



CITY OF ROLLINGWOOD BOARD OF ADJUSTMENT MEETING AGENDA

Wednesday, May 28, 2025

Notice is hereby given that the Board of Adjustment of the City of Rollingwood, Texas will hold a meeting, open to the public, in the Municipal Building at 403 Nixon Drive in Rollingwood, Texas on May 28, 2025 at 4:30 PM. Members of the public and the Board of Adjustment may participate in the meeting virtually, as long as a quorum of the Board of Adjustment and the presiding officer are physically present at the Municipal Building, in accordance with the Texas Open Meetings Act. The public may watch this meeting live and have the opportunity to comment via audio devices at the link below. The public may also participate in this meeting by dialing one of the toll-free numbers below and entering the meeting ID and Passcode.

Link: <https://us02web.zoom.us/j/5307372193?pwd=QmNUbmZBQ1lwUINjNmK5RnJreIRFUT09>

Toll-Free Numbers: (833) 548-0276 or (833) 548-0282

Meeting ID: 530 737 2193

Password: 9fryms

The public will be permitted to offer public comments via their audio devices when logged in to the meeting or telephonically by calling in as provided by the agenda and as permitted by the presiding officer during the meeting. If a member of the public is having difficulties accessing the public meeting, they can contact the city at mrodriguez@rollingwoodtx.gov. Written questions or comments may be submitted up to two hours before the meeting. A video recording of the meeting will be made and will be posted to the City's website and available to the public in accordance with the Texas Public Information Act upon written request.

CALL BOARD OF ADJUSTMENT MEETING TO ORDER

1. Roll Call

PUBLIC COMMENTS

Citizens wishing to address the Board of Adjustment for items not on the agenda will be received at this time. Please limit comments to 3 minutes. In accordance with the Open Meetings Act, the Board of Adjustment is restricted from discussing or taking action on items not listed on the agenda.

Citizens who wish to address the Board of Adjustment with regard to matters on the agenda will be received at the time the item is considered.

CONSENT AGENDA

All Consent Agenda items listed are considered to be routine by the Board of Adjustment and may be enacted by one (1) motion. There will be no separate discussion of Consent Agenda items unless a Board Member has requested that the item be discussed, in which case the item will be removed from the Consent Agenda and considered in its normal sequence on the Regular Agenda.

- [2.](#) Discussion and possible action on the minutes from the April 15, 2024 Board of Adjustment meeting
- [3.](#) Discussion and possible action on the minutes from the June 27, 2024 Board of Adjustment meeting

REGULAR AGENDA

4. Discussion and possible action on the election of a Chair to the Board of Adjustment
- [5.](#) Clarification or confirmation of the location of the tennis courts as it relates to the Board of Adjustment's January 11, 2023, approval of a special exception under Section 107-491(a)(2) of the City's Code of Ordinances, which granted the enlargement and expansion of the nonconforming tennis courts at the Western Hills Athletic Club, 4801 Rollingwood Drive

ADJOURNMENT OF MEETING

CERTIFICATION OF POSTING

I hereby certify that the above Notice of Meeting was posted on the bulletin board at the Rollingwood Municipal Building, in Rollingwood, Texas and to the City website at www.rollingwoodtx.gov prior to 5:00 p.m. on May 23, 2025.

Makayla Rodriguez

Makayla Rodriguez, City Secretary

NOTICE -

The City of Rollingwood is committed to compliance with the Americans with Disabilities Act. Reasonable modifications and equal access to communications will be provided upon request. Please contact the City Secretary, at (512) 327-1838 for information. Hearing-impaired or speech-disabled persons equipped with telecommunication devices for the deaf may call (512) 272-9116 or may utilize the stateside Relay Texas Program at 1-800-735-2988.

The Board of Adjustment will announce that it will go into executive session, if necessary, to deliberate any matter listed on this agenda for which an exception to open meetings requirements permits such closed deliberation, including but not limited to consultation with the city's attorney(s) pursuant to Texas Government Code section 551.071, as announced at the time of the closed session.

Consultation with legal counsel pursuant to section 551.071 of the Texas Government Code;
discussion of personnel matters pursuant to section 551.074 of the Texas Government Code;
real estate acquisition pursuant to section 551.072 of the Texas Government Code;
prospective gifts pursuant to section 551.073 of the Texas Government Code;
security personnel and device pursuant to section 551.076 of the Texas Government Code;
and/or economic development pursuant to section 551.087 of the Texas Government Code.
Action, if any, will be taken in open session.



CITY OF ROLLINGWOOD BOARD OF ADJUSTMENT MEETING MINUTES

Monday, April 15, 2024

The Board of Adjustment of the City of Rollingwood, Texas held a meeting, open to the public, in the Municipal Building at 403 Nixon Drive in Rollingwood, Texas on April 15, 2024. Members of the public and the Board of Adjustment were able to participate in the meeting virtually, as long as a quorum of the Board of Adjustment and the presiding officer were physically present at the Municipal Building, in accordance with the Texas Open Meetings Act. A video recording of the meeting was made and will be posted to the City's website and is available to the public in accordance with the Texas Public Information Act upon written request.

CALL BOARD OF ADJUSTMENT MEETING TO ORDER

1. Roll Call

Jerry Speitel called the meeting to order at 6:05 p.m.

Present Members: Kevin Schell, Keith Martinson, Gerald Speitel, Susan Hinton and Ellin Wilson

Also Present: City Administrator Ashley Wayman, City Attorney Lee Simmons, Assistant City Administrator Desiree Adair, Development Services Manager Nikki Stautzenberger, Council Member Brook Brown, and Council Member Sara Hutson

PUBLIC COMMENTS

There were no public comments.

CONSENT AGENDA

2. Discussion and possible action on the minutes from the January 11, 2023 Board of Adjustment meeting

Kevin Schell moved to approve the Consent Agenda. Keith Martinson seconded the motion. The motion carried with 5 in favor and 0 against.

REGULAR AGENDA

3. Discussion and possible action to elect a Chair of the Board of Adjustment

Keith Martinson nominated Jerry Speitel for the Board of Adjustment Chair. Kevin Schell seconded the motion. The motion carried with 5 in favor and 0 against.

4. Discussion and possible action on amendments to the Board of Adjustment Rules of Procedure

Chair Jerry Speitel stated that City Council has requested that all individuals giving testimony before the Board of Adjustment will be sworn in.

City Administrator Ashley Wayman explained that City Council did change the ordinance so the City's Code of Ordinances does require this and the Board of Adjustment Rules of Procedure should be changed to be accordance with the Code.

The Board of Adjustment discussed procedures for swearing persons in.

Keith Martinson moved to accept these changes related to people having to swear in before giving testimony. Susan Hinton seconded the motion. The motion carried with 5 in favor and 0 against.

PUBLIC HEARING

Chair Jerry Speitel swore in the speakers and presenters for the hearings in this meeting.

5. Public hearing, discussion, and possible action on a request for a variance under Section 107-492 of the City's Code of Ordinances to reduce the depth of the rear yard from 20 feet to 10 feet at 2409 Vance Lane in order to construct an accessible bathroom and bedroom on the first floor of the main structure and construct a pool

City Administrator Ashley Wayman discussed the staff report for this item in the meeting packet. The owners and applicant are requesting a variance from Section 107-76 (d) of the City's Code of Ordinances minimum required depth and width of yards. She stated 2409 Vance Lane does abut 2507 Stratford Drive which is located in the City of Austin to the rear.

Carina Coel, Restructure Studio architect, on behalf of Kurt and Erica Lanzavecchia who are owners of 2409 Vance Lane, discussed the variance requesting a reduction in the minimum depth of the rear yard from 20 feet to 10 feet. She discussed an addition for a guest suite with an accessible bathroom and bedroom for an aging parent. Ms. Coel described that there are no bedrooms on the first floor, the property is on a corner lot with 30 foot setbacks in the front, the property has a lot of slope, and the most accessible area is through the living room. She discussed the proposed site plan and property location near the City of Austin.

Erica Lanzavecchia, 2409 Vance Lane, added that the structure is constrained by wires in the back yard. She stated that the architect has tried multiple ways to make this work.

Keith Martinson asked if anyone has spoken with the neighbor on Stratford.

Keith Martinson asked about the taking out of trees. Ms. Coel stated that two to three trees that would be impacted, but they are not protected trees. Ms. Lanzavecchia stated that she loves trees.

Kevin Schell asked questions about the power lines. They discussed lowest and closest wire elevations.

The Board of Adjustment and Ms. Coel discussed 107-76 (c) regarding a 20 foot setback as opposed to a 30 foot setback.

The Board of Adjustment members asked questions of the applicant and property owners about the pool. The applicants responded.

Kurt Lanzavecchia, 2409 Vance Lane, spoke regarding the space needed for the aging parent and the standards of Rollingwood.

Susan Hinton and Keith Martinson asked about the gallery. Ms. Coel and Ms. Lanzavecchia responded.

The Board of Adjustment deliberated regarding the criteria of granting a variance.

Erica Lanzavecchia discussed access and trees with regard to the structure.

Chair Jerry Speitel reminded the board of the seven findings that the Board of Adjustment would have to be in agreement with in order to grant a variance.

Chair Jerry Speitel moved to accept the variance as proposed. Kevin Schell seconded the motion. The Board of Adjustment took a roll call vote:

Kevin Schell	No
Keith Martinson	Yes
Gerald Speitel	No
Susan Hinton	No
Ellin Wilson	No

The motion failed with 1 in favor and 4 against.

6. Public hearing, discussion, and possible action on a request for a special exception under Section 107-491(a)(1) of the City's Code of Ordinances to permit the reconstruction of a non-conforming driveway at 3220 Park Hills Drive

Kevin Schell recused himself from the rest of the proceedings.

City Administrator Ashley Wayman discussed the special exception request from the 3220 Park Hills Drive owners and applicants. Ms. Wayman provided the history of this construction.

Steve Marcie, 3220 Park Hills, thanked the members for their service on the Board. He discussed his personal history with Rollingwood, work with architectural firms, construction on the property, and described the reason for the replacement of the driveway. Mr. Marcie stated that the replacement driveway made four significant changes including reduced drainage to the neighbors, reduction of impervious cover, addition of a rainwater tank and a retention pond with a grate to direct water, and addition of a curb. He discussed hardships that they are experiencing.

Comments were opened up to neighboring parties within 250 feet of the applicant.

Thom Farrell, 3223 Park Hills Drive, discussed his support of this application and the history of construction on the street. He spoke regarding the special exception request and its consistency

with other homes in Rollingwood. Mr. Farrell believes this is a reasonable request. He thanked the board's members for their service.

The Board of Adjustment asked questions of the applicant.

City Administrator Ashley Wayman commented that there are many application processes in our Code that do not go through My government Online, variance and special exception applications are examples of them; for these, one can come to City Hall to request. She explained that once staff was contacted, the driveway had already been removed and reconstructed and the staff response was that the City does not have a process for retroactively approving what 107-422 talks about.

The Board of Adjustment continued to ask questions of the applicant.

Development Services Manager Nikki Stautzenberger discussed that with the Temporary Certificate of Occupancy request, it was noticed that the as-built drawings did not match the permitted plan.

The Board asked questions regarding a drainage review post a decision of granting a special exception and other options for drainage improvements.

The Board of Adjustment deliberated the request for a special exception.

Chair Jerry Speitel discussed the three findings required to grant a special exception.

Keith Martinson moved to accept the special exception. Chair Jerry Speitel seconded the motion.

Keith Martinson	Yes
Gerald Speitel	Yes
Susan Hinton	No
Ellin Wilson	No

The motion fails with 2 in favor and 2 against.

ADJOURNMENT OF MEETING

Chair Jerry Speitel adjourned the meeting at 7:25 p.m.

Minutes Adopted on the _____ day of _____, 2024.

Jerry Speitel, Chair

ATTEST:

Makayla Rodriguez, City Secretary



CITY OF ROLLINGWOOD BOARD OF ADJUSTMENT MEETING MINUTES

Thursday, June 27, 2024

The Board of Adjustment of the City of Rollingwood, Texas held a meeting, open to the public, in the Municipal Building at 403 Nixon Drive in Rollingwood, Texas on June 27, 2024. Members of the public and the Board of Adjustment were able to participate in the meeting virtually, as long as a quorum of the Board of Adjustment and the presiding officer were physically present at the Municipal Building, in accordance with the Texas Open Meetings Act. A video recording of the meeting was made and will be posted to the City's website and is available to the public in accordance with the Texas Public Information Act upon written request.

CALL BOARD OF ADJUSTMENT MEETING TO ORDER

1. Roll Call

Jerry Speitel called the meeting to order at 6:00 p.m.

Present Members: Kevin Schell, Keith Martinson, Gerald Speitel, and Susan Hinton

Also Present: City Attorney Charlie Zech, Assistant City Administrator Desiree Adair, and Development Services Manager Nikki Stautzenberger

Chair Jerry Speitel read the Code regarding swearing in of persons wanting to provide testimony. There were no individuals wanting to provide testimony.

PUBLIC COMMENTS

There were no public comments.

CONSENT AGENDA

2. Discussion and possible action on the minutes from the April 15, 2024 Board of Adjustment meeting

The Board of Adjustment agreed to postpone approval of the minutes until the next meeting.

REGULAR AGENDA

3. Discussion and possible action on letter from Attorney Vickers regarding Driveway located at 3220 Park Hills Drive

City Attorney Charlie Zech requested that the Chair announce that the Board will go into closed session for consultation with legal counsel.

The Board of Adjustment convened into executive session at 6:02 p.m. pursuant to section 551.071 of the Texas Government Code for consultation with legal counsel.

The Board of Adjustment returned to open session at 6:30 p.m.

Chair Jerry Speitel stated that no action was taken in closed session and no action will be taken in regular session.

ADJOURNMENT OF MEETING

Chair Jerry Speitel adjourned the meeting at 6:31 p.m.

Minutes Adopted on the _____ day of _____, 2025.

Jerry Speitel, Chair

ATTEST:

Makayla Rodriguez, City Secretary

City of Rollingwood Board of Adjustment

Finding of Fact for Special Exception

Applicant: Western Hills Athletic Club Case Number: _____
 Address/Lot/Tract: 4801 Rollingwood Drive
 Description of Special Exception: Special Exception under Section 107-491(a)(2) to permit the enlargement and expansion of the nonconforming tennis courts
 Date and method of public hearing notice: mail: 12-10-2022, yard signs: 12-22-2022
 Date of public hearing and BOA Meeting: 01-11-2023


After giving notice and conducting a public hearing on this special exception request in accordance with the City of Rollingwood Code of Ordinances, the Board of Adjustment adopts these specific, written findings as follows:

	Yes	No
1. The Board of Adjustment it is empowered under Chapter 107 of the City's Code of Ordinances to grant the special exception	✓	
2. The public convenience and welfare will not be substantially or permanently injured in the granting of the special exception	✓	
3. The granting of the special exception will not adversely affect the public health, convenience, safety or general welfare	✓	

All findings must be determined in the affirmative for the special exception to be granted.

Additional Comments including any conditions prescribed by the BOA (if any): (1) the final permitted court layout must follow the proposed courts with California corners as layed out on page 27 of this meeting's agenda packet, also known as
 With 5 members present, and upon a vote of 4 for, 1 against, and 0 abstaining, the special exception is hereby: (continued on p.2)

☒ granted
 ☐ denied


 Presiding Officer of BOA

1/12/23
 Date



Impervious Cover Calculation Fence and Tree plan, drawn by
mwm Design Group.

(2) Proposed site stormwater runoff may be reduced
by 5% of its current existing as built conditions.

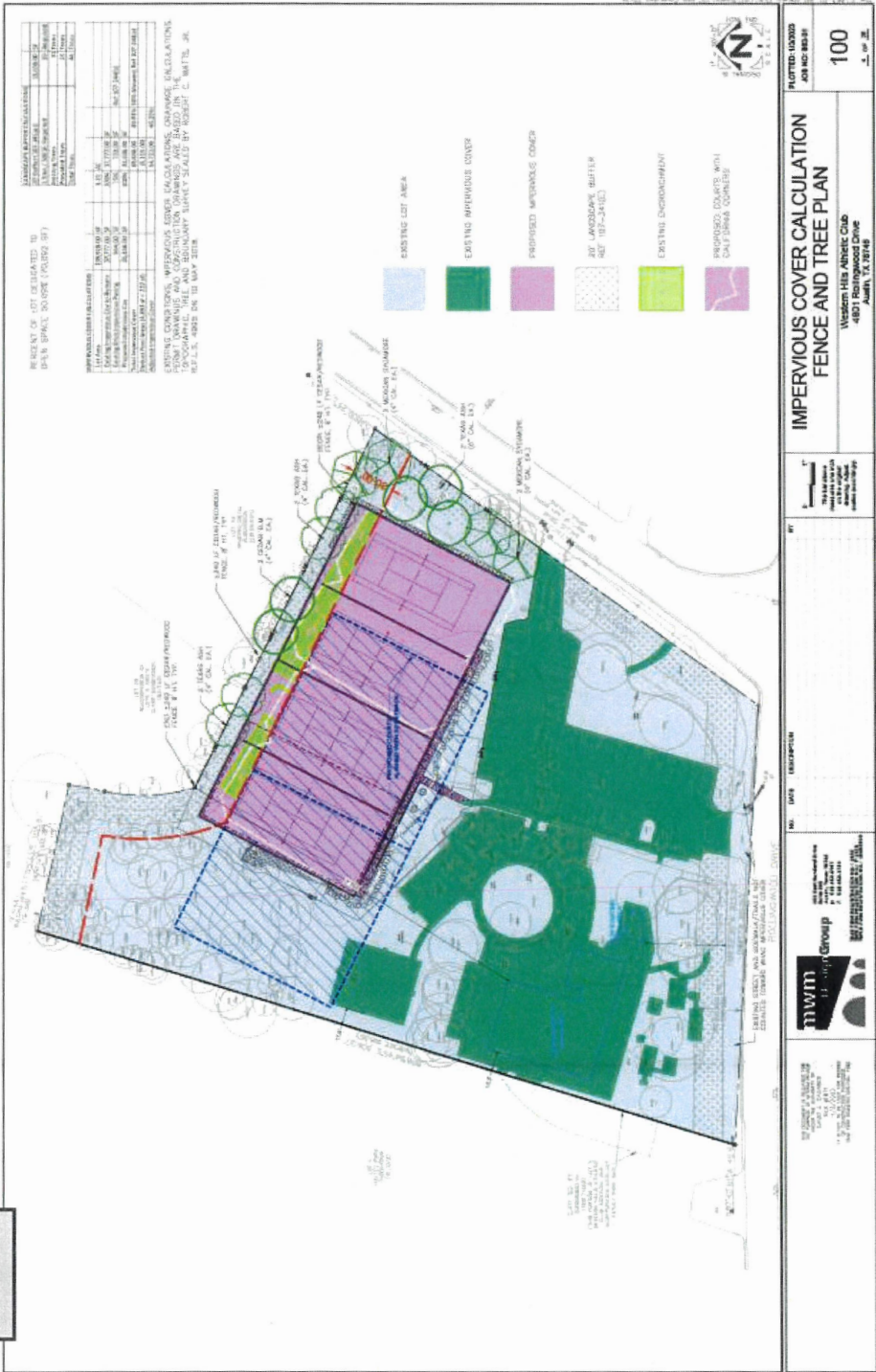
Chair Brad O'Donnell moved to approve the special exception as presented under regular agenda item number 3 after having found that:

- 1) The Board of Adjustment is empowered under Chapter 107 of the City's Code of Ordinances to grant the special exception, also that**
- 2) The public convenience and welfare will not be substantially or permanently injured in the granting of the special exception, and**
- 3) The granting of the special exception will not adversely affect the public health, convenience, safety or general welfare,**

with the added stipulations that the final permitted court layout must follow the proposed courts with California corners as layed out on page 27 of this meeting's agenda packet, also known as Impervious Cover Calculation Fence and Tree plan, drawn by MWM design group. Further, proposed site stormwater runoff must be reduced by 5% of its current existing as built conditions. Robert Turner seconded the motion.

Revised Proposal (white)

- 1. Adds California corners
- 2. Repositions courts over existing courts
- 3. Offsets additional courts out of setback
- 4. Reduces encroachment into the setback compared to existing plan by 416 sqft (approximate 20%)
- 5. Proposal **decreases** WHAC nonconformity



AGENDA ITEM SUMMARY SHEET
City of Rollingwood Board of Adjustment
Meeting Date: May 28, 2025

Submitted By:

Staff

Agenda Item:

Clarification or confirmation of the location of the tennis courts as it relates to the Board of Adjustment's January 11, 2023, approval of a special exception under Section 107-491(a)(2) of the City's Code of Ordinances, which granted the enlargement and expansion of the nonconforming tennis courts at the Western Hills Athletic Club, 4801 Rollingwood Drive

Description:

On January 11, 2024, the Rollingwood Board of Adjustment met regarding a request for special exception under the City's Code of Ordinances, Section 107-491(a)(2), to permit the enlargement and expansion of the nonconforming tennis courts at the Western Hills Athletic Club located at 4801 Rollingwood Drive.

Chair Brad O'Donnell moved to approve the special exception as presented after having found that: 1) The Board of Adjustment is empowered under Chapter 107 of the City's Code of Ordinances to grant the special exception, also that 2) The public convenience and welfare will not be substantially or permanently injured in the granting of the special exception, and 3) The granting of the special exception will not adversely affect the public health, convenience, safety or general welfare, and added stipulations that the final permitted court layout must follow the proposed courts with California corners as laid out on page 27 of this meeting's agenda packet, also known as the Impervious Cover Calculation Fence and Tree plan, drawn by MWM Design Group. Further, proposed site stormwater runoff must be reduced by 5% of its current existing as-built conditions. Robert Turner seconded the motion.

The motion carried with 4 in favor and 1 against (Schell).

The applicant then underwent reviews by Zoning, Drainage, TCEQ, and ICC Building Code, and obtained all necessary approvals on March 14, 2025.

On April 16, 2025, the site plan was brought to the City Council for approval. Per the Rollingwood Code of Ordinances, Section 101-95. – Site Plan Approval- after receipt of a report from the city administrator with regard to the site plan application, the city council will consider the site plan for approval.

Council Member Brook Brown moved to approve the Western Hills Athletic Club site plan as dated 10 / 2024, including the landscape plan on pages 700, 701, and 791. Council Member Alec Robinson seconded the motion.

The motion carried with 4 in favor, 0 against, and 1 abstention (Hutson).

On May 1, 2025, Councilmember Hutson visited staff and brought to our attention that the court layout approved by the City Council on April 16, 2025, differs from the layout approved by the Board of Adjustment (BOA). The layout on the approved site plan brought to City Council features staggered courts, whereas the layout brought before the Board of Adjustment has the courts aligned straight across.

Action Requested:

Staff is requesting informal consensus on whether the site plan approved by the City Council is consistent with the original intent of the Special Exception granted by the Board of Adjustment.

This item is for clarification purposes only and does not require any formal action.

Fiscal Impacts:

No significant fiscal impacts are anticipated at this time.

Attachments:

- Special Exception 'Findings of Fact Form' from the 1.11.2024 BOA meeting
- Page 27 of the 1.11.2024 BOA packet, known as the Impervious Cover Calculation Fence and Tree plan
- WHAC Site Plan- Approved by City Council 4.16.2025



Date: March 14, 2025

Tomas Rodriguez
MWM Design Group, INC.
305 E Huntland DR, STE #200
Austin, Texas 78752
512-453-0767

RE: Western Hills Athletic Club Addition (4801 Rollingwood Drive) – Zoning & Drainage Review Acceptance Letter

The above-referenced report and plans were reviewed by the City for compliance with City Zoning and Drainage Ordinances.

ZONING

K Friese + Associates, Inc. (KFA) has reviewed the permit submittal for the above referenced project for compliance with the City of Rollingwood Code of Ordinances.

The applicant has submitted information demonstrating compliance with the City Zoning Ordinances, in particular Section 107 Division 2. All comments to the architect/builder were cleared.

All responsibility for the adequacy of the information contained in the application remains with the applicant. In recommending acceptance, KFA must rely upon the adequacy of the work of the applicant.

DRAINAGE

K Friese + Associates, Inc. (KFA) has reviewed the permit submittal for the above referenced project for compliance with the City of Rollingwood Drainage Code of Ordinances.

The applicant has submitted information demonstrating compliance with the City Drainage Ordinances, in particular Article IV, Division 1, Stormwater Drainage Regulations.

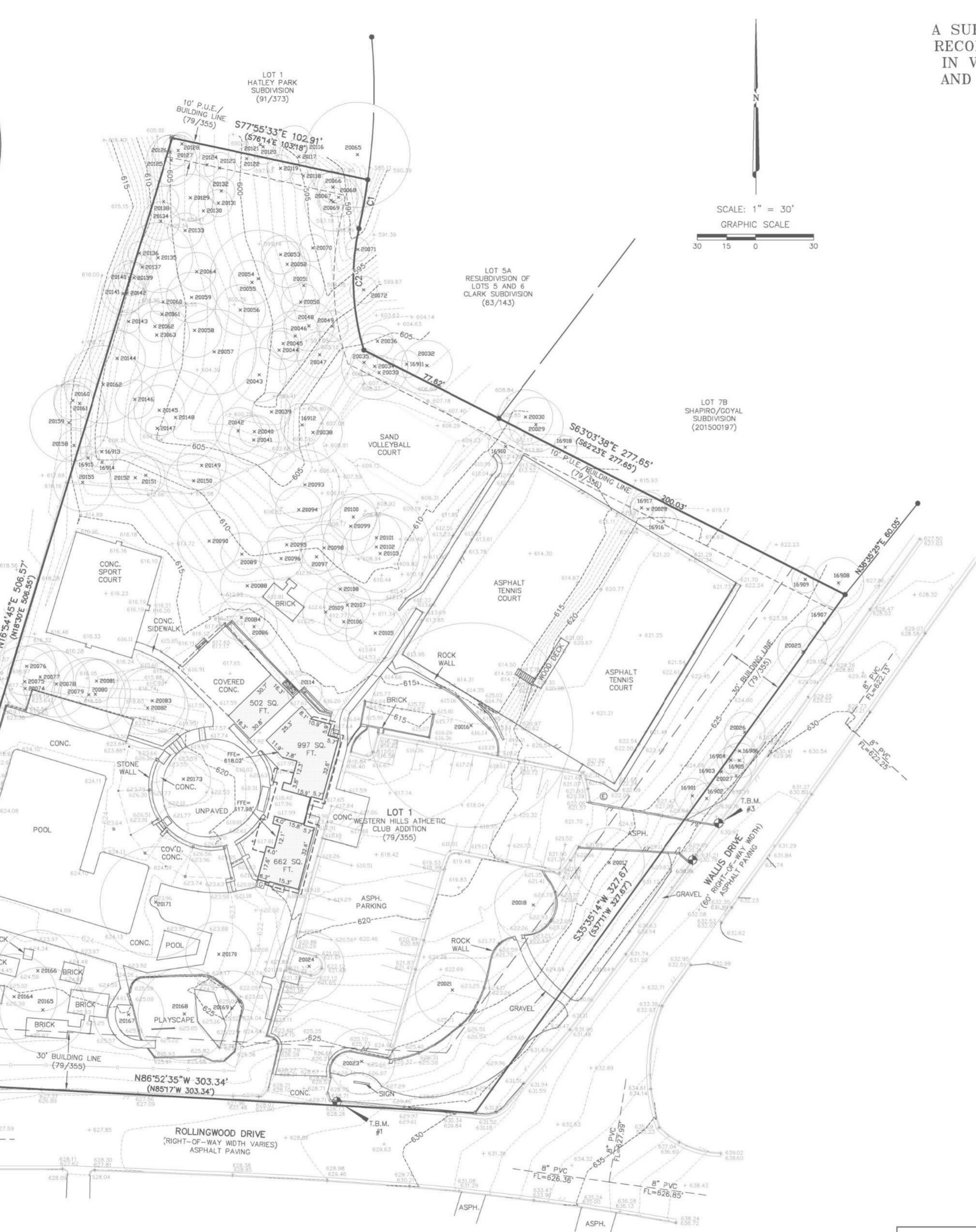
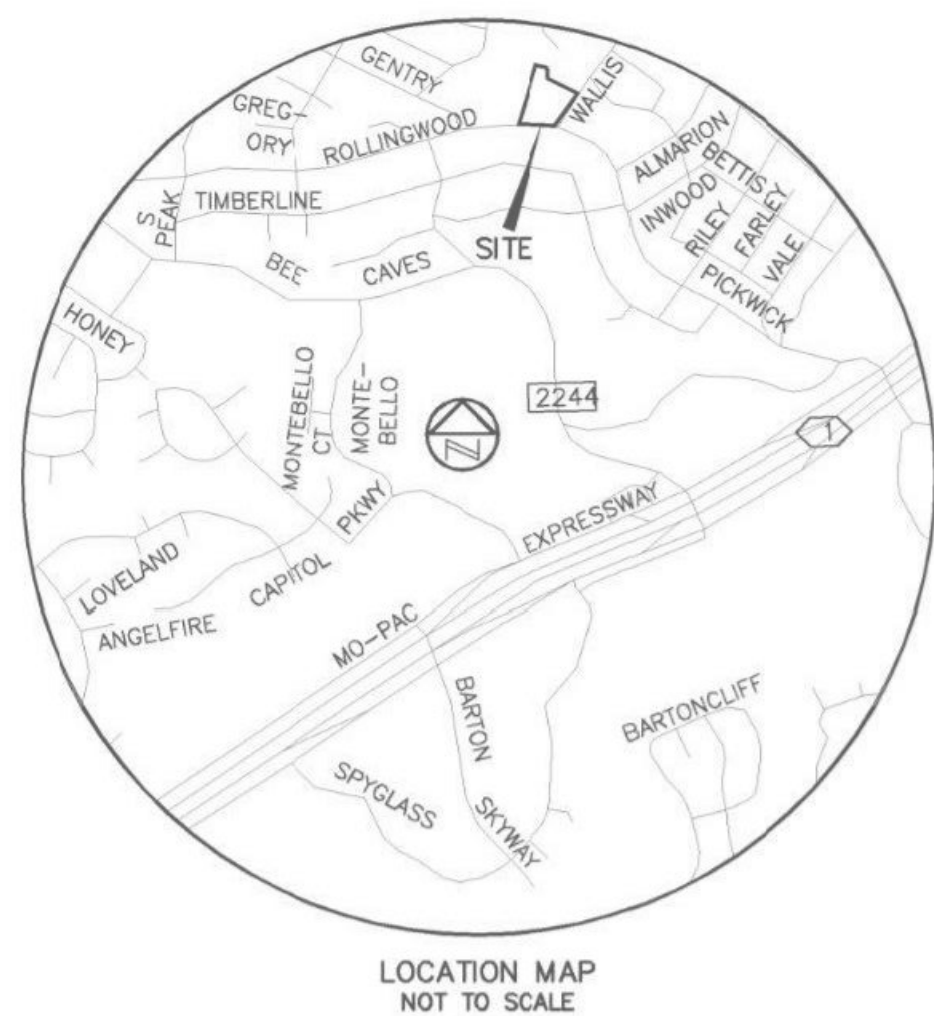
All responsibility for the adequacy of the above referenced report and plans remains with the engineer of record. In recommending acceptance, KFA must rely upon the adequacy of the work of the engineer of record.

