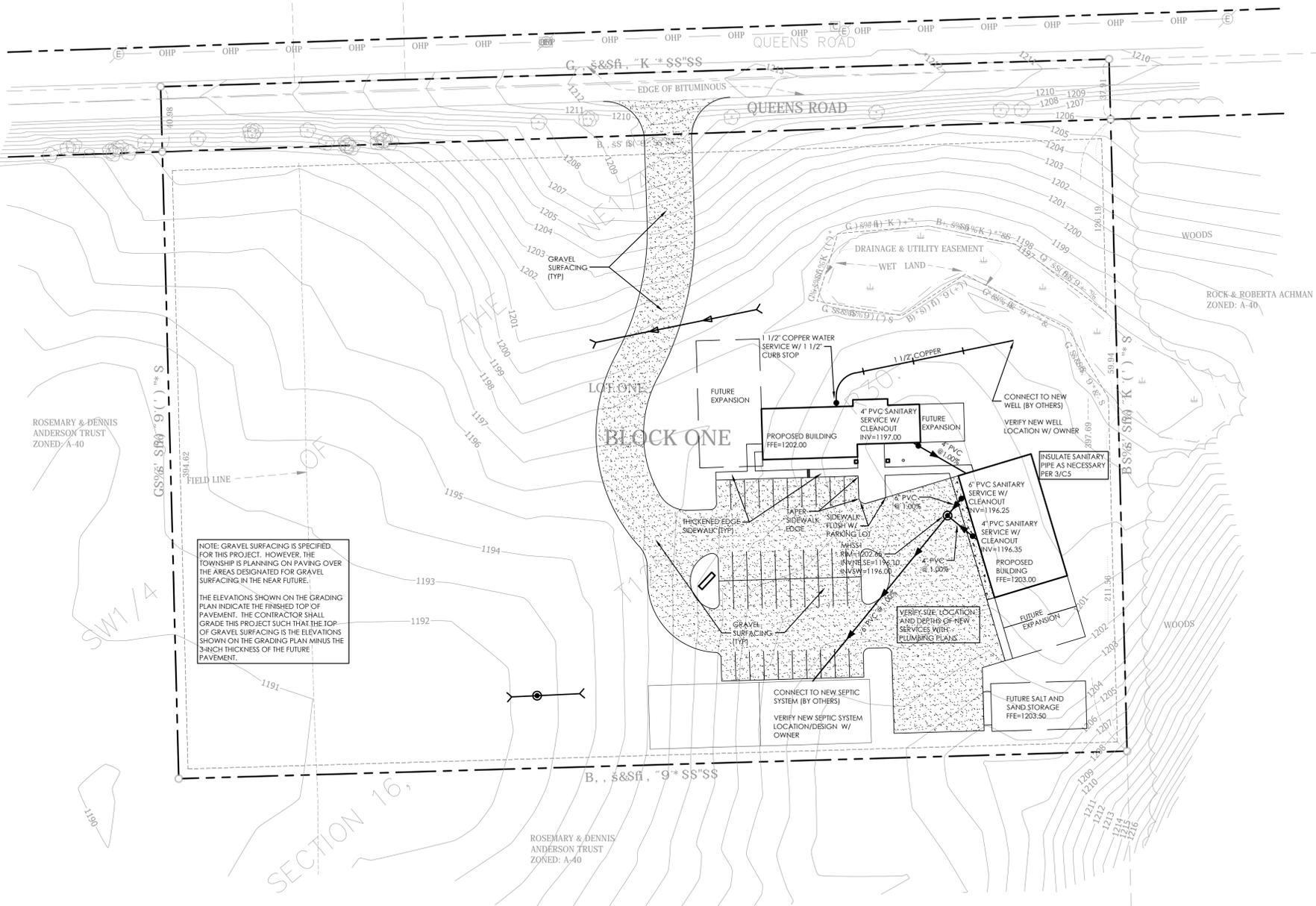


ALPHONSE & ELIZABETH
HARTUNG
ZONED: A-40

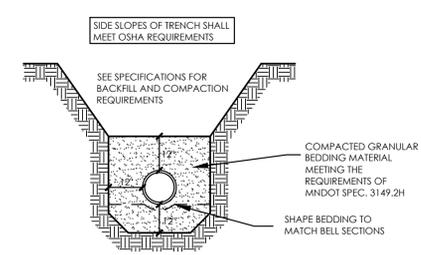
ALOIS J. LAMPERT
ZONED: A-40

MARTIN & DELORES
PIARSKI TRUST
ZONED: A-40

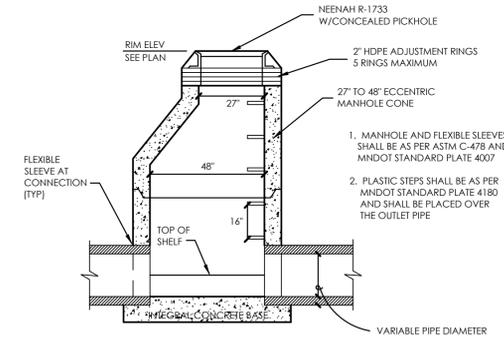


NOTE: GRAVEL SURFACING IS SPECIFIED FOR THIS PROJECT. HOWEVER, THE TOWNSHIP IS PLANNING ON PAVING OVER THE AREAS DESIGNATED FOR GRAVEL SURFACING IN THE NEAR FUTURE.

THE ELEVATIONS SHOWN ON THE GRADING PLAN INDICATE THE FINISHED TOP OF PAVEMENT. THE CONTRACTOR SHALL GRADE THIS PROJECT SUCH THAT THE TOP OF GRAVEL SURFACING IS THE ELEVATIONS SHOWN ON THE GRADING PLAN MINUS THE 3-INCH THICKNESS OF THE FUTURE PAVEMENT.

