

RETAINING WALL PLANS

FOR

BLOOMDALE 140 TOWNHOMES

CITY OF MCKINNEY, COLLIN COUNTY, TX

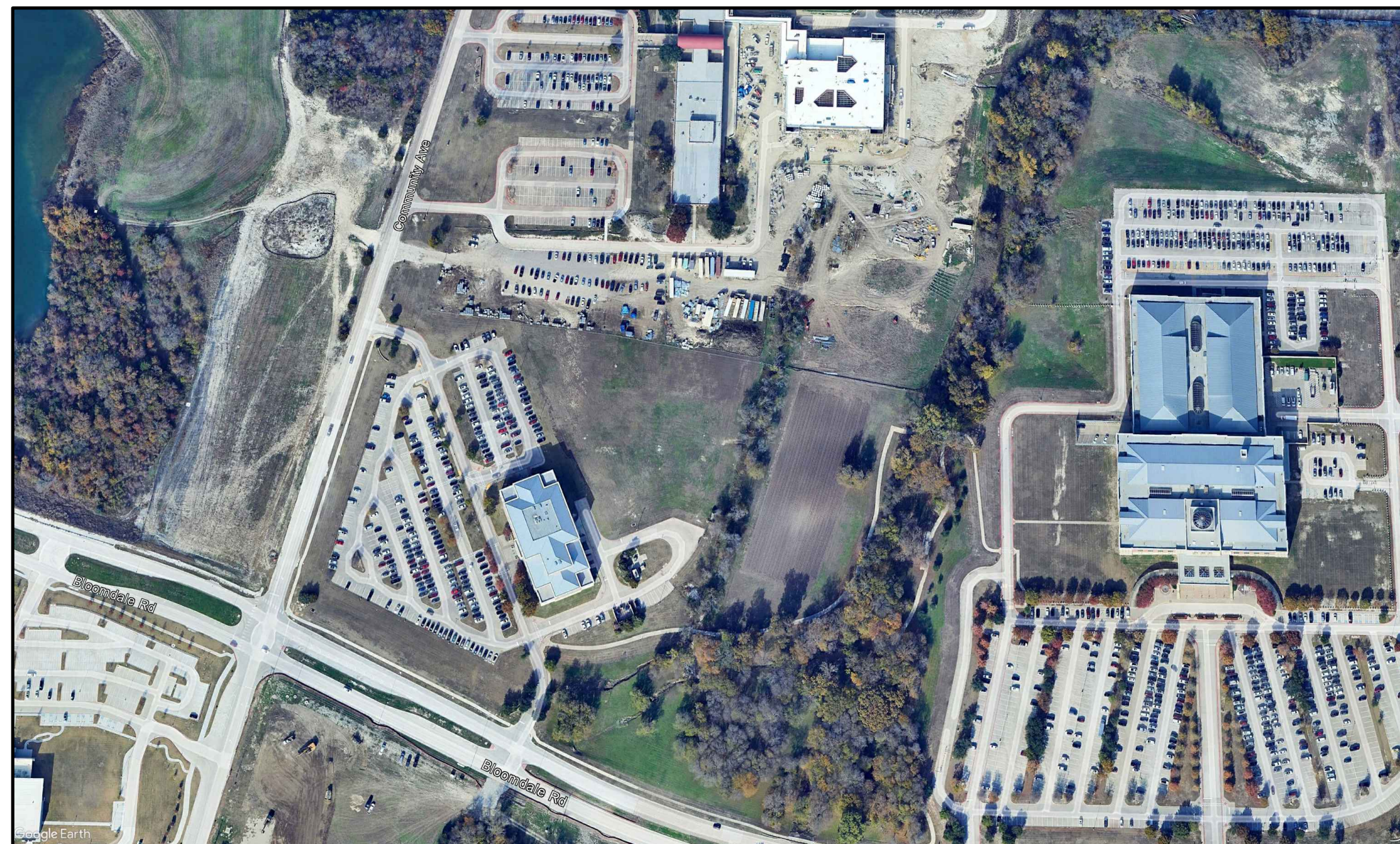
AVOID CUTTING UNDERGROUND
UTILITY LINES. IT'S COSTLY.

Call before you Dig.

811
TEXAS ONE CALL SYSTEM

NOTICE TO CONTRACTOR: ! ATTENTION !

