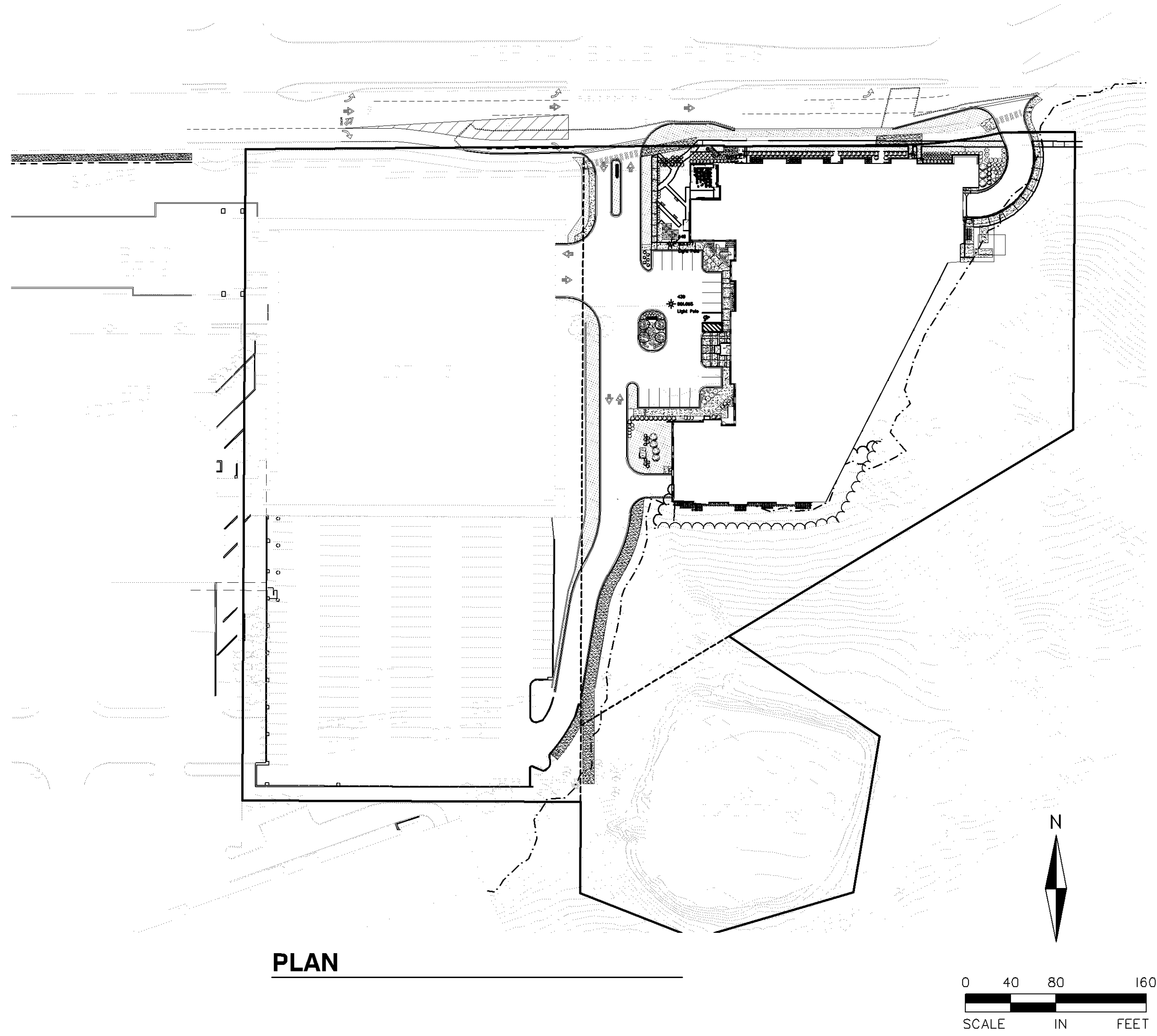


ARDOR APARTMENTS
AMERICAN BOULEVARD E AND 34TH AVE SOUTH
BLOOMINGTON, MINNESOTA
FINAL DEVELOPMENT PLAN



SITE VICINITY MAP

SHEET INDEX

Sheet Number	Sheet Title
C-1.0	COVER PAGE
C-2.0	EXISTING CONDITIONS
C-2.1	TREE INVENTORY
C-3.0	DEMOLITION PLAN
C-4.0	SITE PLAN
C-5.0	GRADING AND EROSION CONTROL PLAN
C-5.1	EROSION CONTROL, SWPPP, AND BLUFF PROTECTION NOTES
C-6.0	UTILITY PLAN
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C-7.2	DETAILS
C-7.3	DETAILS
L-1.0	LANDSCAPE PLAN
L-2.0	LANDSCAPE DETAILS

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

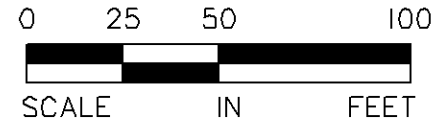
ARDOR APARTMENTS
BLOOMINGTON, MN
AMERICAN BOULEVARD E. AND 34TH AVE SOUTH
3601 AMERICAN BOULEVARD EAST
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COVER PAGE

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 under the laws of the State of MINNESOTA
DAVID NASH, PE
04-04-22
Date License No.

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8-18-22	TITLE UPDATE
8-23-22	CITY GRADING PERMIT

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

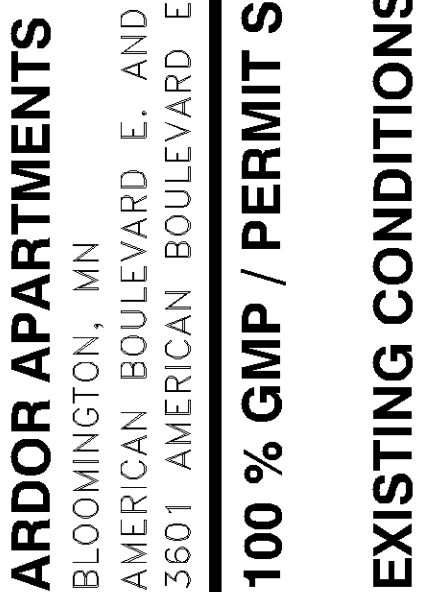
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GENERAL NOTES:

The baseping system used is assumed.

2. The location of the underground utilities shown herein, if any, are approximate only. PURSUANT TO MSA 216B CONTACT Gopher State ONE CALL AT (812) 454-0002 PRIOR TO ANY EXCAVATION.
3. Subject property is identified as being in "Zone X, Other Areas" on Flood Insurance Rate Map No. ZVI05C0037E, effective date November 4, 2016.
4. Site Area = 389,500 square feet = 8.942 acres
5. There are 191 surface paved parking stalls on said property. 2 are designated as handicap.
 - a. Handicap Ramp Total = 195 parking stalls of which there are 24 Handicap parking (see 2014 survey by H&S)
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 Policy #1000214474 issued by American Title Insurance Company Commitment Number NS-700021447 dated December 3, 2014. Legal description, recorded or unrecorded easements and encumbrances are subject to the above stated reliance on current title work.
8. Elevation datum is based on NAVD 88 data.
9. HSABenchmark #1 is located Top Nod Hydrant (AS SHOWN ON SURVEY). ELEVATION = 805.99
10. LIDAR contour information was used to fill the sites, overgrown and heavily wooded areas of the site.
11. LIDAR contour lines have contours only up to 8 ft steep elevations.

DISCLAIMER AND CREDITS: LIDAR data shown and provided is subject to the disclaimer provided below. DISCLAIMER: Data obtained from WILCOX MFG CO's collaborative effort between MNIT Services & Minnesota Department of Natural Resources and MNIT Services & McCo-

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PROJECT TEAM DATA
DESIGNED:
DRAWN:
PROJECT NO:

C-2.0

Drawing name: X:\2019\190123\plan sheets\Final Plan Development\190123tree.dwg Aug 19, 2022 — 3:20pm

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	

PL202200168



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TREE INVENTORY

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
DAVID NASH, PE
04-04-22 21836
Date License No.

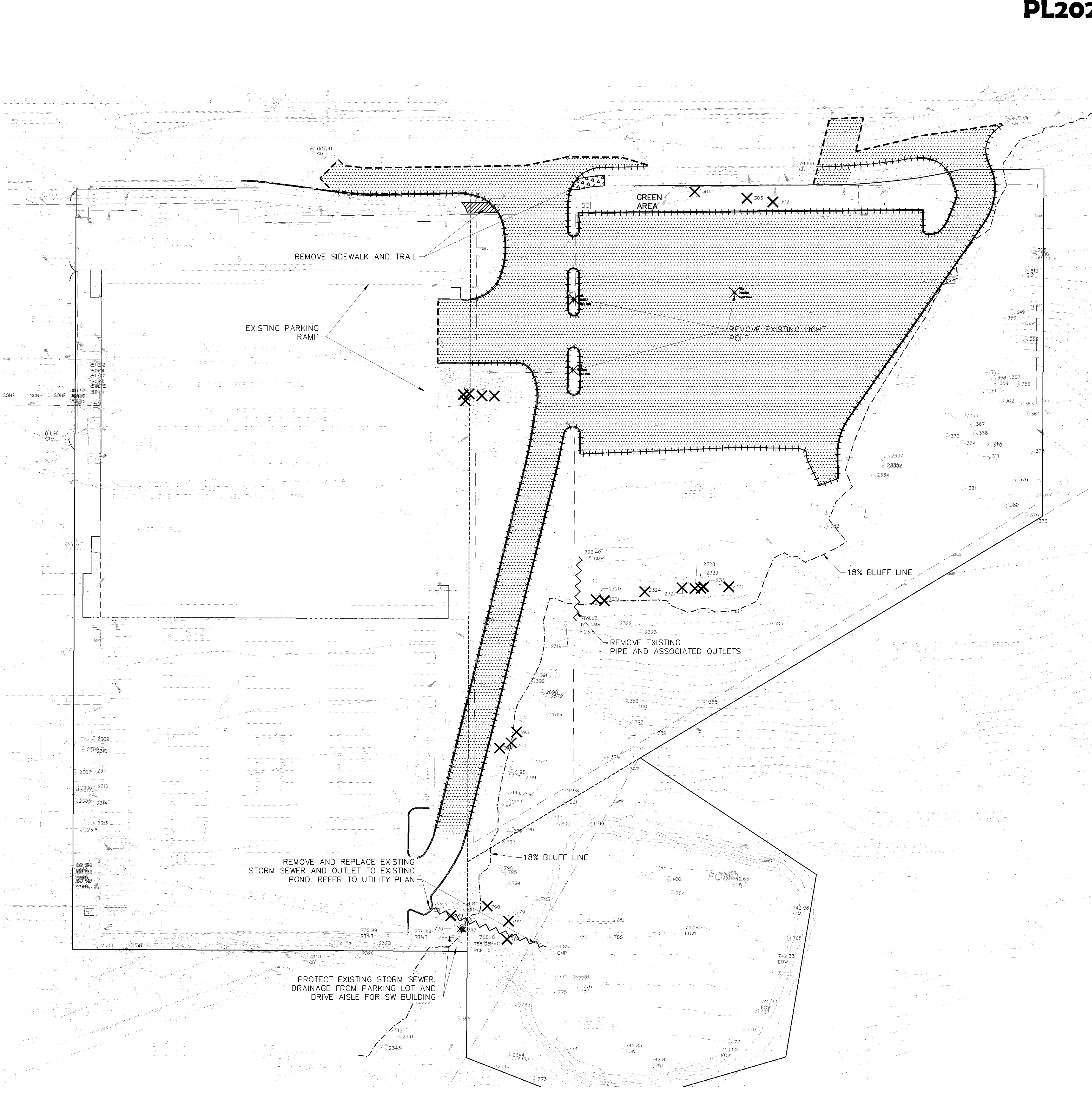
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PROJECT TEAM DATA
DESIGNED: DMS/DJN
DRAWN: DMS
PROJECT NO: 190123

C-2.1

Drawing name: X:\2019\190123\plan sheets\Final Plan Development\190123demo.dwg Aug 19, 2022 — 3:21pm



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
- REMOVE BITUMINOUS TRAIL
- REMOVE CONCRETE SIDEWALK
- REMOVE EXISTING LIGHT POLE

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733 Marquette Avenue
Suite 700
Minneapolis, MN 55402
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3601 AMERICAN BOULEVARD EAST

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DEMOLITION PLAN

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Date 04-04-22 License No.

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PROJECT TEAM DATA

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

C-3.0



WARDOR APARTMENTS
BLOOMINGTON, MN
AMERICAN BOULEVARD E. AND
33501 AMERICAN BOULEVARD E
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SITE PLAN

04-04-22	
Date	License No.

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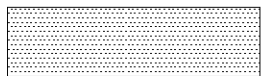
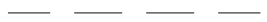
PROJECT TEAM DATA	
DESIGNED:	DMS/D.
DRAWN:	DM
PROJECT NO:	19012

A north arrow pointing upwards, labeled 'N' at the top. Below it is a scale bar with markings at 0, 20, 40, and 80. The unit 'FEET' is written at the end of the bar.

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 MIN ACCESSIBILITY CODE). POLE MOUNT APPROVED SIGNS, ONE VAN ACCESSIBLE, CENTER ON STALL, LOCATION PER GENERAL CONTRACTOR. PATTERN INTERNATIONAL SYMBOL OF ACCESSIBILITY WHITE ON BLUE BACKGROUND. G.C. TO ENSURE SLOPE OF PAVEMENT AT ACCESSIBLE PARKING STALLS & ACCESS AISLES 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.

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 HAZARD 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 MDOT "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.

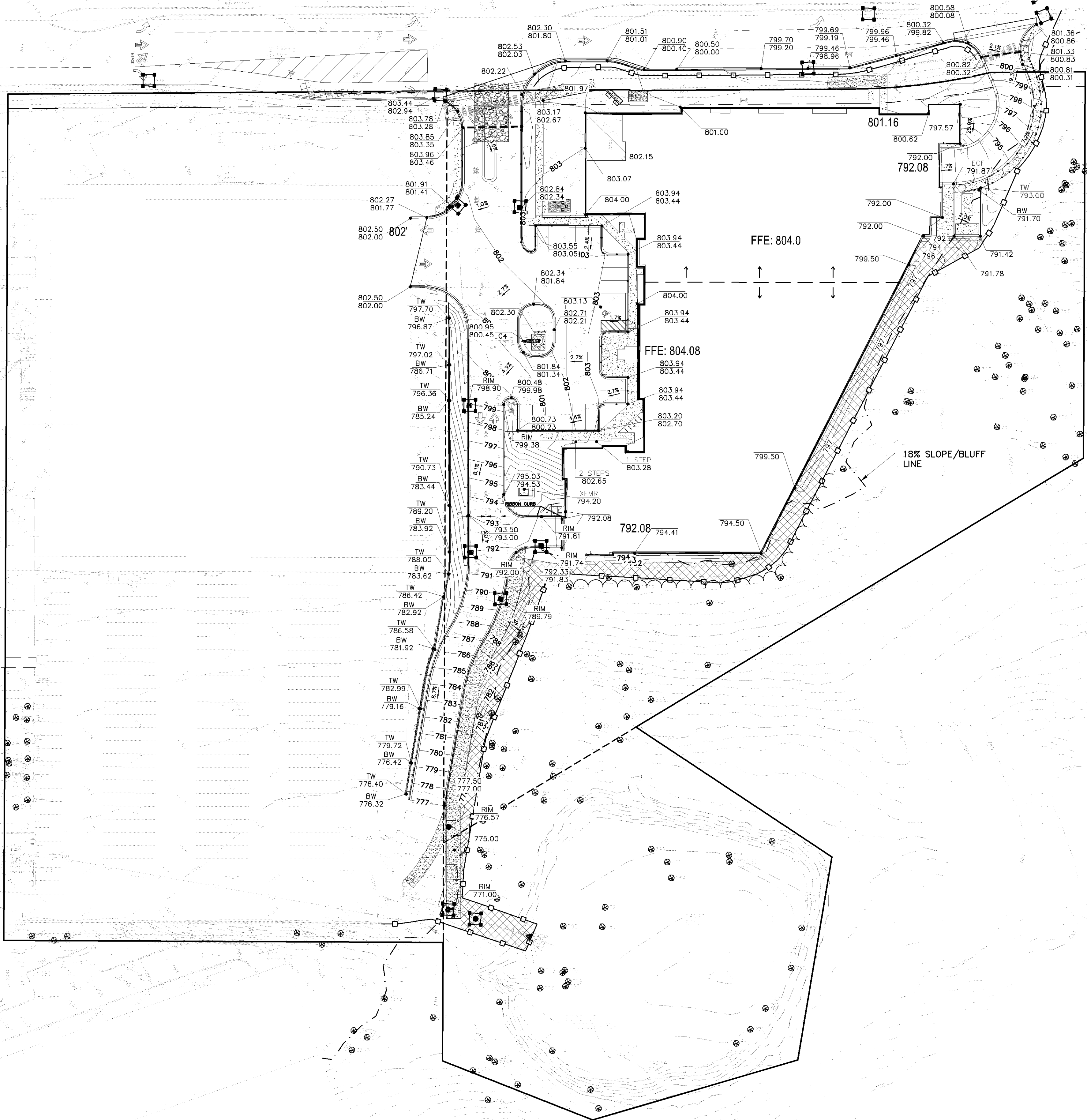
**Know what's below.
Call before you dig.
Dial 811**

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

1. SEE ARCHITECTURAL PLANS FOR PARKING REQUIREMENTS

Drawing name: X:\2019\190123\plan sheets\Final Plan Development\190123grad.dwg Aug 19, 2022 — 3:22pm

PL202200168



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:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- TOP OF WALL ELEVATION
- BOTTOM OF WALL ELEVATION
- 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
- DRAINAGE DIVIDE
- HEAVY DUTY SILT FENCE
- INLET PROTECTION
- ROCK CONSTRUCTION EXIT
- EROSION CONTROL BLANKET
- OUTFALL GUTTER

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GRADING AND EROSION CONTROL PLAN

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DAVID NASH, PE
04-04-22 21836
Date License No.

