING SHALL BE ACCOMPLISHED IN A NEAT AND WORKMANLIKE MANNER WITHOUT REMOVAL OF EXCESS MATERIALS. THE CONTRACTOR SHALL PATCH AND REPLACE WITH MATERIAL SIMILAR TO ADJACENT CONSTRUCTION.
- PATCH ALL FINISHES TO MATCH EXISTING, INCLUDING BUT NOT LIMITED TO, GYPSUM BOARD, PLASTER, ACOUSTIC SYSTEMS, WOOD TRIM, COVERS, BASE, PANELS, RAILS AND WAINSCOT. VERIFY MATCH OF NEW FINISH MATERIALS TO EXISTING IN COLOR, TEXTURE, THICKNESS, CUT, ETC... TO SATISFACTION OF OWNER PRIOR TO INSTALLATIONS. PROVIDE OTHER MATERIALS TO MATCH EXISTING WHEN REQUIRED. TO BE APPROVED BY OWNER.
- PATCH EXISTING WALLS GYPSUM DRYWALL OR PLASTER TO MATCH EXISTING OF SUFFICIENT THICKNESS TO MAINTAIN UNIFORM WALL THICKNESS.
- PROTECT ALL EXISTING SURFACES TO REMAIN. ANY DAMAGE CAUSED BY CONTRACTORS SHALL BE REPAIRED AT NO COST TO OWNER. ALL CARPETS SHALL BE PROTECTED DURING CONSTRUCTION.
- PROVIDE TEMPORARY SHORING FOR ALL BEAMS AND JOISTS WHERE SUPPORTS ARE REMOVED.

GENERAL

ALL CONSTRUCTION SHALL CONFORM TO THE 2018 IBC, CURRENT SUDAS STANDARD AND CITY OF WEST LIBERTY, IOWA BUILDING CODE.

ALL ELEVATIONS REFERENCED TO FINISHED MAIN FLOOR ELEVATION=0'-0". ALL DIMENSIONS, ELEVATIONS AND MEMBER SIZES SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATING STEEL OR INITIATING CONSTRUCTION. THE CONTRACTOR SHALL VISIT THE SITE TO ENSURE HE IS FAMILIAR WITH EXISTING CONDITIONS, ALL DIMENSIONS AND ALL ELEVATIONS. COORDINATE BUILDING LAYOUT AND FLOOR ELEVATIONS WITH OWNER PRIOR TO INITIATING CONSTRUCTION.

CONTRACTOR SHALL BE AWARE THAT UNFORESEEN CONDITIONS MAY DEVELOP DURING THE PROJECT WHICH MAY REQUIRE ADDITIONAL WORK OR MODIFICATIONS BY THE ENGINEER. CONTACT ENGINEER IMMEDIATELY FOR DIRECTION IF UNUSUAL OR QUESTIONABLE CONDITIONS ARE DISCOVERED.

CONTRACTOR TO COORDINATE ALL WORK, SITE ACCESS, BUILDING ACCESS, UTILITIES AND SCHEDULING WITH THE OWNER'S REPRESENTATIVE.

CONTRACTOR SHALL EXERCISE CARE TO PROTECT THE EXISTING STREETS, SIDEWALKS, UTILITIES, BUILDING AND FURNISHINGS FROM DAMAGE.

CONTRACTOR SHALL REGRADE AND SOD LAWN AREAS DAMAGED BY CONSTRUCTION.

CONTRACTOR TO ASSURE SAFE PASSAGE OF PERSONNEL AROUND THE AREA OF CONSTRUCTION.

CONTRACTOR IS SOLELY RESPONSIBLE FOR AND WILL HAVE CONTROL OR CHARGE OF THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCE OR PROCEDURES, TIME OF PERFORMANCE, PROGRAMS, OR FOR ANY SAFETY PRECAUTIONS IN CONNECTION WITH THE CONSTRUCTION WORK.

SHOP DRAWINGS

PROVIDE SHOP DRAWING SUBMITTALS IN THE FORM OF ONE SET OF ELECTRONIC REPRODUCIBLE PRINTS IN PDF FORMAT.

ALL SHOP DRAWINGS SHALL BE REVIEWED AND SIGNED BY THE CONTRACTOR PRIOR TO SUBMITTING TO THE ENGINEER. ENGINEER REVIEW OF SHOP DRAWINGS SHALL BE FOR GENERAL CONSIDERATION ONLY. COMPLIANCE WITH REQUIREMENTS FOR MATERIALS, FABRICATION, DIMENSIONS AND ERECTION IS THE CONTRACTOR'S RESPONSIBILITY.

CONCRETE MIX DESIGN:
SUBMIT MIX DESIGN INCLUDING CEMENT, AGGREGATES AND ADD MIXTURES.

REINFORCING STEEL:
SUBMIT LAYOUT, DETAILS AND QUANTITIES FOR CONCRETE.

DOORS, FRAMES AND WINDOWS:
SUBMIT PRODUCT DATA SHEETS.

PLUMBING AND BATHROOM FIXTURES:
SUBMIT PRODUCT DATA SHEETS.

PAINT:
SUBMIT PRODUCT DATA SHEETS.

EPOXY:
SUBMIT PRODUCT LITERATURE AND INSTALLATION DATA.

STRUCTURAL STEEL:
SUBMIT COMPLETE DETAILS, PROCEDURES, DIAGRAMS, AND SCHEDULES FOR FABRICATION AND ASSEMBLY OF THE STEEL FRAMING SYSTEM. INCLUDE DETAILS FOR CUTS, CONNECTIONS, CAMBER, HOLES, ETC.

VAPOR BARRIER:
SUBMIT MANUFACTURER'S LITERATURE AND INSTALLATION INSTRUCTIONS. INCLUDE ALL ACCESSORIES.

WOOD FRAMING:
LUMBER TYPE, GRADE AND SIZE, CATALOG CUT SHEETS FOR SIMPSON ANCHORS.

CONCRETE

CONCRETE SHALL BE IN ACCORDANCE WITH IOWA DEPARTMENT OF TRANSPORTATION STANDARD MIX C4-WR-C15 (15% MAX FLYASH).

REINFORCING STEEL SHALL BE BENT AND PLACED IN ACCORDANCE WITH "MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES" ACI 315 CURRENT EDITION.

PROVIDE BATCH TICKETS FOR ALL CONCRETE DELIVERED TO JOBSITE. 4000 PSI MIN 28 DAY STRENGTH.

AIR-ENTRAINMENT: ALL CONCRETE: 5-7%.

SLUMP: 1" MIN. AND 4" MAX.

CONSOLIDATE ALL PLACED CONCRETE USING MECHANICAL VIBRATING EQUIPMENT SUPPLEMENTED BY HAND SPADING AND RODDING.

REINFORCING STEEL: ASTM A615 GR 60 (PLAIN).

WELDED WIRE FABRIC: ASTM A185.

EPOXY ANCHORS

ALL THREAD RODS CONFORMING TO ASTM A365 AND ASTM A307. EPOXY TO CONFORM TO ASTM C881-99, TYPE I, GRADE 2. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

UNDER SLAB VAPOR BARRIER

PROVIDE UNDER SLAB VAPOR BARRIER WITH THE FOLLOWING QUALITIES:
W/IR LESS THAN 0.008 AS TESTED BY ASTM E 96.
MATERIALS PER ASTM E 1745 CLASS A (PLASTICS).

ACCEPTABLE VAPOR BARRIER PRODUCTS:
STEGO WRAP (15 MIL) VAPOR BARRIER.
WR MEADOWS PREMOULDED MEMBRANE WITH PLASMATIC CORE.
SEAM TAPE, VAPOR PROOFING MASTIC, AND PIPE BOOTS PER MANUFACTURER'S RECOMMENDATIONS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

STRUCTURAL STEEL

STRUCTURAL STEEL TO BE FABRICATED AND ERECTED IN ACCORDANCE WITH AISC "SPECIFICATIONS FOR DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS - CURRENT EDITION, EXCEPT DELETE ENTIRELY SECTION 4. STRUCTURAL STEEL SHAPES AND PLATES ASTM A36 (UNO)

ALL STEEL BEAMS ASTM A992

TUBES ASTM A500, GRADE B (46 KSI)

WELD ELECTRODES E70XX

ANCHOR BOLTS ASTM A307

CONNECTION BOLTS ASTM A325

NON-SHRINK & NON-STAINING GROUT CDR C621

ALL BOLTS 3/4" DIAMETER UNLESS OTHERWISE NOTED OR SHOWN. FIELD TIGHTEN HIGH-STRENGTH BOLTS IN ACCORDANCE WITH AISC SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS.

SHOP PRIME ALL STRUCTURAL STEEL WITH ONE COAT OF TMEC 1099 PAINT GRAY COLOR.

NO HOLES ALLOWED IN BEAMS, COLUMNS OR OTHER MEMBERS UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS.

PROVIDE TEMPORARY SHORING OR BRACING AS REQUIRED TO MAINTAIN WORK IN A SAFE AND STABLE CONDITION DURING ERECTION. REMOVE TEMPORARY MEMBERS AND CONNECTIONS WHEN PERMANENT MEMBERS ARE IN PLACE AND FINAL CONNECTIONS ARE MADE.

STRUCTURAL WOOD

STRUCTURAL ROOF SHEATHING TO BE 5/8" CD-CC EXTERIOR GRADE PLYWOOD.

STRUCTURAL WALL SHEATHING TO BE 1/2" CD-CC EXTERIOR GRADE PLYWOOD.

NAIL ROOF SHEATHING WITH 10d NAILS AT 6" O.C. AT EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.

STRUCTURAL FRAMING MEMBERS TO BE DOUGLAS FIR #2 OR SOUTHERN PINE #2 OR BETTER.