All submittals should be submitted to the City of Rollingwood and should include at a minimum of 1 pdf copy of the plans. A comment response letter shall be provided. Please contact Development Services at developmentservices@rollingwoodtx.gov if you have any further questions.

Regards,

K Friese + Associates, Inc.

1 OF 30



A SURVEY OF ALL OF LOT 1, WESTERN HILLS ATHLETIC CLUB ADDITION, A SUBDIVISION OF RECORD IN TRAVIS COUNTY, TEXAS ACCORDING TO THE MAP OR PLAT THEREOF RECORDED IN VOLUME 79, PAGE 355 OF THE THE PLAT RECORDS OF TRAVIS COUNTY, TEXAS, SAVE AND EXCEPT A 2,411 SQUARE FEET TRACT DESCRIBED IN VOLUME 11901, PAGE 1260 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS.

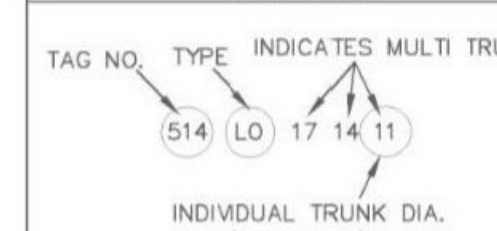
TREE LIST

16901 HB 7 4	20027 CE 8	20055 LO 8 7	20082 LO 21	20118 CDR 7	20144 LO 10 9
16902 CE 6 4	20028 CE 9	20056 CDR 13	20083 LO 17	20119 CDR 7	20145 LO 13
16903 LO 9	20029 CB 14	20057 LO 16 12	20084 LO 12	20120 CDR 9	20146 CDR 10
16904 LO 7	20030 CB 14	20058 CDR 14	20086 LO 11	20121 LO 7	20147 LO 6
16905 LO 9	20032 HB 13	20059 LO 13	20088 LO 14	20122 CDR 6	20148 LO 18 13
16906 LO 8	20033 CB 9	20060 CDR 7	20089 LO 12	20123 CDR 8	20149 CE 10 5
16907 CE 7 4	20034 CB 11 7 5	20061 CE 6	20090 LO 16	20124 CDR 6	20150 CE 14
16908 LO 13	20035 CB 7	20062 CDR 8	20093 LO 18	20125 LO 13	20151 CB 10
16909 LO 7	20036 CB 8	20063 LO 17	20094 LO 12	20126 LO 9	20152 CB 13
16910 CB 9	20038 CB 15	20064 CDR 10	20095 LO 10	20127 LO 8	20155 LG 9 6 6
16911 CB 7	20039 CDR 10	20065 PD 19 16	20096 LO 11	20128 CDR 6	20158 CB 8
16912 LIC 8 6	20040 CE 10	20066 CDR 6 9	20097 LO 9	20129 CDR 12	20159 CB 20
16913 BE 8	20041 CE 13	20067 LO 7	20098 LO 12	20130 CDR 7	20160 CE 10
16914 BE 6	20042 CE 12	20068 LO 10	20099 LO 15	20131 CDR 7	20161 CE 9 8
16915 BE 6	20043 CE 10 8	20069 LO 11 8	20100 LO 12	20132 CDR 7	20162 LO 20
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16917 WLNT 6	20045 LO 8	20071 CE 6	20102 LO 19 17	20134 CE 10	20164 LO 22
16918 WLNT 6	20046 LO 13	20072 CB 7	20103 LO 20	20135 LO 13 10	20165 LO 22
20016 LO 23 21 19 19	20047 LO 12	20074 LO 15	20105 CE 15	20136 HB 6	20166 LO 21
20017 CE 18	20048 LO 13	20075 LO 18	20106 LO 10	20137 CDR 6	20167 LO 18
20018 LO 20	20049 HB 8	20076 LO 15	20107 LO 12	20138 CE 8	20168 LO 24
20021 LO 19	20050 CE 10	20077 LO 17	20108 LO 7	20139 CDR 8	20169 LO 19
20023 PEC 17	20051 LO 11	20078 LO 17	20109 LO 12	20140 HB 9	20170 CE 17
20024 LO 18	20052 LO 12	20079 LO 19	20114 CE 9	20141 PEC 11	20171 LO 19 19
20025 LO 13	20053 LO 10	20080 LO 18	20116 CDR 10	20142 PEC 10	20172 CE 14
20026 LO 8 5	20054 LO 17 16	20081 LO 11	20117 LO 9	20143 CDR 6	

TREE LEGEND

BE	=	BOX ELDER	LG	=	LIGUSTRUM
CB	=	CHINA BERRY	LO	=	LIVE OAK
CDR	=	CEDAR	PEC	=	PECAN
CE	=	CEDAR ELM	WLNT	=	WALNUT
HB	=	HACKBERRY			

TREE INDEX



INDIVIDUAL TRUNK DIA.
(IN INCHES)

CRITICAL ROOT ZONES (TREE CIRCLES)
ARE SHOWN USING THE COA FORMULA
FOR SINGLE AND MULTI TRUNK TREES.

BENCHMARK NOTE:

B.M. #1 - SQUARE CUT ON B.O.C., NORTH SIDE OF ROLLINGWOOD DR.
+/-105 FEET WEST OF WALLIS DR.
ELEV.=628.77'

B.M. #3 - SQUARE CUT ON B.O.C. ON THE WEST SIDE OF WALLIS DR.
+/-190 FEET NORTH OF ROLLINGWOOD DR.
ELEV.=631.07'

MANHOLE AND INLET NOTE:

THIS SURVEY SHOWS FIELD MEASURED SIZES AND DEPTHS AS OBSERVED FROM GROUND LEVEL OPENINGS. EXACT MEASUREMENTS AND DEPTHS, PARTICULARLY IN CRITICAL AREAS, SHOULD BE VERIFIED WITH UTILITY RECORD MAPS AND/OR FIELD VERIFICATION PRIOR TO FINAL PLANNING OR CONSTRUCTION.

LEGEND

- 1/2" REBAR FOUND
- △ CALCULATED POINT
- ⊙ 3/4" IRON PIPE FOUND
- ▲ NAIL FOUND
- * COTTON SPINDLE FOUND
- ⊕ BENCHMARK LOCATION
- Ⓜ WATER METER
- ⊗ WATER VALVE
- ⊕ FIRE HYDRANT
- ⊕ SPRINKLER CONTROL VALVE
- ⊕ UTILITY POLE
- GUY WIRE
- OVERHEAD UTILITIES
- ⊕ LIGHT POLE
- ⊕ WASTEWATER CLEANOUT
- ⊕ WASTEWATER MANHOLE
- ⊕ STORMSEWER MANHOLE
- ⊕ HANDICAP PARKING SPACE
- ⊕ AC PAD
- ⊕ GAS UTILITY
- ⊕ ELECTRIC UTILITY
- SIGN
- EDGE OF PAVEMENT
- WROUGHT IRON FENCE
- CHAIN LINK FENCE
- ⊕ PUMP BOX
- ⊕ PUMP

FLOOD-PLAIN NOTE:

The tract shown hereon lies within Zone "X" (areas determined to be outside 500-year flood-plain), as identified by the Federal Emergency Management Agency, Federal Insurance Administration, as shown on map no. 48450CA451, dated January 08, 2016, for Travis County, Texas and incorporated areas. If this site is not within an identified special flood hazard area, this flood statement does not imply that the property and/or the structures thereon will be free from flooding or flood damage. This flood statement shall not create liability on the part of the surveyor.

TITLE COMMITMENT NOTE:

This Survey was prepared without the benefit of a Commitment for Title, and may be subject to additional easements or restrictions not shown hereon. No additional easement research was done for the purpose of this survey.

NOTE FROM PREVIOUS SURVEY (9/26/07):

The Travis CAD map 01_0909 (01/04/2006) shows what appears to be additional R.O.W. for Rollingwood Drive and Wallis Drive. There was no monumented evidence in the field of a R.O.W. dedication along the north line of Rollingwood Drive. After researching Travis CAD and the Travis County Clerk records, we were not able to locate any documents reflecting additional street frontage conveyed to the City of Rollingwood. Since no title research was provided by the client, there was not enough data to accurately determine the position of the intersection of the north R.O.W. of Rollingwood Drive and the west R.O.W. of Wallis Drive, so the position is represented on the map by a calculated point for the purposes of this survey.

SURVEYOR'S CERTIFICATE:

CERTIFIED TO:

Julie Martinez
Western Hills Athletic Club

PROPERTY ADDRESS: Rollingwood Drive @ Wallis Drive

DATE OF SURVEY: 09/26/07; Topographic and Tree Survey Dated 09/20/17, Updated 4/27/18

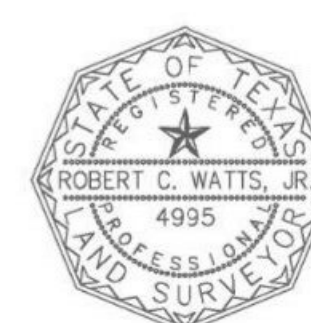
BEARING BASIS: Grid azimuth for Texas Central Zone state plane coordinates, based on GPS solutions from The National Geodetic Survey (NGS) On-line Positioning User Service (OPUS).

ATTACHMENTS: none

I hereby certify that a survey of the property shown hereon was actually made upon the ground under my direction and supervision on the date shown, and that to the best of my professional knowledge and belief: there are no apparent encroachments, overlapping of improvements, discrepancies, deed line conflicts, visible utility lines or roads in place, except as shown hereon, and that this property abuts or adjoins a dedicated road right-of-way or access easement, unless noted hereon.

Robert C. Watts, Jr.
Registered Professional Land Surveyor
State of Texas No. 4995

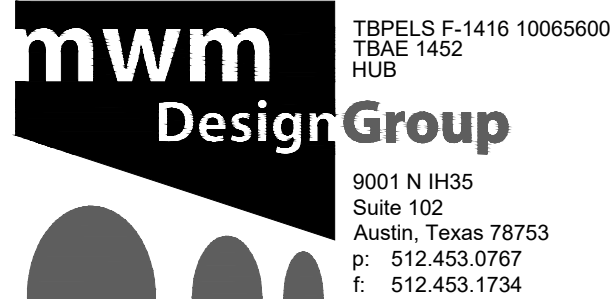
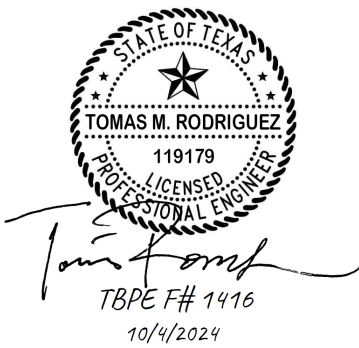
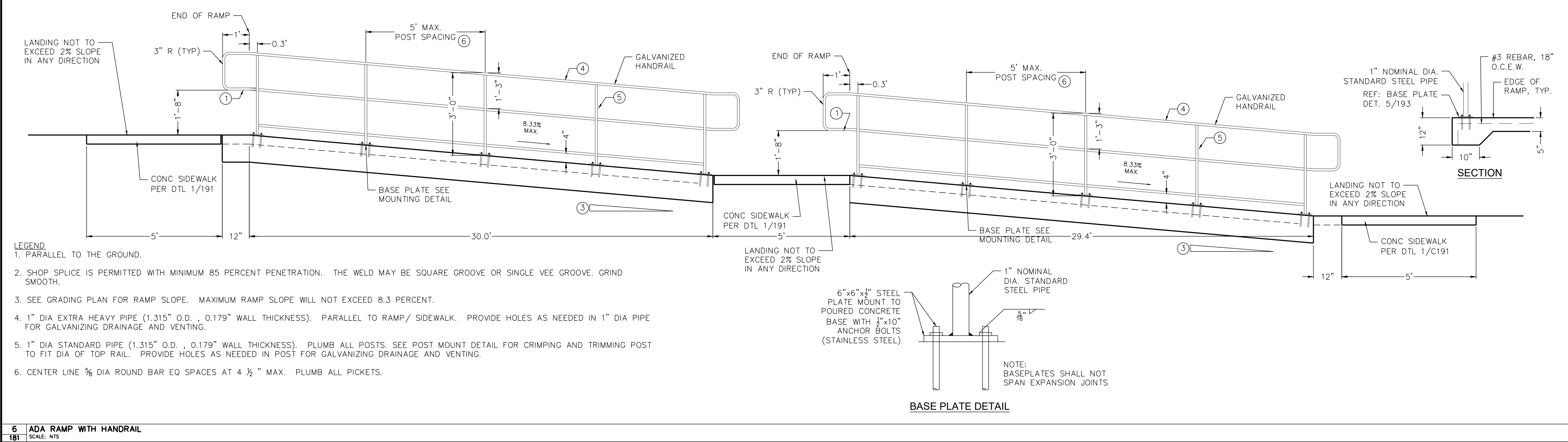
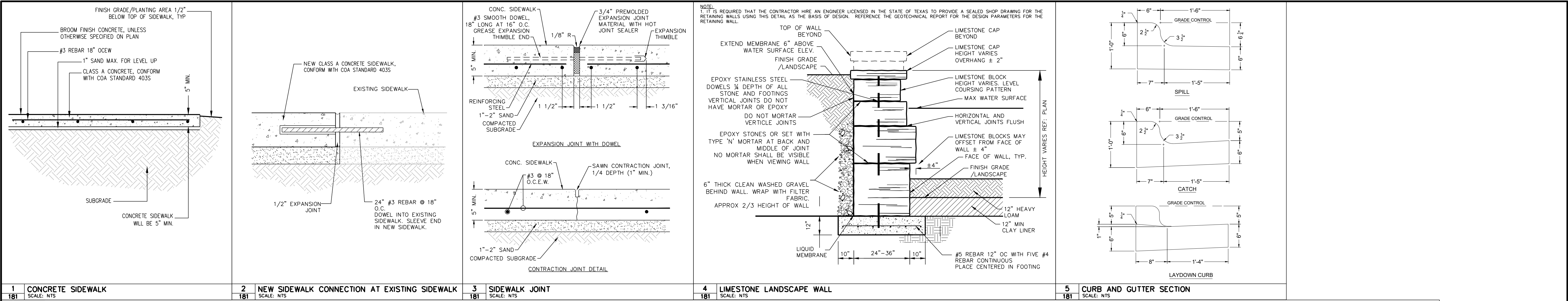
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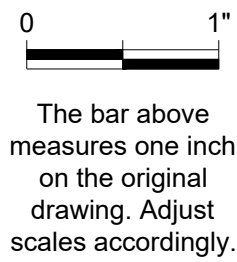
Chaparral
Professional Land Surveying, Inc.
Surveying and Mapping
3500 McCall Lane
Austin, Texas 78744
512-443-1724
Firm No. 10124500

PROJECT NO.:
585-001
DRAWING NO.:
585-001-BASE
PLOT DATE:
05/10/18
PLOT SCALE:
1"=30'
DRAWN BY:
RGH/MAW/EBD
SHEET
01 OF 01

CURVE TABLE						
NO.	DELTA	RADIUS	TAN	ARC	CHORD	BEARING (RECORD CHORD)
C1	4°35'35"	315.81'	12.67'	25.32'	25.31'	S10°15'58"W (S11°47'W 25.26')
C2	29°33'56"	122.57'	32.34'	63.25'	62.55'	S02°21'10"E (S00°43'E 62.57')



NO.	DATE	DESCRIPTION	BY



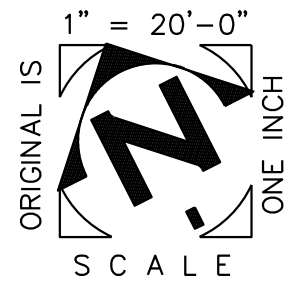
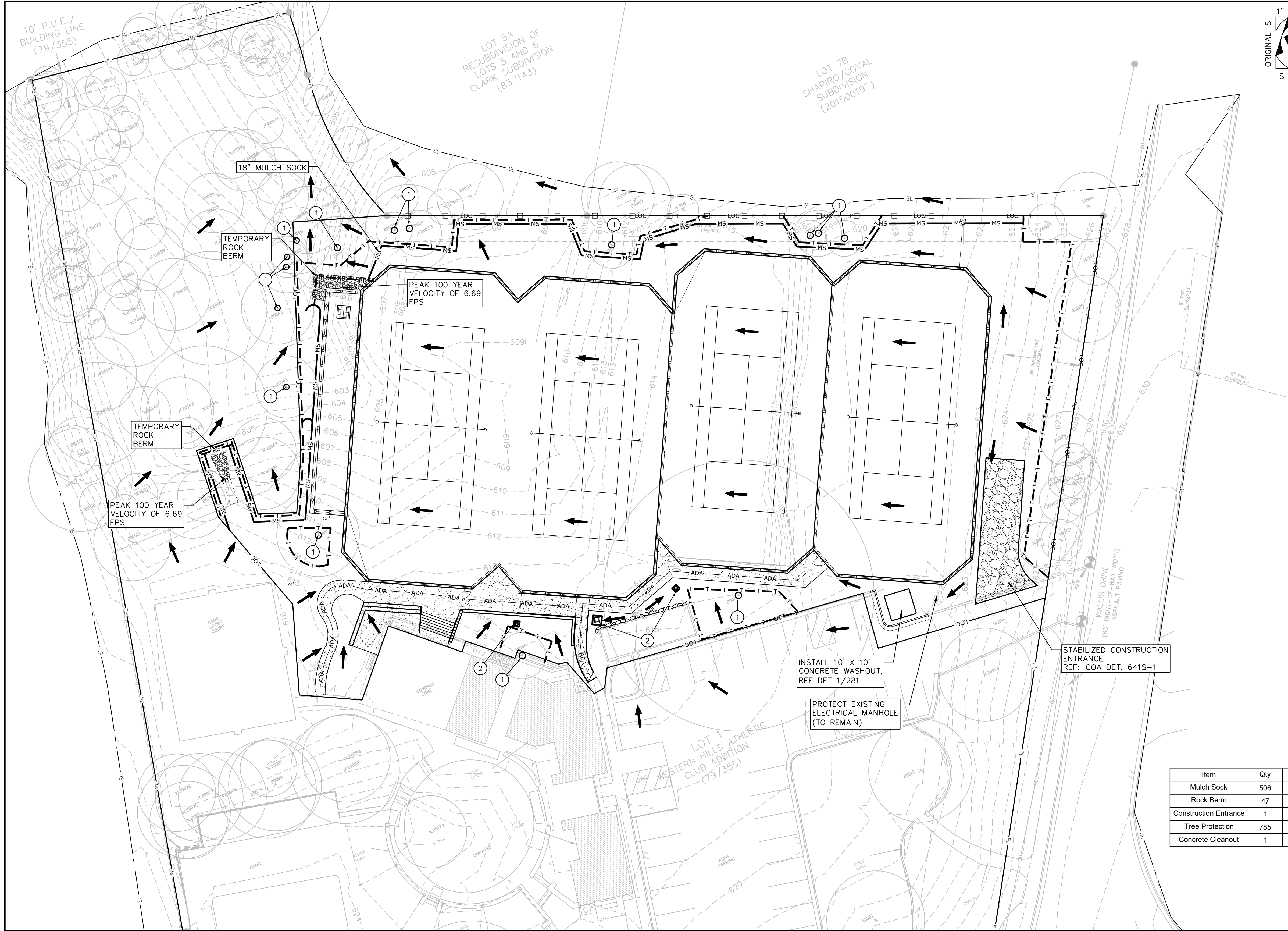
SITE DETAILS

Western Hills Athletic Club
4801 Rollingwood Drive
Rollingwood, TX 78746

PLOTTED: 10/4/2024
JOB NO: 863-02

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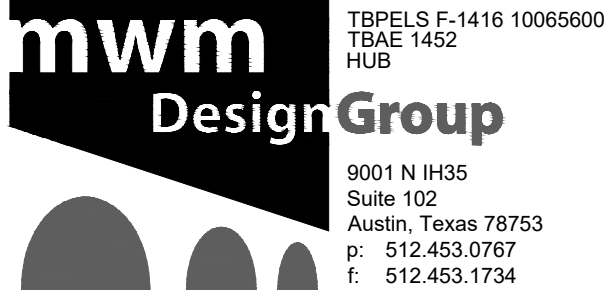
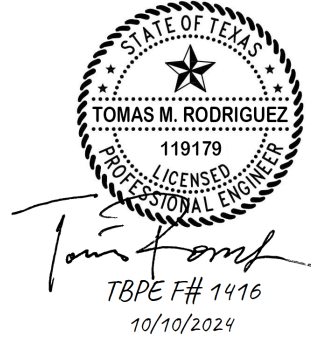


EROSION/SEDIMENTATION LEGEND	
	LOC LIMIT OF CONSTRUCTION
	RB REINFORCED ROCK BERM REF: COA DET. 639S-1
	IP INLET PROTECTION REF: COA DET. 628S-2
	T TREE PROTECTION FENCE REF: COA DET. 610S-1, 610S-2, 610S-4, 610S-5
	MS MULCH SOCK REF: COA DET. 648S-1

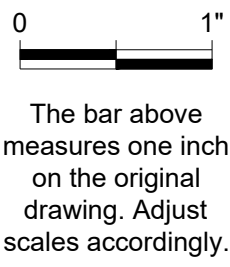
- NOTES:
- CONTRACTOR TO ADJUST EROSION CONTROL AS REQUIRED FOR FIELD CONDITIONS TO MEET THE INTENT OF THE CONSTRUCTION DOCUMENTS AND SWPPP.
 - ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
 - THE STABILIZED CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY.
 - ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH THE CITY RULES AND REGULATIONS.
 - CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
 - IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION.
 - PRIOR TO EXCAVATION WITHIN TREE DRIP LINES, OR THE REMOVAL OF OTHER TREES THAT ARE TO REMAIN, MAKE A CLEAN CUT BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT TO MINIMIZE ROOT DAMAGE.
 - IN CRITICAL ROOT ZONE AREAS THAT CANNOT BE PROTECTED DURING CONSTRUCTION WITH FENCING, AND WHERE HEAVY VEHICULAR TRAFFIC IS ANTICIPATED, COVER THOSE AREAS WITH TWELVE (12) INCHES OF ORGANIC MULCH TO BE PRODUCED ON SITE, TO MINIMIZE SOIL COMPACTION.
 - PERFORM ALL GRADING WITHIN CRITICAL ROOT ZONE AREAS WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE.
 - WATER ALL TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES DEEPLY AS NECESSARY DURING PERIOD OF HOT, DRY WEATHER. SPRAY TREE CROWNS WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE LEAVES.
 - WHEN INSTALLING CONCRETE ADJACENT TO THE ROOT ZONE OF A TREE, USE A PLASTIC VAPOR BARRIER BEHIND THE CONCRETE TO PROHIBIT LEACHING OF LIME INTO THE SOIL.
 - THE STAGING AND SPOILS AREA SHALL ONLY BE ALLOWED DURING THE CONSTRUCTION PERIOD. NO SPOILS SHALL REMAIN STAGED AFTER COMPLETION OF THE PROJECT.
 - UNLESS OTHERWISE NOTED IN THE LANDSCAPE PLAN, ALL DISTURBED AREAS SHALL BE REVEGETATED WITH NATIVE GRASSES (REFER TO NOTE SHEET FOR SPECS). ALL DISTURBED AREAS WITH SLOPES 5:1 OR STEEPER, WHICH ARE NOT ARMORED OTHERWISE, SHALL HAVE A SOIL RETENTION BLANKET (CURLEX II OR APPROVED EQUAL) INSTALLED TO ASSIST WITH REVEGETATION.
 - CONCRETE REMOVAL SHALL OCCUR AT NEAREST JOINT.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND INSPECTING, ON A REGULAR BASIS, ALL EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES INCLUDING THE SILT FENCES, CONSTRUCTION ENTRANCES, ROCK FILTER DAMS, ETC. DURING CONSTRUCTION/DEMOLITION AND INCLUDING THE REMOVAL AND PROPER DISPOSAL OF ANY ACCUMULATED SILT AND DEBRIS.
 - THE CONTRACTOR SHALL NOT BEGIN ANY WORK UNTIL TREE PROTECTION AND THE EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES SUCH AS SILT FENCE, CONSTRUCTION ENTRANCES, ROCK FILTER DAMS, ETC. HAVE BEEN INSTALLED.
 - INCREASED STORMWATER PEAK FLOWS DURING CONSTRUCTION MUST BE MITIGATED WITH TEMPORARY BEST MANAGEMENT PRACTICES TO PREVENT HARM TO NEIGHBORING PROPERTIES.
 - THE PERMANENT STORMWATER DETENTION POND OR AN EQUIVALENT DETENTION POND, AS APPROVED BY THE CITY ENGINEER, SHALL BE PROVIDED FOR THE CONSTRUCTION PHASE AND ROUGH CUT PRIOR TO ROUGH GRADING OF SITE.
 - NO ROUGH CUTTING OR SITE CLEARING SHALL BE PERMITTED WITHOUT AN APPROVED TEMPORARY AND PERMANENT SEDIMENT AND SOIL EROSION CONTROL PLAN (BMPs) AS PART OF THE BUILDING PERMIT PROCESS. NO PERMANENT CERTIFICATE OF OCCUPANCY SHALL BE ISSUED BEFORE ALL APPROVED BMPs HAVE BEEN INSTALLED AND ESTABLISHED AS NECESSARY TO EFFECTIVELY CONTROL SEDIMENT AND SOIL EROSION.
 - NO ROUGH CUTTING OR SITE CLEARING SHALL BE PERMITTED UNTIL THE CONSTRUCTION OF TEMPORARY EROSION AND SEDIMENTATION CONTROLS AND TREE PROTECTION ARE IN PLACE.
 - ALL CONSTRUCTION SHALL REQUIRE THE CONTRACTOR TO TAKE SPECIAL CARE WHEN GRADING IN THE VICINITY OF CRITICAL ROOT ZONES, INCLUDING ROOT ZONES FOR OFF-SITE TREES WITH ROOT ZONES THAT OVERLAP PROPERTY BOUNDARIES. ANY PERMITTED CONSTRUCTION REQUIRING TREE REMOVAL THAT WILL NEGATIVELY ALTER DRAINAGE FLOWS AS DETERMINED BY THE CITY ENGINEER SHALL REQUIRE APPROVAL BY THE CITY ENGINEER OR SPECIFIC MITIGATION FOR THE AREA EFFECTED.
 - REFER TO GENERAL NOTES SHEET FOR SEQUENCE OF CONSTRUCTION.

- KEY NOTES:
- ADD PLANKING TO TREE TRUNKS PER COA 610S-1, 610S-4.
 - 18" MULCH SOCK PER COA 648S-1.

