

**PROPOSED BUILDING ADDITION**  
63,331 S.F.  
FFE=821.1  
LFE=805.1

PL202400237  
PL2024-237

- CONTRACTOR SHALL OBTAIN A COPY OF THESE SPECIFICATIONS.
- 1.1. ALL UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY REQUIREMENTS.
- 1.2. CONTRACTOR SHALL NOT OPEN, TURN OFF, INTERFERE WITH, OR ATTACH ANY PIPE OR HOSE TO OR TAP WATERMAIN BELONGING TO THE CITY UNLESS DULY AUTHORIZED TO DO SO BY THE CITY. ANY ADVERSE CONSEQUENCES OF ANY SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE THE LIABILITY OF CONTRACTOR.
- 1.3. A MINIMUM VERTICAL SEPARATION OF 18 INCHES AND HORIZONTAL SEPARATION OF 10-FEET BETWEEN OUTSIDE PIPE DIAMETERS IS REQUIRED AT ALL WATERMAIN AND SEWER MAIN BUILDING, STORM AND SANITARY CROSSINGS.
2. ALL MATERIALS SHALL BE AS SPECIFIED IN CREAM SPECIFICATIONS EXCEPT AS MODIFIED HEREIN.
- 2.1. ALL MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY.
- 2.2. ALL SANITARY SEWER TO BE PVC SDR-35, UNLESS NOTED OTHERWISE.
- 2.2.1. ALL SANITARY SEWER SERVICES TO BUILDING SHALL BE PVC SCH 40 CONFORMING TO ASTM D2665.
- 2.2.2. ALL SANITARY SEWER SHALL HAVE 8" MINIMUM COVER. SANITARY SEWER WITH LESS THAN 8" COVER SHALL BE INSULATED IN ACCORDANCE WITH DETAIL 411 SHEET C0.03.
- 2.2.3. CHIMNEY SEALS ARE REQUIRED ON ALL SANITARY SEWER MANHOLES.
- 2.3. ALL WATERMAIN TO BE DUCTILE IRON - CLASS 52, WITH 8-MIL POLY WRAP, UNLESS NOTED OTHERWISE.
- 2.3.1. ALL WATERMAIN TO HAVE 8 FEET MIN. TO 10-FEET MAX. OF COVER OVER TOP OF WATERMAIN.
- 2.3.2. PROVIDE THRUST BLOCKING AND MECHANICAL JOINT RESTRAINTS ON ALL WATERMAIN JOINTS PER CITY STANDARDS.
- 2.3.3. ALL TAPS OF LIVE WATERMANS SHALL BE DONE BY CITY FORCES AND PAID FOR AND COORDINATED BY THE CONTRACTOR.
- 2.3.4. ALL COMPONENTS OF THE WATER SYSTEM, UP TO THE WATER METER OF FIRE SERVICE EQUIPMENT MUST UTILIZE PROTECTIVE INTERNAL COATINGS MEETING CURRENT ANSIAWWA STANDARDS FOR CEMENT MORTAR LINING OR SPECIAL COATINGS. THE USE OF UNLINED OR UNCOATED PIPE IS NOT ALLOWED.
- 2.4. ALL STORM SEWER PIPE TO BE SMOOTH INTERIOR DUAL WALL HDPE PIPE WITH WATER TIGHT GASKETS, UNLESS NOTED OTHERWISE.
- 2.4.1. ALL STORM SEWER PIPE FOR ROOF DRAIN SERVICES TO BUILDING SHALL BE PVC SCH 40 CONFORMING TO ASTM D2665.
- 2.4.2. HDPE PIPE CONNECTIONS INTO ALL CONCRETE STRUCTURES MUST BE MADE WITH WATER TIGHT MATERIALS UTILIZING AN A LOK OR WATERSTOP GASKET OR BOOT, CAST-IN-PLACE RUBBER BOOT, OR APPROVED EQUAL. WHERE THE ALIGNMENT PRECLUDES THE USE OF THE ABOVE APPROVED WATERTIGHT METHODS, CONCRETE 231 WATERSTOP SEALANT, OR APPROVED EQUAL WILL ONLY BE ALLOWED AS APPROVED BY THE ENGINEER.
- 2.5. RIP RAP SHALL BE MINOR CLASS 3.
3. COORDINATE ALL BUILDING SERVICE CONNECTION LOCATIONS AND INVERT ELEVATIONS WITH MECHANICAL CONTRACTOR PRIOR TO CONSTRUCTION.
4. ALL BUILDING STORM SERVICE CONNECTIONS WITH FIVE FEET OR LESS COVER ARE TO BE INSULATED FROM BUILDING TO POINT WHERE 6" DEPTH OF COVER IS ACHIEVED.
5. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
6. SAFETY NOTICE TO CONTRACTORS: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE DUTY OF THE ENGINEER OR THE DEVELOPER TO CONDUCT CONSTRUCTION REVIEW OF CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF CONTRACTOR'S SAFETY MEASURES IN, ON OR NEAR THE CONSTRUCTION SITE.
