



GARLAND

NOTICE OF MEETING

CITY OF GARLAND, TEXAS

**Plan Commission
Public Meeting
Council Chambers
William E. Dollar Municipal Building
200 N. Fifth Street
Garland, Texas
September 28, 2026
6:30 PM**

A meeting of the Plan Commission of the City of Garland, Texas will be held at the aforementioned location, date, and time to discuss and consider the following agenda items.

INVOCATION AND PLEDGE OF ALLEGIANCE: It is the custom and tradition of the members of the Plan Commission to have an invocation and recital of the Pledge of Allegiance prior to the beginning of the meeting. Members of the audience are invited to participate. However, members of the audience are not required to participate. The decision to participate is strictly a matter of personal choice and has no bearing on matters to be considered by the Plan Commission and will not affect the decisions to be made during the meeting.

The meeting will be broadcast on City of Garland Government Access Television (CGTV). CGTV is available via GarlandTX.gov, channel 16 (Spectrum), Channel 44 (Frontier), and channel 99 (AT&T U-verse). Meetings are broadcast online via live-streaming, on-demand, and air on CGTV with several rebroadcasts during the week of the meeting.

Public Comments

Your comments must relate to an item on this agenda - non-germane comments are not in order. Time limits will be imposed by the Chairman as appropriate to the nature of the agenda item. Generally, public speakers are given three minutes.

IN-PERSON COMMENTS: Registration will be required for any citizen wishing to speak. Speaker cards are available with the Secretary.

Garland City Hall and Council Chambers are wheelchair accessible. Special parking is available on the east side of City Hall and on Austin & State Street west of City Hall. Persons with disabilities who plan to attend this meeting and who may need auxiliary aids or services must contact the City Secretary's Office at (972) 205-2404 at least two working days prior to the meeting so that appropriate arrangements can be made. BRAILLE IS NOT AVAILABLE.

If the Plan Commission adjourns into executive session during this meeting, the executive session will be conducted between and among the members of the Plan Commission and relevant City staff. Public access to that meeting is prohibited by State law.

AGENDA:

1. ITEMS FOR INDIVIDUAL CONSIDERATION

a. September 14, 2026 Plan Commission Minutes

2. PUBLIC HEARING

a. SV 26-02 Jennifer Rose (District 1)

*Hold a public hearing and consider the application of **Jennifer Rose**, requesting approval of a variance to Sections 4.78(A)(2) and 4.78(E)(2) of the Garland Development Code regarding the maximum permitted sign area for attached wall signs and canopy signs. (District 1) (File SV 26-02)*

b. Z 26-24 Kimley-Horn (District 6)

*Hold a public hearing and consider the application of **Kimley-Horn**, requesting approval of 1) a change in zoning from Industrial (IN) District for the properties at 721 and 725 Marion Drive and Planned Development (PD) District 93-8 for the property at 1729 Davis Boulevard to a Planned Development (PD) District with a base zoning of Industrial (IN) District to allow a Distribution Center, Large (indoors only) use and permit the existing Retail Store use by right and 2) a Concept Plan for the Planned Development. (District 6) (File Z 26-24)*

c. GDC Amendment 26-08

Hold a public hearing to consider amendments for provisions related to short-term rentals to Chapter 2 Zoning Regulations, Article 5 Use Regulations, including Section 2.50, 2.51, and 2.52 and the Land Use Matrix, amendments to Chapter 6 Definitions, and amendment to Chapter 7 Downtown (DT) District Table 7-1 Downtown District Land Use Matrix.

3. ADJOURN

NOTICE: The Plan Commission may recess from the open session and convene in a closed session if the discussion of any of the listed agenda items concerns matters regarding privileged and unprivileged client information deemed confidential by Rule 1.05 of the Texas Disciplinary Rules of Professional Conduct. Sec. 551.071, Tex. Gov't Code.

NOTE: A quorum of the City Council may be in attendance and may or may not participate in the discussions of the Committee or board.



GARLAND

MINUTES

The Plan Commission of the City of Garland convened in regular session at 6:30 PM on September 14, 2026, in the Council Chambers at the William E. Dollar Municipal Building, 200 North Fifth Street, Garland, Texas, with the following members present:

Present: Julius Jenkins, 1st Vice Chair
Terry Hillard, Commissioner
Marisol Trevizo, Commissioner
Kristin Lucido, Commissioner
Patrick Abell, Commissioner
Edgar Miranda, Commissioner
Bob Duckworth, Commissioner

Absent: Scott Roberts, Chairman
Wayne Dalton, 2nd Vice Chair

Staff Present: Nabila Nur, Planning Director
Stewart Starry, Planner II
Kalyan Mutukundu, Planner I
Kaitlyn Worrall, Assistant City Attorney
Elisa Morales, Recording Secretary

1. ITEMS FOR INDIVIDUAL CONSIDERATION

a. August 24, 2026 Plan Commission Minutes

Motion was made by Commissioner Duckworth to **approve** the Minutes as presented. Seconded by Commissioner Miranda. Motion carried: **7 Ayes, 0 Nays**.

2. PUBLIC HEARING

a. Z 25-30 JPMorgan Chase (District 5)

*Hold a public hearing and consider the application of **JP Morgan Chase**, requesting approval of a change in zoning from Planned Development (PD) District Community Retail (CR) District (PD-CR) 74-35 to Planned Development (PD) district Community Retail (CR) district (PD-CR) zoning to modify parking standards and approve a new concept plan. The site is located at 1000 West Centerville Road. (District 5) (File Z 25-30)*

Stewart Starry, Planner II, presented the request to the Commission and remained available for questions.

The applicant, Carlos Iglesias, 2080 Hwy 360 #240, Grand Prairie, TX, 75050, provided an overview of the request and remained available for questions.

Motion was made by Commissioner Abell to **approve** the application as presented. Seconded by Commissioner Miranda. **Motion carried: 7 Ayes, 0 Nays**.

b. Z 26-21 Watermill Express (District 5)

*Hold a public hearing and consider the application of **Watermill Express**, requesting approval of 1) a Specific Use Provision (SUP) for a Kiosk, Self-Service: Retail (ice, water, etc. use) and 2) a*

Concept Plan for a Kiosk, Self-Service: Retail ice, water, etc. use. The site is located at 1130 West Centerville Road. (District 5) (File Z 26-21)

Kalyan Mutukundu, Planner I, presented the request to the Commission and remained available for questions.

The applicants, John Rose, 500 Plano Parkway, Carrollton, TX, and Rick Kelly, 3616 Conflans, Irving, TX, 75061, provided an overview of the request and remained available for questions.

Motion was made by Commissioner Abell to **approve** the application as presented with additional landscaping as discussed and a 25-year SUP. Seconded by Commissioner Miranda. **Motion carried: 6 Ayes, 1 Nay** by Commissioner Lucido.

c. Z 26-29 Rock Ink Tattoos (District 2)

*Hold a public hearing and consider the application of **Rock Ink Tattoos**, requesting approval of a Specific Use Provision (SUP) for a Tattooing/Body Piercing Establishment use on property zoned Downtown (DT) – Uptown Sub-District and Downtown Automotive Overlay District (DAO). The site is located at 316 Main Street. (District 2) (File Z 26-29)*

Kalyan Mutukundu, Planner I, presented the request to the Commission and remained available for questions.

The applicants, Lucas Cervellini, 1210 Wendell Way, Garland, TX 75043 and Robert A. Smith, 115 N. 9th Street, Garland, TX, provided an overview of the request and remained available for questions.

Motion was made by Commissioner Abell to **approve** the application as presented with staff recommendations and a 5-year SUP. Seconded by Commissioner Lucido. **Motion carried: 6 Ayes, 1 Nay** with Commissioner Miranda in opposition.

3. ADJOURN

There being no further business to come before the Plan Commission, the meeting adjourned at 7:40 p.m.

Submitted By:

Scott Roberts, Chair

Elisa Morales, Secretary



Planning Report

File No: SV 26-02/District 1

Agenda Item:

Meeting: Plan Commission

Date: September 28, 2026

REQUEST

Hold a public hearing and consider approval of a variance to Sections 4.78(A)(2) and 4.78(E)(2) of the Garland Development Code regarding the maximum permitted sign area for attached wall signs and canopy signs.

