

# Preliminary Site Development Plans for Lothenbach/Robert St. Commercial Redevelopment West St. Paul, Minnesota

Presented by:  
Robert St Investors, LLLP & Venture Pass Partners

## BENCHMARKS

BM NO. 1  
TOP NUT OF HYDRANT AT SOUTHEAST CORNER OF SURVEYED PROPERTY.  
ELEV.=980.82

BM NO. 2  
TOP NUT OF HYDRANT AT SOUTHWEST CORNER OF SURVEYED PROPERTY.  
ELEV.=1001.52



VICINITY MAP  
NO SCALE

## SHEET INDEX

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C7.01	DETAIL SHEET
L1.01	LANDSCAPE PLAN
L1.02	LANDSCAPE DETAILS

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Engineering | Surveying | Planning | Environmental

Client  
**ROBERT ST  
INVESTORS, LLLP**



Project  
**LOTHENBACH/  
ROBERT ST  
COMMERCIAL  
REDEVELOPMENT**

Location  
**WEST ST. PAUL,  
MN**

## Certification

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.

*Michael G. Bultman*  
Michael G. Bultman  
Registration No. 50360 Date: 04/22/2016

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## Summary

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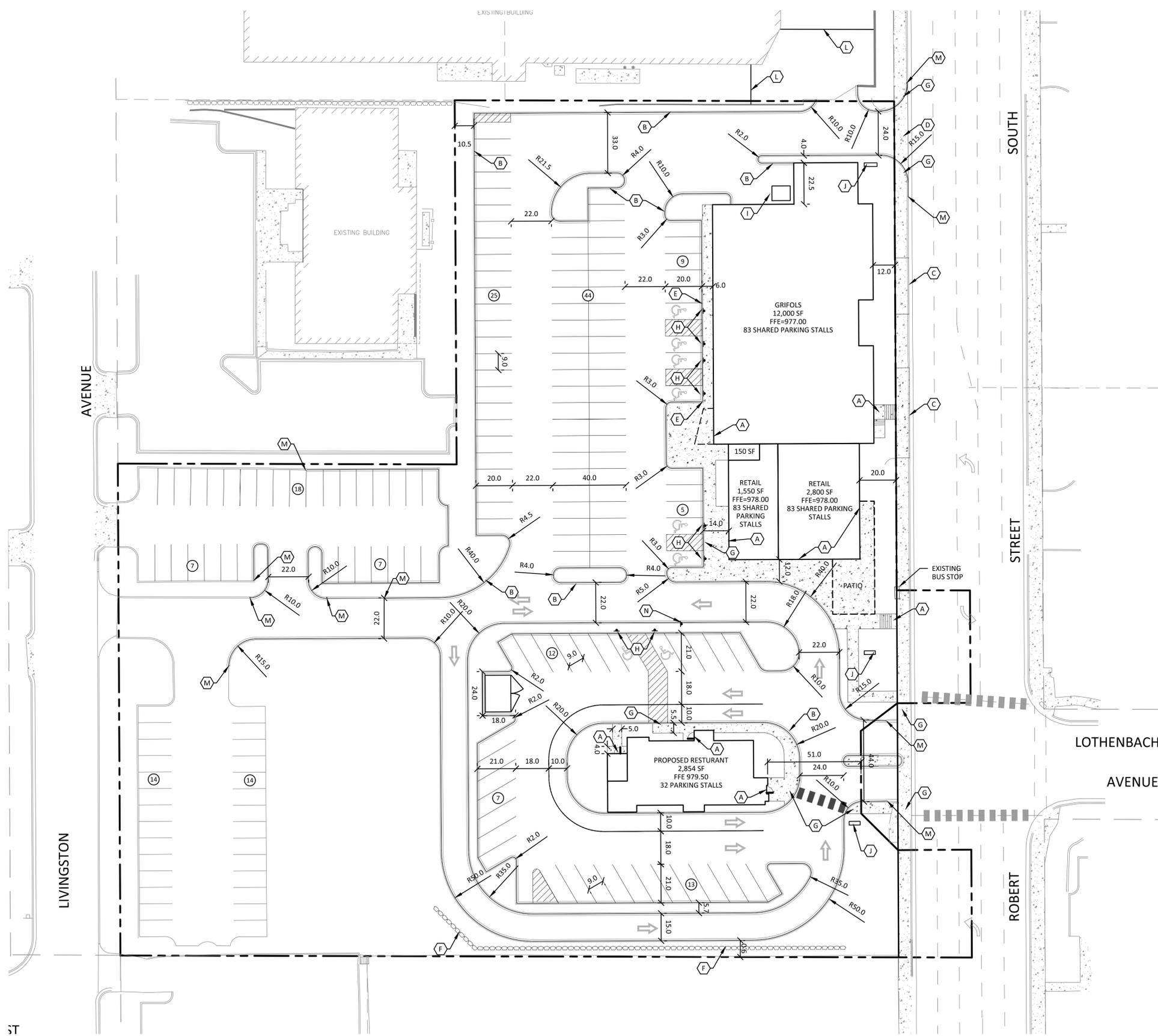
## Revision History

No.	Date	By	Submittal / Revision
4/22/16			CITY SUBMITTAL
5/6/16			REVISED CITY SUBMITTAL

Sheet Title  
**TITLE SHEET**

Sheet No. Revision  
**C1.01**

Project No. CON20491



**LEGEND**

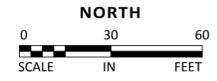
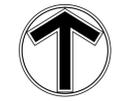
	PROPOSED	EXISTING	
PROPERTY LIMIT	---	---	STANDARD DUTY ASPHALT PAVING
CURB & GUTTER	---	---	HEAVY DUTY ASPHALT PAVING
EASEMENT	---	---	CONCRETE PAVING
BUILDING	---	---	
RETAINING WALL	---	---	
WETLAND LIMITS	---	---	
TREELINE	---	---	
SAWCUT LINE	---	---	
SIGN	●	●	
PIPE BOLLARD	○	○	
NUMBER OF PARKING STALLS PER ROW	XX	XX	
KEY NOTE	XX	XX	

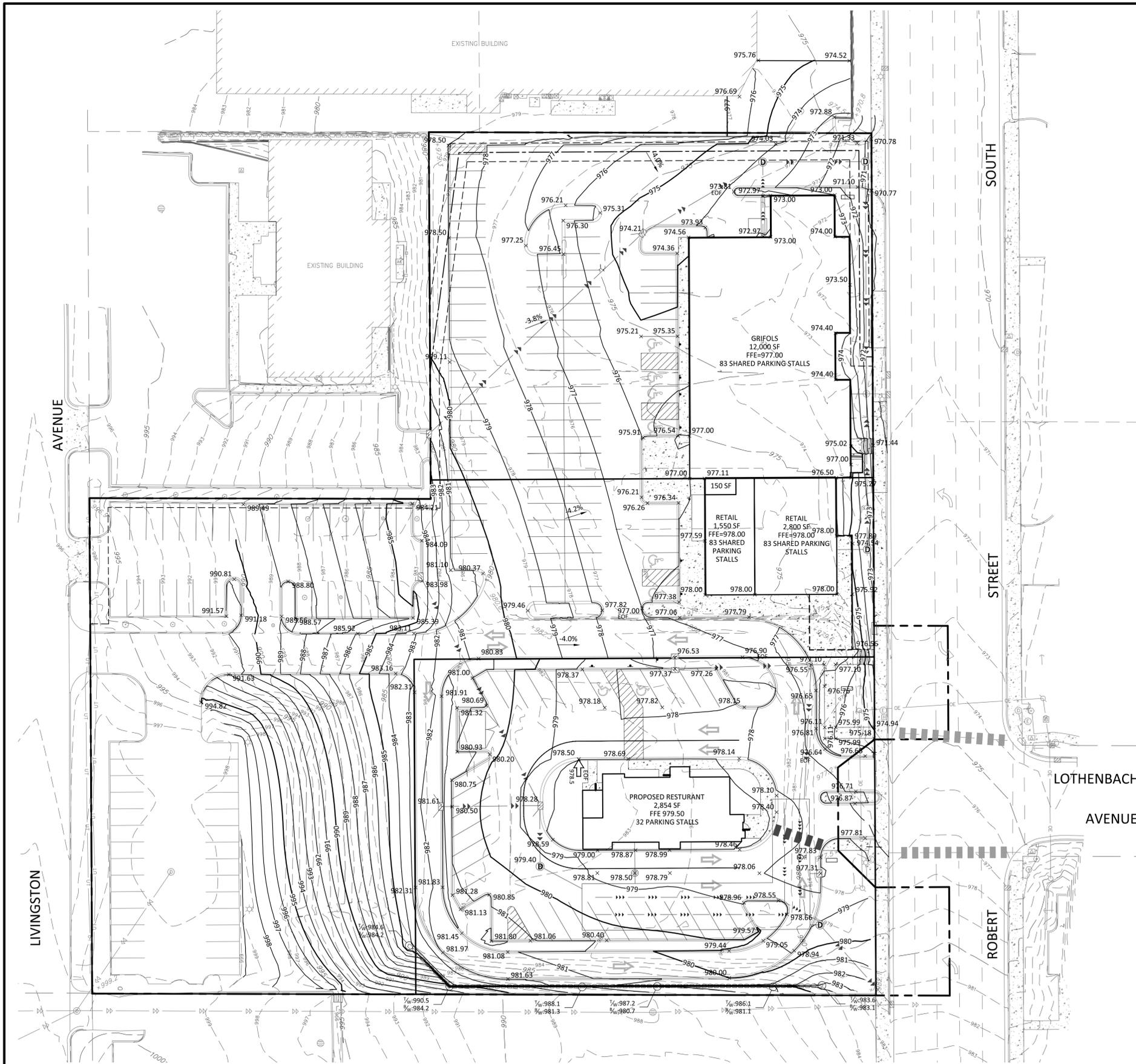
**DEVELOPMENT SUMMARY**

AREA	
GROSS SITE AREA	165,066 SF 3.79 AC
LOT 1	36,371 SF 0.83 AC
LOT 2	78,666 SF 1.81 AC
LOT 3	44,929 SF 1.03 AC
BUILDING SETBACKS	
FRONT YARD	10-40 FEET
REAR YARD	20 FEET
SIDE YARD ADJACENT TO "R"	10 FEET
SIDE YARD ADJACENT TO STREET	10-30 FEET
PARKING SETBACKS	
FRONT YARD	NOT PERMITTED
REAR YARD	10 FEET
SIDE YARD ADJACENT TO "R"	10 FEET
SIDE YARD ADJACENT TO STREET	10 FEET
ZONING	
EXISTING ZONING	B-3 GENERAL BUSINESS
PROPOSED ZONING	B-3 GENERAL BUSINESS
PARKING	
LOT 1	
HC STALLS (9'x21')	2 STALLS
9'x21' STALLS	32 STALLS
LOT 2 & 3 SHARED PARKING	
HC STALLS (9'x20')	6 STALLS
9'x20' STALLS	77 STALLS
OVERFLOW PARKING	60 STALLS

