

# 2305 WEST 4TH STREET RETAINING WALL CIVIL PLAN

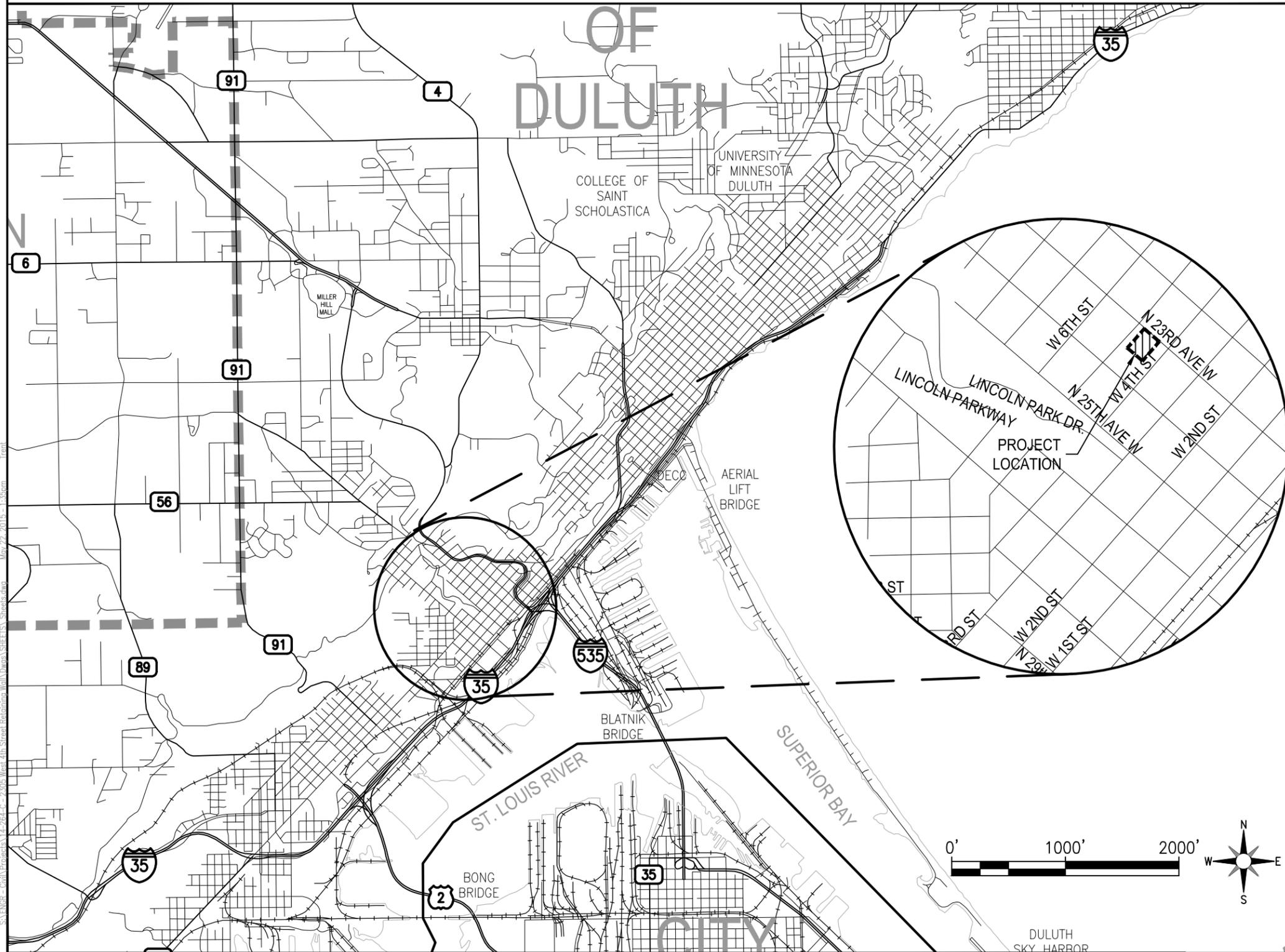
ADDENDUM #2

CITY PROJECT NO. 1308

PROJECT LOCATION  
ST. LOUIS COUNTY  
CITY OF DULUTH

GSOC

MN. TOLL FREE 1-800-252-1166



## GOVERNING SPECIFICATIONS

THE 2014 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION 'STANDARD SPECIFICATIONS FOR CONSTRUCTION' AND THE 2014 EDITION OF THE 'MATERIALS LAB SUPPLEMENTAL SPECIFICATIONS FOR CONSTRUCTION' SHALL GOVERN.  
(AVAILABLE AT: <http://www.dot.state.mn.us/tecsup/> )

THE 2360 PLANT MIXED ASPHALT PAVEMENT COMBINED 2360/2350 (GYRATORY/MARSHALL DESIGN) SPECIFICATION FOR 2012 CONSTRUCTION SEASON SHALL APPLY.  
(AVAILABLE AT:

<http://www.mrr.dot.state.mn.us/pavement/bituminous/bituminous.asp>)

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MN MUTCD, INCLUDING THE FIELD MANUAL DATED JANUARY 2014.  
(AVAILABLE AT:

<http://www.dot.state.mn.us/trafficeng/otepubl/fieldmanual2007/index.html>)

THE CURRENT EDITION OF THE CITY OF DULUTH PUBLIC WORKS AND UTILITIES DEPARTMENT STANDARD CONSTRUCTION SPECIFICATIONS AND SUPPLEMENTS OR ADDENDUMS SHALL APPLY.  
<http://www.duluthmn.gov/engineering/standard-construction-specifications/>

## BASIS OF BEARING / CONTROL

BEARINGS BASED ON THE ST. LOUIS COUNTY TRANSVERSE MERCATOR COORDINATE SYSTEM OF 1996.

POINT NAME:	NORTHING:	EASTING:	ELEVATION:	DESCRIPTION:
CONTROL POINT #1	3336136	4836921	705.66	SETPK
CONTROL POINT #2	3336047	4836845	705.65	SETPK
CONTROL POINT #3	3336236	4836990	706.87	SETCHX
CONTROL POINT #4	3336122	4836886	707.79	BM SPIKE PP
CONTROL POINT #5				

## SHEET INDEX

SHEET NAME:	DESCRIPTION:
C1.0	TITLE
C2.0	STATEMENT OF ESTIMATED QUANTITIES
C3.0	GENERAL NOTES
C4.0	GENERAL NOTES
C5.0	DETAILS
C6.0	REMOVALS PLAN
C7.0	SITE & GRADING PLAN
C8.0	RETAINING WALL SECTION

## UTILITY DETAIL LEVEL

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY LEVEL B. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA".