QUALITY ASSURANCE/CONTROL

BY	DATE
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7-27-22	LIFT STATION
8-16-22	EASEMENT REVISION
8-18-22	TITLE UPDATE
8-23-22	CITY GRADING PERMIT

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

C-5.0

LIFT STATION NOTES

- THE LIFT STATION SHALL BE CONSTRUCTED IN ACCORDANCE WITH MPCA REGULATIONS AND LOCAL STANDARDS.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL PERMITS REQUIRED FOR CONSTRUCTION.
- A COMPLETE SYSTEM PACKAGE IN ACCORDANCE WITH THE DESIGN PARAMETERS HAS BEEN PREPARED BY MINNESOTA/IOWA PUMP WORKS. CONTRACTOR QUESTIONS SHOULD BE ADDRESSED TO LUKE LOCKHART BY PHONE AT (515) 635-0025.
- LIFT STATION PARAMETERS:
 - DUPLEX PUMPING STATION (SEE COMPLETE PACKAGE FROM MN PUMP WORKS)
 - 8' FOOT DIAMETER CONCRETE WETWELL
 - 5' FOOT DIAMETER CONCRETE VALVE VAULT
 - ELEVATIONS:
 - WETWELL RIM ELEVATION = 802.30
 - INFLUENT PIPE INVERT = 774.72
 - FLOAT ELEVATIONS
 1. ALARM ON = 774.02
 2. LAG PUMP ON = 773.32
 3. LEAD PUMP ON = 772.62
 4. PUMPS OFF = 771.92
 5. WETWELL INVERT = 769.92
 6. TOTAL DEPTH OF WETWELL = 32.38
- PUMPS:
 - DESIGN OPERATING CONDITIONS ARE 350 GPM @ 42' TDH
 - ABS SUBMERSIBLE NON-CLOG PUMPS MODEL XFP100E-CB1.5 PE56/4.
 - 7.5HP, 460V/3 PHASE, 1750 RPM MOTOR.
- THE CONTRACTOR SHALL PROVIDE A LIFT STATION STARTUP REPORT FOLLOWING INSTALLATION
- THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 4 FEET OF MNDOT 3149F 1" GRANULAR BEDDING TO SUPPORT THE BASE SLAB.
- THE LIFT STATION SHALL INCORPORATE AN ABOVE GROUND CONTROL PANEL AND AUDIBLE/VISUAL ALARM SYSTEM. CONTRACTOR TO ENSURE THAT ALL CONDUIT CONNECTIONS TO THE WETWELL ARE SEALED IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER OF RECORD FOR APPROVAL FOR THE WETWELL AND VALVE VAULT PRIOR TO ORDERING AND CONSTRUCTION.

LEGEND:

- | | | | |
|-------|-------------------------------------|-----------|------------------------------------|
| —>— | PROPOSED STORM SEWER | —●— | PROPOSED HYDRANT |
| —>>— | PROPOSED SANITARY GRAVITY SEWER | - - - - - | PROPOSED LIMITS OF CONSTRUCTION |
| —>>>— | PROPOSED SANITARY FORCEMAIN | - - - - - | PROPOSED EASEMENT |
| — — | PROPOSED WATERMAIN | —●— | EXISTING STORM SEWER |
| ■ ● | PROPOSED STORM CATCH BASIN /MANHOLE | —●— | EXISTING SANITARY SEWER |
| ● | PROPOSED SANITARY MANHOLE | —●— | EXISTING WATERMAIN |
| ⌘ | PROPOSED BUTTERFLY/GATE VALVE | —●— | EXISTING SANITARY MANHOLE |
| ● | PROPOSED SUBGRADE DRAIN TILE | —●— | EXISTING STORM MANHOLE/CATCH BASIN |
| | | —●— | EXISTING EASEMENTS |

0 20 40 80
SCALE IN FEET

PL202200168

NOTES

- EXISTING UTILITIES, SERVICE LOCATIONS AND ELEVATIONS SHALL BE VERIFIED IN FIELD PRIOR TO CONSTRUCTION.
- 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.
- CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS PRIOR TO THE START OF CONSTRUCTION.
- PROVIDE POLYSTYRENE INSULATION FOR ALL STORM SEWER AND WATERMAIN CROSSINGS WHERE VERTICAL OR HORIZONTAL SEPARATION IS LESS THAN 3'.
- ALL UTILITY WORK SHALL COMPLY WITH THE CITY OF BLOOMINGTON ENGINEERING SPECIFICATIONS, LATEST EDITION.
- NOTIFY GOPHER STATE ONE CALL 48 HOURS IN ADVANCE OF ANY UTILITY WORK.
- 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.
- ALL STORM SEWER CASTINGS SHALL BE NEENAH OR APPROVED EQUAL.
- ALL SANITARY SEWER MANHOLES PER CITY OF BLOOMINGTON STANDARDS.
- WATERMAIN, SERVICES, AND VALVES SHALL BE INSTALLED WITH MINIMUM 8.0' AND A MAXIMUM OF 10.0' OF COVER.
- ALL WATERMAIN SHALL BE DIP WITH POLYWRAP PER CITY OF BLOOMINGTON STANDARDS.
- 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.
- CONTRACTOR TO VERIFY ALL BUILDING CONNECTION POINTS WITH ARCHITECTURAL PLANS.
- ALL ROOF DRAINS (RD) SHALL HAVE AN AT GRADE DOWNSPOUT OVERFLOW.
- ALL ROOF WATER SHALL BE ROUTED TO THE SOUTH FILTRATION BASIN PER THE APPROVED STORMWATER MANAGEMENT PLAN.
- MAINTAIN AND VERIFY 10' HORIZONTAL SEPARATION IS PROVIDED BETWEEN ALL WATERMAIN AND CATCHBASIN/MANHOLES.
- CONTRACTOR TO COORDINATE ALL REQUIRED WATER MAIN SHUT-OFF WITH CITY OF BLOOMINGTON AND CONTACT PROPERTY OWNERS.
- CONTRACTOR TO ORDER AND PAY CITY FOR ALL WET TAPS ON SITE.
- INSTALL INTERIOR CHIMNEY SEALS ON ALL SANITARY SEWER MANHOLES.
- UTILITY AND MECHANICAL CONTRACTORS MUST COORDINATE THE INSTALLATION OF ALL WATER AND SEWER SERVICE PIPES INTO THE BUILDING TO ACCOMMODATE CITY INSPECTION TESTING.
- COMBINATION FIRE AND DOMESTIC SERVICES MUST TERMINATE WITH A THREAD ON FLANGE OR AN MJ TO FLANGE ADAPTER.
- 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.
- ALL WORK TO BE COMPLETED PER THE GEOTECH REPORT.

SANITARY SEWER SCHEDULE:

MH		PIPE O.D. [IN]	PIPE SLOPE [FT/FT]	PIPE LENGTH [FT]	INVERT		RIM ELEV	STRUCTURE SIZE [IN]	MANHOLE BUILD [FT]	PIPE TYPE
FROM	TO				FROM	TO				
12" SAN SERVICE	LIFT STATION	12	0.004	68.9	775.00	774.72	N/A	N/A	N/A	C-900 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	0.005	HDPE	45.0	798.3	798.1	802.3	2x3	R-3067-V	4.0
CBMH 111	CBMH 110	12	0.025	HDPE	137.0	797.4	794.0	801.4	48	R-3067-V	4.0
CBMH 110	CBMH 105	15	0.056	HDPE	100.0	792.0	786.4	798.9	48	R-1642	6.9
CB 106	CBMH 105	12	0.015	RCP	48.0	787.8	787.1	791.8	2x3	R-1642	4.0
CBMH 105	CBMH 104	15	0.053	RCP	38.0	786.0	784.0	792.0	48	R-1642	6.0
RD 2	CBMH 104	18	0.018	HDPE	54.0	785.0	784.1				
CBMH 104	CBMH 103	18	0.074	RCP	159.0	783.0	771.2	789.8	48	R-1642	10.8
CBMH 103	CBMH 102	18	0.108	RCP	56.3	770.9	764.8	776.6	48	R-1642	5.7
CBMH 102	CBMH 101	18	0.086	RCP	19.8	757.5	755.8	771.0	48	R-1642	17.5
CBMH 101	FES 100	21	0.023	RCP	39.9	745.8	744.9	760.1	48	R-1642	18.3
EX. LOT CB	CBMH 102	15	0.015	HDPE	33.0	768.4	767.9	772.4	48	R-4342	4.0

PIPE CROSSING SCHEDULE:

CROSSING	PIPE ABOVE	PIPE BELOW	INV. (ABOVE)	TOP PIPE (BELOW)	DISTANCE BETWEEN	LOWER WATERMAIN
A	STORM	WATER	797.48	794.3	3.18	



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UTILITY PLAN

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04-04-22
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License No.

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DRAWN: DMS
PROJECT NO: 190123