1. THE CONTRACTOR SHALL NOTIFY THE CITY OF MCKINNEY ENGINEERING DEPT., A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO START OF CONSTRUCTION TO SCHEDULE A PRE-CONSTRUCTION MEETING. THE FOLLOWING ITEMS SHALL BE COMPLETED PRIOR TO START OF CONSTRUCTION:
- THE DEVELOPER IS RESPONSIBLE FOR OBTAINING ALL CITY, STATE AND FEDERAL PERMITS.
 - PLEASE FOLLOW CITY DESIGN CRITERIA FOR WATER & SEWER REQUIREMENTS.
 - CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE EXISTING UTILITIES BOTH HORIZONTAL AND VERTICAL PRIOR TO ANY CONSTRUCTION ACTIVITIES.
 - ALL EROSION CONTROL SHALL BE INSTALLED PRIOR TO AND DURING CONSTRUCTION ACTIVITIES.
 - CONTRACTOR SHALL UTILIZE THE MOST CURRENT BEST MANAGEMENT PRACTICES (BMP'S) DETAILS FOR PREVENTION AND CONTROL OF EROSION.
 - EROSION CONTROL AND DETAILS PROVIDED HEREIN SHALL BE A MINIMUM.
 - ALL AREAS DISTURBED BY CONSTRUCTION WILL BE STABILIZED WITH EITHER MULCH OR PERMANENT VEGETATIVE OR PAVEMENT COVER WITHIN 2 DAYS OF BEING BROUGHT TO FINAL GRADE. FINISHED SLOPES ON PUBLIC RIGHT-OF-WAY AND EASEMENTS SHALL NOT BE STEEPER THAN 3:1. ALL SLOPES STEEPER THAN 3:1 SHALL BE HYDRO-MULCHED AND MAINTAINED BY THE CONTRACTOR UNTIL GRASS COVERS ALL PARTS OF THE SLOPE.
 - CONTRACTOR SHALL MATCH EXISTING PAVEMENT IN GRADE AND ALIGNMENT.
 - CONTRACTOR SHALL MATCH EXISTING CURB AND CUTTER IN GRADE, SIZE, TYPE AND ALIGNMENT AT ADJACENT PAVEMENT.
 - CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING IMPROVEMENTS DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.



VICINITY MAP

SCALE: NTS

Sheet List Table	
Sheet Number	Sheet Title
C-1.0	COVER SHEET
C-2.0	RETAINING WALL

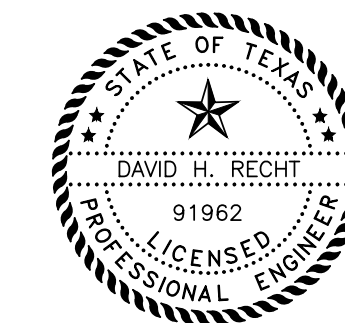
FIRM NAME AND ADDRESS

D H R
ENGINEERING, INC.

Civil Engineers
320 DECKER DRIVE
IRVING, TEXAS 75062
TEL (972) 717-0100 FAX (972) 717-0111
TBPE No. : F-9184

BLOOMDALE 140 TOWNHOMES
BLOOMDALE RD
CITY OF MCKINNEY, COLLIN COUNTY, TX

COVER SHEET



August 15, 2024

David H. Recht

CHECKED BY
NM
DHR JOB No.
24451
ISSUE DATE: 08/15/2024
SHEET
C-1.0

CLIENT ADDRESS

BLOOMDALE ROAD
BLOOMDALE 140 TOWNHOMES
MCKINNEY, TX 75069
CONTACT: TRENT WHITE
PH: 972-988-6938
Allan@sdh.com

No.	Revision/Issue	Date
1	FIRST PLAN SET	8/15/2024

DESIGN, SPECIFICATIONS AND GENERAL NOTES

GEOTECHNICAL INFORMATION:

THIS RETAINING WALL DESIGN IS BASED ON GEOTECHNICAL INFORMATION TAKEN FROM ECS SOUTHWEST, LLP. REPORT NO.1975291. THE DECISION WHETHER TO OBTAIN A SITE SPECIFIC GEOTECHNICAL REPORT AND THE CHOICE OF RETAINING WALL DESIGN IS MADE BY THE BUILDER AND ITS CLIENT, BASED UPON ECONOMIC CONSIDERATIONS BALANCED AGAINST ACCEPTABLE RISK, SOIL TYPE, RETAINING WALL GEOMETRY, STRUCTURAL LOADINGS, ETC. IT SHOULD BE NOTED THAT THE RISK OF SOIL SETTLEMENT AND/OR LEAVING IS ASSOCIATED WITH ALL TYPES OF RETAINING WALLS AND THERE IS NO SUCH THING AS A ZERO RISK RETAINING WALL DESIGN. A GLOBAL STABILITY ANALYSIS OF THE OVERALL SLOPE HAS NOT BEEN PERFORMED DURING THIS DESIGN. IT IS RECOMMENDED THAT THE GLOBAL STABILITY OF THE SLOPE BE CONFIRMED BY A GEOTECHNICAL ENGINEER.