Item	Qty	Unit
Mulch Sock	506	LF
Rock Berm	47	LF
Construction Entrance	1	EA
Tree Protection	785	LF
Concrete Cleanout	1	EA



NO.	DATE	DESCRIPTION	BY



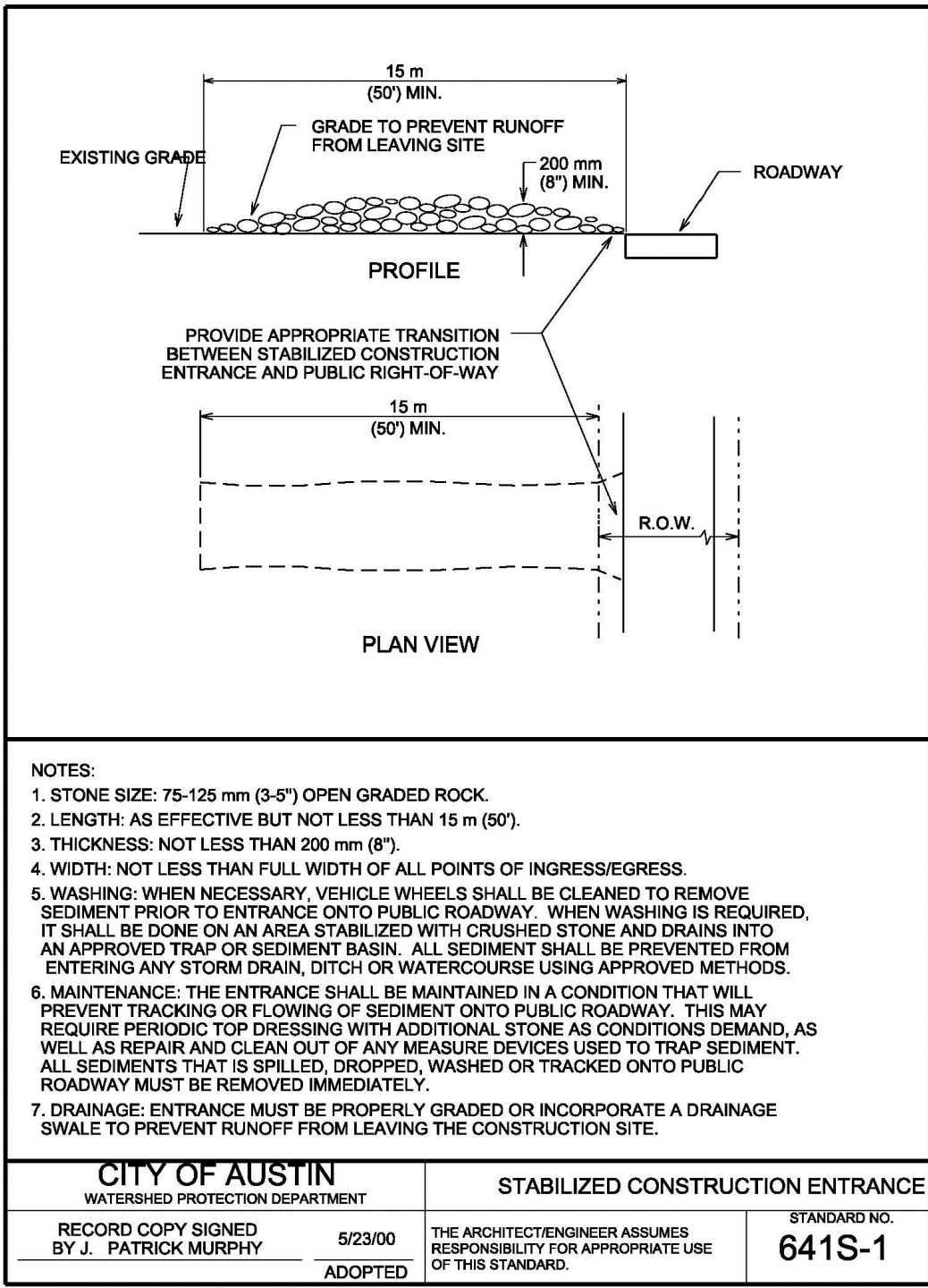
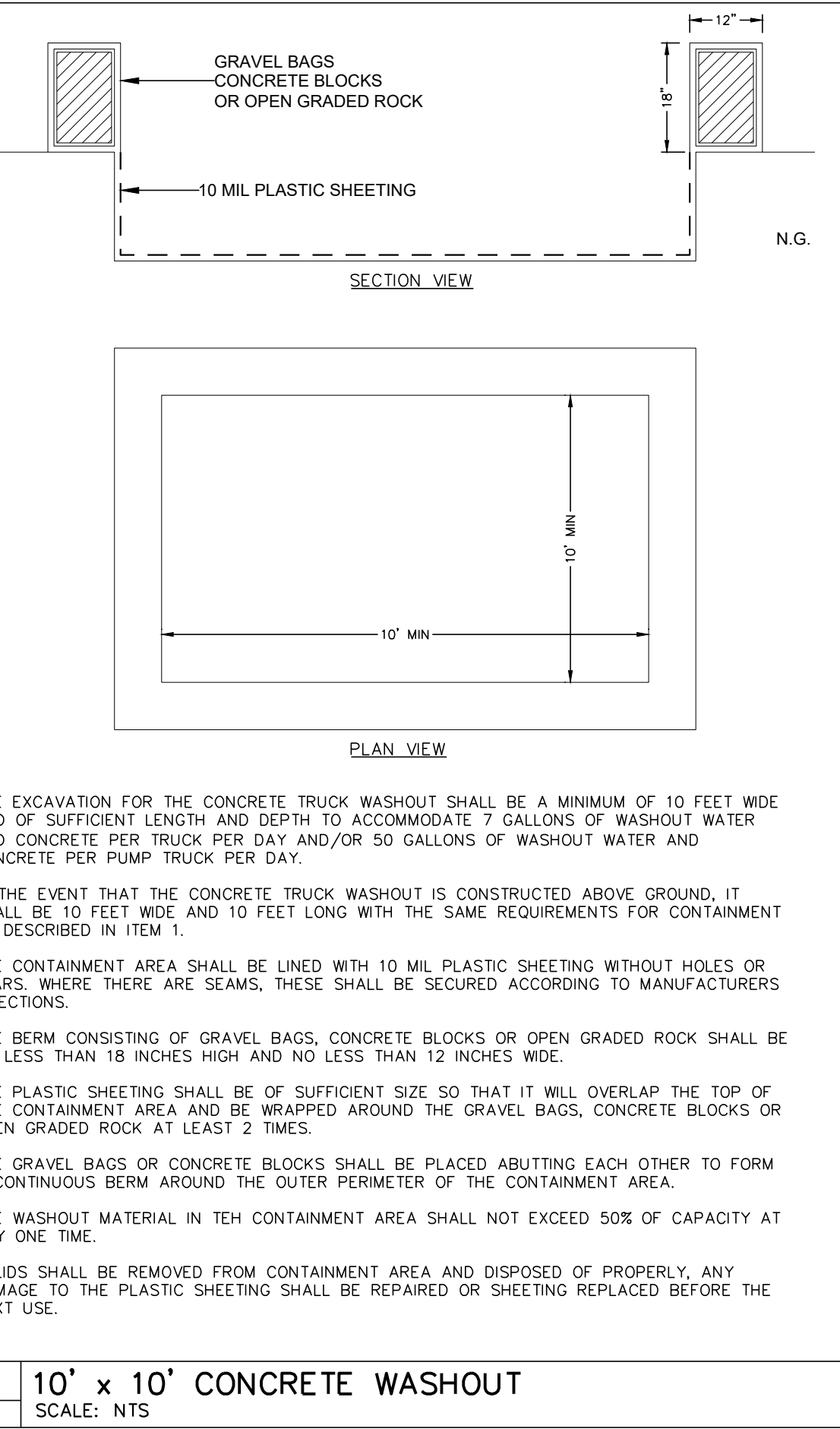
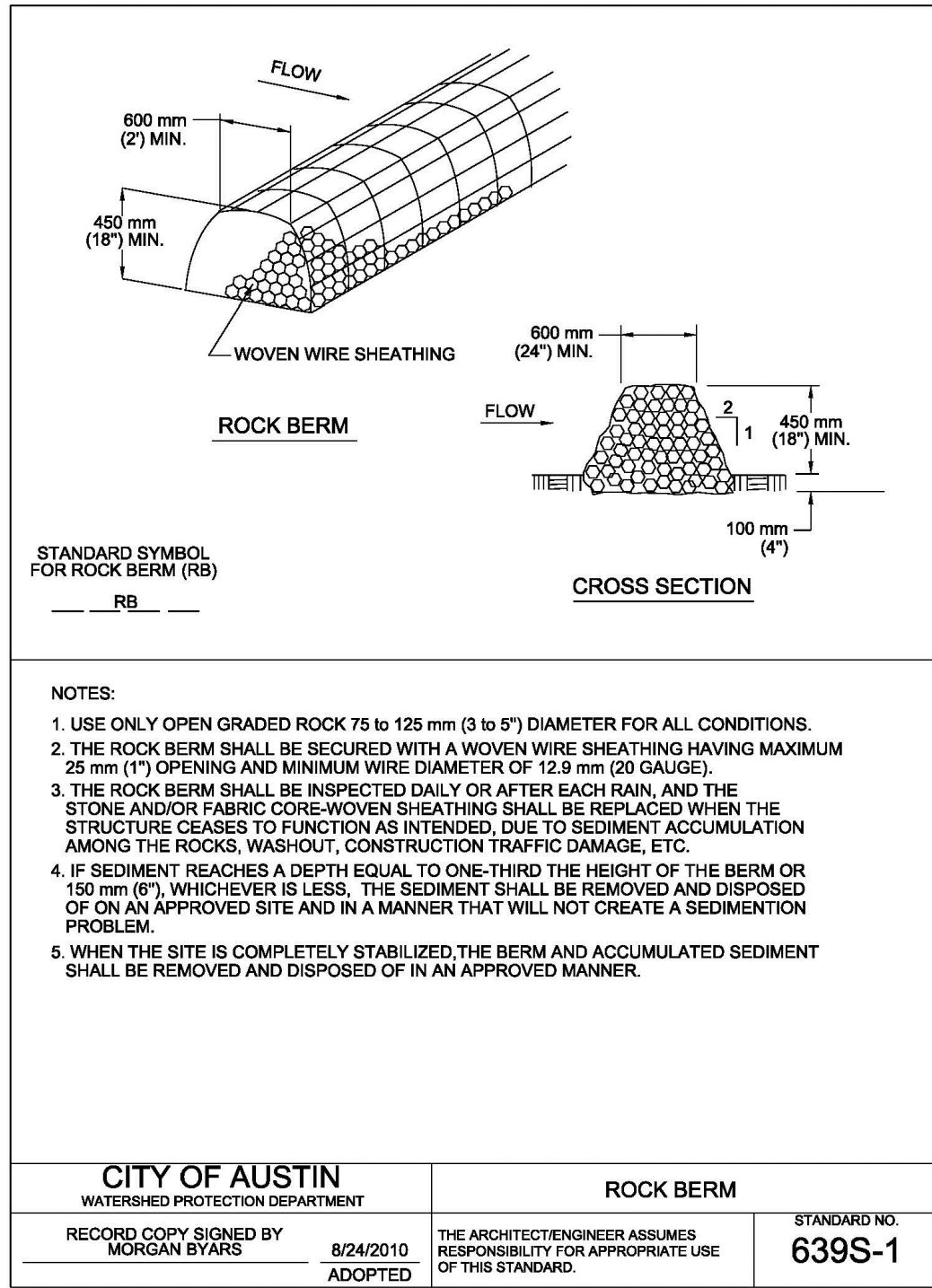
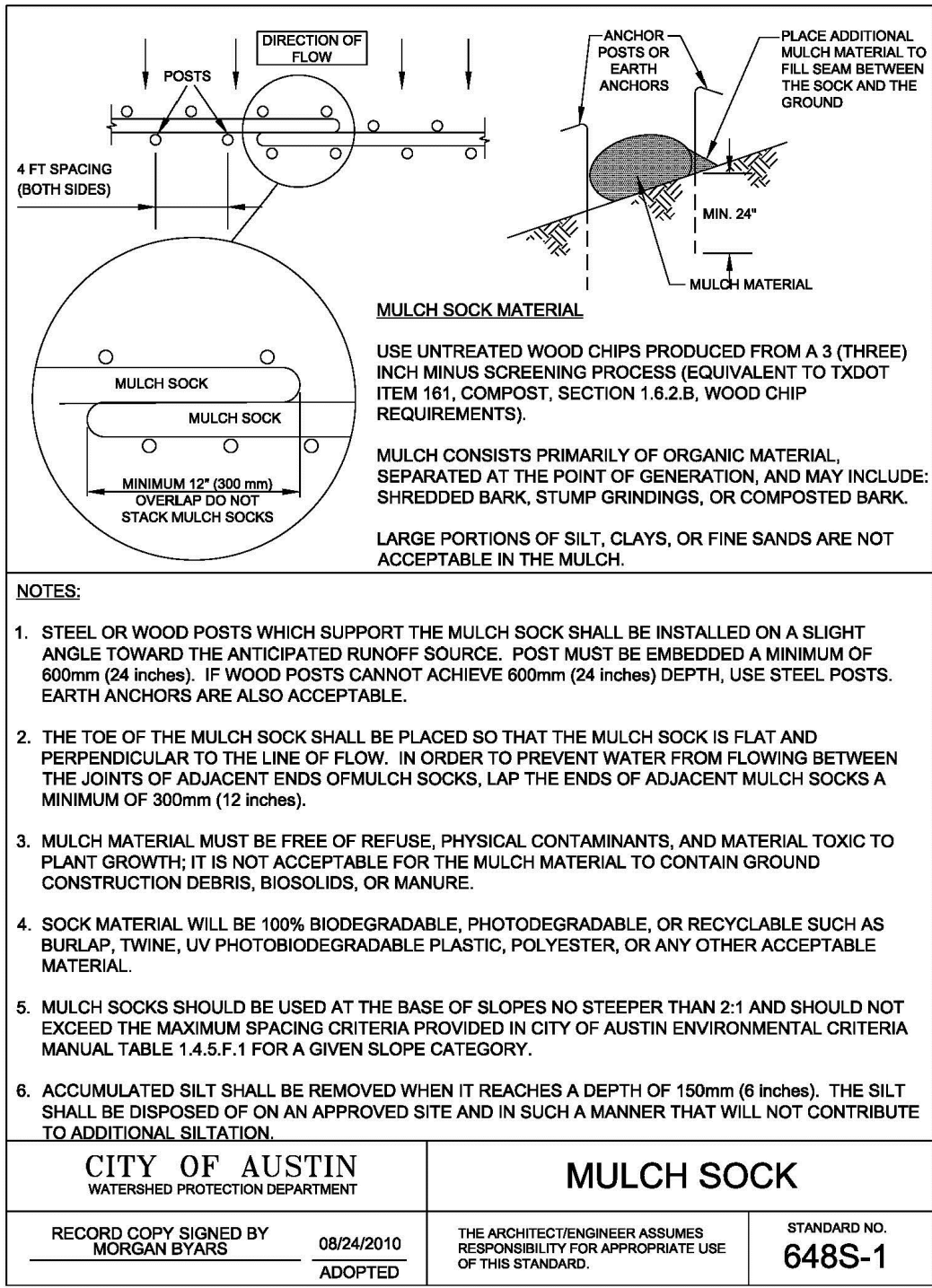
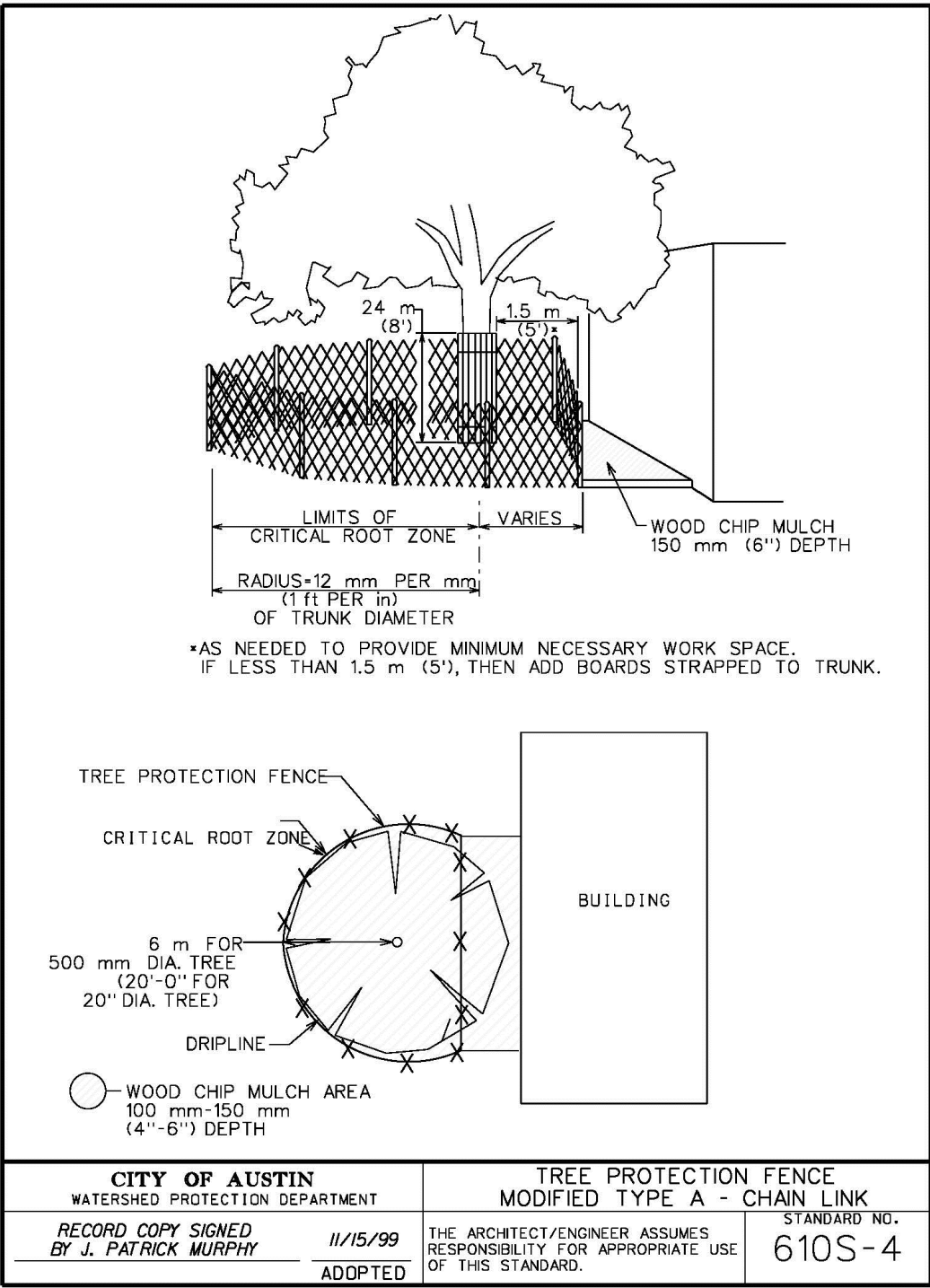
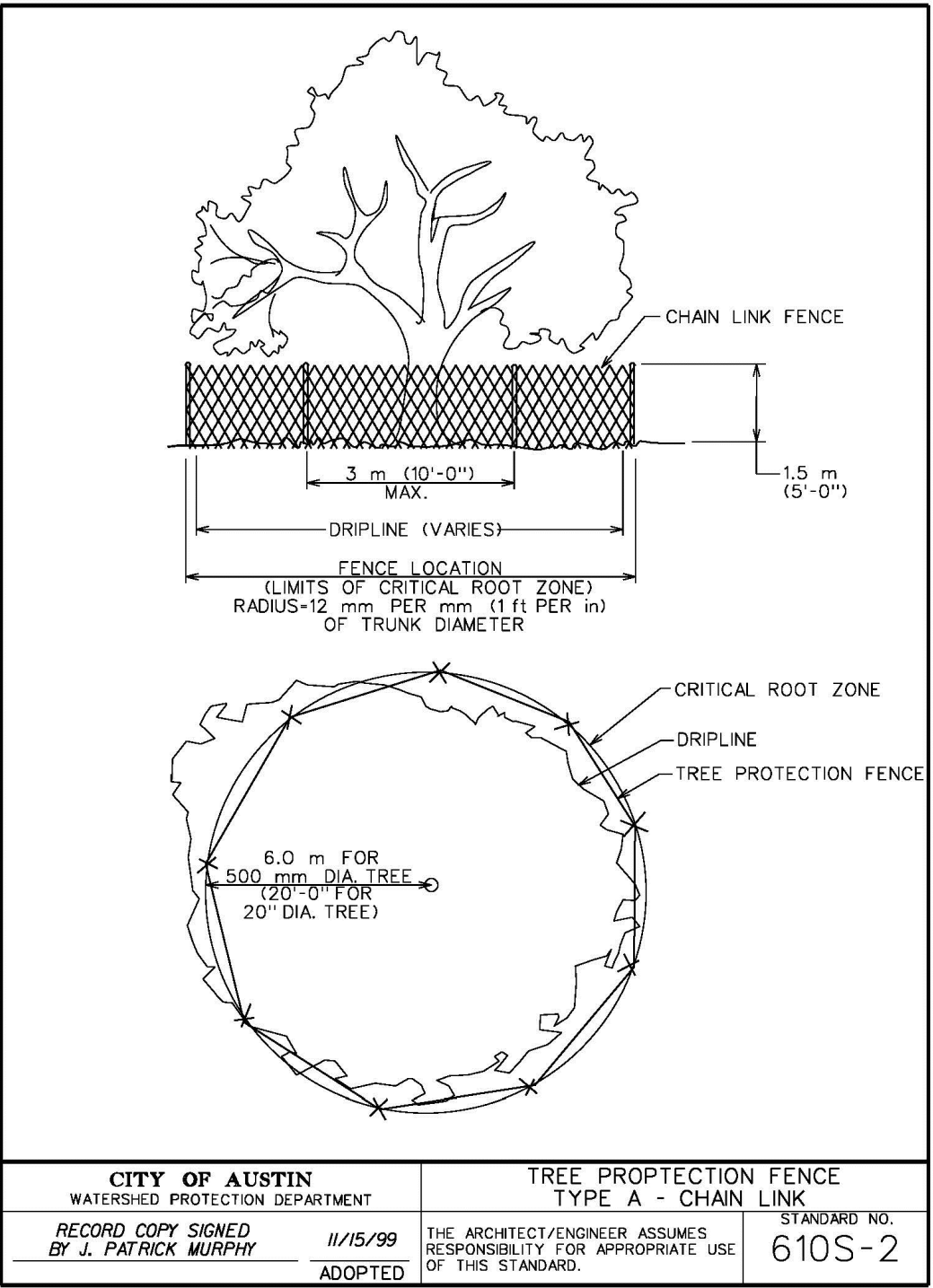
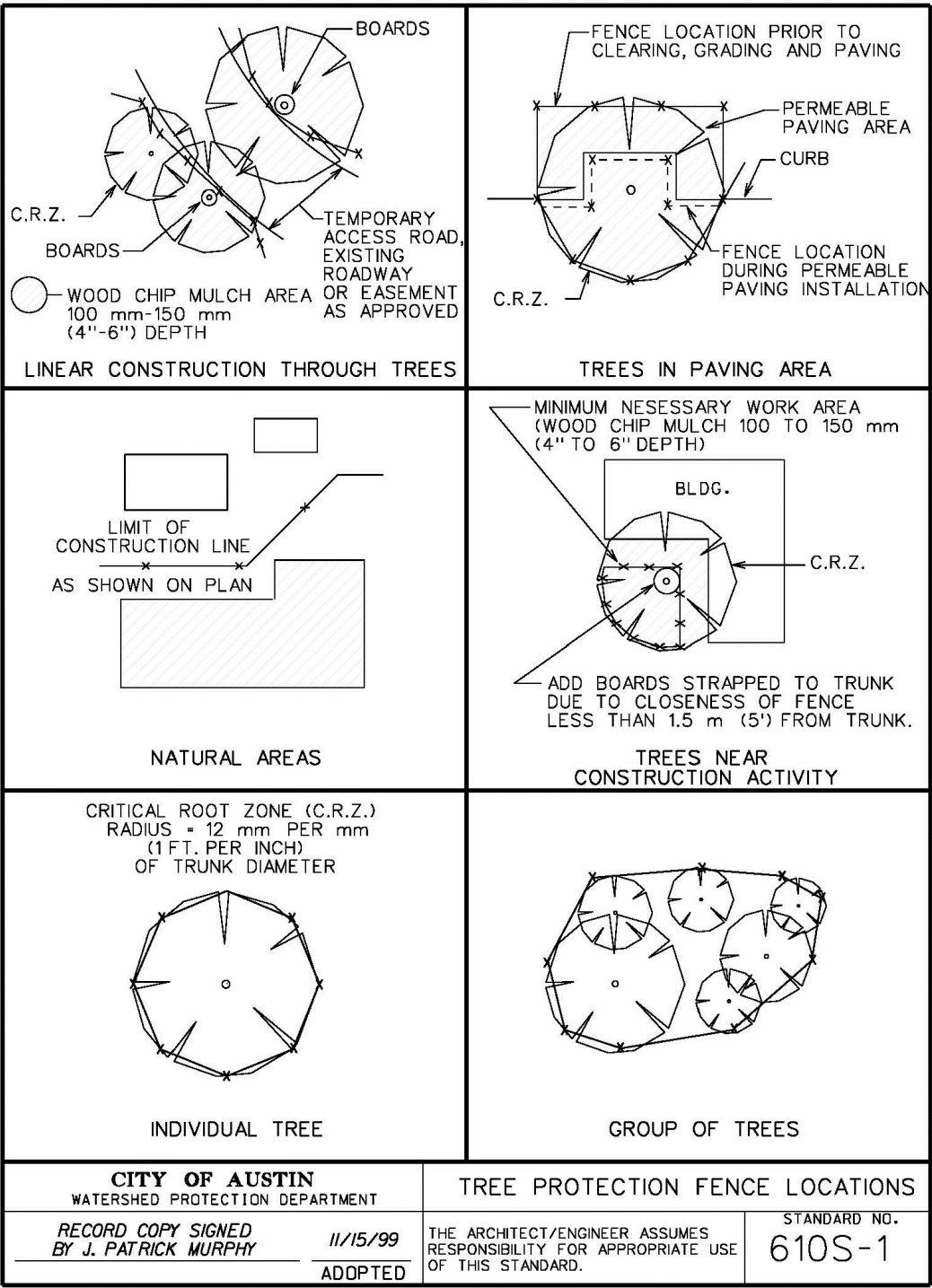
EROSION-SEDIMENTATION CONTROL & TREE PROTECTION PLAN

Western Hills Athletic Club
4801 Rollingwood Drive
Rollingwood, TX 78746

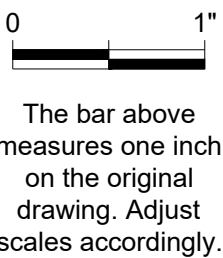
PLOTTED: 10/11/2024
JOB NO: 863-02

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NO.	DATE	DESCRIPTION	BY



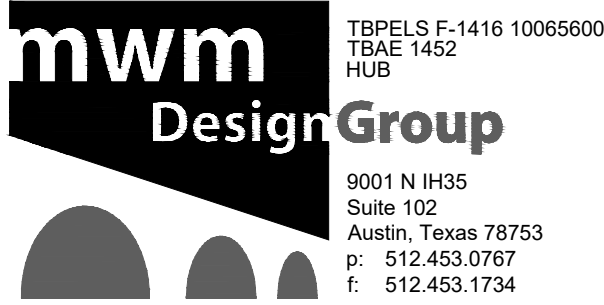
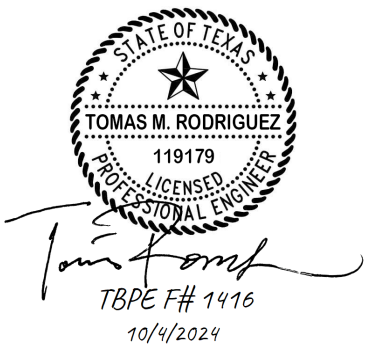
EROSION-SEDIMENTATION CONTROL & TREE PROTECTION DETAILS

Western Hills Athletic Club
4801 Rollingwood Drive
Rollingwood, TX 78746

PLOTTED: 10/4/2024
JOB NO: 863-02

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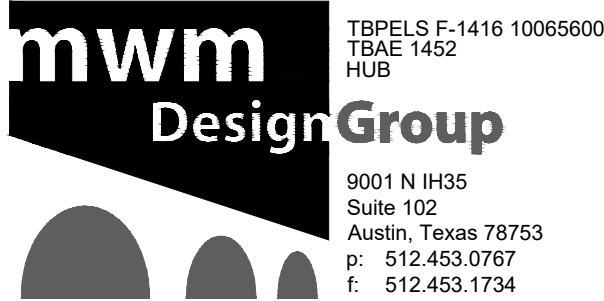
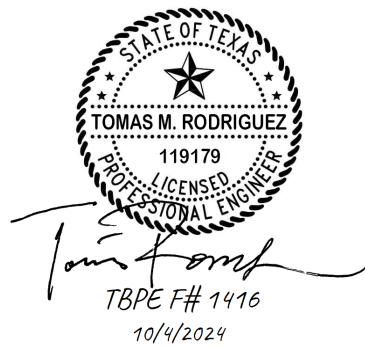
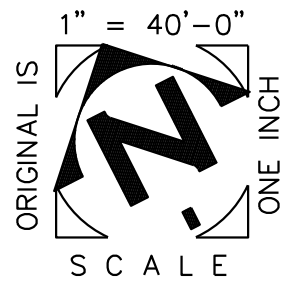




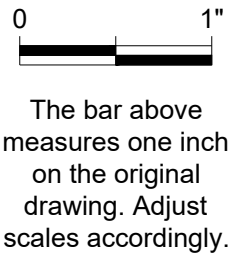
SITE: 139928.27 SQ. FT.		
LIMITS OF CONSTRUCTION: 50546 SQ. FT.		
	AREA SQ. FT.	% IMP. COVER
EXISTING IMPERVIOUS COVER:	53064.02	37.92%
PROPOSED IMPERVIOUS COVER:	65591.55	46.87%

IMPERVIOUS COVER AREAS		
	COLOR	AREA SQ. FT.
EXISTING IMPERVIOUS COVER TO REMAIN: BUILDINGS		2166.36
EXISTING IMPERVIOUS COVER TO REMAIN: ASPHALT PAVEMENT		15720.02
EXISTING IMPERVIOUS COVER TO REMAIN: CONCRETE PAVEMENT		16041.48
MAINTENANCE OF EXISTING IMPERVIOUS COVER: CONCRETE PAVEMENT		13849.65
MAINTENANCE OF EXISTING IMPERVIOUS COVER: ASPHALT PAVEMENT		79.18
PROPOSED IMPERVIOUS COVER: CONCRETE PAVEMENT		2252.56
MAINTENANCE OF EXISTING IMPERVIOUS COVER: CONCRETE DETENTION POND		4176.85
PROPOSED IMPERVIOUS COVER: CONCRETE DETENTION POND		11305.45
TOTAL IMPERVIOUS COVER		65591.55