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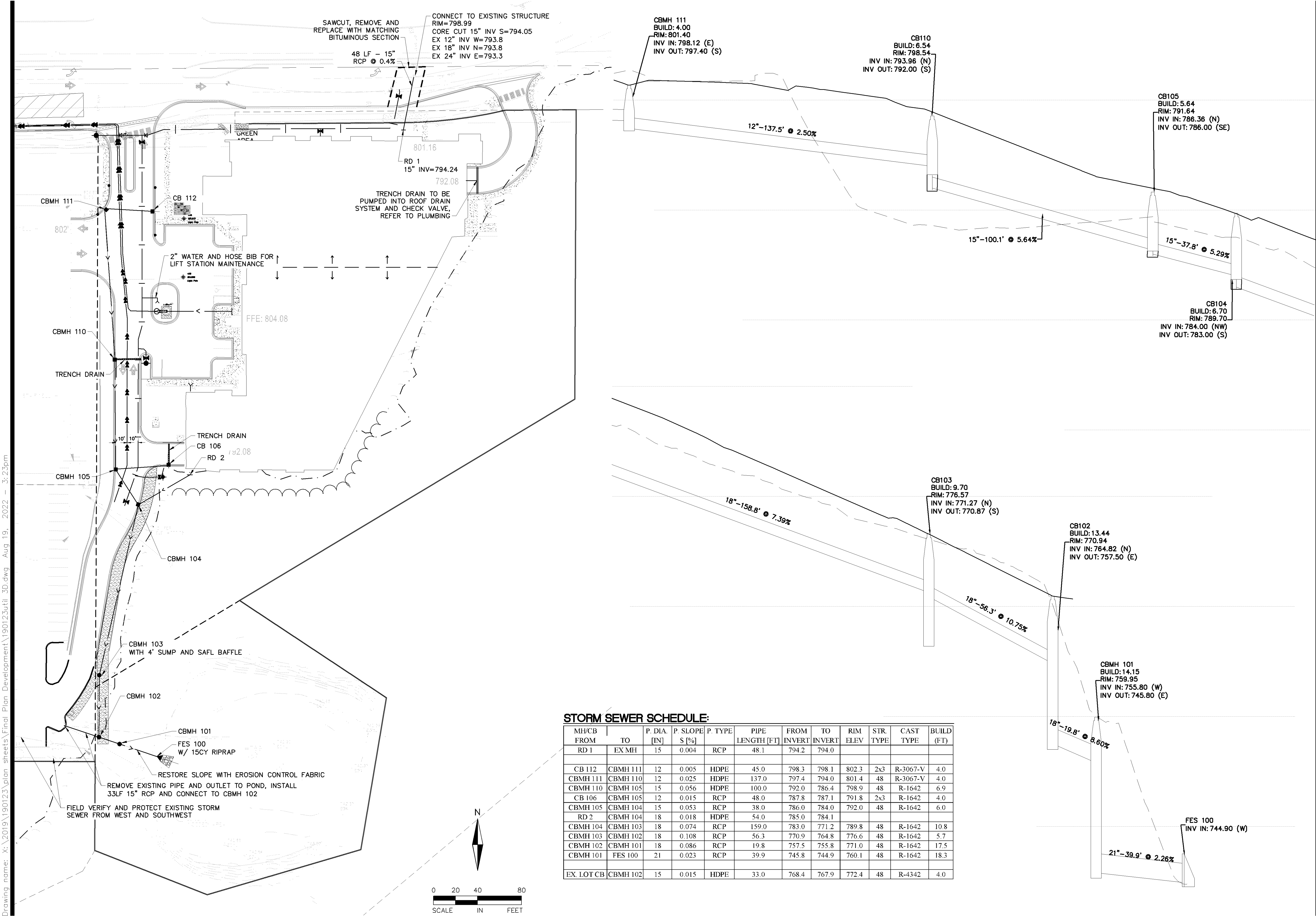
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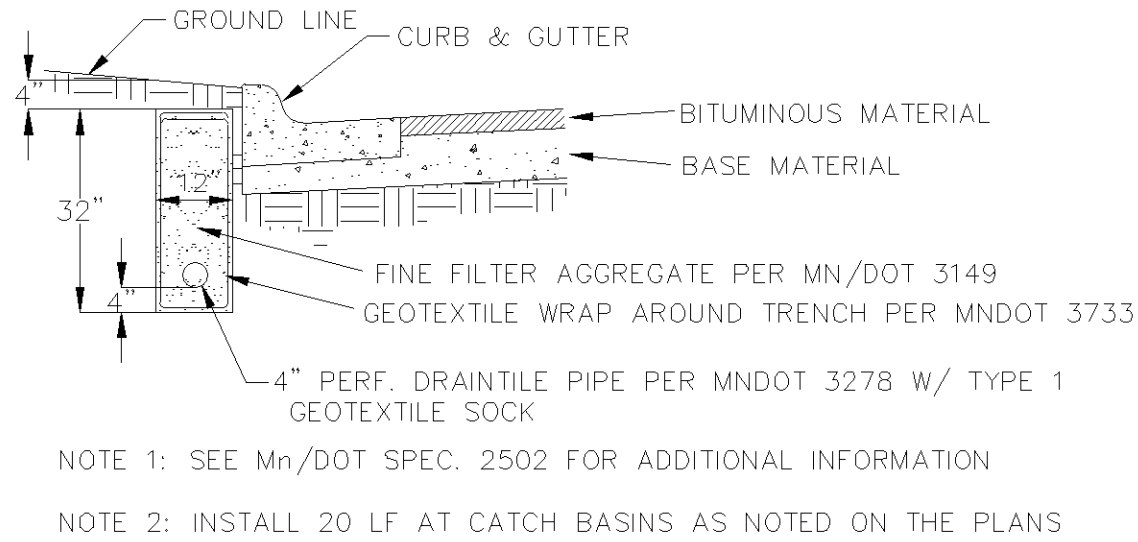
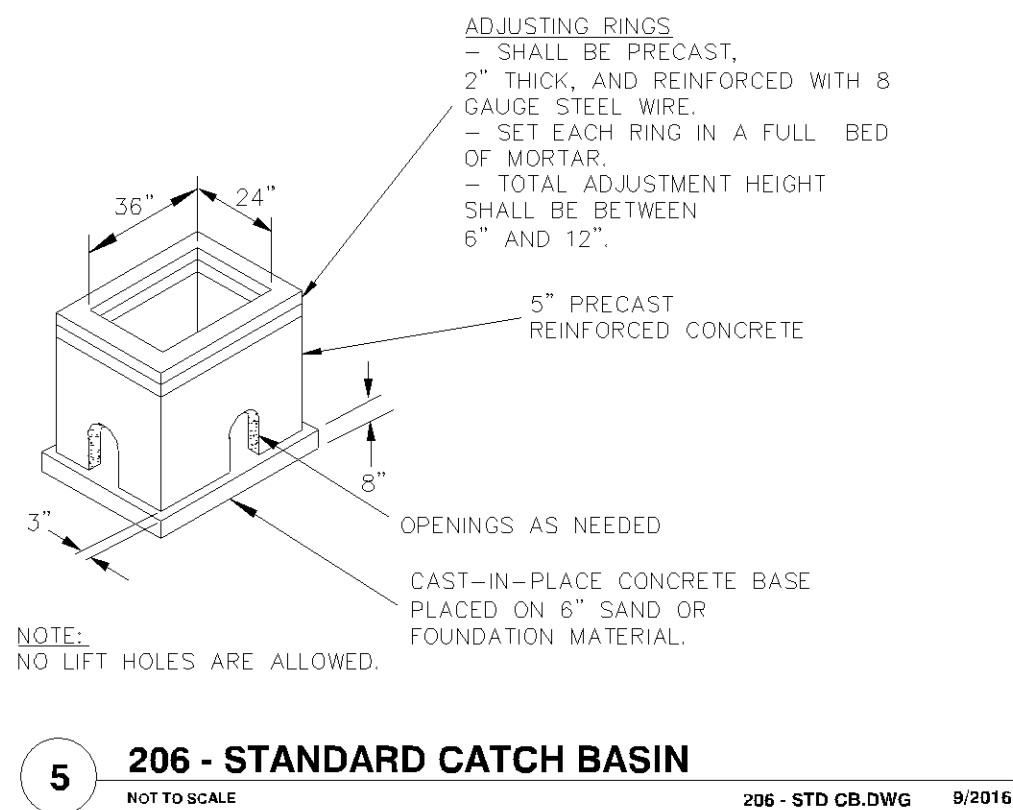
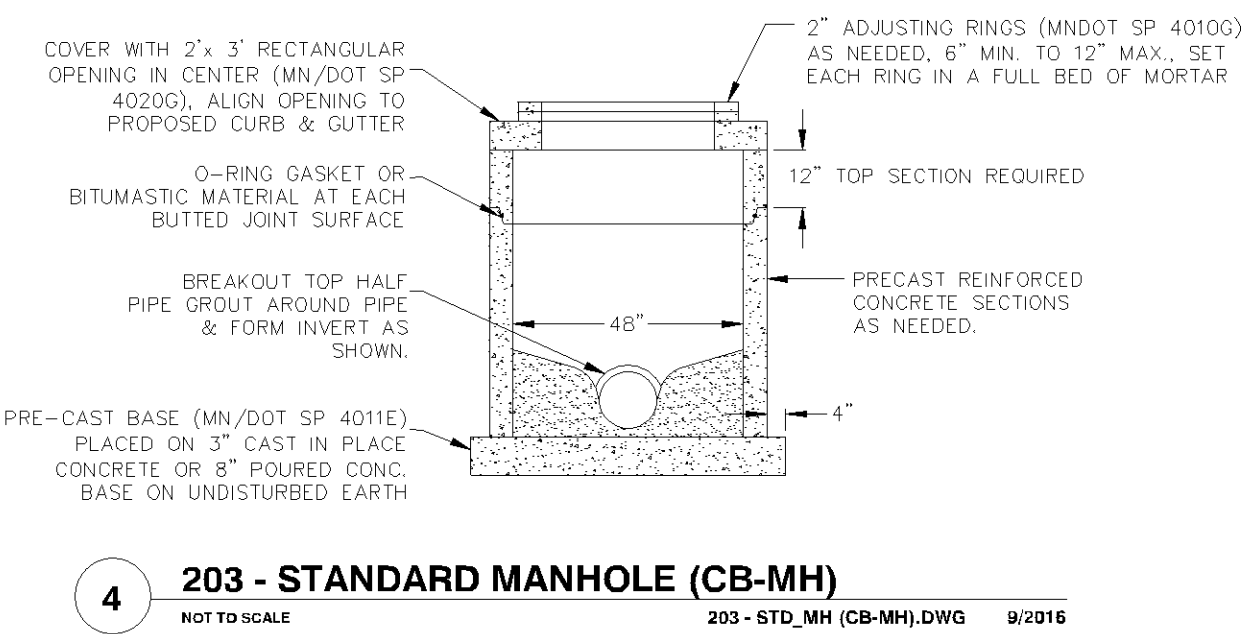
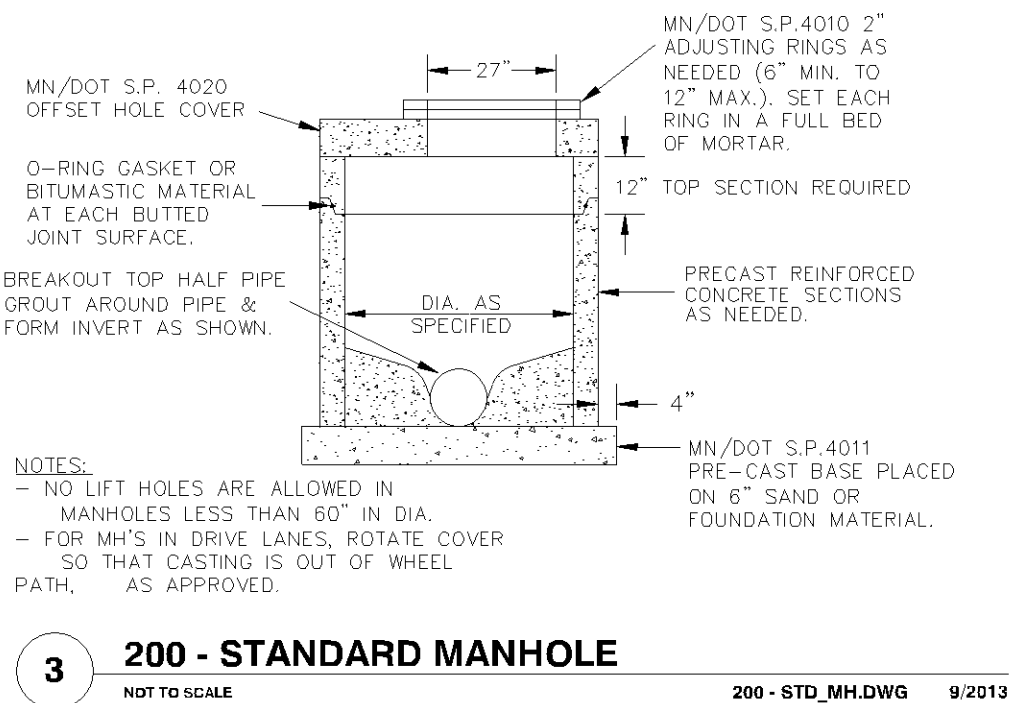
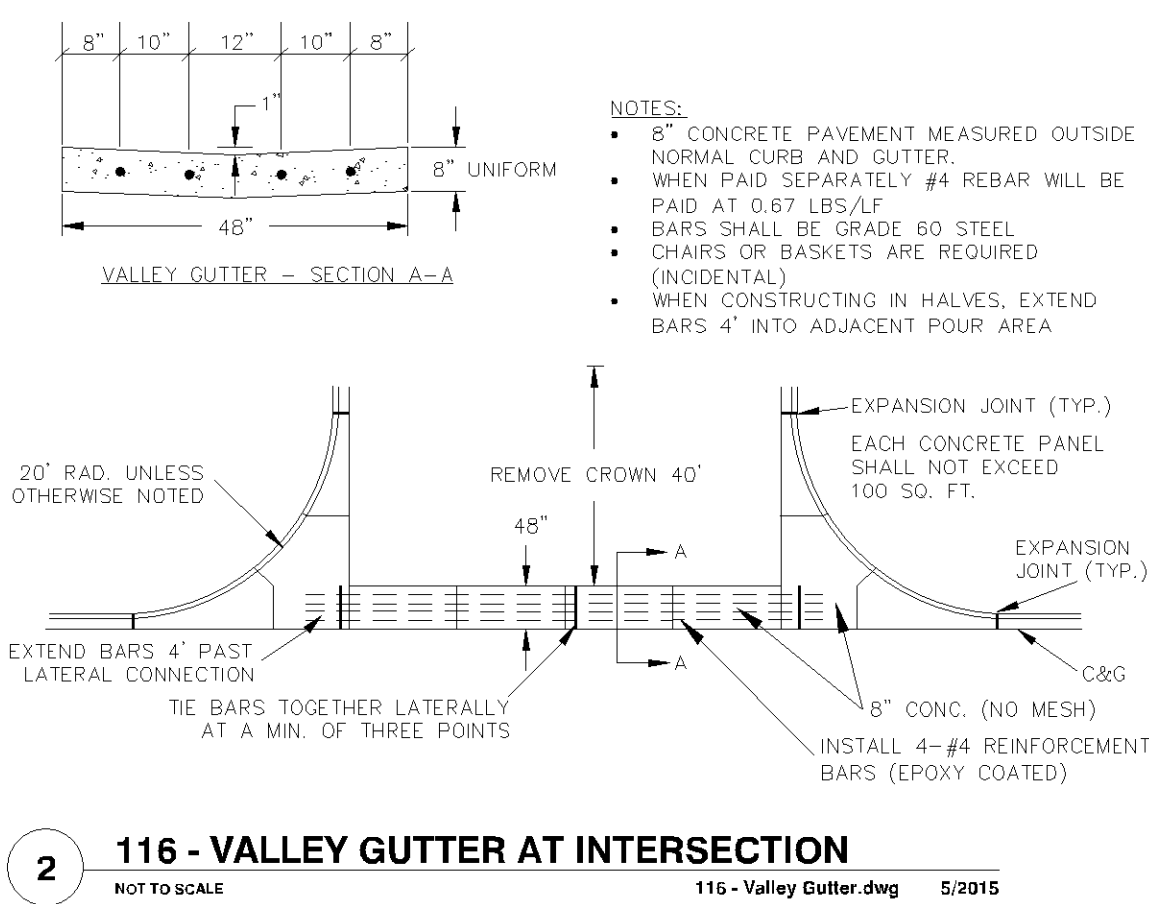
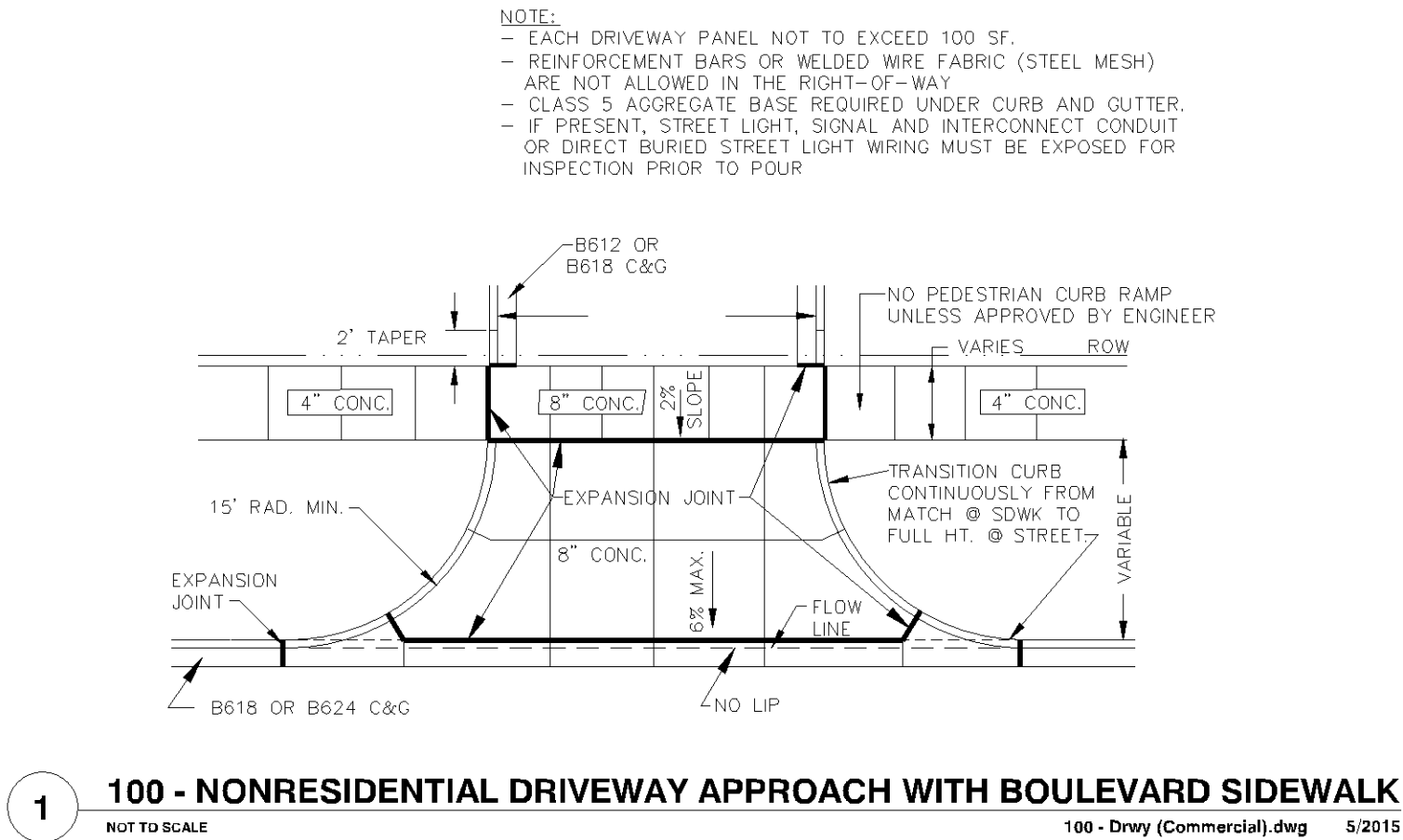
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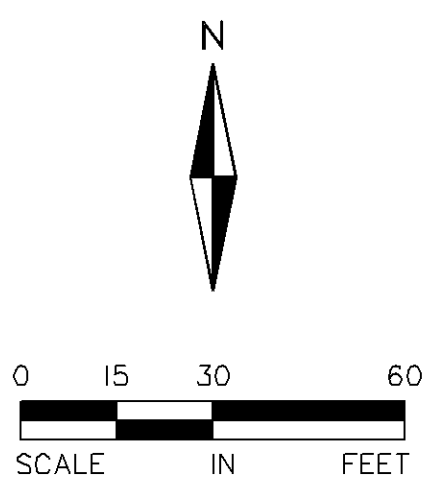
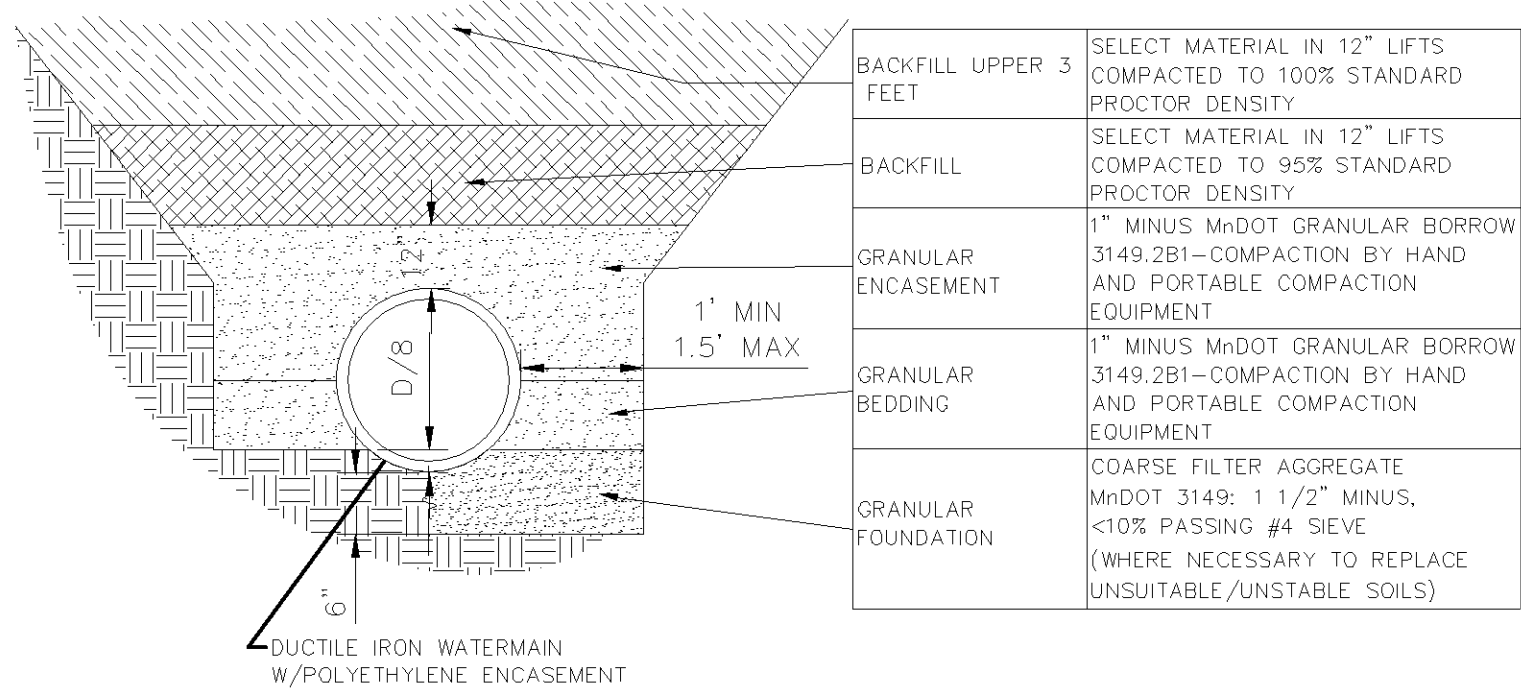
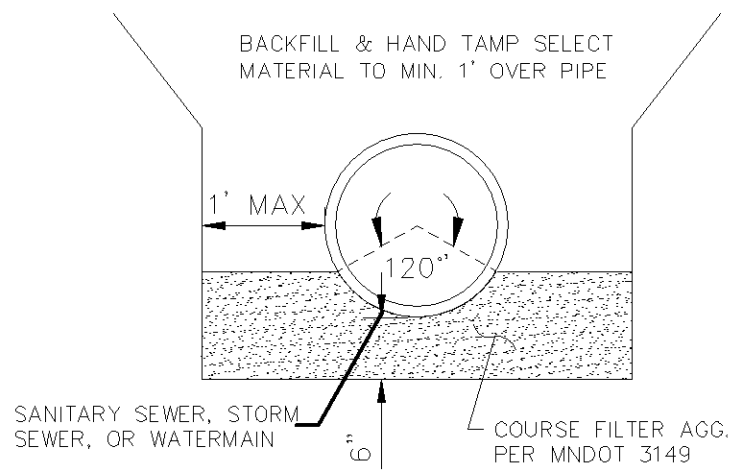
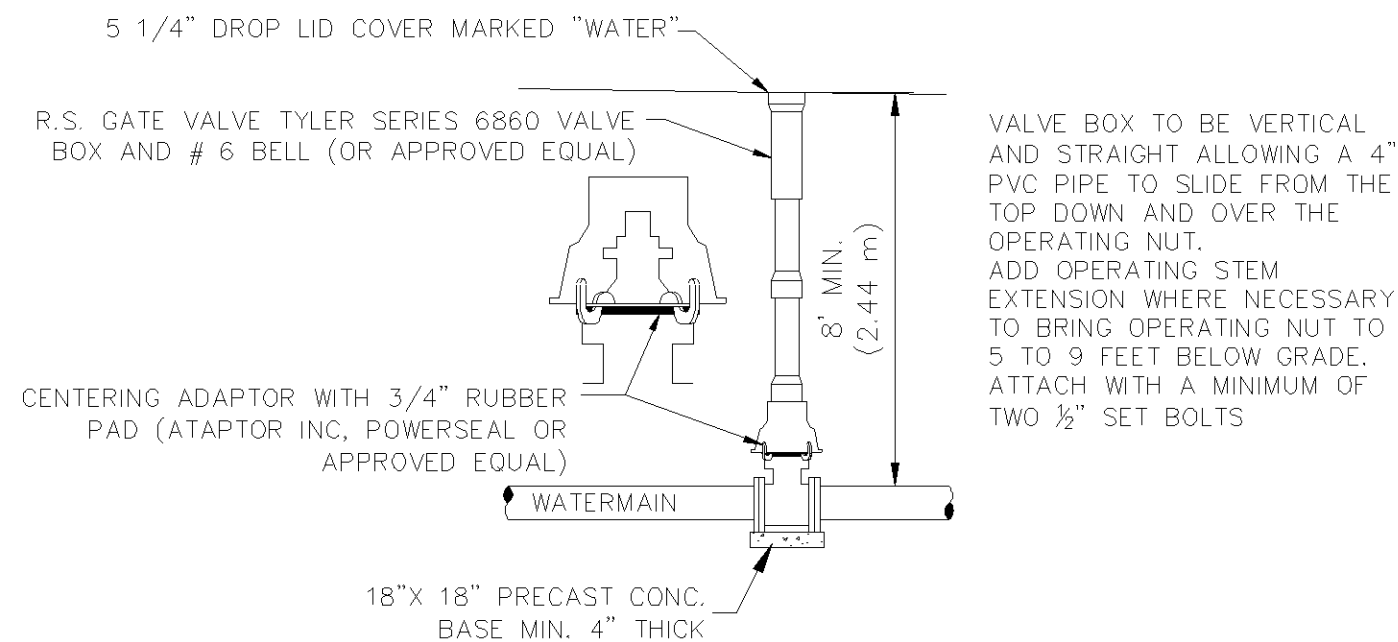
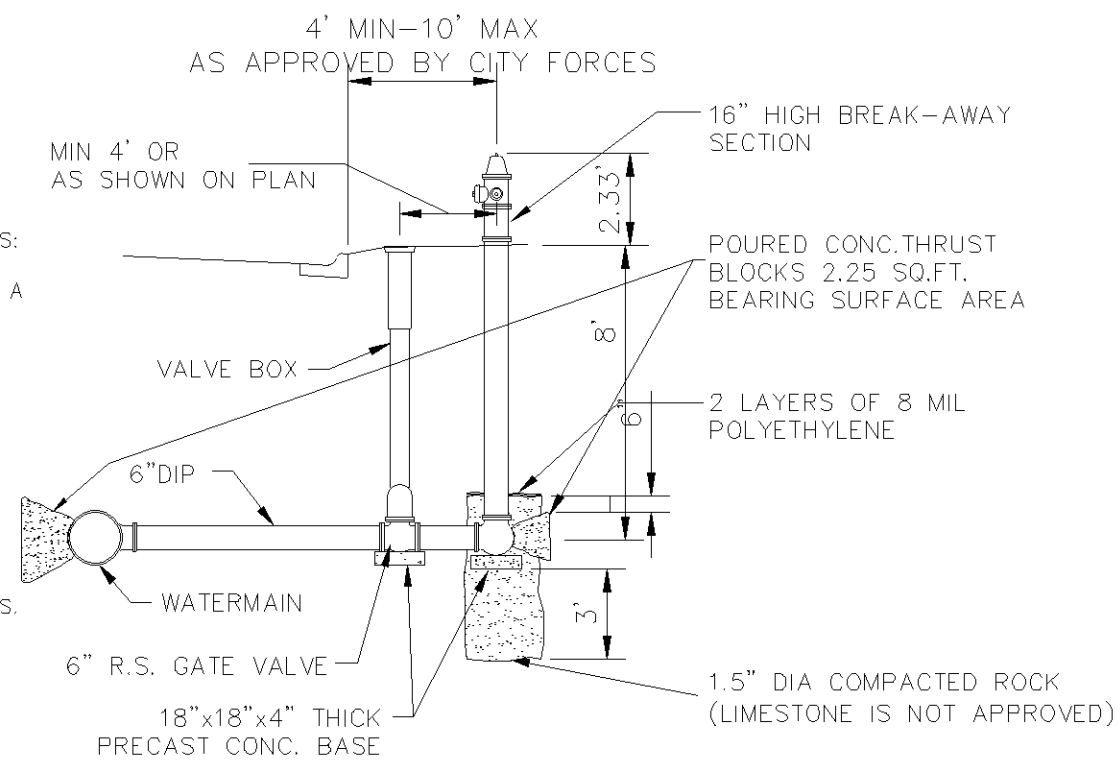
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DESIGNED:	DMS/DJN
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PROJECT NO:	190123



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- 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.



