

Legend

EXISTING PROPERTY BOUNDARY

DENOTES FOUND IRON PIPE MONUMENT, TYPE AS INDICATED

NOTES FIRE HYDRANT.

CB DENOTES STORM CATCH BASIN

MH DENOTES STORM/SANITARY MANHOLE

DS DENOTES DOWNSPOU

DENOTES CLEANOUT

LP DENOTES LIGHT PO

DENOTES POWER POLE (OVERHEAD ELECTRICAL LINES)

DENOTES PARKING STALL COUN

DENOTES EXISTING BITUMINOUS SURFACE TO REMAIN

DENOTES EXISTING CONCRETE SURFACE

DENOTES EXISTING BIT. REMOV

Keyed Notes

- (1) REMOVE EXISTING BITUMINOUS PAVEMENT AND BASE MATERIAL.
- 2 REMOVE EXISTING CONCRETE PAVEMENT AND BASE MATERIAL.
- 3 SAW CUT BIT. EDGE PRIOR TO REMOVAL.
- REMOVE AND DISPOSE OF EXISTING MODULAR BLOCK WALL.
- 75 REMOVE AND DISPOSE OF EXISTING METAL STAIRWAY.
- (6) TRANSFORMER AND GAS METER TO BE RELOCATED.
- WORK WITH XCEL ENERGY TO RELOCATE OVERHEAD ELECTRIC LINE
- EXISTING WALL/PORTION OF BUILDING TO BE
- REMOVED (SEE ARCHITECTURAL)
- 9 REMOVE AND DISPOSE OF EXISTING TREE
- REMOVE AND DISPOSE OF CONCRETE CURB AND GUTTER.
- PYLON SIGN(S) TO BE REMOVED AND A NEW ONE INSTALLED (SEE ARCHITECTURAL DRAWINGS FOR NEW LOCATION)
- DEMO EXISTING BUILDING
- WORK WITH XCEL ENERGY ON REPLACEMENT FOR TRANSFORMER
- 14) REMOVE EXISTING UNDERGROUND STORAGE TANK (BY OTHERS)
- 15) REMOVE CATCH BASIN
- 76) REMOVE EXISTING SIGN
- REMOVE EXISTING STORM PIPE
- REMOVE EXISTING TOP SECTION SANITARY MANHOLE, BACKFILL WITH SAND. GROUT FILL EXISTING SANITARY SEWER LINE.
- ABANDON EXISTING SEWER SERVICE, BULK HEAD AT MAIN OR PROPERTY LINE OR AS REQUIRED BY CITY ENGINEER.
- REMOVE EXISTING ELECTRICAL HOOKUPS ALONG WEST PROPERTY LINE
- REMOVE EXISTING WATER SERVICES TO MAIN. REPAIR STREET AND CURB TO CITY STANDARDS. SAW CUT TO LANE WIDTH / CENTERLINE FOR REMOVAL.
- REMOVE EXISTING HYDRANT AND LEAD TO MAIN. INSTALL M.J. PLUG AND THRUST BLOCK AT TEE ON MAIN.
- SAW CUT BIT. 2-FT OUT FROM TOE OF EXISTING CURB, REMOVE
 AND REPLACE CURB WITH NEW BARRIER CURB TO MATCH
- REMOVE EXISTING CONCRETE APRON.

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CIVIL

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TODD A. ERICKSON, PE

40418 LICENSE NO. 03/26/2019 DATE:

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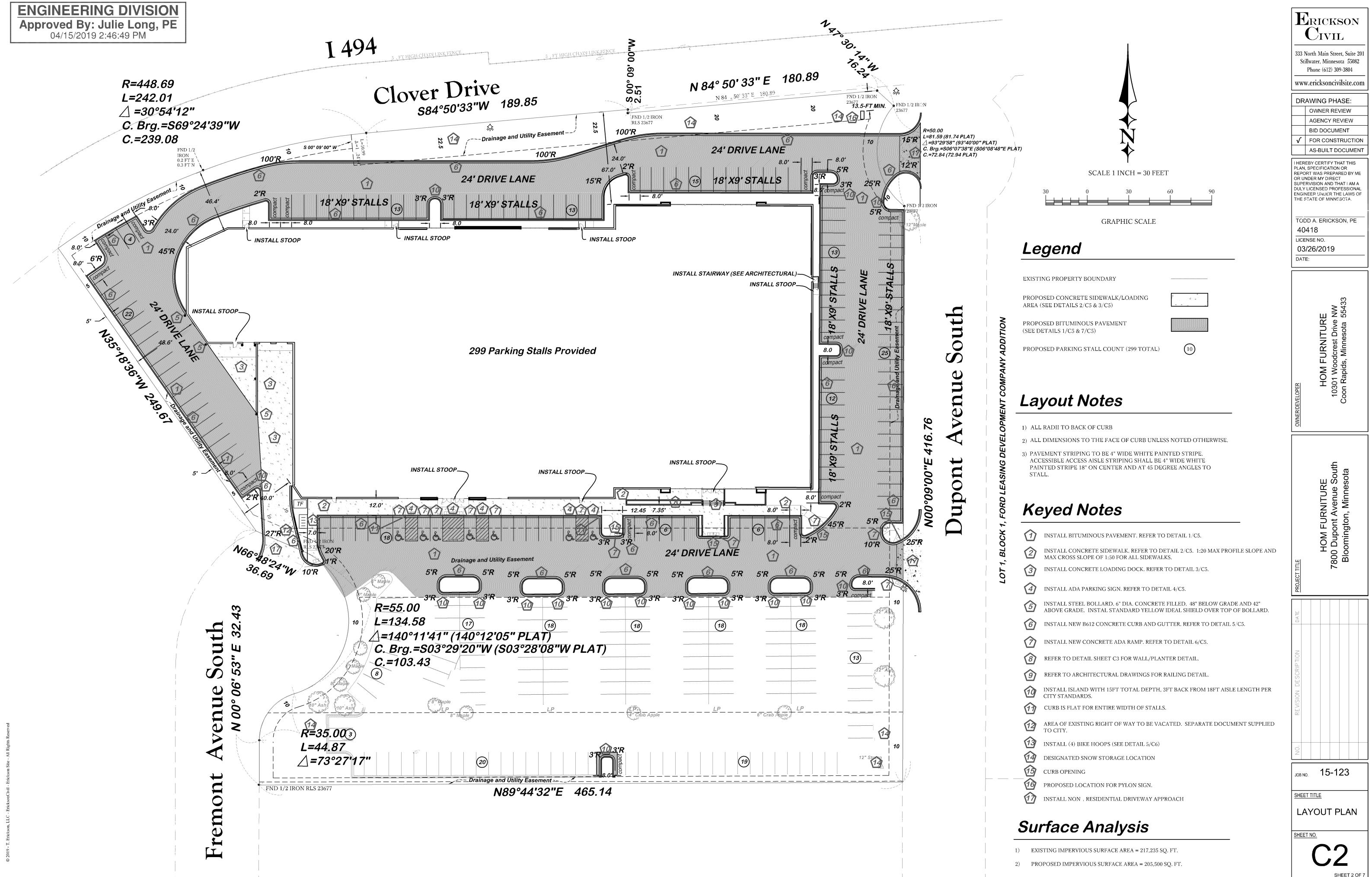
REVISION DESCRIPTION DATE

