Diana Smith, Commissioner
Larry Granados, Commissioner
Donald J. Glacy, Commissioner

Kristie Womack, Chairman

Jason Kasal, Vice Chairman
Victor Molaschi, Commissioner
Mark McCullough, Commissioner

ROANOKE PLANNING AND ZONING AGENDA
OCTOBER 16, 2023
7:00 PM

500 S. OAK STREET
ROANOKE, TX 76262

A. CALL TO ORDER

B. PUBLIC INPUT

This item is available for citizens to address the Planning and Zoning Commission on any issues that are not the subject of a public hearing. No action by law may be taken on the topic. The presiding officer reserves the right to impose a time limit on this portion of the agenda. In order to provide the highest quality audio, all speakers need to speak at the podium.

C. APPROVAL OF THE MINUTES

1. Consideration and action on approval of the minutes from the regular Planning and Zoning Commission meeting held on September 18, 2023.

D. NEW BUSINESS

1. Consideration and recommendation on a Site Plan (SP 2023-06) request from RGA Architects, for a warehouse to be located on an approximate 5.421 acre parcel being a part of the Alliance Gateway Addition; Block 6, Lot 6, generally located at the southeast corner of Patriot Parkway and Fairway Drive.

2. Consideration and recommendation on approval of Ordinance No. 2023-128 , amending the Comprehensive Zoning Ordinance, by amending Chapter 12, Article II, Division 2 of the Code of Ordinances by adding a new Section 12-60, entitled “Compensation For Non-Conforming Uses,” by requiring the use of compensation criteria required by Section 211.019 of the Texas Local Government Code; and amending Chapter 12, Article

II, Division 5 of the Code of Ordinances by amending Section 12.124, entitled "Notice of Public Hearing" by adding a new subsection (D) addressing the notice requirements for nonconforming uses.

3. Consideration and recommendation on approval of Ordinance No. 2023-129, amending Chapter 9, Exhibit A, the subdivision ordinance by amending Section 2 entitled "Definitions," by adding definition for "Approval" and amending the definition of "Filed" or "Filing"; adding a new Section 6.I, entitled "Planning Director Approval" by establishing approval of plats by planning director; and adding a new Section 6.J, entitled "30-Day Time Frame for Plat Approvals".

E. ADJOURNMENT

CERTIFICATION

I certify that the above notice was posted at City Hall, 500 South Oak Street, Roanoke, Texas, on Thursday, October 12, 2023, by 5:00 pm, in accordance with Chapter 551, Texas Government Code.

April S. Hill, City Secretary

*Any person planning to attend this meeting that may require auxiliary aids or services should request accommodations two (2) days prior to the meeting by calling (817) 491-8152. **BRAILLE IS NOT AVAILABLE**.

A public wireless network is now available in the Council Chambers for use during meetings. It is available from 7am to 11pm Monday thru Friday. The name of the network is: COR-Guests

AGENDA ITEM

TO: Planning and Zoning Commission

SUBJECT: 09/18/2023 - P&Z Minutes

MEETING DATE: October 16, 2023

DEPARTMENT: City Secretary

ITEM SUMMARY:
Consideration and action on approval of the minutes from the regular Planning and Zoning Commission meeting held on September 18, 2023.

INFORMATION:

STAFF RECOMMENDATION:

SPECIAL CONSIDERATION:

FINANCIAL CONSIDERATION:

ATTACHMENTS:
1. PZMin 09-18-2023

Diana Smith, Commissioner
Larry Granados, Commissioner
Donald J. Glacy, Commissioner

Kristie Womack, Chairman

Jason Kasal, Vice Chairman
Victor Molaschi, Commissioner
Mark McCullough, Commissioner

ROANOKE PLANNING AND ZONING MINUTES
SEPTEMBER 18, 2023
7:00 P.M.
ROANOKE CITY HALL
CITY COUNCIL CHAMBERS – 2ND FLOOR
500 S. OAK STREET
ROANOKE, TEXAS 76262

Present: Vice Chairman Jason Kasal; Commissioners: Mark McCullough, Diana Smith, and Donald J. Glacy. City Planner Kelly Carlson, and P&Z Secretary Sherry Gragg.

Absent: Chairman Kristie Womack, Commissioners: Larry Granados and Victor Molaschi.

A. CALL TO ORDER

Meeting called to order at 7:00 p.m.

B. PUBLIC INPUT

No one wished to speak.

C. APPROVAL OF THE MINUTES

1. Motion made by Mark McCullough second by Diana Smith to approve the minutes from the regular Planning and Zoning Commission meeting held on August 7, 2023.

Motion carried unanimously.

D. NEW BUSINESS

1. Motion made by Donald J. Glacy second by Mark McCullough to approve a site plan (SP 2023-05) request from McAdams, for a new police and municipal court building, to be constructed on approximately six (6) acres of land. The property is located at the southwest corner of Fairway Drive and Park Drive.

Motion carried unanimously.

2. Public hearing to consider amending Chapter 12, Article IV, Division 1, Section 12.601 of the Code of Ordinances of the City of Roanoke, Texas, entitled “Old Town Roanoke Neighborhood Design Overlay,” by amending the setback requirements, maximum building coverage requirements, lot coverage

requirements, and accessory structure requirements within the Old Town Roanoke Neighborhood Design Overlay District. (Ordinance No. 2023-115)

The public hearing started at 7:06 p.m.

Roger Nash, Roanoke resident, stated the revision looks vague, and asked if this will override the need/request for exceptions? Mr. Nash further stated there needs to be some type of oversite, to manage the charm and character of new homes to fit with the existing homes.

Helen Ward, Roanoke resident since 1995, stated she lives outside the Overlay District, but stated she is concerned with being swallowed up by the big homes. Mrs. Ward further stated there are other places in Roanoke to build the bigger homes, and she would like to maintain the small town charm. Mrs. Ward concluded that she is opposed to the amendments.

City Manager Cody Petree gave an overview of the amendments, explaining the Overlay District as adopted in 2016.

Lance Oakley, Roanoke resident, explained that he is the owner of one of the small lots that had been denied for a variance request that concerned lot coverage. Mr. Oakley further explained there were other lots who had their requests granted. Mr. Oakley stated the reasons seem misleading, and is in favor of the amendments to the Overlay District.

Andrew Warden, Roanoke resident, stated he is in agreement with both sides of the argument and there has to be some oversight. Mr. Warden further stated the land cost is so high in Roanoke, you need to be able to build enough square footage with value, otherwise you will lose money. Mr. Warden concluded that he is in favor of the amendments to the Overlay.

The public hearing started at 7:22 p.m.

3. Motion made by Mark McCullough second by Donald J. Glacy to approve, as submitted, except leave the current height restriction in place, Ordinance 2023-115, of the Comprehensive Zoning Ordinance of the City of Roanoke Texas by amending Chapter 12, Article IV, Division 1, Section 12.601 entitled “Old Town Roanoke Neighborhood Design Overlay” by amending setback requirements, maximum building coverage requirements, lot coverage requirements, and accessory structure requirements within the Old Town Neighborhood Design Overlay District.

Motion carried unanimously.

E. ADJOURNMENT

Motion made by Diana Smith second by Donald J. Glacy to adjourn the meeting at 7:46 p.m.

Motion carried unanimously.

Jason Kasal, Vice Chairman

April S. Hill, City Secretary

AGENDA ITEM

TO: Planning and Zoning Commission

SUBJECT: Site Plan (SP 2023-06) Warehouse Patriot Parkway and Fairway Drive

MEETING DATE: October 16, 2023

DEPARTMENT: Planning

ITEM SUMMARY:
Consideration and recommendation on a Site Plan (SP 2023-06) request from RGA Architects, for a warehouse to be located on an approximate 5.421 acre parcel being a part of the Alliance Gateway Addition; Block 6, Lot 6, generally located at the southeast corner of Patriot Parkway and Fairway Drive.

INFORMATION:

ZONING: Business Park, (BP) The BP, Business Park, district is intended primarily for the conduct of light manufacturing, assembling and fabrication activities, and for warehousing, research and development, wholesale and service operations that do not typically depend upon frequent customer or client visits. Such uses do require accessibility to major thoroughfares, major highways, and/or other means of transportation such as the railroad.

- USE: Warehouse
- BUILDING: 74,030 SF, 40' HT.
- PARKING: Provides required number of parking spaces
- LANDSCAPING: Meets required area and material.
- PLAT: A minor plat is under review and shall be accepted prior to construction.
- UTILITIES AND DRAINAGE: Engineered plans shall be accepted by the city's engineering consultant prior to construction.

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STAFF RECOMMENDATION:

AGENDA ITEM

Recommend approval.

SPECIAL CONSIDERATION:

FINANCIAL CONSIDERATION:

ATTACHMENTS:

1. SP-2023-06 - SE Corner Fairway Dr & Patriot Pkwy Lot 6-Block 6 - Aircraft Spruce (1)
2. Vicinity Map
3. Site Plan
4. Project Spruce_Landscape Plans (1)
5. Elevations (3)
6. Civil

CITY OF ROANOKE
500 S. OAK STREET
ROANOKE, TEXAS 76262
(817) 491-2411

SITE PLAN APPLICATION

FEE OF $400.00 IS DUE WITH SUBMITTAL

Name of Applicant	Address of Applicant		Phone Number
RGA / Craig Jacobson	301 S. Oak Street, Ste 100 Roanoke, TX 76262		817-965-0220
Legal Interest Beacon Land Co.			
Owner Jim Irwin Managing Partner	Address P.O. Box 4000 225 Airport Circle Corona, CA 92878		Phone Number
Firm preparing Site Plan Package RGA Architects	Address 301 S. Oak Street, Ste 100 Roanoke, TX 76262		Phone Number 817-965-0220
			Email craig@rgaarchitects.com
Location of Property SE Corner of Fairway Dr. & Patriot Pkv	Name of Addition/Subdivision Beacon Land Company, LLC	Lot / Block Lot 6 / Blk 6	Present Zoning BP - Business Park

Proposed Site Plan Contains:

LAND USE	NUMBER OF LOTS	ACRES FOR USE
Single Family		
Multi-Family		
Planned Development		
Office		
Retail		
Commercial		
Industrial	1	5.421
Flood Plain		

A copy of the final plat or re-plat of the approved subdivision by the City Council showing property boundary lines and dimensions and easements, roadways, rail lines and public right-of-way crossing and adjacent to the subject property should be included.

If the property is subject to a Plan Development a statement showing that the proposed use substantially conforms to the Plan Development.

(P&Z two (2) folded copies (24"X36") & an electronic copy (pdf) City Council) Site Plan fee is $400.00. Fees are subject to change as amended by Ordinance.

Applicants Signature

10.02.2023
Date

FOR OFFICE USE ONLY

Site Plan Fee	P&Z Meeting	CC Meeting	File for Record
$400.00 MC receipt #705691 10/3/23	10/16/2023	10/24/2023	SP- 2023 - 06

08/23/2019

Denton CAD Web Map

10/5/2023, 9:25:40 AM

Parcels

Roads

1:4,514

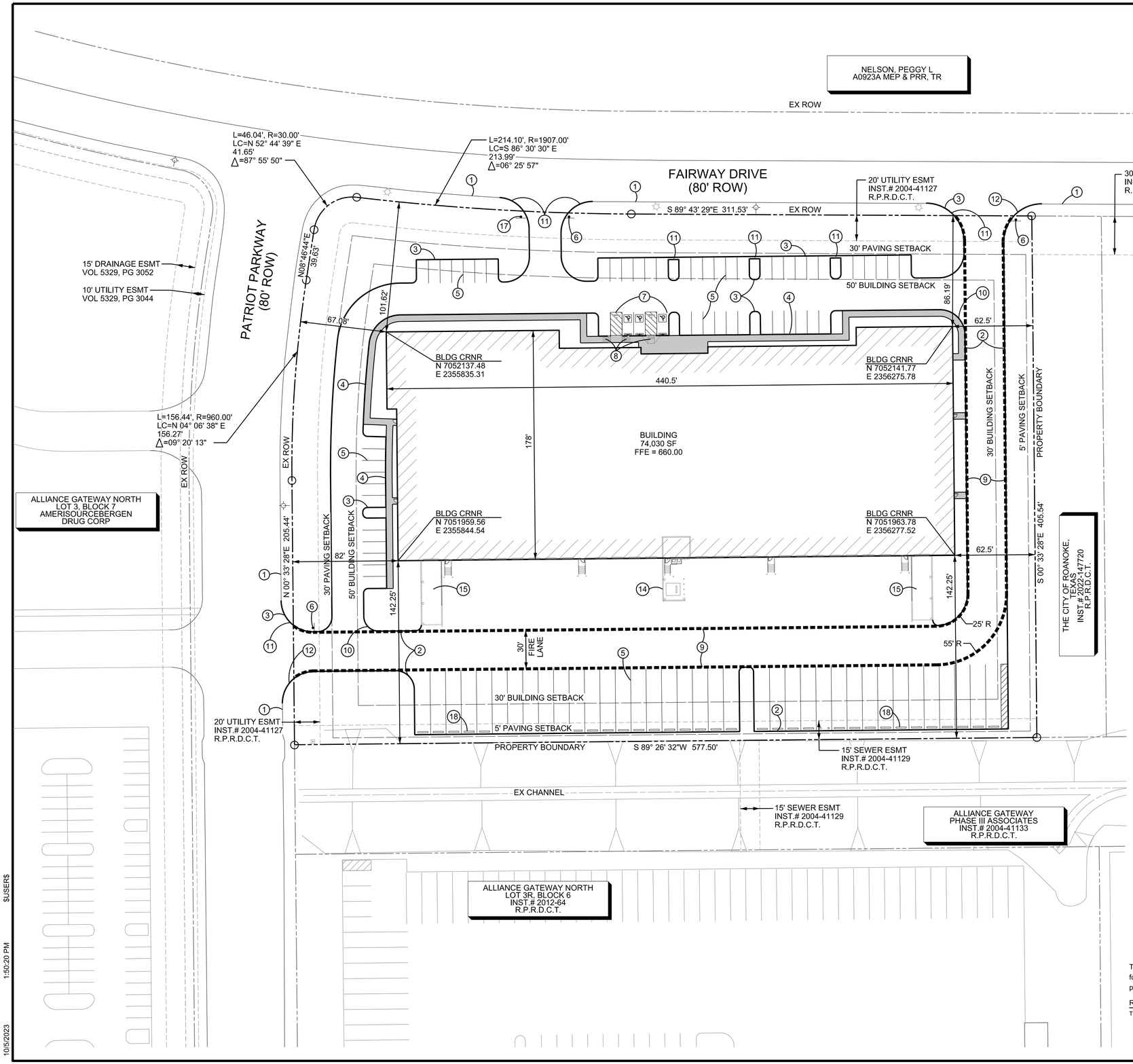
0 0.03 0.06 0.12 mi

0 0.05 0.1 0.2 km

Denton Central Appraisal District, dentoncad.com

Denton County Appraisal District, Harris Govern -- www.harrisgovern.com

This product is for informational purposes only and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
TXU ELECTRIC DELIVERY	1-800-711-9112
CITY OF ROANOKE PUBLIC WORKS	817-491-6099

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION

PROJECT BENCHMARKS

BM NO. 1
X-CUT ON INLET, EAST SIDE OF PATRIOT PARKWAY, +/- 470 FEET SOUTH OF CENTERLINE OF FAIRWAY DRIVE.
ELEV. 658.22

BM NO. 2
X-CUT ON INLET, SOUTH SIDE OF FAIRWAY DRIVE, +/- 75 FEET WEST OF CENTERLINE OF PARK DRIVE
ELEV. 647.97

SITE CONSTRUCTION NOTES

1. EXISTING 7" CURB
2. CONSTRUCT 12" INTEGRAL CURB PER DETAIL (8/C206)
3. CONSTRUCT 6" INTEGRAL CURB PER DETAIL (8/C206)
4. CONSTRUCT 6" INTEGRAL CURB W/ ADJACENT SIDEWALK PER DETAIL (C203)
5. PAINT PARKING STALLS PER DETAIL (1/C206)
6. INSTALL STOP SIGN PER DETAIL (C205)
7. PAINT ACCESSIBLE PARKING PER DETAIL (7/C206)
8. CONSTRUCT ACCESSIBLE RAMP PER DETAIL (C203)
9. PAINT FIRE LANE STRIPE PER DETAIL (6/C206)
10. TRANSITION FROM 12" CURB TO 6" CURB OVER ENTIRE LENGTH OF CURB RETURN
11. TRANSITION FROM 6" CURB TO 7" CURB OVER ENTIRE LENGTH OF CURB RETURN
12. TRANSITION FROM 12" CURB TO 7" CURB OVER ENTIRE LENGTH OF CURB RETURN
13. INSTALL CURB CUT PER DETAIL (3/C206)
14. INSTALL SCREEN WALL PER ARCHITECTURAL PLANS
15. INSTALL TRUCK RAMP PER ARCHITECTURAL PLANS
16. INSTALL CONC FLUMES PER ARCHITECTURAL PLANS
17. MONUMENT SIGN
18. INSTALL WHEEL STOP PER DETAIL (2/C206)

OVERALL PARKING SUMMARY	
PROPOSED TRAILER SPACES	37
PROPOSED PASSENGER SPACES	56
PROPOSED ADA SPACES	3
VAN ADA SPACES	1
TOTAL SPACES	96

OVERALL SITE SUMMARY

REQUIRED PASSENGER SPACES	48
1 PER 200 SF OF OFFICE SPACE (5,000 SF)	25
1 PER 3000 SF OF STORAGE SPACE (69,000)	23
REQUIRED ADA SPACES	3
VAN ADA SPACES	1
PROPOSED TRAILER SPACES	37
PROPOSED PASSENGER SPACES	56
PROPOSED ADA SPACES	3
VAN ADA SPACES	1
TOTAL SPACES	96
LOT SIZE	236, 156 SFT 5.42 ACRE
BUILDING SIZE	74,030 SFT
BUILDING HEIGHT	32 FT CLEAR 36 FT TOP STRUCTURE 40 FT TOP BUILDING
USE	WAREHOUSE
ZONE CLASS	BUSINESS PARK

LEGEND

- PROPOSED SIGN
- PROPERTY LINE
- FIRE LANE STRIPING
- EX FIRE HYDRANT
- EX LIGHT POLE

N

0 40 80 120

GRAPHIC SCALE IN FEET

PRELIMINARY - FOR REVIEW ONLY

These documents are for Design Review and not intended for Construction, Bidding or Permit Purposes. They were prepared by, or under supervision of:

RAUL M. ZAVALA 144856 10/02/2023
Type or Print Name PE # Date

REV.	DATE	REMARKS

SPRUCE

OVERALL SITE PLAN

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

DESIGNED: AEJ	DATE	PROJECT #	SHEET
DRAWN: AEJ	OCT 2023	BLC23002	C201
CHECKED: RMZ			

G:\JOB\BLC23002_Project_Spruce\3_Design\05_Civil\351_CAD_Construction Plans\C201-BLC23002-C-SITE-OVERALL-SITE-PLAN.sht

$USER$ 1:50:20 PM 10/5/2023

GENERAL NOTES

1. Contractor shall provide all materials and labor to complete scope of work as indicated in documents.
2. All work shall be executed in accordance with all federal, state and local regulations, and shall comply with prevailing accessibility requirements. Contractor shall notify owner's representative of any portion of documents which conflict with regulations prior to construction.
3. Contractor is responsible for securing all required permits, approvals and inspections related to scope of work.
4. Reference to "owner's representative" are made in these documents, and refers to the project owner or designated representative, in addition to the owner's representative the contractor shall contact the landscape architect for design clarifications or additional information related to scope of work.
5. Notify owner's representative 48 hours in advance of commencing work to coordinate project inspection schedule.
6. Drawings are based on survey data and design drawings provided by others. It is the contractors responsibility to verify existing conditions and shall notify owner's representative of any discrepancies between documents and actual site conditions prior to construction. Failure to make such conflicts known to the owner's representative will result in the contractor's liability to relocate materials as directed.
7. Do not proceed with any portion of work as indicated in documents if obstructions, discrepancies or unknown conditions are encountered. Notify the owner's representative immediately for direction on how to proceed.
8. Contractor shall coordinate all work with other disciplines.
9. Limits of work indicated on drawings, if any, are general in nature and are intended to define the general vicinity in with the scope of work exists. Actual limits of work shall include all areas necessary to complete scope of design intent.
10. Unless otherwise noted, all existing trees shall be protected. Do not park, drive, operate machinery or store materials within the dripline of existing trees.
11. The contractor shall locate and verify all existing utility lines prior to planting or construction and shall report any conflicts to the owner's representative. Verify with owner pipe line locations prior to digging. Contractor shall exercise caution when working in the vicinity of underground utilities.
12. Contractor shall provide bid proposal listing unit prices for all material provided.
13. Quantities shown on the plan are for the contractor's convenience only and are not guaranteed to be accurate. In the event of a discrepancy between quantities shown on the plan and quantities shown on the list, the quantities shown on the plan shall apply.

LANDSCAPE NOTES

1. All non-dimensioned plants symbols, edging and bed lines are diagrammatic and shall be scaled from drawings.
2. Stake the location of all proposed trees for approval by the owner's representative prior to commencement of planting. The owner's representative reserves the right to make minor adjustments to locations prior to planting.
3. Paint or string all edging and bed line locations on finish grade for approval by the owner's representative prior to installation. The owner's representative reserves the right to make minor adjustments to locations prior to planting.
4. Refer to details and specifications for plant pit dimensions and backfill requirements.
5. All plant material shall be maintained in a healthy growing condition as is appropriate for the season of the year. Plant material that is damaged, destroyed, or removed shall be replaced with plant material of similar size and variety within 30 days. Unless otherwise approved in writing by the owner or owner's representative.
6. All new plant material shall conform to the minimum guidelines established for nursery stock published by the American association of nurseryman, Inc. in addition, all new plant material for the project shall be of specimen quality.
7. All new plants shall be container- grown, unless otherwise noted on the plant list.
8. The general contractor shall supply all new plant material in quantities sufficient to complete the plantings shown on the drawings.
9. No trees shall be planted before acceptance of rough grading. Tree shall bear same relationship to finish grade as they bore to previous grade.
10. Contractor shall fine grade areas to achieve final contours as indicated. Planting bed areas to be excavated or left below final finished grade to accommodate for soil amendment / mulch.
11. All planting beds to be tilled to depth of 6" and, backfilled with 4" of organic mulch.
12. All planted areas to be mulched as specified in plan / details.
13. All landscaped areas are to be maintained in accordance with city regulations.
14. All plant varieties must come from a same source supplier in order to maintain a consistent appearance.
15. All container grown material must be of nursery stock conditions, with a well-established root system reaching the sides of the container, to maintain a firm ball when the container is removed, but shall not have excessive root growth encircling the inside of the container.
16. All shrub planting beds and lawn areas to be separated by steel edging unless otherwise noted. No steel to be installed adjacent to sidewalks, curbs or fences.
17. All required landscape areas shall be provided with an automatic underground irrigation system with rain and freeze sensors and evapotranspiration (et) weather-based controllers and said irrigation system shall be designed by a licensed irrigator.

MAINTENANCE NOTES

1. The owner, tenant and their agent, if any, shall be jointly and severally responsible for the maintenance of all landscaping and irrigation. All required landscaping shall be maintained in a neat and orderly manner at all times. This shall include mowing, edging, pruning, fertilizing, watering, weeding, and other such activities common to the maintenance of landscaping. Landscaped areas shall be kept free of trash, litter, weeds, and other such material or plants not a part of the landscaping. All plant materials shall be maintained in a health and growing condition as is appropriate for the season of the year. All irrigation heads or lines which are broken shall be replaced or repaired to prevent the waste of water.
2. The owner shall be responsible for replacing all plant material, which shows dead branching over 75 percent or more of the normal branching pattern and repair of irrigation systems. Plant materials, which die, shall be replaced with plant material of similar variety and similar initial size.
3. Contractor shall provide a separate bid proposal for one year's maintenance to begin after final acceptance.

GENERAL LAWN NOTES

1. Contractor shall coordinate operations and availability of existing topsoil with on-site construction manager.
2. Contractor shall leave lawn areas 1" below final finished grade.
3. Contractors shall fine grade areas to achieve final contours as indicated on the civil plans. Provide uniform rounding at the top and bottom of slopes and other breaks in grade. Correct irregularities and areas where water may stand.
4. All lawn areas shall be fine graded, irrigation trenches completely settled and finish grade approved by the owner's construction manager or landscape architect prior to lawn installation.
5. Contractor shall remove all rocks 3/4" diameter and larger, dirt clods, sticks, concrete spoils, etc. prior to placing topsoil and lawn installation.
6. Contractor shall maintain all lawn areas until final acceptance. This shall include, but not be limited to: mowing, watering, weeding, cultivating, cleaning and replacing dead or bare areas to keep plants in a vigorous, healthy condition.
7. Contractor shall guarantee establishment of acceptable turf area and shall provide replacement from local supply if necessary.

SOLID SOD NOTES

1. Plant sod by hand to cover indicated areas completely. Ensure edges of sod are touching. Top dress joints by hand with topsoil to fill voids.
2. Roll grass areas to achieve a smooth, even surface, free from unnatural undulations.
3. Water sod thoroughly as sod operation progresses.
4. If installation occurs between September 1 and March 1, all sod areas to be over-seeded with winter ryegrass, at a rate of four (4) pounds per one thousand (1000) square feet.
5. Sod shall be clean and reasonably free of weeds and noxious pest and insects.

IRRIGATION NOTES

1. All areas containing turf, ground cover, shrubs, trees, or other planted material shall be irrigated with a permanent below-ground, automatic irrigation system, designed by a licensed irrigator. Temporary irrigation to establishment is acceptable as approved by the owner's representative and Landscape Architect and shall be designed and installed by a licensed irrigator.
2. All irrigation systems shall be installed with rain and frost sensors, and shall meet all applicable state and local regulations.
3. All areas other than turf shall be irrigated using Netafim™ or approved equal subterranean drip.
4. Hydromulched turf areas are to be irrigated with temporary above-ground irrigation for a minimum of 90 days and until achieving 100% germination.

SOIL PREPRATION NOTES

1. Contractor to perform a soil test prior to beginning any landscape work and shall provide the project Landscape Architect with the results to determine if any amendments in addition to the ones set forth in this plan set are required. Appropriate soil preparation is to be determined on a site by site basis, and the Landscape Architect has the right to amend the soil preparation requirements pending soil test results.
2. The contractor shall establish a soil management plan/operation throughout the construction process. All topsoil may become sterile and non-fertile over time. The contractor shall amend and supplement the stockpiled topsoil as necessary to yield a fertile topsoil supply. The contractor's bid shall include all necessary topsoil (import may be required) as required to backfill all disturbed areas. The lack of available on-site topsoil will not be grounds for a change order or additional pay.
3. On-site excess excavations and utility spoils that are free of rocks larger than 1", trash, debris, roots or other deleterious matter may be used as general earth fill, but shall not be used as topsoil. General earth fill may be used to bring all disturbed areas to six inches (6") below grade.
4. All turf areas shall be undercut six inches (6") below grade and scarified. Six inches (6") of topsoil shall be used to bring all disturbed areas to finish grade. All topsoil shall be fertile (based on the results of a soil test provided to the Landscape Architect) and shall not contain rocks larger than 1", trash, debris, root or other deleterious matter.
5. All landscape beds shall be undercut six inches (6") below finish grade. Three inches (3") of organic compost shall be added to the landscape bed and tilled an additional four to six inches (4-6"). After plant material and weed barrier fabric is installed per the provided specifications and details, four inches (4") of mulch shall be applied to the landscape bed.

Drawing: G:\JOB\BLC23002_Project_Spruce\3_Design\38_LA\381_CAD\LA_Plans\BLC23002-L-GEN
Last Saved by: Jlcondon
Last Saved: 10/11/2023 8:56 AM
Plot Date/Time: 10/11/2023 8:57 AM

PLANT SCHEDULE

CANOPY TREE	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY	REMARKS
	QM	Quercus macrocarpa	Burr Oak	3" Cal.	3	Container grown, 12' height, 5' spread, 4' branching height, upright growth, full rounded canopy, strong central leader
	QS	Quercus shumardii	Shumard Red Oak	3" Cal.	3	Container grown, 12' height, 5' spread, 4' branching height, upright growth, full rounded canopy, strong central leader
	QV	Quercus virginiana	Live Oak	3" Cal.	24	Container grown, 12' height, 5' spread, 4' branching height, upright growth, full rounded canopy, strong central leader
	UC	Ulmus crassifolia	Cedar Elm	3" Cal.	3	Container grown, 12' height, 5' spread, 4' branching height, upright growth, full rounded canopy, strong central leader
	UP	Ulmus parvifolia	Lacebark Elm	3" Cal.	3	Container grown, 12' height, 5' spread, 4' branching height, upright growth, full rounded canopy, strong central leader

CONIFEROUS TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY	REMARKS
	JE	Juniperus virginiana	Eastern Red Cedar	3" Cal.	19	Container grown, 8' height, 4' spread, strong central leader, upright growth, branches full to base.

ORNAMENTAL TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY	REMARKS
	LI	Lagerstroemia indica 'Tuscarora'	Crape Myrtle	45 gal.	25	Container grown, 8' height, 4' minimum spread, 2" caliper minimum
	VC	Vitex agnus-castus	Chaste Tree	45 gal.	31	Container grown, 8' height, 4' spread minimum, 2" caliper minimum

SHRUBS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY	REMARKS
	NR	Ilex x 'Nellie R. Stevens'	Nellie R. Stevens Holly	45 gal.	200	Container full, 36" spread, spaced at 72" height, spaced at 60" on-center
	LB	Liriope muscari 'Big Blue'	Big Blue Lilyturf	3 gal.	335	Container full, 12" spread, spaced at 18" on-center typical.
	LS	Loropetalum chinense rubrum 'Shang-hi' TM	Purple Diamond Fringe Flower	3 gal.	300	Container full, 24" spread, spaced at 36" on-center typical.

GROUND COVERS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY	REMARKS
	--		Decomposed Granite (DG)	Less than 1/8" in Dia.	354 sf	Tan in color to match Alliance standard; 4" depth compacted in 1" lifts.
	---	Cynodon dactylon	Common Bermuda Grass (Sod)	sod	50,619 sf	Lawn solid sod, regional, drought tolerant - refer to notes.
	EC	Euonymus fortunei 'Coloratus'	Purple-leaf Wintercreeper	4" Pots	1,091	Container full, (5) runners minimum, 12" spread, spaced at 12" on-center typical.
	NB	Native Bull Rock	Native Bull Rock	2"- 4"	1,712 sf	Texas NativeBull Rock

NOTE:
1. All trees shall have straight trunks and be matching within varieties.
2. All trees shall have a full and uniform canopy.
3. Root balls should be well-formed, intact, with trunk firmly attached. Minimum root ball size for a 3" caliper tree is 32".
4. Plant list is an aid to bidders only. Contractor shall verify all quantities on plan.
5. All heights and spreads are minimums. All plant material shall meet or exceed remarks as indicated.
6. Do not install steel edging along sidewalks or curbs.

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
TXU ELECTRIC DELIVERY	1-800-711-9112
CITY OF ROANOKE PUBLIC WORKS	817-491-6099

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

FIRST SUBMITTAL

City of Roanoke Landscape Requirements

Requirement: 20% of the lot/tract area shall be pervious, permanently landscaped area.	
Site Area: 236,156 SF	
Required:	**Provided:**
47,232 SF (20%)	62,911 (27%)
Requirement: A minimum fifteen-foot (15') landscaped street buffer shall be required along any street frontage for any other nonresidential development. One large shade tree and four small ornamental trees shall be required per fifty (50) linear feet (or portion thereof) of street buffer frontage. The landscaped street buffer area may be included in the required landscape area percentage.	
Frontage Length: 925 LF	
Required:	**Provided:**
19 canopy trees	22 canopy trees
73 ornamental trees	75 ornamental trees
The frontage tree calculations are including trees along the East property line and ornamental site trees following direction from Kelly Carlson during 10/10/2023 phone call.	
Requirement: One canopy or ornamental tree for every 10 parking spaces. One large shade tree within sixty (60) feet of every parking space.	
Total Parking Spaces: 59	
Required:	**Provided:**
6 trees	13 trees
Requirement: Minimum five-foot (5') wide landscaped buffer strip around the sides and rear peremeter of the lot/tract. Within the 5-foot (5') perimeter buffer shall be provided a four-foot (4') tall screen comprised of hardy, evergreen shrubs, decorative walls with shrubs, or similar landscaping.	
Required:	
Five-foot (5') side and rear lanscaped buffer with screaning shrubs.	
Provided:	
Five-foot (5') side and rear lanscaped buffer with screaning shrubs in the form of Nellie R. Stevens Hollies, 6' in height at time of installation.	
Tree Preservation:	
There are no existing trees on site, there will be no tree preservation plans included in this set.	

PRELIMINARY
-FOR REVIEW ONLY-

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TYPE OR PRINT NAME	PLA #	DATE
JORDAN A. KAYLOR	3117	10/11/2023

NO.	DATE	REVISION

PROJECT SPRUCE

LANDSCAPE GENERAL NOTES

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
TEXAS REGISTRATION ENGINEERING FIRM NO. 12207
9800 HILLWOOD PKWY, SUITE 250, FORT WORTH, TEXAS 76177
FORT WORTH PHONE: (817) 562-3350

	DATE	PROJECT #	SHEET
DRAWN: JLC	OCTOBER 2023	BLC23002	L001
DESIGNED: JLC			
REVIEWER: JAK			

PROJECT SPRUCE

The Texas Board of Architectural Examiners has jurisdiction over complaints regarding the professional practices of persons registered as landscape architects in Texas. 333 Guadalupe, Suite 2-350, Austin Texas 78701 : Telephone (512) 305-9000

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

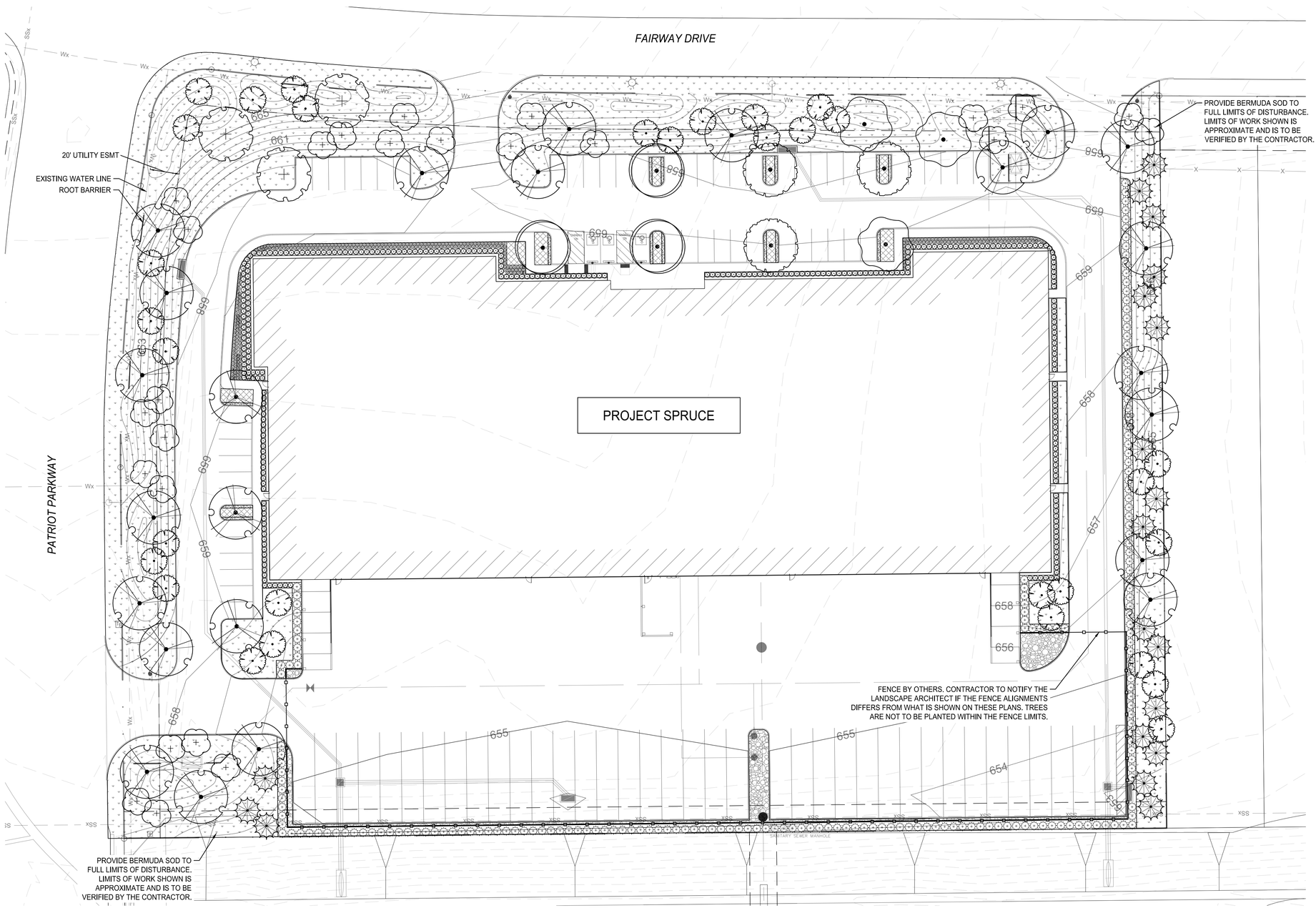
TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
TXU ELECTRIC DELIVERY	1-800-711-9112
CITY OF ROANOKE PUBLIC WORKS	817-491-6099

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

FIRST SUBMITTAL

N

0 30' 60'
SCALE: 1" = 30'



PLANT SCHEDULE

CANOPY TREE	CODE	COMMON NAME
	QM	Burr Oak
	QS	Shumard Red Oak
	QV	Live Oak
	UC	Cedar Elm
	UP	Lacebark Elm

CONIFEROUS TREES	CODE	COMMON NAME
	JE	Eastern Red Cedar

ORNAMENTAL TREES	CODE	COMMON NAME
	LI	Crape Myrtle
	VC	Chaste Tree

SHRUBS	CODE	COMMON NAME
	NR	Nellie R. Stevens Holly
	LB	Big Blue Lilyturf
	LS	Purple Diamond Fringe Flower

GROUND COVERS	CODE	COMMON NAME
	--	Decomposed Granite (DG)
	---	Common Bermuda Grass (Sod)
	EC	Purple-leaf Wintercreeper
	NB	Native Bull Rock

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JORDAN A. KAYLOR	3117	10/11/2023
TYPE OR PRINT NAME	PLA #	DATE

NO.	DATE	REVISION

PROJECT SPRUCE

OVERALL LANDSCAPE PLANTING PLAN

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS

TEXAS REGISTRATION ENGINEERING FIRM NO. 12207
9800 HILLWOOD PKWY. SUITE 250, FORT WORTH, TEXAS 76177
FORT WORTH PHONE: (817) 562-3350

DRAWN: JLC	DATE	PROJECT #	SHEET
DESIGNED: JLC	OCTOBER 2023	BLC23002	L100
REVIEWER: JAK			

PROJECT SPRUCE

Drawing: G:\JOBS\BLC23002_Project_Spruce\3_Design\06_LA\01_CAD\LA_Plans\BLC23003-L-LANDSCAPE.DV
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Last Saved: 10/10/2023 9:17 AM
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SECTION 32 9300 - LANDSCAPE PART 1 - GENERAL

1.1 REFERENCED DOCUMENTS

A. Refer to Landscape Plans, notes, details, bidding requirements, special provisions, and schedules for additional requirements.

1.2 DESCRIPTION OF WORK

A. Work included: Furnish all supervision, labor, materials, services, equipment and appliances required to complete the work covered in conjunction with the landscaping covered in these specifications and landscaping plans, including:

1. Planting (trees, shrubs and grasses)
2. Bed preparation and fertilization
3. Notification of sources
4. Water and maintenance until final acceptance
5. Guarantee

1.3 REFERENCE STANDARDS

A. American Standard for Nursery Stock published by American Association of Nurserymen: 27 October 1980, Edition; by American National Standards Institute, Inc. (Z60.1) - plant material

B. American Joint Committee on Horticultural Nomenclature: 1942 Edition of Standardized Plant Names.

C. Association of Nurserymen, Grades and Standards

D. Hortis Third, 1976 - Cornell University

1.4 NOTIFICATION OF SOURCES AND SUBMITTALS

A. Samples: Provide representative quantities of sandy loam soil, mulch, bed mix material, gravel and crushed stone. Samples shall be approved by Owner's Authorized Representative before use on the project.

1.5 JOB CONDITIONS

A. General Contractor to complete the following punch list: Prior to Landscape Contractor initiating any portion of landscape installation, General Contractor shall leave planting bed areas three (4.5") inches below final finish grade of sidewalks, drives and curbs as shown on the drawings. All lawn areas to receive solid sod shall be left one (1") inch below the final finish grade of sidewalks, drives and curbs. All construction debris shall be removed prior to Landscape Contractor beginning any work.

B. Storage of materials and equipment at the job site will be at the risk of the Landscape Contractor. The Owner cannot be held responsible for theft or damage.

1.6 MAINTENANCE AND GUARANTEE

A. Maintenance:

1. The Landscape Contractor shall be held responsible for the maintenance of all work from the time of planting until final acceptance by the Owner. No trees, shrubs, groundcover or grass will be accepted unless they show healthy growth and satisfactory foliage conditions.
2. Maintenance shall include watering of trees and plants, cultivation, weeding spraying, edging, pruning of trees, mowing of grass, cleaning up and all other work necessary of maintenance.
3. A written notice requesting final inspection and acceptance should be submitted to the Owner at least seven (7) days prior to completion. An on-site inspection by the Owner's Authorized Representative will be completed prior to written acceptance.

B. Guarantee:

1. Trees, shrubs and groundcover shall be guaranteed for a twelve (12) month period after final acceptance. The Contractor shall replace all dead materials as soon as weather permits and upon notification of the Owner. Plants, including trees, which have partially died so that shape, size, or symmetry have been damaged, shall be considered subject to replacement. In such cases, the opinion of the Owner shall be final.
   a. Plants used for replacement shall be of the same size and kind as those originally planted and shall be planted as originally specified. All work, including materials, labor and equipment used in replacements, shall carry a twelve (12) month guarantee. Any damage, including ruts in lawn or bed areas, incurred as a result of making replacements shall be immediately repaired.
   b. At the direction of the Owner, plants may be replaced at the start of the next year's planting season. In such cases, dead plants shall be removed from the premises immediately.
   c. When plant replacements are made, plants, soil mix, fertilizer and mulch are to be utilized as originally specified and re-inspected for full compliance with the contract requirements. All replacements are to be included under "Work" of this section.
2. The Owner agrees that for the guarantee to be effective, he will water plants at least twice a week during dry periods and cultivate beds once a month after final acceptance.
3. The above guarantee shall not apply where plants die after acceptance because of injury from storms, hail, freeze, insects, diseases, injury by humans, machines or theft.
4. Acceptance for all landscape work shall be given after final inspection by the Owner provided the job is in a complete, undamaged condition and there is a stand of grass in all lawn areas. At that time, the Owner will assume maintenance on the accepted work.

C. Repairs: Any necessary repairs under the Guarantee must be made within ten (10) days after receiving notice, weather permitting. In the event the Landscape Contractor does not make repairs accordingly, the Owner, without further notice to Contractor, may provide materials and men to make such repairs at the expense to the Landscape Contractor.

1.7 QUALITY ASSURANCE

A. General: Comply with applicable federal, state, county and local regulations governing landscape materials and work.

B. Personnel: Employ only experienced personnel who are familiar with the required work. Provide full time supervision by a qualified foreman acceptable to Landscape Architect.

C. Selection of Plant Material:

1. Make contact with suppliers immediately upon obtaining notice of contract acceptance to select and book materials. Develop a program of maintenance (pruning and fertilization) which will ensure the purchased materials will meet and / or exceed project specifications.
2. Substitutions: Do not make plant material substitutions. If the specified landscape material is not obtainable, submit proof of non-availability to Landscape Architect, together with proposal for use of equivalent material. At the time bids are submitted, the Contractor is assumed to have located the materials necessary to complete the job as specified.
3. Landscape Architect will provide a key identifying each tree location on site. Written verification will be required to document material selection, source and delivery schedules to site.
4. Measurements: Measure trees with branches and trunks or canes in their normal position. Do not prune to obtain required sizes. Take caliper measurements six inches above ground for trees up to and including 4" caliper size, and twelve inches above ground for larger sizes. Measure main body of all plant material of height and spread dimensions, do not measure from branch or root tip-to-tip.
5. Owner's Authorized Representative shall inspect all plant material with requirements for genus, species, cultivar / variety size and quality.
6. Owner's Authorized Representative retains the right to further inspect all plant material upon arrival to the site and during installation for size and condition of root balls and root systems, limbs, branching habit, insects, injuries and latent defects.
7. Owner's Authorized Representative may reject unsatisfactory or defective material at any time during the process work. Remove rejected materials immediately from the site and replace with acceptable material at no additional cost to the Owner. Plants damaged in transit or at job site shall be rejected.

1.8 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Preparation:

1. Balled and Burlapped (B&B) Plants: Dig and prepare shipment in a manner that will not damage roots, branches, shape and future development.
2. Container Grown Plants: Deliver plants in rigid container to hold ball shape and protect root mass.

B. Delivery:

1. Deliver packaged materials in sealed containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery and while stored on site.
2. Deliver only plant materials that can be planted in one day unless adequate storage and watering facilities are available on job site.
3. Protect root balls by heeling in with sawdust or other approved moisture retaining material if not planted within 24 hours of delivery.
4. Protect plants during delivery to prevent damage to root balls or desiccation of leaves. Keep plants moist at all times. Cover all materials during transport.
5. Notify Owner's Authorized Representative of delivery schedule 72 hours in advance job site.
6. Remove rejected plant material immediately from job site.
7. To avoid damage or stress, do not lift, move, adjust to plumb, or otherwise manipulate plants by trunk or stems.

PART 2 - PRODUCTS

2.1 PLANTS

A. General: Well-formed No. 1 grade or better nursery grown stock. Listed plant heights are from tops of root balls to nominal tops of plants. Plant spread refers to nominal outer width of the plant, not to the outer leaf tips. Plants will be individually approved by the Owner's Authorized Representative and his decision as to their acceptability shall be final.

B. Quantities: The drawings and specifications are complimentary. Anything called for on one and not the other is as binding as if shown and called for on both. The plant schedule is an aid to bidders only. Confirm all quantities on plan.

C. Quality and size: Plant materials shall conform to the size given on the plan, and shall be healthy, symmetrical, well-shaped, full branched and well rooted. The plants shall be free from injurious insects, diseases, injuries to the bark or roots, broken branches, objectionable disfigurements, insect eggs and larvae, and are to be of specimen quality.

D. Approval: All plants which are found unsuitable in growth, or are in any unhealthy, badly shaped or undersized condition will be rejected by the Owner's Authorized Representative either before or after planting and shall be removed at the expense of the Landscape Contractor and replaced with acceptable plant as specified at no additional cost to the Owner.

E. Trees shall be healthy, full-branched, well-shaped, and shall meet the minimum trunk and diameter requirements of the plant schedule. Balls shall be firm, neat, slightly tapered and well wrapped in burlap. Any tree loose in the ball or with a broken root ball at time of planting will be rejected. Balls shall be ten (10") inches in diameter for each one (1") inch of trunk diameter, measured six (6") inches above ball. (Nomenclature confirms to the customary nursery usage. For clarification, the term "multi-trunk" defines a plant having three (3) or more trunks of nearly equal diameter.)

F. Pruning: All pruning of trees and shrubs, as directed by the Landscape Architect prior to final acceptance, shall be executed by the Landscape Contractor at no additional cost to the Owner.

2.2 SOIL PREPARATION MATERIALS

A. Sandy Loam:

1. Friable, fertile, dark, loamy soil, free of clay lumps, subsoil, stones and other extraneous material and reasonably free of weeds and foreign grasses. Loam containing Dallasgrass or Nutgrass shall be rejected.
2. Physical properties as follows:
   a. Clay - between 7-27 percent
   b. Silt - between 15-25 percent
   c. Sand - less than 52 percent
3. Organic matter shall be 3%-10% of total dry weight.
4. If requested, Landscape Contractor shall provide a certified soil analysis conducted by an approved soil testing laboratory verifying that sandy loam meets the above requirements.

B. Organic Material: Compost with a mixture of 80% vegetative matter and 20% animal waste. Ingredients should be a mix of course and fine textured material.

C. Sharp Sand: Sharp sand must be free of seeds, soil particles and weeds.

D. Mulch: Double Shredded Hardwood Mulch, partially decomposed, dark brown.

E. Organic Fertilizer: Fertilaid, Sustane, or Green Sense or equal as recommended for required applications. Fertilizer shall be delivered to the site in original unopened containers, each bearing the manufacturer's guaranteed statement of analysis.

F. Commercial Fertilizer: 10-20-10 or similar analysis. Nitrogen source to be a minimum 50% slow release organic Nitrogen (SCU or UF) with a minimum 8% sulfur and 4% iron, plus micronutrients.

G. Peat: Commercial sphagnum peat moss or partially decomposed shredded pine bark or other approved organic material.

2.3 MISCELLANEOUS MATERIALS

A. Steel Edging: 1/8" x 4" x 16' - dark green, DURAEDGE® steel landscape edging manufactured by The J.D. Russell Company under its trade name DURAEDGE Heavy Duty Steel .

B. Staking Material for Shade Trees: refer to details.

C. Gravel: Washed native pea gravel, graded 1 inch to 1-1/2 inch.

D. Filter Fabric: 'Mirafi Mirascape' by Mirafi Construction Products or approved equal.

E. Decomposed Granite: Base material shall consist of a natural material mix of granite aggregate not to exceed 1/8" diameter in size and shall be composed of various stages of decomposed earth base.

PART 3 - EXECUTION

3.1 BED PREPARATION & FERTILIZATION

A. Landscape Contractor to inspect all existing conditions and report any deficiencies to the Owner.

B. All planting areas shall be conditioned as follows:

1. Prepare new planting beds by scraping away existing grass and weeds as necessary. Till existing soil to a depth of six (6") inches prior to placing compost and fertilizer. Apply fertilizer as per Manufacturer's recommendations. Add six (6") inches of compost and till into a depth of six (6") inches of the topsoil. Apply organic fertilizer such as Sustane or Green Sense at the rate of twenty (20) pounds per one thousand (1,000) square feet.
2. All planting areas shall receive a four (4") inch layer of specified mulch.
3. Backfill for tree pits shall be as follows: Use existing top soil on site (use imported topsoil as needed) free from large clumps, rocks, debris, caliche, subsoils, etc., placed in nine (9") inch layers and watered in thoroughly.

C. Grass Areas:

1. Blocks of sod should be laid joint to joint (staggered joints) after fertilizing the ground first. Roll grass areas to achieve a smooth, even surface. The joints between the blocks of sod should be filled with topsoil where they are evidently gaped open, then watered thoroughly.

3.2 INSTALLATION

A. Maintenance of plant materials shall begin immediately after each plant is delivered to the site and shall continue until all construction has been satisfactorily accomplished.

B. Plant materials shall be delivered to the site only after the beds are prepared and areas are ready for planting. All shipments of nursery materials shall be thoroughly protected from the drying winds during transit. All plants which cannot be planted at once, after delivery to the site, shall be well protected against the possibility of drying by wind and Balls of earth of B & B plants shall be kept covered with soil or other acceptable material. All plants remain the property of the Contractor until final acceptance.

C. Position the trees and shrubs in their intended location as per plan.

D. Notify the Owner's Authorized Representative for inspection and approval of all positioning of plant materials.

E. Excavate pits with vertical sides and horizontal bottom. Tree pits shall be large enough to permit handling and planting without injury to balls of earth or roots and shall be of such depth that,when planted and settled, the crown of the plant shall bear the same relationship to the finish grade as it did to soil surface in original place of growth.

F. Shrub and tree pits shall be no less than twenty-four (24") inches wider than the lateral dimension of the earth ball and six (6") inches deeper than it's vertical dimension. Remove and haul from site all rocks and stones over three-quarter (3/4") inch in diameter. Plants should be thoroughly moist before removing containers.