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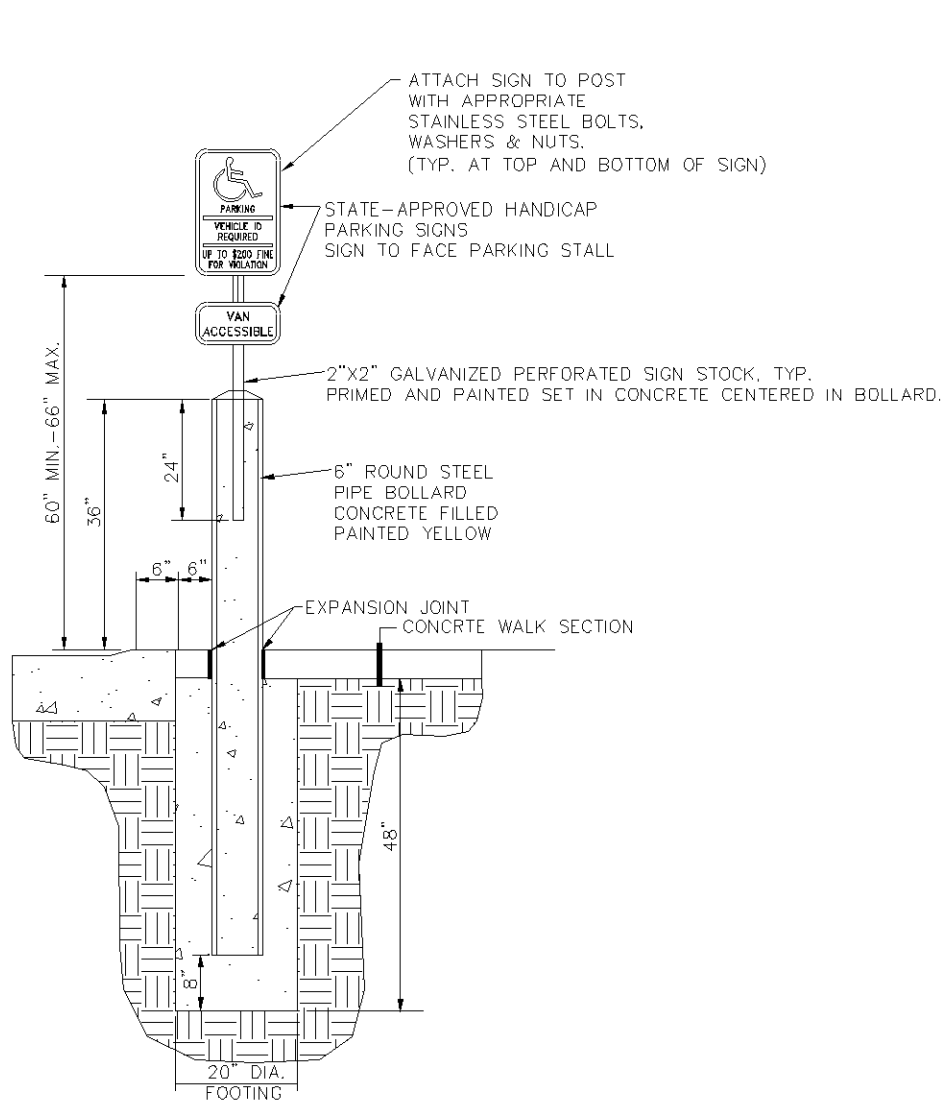
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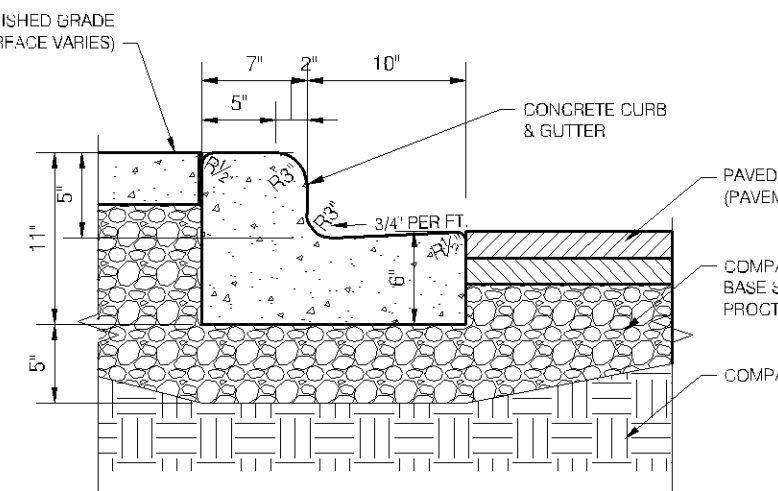
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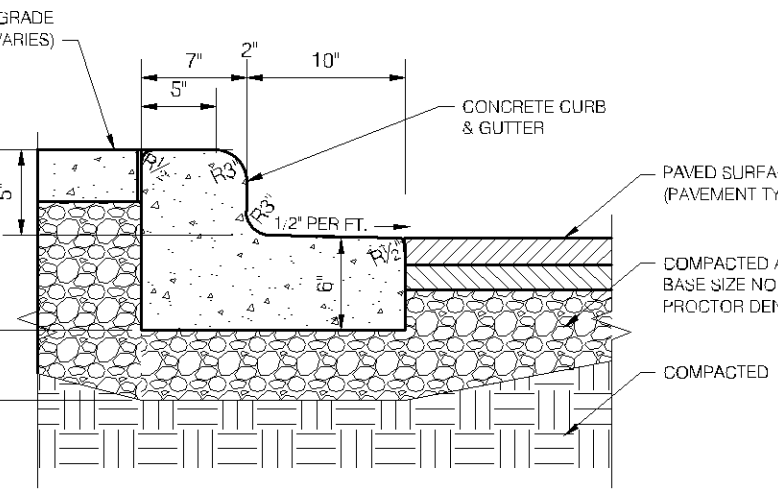
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NOT TO SCALE



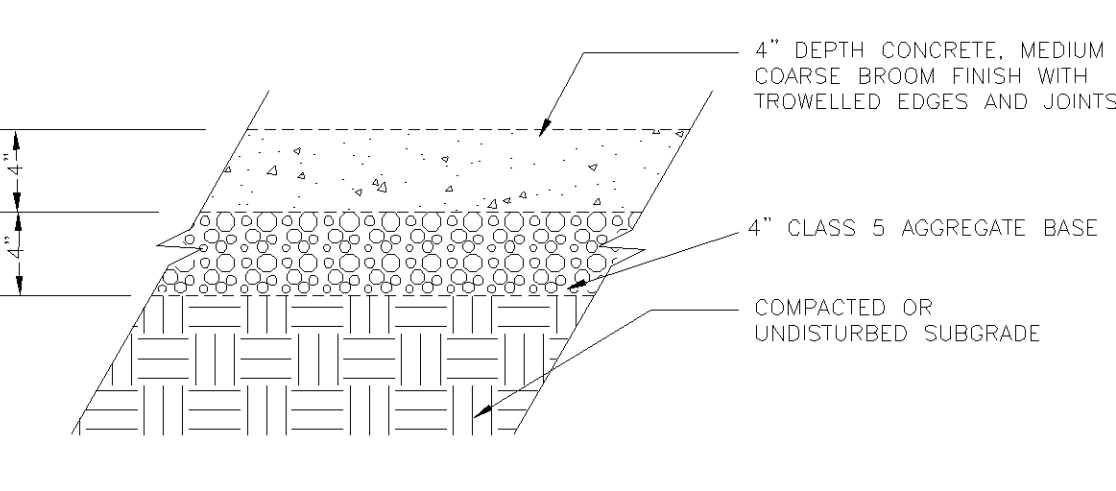
2 B612 CURB AND GUTTER
NOT TO SCALE



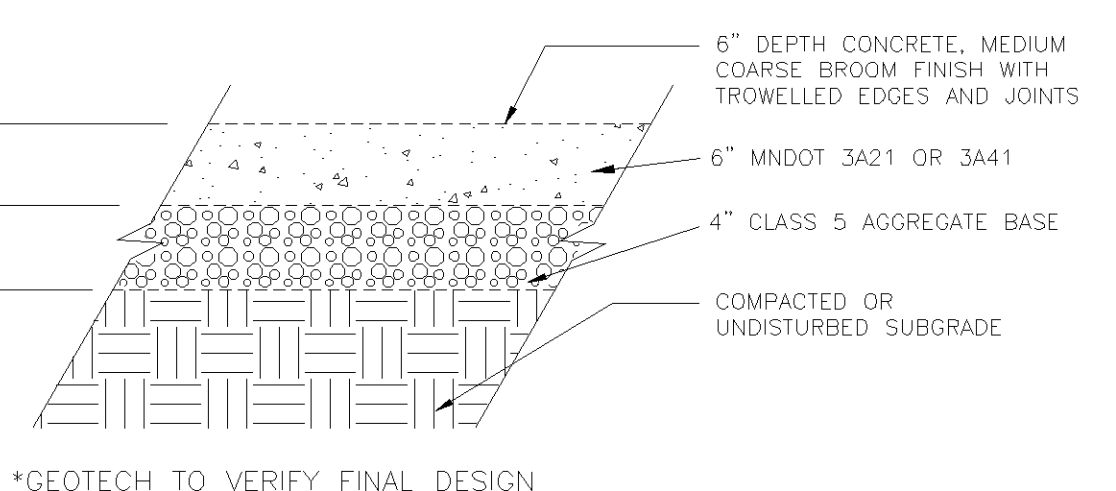
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NOT TO SCALE



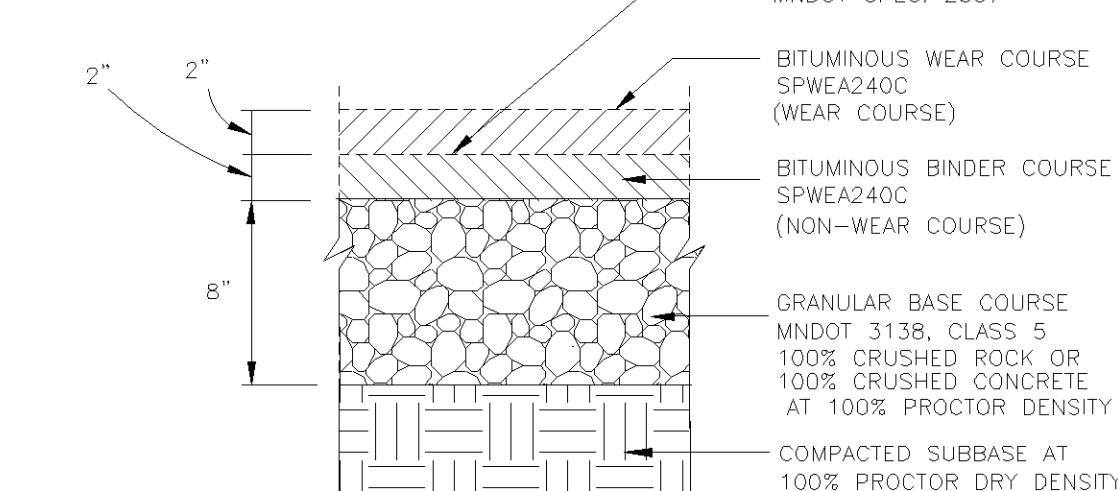
4 CONCRETE SIDEWALK
NOT TO SCALE



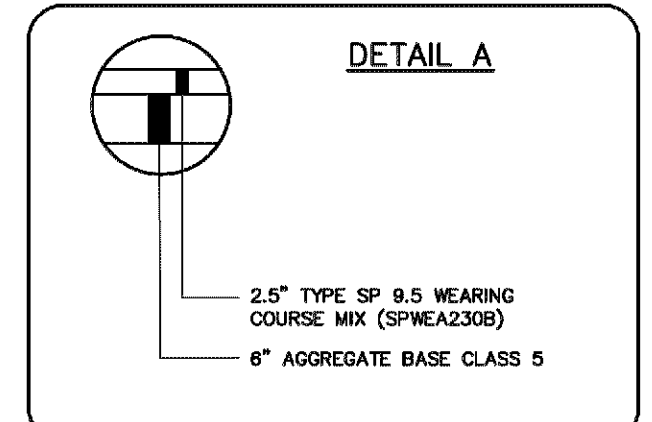
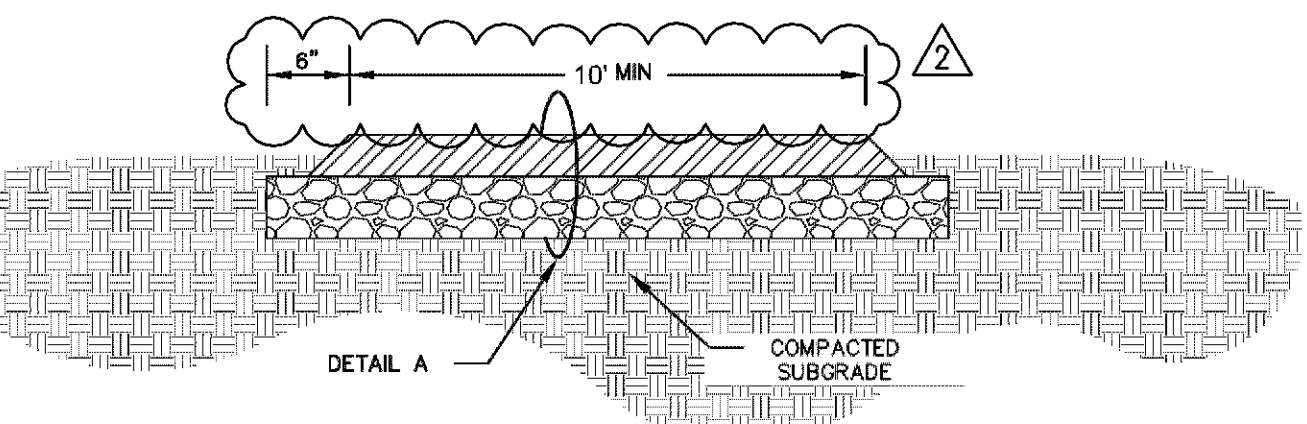
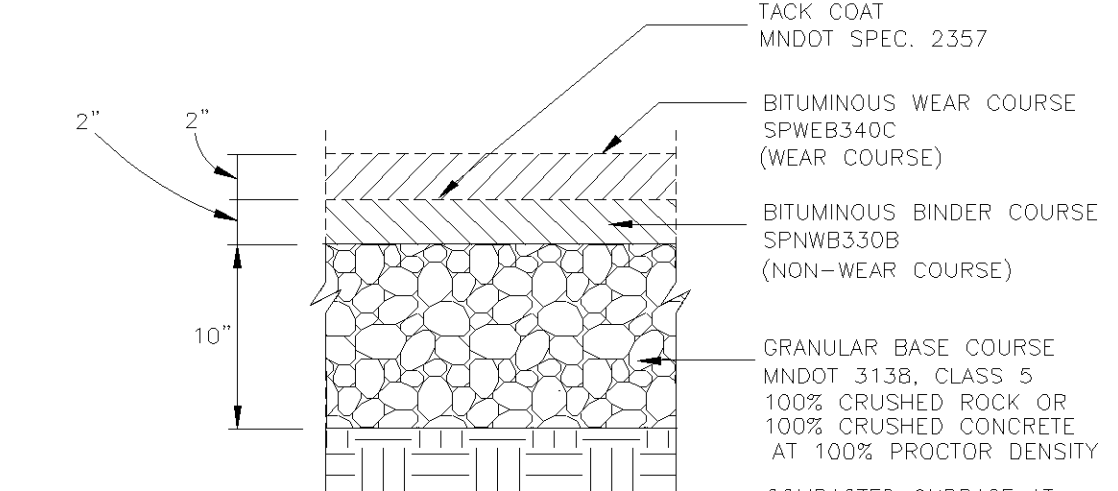
5 CONCRETE PAVEMENT
NOT TO SCALE



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

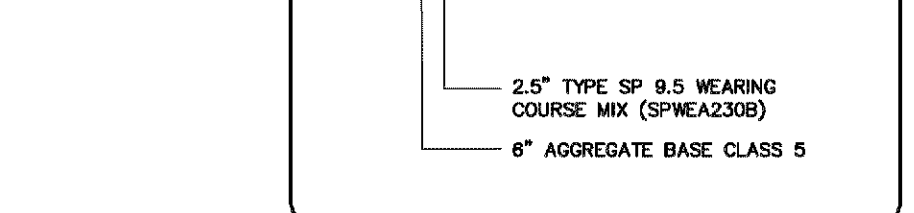


7 HEAVY-DUTY BITUMINOUS PAVEMENT
SOILS REPORT SUPERSEDES ABOVE SPEC
NOT TO SCALE

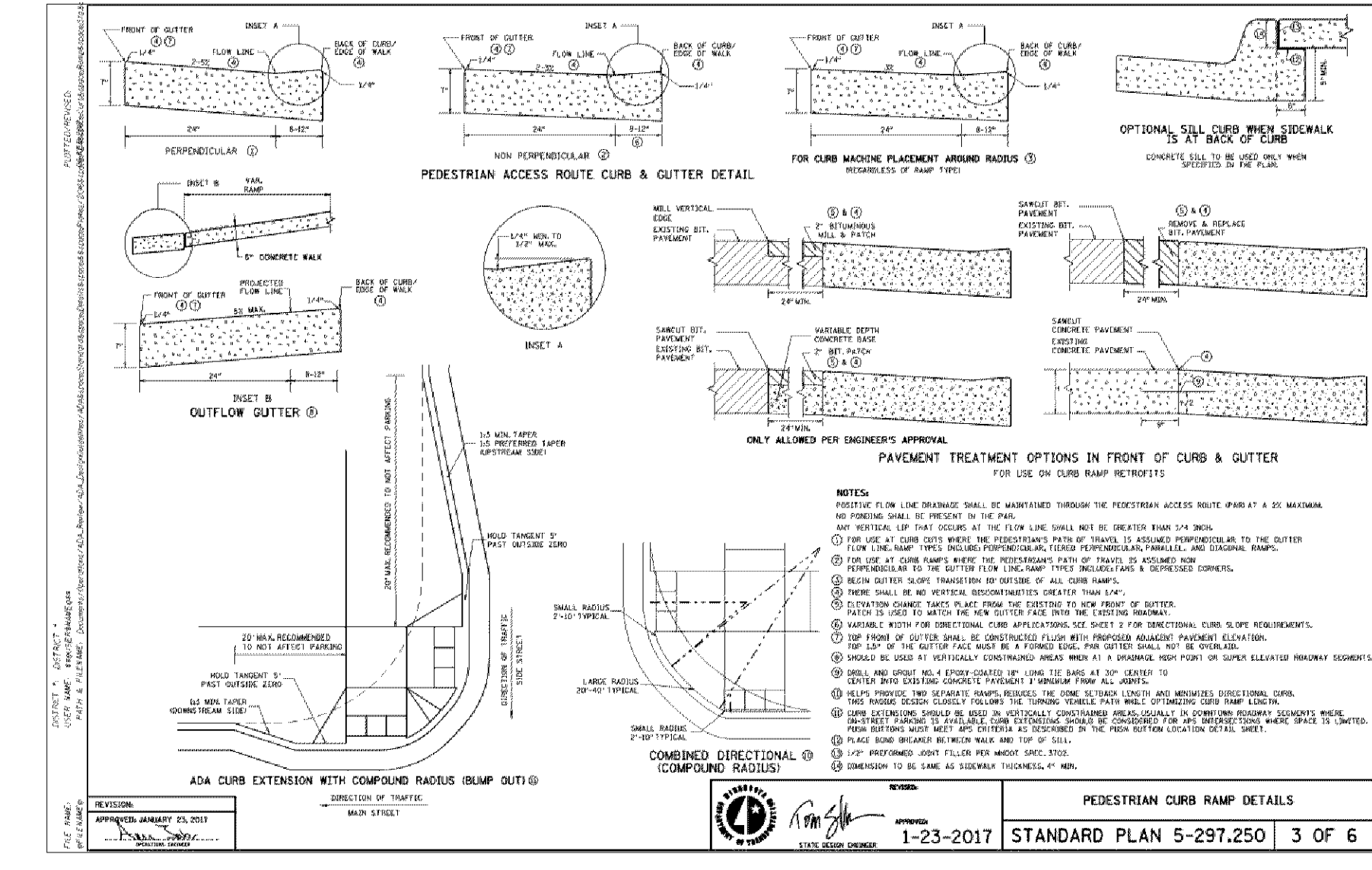


NOTES:
PLACE ALL ASPHALT IN ONE LIFT TO PROVIDE A MINIMUM OF 2.5" COMPACTED DEPTH.
PROVIDE A MINIMUM BASE OF 8" COMPACTED AGGREGATE. IMPORT ADDITIONAL MATERIALS IF MILLING FAILS TO PRODUCE ADEQUATE BASE MATERIAL.
TAMP ALL TRAIL EDGES AT A 45° BEVEL.
CONTRACTOR IS RESPONSIBLE FOR ROUGH GRADING EDGES OF 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.