DESIGN IS IN COMPLIANCE WITH IBC SECTION 1610

MATERIAL STRENGTHS AND PROPERTIES:

BACKFILL EQUIVALENT FLUID PRESSURE 55 LBS/FT³BEARING PRESSURE: QNOW = 2000 LBS/FT²MORTAR: TYPE S {PC = 1800 PSI}

EXISTING UTILITIES:

LOCATING ALL EXISTING UTILITIES WAS OUTSIDE THE SCOPE OF OUR FIRM'S SERVICES FOR THIS PROJECT. THE CONTRACTOR SHOULD CALL F-800-DIG-TESE BEFORE CONSTRUCTION COMMENCES TO VERIFY THE LOCATION OF EXISTING UTILITIES. CONTACT THIS ENGINEER IF THE LOCATION(S) OF ANY EXISTING UTILITIES WILL COINCIDE AND/OR CONFLICT WITH ANY EXCAVATIONS AND/OR SPECIFICATIONS BY THE ENGINEER.

SITE CONDITIONS:

THIS RETAINING WALL PLAN IS BASED ON SITE CONDITIONS AS REPORTED BY THE CLIENT AND FROM ANY FIELD INSPECTIONS THAT HAVE BEEN MADE BY THIS ENGINEERING FIRM. IF ANY STRUCTURES OR EXCAVATIONS OCCUR WITHIN 1-1/2 TIMES THE HEIGHT OF THE RETAINING WALL, NOTIFY THIS ENGINEER FOR RECOMMENDATIONS.

TEMPORARY SLOPES:

TEMPORARY SLOPE BY CONTRACTOR OR DEVELOPER, AS REQUIRED FOR SAFETY. TEMPORARY SLOPES IN FIX OR NATIVE SOIL SHALL BE CONSTRUCTED PER CIVIL ENGINEER'S SPECIFICATIONS.

DRAIN:

ON RETAINING WALLS 3 FT HIGH OR LESS, THE 4" DIMETER N 12 ADS PERFORATED PIPE MAY BE OMITTED, BUT THE POROUS DRAIN AREA MUST STILL BE WRAPPED WITH MRAFI 140 N GEOSYNTHETIC (OR EQUAL) AND THE 2" (OR 4") THROUGH FACE DRAIN PIPE PROVIDED.

FILL:

ALL FILL BEHIND GEOSYNTHETIC FILTER DRAIN TO BE NATIVE SOIL FREE OF ORGANICS AND DELETERIOUS MATERIALS, COMPACTED IN PARTS NOT EXCEEDING 12 INCHES TO MINIMUM 90% STANDARD FACTOR AT (+/-) 3% IF OPTIMUM MOISTURE CONTENT, COMPACTION TESTS BY OTHERS. NO ROCK GREATER THAN 5" MAXIMUM DIMENSION, DISPERSE SMALLER ROCK TO AVOID NESTING.

CONTROL JOINTS:

CONSTRUCTION/TEMPERATURE JOINTS ARE RECOMMENDED AT 25DEG. O. C (MAX.)