G. Dig a wide, rough sided hole exactly the same depth as the height of the ball, especially at the surface of the ground. The sides of the hole should be rough and jagged, never slick or glazed.

H. Percolation Test: Fill the hole with water. If the water level does not percolate within 24 hours, the tree needs to move to another location or have drainage added. Install a PVC stand pipe per tree planting detail as approved by the Landscape Architect if the percolation test fails.

I. Backfill only with native soil. When the hole is dug in solid rock, topsoil from the same area should not be used. Carefully settle by watering to prevent air pockets. Remove the burlap from the top 1 of the ball, as well as all nylon, plastic string and wire. Container trees will usually be root bound, if so follow standard nursery practice of 'root scoring'.

J. Do not wrap trees.

K. Do not over prune.

L. Mulch the top of the ball. Do not plant grass all the way to the trunk of the tree. Leave the area above the top of the ball and mulch with at least two (2") inches of specified mulch.

M. All plant beds and trees to be mulched with a minimum settled thickness of two (2") inches over the entire bed or pit.

N. Obstruction below ground: In the event that rock, or underground construction work or obstructions are encountered in any plant pit excavation work to be done under this section, alternate locations may be selected by the Owner. Where locations cannot be changed, the obstructions shall be removed to a depth of not less than three (3') feet below grade and no less than six (6") inches below the bottom of ball when plant is properly set at the required grade.The work of this section shall include the removal from the site of such rock or underground obstructions encountered at the cost of the Landscape Contractor.

O. Trees and large shrubs shall be staked as site conditions require. Position stakes to secure trees against seasonal prevailing winds.

P. Pruning and Mulching: Pruning shall be directed by the Landscape Architect and shall be pruned in accordance with standard horticultural practice following Fine Pruning, Class I pruning standards provided by the National Arborist Association.

1. Dead wood, suckers, broken and badly bruised branches shall be removed. General tipping of the branches is not permitted. Do not cut terminal branches.
2. Pruning shall be done with clean, sharp tools.
3. Immediately after planting operations are completed, all tree pits shall be covered with a layer of organic material two (2") inches in depth. This limit of the organic material for trees shall be the diameter of the plant pit.

Q. Steel Curbing Installation:

1. Curbing shall be aligned as indicated on plans. Stake out limits of steel curbing and obtain Owners approval prior to installation.
2. All steel curbing shall be free of kinks and abrupt bends.
3. Top of curbing shall be 1 " maximum height above final finished grade.
4. Stakes are to be installed on the planting bed side of the curbing, as opposed to the grass side.
5. Do not install steel edging along sidewalks or curbs.
6. Cut steel edging at 45 degree angle where edging meets sidewalks or curbs.

3.3 CLEANUP AND ACCEPTANCE

A. Cleanup: During the work, the premises shall be kept neat and orderly at all times. Storage areas for all materials shall be so organized so that they, too, are neat and orderly. All trash and debris shall be removed from the site as work progresses. Keep paved areas clean by sweeping or hosing them at end of each work day.

END OF SECTION

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
TXU ELECTRIC DELIVERY	1-800-711-9112
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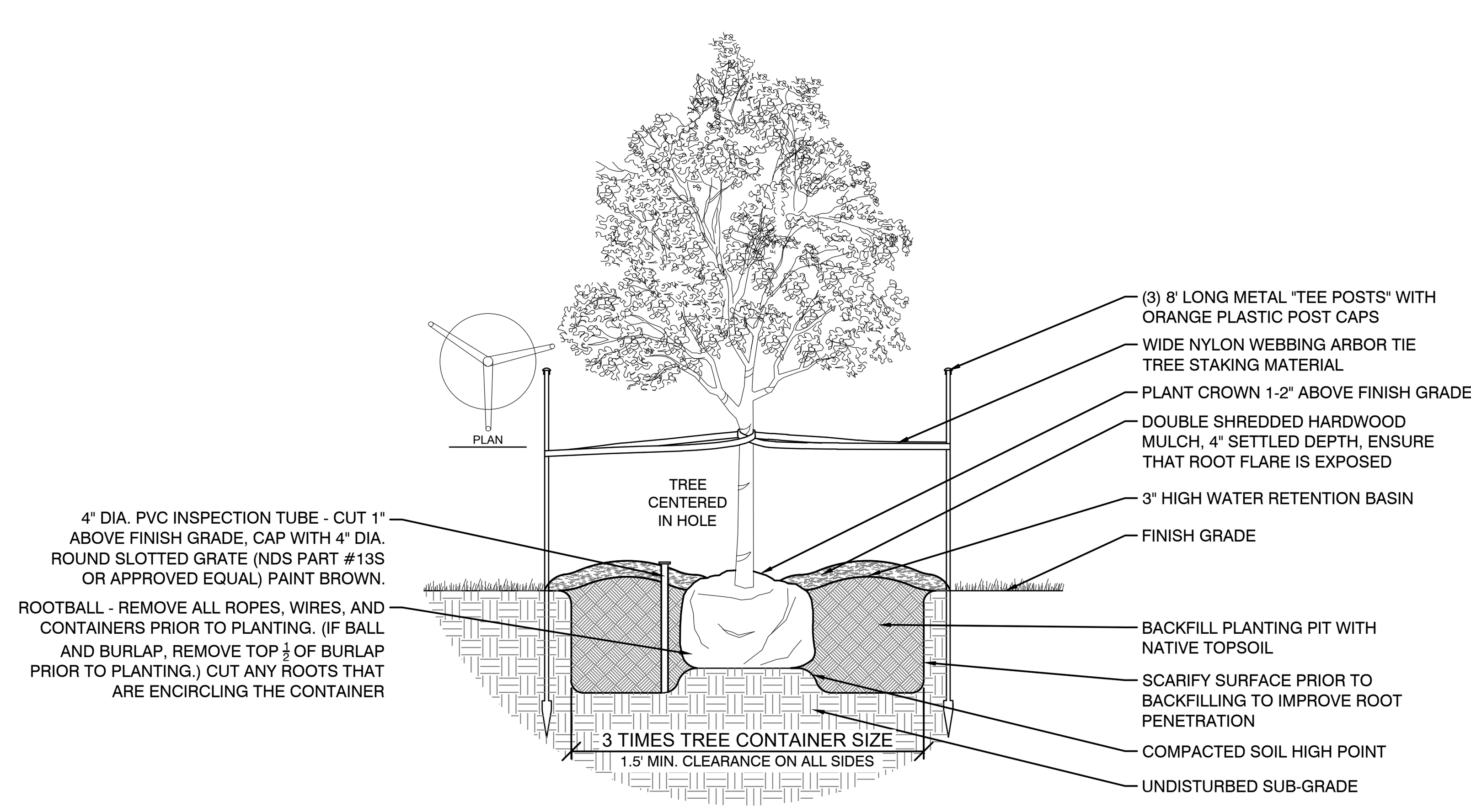
CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

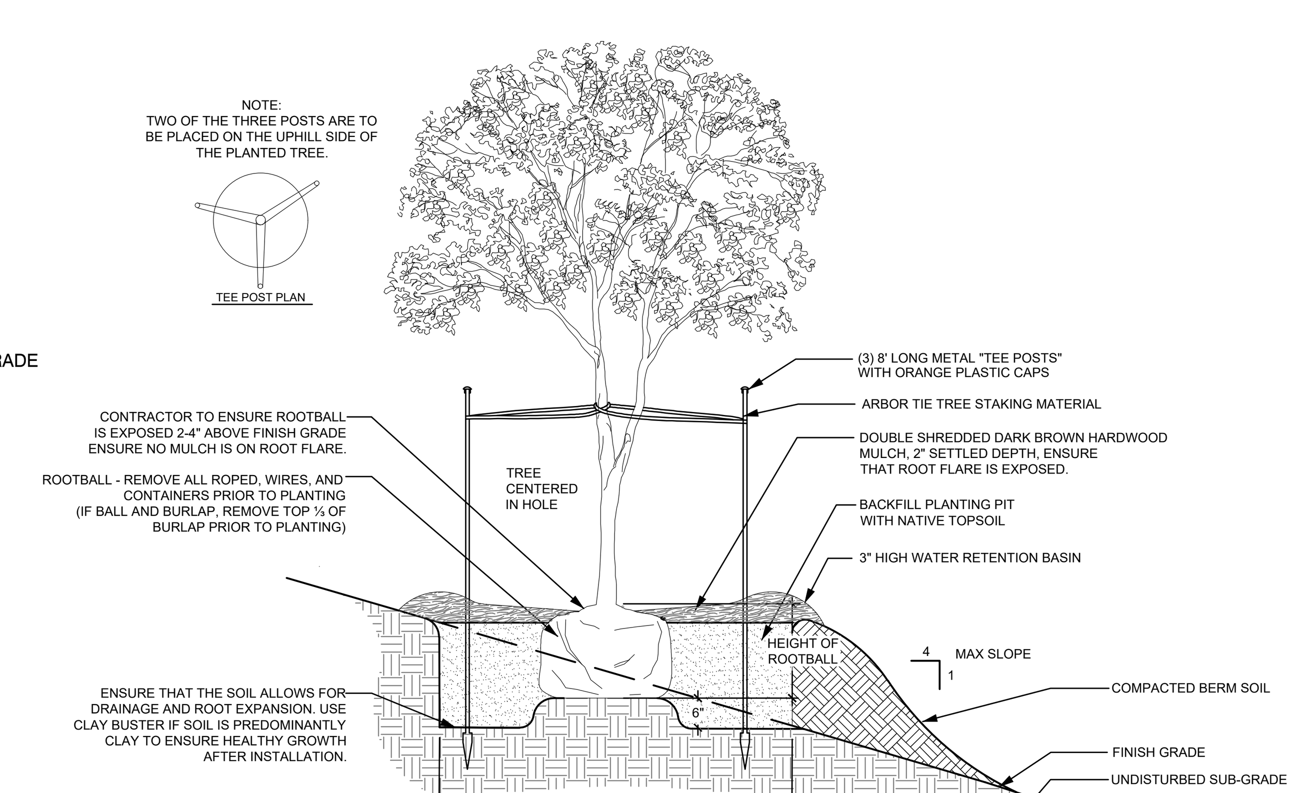
FIRST SUBMITTAL



1 TREE PLANTING & STAKING DETAIL

N.T.S.

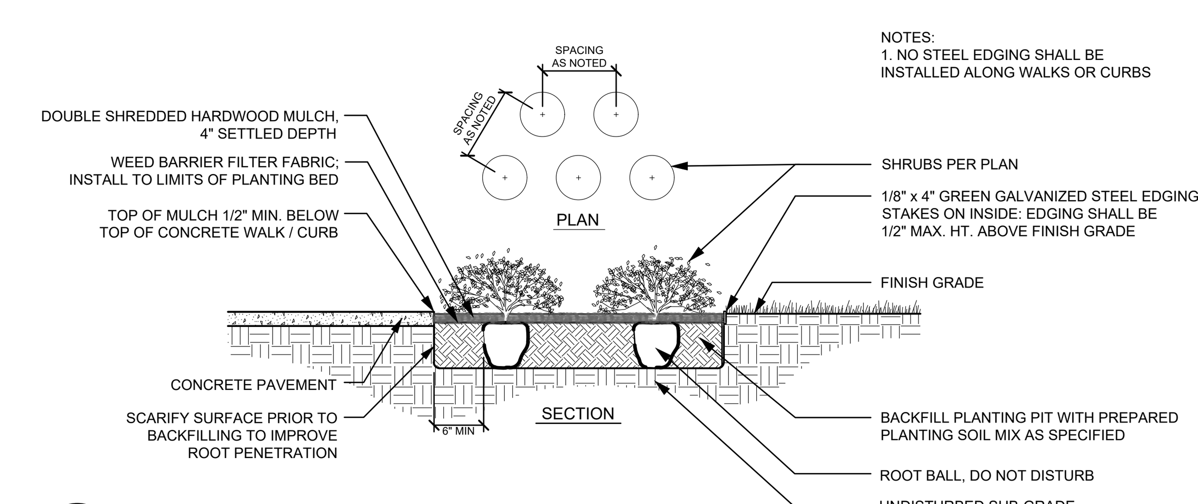
NOTES:
1. TEMPORARY TREE ANCHORS AND ARBOR TIE TO BE REMOVED AFTER ONE FULL GROWING SEASON OR AFTER TREE IS FULLY ESTABLISHED AND STABILIZED.
2. TREE CALIPER MEASURED ABOVE TOP OF ROOTBALL; 6" ABOVE ROOTBALL FOR TREES 4" CALIPER AND LESS AND 12" ABOVE ROOTBALL FOR TREES 5" CALIPER AND GREATER.
3. ALL TREE PRUNING AT THE TIME OF INSTALLATION SHALL BE COORDINATED WITH THE CITY.



2 TREE PLANTING ON SLOPE DETAIL

N.T.S.

NOTES:
1. TEMPORARY TREE ANCHORS AND ARBOR TIE TO BE REMOVE AFTER ONE FULL GROWING SEASON.
2. ALL TREE PRUNING AT THE TIME OF INSTALLATION SHALL BE COORDINATED WITH THE CITY.
3. ALL TREES ARE TO BE PLUMB VERTICALLY WITHIN A TOLERANCE OF 3 DEGREES.
4. A CHECKUP IS REQUIRED WITH LANDSCAPE ARCHITECT 3 MONTHS AFTER INITIAL INSTALLATION TO ENSURE UPRIGHT GROWTH.



3 SHRUB PLANTING DETAIL

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JORDAN A. KAYLOR	3117	10/11/2023
TYPE OR PRINT NAME	PLA #	DATE

NO.	DATE	REVISION

PROJECT SPRUCE

LANDSCAPE SPECIFICATIONS AND DETAILS

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS

TEXAS REGISTRATION ENGINEERING FIRM NO. 12207
9800 HILLWOOD PKWY, SUITE 250, FORT WORTH, TEXAS 76177
FORT WORTH PHONE: (817) 562-3350

DRAWN: JLC	DATE	PROJECT #	SHEET
DESIGNED: JLC	OCTOBER 2023	BLC23002	L200
REVIEWER: JAK			

PROJECT SPRUCE

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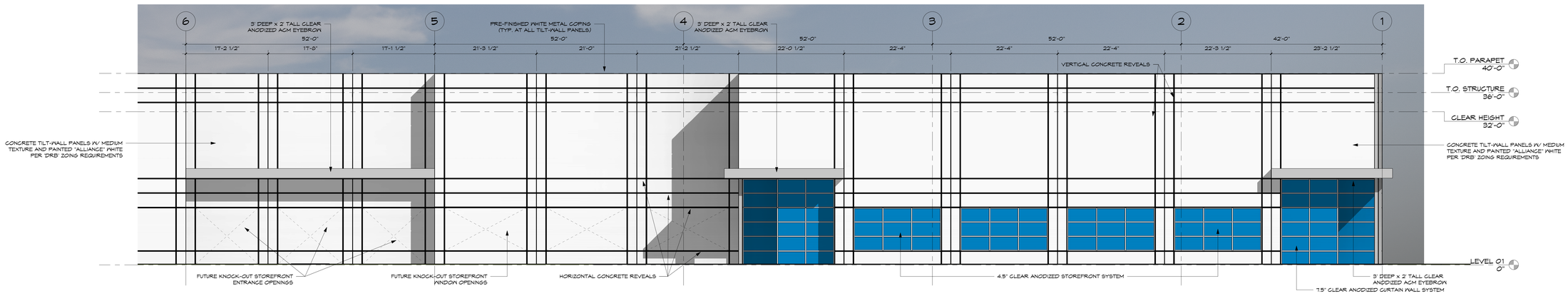
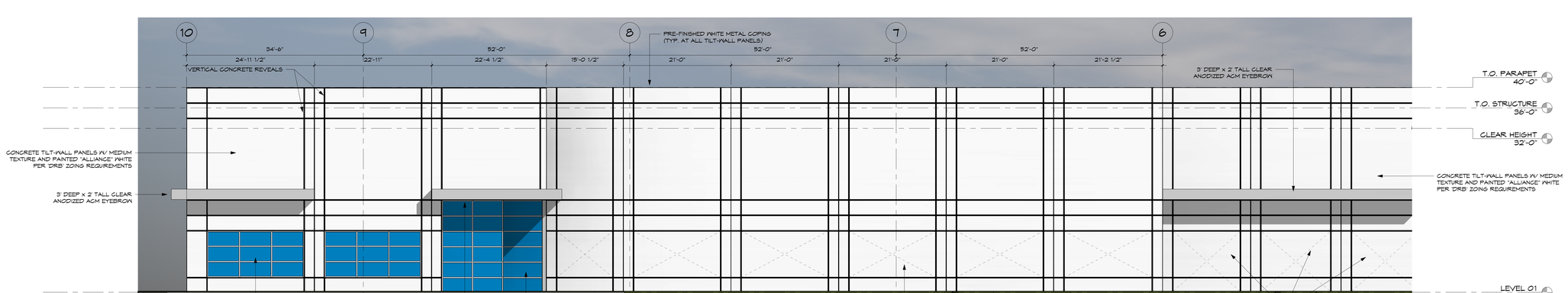


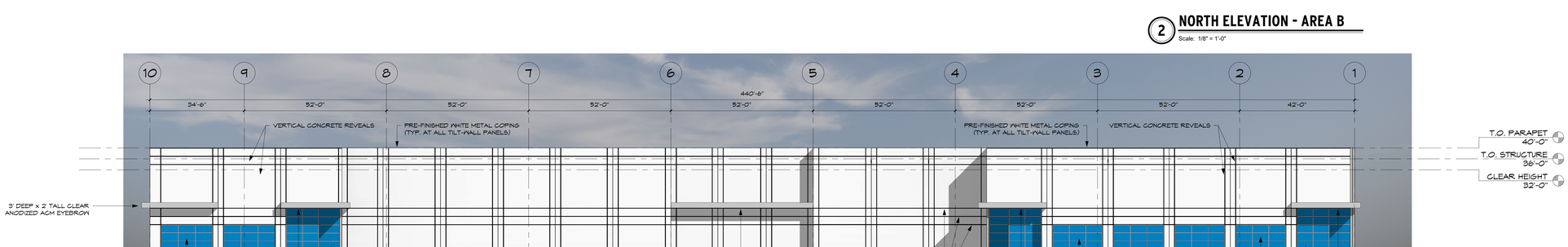
3 NORTH ELEVATION - AREA A

Scale: 1/8" = 1'-0"



2 NORTH ELEVATION - AREA B

Scale: 1/8" = 1'-0"



1 NORTH ELEVATION - OVERALL

Scale: 1/16" = 1'-0"

NORTH ELEVATION MATERIAL TOTALS

GLAZING TOTAL:	2,072	12%
ACM EYEBROW:	317	02%
CONCRETE TILT-WALL:	15,203	86%
TOTAL:	17,592	100%

PROJECT SPRUCE

FAIRWAY DRIVE
ROANOKE, TX 76262

XX.XX.21XX

PERMIT NUMBER: XXXXXXX

RGA PROJECT NUMBER: 23082

DATE: XX.XX.21XX

REVISIONS:

Number	Description	Date

SHEET: A3.01

SITE PLAN APPROVAL

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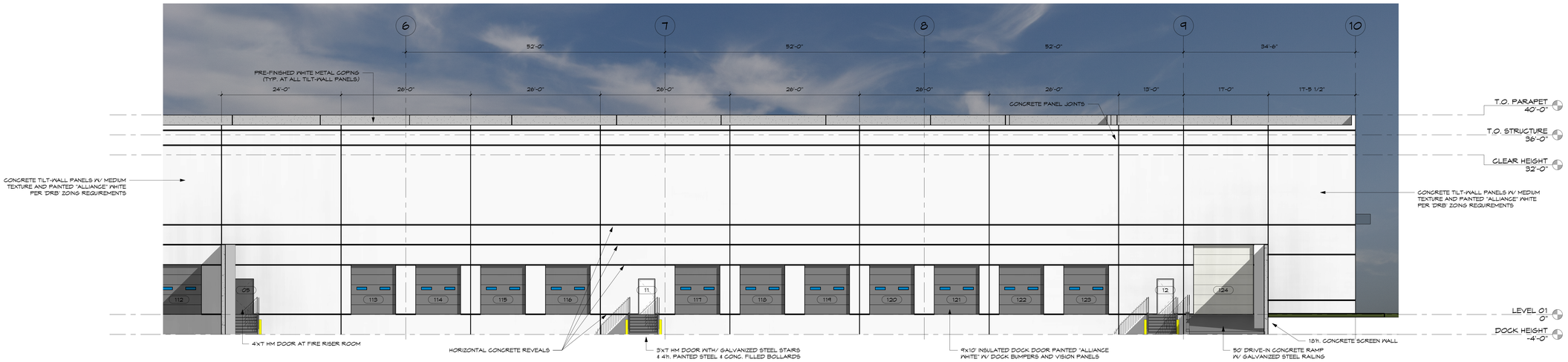
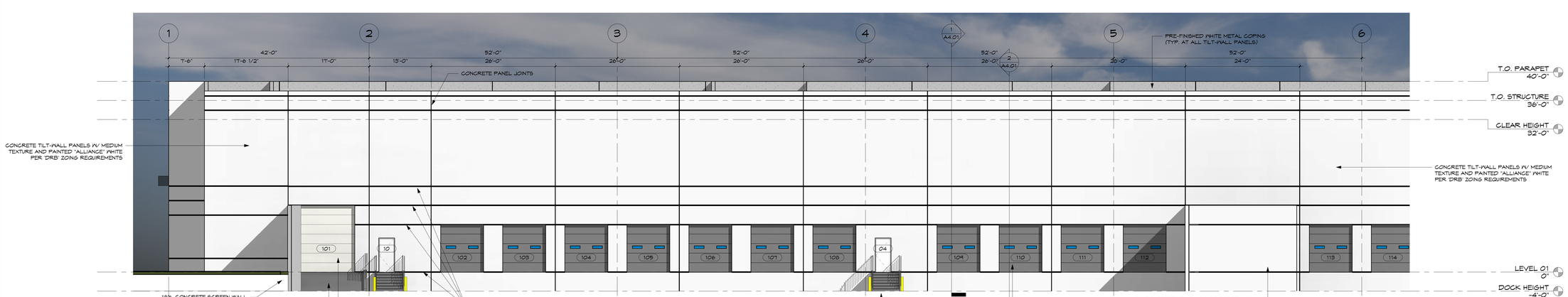


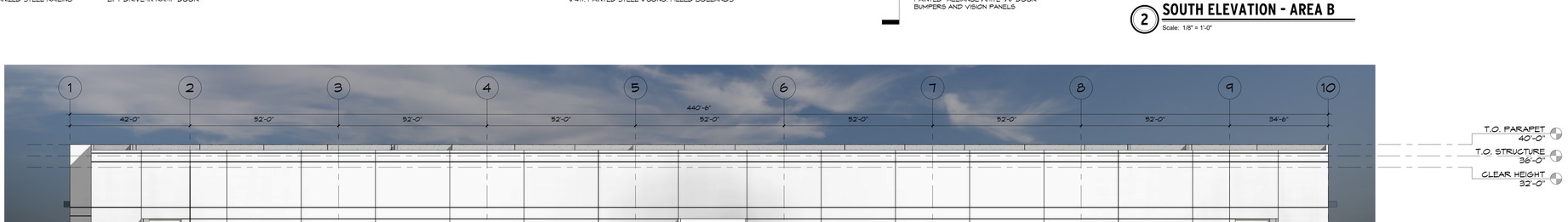
3 SOUTH ELEVATION - AREA A

Scale: 1/8" = 1'-0"



2 SOUTH ELEVATION - AREA B

Scale: 1/8" = 1'-0"



1 SOUTH ELEVATION - OVERALL

Scale: 1/16" = 1'-0"

SOUTH ELEVATION MATERIAL TOTALS		
GLAZING TOTAL:	0	00%
ACM EYEBROW:	0	00%
CONCRETE TILT-WALL:	14,340	100%
TOTAL:	14,340	100%

PROJECT SPRUCE

FAIRWAY DRIVE
ROANOKE, TX 76262

XX.XX.21XX

PERMIT NUMBER:	XXXXXXX
RGA PROJECT NUMBER:	23082
DATE:	XX.XX.21XX

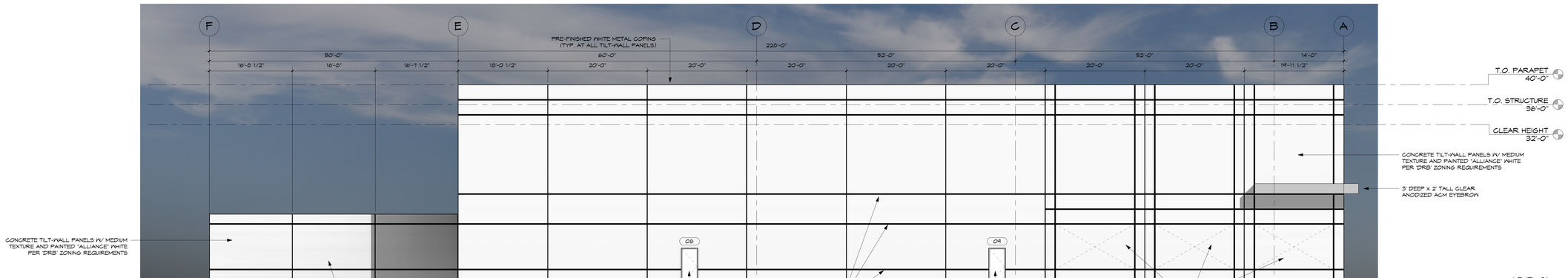
REVISIONS:

Number	Description	Date

SHEET: A3.02

SITE PLAN APPROVAL

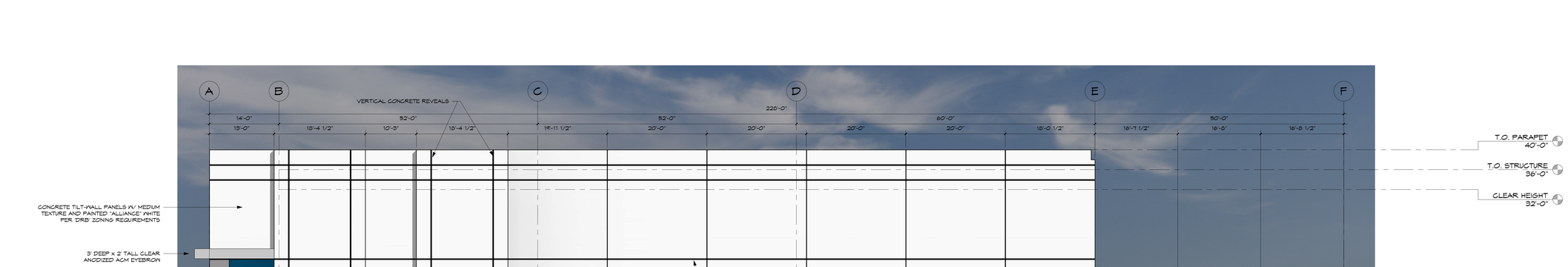
10/3/2023 4:35:54 PM



2 EAST ELEVATION

Scale: 1/8" = 1'-0"

EAST ELEVATION MATERIAL TOTALS		
GLAZING TOTAL:	0	00%
ACM EYEBROW:	34	01%
CONCRETE TILT-WALL:	7,762	99%
TOTAL:	7,796	100%



1 WEST ELEVATION

Scale: 1/8" = 1'-0"

WEST ELEVATION MATERIAL TOTALS		
GLAZING TOTAL:	388	05%
ACM EYEBROW:	34	01%
CONCRETE TILT-WALL:	7,374	94%
TOTAL:	7,796	100%

PROJECT SPRUCE

FAIRWAY DRIVE
ROANOKE, TX 76262

XX.XX.21XX

PERMIT NUMBER: XXXXXXX

RGA PROJECT NUMBER: 23082

DATE: XX.XX.21XX

REVISIONS:

Number	Description	Date

SHEET: A3.03

SITE PLAN APPROVAL

10/3/2023 4:35:57 PM

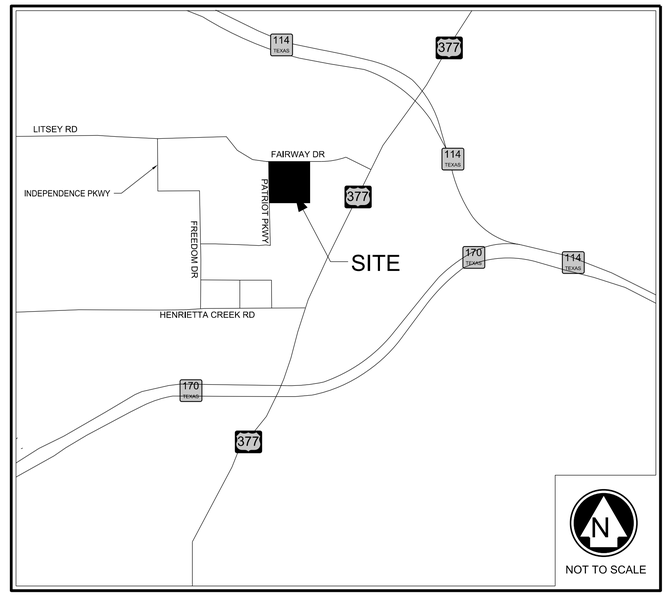
CURRENT CONSTRUCTION STANDARDS FOR DEVELOPMENTS
OCTOBER 4, 2019 SHALL GOVERN ON THIS PROJECT.

PLANS FOR THE CONSTRUCTION OF

WATER, SANITARY SEWER, STORM DRAIN, PAVING & GRADING TO SERVE

SPRUCE

ROANOKE, DENTON COUNTY, TEXAS



LOCATION MAP
N.T.S.

	C001	COVER SHEET
	C002	FINAL PLAT
	C003	GENERAL CONSTRUCTION NOTES
	C101	EXISTING CONDITIONS & DEMOLITION PLAN
	C102	EROSION CONTROL PLAN
	C103	EROSION CONTROL DETAILS
	C201	OVERALL SITE PLAN
	C202	DIMENSIONAL CONTROL PLAN
*	C203	SITE DETAILS
*	C204	SITE DETAILS
*	C205	SITE DETAILS
*	C206	SITE DETAILS
	C301	GRADING PLAN
	C302	GRADING SECTIONS
	C401	DRAINAGE AREA MAP - PROPOSED
	C402	HYDRAULIC CALCULATIONS
	C403	STORM DRAIN PLAN
	C404	STORM DRAIN PROFILES
*	C405	STORM DRAIN DETAILS
*	C406	STORM DRAIN DETAILS
	C501	UTILITY PLAN
	C502	SANITARY SEWER PROFILES
	C503	WATER DETAILS
	C504	WATER DETAILS
	C505	SEWER DETAILS
	C601	PAVING PLAN
*	C602	PAVING DETAILS
*	C603	PAVING DETAILS

PRELIMINARY - FOR REVIEW ONLY

These documents are for Design Review and not Intended for Construction, Bidding or Permit Purposes. They were prepared by, or under supervision of:

RAUL M. ZAVALA	144856	10/02/2023
Type or Print Name	PE #	Date

Firm Number 12207

* THE SHEETS, SPECIFICALLY IDENTIFIED IN THIS INDEX OF SHEETS, HAVE BEEN AUTHORIZED BY ME OR UNDER MY RESPONSIBLE SUPERVISION AS BEING APPLICABLE TO THIS PROJECT

ENGINEER:
PELOTON
LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

OCTOBER 2023

PLS PROJECT #: BLC23002

SPRUCE
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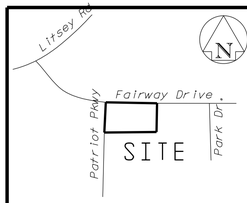


VICINITY MAP
N.T.S.

APPROVAL OF THE CITY COUNCIL OF THE CITY

This plat has been submitted to and considered by the City Council of the City of Roanoke, Texas, and is hereby approved by such City Council.

Dated this _____ day of _____, 2023

By: _____
Mayor

ATTEST:

_____
Secretary

APPROVAL OF THE PLANNING & ZONING COMMISSION OF THE CITY

This plat has been submitted to and considered by the Planning & Zoning Commission of the City of Roanoke, Texas and is hereby recommended by such Commission to the City Council for its consideration for approval.

Dated this _____ day of _____, 2023

By: _____
Chairman

ATTEST:

_____
Secretary

LEGEND

IRF	=	Iron Rod Found
Bldg	=	Building
Inst.#	=	Instrument Number
Vol.	=	Volume
Pg.	=	Page
R.P.R.D.C.T.	=	Real Property Records, Denton County, Texas

N
W E
S

0 50 100 150
GRAPHIC SCALE IN FEET
1" = 50'

DESCRIPTION

BEING A TRACT OF LAND SITUATED IN THE M.E.P. & P.R.R. CO. SURVEY, ABSTRACT NUMBER 923, DENTON COUNTY, TEXAS, BEING ALL OF THAT TRACT OF LAND DESCRIBED BY DEED TO BEACON LAND COMPANY, LLC, RECORDED IN INSTRUMENT NUMBER 2023-87944, REAL PROPERTY RECORDS, DENTON COUNTY, TEXAS, AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT A 5/8 INCH IRON ROD STAMPED "MCADAMS" FOUND AT THE SOUTHWEST CORNER OF SAID BEACON LAND COMPANY TRACT, BEING THE NORTHEAST CORNER OF THAT TRACT OF LAND DESCRIBED BY DEED TO ALLIANCE GATEWAY - PHASE III ASSOCIATION, INC., RECORDED IN INSTRUMENT NUMBER 2004-41133, AND BEING IN THE EAST RIGHT-OF-WAY LINE OF PATRIOT DRIVE (A 80-FOOT RIGHT-OF-WAY), RECORDED IN INSTRUMENT NUMBER 2004-41142, SAID COUNTY RECORDS;

THENCE N 00°33' 28"W, 205.44 FEET, WITH THE WEST LINE OF SAID BEACON LAND COMPANY TRACT AND SAID EAST RIGHT-OF-WAY LINE, TO A 5/8 INCH IRON ROD WITH PLASTIC CAP STAMPED "PELOTON", FOUND AT THE BEGINNING OF A CURVE TO THE RIGHT;

THENCE WITH SAID COMMON LINE AND SAID CURVE TO THE RIGHT, AN ARC DISTANCE OF 156.44 FEET, THROUGH A CENTRAL ANGLE OF 09°20' 13", HAVING A RADIUS OF 960.00 FEET, THE LONG CHORD WHICH BEARS N 04°06' 38"E, 156.27 FEET, TO A 5/8 INCH IRON ROD WITH PLASTIC CAP STAMPED "PELOTON" FOUND;

THENCE N 08°46' 44"E, 39.63 FEET, CONTINUING WITH SAID COMMON LINE, TO A 5/8 INCH IRON ROD WITH PLASTIC CAP STAMPED "PELOTON", FOUND AT THE MOST SOUTHERLY NORTHWEST CORNER OF SAID BEACON LAND COMPANY TRACT, BEING THE BEGINNING OF A CURVE TO THE RIGHT;

THENCE WITH SAID COMMON LINE AND SAID CURVE TO THE RIGHT, AN ARC DISTANCE OF 46.04 FEET, THROUGH A CENTRAL ANGLE OF 87°55' 50", HAVING A RADIUS OF 30.00 FEET, THE LONG CHORD WHICH BEARS N 52°44' 39"E, 41.65 FEET, TO A 5/8 INCH IRON ROD WITH PLASTIC CAP STAMPED "PELOTON", FOUND AT THE MOST NORTHERLY NORTHWEST CORNER OF SAID BEACON LAND COMPANY TRACT, BEING IN THE SOUTH RIGHT-OF-WAY LINE OF FAIRWAY DRIVE (AN 80 FOOT RIGHT-OF-WAY), RECORDED IN INSTRUMENT NUMBER 2004-41142, REAL PROPERTY RECORDS, DENTON COUNTY, TEXAS, AND BEING THE BEGINNING OF A REVERSE CURVE TO THE LEFT;

THENCE WITH THE NORTH LINE OF SAID BEACON LAND COMPANY TRACT AND SAID SOUTH RIGHT-OF-WAY LINE AND SAID REVERSE CURVE TO THE LEFT, AN ARC DISTANCE OF 214.10 FEET, THROUGH A CENTRAL ANGLE OF 06°25' 57", HAVING A RADIUS OF 1907.00 FEET, THE LONG CHORD WHICH BEARS S 86°30' 30"E, 213.99 FEET, TO A 5/8 INCH IRON ROD WITH PLASTIC CAP STAMPED "MCADAMS" FOUND;

THENCE S 89°43' 29"E, 311.53 FEET, WITH SAID COMMON LINE TO A 5/8 INCH IRON ROD WITH PLASTIC CAP STAMPED "MCADAMS", FOUND AT THE NORTHEAST CORNER OF SAID BEACON LAND COMPANY TRACT, BEING THE NORTHWEST CORNER OF THAT TRACT OF LAND DESCRIBED BY DEED TO THE CITY OF ROANOKE, DENTON COUNTY, TEXAS, RECORDED IN INSTRUMENT NUMBER 2022-147720, SAID REAL PROPERTY RECORDS;

THENCE S 00°33' 28"E, 405.54 FEET, DEPARTING SAID SOUTH RIGHT-OF-WAY LINE, WITH THE EAST LINE OF SAID BEACON LAND COMPANY TRACT AND THE WEST LINE OF SAID CITY OF ROANOKE TRACT, TO A 1/2 INCH IRON ROD WITH NO CAP, FOUND AT THE SOUTHEAST CORNER OF SAID BEACON LAND COMPANY TRACT, BEING THE SOUTHWEST CORNER OF SAID CITY OF ROANOKE TRACT, AND BEING IN THE IN THE NORTH LINE OF AFOREMENTIONED ALLIANCE GATEWAY - PHASE III ASSOCIATION TRACT;

THENCE S 89°26' 32"W, 577.50 FEET, WITH THE SOUTH LINE OF SAID BEACON LAND COMPANY TRACT AND SAID NORTH LINE, TO THE POINT OF BEGINNING AND CONTAINING 236,156 SQUARE FEET OR 5.421 ACRES OF LAND MORE OR LESS.

STATE OF TEXAS
COUNTY OF DENTON

I, THE UNDERSIGNED, OWNERS OF THE LAND SHOWN ON THIS PLAT, AND DESIGNATED AS LOT 6, BLOCK 6, ALLIANCE GATEWAY NORTH, AN ADDITION TO THE CITY OF ROANOKE, DENTON COUNTY, TEXAS AND WHOSE NAME IS SUBSCRIBED HERETO, HEREBY DEDICATED TO THE USE OF THE PUBLIC FOREVER ALL STREETS, ALLEYS, PARKS, WATER COURSES, DRAINS, EASEMENTS, AND PUBLIC PLACES SHOWN HEREON, EXCEPT THOSE EASEMENTS AND RIGHTS-OF-WAY CREATED OR DEDICATED BY SEPARATE INSTRUMENTS AS SHOWN HEREON.

EXECUTED THIS THE DAY OF , A.D., 2023.

BY: BEACON LAND COMPANY, LLC
A CALIFORNIA LIMITED LIABILITY COMPANY

BY:

NAME:

TITLE:

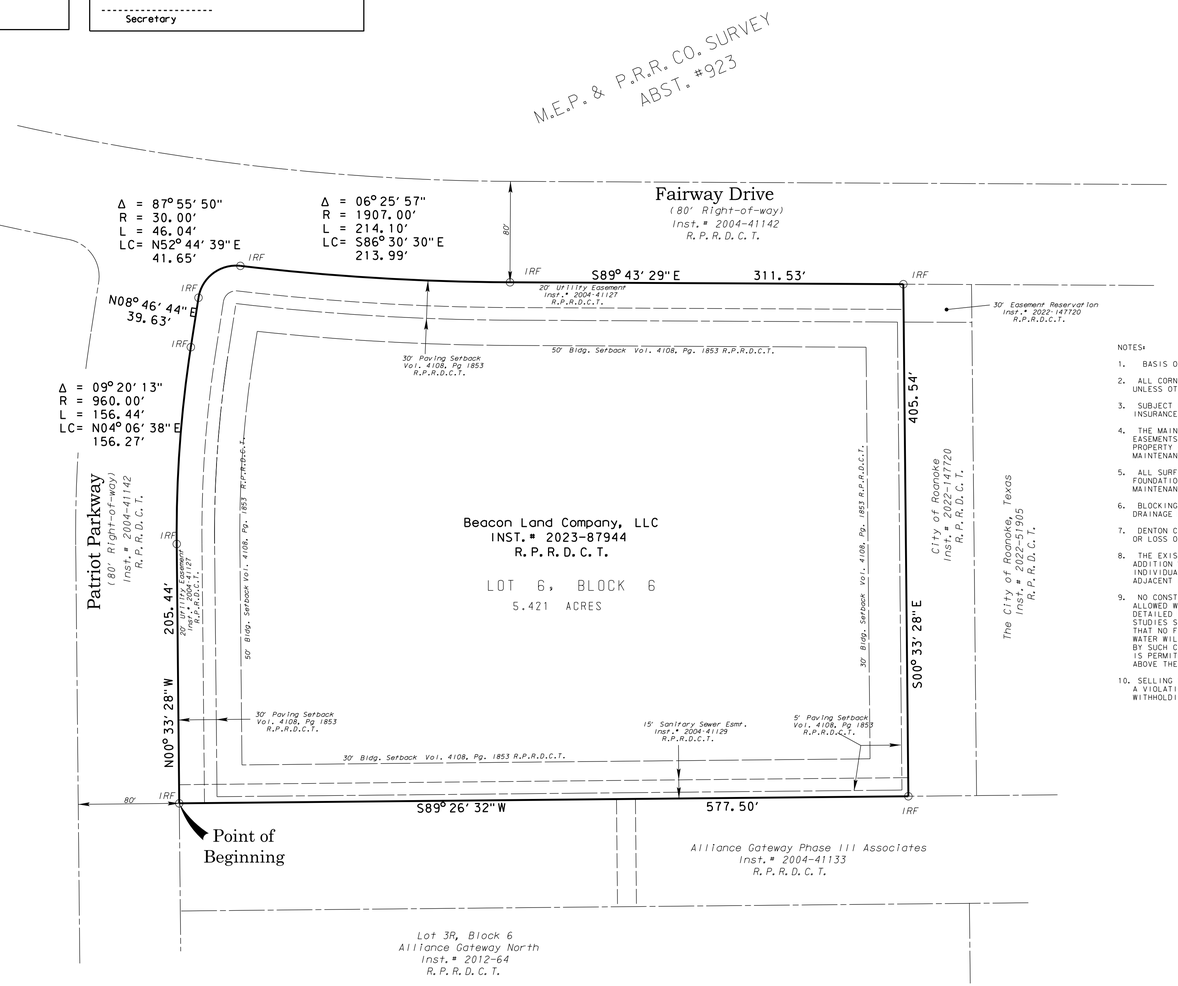
STATE OF

COUNTY OF

THIS INSTRUMENT WAS ACKNOWLEDGED BEFORE ME ON , 2023
BY OF BEACON LAND COMPANY, LLC, A CALIFORNIA LIMITED LIABILITY COMPANY, ON BEHALF OF SAID LIMITED COMPANY.

NOTARY PUBLIC, STATE OF

MY COMMISSION EXPIRES:



NOTES:

1. BASIS OF BEARING IS THE TEXAS COORDINATE SYSTEM, NAD83, ZONE 4202.
2. ALL CORNERS SET ARE 5/8 INCH IRON RODS WITH PLASTIC CAP STAMPED "PELOTON" UNLESS OTHERWISE NOTED.
3. SUBJECT TRACT IS LOCATED IN ZONE (OTHER AREAS) AS SHOWN ON FLOOD INSURANCE RATE MAP NO. 48121C05156, REVISED APRIL 18TH, 2011.
4. THE MAINTENANCE OF PAVING, GRADING, AND DRAINAGE IMPROVEMENTS AND/OR EASEMENTS SHOWN ON THIS PLAT ARE THE RESPONSIBILITY OF THE INDIVIDUAL PROPERTY OWNERS AND DOES NOT CONSTITUTE ACCEPTANCE OF THE SAME FOR MAINTENANCE PURPOSES BY DENTON COUNTY.
5. ALL SURFACE DRAINAGE EASEMENTS SHALL BE KEPT CLEAR OF FENCES, BUILDINGS, FOUNDATIONS, PLANTINGS, AND OTHER OBSTRUCTIONS TO THE OPERATION AND MAINTENANCE OF THE DRAINAGE FACILITY.
6. BLOCKING THE FLOW OF WATER OR CONSTRUCTING IMPROVEMENTS IN SURFACE DRAINAGE EASEMENTS, AND FILLING OR OBSTRUCTING THE FLOODPLAIN IS PROHIBITED.
7. DENTON COUNTY WILL NOT BE RESPONSIBLE FOR ANY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE OR PROPERTY OCCASIONED BY FLOODING OR FLOODING CONDITIONS.
8. THE EXISTING CREEKS OR DRAINAGE CHANNELS TRAVERSING ALONG OR ACROSS THE ADDITION WILL REMAIN AS OPEN CHANNELS AND WILL BE MAINTAINED BY THE INDIVIDUAL PROPERTY OWNERS OF THE LOT OR LOTS THAT ARE TRAVERSED BY OR ADJACENT TO THE DRAINAGE COURSES ALONG OR ACROSS THE LOTS.
9. NO CONSTRUCTION, WITHOUT WRITTEN APPROVAL FROM DENTON COUNTY SHALL BE ALLOWED WITHIN AN IDENTIFIED "FIRM" FLOODPLAIN AREA, AND THEN ONLY AFTER A DETAILED FLOODPLAIN DEVELOPMENT PERMIT INCLUDING ENGINEERING PLANS AND STUDIES SHOWING THAT NO RISE IN THE BASE FLOOD ELEVATION (BFE) WILL RESULT, THAT NO FLOODING WILL RESULT, THAT NO OBSTRUCTION TO THE NATURAL FLOW OF WATER WILL RESULT, AND SUBJECT TO ALL OWNERS OF THE PROPERTY AFFECTED BY SUCH CONSTRUCTION BECOMING A PARTY TO THE REQUEST. WHERE CONSTRUCTION IS PERMITTED, ALL FINISHED FLOOR ELEVATIONS SHALL BE A MINIMUM OF 2 FOOT ABOVE THE 100-YEAR FLOOD ELEVATION.
10. SELLING A PORTION OF ANY LOT WITHIN THIS ADDITION BY METES AND BOUNDS IS A VIOLATION OF STATE LAW AND CITY ORDINANCES AND IS SUBJECT TO FINES AND WITHHOLDING OF UTILITIES AND BUILDING PERMITS.

CERTIFICATION

I, XXXX X XXXXXXX, REGISTERED PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT THE PLAT SHOWN HEREON ACCURATELY REPRESENTS THE PROPERTY AS DETERMINED BY AN ON THE GROUND SURVEY, MADE UNDER MY DIRECTION AND SUPERVISION IN SEPTEMBER, 2023 AND THAT ALL CORNERS ARE AS SHOWN.

XXXX X XXXXXXX
REGISTERED PROFESSIONAL LAND SURVEYOR
TEXAS REGISTRATION NUMBER XXXX

"Preliminary, this document shall not be recorded for any purpose and shall not be used or viewed or relied upon as a final survey document" 22 TAC 138.33e
Todd A. Bridges, RPLS 4940
Date:9/29/2023

SURVEYOR
PELOTON LAND SOLUTIONS, INC.
A WESTWOOD COMPANY
9800 HILLWOOD PARKWAY, SUITE 250
FORT WORTH, TEXAS 76177
(817) 562.3350

Owner
Beacon Land Company
P.O. Box 4000
225 Airport Circle
Corona, California 92878

Final Plat of
Lot 6, Block 6
Alliance Gateway North Addition

Being 5.421 Acres of land situated in the M.E.P. & P.R.R. Co. Survey, Abstract Number 923, City of Roanoke, Denton County, Texas.