- DEVELOPMENT NOTES**
- ALL DIMENSIONS ARE ROUNDED TO THE NEAREST TENTH FOOT.
  - ALL DIMENSIONS SHOWN ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
  - CONTRACTOR SHALL REVIEW PAVEMENT GRADIENT AND CONSTRUCT "GUTTER OUT" WHERE WATER DRAINS AWAY FROM CURB. ALL OTHER AREAS SHALL BE CONSTRUCTED AS "GUTTER IN" CURB. COORDINATE WITH GRADING CONTRACTOR.
  - ALL AREAS ARE ROUNDED TO THE NEAREST SQUARE FOOT.
  - ALL PARKING STALLS TO BE 9' IN WIDTH AND 20' IN LENGTH UNLESS OTHERWISE INDICATED.
  - CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF EXIT PORCHES, RAMPS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
  - SEE ARCHITECTURAL PLANS FOR MONUMENT SIGN DETAILS
  - SEE ARCHITECTURAL PLANS FOR LIGHT POLE FOUNDATION DETAIL AND FOR EXACT LOCATIONS OF LIGHT POLE.
  - REFER TO FINAL PLAT FOR LOT BOUNDARIES, LOT NUMBERS, LOT AREAS, AND LOT DIMENSIONS.
  - ALL GRADIENTS ON SIDEWALKS ALONG THE ADA ROUTE SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5% (1:20), EXCEPT AT CURB RAMPS (1:12), AND A MAXIMUM CROSS SLOPE OF 2.08% (1:48). THE MAXIMUM SLOPE IN ANY DIRECTION ON AN ADA PARKING STALL OR ACCESS ISLE SHALL BE 2.08% (1:48). THE CONTRACTOR SHALL REVIEW AND VERIFY THE GRADIENT IN THE FIELD ALONG THE ADA ROUTES PRIOR TO PLACING CONCRETE OR BITUMINOUS PAVEMENT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF THERE IS A DISCREPANCY BETWEEN THE GRADIENT IN THE FIELD VERSUS THE DESIGN GRADIENT AND COORDINATE WITH GRADING CONTRACTOR.

- KEY NOTES**
- BUILDING, STOOPS, STAIRS SEE ARCHITECTURAL PLANS
  - B-612 CONCRETE CURB AND GUTTER
  - B-618 6CONCRETE CURB AND GUTTER
  - CONCRETE APRON
  - FLAT CURB SECTION
  - SEGMENTAL BLOCK RETAINING WALL
  - ACCESSIBLE RAMP
  - ACCESSIBLE SIGNAGE
  - COMPACTOR (DESIGN BY OTHERS)
  - MONUMENT SIGN (DESIGN BY OTHERS)
  - TRASH ENCLOSURE (DESIGN BY OTHERS)
  - MEET AND MATCH EXISTING PAVEMENT SECTION
  - MEET AND MATCH EXISTING CURB
  - DO NOT ENTER SIGN





**LEGEND**

	PROPOSED	EXISTING
PROPERTY LIMIT	---	---
CURB & GUTTER	⊖	⊖
STORM SEWER	⊕	⊕
DRAINTILE	⊖	⊖
BUILDING	---	---
RETAINING WALL	⊖	⊖
WETLAND LIMITS	---	---
TREELINE	---	---
SPOT ELEVATION	902.5	902.5
CONTOUR	---	---
RIP RAP	⊖	⊖
OVERFLOW ELEV.	EOE 902.5	EOE 902.5
SOIL BORINGS	⊖	⊖

**GRADING NOTES**

1. PROPOSED CONTOURS ARE TO FINISHED SURFACE ELEVATION. SPOT ELEVATIONS ALONG PROPOSED CURB DENOTE GUTTER GRADE.
2. ALL GRADIENT ON SIDEWALKS ALONG THE ADA ROUTE SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5% (1:20), EXCEPT AT CURB RAMPS (1:12), AND A MAXIMUM CROSS SLOPE OF 2.08% (1:48). MAXIMUM SLOPE IN ANY DIRECTION ON AN ADA PARKING STALL OR ACCESS AISLE SHALL BE IN 2.08% (1:48). CONTRACTOR SHALL REVIEW AND VERIFY THE GRADIENT IN THE FIELD ALONG THE ADA ROUTES PRIOR TO PLACING CONCRETE OR BITUMINOUS. CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF THERE IS A DISCREPANCY BETWEEN THE GRADIENT IN THE FIELD VERSUS THE DESIGN GRADIENT. COORDINATE ALL WORK WITH PAVING CONTRACTOR.
3. COORDINATE ALL GRADING WORK ALONG ROBERT STREET WITH MNDOT.

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**Client**  
**ROBERT ST INVESTORS, LLLP**

**VENTURE PASS PARTNERS LLC**  
A DEVELOPMENT COMPANY

**Project**  
**LOTHENBACH/ ROBERT ST COMMERCIAL REDEVELOPMENT**

**Location**  
**WEST ST. PAUL, MN**

**Certification**  
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.

*Michael G. Bullock*  
Michael G. Bullock  
Registration No. 55060 Date: 04/22/2016  
If applicable, contact us for a wet signed copy of this plan which is available upon request at Sambatek's, Minnetonka, MN office.

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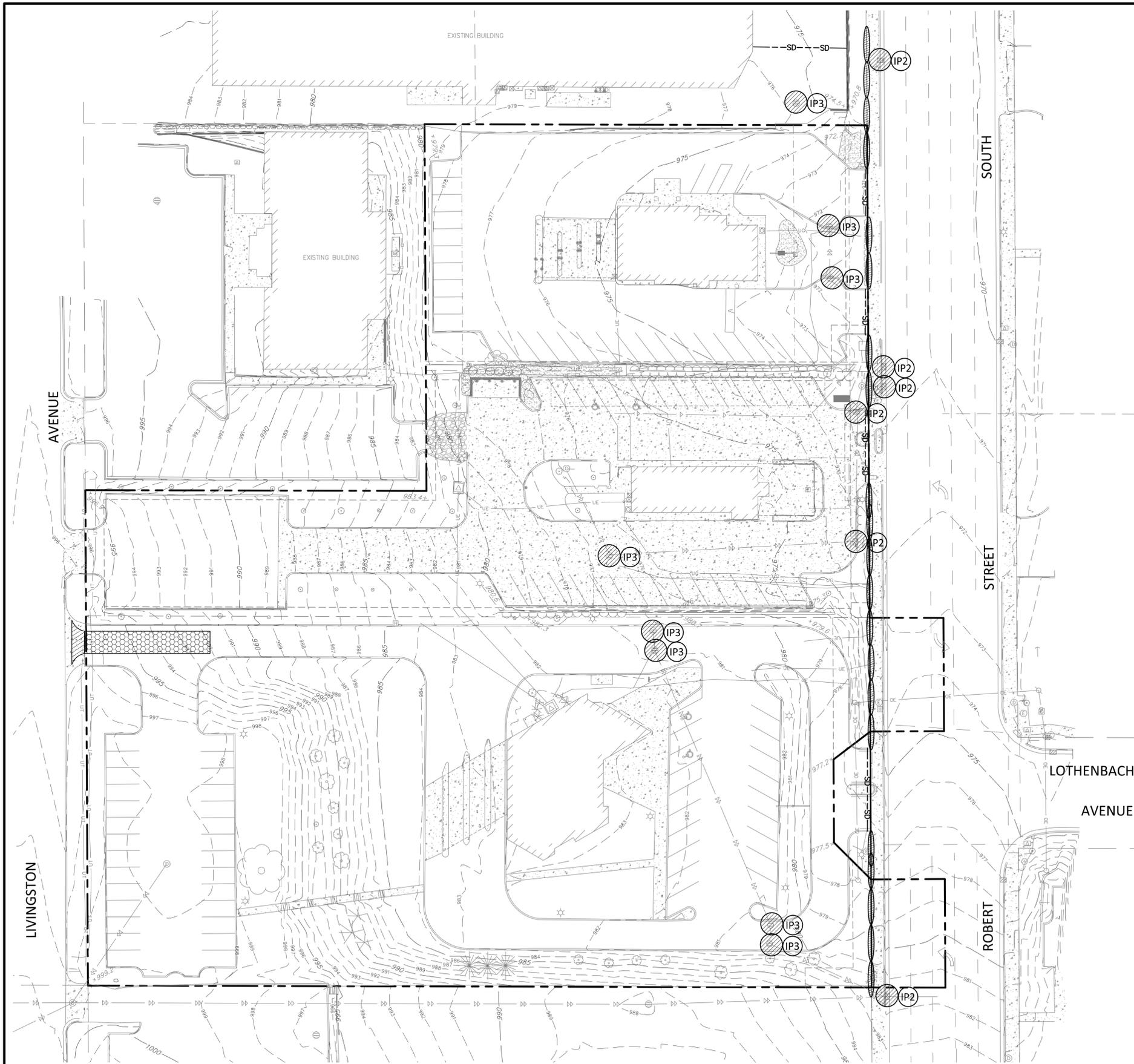
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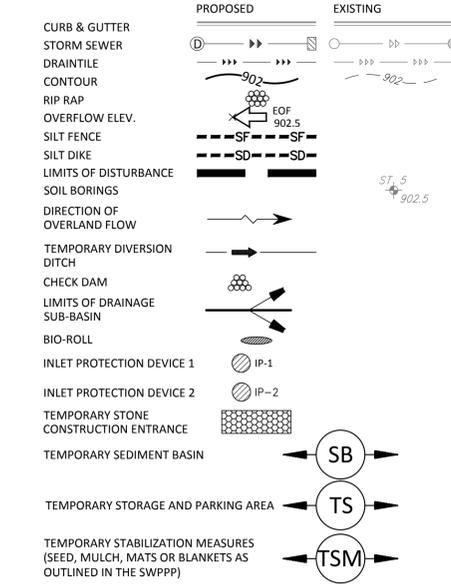
**Sheet Title**  
**GRADING PLAN**

**Sheet No. Revision**  
**C4.01**

**Project No.** CON20491



**LEGEND**



**SEQUENCE OF CONSTRUCTION**

- PHASE I:
1. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
  2. PREPARE TEMPORARY PARKING AND STORAGE AREA.
  3. CONSTRUCT THE SILT FENCES ON THE SITE.
  4. INSTALL INLET PROTECTION AROUND ALL STORM SEWER STRUCTURES
  5. CONSTRUCT THE SEDIMENTATION AND SEDIMENT TRAP BASINS.
  6. CLEAR AND GRUB THE SITE.
  7. BEGIN GRADING THE SITE.
  8. START CONSTRUCTION OF BUILDING PAD AND STRUCTURES.

**NOTE TO CONTRACTOR**

THE EROSION CONTROL PLAN SHEETS ALONG WITH THE REST OF THE SWPPP MUST BE KEPT ONSITE UNTIL THE NOTICE OF TERMINATION IS FILED WITH THE MPCA, THE CONTRACTOR MUST UPDATE THE SWPPP, INCLUDING THE EROSION CONTROL PLAN SHEETS AS NECESSARY TO INCLUDE ADDITIONAL REQUIREMENTS, SUCH AS ADDITIONAL OR MODIFIED BMPs DESIGNED TO CORRECT PROBLEMS IDENTIFIED. AFTER FILING THE NOTICE OF TERMINATION, THE SWPPP, INCLUDING THE EROSION CONTROL PLAN SHEETS, AND ALL REVISIONS TO IT MUST BE SUBMITTED TO THE OWNER, TO BE KEPT ON FILE IN ACCORDANCE WITH THE RECORD RETENTION REQUIREMENTS DESCRIBED IN THE SWPPP NARRATIVE.

