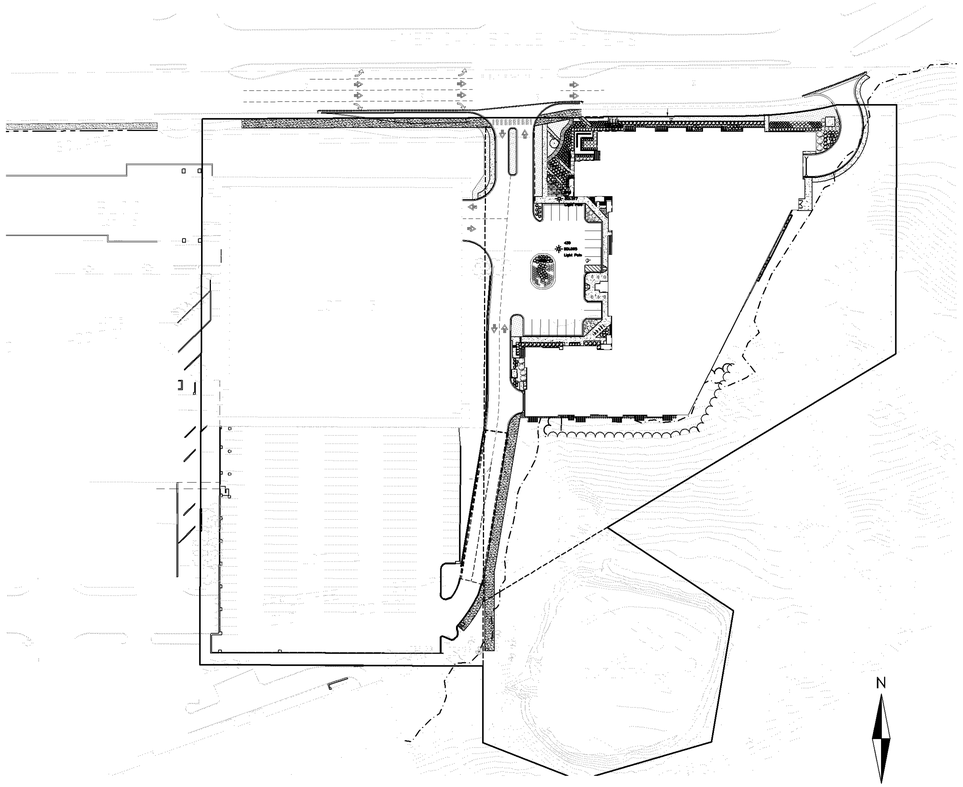
PL202000090

AMERICAN SQUARE APARTMENTS

AMERICAN BOULEVARD E AND 34TH AVE SOUTH
BLOOMINGTON, MINNESOTA
FINAL DEVELOPMENT PLAN



PLAN

SITE VICINITY MAP

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DEVELOPER

KAEDING MANAGEMENT /
RON CLARK CONSTRUCTION

ARCHITECT

MOMENTUM DESIGN GROUP
PRIOR WORKS BUILDING
755 PRIOR AVENUE NORTH
SUITE #301A
ST. PAUL, MINNESOTA 55104
OFFICE: 952.583.9788
WWW.MDGARCHITECTS.COM

SURVEYOR

HARRY JOHNSON
HARRY S. JOHNSON CO., INC.
LAND SURVEYORS
9063 LYNDALE AVENUE SOUTH
BLOOMINGTON, MN 55437
PH: 952-88-4-5341
www.hsjsurveyors.com

CONSULTANT

ALLIANT ENGINEERING, INC.
733 MARQUETTE AVE STE, 700
MINNEAPOLIS, MN 55415
PH: 612-758-3080 / FX: 612-758-3099
www.alliant-inc.com

CIVIL ENGINEER

DAVE NASH
LICENSE NO. 40922
EM: dnash@alliant-inc.com

LANDSCAPE ARCHITECT

MARK KRONBECK, PLA, ASLA
LICENSE NO. 26222
EM: mkronbeck@alliant-inc.com

ALLIANT ENGINEERING
733 Marquette Avenue
Suite 700
Minneapolis, MN 55402
612.758.3080
www.alliant-inc.com

AMERICAN SQUARE APARTMENTS
BLOOMINGTON, MN
AMERICAN BOULEVARD E. AND 34TH AVE SOUTH
3601 AMERICAN BOULEVARD EAST

100 % GMP / PERMIT SET

COVER PAGE

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

DAVID NASH, PE
04-21-21
Date License No.

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BY	DATE

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PROJECT TEAM DATA

DESIGNED:	DMS/DJN
DRAWN:	KDB/DMS
PROJECT NO:	190123

C-1.0

Drawing name: X:\2019\190123\plan sheets\Final Plan Development\190123cover.dwg Apr 20, 2021 - 5:40pm

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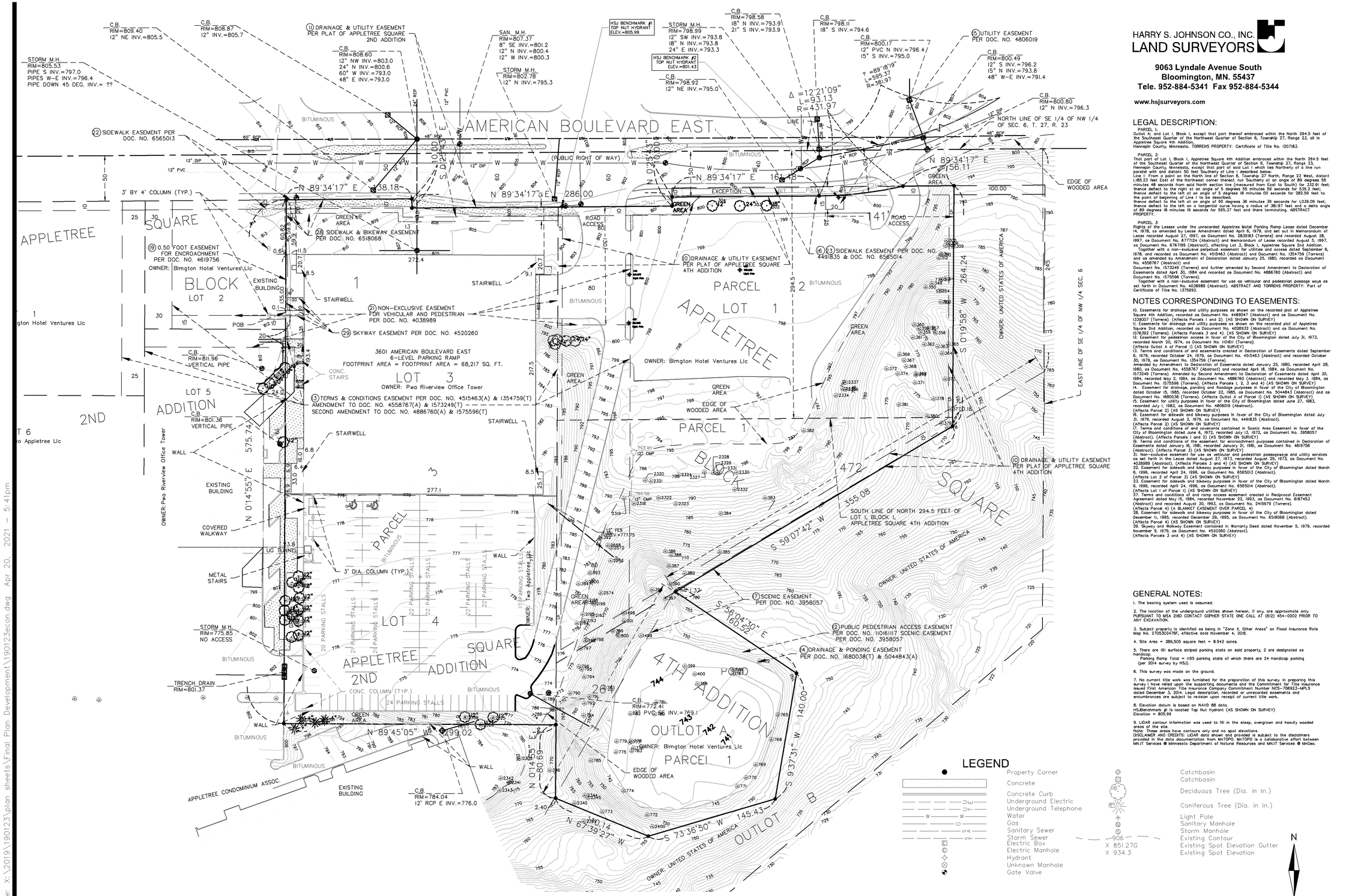

HARRY S. JOHNSON CO., INC.
LAND SURVEYORS

9063 Lyndale Avenue South
Bloomington, MN. 55437
Tele. 952-884-5341 Fax 952-884-5344

www.hsjsurveyors.com

LEGAL DESCRIPTION:

PARCEL 1:
Outlot A, and Lot 1, Block 1, except that part thereof embraced within the North 294.5 feet of the Southeast Quarter of the Northwest Quarter of Section 6, Township 27, Range 23, all in Appletree Square 4th Addition,
Hennepin County, Minnesota. TORRENS PROPERTY: Certificate of Title No. 1207183.

PARCEL 2:
That part of Lot 1, Block 1, Appletree Square 4th Addition embraced within the North 294.5 feet of the Southeast Quarter of the Northwest Quarter of Section 6, Township 27, Range 23, Hennepin County, Minnesota, except that part of said Lot 1 which lies Northerly of a line run parallel with and distant 50 feet Southerly of Line 1 described below:
Line 1: From a point on the North line of Section 6, Township 27 North, Range 23 West, distant 1,185.23 feet East of the Northwest corner thereof; run Southerly at an angle of 89 degrees 56 minutes 48 seconds from said North section line (measured from East to South) for 332.91 feet; thence deflect to the right at an angle of 5 degrees 55 minutes 59 seconds for 535.2 feet; thence deflect to the left at an angle of 5 degrees 18 minutes 00 seconds for 282.59 feet to the point of beginning of Line 1 to be described; thence deflect to the left at an angle of 90 degrees 36 minutes 39 seconds for 1,039.09 feet; thence deflect to the left on a tangential curve having a radius of 381.97 feet, and a delta angle of 89 degrees 18 minutes 19 seconds for 595.37 feet and there terminating. ABSTRACT PROPERTY.

PARCEL 3:
Rights of the Lessee under the unrecorded Appletree Mall Parking Ramp Lease dated December 14, 1978, as amended by Lease Amendment dated April 8, 1979, and set out in Memorandum of Lease recorded August 27, 1987, as Document No. 2839183 (Torrens) and recorded August 28, 1987, as Document No. 6777124 (Abstract) and Memorandum of Lease recorded August 5, 1997, as Document No. 6767199 (Abstract), affecting Lot 3, Block 1, Appletree Square 2nd Addition.
Together with a non-exclusive perpetual easement for utilities and access dated September 6, 1978, and recorded as Document No. 4515463 (Abstract) and Document No. 1354759 (Torrens) and as amended by Amendment of Declaration dated January 25, 1980, recorded as Document No. 4558767 (Abstract) and
Document No. 1573249 (Torrens) and further amended by Second Amendment to Declaration of Easements dated April 30, 1984 and recorded as Document No. 4886760 (Abstract) and Document No. 1575596 (Torrens).
Together with a non-exclusive easement for use as vehicular and pedestrian passage ways as set forth in Document No. 4038989 (Abstract). ABSTRACT AND TORRENS PROPERTY: Part of Certificate of Title No. 1375992.

NOTES CORRESPONDING TO EASEMENTS:

10. Easements for drainage and utility purposes as shown on the recorded plat of Appletree Square 4th Addition, recorded as Document No. 4489047 (Abstract) and as Document No. 1359007 (Torrens). (Affects Parcels 1 and 2). (AS SHOWN ON SURVEY)
11. Easements for drainage and utility purposes as shown on the recorded plat of Appletree Square 2nd Addition, recorded as Document No. 4028932 (Abstract) and as Document No. 1076392 (Torrens). (Affects Parcels 3 and 4). (AS SHOWN ON SURVEY)
12. Easement for pedestrian access in favor of the City of Bloomington dated July 31, 1973, recorded March 20, 1974, as Document No. 1108181 (Torrens).
(Affects Outlot A of Parcel 1) (AS SHOWN ON SURVEY)
13. Terms and conditions of and easements created in Declaration of Easements dated September 6, 1979, recorded October 24, 1979, as Document No. 4515463 (Abstract) and recorded October 30, 1979, as Document No. 1354759 (Torrens).
Amended by Amendment to Declaration of Easements dated January 25, 1980, recorded April 28, 1980, as Document No. 4558767 (Abstract) and recorded April 18, 1984, as Document No. 1573249 (Torrens). Amended by Second Amendment to Declaration of Easements dated April 30, 1984, recorded May 2, 1984, as Document No. 4886760 (Abstract) and recorded May 3, 1984, as Document No. 1575596 (Torrens). (Affects Parcels 1, 2, 3 and 4) (AS SHOWN ON SURVEY)
14. Easement for drainage, ponding and floodage purposes in favor of the City of Bloomington dated October 15, 1980, recorded October 22, 1985, as Document No. 5044843 (Abstract) and as Document No. 1680038 (Torrens). (Affects Outlot A of Parcel 1) (AS SHOWN ON SURVEY)
15. Easement for utility purposes in favor of the City of Bloomington dated June 27, 1983, recorded July 1, 1983, as Document No. 4806019 (Abstract).
(Affects Parcel 2) (AS SHOWN ON SURVEY)
16. Easement for sidewalk and bikeway purposes in favor of the City of Bloomington dated July 31, 1979, recorded August 2, 1979, as Document No. 4491835 (Abstract).
(Affects Parcel 2) (AS SHOWN ON SURVEY)
17. Terms and conditions of and easements contained in Scenic Area Easement in favor of the City of Bloomington dated June 6, 1972, recorded July 13, 1972, as Document No. 3958057 (Abstract). (Affects Parcels 1 and 2) (AS SHOWN ON SURVEY)
19. Terms and conditions of the easement for encroachment purposes contained in Declaration of Easements dated January 16, 1981, recorded January 21, 1981, as Document No. 4619756 (Abstract). (Affects Parcel 3) (AS SHOWN ON SURVEY)
21. Non-exclusive easement for use as vehicular and pedestrian passageways and utility services as set forth in the Lease dated August 27, 1973, recorded August 29, 1973, as Document No. 4038989 (Abstract). (Affects Parcels 3 and 4) (AS SHOWN ON SURVEY)
22. Easement for sidewalk and bikeway purposes in favor of the City of Bloomington dated March 6, 1996, recorded April 24, 1996, as Document No. 6565013 (Abstract).
(Affects Lot 2 of Parcel 3) (AS SHOWN ON SURVEY)
23. Easement for sidewalk and bikeway purposes in favor of the City of Bloomington dated March 6, 1996, recorded April 24, 1996, as Document No. 6565014 (Abstract).
(Affects Lot 1 of Parcel 1) (AS SHOWN ON SURVEY)
27. Terms and conditions of and ramp access easement created in Reciprocal Easement Agreement dated May 15, 1984, recorded November 22, 1993, as Document No. 6187453 (Abstract) and recorded August 30, 1993, as Document No. 2415979 (Torrens).
(Affects Parcel 4) (A BLANKET EASEMENT OVER PARCEL 4)
28. Easement for sidewalk and bikeway purposes in favor of the City of Bloomington dated December 11, 1995, recorded December 29, 1995, as Document No. 6518068 (Abstract).
(Affects Parcel 4) (AS SHOWN ON SURVEY)
29. Skyway and Walkway Easement contained in Warranty Deed dated November 5, 1979, recorded November 9, 1979, as Document No. 4520260 (Abstract).
(Affects Parcels 3 and 4) (AS SHOWN ON SURVEY)

GENERAL NOTES:

1. The bearing system used is assumed.

2. The location of the underground utilities shown hereon, if any, are approximate only. PURSUANT TO MSA 216D CONTACT GOPHER STATE ONE CALL AT (612) 454-0002 PRIOR TO ANY EXCAVATION.

3. Subject property is identified as being in "Zone X, Other Areas" on Flood Insurance Rate Map No. 27053C0476F, effective date November 4, 2016.

4. Site Area = 389,505 square feet = 8.942 acres.

5. There are 191 surface striped parking stalls on said property, 2 are designated as handicap.
Parking Ramp Total = 1195 parking stalls of which there are 24 Handicap parking (per 2014 survey by HSJ).

6. This survey was made on the ground.

7. No current title work was furnished for the preparation of this survey. In preparing this survey I have relied upon the supporting documents and the Commitment for Title insurance issued First American Title Insurance Company Commitment Number NCS-706923-MPLS dated December 3, 2014. Legal description, recorded or unrecorded easements and encumbrances are subject to revision upon receipt of current title work.

8. Elevation datum is based on NAVD 88 data.
HSJBenchmark #1 is located Top Nut Hydrant (AS SHOWN ON SURVEY)
Elevation = 805.99

9. LiDAR contour information was used to fill in the steep, overgrown and heavily wooded areas of the site.
Note: These areas have contours only and no spot elevations.
DISCLAIMER AND CREDITS: LiDAR data shown and provided is subject to the disclaimers provided in the data documentation from MnTOPO. MnTOPO is a collaborative effort between MNIT Services ❁ Minnesota Department of Natural Resources and MNIT Services ❁ MnGeo.