Date of Preperation: September 2023 5.421 Acres

Job #:	BLC23002
Drawn By:	D. Freemon
Checked By:	T. Bridges
Date:	09-14-23

Revisions:

PELOTON LAND SOLUTIONS
a Westwood company
9800 HILLWOOD PARKWAY, SUITE 250
FORT WORTH, TEXAS 76177 PH # 817-562-3350

SHEET 1 OF 1 SHEETS

Copyright © 2023 Peloton Land Solutions, Inc., a Westwood Company TBPELS - LS FIRM REG. NO. 10177700

Ref. Job no. HWA23020

Peloton Job No. BLC23002

SHEET C002

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PROJECT NOTES:

1. THE TERM GOVERNING AUTHORITY REFERS TO THE CITY OF ROANOKE.
2. ALL MATERIALS, CONSTRUCTION METHODS, WORKMANSHIP, EQUIPMENT, SERVICES AND TESTING FOR ALL PUBLIC IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE GOVERNING AUTHORITIES' ORDINANCES, REGULATIONS, REQUIREMENTS, STATUTES, SPECIFICATIONS AND DETAILS, LATEST PRINTING AND AMENDMENTS THERETO. THE GOVERNING AUTHORITIES' PUBLIC WORKS AND WATER DEPARTMENT REQUIREMENTS, PLUMBING CODES, AND FIRE DEPARTMENT REGULATIONS SHALL TAKE PRECEDENT FOR ALL PRIVATE IMPROVEMENTS WHERE APPLICABLE. ALL OTHER PRIVATE CONSTRUCTION, NOT REGULATED BY THE GOVERNING AUTHORITY, SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, LATEST PRINTING AND AMENDMENTS THERETO, EXCEPT AS MODIFIED BY THE PROJECT CONTRACT DOCUMENTS.
3. PRIOR TO COMMENCING ANY CONSTRUCTION, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS. FAILURE ON THE PART OF THE CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL STANDARDS AND SPECIFICATIONS PERTAINING TO THE WORK SHALL IN NO WAY RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR PERFORMING THE WORK IN ACCORDANCE WITH ALL SUCH APPLICABLE STANDARDS AND SPECIFICATIONS.
4. THE CONTRACTOR, HIS AGENTS AND SUB-CONTRACTOR ARE COMPLETELY RESPONSIBLE FOR THE VERIFICATION OF THE ACCURACY OF THE GEOSPATIAL CONTROL FURNISHED HEREIN. THE OWNER, ENGINEER AND THEIR AGENTS ARE NOT RESPONSIBLE FOR THE ACCURACY OF THE COORDINATES FURNISHED. THE CONTRACTOR IS REQUIRED TO VERIFY ALL COORDINATES FOR ACCURACY AND CONFIRM THE LOCATIONS OF ALL UTILITIES TO BE CONSTRUCTED, BOTH HORIZONTALLY AND VERTICALLY. DISCREPANCIES FOUND BY THE CONTRACTOR SHALL BE REPORTED, IN WRITING, TO THE OWNER AND ENGINEER IMMEDIATELY FOR RECONCILIATION.
5. CONTRACTOR TO OBTAIN A COPY OF GEOTECHNICAL REPORT PREPARED BY GEOTECHNICAL ENGINEER & IMPLEMENT ALL RECOMMENDATIONS IN IT (OR AS AMENDED BY GEOTECHNICAL ENGINEER DURING CONSTRUCTION). ALL DENSITY REPORTS ARE TO BE FURNISHED TO CITY INSPECTOR AT THE PRE-CONSTRUCTION MEETING. THE ENGINEER DISCLAIMS ANY RESPONSIBILITY FOR THE ACCURACY, TRUE LOCATION AND EXTENT OF THE SOILS INFORMATION PREPARED BY OTHERS.
6. THE CONTRACTOR SHALL HAVE AT LEAST ONE SET OF APPROVED PLANS ON SITE AT ALL TIMES.
7. TOPOGRAPHIC SURVEY INFORMATION SHOWN ON THE PLANS IS PROVIDED FOR INFORMATIONAL PURPOSES. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE INFORMATION SHOWN IS CORRECT, AND SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY ERRORS, DISCREPANCIES, OR OMISSIONS TO THE SURVEY INFORMATION PROVIDED.
8. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. MATERIALS STORED ON THE WORK SITE SHALL BE PLACED, AND THE WORK SHALL AT ALL TIMES BE SO CONDUCTED, AS TO CAUSE NO GREATER OBSTRUCTION TO THE TRAVELING PUBLIC THAN IS CONSIDERED ACCEPTABLE BY THE GOVERNING AUTHORITIES AND THE OWNER AND ALLOW UNINTERRUPTED ACCESS TO ALL FIRE HYDRANTS, WATER VALVES, GAS VALVES, MANHOLES AND FIRE ALARM OR POLICE CALL BOXES IN THE VICINITY.
9. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND LICENSES NECESSARY FOR THE EXECUTION OF THE WORK AND SHALL FULLY COMPLY WITH ALL THEIR TERMS AND CONDITIONS. WHENEVER THE WORK UNDER THIS CONTRACT REQUIRES THE OBTAINING OF PERMITS FROM THE GOVERNING AUTHORITIES, THE CONTRACTOR SHALL FURNISH DUPLICATE COPIES OF SUCH PERMITS TO THE OWNER BEFORE THE WORK COVERED THEREBY IS STARTED. NO WORK WILL BE ALLOWED TO PROCEED BEFORE SUCH PERMITS HAVE BEEN OBTAINED. COSTS ASSOCIATED WITH PERMITS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
10. THE GOVERNING AUTHORITIES AND/OR THE OWNER WILL PROVIDE INSPECTION OF THE PROPOSED CONSTRUCTION. THE OWNER WILL PAY THE COSTS FOR INSPECTION SERVICES. THE CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE WELL IN ADVANCE OF PENDING CONSTRUCTION ACTIVITIES TO THE GOVERNING AUTHORITIES AND/OR OWNER FOR SCHEDULING OF INSPECTION SERVICES. WORK MAY NOT BE BACKFILLED OR COVERED UNTIL IT HAS BEEN INSPECTED BY THE GOVERNING AUTHORITY.
11. THE CONTRACTOR SHALL HAVE PREPARED, REVIEWED, AND SUBMITTED ALL SHOP DRAWING, PRODUCT DATA AND SAMPLES REQUIRED BY THE GOVERNING AUTHORITIES AND THE PROJECT CONTRACT DOCUMENTS IN ACCORDANCE WITH ITEM 1.28 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, NORTH CENTRAL TEXAS - NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS.
12. ALL SURVEYING REQUIRED FOR CONSTRUCTION STAKING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE OWNER SHALL PROVIDE THE PROPERTY CORNERS AND TWO BENCHMARKS FOR USE AS HORIZONTAL AND VERTICAL DATUM. THE CONTRACTOR SHALL EMPLOY A REGISTERED PROFESSIONAL LAND SURVEY TO PERFORM ALL ADDITIONAL SURVEY, LAYOUT AND MEASUREMENT WORK NECESSARY FOR THE COMPLETION OF THE PROJECT. THE COSTS ASSOCIATED WITH THE CONSTRUCTION STAKING SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
13. THE CONTRACTOR SHALL PROTECT ALL PROPERTY CORNER MARKERS AND BENCHMARKS. WHEN ANY SUCH MARKERS OR MONUMENTS ARE IN DANGER OF BEING DISTURBED, THEY SHALL BE PROPERLY REFERENCED AND IF DISTURBED SHALL BE RESET BY A REGISTERED PUBLIC SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
14. ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE DIRECTED BY THE GOVERNING AUTHORITIES AND/OR OWNER.
15. AT NIGHT AND DURING ALL PERIODS OF TIME WHEN EQUIPMENT IS NOT BEING ACTIVELY USED FOR THE CONSTRUCTION WORK, THE CONTRACTOR SHALL PARK THE EQUIPMENT AT LOCATIONS WHICH ARE APPROVED BY THE OWNER. DURING THE CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL COMPLY WITH THE PRESENT ZONING REQUIREMENTS OF THE GOVERNING AUTHORITIES IN THE USE OF VACANT PROPERTY FOR STORAGE PURPOSES. THE CONTRACTOR SHALL ALSO PROVIDE ADEQUATE BARRICADES, MARKERS, AND LIGHTS TO PROTECT THE OWNER, THE GOVERNING AUTHORITIES, AND THE PUBLIC. ALL BARRICADES, LIGHTS, AND MARKERS MUST MEET THE REQUIREMENTS OF THE GOVERNING AUTHORITIES' REGULATIONS.
16. THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR PURCHASING WATER FROM THE GOVERNING AUTHORITY FOR USE ON THE PROJECT SITE. COST ASSOCIATED WITH THIS SERVICE SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
17. THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR THE INSTALLATION AND PURCHASING OF TEMPORARY ELECTRIC AND COMMUNICATIONS SERVICES FROM THE AVAILABLE PROVIDERS FOR HIS USE ON THE PROJECT SITE. COSTS ASSOCIATED WITH THIS SERVICE SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
18. IN THE EVENT THAT OTHER CONTRACTORS ARE DOING WORK IN THE SAME AREA SIMULTANEOUSLY WITH THE PROJECT, THE CONTRACTOR SHALL COORDINATE HIS PROPOSED CONSTRUCTION WITH THAT OF THE OTHER CONTRACTORS.
19. PRIOR TO CONSTRUCTION, A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH REPRESENTATIVES FROM ALL CONTRACTORS, THE ENGINEER, THE OWNER, AND THE GOVERNING AUTHORITY.
20. CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER IF ANY DISCREPANCIES ARISE BETWEEN EXISTING CONDITIONS AND THE CONSTRUCTION DOCUMENTS.
21. THE CONTRACTOR SHALL KEEP THE SITE OF THE WORK AND ADJACENT PREMISES AS FREE FROM MATERIAL, DEBRIS AND RUBBISH AS IS PRACTICABLE. THE CONTRACTOR SHALL REMOVE MATERIAL, DEBRIS, AND RUBBISH FROM ANY PORTION OF THE SITE IF, IN THE OPINION OF THE OWNER, SUCH MATERIAL, DEBRIS, AND RUBBISH CONSTITUTES A NUISANCE OR IS OBJECTIONABLE.
22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE CLEANLINESS OF EXISTING PAVED ROADS ADJACENT TO OR WITHIN THE SITE. COSTS ASSOCIATED WITH MAINTAINING THE CLEANLINESS OF EXISTING ROADS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
23. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO CONTROL DUST ON THE PROJECT SITE BY SPRINKLING OF WATER, OR ANY OTHER METHODS APPROVED BY THE GOVERNING AUTHORITIES. COSTS ASSOCIATED WITH DUST CONTROL SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
24. DUST CONTROL SHALL BE ACCOMPLISHED BY WATERING DRY, EXPOSED AREAS ON A REGULAR BASIS. SPRAYING OF PETROLEUM BASED OR TOXIC LIQUIDS FOR THIS IS PROHIBITED.
25. THE CONTRACTOR SHALL CLEAN UP ALL PARTS OF THE WORK BEFORE ACCEPTANCE BY THE OWNER. THIS CLEAN UP SHALL INCLUDE REMOVAL OF ALL OBJECTIONABLE MATERIALS AND, IN GENERAL, PREPARING THE SITE OF THE WORK IN AN ORDERLY MANNER OF APPEARANCE.
26. REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK: ALL WORK WHICH HAS BEEN REJECTED OR CONDEMNED SHALL BE REPAIRED, OR IF IT CANNOT BE REPAIRED SATISFACTORILY, IT SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. DEFECTIVE MATERIALS SHALL BE IMMEDIATELY REMOVED FROM THE WORK SITE. WORK DONE BEYOND THE LINE OR NOT IN CONFORMITY WITH THE GRADES SHOWN ON THE DRAWINGS OR AS WRITTEN AUTHORITY AND PRIOR AGREEMENT IN WRITING AS TO PRICES, SHALL BE AT THE CONTRACTOR'S RISK AND WILL BE CONSIDERED UNAUTHORIZED, AND THE OPTION OF THE OWNER MAY NOT BE MEASURED AND PAID FOR AND MAY BE ORDERED REMOVED AT THE CONTRACTOR'S EXPENSE. UPON FAILURE OF THE CONTRACTOR TO REPAIR SATISFACTORILY OR TO REMOVE AND REPLACE, IF SO DIRECTED, REJECTED, UNAUTHORIZED, OR CONDEMNED WORK OR MATERIALS IMMEDIATELY AFTER RECEIVING NOTICE FROM THE OWNER, THE OWNER WILL, AFTER GIVING WRITTEN NOTICE TO THE CONTRACTOR, HAVE THE AUTHORITY TO CAUSE DEFECTIVE WORK TO BE REMEDIED, OR REMOVED AND REPLACED, OR TO CAUSE UNAUTHORIZED WORK TO BE REMOVED AND TO DEDUCT THE COST THEREOF FROM ANY MONIES DUE OR TO BECOME DUE THE CONTRACTOR.
27. THE CONTRACTOR SHALL MAINTAIN AN ACCURATE RECORD OF THE INSTALLATION OF ALL MATERIALS AND SYSTEMS COVERED BY THE PROJECT CONTRACT DOCUMENTS. THE COMPLETE SET OF “RECORD DRAWINGS” MUST BE DELIVERED TO THE OWNER AND/OR ENGINEER BEFORE REQUESTING FINAL PAYMENT.
28. ALL MATERIALS TO BE REMOVED FROM THE SITE INCLUDED, BUT NOT LIMITED TO, EXCESS MATERIAL AND UNSUITABLE MATERIALS SUCH AS CONCRETE, ASPHALT, LARGE ROCKS, REFUSE, AND OTHER DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE PROJECT. CONTRACTOR SHALL ALSO COMPLY WITH ALL APPLICABLE LAWS GOVERNING SPILLAGE OF DEBRIS WHILE TRANSPORTING TO A DISPOSAL SITE. COSTS ASSOCIATED WITH THE DISPOSAL OF EXCESS AND UNSUITABLE MATERIALS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
29. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE COMPLIANCE WITH ALL HANDICAPPED ACCESSIBILITY REQUIREMENTS INCLUDING SIGNAGE, TEXTURES, COLORING, MARKINGS, AND SLOPES OF ADA/TAS 2012 ACCESSIBLE ROUTES & RAMPS, AND PARKING SPACES.
30. ALL CONSTRUCTION MUST ADHERE TO THE TREE PRESERVATION REQUIREMENTS OF THE GOVERNING AUTHORITY.
31. INDIVIDUAL WATER AND SEWER SERVICES AND WATER VALVES SHALL BE MARKED IN ACCORDANCE WITH GOVERNING AUTHORITY REQUIREMENTS.
32. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES DURING CONSTRUCTION. THE PONDING OF WATER IN STREETS, DRIVES, TRENCHES, ETC, WILL NOT BE ALLOWED.
33. THE CONTRACTOR SHALL MAINTAIN EXISTING DRIVEWAYS ACCESS AT ALL TIME. THE CONTRACTOR MUST CEASE ALL CONSTRUCTION OPERATIONS IMMEDIATELY IF A SUSPECTED ARCHEOLOGICAL OBJECT/ARTIFACT IS UNCOVERED DURING CONSTRUCTION. THE CONTRACTOR MUST IMMEDIATELY CONTACT THE TEXAS HISTORICAL COMMISSION AND THE GOVERNING AUTHORITY. PROJECT WORK SHALL NOT COMMENCE UNTIL PROPER PERMITS ARE IN PLACE AND PROVIDED TO THE GOVERNING AUTHORITY.

EXISTING FACILITIES AND UTILITIES NOTES:

34. AS REQUIRED BY "THE TEXAS UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT". TEXAS ONE CALL SYSTEM MUST BE CONTACTED (800-245-4545) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OPERATIONS BEING PERFORMED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT TEXAS ONE CALL SYSTEM. THE LOCATION OF EXISTING UTILITIES SHOWN ON THE PLANS ARE BASED ON THE RECORDS AND/OR FIELD INFORMATION AVAILABLE AND ARE NOT GUARANTEED BY THE OWNER OR ENGINEER TO BE ACCURATE AS TO THE LOCATION AND DEPTH. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY LOCATIONS OF ADJACENT AND/OR CONFLICTING UTILITIES SUFFICIENTLY IN ADVANCE OF HIS ACTIVITIES IN ORDER THAT HE MAY NEGOTIATE SUCH LOCAL ADJUSTMENTS AS NECESSARY IN THE CONSTRUCTION PROCESS TO PROVIDE ADEQUATE CLEARANCES. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL EXISTING UTILITIES, SERVICES, AND STRUCTURES ENCOUNTERED WHETHER OR NOT THEY ARE ON THE PLANS. ANY DAMAGE TO UTILITIES RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED AT HIS EXPENSE. TO AVOID UNNECESSARY INTERFERENCES OR DELAYS, THE CONTRACTOR SHALL COORDINATE ALL UTILITY REMOVALS, REPLACEMENTS, AND CONSTRUCTION WITH THE APPROPRIATE GOVERNING AUTHORITIES. THE OWNER WILL NOT BE LIABLE FOR DAMAGES DUE TO DELAY BECAUSE OF THE ABOVE. DIFFERENCES IN HORIZONTAL OR VERTICAL LOCATIONS OF EXISTING UTILITIES SHALL NOT BE BASIS FOR ADDITIONAL COMPENSATIONS TO THE CONTRACTOR.
35. WHERE EXISTING UTILITIES, SERVICE LINES, OR IRRIGATION LINES ARE CUT, BROKEN OR DAMAGED, THE CONTRACTOR SHALL REPLACE OR REPAIR THE UTILITIES, SERVICE LINES, OR IRRIGATION LINES WITH THE SAME TYPE OF ORIGINAL MATERIAL AND CONSTRUCTION, OR BETTER, UNLESS OTHERWISE SHOWN OR NOTED ON THE PLANS, AT HIS OWN COST AND EXPENSE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AT ONCE OF ANY CONFLICTS OR DISCREPANCIES.
36. ALL FENCES AND LANDSCAPING ENCOUNTERED AND REMOVED DURING CONSTRUCTION, EXCEPT THOSE DESIGNATED TO BE REMOVED OR RELOCATED, SHALL BE RESTORED TO THE ORIGINAL (OR BETTER) CONDITION UPON COMPLETION OF THE PROJECT. WHERE WIRE FENCING, EITHER WIRE MESH OR BARBED WIRE, IS TO BE CROSSED, THE CONTRACTOR SHALL SET CROSS-BRACED POSTS ON EITHER SIDE OF THE CROSSING. TEMPORARY FENCING SHALL BE ERECTED IN PLACE OF THE FENCING REMOVED WHENEVER THE WORK IS NOT IN PROGRESS AND WHEN THE SITE IS VACATED OVERNIGHT AND/OR AT ALL TIMES TO PREVENT PERSONS AND/OR LIVESTOCK FROM ENTERING THE CONSTRUCTION AREA. THE COST OF FENCE REMOVAL, TEMPORARY CLOSURES AND REPLACEMENT SHALL BE INCLUDED IN THE CONTRACT AMOUNT.

STORMWATER POLLUTION PREVENTION PLAN AND EROSION CONTROL NOTES:

37. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL COMPLY WITH THE CONDITIONS OF THE S.W.P.P.P. AND T.C.E.Q. WHILE CONDUCTING HIS ACTIVITIES ON THE PROJECT.
38. ALL AREAS DISTURBED BY CHANNEL EXCAVATION SHALL BE REVEGETATED AS SET FORTH IN THE S.W.P.P.P., WHICH WAS PREPARED SPECIFICALLY FOR THIS PROJECT, OR OTHERWISE PROTECTED AGAINST EROSION BY THE USE OF RIP RAP, GABIONS, OR GEOTEXTILES.
39. THE GENERAL CONTRACTOR, AS THE T.C.E.Q. DEFINED "OPERATOR," SHALL PERFORM ALL REQUIRED INSPECTIONS OF STORM WATER CONTROLS AND PRACTICES AT FREQUENCIES OUTLINED IN THE T.P.D.E.S. GENERAL PERMIT AND SHALL FILL OUT APPROPRIATE INSPECTION FORMS (AS PROVIDED IN THE S.W.P.P.P.).
40. THE CONTRACTOR SHALL MODIFY THIS PLAN TO SHOW LOCATIONS OF TEMPORARY WASHDOWN AREA, PORTABLE TOILETS, EQUIPMENT MAINTENANCE/REPAIR AREAS, STOCKPILE AREAS, FUEL STORAGE AREAS, ETC. AND POLLUTANT CONTROLS FOR EACH.
41. ALL PRIVATE HAUL ROADS AND ACCESS ROUTES AND THE LOCATION OF ALL STAGING AREAS AND STORAGE AREAS SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND REPAIRING ALL ROADS AND OTHER FACILITIES USED DURING CONSTRUCTION. UPON COMPLETION OF THE PROJECT, ALL HAUL ROADS, ACCESS ROADS, STAGING AREAS, AND STORAGE AREAS SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THE CONDITION AT THE TIME THE CONTRACTOR COMMENCES WORK ON THE PROJECT.
42. USE OF ON-SITE FUEL STORAGE TANKS IS DISCOURAGED. HOWEVER, IF USED, THE PREVENTION OF HAZARDS TO THE GROUND WATER IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR UTILIZING SAID STORAGE. SEE N.C.T.C.O.G. CONSTRUCTION BMP MANUAL SECTION 4 HAZARDOUS WASTE MANAGEMENT.
43. CONSTRUCTION ENTRANCES ARE TO BE INSTALLED AT ALL POINTS WHERE EQUIPMENT ENTERS OR LEAVES THE SITE. THE LOCATION OF SAME IS TO BE APPROVED BY THE OWNER OR HIS REPRESENTATIVE.
44. THIS EROSION CONTROL PLAN IS A SUPPLEMENT TO THE S.W.P.P.P. PREPARED BY OTHERS. REFER TO THE S.W.P.P.P. FOR ADDITIONAL REQUIREMENTS.
45. ADDITIONAL EROSION CONTROL MEASURES MAY BE IMPLEMENTED BY THE CONTRACTOR AT HIS DISCRETION AT NO ADDITIONAL EXPENSE TO THE OWNER. THE ADDITION OR DELETION OF ANY EROSION CONTROL MEASURE MAY REQUIRE THAT THE S.W.P.P.P. BE MODIFIED IN ACCORDANCE WITH THE T.C.E.Q.'S T.P.D.E.S. GENERAL PERMIT GUIDELINES.
46. PLANTING AND/OR SEEDING OF VEGETATED AREAS TO ACCOMPLISH STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH THE LANDSCAPING PLAN. AREAS BEYOND THE LIMITS OF THE LANDSCAPING PLAN (OR WHEN A LANDSCAPING PLAN DOES NOT EXIST) SHALL BE HYDROMULCHED WITH HIGHWAY MIX AND WATERED WITH TEMPORARY ABOVE GROUND IRRIGATION UNTIL THE VEGETATION IS ESTABLISHED.
47. THE CONTRACTOR SHALL ASSUME LIABILITY FOR DAMAGE TO ADJACENT PROPERTIES AND/OR PUBLIC RIGHT OF WAY RESULTING FROM FAILURE TO FULLY IMPLEMENT AND EXECUTE ALL EROSION CONTROL PROCEDURES SHOWN AND NOTED IN THESE PLANS.
48. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO USE WHATEVER MEANS ARE NECESSARY TO CONTROL AND LIMIT SILT AND SEDIMENT LEAVING THE SITE. SPECIFICALLY, THE CONTRACTOR SHALL PROTECT ALL PUBLIC STREETS, ALLEYS, STREAMS, STORM DRAIN SYSTEMS AND INLETS FROM EROSION DEPOSITS.
49. EROSION CONTROLS TO REMAIN IN PLACE AND TO BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED.
50. SILT FENCES SHALL BE PLACED AROUND ANY STOCKPILES USED ON THE SITE.
51. ALL TEMPORARY EROSION CONTROL DEVICES (SILT FENCE, ETC.) SHALL BE REMOVED AND PROPERLY DISPOSED OF OFF SITE WITHIN THIRTY DAYS AFTER STABILIZATION OF ALL DISTURBED SURFACES IS COMPLETE.
52. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL DEVICES ALREADY IN PLACE. CONTRACTOR SHALL REMOVE AND REPLACE EROSION CONTROL AS NEEDED FOR CONSTRUCTION OR ACCESS. CONTRACTOR SHALL REPLACE ANY EROSION CONTROL MATERIALS AT THE END OF EACH WORKDAY IF SAID MATERIALS WERE REMOVED DURING THE DAY FOR EASE OF CONSTRUCTION OR ACCESS.
53. EROSION CONTROL MEASURES MAY ONLY BE PLACED IN FRONT OF INLETS OR IN CHANNELS, DRAINAGEWAYS OR BORROW DITCHES AT RISK OF CONTRACTOR. CONTRACTOR SHALL REMAIN LIABLE FOR ANY DAMAGE CAUSED BY MEASURES, INCLUDING FLOODING DAMAGE WHICH MAY OCCUR DUE TO BLOCKED DRAINAGE. AT THE CONCLUSION OF ANY PROJECT, ALL CHANNELS, DRAINAGEWAYS AND BORROW DITCHES IN THE WORK ZONE SHALL BE DREDGED OF ANY SEDIMENT GENERATED BY THE PROJECT OR DEPOSITED AS A RESULT OF EROSION CONTROL MEASURES.
54. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY THE GOVERNING AUTHORITIES.
55. DISTURBED AREAS ON THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED SHALL BE PERMANENTLY PLANTED AND/OR SEEDED WITHIN 14 DAYS.
56. DISTURBED AREAS ON THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR AT LEAST 14 DAYS SHALL BE TEMPORARILY PLANTED AND/OR SEEDED AND WATERED.
57. ALL WASH WATER SHALL BE DISPOSED OF IN A MANNER THAT PREVENTS CONTACT BETWEEN WASH WATER POLLUTANTS AND STORM RUNOFF DISCHARGED FROM THIS SITE.
58. ALL VEHICLES SHALL BE CLEANED AT THE CONSTRUCTION EXIT POINT(S) BEFORE LEAVING THE SITE.
59. A CENTRALIZED PIT/WASH BASIN SHALL BE CONSTRUCTED ON-SITE FOR THE PURPOSE OF CONCRETE TRUCK WASHING. SEE N.C.T.C.O.G. CONSTRUCTION BMP MANUAL SECTION 4 CONCRETE WASTE MANAGEMENT.
60. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SILT IN ANY STORM SEWER INLETS AND PIPES, AND ALONG SILT FENCES WITHIN 48 HOURS AFTER INSPECTION OF DEVICES REVEALS THE PRESENCE OF EXCESS SILTATION.
61. OIL AND GREASE ABSORBING MATERIALS SHALL BE READILY AVAILABLE ON-SITE AND SHALL BE PROMPTLY USED TO CONTAIN AND/OR CLEAN UP ALL FUEL OR CHEMICAL SPILLS OR LEAKS.
62. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED ONTO ADJACENT ROADWAYS BY ANY VEHICLES EXITING THE SITE SHALL BE CLEANED OR REMOVED IMMEDIATELY.
63. IF DIRT OR ROCK IS EXPORTED FROM THIS SITE, OR IF DIRT OR ROCK IS IMPORTED FROM AN OFF SITE BORROW LOCATION, THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR COMPLIANCE WITH ALL T.C.E.Q. STORM WATER REQUIREMENTS FOR THE REMOTE SITE. THE CONTRACTOR SHALL FURNISH THE OWNER WITH A COPY OF THE WRITTEN AGREEMENT WITH THE LANDOWNER OF THE REMOTE SITE INDICATING PERMITTING/PERMISSION AND EROSION CONTROL MEASURES WILL BE IMPLEMENTED THEREON.
64. THE CONTRACTOR SHALL RESTORE ALL AREAS, ONSITE AND OFFSITE, DISTURBED BY CONSTRUCTION TO ORIGINAL CONDITION OR BETTER. RESTORED AREAS INCLUDE, BUT ARE NOT LIMITED TO: TRENCH BACKFILL, SIDE SLOPES, FENCES, CULVERT PIPES, DRAINAGE SWALES, STAGING AREAS, DRIVEWAYS, PRIVATE YARDS AND ROADWAYS. UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE DRAWINGS, RESTORATION SHALL INCLUDE HYDROMULCHING ALL DISTURBED AREAS WITH A SLOPE OF LESS THAN 20% (1:5) AND SODDING AREAS WITH A SLOPE OF 20% (1:5) OR GREATER. ESTABLISHMENT OF GRASS THROUGH PROPER WATERING IS LEFT UP TO THE CONTRACTOR'S MEANS AND METHODS, UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE/IRRIGATION DRAWINGS.

UTILITY NOTES:

65. ALL PIPE LENGTHS MEASURED FROM STATION TO STATION BASED ON THE CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
66. PIPE SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH GOVERNING AUTHORITY REQUIREMENTS.
67. THE CONTRACTOR SHALL NOT REMOVE, DISABLE OR DISRUPT EXISTING FIRE OR LIFE SAFETY SYSTEMS WITHOUT RECEIVING PRIOR WRITTEN PERMISSION FROM THE GOVERNING AUTHORITY.
68. FIRE HYDRANTS AND VALVES AS SHOWN ON THIS PLAN ARE SYMBOLIC ONLY. INSTALLATION OF SAME IS TO BE IN ACCORDANCE WITH THE DETAIL AND/OR AT THE STATIONS AS NOTED.
69. THE CONTRACTOR SHALL ABIDE BY ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS GOVERNING EXCAVATION. THE CONTRACTOR SHALL PROVIDE DETAILED PLANS AND SPECIFICATION FOR TRENCH SAFETY SYSTEMS THAT COMPLY WITH APPLICABLE LAWS GOVERNING EXCAVATION. THESE PLANS SHALL BE SEALED BY AN ENGINEER EXPERIENCED IN THE DESIGN OF TRENCH SAFETY SYSTEM, REGISTERED IN THE STATE OF TEXAS. THE CONTRACTOR SHALL SUBMIT COMPLETED TRENCH SAFETY PLANS TO THE GOVERNING AUTHORITY PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL ASPECTS OF WORK RELATED TO EXCAVATION. ALL EXCAVATIONS, TRENCHING AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE U.S. DEPARTMENT OF LABOR, OSHA, "CONSTRUCTION SAFETY AND HEALTH REGULATIONS".
70. ALL TRENCH BACKFILL SHALL BE PER GOVERNING AUTHORITY REQUIREMENTS UNLESS OTHERWISE NOTED.
71. SEE WATER CONSTRUCTION DETAILS SHEET FOR CONSTRUCTION DETAILS.
72. ALL CLEAN-OUTS TO BE PROVIDED PER GOVERNING AUTHORITY REQUIREMENTS.
73. THE CONTRACTOR SHALL MAINTAIN EXISTING SANITARY SEWER AND WATER SERVICES AT ALL TIMES DURING CONSTRUCTION.
74. AT ALL LOCATIONS IN THE PROFILES WHERE SDR-26 PVC PIPE IS SPECIFIED BENEATH WATER LINES, IT IS TO BE BACK FILLED WITH CEMENT STABILIZED SAND AS REQUIRED BY T.C.E.Q. REGULATION 217.53 (d) (3) FOR A DISTANCE OF 10' EITHER SIDE OF THE WATER LINE. AT OTHER LOCATIONS WHERE SDR-26 IS SPECIFIED, IT IS TO BE BACKFILLED AS NOTED.
75. ANY CONNECTION TIE-IN TO AN EXISTING MANHOLE MUST BE CORED.
76. ALL CURVED STORM DRAIN IS TO BE CONSTRUCTED WITH RADIUS PIPE OR BY METHOD OF PULLED JOINTS AND IS TO HAVE ALL JOINTS GROUTED, AS NECESSARY. IT SHALL BE THE CONTRACTORS OPTION AS TO WHICH METHOD TO USE. THERE SHALL BE NO SEPARATE PAY.
77. AFTER COMPLETION OF ALL STORM SEWER INSTALLATION, THE CONTRACTOR SHALL ENSURE THAT ALL DEBRIS AND SILT HAS BEEN REMOVED.

TRAFFIC CONTROL NOTES:

78. THE CONTRACTOR SHALL PREPARE ALL TRAFFIC CONTROL PLANS AND SUBMIT TO THE GOVERNING AUTHORITY PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMITS FOR WORK WITHIN THE GOVERNING AUTHORITY. THE PLAN SHALL BE PREPARED IN ACCORDANCE WITH THE CURRENT EDITION OF THE TEXAS M.U.T.C.D. AND AS MODIFIED BY THE T.X.D.O.T. SUPPLEMENT TO THE M.U.T.C.D. THE PLAN SHALL ADDRESS THE REQUIREMENTS FOR ALL SIGNS, BARRICADES, FLAGMEN, SIGNAL, PAVEMENT MARKING, LIGHTS, HOURS OF CONSTRUCTION, AND OTHER DEVICES AS NECESSARY FOR SAFE TRAFFIC CONTROL. THE COSTS ASSOCIATED WITH THE PREPARATION AND IMPLEMENTATION OF THE TRAFFIC CONTROL PLAN SHALL BE INCLUDED IN THE CONTRACT AMOUNT.

GRADING NOTES:

79. IF ROCK IS ENCOUNTERED IN THE PAVEMENT SUBGRADE, REFER TO THE GEOTECHNICAL REPORT FOR RECOMMENDATIONS AND PROCEDURES. THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THIS CONTRACT.
80. MANHOLE RIM ELEVATIONS, CLEAN-OUTS, VALVE BOXES, FIRE HYDRANTS, ETC., SHALL BE ADJUSTED TO FINISHED GRADE BY THE PAVING CONTRACTOR AT THE TIME OF PAVING.
81. THE SUBGRADE SHALL BE PROOF ROLLED AND OBSERVED BY THE CONSTRUCTION INSPECTOR PRIOR TO AND AFTER SUB-GRADE STABILIZATION.

PAVING NOTES:

82. THE PAVING CONTRACTOR SHALL BE REQUIRED TO CONSTRUCT STANDARD CURBS AT ALL STREET INTERSECTIONS.
83. ALL CURB AND GUTTER SHALL BE INTEGRAL WITH THE CONCRETE PAVEMENT.
84. CONCRETE SEALANT TO BE PER THE GOVERNING AUTHORITY STANDARDS.
85. THE CONTRACTOR SHALL PROCEED WITH PAVING NO MORE THAN SEVENTY-TWO (72) HOURS AFTER DENSITY/MOISTURE TESTS HAVE BEEN TAKEN AND PASSED BY A REGISTERED TESTING FIRM. COPIES OF THE TEST RESULTS SHALL BE FURNISHED TO THE GOVERNING AUTHORITY. IN THE EVENT PAVING OPERATIONS HAVE NOT COMMENCED WITHIN THE SEVENTY-TWO (72) HOUR LIMIT, A RETEST SHALL BE REQUIRED AT THE CONTRACTOR'S EXPENSE.
86. TYPICAL PAVEMENT SECTION IS TO TRANSITION FROM CROWN SECTION TO TRANSVERSE SECTION WITHIN A DISTANCE OF 50' OF WHERE A VALLEY GUTTER CROSSES A STREET INTERSECTION.

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
TXU ELECTRIC DELIVERY	1-800-711-9112
CITY OF ROANOKE PUBLIC WORKS	817-491-6099

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION

ABBREVIATIONS

APPROX	APPROXIMATELY
ASPH	ASPHALT
BC	BACK OF CURB
B-B	BACK TO BACK OF CURB
BM	BENCHMARK
BW	BOTTOM OF WALL
CATV	CABLE TV
CFS	CUBIC FEET PER SECOND
CI	CURB INLET
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
COMM	COMMUNICATION
CONC	CONCRETE
CONST	CONSTRUCT
CL	CENTER LINE
DCO	DOUBLE CLEANOUT
DE	DRAINAGE EASEMENT
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DW	DOMESTIC WATER
EJ	EXPANSION JOINT
EL	ELEVATION
EMH	ELECTRIC MANHOLE
EP	EDGE OF PAVEMENT
ESMT	EASEMENT
EX	EXISTING
FC	FACE OF CURB
F-F	FACE TO FACE OF CURB
FFE	FINISH FLOOR ELEVATION
FG	FINISH GRADE
FH	FIRE HYDRANT
FM	FORCE MAIN
FO	FIBER OPTICS
FP	FINISHED PAD
FPS	FEET PER SECOND
FL	FLOW LINE
FW	FIRE WATER
G	GUTTER
GI	GRATE INLET
GM	GAS METER
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HDWL	HEADWALL
HMAC	HOT MIX ASPHALTIC CONCRETE
HORIZ	HORIZONTAL
HP	HIGH POINT
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
IRR	IRRIGATION
JB	JUNCTION BOX
JT	JOINT
LF	LINEAR FEET
LP	LOW POINT
LS	LANDSCAPE ELEVATION
LT	LEFT
MH	MANHOLE

N/A	NOT APPLICABLE
NG	NATURAL GROUND (EXISTING)
NPW	NON-POTABLE WATER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
PL	PROPERTY LINE
PP	POWER POLE
PRC	POINT OF REVERSE CURVATURE
PROP	PROPOSED
PBO	PROPOSED BY OTHERS
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE PIPE
PVMT	PAVEMENT
OCEW	ON CENTER EACH WAY
OHE	OVERHEAD ELECTRIC
R	RADIUS
RCB	REINFORCED CONCRETE BOX
RCI	RECESSED CURB INLET
RCP	REINFORCED CONCRETE PIPE
RCCP	REINFORCED CONCRETE CYLINDRICAL PIPE
REINF	REINFORCED
RL	RIDGE LINE
ROW	RIGHT OF WAY
RT	RIGHT
SF	SQUARE FEET
SD	STORM DRAIN
SQ	SQUARE
SS	SANITARY SEWER
SSE	SANITARY SEWER EASEMENT
STA	STATION
SY	SQUARE YARD
T	TELEPHONE
TC	TOP OF CURB
TG	TOP OF GROUND
TMH	TELEPHONE MANHOLE
TOB	TOP OF BANK
TOS	TOE OF SLOPE
TP	TOP OF PAVEMENT
TPIPE	TOP OF PIPE
TW	TOP OF WALL
TYP	TYPICAL
UE	UTILITY EASEMENT
UGE	UNDERGROUND ELECTRIC
VCP	VITRIFIED CLAY PIPE
W	WATER
WE	WATER EASEMENT
WL	WATER LINE
WM	WATER METER
WMH	WATER MANHOLE
WV	WATER VALVE
WW	WASTE WATER

LEGEND OF LINE STYLES

FENCE	—— X ——
EX UG COMM LINE	– – – C_x – – –
EX OH ELECTRIC LINE	—— E_x ——
EX UG ELECTRIC LINE	– – – E_x – – –
EX NATURAL GAS LINE	—— G_x ——
EX SANITARY SEWER LINE	—— SS_x ——
EX WATER LINE	—— W_x ——
PROP OH COMM LINE	—— C ——
PROP UG COMM LINE	– – – C – – –
PROP OH ELECTRIC LINE	—— E ——
PROP UG ELECTRIC LINE	– – – E – – –
PROP NATURAL GAS LINE	—— G ——
PROP SANITARY SEWER LINE	—— SS ——
PROP WATER LINE	—— W ——
EXISTING IRRIGATION CONTROL VALVE	⋈

CALL BEFORE YOU DIG

PRELIMINARY - FOR REVIEW ONLY

These documents are for Design Review and not intended for Construction, Bidding or Permit Purposes. They were prepared by, or under supervision of:

Type or Print Name	PE #	Date
RAUL M. ZAVALA	144856	10/02/2023

REV.	DATE	REMARKS

SPRUCE

GENERAL CONSTRUCTION NOTES

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

		DATE	PROJECT #	SHEET
DESIGNED:	AEJ	OCT 2023	BLC23002	C003
DRAWN:	AEJ			
CHECKED:	RMZ			

9/29/2023 4:14:15 PM $USER$

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NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
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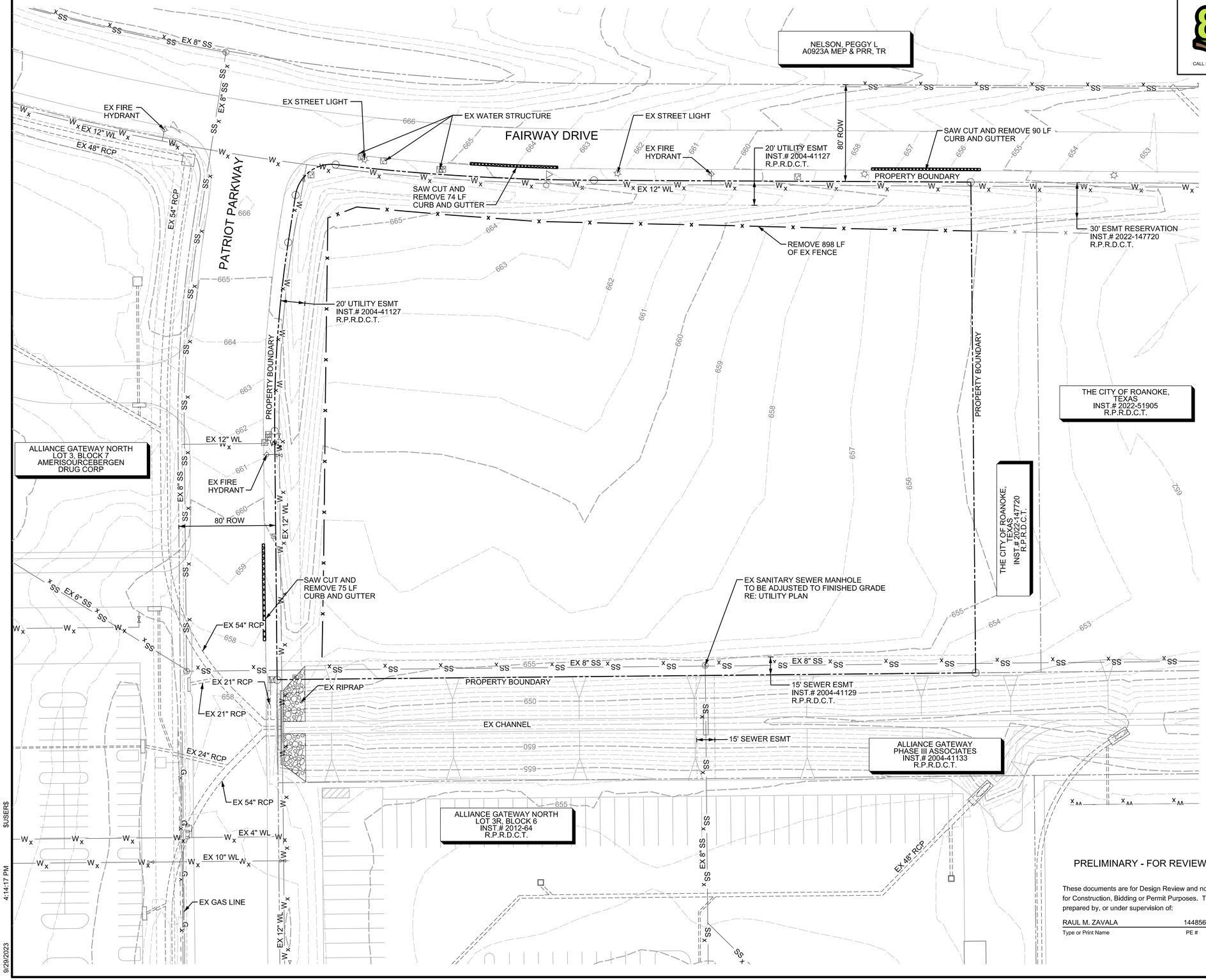
PROJECT BENCHMARKS

BM NO. 1
X-CUT ON INLET, EAST SIDE OF PATRIOT PARKWAY, +/- 470 FEET SOUTH OF CENTERLINE OF FAIRWAY DRIVE.
ELEV. 658.22

BM NO. 2
X-CUT ON INLET, SOUTH SIDE OF FAIRWAY DRIVE, +/- 75 FEET WEST OF CENTERLINE OF PARK DRIVE
ELEV. 647.97



LEGEND

EXISTING WATER LINE	W_x
EXISTING SEWER LINE	SS_x
EXISTING GAS LINE	G_x
EXISTING UG ELECTRIC LINE	E_x
EXISTING COMMUNICATIONS LINE	C_x
EXISTING OH ELECTRIC LINE	E_x
EXISTING FENCE TO BE REMOVED	x
EXISTING STREET LIGHT	
EXISTING FIRE HYDRANT	W_x
EXISTING CONC CURB AND GUTTER TO BE REMOVED	
EXISTING RIPRAP	

0 40 80 120
GRAPHIC SCALE IN FEET

REV.	DATE	REMARKS

SPRUCE

EXISTING CONDITION & DEMOLITION PLANS

ROANOKE, DENTON COUNTY, TEXAS

PRELIMINARY - FOR REVIEW ONLY

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RAUL M. ZAVALA — 144856 — 10/02/2023
Type or Print Name — PE # — Date

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

		DATE	PROJECT #	SHEET
DESIGNED:	AEJ	OCT 2023	BLC23002	C101
DRAWN:	AEJ			
CHECKED:	RMZ			

G:\JOB\BLC23002_Project_Spruce\3_Design\05_Civil\351_CAD_Construction Plans\C101-BLC23002-C-SITE-DEMO-PLAN.sht

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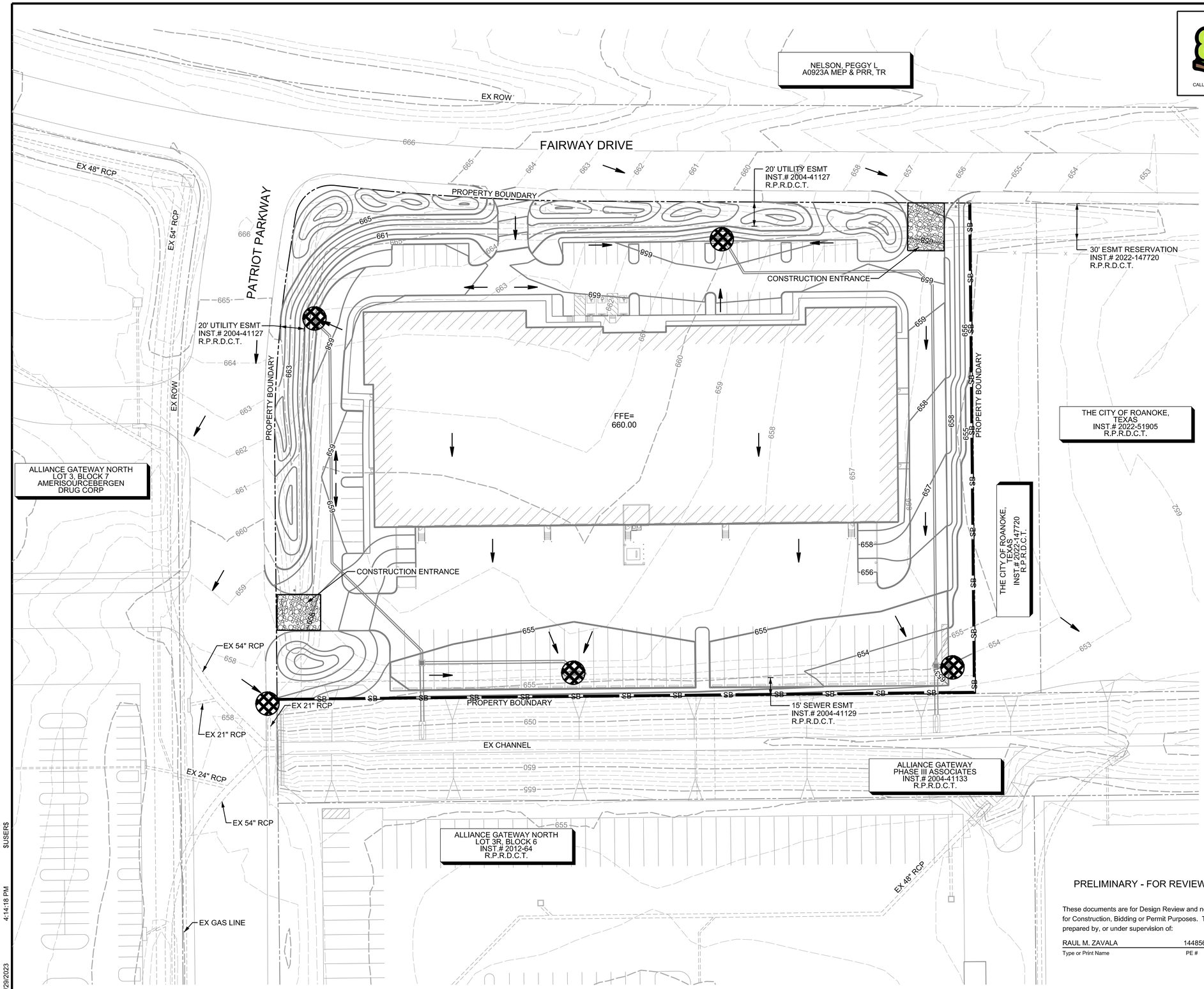

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
TXU ELECTRIC DELIVERY	1-800-711-9112
CITY OF ROANOKE PUBLIC WORKS	817-491-6099

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION

PROJECT BENCHMARKS

BM NO. 1
X-CUT ON INLET, EAST SIDE OF PATRIOT PARKWAY, +/- 470 FEET SOUTH OF CENTERLINE OF FAIRWAY DRIVE.
ELEV. 658.22

BM NO. 2
X-CUT ON INLET, SOUTH SIDE OF FAIRWAY DRIVE, +/- 75 FEET WEST OF CENTERLINE OF PARK DRIVE
ELEV. 647.97

EROSION CONTROL LEGEND

SEDIMENT BARRIER — SB — SB

INLET PROTECTION

SURFACE FLOW ARROW

CONSTRUCTION ENTRANCE / EXIT

TOTAL DISTURBED ACRES: 5.38

NOTES:

1. CONTRACTOR SHALL MATCH EXISTING GRADES WHEN COVERING (UTILITY/WATER/SEWER/GAS) LINES TO INSURE THEY DO NOT POND, ALTER, OR CHANNELIZE ANY STORM WATER.

2. EROSION CONTROL MEASURES MAY ONLY BE PLACED IN FRONT OF INLETS, IN CHANNELS, DRAINAGEWAYS OR BORROW DITCHES AT RISK OF CONTRACTOR.

3. CONTRACTOR SHALL REMAIN LIABLE FOR ANY DAMAGE CAUSED BY THE MEASURES, INCLUDING FLOODING DAMAGE, WHICH MAY OCCUR DUE TO BLOCKED DRAINAGE. AT THE CONCLUSION OF ANY PROJECT, ALL CHANNELS, DRAINAGEWAYS AND BORROW DITCHES IN THE WORK ZONE SHALL BE DREDGED OF ANY SEDIMENT GENERATED BY THE PROJECT OR DEPOSITED AS A RESULT OF EROSION CONTROL MEASURES.

4. A LOCATION FOR MATERIALS STORAGE, WASHDOWN AND WASTE WILL BE DETERMINED IN THE FIELD.

0 40 80 120
GRAPHIC SCALE IN FEET

REV.	DATE	REMARKS

SPRUCE

EROSION & SEDIMENT CONTROL PLAN

ROANOKE, DENTON COUNTY, TEXAS

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PELOTON LAND SOLUTIONS
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SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

DESIGNED: AEJ	DATE	PROJECT #	SHEET
DRAWN: AEJ	OCT 2023	BLC23002	C103
CHECKED: RMZ			

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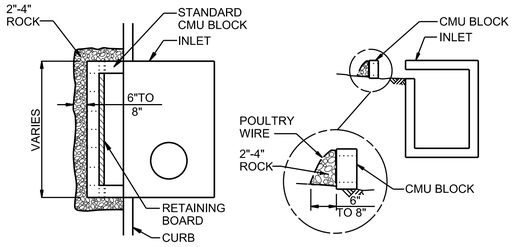


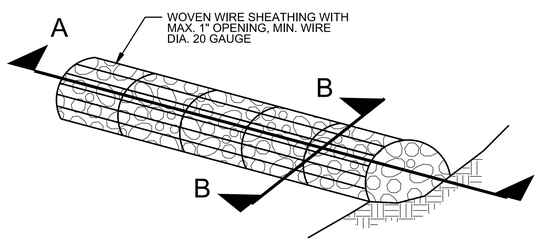
PLAN VIEW

CROSS SECTION

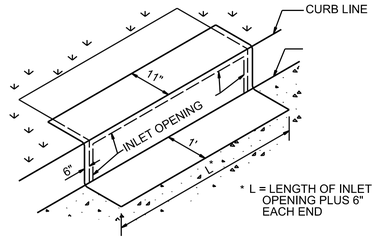
A

ALTERNATE 1
CURB INLET PROTECTION (STAGE TWO)

NO SCALE



NOTE: REMOVE SILT WHEN DEPTH REACHES 6 INCHES

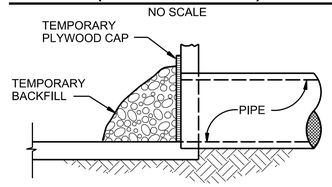


GENERAL NOTES

1. FRAME TO BE MADE OF 4 GAUGE GALVANIZED STEEL, 3"x8" SQUARE FOR SECTION ADJACENT TO FACE OF INLET, 4"x8" SQUARE FOR TOP AND BOTTOM SECTIONS.
2. FILTER FABRIC TO BE TS 500 POLYFELT.
3. CURB INLET PROTECTOR TO BE MANUFACTURED BY TEXAS ENVIRONMENTAL MANAGEMENT, INC. OR EQUAL. (ENGINEER TO APPROVE SUBSTITUTE PRIOR TO INSTALLATION.)

ALTERNATE 2
CURB INLET PROTECTION (STAGE TWO)

NO SCALE



CROSS-SECTION

CURB INLET PROTECTION (STAGE ONE)

NO SCALE

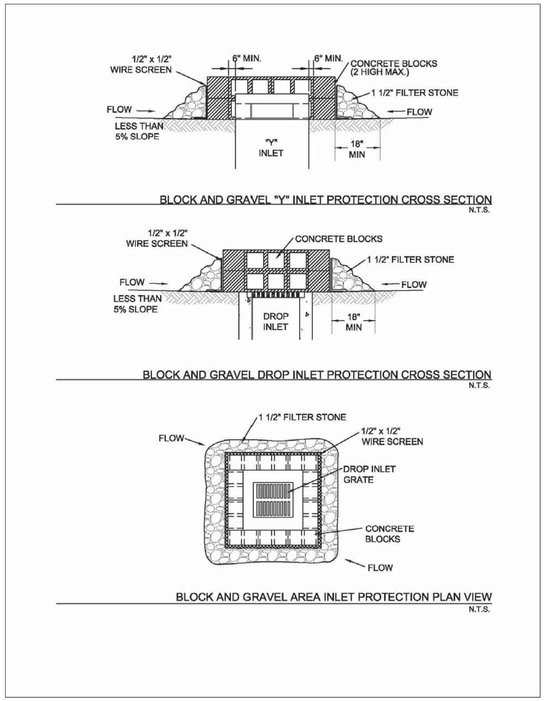
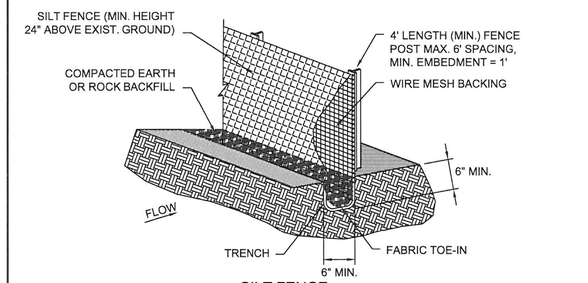
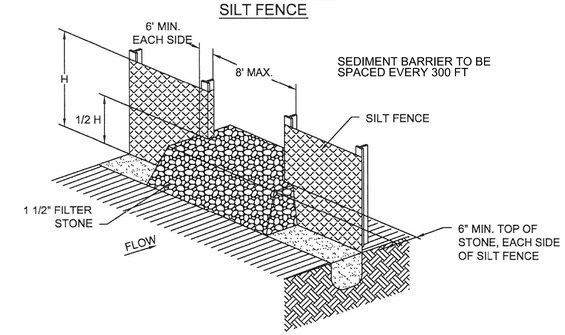


Figure 3.12 Schematics of Block and Gravel Area Inlet Protection
(Source: Modified from City of Plano BMP SP-4)

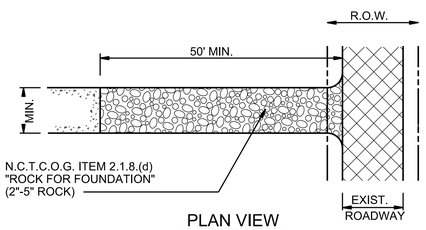


SILT FENCE

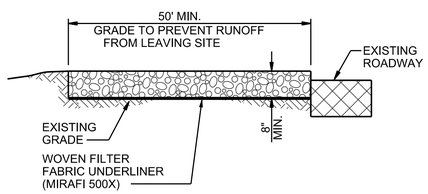


SEDIMENT TRAP DETAIL

SILT FENCE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 201.5	
		DATE OCT. '04	STANDARD DRAWING NO. 1020A



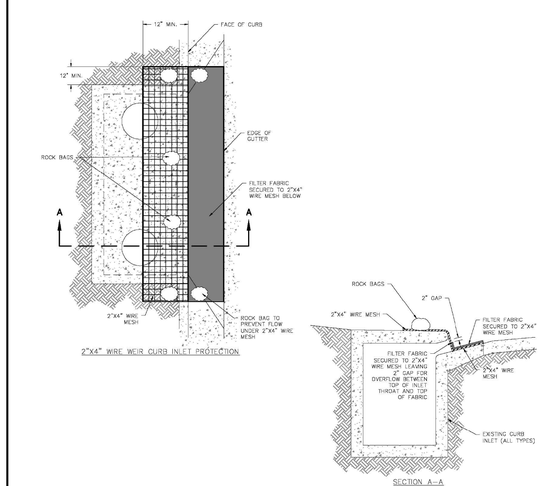
PLAN VIEW



PROFILE

CONSTRUCTION ENTRANCE

NO SCALE



NOTES:

GENERAL

- DRAINAGE PATTERNS SHALL BE EVALUATED TO ENSURE INLET PROTECTION WILL NOT DIVERT FLOW OR FLOOD THE ROADWAY OR ADJACENT PROPERTIES AND STRUCTURES.
- INLET PROTECTION MEASURES OR DEVICES THAT COMPLETELY BLOCK THE INLET ARE PROHIBITED. THEY MUST ALSO INCLUDE A BYPASS CAPABILITY IN CASE THE PROTECTION MEASURES ARE CLOGGED.
- A POSITIVE OVERFLOW PATH SHALL BE CONSIDERED IN THE DESIGN OF INLET PROTECTION CONTROL MEASURED AT SUMP INLETS.