## CITY APPROVALS

APPROVED	CITY ENGINEER	APPROVED
APPROVED	CHIEF ENGINEER - UTILITIES	APPROVED
APPROVED	CHIEF ENGINEER - TRANSPORTATION	APPROVED

CITY OF DULUTH PROJECT NO. 1308



Project Name:  
**2305 W 4TH STREET  
RETAINING WALL**  
2305 W 4TH STREET, DULUTH, MN

Project Name:

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.  
Lic. No: 40926  
May 22, 2015  
Engineer: David G. Bolf

Project#: 14-264  
Date: 05/22/15  
Drawn By: TTP  
Checked By: DGB

ADDENDUM #2  
1 5-22-15

TITLE SHEET

Sheet Number

**C1.0**

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DATE: \_\_\_\_\_ Initial \_\_\_\_\_

Statement of Estimated Quantities						
City of Duluth Project No. 1308 / 4th Street Retaining Wall						
May 22, 2015						
LINE NO.	SPEC. NO.	ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITIES	UNIT COST	TOTAL COST
1	2021.501	MOBILIZATION	LUMP SUM	1		
2	2101.511	CLEARING & GRUBBING	LUMP SUM	1		
3	2104.501	REMOVE CURB & GUTTER	LIN FT	100		
4	2104.501	REMOVE RETAINING WALL (TOP 2.00')	LIN FT	84		
5	2104.503	REMOVE CONCRETE SIDEWALK	SQ FT	20		
6	2104.505	REMOVE BITUMINOUS PAVEMENT	SQ YD	115		
7	2104.510	REMOVE DEBRIS (FAILED WALL & RAILING)	LUMP SUM	1		
8	2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	120		
9	2105.501	COMMON EXCAVATION	CU YD	90		
10	2105.522	SELECT GRANULAR BORROW MOD. 7% (CV)	CU YD	40		
11	2211.503	AGGREGATE BASE (CV), CLASS 5	CU YD	20		
12	2360.501	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C)	TON	20		
13	2411.618	PREFABRICATED MODULAR BLOCK WALL	SQ FT	490		
14	2521.501	CONCRETE WALK 4"	SQ FT	25		
15	2531.501	CONCRETE CURB & GUTTER DESIGN B612	LIN FT	120		
16	2531.507	8" CONCRETE DRIVEWAY PAVEMENT	SQ YD	38		
17	2557.501	WIRE FENCE DESIGN 48V-9322	LIN FT	84		
18	2563.601	TRAFFIC CONTROL	LUMP SUM	1		
19	2573.502	SILT FENCE, TYPE HEAVY DUTY	LIN FT	110		
20	2575.505	SOD TYPE LAWN	SQ YD	180		
21	3877.501	COMMON TOPSOIL BORROW (CV)	CU YD	20		

GRAND TOTAL: \_\_\_\_\_



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STATEMENT OF  
 ESTIMATED  
 QUANTITIES  
 Sheet Number

**C2.0**

GENERAL NOTES

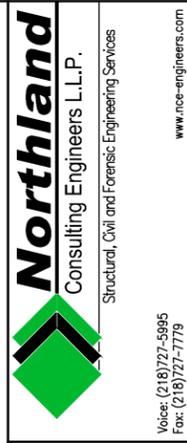
1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" CONCURRENT WITH THE PERMIT DATE. (AVAILABLE AT: <http://www.dot.state.mn.us/pre-letting/spec/>)
2. THE CURRENT EDITION OF THE CITY OF DULUTH PUBLIC WORKS AND UTILITIES DEPARTMENT STANDARD CONSTRUCTION SPECIFICATIONS AND SUPPLEMENTS OR ADDENDUMS SHALL APPLY. (AVAILABLE AT: <http://www.duluthmn.gov/engineering/standard-construction-specifications/>)
3. CONTRACTOR SHALL ACQUIRE ALL NECESSARY PERMITS.
4. ANY DIFFERENCES BETWEEN PLANS AND SPECIFICATIONS AND QUESTIONS REGARDING INTERPRETATIONS OF PLANS AND SPECIFICATIONS SHALL BE RESOLVED BY THE ENGINEER OR OWNER. THE CONTRACTOR WILL NOT BE PERMITTED TO TAKE ADVANTAGE OF ANY ERRORS OR OMISSIONS IN THE PLANS AND SPECIFICATIONS. THE GENERAL INTENT AND MEANING WILL GOVERN. THE ENGINEER OR OWNER WILL PROVIDE FULL INSTRUCTIONS WHEN CHANGED CONDITIONS, ERRORS OR OMISSIONS ARE DISCOVERED BY THE CONTRACTOR.
5. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "GSOC" AT (1-800-252-1166) TWO WORKING DAYS PRIOR TO ANY EXCAVATION OR CONSTRUCTION.
6. ALTHOUGH SUCH WORK MAY NOT BE SPECIFICALLY NOTED ON THESE PLANS, CONTRACTOR SHALL FURNISH AND INSTALL ALL SUPPLEMENTARY OR MISCELLANEOUS FITTINGS, APPURTENANCES AND DEVICES INCIDENTAL TO OR NECESSARY FOR A SOUND, SECURE AND COMPLETE INSTALLATION.
7. ALL CONCRETE STRUCTURES SHALL CONFORM TO SPEC 2461 STRUCTURAL CONCRETE OF MINNESOTA MATERIALS LAB SUPPLEMENTAL SPECIFICATIONS FOR CONSTRUCTION CURRENT EDITION CONCURRENT WITH THE PERMIT DATE.. (AVAILABLE AT: <http://www.dot.state.mn.us/pre-letting/spec/2014/2014-Materials-Lab-Supplement.pdf>)
8. ALL CONCRETE CURB SHALL CONFORM TO SPEC 2531 CONCRETE CURBING OF MINNESOTA MATERIALS LAB SUPPLEMENTAL SPECIFICATIONS FOR CONSTRUCTION CURRENT EDITION CONCURRENT WITH THE PERMIT DATE. (AVAILABLE AT: <http://www.dot.state.mn.us/pre-letting/spec/2014/2014-Materials-Lab-Supplement.pdf>)
9. EQUIPMENT OR MATERIALS SPECIFIED IN THESE PLANS HAVE BEEN SPECIFIED BECAUSE THEY MEET THE PARAMETERS NEEDED TO PERFORM A CERTAIN FUNCTION. THERE MAY BE OTHER MANUFACTURERS OF SIMILAR EQUIPMENT OR MATERIALS THAT CAN BE USED IN LIEU OF THE ONES SPECIFIED HEREIN. ANY MODIFICATIONS TO SAID EQUIPMENT OR MATERIALS NEED TO BE APPROVED IN WRITING BY THE ENGINEER PRIOR TO THEIR BEING CONSIDERED FOR USE.
10. BY SUBMISSION OF HIS BID PROPOSAL THE CONTRACTOR ACKNOWLEDGES THAT HE/SHE HAS THOROUGHLY EXAMINED THE LOCATION OF THE WORK TO BE PERFORMED, IS FAMILIAR WITH LOCAL CONDITIONS, AND HAS THE RESOURCES TO LAYOUT AND CONSTRUCT THESE PLANS.
11. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL SURVEY CONTROL STAKES SET FOR LINE, GRADE, OR CONTROL IN THEIR ORIGINAL LOCATIONS. ANY EXPENSES INCURRED IN REPLACING ANY SUCH SURVEY STAKES WHICH THE CONTRACTOR OR HIS SUBCONTRACTORS MAY HAVE FAILED TO PRESERVE SHALL BE THE FINANCIAL RESPONSIBILITY OF THE CONTRACTOR.
12. THE CONTRACTOR IS RESPONSIBLE FOR UNCOVERING ALL EXISTING UTILITY LINES BEING CONNECTED TO BY VIRTUE OF THESE PLANS. HE/SHE SHALL BE RESPONSIBLE FOR VERIFYING THEIR ELEVATION AND LOCATION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR PROTECTING ALL UTILITIES WHETHER BEING CONNECTED TO OR NOT.
13. ALL WORKMANSHIP AND MATERIALS THROUGHOUT THE JOB SHALL BE OF THE HIGHEST QUALITY. ALL MATERIALS SHALL BE NEW, UNLESS APPROVED BY THE ENGINEER.
14. CONTRACTOR SHALL AT ALL TIMES COORDINATE WORK WITH OTHER CONTRACTORS INVOLVED WITH ONGOING CONSTRUCTION OF THIS PROJECT.
15. ALL WORK AND MATERIALS WHICH DO NOT CONFORM TO THE SPECIFICATIONS AND /