WOOD MEMBERS WERE DESIGNED ASSUMING THE FOLLOWING STRESSES:

Fb (BENDING)	1000 PSI
Ft (TENSION)	575 PSI
Fy (HORIZ. SHEAR)	90 PSI
Fc (COMP. PERP.)	565 PSI
Fc (COMP. PARA.)	1300 PSI
E (MOD. ELAST.)	1,600,000 PSI

CONVENTIONAL FRAMING DETAILS SHALL CONFORM TO THE 2018 INTERNATIONAL BUILDING CODE CHAPTER 23.

MINIMUM FASTENER REQUIREMENTS SHALL COMPLY WITH TABLE 2304.9.1 CUTTING, NOTCHING OR DRILLING OF MEMBERS SHALL BE ONLY AS DETAILED OR AS APPROVED IN WRITING BY THE ENGINEER.

ALL ATTACHMENTS, FASTENERS, BOLTS, CONNECTION PLATES, ETC. TO BE ASTM A7 OR ASTM A36 AND GALVANIZED PER ASTM A525 - G60. ALL FASTENERS AND HARDWARE USED WITH TREATED LUMBER SHALL BE GALVANIZED. STAINLESS STEEL OR COATED TO PREVENT CORROSION DUE TO WOOD TREATMENT CHEMICALS.

CONTRACTOR/FABRICATOR TO PROVIDE AND INSTALL ALL FASTENERS AND CONNECTORS AS REQUIRED FOR COMPLETE INSTALLATION OF WOOD FRAMING.

TREATED MEMBERS TO BE AC2 GREEN PRESSURE TREATED LUMBER SOUTHERN YELLOW PINE #2 OR EQUAL.

DATE	REVISIONS	SCALE	AS SHOWN
		DRAWN	TMG
		CHECKED	TMG/VEA
		APPROVED	TMG
		DATE	1/24/2022
		ISSUED FOR	BIDDING



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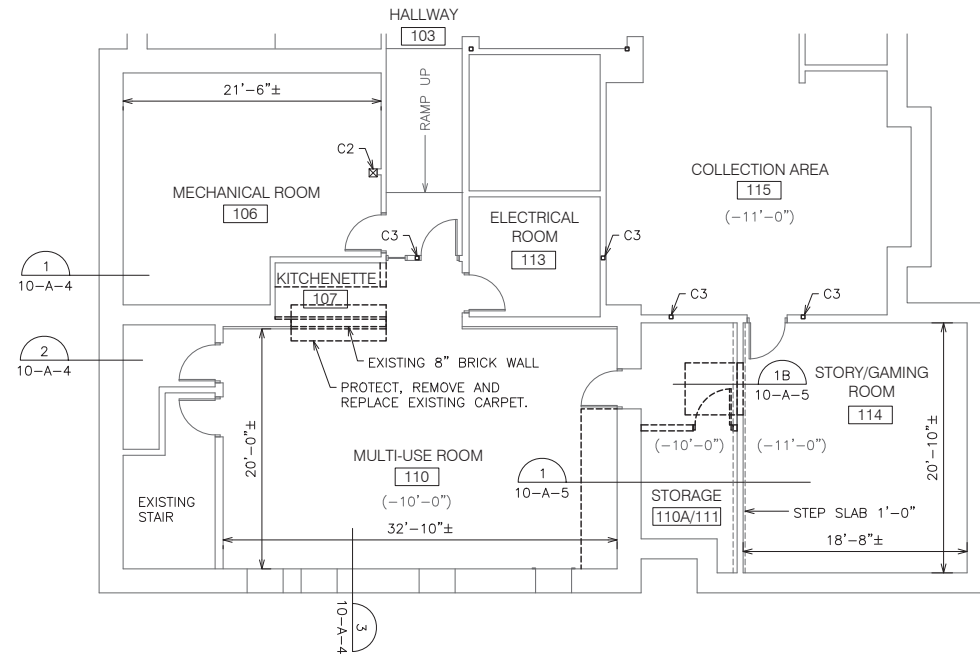
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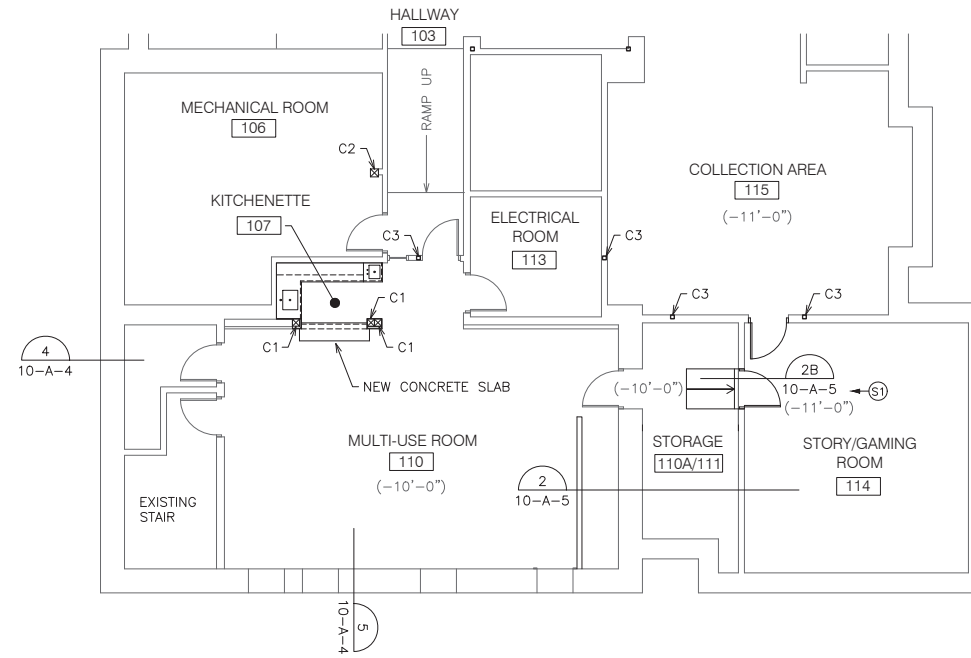
NOTES

DWG. NO.	10-A-1
PROJECT	6421

PLOTTED: 1/19/22



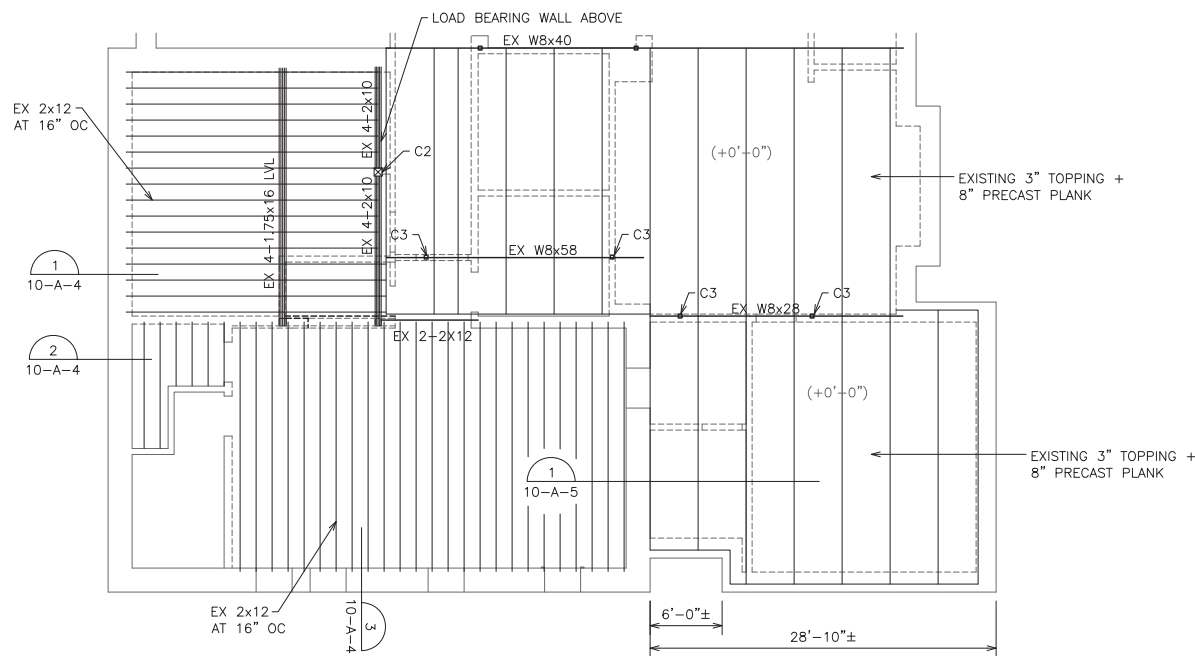
SEE 10-A-3 FOR ENLARGED FLOOR PLAN.
EXISTING FLOOR PLAN
(LOWER LEVEL)



