

TOPOGRAPHIC SURVEY / SITE PLAN

PLAN NOTES

- Contractor to verify size and elevation of all services with mechanical engineer/owner prior to installation.
- All work performed within the public right-of-way shall be installed in accordance with the City of Grand Forks Standard Construction Specifications and standard details. Prior to performing any work in the City right-of-way the Contractor shall call the Engineering Department at 746-2640.
- Driveways that connect to public right-of-way shall be built according to the City of Grand Forks Standard Construction Manual.
- All pavement shall be 5" concrete w/ #4 rebar 18" O.C.E.W. on 6" Class 5 on geotextile separation fabric with compacted base.
- All landscaping shall be protected from vehicular traffic by curb and gutter.
- All signs to be approved by the City of Grand Forks Inspections Department.
- Proposed building will not utilize sump pumps.
- Proposed building shall direct all stormwater from roof north to stormwater retention area.
- Contractor shall maintain 7.5 foot minimum cover over water and sanitary sewer services. Cleanouts shall be provided every 75 feet (max) along sanitary sewer service.
- Slope in handicap loading/unloading zones shall not exceed 2%. Cross slope on any handicap accessible routes shall not exceed 2%.
- Paving in dumpster area shall be concrete.
- Proposed building will be constructed without a basement.
- Erosion control measures shall be implemented in accordance with City of Grand Forks and North Dakota Department of Health requirements. A Storm Water Pollution Prevention Plan (SWPPP) has been developed for this site. A Notice of Intent (NOI) shall be submitted to the North Dakota Department of Health as this site is greater than 1 acre in disturbance. The erosion control devices shown on plan are considered minimum amount required for protection. The contractor shall place additional controls as required to control storm water or as required by permitting requirements. Erosion control shall be installed to City of Grand Forks specifications and details.
- Contractor to connect corrugated pipe to roof drains and extend them to pavement or install erosion control blanket to bottom of pond until grass has been established.
- Contractor to provide area for concrete truck washout. Washout area shall not be within 50 feet of ditch or swales.
- Contractor shall take care to leave as much grass area undisturbed as possible. All disturbed soil shall be reseeded and stabilized in a timely manner according to timelines set forth in the SWPPP general permit requirements.
- Erosion control to be removed only after site has been permanently stabilized (70% ground cover).
- Contractor to protect any stockpiles to prevent any sediment from leaving the site. Any temporary stockpiles shall not be placed in surface waters, stormwater conveyance systems, curb and gutter systems, conduits or ditches.

14. Dumpster detail shown on landscaping plan

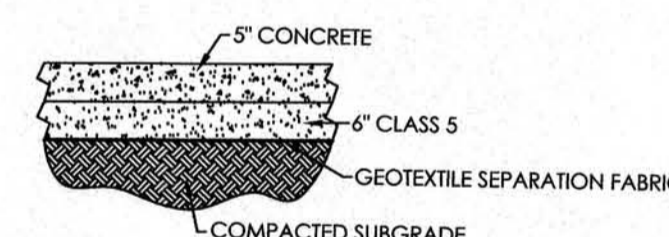
STORMWATER DATA

Stormwater discharge from proposed site will be treated by a dry swale retention pond prior to discharge to the existing 36" storm sewer adjacent to South Columbia Road located to the east of site. The retention pond is large enough to have adequate area and volume to treat runoff and limit discharge to pre-existing conditions. The area included for calculations include both Lot 1 and Lot 2, Block 1, Perkins Thirteenth Resubdivision.