PERVIOUS COVER AREAS		
	COLOR	AREA SQ. FT.
EXISTING IMPERVIOUS TO BE REMOVED		1030.49
EXISTING PERVIOUS COVER		63438.65
EXISTING PERVIOUS COVER: SWIMMING POOL		5117.07
EXISTING PERVIOUS COVER: GRAVEL TRAIL/ PLANTER / BIORETENTION BASIN		3536.85
PROPOSED PERVIOUS COVER: BIORETENTION BASIN		1181.25
TOTAL PERVIOUS COVER		74304.31



NO.	DATE	DESCRIPTION	BY



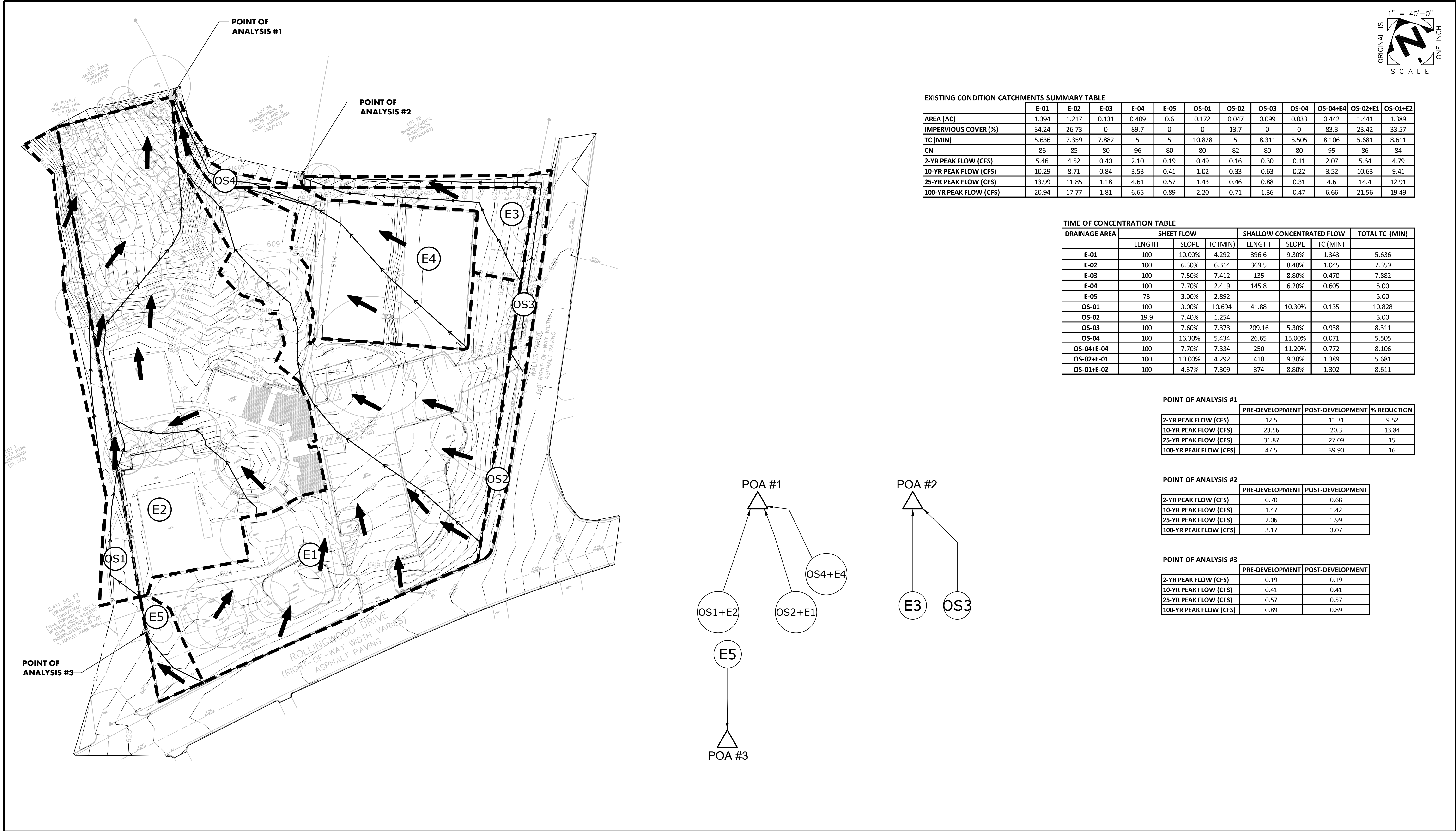
IMPERVIOUS COVER PLAN

Western Hills Athletic Club
4801 Rollingwood Drive
Rollingwood, TX 78746

PLOTTED: 10/4/2024
JOB NO: 863-02

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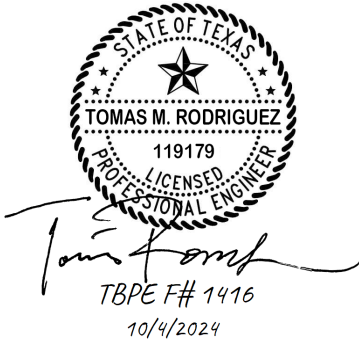
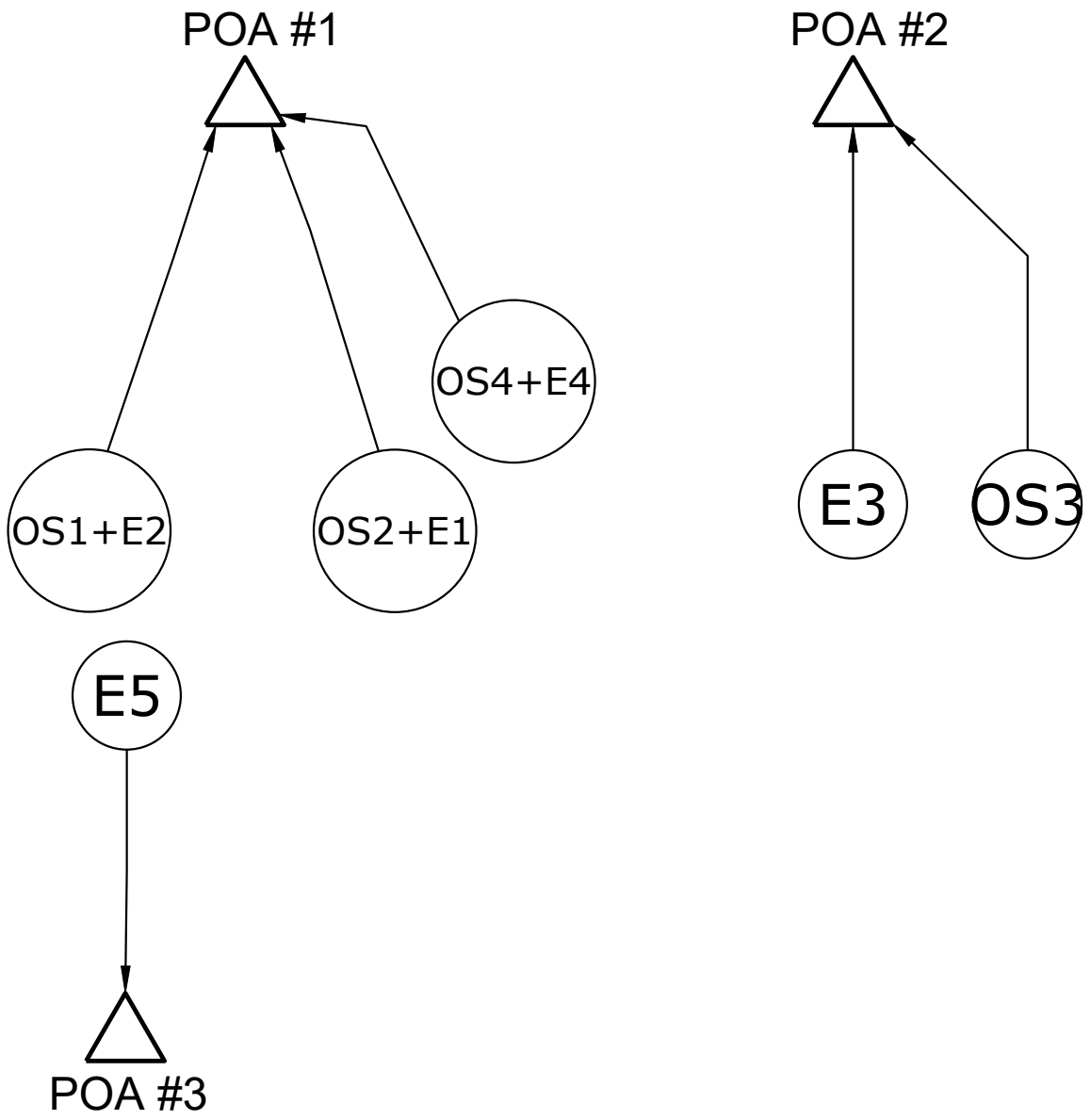
EXISTING CONDITION CATCHMENTS SUMMARY TABLE												
	E-01	E-02	E-03	E-04	E-05	OS-01	OS-02	OS-03	OS-04	OS-04+E4	OS-02+E1	OS-01+E2
AREA (AC)	1.394	1.217	0.131	0.409	0.6	0.172	0.047	0.099	0.033	0.442	1.441	1.389
IMPERVIOUS COVER (%)	34.24	26.73	0	89.7	0	0	13.7	0	0	83.3	23.42	33.57
TC (MIN)	5.636	7.359	7.882	5	5	10.828	5	8.311	5.505	8.106	5.681	8.611
CN	86	85	80	96	80	80	82	80	80	95	86	84
2-YR PEAK FLOW (CFS)	5.46	4.52	0.40	2.10	0.19	0.49	0.16	0.30	0.11	2.07	5.64	4.79
10-YR PEAK FLOW (CFS)	10.29	8.71	0.84	3.53	0.41	1.02	0.33	0.63	0.22	3.52	10.63	9.41
25-YR PEAK FLOW (CFS)	13.99	11.85	1.18	4.61	0.57	1.43	0.46	0.88	0.31	4.6	14.4	12.91
100-YR PEAK FLOW (CFS)	20.94	17.77	1.81	6.65	0.89	2.20	0.71	1.36	0.47	6.66	21.56	19.49

TIME OF CONCENTRATION TABLE							
DRAINAGE AREA	SHEET FLOW			SHALLOW CONCENTRATED FLOW			TOTAL TC (MIN)
	LENGTH	SLOPE	TC (MIN)	LENGTH	SLOPE	TC (MIN)	
E-01	100	10.00%	4.292	396.6	9.30%	1.343	5.636
E-02	100	6.30%	6.314	369.5	8.40%	1.045	7.359
E-03	100	7.50%	7.412	135	8.80%	0.470	7.882
E-04	100	7.70%	2.419	145.8	6.20%	0.605	5.00
E-05	78	3.00%	2.892	-	-	-	5.00
OS-01	100	3.00%	10.694	41.88	10.30%	0.135	10.828
OS-02	19.9	7.40%	1.254	-	-	-	5.00
OS-03	100	7.60%	7.373	209.16	5.30%	0.938	8.311
OS-04	100	16.30%	5.434	26.65	15.00%	0.071	5.505
OS-04+E-04	100	7.70%	7.334	250	11.20%	0.772	8.106
OS-02+E-01	100	10.00%	4.292	410	9.30%	1.389	5.681
OS-01+E-02	100	4.37%	7.309	374	8.80%	1.302	8.611

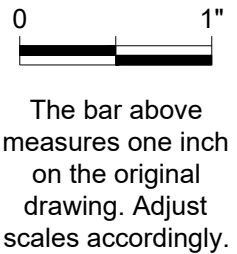
POINT OF ANALYSIS #1			
	PRE-DEVELOPMENT	POST-DEVELOPMENT	% REDUCTION
2-YR PEAK FLOW (CFS)	12.5	11.31	9.52
10-YR PEAK FLOW (CFS)	23.56	20.3	13.84
25-YR PEAK FLOW (CFS)	31.87	27.09	15
100-YR PEAK FLOW (CFS)	47.5	39.90	16

POINT OF ANALYSIS #2		
	PRE-DEVELOPMENT	POST-DEVELOPMENT
2-YR PEAK FLOW (CFS)	0.70	0.68
10-YR PEAK FLOW (CFS)	1.47	1.42
25-YR PEAK FLOW (CFS)	2.06	1.99
100-YR PEAK FLOW (CFS)	3.17	3.07

POINT OF ANALYSIS #3		
	PRE-DEVELOPMENT	POST-DEVELOPMENT
2-YR PEAK FLOW (CFS)	0.19	0.19
10-YR PEAK FLOW (CFS)	0.41	0.41
25-YR PEAK FLOW (CFS)	0.57	0.57
100-YR PEAK FLOW (CFS)	0.89	0.89



NO.	DATE	DESCRIPTION	BY



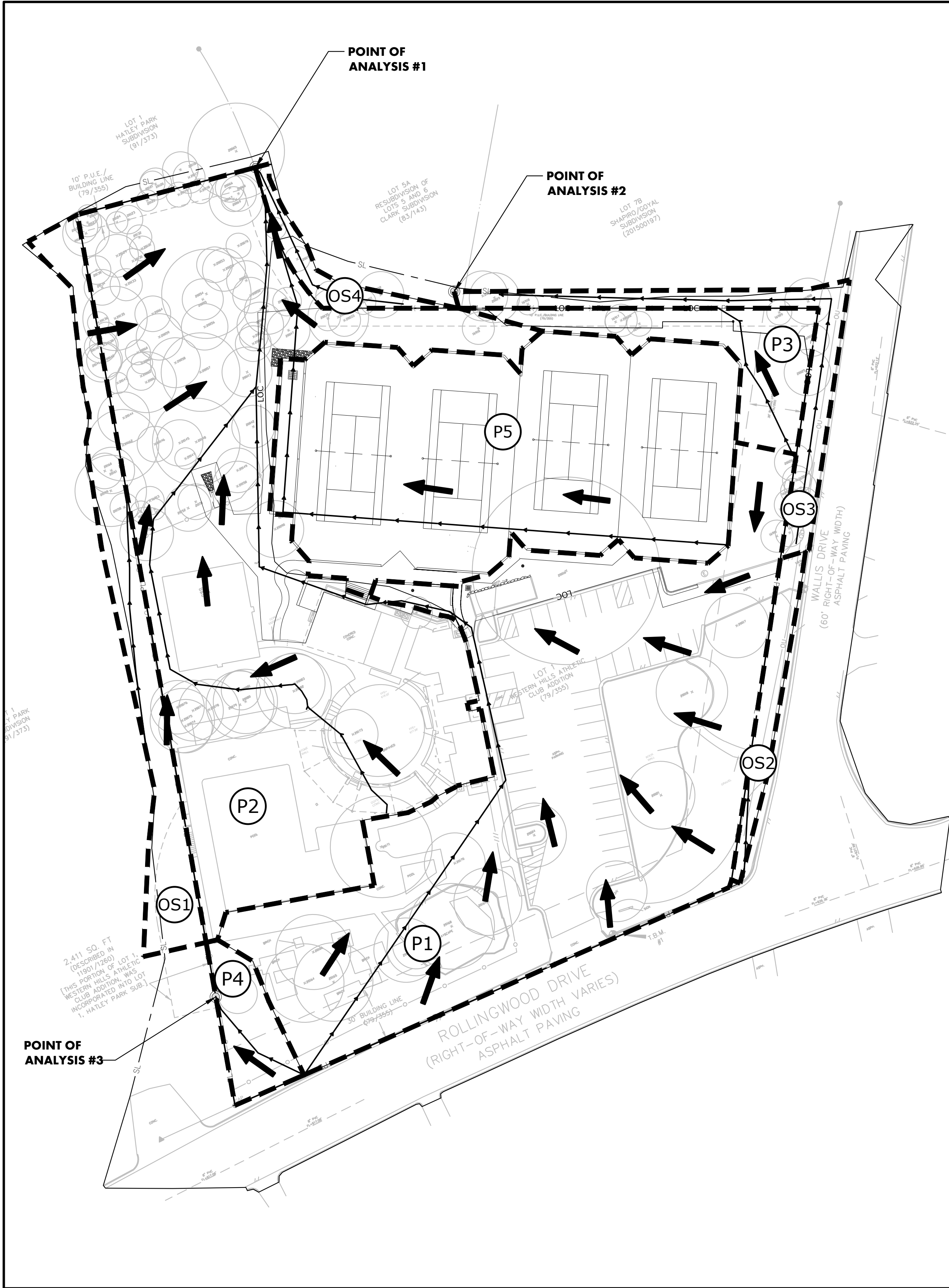
EXISTING DRAINAGE AREA MAP

Western Hills Athletic Club
4801 Rollingwood Drive
Rollingwood, TX 78746

PLOTTED: 10/4/2024
JOB NO: 863-02

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PROPOSED CONDITION CATCHMENTS SUMMARY TABLE

	P-01	P-02	P-03	P-04	P-05	OS-01	OS-02	OS-03	OS-04	OS-01+P2	OS-02+P1
AREA (AC)	1.135	1.199	0.122	0.600	0.720	0.172	0.047	0.099	0.033	1.371	1.182
IMPERVIOUS COVER (%)	42.00	27.70	0.00	0.00	97.00	0.00	13.70	0.00	0.00	24.22	40.87
TC (MIN)	6.059	7.321	7.283	5.000	3.700	10.828	5.000	8.311	5.505	8.285	8.332
CN	88.00	85.00	80.00	80.00	97.00	80.00	82.00	80.00	80.00	84	87
2-YR PEAK FLOW (CFS)	4.70	4.46	0.38	0.19	3.66	0.49	0.16	0.30	0.11	4.8	4.53
10-YR PEAK FLOW (CFS)	8.63	8.58	0.80	0.41	6.19	1.02	0.33	0.63	0.22	9.42	8.51
25-YR PEAK FLOW (CFS)	11.56	11.68	1.11	0.57	8.06	1.43	0.46	0.88	0.31	12.91	11.48
100-YR PEAK FLOW (CFS)	17.07	17.50	1.71	0.89	11.37	2.20	0.71	1.36	0.47	19.48	17.07

POINT OF ANALYSIS #1

	PRE-DEVELOPMENT	POST-DEVELOPMENT	% REDUCTION
2-YR PEAK FLOW (CFS)	12.5	11.31	9.52
10-YR PEAK FLOW (CFS)	23.56	20.3	13.84
25-YR PEAK FLOW (CFS)	31.87	27.09	15
100-YR PEAK FLOW (CFS)	47.5	39.90	16

POINT OF ANALYSIS #2

	PRE-DEVELOPMENT	POST-DEVELOPMENT
2-YR PEAK FLOW (CFS)	0.70	0.68
10-YR PEAK FLOW (CFS)	1.47	1.42
25-YR PEAK FLOW (CFS)	2.06	1.99
100-YR PEAK FLOW (CFS)	3.17	3.07

POINT OF ANALYSIS #3

	PRE-DEVELOPMENT	POST-DEVELOPMENT
2-YR PEAK FLOW (CFS)	0.19	0.19
10-YR PEAK FLOW (CFS)	0.41	0.41
25-YR PEAK FLOW (CFS)	0.57	0.57
100-YR PEAK FLOW (CFS)	0.89	0.89

TIME OF CONCENTRATION TABLE

DRAINAGE AREA	SHEET FLOW			SHALLOW CONCENTRATED FLOW			TOTAL TC
	LENGTH	SLOPE	TC	LENGTH	SLOPE	TC	
P-01	100	10.30%	4.483	538	7.60%	1.805	6.288
P-02	100	6.30%	6.031	366	8.60%	1.789	7.321
P-03	93.15	6.80%	7.283	-	-	-	7.283
P-04	78	3.00%	2.892	-	-	-	5.00
P-05	97	0.80%	1.969	350	12.00%	3.21	5.18
OS-01	100	3.00%	10.694	41.88	10.30%	0.135	10.828
OS-02	19.9	7.40%	1.254	-	-	-	5.00
OS-03	100	7.60%	7.373	209.16	5.30%	0.938	8.311
OS-04	100	16.30%	5.434	26.65	15.00%	0.071	5.505
OS-01+P-02	100	4.37%	6.982	370	8.60%	1.303	8.285
OS-01+P-01	100	10.30%	6.316	538	7.60%	2.016	8.332

DETENTION POND SUMMARY TABLE

STORM EVENT	PEAK FLOW (IN) (CFS)	PEAK FLOW (OUT) (CFS)	WATER SURFACE ELEVATION (FT)	MAX. POND STORAGE (CU-FT)
2-YR	3.66	2	613.6	1,031.00
10-YR	6.08	2.5	613.77	2,905.00
25-YR	7.91	2.92	613.91	4,448.00
100-YR	11.37	3.46	614.15	7,559.00

DETENTION COMPOSITE OUTLET STRUCTURE POND

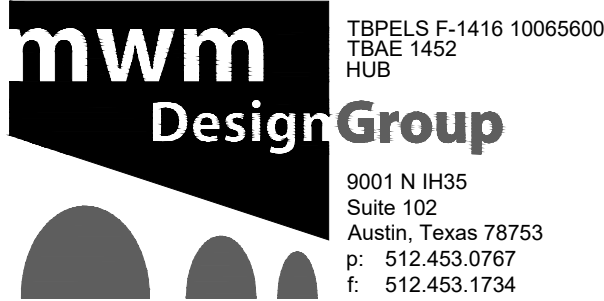
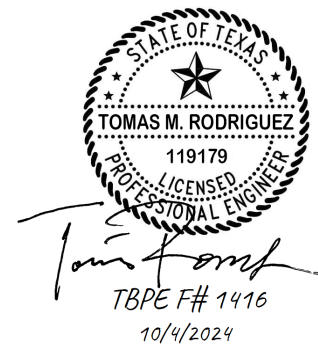
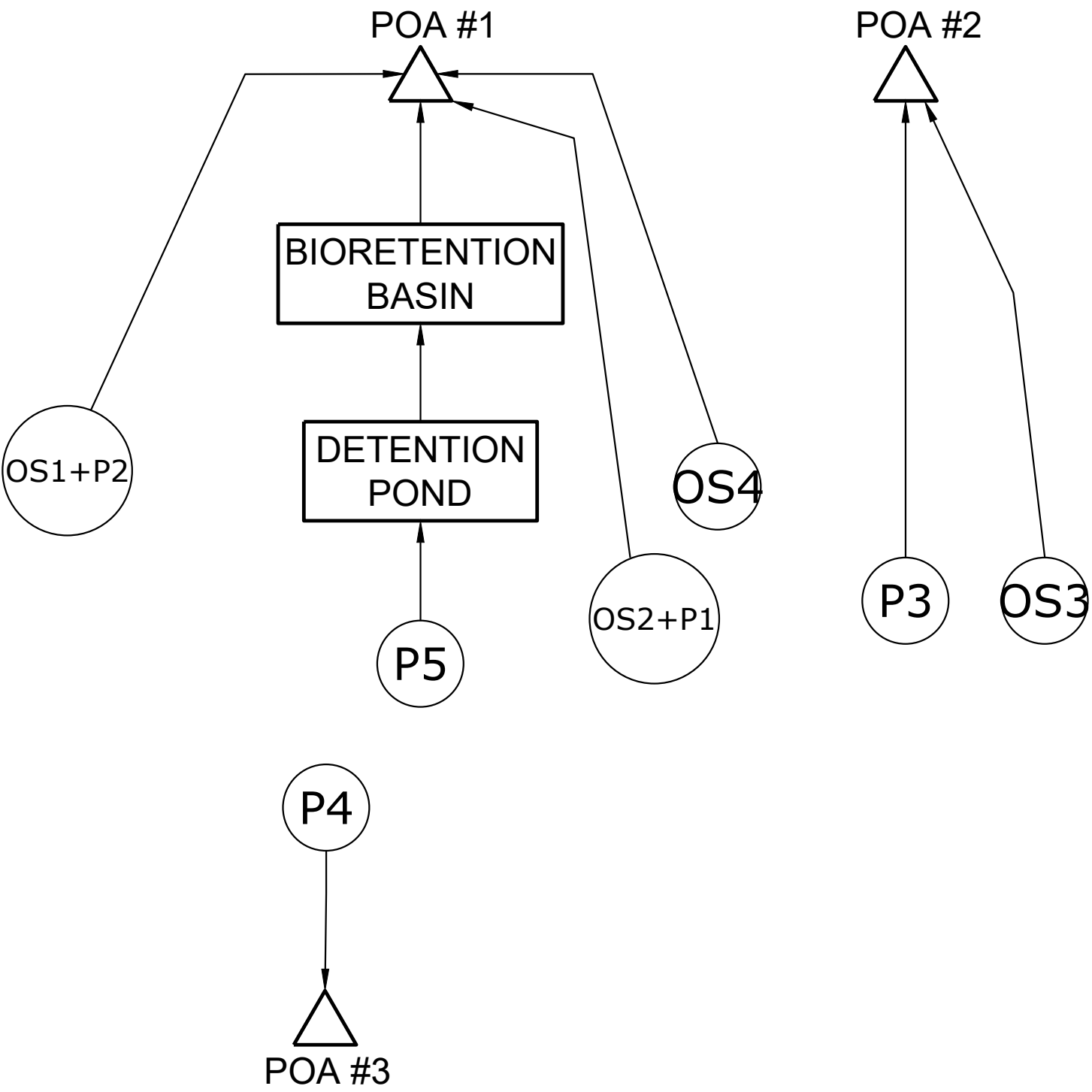
OPENING TYPE	AMOUNT	DIAMETER (FT)	ELEV (FT)
AREA	4	0.5	613

RAIN GARDEN SUMMARY TABLE

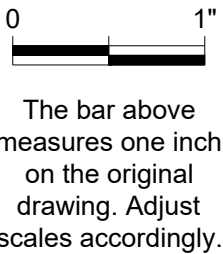
STORM EVENT	PEAK FLOW (IN) (CFS)	PEAK FLOW (OUT) (CFS)	WATER SURFACE ELEVATION (FT)	MAX. POND STORAGE (CU-FT)
2-YR	2	1.99	613.05	1,055.00
10-YR	2.5	2.49	613.06	1,067.00
25-YR	2.92	2.89	613.07	1,077.00
100-YR	3.46	3.45	613.08	1,090.00

COMPOSITE OUTLET STRUCTURE RAIN GARDEN

OPENING TYPE	AMOUNT	DIMENSION (FT)	ELEV (FT)
RECTANGULAR GRATE	1	5 X 5	613



NO.	DATE	DESCRIPTION	BY



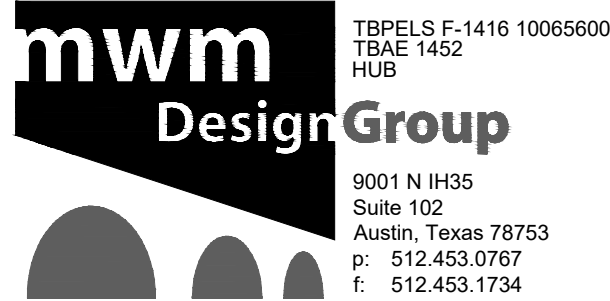
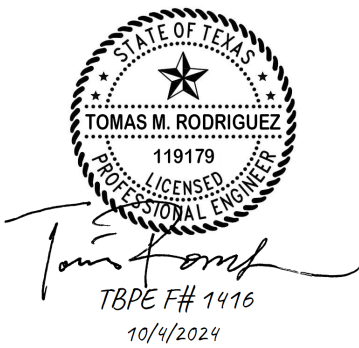
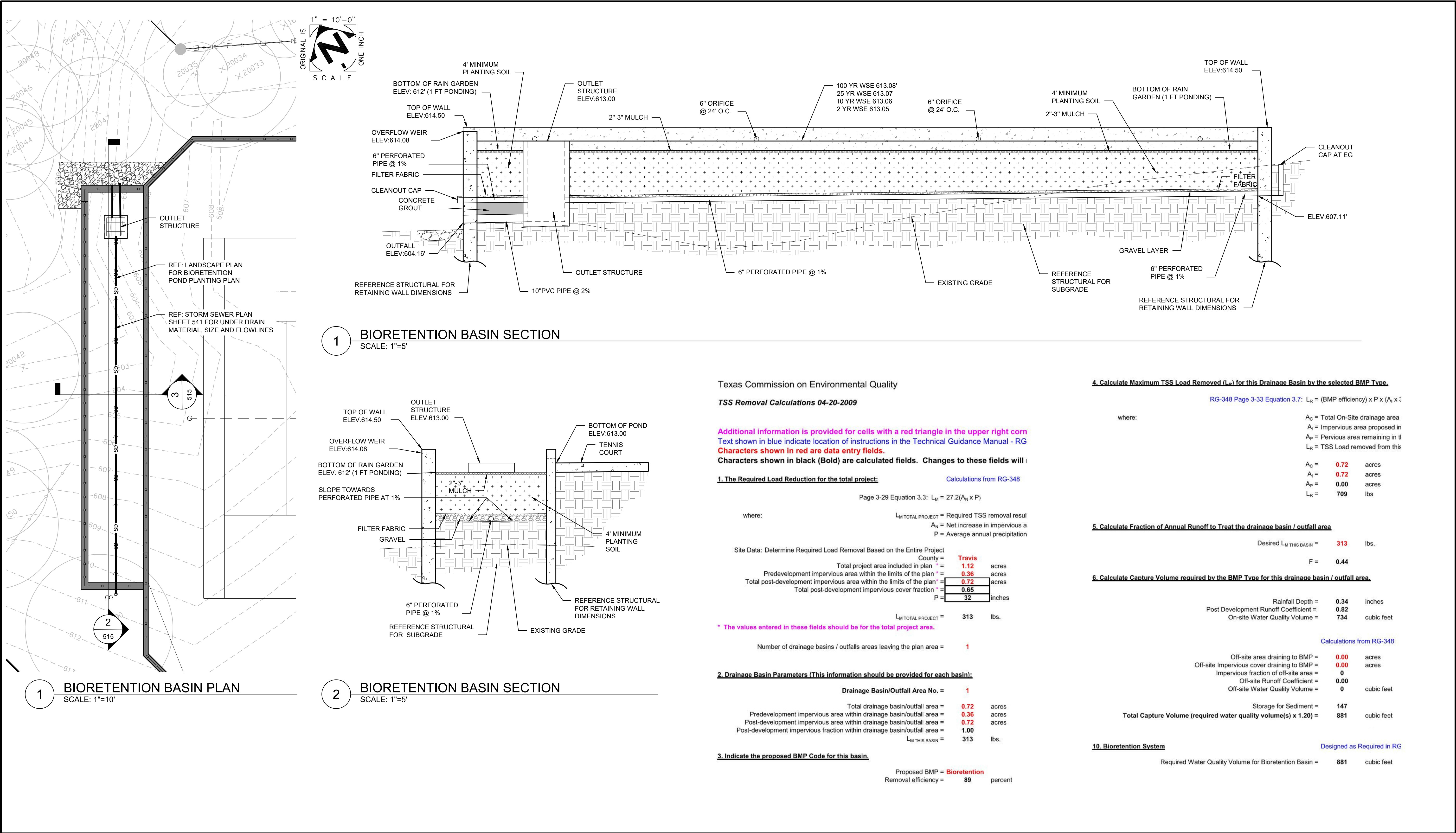
PROPOSED DRAINAGE AREA MAP