- OR PLANS ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
16. ALL WORK IS TO BE COMPLETED IN A SAFE MANNER IN ACCORDANCE WITH THESE CONSTRUCTION SPECIFICATIONS. ANY DEVIATION THEREFROM MUST BE APPROVED IN WRITING BY THE ENGINEER. INSTALLATION MUST CONFORM WITH THE REQUIREMENTS OF ALL GOVERNMENTAL REGULATING AGENCIES AND THE COST OF CONFORMING TO SUCH REGULATIONS MUST BE INCLUDED IN THE UNIT BID PRICES. EXAMPLES OF SUCH REGULATIONS, WITHOUT ATTEMPTING TO BE INCLUSIVE, ARE:
    - A. SPECIAL COMPACTION AND PAVING FOR STREET CROSSINGS.
    - B. SHORING WHEN REQUIRED BECAUSE OF THE TRENCH DEPTH.
    - C. CLOSING A TRENCH IN THOSE AREAS WHERE NO OPEN TRENCH IS ALLOWED OVERNIGHT.
    - D. BARRICADING AND TRAFFIC CONTROL AS REQUIRED.
  17. ALL REVISIONS TO THE APPROVED CONSTRUCTION DRAWINGS AND SPECIFICATIONS MUST BE APPROVED BY THE OWNER PRIOR TO CONSTRUCTION. ANY UNAPPROVED REVISIONS ARE SUBJECT TO REMOVAL AND/OR REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
  18. THE QUANTITIES AND SITE CONDITIONS DEPICTED IN THESE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE SUBJECT TO ERROR AND OMISSION. CONTRACTORS SHALL SATISFY THEMSELVES AS TO ACTUAL QUANTITIES AND SITE CONDITIONS PRIOR TO BIDDING THE WORK FOR THE CONSTRUCTION COVERED BY THESE PLANS.
  19. A REASONABLE EFFORT HAS BEEN MADE TO SHOW THE LOCATIONS OF EXISTING UNDERGROUND FACILITIES AND UTILITIES IN THE CONSTRUCTION AREA. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES AND/OR FACILITIES CAUSED DURING THEIR CONSTRUCTION OPERATIONS. CONTRACTOR SHALL CALL "GSOC" AT (1-800-252-1166) PRIOR TO ANY EXCAVATION.
  20. THE CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION OF CONSTRUCTION AFFECTING UTILITIES AND THE COORDINATION OF ANY NECESSARY UTILITY RELOCATION WORK.
  21. THESE PLANS ARE SUBJECT TO THE INTERPRETATION OF INTENT BY THE ENGINEER. ALL QUESTIONS REGARDING THESE PLANS SHALL BE PRESENTED TO THE ENGINEER. ANYONE WHO TAKES UPON THEMSELVES THE INTERPRETATION OF THE DRAWINGS OR MAKES REVISIONS TO THEM WITHOUT CONFERRING WITH THE DESIGN ENGINEER SHALL BE RESPONSIBLE FOR THE CONSEQUENCES THEREOF.
  22. NOTHING CONTAINED IN THE CONTRACT DOCUMENTS SHALL CREATE, NOR SHALL BE CONSTRUED TO CREATE ANY CONTRACTUAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR ANY SUBCONTRACTOR.
  23. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OR SAFETY PRECAUTIONS OR PROGRAMS UTILIZED IN CONNECTION WITH THE WORK. THE ENGINEER WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
  24. PRIOR TO BIDDING THE WORK, THE CONTRACTOR SHALL THOROUGHLY SATISFY HIMSELF AS TO THE ACTUAL CONDITIONS, EARTHWORK QUANTITIES AND REQUIREMENTS OF WORK AND EXCESS OR DEFICIENCY IN EARTHWORK QUANTITIES, IF ANY. NO CLAIM SHALL BE MADE AGAINST THE OWNER/DEVELOPER OR ENGINEER FOR ANY EXCESS OR DEFICIENCY THEREIN, ACTUAL OR RELATIVE.
  25. ALL MATERIALS ARE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURES RECOMMENDATIONS UNLESS OTHERWISE DIRECTED BY THE PROJECT SPECIFICATIONS.
  26. ALL PAVING AND GRADING CONSTRUCTION WORK WITHIN THE PUBLIC RIGHT OF WAY, ON PRIVATE STREETS, ACCESS WAYS, PARKING AREAS, EASEMENTS AND LOT GRADING SHALL CONFORM TO THE GOVERNING MUNICIPALITY MINIMUM STANDARDS AND SPECIFICATIONS, MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARD PLATES WILL CONTINUE TO APPLY WHERE NOT ADOPTED OR INCLUDED BY THE GOVERNING MUNICIPALITY. THE REFERENCE DOCUMENTS AND SPECIFICATIONS INCLUDED WITHIN THIS PLAN ARE HEREBY MADE A PART OF THE CONTRACT DOCUMENTS AND PROJECTS MANUAL. WHERE THERE IS A CONFLICT BETWEEN THESE NOTES AND THE PROJECT MANUAL, THE MORE STRINGENT OF THE REQUIREMENTS SHALL GOVERN UNLESS PRIOR CLARIFICATION FROM THE DESIGN ENGINEER HAS BEEN GIVEN IN WRITING TO THE CONTRACTOR.