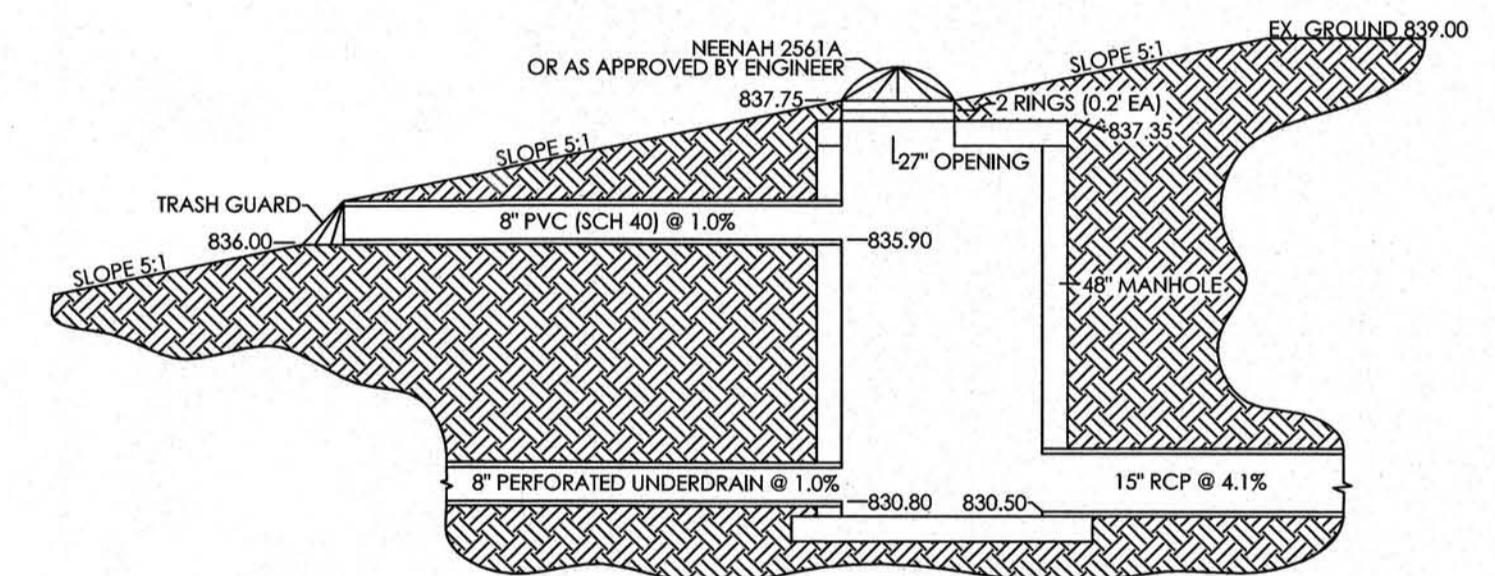
Treated Area (Lot 1 and Lot 2) = 108,007 s.f. = 2.48 ac.
 Impervious Area Lot 1 (B3) = Max. Imp. of 85.9% = 44,713 s.f.
 Impervious Area Lot 2 (Hoge & Hoge site) = 13,493 s.f.
 Combined Percent Imp. = 73%
 Pre Development CN = 82 (City of Grand Forks Design Manual)
 Post Development CN Paved Area = 98 (Paved Parking, soil group C)
 Post Development CN Grass Area = 74 (>75% Grass Cover, Good, soil group C)
 Weighted Lot 1 CN = 94
 Weighted Lot 2 CN = 84
 Post Development Tc: Lot 1 = 10 min
 Post Development Tc: Lot 2 = 5.6 min
 Type II Rainfall Distribution
 Soil = Type C (NRCS Soil Survey)
 Q2, existing = 1.4 cfs
 Q5, existing = 2.9 cfs
 Q10, existing = 4.3 cfs
 Q25, existing = 6.0 cfs
 Q50, existing = 7.4 cfs
 Q100, existing = 9.0 cfs
 Q2, proposed = 1.4 cfs, Elev. 2yr = 837.03
 Q5, proposed = 1.85 cfs, Elev. 5yr = 837.55
 Q10, proposed = 3.47 cfs, Elev. 10yr = 837.89
 Q25, proposed = 5.95 cfs, Elev. 25yr = 838.16
 Q50, proposed = 7.05 cfs, Elev. 50yr = 838.40
 Q100, proposed = 7.87 cfs, Elev. 100yr = 838.60

Water Quality Volume Dead Storage Volume (DSV) = 0.5 inch over impervious area = 3,260 c.f. Filter Treatment = 3,260 c.f. in 34 hours.