LOCATION

5130 and 5150 North Garland Avenue

APPLICANT

Jennifer Rose

OWNER

Sam's Real Estate Business Trust

BACKGROUND

The subject property is developed with an existing *Sam's Club* and associated fuel station for which the applicant proposes exterior building renovations consisting primarily of a new paint scheme and replacement of existing signage as part of a corporate rebranding. No change in land use is proposed.

The applicant requests sign variances for the front building façade, the tire installation side façade, and the fuel station canopy. Two existing freestanding site signs will remain, with only sign-face changes proposed, and are not part of the requested variance.

Section 4.81 of the Garland Development Code grants the Plan Commission authority to approve sign variances when the evidence presented demonstrates that strict compliance would result in a hardship or inequity to the applicant. Economic or self-created hardship alone is not sufficient. A three-quarters vote of the Plan Commission members present and voting is required for approval.

SITE DATA

The subject property is approximately 14.5998 acres and is zoned Planned Development (PD) District 01-16 for Community Retail (CR) uses developed with a large-format single-tenant retail building and an associated fuel station. The property has frontage along North Garland Avenue and Naaman Forest Boulevard.

CONSIDERATIONS

1. The applicant proposes a revised sign package associated with the exterior rebranding of Sam's Club and its fuel station. The proposed signs include two Sam's Club identification signs, "Welcome", "Eye Exams" and "Curbside Pickup" signs along the front elevation; "Tire Installation" signage, a tire graphic and four (4) bay-number signs along the side elevation; and four (4) Sam's Fuel signs on the fuel canopy.
2. Front Façade: Section 4.78(A)(2)(a)(i) of the GDC allows a maximum aggregate attached sign area of 200 square feet along the front façade of a single-tenant building. The proposed front elevation contains multiple signs with a combined area of 240.57

square feet; therefore, the variance results from the aggregate area of the proposed signs. The request exceeds the maximum permitted area by approximately 40.57 square feet, or 20.3%. The front façade is approximately 550 feet from North Garland Avenue and is separated from the roadway by a large surface parking area and the fuel station, which reduces visibility from the street.

3. Side Facade: Section 4.78(A)(2)(a)(ii) of the GDC allows a maximum aggregate attached sign area of 100 square feet along a side façade of a single-tenant building. The proposed "Tire Installation" sign, tire graphic, and four bay-number signs have a combined area of 107.99 square feet. The request therefore exceeds the maximum permitted area by approximately 7.99 square feet, or 8%. The side façade is approximately 200 feet from Naaman Forest Boulevard and is separated from the roadway by an existing detention pond and canopy trees, which limit visibility from the street.
4. Fuel Station Canopy: Four *Sam's Club* fuel signs are proposed, each containing approximately 28.03 square feet. Section 4.78(E)(2)(a) limits an individual canopy sign to 75% of the canopy face or 25 square feet, whichever is less. Each proposed sign therefore exceeds the maximum by approximately 3.03 square feet, or 12.1%. The fuel canopy signs are also partially obscured from North Garland Avenue by existing canopy trees, further limiting their visibility from the roadway.
5. Section 4.81(C)(1) allows the Plan Commission to approve an increase of up to 25% above the maximum permitted sign area. Each requested deviation falls within this allowance. Although the 8% side elevation increase may qualify for administrative approval under Section 4.81(D), it is included with the Plan Commission variance so that all three sign-area requests may be considered through a single process.

Sign Area	GDC Maximum	Proposed	% Increase
Front Facade	200 Sq Ft	240.57 Sq Ft	20.3%
Side Facade	100 Sq Ft	107.99 Sq Ft	8%
Fuel Canopy Sign (Per Canopy Face)	25 Sq Ft	28.03 Sq Ft	12.1%

AREA PLAN

The subject property is located within the SH 190 Catalyst Area, which identifies regional access and visibility as key assets and emphasizes high-quality development, continued investment, and appropriate architectural and design standards. The proposed request does not change the existing land use; however, the exterior rebranding and coordinated sign package represent reinvestment in an existing regional retail development and are generally consistent with the Catalyst Area's emphasis on maintaining a high-quality development character.

STAFF FINDINGS

Staff finds that there may be a hardship concerning the maximum permitted sign area due to the substantial setback of the building façades from the adjacent roadways and the limited visibility created by existing canopy trees. Overall, the proposed signage remains proportionate to the scale of the development and supports continued reinvestment within the SH 190 Catalyst Area.

ADDITIONAL INFORMATION

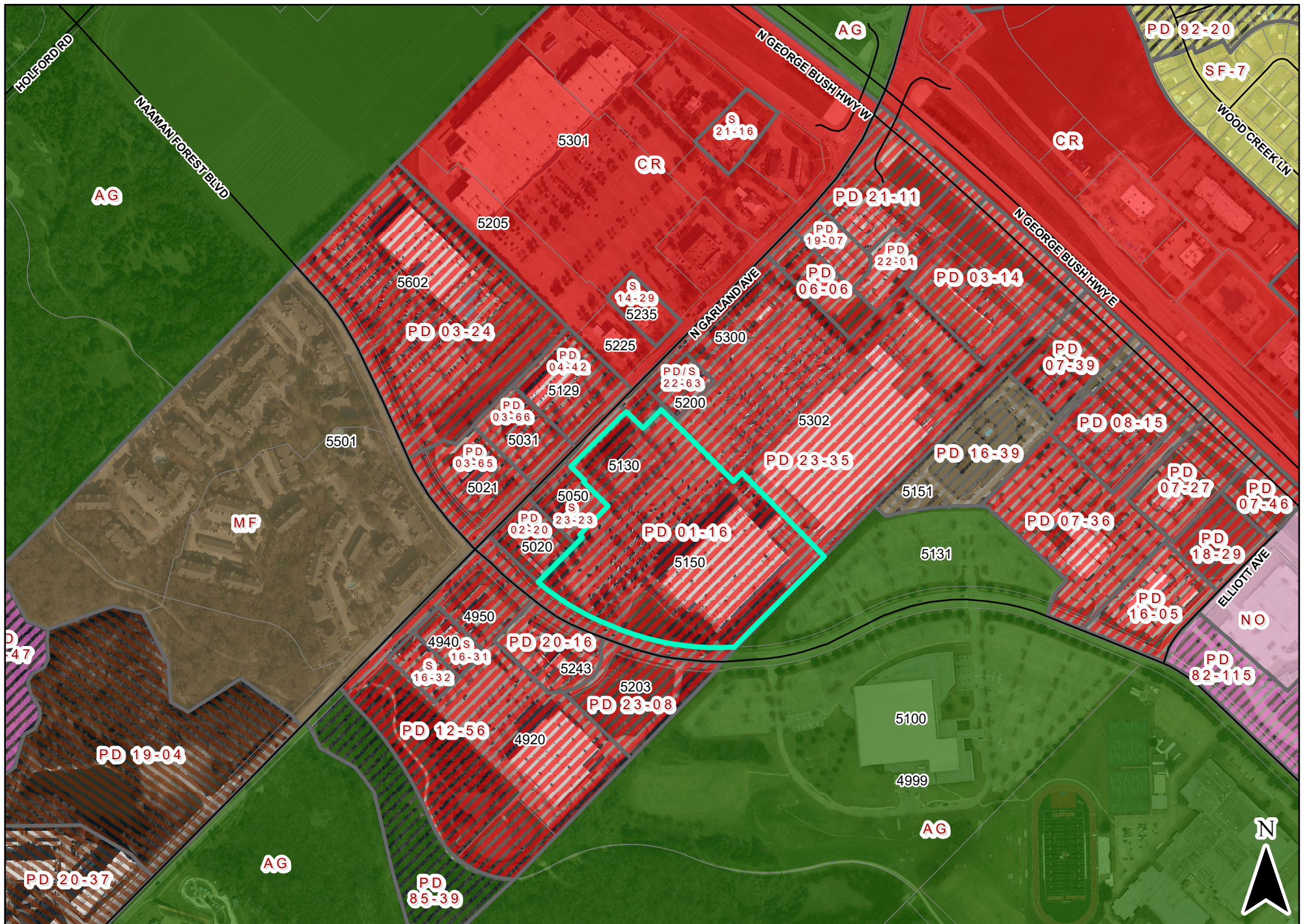
- i. Location Map
- ii. Sign Drawings
- iii. Site Photos
- iv. Applicant's Written Narrative