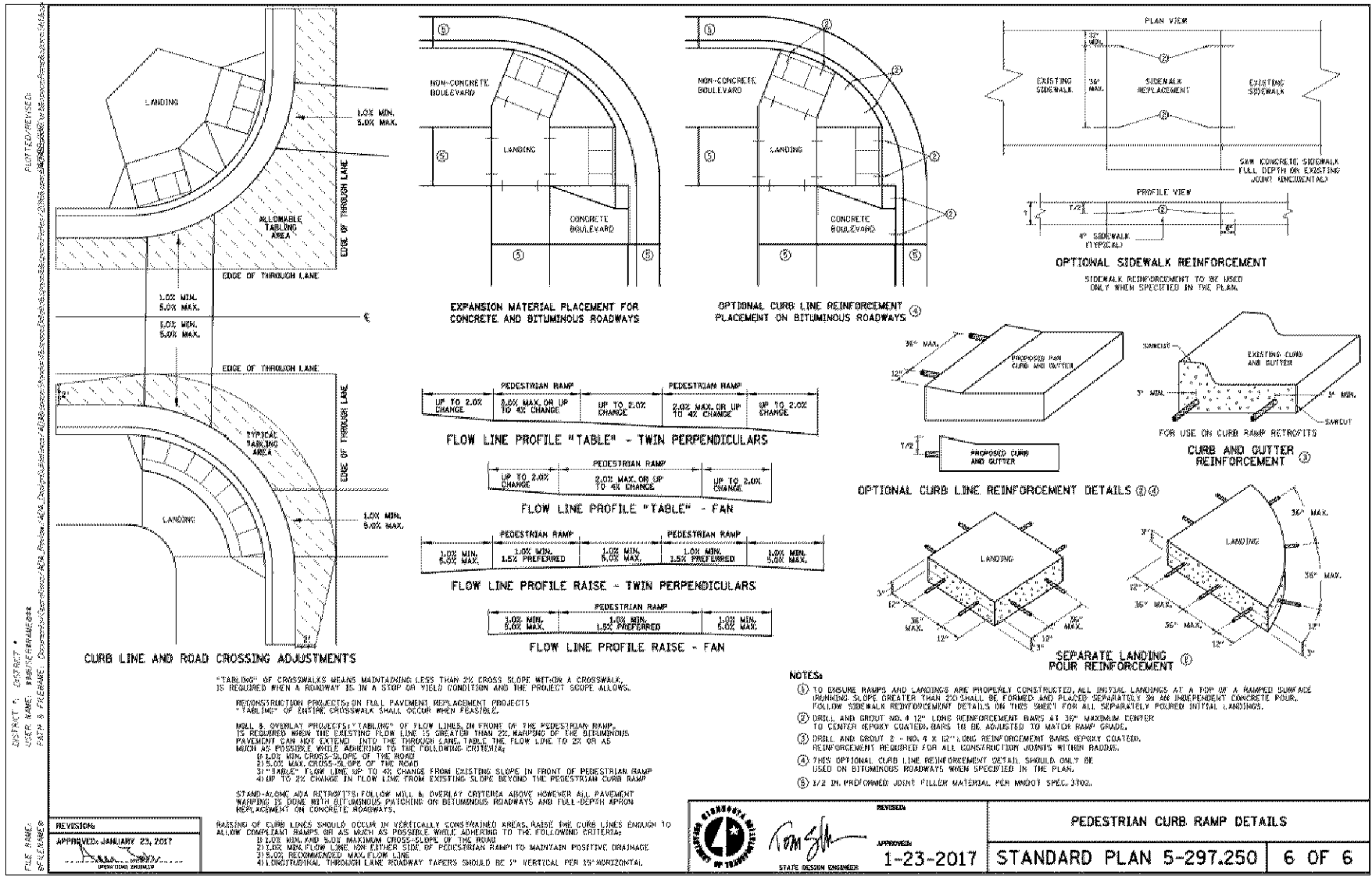
9 BITUMINOUS TRAIL
NOT TO SCALE



NOTES:
1. TO GRADE RAMP, AND PROVIDE A MINIMUM OF 2.5" COMPACTED DEPTH.
2. PROVIDE A MINIMUM BASE OF 8" COMPACTED AGGREGATE. IMPORT ADDITIONAL MATERIALS IF MILLING FAILS TO PRODUCE ADEQUATE BASE MATERIAL.
3. TAMP ALL TRAIL EDGES AT A 45° BEVEL.
4. 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.
5. SLOPE OF BITUMINOUS TRAIL SHALL BE A MINIMUM OF 1% TO A MAXIMUM OF 2% TO THE DOWNHILL EDGE.



8 PEDESTRIAN CURB RAMP
NOT TO SCALE



PEDESTRIAN CURB RAMP
NOT TO SCALE

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

C-7.1

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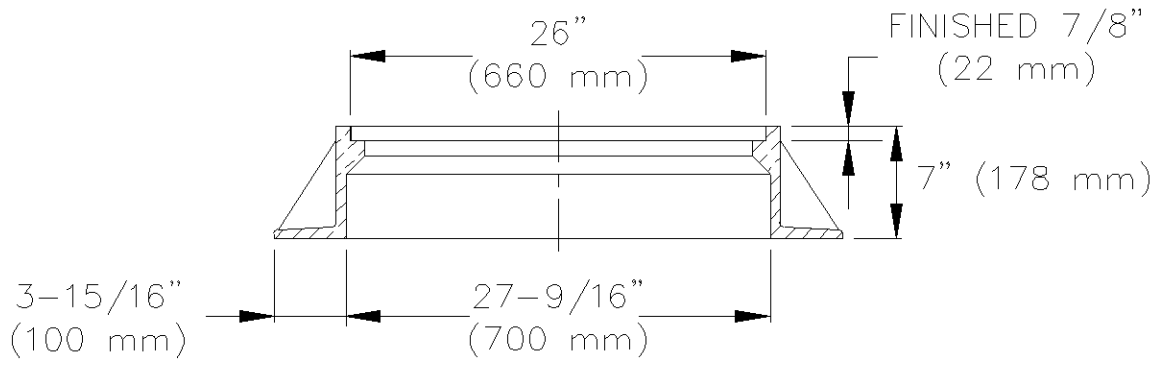
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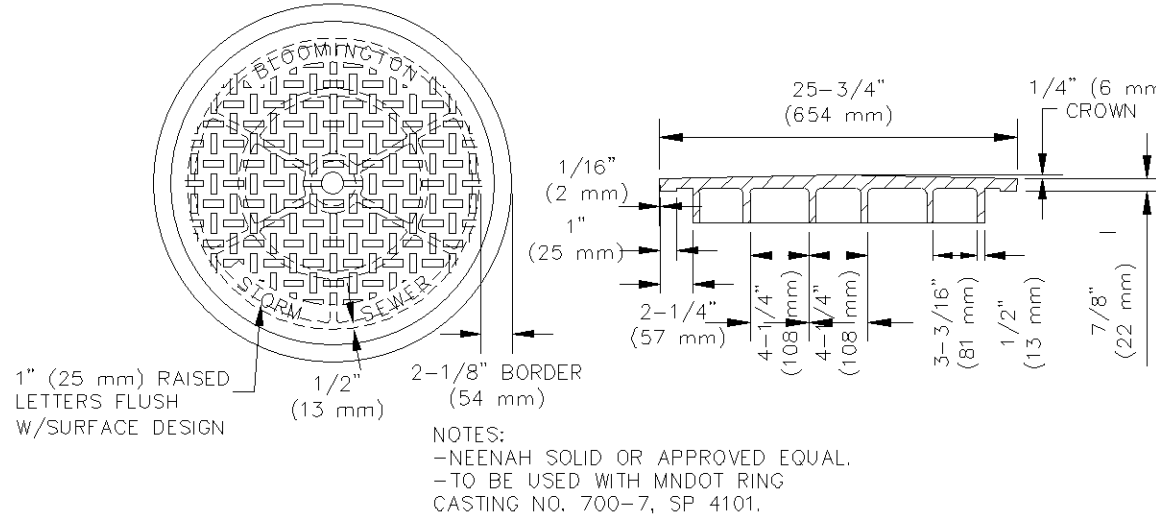
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DESIGNED: DMS/DJN
DRAWN: DMS
PROJECT NO: 190123

C-7.2

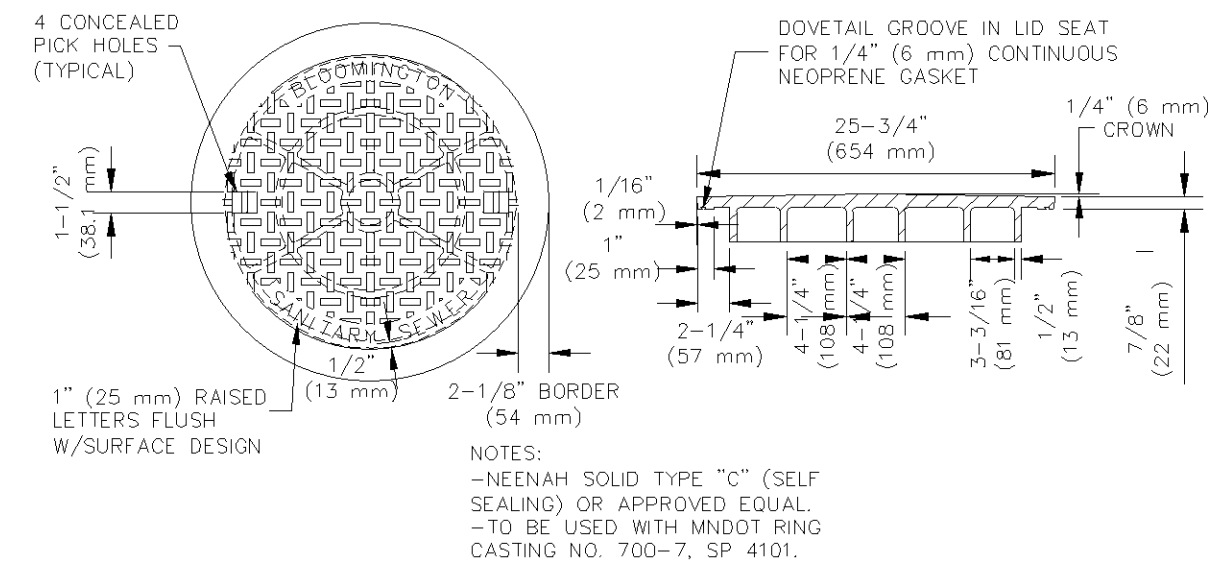


MN/DOT S.P. 4101D CASTING NO. 700-7

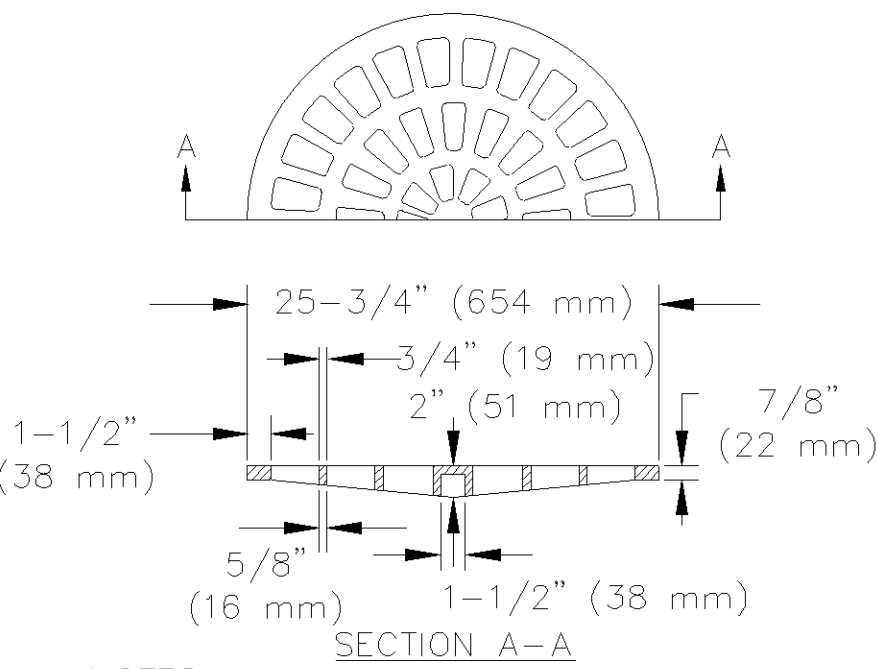
4 503 - RING CASTING FOR MANHOLE
NOT TO SCALE 503 - MH Frame.dwg 5/2015



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

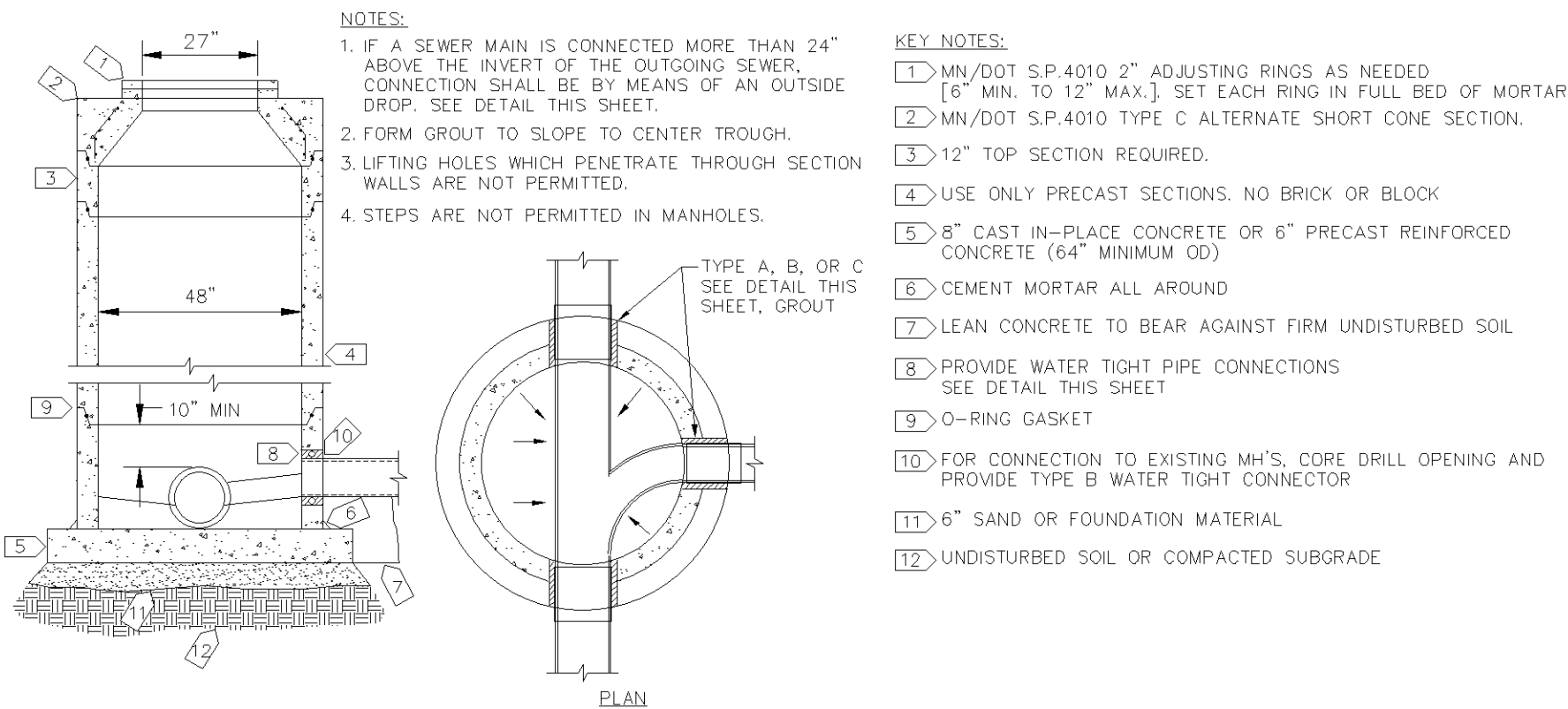


8 501 - STANDARD SANITARY MANHOLE COVER
NOT TO SCALE 501 - Sanitary Cov.dwg 5/2015



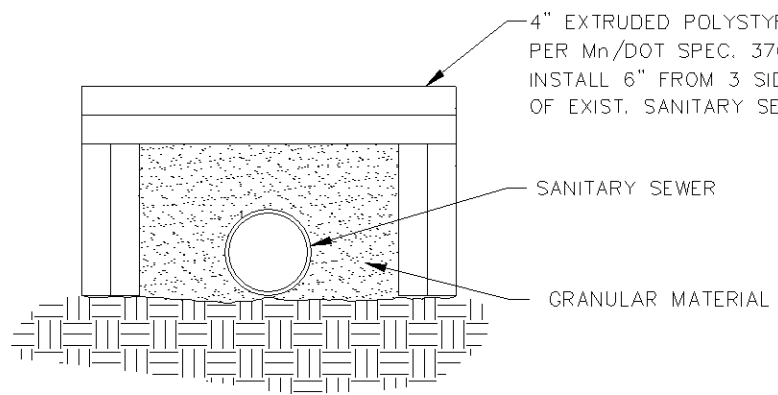
NOTES:
-USE NEENAH R-2296 TYPE C GRATE OR APPROVED EQUAL.
-TO BE USED WITH MNDOT RING CASTING NO. 700-7, SP 4101.