**AREA SUMMARY IN ACRES**

SEEDED AREA	1.28 AC±
TOTAL DISTURBED	3.26 AC±
PRE - CONSTRUCTION IMPERVIOUS	2.48 AC±
POST - CONSTRUCTION IMPERVIOUS	2.70 AC±

\* REFER TO SHEET C5.03 FOR GENERAL NOTES, MAINTENANCE NOTES, LOCATION MAPS, AND STANDARD DETAILS

**EROSION CONTROL MATERIALS QUANTITIES**

ITEM	UNIT	QUANTITY
SILT FENCE	LINEAR FEET	0
SILT DIKE	LINEAR FEET	185
BIO-ROLL	LINEAR FEET	393
CONSTRUCTION ENTRANCE	UNIT	1
INLET PROTECTION DEVICE (IP-2)	UNIT	5
INLET PROTECTION DEVICE (IP-3)	UNIT	8

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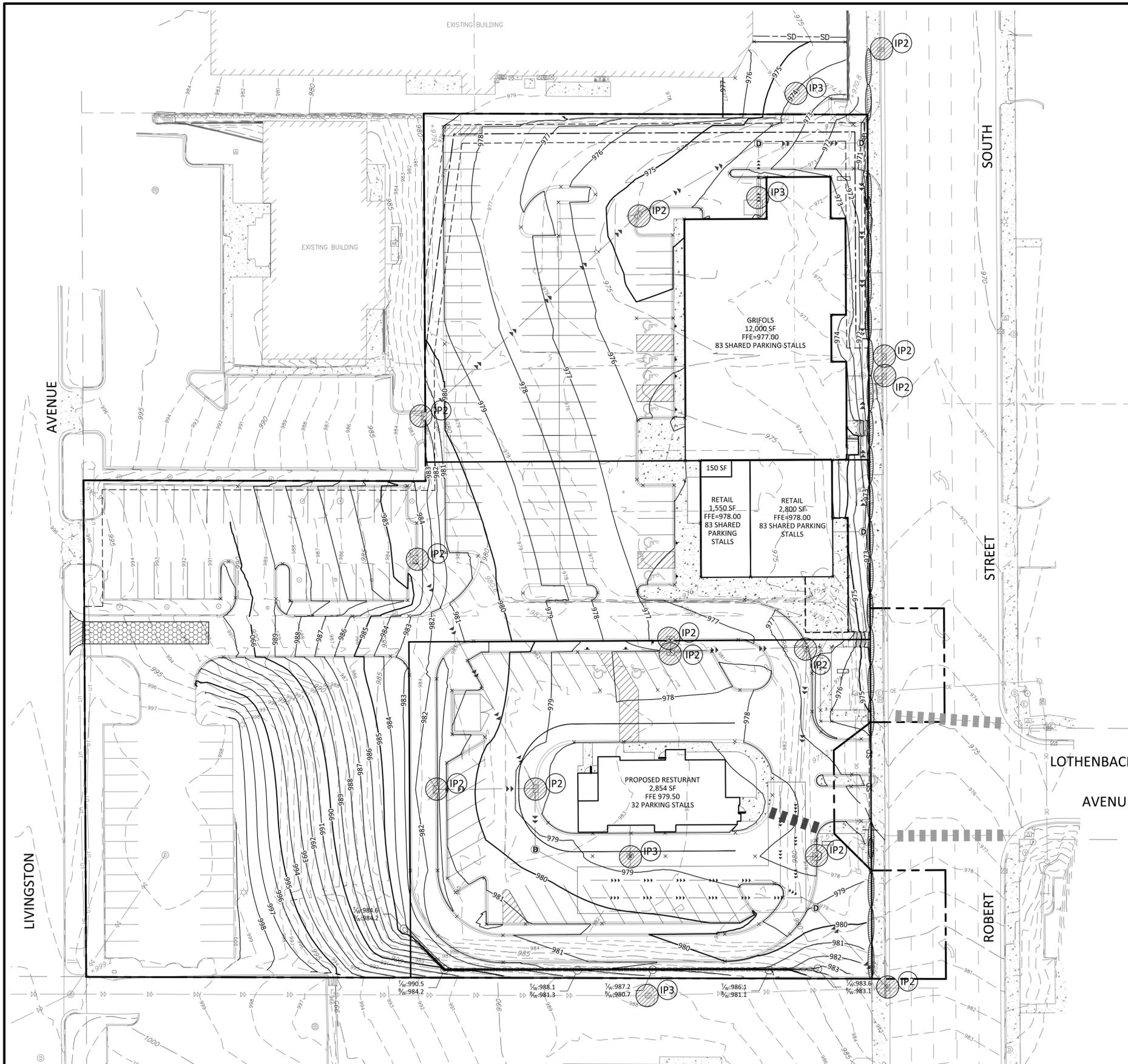
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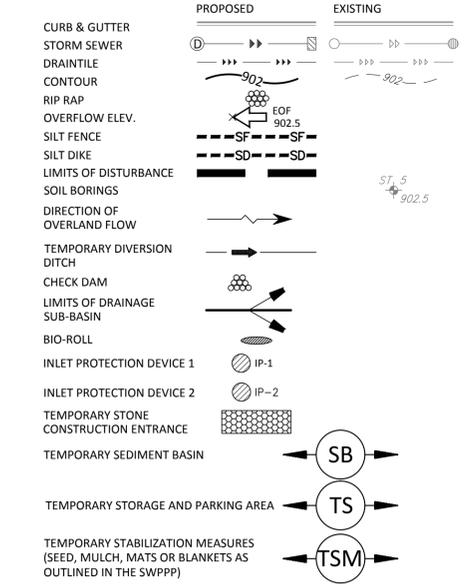
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**Sheet Title**  
**EROSION & SEDIMENT CONTROL PLAN - PHASE I**  
**Sheet No. Revision**  
**C5.01**  
**Project No. CON20491**



**LEGEND**



**SEQUENCE OF CONSTRUCTION**

- PHASE II:
1. TEMPORARILY SEED DENUDED AREAS.
  2. INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS, CURBS AND GUTTERS.
  3. INSTALL RIP RAP AROUND OUTLET STRUCTURES.
  4. INSTALL INLET PROTECTION AROUND ALL STORM SEWER STRUCTURES.
  5. PREPARE SITE FOR PAVING.
  6. PAVE SITE.
  7. INSTALL INLET PROTECTION DEVICES.
  8. COMPLETE GRADING AND INSTALL PERMANENT SEEDING AND PLANTING.
  9. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (ONLY IF SITE IS STABILIZED), IF REQUIRED BY THE CONTRACT

**NOTE TO CONTRACTOR**

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**EROSION CONTROL MATERIALS QUANTITIES**

ITEM	UNIT	QUANTITY
SILT FENCE	LINEAR FEET	0
SILT DIKE	LINEAR FEET	120
BIO-ROLL	LINEAR FEET	428
CONSTRUCTION ENTRANCE	UNIT	1
INLET PROTECTION DEVICE (IP-2)	UNIT	13
INLET PROTECTION DEVICE (IP-3)	UNIT	4

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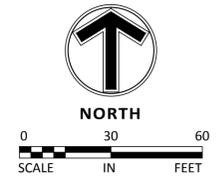
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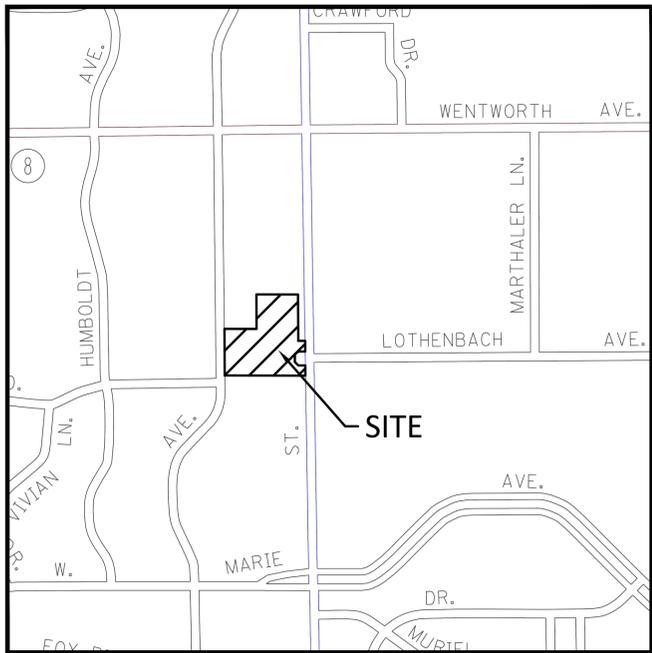
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**EROSION & SEDIMENT CONTROL PLAN - PHASE II**  
**Sheet No. Revision**  
**C5.02**  
**Project No. CON20491**