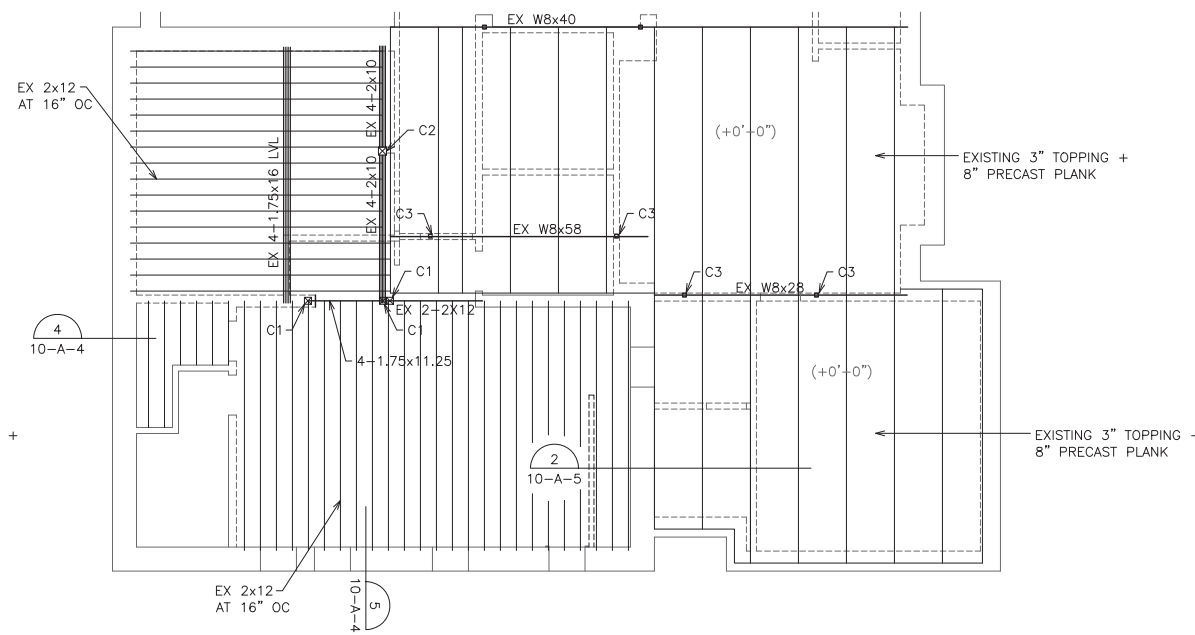
SEE 10-A-3 FOR ENLARGED FLOOR PLAN.
PROPOSED FLOOR PLAN
(LOWER LEVEL)

- GENERAL NOTES:**
- TOP OF LOWER LEVEL SLAB ELEVATION = (-10'-0") UNO.
 - DIMENSIONS ARE NOMINAL.
 - SPECIFIED PRODUCTS AND MATERIALS SHALL BE USED FOR CONSTRUCTION. CONTRACTOR SHALL SUBMIT REQUESTS FOR EQUAL SUBSTITUTIONS FOR CONSIDERATION BY ARCHITECT 7 DAYS PRIOR TO BID DATE.
 - FIELD VERIFY ALL DIMENSIONS.

- COLUMN SCHEDULE:**
- C1 NEW 8x8 WOOD COLUMN WITH CBSQ SIMPSON ANCHOR
 - C2 EXISTING 8x8 WOOD COLUMN + 2-2x6
 - C3 EXISTING HSS4x4x5/16



SEE 10-A-3 FOR ENLARGED FLOOR PLAN.
EXISTING FRAMING PLAN
(MAIN LEVEL)



SEE 10-A-3 FOR ENLARGED FLOOR PLAN.
PROPOSED FRAMING PLAN
(MAIN LEVEL)



1/8" = 1'-0"

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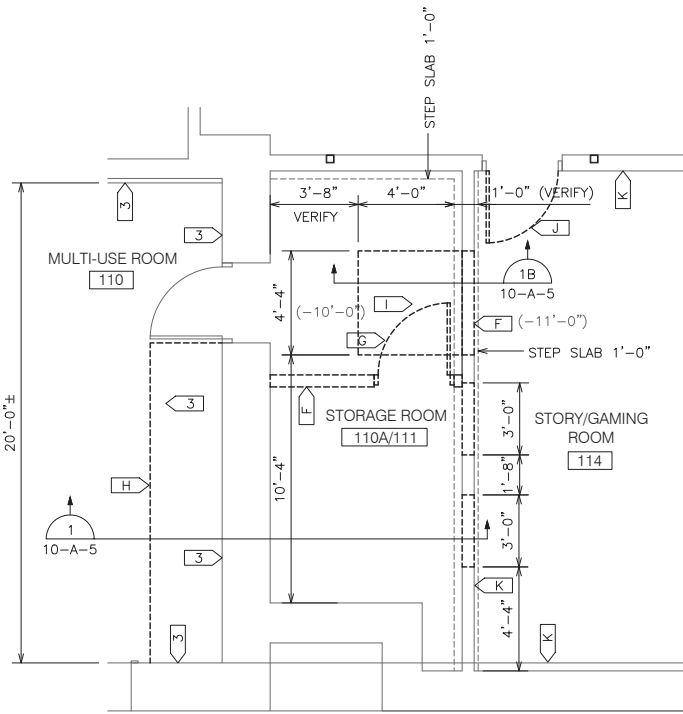
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BUILDING PLANS

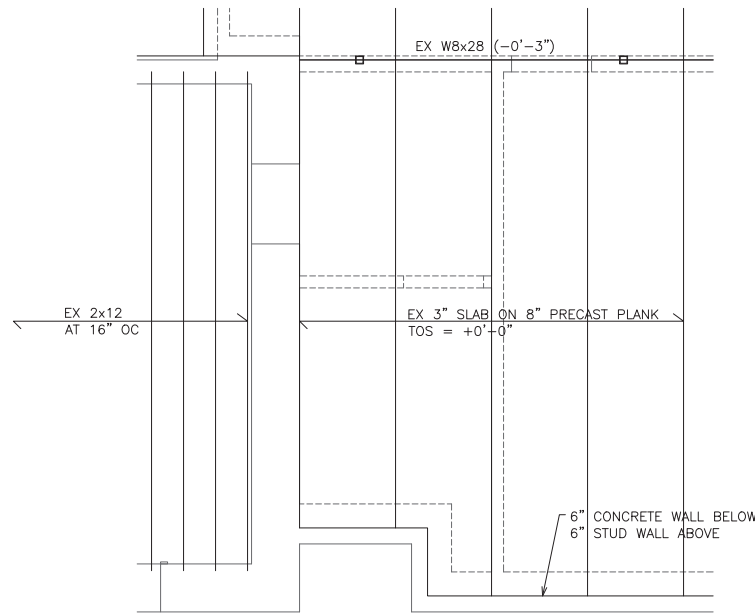
DWG. NO.
10-A-2

PROJECT 6421

PLOTTED: 1/19/22



**EXISTING STORAGE ROOM
FLOOR PLAN & DEMO PLAN**
(LOWER LEVEL)



**EXISTING STORAGE ROOM
FRAMING PLAN**
(MAIN LEVEL)

LEGEND:

	ETC. REFERS TO DOOR SEE DOOR SCHEDULE DWG. NO. 10-A-5.
	ETC. REFERS TO INTERIOR ELEVATION SEE DWG. NO. 10-A-6.
	ETC. REFERS TO WALL TYPE

WALL TYPES:

	2x4 WOOD STUDS AT 16" OC 5/8" GYP. BD. BOTH SIDES
--	--

KEYNOTES:

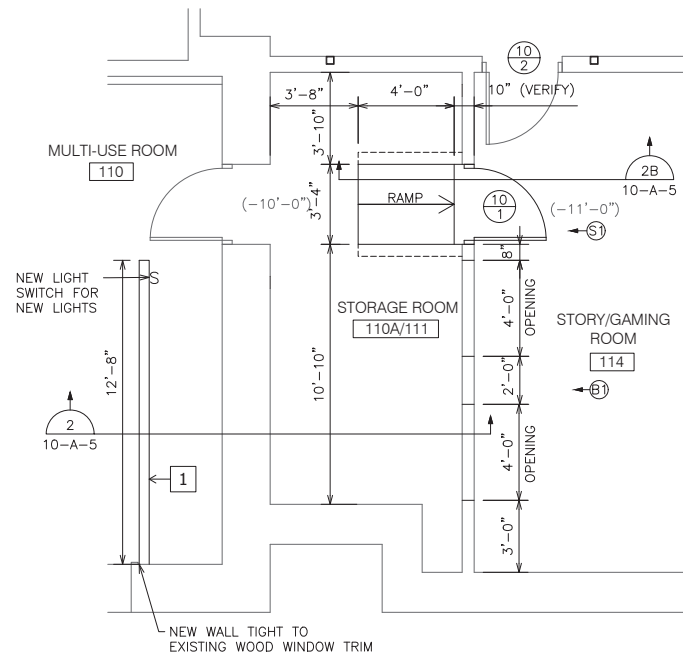
	INFILL OPENING WITH WOOD STUD FRAMING AT 16" OC MIN. WITH 5/8" GYP BD BOTH SIDES. GYP BOARD SHALL BE FLUSH TO EXISTING WALL. FUR OUT AS NEEDED. FINISH GYP BOARD TO MATCH ADJACENT EXISTING WALL IN TEXTURE AND PAINT COLOR AS SELECTED. WALL BASE TRIM TO MATCH EXISTING.
	WALL TILE UP TO 54".
	PAINT EXISTING WALLS AND GYP. BOARD CEILING. (EXCEPTION: NO PAINTING REQUIRED ON EXISTING ACOUSTIC DROP CEILING GRID OR TILES.) ON ALL WALLS AND CEILING BULKHEADS OF KITCHEN AND CONFERENCE ROOM.
	INSTALL NEW LVT FLOORING IN KITCHEN.