CURB INLET PROTECTION

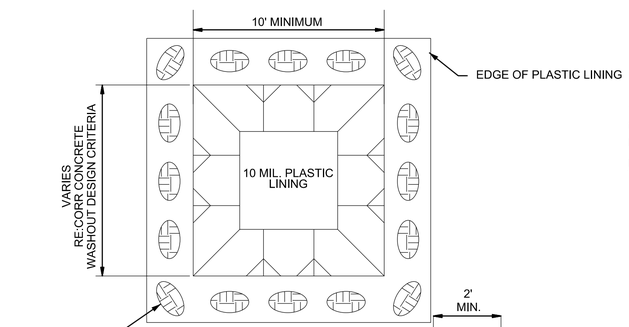
- MUNICIPALITY APPROVAL IS REQUIRED BEFORE INSTALLING INLET PROTECTION ON PUBLIC STREETS.
- SPECIAL CAUTION MUST BE EXERCISED WHEN INSTALLING CURB INLET PROTECTION ON PUBLICLY TRAVELED STREETS OR IN DEVELOPED AREAS. ENSURE THAT INLET PROTECTION IS PROPERLY DESIGNED, INSTALLED AND MAINTAINED TO AVOID FLOODING OF THE ROADWAY OR ADJACENT PROPERTIES AND STRUCTURES.
- A TWO INCH OVERFLOW GAP OR WEIR IS REQUIRED ON ALL CURB INLET PROTECTION DEVICES.
- TRAFFIC CONES, WARNING SIGNS, OR OTHER MEASURES SHALL BE INSTALLED TO WARN MOTORISTS WHEN THE INLET PROTECTION MEASURES EXTEND BEYOND THE GUTTER LINE.
- 2"X4" WEIR PROTECTION:
  BEND WIRE MESH AROUND THE 2" X4" BOARD AND STAPLE TO THE BOARD. BEND WIRE MESH AROUND THE BOTTOM OF THE BOARD, THE CURB OPENING, AND ALONG THE PAVEMENT TO FORM A CAGE FOR THE ROCK.

  ROCK BAGS SHALL BE PLACED PERPENDICULAR TO THE CURB, AT BOTH ENDS OF THE WOODEN FRAME, TO DISRUPT THE FLOW AND DIRECT WATER INTO THE ROCK FILTER. STACK THE BAGS TWO HIGH IF NEEDED.
- 2"X4" WIRE (HOG WIRE) WEIR PROTECTION
  THE FILTER FABRIC AND WIRE MESH SHALL EXTEND A MINIMUM OF 12 INCHES PAST THE CURB OPENING ON EACH SIDE OF THE INLET.

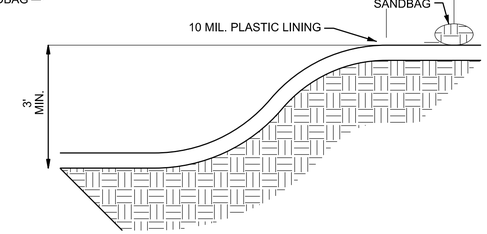
  FILTER FABRIC SHALL BE PLACED ON 2" X 4" WIRE MESH TO PREVENT THE TUBE FROM SAGGING INTO THE INLET.

  ROCK BAGS ARE USED TO HOLD THE WIRE MESH AND FILTER FABRIC IN CONTACT WITH THE PAVEMENT. AT LEAST ONE BAG SHALL BE PLACED ON EITHER SIDE OF THE OPENING, PARALLEL TO AND UP AGAINST THE CONCRETE CURB. THE BAGS ARE INTENDED TO DISRUPT AND SLOW THE FLOW AND ENSURE IT DOES NOT GO UNDER THE FABRIC. ADD BAGS IF NEEDED.

	2"X4" WIRE WEIR CURB INLET PROTECTION	



PLAN VIEW



CROSS SECTION

CONCRETE WASHDOWN CONTAINMENT

NO SCALE

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REV.	DATE	REMARKS

SPRUCE

EROSION & SEDIMENT CONTROL DETAILS

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

DESIGNED: AEJ	DATE	PROJECT #	SHEET
DRAWN: AEJ	OCT 2023	BLC23002	C402
CHECKED: RMZ			

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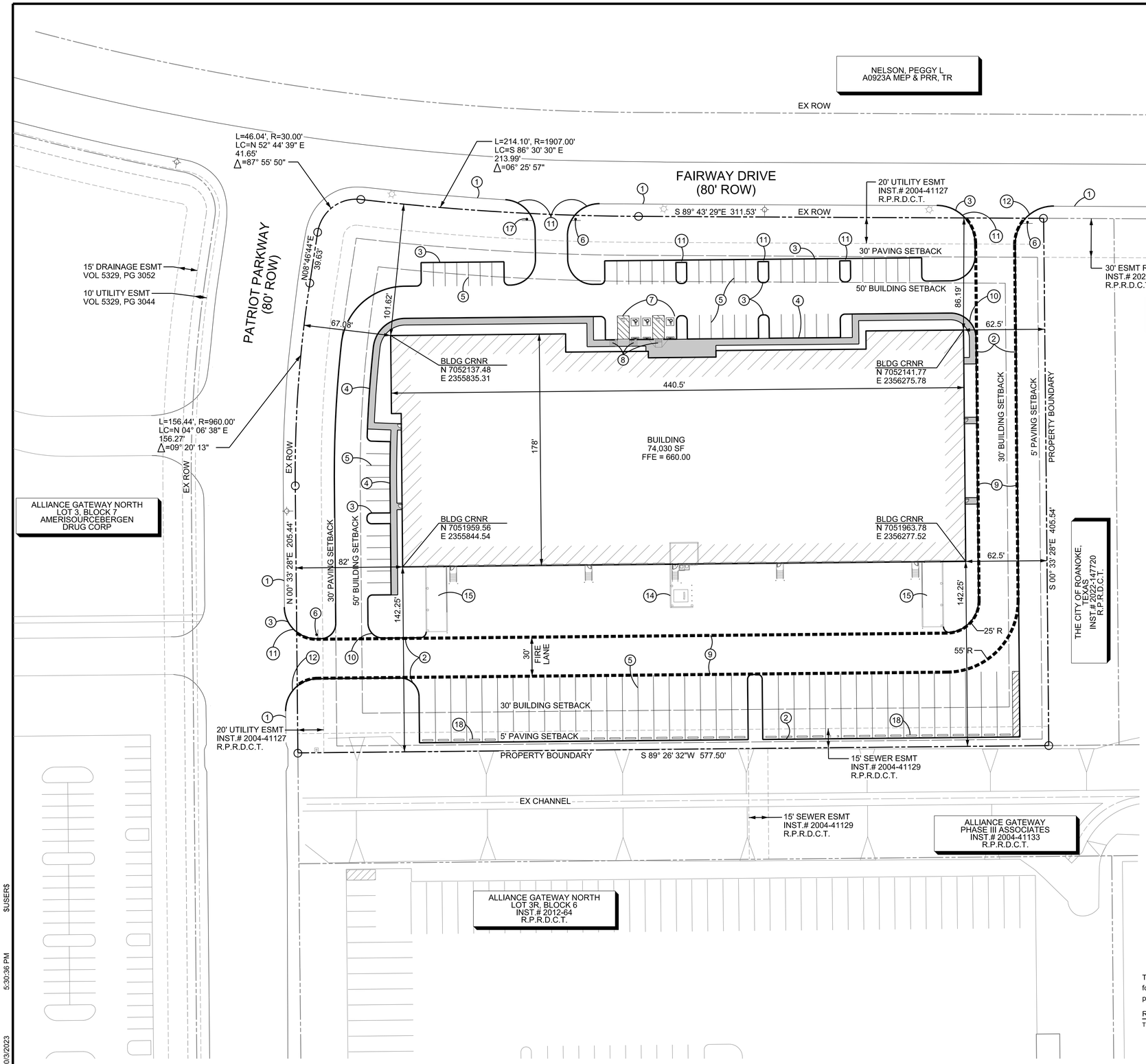

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
TXU ELECTRIC DELIVERY	1-800-711-9112
CITY OF ROANOKE PUBLIC WORKS	817-491-6099

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION

PROJECT BENCHMARKS

BM NO. 1
X-CUT ON INLET, EAST SIDE OF PATRIOT PARKWAY, +/- 470 FEET SOUTH OF CENTERLINE OF FAIRWAY DRIVE.
ELEV. 658.22

BM NO. 2
X-CUT ON INLET, SOUTH SIDE OF FAIRWAY DRIVE, +/- 75 FEET WEST OF CENTERLINE OF PARK DRIVE
ELEV. 647.97

SITE CONSTRUCTION NOTES

1. EXISTING 7" CURB
2. CONSTRUCT 12" INTEGRAL CURB PER DETAIL (8/C206)
3. CONSTRUCT 6" INTEGRAL CURB PER DETAIL (8/C206)
4. CONSTRUCT 6" INTEGRAL CURB W/ ADJACENT SIDEWALK PER DETAIL (C203)
5. PAINT PARKING STALLS PER DETAIL (1/C206)
6. INSTALL STOP SIGN PER DETAIL (C205)
7. PAINT ACCESSIBLE PARKING PER DETAIL (7/C206)
8. CONSTRUCT ACCESSIBLE RAMP PER DETAIL (C203)
9. PAINT FIRE LANE STRIPE PER DETAIL (6/C206)
10. TRANSITION FROM 12" CURB TO 6" CURB OVER ENTIRE LENGTH OF CURB RETURN
11. TRANSITION FROM 6" CURB TO 7" CURB OVER ENTIRE LENGTH OF CURB RETURN
12. TRANSITION FROM 12" CURB TO 7" CURB OVER ENTIRE LENGTH OF CURB RETURN
13. INSTALL CURB CUT PER DETAIL (3/C206)
14. INSTALL SCREEN WALL PER ARCHITECTURAL PLANS
15. INSTALL TRUCK RAMP PER ARCHITECTURAL PLANS
16. INSTALL CONC FLUMES PER ARCHITECTURAL PLANS
17. MONUMENT SIGN
18. INSTALL WHEEL STOP PER DETAIL (2/C206)

OVERALL PARKING SUMMARY	
PROPOSED TRAILER SPACES	37
PROPOSED PASSENGER SPACES	56
PROPOSED ADA SPACES VAN ADA SPACES	3 1
TOTAL SPACES	96

OVERALL PARKING SUMMARY	
REQUIRED PASSENGER SPACES	48
1 PER 200 SF OF OFFICE SPACE (5,000 SF)	25
1 PER 3000 SF OF STORAGE SPACE (69,000)	23
REQUIRED ADA SPACES VAN ADA SPACES	3 1
PROPOSED TRAILER SPACES	37
PROPOSED PASSENGER SPACES	56
PROPOSED ADA SPACES VAN ADA SPACES	3 1
TOTAL SPACES	96

LEGEND

- PROPOSED SIGN
- PROPERTY LINE
- FIRE LANE STRIPING
- EX FIRE HYDRANT
- EX LIGHT POLE

N

0 40 80 120
GRAPHIC SCALE IN FEET

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REV.	DATE	REMARKS

SPRUCE

OVERALL SITE PLAN

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

DESIGNED: AEJ	DATE	PROJECT #	SHEET
DRAWN: AEJ	OCT 2023	BLC23002	C201
CHECKED: RMZ			

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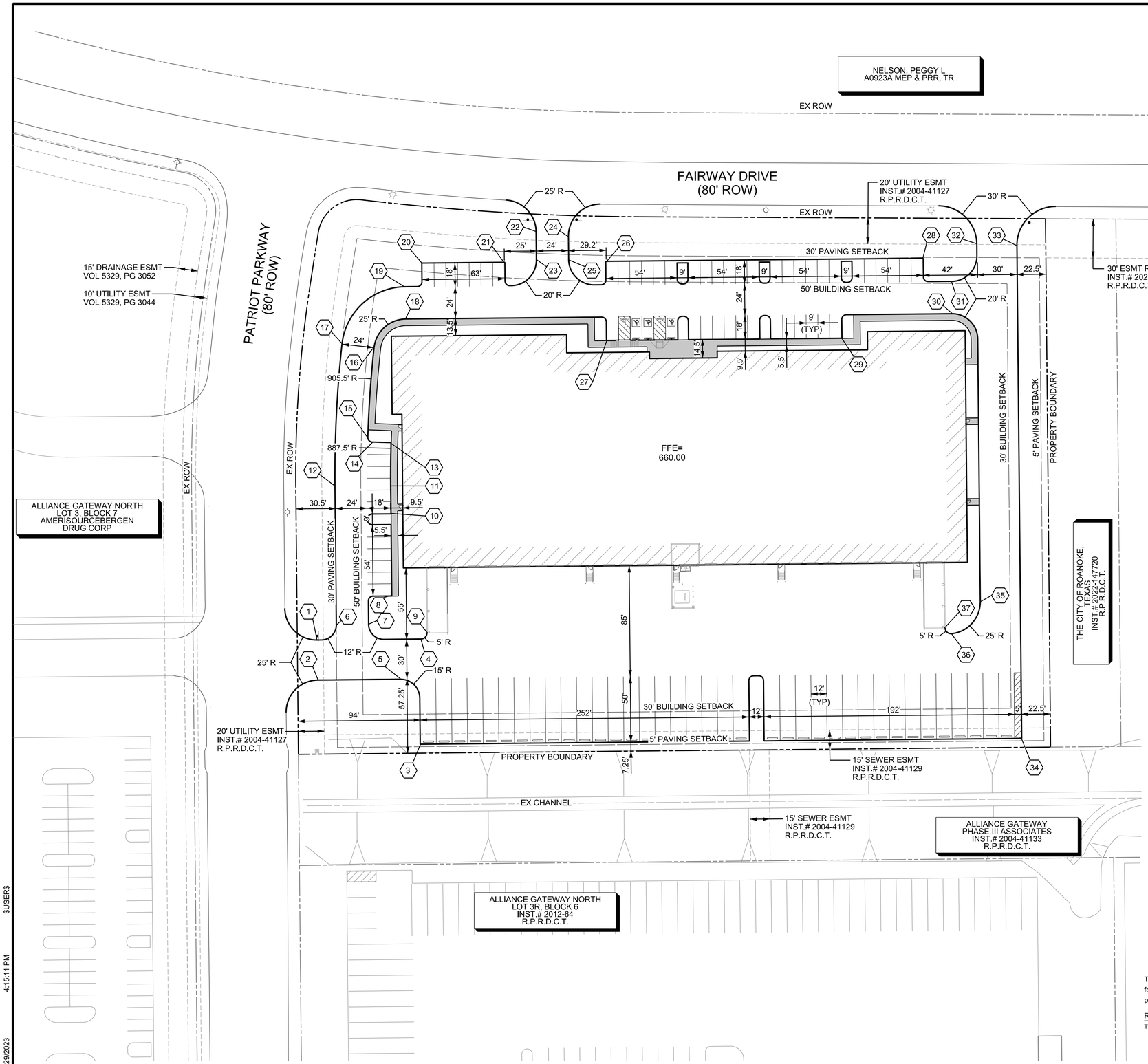

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5	PC	N 7051874.54	E 2355842.37
6	PT	N 7051916.06	E 2355793.46
7	PC	N 7051916.30	E 2355817.46
8	PI	N 7051938.49	E 2355835.25
9	PT	N 7051909.74	E 2355863.02
10	PI	N 7052001.48	E 2355834.63
11	PC	N 7052022.65	E 2355834.43
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37	PT	N 7051913.61	E 2356260.01

LEGEND

PROPOSED SIGN

EX FIRE HYDRANT

0 40 80 120
GRAPHIC SCALE IN FEET

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SPRUCE

DIMENSIONAL CONTROL PLAN

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

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DRAWN:	AEJ			
CHECKED:	RMZ			

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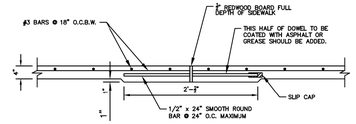
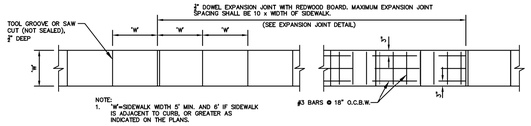
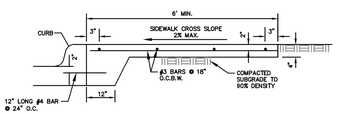


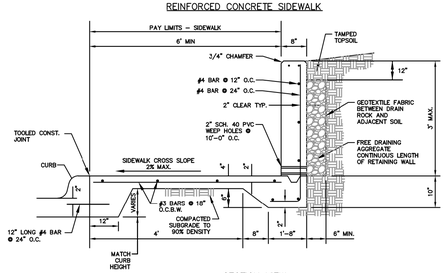
EXPANSION JOINT DETAIL



PLAN
REINFORCED CONCRETE SIDEWALK



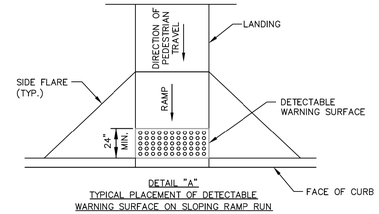
SECTION VIEW
SIDEWALK ADJACENT TO CURB



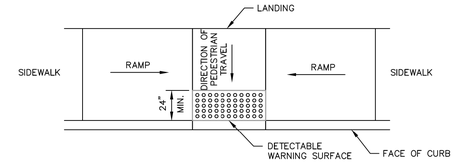
SECTION VIEW
SIDEWALK ADJACENT TO CURB WITH RETAINING WALL

NOTES:
1. SIDEWALK PAID PER SQUARE FOOTAGE OF WALKWAY.
2. RETAINING WALL PAID PER SQUARE FOOTAGE OF WALL FACE.
3. THICKENED EDGE UNDER SIDEWALK AND RETAINING WALL IS SUBSIDIARY TO SIDEWALK AND WALL, RESPECTIVELY.

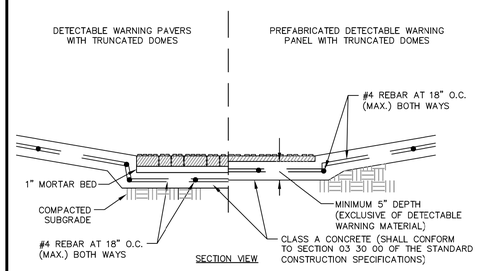
SIDEWALK DETAILS
(SHEET 1 OF 2)



DETAIL "A"
TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN



DETAIL "B"
TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON LANDING AT STREET EDGE

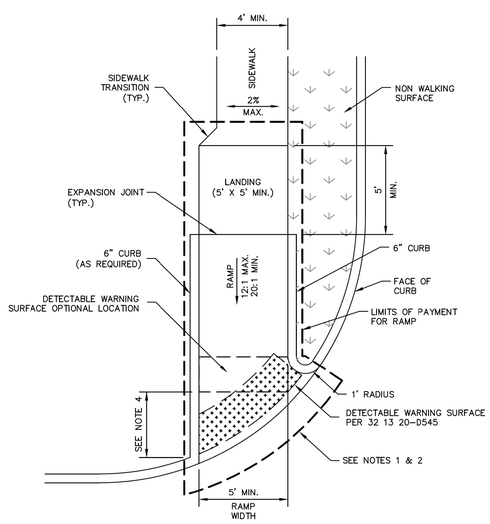


SECTION VIEW

NOTES:
1. CURB RAMPS MUST CONTAIN A DETECTABLE WARNING SURFACE THAT CONSISTS OF RAISED TRUNCATED DOMES COMPLYING WITH SECTION 705 OF THE 2012 TEXAS ACCESSIBILITY STANDARDS (TAS). THE SURFACE MUST CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES, INCLUDING SIDE FLARES. FURNISH AND INSTALL AN APPROVED DARK BROWN OR DARK RED DETECTABLE WARNING SURFACE ADJACENT TO UNCOLORED CONCRETE, UNLESS SPECIFIED ELSEWHERE IN THE PLANS.
2. DETECTABLE WARNING SURFACES MUST BE SLIP RESISTANT AND NOT ALLOW WATER TO ACCUMULATE.
3. ALIGN THE ROWS OF TRUNCATED DOMES TO BE PERPENDICULAR TO THE GRADE BREAK BETWEEN THE RAMP RUN AND THE STREET.
4. DETECTABLE WARNING SURFACES SHALL BE A MINIMUM OF 24" IN DEPTH IN THE DIRECTION OF PEDESTRIAN TRAVEL, AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR LANDING WHERE THE PEDESTRIAN ACCESS ROUTE ENTERS THE STREET.
5. DETECTABLE WARNING SURFACES SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS AT THE EXTENSION OF THE BACK OF CURB. DETECTABLE WARNING SURFACES MAY BE CURVED ALONG A CORNER RADIUS.
6. FURNISH DETECTABLE WARNING PAVER UNITS MEETING ALL REQUIREMENTS OF ASTM C-936. LAY IN A TWO BY TWO UNIT BASKET WAVE PATTERN OR AS DIRECTED BY ENGINEER.
7. LAY FULL-SIZE UNIT FIRST FOLLOWED BY CLOSURE UNITS CONSISTING OF AT LEAST 25 PERCENT OF A FULL UNIT. CUT DETECTABLE WARNING PAVER UNITS USING A POWER SAW. DETAILS ARE PROVIDED HEREIN FOR THE PLACEMENT OF PAVERS. FOR OTHER MATERIALS, REFER TO THE MANUFACTURER'S PRODUCT MANUAL FOR PROPER INSTALLATION.
8. SEE TPW STANDARD PRODUCTS LIST FOR PRE-APPROVED DWS PRODUCTS.

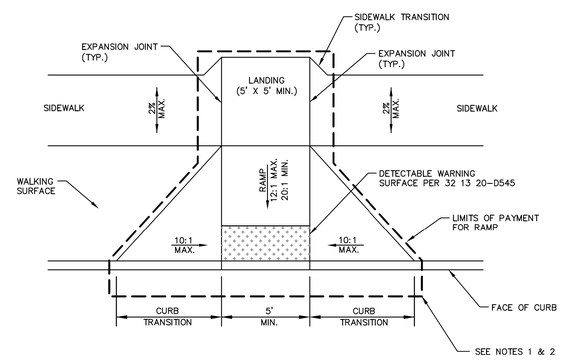
DETECTABLE WARNING SURFACE

NOTES:
1. LIMITS OF PAYMENT FOR RAMP INCLUDES THE CONCRETE GUTTER WIDTH ALONG THE RAMP OPENING.
2. WHEN ADJACENT TO CONCRETE PAVEMENT, THE RAMP WIDTH, CURB TRANSITION, AND LANDING LIMITS SHALL BE DOWELED INTO THE CURB AND PAVEMENT WITH #3 BARS (12" LONG ON 18" CENTERS). THE COST OF THE DOWELING SHALL BE SUBSIDIARY TO THE COST OF THE CURB RAMP.
3. VALVE BOXES/CLEANOUTS ARE NOT TO BE PLACED IN RAMP AREA.
4. IF THE DISTANCE FROM THE END OF THE RAMP TO THE BACK OF CURB IS GREATER THAN 5 FEET, DETECTABLE WARNING SURFACE SHALL BE PLACED ON THE LOWER LANDING AT THE BACK OF CURB AND RUN THE ENTIRE LENGTH OF THE OPENING. SLOPE TO BE 2% MAX. IN ALL DIRECTIONS.



TYPE P-1 PERPENDICULAR CURB RAMP

NOTES:
1. LIMITS OF PAYMENT FOR RAMP INCLUDES THE CONCRETE GUTTER WIDTH ALONG THE RAMP OPENING.
2. WHEN ADJACENT TO CONCRETE PAVEMENT, THE RAMP WIDTH, CURB TRANSITION, AND LANDING LIMITS SHALL BE DOWELED INTO THE CURB AND PAVEMENT WITH #3 BARS (12" LONG ON 18" CENTERS). THE COST OF THE DOWELING SHALL BE SUBSIDIARY TO THE COST OF THE CURB RAMP.
3. VALVE BOXES/CLEANOUTS ARE NOT TO BE PLACED IN RAMP AREA.



TYPE M-1 MID-BLOCK RAMP (SIDEWALK ADJACENT TO WALKING SURFACE)

PRELIMINARY - FOR REVIEW ONLY

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RAUL M. ZAVALA	144856	10/02/2023
Type or Print Name	PE #	Date

REV.	DATE	REMARKS

SPRUCE

SITE DETAILS

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

DESIGNED: AEJ	DATE	PROJECT #	SHEET
DRAWN: AEJ	OCT 2023	BLC23002	C203
CHECKED: RMZ			

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DESIGN CHARACTER

PROJECT FONTS, PAINTS & MATERIALS

The following illustrates the proposed paints, materials and fonts to be used throughout the project on signage and wayfinding. Final colors and materials are to be approved by client team prior to fabrication. Please Note RSM Design to be notified of any changes.

PAINTS

All paints to have Satin Finish unless otherwise specified. All painted surfaces are to be on aluminum.

P1	P2	P3	P4
Matthews MP0001S Polar White	To Match Pantone 288 C	To Match Pantone 300 C	Matthews MPI1938 Toyota Light Grey

VINYL

All materials to be provided as 8" x 8" sample or as part of a mock-up for approval.

V1	V2	V3
3M 680 -10 Reflective White	3M Vinyl To Match Pantone 300C	3M 680-82 Ruby Red Reflective Vinyl

MATERIALS

All materials to be provided as 8" x 8" sample or as part of a mock-up for approval.

M1

Smooth Concrete

Aa

GOTHAM BOLD

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz

1234567890

Fabricator shall submit 3 (three) set of sample and/or prototypes of each material, paint and vinyl call out listed on this sheet, minimum size 8" x 8" in size. All paint spray outs must be on aluminum.

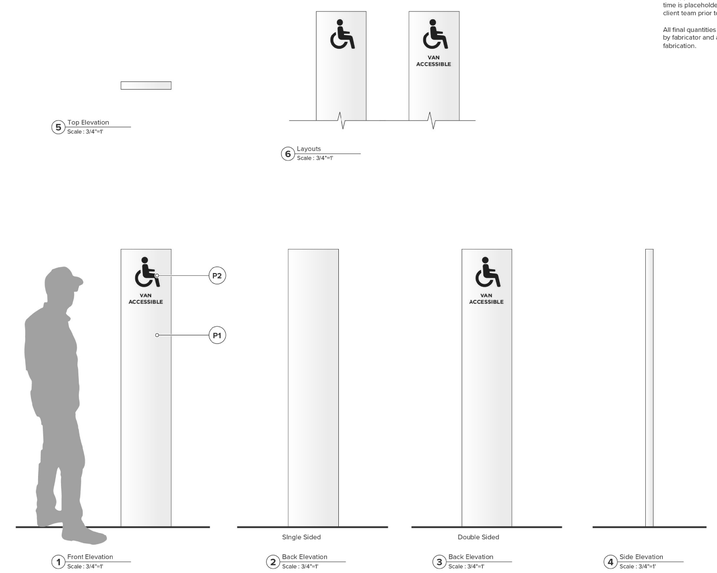
Samples must be submitted to RSM in a time frame allowable for review of material, color and aesthetic compatibility to any existing adjacent materials.

RSM will review the samples and will keep one set as control samples throughout the fabrication process. RSM will send the other 2 sets back to the fabricator for distribution, one set for the fabricator to keep and one set to the client team.

If a color or material is not approved, the Fabricator must re-submit a new sample until it is approved by the team.

DRAWING FOR DESIGN INTENT ONLY; NOT INTENDED FOR CONSTRUCTION.
ALL SIGNS TO BE FABRICATED & INSTALLED PER APPROVED FABRICATOR SHOP DRAWINGS.

Project Fonts
Design Character



5 Top Elevation
Scale : 3/4"=1'

6 Layouts
Scale : 3/4"=1'

1 Front Elevation
Scale : 3/4"=1'

2 Back Elevation
Scale : 3/4"=1'

3 Back Elevation
Scale : 3/4"=1'

4 Side Elevation
Scale : 3/4"=1'

GENERAL NOTES
All copy and messaging currently shown at this time is placeholder only and is to be provided by the client team prior to fabrication.

All final quantities and locations are to be field verified by fabricator and approved by client team prior to fabrication.

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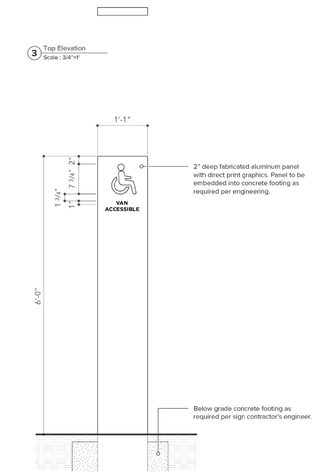
A1 | SIGN TYPE NAME
Color and Material



3 Top Elevation
Scale : 3/4"=1'

1 Front Elevation
Scale : 3/4"=1'

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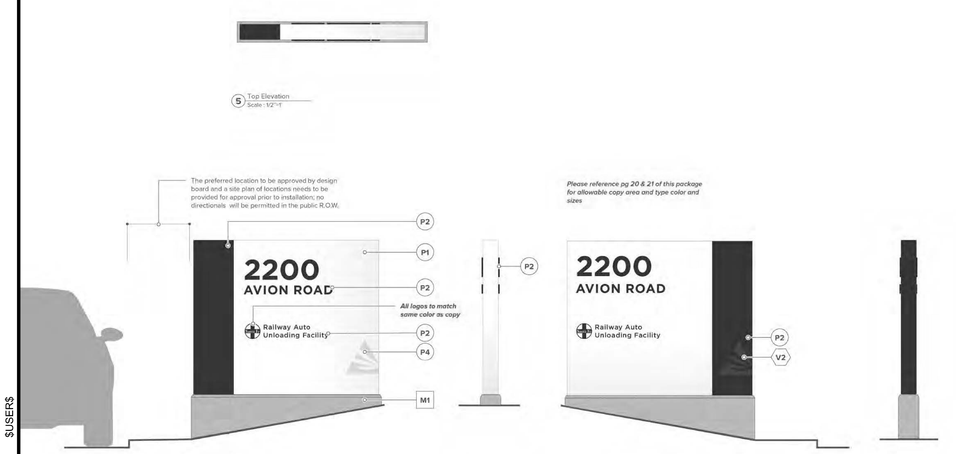

5 Top Elevation
Scale : 1/2"=1'

1 Front Elevation
Scale : 1/2"=1'

2 Side Elevation
Scale : 1/2"=1'

3 Back Elevation Option 1
Scale : 1/2"=1'

4 Side Elevation
Scale : 1/2"=1'

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ALL SIGNS TO BE FABRICATED & INSTALLED PER APPROVED FABRICATOR SHOP DRAWINGS.

V5 | STREET ADDRESS IDENTITY - LOGO OPTION
Color and Material

GENERAL NOTES
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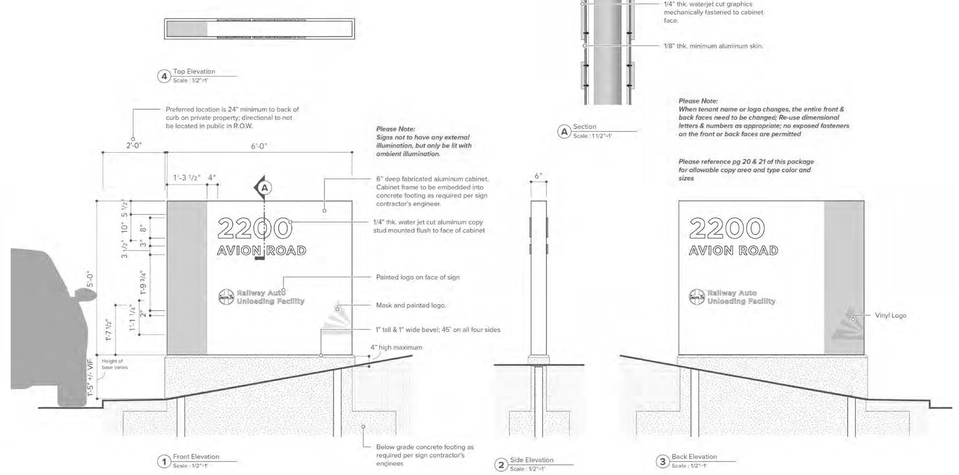

4 Top Elevation
Scale : 1/2"=1'

1 Front Elevation
Scale : 1/2"=1'

A Section
Scale : 1 1/2"=1'

2 Side Elevation
Scale : 1/2"=1'

3 Back Elevation
Scale : 1/2"=1'

DRAWING FOR DESIGN INTENT ONLY; NOT INTENDED FOR CONSTRUCTION.
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V5 | STREET ADDRESS IDENTITY
Details

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RAUL M. ZAVALA	144856	10/02/2023
Type or Print Name	PE #	Date

REV.	DATE	REMARKS

SPRUCE

SITE DETAILS

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

DESIGNED: AEJ	DATE	PROJECT #	SHEET
DRAWN: AEJ	OCT 2023	BLC23002	C204
CHECKED: RMZ			

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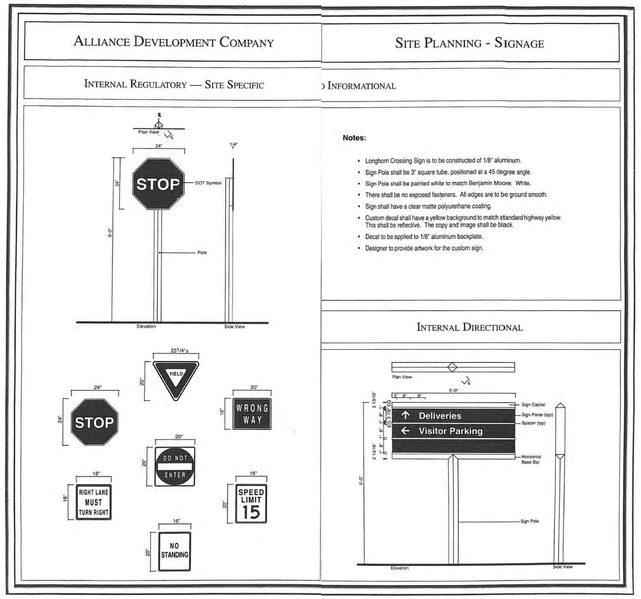
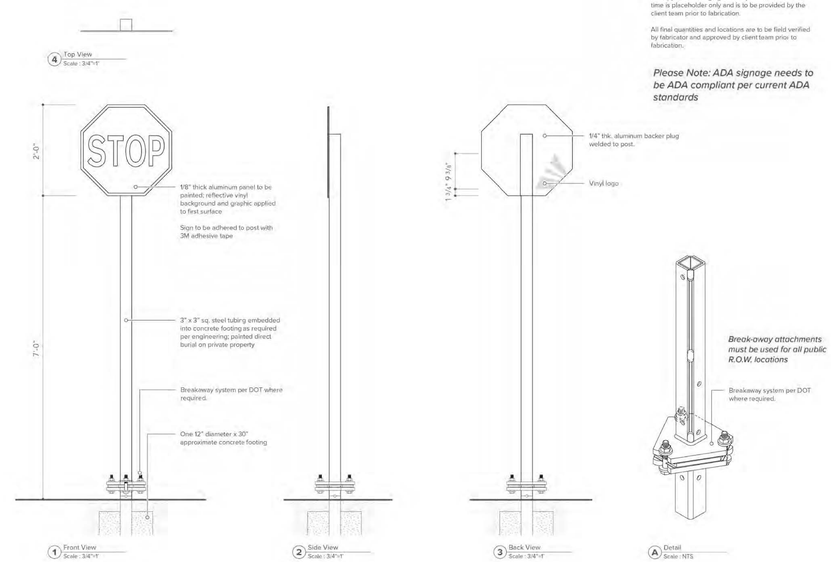
ALLIANCE DEVELOPMENT COMPANY	SITE PLANNING - SIGNAGE
INTERNAL REGULATORY — SITE SPECIFIC	INFORMATIONAL



Notes:

- Longhorn Crossing Sign is to be constructed of 1/8" aluminum.
- Sign Pole shall be 3" square tube, positioned at a 45 degree angle.
- Sign Pole shall be painted white to match Benjamin Moore: White.
- There shall be no exposed fasteners. All edges are to be ground smooth.
- Sign shall have a clear matte polyurethane coating.
- Custom decal shall have a yellow background to match standard highway yellow. This shall be reflective. The copy and image shall be black.
- Decal to be applied to 1/8" aluminum backplate.
- Designer to provide artwork for the custom sign.

INTERNAL DIRECTIONAL



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Please Note: ADA signage needs to be ADA compliant per current ADA standards

DRAWING FOR DESIGN INTENT ONLY. NOT INTENDED FOR CONSTRUCTION.
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V1A | STOP SIGN
Color and Material

GENERAL NOTES
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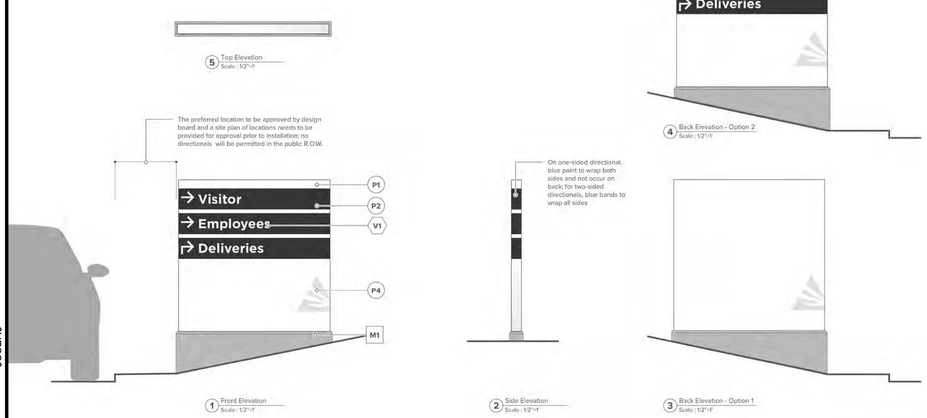
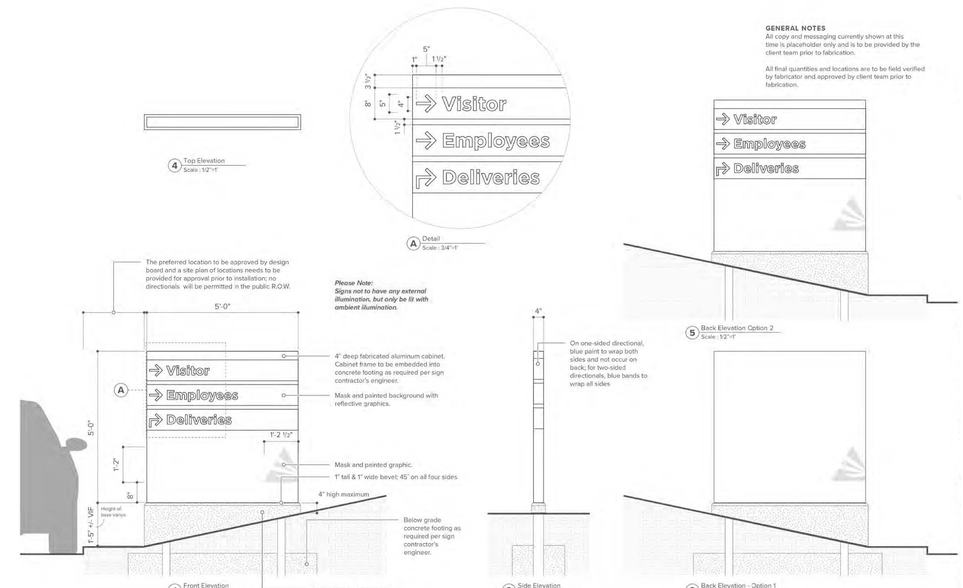


DRAWING FOR DESIGN INTENT ONLY. NOT INTENDED FOR CONSTRUCTION.
ALL SIGNS TO BE FABRICATED & INSTALLED PER APPROVED FABRICATOR SHOP DRAWINGS.

V4 | VEHICULAR DIRECTIONAL
Color and Material



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V4 | VEHICULAR DIRECTIONAL
Details

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SPRUCE

SITE DETAILS

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

DESIGNED: AEJ	DATE	PROJECT #	SHEET
DRAWN: AEJ	OCT 2023	BLC23002	C205
CHECKED: RMZ			

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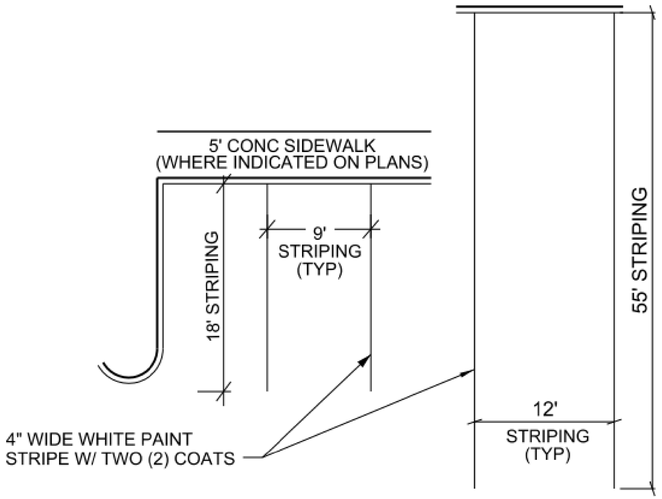
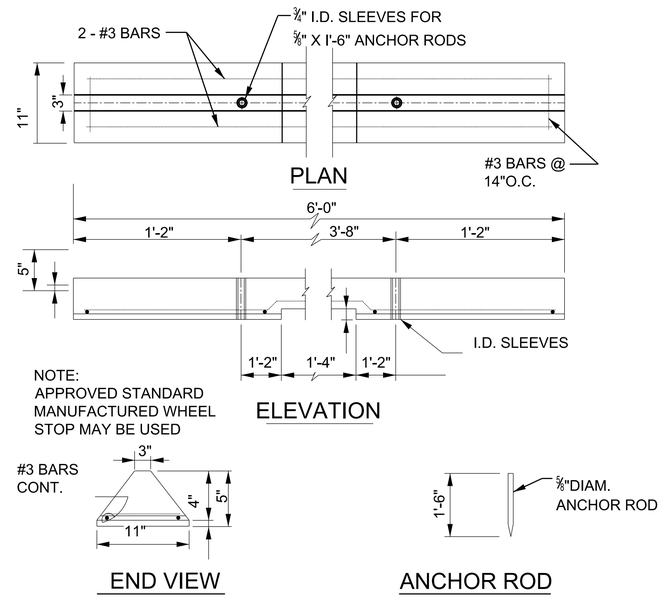


1 PARKING STALL LAYOUT

NOT TO SCALE

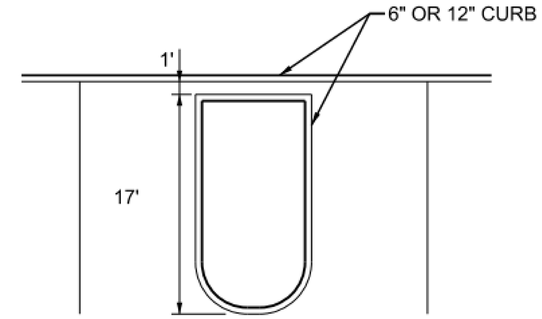
NOTES:

1. DIMENSIONS ARE TO FACE OF CURB OR CENTER OF STRIPE.



2 CONCRETE WHEELSTOP

NOT TO SCALE



3 CURB CUT DETAIL

NOT TO SCALE

NOTES:

1. DIMENSIONS ARE TO FACE OF CURB OR CENTER OF STRIPE.

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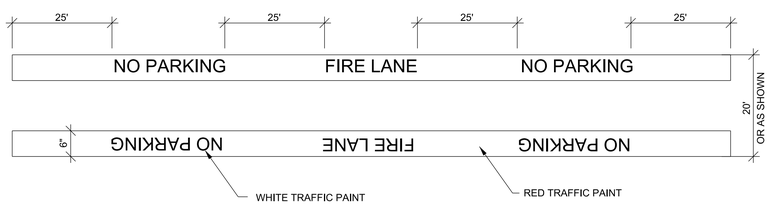


6 FIRE LANE STRIPING

NOT TO SCALE

STRIPING NOTES:

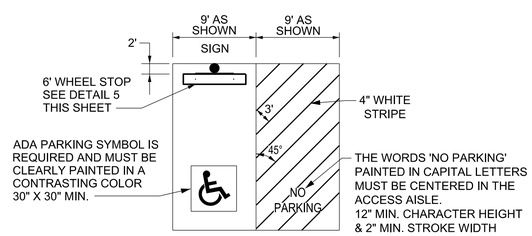
1. THE FIRE MARSHALL IS AUTHORIZED TO DESIGNATE FIRE LANE

2. FIRE LANES SHALL BE MARKED BY SIX INCH (6") WIDE LANES USING RED TRAFFIC PAINT, WITH THE WORDING "NO PARKING" AND "FIRE LANE" LETTERING ON THE LINES AT INTERVALS OF TWENTY FIVE (25'). THE LETTERING WILL BE SIX INCHES (6") HIGH WITH ONE INCH (1") WIDE STROKES PAINTED WITH WHITE TRAFFIC PAINT.

3. FIRE LANES SHALL AT LEAST BE TWENTY FEET (20') IN WIDTH.

4. SITE PAINTING
PAINT ALL FIRE LANES, CROSS HATCHES, HANDICAP SYMBOLS, AND PIPE BOLLARDS AS SHOWN ON ARCHITECTURAL AND CIVIL ENGINEERING SITE PLANS USING EXTERIOR PAINT MANUFACTURED FOR THE PURPOSE AND FOLLOWING MGF PRINTED INSTRUCTIONS - COLORS APPROVED BY FIRE MARSHALL AND OWNER.

5. KNOX BOX GATE ACCESS
ENTRY GATE OPERATING MECHANISM FOR OPENING, CLOSING AND LOCKING SHALL BE CONTROLLED

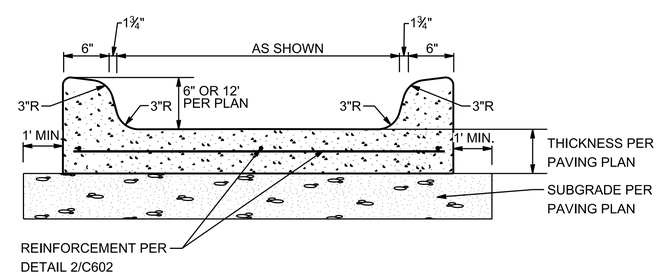


NOTES:

1. ALL HANDICAP PARKING SPACES SHALL CLEARLY DISPLAY STANDARD HANDICAP PARKING SIGN.
2. ALL HANDICAP PARKING SPACE STRIPING SHALL CONFORM WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS.
3. ACCESSIBLE PARKING STALLS AND ACCESS AISLE MUST NOT EXCEED 2% SLOPE IN ANY DIRECTION. ANY PARKING STALLS OR ACCESS AISLES THAT EXCEED THIS LIMIT MUST BE REMOVED AND RE-POURED.
4.

7 TYPICAL ADA PARKING SPACE

NOT TO SCALE



8 CURB DETAIL

NOT TO SCALE

REV.	DATE	REMARKS

SPRUCE

SITE DETAILS

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

DESIGNED: AEJ	DATE	PROJECT #	SHEET
DRAWN: AEJ	OCT 2023	BLC23002	C206
CHECKED: RMZ			

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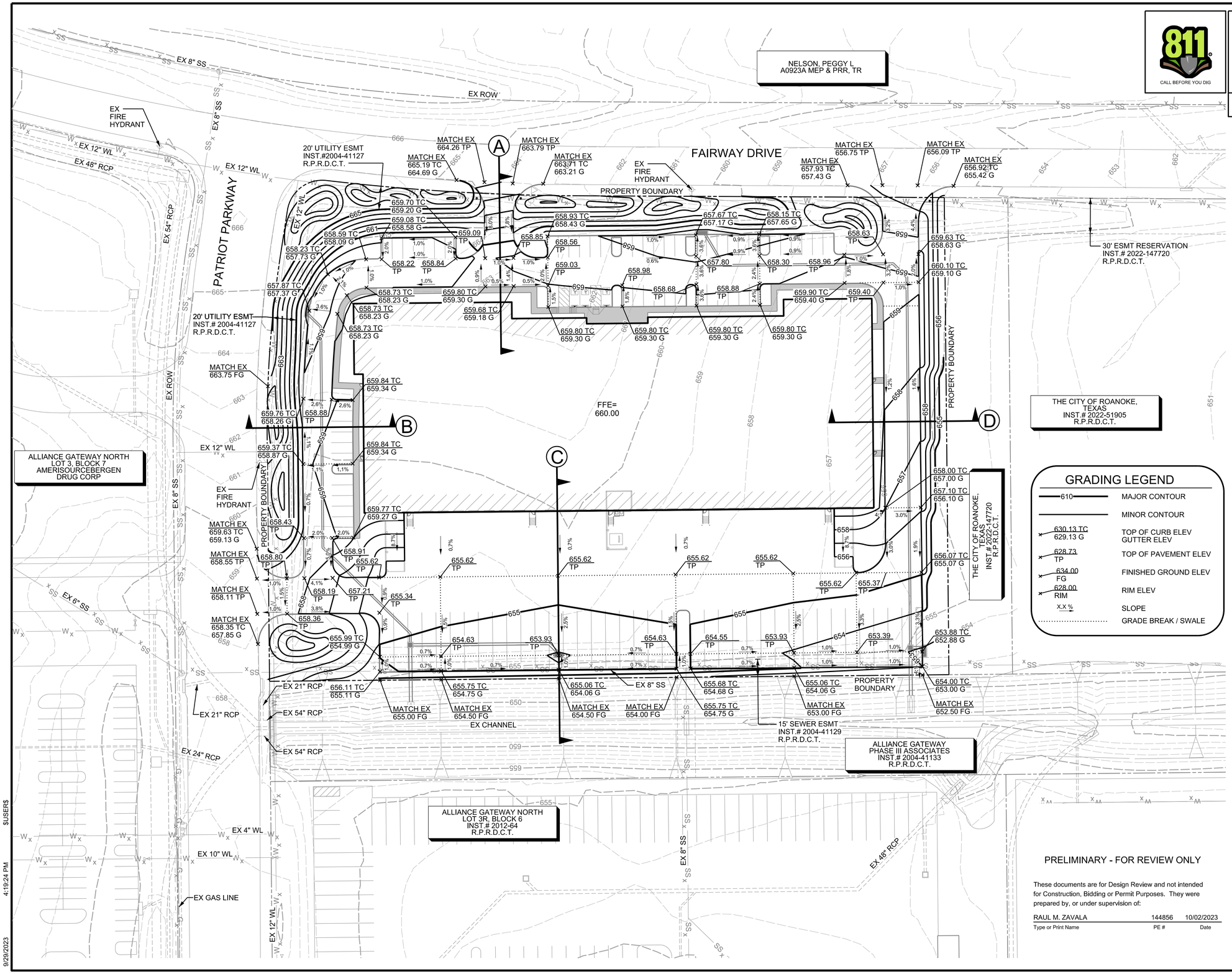
9/29/2023



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
TXU ELECTRIC DELIVERY	1-800-711-9112
CITY OF ROANOKE PUBLIC WORKS	817-491-6099

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION

PROJECT BENCHMARKS

BM NO. 1
X-CUT ON INLET, EAST SIDE OF PATRIOT PARKWAY, +/- 470 FEET SOUTH OF CENTERLINE OF FAIRWAY DRIVE.
ELEV. 658.22

BM NO. 2
X-CUT ON INLET, SOUTH SIDE OF FAIRWAY DRIVE, +/- 75 FEET WEST OF CENTERLINE OF PARK DRIVE
ELEV. 647.97

GRADING LEGEND

610	MAJOR CONTOUR
	MINOR CONTOUR
630.13 TC / 629.13 G	TOP OF CURB ELEV / GUTTER ELEV
628.73 / TP	TOP OF PAVEMENT ELEV
634.00 / FG	FINISHED GROUND ELEV
628.00 / RIM	RIM ELEV
X.X %	SLOPE
	GRADE BREAK / SWALE

NOTES:

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS & COORDINATES PRIOR TO CONSTRUCTION. CONTACT ENGINEER OF RECORD IF CONFLICTS EXIST.
2. COORDINATES SHOWN ARE NAD83 SURFACE.
3. ALL COORDINATES & DIMENSIONS ARE TO FACE OF CURB OR CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
4. MAX SITE SLOPES SHALL BE 4:1 UNLESS OTHERWISE NOTED.
5. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING.
6. REFER TO SHEETS C302 FOR CROSS SECTIONS.