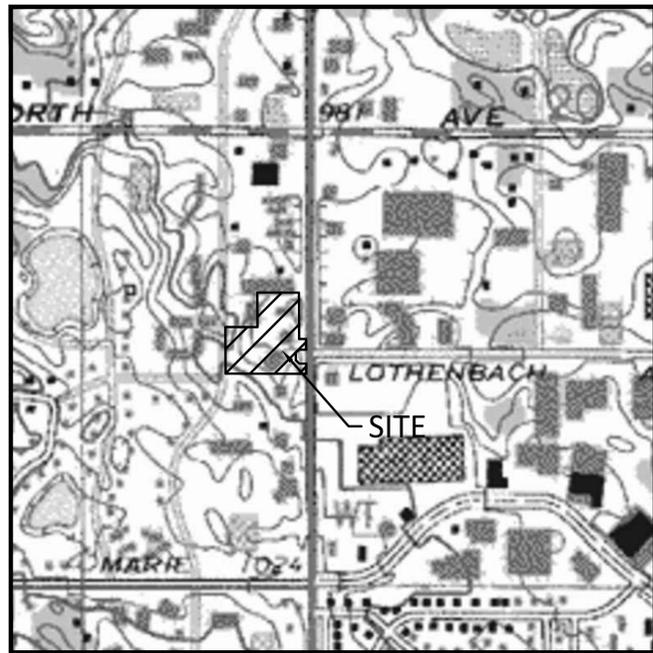


**EROSION & SEDIMENTATION CONTROL NOTES & DETAILS / "SITE MAP"**



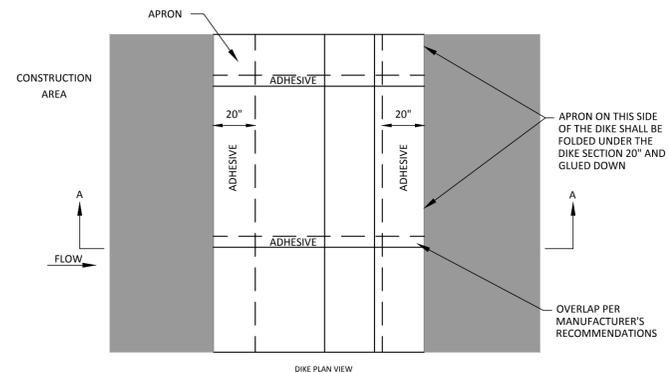
**SITE LOCATION MAP**

NOT TO SCALE

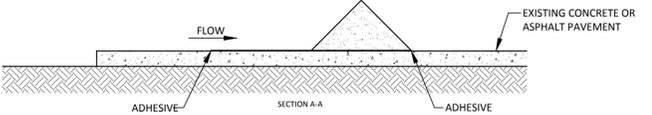


**USGS MAP**

NOT TO SCALE

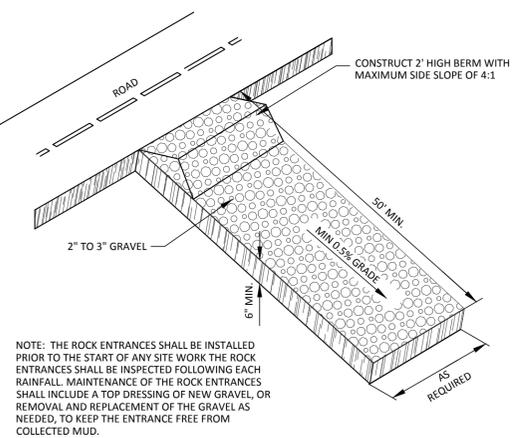


- NOTES:**
1. INSTALLED SILT DIKE UNIT SHALL HAVE CONTINUOUS AND FIRM CONTACT WITH PAVEMENT.
  2. ADHESIVES SHALL BE LIQUID NAIL OR APPROVED EQUAL FOR CONCRETE PAVEMENT APPLICATIONS AND EMULSIFIED ASPHALT FOR ASPHALT APPLICATIONS. ADHESIVE SHALL BE PLACED WHERE THE UNITS OVERLAP AND A 20" STRIP ALONG BOTH EDGES.



**SILT DIKE ON EXISTING PAVEMENT**

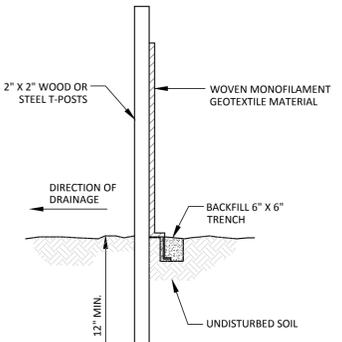
NOT TO SCALE



**NOTE:** THE ROCK ENTRANCES SHALL BE INSTALLED PRIOR TO THE START OF ANY SITE WORK. THE ROCK ENTRANCES SHALL BE INSPECTED FOLLOWING EACH RAINFALL. MAINTENANCE OF THE ROCK ENTRANCES SHALL INCLUDE A TOP DRESSING OF NEW GRAVEL OR REMOVAL AND REPLACEMENT OF THE GRAVEL AS NEEDED, TO KEEP THE ENTRANCE FREE FROM COLLECTED MUD.

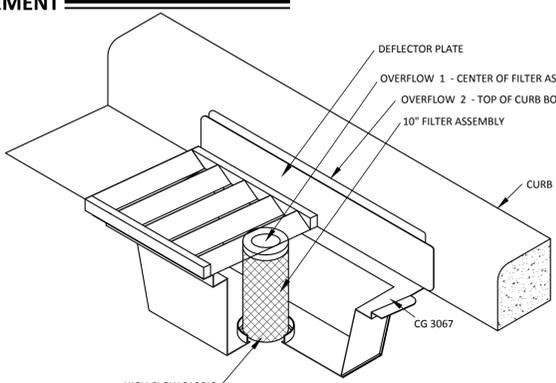
**ROCK ENTRANCE DRIVE**

NOT TO SCALE



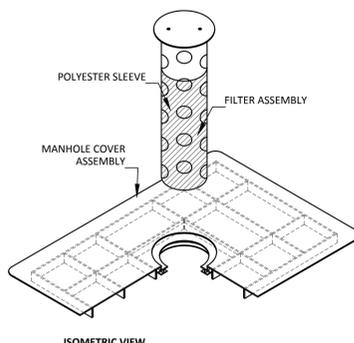
**SILT FENCE DETAIL**

NOT TO SCALE



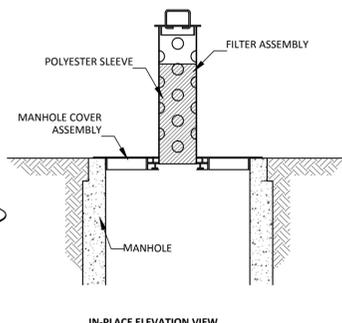
**ROAD DRAIN INLET PROTECTION (IP-2)**

NOT TO SCALE



**ROAD DRAIN INLET PROTECTION TOP SLAB MODEL (IP-3)**

NOT TO SCALE



**IN-PLACE ELEVATION VIEW**

**SPECIFICATIONS AND STANDARDS**

- AISC MANUAL OF STEEL CONSTRUCTION, 9TH EDITION
- AWS STRUCTURAL WELDING CODE-STEEL, D1.1-94.
- 29 CFR 1926-OSHA SAFETY AND HEALTH STANDARDS

**DESIGN LOADS**

ALLOWABLE AXLE WEIGHT LOAD	20000 LBS.
SAFETY FACTOR	2:1
WATER FLOW RATE (THROUGH POLYESTER FILTER)	0.476 CFS @ 3" HEAD 1.074 CFS @ 15" HEAD 1.113 CFS @ 6" HEAD 1.575 CFS @ 12" HEAD
MAXIMUM OVERFLOW RATE	

**AVAILABILITY STOCK**

**GENERAL EROSION NOTES:**

1. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME. WHERE A CONFLICT EXISTS BETWEEN LOCAL JURISDICTIONAL STANDARD SPECIFICATIONS AND SAMBATEK STANDARD SPECIFICATIONS, THE MORE STRINGENT SPECIFICATION SHALL APPLY.
2. THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IS COMPRISED OF THIS DRAWING (EROSION & SEDIMENTATION CONTROL PLAN-ESC PLAN), THE STANDARD DETAILS, THE PLAN NARRATIVE, AND ITS APPENDICES, PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING & SUBMITTING THE APPLICATION FOR THE MPCA GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE SWPPP AND THE STATE OF MINNESOTA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THE CONTENTS. THE SWPPP AND ALL OTHER RELATED DOCUMENTS MUST BE KEPT AT THE SITE DURING CONSTRUCTION.
4. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES (BMP'S) AS REQUIRED BY THE SWPPP & PERMITS. CONTRACTOR SHALL OVERSEE THE INSPECTION & MAINTENANCE OF THE BMP'S AND EROSION PREVENTION FROM BEGINNING OF CONSTRUCTION AND UNTIL CONSTRUCTION IS COMPLETED. IS APPROVED BY ALL AUTHORITIES, AND THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA BY EITHER THE OWNER OR OPERATOR AS APPROVED ON PERMIT. ADDITIONAL BMP'S SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
5. CONTRACTOR SHALL COMPLY WITH TRAINING REQUIREMENTS IN PART III.A.2 OF THE GENERAL PERMIT.
6. BMP'S AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
7. ESC PLAN MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
8. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THE ESC PLANS SHALL BE CLEARLY DELINEATED (E.G. WITH FLAGS, STAKES, SIGNS, SILT FENCE, ETC.) ON THE DEVELOPMENT SITE BEFORE WORK BEGINS. GROUND DISTURBING ACTIVITIES MUST NOT OCCUR OUTSIDE THE LIMITS OF DISTURBANCE.
9. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
10. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) MUST BE LIMITED TO A DEFINED AREA OF THE SITE AND SHALL BE CONTAINED AND PROPERLY TREATED OR DISPOSED. NO ENGINE DEGREASING IS ALLOWED ON SITE.
11. ALL LIQUID AND SOLID WASTES GENERATED BY CONCRETE WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK-PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER. A COMPACTED CLAY LINER THAT DOES NOT ALLOW WASHOUT LIQUIDS TO ENTER GROUND WATER IS CONSIDERED AN IMPERMEABLE LINER. THE LIQUID AND SOLID WASTES MUST NOT CONTACT THE GROUND, AND THERE MUST NOT BE RUNOFF FROM THE CONCRETE WASHOUT OPERATIONS OR AREAS. LIQUID AND SOLID WASTES MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH MPCA REGULATIONS. A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES. SELF-CONTAINED CONCRETE WASHOUTS ON CONCRETE DELIVERY TRUCKS ARE ALLOWED.
12. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR LIQUIDLY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
13. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
14. SOLID WASTE: COLLECTED SEDIMENT, ASPHALT & CONCRETE MILLINGS, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION & DEMOLITION DEBRIS & OTHER WASTES MUST BE DISPOSED OF PROPERLY & MUST COMPLY WITH MPCA DISPOSAL REQUIREMENTS.
15. HAZARDOUS MATERIALS: OIL, GASOLINE, PAINT & ANY HAZARDOUS SUBSTANCES MUST BE PROPERLY STORED, INCLUDING SECONDARY CONTAINMENT, TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE & DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MPCA REGULATIONS.
16. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE SWPPP, SHALL BE INITIATED AS SOON AS PRACTICABLE AND PRIOR TO SOIL DISTURBING ACTIVITIES UPSLOPE.
17. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS STOPPED SHALL BE TEMPORARILY SEEDED, WITHIN 14 DAYS OF INACTIVITY. SEEDING SHALL BE IN ACCORDANCE WITH MN/DOT SEED MIXTURE NUMBER 100 OR 110 DEPENDING ON THE SEASON OF PLANTING (SEE MN/DOT SPECIFICATION SECTION 2575.3) SEEDING METHOD AND APPLICATION RATE SHALL CONFORM TO MN/DOT SPECIFICATION SECTION 2575.3. TEMPORARY MULCH SHALL BE APPLIED IN ACCORDANCE WITH MN/DOT SPECIFICATION SECTION 2575.3F1 AND 2575.3G. ALTERNATIVELY, HYDRAULIC SOIL STABILIZER IN ACCORDANCE WITH MN/DOT SPECIFICATION SECTION 2575.3H MAY BE USED IN PLACE OF TEMPORARY MULCH.
18. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY STABILIZED. THESE AREAS SHALL BE STABILIZED IN ACCORDANCE WITH THE TIME TABLE DESCRIBED ABOVE. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN FOR VEGETATIVE COVER.
19. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT FROM CONVEYANCES & FROM TEMPORARY SEDIMENTATION BASINS THAT ARE TO BE USED AS PERMANENT WATER QUALITY MANAGEMENT BASINS. SEDIMENT MUST BE STABILIZED TO PREVENT IT FROM BEING WASHED BACK INTO THE BASIN, CONVEYANCES, OR DRAINAGEWAYS DISCHARGING OFF-SITE OR TO SURFACE WATERS. THE CLEANOUT OF PERMANENT BASINS MUST BE SUFFICIENT TO RETURN THE BASIN TO DESIGN CAPACITY.
20. ON-SITE & OFF-SITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BMP'S. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
21. TEMPORARY SOIL STOCKPILES MUST HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS & CANNOT BE PLACED IN SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB & GUTTER SYSTEMS OR CONDUITS & DITCHES.
22. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
23. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, CHECK DAMS, INLET PROTECTION DEVICES, ETC.) TO PREVENT EROSION.
24. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY, THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.