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

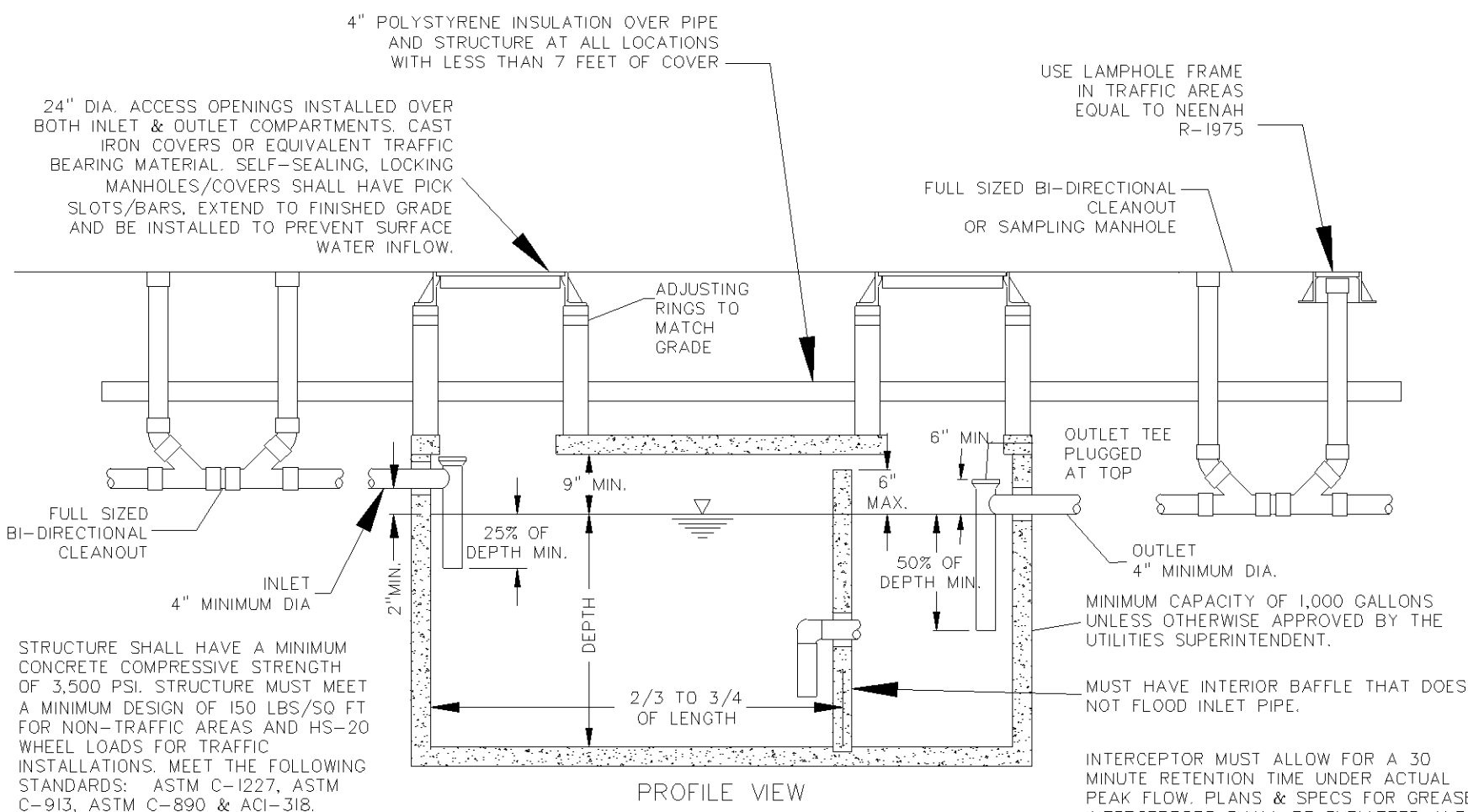
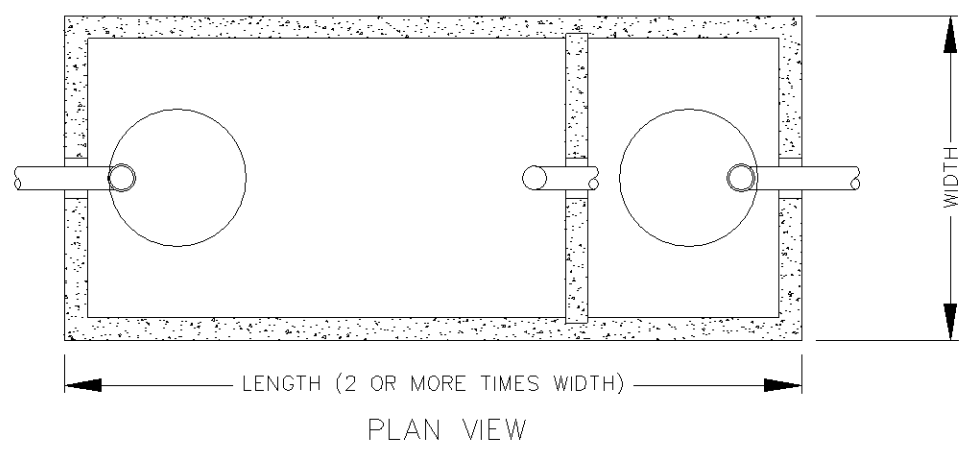


- NOTES:
1. IF A SEWER MAIN IS CONNECTED MORE THAN 24" ABOVE THE INVERT OF THE OUTGOING SEWER, CONNECTION SHALL BE BY MEANS OF AN OUTSIDE DROP. SEE DETAIL THIS SHEET.
 2. FORM GROUT TO SLOPE TO CENTER TROUGH.
 3. LIFTING HOLES WHICH PENETRATE THROUGH SECTION WALLS ARE NOT PERMITTED.
 4. STEPS ARE NOT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

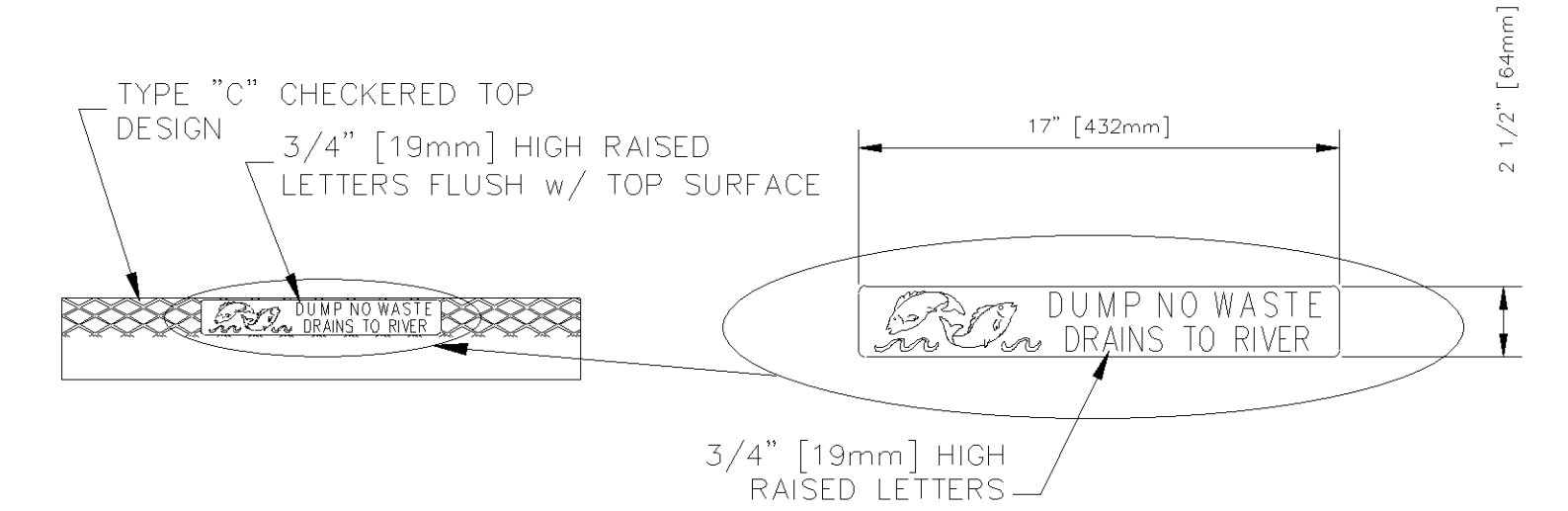
1 400 - STANDARD SANITARY SEWER MANHOLE
NOT TO SCALE 400 - Std San MH.dwg 6/2015



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

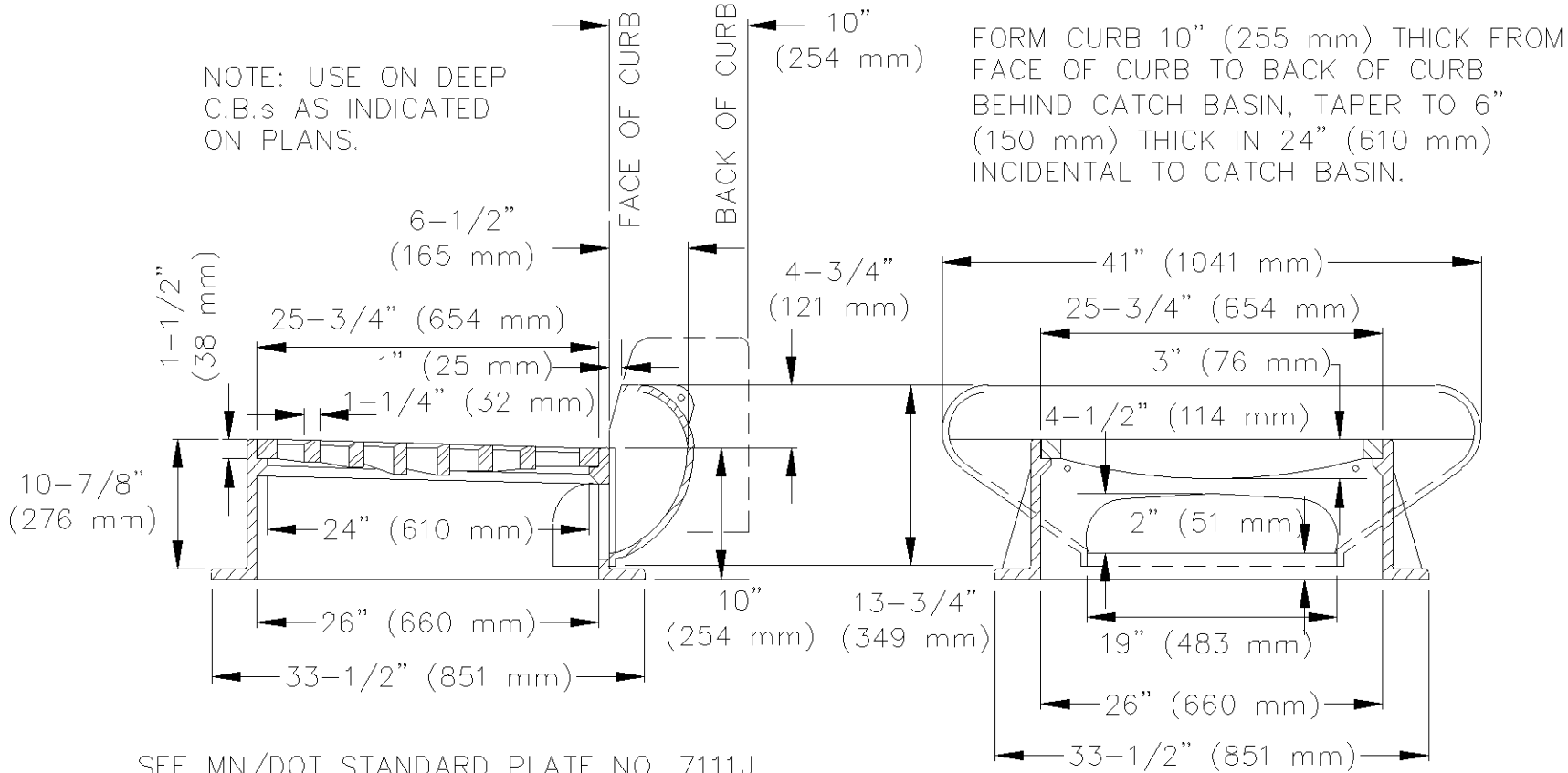


6 412 - GREASE INTERCEPTOR EXAMPLE
NOT TO SCALE - FOR INFORMATIONAL PURPOSES ONLY 412 - Typical Grease Interceptor.dwg 12/2019



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

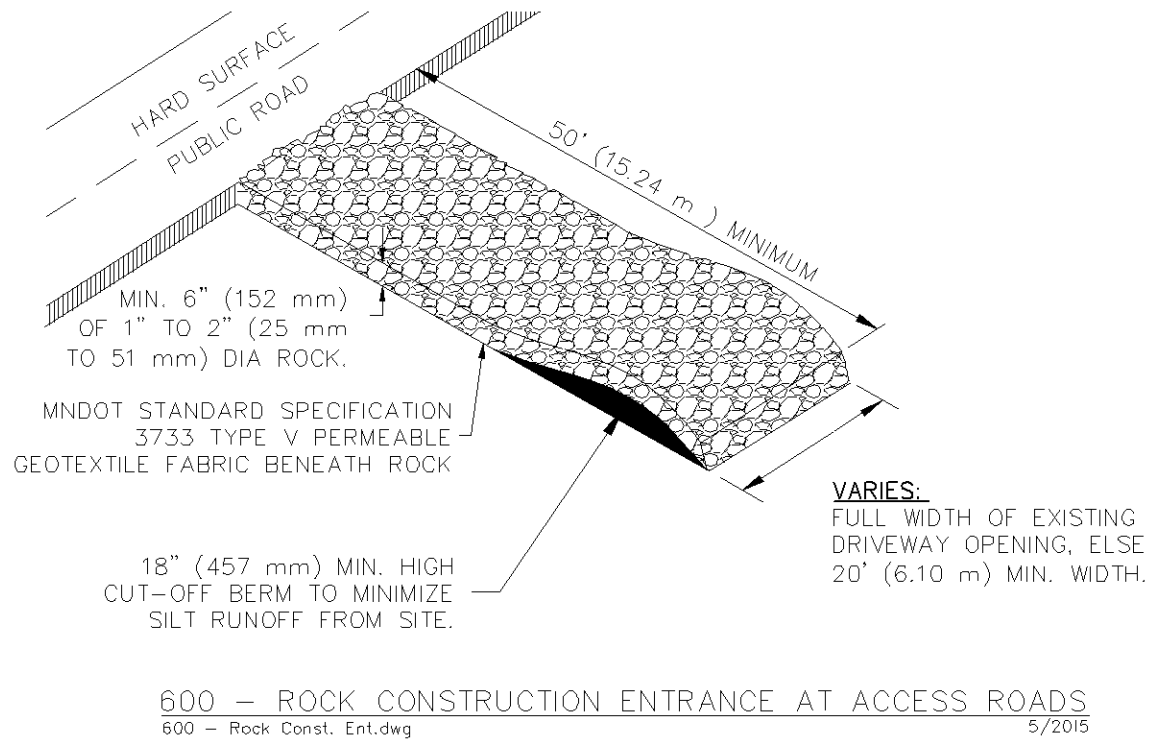


SEE MN/DOT STANDARD PLATE NO. 7111J FOR CURB REINFORCING REQUIREMENTS.

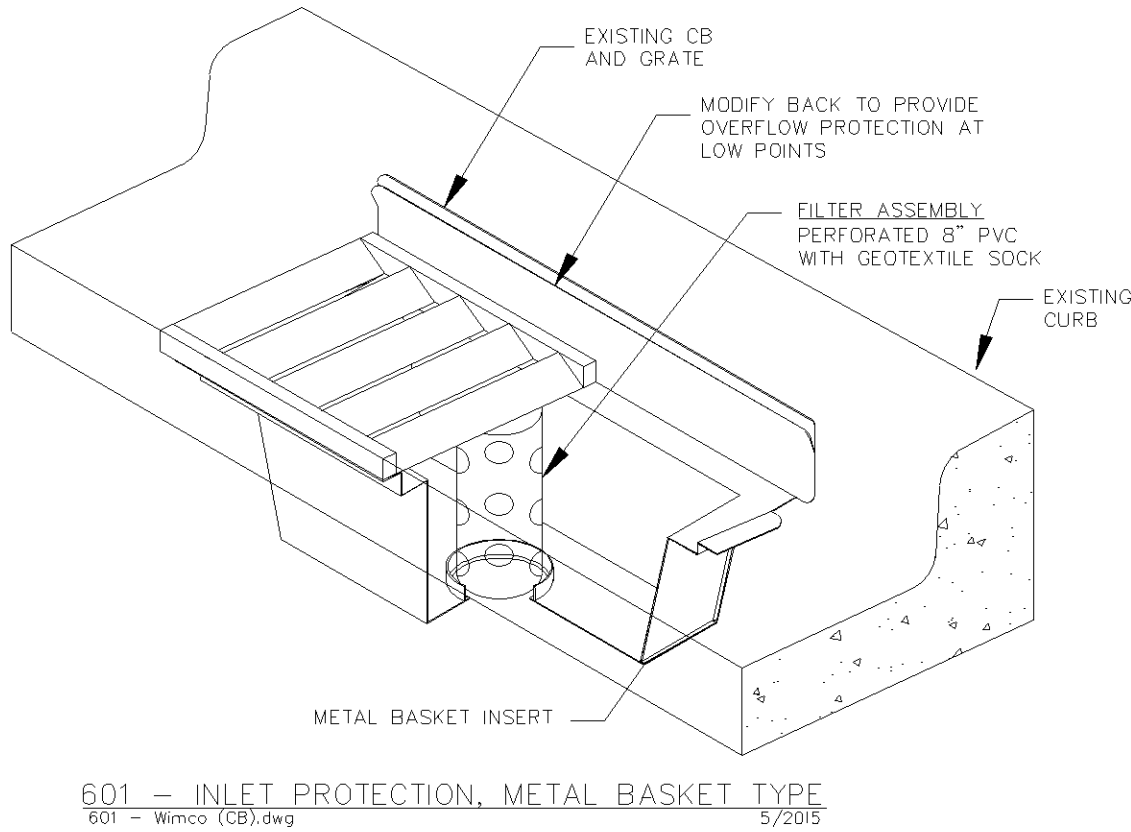
FRAME: MN/DOT STD PLATE 4126F CASTING 801
GRATE: MN/DOT STD PLATE 4149C CASTING 810
CURB BOX WITH 41" OPENING: AS SHOWN ABOVE
(USE NEENAH R-3250-1 OR APPROVED EQUAL)