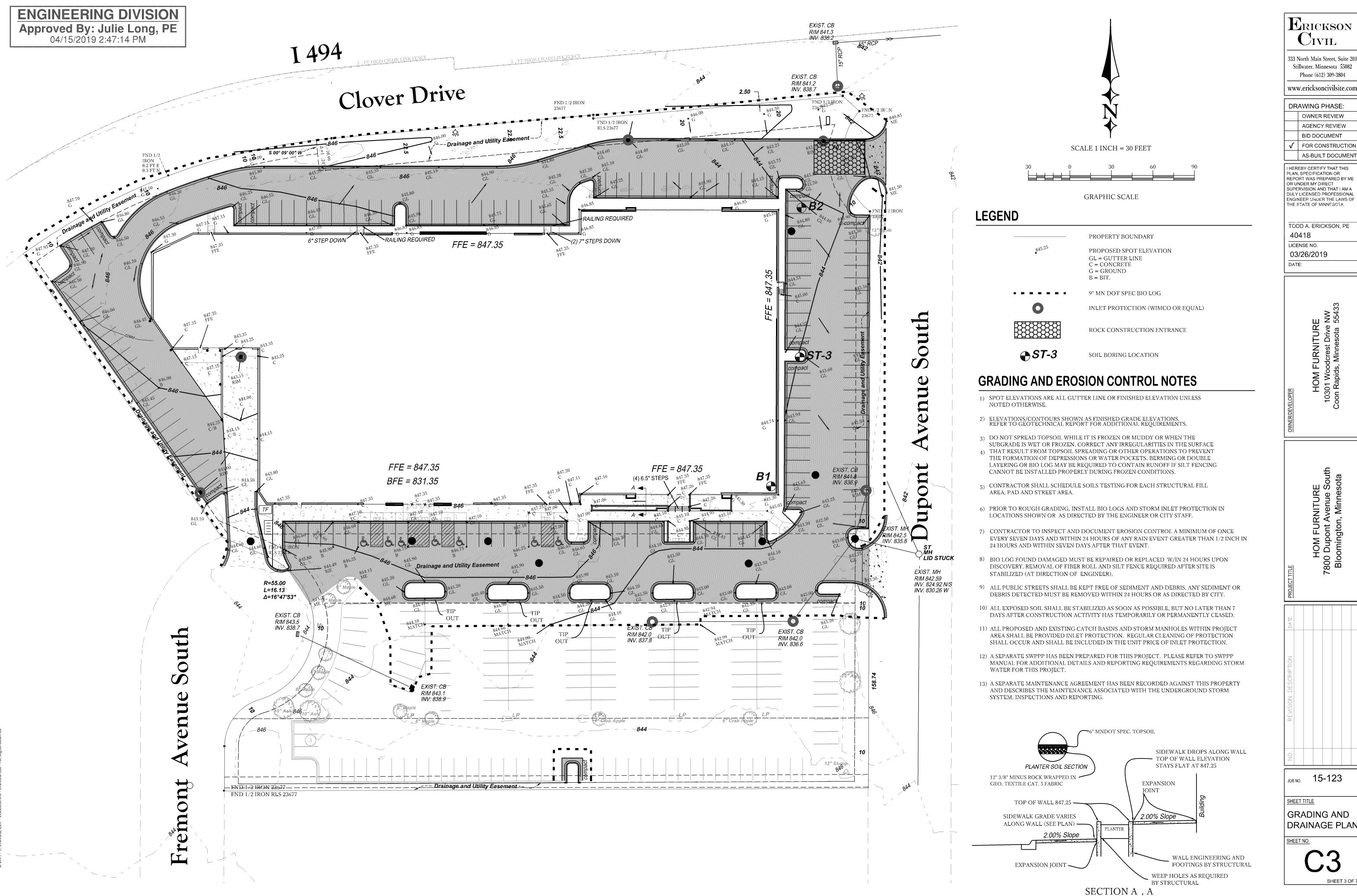
JOB NO. 15-123

SHEET TITLE
EXISTING
CONDITIONS &
DEMO PLAN

SHEET NO.