27. CONTRACTOR TO PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES NECESSARY TO COMPLETE ALL PROJECT SITE WORK, SITE CLEARING, DEMOLITION, ROADWAY EXCAVATION, RELOCATIONS, STRUCTURE EXCAVATION, TRENCHING/BACKFILLING, ALL BORING, DRILLING, SITE GRADING AND EARTHWORK INCLUDING ALL PAVING, PIPING, UTILITY LINE CONSTRUCTION, CURBS, SIDEWALKS, SITE CONCRETE WORK AND OTHER MISCELLANEOUS SITE WORK STRUCTURES AND ITEMS INDICATED ON THE PLANS AND IN THE CONTRACT DOCUMENTS.
28. THE ENGINEER OR OWNER SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION.
29. ALL OBSTRUCTIONS IN RIGHT OF WAY SHALL BE REMOVED BEFORE ANY CONSTRUCTION IS PERMITTED.
30. ANY QUANTITIES SHOWN ON PLANS ARE NOT VERIFIED BY THE ENGINEER. QUANTITIES ARE APPROXIMATE ONLY AND INTENDED AS A GUIDE FOR ESTIMATING PURPOSES. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING HIS OWN QUANTITY TAKE OFFS. THE OWNER DOES NOT VERIFY ANY CUT/FILL QUANTITIES IF SHOWN ON THE PLANS.
31. ALL WORK DONE UNDER THIS CONTRACT SHALL BE DONE TO THE SATISFACTION OF THE OWNER AND ENGINEER. THE OWNER AND ENGINEER SHALL MAKE DECISIONS REGARDING QUESTIONS THAT MAY ARISE WITH RESPECT TO THE MEANING OF THE PLANS AND SPECIFICATIONS. THE OWNER'S AND ENGINEER'S DETERMINATIONS AND DECISIONS THEREON SHALL BE FINAL AND CONCLUSIVE.
32. THE CONTRACTOR OR SUBCONTRACTORS SHALL NOT DEVIATE FROM THESE PLANS OR MAKE FIELD CHANGES WITHOUT NOTIFYING IN WRITING, THE OWNER AND ENGINEER REQUESTING APPROVAL OF THESE MODIFICATIONS. ANY CHANGES MADE WITHOUT EXPRESS WRITTEN APPROVAL OF THE OWNER AND ENGINEER ARE SUBJECT TO REMOVAL AT THE EXPENSE OF THE CONTRACTOR OR SUBCONTRACTOR.
33. THE 2360 PLANT MIXED ASPHALT PAVEMENT COMBINED 2360/2350 (GYRATORY/MARSHALL DESIGN) SPECIFICATION FOR 2012 CONSTRUCTION SEASON SHALL APPLY. BITUMINOUS MIX QUANTITIES BASED ON 115 LBS / SY-IN. (AVAILABLE AT: <http://www.mrr.dot.state.mn.us/pavement/bituminous/bituminous.asp>)
34. ALL CONSTRUCTION REMOVAL ITEMS SHALL BE DISPOSED OF AT AN APPROVED WASTE SITE.
35. CONTRACTOR IS REQUIRED TO POSSESS & FOLLOW THE GOVERNING SPECIFICATIONS REFERENCED IN THIS PLAN.

TRAFFIC CONTROL

1. THE WORK UNDER THIS SECTION SHALL BE IN ACCORDANCE WITH THE REFERENCED MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL BE CONSIDERED A MINIMUM STANDARD FOR THE PROTECTION OF WORKMEN AND THE TRAVELING PUBLIC.
2. PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION OPERATIONS BY THE CONTRACTOR, A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. THE TRAFFIC CONTROL PLAN SHALL BE SUBMITTED A MINIMUM OF 2 WEEKS PRIOR TO THE BEGINNING OF CONSTRUCTION AND MAY INCLUDE FURNISHING, INSTALLING, MAINTAINING, MOVING AND REMOVING BARRICADES, WARNING SIGNS, LIGHTS, SIGNALS, CONES, AND ALL OTHER TRAFFIC CONTROL DEVICES, FLAGGING SERVICES AND PILOT TRUCKS, TO PROVIDE SAFE AND EFFICIENT PASSAGE THROUGH AND/OR AROUND THE WORK AREA. ADDITIONALLY, THE TRAFFIC CONTROL PLAN SHALL PROVIDE FOR MOVEMENT OF PEDESTRIAN AND VEHICULAR TRAFFIC THROUGH CONSTRUCTION ZONES AND PROTECT WORKMEN IN OR ADJACENT TO THE WORK ZONE. IT SHALL ALSO SPECIFICALLY AND GRAPHICALLY IDENTIFY A PROPOSED SEQUENCE OF OPERATIONS AND A COMPATIBLE METHOD OF MAINTAINING TRAFFIC. NO DETOURS SHALL BE OPENED TO TRAFFIC UNTIL APPROVED BY THE GOVERNING AUTHORITY OR ITS AUTHORIZED REPRESENTATIVE.
3. VEHICULAR ACCESS SHALL BE MAINTAINED TO ALL DRIVEWAYS AND SIDE STREETS AT ALL POSSIBLE TIMES. WHEN ACCESS MUST BE RESTRICTED TO ONE LANE FOR CONSTRUCTION, THE CONTRACTOR SHALL GIVE WRITTEN NOTICE TO EACH AFFECTED RESIDENT NOT LESS THAN 72 HOURS IN ADVANCE.