N

0 40 80 120

GRAPHIC SCALE IN FEET

REV.	DATE	REMARKS

SPRUCE

GRADING PLAN

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS

9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

		DATE	PROJECT #	SHEET
DESIGNED:	AEJ	OCT 2023	BLC23002	C301
DRAWN:	AEJ			
CHECKED:	RMZ			

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RAUL M. ZAVALA 144856 10/02/2023
Type or Print Name PE # Date

$USER$ 4:19:24 PM 9/29/2023

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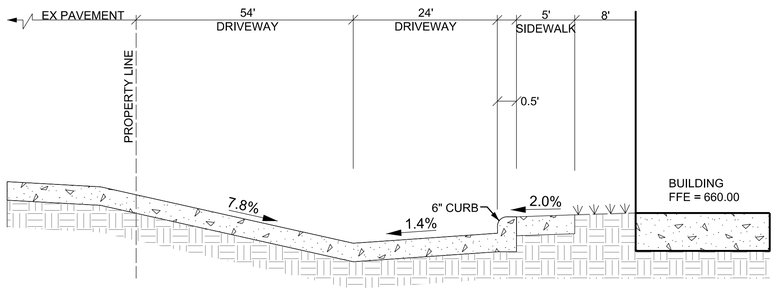

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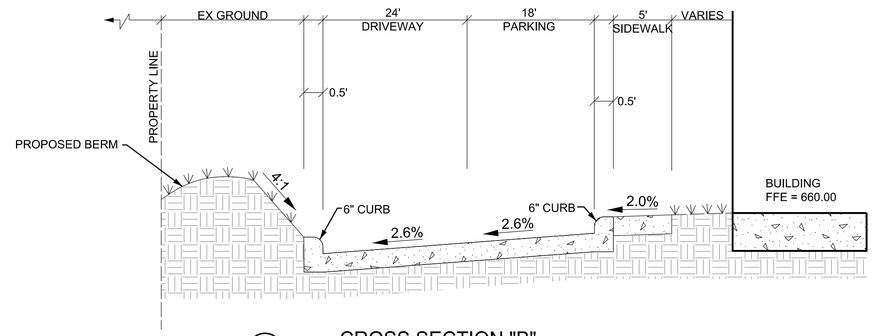
NOT TO SCALE



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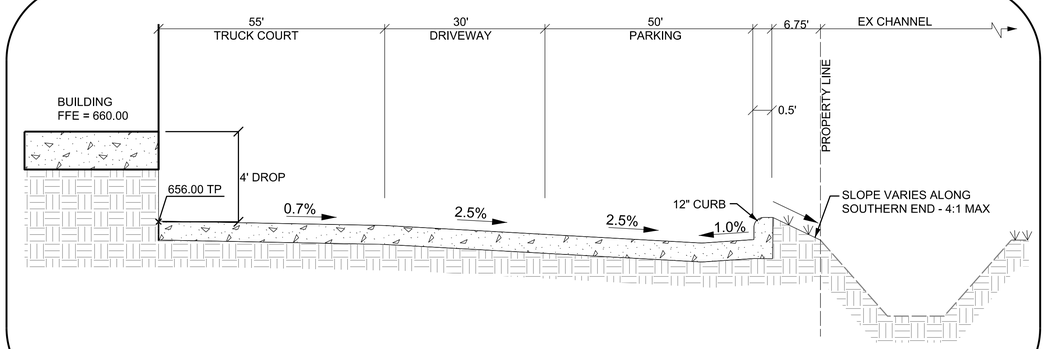

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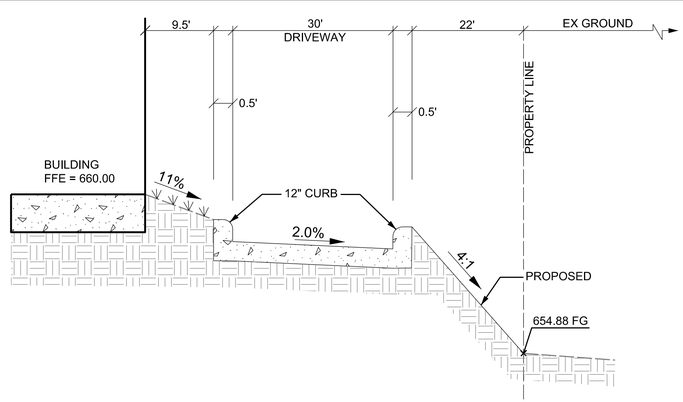

D CROSS SECTION "D"
NOT TO SCALE

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Type or Print Name	PE #	Date

REV.	DATE	REMARKS

SPRUCE

GRADING SECTIONS

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS

9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

DESIGNED: AEJ	DATE	PROJECT #	SHEET
DRAWN: AEJ	OCT 2023	BLC23002	C302
CHECKED: RMZ			

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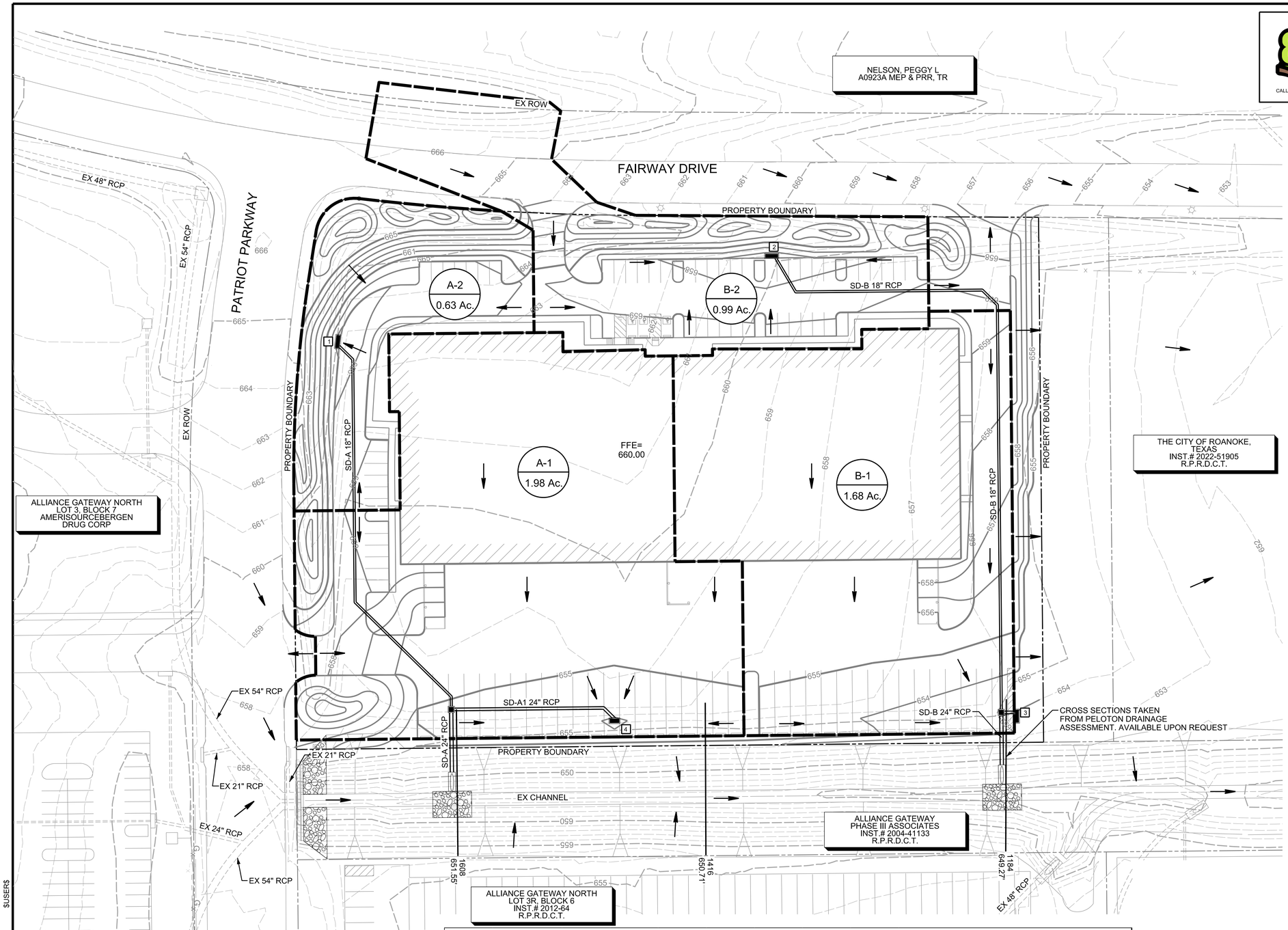

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
TXU ELECTRIC DELIVERY	1-800-711-9112
CITY OF ROANOKE PUBLIC WORKS	817-491-6099

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION

PROJECT BENCHMARKS

BM NO. 1
X-CUT ON INLET, EAST SIDE OF PATRIOT PARKWAY, +/- 470 FEET SOUTH OF CENTERLINE OF FAIRWAY DRIVE.
ELEV. 658.22

BM NO. 2
X-CUT ON INLET, SOUTH SIDE OF FAIRWAY DRIVE, +/- 75 FEET WEST OF CENTERLINE OF PARK DRIVE
ELEV. 647.97

DRAINAGE LEGEND

- PROPOSED DRAINAGE DIVIDE
- WATER SURFACE ELEVATION CROSS SECTION PER PELOTON DRAINAGE ASSESSMENT
- B-1 / 1.15 Ac. — DRAINAGE AREA DESIGNATION
- SURFACE FLOW ARROW
- 1 — INLET NUMBER

0 40 80 120
GRAPHIC SCALE IN FEET

PROJECT SPRUCE - PROPOSED CONDITION
RATIONAL METHOD RUNOFF CALCULATIONS

AREA NAME	AREA (ac.)	TC (min)	C	C*A	I5 (in/hr)	Q5 (cfs)	I100 (in/hr)	Q100 (cfs)	COMMENTS
1	2	3	4	5	6	7	8	9	
A1	1.98	10	0.90	1.78	5.75	10.25	9.24	16.46	DRAINS TO GRATE INLET #4
A2	0.63	10	0.90	0.57	5.75	3.26	9.24	5.24	DRAINS TO CURB INLET #1
B1	1.68	10	0.90	1.51	5.75	8.69	9.24	13.97	DRAINS TO CURB INLET #3
B2	0.99	10	0.90	0.89	5.75	5.10	9.24	8.19	DRAINS TO CURB INLET #2

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Type or Print Name — PE # — Date

REV.	DATE	REMARKS

SPRUCE

DRAINAGE AREA MAP - ULTIMATE

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

DESIGNED: AEJ	DATE	PROJECT #	SHEET
DRAWN: AEJ	OCT 2023	BLC23002	C402
CHECKED: RMZ			

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PROJECT SPRUCE - HYDRAULIC CALCULATIONS (FUTURE / ULTIMATE)

Runoff		Pipe	Drainage Area						Time of Concentration								Q100 YR	Q100 YR	Q100 YR			Box Culvert							Head Loss Calculations								Invert Elevation			Comments
Design Point		Length	Incremental		Total	Runoff	Incr.	Total	Inlet	Travel	Total	I5 YR	I100 YR	Q5 YR	Q100 YR	Desgin	Inlet	Inlet	Inc.	Q	Storm	No. of	Storm	Storm	Manning	Hydr	Hydraulic Grade							Head Loss	Design	Dwnstrm	Upstrm	TC / FG	
Upstrm	Dwnstrm	Between	Area	Area	Area	Coeff			Time	Time	Time	Intensity	Intensity	Runoff	Runoff	Storm	Bypass	Carryover	Delta	in Pipe	Pipe	SD	Drain	Drain	n	Grade	Line Elevation		V1	V2			Loss		at Structure	HGL			Elev	
Station	Station	Points	No.	(Acres)	(Acres)				(min.)	(min.)	(min.)	"I"	"I"	"Q"	"Q"		"Q"	"Q"	"Q"	"Q"	Diameter	Spans	Width	Heigth	Value	"Sf"	Dwnstrm	Upstrm	Flow (In)	Flow (Out)	V1^2 / 2g	V2^2 / 2g	Coeff	KjV1^2 / 2g	"Hk"	Elevation				
				"A"	"A"	"C"	"CA"	"CA"				(in./hr)	(in./hr)	(c.f.s.)	(c.f.s.)		(c.f.s.)	(c.f.s.)	(c.f.s.)	(c.f.s.)	(in.)		(ft)	(ft)		(ft./ft.)			(f.p.s.)	(f.p.s.)	(feet)	(feet)	(Kj)	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		17	17a	17b	18	19	19a	19b	19c	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	
STORM DRAIN SD-A																																								
03+79.66	03+64.88	14.78	A2	0.63	0.63	0.90	0.57	0.57	10.00	-	10.00	5.75	9.24	3.26	5.24	**100 yr**	-	-	-	5.24	18	1			0.013	0.0100	653.75	653.75		5.95		0.55	1.25		0.69	654.43	652.55	652.70	657.87	
03+64.88	01+77.24	187.63		-	0.63	-	-	0.57	-	0.04	10.04	5.75	9.24	3.26	5.24	**100 yr**	-	-	-	5.24	18	1			0.013	0.0025	653.18	653.65	5.95	2.96	0.55	0.14	0.35	0.19	0.10	653.75	650.67	652.55	657.74	
01+77.24	00+73.30	103.94		-	0.63	-	-	0.57	-	1.06	11.10	5.75	9.24	3.26	5.24	**100 yr**	-	-	-	5.24	18	1			0.013	0.0025	652.82	653.08	2.96	2.96	0.14	0.14	0.35	0.05	0.10	653.18	649.63	650.67	658.26	
00+73.30	00+63.30	10.00		-	0.63	-	-	0.57	-	0.59	11.68	5.75	9.24	3.26	5.24	**100 yr**	-	-	-	5.24	18	1			0.013	0.0025	652.70	652.72	2.96	2.96	0.14	0.14	0.35	0.05	0.10	652.82	649.53	649.63	654.75	
00+63.30	00+00.00	63.30	A1	1.98	2.61	0.90	1.78	2.35	10.00	0.06	11.74	5.40	8.72	12.68	20.49	**100 yr**	-	-	-	20.49	24	1			0.013	0.0082	**651.55**	652.07	2.96	6.52	0.14	0.66	0.25	0.03	0.63	652.70	647.00	649.53	654.96	STARTING HGL TAKEN FROM CROSS SECTION 1608
STORM DRAIN LINE SD-B																																								
05+61.34	05+30.74	30.60	B2	0.99	0.99	0.90	0.89	0.89	10.00	-	10.00	5.75	9.24	5.10	8.19	**100 yr**	-	-	-	8.19	18	1			0.013	0.0065	652.74	652.74		5.50		0.47	1.25		0.59	653.32	651.30	651.50	657.67	
05+30.74	03+86.59	144.15		-	0.99	-	-	0.89	-	0.09	10.09	5.75	9.24	5.10	8.19	**100 yr**	-	-	-	8.19	18	1			0.013	0.0065	652.54	652.54	5.50	5.50	0.47	0.47	0.43	0.20	0.20	652.74	650.36	651.30	658.20	
03+86.59	03+70.25	16.34		-	0.99	-	-	0.89	-	0.44	10.53	5.75	9.24	5.10	8.19	**100 yr**	-	-	-	8.19	18	1			0.013	0.0061	652.38	652.38	5.50	5.29	0.47	0.43	0.35	0.16	0.15	652.54	650.26	650.36	658.80	
03+70.25	00+55.31	314.94		-	0.99	-	-	0.89	-	0.05	10.58	5.75	9.24	5.10	8.19	**100 yr**	-	-	-	8.19	18	1			0.013	0.0061	650.35	652.27	5.29	4.63	0.43	0.33	0.35	0.15	0.12	652.38	648.21	650.26	659.11	
00+55.31	00+00.00	55.31	B1	1.68	2.67	0.90	1.51	2.40	10.00	1.13	11.72	5.40	8.73	12.96	20.94	**100 yr**	-	-	-	20.94	24	1			0.013	0.0086	**649.27**	649.74	4.63	6.67	0.33	0.69	0.25	0.08	0.61	650.35	646.00	648.21	653.10	STARTING HGL TAKEN FROM CROSS SECTION 1184
STORM DRAIN LINE SD-A1																																								
01+29.44	01+17.77	11.67	A1	1.98	1.98	0.90	1.78	1.78	10.00	-	10.00	5.75	9.24	10.25	16.46	**100 yr**	-	-	-	16.46	24	1			0.013	0.0053	653.47	653.53		5.24		0.43	0.00		0.10	653.63	650.95	651.09	653.93	
01+17.77	00+00.00	117.77		-	1.98	-	-	1.78	-	0.04	10.04	5.75	9.24	10.25	16.46	**100 yr**	-	-	-	16.46	24	1			0.013	0.0053	***652.70***	653.32	5.24	5.24	0.43	0.43	0.35	0.15	0.15	653.47	649.53	650.95		
STORM DRAIN LINE SD-B1																																								
00+10.50	00+00.00	10.50	B1	1.68	1.68	0.90	1.51	1.51	10.00	-	10.00	5.75	9.24	8.69	13.97	**100 yr**	-	-	-	13.97	21	1			0.013	0.0200	***650.36***	650.36	0.00	9.84	0.00	1.50	1.25	0.00	1.88	652.24	648.21	648.42	653.88	

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Type or Print Name PE # Date

REV.	DATE	REMARKS

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HYDRAULIC CALCS

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

DESIGNED: AEJ	DATE	PROJECT #	SHEET
DRAWN: AEJ	OCT 2023	BLC23002	C403
CHECKED: RMZ			

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NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
TXU ELECTRIC DELIVERY	1-800-711-9112
CITY OF ROANOKE PUBLIC WORKS	817-491-6099

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION

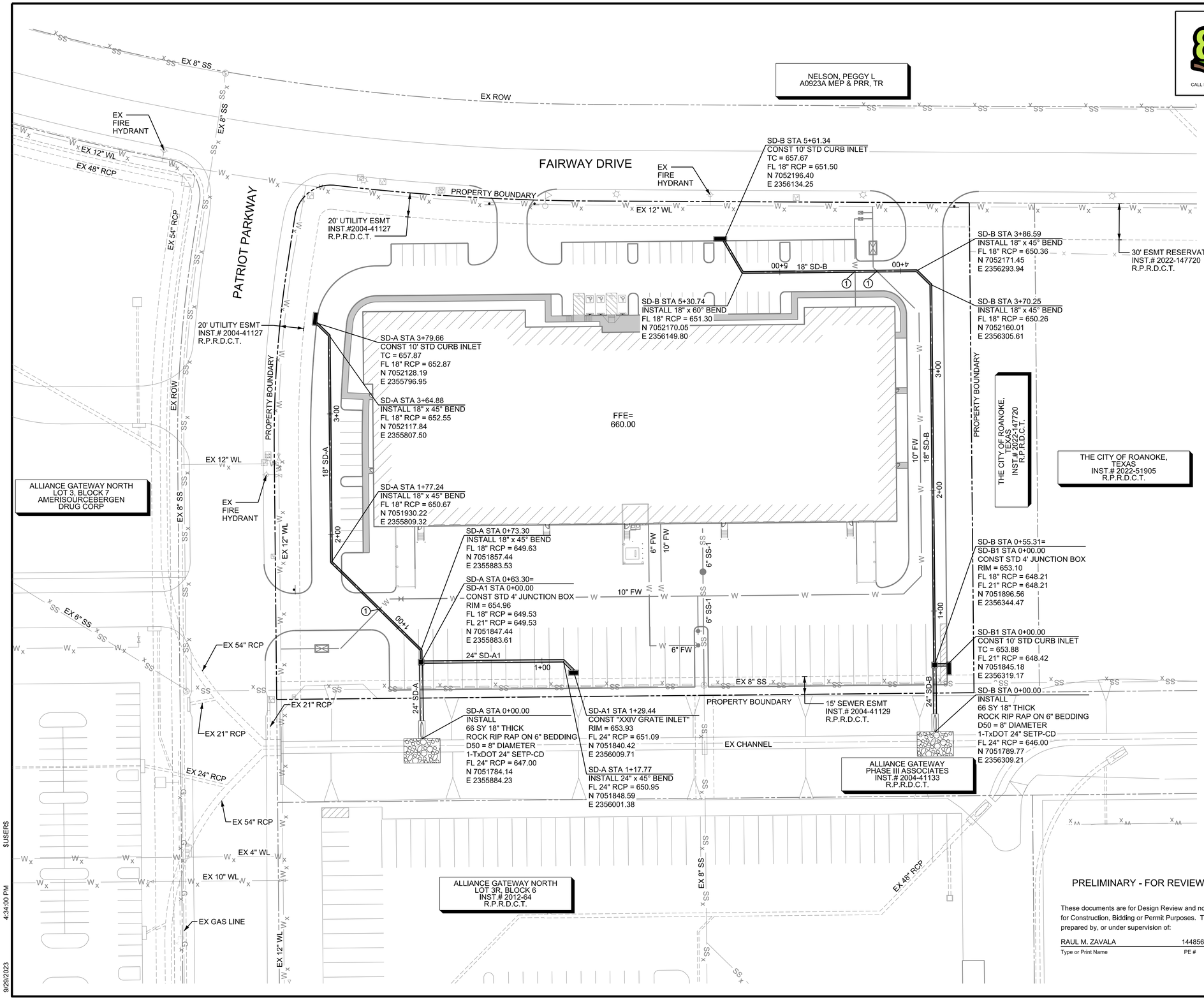
PROJECT BENCHMARKS

BM NO. 1
X-CUT ON INLET, EAST SIDE OF PATRIOT PARKWAY, +/- 470 FEET SOUTH OF CENTERLINE OF FAIRWAY DRIVE.
ELEV. 658.22

BM NO. 2
X-CUT ON INLET, SOUTH SIDE OF FAIRWAY DRIVE, +/- 75 FEET WEST OF CENTERLINE OF PARK DRIVE
ELEV. 647.97

LEGEND

- RCP STORM PIPE
- EX RCP STORM PIPE
- STORM DRAIN CURB INLET
- GRATE INLET
- UTIILITY CROSSING
- PROPOSED RIP RAP



0 40 80 120
GRAPHIC SCALE IN FEET

REV.	DATE	REMARKS

SPRUCE

STORM PLAN

ROANOKE, DENTON COUNTY, TEXAS

PRELIMINARY - FOR REVIEW ONLY

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RAUL M. ZAVALA 144856 10/02/2023
Type or Print Name PE # Date

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

		DATE	PROJECT #	SHEET
DESIGNED:	AEJ	OCT 2023	BLC23002	C404
DRAWN:	AEJ			
CHECKED:	RMZ			

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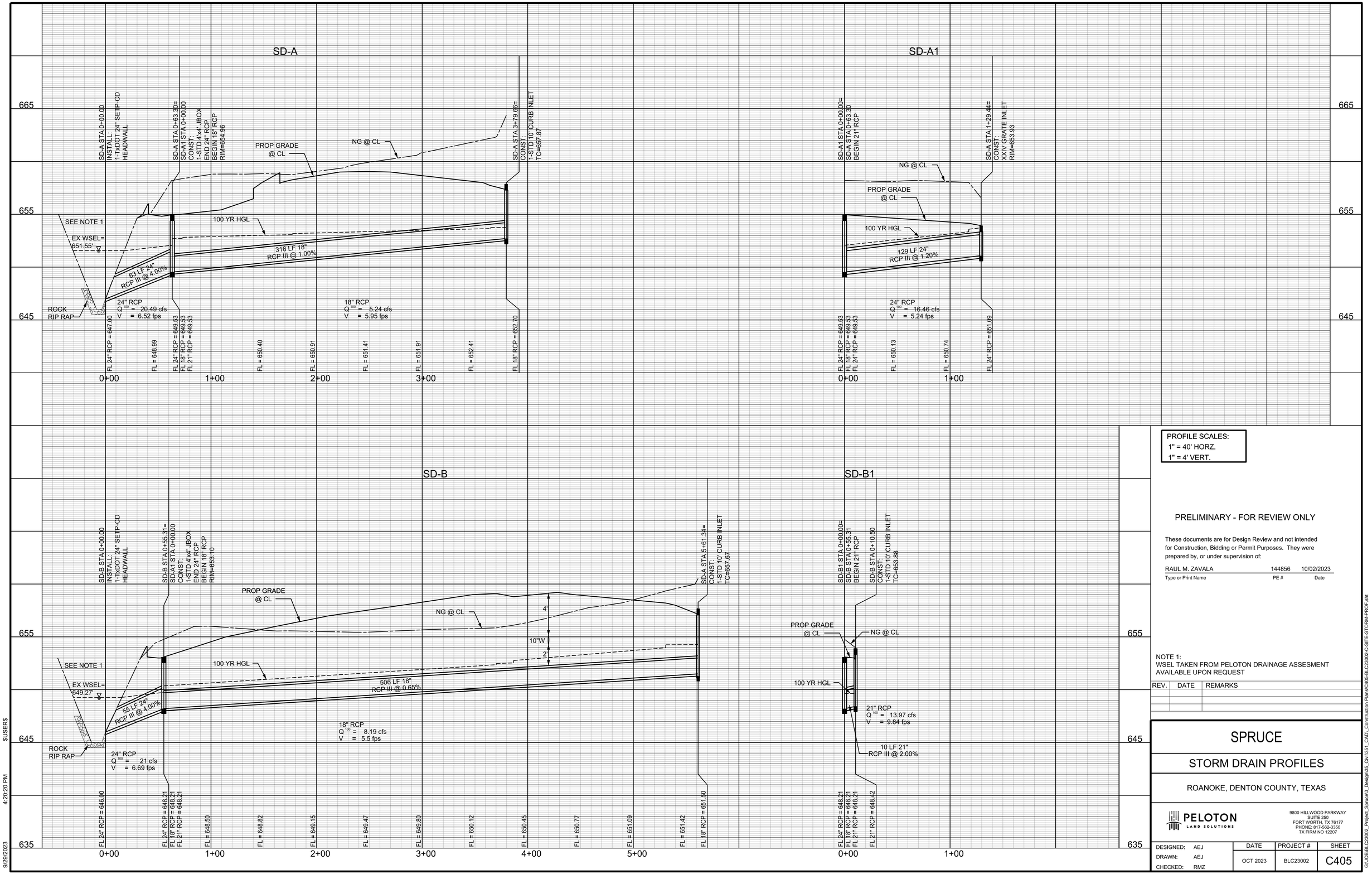

PROFILE SCALES:
1" = 40' HORZ.
1" = 4' VERT.

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RAUL M. ZAVALA	144856	10/02/2023
Type or Print Name	PE #	Date

NOTE 1:
WSEL TAKEN FROM PELOTON DRAINAGE ASSESMENT AVAILABLE UPON REQUEST

REV.	DATE	REMARKS

SPRUCE

STORM DRAIN PROFILES

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

DESIGNED: AEJ	DATE	PROJECT #	SHEET
DRAWN: AEJ	OCT 2023	BLC23002	C405
CHECKED: RMZ			

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9/29/2023 4:20:20 PM
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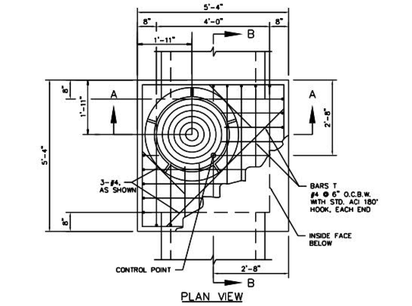
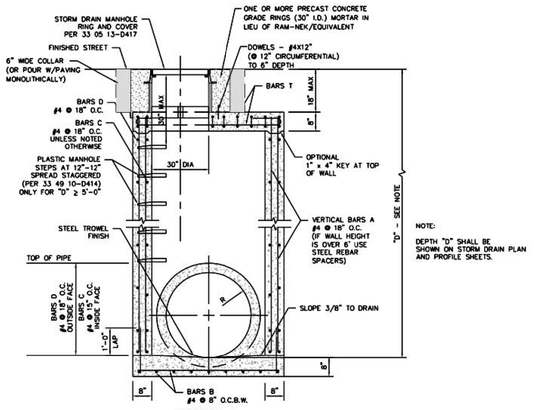
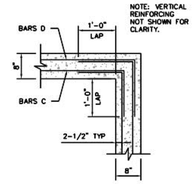


PLAN VIEW

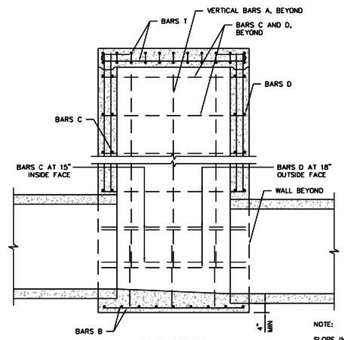


SECTION A

NOTE:
DEPTH "D" SHALL BE SHOWN ON STORM DRAIN PLAN AND PROFILE SHEETS.



CORNER DETAIL



SECTION B

NOTE:
SLOPE INVERT OF MANHOLE AS SHOWN ON STORM DRAIN PLAN AND PROFILE SHEETS.

NOTES:

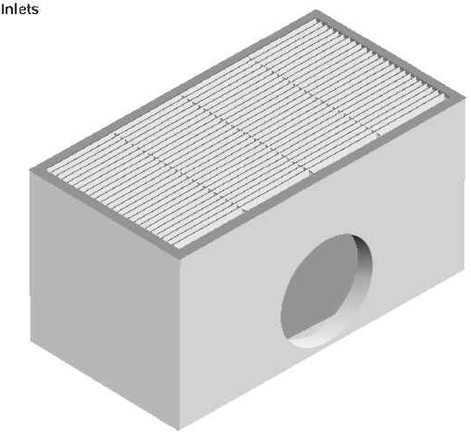
1. MATERIALS AND WORKMANSHIP SHALL CONFORM WITH THE REQUIREMENTS OF CITY OF FORT WORTH STANDARD SPECIFICATION 33 49 10, CAST-IN-PLACE STORM DRAIN MANHOLES AND JUNCTION BOXES.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH f'c = 3,000 PSI AT 28 DAYS.
3. ALL REINFORCING STEEL SHALL BE GRADE 60.
4. ALL REINFORCING STEEL SHALL HAVE MINIMUM 2" COVER TO CENTER OF BAR, UNLESS NOTED OTHERWISE.
5. ALL DIMENSIONS RELATING TO REINFORCING ARE TO CENTER OF BARS.
6. LOCATION OF STRUCTURE AS SHOWN IN PLANS REFERS TO CONTROL POINT SHOWN ON THIS DETAIL.
7. FIELD CUT AND BEND BARS AS NECESSARY TO ACCOMMODATE STORM DRAIN PIPE PER TYPICAL MANHOLE / PIPE PENETRATION DETAIL (33 49 10-D415).
8. MAXIMUM PIPE INSIDE DIAMETER FOR WALL PENETRATIONS.
9. SONO TUBE OR EQUIVALENT MAY BE USED IN LIEU OF GRADE RINGS. WHERE APPLICABLE, DOWELS IN BOX TOP #4X12" (@12" CIRCUMFERENTIAL, CENTERED UNDER RING AREA; PRECLUDES 6" COLLAR AROUND GRADE RINGS.

JUNCTION BOX SIZE	DIAMETER
4' SQUARE	36"
5' SQUARE	48"
6' SQUARE	60"

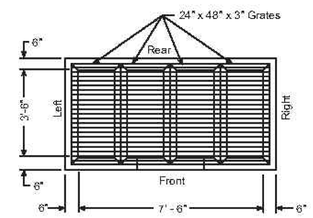
STANDARD 4' SQUARE JUNCTION BOX

33 49 10-D409

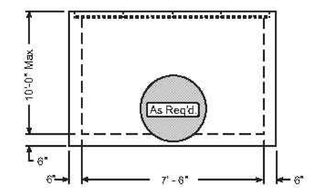
TXDOT Grate Inlets



Isometric View



Plan View



Front View

Materials & Features
CONCRETE: 5,000 PSI
REINFORCING: per ASTM A-615 or A-185
H-20 LOADING

-No Scale-
All dimensions subject to allowable specification tolerances.

TITLE	PLANT	STATE	SECTION/PAGE	DATE	
Type "XXIV" Drop Inlet 3' - 6" x 7' - 6"	Grand Prairie Houston	TX	15.50	Feb 2016	FORTERRA

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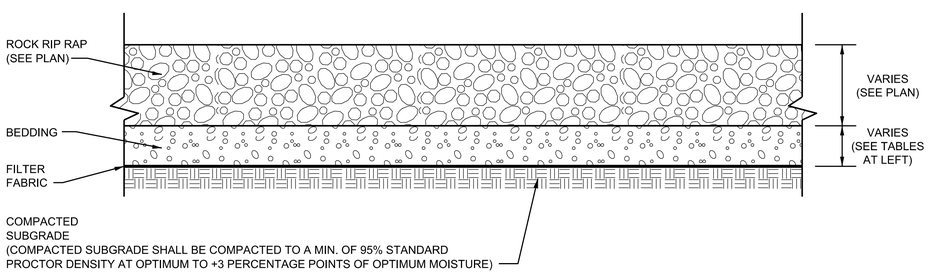
RAUL M. ZAVALA — 144856 — 10/02/2023
Type or Print Name — PE # — Date

RIPRAP GRADATIONS	
12" THICKNESS OF RIPRAP	
SIEVE SIZE SQUARE MESH	PERCENT PASSING
15 INCH	100
12 INCH	70-100
8 INCH	45-75
6 INCH	30-55
3 INCH	10-30
1-1/2 INCH	0-10

RIPRAP GRADATIONS	
18" THICKNESS OF RIPRAP	
SIEVE SIZE SQUARE MESH	PERCENT PASSING
21 INCH	100
18 INCH	65-100
12 INCH	35-65
8 INCH	15-40
6 INCH	5-25
4 INCH	0-15

BEDDING GRADATIONS	
6" THICKNESS OF BEDDING	
SIEVE SIZE SQUARE MESH	PERCENT PASSING
3 INCH	100
1-1/2 INCH	55-100
3/4 INCH	25-60
3/8 INCH	5-30
No. 4	0-10



ROCK RIPRAP TYPICAL SECTION

NOT TO SCALE

REV.	DATE	REMARKS

SPRUCE

STORM DETAILS

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

DESIGNED: AEJ	DATE	PROJECT #	SHEET
DRAWN: AEJ	OCT 2023	BLC23002	C407
CHECKED: RMZ			

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9/29/2023
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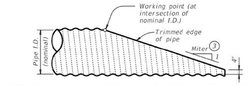


NOTE: All pipe runners, calculations, and dimensions are based on the pipe culverts mitered as shown in this detail. Alternate styles of mitered ends will require that appropriate adjustments be made to the values presented on this standard.

SIDE ELEVATION OF TYPICAL PIPE CULVERT MITER

(Showing corrugated metal pipe (CMP) culvert. Details of reinforced concrete pipe (RCP) culvert are similar.)

CROSS PIPE LENGTHS AND PIPE RUNNER LENGTHS (1)(2)

Nominal Culvert I.D.	Pipe Culvert Spa ~ G	Cross Pipe Length	Pipe Runner Length											
			3:1 Side Slope				4:1 Side Slope				6:1 Side Slope			
			0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew
24"	1'-7"	6'-5"	N/A	N/A	N/A	5'-10"	N/A	N/A	N/A	8'-1"	N/A	N/A	N/A	12'-9"
27"	1'-8"	3'-8"	N/A	N/A	5'-5"	6'-11"	N/A	N/A	7'-7"	9'-7"	N/A	N/A	11'-11"	14'-11"
30"	1'-10"	3'-11"	N/A	N/A	6'-4"	8'-0"	N/A	N/A	8'-9"	11'-0"	N/A	N/A	13'-8"	17'-0"
33"	1'-11"	4'-2"	6'-2"	6'-5"	7'-3"	9'-1"	8'-6"	8'-10"	10'-0"	12'-5"	13'-3"	13'-9"	15'-5"	19'-2"
36"	2'-1"	4'-5"	6'-11"	7'-2"	8'-2"	10'-2"	9'-6"	9'-11"	11'-2"	13'-10"	14'-9"	15'-3"	17'-2"	21'-3"
42"	2'-4"	4'-11"	8'-6"	8'-10"	9'-11"	12'-4"	11'-7"	12'-0"	13'-6"	16'-8"	17'-9"	18'-5"	20'-8"	25'-7"
48"	2'-7"	5'-5"	10'-1"	10'-5"	11'-9"	N/A	13'-7"	14'-2"	15'-10"	N/A	20'-9"	21'-6"	24'-2"	N/A
54"	3'-0"	5'-11"	11'-8"	12'-1"	N/A	N/A	15'-8"	16'-3"	N/A	N/A	23'-10"	24'-8"	N/A	N/A
60"	3'-3"	6'-5"	13'-3"	N/A	N/A	N/A	17'-9"	N/A	N/A	N/A	26'-10"	N/A	N/A	N/A

TYPICAL PIPE CULVERT MITERS (3)

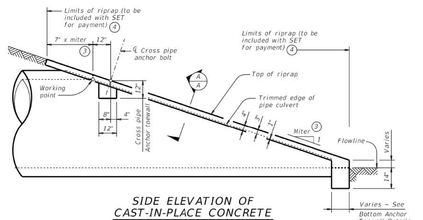
Side Slope	0° Skew	15° Skew	30° Skew	45° Skew
3:1	3:1	3.106:1	3.464:1	4.243:1
4:1	4:1	4.141:1	4.619:1	5.657:1
6:1	6:1	6.212:1	6.928:1	8.485:1

CONDITIONS WHERE PIPE RUNNERS ARE NOT REQUIRED (2)

Nominal Culvert I.D.	Single Pipe Culvert	Multiple Pipe Culverts
12" thru 21"	Skews thru 45°	Skews thru 45°
24"	Skews thru 45°	Skews thru 30°
27"	Skews thru 30°	Skews thru 15°
30"	Skews thru 15°	Skews thru 15°
33"	Skews thru 15°	Always required
36"	Normal (no skew)	Always required
42" thru 60"	Always required	Always required

STANDARD PIPE SIZES AND MAX PIPE RUNNER LENGTHS (1)

Pipe Size	Pipe O.D.	Pipe I.D.	Max Pipe Runner Length
2" STD	2.375"	2.067"	N/A
3" STD	3.500"	3.068"	10'-0"
4" STD	4.500"	4.026"	19'-8"
5" STD	5.563"	5.047"	34'-2"

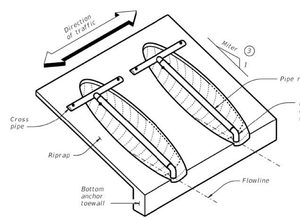


SIDE ELEVATION OF CAST-IN-PLACE CONCRETE

(Showing reinforced concrete pipe (RCP) culvert. Details of corrugated metal pipe (CMP) culvert are similar. Pipe runners not shown for clarity)

ESTIMATED CONCRETE RIPRAP QUANTITIES (CY) (5)

Nominal Culvert I.D.	3:1 Side Slope				4:1 Side Slope				6:1 Side Slope			
	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew
12"	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.7	0.8
15"	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.9
18"	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.9	1.0
21"	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.9	0.9	0.9	1.0	1.2
24"	0.6	0.7	0.7	0.8	0.8	0.8	0.8	1.0	1.0	1.0	1.1	1.3
27"	0.7	0.7	0.8	0.9	0.8	0.9	0.9	1.1	1.1	1.1	1.2	1.4
30"	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.2	1.2	1.2	1.3	1.6
33"	0.8	0.8	0.9	1.0	1.0	1.0	1.1	1.3	1.3	1.4	1.5	1.7
36"	0.9	0.9	0.9	1.1	1.1	1.1	1.2	1.4	1.4	1.5	1.6	1.8
42"	1.0	1.0	1.1	1.3	1.2	1.3	1.3	1.6	1.6	1.7	1.8	2.1
48"	1.1	1.1	1.2	N/A	1.4	1.4	1.5	N/A	1.9	1.9	2.1	N/A
54"	1.3	1.3	N/A	N/A	1.6	1.6	N/A	N/A	2.1	2.1	N/A	N/A
60"	1.4	N/A	N/A	N/A	1.7	N/A	N/A	N/A	2.3	N/A	N/A	N/A



ISOMETRIC VIEW OF TYPICAL INSTALLATION

(Showing installation with no skew.)

(1) Provide pipe runner of the size shown in the tables. Provide cross pipe of the same size as the pipe runner. Provide cross pipe stub out and bottom anchor pipe of the next smaller size pipe as shown in the Standard Pipe Sizes and Max Pipe Runner Lengths table.

(2) This standard allows for the placement of only one pipe runner across each culvert pipe opening. In order to limit the clear opening to be traversed by an errant vehicle, the following conditions must be met:

For 60" culvert pipes, the skew must not exceed 0°.
For 54" culvert pipes, the skew must not exceed 15°.
For 48" culvert pipes, the skew must not exceed 30°.
For all culvert pipe sizes 42" and less, the skew must not exceed 45°.

If the above conditions cannot be met, the designer should consider using a safety end treatment with flared wings. For further information, refer to the TxDOT Roadway Design Manual.

(3) Miter = slope of mitered end of pipe culvert.

(4) Riprap placed beyond the limits shown will be paid for as concrete riprap in accordance with Item 432, "Riprap."

(5) Quantities shown are for one end of one reinforced concrete pipe (RCP) culvert. For multiple pipe culverts or for corrugated metal pipe (CMP) culverts, quantities will need to be adjusted. Riprap quantities are for Contractor's information only.

SHEET 1 OF 2

Texas Department of Transportation | Bridge Division Standard

SAFETY END TREATMENT
FOR 12" DIA TO 60" DIA PIPE CULVERTS
TYPE II ~ CROSS DRAINAGE
SETP-CD

FILE: CD-SETP-CD-20.dgn | DN: CAT | CK: CAT | DW: JRP | CK: CAT
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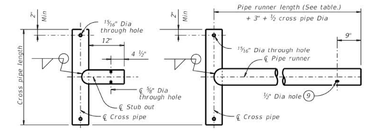
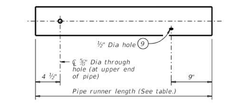


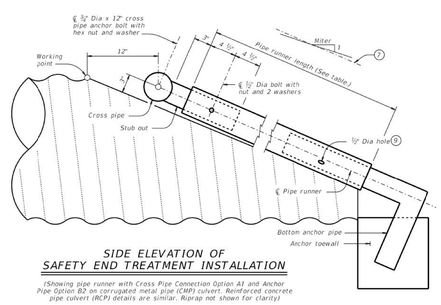
OPTION A1 | OPTION A2

CROSS PIPE AND CONNECTIONS DETAILS



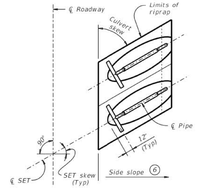
NOTE: The separate pipe runner shown is required when Cross Pipe Connection Option A1 is used.

PIPE RUNNER DETAILS

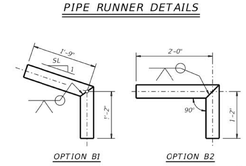


SIDE ELEVATION OF SAFETY END TREATMENT INSTALLATION

(Showing pipe runner with Cross Pipe Connection Option A1 and Anchor Pipe Option B2 on corrugated metal pipe (CMP) culvert. Reinforced concrete pipe culvert (RCP) details are similar. Riprap not shown for clarity)

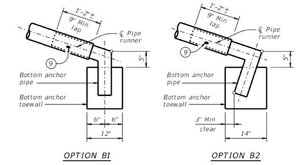


PLAN OF SKEWED INSTALLATION



OPTION B1 | OPTION B2

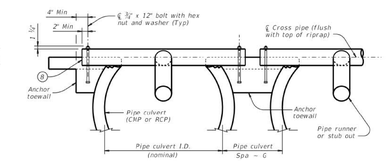
BOTTOM ANCHOR PIPE DETAILS (10)



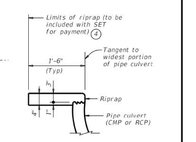
OPTION B1 | OPTION B2

BOTTOM ANCHOR TOEWALL DETAILS

(Culvert and riprap not shown for clarity.)



SHOWING CROSS PIPE AND ANCHOR TOEWALL



SHOWING TYPICAL PIPE CULVERT AND RIPRAP

SECTION A-A

(4) Riprap placed beyond the limits shown will be paid for as concrete riprap in accordance with Item 432, "Riprap."

(6) Recommended values of side slope are 3:1, 4:1, and 6:1. All quantities, calculations, and dimensions shown herein are based on these recommended values. Slope of 3:1 or flatter is required for vehicle safety.

(7) Note that actual slope of pipe runner may vary slightly from side slope of riprap and trimmed culvert pipe edge.

(8) Ensure that riprap concrete does not flow into the cross pipe so as to permit disassembly of the bolted connection to allow cleanout access.

(9) After installation, inspect the ½" hole to ensure that the lap of the pipe runner with the bottom anchor pipe is adequate.

(10) At fabricator's option, a heat bend to a smooth 5" radius or a manufactured elbow (of the same material as the runner) may be substituted for the mitered and welded joint in the bottom anchor pipe.

MATERIAL NOTES:

Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise.

Provide pipe runners, cross pipes, and anchor pipes conforming to the requirements of ASTM A53 (Type E or S, Gr B), ASTM A500 Gr B, or API 5LX52.

Provide ASTM A307 bolts and nuts.

Galvanize all steel components, except concrete reinforcing, after fabrication.

Repair galvanizing damaged during transport or construction in accordance with the specifications.

GENERAL NOTES:

Pipe runners are designed for a traversing load of 1,800 pounds at yield as recommended by Research Report 280-1, "Safety Treatment of Roadside Cross-Drainage Structures", Texas Transportation Institute, March 1981.

Safety end treatments (SET) shown herein are intended for use in those installations where out of control vehicles are likely to traverse the openings approximately perpendicular to the pipe runners.

Payment for riprap and toewall is included in the price bid for each safety end treatment.

Construct concrete riprap and all necessary inverts in accordance with the requirements of Item 432, "Riprap."

SHEET 2 OF 2

Texas Department of Transportation | Bridge Division Standard

SAFETY END TREATMENT
FOR 12" DIA TO 60" DIA PIPE CULVERTS
TYPE II ~ CROSS DRAINAGE
SETP-CD

FILE: CD-SETP-CD-20.dgn | DN: CAT | CK: CAT | DW: JRP | CK: CAT
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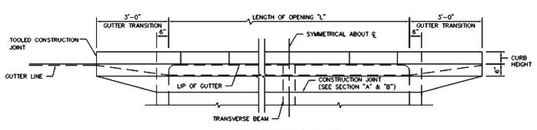
REVISIONS | DIST | COUNTY | SHEET NO.

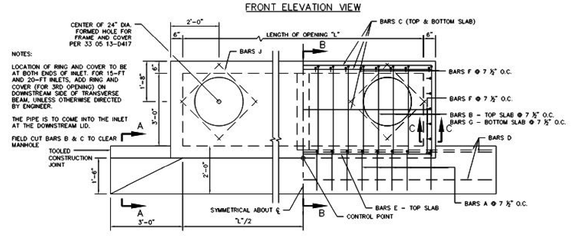
NOTES TO DESIGNER:

FOR INLET DEPTH "D" GREATER THAN 10'-0", DESIGNER IS REQUIRED TO PROVIDE SPECIAL DETAIL.

FOR INLET WIDTH "L" GREATER THAN 20'-0", DESIGNER IS REQUIRED TO PROVIDE SPECIAL DETAIL.



FRONT ELEVATION VIEW



NOTES:

LOCATION OF RING AND COVER TO BE AT BOTH ENDS OF INLET. FOR 15-FT AND 20-FT INLETS, ADD RING AND COVER (FOR 3RD OPENING) ON DOWNSTREAM SIDE OF TRANSVERSE BEAM, UNLESS OTHERWISE DIRECTED BY ENGINEER.

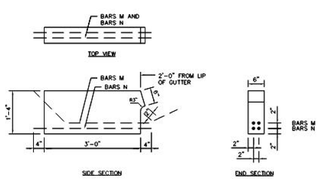
THE PIPE IS TO COME INTO THE INLET AT THE DOWNSTREAM LID.

FIELD CUT BARS B & C TO CLEAR MANHOLE

PLAN VIEW

INLET SIZE	# OF INLET OPENINGS
10'	2
15'	3
20'	3

NUMBER OF INLET OPENINGS

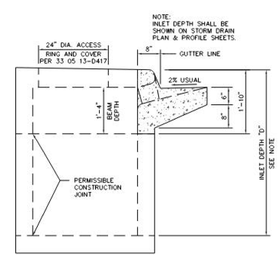


TRANSVERSE BEAM DETAIL
(FOR 15' AND 20' INLETS)

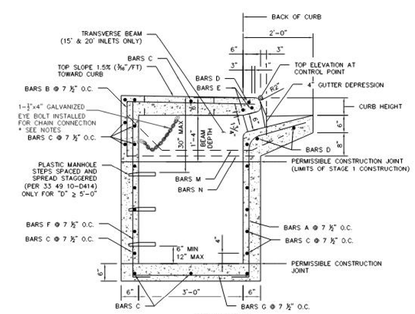
NOTES:

1. MATERIALS AND WORKMANSHIP SHALL CONFORM WITH THE REQUIREMENTS OF CITY OF FORT WORTH STANDARD SPECIFICATION 33 49 20, CURB AND DROP INLETS.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH f'c = 3,000 PSI AT 28 DAYS.
3. ALL REINFORCING STEEL SHALL BE GRADE 60.
4. CHAMFER ALL EXPOSED EDGES ¾" EXCEPT WHERE OTHERWISE NOTED.
5. ALL REINFORCING STEEL SHALL HAVE MINIMUM 2" COVER TO CENTER OF BAR, UNLESS OTHERWISE NOTED.
6. ALL DIMENSIONS RELATING TO REINFORCING ARE TO CENTER OF BARS.
7. LOCATION OF STRUCTURE AS SHOWN IN PLANS REFERS TO CONTROL POINT AT THE FACE OF CURB AND MID-POINT OF THE INLET, AS SHOWN ON THIS DETAIL.
8. FIELD CUT AND BEND BARS AS NECESSARY TO ACCOMMODATE STORM DRAIN PIPE PER TYPICAL MANHOLE / PIPE PENETRATION DETAIL (33 49 10-D415).
9. A TOOLED CONSTRUCTION JOINT SHALL BE PLACED ALONG ALL VERTICAL FACES ABUTTING CONCRETE PAVEMENT.
10. STANDARD INLET DEPTH "D" FOR NEW CONSTRUCTION SHALL BE 4'-0" AT UPPER END, AND 4'-9" AT OUTLET END. OTHER DEPTHS MAY BE USED BASED ON PROJECT SPECIFIC CONDITIONS. MINIMUM 2% FALL SHALL BE USED IN ALL CASES.
11. CONTRACTOR TO PLACE THE REVERSIBLE RING WITH FLANGE ON TOP.

