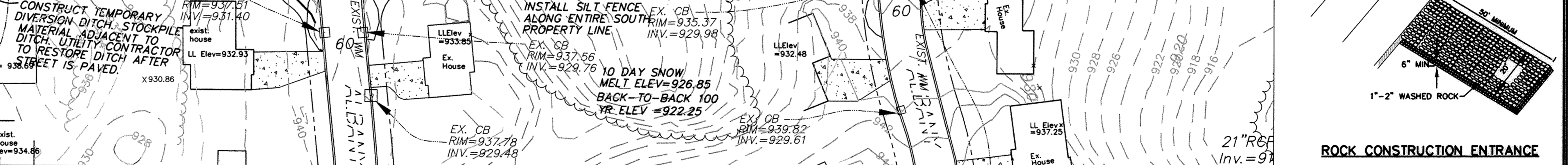


- GRADING AND EROSION CONTROL NOTES**
1. WETLANDS DELINEATED BY KOLMHAUF ENVIRONMENTAL SERVICES COMPANY.
 2. WETLAND MITIGATION TO OCCUR WITH MASS GRADING AND SHALL BE COMPLETED DURING INITIAL STAGES OF GRADING OPERATIONS.
 3. BUILDING PADS SHALL BE CONSTRUCTED FULL WIDTH OF LOT.
 4. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
 5. CONTRACTOR SHALL BE FAMILIAR WITH AND FOLLOW ALL REQUIREMENTS OF THE MPCA NPDES PHASE II PERMIT FOR CONSTRUCTION ACTIVITIES INCLUDING BUT NOT LIMITED TO: WEEKLY EROSION CONTROL INSPECTIONS, INSPECTION AFTER 0.5" RAINFALL OR MORE AND DOCUMENTATION OF ALL CORRECTIVE MEASURES. BY BEGINNING CONSTRUCTION, THE CONTRACTOR ACKNOWLEDGES THE TERMS OF THIS PERMIT AND AGREES TO ABIDE BY THEM.
 6. ALL WORK SHALL COMPLY WITH THE GUIDELINES SET FORTH IN THE MPCA'S PROTECTING WATER QUALITY IN URBAN AREAS: BEST MANAGEMENT PRACTICES FOR MINNESOTA, AND THE US-EPA'S STORM WATER MANAGEMENT FOR CONSTRUCTION ACTIVITIES.
 7. ALL SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY GRADING ACTIVITY ON-SITE.
 8. PONDS SHALL BE CONSTRUCTED AT THE START OF ANY SITE GRADING AND SHALL BE UTILIZED AS TEMPORARY SEDIMENT BASINS. THIS SHALL INCLUDE INSTALLATION OF THE POND OUTLET STRUCTURE. A TEMPORARY PERFORATED RISER PIPE SHALL BE INSTALLED ON THE OUTLET PIPE UNTIL THE SITE IS 70% ESTABLISHED.
 9. ALL DISTURBED AREAS SHALL BE STABILIZED WITH MN/DOT SEED MIXTURE 50B (100 LBS/ACRE) AND MN/DOT MULCH TYPE 1 (2 TON/ACRE & DISC ANCHORED). FERTILIZER SHALL BE 10/10/10. THE MAXIMUM TIME AN AREA CAN REMAIN OPEN WHEN THE AREA IS NOT ACTIVELY BEING WORKED IS: 7 DAYS FOR SLOPES STEEPER THAN 3:1, 14 DAYS FOR SLOPES 10:1 TO 3:1, AND 21 DAYS FOR SLOPES FLATTER THAN 10:1.
 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY DITCHES, PIPING, OR OTHER MEANS REQUIRED TO INSURE PROPER DRAINAGE DURING CONSTRUCTION.
 11. ANY DEWATERING SHALL BE DISCHARGED TO A TEMPORARY SEDIMENT BASIN.
 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL DEVICES UNTIL SITE HAS A UNIFORM VEGETATIVE COVER WITH A DENSITY OF 70% OVER THE ENTIRE PERVIOUS AREA. MAINTENANCE SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
 - a. REMOVE SEDIMENT FROM PONDS WHEN HALF FULL AND UPON COMPLETION OF CONSTRUCTION.
 - b. REMOVE SILT WHEN ACCUMULATION REACHES ONE-THIRD THE HEIGHT OF THE SILT FENCE.
 - c. MAINTAIN ROCK CONSTRUCTION ENTRANCE. REPLACEMENT DURING CONSTRUCTION MAY BE NECESSARY.
 - d. ANY DEPOSITING OF SILT OR MUD ON NEW OR EXISTING STORM SEWERS OR SWALES SHALL BE REMOVED AFTER EACH RAIN AND AFFECTED AREAS CLEANED.
 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING EXISTING PAVED SURFACES CLEAN OF SEDIMENT AND MUD. SWEEPING AND/OR SCRAPING STREETS WILL BE REQUIRED AS DIRECTED BY THE ENGINEER AND CITY.
 14. THE CONTRACTOR SHALL PERFORM ANY CORRECTIVE MEASURES ORDERED BY THE CITY OR THE MPCA WITHIN 24 HOURS OF NOTIFICATION. ALSO, ADDITIONAL EROSION CONTROL MEASURES DEEMED NECESSARY BY EITHER THE CITY OR THE MPCA SHALL BE INSTALLED WITHIN 24 HOURS OF NOTIFICATION.
 15. THE CONTRACTOR SHALL COMPLETELY REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES WHEN THE SITE HAS 70% VEGETATIVE DENSITY.
 16. IT IS THE RESPONSIBILITY OF THE UTILITY CONTRACTOR TO INSTALL INLET PROTECTION AROUND INLETS AFTER THEY ARE INSTALLED (REFER TO CONSTRUCTION PLANS FOR DETAILS).
 17. COLLECTED SEDIMENT, ASPHALT AND CONCRETE MILLINGS, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION AND DEMOLITION DEBRIS AND OTHER WASTES MUST BE DISPOSED OF PROPERLY AND MUST COMPLY WITH MPCA DISPOSAL REQUIREMENTS.
 18. STORAGE AND DISPOSAL OF OIL, GASOLINE, PAINT AND ANY HAZARDOUS SUBSTANCES MUST BE IN COMPLIANCE WITH MPCA REGULATIONS.
 19. EXTERNAL WASHING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES MUST BE LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF MUST BE CONTAINED AND WASTE PROPERLY DISPOSED OF. NO ENGINE DEGRASSING IS ALLOWED ON SITE.