LEGEND

- Property Corner
- Concrete
- Concrete Curb
- Underground Electric
- Underground Telephone
- Water
- Gas
- Sanitary Sewer
- Storm Sewer
- Electric Box
- Electric Manhole
- Hydrant
- Unknown Manhole
- Gate Valve
- Catchbasin
- Catchbasin
- Deciduous Tree (Dia. in In.)
- Coniferous Tree (Dia. in In.)
- Light Pole
- Sanitary Manhole
- Storm Manhole
- 906 Existing Contour
- X 851.27G Existing Spot Elevation Gutter
- X 934.3 Existing Spot Elevation

N

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SCALE IN FEET

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733 Marquette Avenue
Suite 700
Minneapolis, MN 55402
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EXISTING CONDITIONS

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE

PROJECT TEAM DATA
DESIGNED:
DRAWN:
PROJECT NO:

C-2.0

Drawing name: X:\2019\190123\plan sheets\Final Plan Development\190123econ.dwg Apr 20, 2021 - 5:41pm

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TREE INVENTORY

Tag Number	DBH	Common Name	Remove	Located in the Bluff	Notes
302	26	Basswood	X		2x trunk 15, 11
303	15	Basswood	X		
304	19	Basswood	X		
305	5	Hackberry		Yes	
306	6	Hackberry		Yes	
307	6	Hackberry		Yes	
308	7	Hackberry		Yes	
309	10	Hackberry		Yes	
310	16	Hackberry		Yes	
311	7	Hackberry		Yes	
312	15	Hackberry		Yes	
313	4	Hackberry		Yes	
314	9	Hackberry		Yes	
349	14	Hackberry		Yes	
350	12	Hackberry		Yes	
353	11	Hackberry		Yes	
354	8	Locust		Yes	
356	37	Locust		Yes	
357	6	Locust		Yes	
358	4	Hackberry		Yes	
359	27	Locust		Yes	
360	9	Hackberry		Yes	
361	5	Locust		Yes	
362	4	Hackberry		Yes	
363	6	Hackberry		Yes	
364	6	Hackberry		Yes	
365	6	Hackberry		Yes	
366	4	Oak		Yes	
367	15	Locust		Yes	
368	41	Oak		Yes	2x trunk 18, 23
369	4	Elm		Yes	
370	6	Elm		Yes	
371	10	Elm		Yes	
372	4	Oak		Yes	
373	14	Elm		Yes	
374	6	Elm		Yes	
375	10	Oak		Yes	
376	4	Elm		Yes	
377	9	Hackberry		Yes	
378	7	Hackberry		Yes	
379	12	Oak		Yes	
380	15	Elm		Yes	
381	30	Elm		Yes	2x trunk 18, 12
382	20	Russian Olive		Yes	
383	20	Russian Olive		Yes	2x trunk 10, 10
384	6	Hackberry		Yes	
385	4	Hackberry		Yes	
386	20	Hackberry		Yes	2x trunk 15, 5
387	7	Hackberry		Yes	
388	11	Elm		Yes	
389	8	Elm		Yes	
390	10	Elm		Yes	
391	25	Russian Olive		Yes	3x trunk 7, 10, 8
392	4	Hackberry		Yes	
393	7	Locust	X	Yes	
394	4	Locust	X		
395	4	Hackberry		Yes	
396	5	Hackberry		Yes	
397	6	Elm		Yes	
398	7	Elm		Yes	
399	4	Hackberry		Yes	
400	4	Hackberry		Yes	
402	6	Hackberry		Yes	
764	8	Elm		Yes	
765	8	Elm		Yes	
766	9	Elm		Yes	
767	9	Elm		Yes	2x trunk 5, 4
768	5	Elm		Yes	
769	8	Elm		Yes	
770	6	Elm		Yes	
771	5	Elm		Yes	
772	9	Elm		Yes	
773	4	Elm		Yes	
774	4	Elm		Yes	
775	19	Elm		Yes	
776	6	Hackberry		Yes	
777	7	Elm		Yes	
778	19	Elm		Yes	
779	4	Elm		Yes	
780	17	Elm		Yes	
781	6	Elm		Yes	
782	6	Elm		Yes	
783	5	Elm		Yes	
784	5	Hackberry	X	Yes	
785	5	Elm		Yes	
786	6	Elm	X	Yes	
787	10	Elm	X	Yes	
788	10	Elm	X	Yes	
789	7	Elm	X		
790	6	Elm	X	Yes	

Tag Number	DBH	Common Name	Remove	Located in the Bluff	Notes
791	6	Elm		Yes	
792	6	Elm	X	Yes	
793	5	Hackberry		Yes	
794	9	Elm		Yes	
795	6	Elm		Yes	
796	7	Elm		Yes	
797	12	Cottonwood		Yes	
798	9	Elm		Yes	
799	6	Elm		Yes	
901	5	Elm		Yes	
1396	15	Box Elder		Yes	
1498	5	Elm		Yes	
1499	5	Elm		Yes	
2193	15	Cottonwood		Yes	
2194	10	Elm	X	Yes	
2195	7	Elm		Yes	
2196	12	Cottonwood		Yes	
2199	16	Cottonwood		Yes	
2200	10	Elm	X	Yes	
2301	3	Colorado Green Spruce			11' tall
2303	3	Colorado Green Spruce			11' tall
2304	3	Colorado Green Spruce			11' tall
2305	12	Crab Apple			
2306	12	Crab Apple			
2307	12	Crab Apple			
2308	12	Crab Apple			
2309	12	Crab Apple			
2310	12	Crab Apple			
2311	12	Crab Apple			
2312	12	Crab Apple			
2313	12	Crab Apple			
2314	12	Crab Apple			
2315	12	Crab Apple			
2316	12	Crab Apple			
2318	19	Elm		Yes	
2319	26	Box Elder			2x trunk 16, 10
2320	38	Cottonwood	X		
2321	16	Cottonwood	X		
2322	45	Cottonwood			3x trunk 18, 15, 12
2323	64	Cottonwood		Yes	4x trunk 16, 16, 16, 16
2324	19	Cottonwood	X		
2325	12	Ash			
2326	14	Ash			
2327	14	Cottonwood	X		
2328	14	Cottonwood	X		
2329	15	Cottonwood	X		
2330	18	Cottonwood	X		
2331	12	Cottonwood	X		
2332	17	Cottonwood		Yes	
2334	38	Cottonwood		Yes	
2335	19	Cottonwood		Yes	
2336	23	Cottonwood		Yes	
2337	18	Cottonwood		Yes	
2338	17	Ash		Yes	
2339	18	Maple		Yes	
2340	96	Cottonwood		Yes	3x trunk 39, 29, 28
2341	14	Hackberry		Yes	
2342	19	Maple		Yes	
2343	16	Hackberry		Yes	
2344	23	Cottonwood		Yes	
2345	23	Cottonwood		Yes	
2399	16	Cottonwood		Yes	
2400	40	Cottonwood		Yes	
2572	4	Elm		Yes	
2573	32	Cottonwood		Yes	
2574	7	Elm		Yes	
2698	10	Elm		Yes	

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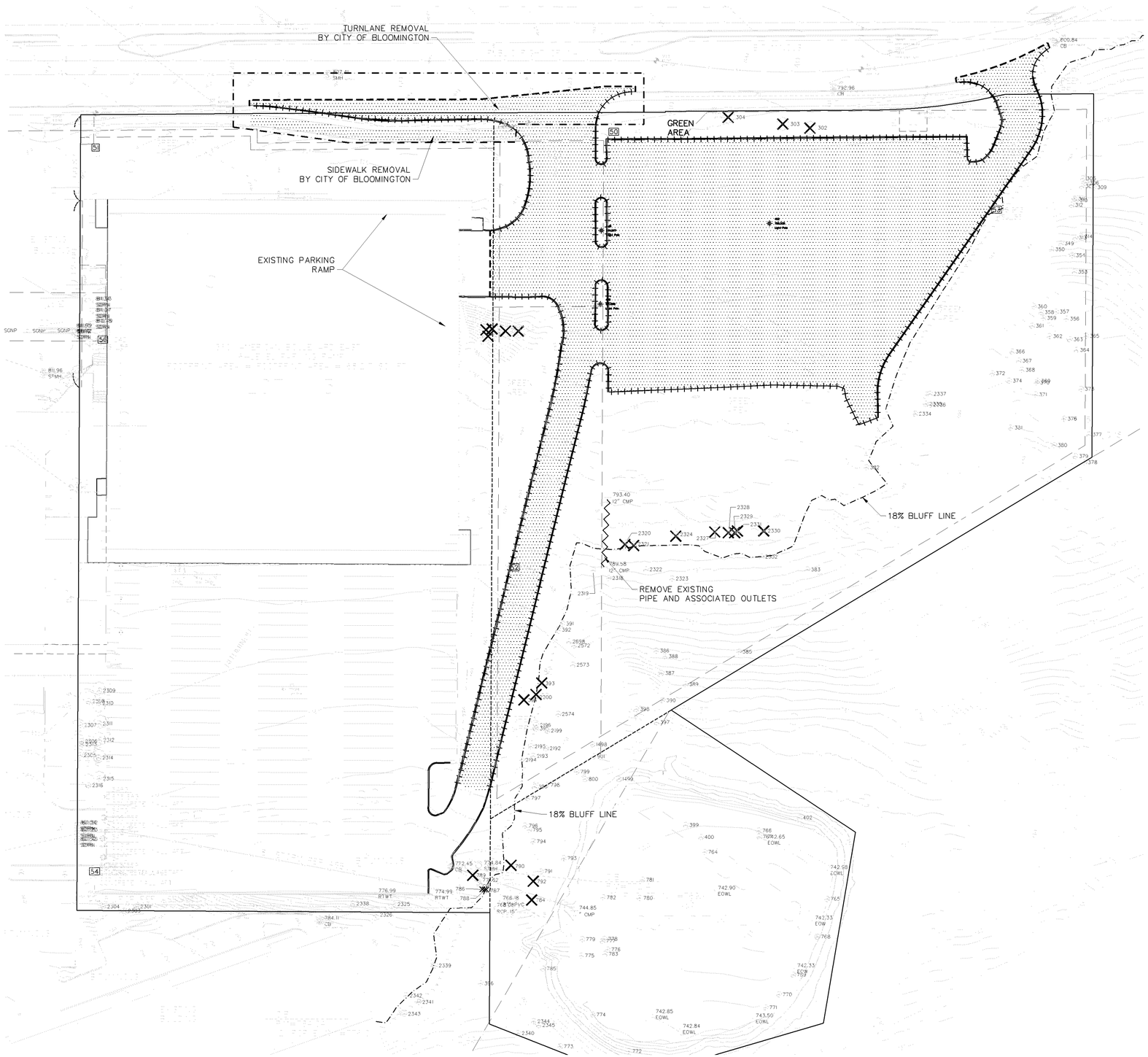

DEMOLITION NOTES:

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY. THE GEOTECHNICAL AND EVALUATION REPORTS AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND IN CASE OF CONFLICT SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCY BETWEEN GEOTECHNICAL AND EVALUATION REPORTS & PLANS, ETC.
2. NOTIFY GOPHER ONE 48 HOURS PRIOR TO ANY SITE DEMOLITION. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES, CONTACT GOPHER STATE ONE CALL (1-800-252-1166) FOR UTILITY LOCATION PRIOR TO DEMOLITION AND CONSTRUCTION.
3. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES. DEMOLITION CONTRACTOR SHALL ALSO FILE FOR ALL NECESSARY PERMITS FOR DEMOLITION WITH THE CITY OF BLOOMINGTON.
4. CONTRACTOR TO COORDINATE THE REMOVAL OF THE EXISTING UTILITIES WITH THE RESPECTIVE UTILITY COMPANIES.
5. DEMOLITION CONTRACTOR SHALL PROVIDE AIR QUALITY CONTROL MEASURES AT THE REQUEST OF COUNTY/CITY HEALTH INSPECTOR/INSPECTIONS OFFICER. DEMOLITION CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO KEEP DUST LEVELS TO A MINIMUM.
6. CONTRACTOR SHALL FURNISH ALL NECESSARY FENCING BARRICADES AND SIGNING NEEDED TO PROTECT PEDESTRIANS AND VEHICULAR TRAFFIC FROM HAZARDS RESULTING FROM DIRECTLY OR INDIRECTLY FROM CONSTRUCTION.
7. ALL ITEMS CALLED FOR REMOVAL SHALL BE DISPOSED OF OFF-SITE IN A LOCATION APPROVED BY THE STATE.
8. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION & REMOVAL OF ALL EXISTING STRUCTURES WHICH INTERFERE WITH NEW WORK AS SHOWN IN PROPOSED CONSTRUCTION DRAWINGS.
9. CONTRACTOR SHALL PROTECT ADJOINING PROPERTIES & STRUCTURES FROM HAZARDS ASSOCIATED WITH HIS CONSTRUCTION ACTIVITIES & SHALL BE RESPONSIBLE FOR ALL DAMAGES TO PROPERTIES & STRUCTURES THAT OCCUR AS A RESULT OF THESE ACTIVITIES.
10. CONTRACTOR SHALL NOT IMPEDE EXISTING TRAFFIC CIRCULATION TO ADJACENT BUSINESSES.
11. PROVIDE TEMPORARY TRAFFIC CONTROL IN COMPLIANCE WITH THE MOST CURRENT EDITION OF THE MINNESOTA TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS FIELD MANUAL.
12. DEMOLITION CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE ENVIRONMENTAL REPORTS INCLUDING THE PHASE I REPORT AND FOLLOW REPORT RECOMMENDATIONS.

LEGEND

- PROPERTY LINE
- EASEMENTS
- REMOVE TREE
- REMOVE CURB AND GUTTER
- REMOVE EXISTING UTILITY
- CLEARING LIMITS
- SAWCUT
- REMOVE BITUMINOUS PAVEMENT/PATH

N

0 20 40 80
SCALE IN FEET

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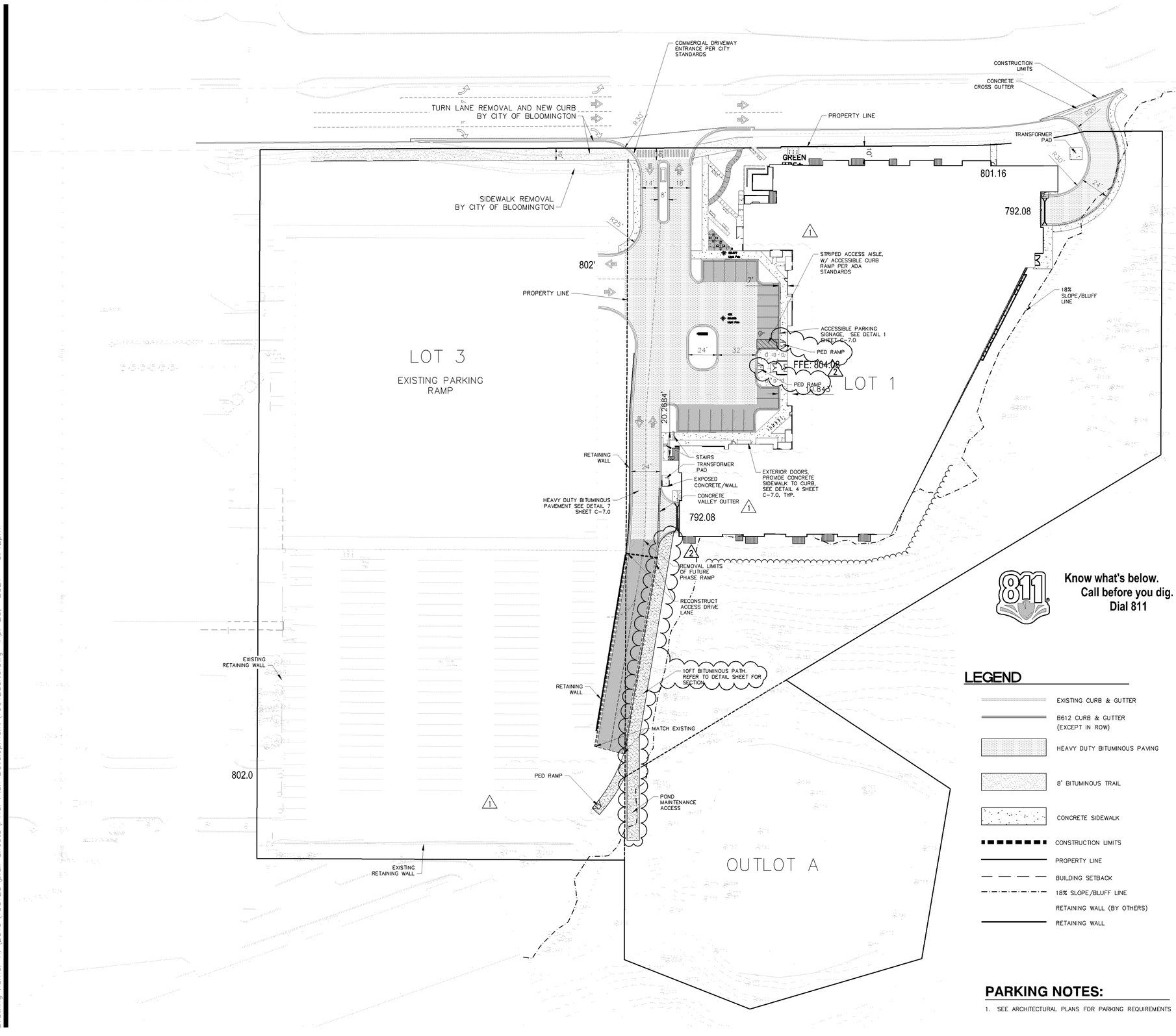

NOTES

1. DIMENSIONS ARE TO TOP FACE OF CURB, EDGE OF SIDEWALK OR EXTERIOR OF BUILDING UNLESS OTHERWISE NOTED. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING DIMENSIONS AND SPECIFICATION FOR LOCATION OF EXITS, RAMPS, CONCRETE APRONS AND STOOPS.
2. ALL CONCRETE CURB AND GUTTER ADJACENT TO CONCRETE WALK TO BE SEPARATED BY A 1/2 INCH EXPANSION JOINT.
3. ALL STRIPING SHALL BE 4 INCH WHITE PAVEMENT STRIPING, PER GOVERNING AGENCY STANDARDS.
4. ALL WORK SHALL COMPLY WITH THE CITY OF BLOOMINGTON ENGINEERING DESIGN STANDARDS AND SPECIFICATIONS, LATEST EDITION.
5. ALL CURB AND GUTTER TO BE CONCRETE B612 CURB UNLESS NOTED OTHERWISE, PER CITY STANDARDS.
6. CONTINUOUS CONCRETE CURB & GUTTER WHICH CHANGES TYPE SHALL HAVE A FIVE FOOT TRANSITION.
7. BITUMINOUS PAVEMENT SECTION DESIGN TO BE IN ACCORDANCE WITH LOCAL CONSTRUCTION STANDARDS. REFER TO GEOTECHNICAL REPORT AND DETAIL SHEET.
8. CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES, SUCH AS EXISTING GUTTER GRADES AT THE PROPOSED DRIVEWAYS, PRIOR TO THE START OF SITE GRADING. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES OF VARIATIONS FROM THE PLANS.
9. ACCESSIBLE ROUTE SHALL BE PROVIDED FROM ACCESSIBLE STALLS TO BUILDING ENTRANCE. (SEE MN ACCESSIBILITY CODE). POLE MOUNT APPROVED SIGNS, ONE VAN ACCESSIBLE, CENTER ON STALL, LOCATION PER GENERAL CONTRACTOR. PAINT INTERNATIONAL SYMBOL OF ACCESSIBILITY WHITE ON BLUE BACKGROUND. G.C. TO ENSURE SLOPE OF PAVEMENT AT ACCESSIBLE PARKING STALLS & ACCESS AISLE DOES NOT EXCEED 2% IN ALL DIRECTIONS.
10. REFER TO PHOTOMETRIC PLAN FOR LIGHT LOCATIONS, FOOTCANDLE PRINT OUT AND SPECIFICATIONS. FOUNDATION BY CONTRACTOR. CONTRACTOR TO FIELD VERIFY LOCATION OF PROPOSED LIGHT POLE WITH OWNER & G.C. AND THAT THERE ARE NO CONFLICTS WITH EXISTING & PROPOSED UTILITIES.
11. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AND INSTALL TRENCHING AND PVC SLEEVING UNDER ANY PAVEMENT AS REQUIRED FOR IRRIGATION, LIGHTING, SIGNS ETC. AS NEEDED PRIOR TO PAVING.