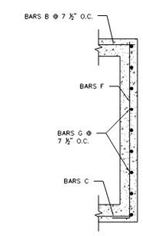
STANDARD STORM DRAIN INLET (SHEET 1 OF 2)



SECTION A



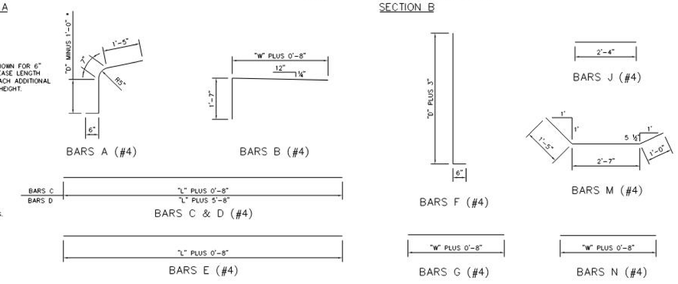
SECTION B



SECTION C

* NOTE: DIMENSION SHOWN FOR 6" CURB. INCREASE LENGTH BY 1" FOR EACH ADDITIONAL 1" OF CURB HEIGHT.

* NOTES:
1. CONNECT EYE BOLT TO INLET WALL ADJACENT TO CENTER OF MANHOLE LID
2. CONNECT EYE BOLT 18" BELOW TOP OF BOX
3. 3/8" HARDENED IRON CAST CHAIN SQUARE SHAPED TO RESIST CUTTING.
4. CHAIN LENGTH OF 3 1/2' ALLOWS GRATE LIDS TO BE SET ASIDE TO ACCESS CATCH BASIN.



STANDARD STORM DRAIN INLET (SHEET 2 OF 2)

PRELIMINARY - FOR REVIEW ONLY

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RAUL M. ZAVALA | 144856 | 10/02/2023
Type or Print Name | PE # | Date

REV.	DATE	REMARKS

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STORM DETAILS
ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

DESIGNED: AEJ	DATE	PROJECT #	SHEET
DRAWN: AEJ	OCT 2023	BLC23002	C408
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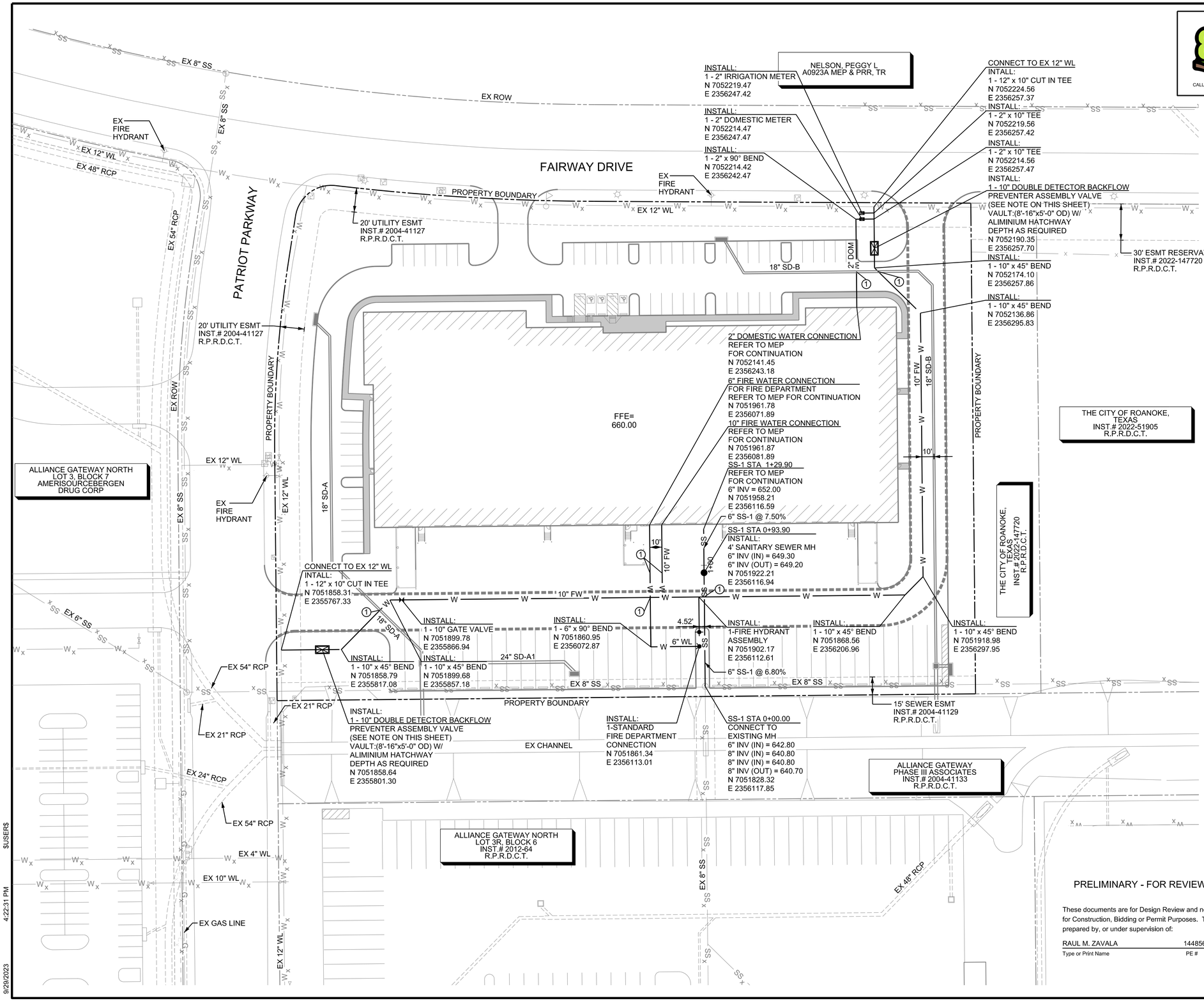

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
TXU ELECTRIC DELIVERY	1-800-711-9112
CITY OF ROANOKE PUBLIC WORKS	817-491-6099

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION

PROJECT BENCHMARKS

BM NO. 1
X-CUT ON INLET, EAST SIDE OF PATRIOT PARKWAY, +/- 470 FEET SOUTH OF CENTERLINE OF FAIRWAY DRIVE.
ELEV. 658.22

BM NO. 2
X-CUT ON INLET, SOUTH SIDE OF FAIRWAY DRIVE, +/- 75 FEET WEST OF CENTERLINE OF PARK DRIVE
ELEV. 647.97

UTILITY LEGEND

PROPOSED WATER LINE	W
PROPOSED GATE VALVE	W
PROPOSED FIRE HYDRANT ASSY	W
EXISTING WATER LINE	W
EXISTING GAS LINE	G
EXISTING ELECTRIC LINE	E
EXISTING SANITARY SEWER LINE	SS
PROPOSED SANITARY SEWER LINE	SS
UTILITY CROSSING	1

NOTES:

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS & COORDINATES PRIOR TO CONSTRUCTION. CONTACT ENGINEER OF RECORD PRIOR TO CONSTRUCTION IF CONFLICTS EXIST.

2. COORDINATES SHOWN ARE NAD83 SURFACE.

3. ALL COORDINATES & DIMENSIONS ARE TO CENTER OF STRUCTURE UNLESS OTHERWISE SHOWN.

4.DOUBLE DETECTOR BACKFLOW PREVENTER ASSEMBLY VALVE FOR FIRE WATER LINE TO BE PARK-USA MODEL-AL-SL OR APPROVED EQUAL.

0 40 80 120
GRAPHIC SCALE IN FEET

REV.	DATE	REMARKS

SPRUCE

UTILITY PLAN

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY SUITE 250 FORT WORTH, TX 76177 PHONE: 817-562-3350 TX FIRM NO 12207

PRELIMINARY - FOR REVIEW ONLY

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RAUL M. ZAVALA 144856 10/02/2023
Type or Print Name PE # Date

DESIGNED: AEJ	DATE	PROJECT #	SHEET
DRAWN: AEJ	OCT 2023	BLC23002	C501
CHECKED: RMZ			

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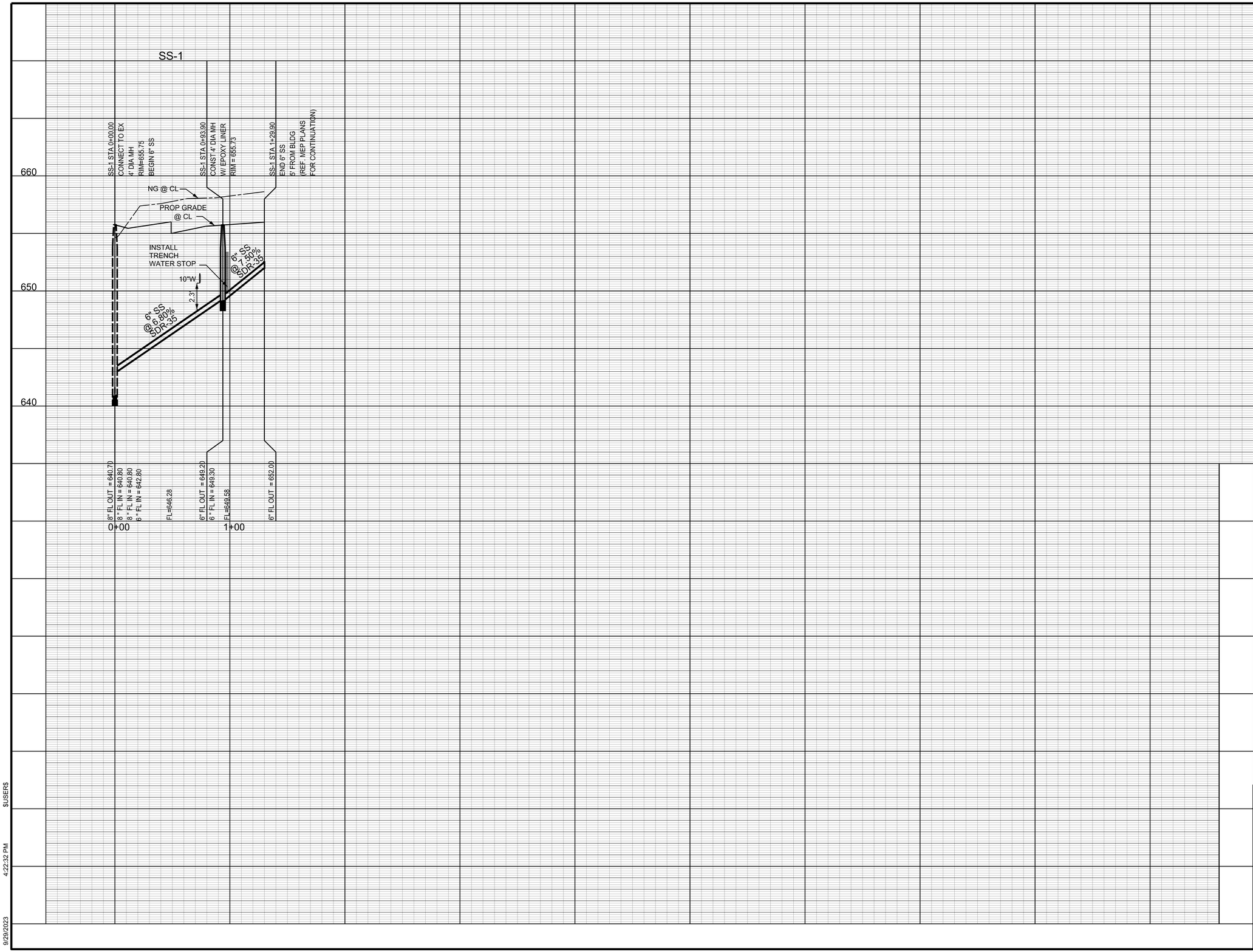

PROFILE SCALES:
1" = 40' HORZ.
1" = 4' VERT.

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RAUL M. ZAVALA	144856	10/02/2023
Type or Print Name	PE #	Date

REV.	DATE	REMARKS

SPRUCE

SANITARY SEWER PROFILES

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

DESIGNED: AEJ	DATE	PROJECT #	SHEET
DRAWN: AEJ	OCT 2023	BLC23002	C502
CHECKED: RMZ			

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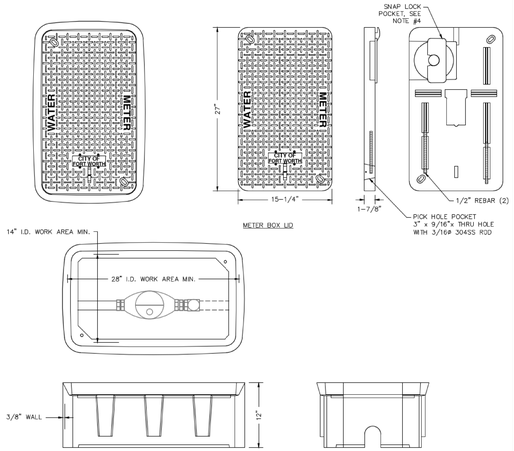
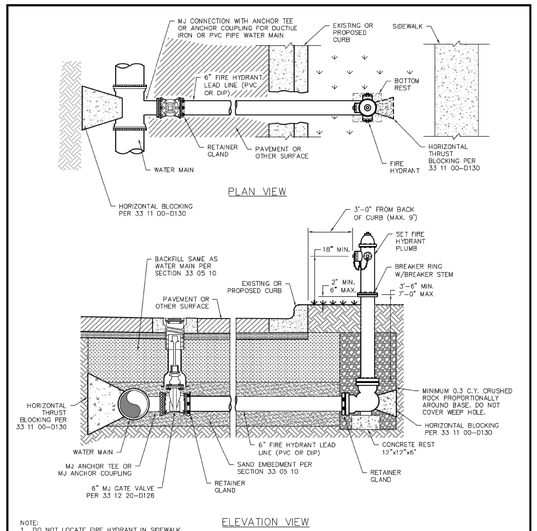


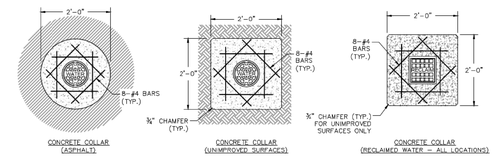
NOTE:
1. USE THIS METER BOX IN NON-PAVED AREAS ONLY.
2. DIMENSIONS ± 1/8" U.N.O.
3. WALL THICKNESS: 3/8"
4. SNAP LOCK POCKET WILL RECEIVE AMR/AMI DEVICE ENDPOINT. SNAP LOCK SLOT IS 1-7/8" ± .015" TO ALLOW FOR A FINGER FORCE INSTALL. POCKET HEIGHT IS 3/8" FOR MIN 1/8" AIR GAP.

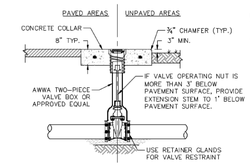
2-INCH STANDARD PLASTIC METER BOX (1-½ & 2-INCH METERS) (CLASS C)



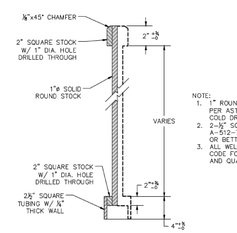
NOTE:
1. DO NOT LOCATE FIRE HYDRANT IN SIDEWALK.
2. PROVIDE FOUR (4) FOOT CLEARANCE AROUND FIRE HYDRANT.
3. EXTENSION SECTIONS MAY BE USED AS REQUIRED AND INSTALLED AS PER MANUFACTURER'S INSTRUCTIONS.
4. FOR CONCRETE PRESSURE PIPE OR BURIED STEEL PIPE, PROVIDE AN ISOLATION KIT AND WAX PETROLATUM TAPE COATING PER SECTION 33 04 10 AND FLAMJ GATE VALVE.

STANDARD FIRE HYDRANT (STRAIGHT)



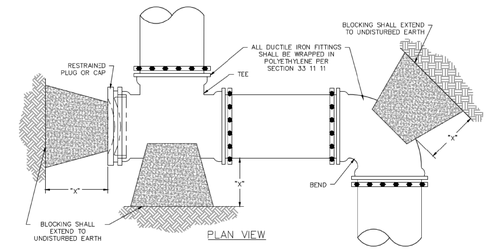


NOTE:
1. GATE VALVES SHALL BE RESILIENT SEATED.
2. PROVIDE 3" MIN. 0" COVER OVER REINFORCEMENT IN ALL DIRECTIONS.
3. COLLARS SHALL BE 4,000 PSI CONCRETE PER SECTION 03 30 00.



NOTE:
1. 1" ROUND SOLID BAR & 2" SQUARE PER ASTM A-108-81, SAE 1020, COLD DRAWN OR BETTER.
2. 2-½" SQUARE TUBING PER ASTM A-512-79, SAE 1020, COLD DRAWN OR BETTER.
3. ALL WELDS SHALL COMPLY WITH A.W.S. CODE FOR PROCEDURE, APPEARANCE AND QUALITY OF WELDS.

WATER DISTRIBUTION GATE VALVE & BOX (12" AND SMALLER)



HORIZONTAL THRUST BLOCKING TABLE

PIPE SIZE	"X" DIM.**	PLUGS, TEES, DEAD-ENDS MIN. AREA (SF)	90° BENDS MIN. AREA (SF)	45° BENDS MIN. AREA (SF)	22.5° BENDS MIN. AREA (SF)	11.25° BENDS MIN. AREA (SF)
6"	1'-6"	4.00*	4.50	4.00*	4.00*	4.00*
8"	1'-6"	5.65	8.00	4.33	4.00*	4.00*
10"	1'-6"	8.84	12.50	6.76	4.00*	4.00*
12"	1'-6"	12.72	17.99	9.74	4.96	4.00*
16"	2'-0"	22.62	31.99	17.31	8.83	4.43
20"	2'-0"	35.34	49.98	27.05	13.79	6.93
24"	2'-0"	50.89	71.97	38.95	19.86	9.98

*MINIMUM THRUST BLOCKING SURFACE AREA SHALL BE 4 SQUARE FEET.
**DIMENSION "X" TO BE A MINIMUM OF ONE FOOT AND SIX INCHES, BUT IS TO BE INCREASED WHERE NECESSARY TO PROVIDE BEARING AGAINST UNDISTURBED TRENCH WALL.

NOTES:
1. THRUST BLOCKING AREAS SHOWN ARE BASED ON:
   1.1. 225 PSI TEST PRESSURE
   1.2. 3,000 PSF HORIZONTAL OR LATERAL BEARING PRESSURE FOR ACCEPTABLE SOILS
   1.3. MINIMUM COVER OF 42"
   1.4. A SAFETY FACTOR OF 1.5.
2. THE ENGINEER SHALL PROVIDE A SEPARATE BLOCKING TABLE WHEN THE CONDITIONS DO NOT MEET THE ABOVE ASSUMPTIONS.
3. THE CONTRACTOR IS REQUIRED TO PROVIDE THRUST RESTRAINT BY MEANS OF THRUST BLOCKING FOR ALL PIPES. THIS ITEM SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS ITEMS BID.
4. ALL MJ FITTINGS SHALL BE ADDITIONALLY RESTRAINED WITH RETAINER GLANDS.
5. BLOCKING FOR WATER LINES LARGER THAN 24" SHALL BE DESIGNED FOR THE SPECIFIC LOCATION AND SHOWN ON THE DRAWINGS.
6. ALL DUCTILE IRON FITTINGS SHALL BE WRAPPED IN POLYETHYLENE ENCASEMENT PRIOR TO PLACING OF BLOCKING.
7. CONCRETE MATERIAL SHALL CONFORM TO SECTION 03 30 00.

HORIZONTAL THRUST BLOCKING

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RAUL M. ZAVALA — 144856 — 10/02/2023
Type or Print Name — PE # — Date

REV.	DATE	REMARKS

SPRUCE

WATER DETAILS

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

DESIGNED: AEJ	DATE	PROJECT #	SHEET
DRAWN: AEJ	OCT 2023	BLC23002	C503
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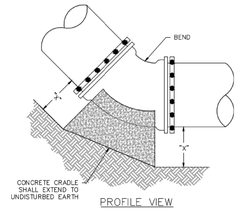
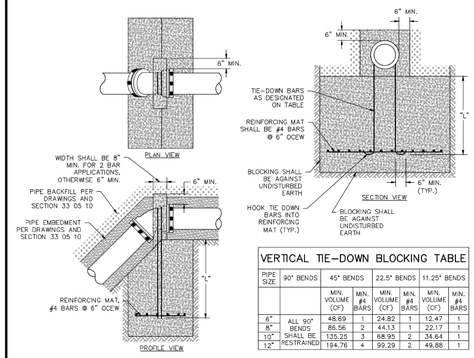


CONCRETE CRADLE TABLE					
PIPE SIZE	"X" DIM.**	90° BENDS	45° BENDS	22.5° BENDS	11.25° BENDS
		MIN. AREA (SF)	MIN. AREA (SF)	MIN. AREA (SF)	MIN. AREA (SF)
6"	1'-6"	4.50	4.00*	4.00*	4.00*
8"	1'-6"	8.00	4.33	4.00*	4.00*
10"	1'-6"	12.50	6.76	4.00*	4.00*
12"	1'-6"	17.99	9.74	4.95	4.00*
16"	2'-0"	31.99	17.31	8.83	4.43
20"	2'-0"	49.98	27.05	13.79	6.93
24"	2'-0"	71.97	38.95	19.86	9.98

*MINIMUM THRUST BLOCKING SURFACE AREA SHALL BE 4 SQUARE FEET.
**DIMENSION "X" TO BE A MINIMUM OF ONE FOOT AND SIX INCHES, BUT IS TO BE INCREASED WHERE NECESSARY TO PROVIDE BEARING AGAINST UNDISTURBED TRENCH BOTTOM.

NOTES:
1. THRUST BLOCKING AREAS SHOWN ARE BASED ON:
   1.1. 225 PSI TEST PRESSURE
   1.2. 3,000 PSF HORIZONTAL OR LATERAL BEARING PRESSURE FOR ACCEPTABLE SOILS
   1.3. MINIMUM COVER OF 42"
   1.4. A SAFETY FACTOR OF 1.5.
2. THE ENGINEER SHALL PROVIDE A SEPARATE BLOCKING TABLE WHEN THE CONDITIONS DO NOT MEET THE ABOVE ASSUMPTIONS.
3. THE CONTRACTOR IS REQUIRED TO PROVIDE THRUST RESTRAINT BY MEANS OF THRUST BLOCKING FOR ALL PIPES. THIS ITEM SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS ITEMS BID.
4. ALL MJ FITTINGS SHALL BE ADDITIONALLY RESTRAINED WITH RETAINER GLANDS.
5. CRADLES FOR WATER LINES LARGER THAN 24" SHALL BE DESIGNED FOR THE SPECIFIC LOCATION AND SHOWN ON THE DRAWINGS.
6. ALL DUCTILE IRON FITTINGS SHALL BE WRAPPED IN POLYETHYLENE ENCASEMENT PRIOR TO PLACING OF BLOCKING.
7. CONCRETE MATERIAL SHALL CONFORM TO SECTION 03 30 00.

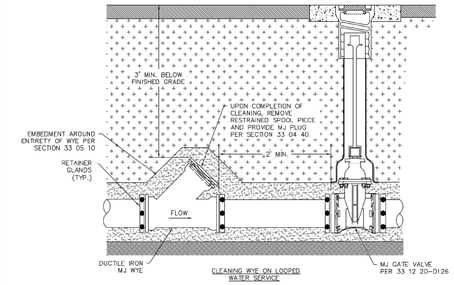
CONCRETE CRADLE

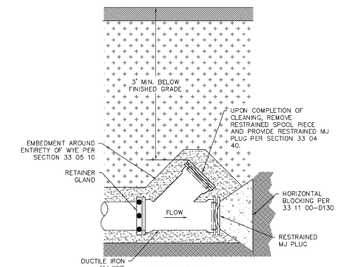


VERTICAL TIE-DOWN BLOCKING TABLE							
PIPE SIZE	90° BENDS	45° BENDS		22.5° BENDS		11.25° BENDS	
		MIN. VOLUME (CF)	MIN. #4 BARS	MIN. VOLUME (CF)	MIN. #4 BARS	MIN. VOLUME (CF)	MIN. #4 BARS
6"	ALL 90° BENDS SHALL BE RESTRAINED	48.69	1	24.82	1	12.47	1
8"		86.56	2	44.13	1	22.17	1
10"		135.25	3	68.95	2	34.64	1
12"		194.76	4	99.29	2	49.88	1

NOTES:
1. VERTICAL TIE-DOWN BLOCKING VOLUMES SHOWN ARE BASED ON:
   1.1. 225 PSI TEST PRESSURE
   1.2. 150 PCF CONCRETE DENSITY
   1.3. A SAFETY FACTOR OF 1.5.
2. BAR QUANTITIES ARE BASED ON:
   2.1. 30 KSI #4 STEEL REINFORCEMENT BAR
   2.2. A FACTOR OF SAFETY OF 1.5
   2.3. "L" SHALL BE A MINIMUM OF 18".
3. THE ENGINEER SHALL PROVIDE A SEPARATE VERTICAL TIE-DOWN BLOCKING TABLE WHEN THE CONDITIONS DO NOT MEET THE ABOVE ASSUMPTIONS.
4. THE CONTRACTOR IS REQUIRED TO PROVIDE THRUST RESTRAINT BY MEANS OF VERTICAL TIE-DOWN BLOCKING FOR ALL PIPES. THIS ITEM SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS ITEMS BID.
5. ALL MJ FITTINGS SHALL BE ADDITIONALLY RESTRAINED WITH RETAINER GLANDS.
6. WIDTHS, LENGTHS AND DEPTHS MAY VARY BUT SATISFACTION OF ABOVE MINIMUM VOLUMES MUST BE DEMONSTRATED.
7. KEEP CONCRETE CLEAR OF PIPE JOINTS AND BOLTS.
8. VERTICAL TIE-DOWN BLOCKING FOR LINES 16" AND LARGER SHALL BE DESIGNED FOR THE SPECIFIC LOCATION AND SHOWN ON THE DRAWINGS.
9. ALL DUCTILE IRON FITTINGS SHALL BE WRAPPED IN POLYETHYLENE ENCASEMENT PRIOR TO PLACING OF BLOCKING.
10. CONCRETE MATERIAL SHALL CONFORM TO SECTION 03 30 00.

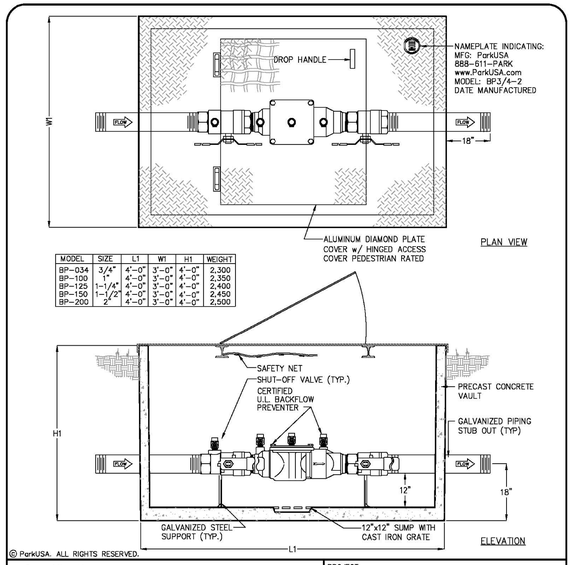
VERTICAL TIE-DOWN BLOCKING





NOTES:
1. WYES SHALL ONLY BE LOCATED WHERE INDICATED ON THE DRAWINGS.
2. ALL WATER PIPING 12" AND SMALLER SHALL BE DUCTILE IRON OR PVC.

STANDARD CLEANING WYE FOR WATER DISTRIBUTION PIPE (12" AND SMALLER)



MODEL	SIZE	L1	W1	H1	WEIGHT
BP-034	3/4"	4'-0"	3'-0"	4'-0"	2,300
BP-100	1"	4'-0"	3'-0"	4'-0"	2,350
BP-125	1-1/4"	4'-0"	3'-0"	4'-0"	2,400
BP-150	1-1/2"	4'-0"	3'-0"	4'-0"	2,450
BP-200	2"	4'-0"	3'-0"	4'-0"	2,500

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Specifications

CONCRETE: Class I/II concrete with design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor and first stage of wall with sectional riser to required depth.

REINFORCEMENT: Grade 60 reinforced. Steel rebar conforming to ASTM A615 on required centers or equal.

ACCESS COVER: 1/4" skid-resistant aluminum floor plate welded to 3" angle frame with (2) 3"x2-3/8" I-beam supports. Hatch to be furnished with 316 stainless steel bolts and hinges

Engineering Data

The backflow assembly shall be factory assembled in vault & hydrostatically tested prior to delivery. Field excavation & preparation shall be complete prior to delivery. Pipe, valves and fittings of the assembly shall be approved by one or more of the following associations:

AWWA, UL, USC, FM

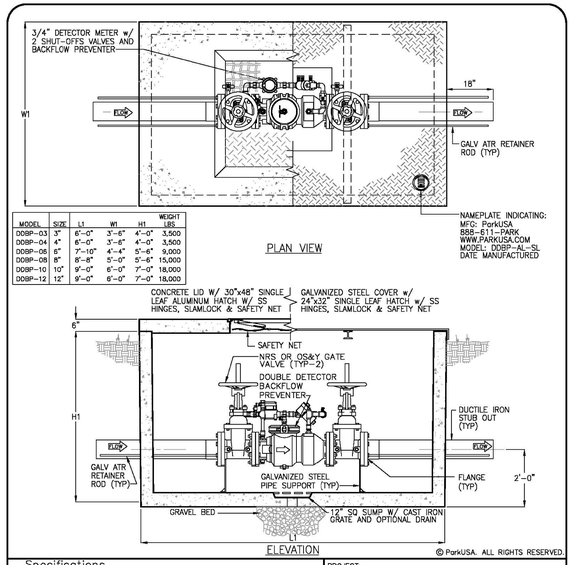
PROJECT:
CUSTOMER:
ENGINEER:
ORDER #:
PROJ #:
DATE:

888.611.PARK
www.parkusa.com
PARK USA DESIGN FOR WATER

DOUBLE CHECK BACKFLOW PREVENTER ASSEMBLY
MODEL BP – 3/4" THRU 2"

PM	DRN	CHK	DWG. NO.	REV.
DATE 2018			BP3/4-2	B

BP3/4-2



MODEL	SIZE	L1	W1	H1	WEIGHT LBS
DDBP-03	3"	6'-0"	3'-6"	4'-0"	3,500
DDBP-04	4"	6'-0"	3'-6"	4'-0"	3,500
DDBP-06	6"	7'-10"	4'-4"	5'-6"	9,000
DDBP-08	8"	8'-8"	5'-0"	5'-6"	15,000
DDBP-10	10"	9'-0"	6'-0"	7'-0"	18,000
DDBP-12	12"	9'-0"	6'-0"	7'-0"	18,000

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Specifications

CONCRETE: Class I/II concrete with design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor and first stage of wall with sectional riser to required depth.

REINFORCEMENT: Grade 60 reinforced. Steel rebar conforming to ASTM A615 on required centers or equal.

ACCESS COVER: 1/4" steel skid-resistant floor plate welded to 3" angle frame with (2) 3"x2-3/8" I-beam supports. Hatch to be furnished with 316 stainless steel bolts and hinges

HATCHWAY: 1/4" Aluminum diamond plate cover with extruded aluminum frame. Hatch to be furnished with 316 stainless steel slam lock & hinges.

Engineering Data

The backflow assembly shall be factory assembled in vault & hydrostatically tested prior to delivery. Field excavation & preparation shall be complete prior to delivery. Pipe, valves and fittings of the assembly shall be approved by one or more of the following associations:

FM, AWWA, UL, USC, IPC CERTIFIED PLANT

PROJECT:
CUSTOMER:
ENGINEER:
ORDER #:
PROJ #:
DATE:

888.611.PARK
www.park-usa.com
PARK USA DESIGN FOR WATER

DOUBLE DETECTOR BACKFLOW PREVENTER ASSEMBLY FOR FIRE SERVICE
MODEL DDBP – 3" THRU 10"

PM	DRN	ENG	DWG. NO.	REV.
DATE 2018			DDBP-AL-SL	A

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RAUL M. ZAVALA 144856 10/02/2023
Type or Print Name PE # Date

REV.	DATE	REMARKS

SPRUCE

WATER DETAILS

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

DESIGNED: AEJ	DATE	PROJECT #	SHEET
DRAWN: AEJ	OCT 2023	BLC23002	C504
CHECKED: RMZ			

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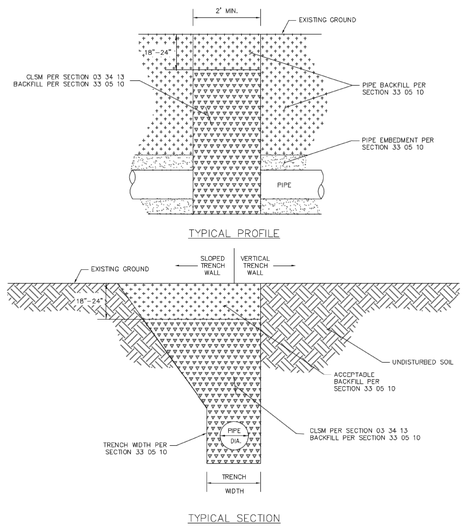
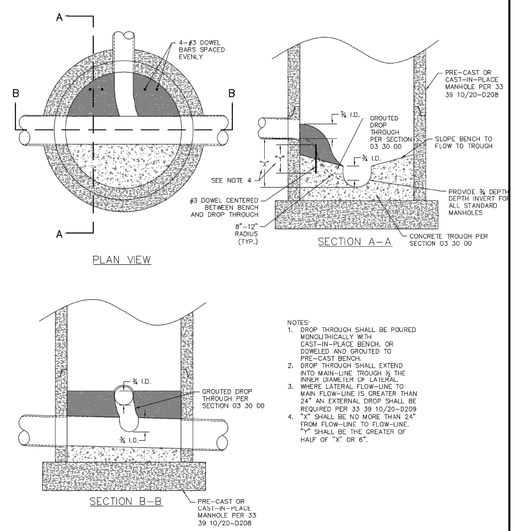


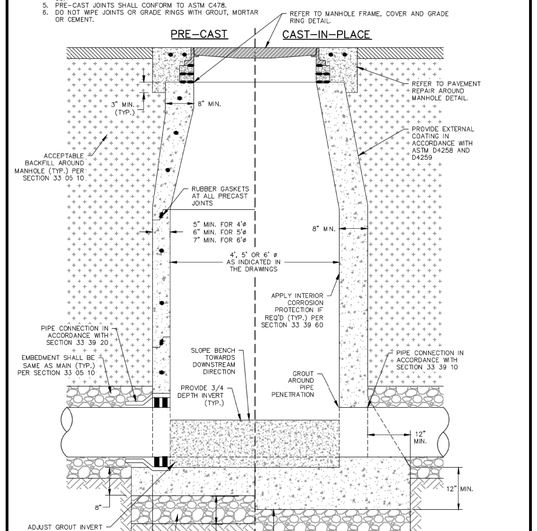
TRENCH WATER STOP



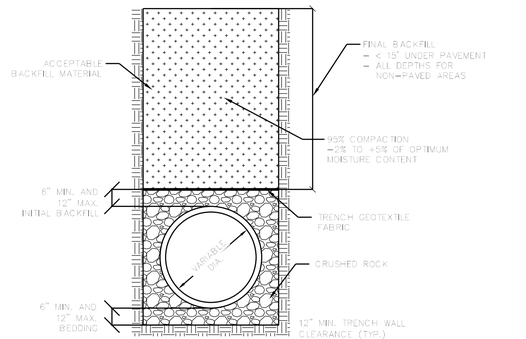
NOTES:
1. DROP THROUGH SHALL BE POURED MONOLITHICALLY WITH CAST-IN-PLACE BENCH, OR DOWELED AND GROUTED TO PRE-CAST BENCH.
2. DROP THROUGH SHALL EXTEND INTO MAIN-LINE TROUGH ½ THE INNER DIAMETER OF LATERAL.
3. WHERE LATERAL FLOW-LINE TO MAIN FLOW-LINE IS GREATER THAN 24" AN EXTERNAL DROP SHALL BE REQUIRED PER 33 39 10/20-0209
4. "X" SHALL BE NO MORE THAN 24" FROM FLOW-LINE TO FLOW-LINE. "Y" SHALL BE THE GREATER OF HALF OF "X" OR 6".

HYDRAULIC SLIDE

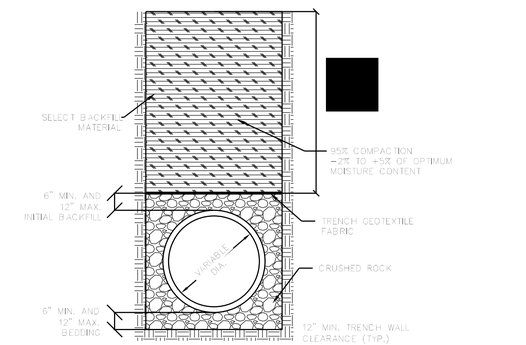
NOTES:
1. MANHOLE TOP SHALL BE PER MANHOLE FRAME, COVER AND GRADE RING DETAIL AS INDICATED IN THE DRAWINGS.
2. FOR CAST-IN-PLACE MANHOLES, CURE FOR THREE DAYS BEFORE BACKFILLING AROUND STRUCTURE.
3. IF SOIL CONDITIONS OR GROUND WATER PREVENT USE OF COARSE AGGREGATE BASE A 2-INCH MUD SLAB MAY BE SUBSTITUTED.
4. CAST-IN-PLACE CONCRETE SHALL BE PER SECTION 03 30 00.
5. PRE-CAST JOINTS SHALL CONFORM TO ASTM C478.
6. DO NOT WIPE JOINTS OR GRADE RINGS WITH GROUT, MORTAR OR CEMENT.
7. UNLESS OTHERWISE INDICATED IN THE DRAWINGS, 4'ø MANHOLES SHALL BE USED FOR 21" AND SMALLER SANITARY SEWER LINES AND 5'ø MANHOLES SHALL BE USED 24" UP TO 36" SANITARY SEWER LINES.
8. 6'ø STANDARD MANHOLES SHALL BE REQUIRED FOR 90° BENDS ON 36" SANITARY SEWER LINES.
9. CAST IRON HINGED LIDS SHALL BE REQUIRED FOR ALL SANITARY SEWER MANHOLES WITH A RIM ELEVATION GREATER THAN 12-INCHES ABOVE NATURAL GROUND.



STANDARD SANITARY SEWER MANHOLE



NOT TO SCALE



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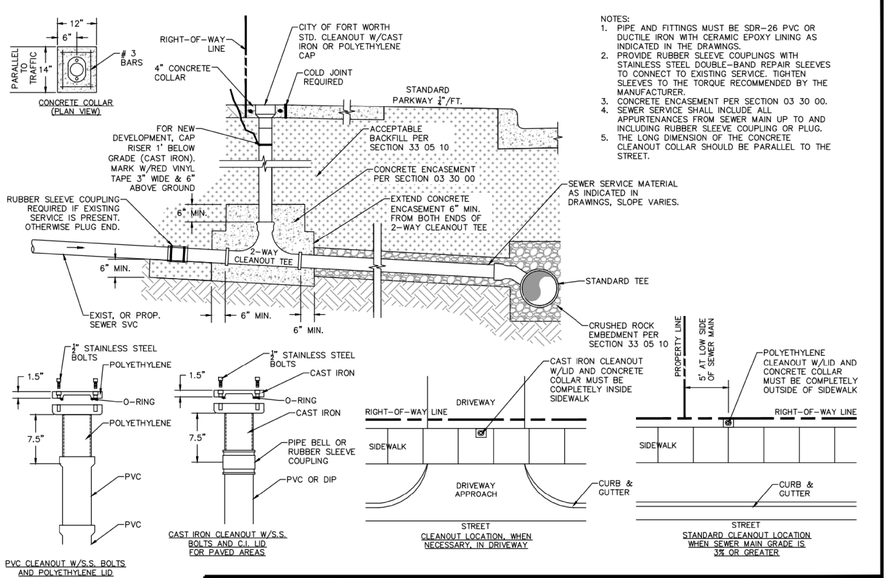
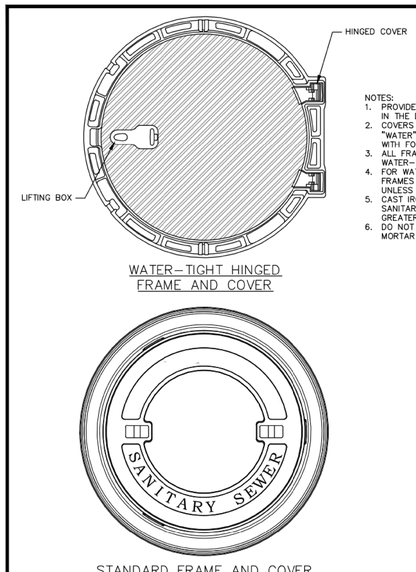
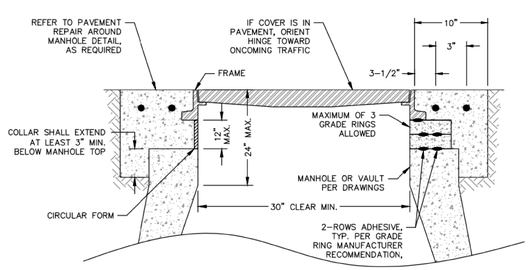


NOTES:
1. PIPE AND FITTINGS MUST BE SDR-26 PVC OR DUCTILE IRON WITH CERAMIC EPOXY LINING AS INDICATED IN THE DRAWINGS.
2. PROVIDE RUBBER SLEEVE COUPLINGS WITH STAINLESS STEEL DOUBLE-BAND REPAIR SLEEVES TO CONNECT TO EXISTING SERVICE. TIGHTEN SLEEVES TO THE TORQUE RECOMMENDED BY THE MANUFACTURER.
3. CONCRETE ENCASEMENT PER SECTION 03 30 00.
4. SEWER SERVICE SHALL INCLUDE ALL APPURTENANCES FROM SEWER MAIN UP TO AND INCLUDING RUBBER SLEEVE COUPLING OR PLUG.
5. THE LONG DIMENSION OF THE CONCRETE CLEANOUT COLLAR SHOULD BE PARALLEL TO THE STREET.

SANITARY SEWER SERVICE



NOTES:
1. PROVIDE HINGED FRAME AND COVER WHERE INDICATED IN THE DRAWINGS, ON DETAILS OR IN SPECIFICATIONS.
2. COVERS SHALL BE INTEGRALLY MARKED INDICATING "WATER" OR "SANITARY SEWER" AS DESIGNATED ALONG WITH FORT WORTH LOGO PER SECTION 33 05 13.
3. ALL FRAMES AND COVERS SHALL REQUIRE A WATER-TIGHT GASKET.
4. FOR WATER AND SANITARY SEWER, ALL TYPES OF FRAMES SHALL ALLOW MINIMUM 30-INCH OPENING, UNLESS OTHERWISE SPECIFIED IN THE DRAWINGS.
5. CAST IRON HINGED LIDS SHALL BE REQUIRED FOR ALL SANITARY SEWER MANHOLES WITH A RIM ELEVATION GREATER THAN 12-INCHES ABOVE NATURAL GROUND.
6. DO NOT WIPE JOINTS OR GRADE RINGS WITH GROUT, MORTAR OR CEMENT.
7. THE MAXIMUM HEIGHT OF GRADE RINGS MAY EXCEED 12-INCHES WHEN APPROVED BY THE PROJECT MANAGER FOR THE CITY TO ALLOW FOR PAVEMENT DEPTH AND PAVEMENT CONSTRUCTION. THE MAXIMUM HEIGHT OF THE NARROW PART OF THE MANHOLE SHALL NOT EXCEED 24-INCHES REGARDLESS OF THE HEIGHT OF GRADE RINGS.
8. MANHOLES SHALL NOT PROTRUDE ABOVE GRADE MORE THAN 24-INCHES.
9. MANHOLES IN PAVEMENT SHALL BE ORIENTED SO THE HINGE IS TOWARD ONCOMING TRAFFIC.
10. CONCRETE GRADE RINGS ARE NOT PERMITTED, GRADE RINGS SHALL BE AS APPROVED.
11. IN LIEU OF GRADE RINGS, CIRCULAR FORMS, "SONO-TUBE", MAY BE USED.



SANITARY SEWER MANHOLE FRAME, COVER AND GRADE RINGS

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RAUL M. ZAVALA	144856	10/02/2023
Type or Print Name	PE #	Date

REV.	DATE	REMARKS

SPRUCE

SEWER DETAILS

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

DESIGNED: AEJ	DATE	PROJECT #	SHEET
DRAWN: AEJ	OCT 2023	BLC23002	C505
CHECKED: RMZ			

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NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
TXU ELECTRIC DELIVERY	1-800-711-9112
CITY OF ROANOKE PUBLIC WORKS	817-491-6099

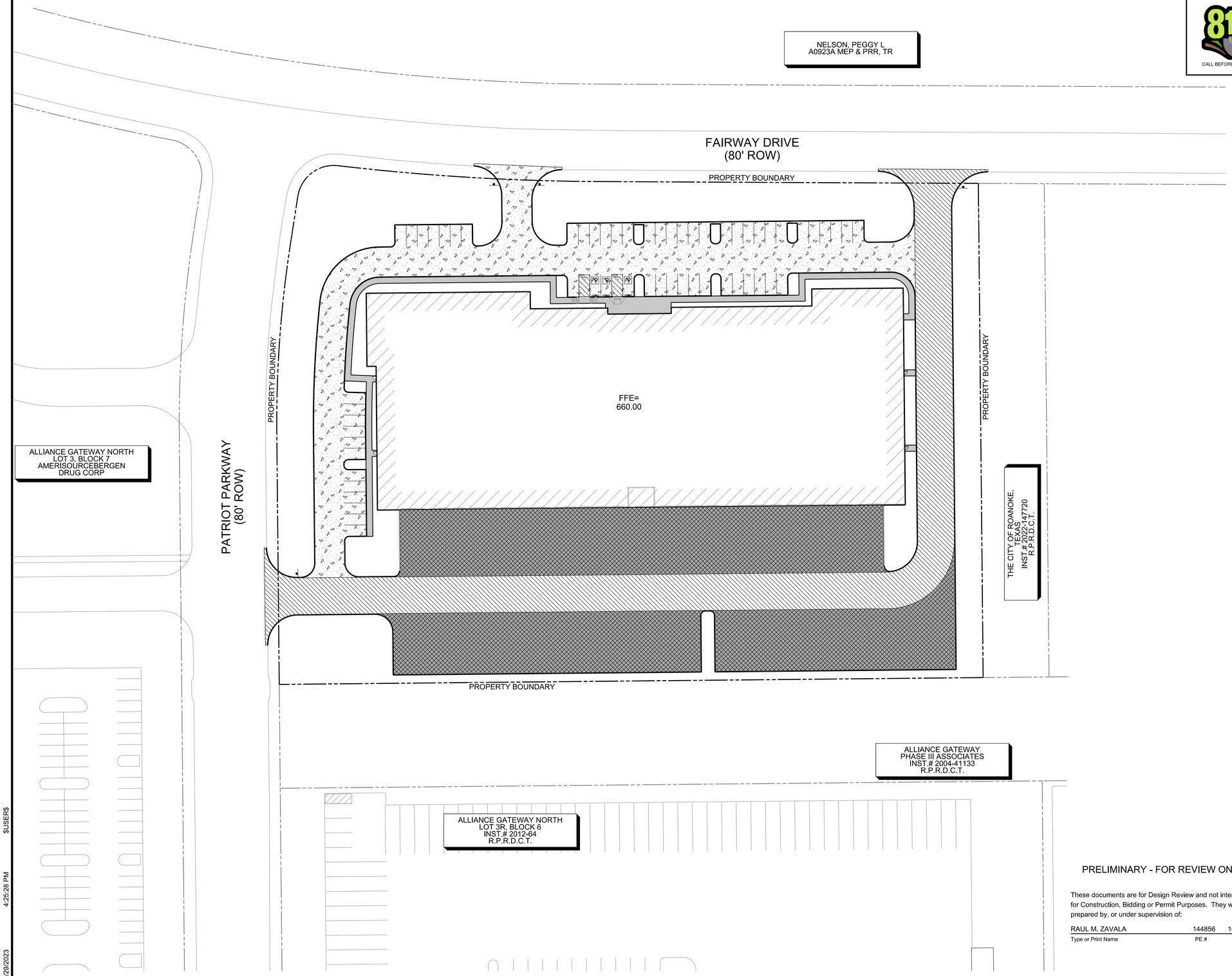
CALL BEFORE YOU DIG

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION

PROJECT BENCHMARKS

BM NO. 1
X-CUT ON INLET, EAST SIDE OF PATRIOT PARKWAY, +/- 470 FEET SOUTH OF CENTERLINE OF FAIRWAY DRIVE.
ELEV. 658.22

BM NO. 2
X-CUT ON INLET, SOUTH SIDE OF FAIRWAY DRIVE, +/- 75 FEET WEST OF CENTERLINE OF PARK DRIVE
ELEV. 647.97



LEGEND

- 8" - 3,500 PSI CONCRETE PAVEMENT WITH #3 BARS @ 18" O.C.E.W. ON 6" COMPACTED SUBGRADE PER GEOTECHNICAL RECOMMENDATIONS
- 7" - 3,500 PSI CONCRETE PAVEMENT WITH #3 BARS @ 18" O.C.E.W. ON 6" LIME TREATED SUBGRADE PER GEOTECHNICAL RECOMMENDATIONS
- 5" - 3,500 PSI CONCRETE PAVEMENT WITH #3 BARS @ 18" O.C.E.W. ON 6" COMPACTED SUBGRADE PER GEOTECHNICAL RECOMMENDATIONS
- 4" SIDEWALK PAVING

REFER TO GEOTECHNICAL REPORT FROM TERRACON PROJECT NO. 95235095 FOR PAVEMENT & SUBGRADE REQUIREMENTS.