Western Hills Athletic Club
4801 Rollingwood Drive
Rollingwood, TX 78746

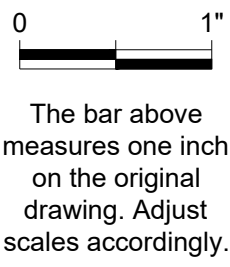
PLOTTED: 10/4/2024
JOB NO: 863-02

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NO.	DATE	DESCRIPTION	BY



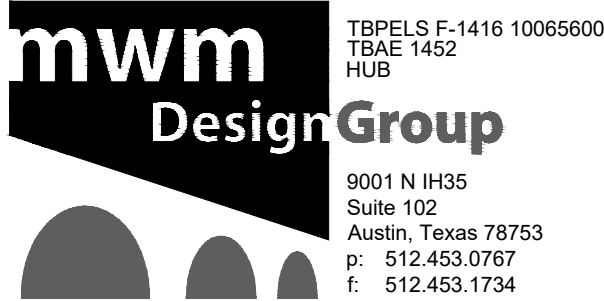
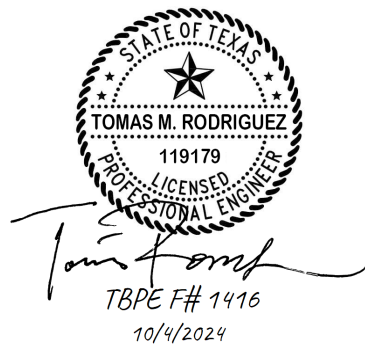
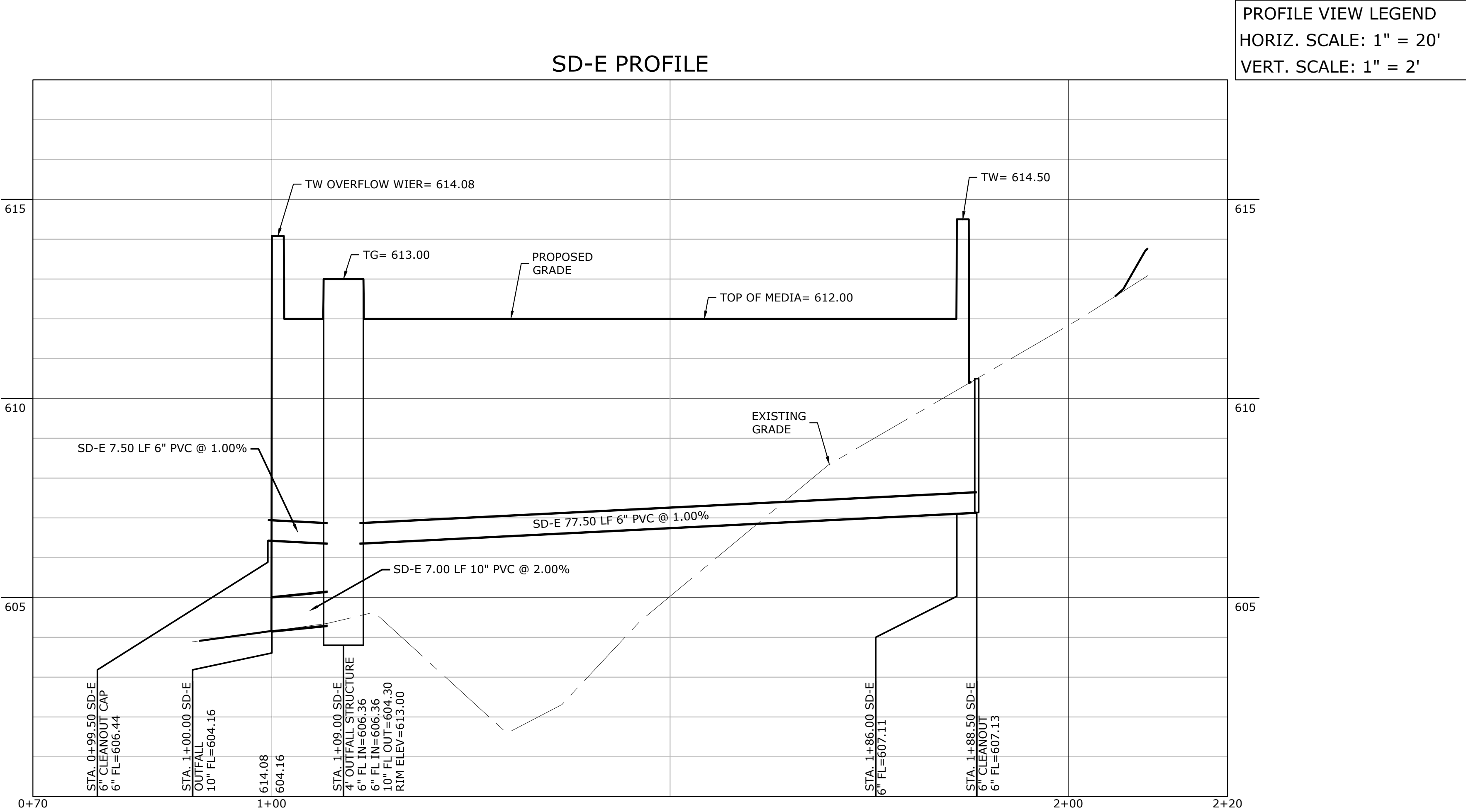
WATER QUALITY PLAN, SECTIONS,
AND CALCULATIONS

Western Hills Athletic Club
4801 Rollingwood Drive
Rollingwood, TX 78746

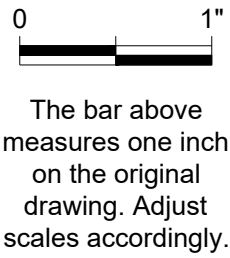
PLOTTED: 10/4/2024
JOB NO: 863-02

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NO.	DATE	DESCRIPTION	BY



STORM SEWER PROFILES

Western Hills Athletic Club
4801 Rollingwood Drive
Rollingwood, TX 78746

PLOTTED: 10/4/2024
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LANDSCAPE NOTES

1. THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL OVERHEAD AND UNDERGROUND UTILITIES (INCLUDING THOSE PROPOSED WITH THIS PROJECT, I.E. IRRIGATION, WASTEWATER, WATER, STORM SEWER, GAS, TELECOM, FIBER OPTIC, ELECTRIC, ETC.) PRIOR TO STARTING WORK.
2. INFORMATION PROVIDED ON THIS PLAN IS GENERAL IN NATURE; DIMENSIONS, AREAS, AND DISTANCES ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED PRIOR TO BIDDING. DISCREPANCIES SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT FOR RESOLUTION PRIOR TO STARTING WORK.
3. THE CONTRACTOR IS TO THOROUGHLY FAMILIARIZE HIM/HERSELF WITH ALL PLANS, SPECIFICATIONS AND THE SITE PRIOR TO BIDDING. FAILURE TO DO SO WILL NOT REDUCE THE CONTRACTOR'S OBLIGATION TO PERFORM THE WORK AS DESCRIBED FOR THE PRICE BID.
4. QUANTITIES SHOWN ARE INTENDED TO ASSIST CONTRACTORS IN EVALUATING THEIR OWN TAKE OFFS AND ARE NOT GUARANTEED AS ACCURATE REPRESENTATIONS OF REQUIRED MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS BID QUANTITIES AND IS REQUIRED TO REFLECT THE DESIGN INTENT.
5. ALL PLANT MATERIALS SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE CURRENT AMERICAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, OR EQUIVALENT
6. NO SUBSTITUTIONS OF PLANT MATERIAL LOCATIONS, SPECIES OR SIZE WILL BE ALLOWED WITHOUT PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT. ALL PLANT MATERIALS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
7. AS PART OF THE BASE BID, THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ALL LANDSCAPE MAINTENANCE AS INDICATED IN THE PROJECT SPECIFICATIONS (INCLUDING, BUT NOT LIMITED TO MOWING, WATERING, REPLACEMENT OF UNACCEPTABLE, DISEASED OR DEAD PLANTS, ETC.) AND WEED CONTROL UNTIL FINAL ACCEPTANCE BY OWNER.
8. CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL TO BE ALIVE AND BE IN A HEALTHY, VIGOROUS CONDITION FOR A PERIOD OF ONE YEAR FROM THE DATE OF COMPLETION OF THE ENTIRE PROJECT OR OTHER DATE(S) ESTABLISHED BY THE LANDSCAPE ARCHITECT, OR OWNER, EXCEPT AS MAY RESULT FROM NEGLECT OR DAMAGE BY THE OWNER, DAMAGE BY OTHERS OR UNUSUAL PHENOMENA BEYOND THE CONTRACTORS CONTROL.
9. CONTRACTOR SHALL REPLACE ALL DEAD, AND/OR UNHEALTHY PLANT MATERIALS AND/OR PLANT MATERIALS THAT HAVE PARTIALLY DIED PURSUANT TO THE CONDITION OF THE WARRANTY AT NO EXPENSE TO THE OWNER. DEAD MATERIALS MUST BE REPLACED WITHIN 10 BUSINESS DAYS PER TECHNICAL PROVISIONS. RE-WARRANT REPLACEMENT PLANTS FOR AN ADDITIONAL ONE YEAR UNDER THE SAME TERMS AS THE ORIGINAL WARRANTY. PLANT MATERIALS USED FOR REPLACEMENT SHALL BE THE SAME SPECIES, SIZE AND SHAPE.
10. ALL PLANTS SHALL BE HEALTHY, VIGOROUS AND REPRESENTATIVE OF THE SPECIES SPECIFIED. ALL PLANTS SHALL BE WELL BRANCHED, PROPORTIONED, AND FREE OF ALL INSECTS, DISEASES, BARK BRUISES, SCRAPES, CRACKED BRANCHES AND PHYSICAL DAMAGE. PLANTS SHALL BE BALLED AND WRAPPED OR CONTAINER GROWN AS SPECIFIED. NO PLANT MATERIALS WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL ROOT WRAPPING MATERIAL SHALL BE REMOVED AT TIME OF PLANTING, AS SHOWN ON DETAILS.
11. ALL PLANTS SHALL BE INSTALLED AS PER DETAILS AND THE CONTRACT SPECIFICATIONS.
12. ALL PLANTS AND STAKES SHALL BE SET PLUMB UNLESS OTHERWISE SPECIFIED.
13. THE LANDSCAPE CONTRACTOR SHALL REFER TO THE CONTRACT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
14. INSTALLATION OF LANDSCAPE SHALL BE PERFORMED BY A QUALIFIED LANDSCAPE INSTALLER WITH A MINIMUM OF FIVE YEARS CONTINUOUS EXPERIENCE OF INSTALLING LANDSCAPE PLANTINGS OF SIMILAR SIZE AND SCOPE.
15. CONTRACTOR SHALL PROVIDE MAINTENANCE FOR LANDSCAPE & IRRIGATION SYSTEM FOR 12 MONTHS FOLLOWING FINAL ACCEPTANCE OF ENTIRE PROJECT.
16. LANDSCAPE MATERIALS SHALL BE LOCATED SO AS NOT TO OBSTRUCT VISUAL OR PHYSICAL ACCESS TO FIRE HYDRANTS. ALL LANDSCAPE MATERIALS SHALL BE INSTALLED IN CONFORMANCE WITH UTILITY COMPANY REQUIREMENTS AT TRANSFORMERS, METERS, OVERHEAD LINES, ETC. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.
17. EXECUTE ALL LANDSCAPING AND REVEGETATION PRIOR TO REQUEST FOR CERTIFICATE OF OCCUPANCY, FINAL INSPECTION OR AS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT OR OWNER. HOWEVER, NO PLANT MATERIALS SHALL BE INSTALLED BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE LANDSCAPE ARCHITECT, OWNER OR OWNER'S DESIGNATED REPRESENTATIVE. FULLY PREPARE ALL LANDSCAPE BEDS (INCLUDING IRRIGATION) PRIOR TO INSTALLATION OF LANDSCAPE PLANTS.
18. SITE STOCKPILED TOPSOIL MAY BE USED IF IT HAS BEEN DEEMED ACCEPTABLE IN QUALITY AND APPROVED BY LANDSCAPE ARCHITECT.
19. ALL PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANT'S ORIGINAL GRADE BEFORE DIGGING.
20. THE LANDSCAPE CONTRACTOR SHALL PROVIDE AN IRRIGATION SYSTEM FULLY COMPLIANT WITH TCEQ REQUIREMENTS AND COMPLIANT WITH THE LANDSCAPE IRRIGATION NOTES AND CONTRACT SPECIFICATIONS.

LANDSCAPE IRRIGATION NOTES

- AUTOMATIC IRRIGATION SYSTEMS SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS. THESE REQUIREMENTS SHALL BE NOTED ON THE SITE DEVELOPMENT PERMIT AND SHALL BE IMPLEMENTED AS PART OF THE LANDSCAPE INSPECTION:
1. A NEW COMMERCIAL AND MULTI-FAMILY IRRIGATION SYSTEM MUST BE DESIGNED AND INSTALLED SO THAT:
- (A) THERE IS NOT DIRECT OVERSPRAY ONTO NON-IRRIGATED AREAS;
- (B) THE SYSTEM DOES NOT INCLUDE SPRAY IRRIGATION ON AREAS LESS THAN SIX (6) FEET WIDE (SUCH AS MEDIANS, BUFFER STRIPS, AND PARKING LOT ISLANDS)
- (C) ABOVE-GROUND IRRIGATION EMISSION DEVICES ARE SET BACK AT LEAST SIX (6) INCHES FROM IMPERVIOUS SURFACES;
- (D) THE IRRIGATION SYSTEM HAS A MASTER VALVE;
- (E) CIRCUIT REMOTE CONTROL VALVES HAVE ADJUSTABLE FLOW CONTROLS;
- (F) SERVICEABLE IN-HEAD CHECK VALVES ARE ADJACENT TO PAVED AREAS WHERE ELEVATION DIFFERENCES MAY CAUSE LOW HEAD DRAINAGE;
- (G) THE IRRIGATION SYSTEM HAS A CITY- APPROVED WEATHER BASED CONTROLLER;
- (H) AN AUTOMATIC RAIN SHUT-OFF DEVICE SHUTS OFF THE IRRIGATION SYSTEM AUTOMATICALLY AFTER NOT MORE THAN A ONE-HALF INCH (1/2") RAINFALL;
- (I) ZONE VALVES AND CIRCUITS ARE SEPARATED BASED ON PLANT WATER REQUIREMENTS;
- (J) AN IRRIGATION EMISSION DEVICE (SUCH AS SPRAY, ROTOR, OR DRIP EMITTER) DOES NOT EXCEED THE MANUFACTURER'S RECOMMENDED OPERATING PRESSURE; AND
- (K) NO COMPONENT OF THE IRRIGATION SYSTEM DEVIATES FROM THE MANUFACTURER'S RECOMMENDED USE OF THE PRODUCT.
2. THE MAXIMUM SPACING BETWEEN SPRAY OR ROTARY SPRINKLER HEADS MUST NOT EXCEED THE RADIUS OF THROW OF THE HEAD UNLESS MANUFACTURER OF THE SPRINKLER HEAD SPECIFICALLY RECOMMENDS A GREATER SPACING. THE RADIUS OF THROW IS DETERMINED BY REFERENCE TO THE MANUFACTURER'S SPECIFICATIONS FOR A SPECIFIC NOZZLE AT A SPECIFIC OPERATING PRESSURE.
3. THE IRRIGATION INSTALLER SHALL DEVELOP AND PROVIDE AN AS-BUILT DESIGN PLAN AND WATER BUDGET TO THE CITY AT THE TIME THE FINAL PLUMBING INSPECTION IS PERFORMED. THE WATER BUDGET SHALL INCLUDE:
- (A) A CHART CONTAINING ZONE NUMBERS, PRECIPITATION RATE, AND GALLONS PER MINUTE; AND
- (B) THE LOCATION OF THE EMERGENCY IRRIGATION SYSTEM SHUT-OFF VALVE. A LAMINATED COPY OF THE WATER BUDGET SHALL BE PERMANENTLY INSTALLED INSIDE THE IRRIGATION CONTROLLER DOOR.
4. IRRIGATION CONTRACTOR SHALL PROVIDE A COMPLETE AS-BUILT PLAN TO OWNER, OR OWNER'S DESIGNATED REPRESENTATIVE SHOWING ALL IRRIGATION COMPONENTS AND SIZE OF COMPONENTS, INCLUDING WATER PRESSURE, MAIN LINE, LATERAL LINES, VALVES, HEADS, BACKFLOW DEVICE, CONTROLLER, QUICK COUPLERS, ETC.
5. COMPLY WITH ALL APPLICABLE TCEQ IRRIGATION RULES AND REGULATIONS.
6. CONTRACTOR IS TO VERIFY PRESSURE AND WATER SUPPLY CHARACTERISTICS ARE ADEQUATE FOR THIS INSTALLATION. ANY DISCREPANCIES OR INADEQUACIES SHALL BE REPORTED TO THE OWNER IMMEDIATELY, BEFORE STARTING CONSTRUCTION. DESIGN PRESSURE IS 65 PSI AT 45 GMP.
7. CONTRACTOR SHALL OBTAIN ALL PERMITS AND HANDLE ALL INSPECTIONS FOR THIS WORK AS REQUIRED BY LOCAL REGULATIONS AND SHALL PAY ALL FEES ASSOCIATED WITH THESE PERMIT(S).
8. VERIFY LOCATION OF CONTROLLER, WATER SUPPLY; SITE CONDITIONS MAY VARY. OPERABLE IRRIGATION EQUIPMENT (VALVES, QUICK COUPLERS, BFP, ETC.) SHALL BE INSTALLED SEPARATELY IN VALVE BOXES.
9. ALL HEADS SHALL BE INSTALLED ON TRIPLE SWING JOINTS. HEADS SHALL BE NOT BE LOCATED CLOSER THAN 6" FROM PAVEMENT.
10. ADJUST RADI AND SPRAY PATTERNS TO ELIMINATE OVERSPRAY ONTO BUILDINGS, SIDEWALKS, FENCES, DRIVEWAYS, ROADWAYS, ETC.
11. ALL PAVEMENT CROSSINGS (LATERALS, WIRING, MAINLINE, ETC.) SHALL OCCUR WITHIN SLEEVES. INCLUDING SIDEWALKS, DRIVEWAYS, TRAILS, BIKE WAYS, ROADWAYS, ETC.
12. PRIOR TO CONSTRUCTION, VERIFY WITH THE GENERAL CONTRACTOR AND ALL UTILITY COMPANIES THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES. IMMEDIATELY REPORT ANY BREAKAGES TO THE APPROPRIATE UTILITY COMPANY.
13. THE CONTRACTOR IS TO INSTALL ALL SLEEVES IN SEQUENCE WITH OTHER CONSTRUCTION ACTIVITIES, AND WILL BE RESPONSIBLE FOR COORDINATING WITH OTHER SITE CONTRACTORS FOR THIS WORK. ADEQUATELY MARK THE LOCATIONS OF ALL SLEEVES AND PIPE CONNECTION POINTS TO EXISTING LINES.
14. INSTALL THE MAIN LINE A MINIMUM OF 15" DEEP AND LATERAL LINES MIN. 12" DEEP.
15. PROVIDE A NEW WATER PROOF TAG WITH CONTRACTOR'S NAME AND TELEPHONE NUMBER CLEARLY SHOWN AND SECURELY ATTACHED TO THE INSIDE OF THE CONTROLLER DOOR.

TREE MITIGATION/REPLACEMENT LIST											
TREE TAG	TREE TYPE	SIZE (INCHES)				TOTAL CALIPER (INCHES)	REPLACEMENT FACTOR	REPLACEMENT INCHES REQUIRED	REASON FOR REMOVAL/MITIGATION	REPLACEMENT TREE TYPE	PROPOSED TREE CALIPER (INCHES)
16910	Chinaberry	9.00				9.0	0%	-	Invasive		
16912	Ligustrum	8.00	6.0			11.0	0%	-	Invasive		
20033	Chinaberry	9.00				9.0	0%	-	Invasive		
20038	Chinaberry	15.00				15.0	0%	-	Invasive		
20047	Live Oak	12.00				12.0	25%	3.00	Construction	MEXICAN SYCAMORE	4.00
20088	Live Oak	14.00				14.0	25%	3.50	Construction	MEXICAN SYCAMORE	4.00
20089	Live Oak	11.00				11.0	0%	-	Construction		
20093	Live Oak	18.00				18.0	25%	4.50	Construction	CEDAR ELM	6.00
20094	Live Oak	12.00				12.0	25%	3.00	Construction	MEXICAN SYCAMORE	4.00
20095	Live Oak	10.00				10.0	0%	-	Construction		
20096	Live Oak	11.00				11.0	0%	-	Construction		
20097	Live Oak	9.00				9.0	0%	-	Construction		
20098	Live Oak	12.00				12.0	25%	3.00	Construction	MEXICAN SYCAMORE	4.00
20099	Live Oak	15.00				15.0	25%	3.75	Construction	TEXAS ASH	4.00
20100	Live Oak	12.00				12.0	25%	3.00	Construction	TEXAS ASH	4.00
20101	Live Oak	13.00				13.0	25%	3.25	Construction	TEXAS ASH	4.00
20102	Live Oak*	19.00	17.0			27.5	25%	6.00	Construction	CEDAR ELM	6.00
20103	Live Oak	20.00				20.0	25%	5.00	Construction	CEDAR ELM	6.00
20105	Cedar Elm	15.00				15.0	25%	3.75	Construction	CEDAR ELM	4.00
20106	Live Oak	10.00				10.0	0%	-	Construction		
20107	Live Oak	12.00				12.0	25%	3.00	Construction	CEDAR ELM	4.00
20108	Live Oak	7.00				7.0	0%	-	Construction		-
20109	Live Oak	12.00				12.0	25%	3.00	Construction	TEXAS ASH	4.00
					TOTAL INCHES REMOVED	296.50	TOTAL REPLACEMENT INCHES REQUIRED	33.75	TOTAL REPLACEMENT INCHES PROVIDED		40.00
* Only replacing 6" maximum, as allowed by code											

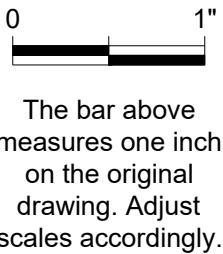
NOTE:
TOTAL CALIPER OF REPLACEMENT INCHES MUST EQUAL REQUIRED INCHES AS MEASURED AT DBH

PLANT LIST			
COMMON NAME	BOTANICAL NAME	SIZE	COMMENT
CEDAR ELM	ULMUS CRASSIFOLIA	6" CALIPER	12' HT., SINGLE TRUNK, B&B OR CONTAINER/BOX
CEDAR ELM	ULMUS CRASSIFOLIA	4" CALIPER	12' HT., SINGLE TRUNK, B&B OR CONTAINER/BOX
MEXICAN SYCAMORE	PLATANUS MEXICANA	4" CALIPER	12' HT., SINGLE TRUNK, B&B OR CONTAINER/BOX
TEXAS ASH	FRAXINUS TEXENSIS	4" CALIPER	12' HT., SINGLE TRUNK, B&B OR CONTAINER/BOX
LITTLE BLUESTEM	SCHIZACHYRIUM SCOPRAIUM	1 GAL	24" O.C. TYP.
OBEDIENT PLANT	PHYSOTEGIA VIRGINIANA	1 GAL	36" O.C. TYP.
SWITCH GRASS	PANICUM VIRGATUM	1 GAL	48" O.C. TYP.
BERMUDA SOD	CYNODON DACTYLON	SOD	AS SHOWN

City Tree Requirements
Total Lot Area = 139,929
1 tree per 2000' s.f.
Required trees = 70 trees
Existing Tree Credit
11' height or more (1 for 1) = 95 trees
Trees Provided
Proposed trees = 13 trees
Total trees provided = 108 trees