SHEET 1 OF 7





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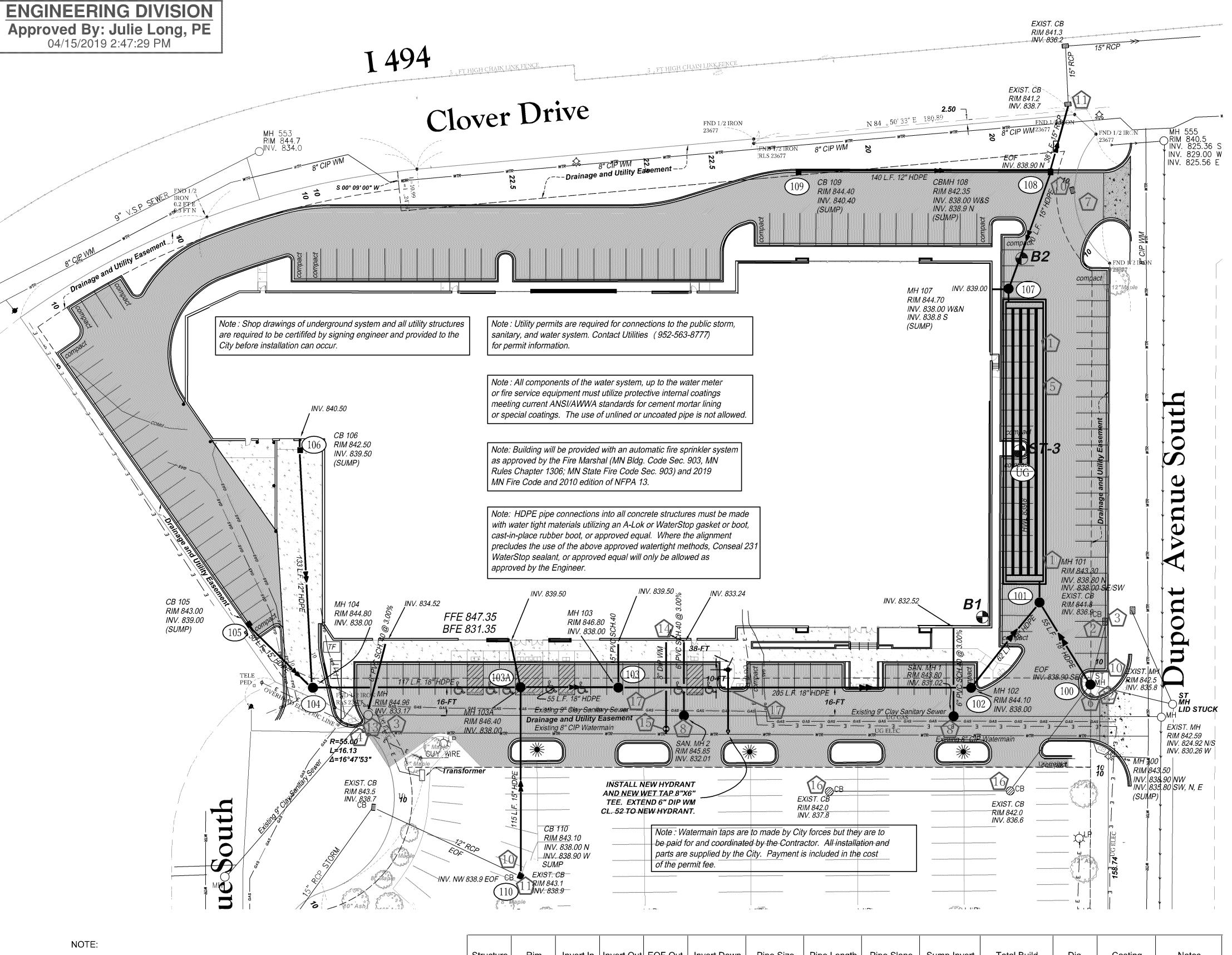
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GRADING AND DRAINAGE PLAN



1) STORM LINE FROM 104 TO 102 IS WATER QUALITY/ PRE TREATMENT SYSTEM WHICH WILL REQUIRE ROUTINE INSPECTION AND MAINTENANCE ACCORDING TO THE WATERSHED MAINTENANCE AGREEMENT.

2) IN ADDITION TO THE ABOVE SYSTEM CB'S 100, 101, 105-110 ARE DESIGNED AS SUMP CATCH BASINS OR MANHOLES FOR ADDITIONAL WATER QUALITY AND WILL ALSO REQUIRE ROUTINE INSPECTION AND MAINTENANCE ACCORDING TO THE WATHERSHED MAINTENANCE AGREEMENT.

3) 106 * - CB STRUCTURE 106, EXTEND 12" OUTLET PIPE INTO CB AND INSTALL 90° BEND TO 1-FT BELOW INVERT OF OUTLET PIPE TO PROVIDE OIL/DEBRIS SKIMMING.

4) ALL STORM PIPE IS HPDE N12 WT, UG = 42" DIA. PERFORATED PIPE

5) EOF OULET PIPE FROM CBMH 109 TO EXISTING = 38 L.F.15" RCP @ 0.53%

Structure	Rim	Invert In	Invert Out	EOF Out	Invert Down	Pipe Size	Pipe Length	Pipe Slope	Sump Invert	Total Build	Dia.	Casting	Notes
110	843.10		838.00	838.90	838.00	15	115	0.00%	834.00	9.10	48"	R-3067V	EOF
109	844.40		840.40		838.00	12	140	1.71%	836.40	8.00	48"	R-3067V	
108	842.35	838.00	838.00	838.90	838.00	15	75	0.00%	834.00	8.00	48"	R-3067V	EOF
107	844.70	838.00	838.80		838.00	15	6	13.33%	834.00	10.70	48"	R-1761	
106 *	842.50		839.50		838.00	12	133	1.13%	835.50	7.00	48"	R-2500	Oil Separator
105	843.00		839.00		838.00	15	50	2.00%	835.00	8.00	48"	R-3067V	Water Quality
104	843.00	838.00	838.00		838.00	18	117	0.00%		5.00	48"	R-1761	Water Quality
103A	846.40	838.00	838.00		838.00	18	55	0.00%		8.60	48"	R-1761	Water Quality
103	846.80	838.00	838.00		838.00	18	205	0.00%		9.05	48"	R-1761	Water Quality
102	844.10	838.00	838.00		838.00	18	62	0.00%		7.00	48"	R-1761	
101	843.50	838.00	838.80		838.00	18	12	6.67%	834.00	9.50	72"	R-1761	
100	843.30	835.80	835.80	838.90	838.00	18	55	1.64%	831.80	11.50	72"	R-1761	EOF
UG		835.00	835.00			42	(5) 150	0.00%					Volume Control

SCALE 1 INCH = 30 FEET

LEGEND

GRAPHIC SCALE

PROPERTY BOUNDARY PROPOSED STREET LIGHT , XCEL 100 HPS CALIFORNIA ACORN (BLACK) WITH 15 , FT BLACK ALUMINUM POLES. UTILITY EASEMENT _____ PROPOSED BITUMINOUS PAVEMENT PROPOSED CONCRETE SIDEWALK

EXISTING STORM SEWER EXISTING WATERMAIN

EXISTING SANITARY SEWER

PROPOSED STORM SEWER (HDPE N12 WT UNLESS NOTED)

PROPOSED SCH. 40 SANITARY SEWER PROPOSED DIP CL. 52 WATER MAIN

Keyed Notes

PROTECT AREA OF INFILTRATION PIPING SYSTEM. KEEP CONSTRUCTION TRAFFIC FREE FROM AREA.