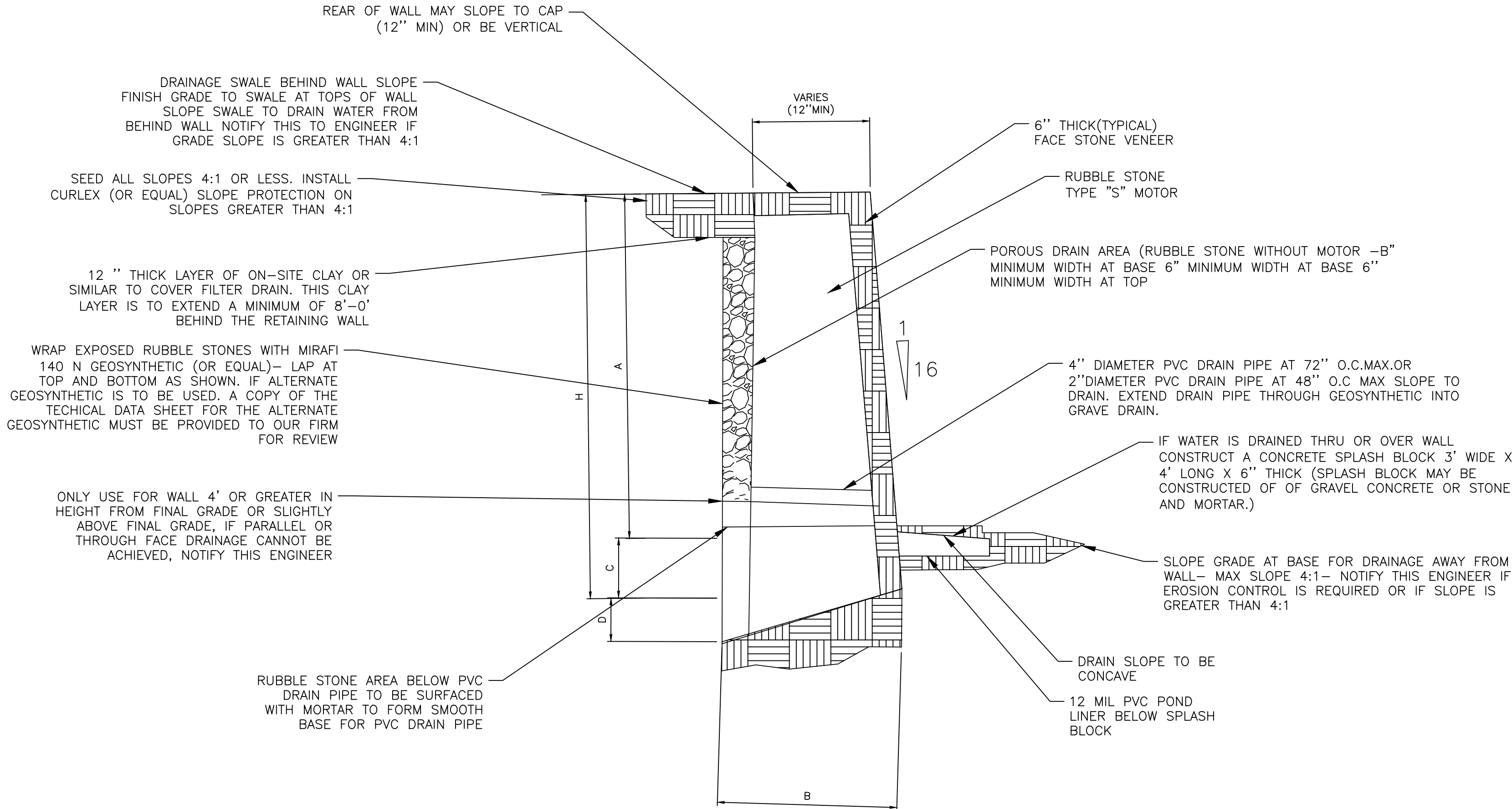
MAINTENANCE AND MANAGEMENT LETTER:

ACCOMPANYING GRAVITY STONE RETAINING WALL MAINTENANCE AND MANAGEMENT LETTER IS PART OF THESE PLANS AND SPECIFICATIONS. CONTACT OUR OFFICE IF A COPY OF THIS LETTER IS REQUIRED.

INSPECTION REQUIREMENTS AND RECOMMENDATIONS:

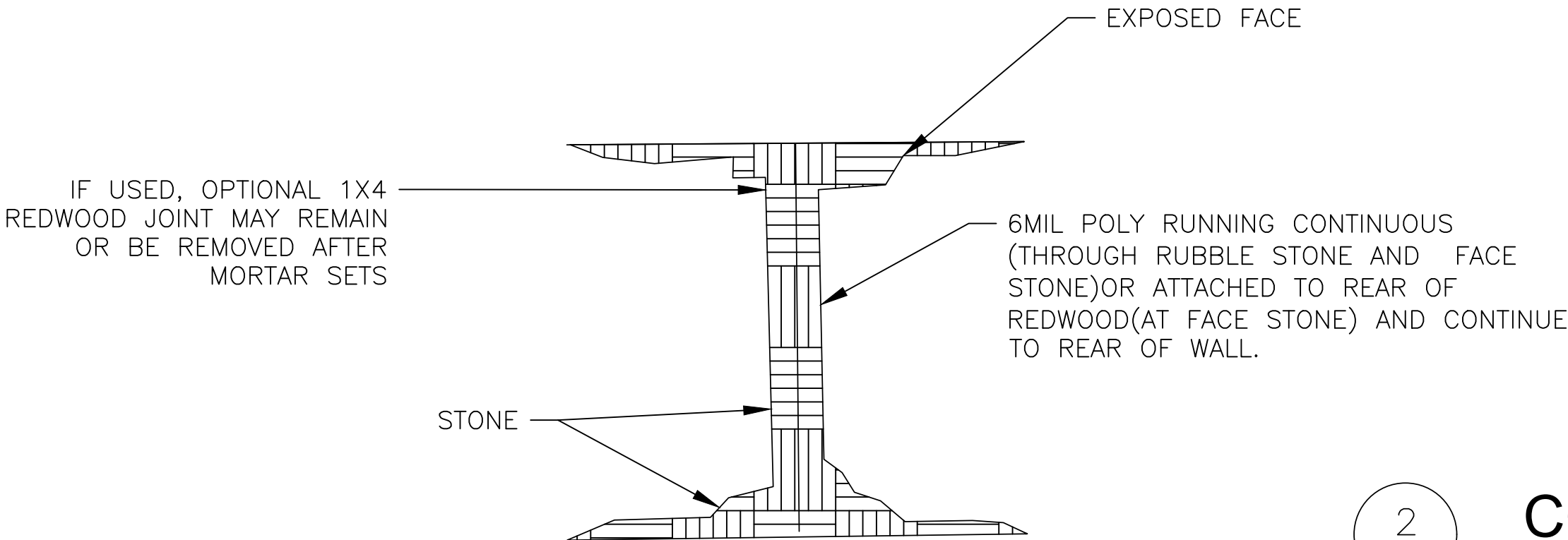
THESE INSPECTIONS WILL BE PERFORMED BY OR UNDER DIRECTION OF THE DESIGN ENGINEER.

1. PRE-CONSTRUCTION SITE INSPECTION TO DETERMINE IF ANY EXCEPTIONAL CONDITIONS EXIST THAT COULD AFFECT THE RETAINING WELL DESIGN.
2. INSPECTION TO BELOW THE SUB-BASE, DIMENSIONS (BASE WIDTH AND EMBEDMENT DEPTH), GEOSYNTHETIC PLACEMENT, ADS DRAIN PIPE AND THROUGH FACE DRAINAGE.
3. INSPECTION TO REVIEW THE GEOSYNTHETIC FILTER DRAIN (INCLUDING POROUS DRAIN AREA)
4. INSPECTION TO REVIEW FINAL GRADES TO ESTABLISH PROPER DRAINAGE.
5. ALL WALLS WITH HEIGHTS EQUAL TO OR GREATER THAN 4 FEET MUST HAVE AN INSPECTION PERFORMED UNDER THE SUPERVISION OF THIS ENGINEER AND MUST MEET CURRENT CODE AND CITY REQUIREMENTS.



1 RETAINING WALL
NTS

WALL DIMENSION TABLE											
HEIGHT ABOVE GRADE	A	1'-0"	2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"
WIDTH OF BASE	B	1'-0"	1'-6"	2'-0"	2'-0"	2'-6"	2'-8"	3'-0	3'-6"	4'-0"	4'-6"
DEPTH BELOW GRADE	C	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
DEPTH SLOPED TOE	D	0'-0"	0'-0"	0'-8"	0'-8"	1'-0"	1'-0"	1'-4"	1'-6"	1'-6"	2'-0"
TOTAL HEIGHT OF WALL	H	2'-0"	3'-6"	4'-8"	5'-8"	7'-0"	8'-0"	9'-4"	10'-6"	11'-6"	13'-0"



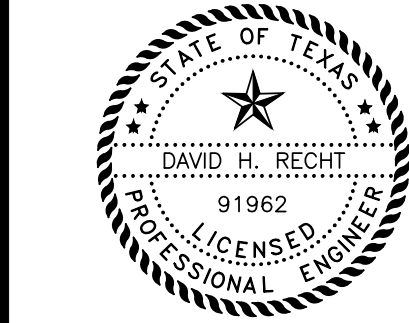
2 CONTROL/EXPANSION JOINT
NTS

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CLIENT ADDRESS
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MCKINNEY, TX 75069
CONTACT: TRENT WHITE
PH: 972-988-6938
Allanastone@gmail.com

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D H R
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330 DECKER DRIVE
IRVING, TEXAS 75062
TEL (972) 717-0100 FAX (972) 717-0111
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