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

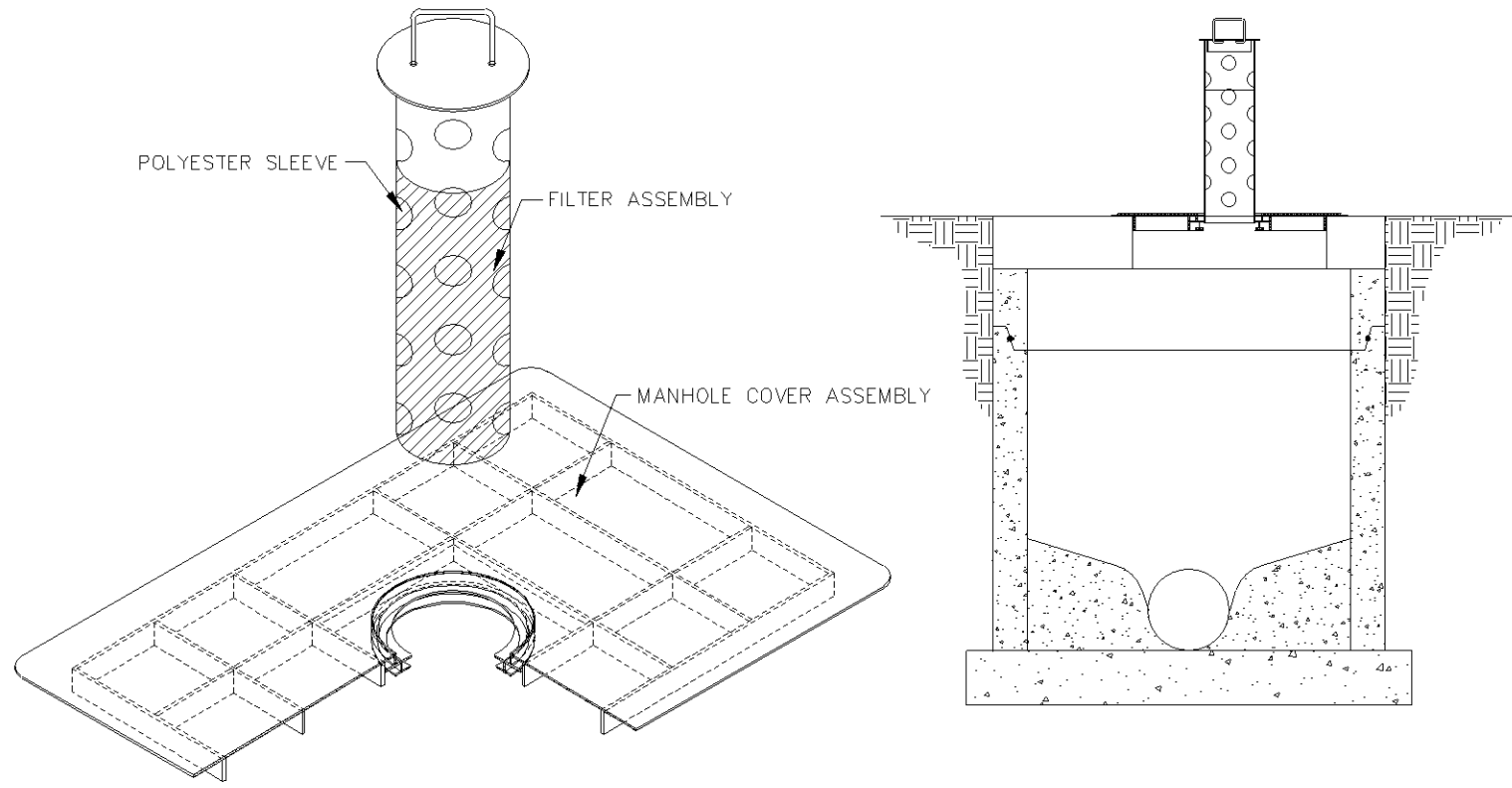
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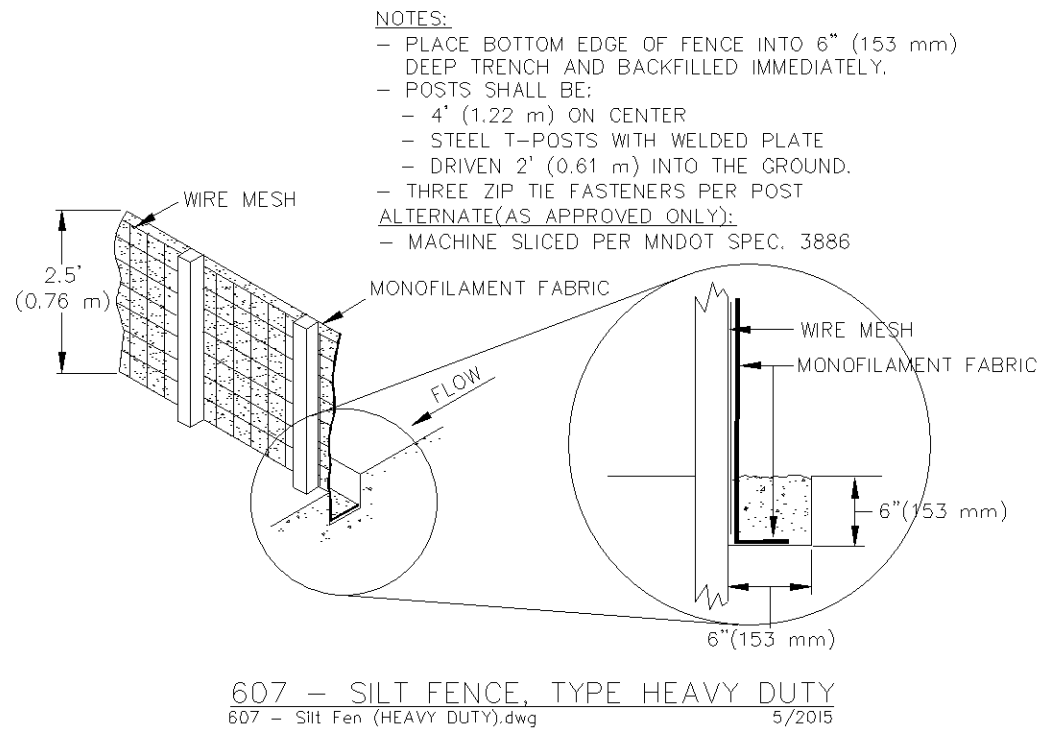
1 600 - ROCK CONSTRUCTION ENTRANCE AT ACCESS ROADS
NOT TO SCALE 600 - Rock Const. Ent.dwg 5/2015



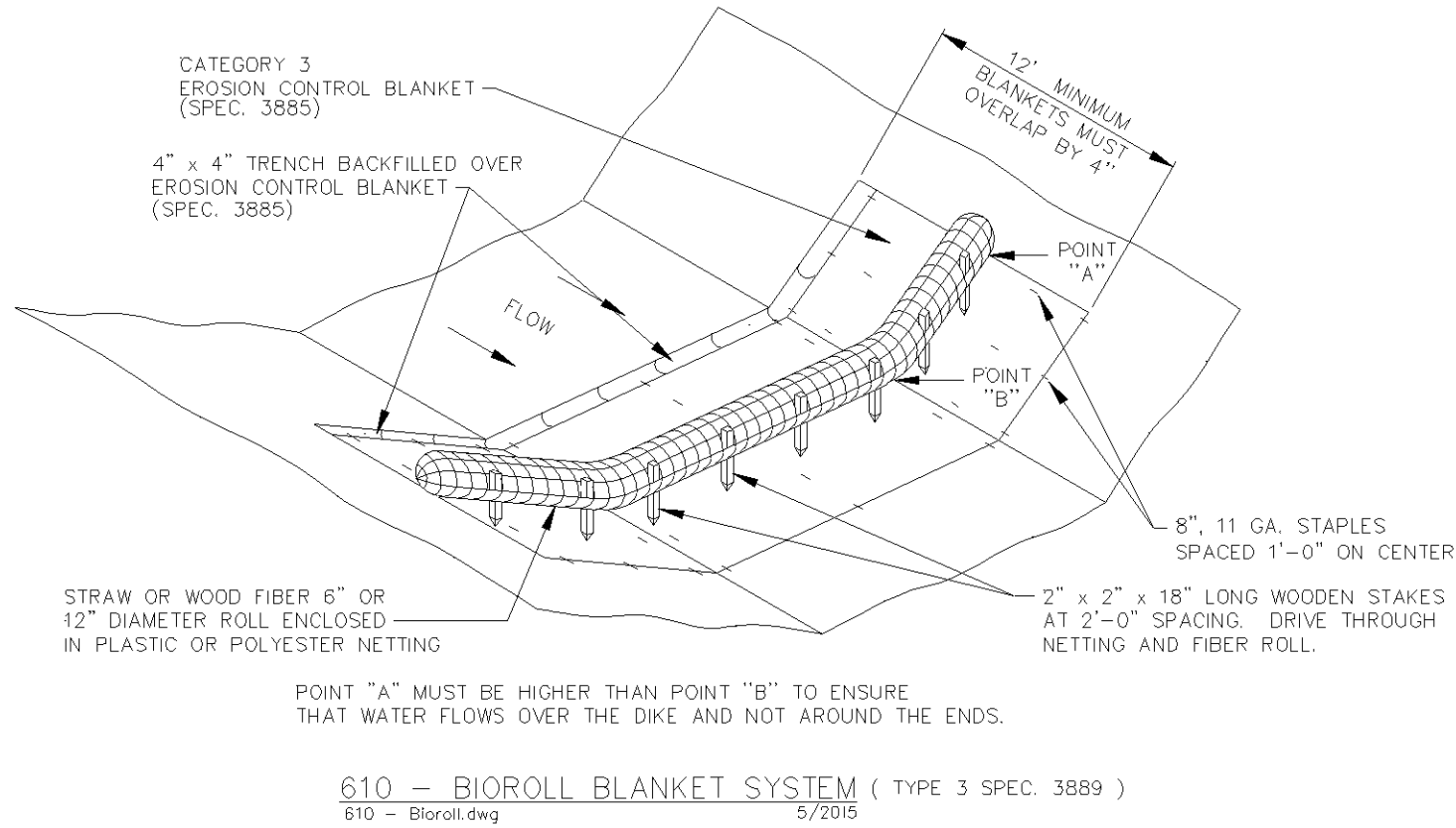
2 601 - INLET PROTECTION, METAL BASKET TYPE
NOT TO SCALE 601 - Wimco (CB).dwg 5/2015



3 602 - INLET PROTECTION, MANHOLE COVER ASSEMBLY
NOT TO SCALE 602 - Wimco (MH).dwg 5/2015



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



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

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 under the laws of the State of MINNESOTA

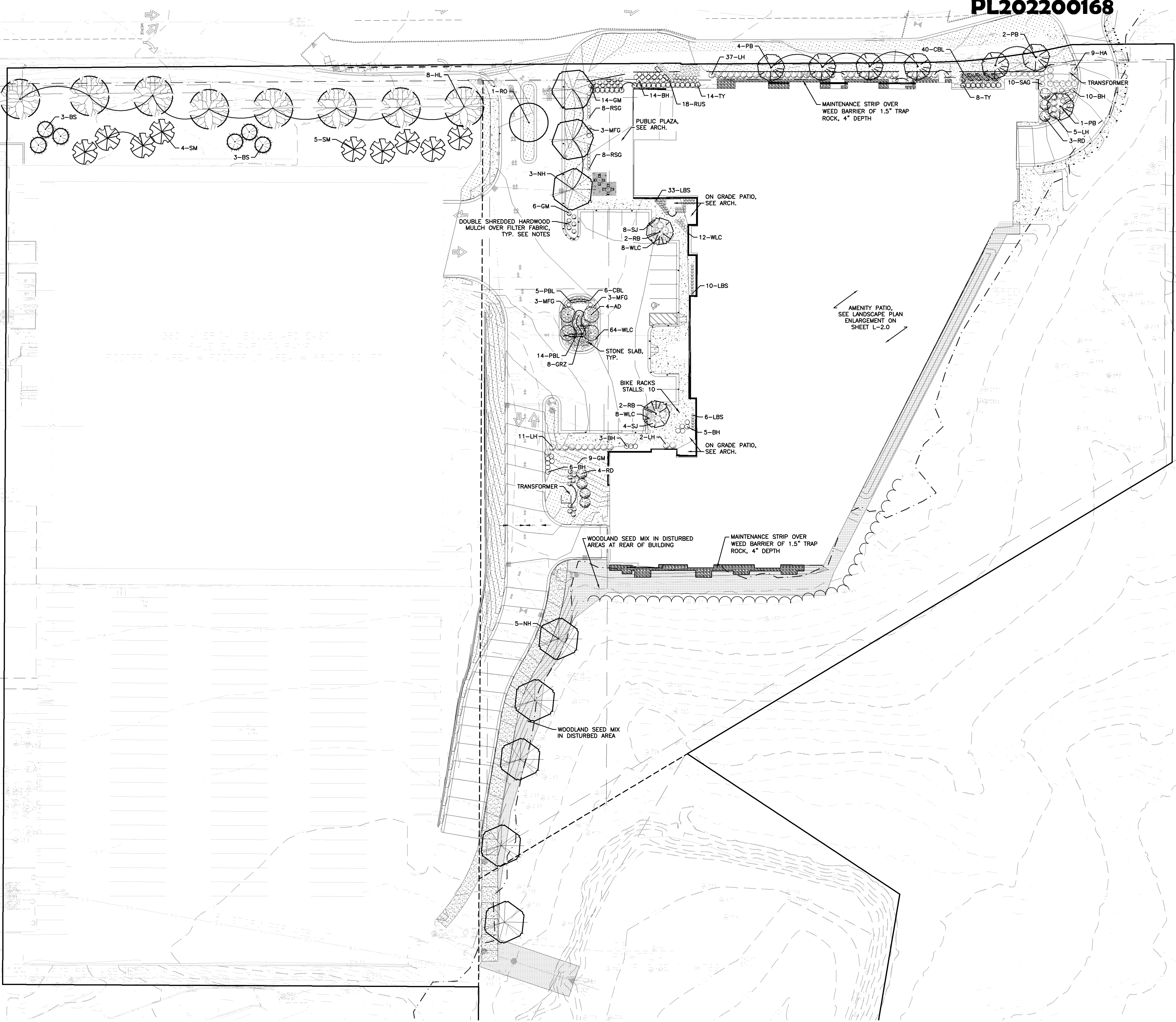
DAVID NASH, PE
04-04-22
Date License No.

QUALITY ASSURANCE/CONTROL

BY	DATE
DATE	ISSUE
5-20-22	100% GMP
7-22-22	CITY PERMIT
7-27-22	LIFT STATION
8-16-22	EASEMENT REVISION
8-18-22	TITLE UPDATE
8-23-22	CITY GRADING PERMIT

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

Drawing name: X:\2019\190123\plan sheets\Final Plan Development\190123land.dwg Aug 19, 2022 3:24pm



LEGEND

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

ALLIANT
ENGINEERING

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

ARDOR APARTMENTS
BLOOMINGTON, MN

LANDSCAPE 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 LANDSCAPE ARCHITECT under the laws of the State of MINNESOTA.

Mark Zilk

04-04-22 26222
Date License No.

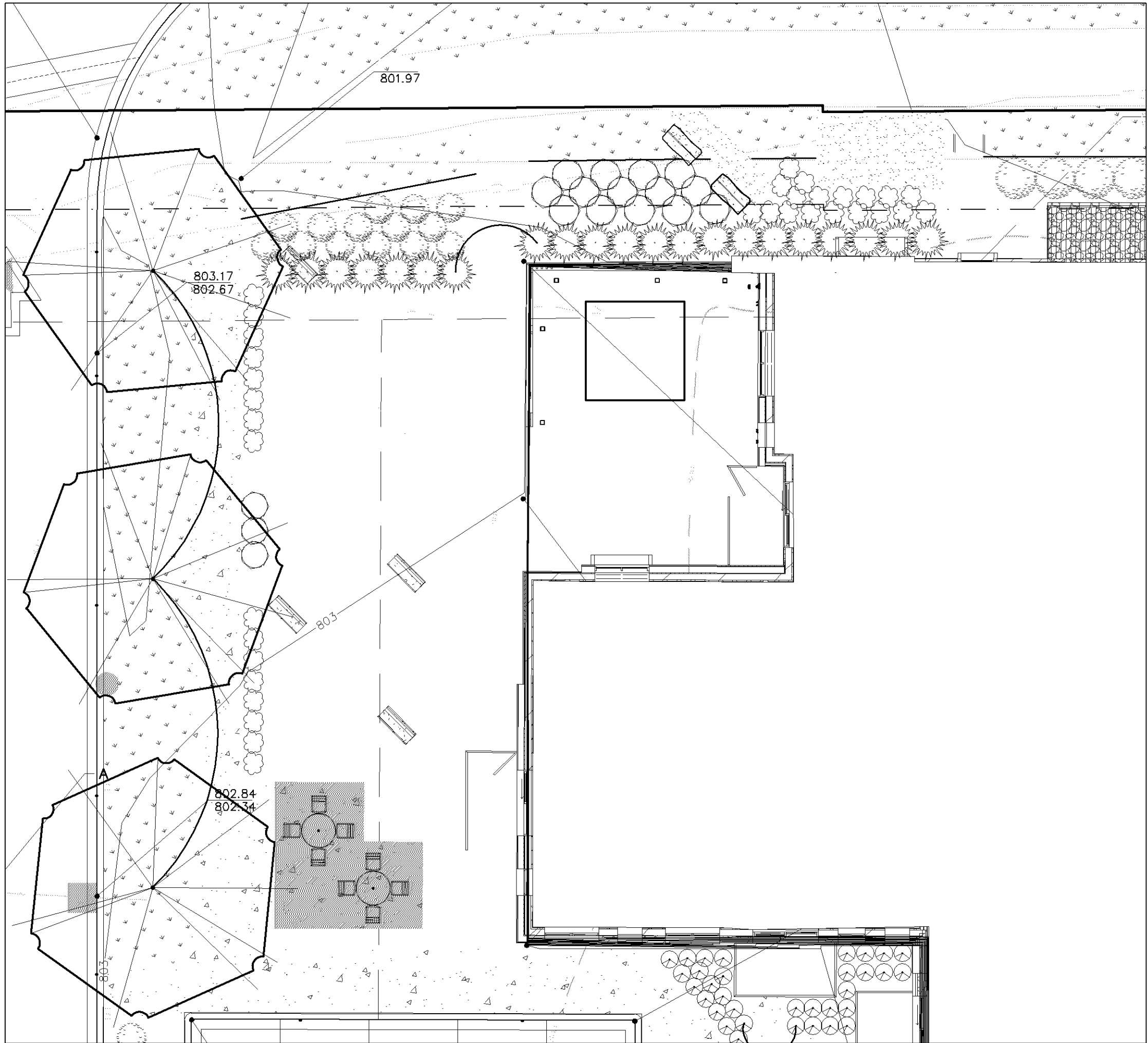
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DRAWN:	DMS
PROJECT NO:	190123

L-1.0

Drawing name: X:\2019\190123\plan sheets\Final Plan Development\190123land.dwg Aug 19, 2022 3:24pm



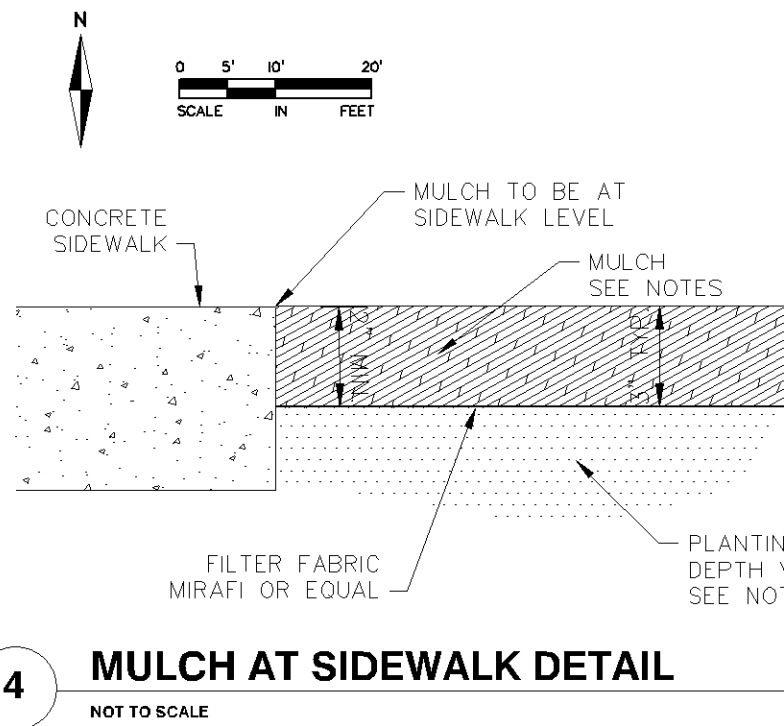
PUBLIC PARK LANDSCAPE ENLARGEMENT
1" = 10'