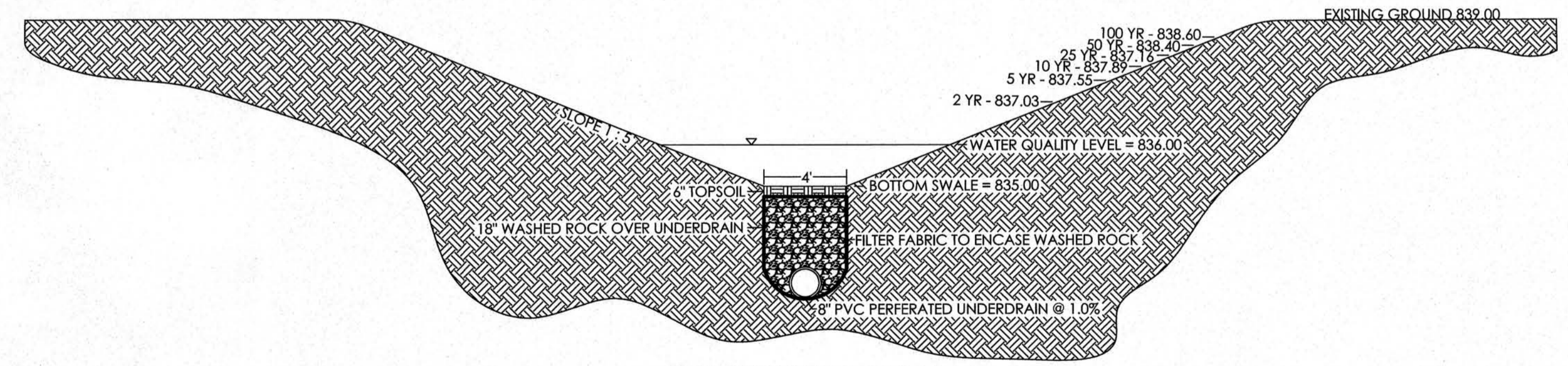
Live Storage Volume Required 25 yr = 11,876 c.f.
 Water Quality Storage (Live Storage Volume) = 18,737 c.f. (to be controlled by outlet structure)



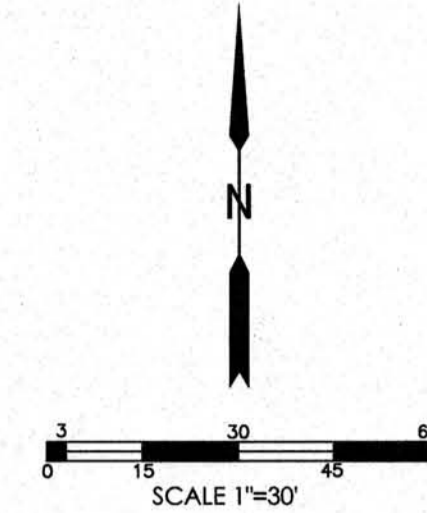
PAVEMENT SECTION
NOT TO SCALE



OUTLET STRUCTURE
NOT TO SCALE



DRY SWALE RETENTION
NOT TO SCALE



LEGEND

MONUMENT FOUND	●
SET MONUMENT	○
BOUNDARY LINE THIS SURVEY	—
LOT LINE	---
EASEMENT LINE	---
STORM SEWER LINE	—STS—
WATER LINE	—W—
SANITARY SEWER LINE	—SS—
TELEPHONE LINE	—T—
OVERHEAD POWER LINE	—P—
CURB AND GUTTER	—
LIGHT POLE	⊕
MANHOLE	⊙
CATCH BASIN	⊕
HYDRANT	⊕
GATE VALVE	⊕
INLET PROTECTION	○
SILT FENCE	---
CONCRETE - SEE DETAIL	---