**MAINTENANCE NOTES:**

- ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. THE DESIGNATED CONTACT PERSON NOTED ON THIS PLAN MUST ROUTINELY INSPECT THE CONSTRUCTION ON SITE ONCE EVERY SEVEN DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:
1. ALL SILT FENCES MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/3 OF THE HEIGHT OF THE FENCE. THESE REPAIRS MUST BE MADE WITHIN 24 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.
  2. TEMPORARY AND PERMANENT SEDIMENTATION BASINS MUST BE DRAINED AND THE SEDIMENT REMOVED WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME. DRAINAGE AND REMOVAL MUST BE COMPLETED WITHIN 72 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS (SEE PART IV.D. OF THE GENERAL PERMIT).
  3. SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS, MUST BE INSPECTED FOR EVIDENCE OF SEDIMENT BEING DEPOSITED BY EROSION. CONTRACTOR MUST REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS, AND RESTABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. THE REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. CONTRACTOR SHALL USE ALL REASONABLE EFFORTS TO OBTAIN ACCESS. IF PRECLUDED, REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) CALENDAR DAYS OF OBTAINING ACCESS. CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK.
  4. CONSTRUCTION SITE VEHICLE EXIT LOCATIONS MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL OFF-SITE PAVED SURFACES, WITHIN 24 HOURS OF DISCOVERY, OR IF APPLICABLE, WITHIN A SHORTER TIME TO COMPLY WITH PART IV.C.6 OF THE GENERAL PERMIT.
  5. CONTRACTOR IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF TEMPORARY AND PERMANENT WATER QUALITY MANAGEMENT BMP'S, AS WELL AS ALL EROSION PREVENTION AND SEDIMENT CONTROL BMP'S, FOR THE DURATION OF THE CONSTRUCTION WORK AT THE SITE. THE PERMITTEE(S) ARE RESPONSIBLE UNTIL ANOTHER PERMITTEE HAS ASSUMED CONTROL (ACCORDING TO PART II.B.5 OF THE MPCA GENERAL PERMIT) OVER ALL AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED OR THE SITE HAS UNDERGONE FINAL STABILIZATION, AND A (N.O.T.) HAS BEEN SUBMITTED TO THE MPCA.
  6. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED IN A MANNER AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT IN STREETS COULD BE WASHED INTO STORM SEWERS BY THE NEXT RAIN AND/OR POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS).
  7. ALL INFILTRATION AREAS MUST BE INSPECTED TO ENSURE THAT NO SEDIMENT FROM ONGOING CONSTRUCTION ACTIVITIES IS REACHING THE INFILTRATION AREA AND THESE AREAS ARE PROTECTED FROM COMPACTION DUE TO CONSTRUCTION EQUIPMENT DRIVING ACROSS THE INFILTRATION AREA.

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Engineering | Surveying | Planning | Environmental  
**Client**  
**ROBERT ST INVESTORS, LLLP**

**VENTURE PASS PARTNERS LLC**  
A DEVELOPMENT COMPANY

**Project**  
**LOTHENBACH/ ROBERT ST COMMERCIAL REDEVELOPMENT**

**Location**  
**WEST ST. PAUL, MN**

**Certification**  
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.

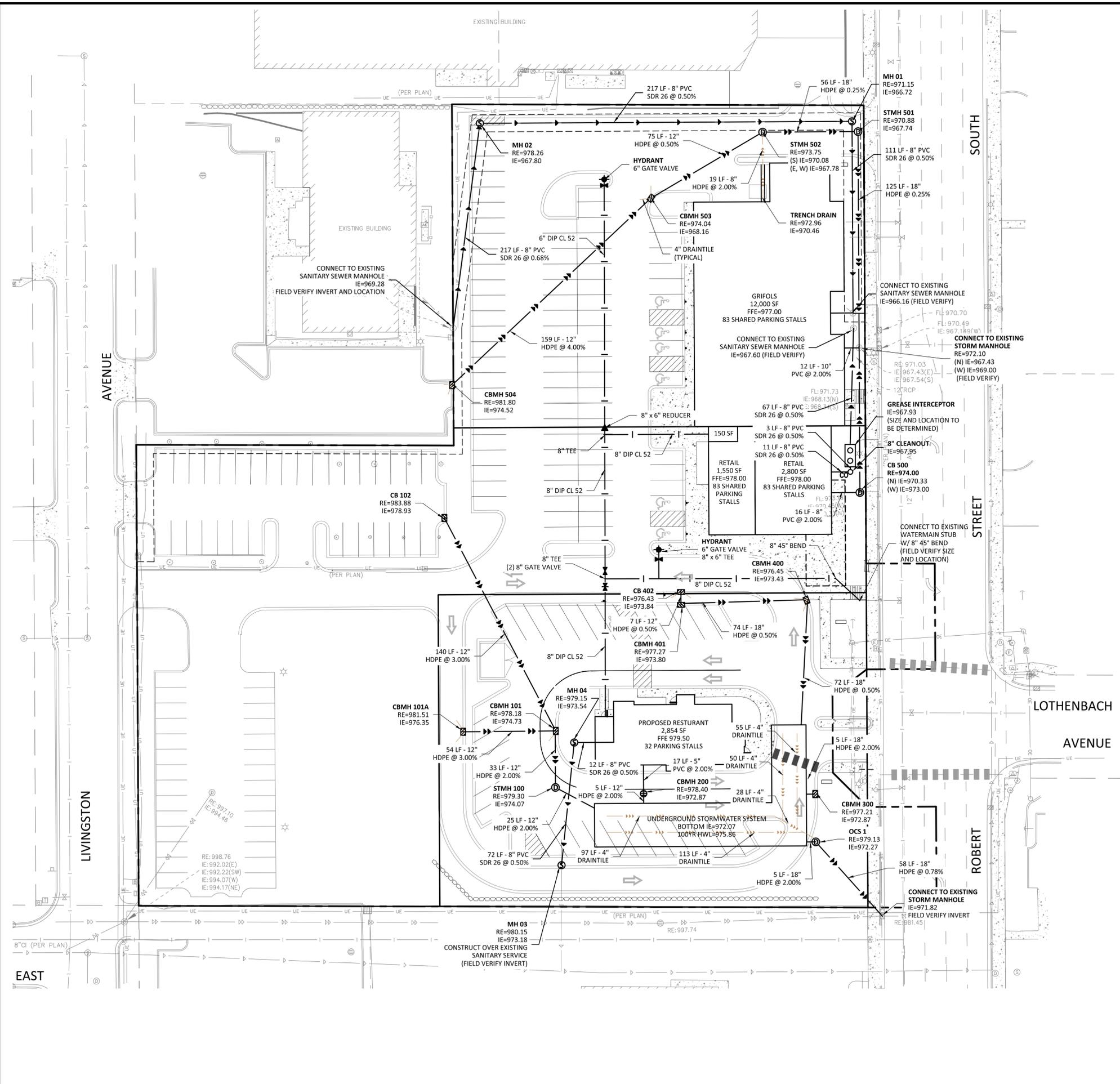
*Michael G. Bullock*  
Michael G. Bullock  
Registration No. 50060 Date: 04/22/2016  
If applicable, contact us for a wet signed copy of this plan which is available upon request at Sambatek's, Minnetonka, MN office.

**Summary**  
Designed: MGB Drawn:  
Approved: Book / Page:  
Phase: PRELIMINARY Initial Issue: 04/22/2016

**Revision History**

No.	Date By	Submittal / Revision
4/22/16		CITY SUBMITTAL
5/6/16		REVISED CITY SUBMITTAL

**Sheet Title**  
**EROSION & SEDIMENT CONTROL DETAILS**  
**Sheet No. Revision**  
**C5.03**  
**Project No. CON20491**



**LEGEND**

	PROPOSED	EXISTING
CURB & GUTTER		
STORM SEWER		
SANITARY SEWER		
FORCEMAIN (SAN.)		
WATERMAIN		
EASEMENT		
DRAINTILE		
GAS LINE		
ELECTRIC		
TELEPHONE		

- UTILITY CONSTRUCTION NOTES**
- COORDINATE ALL BUILDING SERVICE CONNECTIONS AND INVERT ELEVATIONS WITH MECHANICAL CONTRACTOR PRIOR TO CONSTRUCTION.
  - SANITARY SEWER WITH FIVE FEET OR LESS COVER IS TO BE INSULATED FROM BUILDING TO POINT WHERE 5-FEET OF COVER IS ACHIEVED.
  - COORDINATE ALL UTILITY WORK ALONG ROBERT ST WITH MN/DOT PRIOR TO CONSTRUCTION.
  - COORDINATE ALL UTILITY RELOCATIONS AND REMOVALS WITH CITY AND MN/DOT PRIOR TO CONSTRUCTION.
  - RAISE/LOWER EXISTING MANHOLE RIM ELEVATIONS ALONG ROBERT STREET AS NEEDED.

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Project  
**LOTENBACH/  
ROBERT ST  
COMMERCIAL  
REDEVELOPMENT**

Location  
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MN**

**Certification**  
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*Michael G. Bullock*  
Michael G. Bullock  
Registration No. 51260 Date: 04/22/2016  
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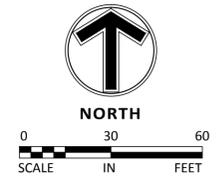
**Revision History**

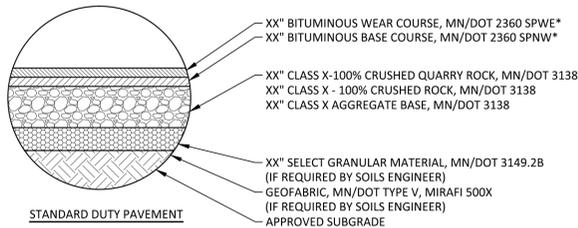
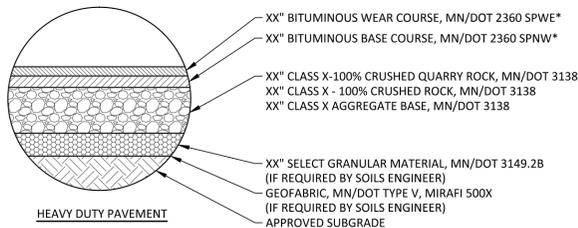
No.	Date	By	Submittal / Revision
4/22/16			CITY SUBMITTAL
5/6/16			REVISED CITY SUBMITTAL

Sheet Title  
**UTILITY PLAN**

Sheet No. Revision  
**C6.01**

Project No. CON20491

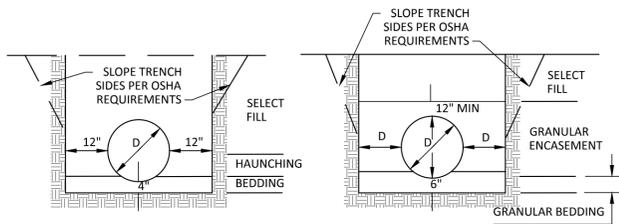




- NOTES:**
- THE PAVEMENT SECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MNDOT "STANDARD SPECIFICATION FOR CONSTRUCTION", AND ALSO THE REQUIREMENTS OF THE OWNER'S GEOTECHNICAL CONSULTANT.
  - ALL THICKNESSES, AS SPECIFIED, ARE TO BE CONSIDERED MINIMUM DEPTHS, AFTER COMPACTION.
  - MN/DOT SPEC. 2357 BITUMINOUS TACK COAT SHALL BE PLACED BETWEEN SUCCESSIVE BITUMINOUS LIFTS AND AGAINST ABUTTING CONCRETE CURB EDGES.