GENERAL NOTES:

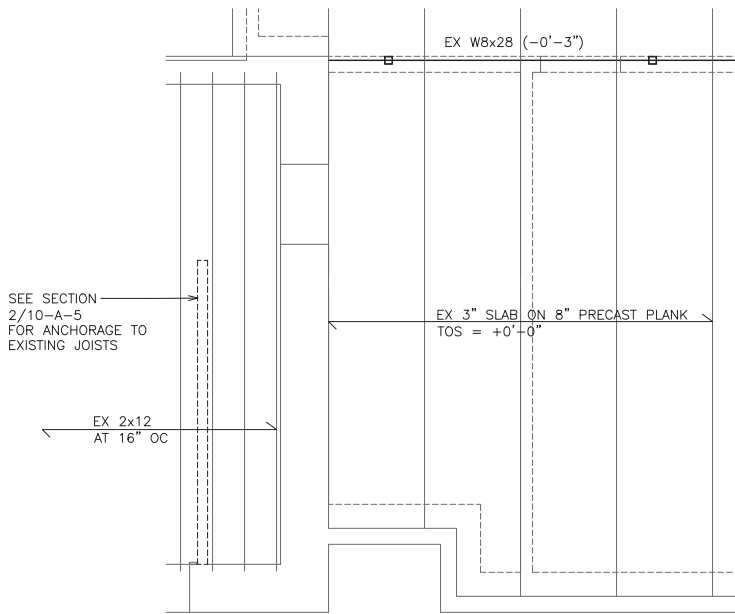
- TOP OF SLAB ELEVATION = (+0'-0").
- DIMENSIONS ARE NOMINAL.
- SPECIFIED PRODUCTS AND MATERIALS SHALL BE USED
FOR CONSTRUCTION. CONTRACTOR SHALL SUBMIT
REQUESTS FOR EQUAL SUBSTITUTIONS FOR CONSIDERATION
BY ARCHITECT 7 DAYS PRIOR TO BID DATE.
- FIELD VERIFY ALL DIMENSIONS.

DEMOLITION KEYNOTES:

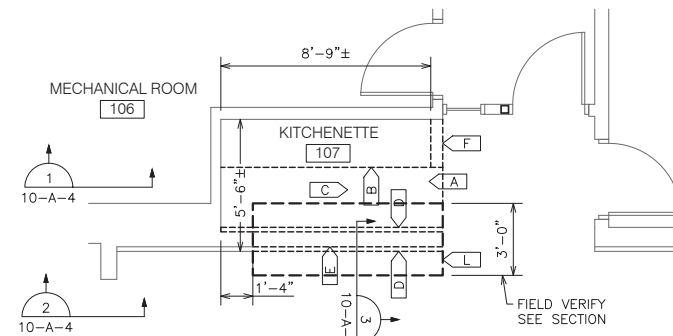
	REMOVE EXISTING FLOOR FINISH THROUGHOUT KITCHEN.
	REMOVE EXISTING KITCHEN CABINETS, COUNTERS AND FIXTURES. REMOVE EXISTING PLUMBING FIXTURES, ASSOCIATED HARDWARE AND ACCESSORIES.
	REMOVE EXISTING LIGHT FIXTURE.
	REMOVE EXISTING STUD AND GYP BD FURRING.
	REMOVE EXISTING MASONRY WALL.
	REMOVE EXISTING WALL PARTITION.
	REMOVE EXISTING DOOR, FRAME AND HARDWARE.
	REMOVE EXISTING CABINETRY.
	REMOVE EXISTING CONCRETE SLAB AS SHOWN.
	REMOVE EXISTING DOOR AND HARDWARE. FRAME TO REMAIN.
	REMOVE EXISTING GEOMETRIC WALL PANELS. WALL SHALL BE PATCHED TO HAVE A CLEAN, EVEN SURFACE TO RECEIVE PAINT AND MATCH EXISTING, ALL FOUR (4) WALLS.
	DEMO EXISTING FLOOR SLAB. PROTECT, REMOVE AND REPLACE EXISTING CARPET.



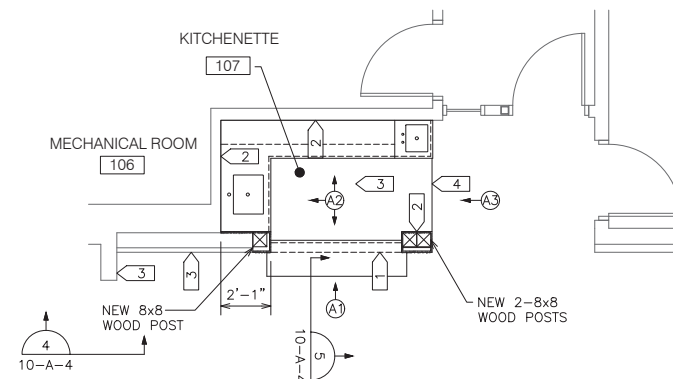
**PROPOSED STORAGE ROOM
FLOOR PLAN**
(LOWER LEVEL)



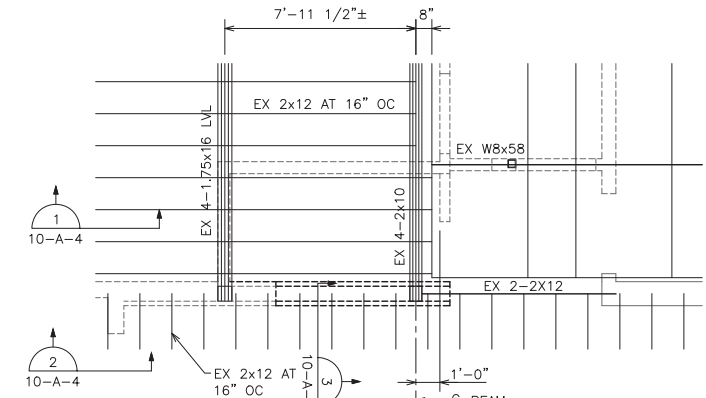
**PROPOSED STORAGE ROOM
FRAMING PLAN**
(MAIN LEVEL)



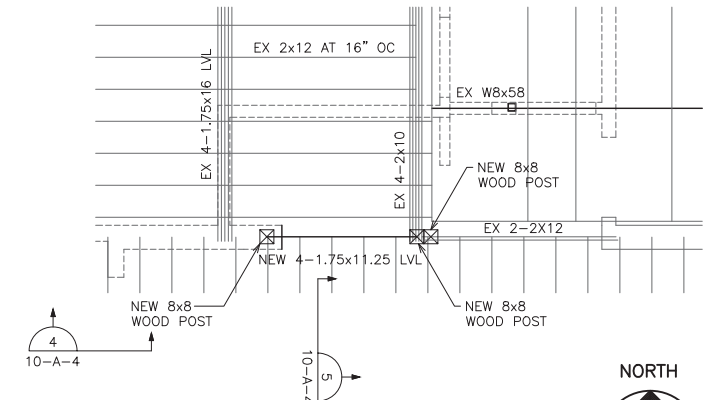
**EXISTING KITCHENETTE
FLOOR PLAN & DEMO PLAN**
(LOWER LEVEL)



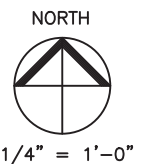
**PROPOSED KITCHENETTE
FLOOR PLAN**
(LOWER LEVEL)