LAND ZONING

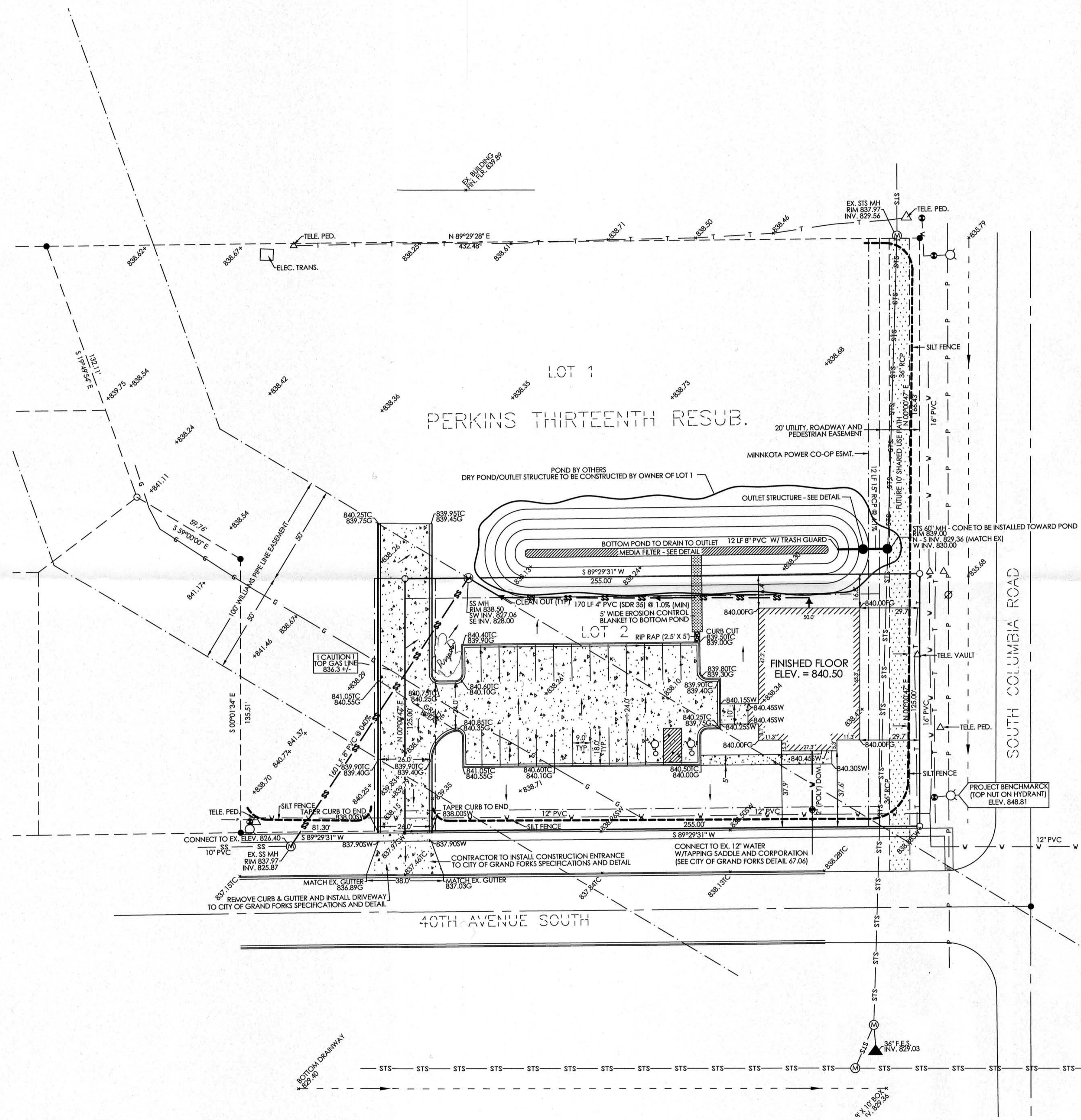
B-3 General Business

LAND DESCRIPTION

Lot 2, Block 1, Perkins Thirteenth Resubdivision to the City of Grand Forks, North Dakota.

SITE DATA

Non-accessible spaces required: 3 spaces per doctor + 1 per employee on largest work shift = 3 x 3 + 10 = 19 spaces
 Number of non-accessible spaces provided: 23 spaces
 Accessible Parking Required: 1 space
 Accessible Parking Provided: 2 spaces
 Lot 2 Area = 31,875 s.f. (per Perkins Thirteenth Resubdivision)
 Total Building Area (Lot 2) = 3,466 s.f.
 Total Paved Area (Lot 2) = 10,027 s.f.
 Total Impervious (Lot 2) = 13,493 s.f. (43%)
 Max. Imp. = 27.094 s.f. (B3 - General Business - 85%)
 Lot 1 Area = 76,132 s.f. (per Perkins Thirteenth Resubdivision)
 Max. Imp. = 64,713 s.f. (85%)
 Pond Designed for stormwater runoff from both Lot 1 and Lot 2



APPROVAL:
 APPROVED BY: *[Signature]*
 TITLE: *Senior Planner*
 DATE: 10/30/13

TOPOGRAPHIC SURVEY / SITE PLAN		REVISED: 10-14-2013 PER CITY REVIEW	DATE: 8-19-2013
OFFICES OF DRs. HOGE & HOGE 3990 SOUTH COLUMBIA ROAD, GRAND FORKS, NORTH DAKOTA			DRAWN BY: NP
REQUESTED BY: CHAD HOGE	701-200-6394	PROJECT NO. 13-612	SCALE: 1" = 30'
PRIBULA ENGINEERING 208 3RD AVENUE NW EAST GRAND FORKS, MN 56721	701-772-7058		DRAWING NO. C-1