GENERAL NOTES:

1. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND CITY OF BLOOMINGTON SPECIFICATIONS, LATEST EDITION.
3. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION AND REMOVAL OF ALL EXISTING STRUCTURES WHICH INTERFERE WITH NEW WORK AS SHOWN.
4. ALL DIMENSIONS, GRADES, EXISTING AND PROPOSED INFORMATION SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO INFORMATION SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
5. CONTRACTOR SHALL PROTECT ADJOINING PROPERTIES AND STRUCTURES FROM HAZARDS ASSOCIATED WITH HIS CONSTRUCTION ACTIVITIES & SHALL BE RESPONSIBLE FOR ALL DAMAGES TO PROPERTIES AND STRUCTURES THAT OCCUR AS A RESULT OF THESE ACTIVITIES.
6. CONTRACTOR SHALL NOT IMPEDE EXISTING TRAFFIC CIRCULATION TO ADJACENT PROPERTIES.
7. CONTRACTOR SHALL PERFORM SWEEPING ON PRIVATE PARKING AREAS AND PUBLIC STREETS AT LEAST ONCE A WEEK, IF NEEDED. AND IN ADVANCE OF ALL RAIN EVENTS.
8. CONTRACTOR SHALL BE HELD FULLY RESPONSIBLE TO PREVENT AND ELIMINATE ANY DUST NUISANCE OCCASIONED BY AND DURING CONSTRUCTION, UNTIL THE PROJECT HAS BEEN COMPLETED.
9. CONTRACTOR SHALL PROVIDE TEMPORARY STREET SIGNS, LIGHTING, AND ADDRESSES DURING CONSTRUCTION PERIOD.
10. ALL PUBLIC SIDEWALKS SHALL NOT BE OBSTRUCTED DURING CONSTRUCTION UNLESS APPROVED BY CITY ENGINEER.
11. STORAGE OF MATERIALS OR EQUIPMENT SHALL NOT BE ALLOWED ON PUBLIC STREETS OR WITHIN PUBLIC RIGHT OF WAY.
12. CONTRACTOR TO PROVIDE TEMPORARY TRAFFIC CONTROL IN COMPLIANCE WITH MnDOT "TEMPORARY TRAFFIC CONTROL ZONE LAYOUT-FIELD MANUAL, LATEST EDITION, FOR ANY CONSTRUCTION IN PUBLIC ROW.
13. ALL WORK TO BE COMPLETED PER THE GEOTECH REPORT.

811 Know what's below. Call before you dig. Dial 811

LEGEND

- EXISTING CURB & GUTTER
- B612 CURB & GUTTER (EXCEPT IN ROW)
- HEAVY DUTY BITUMINOUS PAVING
- 8' BITUMINOUS TRAIL
- CONCRETE SIDEWALK
- CONSTRUCTION LIMITS
- PROPERTY LINE
- BUILDING SETBACK
- 18% SLOPE/BLUFF LINE
- RETAINING WALL (BY OTHERS)
- RETAINING WALL

PARKING NOTES:

1. SEE ARCHITECTURAL PLANS FOR PARKING REQUIREMENTS

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SCALE IN FEET

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733 Marquette Avenue
Suite 700
Minneapolis, MN 55402
612.758.3080
www.alliant-inc.com

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BLOOMINGTON, MN
AMERICAN BOULEVARD E. AND 34TH AVE SOUTH
3601 AMERICAN BOULEVARD EAST

100 % GMP / PERMIT SET

SITE PLAN

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

DAVID NASH, PE
04-21-21
Date License No.

QUALITY ASSURANCE/CONTROL
BY DATE

DATE	ISSUE
01-29-20	CITY SUBMITTAL
03-27-20	PROGRESS PLOT
05-06-20	REVISED CITY SUBMITTAL
06-17-20	ADDENDUM #1 (1)
07-23-20	REVIEW SET (2)
07-30-20	CONSTRUCTION DOCUMENTS
01-29-21	100% GMP PERMIT SET
04-21-21	100% GMP / PERMIT SET

PROJECT TEAM DATA
DESIGNED: DMS/DJN
DRAWN: KDB/DMS
PROJECT NO: 190123

C-4.0

Drawing name: X:\2019\190123\plan sheets\Final Plan Development\190123site.dwg Apr 20, 2021 - 5:42pm

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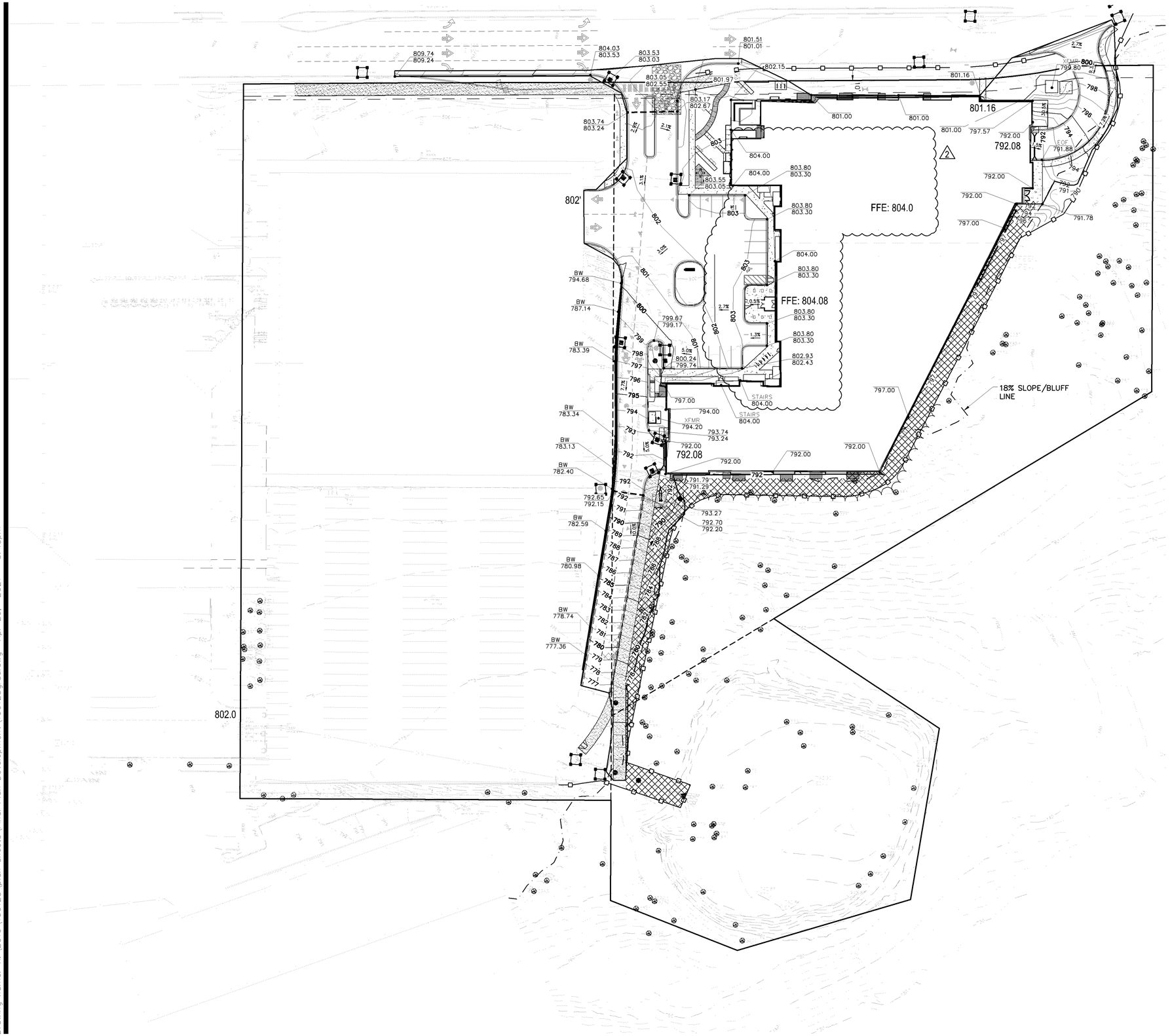

GRADING NOTES

1. ALL FINISHED GRADES SHALL SLOPE AWAY FROM PROPOSED BUILDINGS.
2. THE CONTRACTOR SHALL KEEP THE ADJACENT ROADWAYS FREE OF DEBRIS AND PREVENT THE OFF-SITE TRACKING OF SOIL IN ACCORDANCE WITH THE REQUIREMENTS OF COUNTY, CITY AND WATERSHED.
3. NOTIFY GOPHER STATE ONE CALL, AT (800)252-1166, 48 HOURS PRIOR TO START OF CONSTRUCTION.
4. ALL IMPROVEMENTS TO CONFORM WITH CITY OF BLOOMINGTON CONSTRUCTION STANDARDS SPECIFICATION, LATEST EDITION.
5. ROCK CONSTRUCTION ENTRANCES SHALL BE PROVIDED AT ALL CONSTRUCTION ACCESS POINTS.
6. REFER TO GEOTECHNICAL REPORT AND PROJECT MANUAL FOR SOIL CORRECTION REQUIREMENTS AND FREQUENT TESTING REQUIREMENTS. ALL WORK TO BE COMPLETED PER THE GEOTECH REPORT.
7. STRIP TOPSOIL PRIOR TO ANY CONSTRUCTION. REUSE STOCKPILE ON SITE. STOCKPILE PERIMETERS MUST BE PROTECTED WITH SILT FENCE.
8. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
9. IMMEDIATELY FOLLOWING GRADING OF (3:1 OR GREATER) SIDE SLOPES AND DRAINAGE SWALES, WOOD FIBER BLANKET OR OTHER APPROVED SOIL STABILIZING METHOD (APPROVED BY ENGINEER) SHALL BE APPLIED OVER APPROVED SEED MIXTURE AND A MINIMUM OF 4" TOPSOIL.
10. THE GENERAL CONTRACTOR MUST DISCUSS DEWATERING PLANS WITH ALL SUBCONTRACTORS TO VERIFY NPDES REQUIREMENTS. IF DEWATERING IS REQUIRED DURING CONSTRUCTION, CONTRACTOR SHOULD CONSULT WITH EROSION CONTROL INSPECTOR AND ENGINEER TO DETERMINE APPROPRIATE METHOD.
11. REFER TO STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR ALL EROSION AND SEDIMENT CONTROL DEVICE LOCATION, DESCRIPTIONS, NOTES AND DETAILS INCLUDING CONCRETE WASHOUT STATION INSTRUCTIONS.
12. BUILDING PERMITS ARE REQUIRED FOR ALL RETAINING WALLS 4 FEET IN HEIGHT OR GREATER AND THE WALLS SHALL BE DESIGNED BY A STRUCTURAL ENGINEER WITH DESIGN REVIEWED AND APPROVED BY THE CITY PRIOR TO INSTALLATION.
13. A 4 FOOT SAFETY RAILING IS REQUIRED ATOP ALL WALLS 30" IN HEIGHT OR GREATER.

LEGEND:

- 964 — EXISTING CONTOUR
- 964 — PROPOSED CONTOUR
- 964.5 / 964.0 — PROPOSED SPOT ELEVATION
- TW 964.5 / BW 961.5 — TOP OF WALL ELEVATION / BOTTOM OF WALL ELEVATION
- 2.00% — DIRECTION OF DRAINAGE
- EMERGENCY OVERFLOW ROUTING
- RETAINING WALL
- PROPOSED LUMINARIES
- EXISTING CATCH BASINS
- EXISTING STORM SEWER
- PROPOSED CATCH BASINS
- PROPOSED STORM SEWER
- PROPOSED LIMITS OF CONSTRUCTION
- PROPOSED EASEMENT
- PROPERTY LINE
- DD — DRAINAGE DIVIDE
- HEAVY DUTY SILT FENCE
- INLET PROTECTION
- ROCK CONSTRUCTION EXIT
- EROSION CONTROL BLANKET
- OUTFALL GUTTER

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100 % GMP / PERMIT SET

GRADING AND EROSION CONTROL PLAN

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

DAVID NASH, PE
04-21-21
Date License No.

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DRAWN:	KDB/DMS
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C-5.0

Drawing name: X:\2019\190123\plan sheets\Final Plan Development\190123grad.dwg Apr 20, 2021 - 5:43pm

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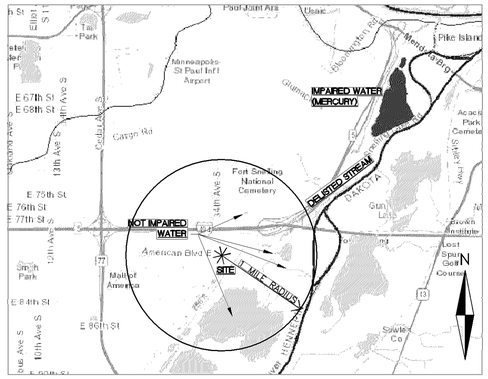
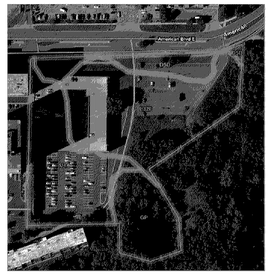


USGS TOPOGRAPHIC MAP



WEB SOIL SURVEY MAP

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
D5D	Dorset-Two Inlets complex, 12 to 18 percent slopes	0.9	10.3%
GP	Pits, gravel-Udipsamments complex	1.3	15.4%
L32F	Hawick loamy sand, 20 to 40 percent slopes	3.8	44.1%
U4A	Urban land-Udipsamments (cut and fill land) complex, 0 to 2 percent slopes	2.6	30.2%
Totals for Area of Interest		8.7	100.0%

WEB SOIL SURVEY LEGEND

EROSION CONTROL GENERAL NOTES:

1. NO LAND DISTURBING ACTIVITY SHALL OCCUR UNTIL A GRADING PERMIT HAS BEEN ISSUED FROM THE CITY OF BLOOMINGTON
2. BEST MANAGEMENT PRACTICES (BMP'S) REFER TO EROSION AND SEDIMENT CONTROL PRACTICES DEFINED BY THE MPCA PROTECTING WATER QUALITY IN URBAN AREAS AND THE MINNESOTA CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL PLANNING HANDBOOK.
3. ALL BMP'S SELECTED SHALL BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS, AND ESTIMATED DURATION OF USE.
4. ALL WORK AND MATERIALS SHALL BE CONSTRUCTED ACCORDING TO THE APPROVED PLANS, ANY DEVIATION FROM THE APPROVED PLANS SHALL REQUIRE WRITTEN APPROVAL FROM THE ENGINEER OF RECORD.
5. A COPY OF THESE PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
6. THE BOUNDARIES OF THE LAND DISTURBANCE LIMITS SHOWN ON THE PLANS SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. NO DISTURBANCE ALLOWED BEYOND THE DISTURBED LIMITS.
7. WHEREVER POSSIBLE, PRESERVE THE EXISTING TREES, GRASS, AND OTHER VEGETATIVE COVER TO HELP FILTER RUNOFF.
8. ESTABLISH A PERMANENT VEGETATIVE COVER ON ALL EXPOSED SOILS WHERE LAND IS COMING OUT OF AGRICULTURAL PRODUCTION. PLANT AS SOON AS POSSIBLE TO ESTABLISH DENSE GRASS FILTER PRIOR TO CONSTRUCTION AND TO MINIMIZE WEED GROWTH.
9. ALL TREES NOT LISTED FOR REMOVAL SHALL BE PROTECTED. DO NOT OPERATE EQUIPMENT WITHIN THE DRIPLINE, ROOT ZONES OR WITHIN TREE PROTECTION FENCE AREAS.
10. ALL EROSION AND SEDIMENT CONTROL FACILITIES (BMP'S) SHALL BE INSTALLED AND IN OPERATION PRIOR TO LAND DISTURBANCE ACTIVITIES AND THEY SHALL BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR EROSION HAS PASSED.
11. SILT FENCE IS REQUIRED AT DOWN GRADIENT PERIMETER OF DISTURBED AREAS AND STOCKPILES. PROTECT ADJACENT WATERBODIES AND ADJACENT PROPERTIES FROM SEDIMENTATION AND STORM WATER RUNOFF.
12. THE BMP'S SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS FOR THE ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND UNEXPECTED OR SEASONAL CONDITIONS DICTATE, THE PERMITTEE/CONTRACTOR SHALL ANTICIPATE THAT MORE BMP'S WILL BE NECESSARY TO ENSURE EROSION AND SEDIMENT CONTROL ON THE SITE, DURING THE COURSE OF CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE PERMITTEE/CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY CONSTRUCTION ACTIVITIES AND/OR CLIMATIC EVENTS AND TO PROVIDE ADDITIONAL BMP'S OVER AND ABOVE THE MINIMUM REQUIREMENTS SHOWN ON THE PLANS, AS MAY BE NEEDED TO PROVIDE EFFECTIVE PROTECTION OF WATER AND SOIL RESOURCES.
13. THE BMP'S SHALL BE INSPECTED DAILY BY THE PERMITTEE/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING. SILT FENCES SHALL BE CLEANED OR REPLACED AT SEDIMENT BUILDUP OF 1/3 OF THE FENCE HEIGHT.
14. LAND DISTURBING ACTIVITIES SHALL OCCUR IN INCREMENTS OF WORKABLE SIZE SUCH THAT ADEQUATE BMP CONTROL CAN BE PROVIDED THROUGHOUT ALL PHASES OF CONSTRUCTION. THE SMALLEST PRACTICAL AREA SHALL BE EXPOSED OR OTHERWISE DISTURBED AT ANY ONE TIME.
15. OPERATE TRACK EQUIPMENT (DOZER) UP AND DOWN EXPOSED SOIL SLOPES ON FINAL PASS, LEAVING TRACK GROOVES PERPENDICULAR TO SLOPE. DO NOT BACK-BLADE. LEAVE A SURFACE ROUGH TO MINIMIZE EROSION.
16. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED FROM EROSION WITHIN 7 DAYS OF SUBSTANTIAL COMPLETION OF GRADING IN THAT AREA. TEMPORARY SEED AND MULCH SHALL COVER ALL EXPOSED SOILS IF GRADING COMPLETION IS DELAYED LONGER THAN 7 DAYS. PERMANENT SEED AND MULCH OR SOD IS REQUIRED WITHIN 3 DAYS OF COMPLETION OF FINAL GRADING.
17. GENERAL TEMPORARY SEED SHALL BE MN STATE SEED MIX 22-112 @ 40 LBS. PER ACRE OR APPROVED EQUAL. PERMANENT SEED SHALL BE MN STATE SEED MIX 25-151 @ 120 LBS. PER ACRE OR APPROVED EQUAL. (PLANTING DATES PER MNDOT SEED MIX MANUAL) MULCH SHALL BE MNDOT TYPE 1 (CLEAN OAT STRAW) @ 2 TONS PER ACRE AND DISK ANCHORED IN PLACE OR APPROVED EQUAL. FERTILIZER SHALL BE 10-10-10 NPK PER ACRE (UNLESS P RESTRICTIONS APPLY) AND INCORPORATED INTO THE SEED BED.
18. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROPERLY DISPOSED OF WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
19. ALL CONSTRUCTION SITE WASTE SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, LITTER, AND SANITARY WASTE MUST BE PROPERLY MANAGED AND COMPLY WITH THE MPCA AND THE CITY OF BLOOMINGTON RULES AND REQUIREMENTS.