7. ALL AREAS OUTSIDE THE PROPERTY BOUNDARIES THAT ARE DISTURBED BY UTILITY CONSTRUCTION SHALL BE RESTORED TO KIND, SODDED AREAS SHALL BE RESTORED WITH 6 INCHES OF TOPSOIL PLACED BENEATH THE SOO.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING TRAFFIC CONTROL DEVICES SUCH AS BARRICADES, WARNING SIGNS, DIRECTIONAL SIGNS, FLAGMEN AND LIGHTS TO CONTROL THE MOVEMENT OF TRAFFIC WHERE NECESSARY. TRAFFIC CONTROL DEVICES SHALL CONFORM TO APPROPRIATE MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARDS.
9. ALL SOILS TESTING SHALL BE COMPLETED BY AN INDEPENDENT SOILS ENGINEER. EXCAVATION FOR THE PURPOSE OF REMOVING UNSTABLE OR UNSUITABLE SOILS SHALL BE COMPLETED AS REQUIRED BY THE SOILS ENGINEER. THE UTILITY BACKFILL CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS OF THE SOILS ENGINEER.
10. A GEOTECHNICAL ENGINEERING REPORT HAS BEEN COMPLETED BY: COMPANY: AET  
PHONE: 651-559-1301  
DATED: 08/01/2019  
CONTRACTOR SHALL OBTAIN A COPY OF THIS SOILS REPORT.
11. CONTRACTOR SHALL SUBMIT 2 COPIES OF SHOP DRAWINGS FOR MANHOLE AND CATCH BASIN STRUCTURES TO ENGINEER. CONTRACTOR SHALL ALLOW 5 WORKING DAYS FOR SHOP DRAWING REVIEW.
12. CONTRACTOR SHALL DETERMINE THE MINIMUM DIAMETER REQUIRED FOR EACH STORM SEWER STRUCTURE.
13. CONTRACTOR SHALL COORDINATE INSTALLATION OF WATER AND SEWER SERVICES TO THE BUILDING TO ACCOMMODATE CITY INSPECTION AND TESTING.
14. CONTRACTOR SHALL PROVIDE UTILITY AS-BUILTS TO THE CITY PRIOR TO CERTIFICATE OF OCCUPANCY.
15. COMBINATION FIRE AND DOMESTIC SERVICES MUST TERMINATE WITH A THREADED FLANGE OR AN M10 TO FLANGE ADAPTER.
- | Crossing # | Structure | Structure | Storm Pipe | San Pipe | San Pipe | Clearance | HD | Lowering |
|------------|-----------|-----------|------------|----------|----------|-----------|----|----------|
| 1          | 36        | 2         | 811.4      | 811.3    | 0.1      |           |    |          |
| 2          | 36        | 26        | 811.3      | 811.3    | 0.0      |           |    |          |
| 3          | 29        | 109       | 812.7      | 811.0    | 1.7      |           |    |          |
| 4          | 107       | 106       | 813.2      | 811.3    | 1.9      |           |    |          |
| 5          | 107       | 106       | 813.0      | 810.1    | 2.9      |           |    |          |
| 6          | 3         | 2         | 808.4      | 809.9    | 1.5      | Yes       |    |          |
| 7          | 105       | 18        | 808.6      | 807.1    | 1.5      | Yes       |    |          |
| 8          | Ex        | 104       | 804.8      | 803.3    | 1.5      | Yes       |    |          |
| 9          | 103       | 102       | 803.7      | 802.2    | 1.5      | Yes       |    |          |
| 10         | Ex        | 102       | 803.9      | 802.4    | 1.5      | Yes       |    |          |
| 11         | 10        | 10        | 811.3      | 811.0    | 0.3      | Yes       |    |          |
| 12         | 41        | 300       | 811.3      | 811.0    | 0.3      | Yes       |    |          |