NO.	DATE	DESCRIPTION	BY



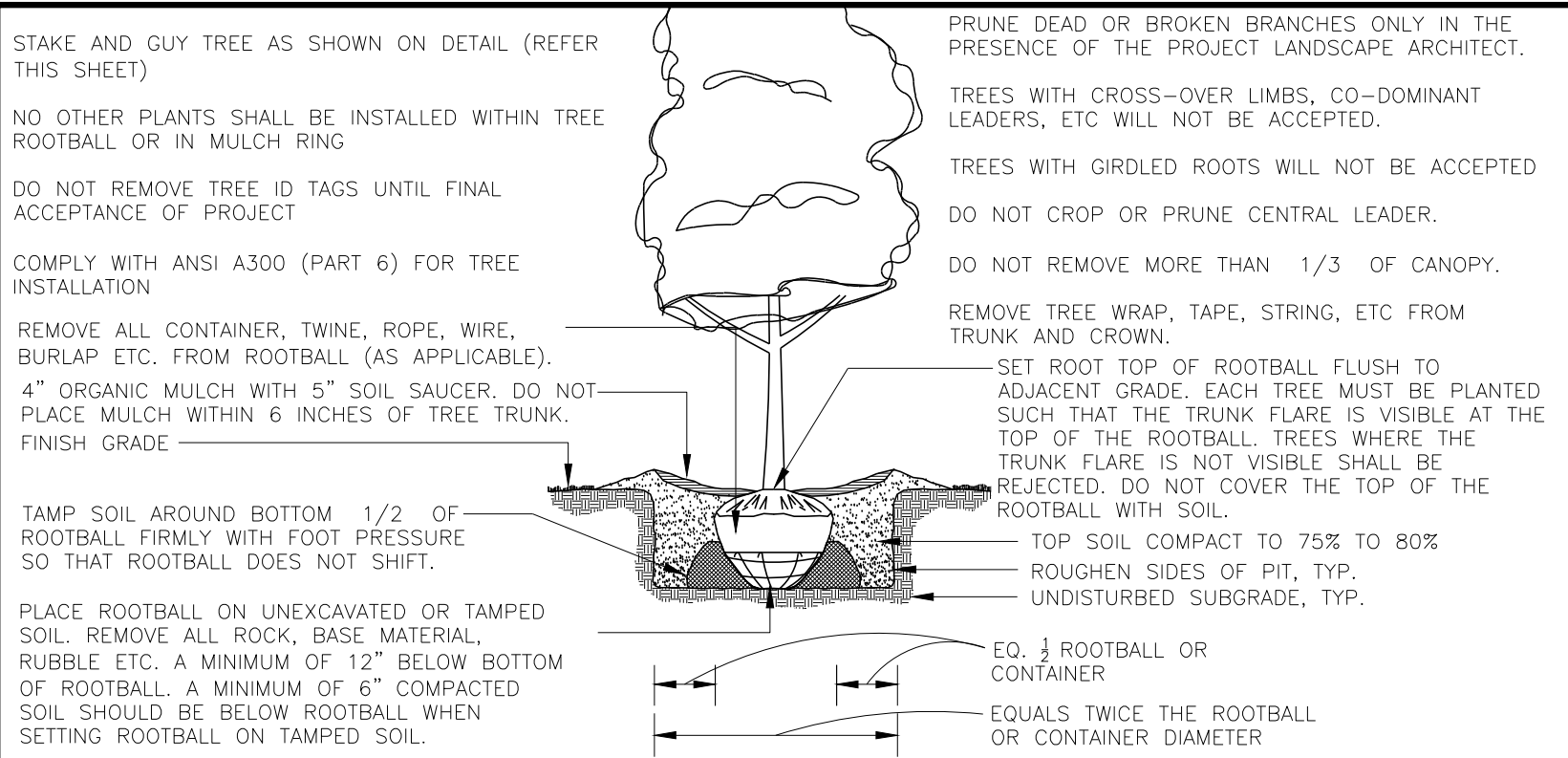
LANDSCAPE NOTES & CALCULATIONS

Western Hills Athletic Club
4801 Rollingwood Drive
Rollingwood, TX 78746

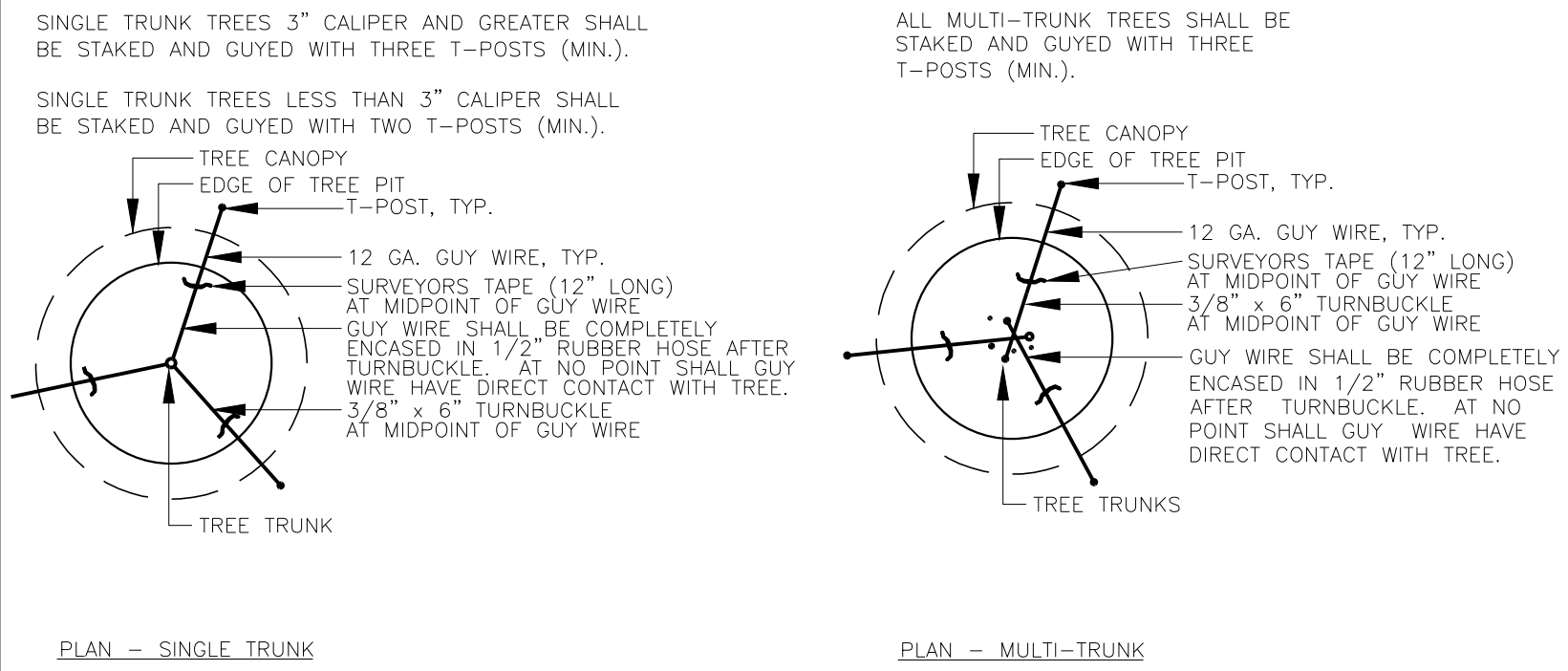
PLOTTED: 10/4/2024
JOB NO: 863-02

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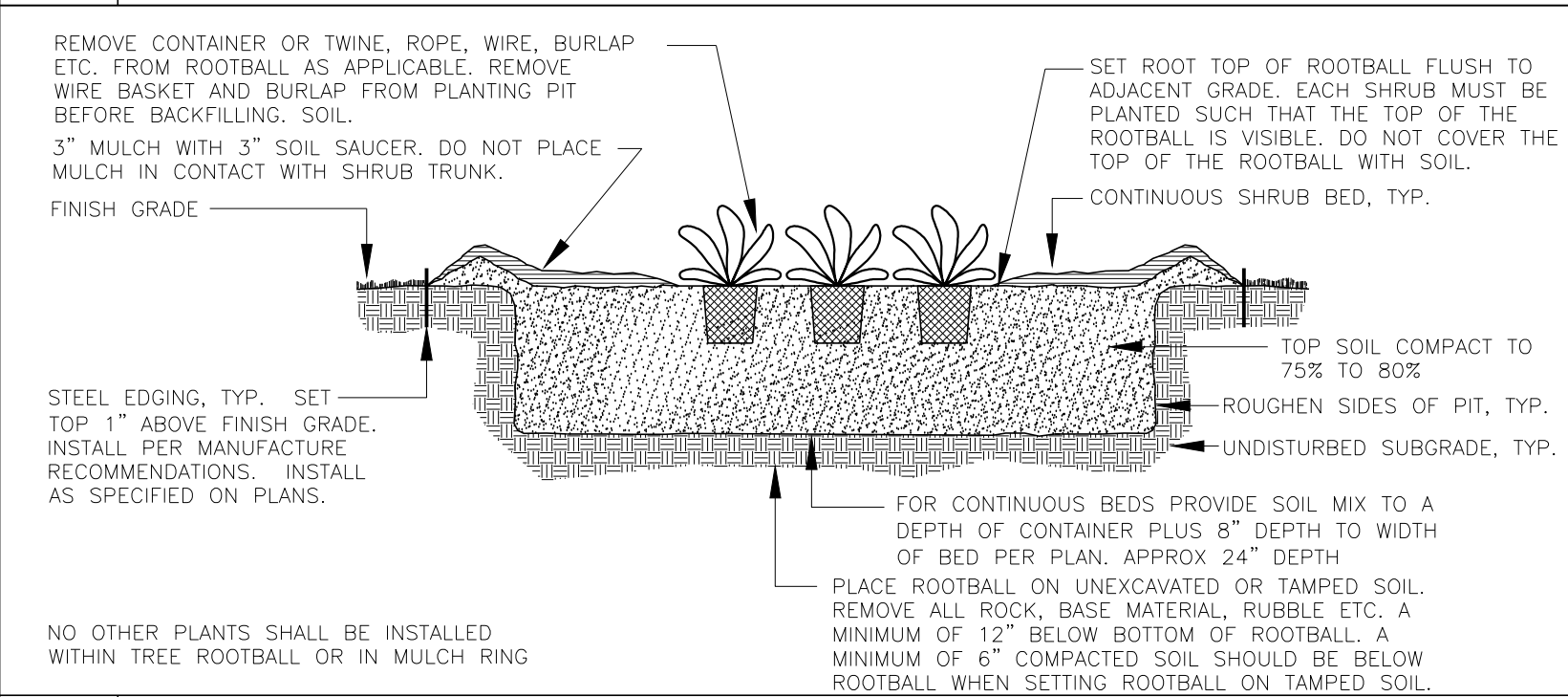
18 OF 30



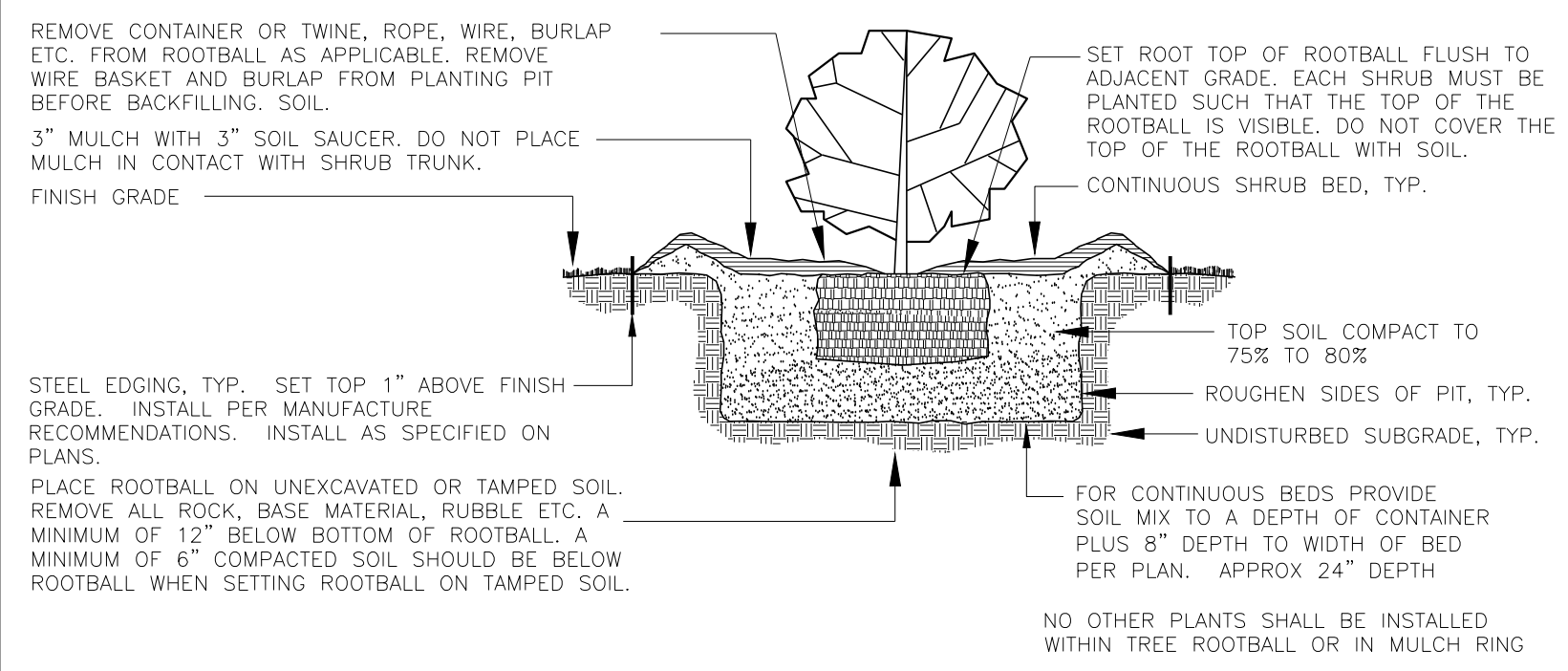
1
791
TREE PLANTING DETAIL (SINGLE TRUNK) GREATER THAN 3" CALIPER
NO SCALE



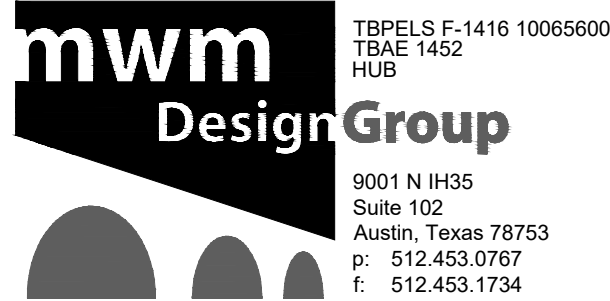
2
791
TREE STAKING DETAIL
NO SCALE



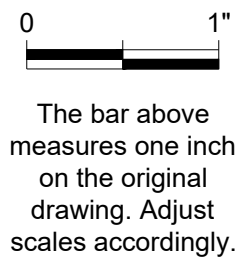
3
791
PERENNIAL / GROUNDCOVER PLANTING DETAIL
NO SCALE



4
791
SHRUB PLANTING DETAIL
NO SCALE



NO.	DATE	DESCRIPTION	BY



LANDSCAPE DETAILS

Western Hills Athletic Club
4801 Rollingwood Drive
Rollingwood, TX 78746

PLOTTED: 10/4/2024
JOB NO: 863-02

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COORDINATION

1.

The Contractor shall compare the Landscape, Structural, Civil, and other series drawings and report any discrepancies between each set of drawings and within each set of drawings prior to fabrication and installation of any structural members.
2.

Only larger sleeve openings and framed openings in structural framing component members are indicated on the Structural Drawings. However, all sleeves, inserts and openings, including frames and/or sleeves shall be provided for passage, provision and/or incorporation of the work of the contract, including but not limited to Mechanical, Electrical and Plumbing work. This work shall include the coordination of sizes, alignment, dimensions, position, locations, elevations and grades as required to serve the intended purpose. Openings not indicated on the Structural Drawings, but required as noted above, shall be submitted to the Engineer for review.
3.

Refer to Civil drawings for floor elevations, slopes, drains and location of depressed and elevated floor areas.
4.

Compatibility of the structure and provisions for building equipment supported on or from structural components shall be verified as to size, dimensions, clearances, accessibility, weights and reaction with the equipment for which the structure has been designed prior to submission of shop drawings and data for each piece of equipment and for structural components. Differences shall be noted on the submittals. Compatibility of the structure and provisions for equipment supported on or from structural components shall be verified as to size, dimensions, clearances, accessibility, weights and reaction with the equipment for which the structure has been designed prior to submission of shop drawings and data for each piece of equipment and for structural components. Differences shall be noted on the submittals.
5.

Shop drawings shall be prepared for all structural items and submitted for review by the Engineer. Structural Drawings shall not be reproduced and used as shop drawings. All Items deviating from the Structural Drawings or from previously submitted shop drawings shall be clouded.
6.

The details designated as "Typical Details" apply generally to the Structural Drawings in all areas where conditions are similar to those described in the details.
7.

All dimensions and conditions of existing construction shall be verified at the job site prior to the preparation of shop drawings. Differences between existing construction and that shown on the Structural Drawings shall be referred to the Architect. Differences shall also be clouded on the shop drawings.
8.

All structural elements of the project have been designed by the Engineer to resist the required code vertical and lateral forces that could occur in the final completed structure only. It is the responsibility of the Contractor to provide all required bracing during construction to maintain the stability and safety of all structural elements during the construction process until the lateral-load resisting or stability-providing system is completely installed and the structure is completely tied together. Temporary supports shall not result in the overstress or damage of the elements to be braced nor any elements used as brace supports.
9.

The Contract Structural Drawings and Specifications represent the finished structure, and except where specifically shown, do not indicate the means or methods of construction. The Contractor and their Sub-Contractors shall supervise and direct the Work and shall be solely responsible for all construction means, methods, procedures, techniques, sequences and safety measures including, but not limited to, adherences to all OSHA guidelines. The Engineer shall not have control of, and shall not be responsible for, construction means, methods, techniques, sequences or procedures, for safety precautions and programs in connection with the Work, for the acts or omissions of the Contractor, Subcontractors, or any other person performing any of the Work, or for the failure of any of these persons to carry out the Work in accordance with the Structural Contract Documents.
10.

Where conflict exists among the various parts of the Structural Contract Documents, Structural Drawings, Structural Notes, and Specifications, the strictest requirements, as indicated by the Engineer, shall govern.
11.

Periodic site observation by field representatives of Encotech is solely for the purpose of determining if the Work is proceeding in accordance with the Structural Contract Documents. This limited site observation is not intended to be a check of the quality or quantity of the Work, but rather a periodic check in an effort to inform the Owner against defects and deficiencies in the work of the Contractor.
12.

These structural drawings do not address water issues as it relates to but not limited to site drainage, roof runoff, or water introduced by adjacent properties. Adequate drainage shall be provided to limit the effects of erosion and to maintain the integrity of the structural system described. Water issues and/or waterproofing are the responsibility of the Architect and Contractor and are beyond the scope of these documents.

CODES AND REFERENCED REPORTS

1.

The General Building Code used as the basis for the structural design is as follows:

A.

International Building Code, 2015 Edition
1.

Structural Loading: Minimum Design Loads and Associated Criteria for Buildings and Other Structures, American Society of Civil Engineers, ASCE 7, as reference by the General Building Code.
2.

Structural Concrete: Building Code Requirements for Reinforced Concrete, American Concrete Institute, ACI 318, as referenced by the General Building Code.
3.

Geotechnical Report: Foundation elements have been designed in accordance with information provided in the following geotechnical report:

Geotechnical Engineer:

Terracon

Report Number:

96205112

Date:

07/31/2020

DESIGN LOADS

1.

Dead Loads include the self-weight of the structural elements
2.

Live Loads

A.

Tennis courts

100 psf
3.

Snow Loads

A.

Ground snow load, Pg

5 psf
4.

Seismic Loads

A.

The structure and structural components of the building have been designed in accordance with General Building Code with the following criteria:

a.

Risk Category

II

b.

Seismic Importance Factor: Ie

1.0

c.

Site Class

D

d.

Seismic Design Category

A

e.

Spectral Response Coefficients

•

Ss (%g)

0.053

•

S1 (%g)

0.031

•

SDS

0.056

•

SD1

0.049

f.

Basic Seismic-force-resisting system

•

Ground-supported cantilever wall

g.

Response Modification Factor(s), R

1.5

h.

Seismic Response Coefficient(s), Cs

SDS/(R/Ie)

i.

Design Base Shear, V

Cs*W

j.

Analysis Procedure Used

Equivalent Lateral Force

5.

Wind Loads

A.

Wind lateral load on structural frame is based on ASCE 7 using the following:

a.

Basic Wind Speed (LRFD) (ASD)

115 mph

83 mph

b.

Exposure

C

c.

Internal Pressure Coefficient, Gcpi

+/-0.18

d.

Risk Category

II

SUBMITTALS

1.

Shop drawings shall be prepared for all structural items and submitted for review by the Engineer. Structural Drawings shall not be reproduced and used as shop drawings. All Items deviating from the Structural Drawings or from previously submitted shop drawings shall be clouded.

2.

Contractor shall review shop drawings for compliance with the Structural Drawings and shall certify that they have done so by a stamp noting that the drawings have been "Approved" and which bears the signature (or initials) of an authorized representative of the Contractor and the date. Submittals which do not reflect the Contractor's approval, signature and date will be returned without review.

3.

Contractor shall be responsible for delays caused by rejection of inadequate shop drawings.

4.

Where review and return of shop drawings is required or requested, the Engineer will review each submittal and, where possible, return within two (2) weeks of receipt.

5.

Corrections or comments on shop drawings or manufacturer's data sheets do not relieve the Contractor from compliance with requirements of the plans and specifications. Engineer's review is for general conformance with the requirements of the Structural Drawings. Contractor is responsible for confirming and correcting all quantities and dimensions, selecting fabrication processes and techniques of construction, and coordinating the work with that of all other contractors.

6.

Refer to individual sections for specific submittal requirements.

7.

Contractor shall provide submittals electronically to Architect. Architect will provide to Engineer for review and comment. Engineer will return reviewed submittal to Architect for distribution to the Architect, Owner, and Contractor. Contractor will be responsible for providing and distributing Engineer's comments to their subcontractors.

EXCAVATION PROTECTION

1.

The sides of all excavations greater than 5'-0" in depth shall be laid back to a slope of 2 horizontal to 1 vertical, unless the following applies:

A.

A steeper slope is allowed by the Geotechnical Engineer for the particular location and site conditions in question.

B.

A temporary retention system is indicated on the Structural Drawings.

C.

An alternative protective system is submitted by the Contractor and allowed by the Owner.

2.

Contractor shall submit drawings and calculations sealed by a Registered Engineer licensed in the state having jurisdiction at the project site for the design of any temporary retention or alternative protective systems. Temporary retention or alternative protective systems shall be designed to resist the soil pressures stipulated in the referenced geotechnical report. In addition, the design shall consider surcharges created by construction equipment, excavation spoil, and other surface encumbrances.

3.

Contractor shall comply with all Occupational Safety and Health Administration standards and all other regulatory agency standards regarding excavation safety.

SITE PREPARATION

2.

After demolition of the existing structure, construction areas shall be stripped of all vegetation, concrete, loose soils, fill soils, top soils, construction debris, and other unsuitable material currently present at the site. Roots of trees to be removed within construction areas, if any, shall be grubbed to full depths, including the dry soil around the roots. All remnants of existing foundations shall be completely excavated and removed to at least 2 feet below finished grades. If any unusual items are unearthed during or after demolition, please contact us for further evaluation. A geotechnical engineer shall be retained to assist in evaluating exposed subgrades during earthwork so that unsuitable materials, if any, are removed at the time of construction.

3.

Once initial subgrade elevations have been achieved (i.e., after cuts but prior to fills), the exposed subgrade in all construction areas (except landscaping) shall be carefully and thoroughly proof-rolled with a 20-ton pneumatic roller, fully-loaded dump truck, or similar equipment to detect weak zones in the subgrade. Proof-rolling is not necessary in intact Stratum 3 limestone subgrade areas. Weak areas detected during proof-rolling, zones containing debris or organics, and voids resulting from removal of tree roots, existing foundation elements, utilities, fill, boulders, etc. shall be removed and replaced with soils exhibiting similar classification, moisture content, and density as the adjacent in-situ soils (or flowable fill).

4.

The Edwards Formation limestone could exhibit voids, clay-filled zones, and/or solution activity which may impact construction. If voids or other significant solution features are encountered during site preparation/excavation operations, the project geotechnical engineer shall be contacted to evaluate the feature from a geotechnical engineering standpoint.

5.

For the proposed tennis court areas and 5ft beyond, the on-site soils be excavated at least 20 inches below the proposed slab. The removed soils shall be replaced with properly compacted select fill within all structural areas up to final grades. If Stratum 3 limestone is encountered within 12 inches of the final subgrade elevation, the limestone shall be over excavated such that at least 6 inches of properly compacted select fill can be provided under the gravel layer.

6.

Structural fill/select fill underneath the tennis court and 5 feet beyond shall consist of CL, SC, and/or GC soils according to the USCS Classification system. Select fill shall also comply with one of the following:

•

TxDOT Item 247, Type A, Grade 3

•

Percent retained on No. 4 Sieve ≤ 40 percent with 5SPs20 and rocks ≤ 4 inches in maximum dimensions

•

Crushed concrete (TxDOT Item 247, Type D, Grade 3 or better)

7.

Select fill shall consist of approved materials free of organic matter and debris. A sample of each material type shall be submitted to the Geotechnical Engineer for evaluation prior to use on this site.

8.

Based on the laboratory testing performed during this exploration, the excavated Stratum 1 soils are not suitable for re-use as select fill.

9.

The excavated Stratum 2 soils and Stratum 3 limestone material may be acceptable for re-use as select fill provided that it is processed to meet the Structural Fill performance criteria above and as approved by the project geotechnical engineer. After initial processing of the fill material, samples shall be submitted to the project geotechnical engineer for evaluation of proper gradation, plasticity index, and maximum rock size prior to re-use as select fill. Periodic testing shall be performed throughout the material excavation phase to check for conformance with the select fill requirements given above as recommended by the project geotechnical engineer.

10.

Structural fill/select fill less than 5 feet in depth shall be compacted to 95% of the maximum dry unit weight per the standard proctor test (ASTM D698) at a moisture content of within 3% of optimum.

11.

Structural fill/select fill greater than 5 feet in depth shall be compacted to 100% maximum dry unit weight per the standard proctor test (ASTM D698) at a moisture content of within 3% of optimum.

12.

Structural fill shall be placed in 8 inch loose lifts when more than 3 feet away from retaining walls. When within 3 feet away from retaining walls, light construction equipment must be used and lift thickness shall be reduced to 4-6 in.

13.

When the existing structures are demolished, the Earthwork Contractor may uncover structure pad select fill. The Contractor shall perform several test pit excavations (under observation of the geotechnical engineer) in the fill pad area to assess the thickness of the existing select fill. At that same time, the project geotechnical engineer shall obtain samples for testing to ensure the existing select fill meets the project structural fill requirements.

14.

The upper 6 in of select fill may be replaced with crushed limestone at the contractor's option.

15.

Provide a vapor retarder that conforms to ASTM E1745, Class A or better with a maximum water vapor permeance of 0.01 perms per ASTM E96. Vapor retarder shall be no less than 15 mils thick.

16.

The above recommendations have been prepared in accordance with the referenced geotechnical report.

CONTROLLED BACKFILL BEHIND BASEMENT AND RETAINING WALLS

1.

Backfill material shall be clean gravel compacted to between 95% and 100% of Standard Proctor (ASTM D 698) maximum dry density. Backfill shall not be overcompacted.

2.

Compaction and moisture content of controlled backfill shall be verified by an independent testing laboratory.

3.

The top 2 ft of material below the ground surface shall consist of relatively impervious material, with a liquid limit between 40 and 50 percent and a plasticity index between 20 and 30. This material shall be placed in 6" lifts and compacted at optimum moisture content, to 95 percent of the maximum density per ASTM D698.

4.

Backfill material shall not be placed against foundation walls until all supporting slabs, beams, struts, etc., have attained their 28 day design strength unless proper bracing is installed.

5.

Where backfill is required on both sides of a structure or building element, backfill shall be placed simultaneously along both sides so that the backfill height on one side does not exceed the height on the opposite side by more than 4'-0" .

6.

Compaction and moisture content of subgrade and each lift of structural fill shall be inspected and approved by a qualified engineering technician, supervised by a Geotechnical Engineer.

7.

Design of retaining walls is based on equivalent hydrostatic pressures of 36 pcF, assuming free draining backfill and use of weep holes.

8.

The above recommendations have been prepared in accordance with the referenced geotechnical report.

DESIGN BY OTHERS

1.

In accordance with the Specifications the items listed below are not included in the Contract Documents. Design of these elements shall be the responsibility of the Contractor, and shall be designed and sealed by a registered professional engineer licensed in the state having jurisdiction at the project site.

A.

Guardrail and Handrail Systems

B.

Excavation Support and Protection

C.

Specialty Retention Systems

2.

Design of the items listed above shall be in accordance with the General Building Code, and shall include all attachments to the structure.

DEFERRED SUBMITTALS

1.

In accordance with the General Building Code, Section 107.3.4.2, the following submittals will not be issued at the time of permit application, and will be "deferred" to a later date. Deferred submittals are required to be submitted to the Building Official. However, these submittals shall be submitted and approved by the Registered Design Professional in Responsible Charge (RDPIRC) prior to submitting to the Building Official. Deferred submittals are design items being delegated to the Contractor which shall be designed and sealed by a registered professional engineer licensed in the state having jurisdiction at the project site.

2.

The following structural components shall be treated as deferred submittals:

A.

Guardrail and Handrail Systems

B.

Excavation Support and Protection

C.

Specialty Retention Systems

3.

Design of the items listed above shall be in accordance with the General Building Code, and shall include all attachments to the structure.

4.

Work associated with Deferred Submittals shall not be performed until the deferred submittal documents have been approved by the Building Official.

5.

Refer to the Contract Documents for additional Deferred Submittal items.

SHEET LIST	
SHEET NUMBER	SHEET NAME
S-001	STRUCTURAL NOTES
S-002	STRUCTURAL NOTES
S-003	CODE REQUIRED SPECIAL INSPECTIONS
S-101	RETAINING WALL PLAN
S-102	TENNIS COURT PLAN
S-200	TYPICAL CONCRETE DETAILS
S-201	TYPICAL CONCRETE DETAILS
S-202	TYPICAL CONCRETE DETAILS
S-203	CONCRETE DETAILS

STRUCTURAL NOTES

WESTERN HILLS ATHLETIC CLUB
4801 Rollingwood Drive
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PLOTTED: 10/04/24
JOB NO 863-02:

S-001

1 OF 9

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TBAE FIRM REGISTRATION NO.: 1452
TBPE FIRM REGISTRATION NO.: F-1416
TBPLS FIRM REGISTRATION NO.: 10065600

NO.	DATE	DESCRIPTION	BY
1	10/04/24	REVISION 1	

FILE: C:\Users\Yvonnea\Favorites\Western Hills Athletic Club\Documents\22037 - Western Hills Athletic Club - 322 - Hamzah Khataw.rvt

CONCRETE FOOTINGS

- Concrete footing design is based on an allowable net bearing capacity of 4,000 psf in accordance with the referenced geotechnical report.
- Bearing stratum shown on the footing details is Stratum 3 Limestone.
- Footings not specifically located on the plan shall be located on centerline of pilaster or column above. Where no pilaster or column occurs, locate on centerline of wall or beam.
- Elevation of top of plinths/footings, unless noted otherwise on the Structural Drawings, is at the bottom of the deepest intersecting beam or wall supported by the footing.
- Footing excavations shall be to neat lines and shall be free of loose or wet materials.
- Footing reinforcing and concrete shall be placed immediately after excavations are complete; in no case shall a footing be excavated that cannot be placed by the end of the workday.
- Reinforcing steel shop drawings shall include placing drawings for templates to set dowels in footings.
- All footings shall be inspected by a representative of a qualified Geotechnical Engineering firm in order to ensure that the proposed bearing material has been reached in accordance with the recommendations given in the referenced geotechnical report and that the footing has been constructed to specified size, with detailed reinforcing, and to specified tolerances.