PREPARED BY:

Stewart Starry
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REVIEWED BY:

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Planning Administrator
Planning and Development
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echetuya@garlandtx.gov



0 500 Feet

1 inch = 500 feet

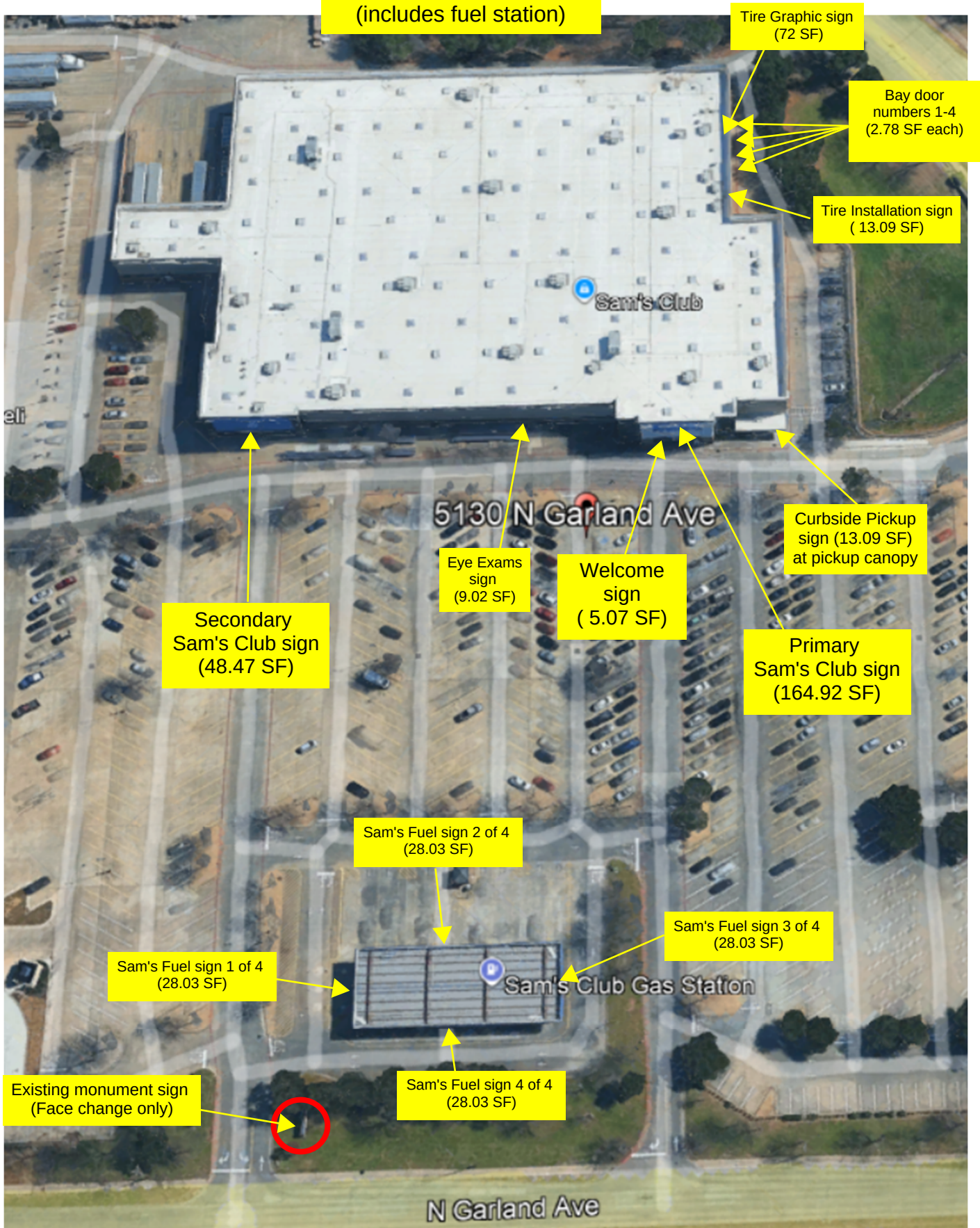
ZONING MAP SV 26-02



INDICATES AREA
OF REQUEST

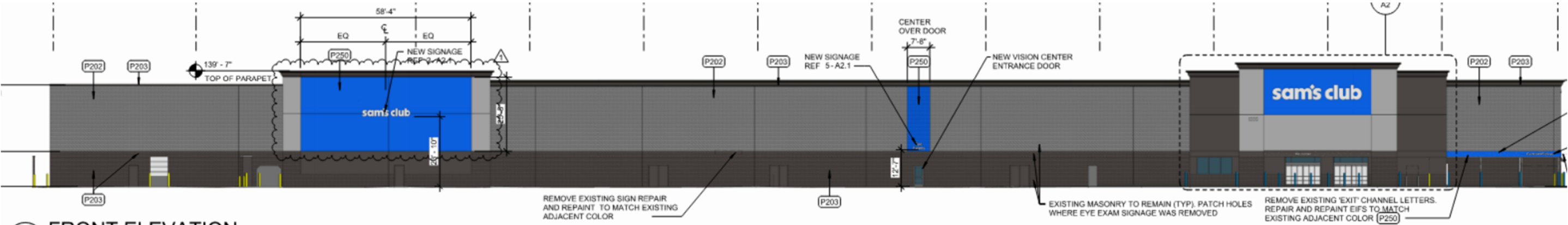
5130 & 5150 N Garland Ave

SIGN LOCATION
Sam's Club #4783
5130 and 5150 N. Garland
Avenue, Garland, TX
(includes fuel station)

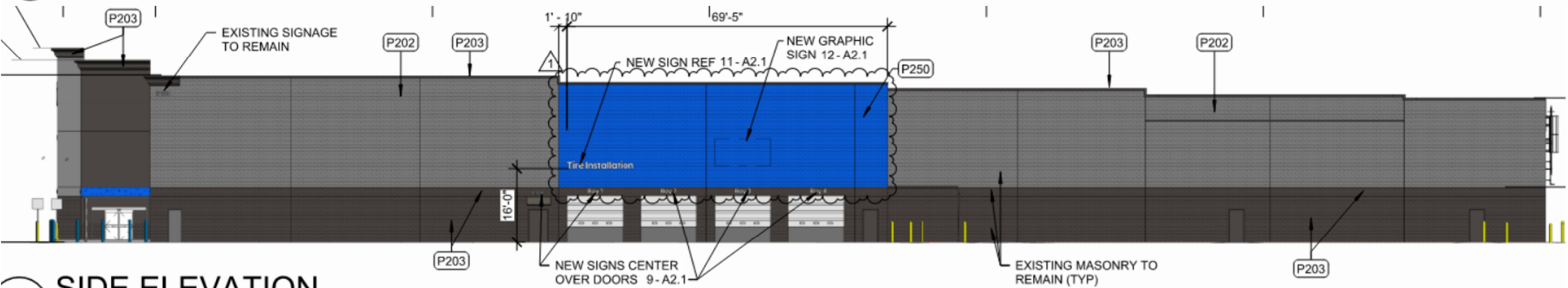


Proposed Paint and Sign Changes
Sam's Club and Fuel Station
5130 and 5150 N. Garland Avenue