ADJUST EXISTING RIM OF CATCH BASIN, REPLACE EXISTING RINGS

ADJUST EXISTING RIM OF MANHOLE, REPLACE EXISTING RINGS

AND INSTALL INFRASHIELD AROUND RINGS. CITY TO INSTALL MECHANICAL PLUG IN END OF EXISTING SEWER LINE ENTERING

MANHOLE. HOM TO MAINTAIN EXISTING SEWER LINE AS PRIVATE SERVICE.

CONTRACTOR SHALL INSTALL (5) ROWS OF 42" DIAMETER PERFORATED HDPE PIPING OVER 18" OF 1 , 1/2" ROCK PER DETAIL. REFER TO DETAIL 9/C5.

CONSTRUCT NEW 72" DIA. MANHOLE OVER EXISTING STORM SEWER, SEAL ALL EXISTING CONNECTIONS WITH CONCRETE.

REMOVE EXISTING CATCH BASIN AND BULK HEAD EXISTING PIPE WITH CONCRETE.

CONSTUCT NEW SANITARY MANHOLE OVER EXISTING SANITARY SEWER VERIFY DEPTH OF EXISTING MAIN.

INSTALL NEW 8" DIP WM GATE VALVE ON EXISTING 8" WATER MAIN LINE (VERIFY LOCATION OF MAIN)

CONNECT TO EXISTING STORM STRUCTURE

CONNECT TO EXISTING STORM SEWER PIPES

CORE DRILL NEW CONNECTION TO EXISTING MH (SEAL CONNECTION)

INSTALL FIRE CONNECTION PER CITY OF BLOOMINGTON REQUIREMENTS. WATER METER IS REQUIRED TO BE PLACED WITHIN 10FT OF EXTERIOR WALL.

EXISTING STRUCTURES PROVIDE OUTFLOW FOR SYSTEM DURING LARGE STORM EVENTS

INSTALL 8" G.V. & BOX ON NEW SERVICE/FIRE LINE FOR BUILDING. WET TAP NEW 8"X8" TEE AND GATE VALVE ASSEMBLY. TAPS SHALL BE DONE BY CITY STAFF. REMOVE AND REPLACE EXISTING RINGS WITH HDPE RINGS AND REINSTALL CASTING.

MAKE BIT. REPAIRS AS NECESSARY.

OFFSET WATER MAIN MIN. 18" BELOW STORM SEWER AND INSULATE CROSSING PER CITY

Notes

- 1) WATERMAIN: 8" DIP CL. 52, ALL MECHANICAL JOINTS. 8 , FT TO 10 , FT BURY DEPTH, WITH 8 MIL. POLY WRAP.
- 2) SANITARY SEWER: 8" PVC SCH. 40
- 3) STORM SEWER: SEE SCHEDULE FOR PIPE TYPE AND SIZES
- 4) PRESSURE TEST SANITARY SEWER PER CITY REQUIREMENTS
- 5) HYDROTEST WATERMAIN PER CITY REQUIREMENTS.
- 6) BACTERIA TEST WATER SERVICE PER CITY REQUIREMENTS.
- 7) COMBINATION FIRE AND DOMESTIC SERVICES MUST TERMINATE WITH A THREAD ON FLANGE OR A MJ TO FLANGE ADAPTER.
- 8) UTILITY AND MECHANICAL CONTRACTORS SHALL COORDINATE INSTALLATION OF WATER SERVICE PIPES, FITTINGS, AND VALVES (UP TO METERS AND/OR FIRE SERVICE EQUIPMENT) AND SEWER SERVICES ALL THE WAY INTO THE BUILDING TO ACCOMMODATE CITY INSPECTION AND TESTING.

Civil

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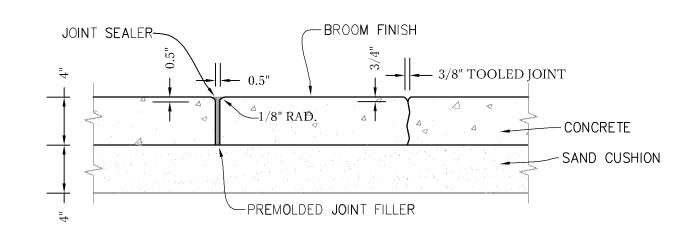
SHEET TITLE

UTILITY PLAN

SHEET NO.

SUBGRADE CORRECTION AS REQUIRED BY ENGINEER & - MECHANICALLY COMPACT SUBGRADE OVER UTILITY TRENCHES TO 95% PROCTOR (MnDOT FABRIC TYPE 5, MAY BE REQUIRED AS DIRECTED BY ENGINEER).

BITUMINOUS PAVING SECTION(S) NO SCALE



CONCRETE SIDEWALK DETAIL

NO SCALE

NOTES: TOOLED JOINTS:

1) JOINT SPACING SHALL MATCH WALK WIDTH UNLESS SHOWN OTHERWISE ON PLANS.

EXPANSION JOINTS:

1) WHERE WALK BUTTS ANY FIXED OBJECT SUCH AS WALLS, CURBS, MANHOLES, ETC.

2) 45' ON CENTER MAXIMUM OR AS SHOWN ON PLANS.

3) JOINT SEALER SHALL MEET ASTM D-412, GRAY, SELF LEVELING,

EPOXY, AS WITH "QUICKJOINT 300" OR EQUAL.

CRACK CONTROL JOINTS: 1) JOINT SPACING SHALL DIAMOND BLADE CUT 8-FT ON CENTER TO A 2" DEPTH.