DEWATERING:

1. IF UTILITY INSTALLATION WORK ENCOUNTERS GROUNDWATER, THE CONTRACTOR SHALL PROVIDE A PLAN TO THE CITY AND PROJECT ENGINEER FOR REVIEW. THE PLAN MUST BE SUBMITTED TO THE CITY FOR APPROVAL AT LEAST 10 DAYS PRIOR TO DISCHARGING INTO RECEIVING WATERS. THE PLAN AT MINIMUM SHALL INCLUDING A DEWATERING SYSTEM, WATER ROUTING, STORAGE, AND DISCHARGE LOCATION. THE DEWATERING PLAN MUST ENSURE THAT DISCHARGE WATER IS FREE OF SEDIMENT AND TURBID WATER IN ACCORDANCE WITH STATE AND LOCAL PERMIT REQUIREMENTS.
2. IF ANY TEMPORARY DEWATERING IS REQUIRED ONSITE THE CONTRACTOR SHALL DISPOSE OF STORMWATER OR GROUND WATER BY USE OF PUMPS AND HOSES TO ACCEPTABLE DISCHARGE POINTS APPROVED BY THE CITY AND PROJECT ENGINEER.
3. ANY ACCUMULATED SEDIMENT ALONG EXISTING CURB AND GUTTER THAT HAS COLLECTED AS A RESULT OF DISCHARGING DEWATERING HOSES SHALL BE IMMEDIATELY REMOVED AND PROPERLY DISPOSED OF AFTER EACH DISCHARGING EVENT.

FILTRATION BMP NOTES:

1. INSTALLATION OF INFILTRATION/FILTRATION PRACTICES SHALL BE DONE DURING PERIODS OF DRY WEATHER AND COMPLETED BEFORE A RAINFALL EVENT. PLACEMENT OF ENGINEERED SOILS SHALL BE ON DRY NATIVE SOIL ONLY.
2. EXCAVATION OF INFILTRATION AREAS SHALL BE COMPLETED USING A BACKHOE WITH A TOOTHED BUCKET.
3. THE BOTTOM EXCAVATION SURFACE OF INFILTRATION AREAS SHALL BE LEVEL WITHOUT DIPS OR SWALES.
4. DURING CONSTRUCTION, STORM WATER MUST BE ROUTED AROUND INFILTRATION AREAS UNTIL ALL CONSTRUCTION ACTIVITY HAS CEASED AND TRIBUTARY SURFACES ARE CLEANED OF SEDIMENT.
5. ENGINEERED SOIL SHALL REMAIN UNCONTAMINATED (NOT MIXED WITH OTHER SOIL) BEFORE AND DURING INSTALLATION.

EROSION CONTROL SCHEDULE:

1. PRIOR TO ANY CONSTRUCTION OR DEMOLITION, SILT FENCE AND FILTERS SHALL BE INSTALLED AS SHOWN TO INTERCEPT RUNOFF.
2. CONTRACTOR SHALL INSTALL EROSION CONTROL DEVICES AS INDICATED ON THIS EROSION CONTROL PLAN AND ANY ADDITIONAL REQUIRED BASED ON MEANS, METHODS AND SEQUENCES OF CONSTRUCTION.
3. ALL EROSION CONTROL INSTALLATIONS SHALL REMAIN IN PLACE AND BE MAINTAINED IN GOOD CONDITION BY THE CONTRACTOR UNTIL THE SITE HAS BEEN RE-VEGETATED. CONTRACTOR MAY REMOVE NECESSARY SILT FENCING/FILTERS TO CONSTRUCT ROADWAYS, WHILE MAINTAINING ADEQUATE EROSION CONTROL IN ADJACENT AREA.
4. SUFFICIENT TOPSOIL SHALL BE STOCKPILED TO ALLOW FOR THE REPLACEMENT OF 6" OF TOPSOIL FOR DISTURBED AREAS TO BE RE-VEGETATED.
5. SOIL COMPACTION SHALL BE MINIMIZED IN PROPOSED PERVIOUS AREAS ONSITE AND AVOID ALTOGETHER IN PROPOSED INFILTRATION BASINS. SOIL SURFACES IN PROPOSED PERVIOUS AREAS COMPACTED DURING CONSTRUCTION SHALL BE DECOMPACTED THROUGH SOIL AMENDMENT OR DEEP RIPPING TO AN 18" DEPTH.
6. THE CONTRACTOR SHALL SCHEDULE SITE GRADING, UTILITY INSTALLATION AND PAVEMENT CONSTRUCTION SO THAT THE GENERAL SITE CAN BE MULCHED AND RE-SEEDED SOON AFTER DISTURBANCE. AREAS THAT WILL NOT BE SUBJECT TO CONSTRUCTION TRAFFIC SHALL BE SEEDED (MN STATE SEED MIX 22-112 @ 40 LBS/AC AND MULCHED OR SODDED WITHIN SEVEN (7) DAYS OF BEING DISTURBED.

SEDIMENT CONTROL PRACTICES

1. THE CONTRACTOR MUST EMPLOY SEDIMENT CONTROL PRACTICES AS NECESSARY TO MINIMIZE SEDIMENT FROM ENTERING SURFACE WATERS, INCLUDING CURB AND GUTTER SYSTEMS AND STORM SEWER INLETS.
   a. TEMPORARY OR PERMANENT DRAINAGE DITCHES AND SEDIMENT BASINS THAT ARE DESIGNED AS PART OF A SEDIMENT CONTAINMENT SYSTEM (E.G., DITCHES WITH ROCK CHECK DAMS) REQUIRE SEDIMENT CONTROL PRACTICES ONLY AS APPROPRIATE FOR SITE CONDITIONS.
   b. IF THE DOWN GRADIENT SEDIMENT CONTROLS ARE OVERLOADED (BASED ON FREQUENT FAILURE OR EXCESSIVE MAINTENANCE REQUIREMENT), THE CONTRACTOR MUST INSTALL ADDITIONAL UPGRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPS TO ELIMINATE THE OVERLOADING, AND THE SWPPP MUST BE AMENDED TO IDENTIFY THESE ADDITIONAL PRACTICES AS REQUIRED IN PART III.B 1.-3.
2. SEDIMENT CONTROL PRACTICES MUST BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS AND BE LOCATED UPGRADIENT OF ANY BUFFER ZONES. THE PERIMETER SEDIMENT CONTROL PRACTICE MUST BE IN PLACE BEFORE ANY UPGRADIENT LAND DISTURBING ACTIVITIES BEGIN. THESE PRACTICES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION HAS BEEN ESTABLISHED IN ACCORDANCE WITH PART IV.G. A FLOATING SILT CURTAIN PLACED IN THE WATER IS NOT A SEDIMENT CONTROL BMP TO SATISFY PERIMETER CONTROL REQUIREMENTS IN THIS PART EXCEPT WHEN WORKING ON A SHORELINE AND BELOW THE WATERLINE. IN THOSE CASES, A FLOATING SILT CURTAIN CAN BE USED AS A PERIMETER CONTROL PRACTICE IF THE FLOATING SILT CURTAIN IS INSTALLED AS CLOSE TO SHORE AS POSSIBLE. IMMEDIATELY AFTER THE SHORT TERM CONSTRUCTION ACTIVITY (E.G. INSTALLATION OF RIP RAP ALONG THE SHORELINE) IN THAT AREA IS COMPLETE, AN UPLAND PERIMETER CONTROL PRACTICE MUST BE INSTALLED IF EXPOSED SOILS STILL DRAIN TO THE SURFACE WATER.
3. THE CONTRACTOR SHALL RE-INSTALL ALL SEDIMENT CONTROL PRACTICES THAT HAVE BEEN ADJUSTED OR REMOVED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES, IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY HAS BEEN COMPLETED. THE CONTRACTOR SHALL COMPLETE ANY SHORT-TERM ACTIVITY THAT REQUIRES REMOVAL OF SEDIMENT CONTROL PRACTICES AS QUICKLY AS POSSIBLE. THE CONTRACTOR MUST RE-INSTALL SEDIMENT CONTROL PRACTICES BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE.
4. ALL STORM DRAIN INLETS MUST BE PROTECTED BY APPROPRIATE BMPS DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED. INLET PROTECTION MAY BE REMOVED FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (STREET FLOODING/FREEZING) HAS BEEN IDENTIFIED BY THE CONTRACTOR OR THE JURISDICTIONAL AUTHORITY (E.G., CITY/COUNTY/TOWNSHIP/DISTRICT ENGINEER). THE CONTRACTOR MUST DOCUMENT THE NEED FOR REMOVAL IN THE SWPPP.
5. TEMPORARY SOIL STOCKPILES MUST HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS, AND CANNOT BE PLACED IN ANY NATURAL BUFFERS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCE CHANNELS AND GUTTER SYSTEMS, OR CONDUITS AND DITCHES UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER.
6. WHERE VEHICLE TRAFFIC LEAVES ANY PART OF THE SITE (OR ONTO PAVED ROADS WITHIN THE SITE):
   a. THE CONTRACTOR MUST INSTALL A VEHICLE TRACKING BMP TO MINIMIZE THE TRACK OUT OF SEDIMENT FROM THE CONSTRUCTION SITE. EXAMPLES OF VEHICLE TRACKING BMPS INCLUDE (BUT ARE NOT LIMITED TO) ROCK PADS, MUD MATS, SLASH MULCH, CONCRETE OR STEEL WASH RACKS, OR EQUIVALENT SYSTEMS.
   b. THE CONTRACTOR MUST USE STREET SWEEPING IF SUCH VEHICLE TRACKING BMPS ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED ONTO THE STREET (SEE PART IV.E.5.D.).
7. THE CONTRACTOR MUST INSTALL TEMPORARY SEDIMENTATION BASINS AS REQUIRED IN PART III.C. OF THIS PERMIT.
8. THE CONTRACTOR MUST MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL. MINIMIZING SOIL COMPACTION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA OF THE SITE DICTATES THAT IT BE COMPACTED.
9. THE CONTRACTOR MUST PRESERVE A 50 FOOT NATURAL BUFFER OR (IF A BUFFER IS INFEASIBLE ON THE SITE) PROVIDE REDUNDANT SEDIMENT CONTROLS WHEN A SURFACE WATER IS LOCATED WITHIN 50 FEET OF THE PROJECT'S EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER. NATURAL BUFFERS ARE NOT REQUIRED ADJACENT TO ROAD DITCHES, JUDICIAL DITCHES, COUNTY DITCHES, STORMWATER CONVEYANCE CHANNELS, STORM DRAIN INLETS, AND SEDIMENT BASINS. THE CONTRACTOR IS/ARE NOT REQUIRED TO ENHANCE THE QUALITY OF THE VEGETATION THAT ALREADY EXISTS IN THE BUFFER OR PROVIDE VEGETATION IF NONE EXIST. HOWEVER, CONTRACTOR CAN IMPROVE THE NATURAL BUFFER WITH VEGETATION.
10. IF THE CONTRACTOR INTEND TO USE POLYMERS, FLOCCULANTS, OR OTHER SEDIMENTATION TREATMENT CHEMICALS ON THE PROJECT SITE, THE CONTRACTOR MUST COMPLY WITH THE FOLLOWING MINIMUM REQUIREMENTS:
    a. THE CONTRACTOR MUST USE CONVENTIONAL EROSION AND SEDIMENT CONTROLS PRIOR TO CHEMICAL ADDITION TO ENSURE EFFECTIVE TREATMENT. CHEMICALS MAY ONLY BE APPLIED WHERE TREATED STORMWATER IS DIRECTED TO A SEDIMENT CONTROL SYSTEM WHICH ALLOWS FOR FILTRATION OR SETTLEMENT OF THE FLOC PRIOR TO DISCHARGE.
    b. CHEMICALS MUST BE SELECTED THAT ARE APPROPRIATELY SUITED TO THE TYPES OF SOILS LIKELY TO BE EXPOSED DURING CONSTRUCTION, AND TO THE EXPECTED TURBIDITY, PH, AND FLOW RATE OF STORMWATER FLOWING INTO THE CHEMICAL TREATMENT SYSTEM OR AREA.
    c. CHEMICALS MUST BE USED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES, AND WITH DOSING SPECIFICATIONS AND SEDIMENT REMOVAL DESIGN SPECIFICATIONS PROVIDED BY THE MANUFACTURER OR PROVIDER/SUPPLIER OF THE APPLICABLE CHEMICALS.

WINTER STABLIZATION:

GRADING CONTRACTOR REQUIREMENTS IN THE CASE WHERE THE ONSET OF WINTER DOES NOT ALLOW FOR COMPLETION OF MASS GRADING AND FINAL SOIL STABLIZATION IN THE FALL:

1. MASS GRADING ACTIVITIES SHALL BE PLANNED AND PHASED IN A MANNER TO AVOID ANY UNNECESSARY SOIL DISTURBANCE PRIOR TO WINTER SHUT DOWN.
2. ALL FINAL GRADED AREAS SHALL BE STABILIZED PERMANENTLY BY GRADING CONTRACTOR WITH SEEDING, MULCHING, BLANKET, ETC. IN ACCORDANCE WITH PLANS PRIOR TO CONTRACTOR LEAVING THE SITE AT WINTER SHUT DOWN.
3. THE GRADING CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL TEMPORARY OR INCOMPLETE GRADING AREAS INCLUDING ALL STOCKPILES ARE STABILIZED WITH TEMPORARY SEEDING (MN STATE SEED MIX 22-112 @ 40/AC, MULCH (MNDOT TYPE 1) BEFORE LEAVING THE SITE AT WINTER SHUT DOWN.
4. ALL SIGNIFICANT DRAINAGE SWALES (TEMPORARY OR PERMANENT) SHALL BE STABILIZED WITH MNDOT CATEGORY 3 EROSION CONTROL BLANKET BY GRADING CONTRACTOR PRIOR TO LEAVING THE SITE AT WINTER SHUT DOWN.