\* REFER TO BITUMINOUS MIX DESIGN REQUIREMENT PROVIDED BY THE GEOTECHNICAL CONSULTANT

**01 PAVEMENT SECTIONS**  
N.T.S.



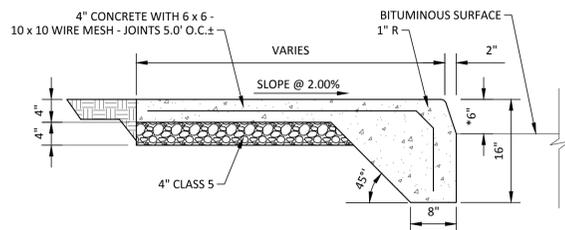
**REINFORCED CONCRETE PIPE OR DIP**

- BEDDING AND HAUNCHING MATERIAL SHALL BE ASTM D2321 (CL1, II, III, OR IV) A SOILS, AND SHALL BE SHAPED TO THE BOTTOM OF THE PIPE. COMPACT BEDDING MATERIAL TO 95% STANDARD PROCTOR.
- SELECT FILL SHALL BE SELECT MATERIAL FREE OF LARGE ROCKS (3"+) AND SHALL BE PLACED IN 8" MAX. LOOSE LIFTS AND COMPACTED TO 95% STANDARD PROCTOR.

**FLEXIBLE PIPE:** INCLUDES CORRUGATED METAL PIPE

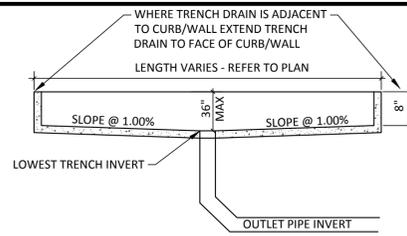
- CORRUGATED POLYETHYLENE PIPE AND/OR POLYVINYL CHLORIDE PIPE
- GRANULAR BEDDING AND ENCASEMENT MATERIAL SHALL BE CLASS I OR II (REF. ASTM D2321 OR MN/DOT 3149.2F) GRANULAR MATERIAL, AND SHALL BE COMPACTED TO 95% STANDARD PROCTOR.
  - SELECT FILL PLACEMENT AND COMPACTION. SAME AS FOR RCP.
- NOTE: FOR HDPE INSTALLED BELOW EXISTING OR FUTURE GROUND WATER ELEVATIONS, PIPE BEDDING AND ENCASEMENT SHALL BE CLASS I, CRUSHED ROCK PER ASTM D2321.

**05 TRENCH AND BEDDING DETAILS**  
N.T.S.

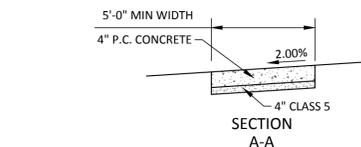
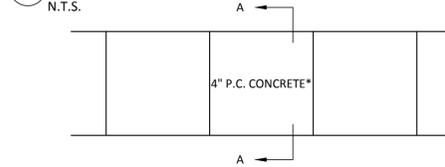


\* HEIGHT VARIES - SEE GRADING PLAN

**09 INTEGRAL SIDEWALK CURB**  
N.T.S.



**02 12" DIAMETER CATCH BASIN**  
N.T.S.

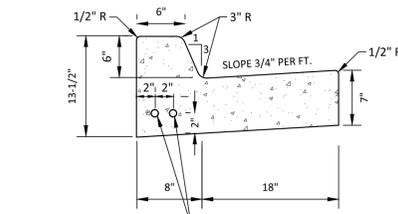
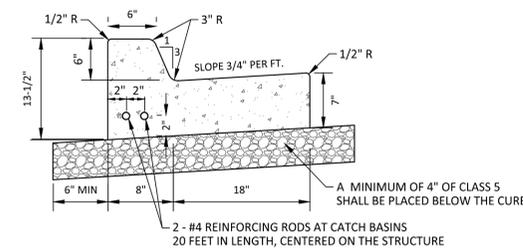


**GENERAL NOTES FOR CONCRETE CONSTRUCTION:**

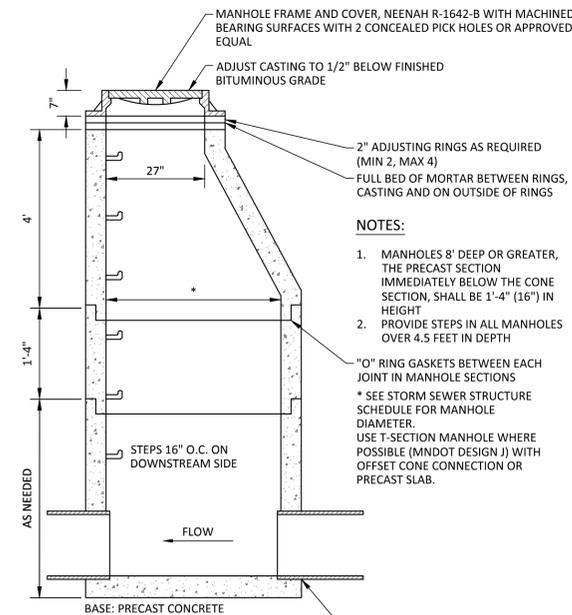
- THE CONCRETE SIDEWALKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF MN/DOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION".
- SIDEWALK CONTROL JOINTS SHALL BE LOCATED AT 5 FEET ON CENTER. SIDEWALK EXPANSION JOINTS SHALL BE LOCATED AT A MAXIMUM OF 100 FEET ON CENTER, AND WHERE SIDEWALK ABUTS CURB, STRUCTURES, AND OTHER FIXED OBJECTS. SEAL ALL EXPANSION JOINTS. BROOM FINISH SHALL BE PERPENDICULAR TO THE LINE OF TRAFFIC.

\*THE THICKNESS SHALL BE INCREASED TO A MINIMUM DEPTH OF INCHES AT DRIVEWAY CROSSINGS.

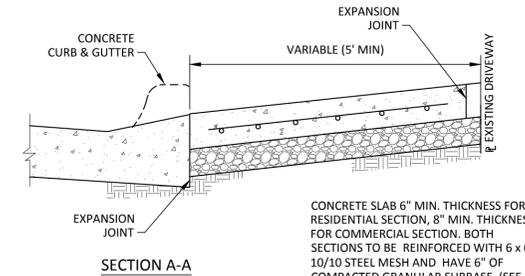
**06 CONCRETE SIDEWALK**  
N.T.S.



**10 B618 CONCRETE CURB & GUTTER**  
N.T.S.

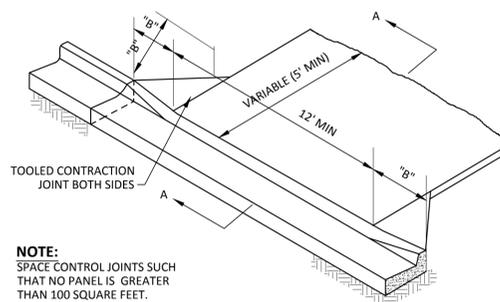


**03 STORM SEWER MANHOLE**  
N.T.S.



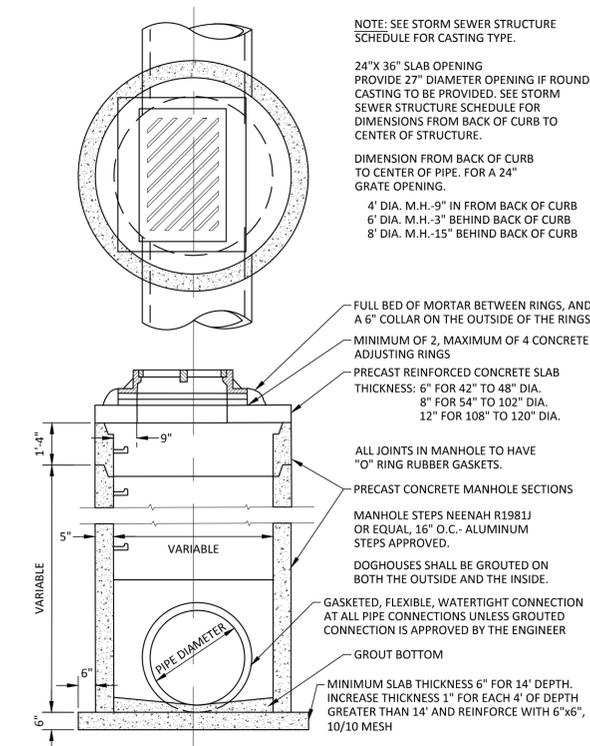
CONCRETE SLAB 6" MIN. THICKNESS FOR RESIDENTIAL SECTION, 8" MIN. THICKNESS FOR COMMERCIAL SECTION. BOTH SECTIONS TO BE REINFORCED WITH 6 x 6 10/10 STEEL MESH AND HAVE 6" OF COMPACTED GRANULAR SUBBASE. (SEE SPECIFICATIONS)

	RESIDENTIAL	COMMERCIAL
"B"	3 FT	5 FT

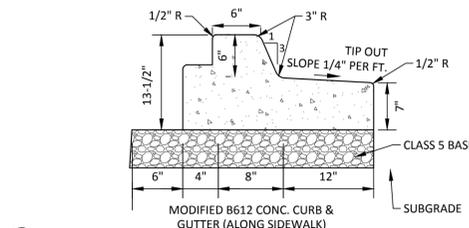
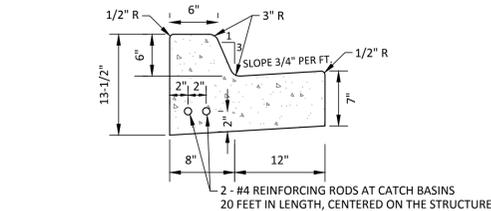
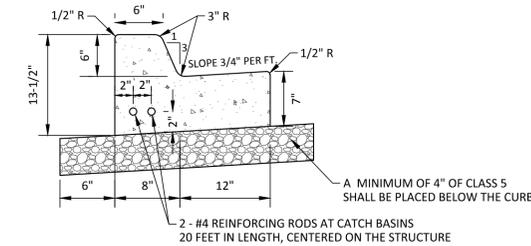


NOTE: SPACE CONTROL JOINTS SUCH THAT NO PANEL IS GREATER THAN 100 SQUARE FEET.