EXPANSION JOINTS:

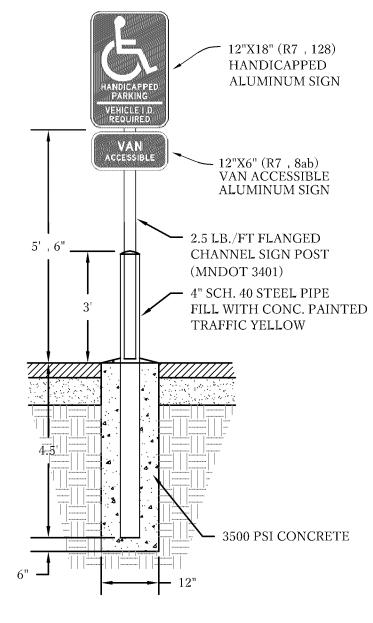
1) 45' ON CENTER MAXIMUM OR AS SHOWN ON PLANS. 2) JOINT SEALER SHALL MEET ASTM D-412, GRAY, SELF LEVELING, EPOXY, AS WITH "QUICKJOINT 300" OR EQUAL.

— 8" CONCRETE — 6"X6", #10 WWM — 6,000 PSI, AIR ENTRAINED 5% MIN., FIBER MESH, BROOMED FINISH

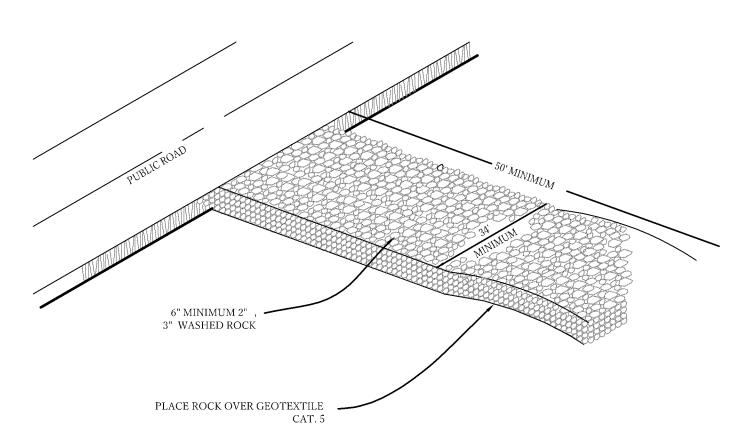
6" AGGREGATE BASE, CL.5, COMPACTED TO 100% STANDARD PROCTOR

- COMPACTED SUBGRADE

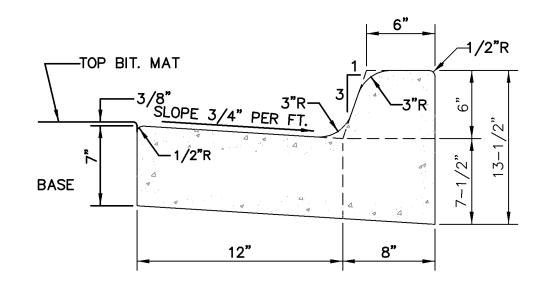
CONCRETE DOCK SECTION



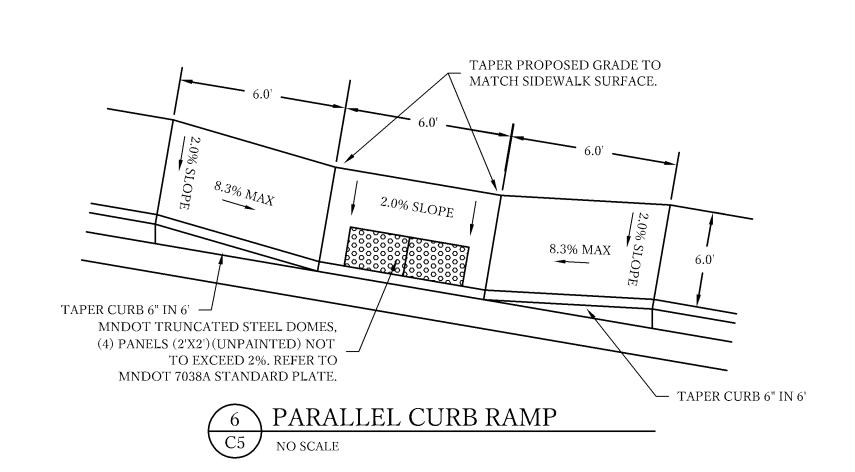


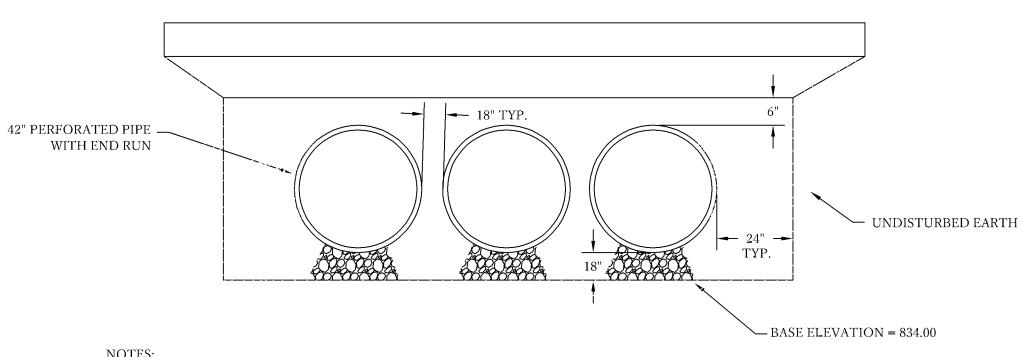


ROCK CONSTRUCTION ENTRANCE \ C6 / NO SCALE



B612 CURB & GUTTER





NOTES:

- 1. ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
- 2. ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
- 3. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.
- 4. FILTER FABRIC: A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECTED BACKFILL MATERIAL.
- 5. FOUNDATIONS: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
- 6. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I AND II. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER.
- 7. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I OR II IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.