CAST-IN-PLACE CONCRETE

- Classes of Concrete: All concrete shall conform to the requirements as specified in the table below, unless noted otherwise on the Structural Drawings:

Concrete Mix Schedule

DESCRIPTION OF USE	STRENGTH (psi)	AGG. TYPE	AGG. SIZE	SLUMP (inches)	MAX W/C	EXPOSURE CLASSES	AIR CONTENT
Grade Beams and Footings	3000	NWT	1 1/2"	5-7	-	F0/S0/W0/C1	-
Slab-on-Grade	3000	NWT	1"	3-5	-	F0/S0/W0/C1	-
Retaining Walls	3000	NWT	1"	3-5	0.45	F0/S0/W0/C1	3 - 6%

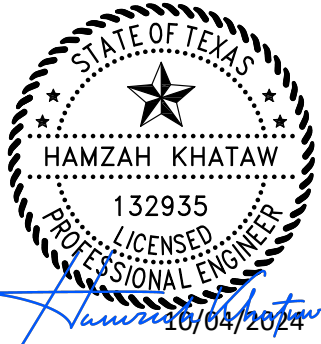
- "NWT" refers to normal concrete having air dry unit weight of approximately 145 PCF (ASTM C33 aggregate).
 - Where w/c ratio is not indicated in the Concrete Mix Schedule, it shall be as necessary to meet strength requirements.
 - Where the w/c ratio is shown, it shall be adhered to regardless of strength requirements.
 - "Strength" is required compressive cylinder strength at an age of 28 days.
- A maximum of 20% of the cementitious materials used in mix designs may be replaced with class C or F fly ash.
 - Provide 5 percent plus or minus 1 1/2 percent of entrained air in concrete permanently exposed to the weather and elsewhere at the contractor's option.
 - Horizontal construction joints in concrete placements shall be permitted only where indicated on the Structural Drawings. All vertical construction joints shall be made in the center of spans in accordance with the typical details. Contractor shall submit proposed locations for construction joints not shown on the Structural Drawings for review by the Architect and Engineer. Additional construction joints may require additional reinforcing as specified by the Engineer which shall be provided by the contractor at no additional cost to the owner.
 - Embedded conduits, pipes, and sleeves shall meet the requirements of ACI 318, Section 26.8, including the following:
 - Conduits and pipes embedded within a slab, wall, or beam (other than those passing through) shall not be larger in outside dimension than 1/3 the overall thickness of the slab, wall or beam in which they are embedded.
 - Conduits, pipes and sleeves shall not be spaced closer than three diameters or widths on center.
 - Concrete placements shall not exceed 10,000 square feet or 100 linear feet on each side without prior approval by the engineer for each placement.
 - Submittal: Submit proposed mix designs in accordance with ACI 301, chapter 3.9. Each proposed mix design shall be accompanied by a record of past performance based on at least 30 consecutive strength tests, or by three laboratory trial mixtures with confirmation tests.
 - Concrete sampling for quality assurance: Concrete that is pumped shall be sampled at the point of discharge from the truck.
 - For each concrete mixture on the project placed in any one day, obtain samples of fresh concrete in accordance with ASTM C172.
 - Obtain one composite sample for each 150 cubic yards of concrete or 5000 square feet of surface area of slabs or walls, or fractions thereof.
 - Each sample used to mold strength test specimens (ASTM C31) shall be tested for slump (ASTM C143), air content (ASTM C231), and temperature (ASTM C138).
 - Conduct strength tests by making and curing test specimens in accordance with ASTM C31 and testing them according to ASTM C39. Test one (1) cylinder at 7 days for information. Concrete strengths for acceptance shall be the average of two (2) 6" by 12" or three (3) 4" by 8" cylinders tested at 28 days.
 - Inspect all forms, foundation preparation, reinforcement, embedded items, and reinforcement placement prior to placement of concrete for compliance with the contract documents and shop drawings. All instances of non-compliance shall be immediately brought to the attention of the contractor for correction.
 - Report test and inspection results to the owner, Architect/Engineer, contractor, and concrete supplier within 7 days after the tests and inspections were performed.

CONCRETE REINFORCING

- Concrete reinforcement for the project shall conform to the following:
 - All reinforcing steel shall be new billet steel in accordance ASTM A615, Grade 60, unless noted otherwise in the Structural Drawings or these notes.
- Detailing of reinforcing steel shall conform to the American Concrete Institute 315 Detailing Manual and all hooks and bends in reinforcing bars shall conform to ACI detailing standards, unless noted otherwise on the Structural Drawings.
- In unscheduled grade beams, walls, and slabs, detail reinforcing as follows:
 - Class A lap beam top reinforcing bars at mid span.
 - Class A lap beam bottom reinforcing bars at the supports.
 - Provide Class B lap at other location pending Engineer's approval.
 - Provide standard hooks in top bars at cantilever and discontinuous ends of beams, walls and slabs.
 - Provide corner bars for all horizontal bars at the inside and outside faces of intersecting beams or walls. Corner bars are not required if horizontal bars are hooked.
 - Provide 2-#4 diagonal bars at all slab re-entrant corners placed under the top mat of steel.
- Welding of reinforcing steel will not be permitted unless specifically shown on the Structural Drawings.
- Heat shall not be used in the fabrication or installation of reinforcement.
- Reinforcing steel clear cover shall be as follows:
 - Footings 3"
 - Slab-on-grade 3/4" top
 - Walls 2"
- Submittal: Submit shop drawings for fabrication, bending, and placement of concrete reinforcement. Comply with ACI 315 "Details and Detailing of Concrete Reinforcement". Do not reproduce the Structural Drawings for use as shop drawings.

POST-TENSIONED SLAB-ON-GRADE

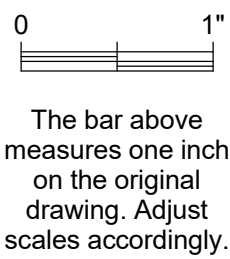
- Tendon placement, integrity of protective wrapping, and stressing operation shall be observed by the Testing Laboratory.
- Post-tensioning reinforcing shall be 1/2 inch diameter, seven wire, stress relieved strand conforming to ASTM A416 with a minimum yield strength of 270 ksi.
- All anchorages, couplers and miscellaneous hardware shall be standard products as manufactured by the Post-Tensioning Supplier and shall be approved by ICC-ES. Anchorages shall conform to ACI 318. Minimum concrete cover over anchorages shall be 2 inches.
- Tendons shall be unbonded and protected from corrosion by plastic sheathing and grease conforming to the requirements of PTI Specification for Unbonded Single Strand Tendons, latest edition. Sheathing shall have a minimum thickness of 25 mils. Sheathing shall be continuous between anchorages. Tears in sheathing shall be repaired.
- Place a minimum of two #4 bars continuous along edges behind all slab anchorages, and two # 4 x 7'-0" hairpins at slab corners. Place a minimum of two #4 bars, horizontal and vertical, with appropriate development length behind all beam anchorages. Provide additional bursting reinforcement where required by calculations.
- Tendons shall be fabricated with sufficient length beyond edge form to allow stressing. Fixed end and intermediate anchors shall be placed on the tendon prior to shipment to the jobsite.
- Tendons shall be placed to conform to the control points shown on the Structural Drawings. Profile dimensions locate the center of gravity of the tendon or tendon group steel (CGS) measured from the member soffit, unless noted otherwise.
- Tendons shall be secured to a sufficient number of positioning devices, spaced at a maximum of 3'-6" on center, to ensure correct location during and after concrete placement. Twisting or entwining of individual tendons within a bundle shall not be permitted. A maximum of 5 strands may be bundled.
- Slight deviations in the spacing of slab tendons will be permitted if required to avoid openings, inserts, and dowels which are specifically located. Tendons shall clear openings by 6" minimum, and shall have a maximum horizontal deviation of 1:6 beginning no closer than 2'-0" from opening edge. If tendons interfere with other tendons, contact the Engineer before relocating tendons.
- Tendons shall not be stressed over 120 feet in a one end pull or 240 feet in a two end pull except as approved by the Engineer. A record of all initial stressing forces and elongations shall be made and submitted to the Engineer within 48 hours of stressing. Lift-off shall not be performed unless directed by the Engineer. Lift-off stressing force and elongations shall be submitted to the Engineer for review. Measured elongations shall not vary by more than 7% from the calculated values, except as approved the Engineer.
- After stressing is complete and tendon elongations have been approved by the Engineer, tendons shall be cut (sheared) off to provide a minimum 3/4 inch cover. Fill anchor recesses flush with non-shrink epoxy grout.
- If concrete is placed by pump, horses shall be provided to support the hose. The hose shall not be allowed to rest on the tendons. Concrete shall not be placed by bucket directly on the tendons. The Contractor shall take precautions to assure complete consolidation on concrete behind post-tensioning anchorages.
- Embedded conduits, pipes, or sleeves shall not be placed within 18 inches of a post-tensioning anchorage.
- Grout or concrete containing chlorides, fluorides, sulfides, nitrates, or other substances detrimental to prestressing steel shall not be used.
- Contractor shall accurately locate post tensioned tendons prior to drilling or cutting the slab for installation of expansion anchors, etc. Post tensioned tendons shall not be damaged.
- Provide two layers of 10 mil (or 15 mil) conforming to ASTM E1745 Class C (or Class A) over a 6 mil polyethylene vapor barrier under slab. Place in accordance with the manufacturer's directions.
- Stress the slab tendons the day after concrete placement to 25% of the specified jacking force, minimum, or as determined by the PT supplier. Restress the tendons to 100% of the specified jacking force after the concrete has attained at least 75% of the specified 28 day strength.
- Submittal: Contractor shall submit shop drawings showing the following:
 - Tendon layouts and profiles, stressing and dead-end anchor details, stressing sequence, tendon forces and detail design calculations, openings and other related details.
 - Calculations for tendon forces and elongations, anchorage stresses, and system losses.
 - Certified mill reports for all prestressing reinforcing steel.



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TBPLS FIRM REGISTRATION NO.: 10065600

NO.	DATE	DESCRIPTION	BY
1	10/04/24	REVISION 1	



STRUCTURAL NOTES

WESTERN HILLS ATHLETIC CLUB
4801 Rollingwood Drive
Austin, TX 78746

PLOTTED: 10/04/24
JOB NO 863-02:

S-002

SPECIAL INSPECTIONS

The following Statement and Schedules of Inspections are those Special Inspections and Tests that shall be performed for this project. Special Inspectors shall reference these plans and IBC Chapter 17 for all special inspection requirements.

The owner shall retain an "approved agency" per IBC 1703 to provide special inspections for this project. Special Inspectors shall be qualified persons per IBC 1704.2.1. Submit copies of all inspection reports to the Architect/Engineer and the Authority Having Jurisdiction for review. In addition to special inspection reports and tests, submit reports and certificates noted in IBC 1704.5 to the Authority Having Jurisdiction. Final special inspection reports will be required by each special inspection firm per IBC 1704.2.4.

STATEMENT OF SPECIAL INSPECTIONS:

This statement of Special Inspections has been written with the understanding that the Building Official will:

- Review and approve the qualifications of the Special Inspectors
- Monitor the special inspection activity on the project site to assure that Special Inspectors are qualified and performing their duty as state within this statement.
- Review all Special Inspection Reports submitted to them by the Special Inspector Perform inspections as required by IBC Section 110.3.

SPECIAL INSPECTION OF CONCRETE CONSTRUCTION


Special inspection and tests of concrete construction shall be performed in accordance with this section and Table 1705.3 with the following exceptions:

- Special inspections shall not be required for:
 1. Isolated spread concrete footings of buildings three stories or less above the grade plane fully supported on earth or rock.
 2. Continuous footings supporting walls of buildings three stories or less above the grade plane that are fully supported on earth or rock where:
 - a. The footings support walls of light frame construction.
 - b. The footings are designed in accordance with IBC Table 1809.7.
 - c. The structural design of the footing is based on a specified compressive strength, f'_c , not more than 2,500 psi.
 3. Nonstructural concrete supported directly on the ground, including prestressed slabs on grade, where the effective prestress in the concrete is less than 150 psi
 4. Concrete foundation walls constructed in accordance with Table 1807.1.6.2.
 5. Concrete patios, driveways, and sidewalks, on grade.

SCHEDULES OF SPECIAL INSPECTIONS:

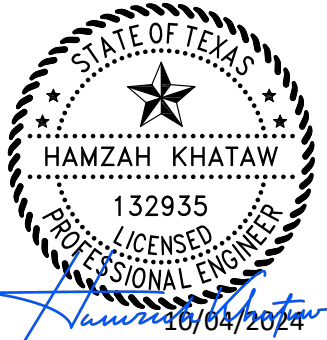
TABLE 1705.3					
REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION					REQUIRED? Y/N
VERIFICATION AND INSPECTION TASK	FREQUENCY		REFERENCED STANDARD	IBC REFERENCE	
	CONTINUOUS	PERIODIC			
1. Inspect reinforcement, including pre-stressing tendons, and verify placement.	—	X	AC I 318 Ch. 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4	Y
2. Reinforcing bar welding: a. Verify weldability of reinforcing bars other than ASTM A706. b. Inspect single pass fillet weld maximum 5/16". c. Inspect all other welds.	— — X	X X —	AWS D1.4 ACI 318: 26.6.5	—	N/A
3. Inspect anchors cast in concrete.	—	X	ACI 318: 17.8.2	—	Y
4. Inspect anchors post-installed in hardened concrete members: a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads. b. Mechanical anchors and adhesive anchors not defined in 4a.	X —	— X	ACI 318: 17.8.2.4 ACI 318: 17.8.2	— —	Y Y
5. Verify use of required design mix.	—	X	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1-3	Y
6. Prior to concrete placement, fabricate specimens, for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	X	—	ASTM C172 ASTM C31 ACI 318: 26.12	1908.10	Y
7. Inspect concrete and shotcrete placement for proper application techniques.	X	—	ACI 318: 26.5	1908.6-8	N/A
8. Verify maintenance of specified curing temperature and techniques.	—	X	ACI 318 :26.5.3 - 26.5.5	1908.9	Y
9. Inspect Prestressed concrete for: a. Application of prestressing forces. b. Grouting of bonded prestressing tendons.	X X	— —	ACI 318: 26.10	— —	N/A N/A
10. Inspect erection of precast concrete members.	—	X	ACI 318: 26.11.2	—	N/A
11. Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	—	X	ACI 318: 26.11.2	—	Y
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.	—	X	ACI 318: 26.11.1.2(b)	—	Y

TABLE 1705.6			
REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS			REQUIRED? Y/N
VERIFICATION AND INSPECTION TASK	FREQUENCY DURING TASK LISTED		
	CONTINUOUS	PERIODIC	
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	—	X	Y
2. Verify excavations are extended to proper depth and have reached proper material.	—	X	Y
3. Perform classification and testing of compacted fill materials	—	X	Y
4. Verify use of proper materials, densities and lift thickness during placement and compaction of compacted fill.	X	—	Y
5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.	—	X	Y




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STATE OF TEXAS
HAMZAH KHATAW
132935
LICENSED PROFESSIONAL ENGINEER
10/04/2024




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TBAE FIRM REGISTRATION NO.: 1452
TBPE FIRM REGISTRATION NO.: F-1416
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NO.	DATE	DESCRIPTION	BY
1	10/04/24	REVISION 1	



0 1"

The bar above measures one inch on the original drawing. Adjust scales accordingly.

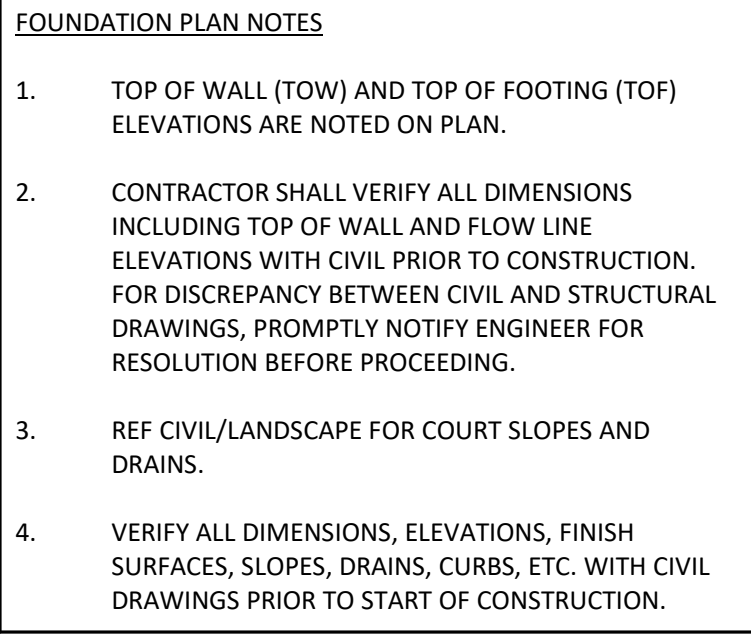
CODE REQUIRED SPECIAL INSPECTIONS

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Austin, TX 78746

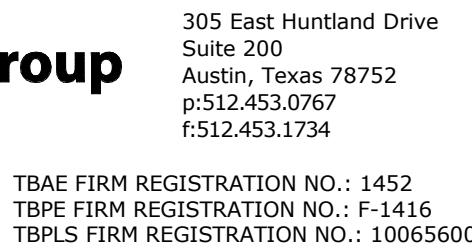
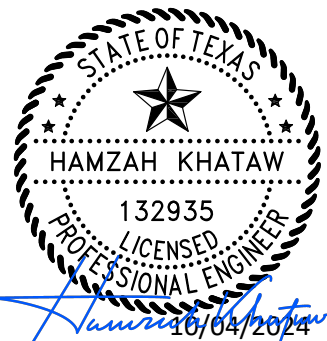
PLOTTED: 10/04/24
JOB NO 863-02:

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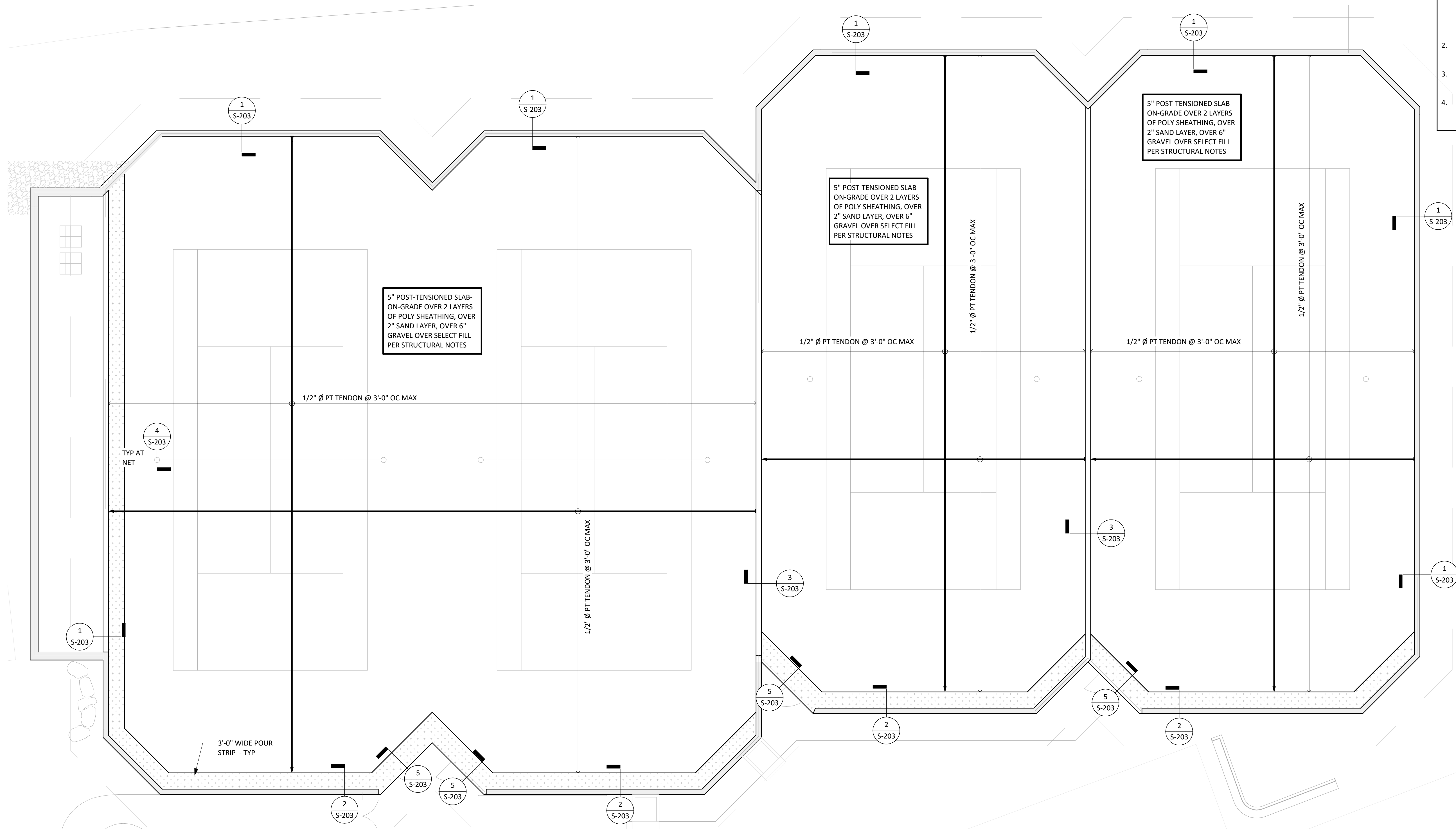
RETAINING WALL PLAN




0 1"

The bar above measures one inch on the original drawing. Adjust scales accordingly.

S-101

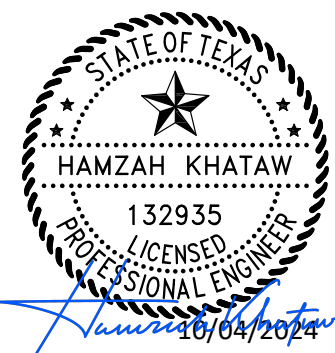


FOUNDATION PLAN NOTES

- PT TENDONS ARE INDICATED AS FOLLOWS:

- PT TENDONS SHALL BE STRESSED TO 27.3 KIPS PER TENDON AFTER ALL CALCULATED LOSSES.
- REF CIVIL/LANDSCAPE FOR COURT SLOPES AND DRAINS.
- VERIFY ALL DIMENSIONS, ELEVATIONS, FINISH SURFACES, SLOPES, DRAINS, CURBS, ETC. WITH CIVIL DRAWINGS PRIOR TO START OF CONSTRUCTION.

1 TENNIS COURT PLAN

SCALE: 1" = 10'-0"



305 East Huntland Drive
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Austin, Texas 78752
p:512.453.0767
f:512.453.1734

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TBPE FIRM REGISTRATION NO.: F-1416
TBPLS FIRM REGISTRATION NO.: 10065600

NO.	DATE	DESCRIPTION	BY
1	10/04/24	REVISION 1	

0 1"
The bar above
measures one inch
on the original
drawing. Adjust
scales accordingly.

TENNIS COURT PLAN

WESTERN HILLS ATHLETIC CLUB
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Austin, TX 78746

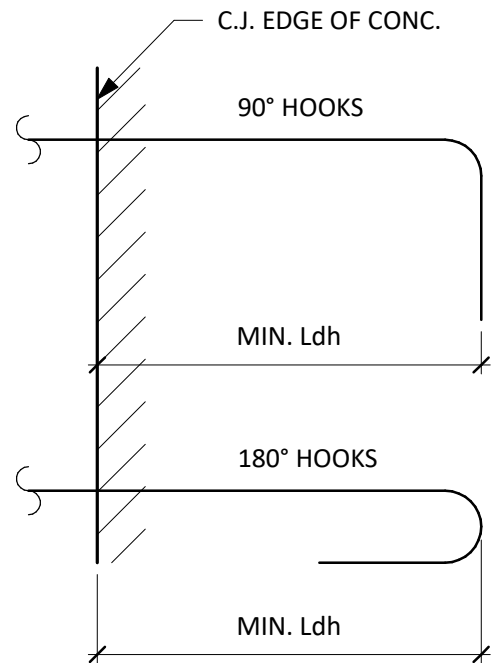
PLOTTED: 10/04/24
JOB NO 863-02:

S-102

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REINFORCEMENT SPLICE LENGTH SCHEDULE (SLABS, WALLS, & FOOTINGS)												
CLASS BAR SIZE	f'c=3000 psi CONCRETE		f'c=4000 psi CONCRETE		f'c=5000 psi CONCRETE		f'c=6000 psi CONCRETE		f'c=7000 psi CONCRETE		f'c=8000 psi CONCRETE	
	"A"	"B"	"A"	"B"	"A"	"B"	"A"	"B"	"A"	"B"	"A"	"B"
#3	1'-0"	1'-1"	1'-1"	1'-1"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
#4	1'-1"	1'-1"	1'-5"	1'-3"	1'-0"	1'-1"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
#5	1'-8"	2'-2"	1'-5"	1'-10"	1'-3"	1'-8"	1'-3"	1'-6"	1'-1"	1'-5"	1'-0"	1'-4"
#6	2'-3"	3'-1"	1'-11"	2'-6"	1'-9"	2'-3"	1'-7"	2'-1"	1'-4"	1'-11"	1'-4"	1'-9"
#7	3'-8"	4'-9"	3'-2"	4'-1"	2'-10"	3'-8"	2'-7"	3'-4"	2'-5"	3'-1"	2'-3"	2'-11"
#8	4'-7"	5'-11"	4'-0"	5'-2"	3'-7"	4'-7"	3'-3"	4'-3"	3'-0"	3'-11"	2'-10"	3'-8"
#9	5'-7"	7'-3"	4'-10"	6'-4"	5'-2"	5'-7"	3'-9"	5'-1"	3'-8"	4'-9"	3'-5"	4'-5"
#10	6'-9"	8'-9"	5'-10"	7'-7"	5'-3"	6'-10"	4'-9"	6'-3"	4'-5"	5'-7"	4'-2"	5'-5"
#11	8'-0"	10'-5"	7'-11"	9'-0"	6'-2"	8'-0"	5'-8"	7'-4"	5'-3"	6'-10"	4'-11"	6'-4"

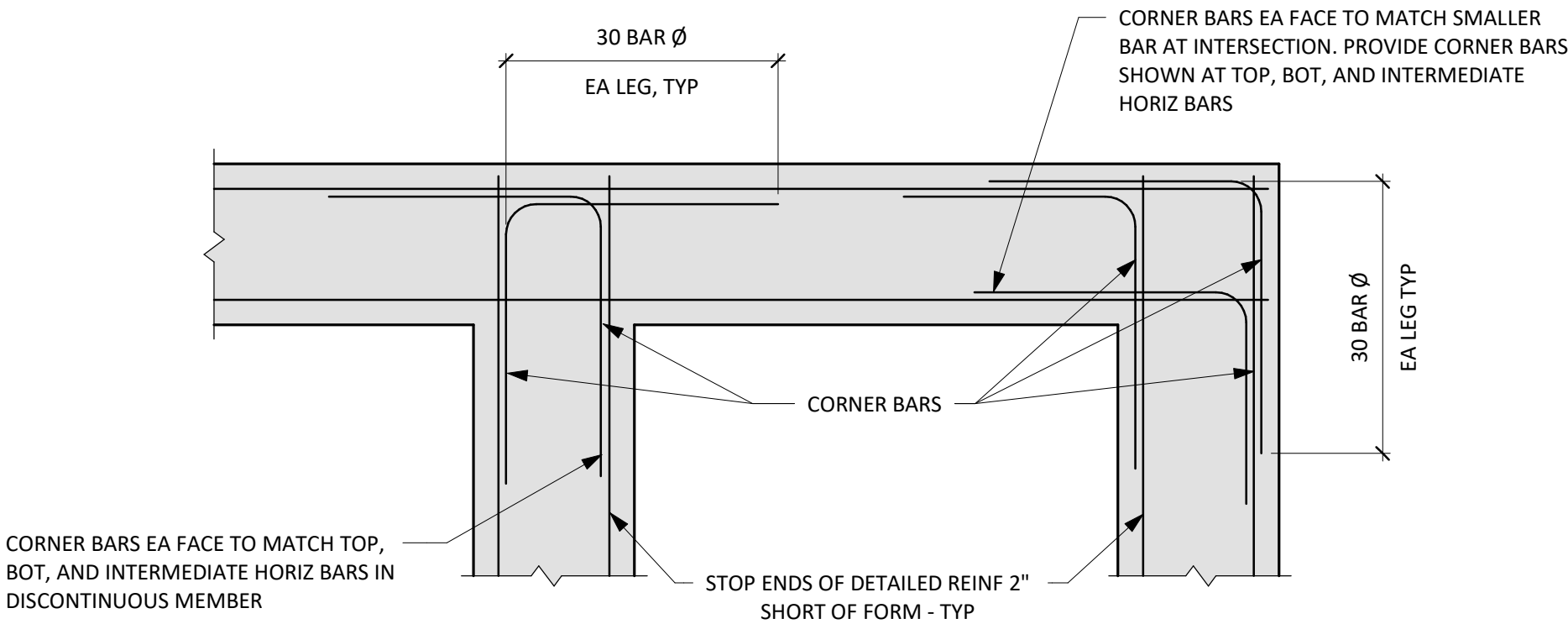
- NOTE:
- WHERE SPLICE TYPE IS NOT INDICATED, USE CLASS "B" SPLICE.
 - LAP LENGTHS LISTED ABOVE APPLY UNDER THE FOLLOWING CONDITIONS:
 - WALL AND SLAB BARS ARE SPACED AT LEAST 2 BAR DIA OC.
 - FOR UNCOATED AND ZINC-COATED (GALVANIZED) REINFORCEMENT.
 - FOR REINFORCEMENT THAT CONFORMS DEFORMED NEW BILLET STEEL BARS IN ACCORDANCE TO ASTM A615 GR. 60.
 - FOR LIGHTWEIGHT CONCRETE, MULTIPLY TABULATIONS BY 1.3.
 - FOR HORIZ TOP BARS WITH 12" OF CONCRETE CAST BELOW, MULTIPLY TABULATIONS BY 1.3.
 - WHERE A LARGER BAR LAPS A SMALLER BAR, THE SMALLER SCHEDULED LAP LENGTH APPLIES.
 - WHERE DEVELOPMENT LENGTH "Ld" IS CALLED OUT ON DRAWINGS, USE CLASS A LAP LENGTH.
 - REFER TO "CONCRETE REINFORCING" SECTION OF THE STRUCTURAL NOTES FOR FURTHER INFORMATION.
 - FOR CMU REINFORCEMENT SPLICE LENGTH SCHEDULE, SEE CMU DETAILS.