**07 CONCRETE DRIVEWAY APRON**  
N.T.S.



**04 CATCH BASIN MANHOLE**  
N.T.S.

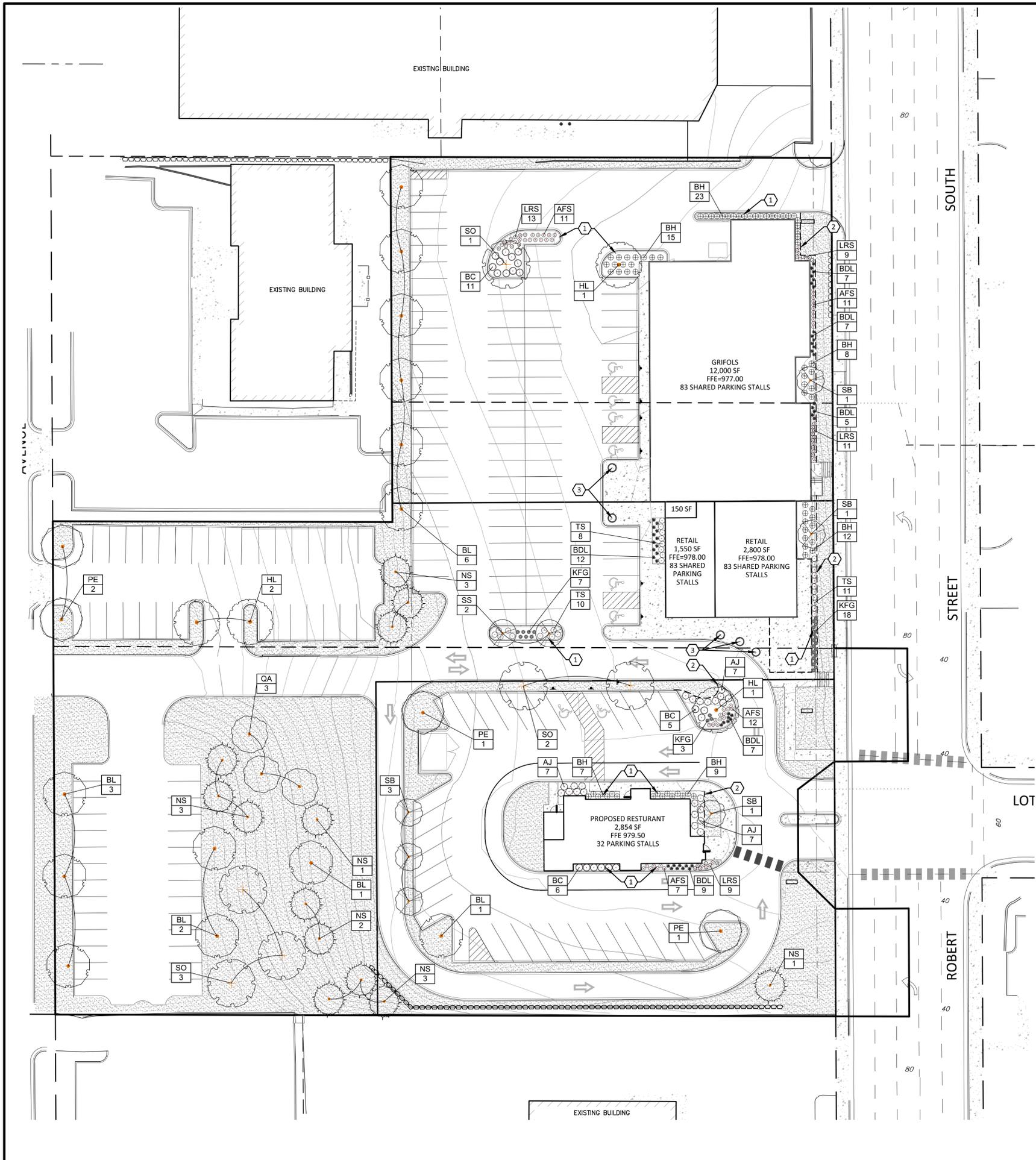


**08 B612 CONCRETE CURB & GUTTER**  
N.T.S.

*Michael G. Bullock*  
Michael G. Bullock  
Registration No. 55660 Date: 04/22/2016  
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**Revision History**  
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**PLANT SCHEDULE**

TREES	CODE	BOTANICAL NAME / COMMON NAME	CONT	CAL	SIZE	QTY
	HL	Gleditsia triacanthos 'Skyline' / Skyline Honey Locust	B & B	2.5" Cal		4
	QA	Populus tremuloides / Quaking Aspen	B & B	2.5" Cal		3
	SO	Quercus bicolor / Swamp White Oak	B & B	2.5" Cal		6
	BL	Tilia americana 'Boulevard' / Boulevard Linden	B & B	2.5" Cal		13
	PE	Ulmus americana 'Princeton' / American Elm	B & B	2.5" Cal		4
CONIFERS	CODE	BOTANICAL NAME / COMMON NAME	CONT	CAL	SIZE	QTY
	NS	Picea abies / Norway Spruce	B & B		6'	13
ORN. TREES	CODE	BOTANICAL NAME / COMMON NAME	CONT	CAL	SIZE	QTY
	SB	Amelanchier canadensis 'Autumn Brilliance' / Autumn Brilliance Serviceberry	B & B	2" Cal		5
	SS	Malus x 'Spring Snow' / Spring Snow Crab Apple	B & B	2" Cal		2
SHRUBS	CODE	BOTANICAL NAME / COMMON NAME	CONT	QTY		
	BC	Aronia melanocarpa 'Autumn Magic' / Autumn Magic Black Chokeberry	5 gal	22		
	BH	Diervilla lonicera / Dwarf Bush Honeysuckle	5 gal	74		
	AJ	Juniperus horizontalis 'Compacta' / Andorra Compact Juniper	5 gal	21		
	TS	Spiraea betulifolia 'Tor' / Birchleaf Spirea	5 gal	29		
GRASSES	CODE	BOTANICAL NAME / COMMON NAME	CONT	QTY		
	KFG	Calamagrostis x acutiflora 'Karl Foerster' / Feather Reed Grass	1 gal	28		
PERENNIALS	CODE	BOTANICAL NAME / COMMON NAME	CONT	QTY		
	BDL	Hemerocallis x 'Baja' / Baja Daylily	1 gal	47		
	LRS	Perovskia atriplicifolia 'Little Spire' TM / Little Spire Russian Sage	1 gal	42		
	AFS	Sedum x 'Autumn Fire' / Autumn Fire Sedum	1 gal	41		
GROUND COVERS	CODE	BOTANICAL NAME / COMMON NAME	QTY			
	TUR HIG	Turf Sod Highland Sod / Sod	40,267 sf			

**LANDSCAPE LEGEND**

- 3/4" DRESSER TRAP ROCK
- STEEL EDGER
- ARCHITECTURAL PLANTER TBS

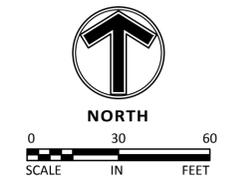
**CITY LANDSCAPE CODE**

**TREE PRESERVATION:**  
 \*REPLACEMENT TREES WILL CONSIST OF 30% OF THE TOTAL AMOUNT OF CALIPER INCHES OF QUALITY TREES (2.5" @ 4').

TOTAL QUALITY TREES AFFECTED: 59  
 TOTAL CALIPER INCHES REMOVED: 352  
 CALIPER INCHES NEEDED FOR REPLACEMENT: 106

**LANDSCAPE CODE:**  
 ONE TREE REQUIRED PER 40 LINEAR FEET OF PROPERTY LINE.

PROPERTY PERIMETER: 1800.3 LF  
 TOTAL TREES REQUIRED: 45  
 TOTAL NEW TREES PROPOSED: 50



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**ROBERT ST INVESTORS, LLLP**



**Project**  
**LOTTHENBACH/ ROBERT ST COMMERCIAL REDEVELOPMENT**

**Location**  
**WEST ST. PAUL, MN**

**Certification**  
 I hereby certify that this survey, plan or report 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.

*Josh McKinney*  
 Joshua J. McKinney  
 Registration No. 5224 Date: 04/DD/2016  
 This certificate is not valid unless wet signed in blue ink. If applicable, contact us for a wet signed copy of this survey which is available upon request at Sambatek, Minnetonka, MN office.

**Summary**  
 Designed: AAA Drawn: AAA  
 Approved: AAA Book / Page:  
 Phase: PRELIMINARY Initial Issue: 04/22/2016

**Revision History**  
 No. Date By Submittal / Revision  
 4/22/16 CITY SUBMITTAL  
 5/6/16 REVISED CITY SUBMITTAL

**Sheet Title**  
**LANDSCAPE PLAN**

**Sheet No. Revision**  
**L1.01**

**Project No. CON20491**

Client  
**ROBERT ST INVESTORS, LLLP**



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*Joshua J. McKinnon*  
Joshua J. McKinnon  
Registration No. 51284 Date: 04/DD/2016

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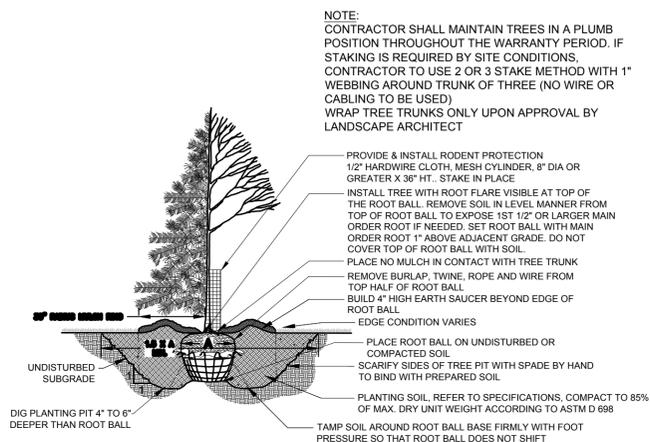
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**Sheet Title LANDSCAPE DETAILS**