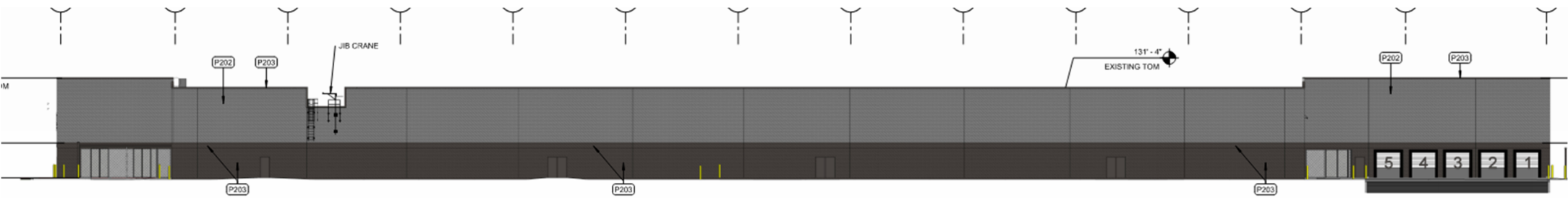
PROPOSED ELEVATIONS



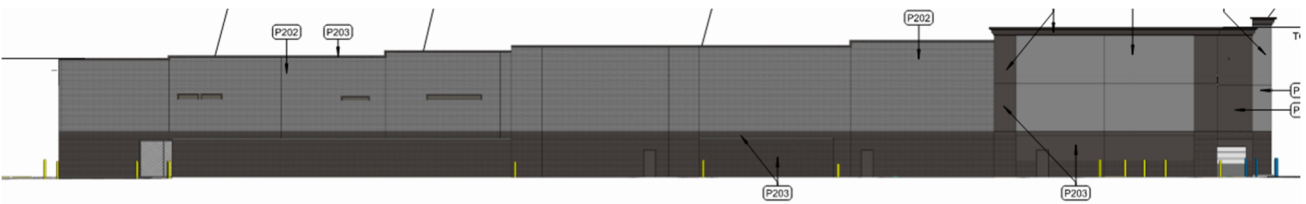
1 FRONT ELEVATION
1" = 20'-0" 1 A1



2 SIDE ELEVATION
1" = 20'-0" 1 A1



3 REAR ELEVATION
1" = 20'-0" 1 A1

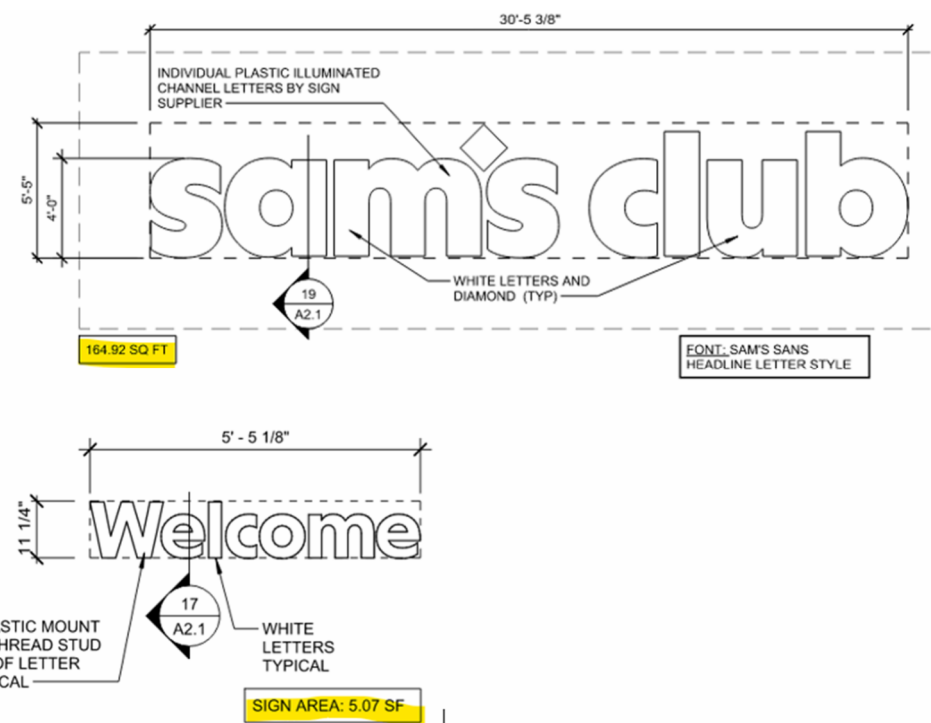
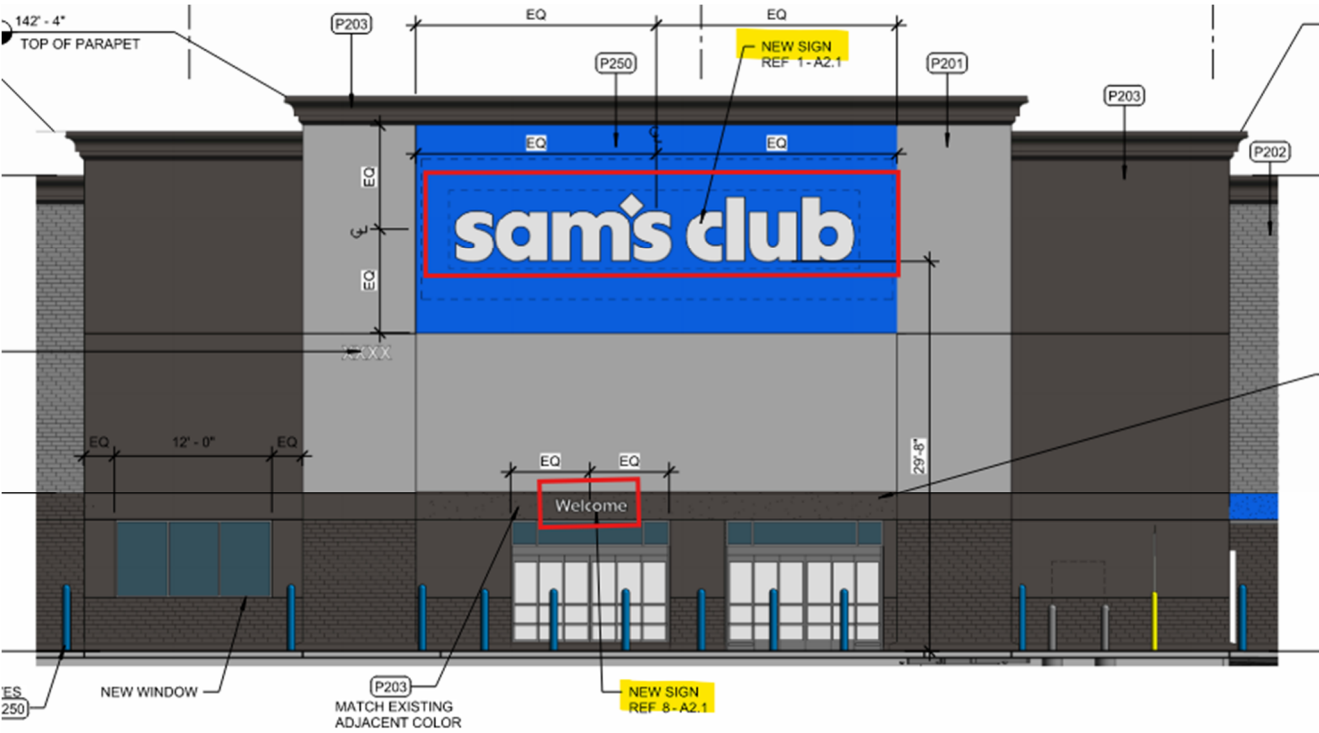