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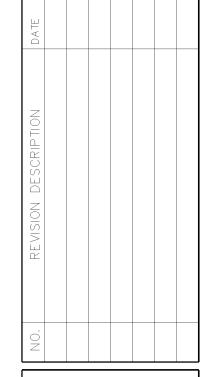
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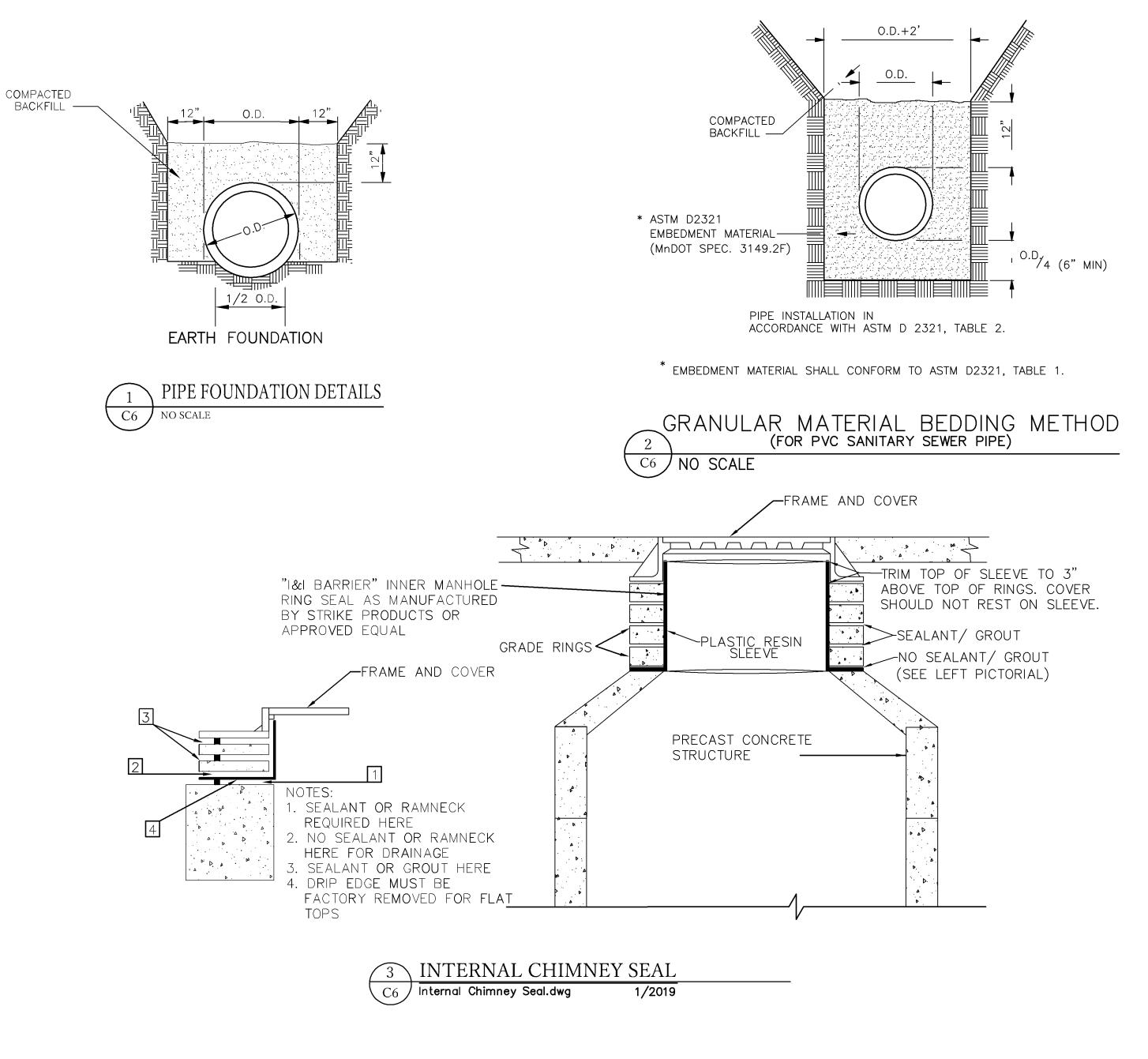


JOB NO. 15-123

SHEET TITLE

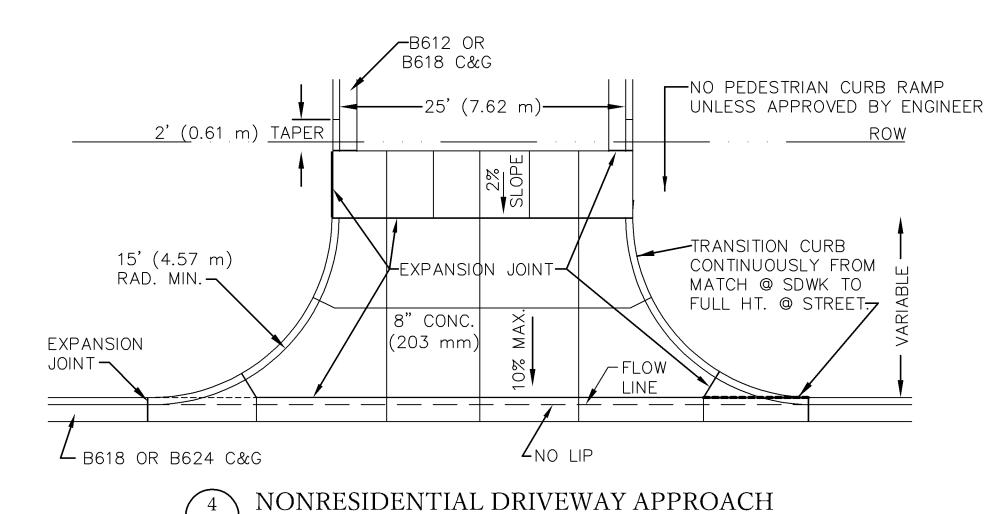
DETAILS

SHEET NO.