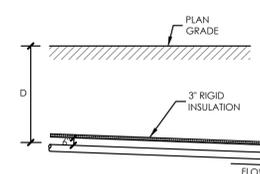


1 PIPE BEDDING DETAIL NTS



2 SANITARY MANHOLE NTS

COVER "D"	REQUIRED WIDTH
3.0-4.2	8
5.0-5.2	4
6.0-7.0	4



3 SANITARY PIPE INSULATION NTS

- INSULATION BOARDS SHALL BE CENTERED OVER PIPE
- MAIN INSULATION SHALL BE EXTRUDED RIGID BOARD MATERIAL HAVING A THERMAL CONDUCTIVITY OF 0.23 BTU/HOUR/SQUARE FOOT/DEGREE FAHRENHEIT/PER INCH THICKNESS, MAXIMUM, AT 40°F MEAN. A COMPRESSIVE STRENGTH OF 35 PSI MINIMUM, AND WATER ABSORPTION OF 0.25 PERCENT BY VOLUME MAXIMUM.
- SEE PLAN FOR SIZE AND SLOPE OF PVC PIPE

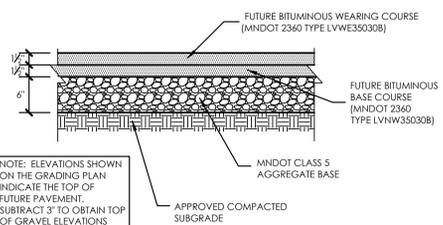
UTILITY AND SURFACING NOTES:

WATER AND SANITARY SEWER UTILITIES

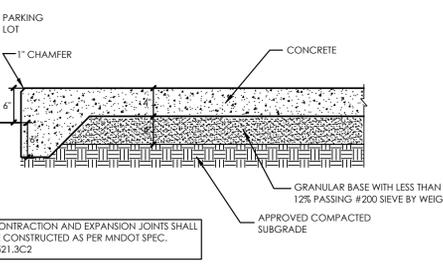
- WATER MAIN AND ANY WATER SERVICE LINES SHALL BE PLACED AT A MINIMUM DEPTH OF 8 FEET BELOW FINISHED GRADE.
- IF CONFLICTS ARE DISCOVERED WHERE WATER MAIN CROSSES EXISTING SANITARY SEWER, SERVICE LINES, OR STORM SEWER, THE WATER MAIN SHALL BE RAISED OR LOWERED APPROPRIATELY WHILE STILL MAINTAINING A MINIMUM DEPTH OF 8 FEET BELOW FINISHED GRADE.
- INSTALL SANITARY SEWER SERVICE LINE CLEANOUTS AS REQUIRED BY THE MINNESOTA PLUMBING CODE
- OWNER/CONTRACTOR SHALL OBTAIN A PLUMBING PERMIT FROM THE MINNESOTA DEPARTMENT OF HEALTH PRIOR TO THE INSTALLATION OF ANY SANITARY SEWER OR WATER UTILITIES.
- SEE SHEET C2 FOR STORM SEWER GRADING, AND SHEET C1 FOR MISCELLANEOUS DETAILS RELATING TO THE PLACEMENT OF THE UTILITIES.
- CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION.

SURFACING

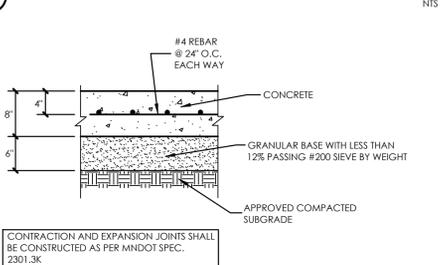
- SUBGRADES SHALL BE SCARIFIED AND/OR COMPACTED AS NECESSARY TO ATTAIN THE REQUIRED COMPACTION DESCRIBED IN THE GENERAL NOTES (SHEET C1). TEST ROLLING OF THE SUBGRADE SHALL BE OBSERVED BY A QUALIFIED GEOTECHNICAL ENGINEER OR TECHNICIAN. LOCATIONS EXHIBING EXCESSIVE RUTTING (PER MNDOT SPEC. 2111) SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER PRIOR TO THE PLACEMENT OF AGGREGATE BASE. COMPACTION TESTING IN UTILITY TRENCHES SHALL BE PERFORMED BY AN INDEPENDENT TESTING FIRM.
- GRAVEL BASE COURSES SHALL BE ROLLED AND COMPACTED. TEST ROLLING OF THE GRAVEL BASE SHALL BE OBSERVED BY A SOILS ENGINEER TO VERIFY STABILITY.
- SEE SHEET C1 FOR SPECIFICATIONS REGARDING THE CONSTRUCTION OF PAVEMENTS, AND CURB AND GUTTER.



4 PARKING LOT NTS



5 THICKENED EDGE SIDEWALK NTS



6 CONCRETE APRON NTS

UTILITY AND SURFACING PLAN

1"=40'

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed Engineer under the laws of the state of Minnesota.
 Brian J. Schultze, P.E.
 Date: 02/03/2010 License No.: 48129

Schultz Engineering & Site Design, PLLC
 P.O. Box 31
 Sarrell, MN 56377
 Ph: (320) 252-4988
 Fax: (320) 252-4983
 schultzeeng@live.com

DATE: 02/03/2010
 REVISED

808 Courthouse Square
 St. Cloud, MN 56303
 (320) 252-3740
 fax (320) 252-0683
 www.gltarchitects.com

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 AVON TOWNSHIP, MINNESOTA PROJECT 10001

C5