4 SIDE ELEVATION
1" = 20'-0" 1 A1

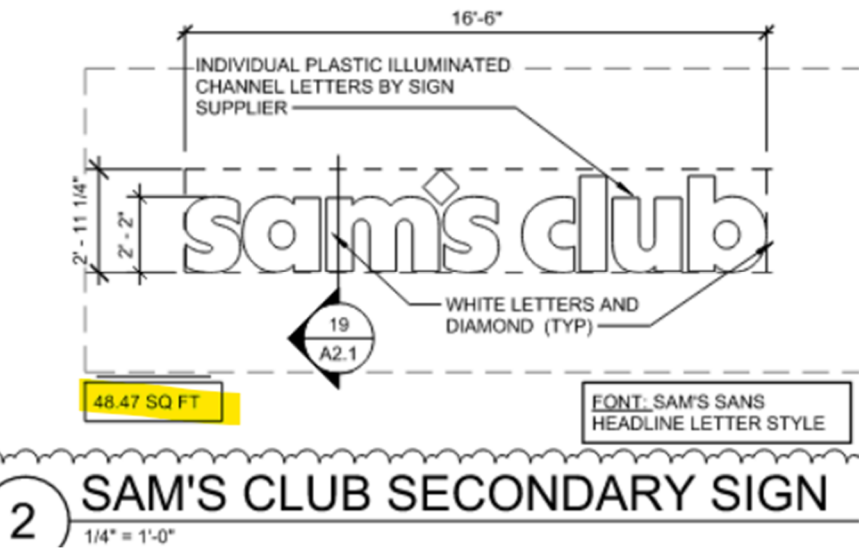
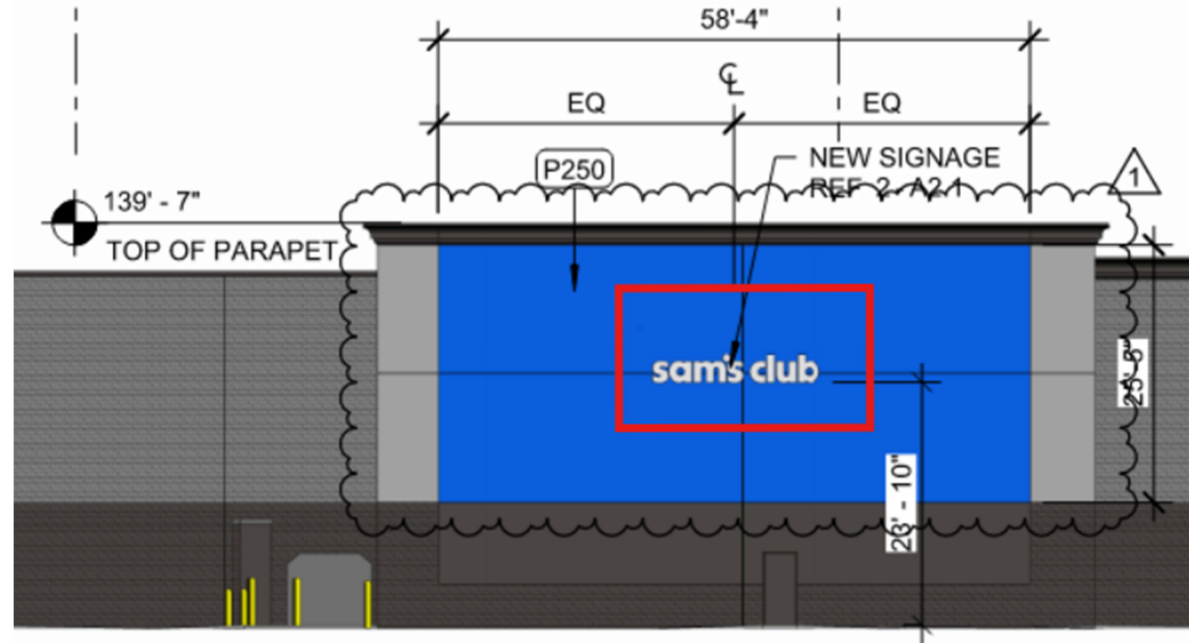
Sam's Club 4783 – Garland, TX (Exterior Paint and Sign Changes)

FRONT ELEVATIONS

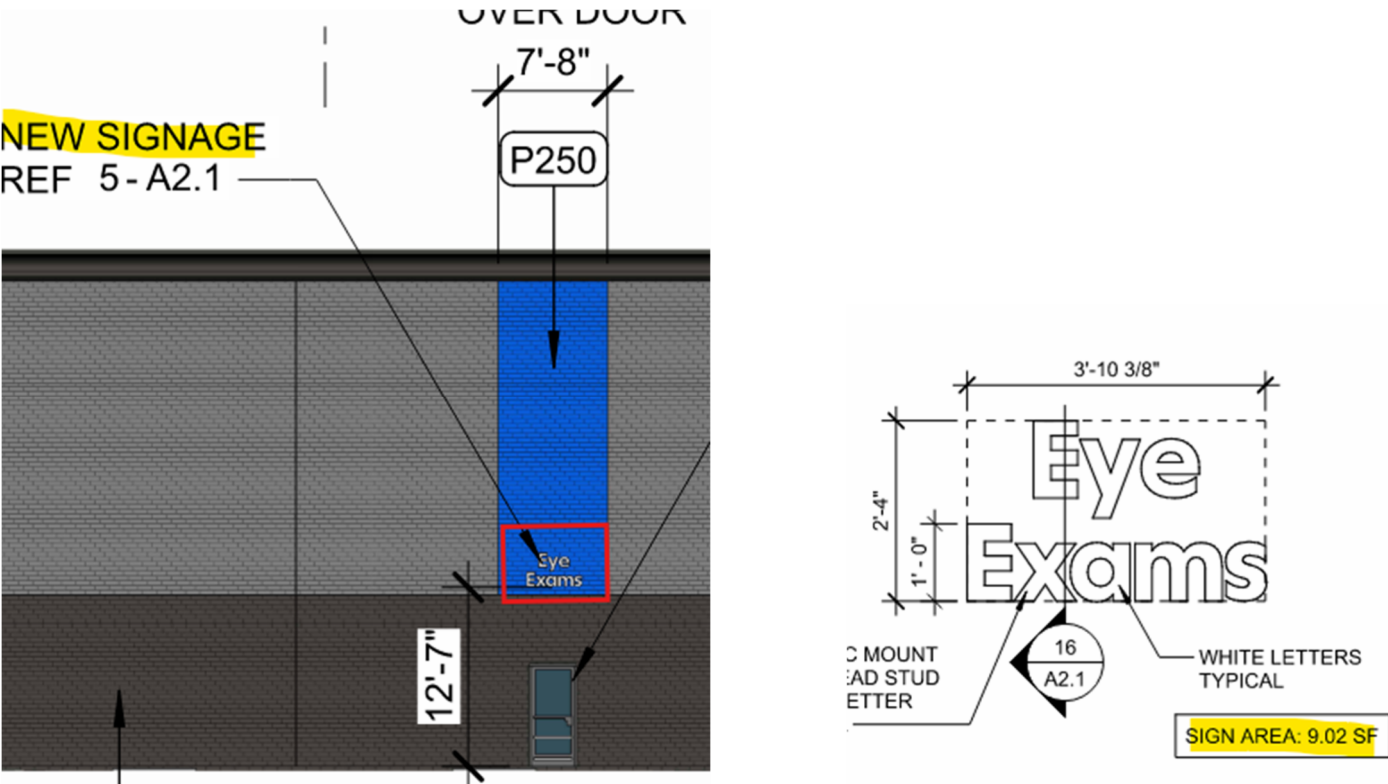
Main Sam’s Club logo signage, and Welcome sign (front entry):



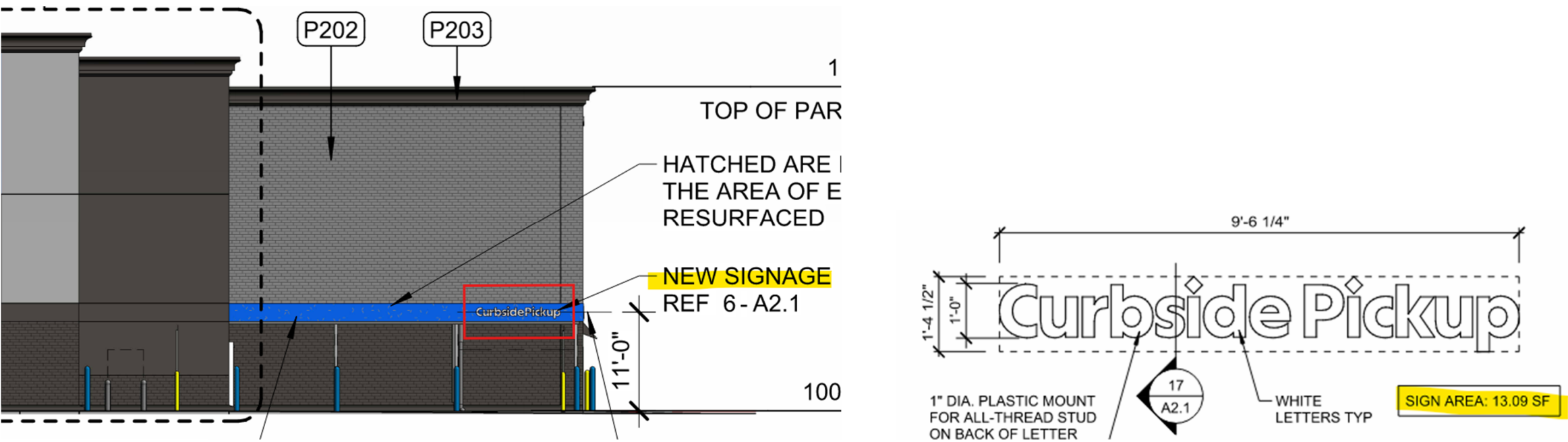
Secondary Sam’s Club sign (front elevation):