**EXISTING KITCHENETTE
FRAMING PLAN**
(MAIN LEVEL)



**PROPOSED KITCHENETTE
FRAMING PLAN**
(MAIN LEVEL)



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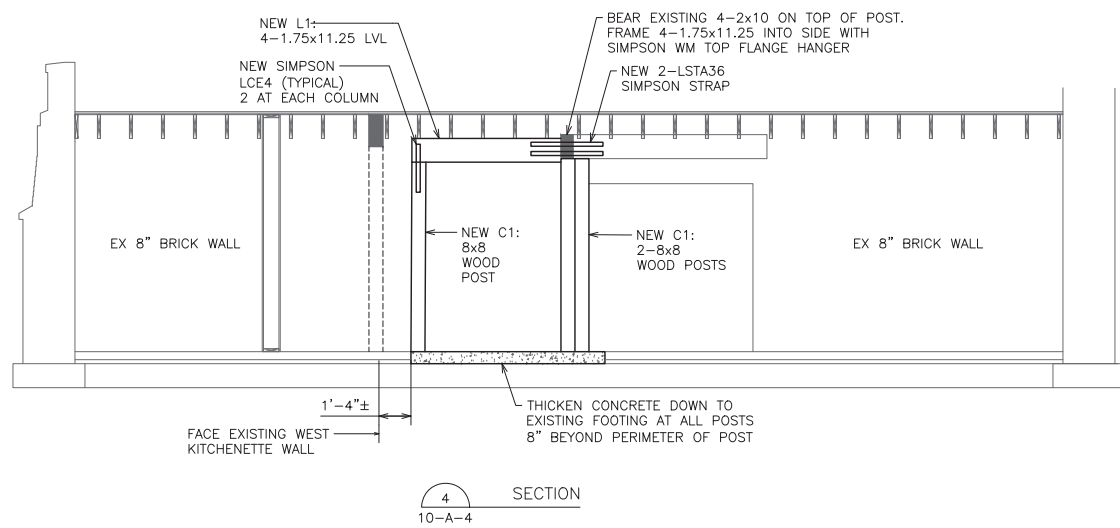
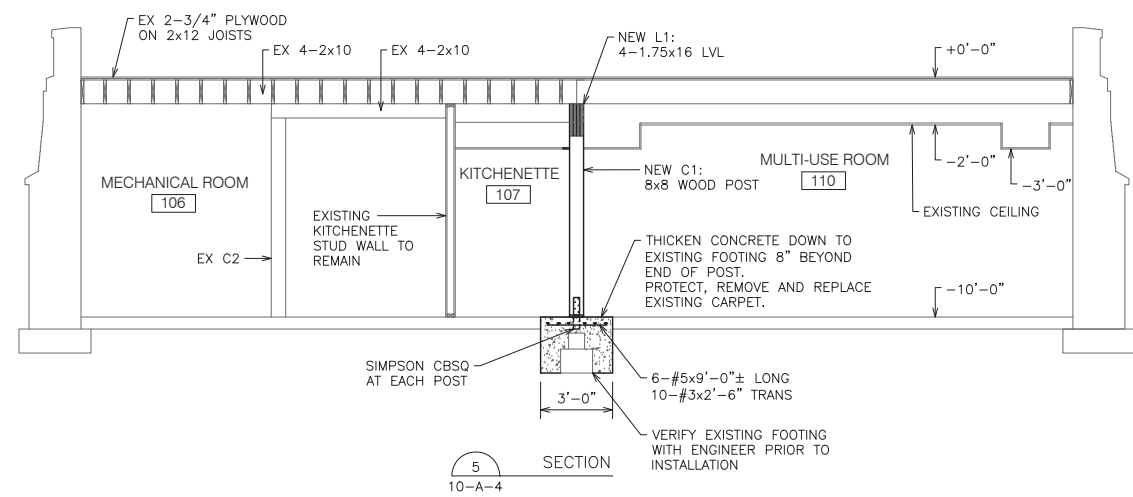
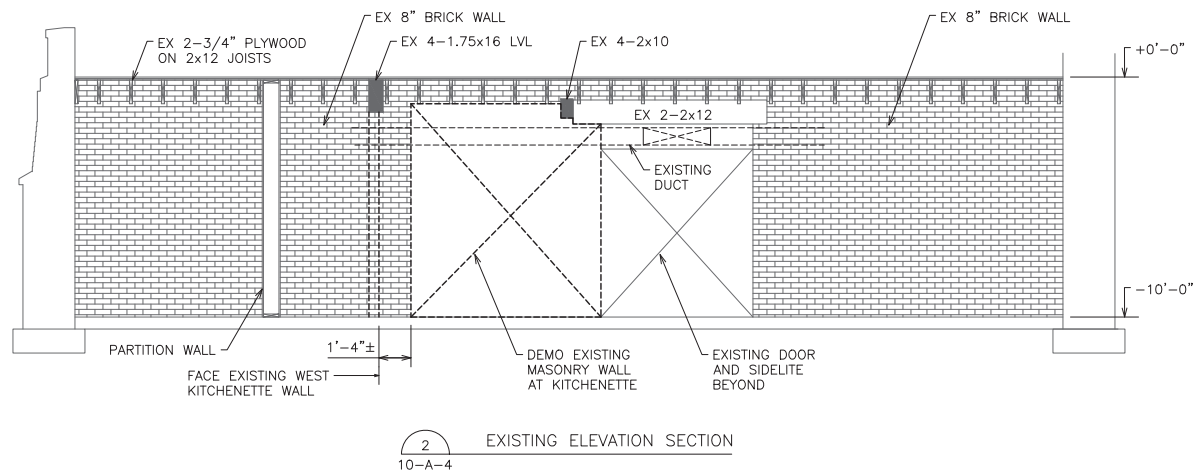
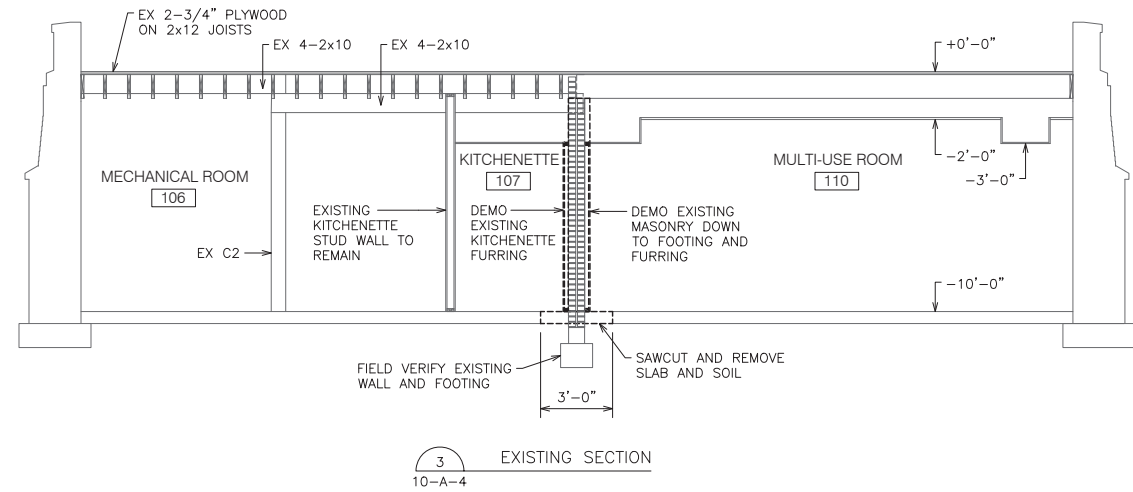
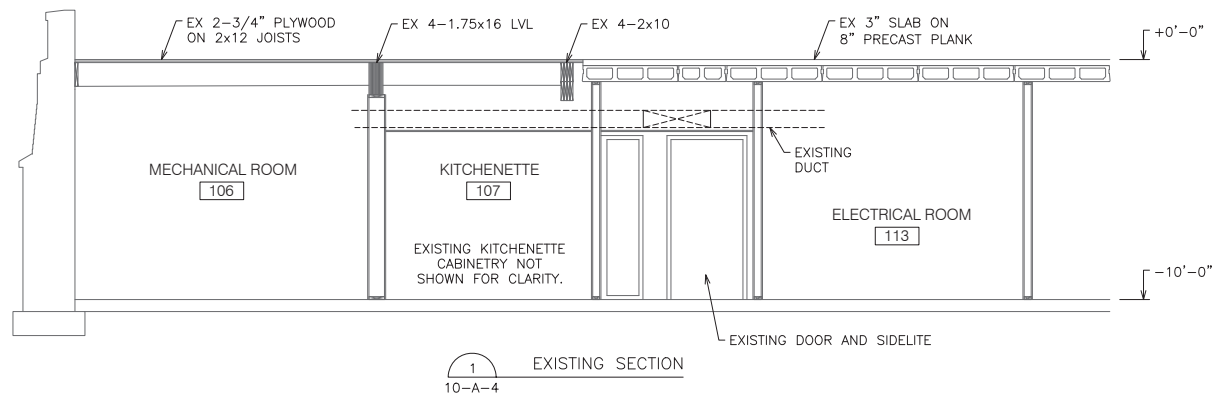
ENLARGED STORAGE ROOM AND
KITCHENETTE PLANS

DWG. NO.

10-A-3

PROJECT 6421

PLOTTED: 4/19/22



1/4" = 1'-0"