Project Name:  
**2305 W 4TH STREET  
 RETAINING WALL**  
 2305 W 4TH STREET, DULUTH, MN

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Engineer: David G. Bolif  
 Lic. No: 40926  
 May 22, 2015

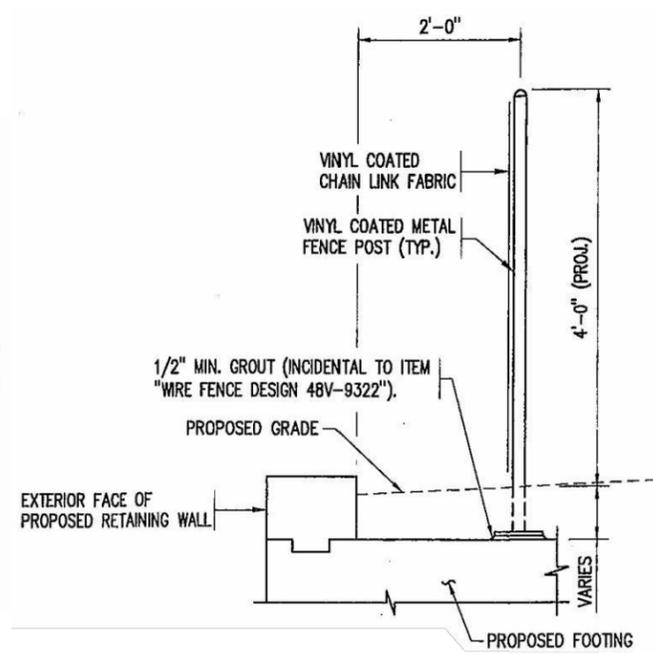
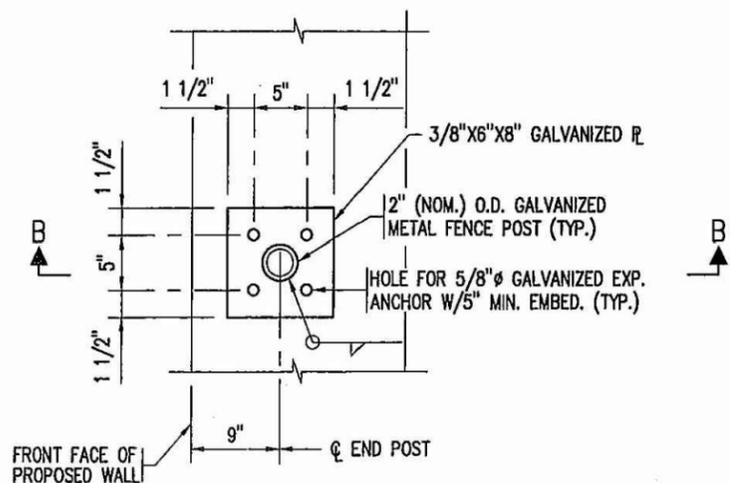
Project#: 14-264  
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 Checked By: DGB

ADDENDUM #2  
 1 5-22-15

GENERAL NOTES  
 Sheet Number  
**C3.0**

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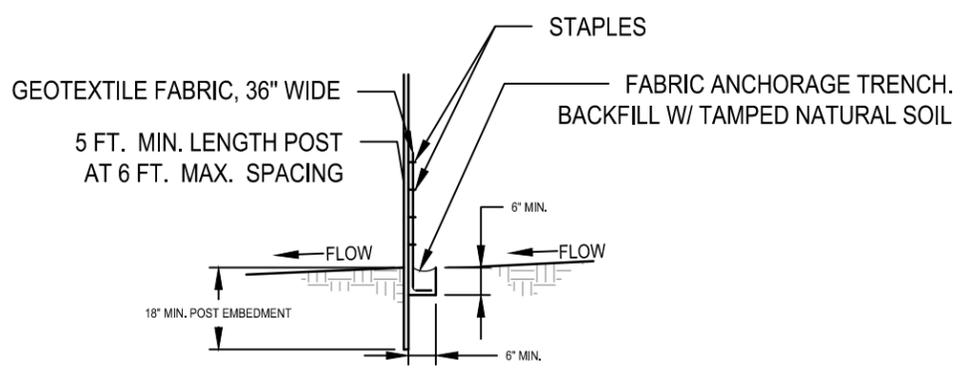
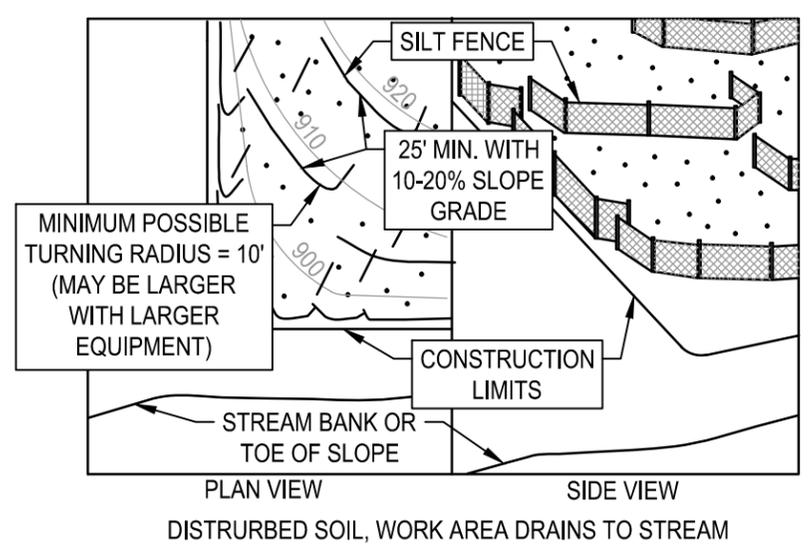
**CHAIN LINK FENCE NOTES:**  
 -STRUCTURAL STEEL PER MNDOT SPEC. 3306  
 -STRUCTURAL PIPE PER MNDOT SPEC. 3362  
 -GALVANIZE THE FENCE POST ANCHORAGE AFTER FABRICATION PER MNDOT SPEC. 3394. GALVANIZE THE FASTENERS PER MNDOT SPEC. 3392.