Eye Exams sign at vision entrance (front elevation):

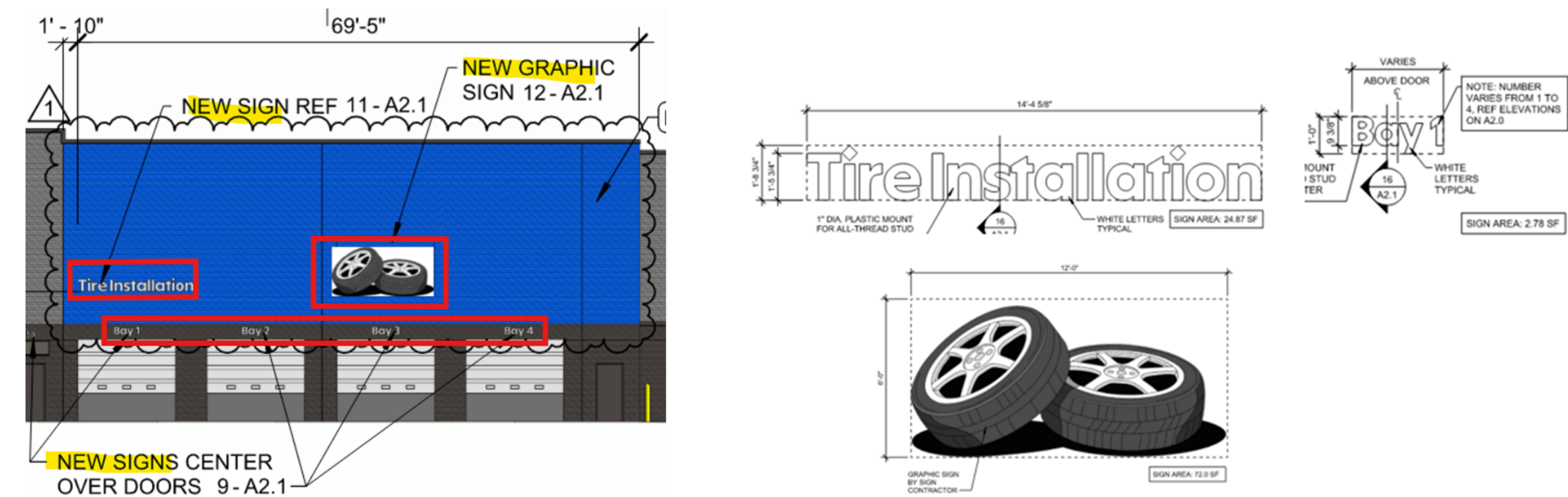


Curbside pickup canopy signage (front elevation):

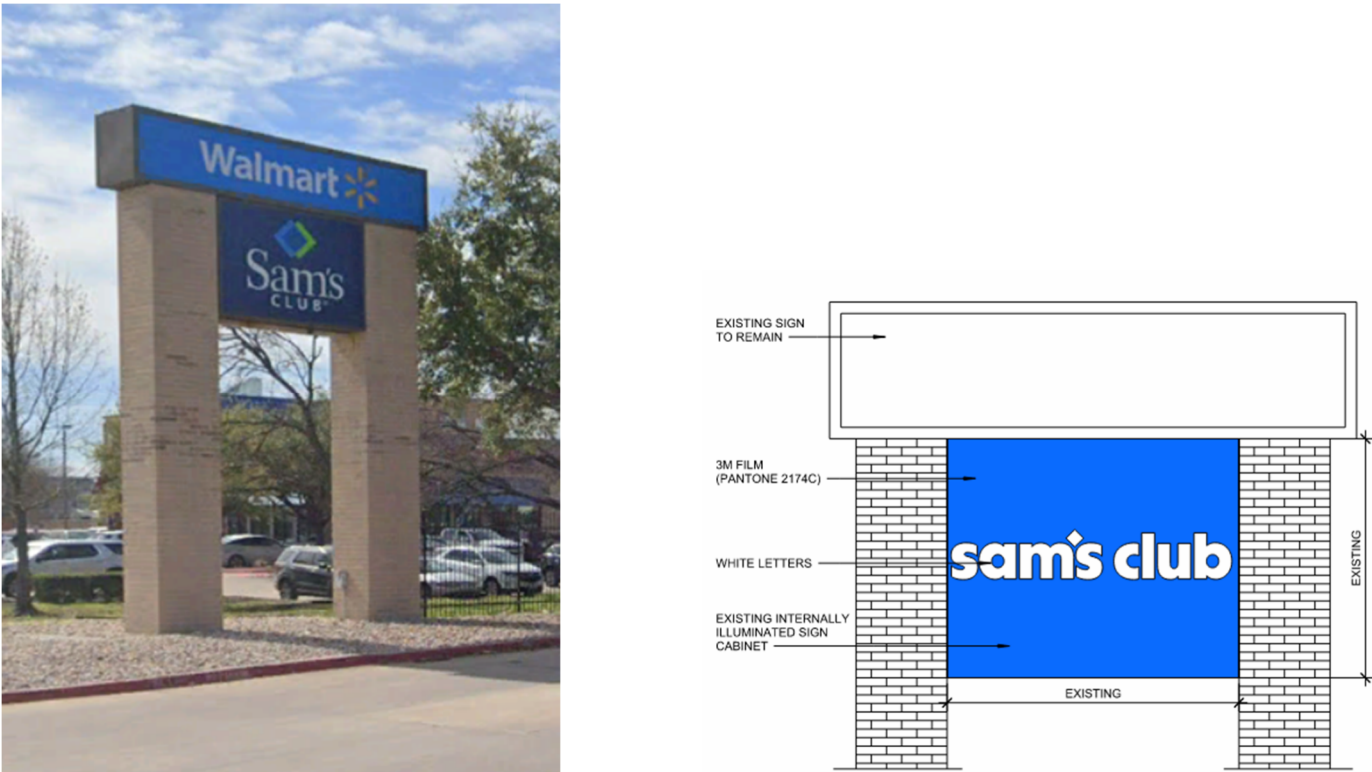


TIRE INSTALL (SIDE) ELEVATION

Tire Installation, Bay door numbers, and new Tire Graphics:

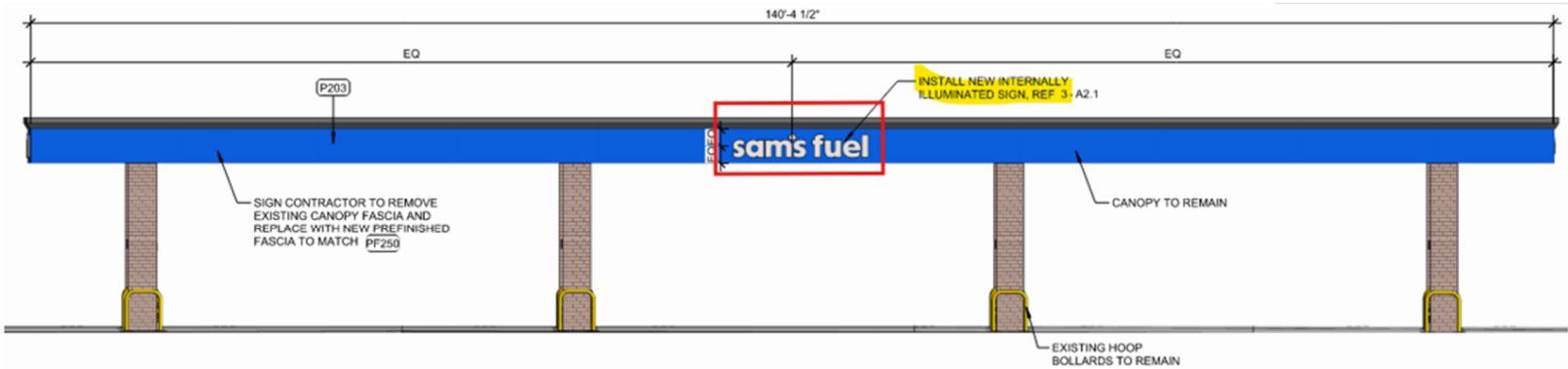


EXISTING SITE SIGN (Face change only)

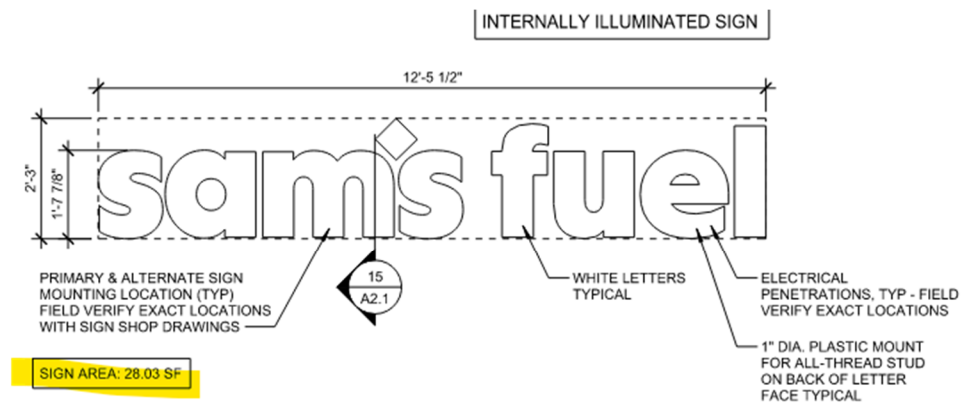
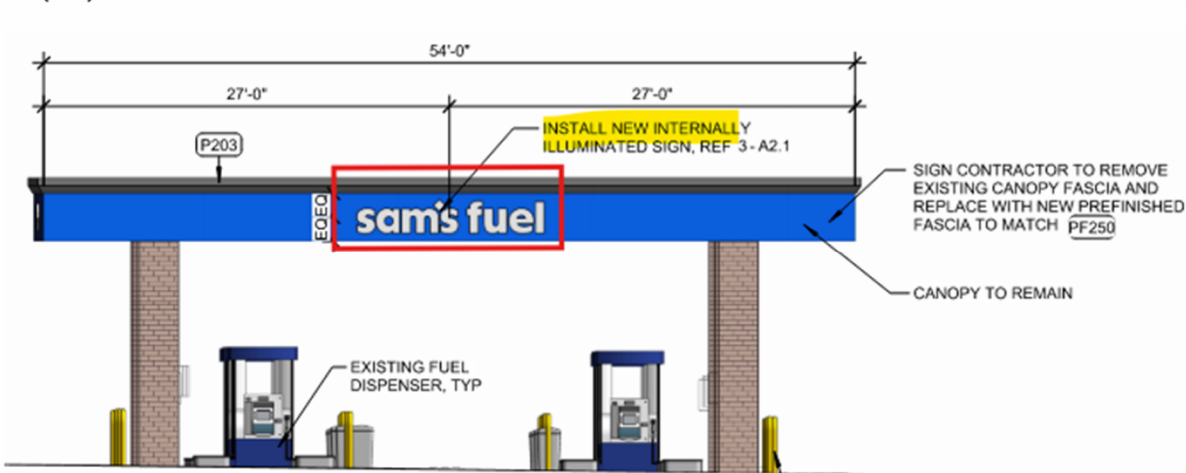


Sam's Club 4783 – Garland, TX (Exterior Paint and Sign Changes)

SAM’S FUEL STATION CANOPY

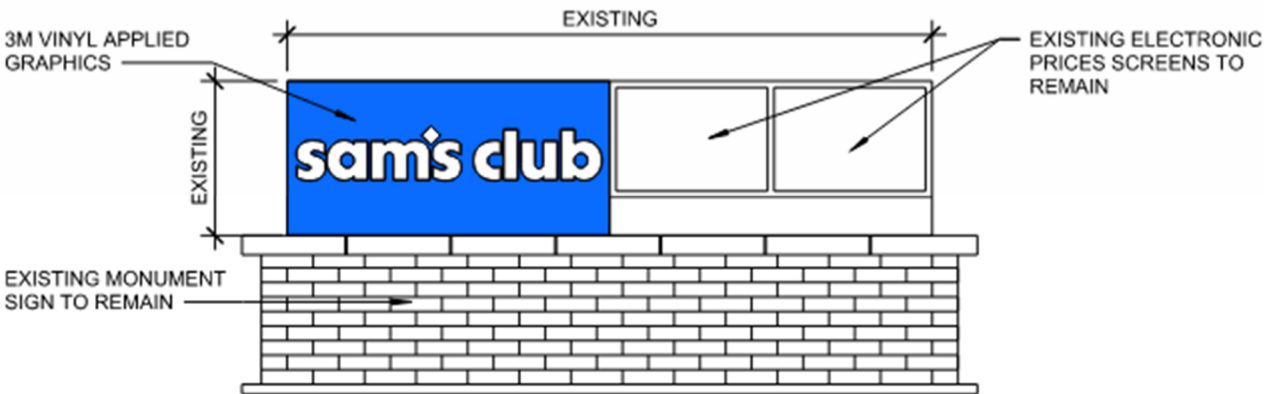


7 FUEL CANOPY ELEVATION



SAM'S FUEL CANOPY SIGN

EXISTING SITE SIGN FOR FUEL STATION (Face change only)



Sam’s Club 4783 – Garland, TX (Exterior Paint and Sign Changes)

EXISTING AND PROPOSED SIGN SCHEDULES

EXISTING SIGNAGE SCHEDULE									
SIGNAGE LOCATION	QTY	LIGHTED	COLOR	MOUNTING	LENGTH	INDIVIDUAL AREA		TOTAL AREA	
BUILDING SIGNAGE									
sam's club logo (horizontal)	1	LED	MULTI	---	30'-3 1/4"	154.19	SF	154.19	SF
sam's club logo (stacked)	1	N/A	MULTI	---	6'-4"	63.33	SF	63.33	SF
PHARMACY	1	N/A	WHITE	STUD	6'-5"	8.92	SF	8.92	SF
TIRE INSTALLATION	1	N/A	WHITE	STUD	10'-4 5/8"	11.33	SF	11.33	SF
WELCOME and EXIT	1	N/A	WHITE	STUD	6'-1 7/16"	8.54	SF	8.54	SF
EYE EXAMS	1	N/A	WHITE	STUD	6'-11 1/4"	9.17	SF	9.17	SF
CURBSIDE PICKUP	1	N/A	WHITE	VINYL	10'-6 1/2"	14.50	SF	14.50	SF
FUEL CANOPY SIGNAGE									
SAM'S CLUB (EXISTING)	4	LED	MULTI	BOLT	10'-7 1/4"	18.88	SF	75.52	SF
TOTAL SIGNAGE								345.50	SF
SITE SIGNAGE									
MONUMENT SIGN (EXISTING)	1	LED	MULTI		9'-11"x7'	69.41	SF	69.41	SF
PYLON SIGN (EXISTING)	1	LED	N/A		17'x2'9"	46.75	SF	46.75	SF
TOTAL SIGNAGE								116.16	SF