**ICE CASTLE**

ARCHITECT  
**Alliance**  
400 Clifton Avenue  
Minneapolis, MN 55403  
612.874.1100

STRUCTURAL ENGINEER  
**Meyer Borgman Johnson**  
510 Marquette Ave. South, Suite 900  
Minneapolis, MN 55402  
612.338.0713

MECHANICAL/ELECTRICAL/PLUMBING ENGINEERS  
**DUNHAM**  
50 South Sixth Street, Suite 1100  
Minneapolis, MN 55402  
612.465.7550

LANDSCAPE DESIGN  
**SAMBATEK**  
12800 Whitewater Drive, Suite 300  
Minnetonka, MN 55343  
763.476.6010

CIVIL ENGINEER  
**EVS, Inc.**  
10025 Valley View Road, Suite 140  
Eden Prairie, MN 55344  
952.646.0236

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed Engineer under the laws of the State of Minnesota.

FOR  
BY: **Daniel Bower, PE**  
NAME: **Daniel Bower, PE**  
DATE: **2019.09.12**  
REG. NO.: **45018**

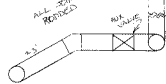
ISSUED FOR	DATE
Construction Package No. 1	2019.09.12
Bulletin No. 1	2019.09.28
Bulletin No. 2	2019.10.11
Bulletin No. 3	2019.10.29
Bulletin No. 4	2019.11.01
Bulletin No. 5	2019.11.11
Bulletin No. 6	2020.02.24
Bulletin No. 7	2020.04.10
Bulletin No. 8	
Bulletin No. 9	
Bulletin No. 10	
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2401 E. 86<sup>TH</sup> ST

CYPRESS  
1994

PL202400237  
PL2024-237

HYDRANTS "A" AND "B" INSTALLED AS SUCH, AND LEAD BROUGHT UP FROM  
DEAD END MAIN WAS AT 5' DIA  
DEPTH, DID THIS TO AVOID HND.  
BARREL EXHAUSTION.



INSPECTIONS	
HYDROSTATIC	
CONDUCTIVITY	
BACTERIA TEST	
SAN. S. AIR TEST	
MANHOLE TEST	
VISUALS	

#### LEGEND

- EXIST CATCH BASIN
- FIRE HYDRANT
- DENOTES SURFACE DRAINAGE
- GATE VALVE
- PROPOSED SPOT ELEVATION
- EXIST. GAS LINE (UNDERGROUND)
- EXIST. TELEPHONE (UNDERGROUND)
- EXIST. ELECTRICITY (UNDERGROUND)
- EXIST. WATER LINE
- EXIST. SANITARY SEWER
- EXIST. WATER LINE
- EXIST. STORM LINE
- EXIST. CONTOUR LINE
- PROPOSED CONTOUR LINE
- NEW MANHOLE
- NEW CATCH BASIN
- BLOC. INGRESS/EGRESS
- PROPOSED STORM SEWER
- NEW TRENCH DRAIN
- EXISTING LIGHT POLE

#### NOTES

- ALL EXISTING INFORMATION FROM SURVEY BY SURVEY LAND SURVEYING, INC. DATED APRIL 30, 1994.
- SURFACE SDC INVESTIGATION BY SDC CONSULTANTS LTD PROJECT NO. 96042, DATED APRIL 25, 1994.
- CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO THE CONTRACTING ARCHITECT.
- EXISTING UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS. CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL EXISTING ELECTRIC, TELEPHONE, GAS, CABLE, TV, COMPUTER CABLE, SANITARY SEWER AND WATERMAIN. CONTACT UTILITY COMPANIES, OWNER AND Gopher State One Call (454-3002) BEFORE EXCAVATING.
- SEE SHEET 04 FOR TEMPORARY EROSION CONTROL REQUIREMENTS.
- CONTRACTOR TO PROTECT FROM DAMAGE ALL EXISTING IMPROVEMENTS, STRUCTURES & UTILITIES THAT WILL REMAIN.
- NEW WATERMAIN TO BE CLASS 54 AND HAVE 8'-0" COVER OVER TOP OF PIPE.
- ALL EXISTING UTILITIES TO REMAIN UNLESS NOTED OTHERWISE.
- 135LF 8" OF EXISTING WATERMAIN TO BE LOWERED. PROVIDE MIN 8'-0" COVER OVER TOP OF PIPE. CONTRACTOR TO FIELD VERIFY CONDITION OF EXISTING PIPE BEFORE REINSTALLATION.
- EXISTING GAS METER AND SERVICE TO BE RELOCATED BY MINNEAPOLIS CONTRACTOR TO COORDINATE AS REQUIRED.
- EXISTING MH TO BE REMOVED. EXISTING 8" & 10" SANITARY SEWER TO BE REROUTED BY MECHANICAL. NEW PIPING TO BE DIP AND CONFORM TO MINNEAPOLIS PLUMBING CODE.
- ALL WORK TO CONFORM WITH CITY OF BLOOMINGTON UTILITY CONNECTION REGULATIONS.
- EXISTING BUILDING FLOOR ELEVATIONS ARE ASSUMED. NEW FINISH FLOOR ELEVATIONS TO MATCH EXISTING. SEE NOTE #3 ABOVE.

#### NOTES

YAN SICKLE, ALLEN  
& ASSOCIATES, INC.  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF ILLINOIS NO. 001-00000000  
CONSULTING ENGINEER - CIVIL - STRUCTURAL

NO.	DESCRIPTION	DATE
1	1. BULLETIN #1 TO CIP	
2	2. BULLETIN #2 TO CIP	
3	3. BULLETIN #3 TO CIP	
4	4. BULLETIN #4 TO CIP	
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19	19. BULLETIN #19 TO CIP	
20	20. BULLETIN #20 TO CIP	

SIGNATURE  
DATE

NO. DATE  
CIP NO. 040400237  
CIP DATE 5/27/94

CRSS  
CRS ENGINEERS, INC.

CYPRESS  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF ILLINOIS NO. 001-00000000

DRAWING TITLE  
UTILITY PLAN

CRSS DRAWING NUMBER  
CLIENT DRAWING NUMBER

C3

#### UTILITY PLAN

1"=40'-0"  
0 40' 80' 120'

COPYRIGHT CRS ENGINEERS, INC.  
AS OF LAST DATE INDICATED