- EACH DRIVEWAY PANEL NOT TO EXCEED 100 SF (9.29 m2). - REINFORCEMENT BARS OR WELDED WIRE FABRIC (STEEL MESH)
- ARE NOT ALLOWED IN THE RIGHT-OF-WAY
- CLASS 5 AGGREGATE BASE REQUIRED UNDER CURB AND GUTTER.
- IF PRESENT, STREET LIGHT, SIGNAL AND INTERCONNECT CONDUIT OR DIRECT BURIED STREET LIGHT WIRING MUST BE EXPOSED FOR

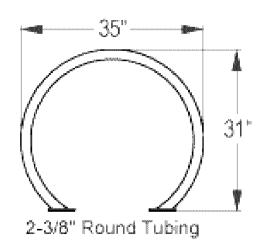
INSPECTION PRIOR TO POUR





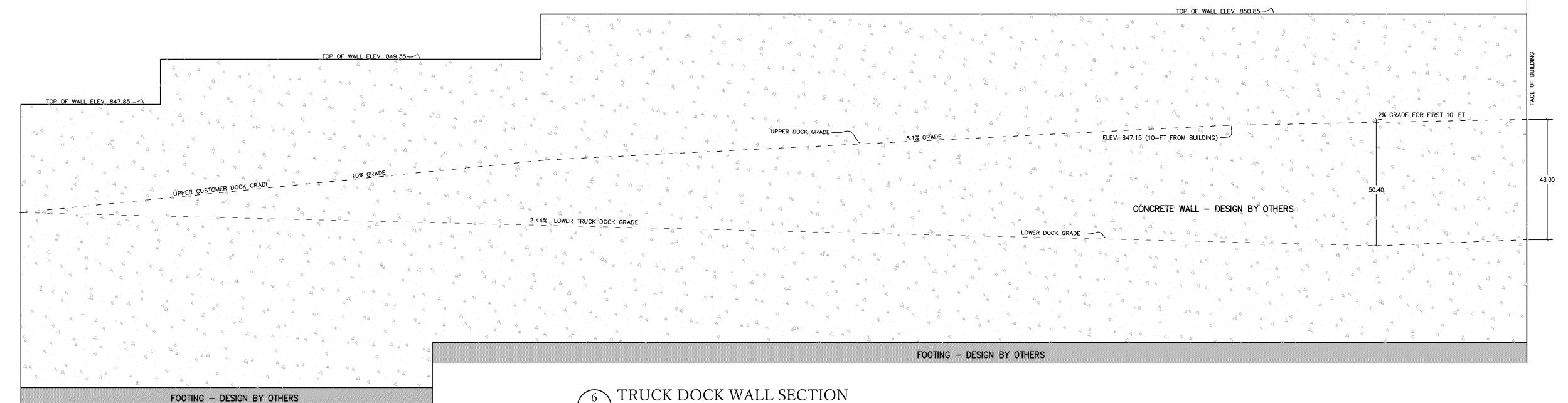
 C_6

NO SCALE



BIKE HOOP DETAIL

Model CBBR-2CR-SS Belson Outdoors (Surface Mount) (Stainless Steel) (4 HOOPS TO BE INSTALLED)



 \setminus C6 / STRUCTURAL ENGINEERING BY OTHERS (DIMENSIONS IN INCHES)

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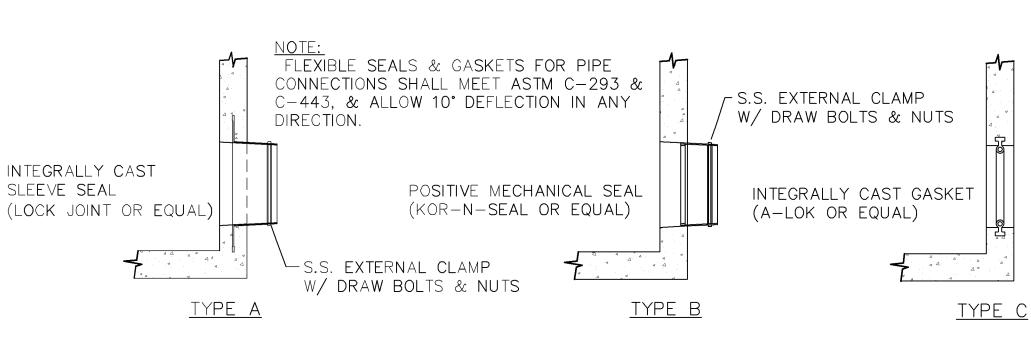
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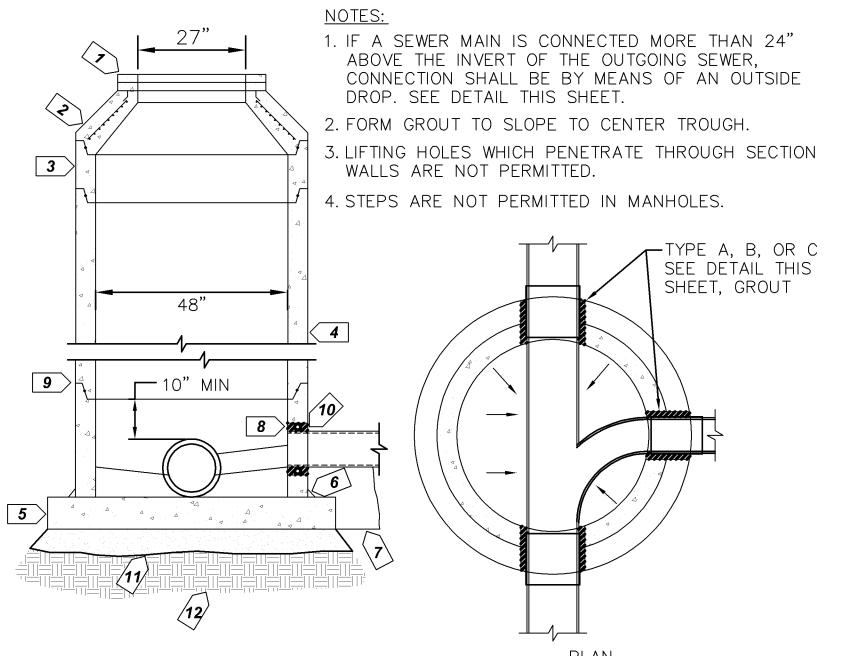
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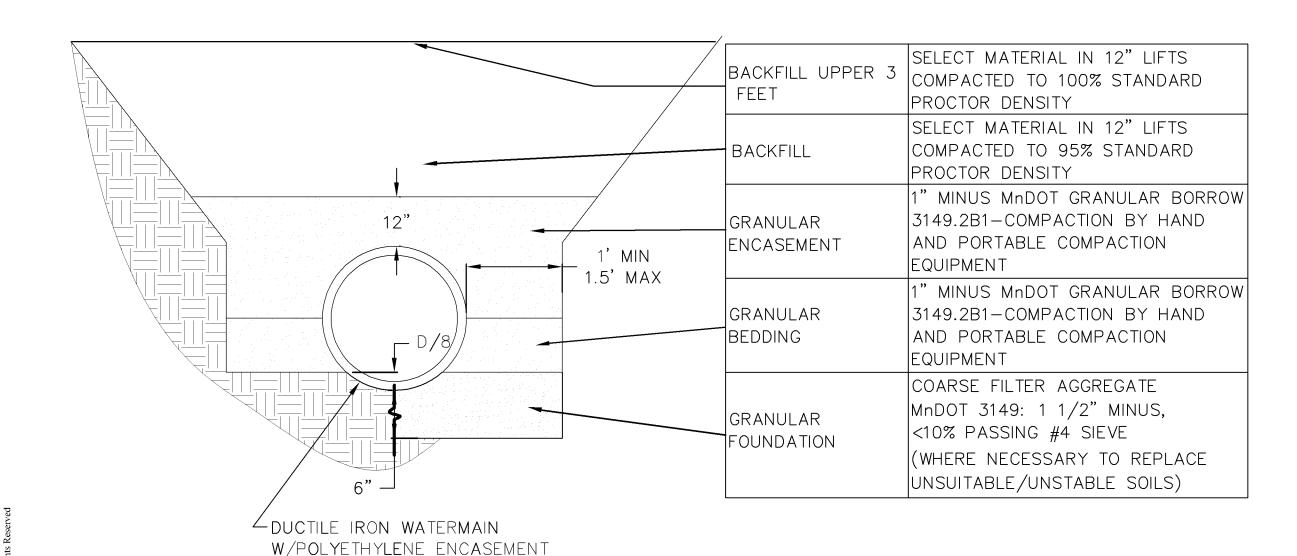
WATER TIGHT PIPE CONNECTIONS