**CHAIN LINK FENCE DETAILS:**  
 FENCE SHALL BE PROVIDED AND INSTALLED ACCORDING TO STANDARD PLATE 9322K WITH THE FOLLOWING EXCEPTIONS:

1. ALL END POSTS AND INTERMEDIATE LINE POSTS SHALL BE 2" NOM. DIAMETER AS DETAILED AND NOTED ABOVE.
2. ALL FENCE COMPONENTS EXCEPT BASE PLATE AND PIPE SLEEVE ANCHORS SHALL BE BLACK, VINYL COATED.

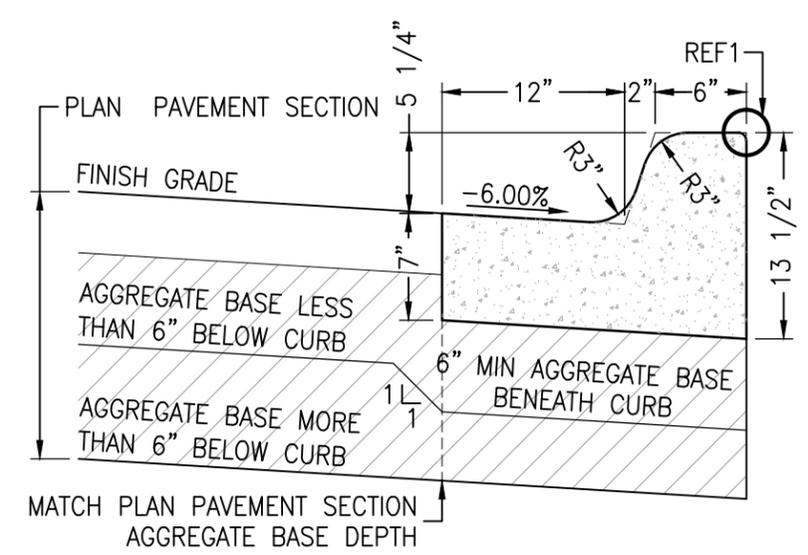
PAYMENT FOR FURNISHING AND INSTALLING FENCES AS DETAILED AND NOTED ABOVE SHALL BE INCLUDED IN PRICE BID FOR ITEM "WIRE FENCE DESIGN 48V-9322".

**VINYL COATED CHAIN LINK FENCE DETAIL**



**SILT FENCE, PREASSEMBLED**  
 DESIGN GUIDELINES:  
 TO PROTECT AREAS FROM SHEET FLOW. MAXIMUM CONTRIBUTING AREA: 1 ACRE.

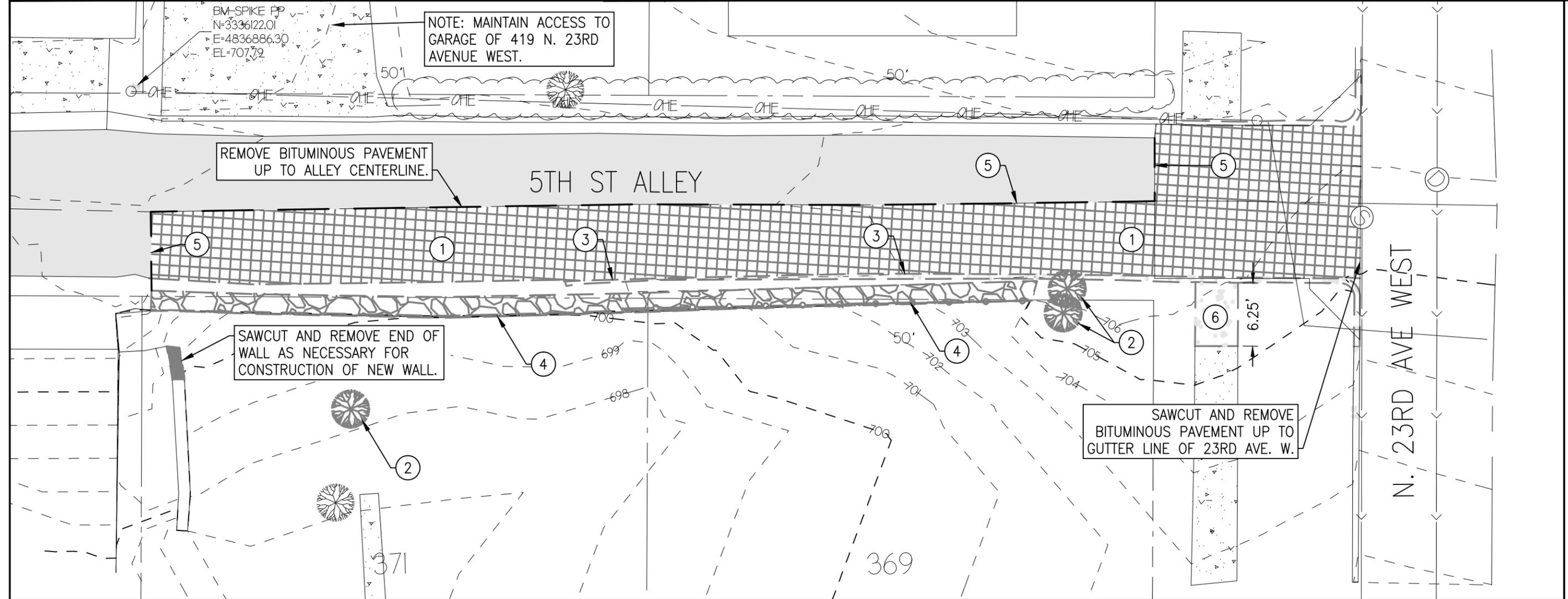
**SILT FENCE INSTALLATION**



**CURB & GUTTER (CATCH)**

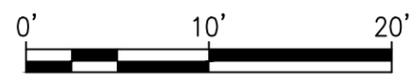
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**EXISTING CONDITIONS & REMOVALS PLAN NOTES**