INSPECTIONS AND MAINTENANCE

1. THE CONTRACTOR MUST ENSURE THAT A TRAINED PERSON (AS IDENTIFIED IN ITEM 2221.2.b) WILL ROUTINELY INSPECT THE ENTIRE CONSTRUCTION SITE AT LEAST ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. FOLLOWING AN INSPECTION THAT OCCURS WITHIN 24 HOURS AFTER A RAINFALL EVENT, THE NEXT INSPECTION MUST BE CONDUCTED WITHIN SEVEN (7) DAYS AFTER THE RAINFALL EVENT.
2. ALL INSPECTIONS AND MAINTENANCE CONDUCTED DURING CONSTRUCTION MUST BE RECORDED WITHIN 24 HOURS IN WRITING AND THESE RECORDS MUST BE RETAINED WITH THE SWPPP IN ACCORDANCE WITH PART II.E. RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY SHALL INCLUDE:
   a. DATE AND TIME OF INSPECTIONS
   b. NAME OF PERSON(S) CONDUCTING INSPECTIONS
   c. FINDINGS OF INSPECTIONS, INCLUDING THE SPECIFIC LOCATION WHERE CORRECTIVE ACTIONS ARE NEEDED
   d. CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES)
   e. DATE AND AMOUNT OF ALL RAINFALL EVENTS GREATER THAN 1/2 INCH (0.5 INCHES) IN 24 HOURS. RAINFALL AMOUNTS MUST BE OBTAINED BY A PROPERLY MAINTAINED RAIN GAUGE INSTALLED ONSITE, A WEATHER STATION THAT IS WITHIN 1 MILE OF YOUR LOCATION OR A WEATHER REPORTING SYSTEM THAT PROVIDES SITE SPECIFIC RAINFALL DATA FROM RADAR SUMMARIES.
   f. IF ANY DISCHARGE IS OBSERVED TO BE OCCURRING DURING THE INSPECTION, A RECORD OF ALL POINTS OF THE PROPERTY FROM WHICH THERE IS A DISCHARGE MUST BE MADE, AND THE DISCHARGE SHOULD BE DESCRIBED (I.E., COLOR, ODOR, FLOATING, SETTLED, OR SUSPENDED SOLIDS, FOAM, OIL SHEEN, AND OTHER OBVIOUS INDICATORS OF POLLUTANTS) AND PHOTOGRAPHED.
   g. ANY AMENDMENTS TO THE SWPPP PROPOSED AS A RESULT OF THE INSPECTION MUST BE DOCUMENTED WITHIN SEVEN (7) CALENDAR DAYS.
3. INSPECTION FREQUENCY ADJUSTMENT
   a. WHERE PARTS OF THE PROJECT SITE HAVE PERMANENT COVER, BUT WORK REMAINS ON OTHER PARTS OF THE SITE, THE CONTRACTOR MAY REDUCE INSPECTIONS OF THE AREAS WITH PERMANENT COVER TO ONCE PER MONTH.
   b. WHERE CONSTRUCTION SITES HAVE PERMANENT COVER ON ALL EXPOSED SOIL AREAS AND NO CONSTRUCTION ACTIVITY IS OCCURRING ANYWHERE ON THE SITE, THE SITE MUST BE INSPECTED DURING NON-FROZEN GROUND CONDITIONS AT LEAST ONCE PER MONTH FOR A PERIOD OF TWELVE (12) MONTHS. FOLLOWING THE TWELFTH MONTH OF PERMANENT COVER AND NO CONSTRUCTION ACTIVITY, INSPECTIONS MAY BE TERMINATED UNTIL CONSTRUCTION ACTIVITY IS ONCE AGAIN INITIATED UNLESS THE CONTRACTOR IS/ARE NOTIFIED IN WRITING BY THE MPCA THAT EROSION ISSUES HAVE BEEN DETECTED AT THE SITE AND INSPECTIONS NEED TO RESUME.
   c. WHERE WORK HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, THE INSPECTIONS MAY BE SUSPENDED. THE REQUIRED INSPECTIONS AND MAINTENANCE SCHEDULE MUST BEGIN WITHIN 24 HOURS AFTER RUNOFF OCCURS AT THE SITE OR 24 HOURS PRIOR TO RESUMING CONSTRUCTION, WHICHEVER COMES FIRST.
4. THE CONTRACTOR IS/ARE RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE OF TEMPORARY AND PERMANENT WATER QUALITY MANAGEMENT BMPS, AS WELL AS ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS, UNTIL ANOTHER PERMITTEE HAS OBTAINED MPCA COVERAGE UNDER THIS PERMIT OR THE PROJECT HAS UNDERGONE FINAL STABILIZATION, AND HAS NOT BEEN SUBMITTED TO THE MPCA.
5. THE CONTRACTOR MUST INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS AND POLLUTION PREVENTION MANAGEMENT MEASURES TO ENSURE INTEGRITY AND EFFECTIVENESS DURING ALL ROUTINE AND POST-RAINFALL EVENT INSPECTIONS. ALL NONFUNCTIONAL BMPS MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WITH FUNCTIONAL BMPS BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS UNLESS ANOTHER TIME FRAME IS SPECIFIED BELOW. THE CONTRACTOR MUST INVESTIGATE AND COMPLY WITH THE FOLLOWING INSPECTION AND MAINTENANCE REQUIREMENTS:
   a. ALL PERIMETER CONTROL DEVICES MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES ONE-HALF (1/2) OF THE HEIGHT OF THE DEVICE. THESE REPAIRS MUST BE MADE BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY, OR THEREAFTER AS SOON AS FIELD CONDITIONS ALLOW ACCESS.
   b. TEMPORARY AND PERMANENT SEDIMENTATION BASINS MUST BE DRAINED AND THE SEDIMENT REMOVED WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES ONE-HALF (1/2) THE STORAGE VOLUME. DRAINAGE AND REMOVAL MUST BE COMPLETED WITHIN 72 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS (SEE PART IV.D.).
   c. SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS, MUST BE INSPECTED FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION DURING EACH INSPECTION. THE CONTRACTOR MUST REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS, AND RESTABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. THE REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. THE CONTRACTOR SHALL USE ALL REASONABLE EFFORTS TO OBTAIN ACCESS. IF PRECLUDED, REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) CALENDAR DAYS OF OBTAINING ACCESS. THE CONTRACTOR IS/ARE RESPONSIBLE FOR CONTACTING ANY LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK IN SURFACE WATERS.

CONSTRUCTION SITE VEHICLE EXIT LOCATIONS MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL PAVED SURFACES BOTH ON AND OFF SITE WITHIN 24 HOURS OF DISCOVERY, OR, IF APPLICABLE, WITHIN A SHORTER TIME TO AVOID A SAFETY HAZARD TO USERS OF PUBLIC STREETS.

   d. STREETS AND OTHER AREAS ADJACENT TO THE PROJECT MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE ACCUMULATIONS OF SEDIMENT. IF SEDIMENT IS PRESENT, IT MUST BE REMOVED IN A MANNER AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT IN STREETS COULD BE WASHED INTO STORM SEWERS BY THE NEXT RAIN AND/OR POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS).

6. ALL INFILTRATION AREAS MUST BE INSPECTED TO ENSURE THAT NO SEDIMENT FROM ONGOING CONSTRUCTION ACTIVITY IS REACHING THE INFILTRATION AREA. ALL INFILTRATION AREAS MUST BE INSPECTED TO ENSURE THAT EQUIPMENT IS NOT BEING DRIVEN ACROSS THE INFILTRATION AREA.

IMPAIRED WATER SPECIAL REQUIREMENT:

THE MINNESOTA RIVER IS CLASSIFIED AS AN IMPAIRED WATER. THUS, THE FOLLOWING REQUIREMENTS APPLY FOR THIS PROJECT:

2.3.9:
PERMITTEES MUST IMMEDIATELY INITIATE STABILIZATION OF EXPOSED SOIL AREAS, AS DESCRIBED IN ITEM B.4, AND COMPLETE THE STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE TEMPORARILY OR PERMANENTLY CEASES.

2.3.10:
PERMITTEES MUST PROVIDE A TEMPORARY SEDIMENT BASIN AS DESCRIBED IN SECTION 14 FOR COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH FIVE (5) OR MORE ACRES DISTURBED AT ONE TIME.

ALSO, A MANDATORY STORMWATER POLLUTION PREVENTION PLAN (SWPPP) REVIEW IS REQUIRED BY THE MPCA IF THE PROJECT WILL DISTURB OVER 50 ACRES AND HAS A DISCHARGE POINT ON THE PROJECT WITHIN 1 MILE (AERIAL RADIUS MEASUREMENT) OF, AND FLOWS TO, THE IMPAIRED WATER. OWNERS MUST SUBMIT THE APPLICATION FOR COVERAGE/SWPPP AT LEAST 14 CALENDAR DAYS BEFORE THE CONSTRUCTION START DATE. THE SWPPP CAN BE SUBMITTED ELECTRONICALLY WHEN USING THE ONLINE APPLICATION.

POLLUTION PREVENTION MANAGEMENT MEASURES

THE CONTRACTOR SHALL IMPLEMENT THE FOLLOWING POLLUTION PREVENTION MANAGEMENT MEASURES ON THE SITE:

1. STORAGE, HANDLING, AND DISPOSAL OF CONSTRUCTION PRODUCTS, MATERIALS, AND WASTES: THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING TO MINIMIZE THE EXPOSURE TO STORMWATER OF ANY OF THE PRODUCTS, MATERIALS, OR WASTES. PRODUCTS OR WASTES WHICH ARE EITHER NOT A SOURCE OF CONTAMINATION TO STORMWATER OR ARE DESIGNED TO BE EXPOSED TO STORMWATER ARE NOT HELD TO THIS REQUIREMENT:
   a. BUILDING PRODUCTS THAT HAVE THE POTENTIAL TO LEACH POLLUTANTS MUST BE UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) TO PREVENT THE DISCHARGE OF POLLUTANTS OR PROTECTED BY A SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER.
   b. PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TREATMENT CHEMICALS, AND LANDSCAPE MATERIALS MUST BE UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) TO PREVENT THE DISCHARGE OF POLLUTANTS OR PROTECTED BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER.
   c. HAZARDOUS MATERIALS, TOXIC WASTE, (INCLUDING OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT SOLVENTS, PETROLEUM BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) MUST BE PROPERLY STORED IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. RESTRICTED ACCESS STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE AND DISPOSAL OF HAZARDOUS WASTE OR HAZARDOUS MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH. 7045 INCLUDING SECONDARY CONTAINMENT AS APPLICABLE.
   d. SOLID WASTE M

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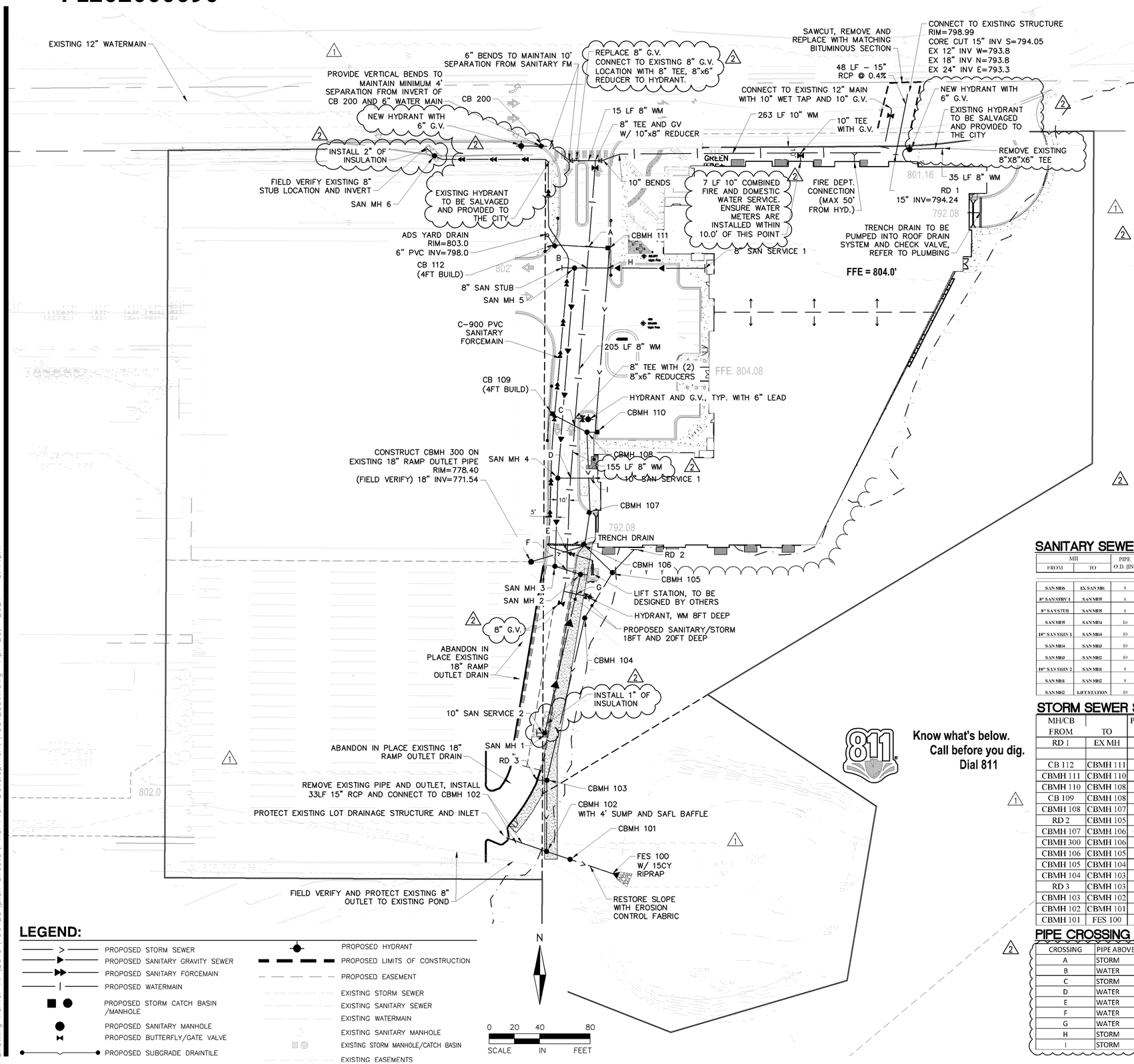

NOTES

1. EXISTING UTILITIES, SERVICE LOCATIONS AND ELEVATIONS SHALL BE VERIFIED IN FIELD PRIOR TO CONSTRUCTION.
2. MAINTAIN A MIN. 18" VERTICAL SEPARATION AT ALL PIPE CROSSINGS. LOWER WATERMAIN AS NECESSARY W/ BENDS AND FITTINGS. WATER AND SANITARY SEWER LINES TO MAINTAIN 10' HORIZONTAL SEPARATION.
3. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS PRIOR TO THE START OF CONSTRUCTION.
4. PROVIDE POLYSTYRENE INSULATION FOR ALL STORM SEWER AND WATERMAIN CROSSINGS WHERE VERTICAL OR HORIZONTAL SEPARATION IS LESS THAN 3'.
5. ALL UTILITY WORK SHALL COMPLY WITH THE CITY OF BLOOMINGTON ENGINEERING SPECIFICATIONS, LATEST EDITION.
6. NOTIFY GOPHER STATE ONE CALL 48 HOURS IN ADVANCE OF ANY UTILITY WORK.
7. PROVIDE TEMPORARY TRAFFIC CONTROL IN COMPLIANCE WITH MNDOT "TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS–FIELD MANUAL" LATEST REVISION, FOR ANY CONSTRUCTION WITHIN PUBLIC R.O.W.
8. ALL STORM SEWER CASTINGS SHALL BE NEENAH OR APPROVED EQUAL.
9. ALL SANITARY SEWER MANHOLES PER CITY OF BLOOMINGTON STANDARDS.
10. WATERMAIN, SERVICES, AND VALVES SHALL BE INSTALLED WITH MINIMUM 8.0' AND A MAXIMUM OF 10.0' OF COVER.
11. ALL WATERMAIN SHALL BE DIP WITH POLYWRAP PER CITY OF BLOOMINGTON STANDARDS.
12. ALL SANITARY BUILDING SERVICES SHALL BE PVC SDR 26, SDR 35 ALLOWED ON MAINS WHERE DEPTH PERMITS. ALL SANITARY FORCEMAIN TO BE C-900 PVC. SIZE TO BE DETERMINED BY OTHERS.
13. CONTRACTOR TO VERIFY ALL BUILDING CONNECTION POINTS WITH ARCHITECTURAL PLANS.
14. ALL ROOF DRAINS (RD) SHALL HAVE AN AT GRADE DOWNSPOUT OVERFLOW.
15. ALL ROOF WATER SHALL BE ROUTED TO THE SOUTH FILTRATION BASIN PER THE APPROVED STORMWATER MANAGEMENT PLAN.
16. MAINTAIN AND VERIFY 10' HORIZONTAL SEPARATION IS PROVIDED BETWEEN ALL WATERMAIN AND CATCHBASIN/MANHOLES.
17. CONTRACTOR TO COORDINATE ALL REQURIED WATER MAIN SHUT-OFF WITH CITY OF BLOOMINGTON AND CONTACT PROPERTY OWNERS.
18. CONTRACTOR TO ORDER AND PAY CITY FOR ALL WET TAPS ON SITE.
19. INSTALL INTERIOR CHIMNEY SEALS ON ALL SANITARY SEWER MANHOLES.
20. UTILITY AND MECHANICAL CONTRACTORS MUST COORDINATE THE INSTALLATION OF ALL WATER AND SEWER SERVICE PIPES INTO THE BUILDING TO ACCOMMODATE CITY INSPECTION TESTING.
21. COMBINATION FIRE AND DOMESTIC SERVICES MUST TERMINATE WITH A THREAD ON FLANGE OR AN MJ TO FLANGE ADAPTER.
22. ALL COMPONENTS OF THE WATER SYSTEM, UP TO THE WATER METER OR FIRE SERVICE EQUIPMENT MUST UTILIZE PROTECTIVE INTERNAL COATINGS MEETING CURRENT ANSI/AWWA STANDARDS FOR CEMENT MORTAR LINING OR SPECIAL COATINGS. THE USE OF UNLINED OR UNCOATED PIPE IS NOT ALLOWED.
23. ALL WORK TO BE COMPLETED PER THE GEOTECH REPORT.

SANITARY SEWER SCHEDULE:

MH FROM	MH TO	PIPE O.D. [IN]	PIPE SLOPE [FT/FT]	PIPE LENGTH [FT]	INVERT FROM	INVERT TO	RIM ELE	GRADE ELEV	STRUCTURE SIZE [IN]	MANHOLE BUILD OR COVER [FT]	PIPE TYPE
SAN MH6	EX SAN MH	8	0.004	25.7	801.30	801.20	806.75	N/A	48	4.45	SDR-35 PVC
8" SAN SERV 1	SAN MH5	8	0.0598	103.3	796.00	790.31	N/A	803.59	N/A	7.99	SDR-35 PVC
8" SAN STUB	SAN MH5	8	0.0263	9.2	793.35	793.09	N/A	802.89	N/A	8.51	SDR-35 PVC
SAN MH5	SAN MH4	10	0.0573	166.9	792.98	783.42	808.58	N/A	48	9.00	SDR-35 PVC
10" SAN SERV 1	SAN MH4	10	0.0199	28.1	783.50	782.96	N/A	795.24	N/A	11.74	SDR-35 PVC
SAN MH4	SAN MH3	10	0.0547	69.8	782.86	779.04	794.37	N/A	48	11.51	SDR-35 PVC
SAN MH3	SAN MH2	10	0.0547	21.2	778.94	777.78	792.38	N/A	48	13.44	SDR-35 PVC
10" SAN SERV 2	SAN MH1	8	0.0040	6.3	773.45	773.42	N/A	779.80	N/A	5.85	SDR-35 PVC
SAN MH1	SAN MH2	8	0.0040	128.7	773.32	772.81	779.27	N/A	48	5.95	SDR-35 PVC
SAN MH2	LIFT STATION	10	0.0547	5.8	772.71	772.39	792.94	N/A	48	20.23	SDR-35 PVC

STORM SEWER SCHEDULE:

MH/CB FROM	TO	P. DIA [IN]	P. SLOPE S [%]	P. TYPE	PIPE LENGTH [FT]	FROM INVERT	TO INVERT	RIM ELEV	STR TYPE	CAST TYPE	BUILD (FT)
RD 1	EX MH	15	0.004	RCP	48.1	794.2	794.0				
CB 112	CBMH 111	12	0.040	HDPE	45.0	797.7	795.9	801.7	2x3	R-3067-V	4.0
CBMH 111	CBMH 110	12	0.040	HDPE	137.6	795.9	790.4	802.3	48	R-3067-V	6.4
CBMH 110	CBMH 108	12	0.040	HDPE	16.6	790.4	789.7	799.6	48	R-3067-V	9.2
CB 109	CBMH 108	12	0.040	HDPE	35.2	794.2	792.8	798.2	2x3	R-3067-V	4.0
CBMH 108	CBMH 107	12	0.050	HDPE	49.5	788.0	785.5	798.9	48	R-3067-V	10.9
RD 2	CBMH 105	12	0.018	HDPE	25.0	785.5	785.1				
CBMH 107	CBMH 106	12	0.030	HDPE	34.3	786.0	785.0	791.9	48	R-3067-V	5.9
CBMH 300	CBMH 106	18	0.010	RCP	32.0	771.5	771.2	778.4	48	R-4342	6.9
CBMH 106	CBMH 105	18	0.015	RCP	33.0	771.2	770.7	791.3	48	R-3067-V	20.1
CBMH 105	CBMH 104	18	0.020	RCP	42.2	770.7	769.9	789.1	48	R-3067-V	18.4
CBMH 104	CBMH 103	18	0.060	RCP	131.9	769.9	762.0	789.0	48	R-1642	23.2
RD 3	CBMH 103	12	0.049	RCP	8.1	785.0	784.6				
CBMH 103	CBMH 102	18	0.080	RCP	56.3	762.0	757.5	776.6	48	R-1642	14.6
CBMH 102	CBMH 101	18	0.085	RCP	19.8	757.5	755.8	771.2	48	R-1642	17.8
CBMH 101	FES 100	27	0.022	RCP	39.9	745.8	744.9	760.1	48	R-1642	18.3

PIPE CROSSING SCHEDULE:

CROSSING	PIPE ABOVE	PIPE BELOW	ELEV. ABOVE	ELEV. BELOW	DISTANCE BETWEEN
A	STORM	WATER	796.58	794.3	2.28
B	WATER	SANITARY	793.57	791.57	2.00
C	STORM	WATER	793.38	789.86	3.52
D	WATER	SANITARY	785.88	783.15	2.73
E	WATER	STORM	783.23	771.34	11.89
F	WATER	SANITARY	783.67	778.4	5.27
G	WATER	SANITARY	782.91	772.87	10.04
H	STORM	SANITARY	795.26	792.45	2.81
I	STORM	SANITARY	786.32	783.46	2.86

LEGEND:

- PROPOSED STORM SEWER
- PROPOSED SANITARY GRAVITY SEWER
- PROPOSED SANITARY FORCEMAIN
- PROPOSED WATERMAIN
- PROPOSED STORM CATCH BASIN /MANHOLE
- PROPOSED SANITARY MANHOLE
- PROPOSED BUTTERFLY/GATE VALVE
- PROPOSED SUBGRADE DRAINTILE
- PROPOSED HYDRANT
- PROPOSED LIMITS OF CONSTRUCTION
- PROPOSED EASEMENT
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- EXISTING SANITARY MANHOLE
- EXISTING STORM MANHOLE/CATCH BASIN
- EXISTING EASEMENTS

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100 % GMP / PERMIT SET

UTILITY PLAN

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

DAVID NASH, PE
04-21-21 — 21836
Date — License No.