N

0 40 80 120

GRAPHIC SCALE IN FEET

PRELIMINARY - FOR REVIEW ONLY

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RAUL M. ZAVALA 144856 10/02/2023
Type or Print Name PE # Date

REV.	DATE	REMARKS

SPRUCE

PAVING PLAN

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

		DATE	PROJECT #	SHEET
DESIGNED:	AEJ	OCT 2023	BLC23002	C601
DRAWN:	AEJ			
CHECKED:	RMZ			

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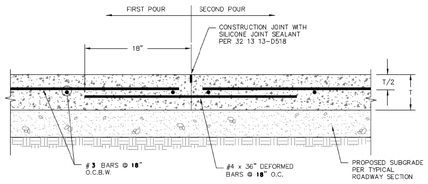
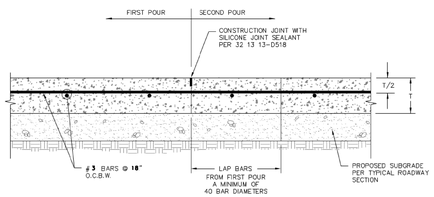
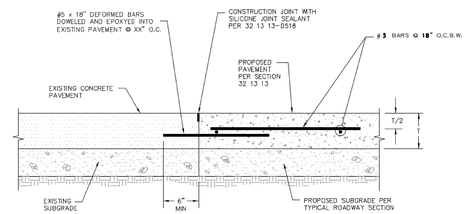


TYPE 1

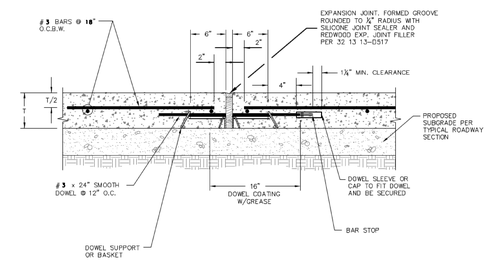


TYPE 2

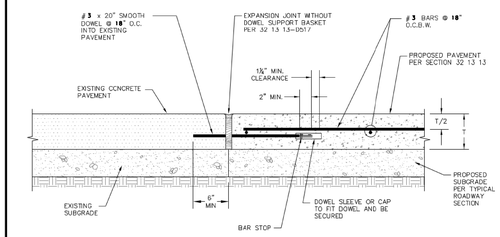
CONSTRUCTION JOINT



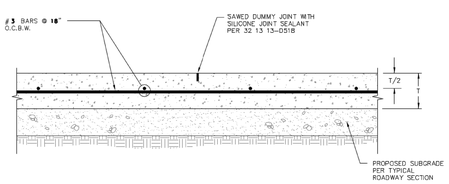
CONSTRUCTION JOINT (BETWEEN EXISTING AND PROPOSED PAVEMENT)



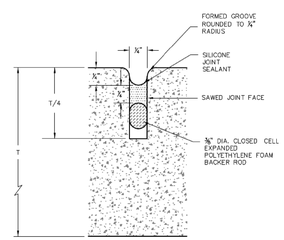
EXPANSION JOINT



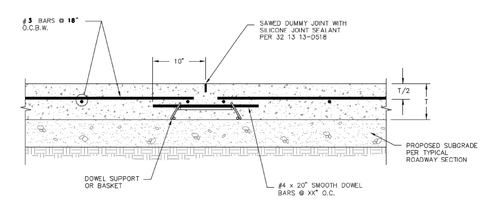
EXPANSION CONSTRUCTION JOINT (BETWEEN EXIST AND PROP PAVEMENT)



SAWED DUMMY JOINT



SAWED JOINT DETAIL



CONTRACTION JOINT

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RAUL M. ZAVALA	144856	10/02/2023
Type or Print Name	PE #	Date

REV.	DATE	REMARKS

SPRUCE

PAVING DETAILS

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

DESIGNED: AEJ	DATE	PROJECT #	SHEET
DRAWN: AEJ	OCT 2023	BLC23002	C602
CHECKED: RMZ			

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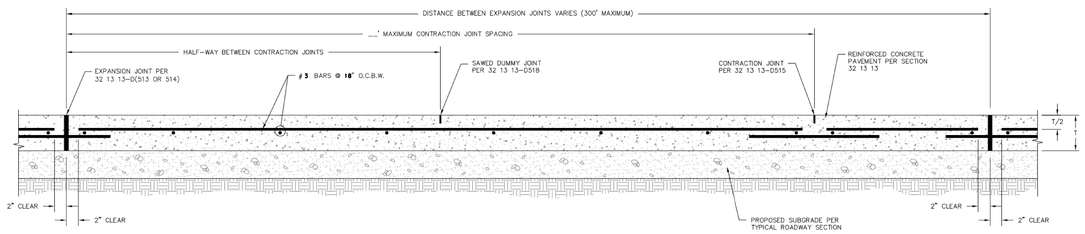
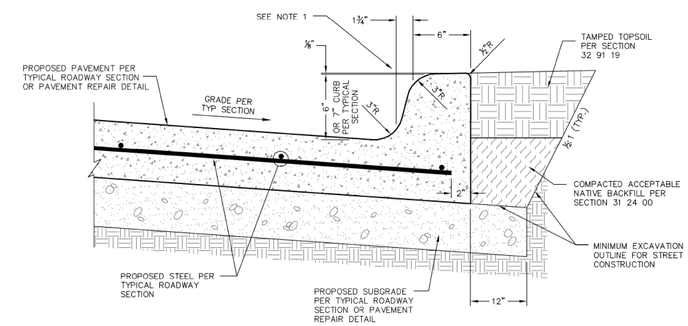


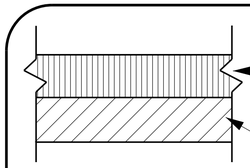
LONGITUDINAL PAVING SECTION



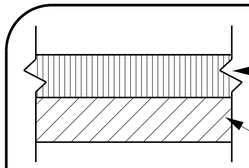
NOTES:

1. CITY APPROVAL REQUIRED FOR USE OF CURB MULE WITH DIMENSIONS THAT VARY FROM DETAIL.
2. MATCH STREET SAWED JOINTS FOR SAWED JOINTS IN CURB.

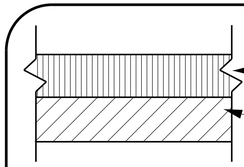
STANDARD MONOLITHIC CURB



5" CONCRETE PVMT SECTION
NOT TO SCALE



8" CONCRETE PVMT SECTION
NOT TO SCALE



7" CONCRETE PVMT SECTION
NOT TO SCALE

NOTE:
REFER TO TERRACON GEOTECH REPORT NO. 95235095 FOR ADDITIONAL PAVEMENT REQUIREMENTS

TYPICAL PAVING SECTIONS
NOT TO SCALE

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RAUL M. ZAVALA	144856	10/02/2023

REV.	DATE	REMARKS

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PAVING DETAILS

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS
9800 HILLWOOD PARKWAY
SUITE 250
FORT WORTH, TX 76177
PHONE: 817-562-3350
TX FIRM NO 12207

DESIGNED: AEJ	DATE	PROJECT #	SHEET
DRAWN: AEJ	OCT 2023	BLC23002	C603
CHECKED: RMZ			

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GENERAL NOTES

1. Contractor shall provide all materials and labor to complete scope of work as indicated in documents.
2. All work shall be executed in accordance with all federal, state and local regulations, and shall comply with prevailing accessibility requirements. Contractor shall notify owner's representative of any portion of documents which conflict with regulations prior to construction.
3. Contractor is responsible for securing all required permits, approvals and inspections related to scope of work.
4. Reference to "owner's representative" are made in these documents, and refers to the project owner or designated representative, in addition to the owner's representative the contractor shall contact the landscape architect for design clarifications or additional information related to scope of work.
5. Notify owner's representative 48 hours in advance of commencing work to coordinate project inspection schedule.
6. Drawings are based on survey data and design drawings provided by others. It is the contractors responsibility to verify existing conditions and shall notify owner's representative of any discrepancies between documents and actual site conditions prior to construction. Failure to make such conflicts known to the owner's representative will result in the contractor's liability to relocate materials as directed.
7. Do not proceed with any portion of work as indicated in documents if obstructions, discrepancies or unknown conditions are encountered. Notify the owner's representative immediately for direction on how to proceed.
8. Contractor shall coordinate all work with other disciplines.
9. Limits of work indicated on drawings, if any, are general in nature and are intended to define the general vicinity in with the scope of work exists. Actual limits of work shall include all areas necessary to complete scope of design intent.
10. Unless otherwise noted, all existing trees shall be protected. Do not park, drive, operate machinery or store materials within the dripline of existing trees.
11. The contractor shall locate and verify all existing utility lines prior to planting or construction and shall report any conflicts to the owner's representative. Verify with owner pipe line locations prior to digging. Contractor shall exercise caution when working in the vicinity of underground utilities.
12. Contractor shall provide bid proposal listing unit prices for all material provided.
13. Quantities shown on the plan are for the contractor's convenience only and are not guaranteed to be accurate. In the event of a discrepancy between quantities shown on the plan and quantities shown on the list, the quantities shown on the plan shall apply.

LANDSCAPE NOTES

1. All non-dimensioned plants symbols, edging and bed lines are diagrammatic and shall be scaled from drawings.
2. Stake the location of all proposed trees for approval by the owner's representative prior to commencement of planting. The owner's representative reserves the right to make minor adjustments to locations prior to planting.
3. Paint or string all edging and bed line locations on finish grade for approval by the owner's representative prior to installation. The owner's representative reserves the right to make minor adjustments to locations prior to planting.
4. Refer to details and specifications for plant pit dimensions and backfill requirements.
5. All plant material shall be maintained in a healthy growing condition as is appropriate for the season of the year. Plant material that is damaged, destroyed, or removed shall be replaced with plant material of similar size and variety within 30 days. Unless otherwise approved in writing by the owner or owner's representative.
6. All new plant material shall conform to the minimum guidelines established for nursery stock published by the American association of nurseryman, Inc. in addition, all new plant material for the project shall be of specimen quality.
7. All new plants shall be container- grown, unless otherwise noted on the plant list.
8. The general contractor shall supply all new plant material in quantities sufficient to complete the plantings shown on the drawings.
9. No trees shall be planted before acceptance of rough grading. Tree shall bear same relationship to finish grade as they bore to previous grade.
10. Contractor shall fine grade areas to achieve final contours as indicated. Planting bed areas to be excavated or left below final finished grade to accommodate for soil amendment / mulch.
11. All planting beds to be tilled to depth of 6" and, backfilled with 4" of organic mulch.
12. All planted areas to be mulched as specified in plan / details.
13. All landscaped areas are to be maintained in accordance with city regulations.
14. All plant varieties must come from a same source supplier in order to maintain a consistent appearance.
15. All container grown material must be of nursery stock conditions, with a well-established root system reaching the sides of the container, to maintain a firm ball when the container is removed, but shall not have excessive root growth encircling the inside of the container.
16. All shrub planting beds and lawn areas to be separated by steel edging unless otherwise noted. No steel to be installed adjacent to sidewalks, curbs or fences.
17. All required landscape areas shall be provided with an automatic underground irrigation system with rain and freeze sensors and evapotranspiration (et) weather-based controllers and said irrigation system shall be designed by a licensed irrigator.

MAINTENANCE NOTES

1. The owner, tenant and their agent, if any, shall be jointly and severally responsible for the maintenance of all landscaping and irrigation. All required landscaping shall be maintained in a neat and orderly manner at all times. This shall include mowing, edging, pruning, fertilizing, watering, weeding, and other such activities common to the maintenance of landscaping. Landscaped areas shall be kept free of trash, litter, weeds, and other such material or plants not a part of the landscaping. All plant materials shall be maintained in a health and growing condition as is appropriate for the season of the year. All irrigation heads or lines which are broken shall be replaced or repaired to prevent the waste of water.
2. The owner shall be responsible for replacing all plant material, which shows dead branching over 75 percent or more of the normal branching pattern and repair of irrigation systems. Plant materials, which die, shall be replaced with plant material of similar variety and similar initial size.
3. Contractor shall provide a separate bid proposal for one year's maintenance to begin after final acceptance.

GENERAL LAWN NOTES

1. Contractor shall coordinate operations and availability of existing topsoil with on-site construction manager.
2. Contractor shall leave lawn areas 1" below final finished grade.
3. Contractors shall fine grade areas to achieve final contours as indicated on the civil plans. Provide uniform rounding at the top and bottom of slopes and other breaks in grade. Correct irregularities and areas where water may stand.
4. All lawn areas shall be fine graded, irrigation trenches completely settled and finish grade approved by the owner's construction manager or landscape architect prior to lawn installation.
5. Contractor shall remove all rocks 3/4" diameter and larger, dirt clods, sticks, concrete spoils, etc. prior to placing topsoil and lawn installation.
6. Contractor shall maintain all lawn areas until final acceptance. This shall include, but not be limited to: mowing, watering, weeding, cultivating, cleaning and replacing dead or bare areas to keep plants in a vigorous, healthy condition.
7. Contractor shall guarantee establishment of acceptable turf area and shall provide replacement from local supply if necessary.

SOLID SOD NOTES

1. Plant sod by hand to cover indicated areas completely. Ensure edges of sod are touching. Top dress joints by hand with topsoil to fill voids.
2. Roll grass areas to achieve a smooth, even surface, free from unnatural undulations.
3. Water sod thoroughly as sod operation progresses.
4. If installation occurs between September 1 and March 1, all sod areas to be over-seeded with winter ryegrass, at a rate of four (4) pounds per one thousand (1000) square feet.
5. Sod shall be clean and reasonably free of weeds and noxious pest and insects.

IRRIGATION NOTES

1. All areas containing turf, ground cover, shrubs, trees, or other planted material shall be irrigated with a permanent below-ground, automatic irrigation system, designed by a licensed irrigator. Temporary irrigation to establishment is acceptable as approved by the owner's representative and Landscape Architect and shall be designed and installed by a licensed irrigator.
2. All irrigation systems shall be installed with rain and frost sensors, and shall meet all applicable state and local regulations.
3. All areas other than turf shall be irrigated using Netafim™ or approved equal subterranean drip.
4. Hydromulched turf areas are to be irrigated with temporary above-ground irrigation for a minimum of 90 days and until achieving 100% germination.

SOIL PREPRATION NOTES

1. Contractor to perform a soil test prior to beginning any landscape work and shall provide the project Landscape Architect with the results to determine if any amendments in addition to the ones set forth in this plan set are required. Appropriate soil preparation is to be determined on a site by site basis, and the Landscape Architect has the right to amend the soil preparation requirements pending soil test results.
2. The contractor shall establish a soil management plan/operation throughout the construction process. All topsoil may become sterile and non-fertile over time. The contractor shall amend and supplement the stockpiled topsoil as necessary to yield a fertile topsoil supply. The contractor's bid shall include all necessary topsoil (import may be required) as required to backfill all disturbed areas. The lack of available on-site topsoil will not be grounds for a change order or additional pay.
3. On-site excess excavations and utility spoils that are free of rocks larger than 1", trash, debris, roots or other deleterious matter may be used as general earth fill, but shall not be used as topsoil. General earth fill may be used to bring all disturbed areas to six inches (6") below grade.
4. All turf areas shall be undercut six inches (6") below grade and scarified. Six inches (6") of topsoil shall be used to bring all disturbed areas to finish grade. All topsoil shall be fertile (based on the results of a soil test provided to the Landscape Architect) and shall not contain rocks larger than 1", trash, debris, root or other deleterious matter.
5. All landscape beds shall be undercut six inches (6") below finish grade. Three inches (3") of organic compost shall be added to the landscape bed and tilled an additional four to six inches (4-6"). After plant material and weed barrier fabric is installed per the provided specifications and details, four inches (4") of mulch shall be applied to the landscape bed.

PLANT SCHEDULE

CANOPY TREE	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY	REMARKS
	QM	Quercus macrocarpa	Burr Oak	3" Cal.	3	Container grown, 12' height, 5' spread, 4' branching height, upright growth, full rounded canopy, strong central leader
	QS	Quercus shumardii	Shumard Red Oak	3" Cal.	3	Container grown, 12' height, 5' spread, 4' branching height, upright growth, full rounded canopy, strong central leader
	QV	Quercus virginiana	Live Oak	3" Cal.	24	Container grown, 12' height, 5' spread, 4' branching height, upright growth, full rounded canopy, strong central leader
	UC	Ulmus crassifolia	Cedar Elm	3" Cal.	3	Container grown, 12' height, 5' spread, 4' branching height, upright growth, full rounded canopy, strong central leader
	UP	Ulmus parvifolia	Lacebark Elm	3" Cal.	3	Container grown, 12' height, 5' spread, 4' branching height, upright growth, full rounded canopy, strong central leader

CONIFEROUS TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY	REMARKS
	JE	Juniperus virginiana	Eastern Red Cedar	3" Cal.	14	Container grown, 8' height, 4' spread, strong central leader, upright growth, branches full to base.

ORNAMENTAL TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY	REMARKS
	LI	Lagerstroemia indica 'Tuscarora'	Crape Myrtle	45 gal.	18	Container grown, 8' height, 4' minimum spread, 2" caliper minimum
	VC	Vitex agnus-castus	Chaste Tree	45 gal.	14	Container grown, 8' height, 4' spread minimum, 2" caliper minimum

SHRUBS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY	REMARKS
	NR	Ilex x 'Nellie R. Stevens'	Nellie R. Stevens Holly	45 gal.	63	Container full, 36" spread, spaced at 72" height, spaced at 60" on-center
	LB	Liriope muscari 'Big Blue'	Big Blue Lilyturf	3 gal.	335	Container full, 12" spread, spaced at 18" on-center typical.
	LS	Loropetalum chinense rubrum 'Shang-hi' TM	Purple Diamond Fringe Flower	3 gal.	245	Container full, 24" spread, spaced at 36" on-center typical.
	MP	Myrica pusilla	Dwarf Wax Myrtle	3 gal.	134	Container full, 24" spread, spaced at 36" on-center typical.

GROUND COVERS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY	REMARKS
	--		Decomposed Granite (DG)	Less than 1/8" in Dia.	354 sf	Tan in color to match Alliance standard; 4" depth compacted in 1" lifts.
	---	Cynodon dactylon	Common Bermuda Grass (Sod)	sod	51,054 sf	Lawn solid sod, regional, drought tolerant - refer to notes.
	EC	Euonymus fortunei 'Coloratus'	Purple-leaf Wintercreeper	4" Pots	1,091	Container full, (5) runners minimum, 12" spread, spaced at 12" on-center typical.
	NB	Native Bull Rock	Native Bull Rock	2"- 4"	4,035 sf	Texas NativeBull Rock

NOTE:
1. All trees shall have straight trunks and be matching within varieties.
2. All trees shall have a full and uniform canopy.
3. Root balls should be well-formed, intact, with trunk firmly attached. Minimum root ball size for a 3" caliper tree is 32".
4. Plant list is an aid to bidders only. Contractor shall verify all quantities on plan.
5. All heights and spreads are minimums. All plant material shall meet or exceed remarks as indicated.
6. Do not install steel edging along sidewalks or curbs.

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
TXU ELECTRIC DELIVERY	1-800-711-9112
CITY OF ROANOKE PUBLIC WORKS	817-491-6099

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

FIRST SUBMITTAL

City of Roanoke Landscape Requirements

Requirement: 20% of the lot/tract area shall be pervious, permanently landscaped area.	
Site Area: 236,156 SF	
Required:	**Provided:**
47,232 SF (20%)	62,911 (27%)
Requirement: A minimum fifteen-foot (15') landscaped street buffer shall be required along any street frontage for any other nonresidential development. One large shade tree and four small ornamental trees shall be required per fifty (50) linear feet (or portion thereof) of street buffer frontage. The landscaped street buffer area may be included in the required landscape area percentage.	
Frontage Length: 915 LF	
Required:	**Provided:**
19 canopy trees	16 canopy trees
73 ornamental trees	32 ornamental trees
We are seeking a variance for the number of trees along the frontage. The Alliance Gateway III Assossiation has recently adjusted their requirements to 1 shade tree per 60 LF and 4 ornamental trees per 100 LF of frontage. The purpose of this reduction is to ensure the longevity of the sodded areas beneath the tree canopies on trees reach mature size. Additionally, there are existing and proposed utilities along the frontage that constrain the space.	
Requirement: One canopy or ornamental tree for every 10 parking spaces. One large shade tree within sixty (60) feet of every parking space.	
Total Parking Spaces: 59	
Required:	**Provided:**
6 trees	13 trees
Requirement: Minimum five-foot (5') wide landscaped buffer strip around the sides and rear peremeter of the lot/tract. Within the 5-foot (5') perimeter buffer shall be provided a four-foot (4') tall screen comprised of hardy, evergreen shrubs, decorative walls with shrubs, or similar landscaping.	
Required:	
Five-foot (5') side and rear lanscaped buffer with screaning shrubs.	
Provided:	
Proposed landscaped buffer with required screening Dwarf wax myrtle and Nellie R. Stevens Hollies where space allows. We are seeking a variance for the southern property line due to the lack of space in between truck court parking and the drainage easement directly adjacent. The 7-foot space between the curb and the fence should be utilized for truck trailer overhang. Across the drainage easement is a compatible use (industrial truck court), and there will be a fence proposed that will assist in screening views to this area.	

PRELIMINARY
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JORDAN A. KAYLOR	3117	10/04/2023
TYPE OR PRINT NAME	PLA #	DATE

NO.	DATE	REVISION

PROJECT SPRUCE

LANDSCAPE GENERAL NOTES

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS

TEXAS REGISTRATION ENGINEERING FIRM NO. 12207
9800 HILLWOOD PKWY, SUITE 250, FORT WORTH, TEXAS 76177
FORT WORTH PHONE: (817) 562-3350

DRAWN: JLC	DATE	PROJECT #	SHEET
DESIGNED: JLC	OCTOBER 2023	BLC23002	L001
REVIEWER: JAK			

PROJECT SPRUCE

Drawing: G:\JOB\BLC23002_Project_Spruce\3_Design\38_LA\381_CAD\LA_Plans\BLC23002-L-GEN
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Last Saved: 10/4/2023 3:31 PM
Plot Date/Time: 10/4/2023 3:32 PM

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NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

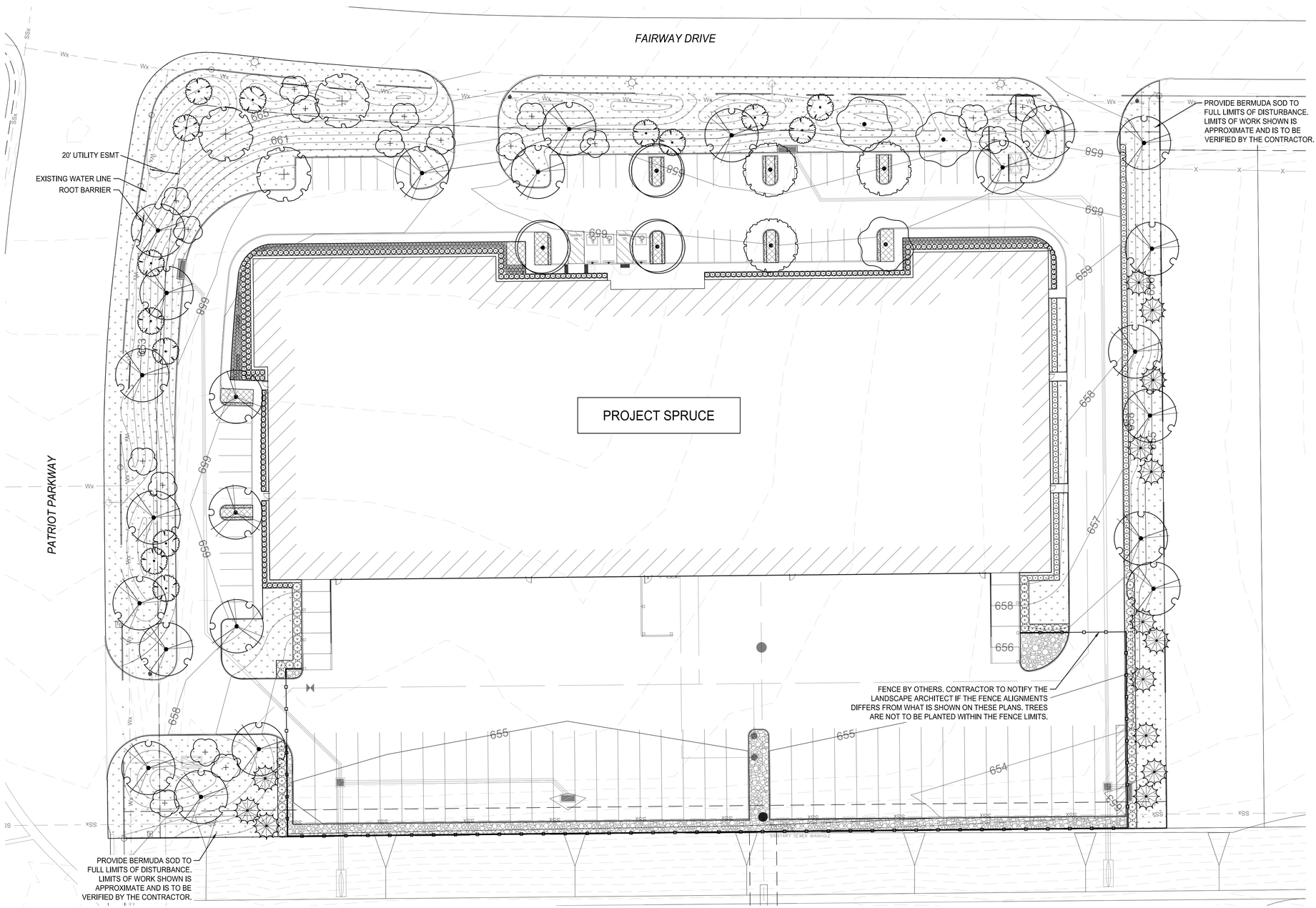
TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
TXU ELECTRIC DELIVERY	1-800-711-9112
CITY OF ROANOKE PUBLIC WORKS	817-491-6099

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

FIRST SUBMITTAL

N

0 30' 60'
SCALE: 1" = 30'



PLANT SCHEDULE

CANOPY TREE	CODE	COMMON NAME
	QM	Burr Oak
	QS	Shumard Red Oak
	QV	Live Oak
	UC	Cedar Elm
	UP	Lacebark Elm

CONIFEROUS TREES	CODE	COMMON NAME
	JE	Eastern Red Cedar

ORNAMENTAL TREES	CODE	COMMON NAME
	LI	Crape Myrtle
	VC	Chaste Tree

SHRUBS	CODE	COMMON NAME
	NR	Nellie R. Stevens Holly
	LB	Big Blue Lilyturf
	LS	Purple Diamond Fringe Flower
	MP	Dwarf Wax Myrtle

GROUND COVERS	CODE	COMMON NAME
	--	Decomposed Granite (DG)
	---	Common Bermuda Grass (Sod)
	EC	Purple-leaf Wintercreeper
	NB	Native Bull Rock

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JORDAN A. KAYLOR	3117	10/04/2023
TYPE OR PRINT NAME	PLA #	DATE

NO.	DATE	REVISION

PROJECT SPRUCE

OVERALL LANDSCAPE PLANTING PLAN

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS

TEXAS REGISTRATION ENGINEERING FIRM NO. 12207
9800 HILLWOOD PKWY, SUITE 250, FORT WORTH, TEXAS 76177
FORT WORTH PHONE: (817) 562-3350

DRAWN: JLC	DATE	PROJECT #	SHEET
DESIGNED: JLC	OCTOBER 2023	BLC23002	L100
REVIEWER: JAK			

PROJECT SPRUCE

Drawing: G:\JOBS\LC23002_Project_Spruce\3_Design\05_LA\351_CAD\LA_Plans\BLC23002-LANDSCAPE-OV
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CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

FIRST SUBMITTAL

SECTION 32 9300 - LANDSCAPE PART 1 - GENERAL

1.1 REFERENCED DOCUMENTS

A. Refer to Landscape Plans, notes, details, bidding requirements, special provisions, and schedules for additional requirements.

1.2 DESCRIPTION OF WORK

A. Work included: Furnish all supervision, labor, materials, services, equipment and appliances required to complete the work covered in conjunction with the landscaping covered in these specifications and landscaping plans, including:

1. Planting (trees, shrubs and grasses)
2. Bed preparation and fertilization
3. Notification of sources
4. Water and maintenance until final acceptance
5. Guarantee

1.3 REFERENCE STANDARDS

A. American Standard for Nursery Stock published by American Association of Nurserymen: 27 October 1980, Edition; by American National Standards Institute, Inc. (Z60.1) - plant material

B. American Joint Committee on Horticultural Nomenclature: 1942 Edition of Standardized Plant Names.

C. Association of Nurserymen, Grades and Standards

D. Hortis Third, 1976 - Cornell University

1.4 NOTIFICATION OF SOURCES AND SUBMITTALS

A. Samples: Provide representative quantities of sandy loam soil, mulch, bed mix material, gravel and crushed stone. Samples shall be approved by Owner's Authorized Representative before use on the project.

1.5 JOB CONDITIONS

A. General Contractor to complete the following punch list: Prior to Landscape Contractor initiating any portion of landscape installation, General Contractor shall leave planting bed areas three (4.5") inches below final finish grade of sidewalks, drives and curbs as shown on the drawings. All lawn areas to receive solid sod shall be left one (1") inch below the final finish grade of sidewalks, drives and curbs. All construction debris shall be removed prior to Landscape Contractor beginning any work.

B. Storage of materials and equipment at the job site will be at the risk of the Landscape Contractor. The Owner cannot be held responsible for theft or damage.

1.6 MAINTENANCE AND GUARANTEE

A. Maintenance:

1. The Landscape Contractor shall be held responsible for the maintenance of all work from the time of planting until final acceptance by the Owner. No trees, shrubs, groundcover or grass will be accepted unless they show healthy growth and satisfactory foliage conditions.
2. Maintenance shall include watering of trees and plants, cultivation, weeding spraying, edging, pruning of trees, mowing of grass, cleaning up and all other work necessary of maintenance.
3. A written notice requesting final inspection and acceptance should be submitted to the Owner at least seven (7) days prior to completion. An on-site inspection by the Owner's Authorized Representative will be completed prior to written acceptance.

B. Guarantee:

1. Trees, shrubs and groundcover shall be guaranteed for a twelve (12) month period after final acceptance. The Contractor shall replace all dead materials as soon as weather permits and upon notification of the Owner. Plants, including trees, which have partially died so that shape, size, or symmetry have been damaged, shall be considered subject to replacement. In such cases, the opinion of the Owner shall be final.
   a. Plants used for replacement shall be of the same size and kind as those originally planted and shall be planted as originally specified. All work, including materials, labor and equipment used in replacements, shall carry a twelve (12) month guarantee. Any damage, including ruts in lawn or bed areas, incurred as a result of making replacements shall be immediately repaired.
   b. At the direction of the Owner, plants may be replaced at the start of the next year's planting season. In such cases, dead plants shall be removed from the premises immediately.
   c. When plant replacements are made, plants, soil mix, fertilizer and mulch are to be utilized as originally specified and re-inspected for full compliance with the contract requirements. All replacements are to be included under "Work" of this section.
2. The Owner agrees that for the guarantee to be effective, he will water plants at least twice a week during dry periods and cultivate beds once a month after final acceptance.
3. The above guarantee shall not apply where plants die after acceptance because of injury from storms, hail, freeze, insects, diseases, injury by humans, machines or theft.
4. Acceptance for all landscape work shall be given after final inspection by the Owner provided the job is in a complete, undamaged condition and there is a stand of grass in all lawn areas. At that time, the Owner will assume maintenance on the accepted work.

C. Repairs: Any necessary repairs under the Guarantee must be made within ten (10) days after receiving notice, weather permitting. In the event the Landscape Contractor does not make repairs accordingly, the Owner, without further notice to Contractor, may provide materials and men to make such repairs at the expense to the Landscape Contractor.

1.7 QUALITY ASSURANCE

A. General: Comply with applicable federal, state, county and local regulations governing landscape materials and work.

B. Personnel: Employ only experienced personnel who are familiar with the required work. Provide full time supervision by a qualified foreman acceptable to Landscape Architect.

C. Selection of Plant Material:

1. Make contact with suppliers immediately upon obtaining notice of contract acceptance to select and book materials. Develop a program of maintenance (pruning and fertilization) which will ensure the purchased materials will meet and / or exceed project specifications.
2. Substitutions: Do not make plant material substitutions. If the specified landscape material is not obtainable, submit proof of non-availability to Landscape Architect, together with proposal for use of equivalent material. At the time bids are submitted, the Contractor is assumed to have located the materials necessary to complete the job as specified.
3. Landscape Architect will provide a key identifying each tree location on site. Written verification will be required to document material selection, source and delivery schedules to site.
4. Measurements: Measure trees with branches and trunks or canes in their normal position. Do not prune to obtain required sizes. Take caliper measurements six inches above ground for trees up to and including 4" caliper size, and twelve inches above ground for larger sizes. Measure main body of all plant material of height and spread dimensions, do not measure from branch or root tip-to-tip.
5. Owner's Authorized Representative shall inspect all plant material with requirements for genus, species, cultivar / variety size and quality.
6. Owner's Authorized Representative retains the right to further inspect all plant material upon arrival to the site and during installation for size and condition of root balls and root systems, limbs, branching habit, insects, injuries and latent defects.
7. Owner's Authorized Representative may reject unsatisfactory or defective material at any time during the process work. Remove rejected materials immediately from the site and replace with acceptable material at no additional cost to the Owner. Plants damaged in transit or at job site shall be rejected.

1.8 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Preparation:

1. Balled and Burlapped (B&B) Plants: Dig and prepare shipment in a manner that will not damage roots, branches, shape and future development.
2. Container Grown Plants: Deliver plants in rigid container to hold ball shape and protect root mass.

B. Delivery:

1. Deliver packaged materials in sealed containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery and while stored on site.
2. Deliver only plant materials that can be planted in one day unless adequate storage and watering facilities are available on job site.
3. Protect root balls by heeling in with sawdust or other approved moisture retaining material if not planted within 24 hours of delivery.
4. Protect plants during delivery to prevent damage to root balls or desiccation of leaves. Keep plants moist at all times. Cover all materials during transport.
5. Notify Owner's Authorized Representative of delivery schedule 72 hours in advance job site.
6. Remove rejected plant material immediately from job site.
7. To avoid damage or stress, do not lift, move, adjust to plumb, or otherwise manipulate plants by trunk or stems.

PART 2 - PRODUCTS

2.1 PLANTS

A. General: Well-formed No. 1 grade or better nursery grown stock. Listed plant heights are from tops of root balls to nominal tops of plants. Plant spread refers to nominal outer width of the plant, not to the outer leaf tips. Plants will be individually approved by the Owner's Authorized Representative and his decision as to their acceptability shall be final.

B. Quantities: The drawings and specifications are complimentary. Anything called for on one and not the other is as binding as if shown and called for on both. The plant schedule is an aid to bidders only. Confirm all quantities on plan.

C. Quality and size: Plant materials shall conform to the size given on the plan, and shall be healthy, symmetrical, well-shaped, full branched and well rooted. The plants shall be free from injurious insects, diseases, injuries to the bark or roots, broken branches, objectionable disfigurements, insect eggs and larvae, and are to be of specimen quality.

D. Approval: All plants which are found unsuitable in growth, or are in any unhealthy, badly shaped or undersized condition will be rejected by the Owner's Authorized Representative either before or after planting and shall be removed at the expense of the Landscape Contractor and replaced with acceptable plant as specified at no additional cost to the Owner.

E. Trees shall be healthy, full-branched, well-shaped, and shall meet the minimum trunk and diameter requirements of the plant schedule. Balls shall be firm, neat, slightly tapered and well wrapped in burlap. Any tree loose in the ball or with a broken root ball at time of planting will be rejected. Balls shall be ten (10") inches in diameter for each one (1") inch of trunk diameter, measured six (6") inches above ball. (Nomenclature confirms to the customary nursery usage. For clarification, the term "multi-trunk" defines a plant having three (3) or more trunks of nearly equal diameter.)

F. Pruning: All pruning of trees and shrubs, as directed by the Landscape Architect prior to final acceptance, shall be executed by the Landscape Contractor at no additional cost to the Owner.

2.2 SOIL PREPARATION MATERIALS

A. Sandy Loam:

1. Friable, fertile, dark, loamy soil, free of clay lumps, subsoil, stones and other extraneous material and reasonably free of weeds and foreign grasses. Loam containing Dallasgrass or Nutgrass shall be rejected.
2. Physical properties as follows:
   a. Clay - between 7-27 percent
   b. Silt - between 15-25 percent
   c. Sand - less than 52 percent
3. Organic matter shall be 3%-10% of total dry weight.
4. If requested, Landscape Contractor shall provide a certified soil analysis conducted by an approved soil testing laboratory verifying that sandy loam meets the above requirements.

B. Organic Material: Compost with a mixture of 80% vegetative matter and 20% animal waste. Ingredients should be a mix of course and fine textured material.

C. Sharp Sand: Sharp sand must be free of seeds, soil particles and weeds.

D. Mulch: Double Shredded Hardwood Mulch, partially decomposed, dark brown.

E. Organic Fertilizer: Fertilaid, Sustane, or Green Sense or equal as recommended for required applications. Fertilizer shall be delivered to the site in original unopened containers, each bearing the manufacturer's guaranteed statement of analysis.

F. Commercial Fertilizer: 10-20-10 or similar analysis. Nitrogen source to be a minimum 50% slow release organic Nitrogen (SCU or UF) with a minimum 8% sulfur and 4% iron, plus micronutrients.

G. Peat: Commercial sphagnum peat moss or partially decomposed shredded pine bark or other approved organic material.

2.3 MISCELLANEOUS MATERIALS

A. Steel Edging: 1/8" x 4" x 16' - dark green, DURAEDGE® steel landscape edging manufactured by The J.D. Russell Company under its trade name DURAEDGE Heavy Duty Steel .

B. Staking Material for Shade Trees: refer to details.

C. Gravel: Washed native pea gravel, graded 1 inch to 1-1/2 inch.

D. Filter Fabric: 'Mirafi Mirascape' by Mirafi Construction Products or approved equal.

E. Decomposed Granite: Base material shall consist of a natural material mix of granite aggregate not to exceed 1/8" diameter in size and shall be composed of various stages of decomposed earth base.

PART 3 - EXECUTION

3.1 BED PREPARATION & FERTILIZATION

A. Landscape Contractor to inspect all existing conditions and report any deficiencies to the Owner.

B. All planting areas shall be conditioned as follows:

1. Prepare new planting beds by scraping away existing grass and weeds as necessary. Till existing soil to a depth of six (6") inches prior to placing compost and fertilizer. Apply fertilizer as per Manufacturer's recommendations. Add six (6") inches of compost and till into a depth of six (6") inches of the topsoil. Apply organic fertilizer such as Sustane or Green Sense at the rate of twenty (20) pounds per one thousand (1,000) square feet.
2. All planting areas shall receive a four (4") inch layer of specified mulch.
3. Backfill for tree pits shall be as follows: Use existing top soil on site (use imported topsoil as needed) free from large clumps, rocks, debris, caliche, subsoils, etc., placed in nine (9") inch layers and watered in thoroughly.

C. Grass Areas:

1. Blocks of sod should be laid joint to joint (staggered joints) after fertilizing the ground first. Roll grass areas to achieve a smooth, even surface. The joints between the blocks of sod should be filled with topsoil where they are evidently gaped open, then watered thoroughly.

3.2 INSTALLATION

A. Maintenance of plant materials shall begin immediately after each plant is delivered to the site and shall continue until all construction has been satisfactorily accomplished.

B. Plant materials shall be delivered to the site only after the beds are prepared and areas are ready for planting. All shipments of nursery materials shall be thoroughly protected from the drying winds during transit. All plants which cannot be planted at once, after delivery to the site, shall be well protected against the possibility of drying by wind and Balls of earth of B & B plants shall be kept covered with soil or other acceptable material. All plants remain the property of the Contractor until final acceptance.

C. Position the trees and shrubs in their intended location as per plan.

D. Notify the Owner's Authorized Representative for inspection and approval of all positioning of plant materials.

E. Excavate pits with vertical sides and horizontal bottom. Tree pits shall be large enough to permit handling and planting without injury to balls of earth or roots and shall be of such depth that,when planted and settled, the crown of the plant shall bear the same relationship to the finish grade as it did to soil surface in original place of growth.

F. Shrub and tree pits shall be no less than twenty-four (24") inches wider than the lateral dimension of the earth ball and six (6") inches deeper than it's vertical dimension. Remove and haul from site all rocks and stones over three-quarter (3/4") inch in diameter. Plants should be thoroughly moist before removing containers.

G. Dig a wide, rough sided hole exactly the same depth as the height of the ball, especially at the surface of the ground. The sides of the hole should be rough and jagged, never slick or glazed.

H. Percolation Test: Fill the hole with water. If the water level does not percolate within 24 hours, the tree needs to move to another location or have drainage added. Install a PVC stand pipe per tree planting detail as approved by the Landscape Architect if the percolation test fails.

I. Backfill only with native soil. When the hole is dug in solid rock, topsoil from the same area should not be used. Carefully settle by watering to prevent air pockets. Remove the burlap from the top 1 of the ball, as well as all nylon, plastic string and wire. Container trees will usually be root bound, if so follow standard nursery practice of 'root scoring'.

J. Do not wrap trees.

K. Do not over prune.

L. Mulch the top of the ball. Do not plant grass all the way to the trunk of the tree. Leave the area above the top of the ball and mulch with at least two (2") inches of specified mulch.

M. All plant beds and trees to be mulched with a minimum settled thickness of two (2") inches over the entire bed or pit.

N. Obstruction below ground: In the event that rock, or underground construction work or obstructions are encountered in any plant pit excavation work to be done under this section, alternate locations may be selected by the Owner. Where locations cannot be changed, the obstructions shall be removed to a depth of not less than three (3') feet below grade and no less than six (6") inches below the bottom of ball when plant is properly set at the required grade.The work of this section shall include the removal from the site of such rock or underground obstructions encountered at the cost of the Landscape Contractor.

O. Trees and large shrubs shall be staked as site conditions require. Position stakes to secure trees against seasonal prevailing winds.

P. Pruning and Mulching: Pruning shall be directed by the Landscape Architect and shall be pruned in accordance with standard horticultural practice following Fine Pruning, Class I pruning standards provided by the National Arborist Association.

1. Dead wood, suckers, broken and badly bruised branches shall be removed. General tipping of the branches is not permitted. Do not cut terminal branches.
2. Pruning shall be done with clean, sharp tools.
3. Immediately after planting operations are completed, all tree pits shall be covered with a layer of organic material two (2") inches in depth. This limit of the organic material for trees shall be the diameter of the plant pit.

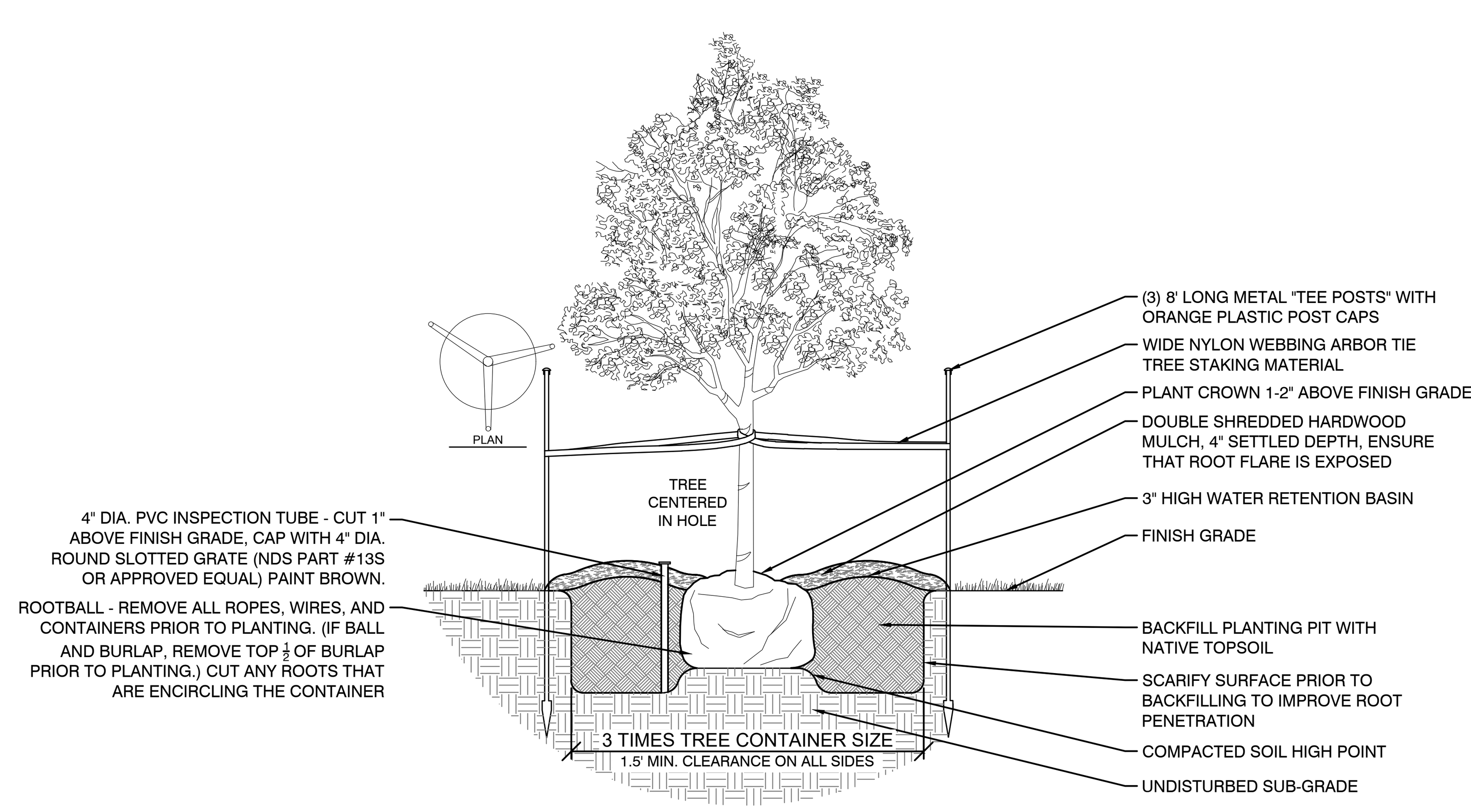
Q. Steel Curbing Installation:

1. Curbing shall be aligned as indicated on plans. Stake out limits of steel curbing and obtain Owners approval prior to installation.
2. All steel curbing shall be free of kinks and abrupt bends.
3. Top of curbing shall be 1 " maximum height above final finished grade.
4. Stakes are to be installed on the planting bed side of the curbing, as opposed to the grass side.
5. Do not install steel edging along sidewalks or curbs.
6. Cut steel edging at 45 degree angle where edging meets sidewalks or curbs.

3.3 CLEANUP AND ACCEPTANCE

A. Cleanup: During the work, the premises shall be kept neat and orderly at all times. Storage areas for all materials shall be so organized so that they, too, are neat and orderly. All trash and debris shall be removed from the site as work progresses. Keep paved areas clean by sweeping or hosing them at end of each work day.

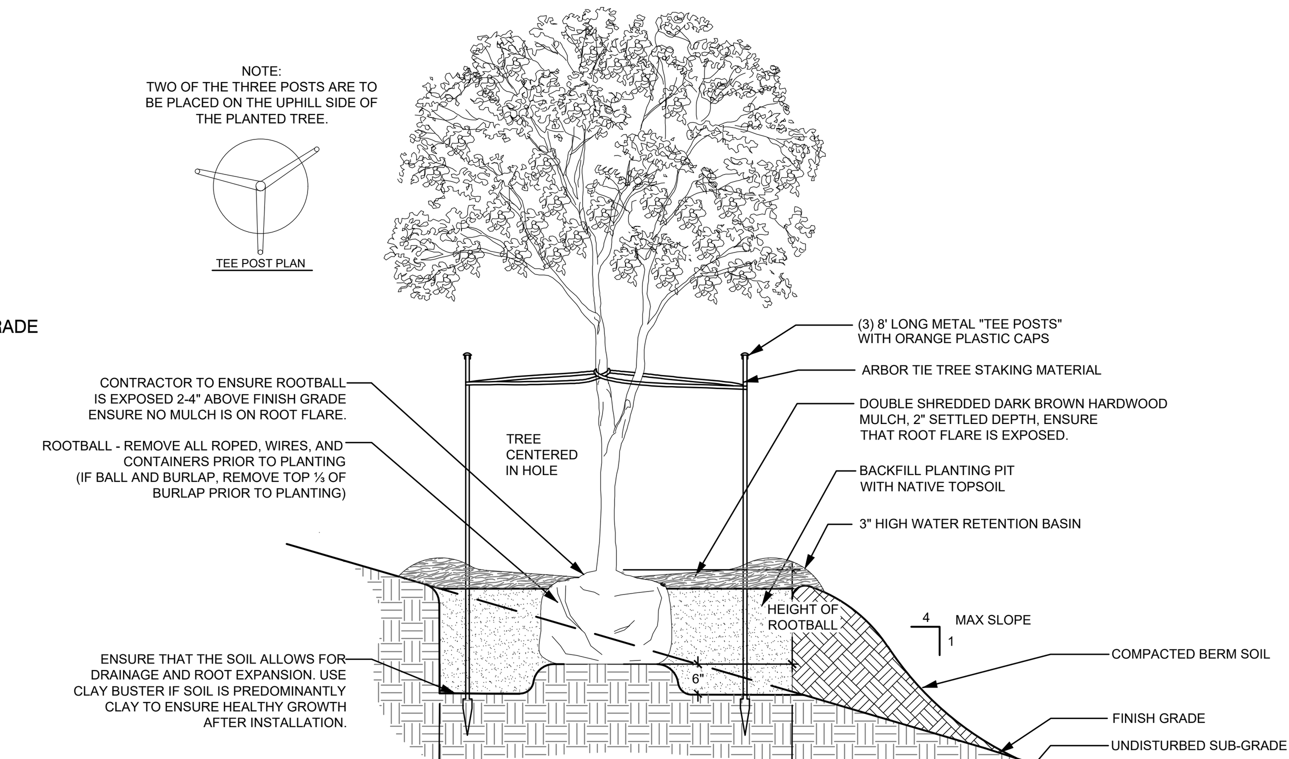
END OF SECTION



1 TREE PLANTING & STAKING DETAIL

N.T.S.

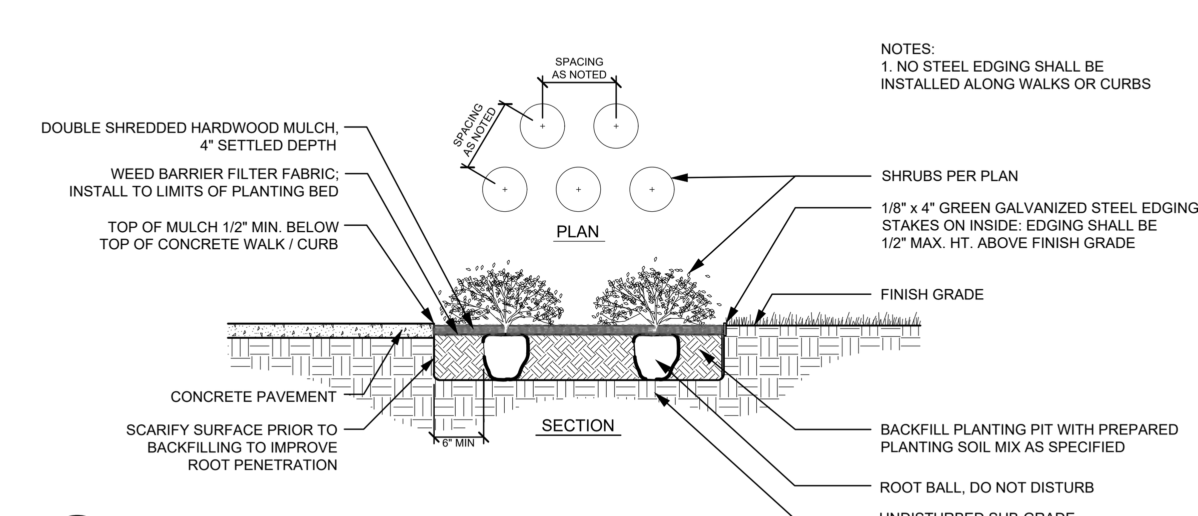
NOTES:
1. TEMPORARY TREE ANCHORS AND ARBOR TIE TO BE REMOVED AFTER ONE FULL GROWING SEASON OR AFTER TREE IS FULLY ESTABLISHED AND STABILIZED.
2. TREE CALIPER MEASURED ABOVE TOP OF ROOTBALL; 6" ABOVE ROOTBALL FOR TREES 4" CALIPER AND LESS AND 12" ABOVE ROOTBALL FOR TREES 5" CALIPER AND GREATER.
3. ALL TREE PRUNING AT THE TIME OF INSTALLATION SHALL BE COORDINATED WITH THE CITY.



2 TREE PLANTING ON SLOPE DETAIL

N.T.S.

NOTES:
1. TEMPORARY TREE ANCHORS AND ARBOR TIE TO BE REMOVE AFTER ONE FULL GROWING SEASON.
2. ALL TREE PRUNING AT THE TIME OF INSTALLATION SHALL BE COORDINATED WITH THE CITY.
3. ALL TREES ARE TO BE PLUMB VERTICALLY WITHIN A TOLERANCE OF 3 DEGREES.
4. A CHECKUP IS REQUIRED WITH LANDSCAPE ARCHITECT 3 MONTHS AFTER INITIAL INSTALLATION TO ENSURE UPRIGHT GROWTH.