- ①  SAWCUT & REMOVE BITUMINOUS PAVEMENT.
- ②  CLEAR & GRUB TREE.
- ③  REMOVE CURB AND GUTTER.
- ④  REMOVE TOP 2'-0" OF RETAINING WALL. REMOVE RAILING COMPLETELY.
- ⑤  SAWCUT LINE
- ⑥  SAWCUT & REMOVE CONCRETE PAVEMENT.



MN. TOLL FREE 1-800-252-1166

**Northland**  
Consulting Engineers L.L.P.  
Structural, Civil and Forensic Engineering Services  
Voice: (218) 727-5995  
Fax: (218) 727-7779  
www.nce-engineers.com

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2305 W 4TH STREET, DULUTH, MN

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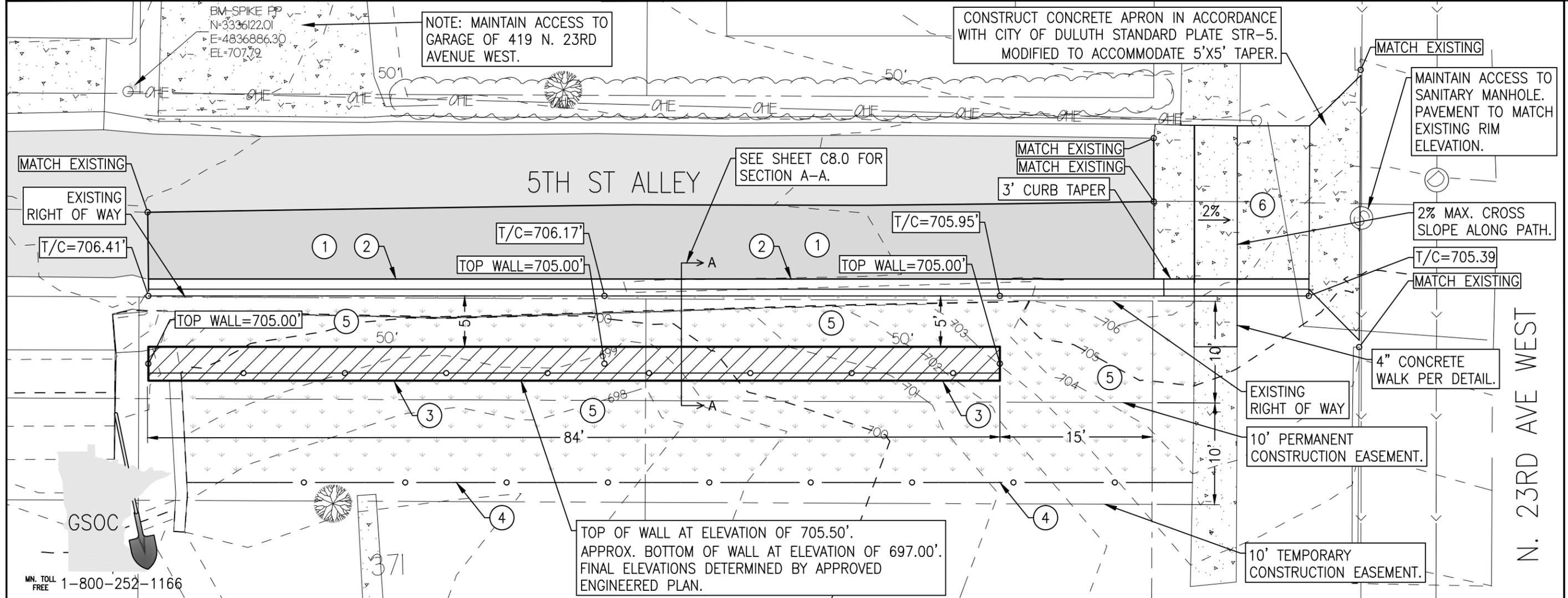
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REMOVALS PLAN  
Sheet Number  
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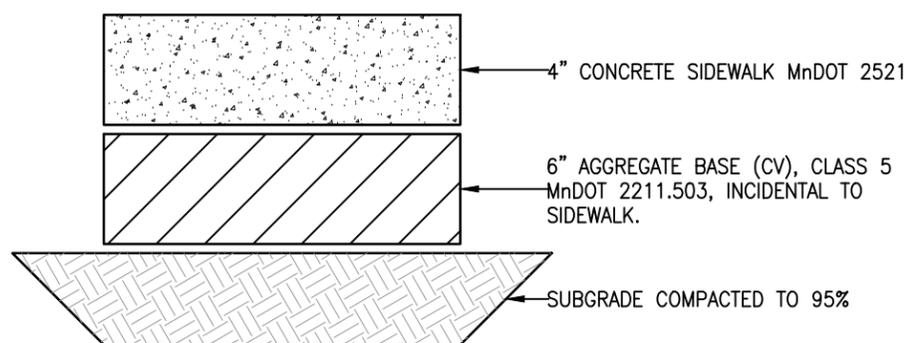
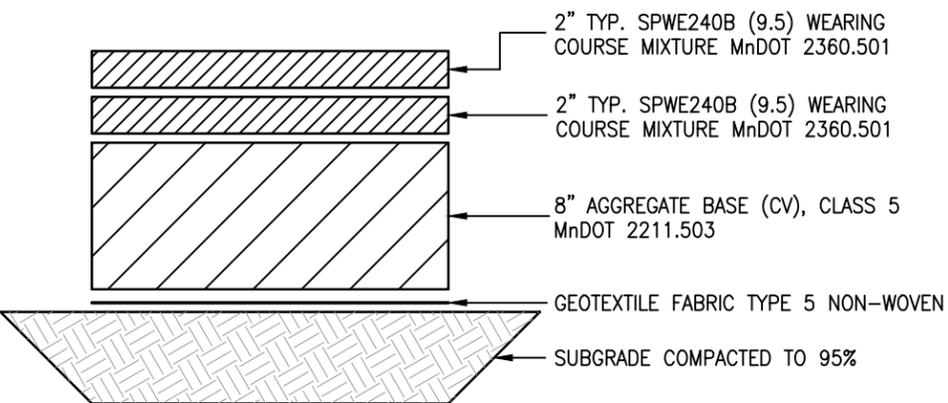
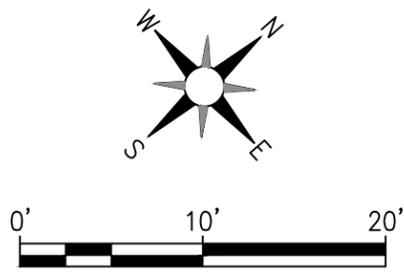
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**SITE & GRADING PLAN NOTES**