HOOK DEVELOPMENT LENGTH SCHEDULE, Ldh						
BAR SIZE	3000 psi	4000 psi	5000 psi	6000 psi	7000 psi	8000 psi
#3	9"	8"	7"	6"	6"	6"
#4	11"	10"	9"	8"	8"	7"
#5	1'-2"	1'-0"	11"	10"	9"	9"
#6	1'-5"	1'-3"	1'-1"	1'-0"	11"	11"
#7	1'-8"	1'-5"	1'-3"	1'-2"	1'-1"	1'-0"
#8	1'-10"	1'-7"	1'-5"	1'-4"	1'-3"	1'-2"
#9	2'-1"	1'-10"	1'-8"	1'-6"	1'-5"	1'-4"
#10	2'-4"	2'-0"	1'-10"	1'-8"	1'-7"	1'-6"
#11	2'-7"	2'-3"	2'-0"	1'-10"	1'-9"	1'-7"

- NOTES:
- TABULATED VALUES ARE BASED ON GRADE 60 REINFORCING BARS AND NORMAL WEIGHT CONCRETE.
 - FOR TABULATED BARS SIZES ONLY:
 - IF CONCRETE COVER SATISFIES ACI 318-14, SECTION 25.4.3.2, THEN A MODIFICATION FACTOR OF 0.7 MAY BE APPLIED BUT THE LENGTH MUST NOT BE LESS THAN 8 x db NOR 6 IN.
 - IF HOOK IS ENCLOSED IN TIES OR STIRRUPS PER ACI 318-14, SECTION 25.4.3.2, THEN A MODIFICATION FACTOR OF 0.8 MAY BE APPLIES BUT THE LENGTH MUST NOT BE LESS THAN 8 x db NOR 6 IN.
 - FOR EPOXY-COATED HOOKS, MULTIPLY THE TABULATED VALUES BY 1.2.

- NOTES:
- WHERE 90 DEGREE HOOKS ARE PROVIDED FOR TOP BARS, CORNER BARS MAY BE OMITTED AT TOP. WHERE 90 DEGREE HOOKS ARE PROVIDED FOR BOTTOM BARS, CORNER BARS MAY BE OMITTED AT BOTTOM.
 - MATCH SIZE, LOCATION AND NUMBER OF HORIZONTAL BEAM AND WALL BARS, EXCEPT THAT WHERE THERE ARE MORE THAN 2 TOP OR BOTTOM BARS, ONLY THE INSIDE AND OUTSIDE BARS MUST BE MATCHED.

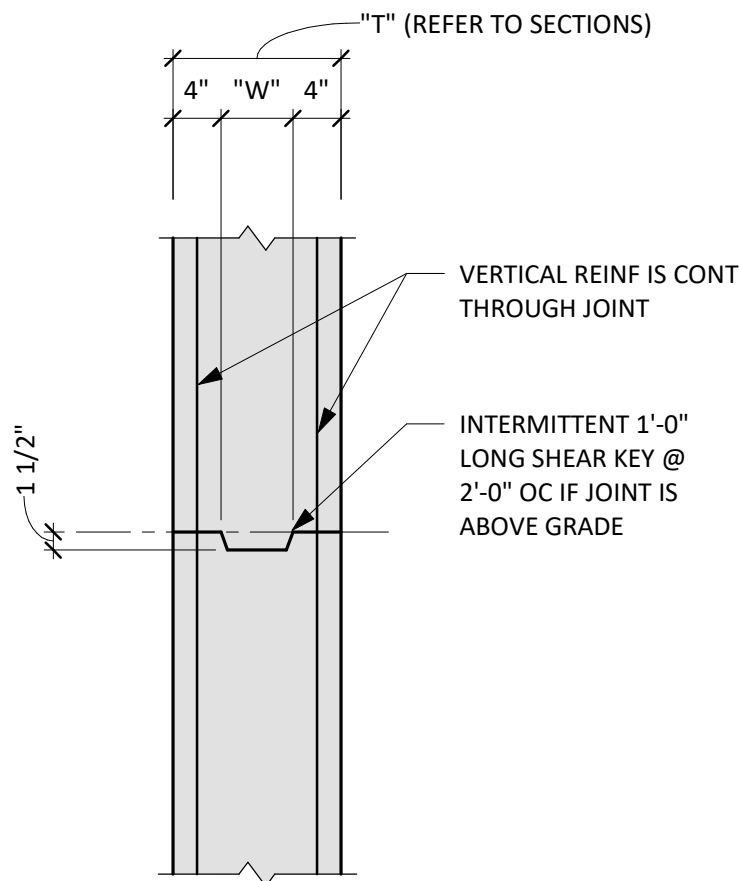


LAP SPLICE SCHEDULE (SLABS, WALLS, & FOOTINGS)

1 TYPICAL DETAIL

SCALE: NTS

KEY WIDTH	
"T"	"W"
≤ 12"	3 1/2"
12" - 16"	5 1/2"
16" - 20"	7 1/4"
20" - 24"	9 1/4"
24" - 30"	11 1/4"



HORIZONTAL CONSTRUCTION JOINT IN WALLS

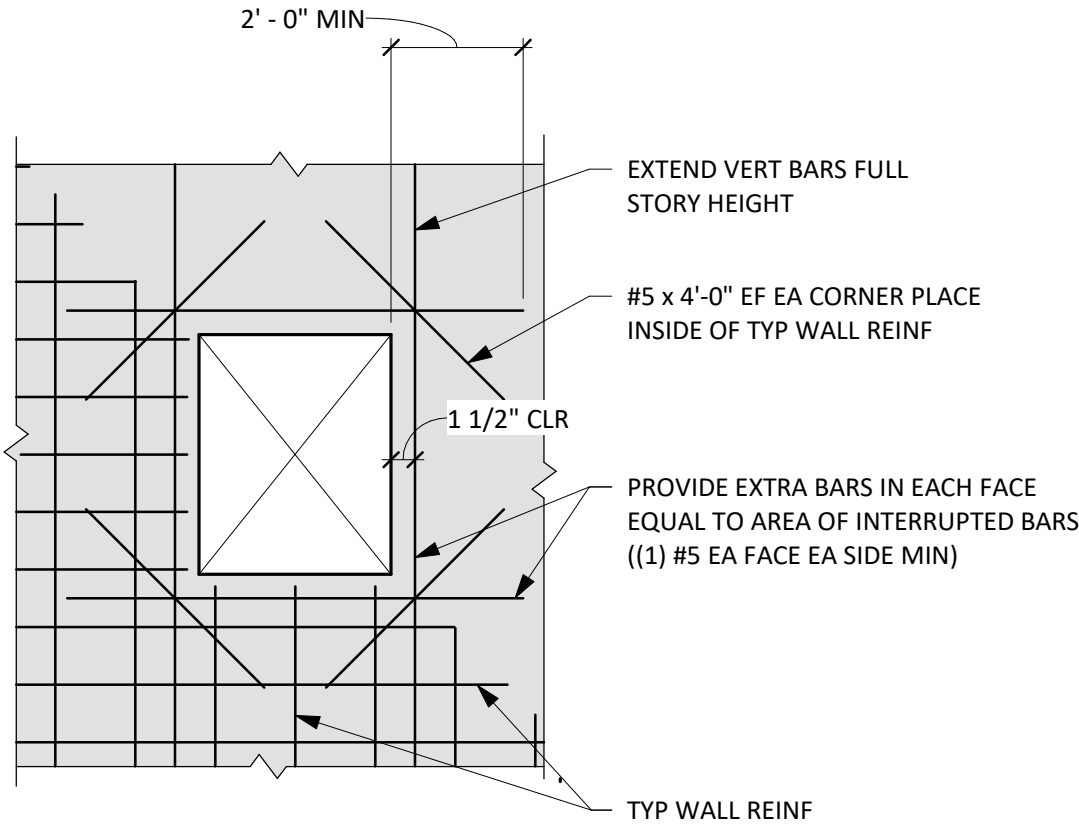
4 TYPICAL DETAIL

SCALE:NTS

STANDARD HOOK SCHEDULE

2 TYPICAL DETAIL

SCALE: NTS



ELEVATION

CONCRETE WALL OPENING

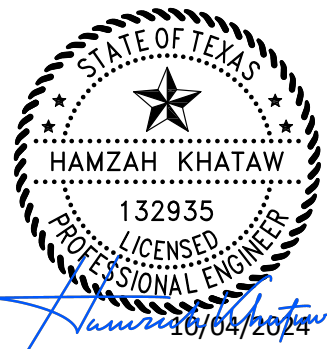
5 TYPICAL DETAIL

SCALE: NTS

CORNER BARS AT WALL OR GRADE BEAM INTERSECTION

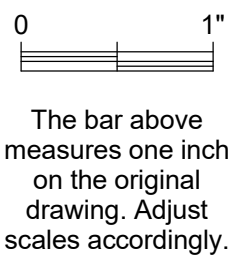
3 TYPICAL DETAIL

SCALE: NTS



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TBPLS FIRM REGISTRATION NO.: 10065600

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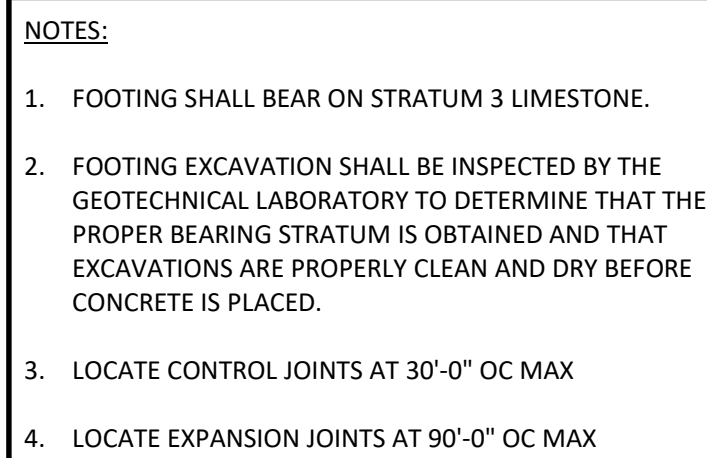
TYPICAL CONCRETE DETAILS

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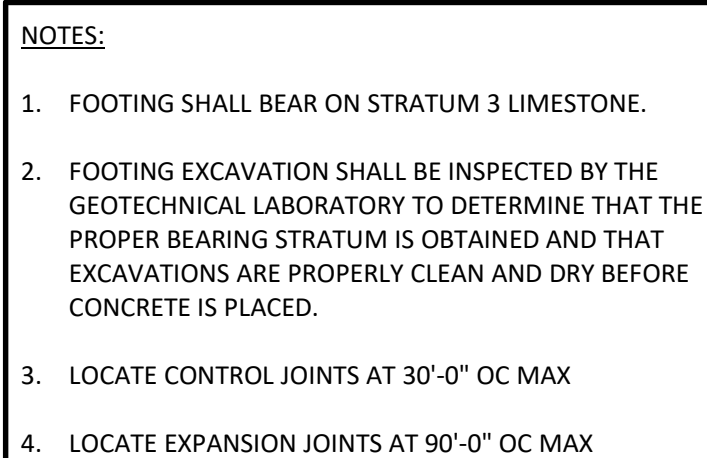
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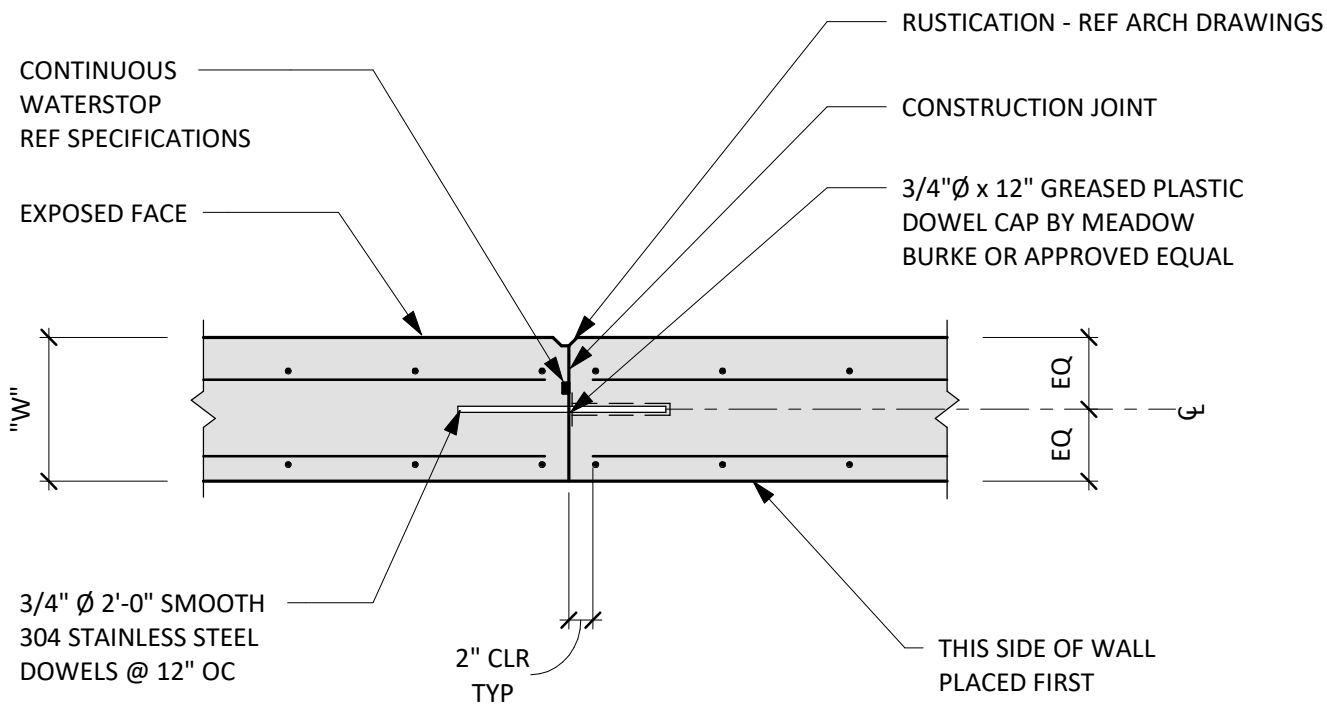
DIMENSIONS					RETAINING WALL SCHEDULE	REINFORCING		
"H"	"W"	"HW"	"TW"	"F"	"V"	"H"	"FT"	"FL"
≤3'-0"	1'-0"	0'-9"	0'-9"	1'-0"	#5@12"	#4@12"	#5@12"	#4@12"
≤4'-6"	1'-0"	1'-3"	1'-3"	1'-0"	#5@12"	#4@12"	#5@12"	#4@12"
≤6'-6"	1'-0"	1'-6"	1'-6"	1'-6"	#5@12"	#4@12"	#6@12"	#4@12"
≤8'-6"	1'-0"	2'-0"	2'-0"	1'-6"	#5@12"	#4@12"	#6@12"	#4@12"
≤10'-0"	1'-0"	2'-6"	2'-6"	1'-6"	#5@9"	#4@12"	#6@12"	#4@12"
≤15'-6"	1'-6"	3'-6"	2'-0"	1'-6"	#6@6"	#4@12"	#6@9"	#4@12"

1

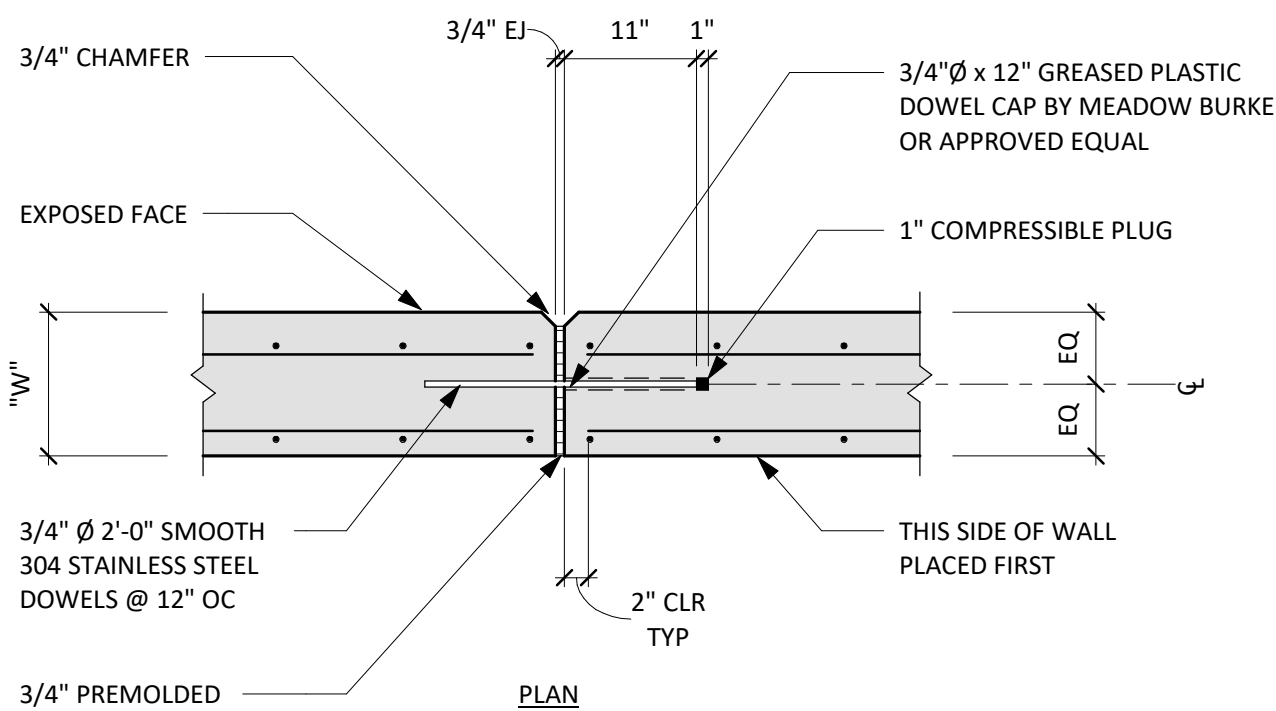


2

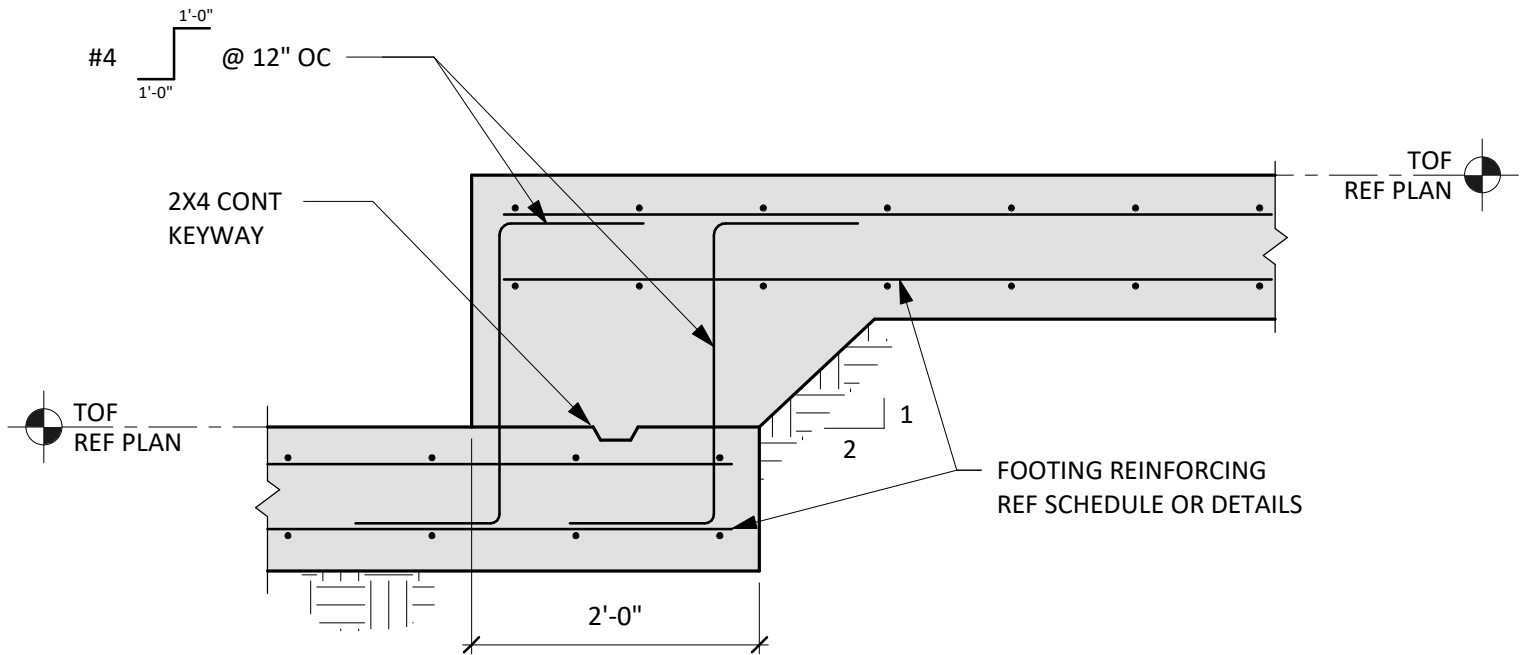




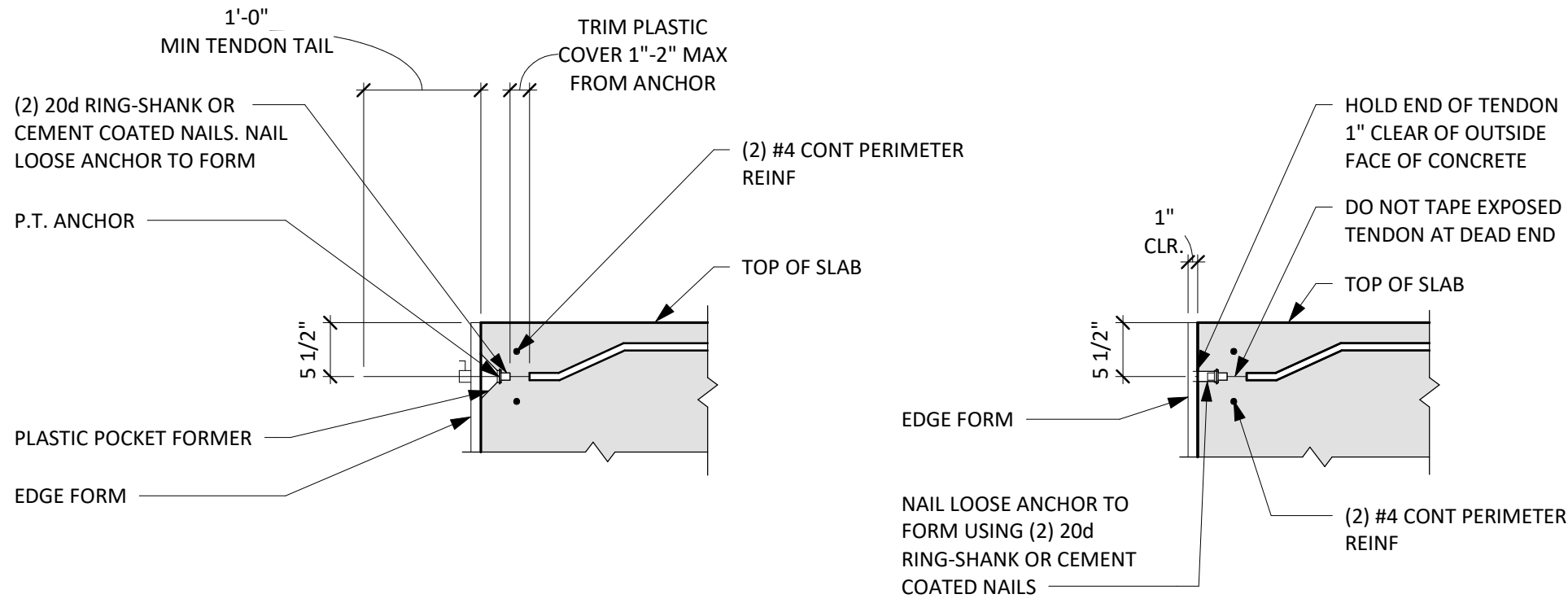
1 TYPICAL DETAIL
RETAINING WALL CONSTRUCTION JOINT
SCALE: NTS



2 TYPICAL DETAIL
RETAINING WALL EXPANSION JOINT
SCALE: NTS

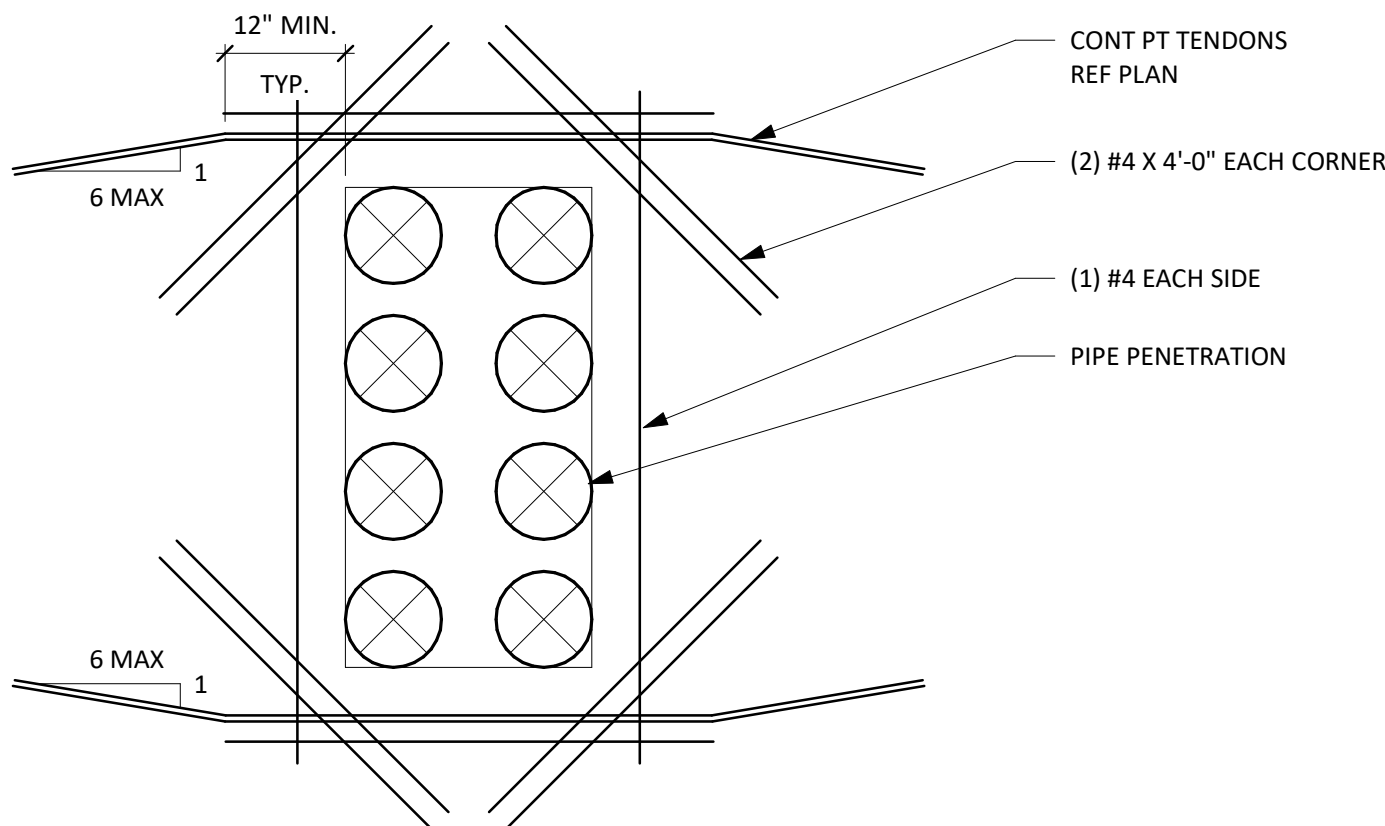


3 TYPICAL DETAIL
RETAINING WALL FOOTING STEP
SCALE: NTS

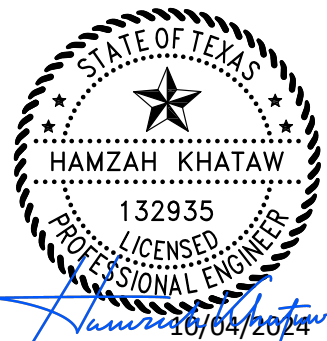


4 TYPICAL DETAIL
LIVE & DEAD ENDS
SCALE: NO SCALE

DEAD END



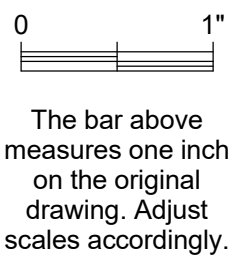
5 TYPICAL DETAIL
TENDON DEVIATION AT OPENING
SCALE: NO SCALE



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TYPICAL CONCRETE DETAILS

WESTERN HILLS ATHLETIC CLUB
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JOB NO 863-02:

S-202



SCALE: 1" = 1'-0"



2 DETAIL

SCALE: 1" = 1'-0"



3 DETAIL

SCALE: 1" = 1'-0"



4 DETAIL

SCALE: 3/4" = 1'-0"



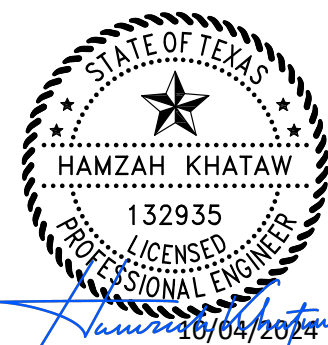
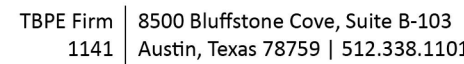
5 SECTION AT POUR STRIP WITH FLATWORK

SCALE: 1" = 1'-0"

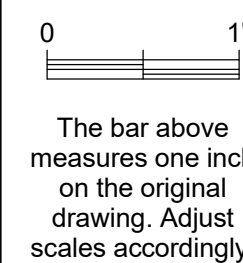


6 SECTION AT RAIN GARDEN

SCALE: 1/2" = 1'-0"



TBAE FIRM REGISTRATION NO.: 1452
TBPE FIRM REGISTRATION NO.: F-1416
TBPLS FIRM REGISTRATION NO.: 10065600

[illegible]

CONCRETE DETAILS

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JOB NO 863-02:

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