3 SHRUB PLANTING DETAIL

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TYPE OR PRINT NAME	PLA #	DATE

NO.	DATE	REVISION

PROJECT SPRUCE

LANDSCAPE SPECIFICATIONS AND DETAILS

ROANOKE, DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS

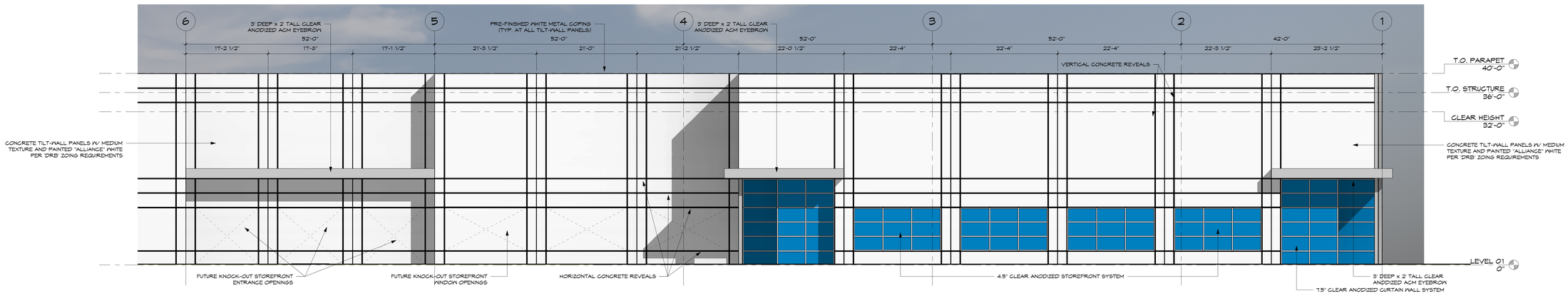
TEXAS REGISTRATION ENGINEERING FIRM NO. 12207
9800 HILLWOOD PKWY, SUITE 250, FORT WORTH, TEXAS 76177
FORT WORTH PHONE: (817) 562-3350

DRAWN: JLC	DATE	PROJECT #	SHEET
DESIGNED: JLC	OCTOBER 2023	BLC23002	L200
REVIEWER: JAK			

PROJECT SPRUCE

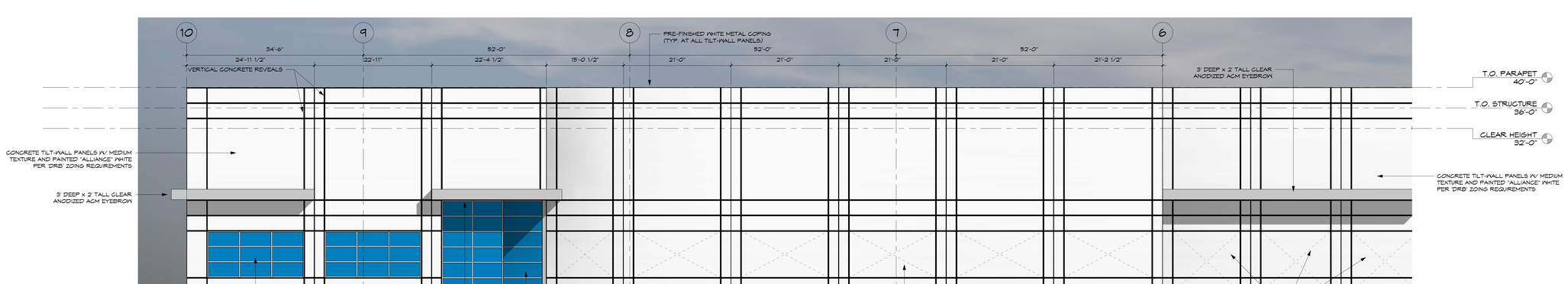
Drawing: G:\JOB\BLC23002_Project_Spruce\3_Design\38_LA\381_CAD\LA_Plans\BLC23002-L-DETAILS
Last Saved by: Jlcondon
Last Saved: 9/29/2023 3:01 PM
Plot Date/Time: 10/4/2023 3:32 PM

The Texas Board of Architectural Examiners has jurisdiction over complaints regarding the professional practices of persons registered as landscape architects in Texas. 333 Guadalupe, Suite 2-350, Austin Texas 78701 : Telephone (512) 305-9000



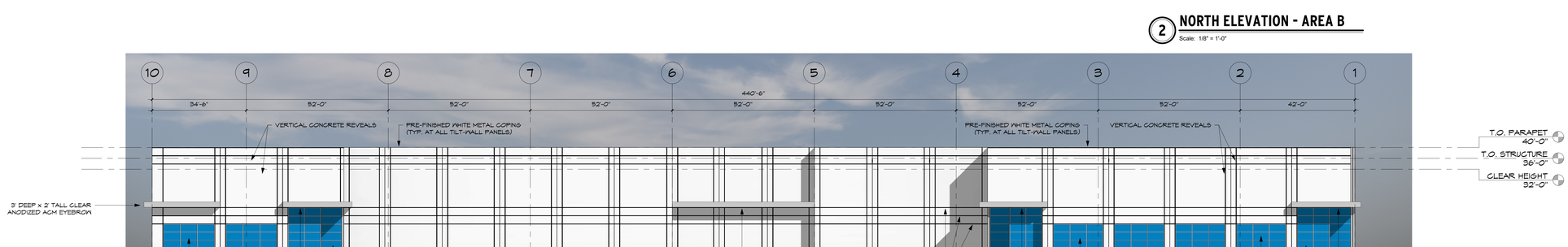
3 NORTH ELEVATION - AREA A

Scale: 1/8" = 1'-0"



2 NORTH ELEVATION - AREA B

Scale: 1/8" = 1'-0"



1 NORTH ELEVATION - OVERALL

Scale: 1/16" = 1'-0"

NORTH ELEVATION MATERIAL TOTALS

GLAZING TOTAL:	2,072	12%
ACM EYEBROW:	317	02%
CONCRETE TILT-WALL:	15,203	86%
TOTAL:	17,592	100%

PROJECT SPRUCE

FAIRWAY DRIVE
ROANOKE, TX 76262

XX.XX.21XX

PERMIT NUMBER: XXXXXXX

RGA PROJECT NUMBER: 23082

DATE: XX.XX.21XX

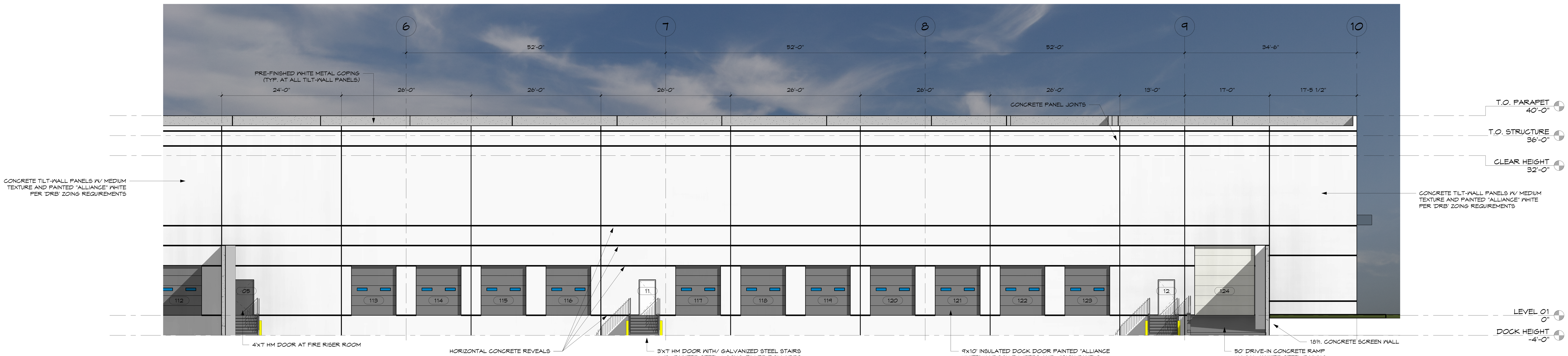
REVISIONS:

Number	Description	Date

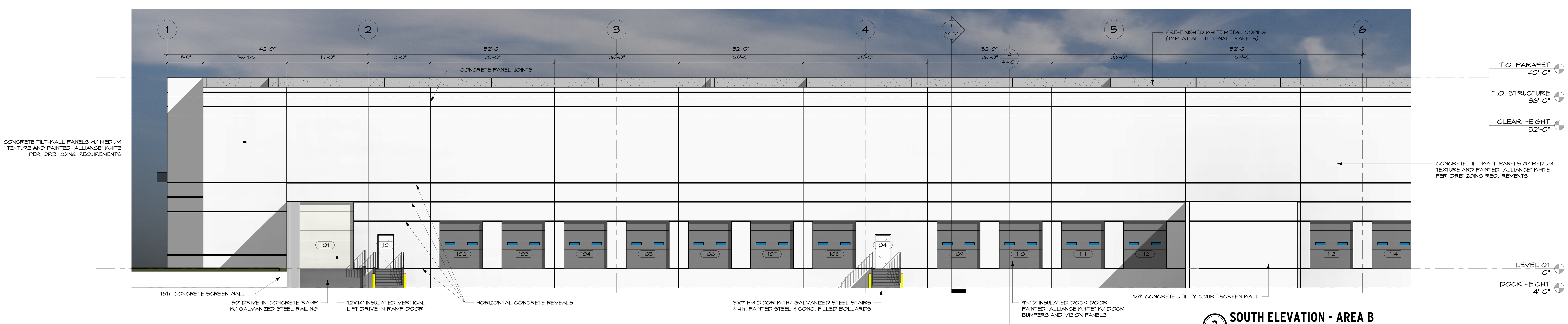
SHEET: A3.01

SITE PLAN APPROVAL

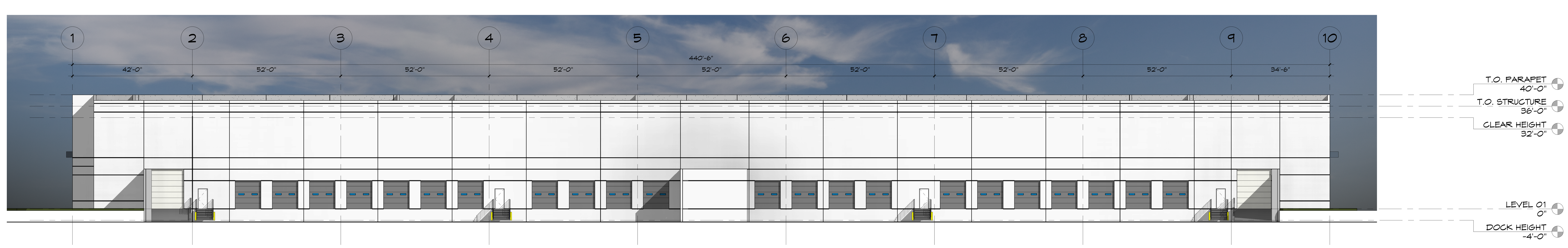
10/3/2023 4:35:49 PM



3 **SOUTH ELEVATION - AREA A**
Scale: 1/8" = 1'-0"



2 **SOUTH ELEVATION - AREA B**
Scale: 1/8" = 1'-0"



1 **SOUTH ELEVATION - OVERALL**
Scale: 1/16" = 1'-0"

SOUTH ELEVATION MATERIAL TOTALS

GLAZING TOTAL:	0	00%
ACM EYEBROW:	0	00%
CONCRETE TILT-WALL:	19,390	100%
TOTAL:	19,390	100%

RGA ARCHITECTS

REGISTERED ARCHITECT * SHANE A. HARRIS 22051 * STATE OF TEXAS

XX.XX.21XX

PROJECT SPRUCE

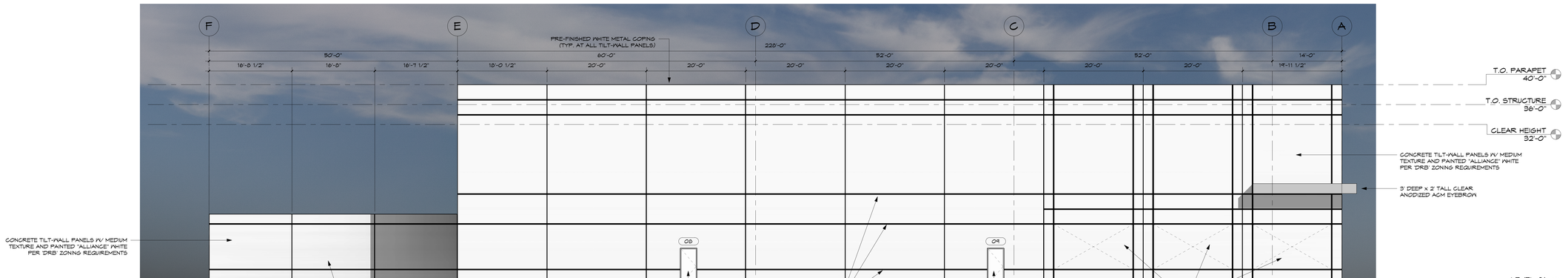
FAIRWAY DRIVE
ROANOKE, TX 76262

PERMIT NUMBER: XXXXXXXX
RGA PROJECT NUMBER: 23082
DATE: XX.XX.21XX
REVISIONS:
Number Description Date

SHEET: A3.02

SITE PLAN APPROVAL

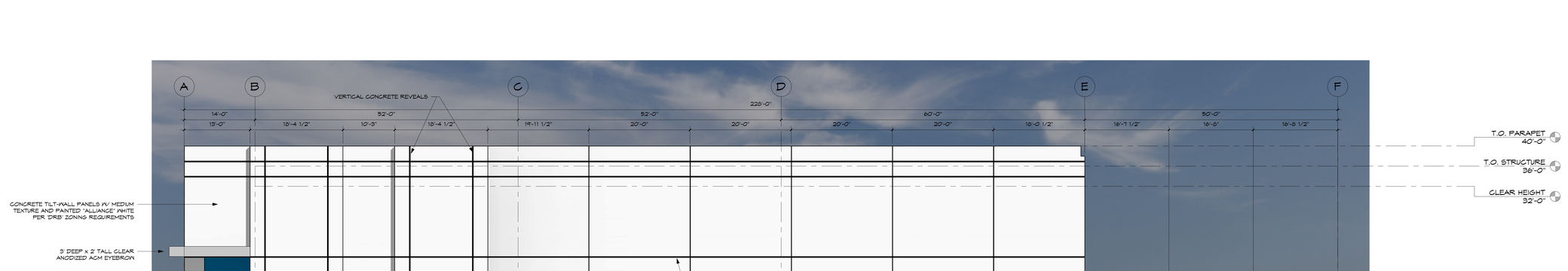
10/3/2023 4:35:54 PM



2 EAST ELEVATION

Scale: 1/8" = 1'-0"

EAST ELEVATION MATERIAL TOTALS		
GLAZING TOTAL:	0	00%
ACM EYEBROW:	34	01%
CONCRETE TILT-WALL:	7,762	99%
TOTAL:	7,796	100%



1 WEST ELEVATION

Scale: 1/8" = 1'-0"

WEST ELEVATION MATERIAL TOTALS		
GLAZING TOTAL:	388	05%
ACM EYEBROW:	34	01%
CONCRETE TILT-WALL:	7,374	94%
TOTAL:	7,796	100%

PROJECT SPRUCE

FAIRWAY DRIVE
ROANOKE, TX 76262

XX.XX.21XX

PERMIT NUMBER: XXXXXXX

RGA PROJECT NUMBER: 23082

DATE: XX.XX.21XX

REVISIONS:

Number	Description	Date

SHEET: A3.03

SITE PLAN APPROVAL

10/3/2023 4:35:57 PM

AGENDA ITEM

TO: Planning and Zoning Commission

SUBJECT: Ordinance 2023-128 Amending Chapter 12, Article II, Division 2 of The Code of Ordinances.

MEETING DATE: October 16, 2023

DEPARTMENT: Planning

ITEM SUMMARY:
Consideration and recommendation on approval of Ordinance No. 2023-128 , amending the Comprehensive Zoning Ordinance, by amending Chapter 12, Article II, Division 2 of the Code of Ordinances by adding a new Section 12-60, entitled "Compensation For Non-Conforming Uses," by requiring the use of compensation criteria required by Section 211.019 of the Texas Local Government Code; and amending Chapter 12, Article II, Division 5 of the Code of Ordinances by amending Section 12.124, entitled "Notice of Public Hearing" by adding a new subsection (D) addressing the notice requirements for nonconforming uses.

INFORMATION:
Adopting zoning related legislation passed by the State of Texas.

STAFF RECOMMENDATION:
Staff recommends approval.

SPECIAL CONSIDERATION:

FINANCIAL CONSIDERATION:

ATTACHMENTS:
1. ORD NO 2023-128 - Zoning Amendment - Nonconforming Uses - SB 929
2. ORD NO 2023-128 - Zoning Amendment - Nonconforming Uses - SB 929 - Redline Version
3. SB929 (2023) - Bill Analysis - Non-conforming Uses (1)

ORDINANCE No. 2023-128

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ROANOKE, TEXAS, AMENDING THE COMPREHENSIVE ZONING ORDINANCE, BY AMENDING CHAPTER 12, ARTICLE II, DIVISION 2 OF THE CODE OF ORDINANCES BY ADDING A NEW SECTION 12-60, ENTITLED "COMPENSATION FOR NON-CONFORMING USES," BY REQUIRING THE USE OF COMPENSATION CRITERIA REQUIRED BY SECTION 211.019 OF THE TEXAS LOCAL GOVERNMENT CODE; AND AMENDING CHAPTER 12, ARTICLE II, DIVISION 5 OF THE CODE OF ORDINANCES BY AMENDING SECTION 12.124, ENTITLED "NOTICE OF PUBLIC HEARING" BY ADDING A NEW SUBSECTION (D) ADDRESSING THE NOTICE REQUIREMENTS FOR NONCONFORMING USES; PROVIDING A PENALTY CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A REPEALER CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, in the 2023 Texas legislative session, the Texas Legislature approved S.B. 929 (2023) which requires cities to provide certain notices concerning nonconforming uses; and

WHEREAS, Section 12.124(b) of the Code of Ordinances of the City of Roanoke, Texas, provides as follows, "[f]or requests involving proposed changes to the text of the Zoning Ordinance, notice of the Planning and Zoning Commission hearing shall be accomplished by publishing the purpose, time and place of the public hearing in the official newspaper of the City before the fifteenth (15th) calendar day prior to the date of the public hearing. Changes in the Ordinance text which do not change zoning district boundaries do not require written notification to individual property owners;" and

WHEREAS, Section 12.127(c) of the Code of Ordinances of the City of Roanoke, Texas, provides as follows, "[n]otice of the City Council public hearing for a zoning, rezoning or Zoning Ordinance text amendment request shall be given in the same manner as that for the public hearing before the Planning and Zoning Commission as required in Section 12.124;" and

WHEREAS, the Planning and Zoning Commission and the City Council of the City of Roanoke, Texas, in compliance with the laws of the State of Texas, and the Code of Ordinances of the City of Roanoke, Texas, have given the requisite notices by publication and otherwise, and have held due hearings and afforded a full and fair hearing to all property owners generally and to all persons interested, and the City Council of the City of Roanoke, Texas, is of the opinion and finds that said changes should be granted and that the Zoning Ordinance should be amended.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ROANOKE, TEXAS:

Section 1. FINDINGS INCORPORATED
The findings set forth above are incorporated into the body of this Ordinance as if fully set forth herein.

Section 2.
That Chapter 12, Article II, Division 2 of the Code of Ordinances of the City of Roanoke, Texas, is hereby amended by adding a new section 12.60, entitled "Compensation for Non-Conforming Uses," which shall read as follows:

“Sec. 12.60. Compensation for Non-Conforming Uses.

The Zoning Board of Adjustment, in accordance with Section 211.019 of the Texas Local Government Code, as amended, shall utilize the procedures and owner or lessee compensation criteria contained in said Section in the event the City determines that a nonconforming use of property shall cease.”

Section 3.
That Chapter 12, Article II, Division 5 of the Code of Ordinances of the City of Roanoke, Texas, is hereby amended by amending section 12.124, entitled “Notice of Public Hearing,” which shall read as follows:

“Sec. 12.124. Notice of Public Hearing.

(a) For zoning and rezoning requests involving real property, the Planning and Zoning Commission shall hold at least one public hearing on each zoning application, as required in Texas Local Government Code Chapter 211, as amended. For proposed changes to zoning district boundaries, notice of the public hearing to occur before the Planning and Zoning Commission shall be accomplished by publishing the purpose, time and place of the public hearing in the official newspaper of the City before the fifteenth (15th) calendar day prior to the date of the public hearing. Written notice of the public hearing shall also be sent to all owners of property, as indicated by the most recently approved City tax roll, that is located within the area of application and within two hundred feet (200') of any property affected thereby, said written notice to be sent before the tenth (10th) calendar day prior to the date such hearing is held. Such notice may be served by using the last known address as listed on the most recently approved tax roll and depositing the notice, postage paid, in the United States mail.

(b) For requests involving proposed changes to the text of the Zoning Ordinance, notice of the Planning and Zoning Commission hearing shall be accomplished by publishing the purpose, time and place of the public hearing in the official newspaper of the City before the fifteenth (15th) calendar day prior to the date of the public hearing. Changes in the Ordinance text which do not change zoning district boundaries do not require written notification to individual property owners.

(c) The City may, at its option, establish additional rules and procedures for public notification of proposed zoning changes and development proposals which may include, but not be limited to, the posting of a sign(s) on any property that is proposed for a zoning change or development by the applicant or its agent(s). Knowledge of and adherence to such rules and procedures, if so established by the City, shall be the responsibility of the applicant and shall be required as part of a zoning change or development application. The City shall make available one (1) copy of all rules and procedures in the City Manager's office.

(d) In addition to the foregoing notice, the City shall provide written notice of each public hearing regarding any proposed adoption of or change to a zoning regulation or boundary under which a current conforming use of a property is a nonconforming use if the regulation or boundary is adopted or changed. The notice shall:

(1) be mailed by United States mail to each owner of real or business personal property where the proposed nonconforming use is located as indicated by the

most recently approved municipal tax roll and each occupant of the property not later than the 10th day before the hearing date;

(2) contain the time and place of the hearing; and

(3) include the following text in bold 14-point type or larger: "THE CITY OF ROANOKE, TEXAS, IS HOLDING A HEARING THAT WILL DETERMINE WHETHER YOU MAY LOSE THE RIGHT TO CONTINUE USING YOUR PROPERTY FOR ITS CURRENT USE. PLEASE READ THIS NOTICE CAREFULLY."

Section 4. PENALTY CLAUSE

Any person, firm, or corporation violating any of the provisions or terms of this Ordinance shall be guilty of a misdemeanor and upon conviction, shall be fined a sum not to exceed $2,000.00 for each offense, and each and every violation or day such violation shall continue or exist, shall be deemed a separate offense.

Section 5. SEVERABILITY CLAUSE

It is hereby declared to be the intention of the City Council that the phrases, clauses, sentences, paragraphs and sections of this ordinance are severable, and if any phrase, clause, sentence, paragraph or section of this ordinance shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this ordinance, since the same would have been enacted by the City Council without the incorporation of this ordinance of any such unconstitutional phrase, clause, sentence, paragraph or section.

Section 6. REPEALER CLAUSE

Any provision of any prior ordinance of the City whether codified or uncodified, which are in conflict with any provision of the Ordinance, are hereby repealed to the extent of the conflict, but all other provisions of the ordinances of the City whether codified or uncodified, which are not in conflict with the provisions of this Ordinance, shall remain in full force and effect.

Section 7. EFFECTIVE DATE

This Ordinance shall become effective immediately upon its passage and publication as required by law.

PASSED, APPROVED AND ADOPTED by the City Council of the City of Roanoke, Texas, on this the _____ day of _____ , 2023.

APPROVED:

_____

Carl E. Gierisch, Jr., Mayor

ATTEST:

_____

April S. Hill, City Secretary

APPROVED AS TO FORM:

_____

Jeff Moore, City Attorney

ORDINANCE No. 2023-128

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ROANOKE, TEXAS, AMENDING THE COMPREHENSIVE ZONING ORDINANCE, BY AMENDING CHAPTER 12, ARTICLE II, DIVISION 2 OF THE CODE OF ORDINANCES BY ADDING A NEW SECTION 12-60, ENTITLED "COMPENSATION FOR NON-CONFORMING USES," BY REQUIRING THE USE OF COMPENSATION CRITERIA REQUIRED BY SECTION 211.019 OF THE TEXAS LOCAL GOVERNMENT CODE; AND AMENDING CHAPTER 12, ARTICLE II, DIVISION 5 OF THE CODE OF ORDINANCES BY AMENDING SECTION 12.124, ENTITLED "NOTICE OF PUBLIC HEARING" BY ADDING A NEW SUBSECTION (D) ADDRESSING THE NOTICE REQUIREMENTS FOR NONCONFORMING USES; PROVIDING A PENALTY CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A REPEALER CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, in the 2023 Texas legislative session, the Texas Legislature approved S.B. 929 (2023) which requires cities to provide certain notices concerning nonconforming uses; and

WHEREAS, Section 12.124(b) of the Code of Ordinances of the City of Roanoke, Texas, provides as follows, "[f]or requests involving proposed changes to the text of the Zoning Ordinance, notice of the Planning and Zoning Commission hearing shall be accomplished by publishing the purpose, time and place of the public hearing in the official newspaper of the City before the fifteenth (15th) calendar day prior to the date of the public hearing. Changes in the Ordinance text which do not change zoning district boundaries do not require written notification to individual property owners;" and

WHEREAS, Section 12.127(c) of the Code of Ordinances of the City of Roanoke, Texas, provides as follows, "[n]otice of the City Council public hearing for a zoning, rezoning or Zoning Ordinance text amendment request shall be given in the same manner as that for the public hearing before the Planning and Zoning Commission as required in Section 12.124;" and

WHEREAS, the Planning and Zoning Commission and the City Council of the City of Roanoke, Texas, in compliance with the laws of the State of Texas, and the Code of Ordinances of the City of Roanoke, Texas, have given the requisite notices by publication and otherwise, and have held due hearings and afforded a full and fair hearing to all property owners generally and to all persons interested, and the City Council of the City of Roanoke, Texas, is of the opinion and finds that said changes should be granted and that the Zoning Ordinance should be amended.

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The Zoning Board of Adjustment, in accordance with Section 211.019 of the Texas Local Government Code, as amended, shall utilize the procedures and owner or lessee compensation criteria contained in said Section in the event the City determines that a nonconforming use of property shall cease."

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(b) For requests involving proposed changes to the text of the Zoning Ordinance, notice of the Planning and Zoning Commission hearing shall be accomplished by publishing the purpose, time and place of the public hearing in the official newspaper of the City before the fifteenth (15th) calendar day prior to the date of the public hearing. Changes in the Ordinance text which do not change zoning district boundaries do not require written notification to individual property owners.

(c) The City may, at its option, establish additional rules and procedures for public notification of proposed zoning changes and development proposals which may include, but not be limited to, the posting of a sign(s) on any property that is proposed for a zoning change or development by the applicant or its agent(s). Knowledge of and adherence to such rules and procedures, if so established by the City, shall be the responsibility of the applicant and shall be required as part of a zoning change or development application. The City shall make available one (1) copy of all rules and procedures in the City Manager's office.

(d) In addition to the foregoing notice, the City shall provide written notice of each public hearing regarding any proposed adoption of or change to a zoning regulation or boundary under which a current conforming use of a property is a nonconforming use if the regulation or boundary is adopted or changed. The notice shall:

(1) be mailed by United States mail to each owner of real or business personal property where the proposed nonconforming use is located as indicated by the

most recently approved municipal tax roll and each occupant of the property not later than the 10th day before the hearing date;

(2) contain the time and place of the hearing; and

(3) include the following text in bold 14-point type or larger: "THE CITY OF ROANOKE, TEXAS, IS HOLDING A HEARING THAT WILL DETERMINE WHETHER YOU MAY LOSE THE RIGHT TO CONTINUE USING YOUR PROPERTY FOR ITS CURRENT USE. PLEASE READ THIS NOTICE CAREFULLY."

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Section 4. PENALTY CLAUSE
Any person, firm, or corporation violating any of the provisions or terms of this Ordinance shall be guilty of a misdemeanor and upon conviction, shall be fined a sum not to exceed $2,000.00 for each offense, and each and every violation or day such violation shall continue or exist, shall be deemed a separate offense.

Section 5. SEVERABILITY CLAUSE
It is hereby declared to be the intention of the City Council that the phrases, clauses, sentences, paragraphs and sections of this ordinance are severable, and if any phrase, clause, sentence, paragraph or section of this ordinance shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this ordinance, since the same would have been enacted by the City Council without the incorporation of this ordinance of any such unconstitutional phrase, clause, sentence, paragraph or section.

Section 6. REPEALER CLAUSE
Any provision of any prior ordinance of the City whether codified or uncodified, which are in conflict with any provision of the Ordinance, are hereby repealed to the extent of the conflict, but all other provisions of the ordinances of the City whether codified or uncodified, which are not in conflict with the provisions of this Ordinance, shall remain in full force and effect.

Section 7. EFFECTIVE DATE
This Ordinance shall become effective immediately upon its passage and publication as required by law.

PASSED, APPROVED AND ADOPTED by the City Council of the City of Roanoke, Texas, on this the _____ day of _____ , 2023.

APPROVED:

_____
Carl E. Gierisch, Jr., Mayor

ATTEST:

_____
April S. Hill, City Secretary

APPROVED AS TO FORM:

_____
Jeff Moore, City Attorney

BILL ANALYSIS

Senate Research Center

S.B. 929
By: Parker
Local Government
5/23/2023
Enrolled

AUTHOR'S / SPONSOR'S STATEMENT OF INTENT

Cities can currently change property use regulations, which renders a business owner's previously legal property use as "nonconforming," without triggering takings repayment requirements. Cities then can use a process called "amortization" to force a property owner to cease business operations deemed non-conforming despite being perfectly acceptable before the zoning change. The city never has to pay the landowner a dime for taking away the right to use their property, and instead implements the use of an accounting maneuver to allow the property owner to "compensate themselves."

Amortization occurs all over the state—from Lubbock to Dallas to Corpus Christi. One city put a number of auto-related businesses out of work to establish an "arts-gateway," and instead of offering compensation for lost revenue, the city sought $1,000 per day fines for those who continued to operate while fighting for their livelihoods. Another city passed new regulations on property leases that would force several landlords out of the rental business. In one case, a city threatened to drive a roofing materials factory that employs 150 workers from their property without giving them a dime even though they legally called the factory their home of 80 years. Facing certain abuse of the city's amortization ordinance, the company relented and plans to shut down its plant in just seven years and vacate the property, likely carrying the expense of hundreds of millions of dollars. Often, businesses facing amortization close for good or move their factories—and jobs—out of Texas.

The amortization process goes against Texas' long tradition of job creation and respect for private property rights. And when a city has a compelling need to deprive landowners of the useful enjoyment of their properties, it should be required, as it is in cases of eminent domain, that it offer financial compensation at fair market value. Amortization hurts Texas businesses, from small auto repair shops to factories employing hundreds of Texans.

S.B. 929 requires the governing body of a municipality or a zoning commission to provide written notice to property owners and occupants of each public hearing regarding any proposed adoption of or change to a zoning regulation or boundary that could result in a current conforming use of a property becoming a nonconforming use. The bill also establishes the compensation that the owner or lessee of property with a nonconforming use is entitled to receive if the nonconforming use is required to cease operation due to being a nonconforming use.

(Original Author's/Sponsor's Statement of Intent)

S.B. 929 amends current law relating to the notice and compensation a municipality must provide before revoking the right to use property for a use that was allowed before the adoption of or change to a zoning regulation or boundary.

RULEMAKING AUTHORITY

This bill does not expressly grant any additional rulemaking authority to a state officer, institution, or agency.

SECTION BY SECTION ANALYSIS

SECTION 1. Amends Section 211.006, Local Government Code, by adding Subsection (a-1), as follows:

(a-1) Requires the governing body of a municipality or a zoning commission, as applicable, in addition to any notice required by Section 211.006 (Procedures Governing Adoption of Zoning Regulations and District Boundaries) or Section 211.007 (Zoning Commission), to provide written notice of each public hearing regarding any proposed adoption of or change to a zoning regulation or boundary under which a current conforming use of a property is a nonconforming use if the regulation or boundary is adopted or changed. Requires that the notice:

(1) be mailed by United States mail to each owner of real or business personal property where the proposed nonconforming use is located as indicated by the most recently approved municipal tax roll and each occupant of the property not later than the 10th day before the hearing date;

(2) contain the time and place of the hearing; and

(3) include certain text. Sets forth the language required to be included in the notice.

SECTION 2. Amends Subchapter A, Chapter 211, Local Government Code, by adding Section 211.019, as follows:

Sec. 211.019. NONCONFORMING LAND USE. (a) Defines "market value."

(b) Authorizes a person using a property in a manner considered to be a nonconforming use as a result of the adoption of or change to a zoning regulation or boundary to continue to use the property in the same manner unless required by a municipality to stop the nonconforming use of the property.

(c) Provides that a requirement imposed by a municipality to stop a nonconforming use of a property under this section includes:

(1) an official action by the governing body of the municipality or a board, commission, department, or official of the municipality; or

(2) a determination by the municipality that a nonconforming use has an adverse effect or other necessary determination that a municipality is required to make before imposing a requirement to stop a nonconforming use under applicable law.

(d) Entitles the owner or lessee of the property, if a municipality requires a property owner or lessee to stop the nonconforming use of a property as described by Subsection (b), to:

(1) payment from the municipality in an amount equal to the sum of:

(A) the costs incurred by the owner or lessee of the property that are directly attributable to ceasing the nonconforming use of the property, including expenses related to demolition, relocation, termination of a lease, or discharge of a mortgage; and

(B) an amount equal to the greater of, as determined by the municipality, the diminution in the market value of the property, computed by subtracting the current market value of the property after the imposition of a requirement to stop the nonconforming use of the property from:

(i) the market value of the property on the day before the date the notice was given under Section 211.006(a-1); or

(ii) the market value of the property on the day before a person submits an application or request to the municipality to require or the municipality otherwise requires a person to stop using the property in a manner that is a nonconforming use as described by Subsection (b); or

(2) continued nonconforming use of the property until the owner or lessee recovers the amount determined under Subdivision (1) through the owner or lessee's continued business activities according to generally accepted accounting principles.

(e) Requires a municipality, not later than the 10th day after the date the municipality imposes a requirement to stop a nonconforming use of a property under this section, to give written notice to each owner or lessee of the property, as indicated by the most recently approved municipal tax roll, who is required to stop a nonconforming use of the property of the requirement and of the remedies which an owner or lessee of the property is entitled to under Subsection (d).

(f) Requires the owner or lessee of a property that is subject to a requirement to stop a nonconforming use of the property under this section, not later than the 30th day after the date the municipality gives the notice required by Subsection (e), to respond in writing to the municipality indicating the remedy under Subsection (d) chosen by the owner or lessee. Requires that the owner's choice of remedy, in the event of a conflict in the choice of remedy by the owner and a lessee of the property, control. Requires that the choice of remedy made by an owner or owners holding the greater ownership interest in the property, in the event of a conflict in the choice of remedy by the owners of a property that has more than one owner, control. Authorizes the municipality, if the municipality does not receive timely notice from an owner or lessee, to choose the remedy provided under this section.

(g) Requires a person receiving a payment under Subsection (d)(1) to stop the nonconforming use not later than the 10th day after the date of the payment.

(h) Requires a person who continues the nonconforming use under Subsection (d)(2) to stop the nonconforming use immediately on the recovery of the amount determined under Subsection (d)(1).

(i) Requires the municipality, if more than one person seeks a payment from the municipality under Subsection (d)(1), to apportion the payment between each person based on the market value of the person's interest in the property. Authorizes a person to appeal the apportionment in the manner provided by this section.

(j) Authorizes a person entitled to a remedy under this section to appeal a determination under Subsection (d)(1) or (2) to the board of adjustment of the municipality not later than the 20th day after the date the determination is made. Provides that the municipality, at the hearing before the board of adjustment, has the burden of proof to establish the correctness of its determination.

(k) Authorizes a municipality or a person aggrieved by the final decision of the board of adjustment under Subsection (j) to seek judicial review of the decision by filing suit as provided by Section 211.011 (Judicial Review of Board Decision) not later than the 20th day after the date the final decision is made. Requires the court to review the decision in the manner provided by Section 211.011 except that:

(1) the municipality has the burden of proving by clear and convincing evidence that its determination was correct; and

(2) the court, in reviewing the municipality's decision, is prohibited from using a deferential standard in the municipality's favor and is not limited to determining whether a decision of the board meets the requirements of Chapter 211 (Municipal Zoning Authority) or other applicable law.

(l) Authorizes a person seeking to continue a nonconforming use under Subsection (d)(2) who appeals the decision of the municipality or board of adjustment to continue to use the property in the same manner pending the appeal unless an official of the body that made the decision shows cause to stay the nonconforming use by certifying in writing to the board of adjustment or court with jurisdiction over the appeal facts supporting the official's opinion that continued nonconforming use of the property would cause imminent peril to life or property. Authorizes the board of adjustment or court with jurisdiction over the appeal, on a showing of cause, after notice to the official, to grant a restraining order to stay continued nonconforming use of the property.

(m) Provides that, if the board of adjustment or court with jurisdiction over an appeal determines that an owner or lessee is entitled to:

(1) a payment under this section in an amount different than the amount determined by the municipality under Subsection (d)(1), the board of adjustment or court is required to order, as applicable:

(A) additional payment to the owner or lessee; or

(B) the owner or lessee to reimburse the municipality; or

(2) an amount of time to operate the nonconforming use that is different than the amount of time initially received under Subsection (d)(2), the board of adjustment or court is required to order the municipality to allow an owner or lessee to continue the nonconforming use for additional or less time.

(n) Authorizes an owner or lessee to waive the rights and remedies provided by this section by providing to the municipality a written waiver.

(o) Provides that this section does not apply to a nonconforming use that has been intentionally abandoned for at least six months.

(p) Provides that a municipality's immunity from suit and governmental immunity from liability are waived for purposes of an action brought by a property owner or lessee to enforce the rights and remedies under this section.

SECTION 3. (a) Provides that Section 211.006, Local Government Code, as amended by this Act, and Section 211.019, Local Government Code, as added by this Act, apply to a property for which:

(1) on or after June 1, 2023, the governing body or zoning commission of a municipality considers a proposed adoption of or change to a zoning regulation or boundary under which a current conforming use of the property is a nonconforming use; or

(2) on or after February 1, 2023, the governing body or a board, commission, department, or official of a municipality requires, by ordinance or otherwise, or receives an application or request to require a person to stop nonconforming use of the property due to its nonconformity with the property's current zoning.

(b) Provides that Subsection (a)(2) of this section applies to a property regardless of whether the governing body or a board, commission, department, or official of the municipality is required by applicable law to make a determination that the nonconforming use has an adverse effect or other determination before the nonconforming use is required to stop.

SECTION 4. Effective date: upon passage or September 1, 2023.

AGENDA ITEM

TO: Planning and Zoning Commission

SUBJECT: Ordinance 2023-129 Amending Chapter 9, Exhibit A, The Subdivision Ordinance

MEETING DATE: October 16, 2023

DEPARTMENT: Planning

ITEM SUMMARY:
Consideration and recommendation on approval of Ordinance No. 2023-129, amending Chapter 9, Exhibit A, the subdivision ordinance by amending Section 2 entitled "Definitions," by adding definition for "Approval" and amending the definition of "Filed" or "Filing"; adding a new Section 6.I, entitled "Planning Director Approval" by establishing approval of plats by planning director; and adding a new Section 6.J, entitled "30-Day Time Frame for Plat Approvals".

INFORMATION:
Adopting zoning related legislation passed by the State of Texas.

STAFF RECOMMENDATION:
Staff recommends approval.

SPECIAL CONSIDERATION:

FINANCIAL CONSIDERATION:

ATTACHMENTS:
1. ORD NO 2023-129 - Subdivision Ordinance - Amendment - HB 3699 (2023)
2. ORD NO 2023-129 - Subdivision Ordinance - Amendment - HB 3699 (2023) - Redline Version

ORDINANCE No. 2023-129

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ROANOKE, TEXAS, AMENDING CHAPTER 9, EXHIBIT A, THE SUBDIVISION ORDINANCE BY AMENDING SECTION 2 ENTITLED "DEFINITIONS," BY ADDING DEFINITION FOR "APPROVAL" AND AMENDING THE DEFINITION OF "FILED" OR "FILING"; ADDING A NEW SECTION 6.I, ENTITLED "PLANNING DIRECTOR APPROVAL" BY ESTABLISHING APPROVAL OF PLATS BY PLANNING DIRECTOR; AND ADDING A NEW SECTION 6.J, ENTITLED "30-DAY TIME FRAME FOR PLAT APPROVALS"; PROVIDING A PENALTY CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A REPEALER CLAUSE; AND PROVIDING FOR SAID ORDINANCE TO TAKE EFFECT FROM AND AFTER ITS DATE OF PUBLICATION.

WHEREAS, in the 2023 Texas legislative session, the Texas Legislature approved H.B. 3699 (2023), which amended Chapter 212 of the Texas Local Government Code addressing plat approvals; and

WHEREAS, the City Council of the City of Roanoke, Texas, has determined that the following regulation is necessary in order to protect public health, safety, and welfare.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ROANOKE, TEXAS:

Section 1. FINDINGS INCORPORATED
The findings set forth above are incorporated into the body of this Ordinance as if fully set forth herein.

Section 2. That Chapter 9, Exhibit A, Section 2 of the Code of Ordinances, City of Roanoke, Texas, entitled "Definitions", is hereby amended to read as follows:

"**SECTION 2. - DEFINITIONS.**
For the purposes of these rules, the following terms, phrases, words and their derivations shall have the meaning ascribed to them in this section:

A. *Alley:* A minor public right-of-way, not intended to provide the primary means of access to abutting lots, which is used primarily for vehicular service access to the back or sides of properties otherwise abutting on a street.

B. *Approval*: Shall mean the following:

1. Approval constitutes a determination by the official, board, commission or City Council responsible for such determination that the application is in compliance with the minimum provisions of this subdivision ordinance.

2. Such approval does not constitute approval of the engineering or surveying contained in the plans, as the design engineer or surveyor that sealed the plans is responsible for the adequacy of such plans.

3. For purposes of plat approval, approval shall also include approval with conditions, pursuant to Section 212.009 of the Texas Local Government Code, as amended.

C. *Building Setback Line*: The line within a property defining the stance between a building and the adjacent street line as required by the City's Zoning Ordinance.

D. City: The City of Roanoke, Texas.

E. *City Engineer or Engineer for the City*: The Engineer employed by the City or the independent Consulting Engineer or firm that is retained by the City to furnish engineering recommendations as required by the City Council.

F. *Commission*: The Planning and Zoning Commission of the City (P&Z).

G. *Council*: The City Council of the City.

H. *Crosswalk Way*: A public right-of-way, three (3) feet or more in width between property lines, which provides pedestrian circulation.

I. *Cul-de-Sac*: A street having but one (1) outlet to another street, and terminated on the opposite end by a vehicular turn-around.

J. *Dead-End Street*: A street, other than a cul-de-sac, with only one outlet.

K. *Engineer*: A person duly authorized under the provisions of the Texas Engineering Registration Act, as heretofore or hereafter amended, to practice the profession of engineering and who is specifically qualified to design and prepare construction plans and specifications for subdivision development.

L. *Filed or Filing*: Means the filing date of a preliminary plat, replat, or final plat shall be considered the date an applicant submits said plat, along with a completed application and applicable fees, and other requirements prescribed by or under Texas Local Government Code § 212.004, as amended.

M. *Lot*: An undivided tract or parcel of land having frontage on a public street and which is, or in the future may be offered for sale, conveyance, transfer or improvement; which is designated as a distinct and separate tract, and which is identified by a tract or lot number or symbol in a duly approved subdivision plat which has been properly filed on record.

N. *Pavement Width*: The portion of a street available for vehicular traffic for streets without curbs. Where curbs are laid, it is the portion between the backs of curbs.

O. *Person*: Any individual, association, firm, corporation, governmental agency, or political subdivision.

P. *Plat*: Means a preliminary plat, final plat, and replat.

Q. *Shall, May*: The work "shall" is always mandatory. The word "may" is merely directory or permissive.

R. *Street*: A public right-of-way, however designated, which provides vehicular access to adjacent land.

1. A "primary street" primarily provides vehicular circulation to various sections of the City.

2. A "secondary street" primarily provides circulation within neighborhoods, to carry traffic from tertiary streets to primary streets, or to carry traffic through or adjacent to commercial or industrial areas.

3. A "tertiary street" is a street which primarily provides access to abutting properties and protection from through traffic, or one used primarily for access to abutting residential property.

S. *Subdivider or Developer*: Any person or any agent thereof, dividing or proposing to divide land so as to constitute a subdivision as that term is defined herein. In any event, the term "subdivider" shall be restricted to include only the owner or equitable owner, of land sought to be subdivided.

T. *Subdivision*: A division of any tract of land situated within the corporate limits, or within the Extraterritorial Jurisdiction (ETJ) of the City, as defined in Section 3, Paragraph E, of these Subdivision Rules, in two or more parts for the purpose of laying out any subdivision of any tract of land or any addition of any town or City, or for laying out suburban lots or building lots, or any lots, and streets, alleys or parts or other portions intended for public use or the use of purchasers or owners of lots fronting thereon or adjacent thereto. Subdivision includes resubdivision, but it does not include the division of land for agricultural purposes in parcels or tracts of five acres or more and not involving any new street, alley or easement of access.

U. *Surveyor*: A person who is a Licensed State Land Surveyor or a Registered Public Surveyor, as authorized by the statutes of the State of Texas to practice the profession of surveying.

V. *Utility Easement*: An interest in land granted to the City, to the public generally, and/or to a private utility corporation, for installing or maintaining utilities across, over or under private land, together with the right to enter hereon with machinery and vehicles necessary for the maintenance of said utilities.

W. Any office referred to in these rules by title means the person employed or appointed by the City in that position, or his duly authorized representative.

X. Definitions not expressly prescribed herein are to be construed in accordance with customary usage in municipal planning and engineering practices."

Section 3. That Chapter 9, Exhibit A, Section 6.I. of the Code of Ordinances, City of Roanoke, Texas, entitled "Planning Director Approval," is hereby added and shall read as follows:

"I. *Planning Director Approval.* In the event there is not sufficient time for the Planning and Zoning Commission or City Council to approve or deny any plat based upon the filing date of such plat, the Planning Director of the City may approve, approve with conditions, or disapprove a plat, pursuant to Section 212.0065 of the Texas Local Government Code,

as amended. The disapproval of any plat by the Planning Director may be appealed to the Planning and Zoning Commission or City Council."

Section 4. That Chapter 9, Exhibit A, Section 6.J. of the Code of Ordinances, City of Roanoke, Texas, entitled "30-Day Time Frame for Plat Approvals," is hereby added and shall read as follows:

"J. *30-Day Time Frame for Plat Approvals.*

(1) *Right to 30-day action for plat applications begins on the filing date*. The statutory 30-day time frame for plat approvals, established by the Texas Local Government Code, ch. 212, shall commence on the filing date.

(2) *Extension of right to 30-day action*. Pursuant to Texas Local Government Code, § 212.009(b-2), as amended, upon application in writing by the applicant, the Planning and Zoning Commission or City Council may approve one or more extensions of right to 30-day action, each such extension not to exceed 30 additional days."

Section 5. PENALTY CLAUSE
Any person, firm, or corporation violating any of the provisions or terms of this Ordinance shall be guilty of a misdemeanor and upon conviction, shall be fined a sum not to exceed $2,000.00 for each offense, and each and every violation or day such violation shall continue or exist, shall be deemed a separate offense.

Section 6. SEVERABILITY CLAUSE
It is hereby declared to be the intention of the City Council that the phrases, clauses, sentences, paragraphs and sections of this Ordinance are severable, and if any phrase, clause, sentence, paragraph or section of this Ordinance shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this Ordinance, since the same would have been enacted by the City Council without the incorporation of this Ordinance of any such unconstitutional phrase, clause, sentence, paragraph or section.

Section 7. REPEALER CLAUSE
Any provision of any prior ordinance of the City whether codified or uncodified, which are in conflict with any provision of this Ordinance, is hereby repealed to the extent of the conflict, but all other provisions of the ordinances of the City whether codified or uncodified, which are not in conflict with the provisions of this Ordinance, shall remain in full force and effect.

Section 8. EFFECTIVE DATE
This Ordinance shall become effective immediately upon its passage and publication as required by law.

PASSED, APPROVED AND ADOPTED by the City Council of the City of Roanoke, Texas, on this the ___ day of _____, 2023.

APPROVED:

_____
Carl E. Gierisch, Jr., Mayor

ATTEST:

_____
April S. Hill, City Secretary

APPROVED AS TO FORM:

_____
Jeff Moore, City Attorney

ORDINANCE No. 2023-~~_____~~129

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Section 2. That Chapter 9, Exhibit A, Section 2 of the Code of Ordinances, City of Roanoke, Texas, entitled "Definitions", is hereby amended to read as follows:

"**SECTION 2. - DEFINITIONS.**
For the purposes of these rules, the following terms, phrases, words and their derivations shall have the meaning ascribed to them in this section:

~~A. *Administratively Complete:* An application for plat approval shall be considered administratively complete upon the occurrence of all of the following: (1) the City staff and City engineer have determined that it meets all requirements of applicable city ordinances so that it may be reviewed by the Commission, (2) the plat application has been placed on an agenda for the Commission, and (3) the Commission agenda has been posted as required by law.~~

A~~B~~. *Alley:* A minor public right-of-way, not intended to provide the primary means of access to abutting lots, which is used primarily for vehicular service access to the back or sides of properties otherwise abutting on a street.

B. *Approval*: Shall mean the following:

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1. Approval constitutes a determination by the official, board, commission or City Council responsible for such determination that the application is in compliance with the minimum provisions of this subdivision ordinance.

2. Such approval does not constitute approval of the engineering or surveying contained in the plans, as the design engineer or surveyor that sealed the plans is responsible for the adequacy of such plans.

3. For purposes of plat approval, approval shall also include approval with conditions, pursuant to Section 212.009 of the Texas Local Government Code, as amended.

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C. *Building Setback Line*: The line within a property defining the stance between a building and the adjacent street line as required by the City's Zoning Ordinance.

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L~~K~~. *Filed or Filing*: M~~The date the plat is considered by the City to be administratively complete and placed on an agenda for approval by the Commission. An incomplete application shall not be considered "filed" with the City as defined herein, but shall be returned to the applicant for completion and resubmittal.~~eans the filing date of a preliminary plat, replat, or final plat shall be considered the date an applicant submits said plat, along with a completed application and applicable fees, and other requirements prescribed by or under Texas Local Government Code § 212.004, as amended.

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T~~S~~. *Subdivision*: A division of any tract of land situated within the corporate limits, or within the Extraterritorial Jurisdiction (ETJ) of the City, as defined in Section 3, Paragraph E, of these Subdivision Rules, in two or more parts for the purpose of laying out any subdivision of any tract of land or any addition of any town or City, or for laying out suburban lots or building lots, or any lots, and streets, alleys or parts or other portions intended for public use or the use of purchasers or owners of lots fronting thereon or adjacent thereto. Subdivision includes resubdivision, but it does not include the division of land for agricultural purposes in parcels or tracts of five acres or more and not involving any new street, alley or easement of access.

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It is hereby declared to be the intention of the City Council that the phrases, clauses, sentences, paragraphs and sections of this Ordinance are severable, and if any phrase, clause, sentence, paragraph or section of this Ordinance shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the

remaining phrases, clauses, sentences, paragraphs and sections of this Ordinance, since the same would have been enacted by the City Council without the incorporation of this Ordinance of any such unconstitutional phrase, clause, sentence, paragraph or section.

Section 7. REPEALER CLAUSE
Any provision of any prior ordinance of the City whether codified or uncodified, which are in conflict with any provision of this Ordinance, is hereby repealed to the extent of the conflict, but all other provisions of the ordinances of the City whether codified or uncodified, which are not in conflict with the provisions of this Ordinance, shall remain in full force and effect.

Section 8. EFFECTIVE DATE
This Ordinance shall become effective immediately upon its passage and publication as required by law.

PASSED, APPROVED AND ADOPTED by the City Council of the City of Roanoke, Texas, on this the ___ day of _____, 2023.

APPROVED:

_____
Carl E. Gierisch, Jr., Mayor

ATTEST:

_____
April S. Hill, City Secretary

APPROVED AS TO FORM:

_____
Jeff Moore, City Attorney