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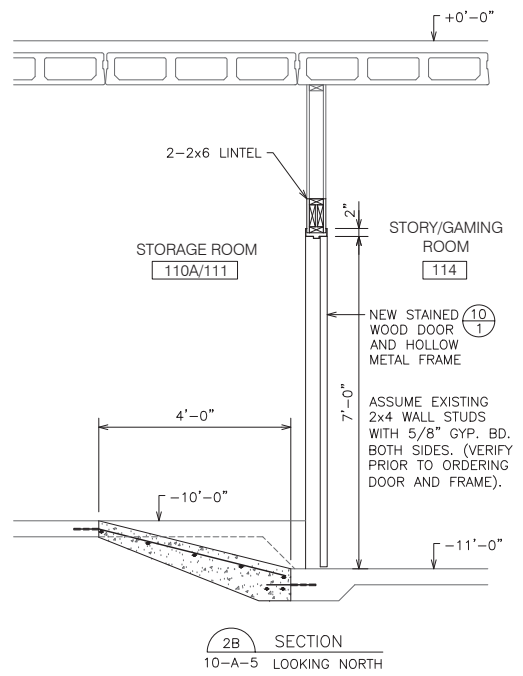
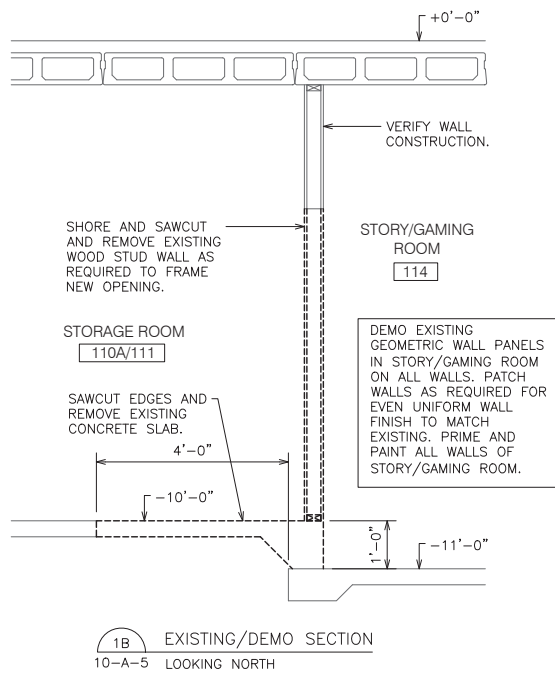
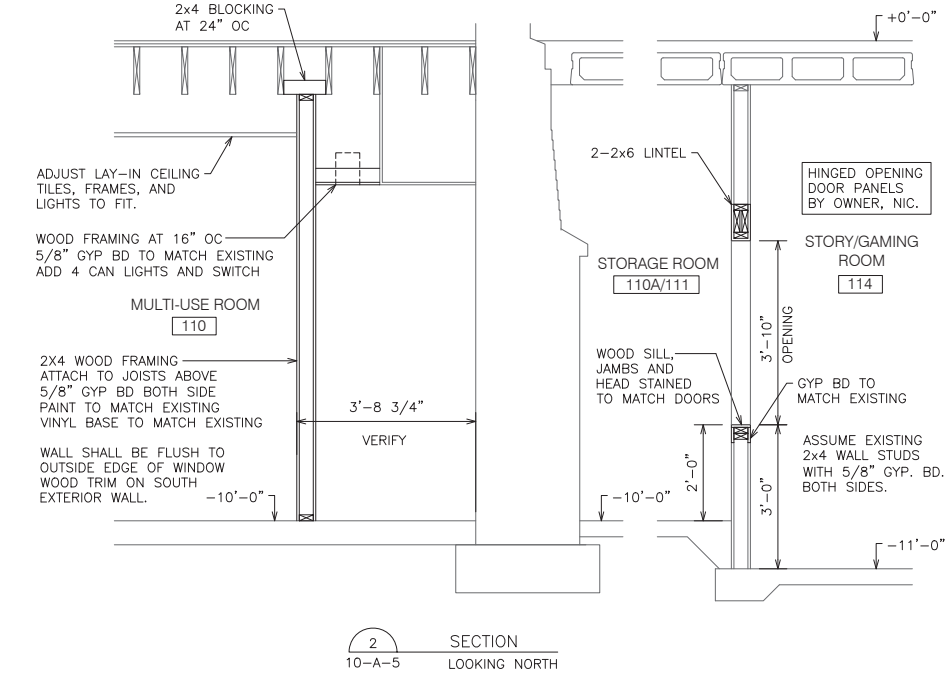
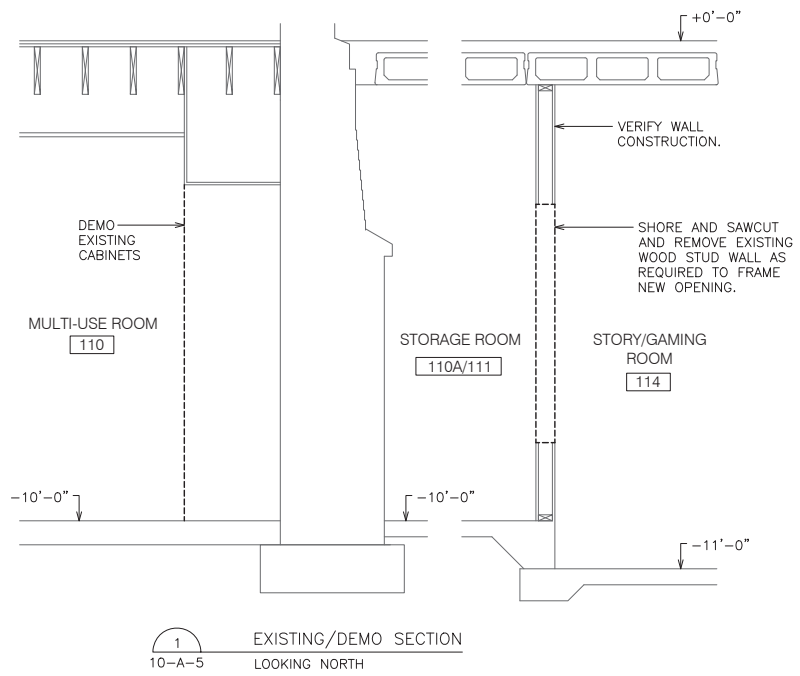
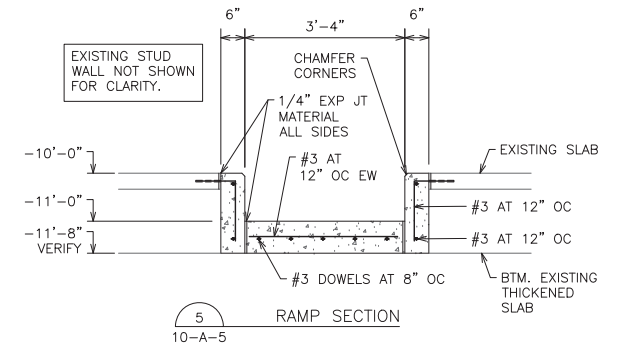
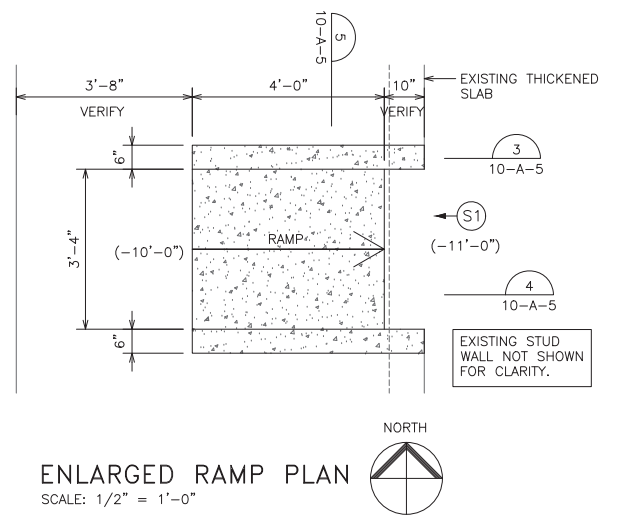
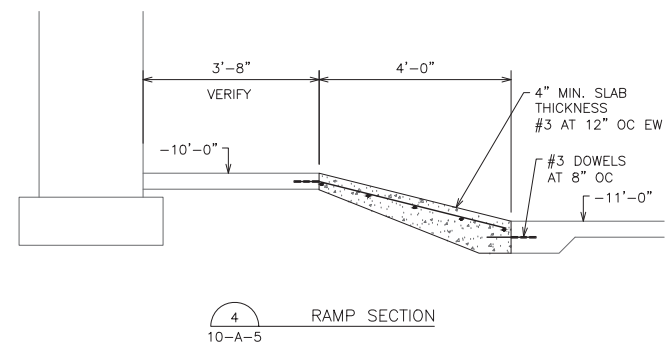
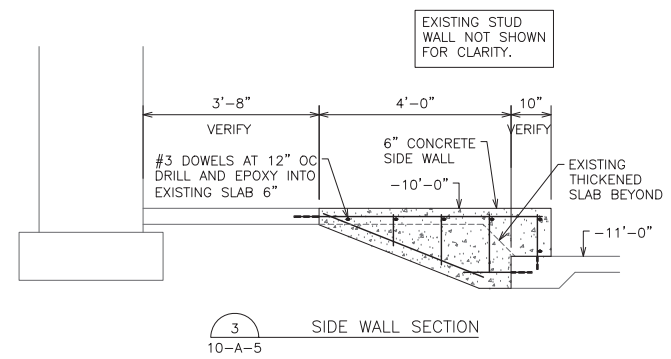
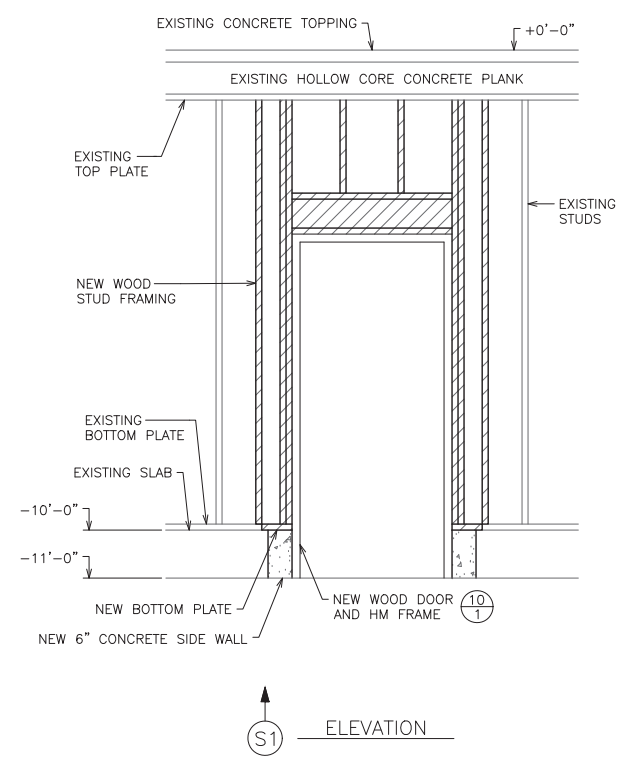
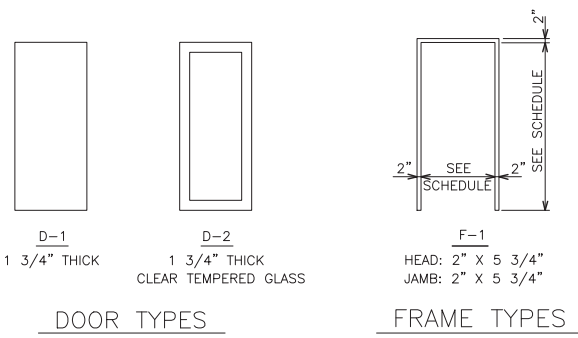
KITCHENETTE SECTIONS

10-A-4

DWG. NO.	10-A-4
PROJECT	6421

PLOTTED: 1/19/22

DOOR SCHEDULE										
NO.	DOOR SIZE	DOOR TYPE	FRAME TYPE	MATERIAL		LINTEL	HDWE GROUP	REMARKS		
				DOOR	FRAME					
10 - PUBLIC LIBRARY IMPROVEMENTS 2021										
10-1	3'-0" X 7'-0"	D-1	F-2	WD	HM		1	①		
10-2	VERIFY EXISTING	D-2	EXIST.	WD	EXIST.		2	②		
DOOR SCHEDULE NOTES										
ABBREVIATIONS					FOOTNOTES					
HM - HOLLOW METAL WD - WOOD					① DOOR AND FRAME TO MATCH ADJACENT EXISTING DOOR AND FRAME IN COLOR AND STYLE ② DOOR TO MATCH ADJACENT EXISTING DOOR IN COLOR AND STYLE					
NOTE: SEE STRUCTURAL PLANS FOR LINTELS.					HARDWARE GROUP 1: STANLEY 1-1/2 PR. BUTTS FBB199-NRP(4-1/2x4-1/2) US32D HIWATHA 1 EA. KICK PLATE 12" HIGH US32D SCHLAGE 1 EA. OFFICE SET ALX50P6 US26D HARDWARE GROUP 2: STANLEY 1-1/2 PR. BUTTS FBB199-NRP(4-1/2x4-1/2) US32D SCHLAGE 1 EA. PASSAGE SET ALX10 US26D					