KEY NOTES:

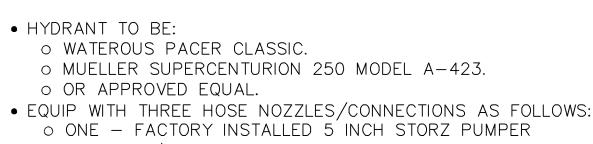
- MN/DOT S.P.4010 2" ADJUSTING RINGS AS NEEDED [6" MIN. TO 12" MAX.]. SET EACH RING IN FULL BED OF MORTAR.
- 2 MN/DOT S.P.4010 STD. SHORT CONE SECTION.
- 3 12" TOP SECTION REQUIRED.
- 4 > USE ONLY PRECAST SECTIONS. NO BRICK OR BLOCK
- 8" CAST IN-PLACE CONCRETE OR 6" PRECAST REINFORCED CONCRETE (64" MINIMUM 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
- 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

STD. SANITARY SEWER MH



TYPICAL WATER MAIN INSTALLATION DETAIL
WATERMAIN_INST.DWG

11/2012



- ONE FACTORY INSTALLED 5 INCH STORZ PUMPER

 NOZZLE/CONNECTOR, INCLUDING A MANUFACTURER

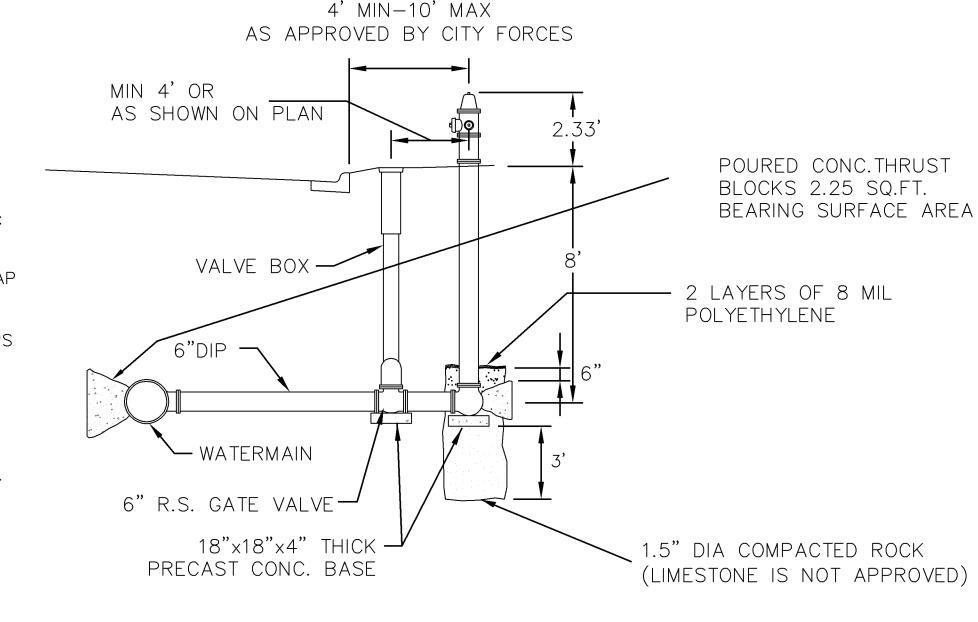
 SUPPLIED AND INSTALLED ANODIZED ALUMINUM NOZZLE CAP

 WITH A 1.5 INCH PENTAGON NUT AND NO ROCKER LUG.

 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

 DOLYETLY ENE IN ACCORDANCE WITH AWWA C. 105
- 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.



TYPICAL HYDRANT INSTALLATION

Hyd_instl.dwg

1/2019

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C 7SHEET 7 OF 7