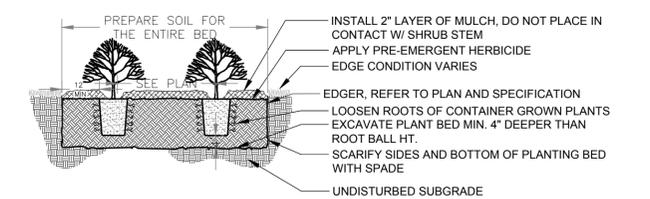
Sheet No. Revision

**L1.02**

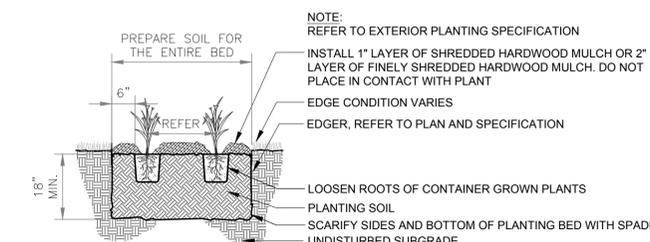
Project No. CON20491



**1 TREE PLANTING DETAIL**  
L1.02 NTS



**2 SHRUB PLANTING DETAIL2**  
L1.02 NTS



**3 PERENNIAL PLANTING DETAIL**  
L1.02 NTS

**NOTES**

**GENERAL NOTES:**

- THE CONTRACTOR SHALL INSPECT THE SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS RELATING TO THE NATURE AND SCOPE OF THE WORK.
- THE CONTRACTOR SHALL VERIFY PLAN LAYOUT AND BRING TO THE ATTENTION OF THE LANDSCAPE ARCHITECT DISCREPANCIES WHICH MAY COMPROMISE THE DESIGN OR INTENT OF THE LAYOUT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CODES, REGULATIONS, AND PERMITS GOVERNING THE WORK.
- THE CONTRACTOR SHALL PROTECT EXISTING ROADS, CURBS/GUTTERS, TRAILS, TREES, LAWNS AND SITE ELEMENTS DURING CONSTRUCTION. DAMAGE TO SAME SHALL BE REPAIRED AND/OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
- LOCATE AND VERIFY ALL UTILITIES, INCLUDING IRRIGATION LINES, WITH THE OWNER FOR PROPRIETARY UTILITIES AND GOPHER STATE ONE CALL 48 HOURS BEFORE DIGGING. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF ANY DAMAGES TO SAME. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS TO FACILITATE PLANT RELOCATION.
- THE LANDSCAPE CONTRACTOR SHALL COORDINATE THE PHASES OF CONSTRUCTION AND PLANTING INSTALLATION WITH OTHER CONTRACTORS WORKING ON SITE.**
- THE CONTRACTOR SHALL REVIEW THE SITE FOR DEFICIENCIES IN SITE CONDITIONS WHICH MIGHT NEGATIVELY AFFECT PLANT ESTABLISHMENT, SURVIVAL OR WARRANTY. UNDESIRABLE SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK.
- THE PLAN TAKES PRECEDENCE OVER THE LANDSCAPE LEGEND IF DISCREPANCIES EXIST. QUANTITIES SHOWN IN THE PLANTING SCHEDULE ARE FOR THE CONTRACTOR'S CONVENIENCE. CONTRACTOR TO VERIFY QUANTITIES SHOWN ON THE PLAN.
- THE SPECIFICATIONS TAKE PRECEDENCE OVER THE PLANTING NOTES AND GENERAL NOTES.
- EXISTING TREES AND SHRUBS TO REMAIN SHALL BE PROTECTED TO THE DRIP LINE FROM ALL CONSTRUCTION TRAFFIC, STORAGE OF MATERIALS ETC. WITH 4' HT. ORANGE PLASTIC SAFETY FENCING ADEQUATELY SUPPORTED BY STEEL FENCE POSTS 6' O.C. MAXIMUM SPACING.
- LONG-TERM STORAGE OF MATERIALS OR SUPPLIES ON-SITE WILL NOT BE ALLOWED.
- CONTRACTOR SHALL REQUEST IN WRITING, A FINAL ACCEPTANCE INSPECTION.

**PLANTING NOTES:**

- NO PLANTS SHALL BE INSTALLED UNTIL FINAL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
- A GRANULAR PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO ALL PLANT BEDS AT THE MANUFACTURERS RECOMMENDED RATE PRIOR TO PLANT INSTALLATION.
- ALL PLANTING STOCK SHALL CONFORM TO THE "AMERICAN STANDARD FOR NURSERY STOCK," ANSI-Z60, LATEST EDITION, OF THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIALS.
- OVERSTORY TREES SHALL BEGIN BRANCHING NO LOWER THAN 6' ABOVE PAVED SURFACES.
- ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASE AND BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE LANDSCAPE LEGEND.
- PLANT MATERIALS TO BE INSTALLED PER PLANTING DETAILS.
- ALL TREES MUST BE STRAIGHT TRUNKED AND FULL HEADED AND MEET ALL REQUIREMENTS SPECIFIED.
- THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS WHICH ARE DEEMED UNSATISFACTORY BEFORE, DURING, OR AFTER INSTALLATION.
- NO SUBSTITUTIONS OF PLANT MATERIAL SHALL BE ACCEPTED UNLESS APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT.
- ALL PLANT MATERIAL QUANTITIES, SHAPES OF BEDS AND LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN AND ADJUSTED TO CONFORM TO THE EXACT CONDITIONS OF THE SITE. THE LANDSCAPE ARCHITECT SHALL APPROVE THE STAKING LOCATION OF ALL PLANT MATERIALS PRIOR TO INSTALLATION.
- ALL PLANTING AREAS MUST BE COMPLETELY MULCHED AS SPECIFIED.
- MULCH: SHREDDED HARDWOOD MULCH, CLEAN AND FREE OF NOXIOUS WEEDS OR OTHER DELETERIOUS MATERIAL, IN ALL MASS PLANTING BEDS AND FOR TREES, UNLESS INDICATED AS ROCK MULCH ON DRAWINGS. SUBMIT SAMPLE TO LANDSCAPE ARCHITECT PRIOR TO DELIVERY ON-SITE FOR APPROVAL. DELIVER MULCH ON DAY OF INSTALLATION. USE 4" FOR SHRUB BEDS, AND 3" FOR PERENNIAL/GROUND COVER BEDS, UNLESS OTHERWISE DIRECTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MULCHES AND PLANTING SOIL QUANTITIES TO COMPLETE THE WORK SHOWN ON THE PLAN.
- USE ANTI-DESICCANT (WILT-PRUF OR APPROVED EQUAL) ON DECIDUOUS PLANTS MOVED IN LEAF AND FOR EVERGREENS MOVED ANYTIME. APPLY AS PER MANUFACTURER'S INSTRUCTION. ALL EVERGREENS SHALL BE SPRAYED IN THE LATE FALL FOR WINTER PROTECTION DURING WARRANTY PERIOD.
- PLANTING SOIL FOR TREES, SHRUBS AND GROUND COVERS: FERTILE FRIABLE LOAM CONTAINING A LIBERAL AMOUNT (4% MIN.) OF HUMUS AND CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH. IT SHALL COMPLY WITH MNDOT SPECIFICATION 3877 TYPE B SELECT TOPSOIL. MIXTURE SHALL BE FREE FROM HARDPACK SUBSOIL, STONES, CHEMICALS, NOXIOUS WEEDS, ETC. SOIL MIXTURE SHALL HAVE A PH BETWEEN 6.1 AND 7.5

- AND 10-0-10 FERTILIZER AT THE RATE OF 3 POUNDS PER CUBIC YARD. IN PLANTING BEDS INCORPORATE THIS MIXTURE THROUGHOUT THE ENTIRE BED IN A 6" LAYER AND ROTO-TILLING IT INTO THE TOP 12" OF SOIL AT A 1:1 RATIO. ANY PLANT STOCK NOT PLANTED ON DAY OF DELIVERY SHALL BE HEELED IN AND WATERED UNTIL INSTALLATION. PLANTS NOT MAINTAINED IN THIS MANNER WILL BE REJECTED.
- ALL PLANTS SHALL BE GUARANTEED FOR TWO COMPLETE GROWING SEASONS (APRIL 1 - NOVEMBER 1), UNLESS OTHERWISE SPECIFIED. THE GUARANTEE SHALL COVER THE FULL COST OF REPLACEMENT INCLUDING LABOR AND PLANTS.
  - CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 3 DAYS PRIOR TO PLANNED DELIVERY. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 24 HOURS IN ADVANCE OF BEGINNING PLANT INSTALLATION.
  - SEASONS/TIME OF PLANTING AND SEEDING: NOTE: THE CONTRACTOR MAY ELECT TO PLANT IN OFF-SEASONS ENTIRELY AT HIS/HER RISK. DECIDUOUS
 

17.1. POTTED PLANTS:	4/1 - 6/1; 9/21 - 11/1
17.2. DECIDUOUS B&B:	4/1 - 6/1; 9/21 - 11/1
17.3. EVERGREEN POTTED PLANTS:	4/1 - 6/1; 9/21 - 11/1
17.4. EVERGREEN B&B:	4/1 - 5/1; 9/21 - 11/1
17.5. TURF/LAWN SEEDING:	4/1 - 6/1; 7/20 - 9/20
  - MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PORTION OF THE WORK IS IN PLACE. PLANT MATERIAL SHALL BE PROTECTED AND MAINTAINED UNTIL THE INSTALLATION OF THE PLANTS IS COMPLETE, INSPECTION HAS BEEN MADE, AND PLANTINGS ARE ACCEPTED EXCLUSIVE OF THE GUARANTEE. MAINTENANCE SHALL INCLUDE WATERING, CULTIVATING, MULCHING, REMOVAL OF DEAD MATERIALS, RE-SETTING PLANTS TO PROPER GRADE AND KEEPING PLANTS IN A PLUMB POSITION. AFTER ACCEPTANCE, THE OWNER SHALL ASSUME MAINTENANCE RESPONSIBILITIES. HOWEVER, THE CONTRACTOR SHALL CONTINUE TO BE RESPONSIBLE FOR KEEPING THE TREES PLUMB THROUGHOUT THE GUARANTEE PERIOD.
  - ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFLOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL LANDSCAPE LEGEND SPECIFICATIONS.
  - WATERING: MAINTAIN A WATERING SCHEDULE WHICH WILL THOROUGHLY WATER ALL PLANTS ONCE A WEEK. IN EXTREMELY HOT, DRY WEATHER, WATER MORE OFTEN AS REQUIRED BY INDICATIONS OF HEAT STRESS SUCH AS WILTING LEAVES. CHECK MOISTURE UNDER MULCH PRIOR TO WATERING TO DETERMINE NEED. CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR WATER.

**TURF NOTES:**

- TURF ESTABLISHMENT SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PROVISIONS OF THE MN/DOT 2105 AND 2575 EXCEPT AS MODIFIED BELOW.
- ALL AREAS TO RECEIVE SOD SHALL ALSO RECEIVE 4" OF TOPSOIL PRIOR TO INSTALLING SOD. TOPSOIL SHALL BE FREE OF TREE ROOTS, STUMPS, BUILDING MATERIAL, AND TRASH, AND SHALL BE FREE OF STONES LARGER THAN 1 1/2" INCHES IN ANY DIMENSION.
  - WHERE SOD ABUTS PAVED SURFACES, FINISHED GRADE OF SOD/SEED SHALL BE HELD 1" BELOW SURFACE ELEVATION OF TRAIL, SLAB, CURB, ETC.
  - SOD SHALL BE LAID PARALLEL TO THE CONTOURS AND SHALL HAVE STAGGERED JOINTS. ON SLOPES STEEPER THAN 3:1 OR IN DRAINAGE SWALES, SOD SHALL BE STAKED SECURELY.
  - ALL DISTURBED AREAS TO BE TURF SEED, ARE TO RECEIVE 4" TOP SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. FOR SLOPES STEEPER THAN 3:1 OR IN DRAINAGE SWALES INSTALL EROSION CONTROL BLANKET.
  - ALL DISTURBED AREAS TO RECEIVE NATIVE SEED, ARE TO RECEIVE PLANTING SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. FOR SLOPES STEEPER THAN 3:1 OR IN DRAINAGE SWALES INSTALL EROSION CONTROL BLANKET.

**IRRIGATION NOTES:**

- IRRIGATION SYSTEM TO BE DESIGN/BUILD. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL OF SYSTEM LAYOUT PRIOR TO INSTALLATION.
- ALL SOD TO RECEIVE SPRAY OR ROTOR IRRIGATION HEADS WITH MINIMUM DESIGN OF 1" IRRIGATION PER WEEK.
- ALL PLANT BEDS TO RECEIVE DRIP LINE IRRIGATION, WITH A MINIMUM DESIGN OF .25" IRRIGATION PER WEEK.
- CONTRACTOR TO INSTALL A TOTAL OF 4 QUICK COUPLERS AT THE CORNERS OF THE PROPERTY. A 2.5" TYPE K SOURCE PIPE IS PROVIDED BY MECHANICAL.