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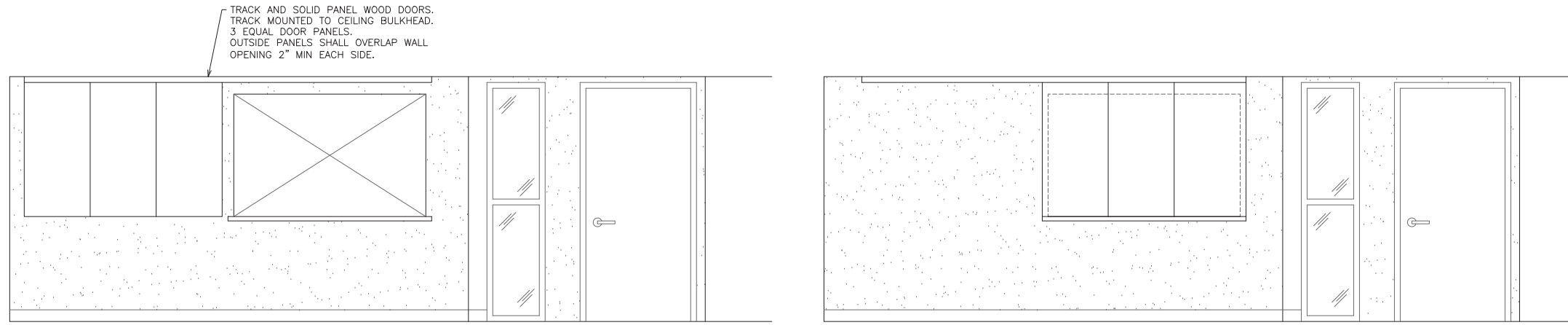
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STORAGE ROOM SECTIONS

1/2" = 1'-0"

DWG. NO.	10-A-5
PROJECT	6421

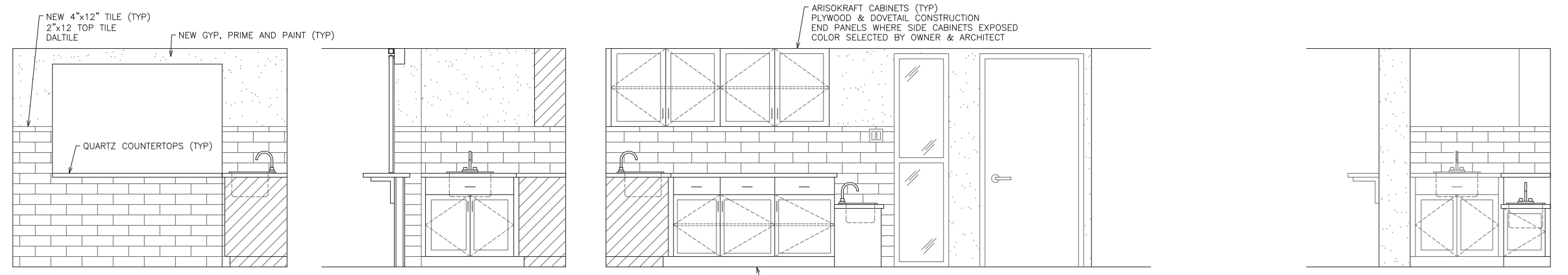
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(SLIDING DOOR PANELS OPEN)

(SLIDING DOOR PANELS CLOSED)

A1 NORTH MULTI-USE ROOM ELEVATIONS



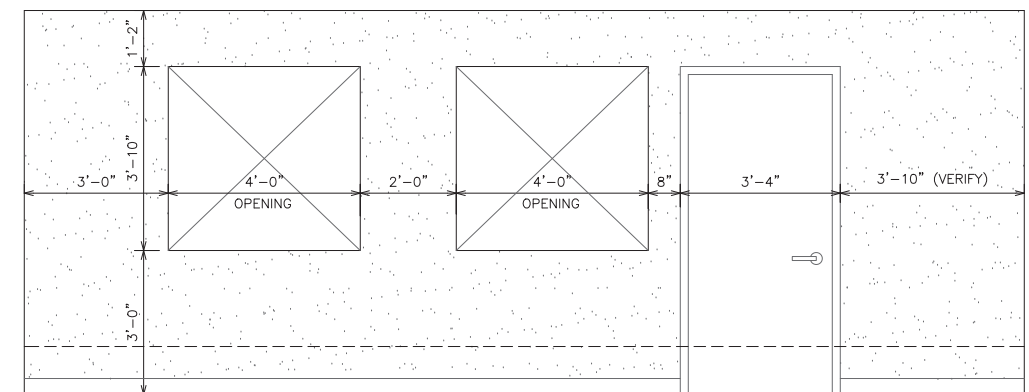
SOUTH KITCHENETTE ELEVATION

WEST KITCHENETTE ELEVATION

NORTH KITCHENETTE ELEVATION

A3 KITCHENETTE ELEVATION FROM HALL

A2 KITCHENETTE ELEVATIONS



B1 STORY/GAMING ROOM ELEVATION

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		DATE	1/24/2022				
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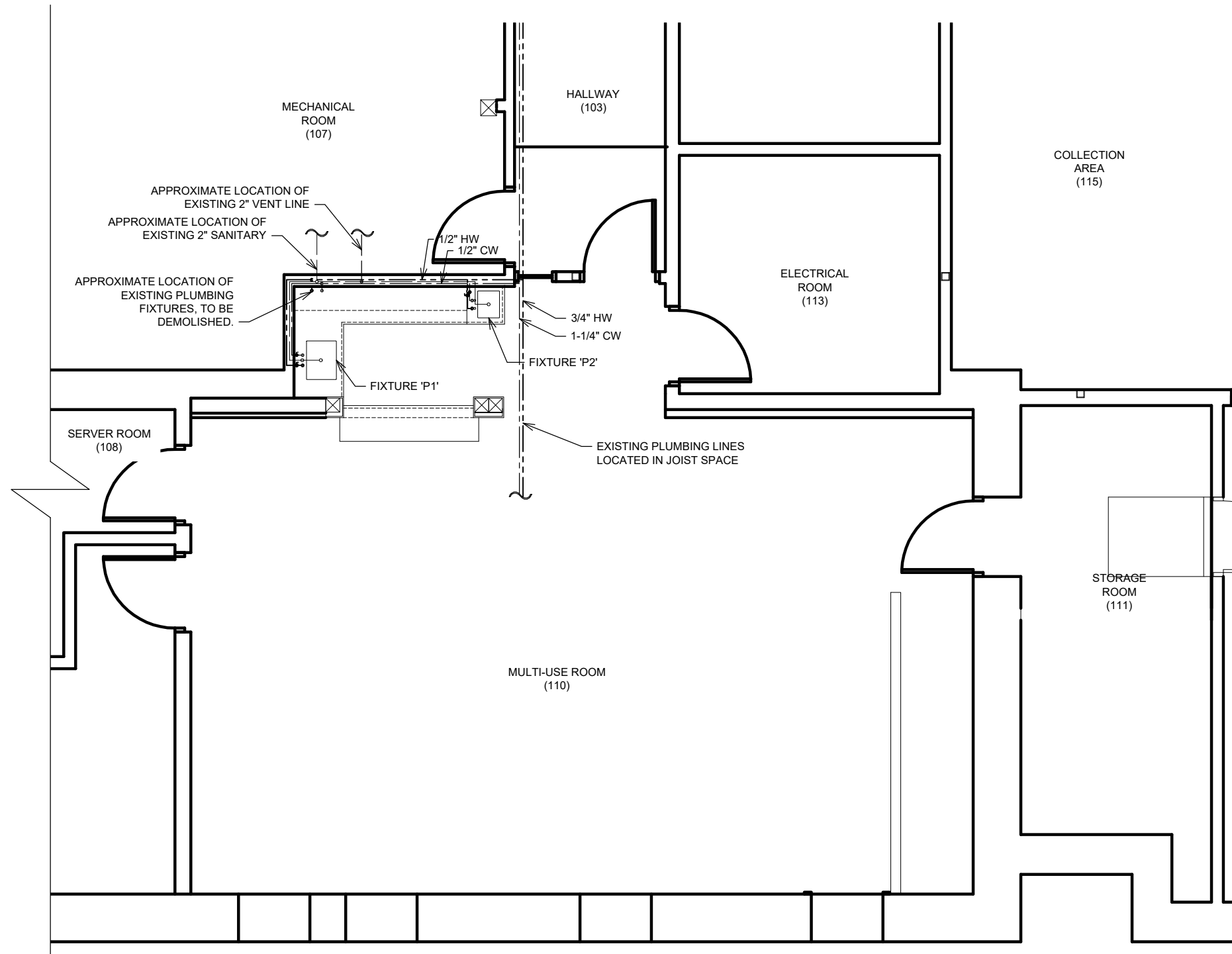
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GENERAL NOTES:

1. DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
2. COORDINATE EXACT LOCATION AND SIZE OF PIPING AND FIXTURES PRIOR TO ROUGH-IN.
3. PIPING IS SHOWN IN SCHEMATIC FORM. ROUTE PIPING AS REQUIRED FOR CLEARANCE WITH STRUCTURAL CONDITIONS. COORDINATE WITH OTHER TRADES AS REQUIRED.
4. FURNISH AND INSTALL SHUTOFF VALVES IN ALL DOMESTIC WATER BRANCH PIPING, AS SHOWN AND SPECIFIED.
5. SANITARY PIPING SHALL BE SLOPED AT 1/4" PER FOOT, MINIMUM, UNLESS OTHERWISE NOTED.
6. EQUIPMENT AND FIXTURES MAY BE SHOWN OUT OF PLANE FOR CLARITY. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS.