- SEQUENCE FOR CONSTRUCTION**
1. INSTALL ALL PERIMETER SEDIMENT CONTROL DEVICES AND CONSTRUCTION ENTRANCES.
 2. CONSTRUCT STORMWATER POND AND TEMPORARY OUTLET CONTROL TO ACT AS A SEDIMENTATION BASIN DURING CONSTRUCTION.
 3. CONTACT CITY FOR APPROVAL OF SEDIMENT CONTROL DEVICES.
 4. ROUGH GRADE SITE AND INSTALL UTILITIES.
 5. INSTALL BITUMINOUS SURFACE.
 6. RESTORE ALL DISTURBED AREAS.
 7. ONCE ALL DISTURBED AREAS HAVE 70% VEGETATIVE DENSITY, OBTAIN APPROVAL FROM THE CITY ENGINEER.
 8. REMOVE SEDIMENT CONTROL DEVICES WITHIN TWO WEEKS OF CITY APPROVAL.
 9. CONTRACTOR SHALL SUBMIT NOTICE OF TERMINATION TO MPCA WITHIN 7 DAYS OF FINAL STABILIZATION ACCEPTANCE.



NO.	DATE	BY	DESCRIPTION
1	10/18/04	MLH	REVISED GRADES IN BLOCK 1
2	10/21/04	MLH	ADDED CURB & CURB CUT IN CUL-DE-SAC
3	11/9/04	MLH	CBMH6 & FLARED END INLET
4	12/9/04	MLH	REVISED GRADES ON LOTS 1, 2, & 3 BLOCK 4
NO.	DATE	BY	DESCRIPTION
REVISIONS			

DESIGNED DRAWN
M.P.C. M.L.H.

CHECKED
M.P.C.

DATE: 12/21/04
M.L.H.

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.

Martin P. Campion
DATE: 12/21/04 LICENSE # 19901

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Buffalo, MN 55313
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PRESTIGIOUS WOODLAND HILLS
BREUER FAMILY LLP
ELK RIVER, MN

GRADING & EROSION CONTROL PLAN

SHEET NO. 11 OF 14 SHEETS

PROJECT NO:
2-02-0628

DATE:
9/23/04