QUALITY ASSURANCE/CONTROL

BY — DATE

DATE	ISSUE
01-29-20	CITY SUBMITTAL
03-27-20	PROGRESS PLOT
05-06-20	REVISED CITY SUBMITTAL
06-17-20	ADDENDUM #1
07-23-20	REVIEW SET
07-30-20	CONSTRUCTION DOCUMENTS
01-29-21	100% GMP PERMIT SET
04-21-21	100% GMP / PERMIT SET

PROJECT TEAM DATA

DESIGNED:	DMS/DJN
DRAWN:	KDB/DMS
PROJECT NO:	190123

C-6.0

Drawing name: X:\2019\190123\plan sheets\Final Plan Development\190123util.dwg Apr 20, 2021 - 5:44pm

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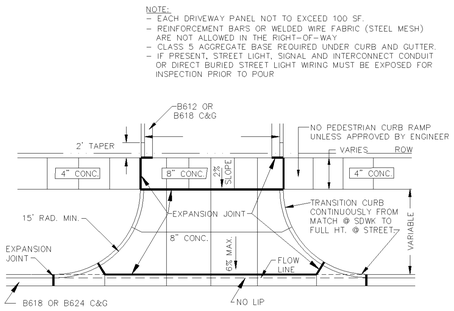
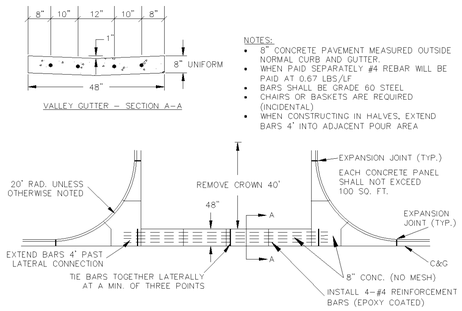
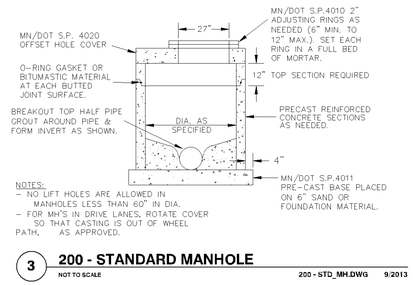


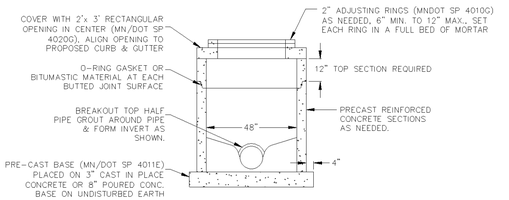
1 100 - NONRESIDENTIAL DRIVEWAY APPROACH WITH BOULEVARD SIDEWALK
NOT TO SCALE — 100 - Drwy (Commercial).dwg — 5/2015



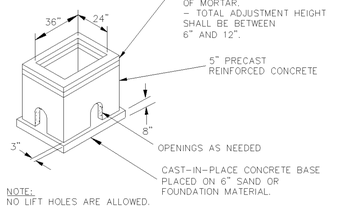
2 116 - VALLEY GUTTER AT INTERSECTION
NOT TO SCALE — 116 - Valley Gutter.dwg — 5/2015



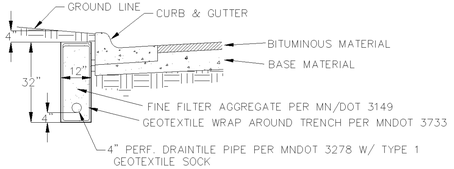
3 200 - STANDARD MANHOLE
NOT TO SCALE — 200 - STD_MH.DWG — 9/2013



4 203 - STANDARD MANHOLE (CB-MH)
NOT TO SCALE — 203 - STD_MH (CB-MH).DWG — 9/2016



5 206 - STANDARD CATCH BASIN
NOT TO SCALE — 206 - STD CB.DWG — 9/2016

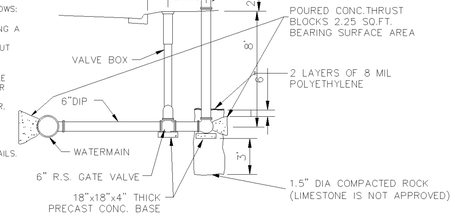


NOTE 1: SEE Mn/DOT SPEC. 2502 FOR ADDITIONAL INFORMATION

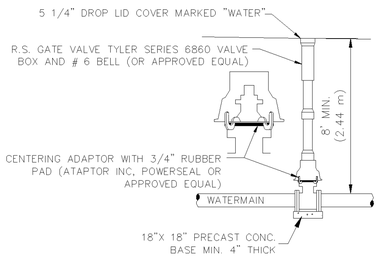
NOTE 2: INSTALL 20 LF AT CATCH BASINS AS NOTED ON THE PLANS

6 217 - DRAIN TILE (BEHIND CURB)
NOT TO SCALE — 217 - DRN TILE (BEHIND CURB).DWG — 9/2016

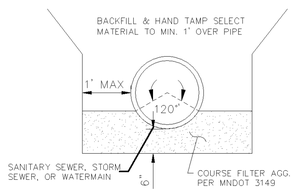
- HYDRANT TO BE:
  - o WATEROUS PACER CLASSIC.
  - o MUELLER SUPERCENTURION 250 MODEL A-423.
  - o OR APPROVED EQUAL.
- EQUIP WITH THREE HOSE NOZZLES/CONNECTIONS AS FOLLOWS:
  - o ONE - FACTORY INSTALLED 5 INCH STORZ-TYPE, QUARTER TURN PUMPER NOZZLE/CONNECTOR, INCLUDING A MANUFACTURER SUPPLIED AND INSTALLED ANODIZED ALUMINUM NOZZLE CAP WITH A 1.5 INCH PENTAGON NUT AND NO ROCKER LUG.
  - o TWO - 2.5 INCH HOSE NOZZLES/CONNECTIONS (WITH NATIONAL STANDARD THREADS) AND STANDARD NOZZLE CAPS WITH 1.5 INCH PENTAGON NUTS, AND NO ROCKER LUGS.
- USE SS NUTS AND BOLTS AS APPROVED BY THE ENGINEER.
- ALL EXPOSED WATERMAIN SHALL BE WRAPPED WITH POLYETHYLENE IN ACCORDANCE WITH AWWA C-105.
- BARREL TO BE BRIGHT RED.
- ALL VALVES TO OPEN COUNTER-CLOCKWISE.
- SEE TYPICAL VALVE INSTALLATION DETAIL FOR VALVE DETAILS.
- WATEROUS PACER CLASSIC HYDRANTS SHALL INCLUDE INSTALLATION OF THE MANUFACTURERS MOST CURRENT ANTI-CHATTER BRASS UPPER VALVE WASHER.



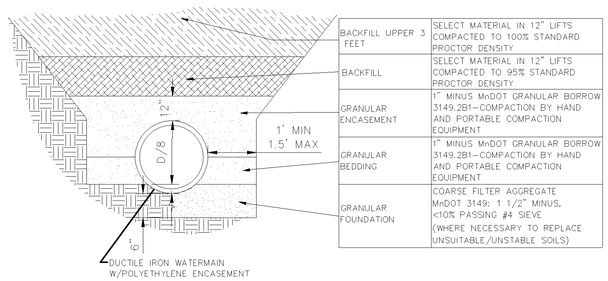
7 300 - TYPICAL HYDRANT INSTALLATION
NOT TO SCALE — 300 - Hyd Install.dwg — 6/2015



8 302 - TYPICAL VALVE INSTALLATION
NOT TO SCALE — 302 - Valve (RSGV).dwg — 6/2015



9 307 - FOUNDATION MATERIAL DETAIL
NOT TO SCALE — 307 - Foundation Material.dwg — 6/2015



BACKFILL UPPER 3 FEET	SELECT MATERIAL IN 12" LIFTS COMPACTED TO 100% STANDARD PROCTOR DENSITY
BACKFILL	SELECT MATERIAL IN 12" LIFTS COMPACTED TO 95% STANDARD PROCTOR DENSITY
GRANULAR ENCASEMENT	1" MINUS MnDOT GRANULAR BORROW 3149.2B1-COMPACTION BY HAND AND PORTABLE COMPACTION EQUIPMENT
GRANULAR BEDDING	1" MINUS MnDOT GRANULAR BORROW 3149.2B1-COMPACTION BY HAND AND PORTABLE COMPACTION EQUIPMENT
GRANULAR FOUNDATION	COARSE FILTER AGGREGATE MnDOT 3149: 1 1/2" MINUS, <10% PASSING #4 SIEVE (WHERE NECESSARY TO REPLACE UNSUITABLE/UNSTABLE SOILS)

10 308 - TYPICAL WATER MAIN INSTALLATION DETAIL
NOT TO SCALE — 308 - Watermain Install.dwg — 6/2015

N

0 15 30 60
SCALE IN FEET

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Minneapolis, MN 55402
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AMERICAN BOULEVARD E. AND 34TH AVE SOUTH
3601 AMERICAN BOULEVARD EAST

100 % GMP / PERMIT SET

DETAILS

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

DAVID NASH, PE
04-21-21
Date License No.

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BY DATE

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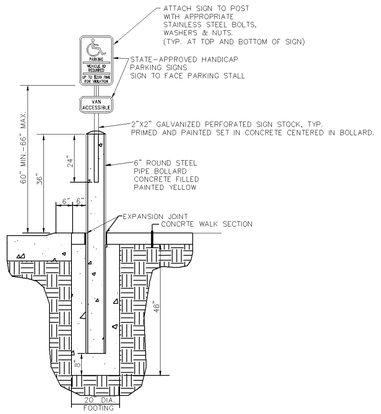
07-30-20	CONSTRUCTION DOCUMENTS
01-29-21	100% GMP PERMIT SET
04-21-21	100% GMP / PERMIT SET

PROJECT TEAM DATA
DESIGNED: DMS/DJN
DRAWN: KDB/DMS
PROJECT NO: 190123

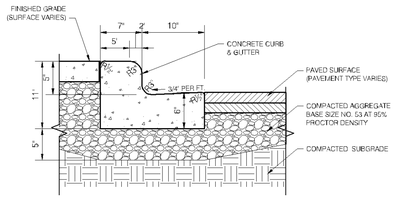
C-7.0

Drawing name: X:\2019\190123\plan sheets\Final Plan Development\190123details.dwg Apr 20, 2021 - 5:44pm

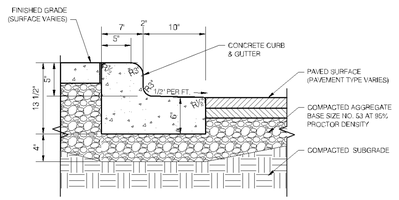
PL202000090



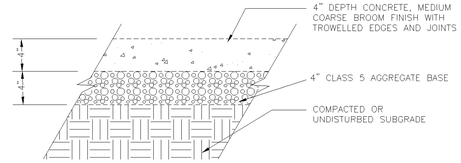
1 **ROUND BOLLARD WITH ACCESSIBLE SIGNAGE**
NOT TO SCALE



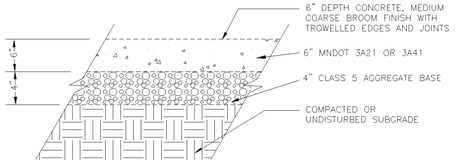
2 **B612 CURB AND GUTTER**
NOT TO SCALE



3 **B612 CURB AND GUTTER - OUTFALL**
NOT TO SCALE

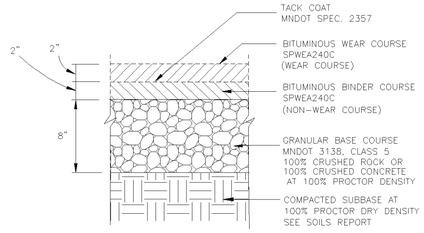


4 **CONCRETE SIDEWALK**
NOT TO SCALE



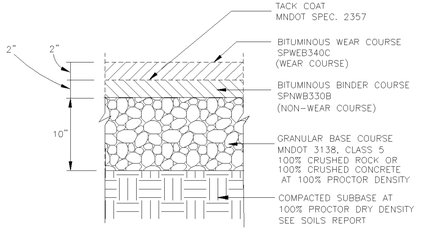
*GEOTECH TO VERIFY FINAL DESIGN

5 **CONCRETE PAVEMENT**
NOT TO SCALE



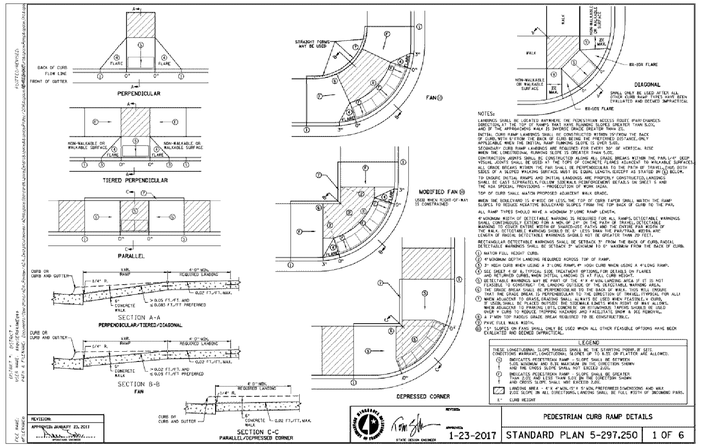
*GEOTECH TO VERIFY FINAL DESIGN

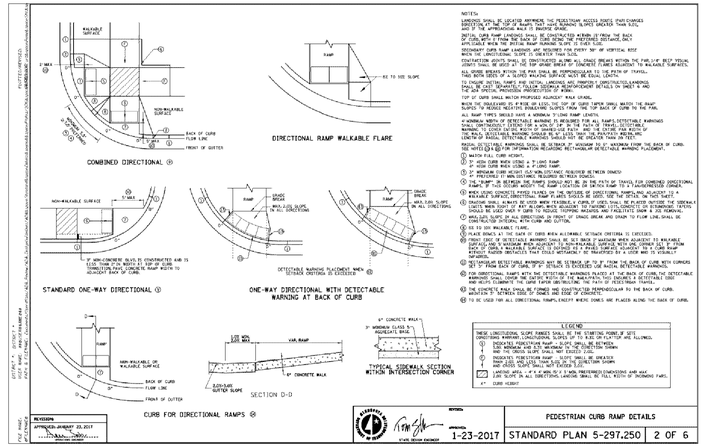
6 **LIGHT-DUTY BITUMINOUS PAVEMENT**
SOILS REPORT SUPERSEDES ABOVE SPEC NOT TO SCALE

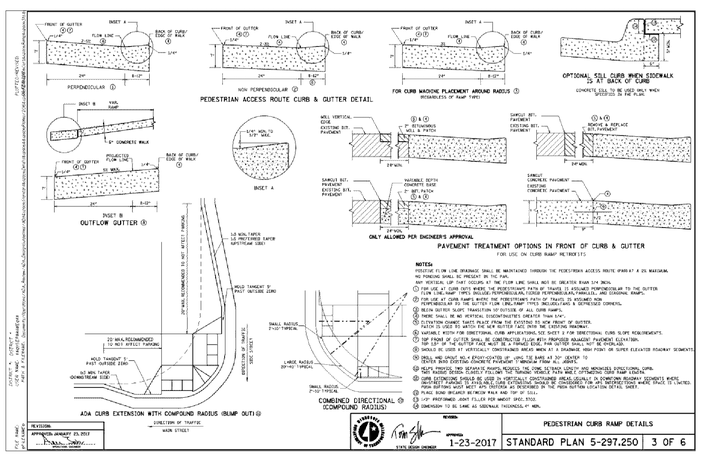


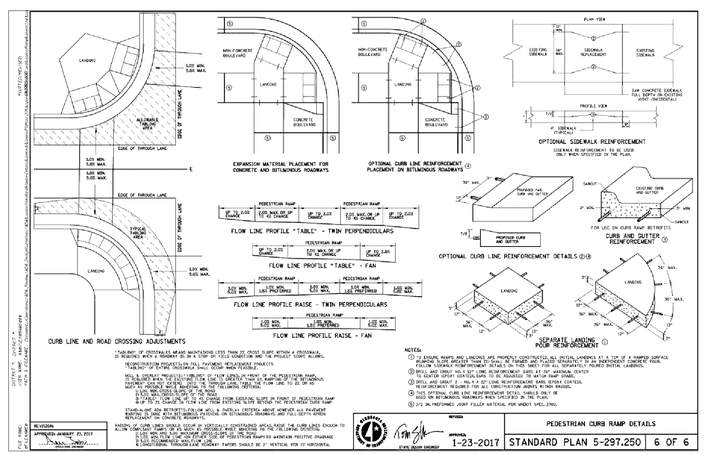
*GEOTECH TO VERIFY FINAL DESIGN

7 **HEAVY-DUTY BITUMINOUS PAVEMENT**
SOILS REPORT SUPERSEDES ABOVE SPEC NOT TO SCALE

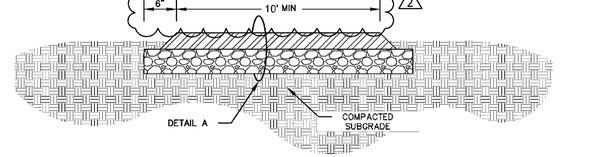


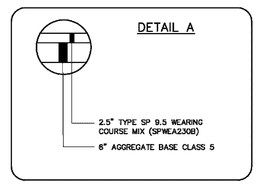






8 **PEDESTRIAN CURB RAMP**
NOT TO SCALE





NOTES:

PLACE ALL ASPHALT IN ONE LIFT TO PROVIDE A MINIMUM OF 2.5" COMPACTED DEPTH.