PUBLIC PARK/PLAZA REQUIREMENTS

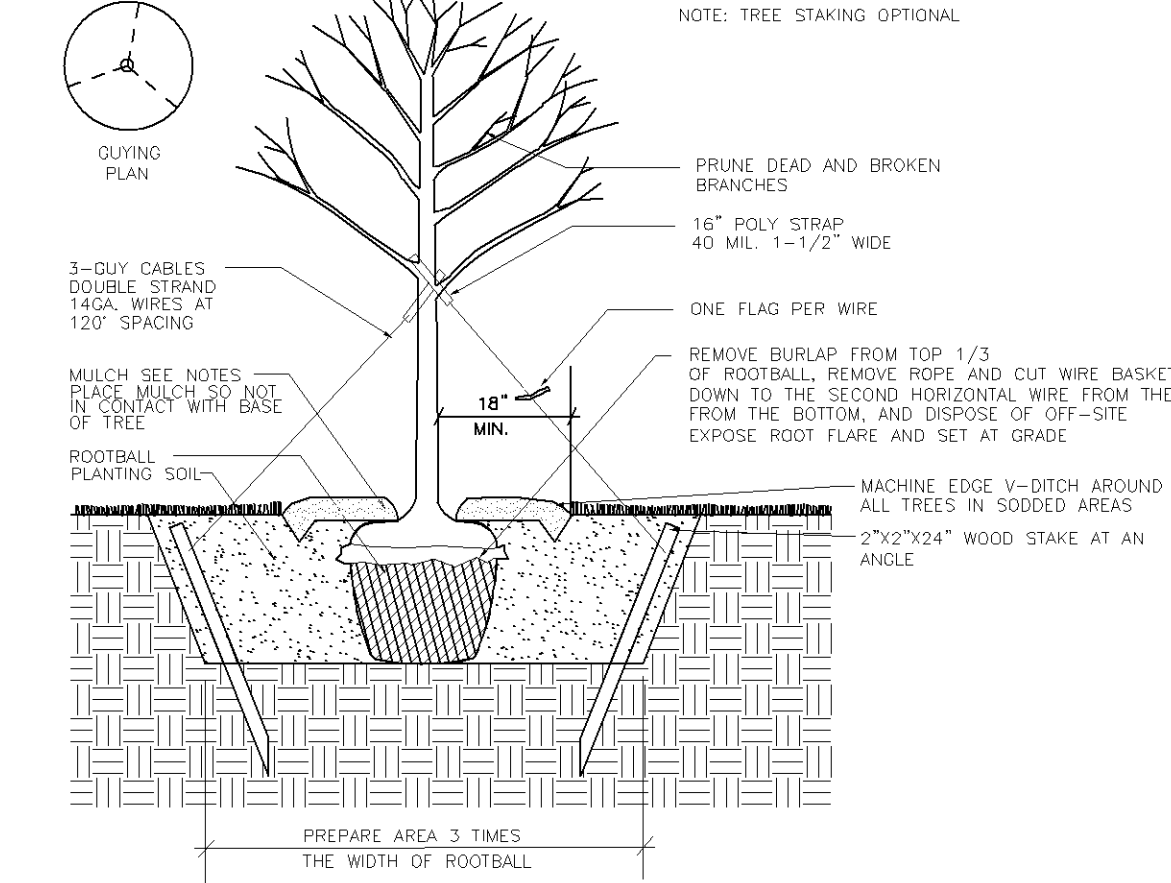
TOTAL PLAZA AREA	
REQUIRED:	5,000 SF
PROVIDED:	5,000 SF
ABUTTING PUBLIC WAY	
REQUIRED (350 LF X 25%):	87.5 LF
PROVIDED (25%):	88 LF
LANDSCAPE/WATER FEATURE	
REQUIRED (30%):	1,500 SF
PROVIDED (60%):	3,019 SF
SEATING REQUIREMENT	
REQUIRED (5,000/200 SF):	25 SEATS
PROVIDED (5,000/200 SF):	25 SEATS

LANDSCAPE NOTES:

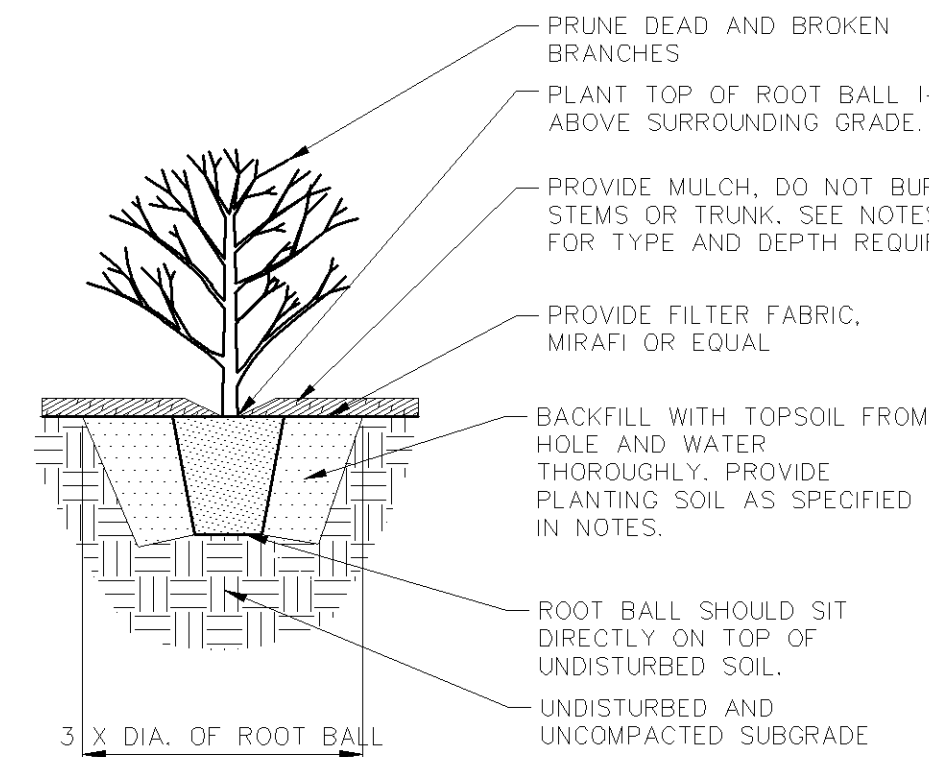
- CALL Gopher State One Call at 651-454-0002 for locating all underground utilities and to avoid damage to utilities during the course of the work.
- INSTALL 4" MIN. TOP SOIL TO ALL SOD AND SHRUB AREAS. FINE GRADE ALL SOD AREAS. INSTALL 12" PLANTING (TOP) SOIL TO ALL ANNUAL/PERENNIAL AREAS.
- STAKE OR MARK ALL PLANT MATERIAL LOCATIONS PRIOR TO INSTALLATION. HAVE OWNERS REPRESENTATIVE APPROVE ALL STAKING PRIOR TO INSTALLATION.
- 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.
- ALL MULCH AND ROCK (BOULDERS, COBBLESTONE, ETC) TO BE APPROVED BY OWNER AND/OR LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- INSTALL 4-6" DEPTH SHREDDED HARDWOOD MULCH AROUND ROOT SAUCER OF ALL TREES ISOLATED FROM PLANT BEDS. DO NOT PLACE LANDSCAPE FABRIC OR MULCH ON TREE TRUNK.
- PLANTING SOIL SHALL BE 1:1:1 CONSISTING OF 33% SELECT LOAMY TOPSOIL, 33% PEAT MOSS, 33% PIT RUN SAND.
- 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).
- ALL MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMEN.
- ALL TREE TRUNKS SHALL BE WRAPPED WITH BROWN CREPE TREE WRAP. APPLY WRAP IN NOVEMBER AND REMOVE IN APRIL.
- MAINTAIN ALL PLANT MATERIALS, INCLUDING WATERING, UNTIL THE TIME OF ACCEPTANCE.
- COORDINATE LANDSCAPE INSTALLATION WITH GENERAL CONTRACTOR.
- STAKING AND GUYING OF TREES OPTIONAL: MAINTAIN PLUMBNESS OF TREES FOR DURATION OF WARRANTY PERIOD.
- SWEEP AND WASH ALL PAVED SURFACES AND REMOVE ALL DEBRIS RESULTING FROM LANDSCAPE OPERATIONS DAILY.
- 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.



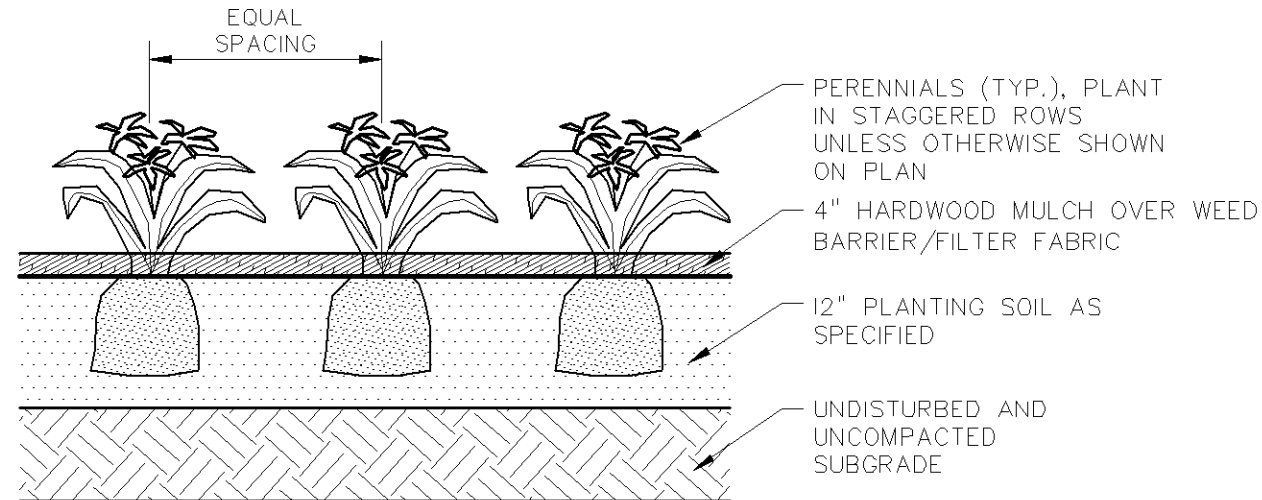
MULCH AT SIDEWALK DETAIL
4 NOT TO SCALE



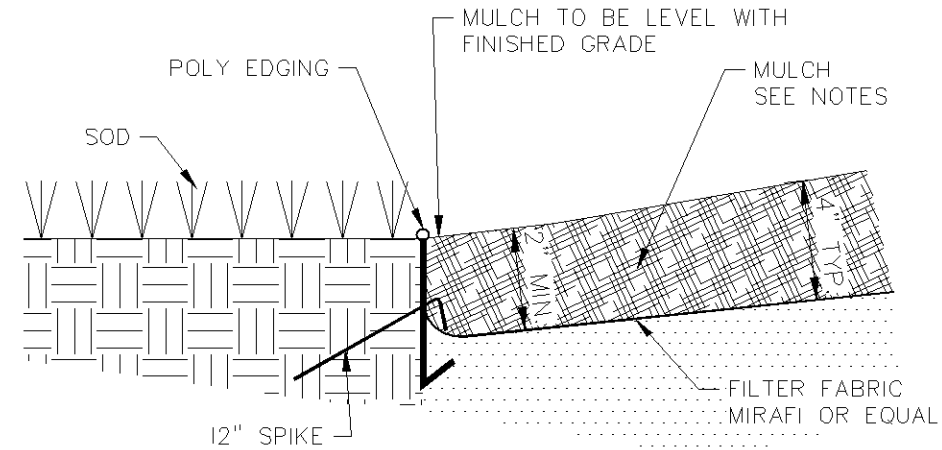
TREE PLANTING
1 NOT TO SCALE



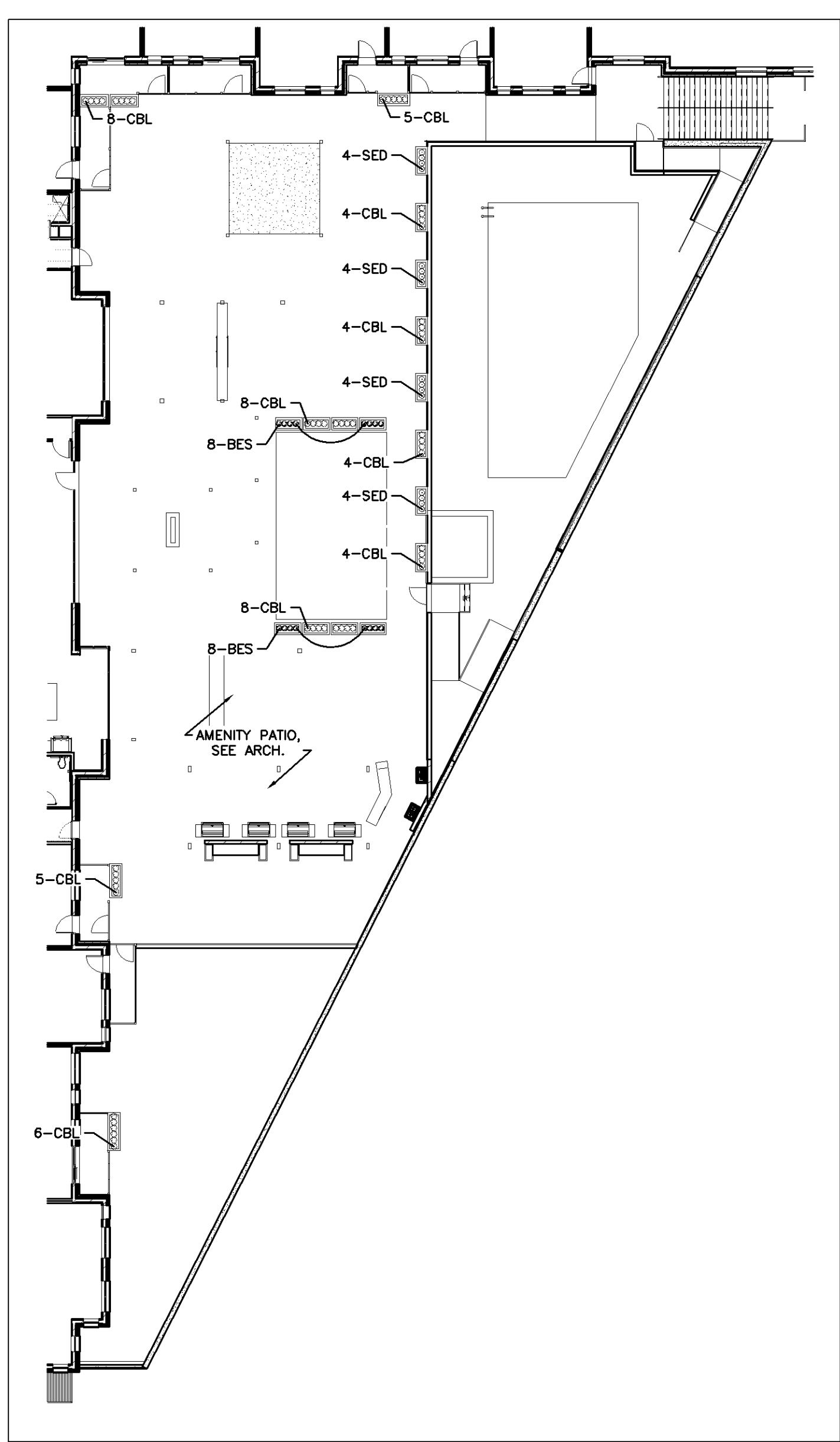
SHRUB PLANTING
2 NOT TO SCALE



PERENNIAL PLANTINGS
3 NOT TO SCALE



MULCH AT SOD DETAIL
5 NOT TO SCALE



POOL DECK LANDSCAPE ENLARGEMENT
NOT TO SCALE

POOL DECK SCHEDULE

QTY	KEY	COMMON NAME	SCIENTIFIC NAME	SIZE
PERENNIALS & ORNAMENTAL GRASSES				
16	BES	Little Goldstar Black Eyed Susan	Rudbeckia fulgida 'Little Goldstar'	1gal. cont.
16	SED	Neon Flash Sedum	Sedum spectabile 'Neon'	1gal. cont.
56	CBL	Plum Pudding Coral Bells	Heuchera 'Plum Pudding'	1gal. cont.

LANDSCAPE SCHEDULE

QUANTITY	KEY	COMMON NAME	SCIENTIFIC NAME	SIZE / ROOT TYPE	NOTES
OVERSTORY TREES					
8	HL	Northern Acclaim Honey Locust	Gleditsia Tricanthos var. inermis 'Harve'	2.5" cal. B&B	Straight Trunk, No V-Crotch
9	NH	New Horizon Elm	Ulmus caprifolia '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 papyrifera	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					
6	AD	Adirondack Flowering Crab	Malus 'Adirondack'	1.5" cal. B&B	Straight Trunk, No V-Crotch
SHRUBS					
86	BH	Dwarf Bush Honeysuckle	Diervilla lonicera	18" ht. cont.	Min. 5 canes at ht. spec.
43	GM	Goldmound Spirea	Spiraea x '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 'Scandia'	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'	1gal. cont.	
8	GRZ	Miscanthus Grassella	Miscanthus sinensis 'Grassella'	3gal. cont.	
42	LBS	Little Bluestem	Schizachyrium scoparium	1gal. cont.	
26	MFG	Miscanthus Flame	Miscanthus sinensis 'Purpurascens'	3gal. cont.	
72	RUS	Little Spire Russian Sage	Perovskia atriplicifolia 'Little Spire'	1gal. cont.	
30	SAG	Sage Hosta	Hosta 'Sage'	1gal. cont.	
90	WLC	Walker's Low Catmint	Nepeta x faassenii 'Walker's Low'	1gal. 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: (1/2,500 SF DEVELOPABLE)	44 TREES
TREES PROVIDED:	44 TREES
SHRUBS REQUIRED: (1/1,000 SF DEVELOPABLE)	109 SHRUBS
SHRUBS PROVIDED:	268 SHRUBS

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 MDOT TYPE 3 (MOA 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 (MICA). 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 RESEED, 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:

- PRIOR TO THE INSTALLATION OF THE LANDSCAPE AND IRRIGATION SYSTEM, CONTRACTOR TO PREPARE SOIL TO ENSURE A PROPER ENVIRONMENT FOR PLANT ROOT DEVELOPMENT.
- 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-COMPACTING 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.
- WHEN PERFORMING SOIL DE-COMPACTING, 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.
- AFTER INITIAL SOIL DE-COMPACTING 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.
- 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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BLOOMINGTON, MN

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Mark Zilk

04-04-22 26222
Date License No.

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DRAWN:	DMS
PROJECT NO:	190123

L-2.0