- ① CONSTRUCT BITUMINOUS PAVEMENT TO MATCH EXISTING STREET SECTION. TYPE 9.5 WEARING COURSE BITUMINOUS MIXTURE (MNDOT 2360).
- ② CONSTRUCT B612 CURB & GUTTER. SEE DETAIL ON SHEET C5.0.
- ③ CONSTRUCT NON-REINFORCED GRAVITY WALL WITH RAILING MOUNTED AT TOP OF WALL. SEE SECTION A-A ON SHEET C8.0.
- ④ INSTALL SILT FENCE PER DETAIL ON SHEET C5.0.
- ⑤ PLACE 4" TOPSOIL AND SOD AT ALL DISTURBED AREAS.
- ⑥ CONSTRUCT 8" THICK CONCRETE DRIVEWAY PAVEMENT PER MNDOT 2531.

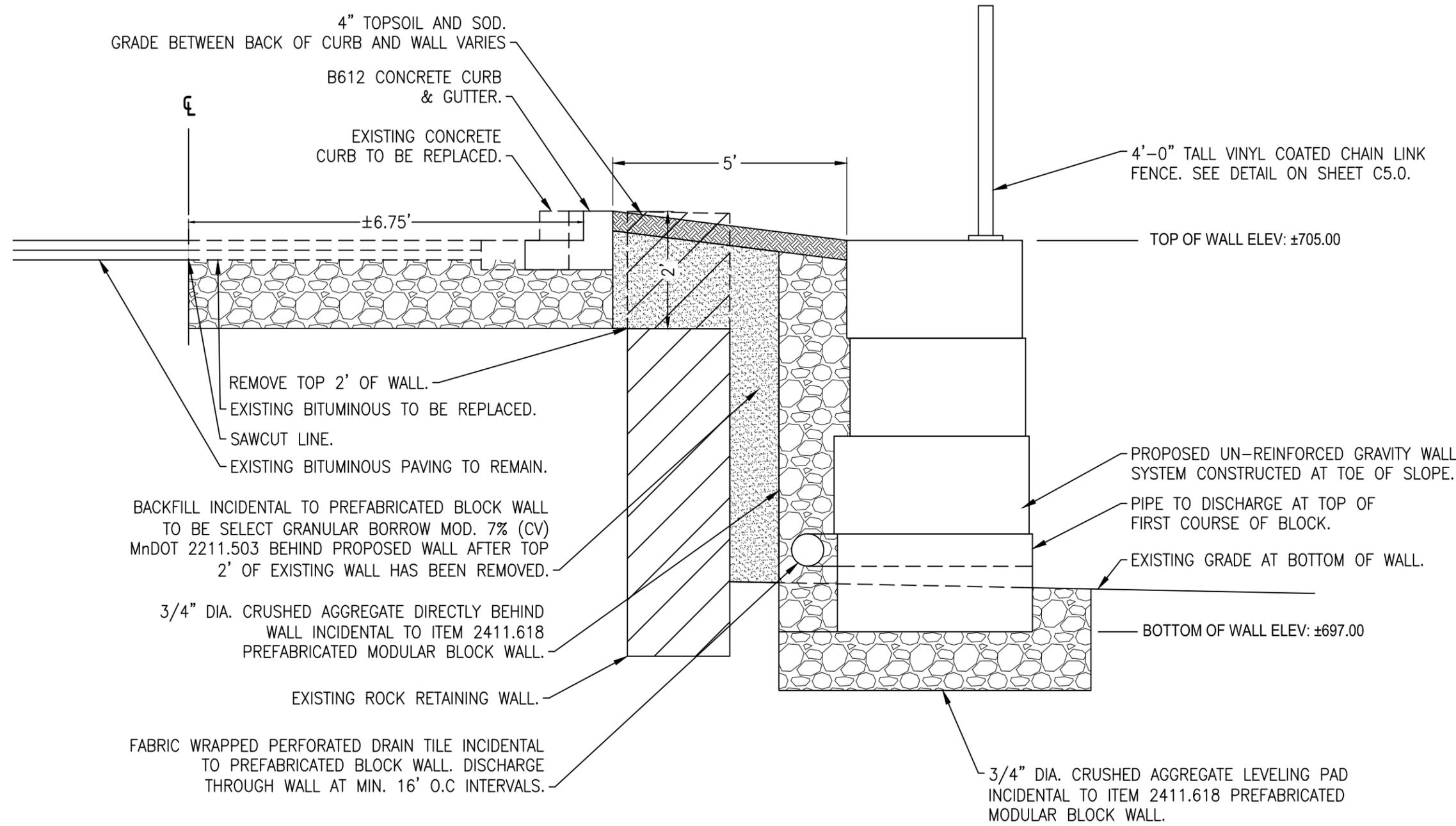


BITUMINOUS ALLEY SECTION DETAIL

CONCRETE SIDEWALK SECTION DETAIL

NTS.

NTS.



SECTION A-A

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.

May 22, 2015  
Lic. No: 40926  
Engineer: David G. Bolf

Project#: 14-264  
Date: 05/22/15  
Drawn By: TTP  
Checked By: DGB

ADDENDUM #2  
1 5-22-15

RETAINING  
WALL SECTION

Sheet Number  
**C8.0**

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