PROVIDE A MINIMUM BASE OF 6" COMPACTED AGGREGATE. IMPORT ADDITIONAL MATERIALS IF MILLING FAILS TO PRODUCE ADEQUATE BASE MATERIAL.

TAMP ALL TRAIL EDGES AT A 45° BEVEL.

CONTRACTOR IS RESPONSIBLE FOR ROUGH GRADING EDGES OF TRAIL CORRIDOR WITH ON-SITE MATERIAL. HOLD GRADES 3" LOWER THAN FINISHED TRAIL SURFACE TO ALLOW FOR ADDITIONAL TOPSOIL PLACEMENT AND SEED.

SLOPE OF BITUMINOUS TRAIL SHALL BE A MINIMUM OF 1% TO A MAXIMUM OF 2% TO THE DOWNHILL EDGE.

9 **BITUMINOUS TRAIL**
NOT TO SCALE

0 15 30 60
SCALE IN FEET

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PROJECT TEAM DATA

DESIGNED:	DMS/DJN
DRAWN:	KDB/DMS
PROJECT NO:	190123

C-7.1

Drawing name: X:\2019\190123\plan sheets\Final Plan Development\190123details.dwg Apr 20, 2021 - 5:45pm

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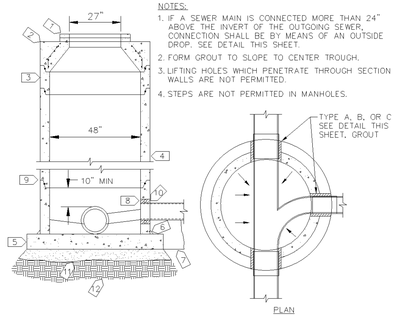
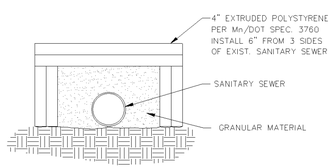


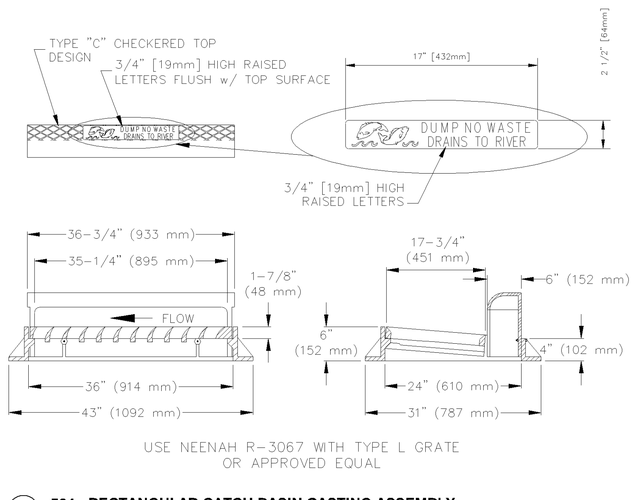
NOTES:
1. IF A SEWER MAIN IS CONNECTED MORE THAN 24" ABOVE THE INVERT OF THE OUTGOING SEWER, CONNECTION SHALL BE BY MEANS OF AN OUTSIDE DROP. SEE DETAIL THIS SHEET.
2. FORM GROUT TO SLOPE TO CENTER TROUGH.
3. LIFTING HOLES WHICH PENETRATE THROUGH SECTION WALLS ARE NOT PERMITTED.
4. STEPS ARE NOT PERMITTED IN MANHOLES.

KEY NOTES:
1. MN/DOT S.P.4010 2" ADJUSTING RINGS AS NEEDED [6" MIN. TO 12" MAX.]. SET EACH RING IN FULL BED OF MORTAR.
2. MN/DOT S.P.4010 TYPE C ALTERNATE SHORT CONE SECTION.
3. 12" TOP SECTION REQUIRED.
4. USE ONLY PRECAST SECTIONS. NO BRICK OR BLOCK
5. 8" CAST IN-PLACE CONCRETE OR 6" PRECAST REINFORCED CONCRETE (64" MINIMUM OD)
6. CEMENT MORTAR ALL AROUND
7. LEAN CONCRETE TO BEAR AGAINST FIRM UNDISTURBED SOIL
8. PROVIDE WATER TIGHT PIPE CONNECTIONS SEE DETAIL THIS SHEET
9. O-RING GASKET
10. FOR CONNECTION TO EXISTING MH'S, CORE DRILL OPENING AND PROVIDE TYPE B WATER TIGHT CONNECTOR
11. 6" SAND OR FOUNDATION MATERIAL
12. UNDISTURBED SOIL OR COMPACTED SUBGRADE

1 400 - STANDARD SANITARY SEWER MANHOLE
NOT TO SCALE — 400 - Std San MH.dwg 6/2015

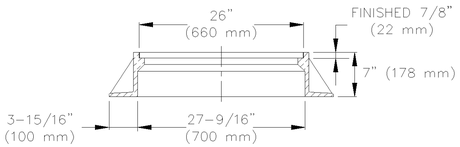


2 411 - SANITARY SEWER INSULATION DETAIL
NOT TO SCALE — 411 - Std San MH.dwg 6/2015



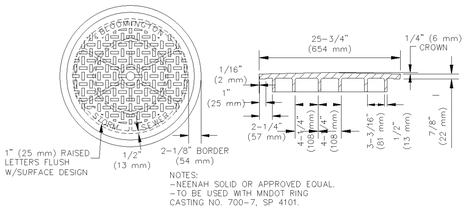
USE NEENAH R-3067 WITH TYPE L GRATE OR APPROVED EQUAL

3 504 - RECTANGULAR CATCH BASIN CASTING ASSEMBLY
NOT TO SCALE — 504 - Rect. CB.dwg 5/2015



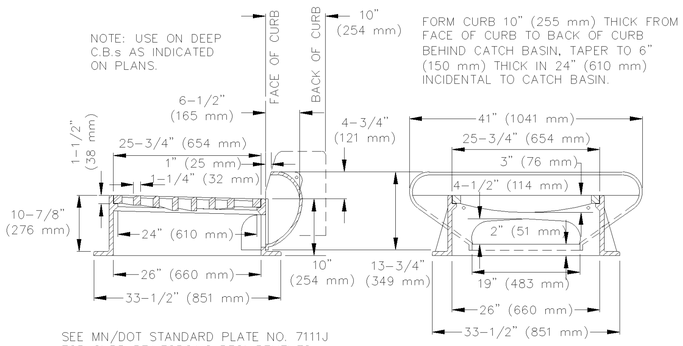
MN/DOT S.P. 4101D CASTING NO. 700-7

4 503 - RING CASTING FOR MANHOLE
NOT TO SCALE — 503 - MH Frame.dwg 5/2015



NOTES:
-NEENAH SOLID OR APPROVED EQUAL.
-TO BE USED WITH MNDOT RING CASTING NO. 700-7, SP 4101.

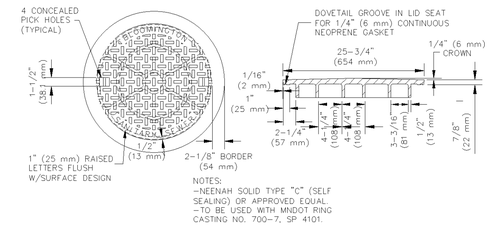
5 500 - STANDARD STORM SEWER MANHOLE COVER
NOT TO SCALE — 500 - Storm Cov (Solid).dwg 5/2015



SEE MN/DOT STANDARD PLATE NO. 7111J FOR CURB REINFORCING REQUIREMENTS.

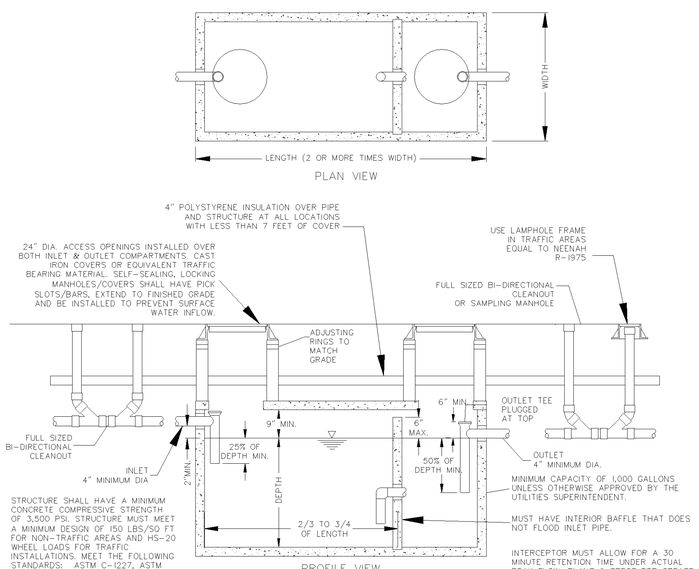
FRAME: MN/DOT STD PLATE 4126F CASTING 801
GRATE: MN/DOT STD PLATE 4149C CASTING 810
CURB BOX WITH 41" OPENING: AS SHOWN ABOVE
(USE NEENAH R-3250-1 OR APPROVED EQUAL)

7 505 - ROUND CATCH BASIN CASTING ASSEMBLY
NOT TO SCALE — 505 - Round CB.dwg 5/2015



NOTES:
-NEENAH SOLID TYPE "C" (SELF SEALING) OR APPROVED EQUAL.
-TO BE USED WITH MNDOT RING CASTING NO. 700-7, SP 4101.

8 501 - STANDARD SANITARY MANHOLE COVER
NOT TO SCALE — 501 - Sanitary Cov.dwg 5/2015

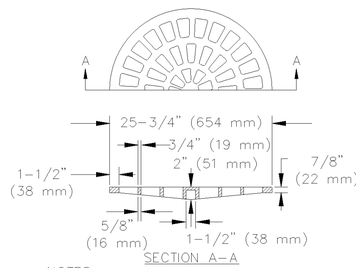


STRUCTURE SHALL HAVE A MINIMUM CONCRETE COMPRESSIVE STRENGTH OF 3,500 PSI. STRUCTURE MUST MEET A MINIMUM DESIGN OF 150 LBS/SQ FT FOR NON-TRAFFIC AREAS AND HS-20 WHEEL LOADS FOR TRAFFIC INSTALLATIONS. MEET THE FOLLOWING STANDARDS: ASTM C-1227, ASTM C-913, ASTM C-890 & ACI-318.

PLACE DURABLE WARNING SIGNS IN ACCESSWAYS: "GREASE INTERCEPTOR-DO NOT ENTER WITHOUT PROPER SAFETY EQUIPMENT"

INTERCEPTOR MUST ALLOW FOR A 30 MINUTE RETENTION TIME UNDER ACTUAL PEAK FLOW. PLANS & SPECS FOR GREASE INTERCEPTORS SHALL BE SUBMITTED AND APPROVED BY THE CITY OF BLOOMINGTON PRIOR TO INSTALLATION. PLANS SHOULD INCLUDE INTERIOR GREASE PIPING SHOWING ALL CONNECTED FIXTURES. PRESSURE OR VACUUM TEST TO BE WITNESSED BY CITY.

6 412 - GREASE INTERCEPTOR EXAMPLE
NOT TO SCALE - FOR INFORMATIONAL PURPOSES ONLY — 412 - Typical Grease Interceptor.dwg 12/2019



SECTION A-A

NOTES:
-USE NEENAH R-2296 TYPE C GRATE OR APPROVED EQUAL.
-TO BE USED WITH MNDOT RING CASTING NO. 700-7, SP 4101.

9 502 - RADIAL GRATE STORM MANHOLE COVER
NOT TO SCALE — 502 - Radial Grate.dwg 4/2009

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733 Marquette Avenue
Suite 700
Minneapolis, MN 55402
612.758.3080
www.alliant-inc.com

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DESIGNED:	DMS/DJN
DRAWN:	KDB/DMS
PROJECT NO:	190123

C-7.2

Drawing name: X:\2019\190123\plan sheets\Final Plan Development\190123details.dwg Apr 20, 2021 - 5:45pm

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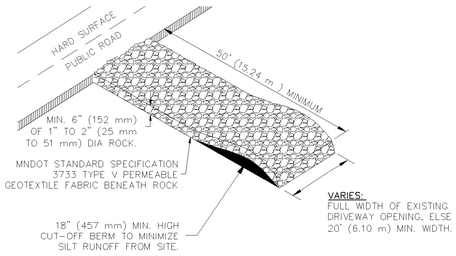
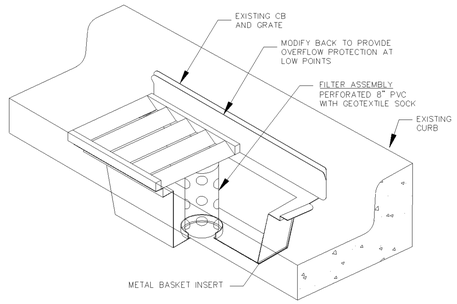


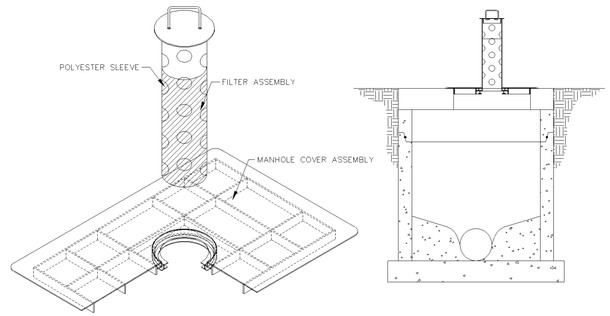
600 – ROCK CONSTRUCTION ENTRANCE AT ACCESS ROADS
600 – Rock Const. Ent.dwg 5/2015

1 600 - ROCK CONSTRUCTION ENTRANCE AT ACCESS ROADS
NOT TO SCALE 600 - Rock Const. Ent.dwg 5/2015



601 – INLET PROTECTION, METAL BASKET TYPE
601 – Wimco (CB).dwg 5/2015

2 601 - INLET PROTECTION, METAL BASKET TYPE
NOT TO SCALE 601 - Wimco (CB).dwg 5/2015



602 – INLET PROTECTION, MANHOLE COVER ASSEMBLY
602 – Wimco (MH).dwg 5/2015

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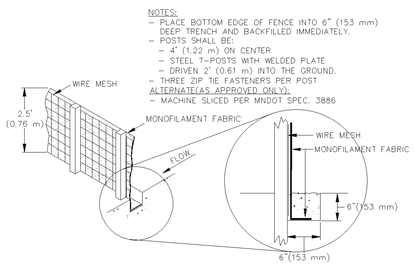
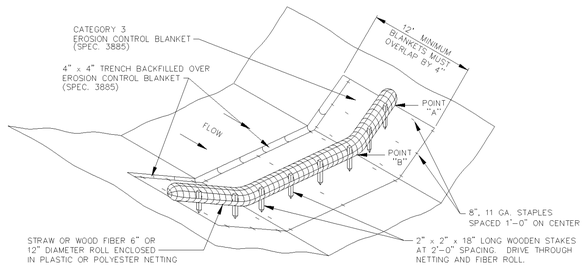


607 – SILT FENCE, TYPE HEAVY DUTY
607 – Silt Fen (HEAVY DUTY).dwg 5/2015

4 607 - SILT FENCE, TYPE HEAVY DUTY
NOT TO SCALE 607 - Silt Fen (HEAVY DUTY).dwg 5/2015



610 – BIOROLL BLANKET SYSTEM (TYPE 3 SPEC. 3889)
610 – Bioroll.dwg 5/2015

5 610 - BIOROLL BLANKET SYSTEM (TYPE 3 SPEC. 3889)
NOT TO SCALE 610 - Bioroll.dwg 5/2015

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733 Marquette Avenue
Suite 700
Minneapolis, MN 55402
612.758.3080
www.alliant-inc.com

AMERICAN SQUARE APARTMENTS
BLOOMINGTON, MN
AMERICAN BOULEVARD E. AND 34TH AVE SOUTH
3601 AMERICAN BOULEVARD EAST

100 % GMP / PERMIT SET

DETAILS

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

DAVID NASH, PE

04-21-21
Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
01-29-20	CITY SUBMITTAL
03-27-20	PROGRESS PLOT
05-06-20	REVISED CITY SUBMITTAL
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07-23-20	REVIEW SET
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PROJECT TEAM DATA

DESIGNED:	DMS/DJN
DRAWN:	KDB/DMS
PROJECT NO:	190123

C-7.3

Drawing name: X:\2019\190123\plan sheets\Final Plan Development\190123details.dwg Apr 20, 2021 – 5:45pm

PL202000090

LIMITS OF PUBLIC PARK (5,000 SF) SEE ENLARGEMENT

13'

10'

3-BS

3-SM

8-HL

2-SM

3-BS

2-SM

3-PB

2-PB

18-CBL

37-CBL

22-SAG

39-LH

9-HA

TRANSFORMER

10-BH

4-BH

8-BH

2' WIDE MAINTENANCE STRIP OVER WEED BARRIER OF 1.5" TRAP ROCK, 4" DEPTH

16-TY

AREA WELL, SEE ARCH.

1-PB

5-LH

3-RD

3-NH

35-LBS

26-LBS

ON GRADE PATIO, SEE ARCH.