EXISTING KITCHENETTE
SCALE: NONE



LOWER LEVEL PARTIAL PLUMBING PLAN
SCALE: 3/8" = 1'-0"

PLUMBING FIXTURE SCHEDULE											
MARK	FIXTURE	SIZE	TYPE	MANUFACTURER / MODEL NO	COLOR	TRAP	SOIL	VENT	CW	HW	NOTES
P-1	SINK	23x18x9	UNDER MOUNT	HOUZER#NOS-4100	S.S.	1 1/2"P	1 1/2	1 1/4	1/2	1/2	1,3
P-2	SINK-SMALL	10x12x6	UNDER MOUNT	MOEN GS204502	S.S.	1 1/2"P	1 1/2	1 1/4	1/2	1/2	2,3

NOTES:
 1. FURNISH W/ DELTA 19802TZ-DST SS FAUCET (TOUCHLESS),P-TRAP, SUPPLY ANGLE VALVES AND DRAIN.
 2. FURNISH W/ DELTA 590LF-LGHGMHDF SS FAUCET (TOUCHLESS),P-TRAP, SUPPLY ANGLE VALVES AND DRAIN.
 3. MAY BE AVAILABLE AT HOME DEPOT.



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		DRAWN	JDL	BAR IS ONE INCH ON ORIGINAL DRAWING.
		CHECKED	PNR	0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.
		APPROVED	TG	
		DATE	1/24/2022	
		ISSUED FOR	BIDDING	

VERIFY SCALE
 BAR IS ONE INCH ON ORIGINAL DRAWING.
 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.



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BUILDING PLUMBING PLAN

DWG. NO.	10-M-1
PROJECT	6421

PLOTTED: Tuesday, January 18, 2022 8:21:06 AM

PANEL P - ELECTRICAL ROOM

120/208 VOLTS, 3 PHASE, 4 WIRE 225 AMP RATED				FEED: 225A MOUNTING: SURFACE			
LOAD	CKT	BREAKER	L1	L2	BREAKER	CKT	LOAD
108, 110 REC.	1	1P-20A			1P-20A	2	110, 111 REC.
107 REC.	3	1P-20A			1P-20A	4	114 REC.
115 REC.	5	1P-20A			1P-20A	6	115 FLOOR REC.
115 REC.	7	1P-20A			1P-20A	8	102, 104, 106, 112, 113, 116 REC.
117, 118 REC.	9	1P-20A			1P-20A	10	118 REC.
119 FLOOR REC.	11	1P-20A			1P-20A	12	119, 120 REC. / EXT. ENTRANCE REC.
BWC	13	1P-20A			1P-20A	14	120, 122, 123 REC.
ELEVATOR CAB	15	1P-20A			1P-20A	16	BOILER B-1
104 REC.	17	1P-20A			1P-20A	18	BOILER B-2
ELEVATOR PIT REC.	19	1P-20A			1P-20A	20	BOILER B-3
206, 212 REC.	21	1P-20A			1P-20A	22	208 REC.
209, 211 REC.	23	1P-20A			1P-20A	24	210 COPIER
210, 213 REC.	25	1P-20A			1P-20A	26	120, 210 REC.
210 REC.	27	1P-20A			1P-20A	28	209 REC.
209 REC.	29	1P-20A			1P-20A	30	205 REC.
205 REC.	31	1P-20A			1P-20A	32	205 REC.
205 REC.	33	1P-20A			1P-20A	34	205 REC.
205 REC.	35	1P-20A			1P-20A	36	204 REC.
204 COPIER	37	1P-20A			1P-20A	38	208 REC.
108 REFRIGERATOR	39	1P-20A			1P-20A	40	201, 202 REC.
SPARE	41	1P-20A			1P-20A	42	MICROWAVE

RLA	0.0	0.0	0.0
RLA		0.0	0.0
HIGH LEG MCA	0.0		0.0
HIGH LEG RLA	0.0		0.0

RLA 0.0 MCA 0.0

PANEL L - ELECTRICAL ROOM

120/208 VOLTS, 3 PHASE, 4 WIRE 225 AMP RATED				FEED: 125A MOUNTING: SURFACE			
LOAD	CKT	BREAKER	L1	L2	BREAKER	CKT	LOAD
110 LIGHT	1	1P-20A			1P-20A	2	114 LIGHT
115 LIGHT	3	1P-20A			1P-20A	4	116, 117, 118 LIGHT
119 LIGHT	5	1P-20A			1P-20A	6	120, 121, 122, 123 LIGHT
103 LIGHT	7	1P-20A			1P-20A	8	104, 105, 106, 107, 108, 110 LIGHT
202 LIGHT	9	1P-20A			1P-20A	10	202 LIGHT
202 LIGHT	11	1P-20A			1P-20A	12	201 LIGHT
203 LIGHT	13	1P-20A			1P-20A	14	209 LIGHT
203 LIGHT	15	1P-20A			1P-20A	16	204 LIGHT
205, 206, 207, 211, 212, 213 LIGHT	17	1P-20A			1P-20A	18	EXTERIOR BLDG. LIGHT
101, 102 LIGHT	19	1P-20A			1P-20A	20	SPARE
SITE LIGHTING	21	1P-20A			1P-20A	22	SPARE
CABLE TV	23	1P-20A			1P-20A	24	SPARE
SPARE	25	1P-20A			1P-20A	26	SPARE
SPARE	27	1P-20A			1P-20A	28	SPARE
LIGHTING CONTROL PWR	29	1P-20A			1P-20A	30	SPARE
SPARE	31	1P-20A			1P-20A	32	SPARE
SPARE	33	1P-20A			1P-20A	34	SPARE
SPARE	35	1P-20A			1P-20A	36	SPARE
SPARE	37	1P-20A			1P-20A	38	SPARE
SPARE	39	1P-20A			1P-20A	40	SPARE
SPARE	41	1P-20A			1P-20A	42	SPARE

RLA	0.0	0.0	0.0
RLA		0.0	0.0
HIGH LEG MCA	0.0		0.0
HIGH LEG RLA	0.0		0.0

RLA 0.0 MCA 0.0

LIGHT FIXTURE SCHEDULE				
PLAN ID	BASIS OF DESIGN	LAMP DATA	VOLTAGE	NOTES
L1	HUBBELL CWW4 40 XW G 2WV ED U	15W DIMMABLE LED, 2500 LUMEN OUTPUT	120	1
L2	HOLOPHANE HZL1N L48 3000LM FST MVOLT 40K 90CRI WH	25W DIMMABLE LED, 2700 LUMEN OUTPUT	120	1

NOTES:
1. FURNISH WITH MOUNTING HARDWARE

PANEL ICN - STORAGE ROOM


120/240 VOLTS, 1 PHASE, 3 WIRE 100 AMP MAIN				FEED: 100A MOUNTING: SURFACE			
LOAD	CKT	BREAKER	L1	L2	BREAKER	CKT	LOAD
SPACE	1					2	SPACE
SPACE	3					4	SPACE
SPACE	5					6	SPACE
SPACE	7					8	SPACE
SPACE	9					10	SPACE
SPACE	11					12	SPACE
BLDG EXTERIOR LIGHTS	13	1P-20A				14	SPACE
ICN EQUIP. SOUTH	15	1P-20A			1P-20A	16	LIGHTS
ICN EQUIP. EAST	17	1P-20A			1P-20A	18	ICN EQUIP. WEST
FOTS EQUIP.	19	2P-20A			2P-20A	20	FOTS EQUIP.
ICN MTG ROOM	21	1P-20A			1P-20A	24	SPARE

RLA	0.0	0.0	0.0
RLA		0.0	0.0
HIGH LEG MCA	0.0		0.0
HIGH LEG RLA	0.0		0.0

RLA 0.0 MCA 0.0

X-REFS: West Liberty Library
FILE PATH: M:\PROJECTS\6421\WEST LIBERTY LIBRARY_ME

DATE	REVISIONS	SCALE	AS NOTED
		DRAWN	JDL
		CHECKED	JDL
		APPROVED	TG
		DATE	1/24/2022
		ISSUED FOR	BIDDING

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0  1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.



WEST LIBERTY PUBLIC LIBRARY
BUILDING IMPROVEMENTS 2021

1530 46th Ave • Suite 2B • Moline, Illinois 61265-7019
309-797-0171 • 309-797-0996(FAX) • 877-241-3010(WATS)

ELECTRICAL SCHEDULES

DWG. NO.
99-E-1
PROJECT 6421

Social Media Policy

Policy Created: 1/2022

Policy Revised:

Purpose/Objective

The social media policy aims to ensure the effective promotion of library services, resources, and events to the public and ensure a high standard of customer service on social media.

Social Media Accounts

Establishments and Administration of Social Media Accounts:

The Library may establish social media accounts with the permission of the library director. For the purposes of this policy, “social media” refers to any online or mobile platform open to the public, including but not limited to Facebook, Twitter, Instagram, Snapchat, Yelp, LinkedIn, Tumblr, etc.

The library director may assign employees or manage social media accounts. The library may require a member of library management or IT to be added as an account administrator to ensure continuity of access.

Content of posts:

Posts should inform library users about services resources, programs, events, promote library use, and encourage dialogue between the public and the library. As with all library media releases, social media posts should be positive in tone and should reflect the values and viewpoints of the library rather than personal opinions.

Third-Party Posts:

The library is not responsible for the content of posts made by third parties, including patrons, reviewers, advertisers, etc. Public posts by third parties do not reflect the positions of the library or its employees.

The library reserves the right to delete public posts or comments if they include spam or advertisements, hateful or harassing speech, obscenity, personal disparagement or defamation, or any other comment that violates the library’s code of conduct.

Complaints or negative comments should not be deleted but should be engaged like any other patron complaint. Staff may move the discussion to a private venue such as chat or messaging.

Staff Usage of Social Media

Designated staff may maintain library social media accounts as part of their assigned duties. The library does not restrict the right of employees to use personal social media outside of work. However, employees must be aware that others may view statements made on social media pursuant to their official duties as library- or city-sponsored information or opinions. Please refer to the City’s Social Media Policy for further details.