6-GM

DOUBLE SHREDDED HARDWOOD MULCH OVER FILTER FABRIC, TYP. SEE NOTES

8-SJ

2-RB

8-WLC

12-WLC

FFE: 804.0

10-LBS

7-CBL

3-BH

3-BH

63-WLC

12-MFG

9-GRZ

STONE SLAB, TYP.

BIKE RACKS STALLS: 10

2-RB

8-WLC

4-SJ

6-LBS

5-BH

11-LH

4-BH

5-LH

ON GRADE PATIO, SEE ARCH.

6-BH

9-GM

4-RD

TRANSFORMER

WOODLAND SEED MIX IN DISTURBED AREAS AT REAR OF BUILDING

MAINTENANCE STRIP OVER WEED BARRIER OF 1.5" TRAP ROCK, 4" DEPTH

6-NH

WOODLAND SEED MIX IN DISTURBED AREA

LEGEND

- DECIDUOUS OVERSTORY TREES
- ORNAMENTAL TREES
- EVERGREEN SHRUBS
- DECIDUOUS SHRUBS
- ORNAMENTAL GRASSES/PERENNIAL
- SOD
- POLY EDGING
- WOODLAND SEED MIX (SEE SEEDING NOTES)

N

0 15 30 60

SCALE IN FEET

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733 Marquette Avenue
Suite 700
Minneapolis, MN 55402
612.758.3080
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AMERICAN SQUARE APARTMENTS

BLOOMINGTON, MN

LANDSCAPE PLAN

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DESIGNED:	DMS/DJN
DRAWN:	KDB/DMS
PROJECT NO:	190123

L-1.0

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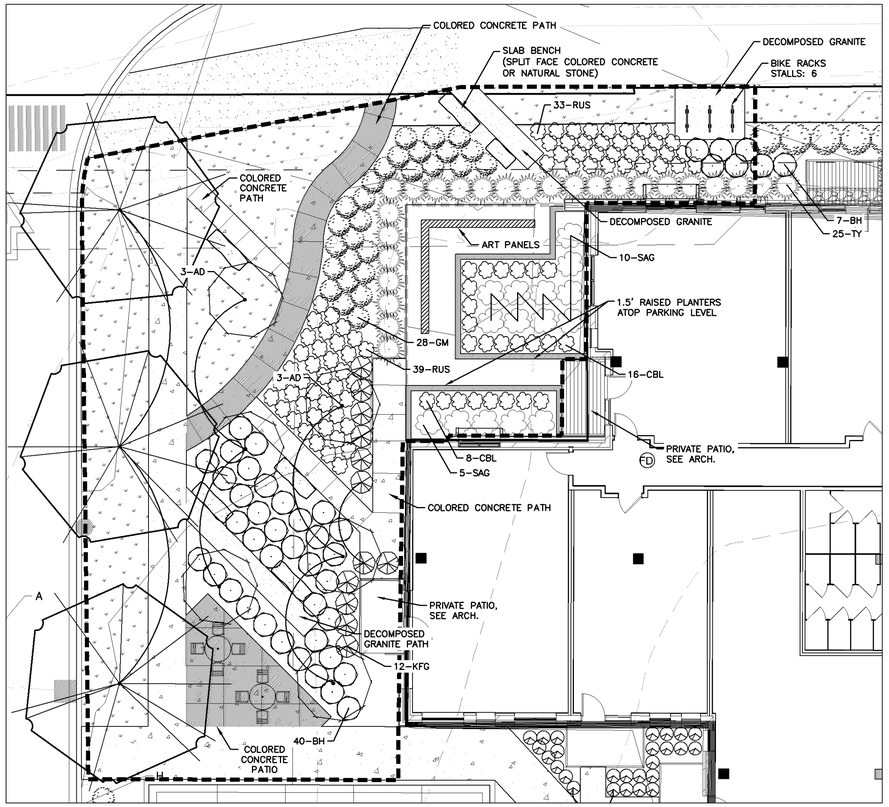
PL202000090



PUBLIC PARK LANDSCAPE ENLARGEMENT
1" = 10'

N

SCALE 0 5' 10' 20' IN FEET

PUBLIC PARK/PLAZA REQUIREMENTS

TOTAL PLAZA AREA
REQUIRED: 5,000 SF
PROVIDED: 5,000 SF

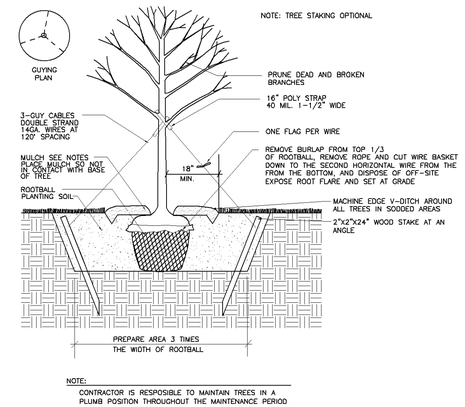
ABUTTING PUBLIC WAY
REQUIRED (350 LF X 25%): 87.5 LF
PROVIDED (25%): 88 LF

LANDSCAPE/WATER FEATURE
REQUIRED (30%): 1,500 SF
PROVIDED (60%): 3,019 SF

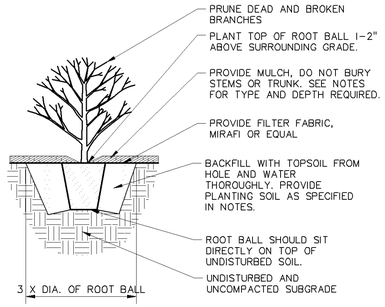
SEATING REQUIREMENT
REQUIRED (5,000/200 SF): 25 SEATS
PROVIDED (5,000/200 SF): 25 SEATS

LANDSCAPE NOTES:

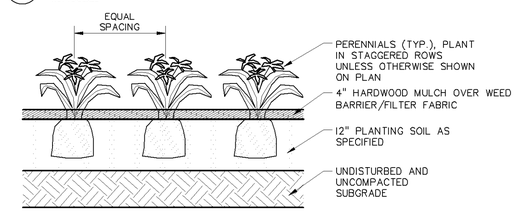
1. CALL GOPHER STATE ONE CALL AT 651-454-0002 FOR LOCATING ALL UNDERGROUND UTILITIES AND TO AVOID DAMAGE TO UTILITIES DURING THE COURSE OF THE WORK.
2. INSTALL 4" MIN. TOP SOIL TO ALL SOD AND SHRUB AREAS. FINE GRADE ALL SOD AREAS. INSTALL 12" PLANTING (TOP) SOIL TO ALL ANNUAL/PERENNIAL AREAS.
3. STAKE OR MARK ALL PLANT MATERIAL LOCATIONS PRIOR TO INSTALLATION. HAVE OWNERS REPRESENTATIVE APPROVE ALL STAKING PRIOR TO INSTALLATION.
4. ALL SHRUB AREAS UNLESS SPECIFIED AS OTHER ON THE PLAN, TO BE BED MULCHED WITH 4" DEPTH OF HARDWOOD MULCH, DARK BROWN COLOR, OVER FILTER FABRIC, POLY-EDGER TO BE VALLEY VIEW BLACK DIAMOND OR APPROVED.
5. ALL MULCH AND ROCK (BOULDERS, COBBLESTONE, ETC) TO BE APPROVED BY OWNER AND/OR LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
6. INSTALL 4-6" DEPTH SHREDDED HARDWOOD MULCH AROUND ROOT SAUCER OF ALL TREES ISOLATED FROM PLANT BEDS. DO NOT PLACE LANDSCAPE FABRIC OR MULCH ONTO TREE TRUNK.
7. PLANTING SOIL SHALL BE 1:1:1 CONSISTING OF 33% SELECT LOAMY TOPSOIL, 33% PEAT MOSS, 33% PIT RUN SAND.
8. COMPLETELY GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR BEGINNING AT THE DATE OF ACCEPTANCE. MAKE ALL REPLACEMENTS PROMPTLY (AS PER DIRECTION OF OWNER).
9. ALL MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMEN.
10. ALL TREE TRUNKS SHALL BE WRAPPED WITH BROWN CREPE TREE WRAP. APPLY WRAP IN NOVEMBER AND REMOVE IN APRIL.
11. MAINTAIN ALL PLANT MATERIALS, INCLUDING WATERING, UNTIL THE TIME OF ACCEPTANCE.
12. COORDINATE LANDSCAPE INSTALLATION WITH GENERAL CONTRACTOR.
13. STAKING AND GUYING OF TREES OPTIONAL: MAINTAIN PLUMBNESS OF TREES FOR DURATION OF WARRANTY PERIOD.
14. SWEEP AND WASH ALL PAVED SURFACES AND REMOVE ALL DEBRIS RESULTING FROM LANDSCAPE OPERATIONS DAILY.
15. SUPPLY DESIGN AND INSTALLATION FOR NEW IRRIGATION SYSTEM WITH 100% COVERAGE OF SOD AND PLANTING AREAS INCLUDING PLANTINGS ON THE POOL DECK (SEE SHEET L-2.0). USE RAINBIRD OR APPROVED EQUAL. COORDINATE INSTALLATION WITH G.C. SOD AND SHRUB AREAS TO BE ON SEPARATE ZONES. PROVIDE RAIN SENSOR.



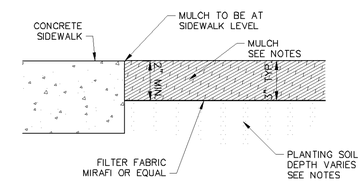
1 TREE PLANTING
NOT TO SCALE



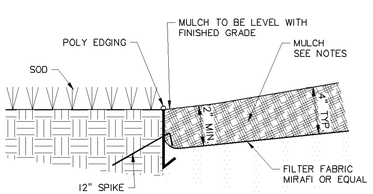
2 SHRUB PLANTING
NOT TO SCALE



3 PERENNIAL PLANTINGS
NOT TO SCALE



4 MULCH AT SIDEWALK DETAIL
NOT TO SCALE



5 MULCH AT SOD DETAIL
NOT TO SCALE

LANDSCAPE SCHEDULE

QUANTITY	KEY	COMMON NAME	SCIENTIFIC NAME	SIZE / ROOT TYPE	NOTES
OVERSTORY TREES					
8	HL	Northern Acciaim Honey Locust	Gleditsia Tricanthos var. inermis 'Harve'	2.5" cal. B&B	Straight Trunk, No V-Crotch
9	NH	New Horizon Elm	Ulmus carpinifolia 'New Horizon'	2.5" cal. B&B	Straight Trunk, No V-Crotch
7	SM	Autumn Spire Maple	Acer rubrum 'Autumn Spire'	2.5" cal. B&B	Straight Trunk, No V-Crotch
5	PB	Paper Birch	Betula papertifera	10' ht. B&B	Clump Form
3	RB	River Birch	Betula nigra	12' ht. B&B	Clump Form
EVERGREEN TREES					
6	BS	Black Hills Spruce	Picea densata 'Black Hills'	10' ht. B&B	Clump Form
ORNAMENTAL TREES					
5	AD	Adirondak Flowering Crab	Malus 'Adirondack'	1.5" cal. B&B	Straight Trunk, No V-Crotch
SHRUBS					
86	BH	Dwarf Bush Honeysuckle	Dierville lonicera	18" ht. cont.	Min. 5 canes at ht. spec.
43	GM	Goldmound Spirea	Spiraea 'Goldmound'	18" ht. cont.	Min. 5 canes at ht. spec.
9	HA	Holmstrup Arborvitae	Thuja occidentalis 'Holmstrup'	6' ht. B&B	Full Form
60	LH	Lime Light Hydrangea	Hydrangea paniculata 'Limelight'	18" ht. cont.	Min. 5 canes at ht. spec.
7	RD	Red Twig Dogwood	Cornus Alba	36" ht cont.	Min. 5 canes at ht. spec.
8	SJ	Scandia Juniper	Juniperus sabina 'Skandia'	18" ht. cont.	Min. 5 canes at ht. spec.
42	TY	Taunton Yew	Taxus x media 'Taunton'	24" ht. cont.	Full Form
PERENNIALS & ORNAMENTAL GRASSES					
86	CBL	Champagne Coral Bells	Heuchera 'Champagne'	1 gal cont.	
8	GRZ	Miscanthus Graziella	Miscanthus sinensis 'Graziella'	3 gal cont.	
42	LBS	Little Bluestem	Schizachyrium scoparium	1 gal cont.	
26	MFG	Miscanthus Flame	Miscanthus sinensis 'Purpurascens'	3 gal cont.	
72	RUS	Little Spire Russian Sage	Perovskia atriplicifolia 'Little Spire'	1 gal cont.	
30	SAG	Sagae Hosta	Hosta 'Sagae'	1 gal cont.	
90	WLC	Walker's Low Catmint	Nepeta x faasenii 'Walker's Low'	1 gal cont.	

LANDSCAPE REQUIREMENTS

DEVELOPABLE AREA:

TOTAL DEVELOPABLE AREA: 108,963 SF
APPLE TREE 4TH ADD.
- LOT 1 BLK 1
- OUTLOT A

LANDSCAPE CALCULATIONS:

TREES REQUIRED: 44 TREES
(1/2,500 SF DEVELOPABLE)

TREES PROVIDED: 44 TREES

SHRUBS REQUIRED: 109 SHRUBS
(1/1,000 SF DEVELOPABLE)

SHRUBS PROVIDED: 268 SHURBS

NOTE: TREES NOT REQUIRED IN PARKING LOTS WITH 50 OR FEWER SPACES.

SEED PLANTING NOTES:

WOODLAND SEED MIX: MN STATE SEED MIX #36-711 WOODLAND EDGE CENTRAL
SEEDING RATE TO BE 35.5 LBS/ACRE (PURE LIVE SEED)

APPLY SEED PER THE FOLLOWING: MULCH SEEDED AREAS WITH MnDOT TYPE 3 (MCIA CERTIFIED WEED FREE) MULCH AT A RATE OF 1 TON PER ACRE WITHIN 48 HOURS OF SEEDING. MULCH SHOULD THEN BE DISC ANCHORED TO KEEP IT FROM BLOWING AWAY.

SEEDING SHALL BE APPLIED FROM APRIL 15 - JUNE 30 OR NOVEMBER 1 - FREEZE UP. IF HYDROSEEDING UTILIZE APPROXIMATELY 500 GALLONS OF WATER PER ACRE. REFER TO MN/DOT SPEC 3884 FOR PROPER INSTALLATION OF HYDRO-SEED. ALL NATIVE SEEDS USED ON THIS PROJECT SHALL BE CERTIFIED TO BE OF MINNESOTA ORIGIN BY THE MINNESOTA CROP IMPROVEMENT ASSOCIATION (MCIA). SITE TO BE PREPARED BY LOOSENING TOPSOIL TO A MINIMUM DEPTH OF 3 INCHES. THE SITE TO BE HARROWED OR RAKED FOLLOWING SEEDING, AND THEN PACKED USING A CULTI-PACKER OR EQUIVALENT. SEE MNDOT SEEDING MANUAL FOR REFERENCE.

MAINTAIN SEEDED AREAS BY WATERING, REMULCHING AND REPLANTING AS NECESSARY TO ESTABLISH A UNIFORMLY DENSE STAND OF THE SPECIFIED GRASSES UNTIL ACCEPTED. ANY AREAS FAILING TO ESTABLISH A STAND SHALL BE RESEEDED, REFERTILIZED AND REMULCHED WHENEVER 70% VEGETATIVE COVER IS NOT ACHIEVED. RESEEDING SHALL CONFORM IN ALL RESPECTS TO THESE SPECIFICATIONS. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO THE WORK AREAS RESULTING FROM EROSION AND/OR EQUIPMENT. THE CONTRACTOR SHALL REPAIR DAMAGE, INCLUDING REGRADING, RESEEDING, ETC. AS NECESSARY, BEFORE SIGNIFICANT DAMAGE OCCURS.

REFER TO MINNESOTA STATE SEED MIX MANUAL.

SOIL PREPARATION:

1. PRIOR TO THE INSTALLATION OF THE LANDSCAPE AND IRRIGATION SYSTEM, CONTRACTOR TO PREPARE SOIL TO ENSURE A PROPER ENVIRONMENT FOR PLANT ROOT DEVELOPMENT.
2. CONTRACTOR TO DE-COMPACT SOILS IN PLANTING AREAS BY ROTO-TILLING, DISKING OR RIPPING TO DEPTH OF 6-8" MINIMUM AND PREFERABLE A DEPTH OF 12-18". DE-COMPACTION OF SMALL PLANTER AREAS, SUCH AS THOSE IN PARKING LOT AREAS, MAY REQUIRE THE REMOVAL OF THE COMPACTED SOIL TO A DEPTH OF 18" OR MORE AND THEN RE-INSTALLED LOOSELY WITH REQUIRED AMENDMENTS. ALWAYS REMOVE DEBRIS OVER 2" IN SIZE FROM THE SOIL.
3. WHEN PERFORMING SOIL DE-COMPACTION, MULTIPLE PASSES ACROSS THE AREA WILL BE REQUIRED AND, WHEN POSSIBLE, SHOULD BE AT VARYING ANGLES TO ENSURE ADEQUATE COVERAGE. WHEN USING DISC OR RIPPING EQUIPMENT, IT IS REQUIRED THAT THE FINAL PASSES OVER THE AREA BE MADE WITH A ROTO-TILLER TO BREAK UP ANY LARGE CLUMPS TO MAKE FINAL GRADING EASIER.
4. AFTER INITIAL SOIL DE-COMPACTION PROCEDURES ARE PERFORMED, SOIL AMENDMENTS SHOULD BE ADDED. THE ADDITION OF SOIL AMENDMENTS IS DETERMINED FROM SOIL TESTS CONDUCTED PRIOR TO WORK COMMENCING. SOIL AMENDMENT MAY INCLUDE INORGANIC MATERIAL SUCH AS SAND, SILT OR CLAY, WHICH HELP IMPROVE SOIL TEXTURE. ORGANIC MATERIAL SUCH AS COMPOST, MANURE, AND PEAT MOSS MAY ALSO BE USED AND HELP IMPROVE SOIL STRUCTURE. OTHER AMENDMENTS SUCH AS FERTILIZER IMPROVE NUTRIENT CONTENT AND SULFUR ADJUSTS THE SOIL PH LEVEL. SULFUR SHALL BE INCORPORATED AT THE RATE OF ONE POUND OF SULFUR PER 100 SQUARE FEET.
5. ALL AMENDMENTS SHOULD BE MIXED THOROUGHLY WITH EXISTING SOIL AND AN ADDITIONAL SOIL TEST WILL BE TAKEN TO ENSURE PROPER SOIL CONDITIONS PRIOR TO PLANTING.

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