PROPOSED SIGNAGE SCHEDULE										
SIGNAGE LOCATION	QTY	LIGHTED	COLOR	MOUNTING	LENGTH	INDIVIDUAL AREA		TOTAL AREA		
BUILDING SIGNAGE (FRONT ELEVATION)										
sam's club logo (horizontal)	1	LED	MULTI	---	30'-5 3/8"	164.92	SF	164.92	SF	
sam's club logo	1	LED	MULTI	---	16'-6"	48.47	SF	48.47	SF	
WELCOME	1	N/A	WHITE	STUD	5'-5 1/8"	5.07	SF	5.07	SF	
EYE EXAMS	1	N/A	WHITE	CMU	3'-10 3/8"	9.02	SF	9.02	SF	
CURBSIDE PICKUP	1	N/A	WHITE	STUD	9'-6 1/4"	13.09	SF	13.09	SF	
TOTAL FRONT SIGNAGE								240.57	SF	
TIRE SIGNAGE (SIDE ELEVATION)										
TIRE INSTALLATION	1	N/A	WHITE	CMU	14'-4 5/8"	24.87	SF	24.87	SF	
TIRE GRAPHIC	1	N/A	WHITE	CMU	12'-0"	72.00	SF	72.00	SF	
BAY 1-4	4	N/A	WHITE	CMU	VARIES	2.78	SF	11.12	SF	
TOTAL TIRE SIGNAGE								107.99	SF	
FUEL CANOPY SIGNAGE										
SAM'S FUEL	4	LED	MULTI	BOLT	12'-5 1/2"	28.03	SF	112.12	SF	
TOTAL FUEL CANOPY SIGNAGE								112.12	SF	
TOTAL BUILDING AND FUEL CANOPY SIGNNAGE								460.68	SF	



Sam’s Club 4783 – Garland, TX (Exterior Paint and Sign Changes)

SV 26-02



Primary Sign



Secondary Sign



Gas Station Canopy Sign



**Front Facade Eye
Exam Sign**



**Side Facade Tire
Installation Sign**



**View From
N. Garland Ave.**



View From Naaman Forest Blvd

Sam's Club #4783
5130 N. Garland Avenue, Garland, TX
Narrative for Exterior Sign and Paint changes

Summary of changes being requested:

Requested deviations for new signage by elevation:

Front elevations: Maximum sign allowance of 200 SF, Sam's is proposing 240.57 SF of signage, this is approximately a 20% increase.

Side elevations (at Tire Installation area): Maximum sign allowance of 100 SF. Sam's is proposing 107.99 SF, this is approximately an 8% increase.

Fuel station canopy: Maximum sign allowance of 25 SF per canopy face. Sam's is proposing 28.03 SF per canopy face, this is approximately a 12% increase each canopy face.

Refer to sign sheets for complete details.

The Sam's Club currently has eight (8) signs installed on the building; six (6) signs on the front elevation: 2- Sam's Club logo signs, 1-Pharmacy sign, 1-Eye Exams sign, 1- Welcome sign, and 1-Exit sign. There is 1- Tire Installation sign at the tire elevation, and 1-Curbside pickup sign at the pickup canopy. The overall square footage for the signs is 269.98.

Proposed changes: Replacing the eight (8) signs with twelve (11) new signs.

Four (4) new signs on the front elevation: 2- Sam's logo signs, 1-Welcome sign, 1-Eye Exams sign. The Exit and Pharmacy signs will not be replaced. At the Tire install elevations, 1-Tire Installation sign, 1-Tire Graphic sign, and 4-bay numbers for the overhead service doors.

And 1-Curbside Pickup sign at the pickup canopy. The new overall square footage on the front elevations will decrease from 269.98 SF to 240.57.

The Sam's Fuel canopy currently has four (4) Sam's Club signs on each side of the canopy; the total square footage is 75.52. There will be 4 new Sam's Fuel signs for each side of the canopy, the overall square footage is increased to 112.12.

The total combined square footage of all new attached signs is 460.68.

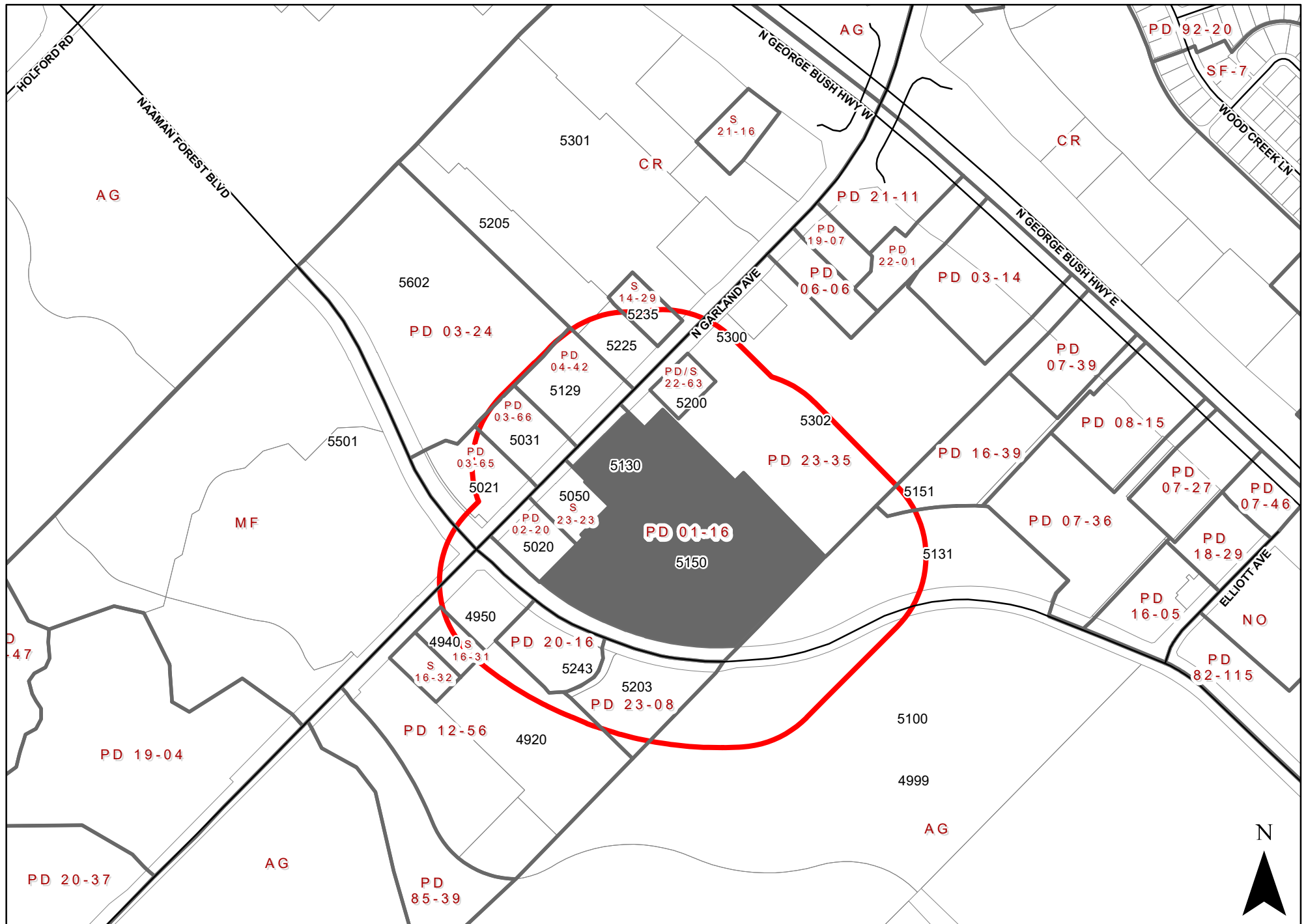
The new signs meet the maximum area allowed of 1.5 times the width of the main entrance wall.

There are two (2) existing site signs on Sam's site, these will remain. Only the faces will be replaced with the new Sam's logo faces.

Exterior Paint changes:

The building is currently painted gray tones with blue accents. Sam's would like to propose a full repaint of the building to the new gray scheme and new blue accents. Refer to proposed paint elevations.

1. What is the existing use on the property?
Commercial, mercantile.
2. What is the proposed land use? Provide detailed information on the scope of work.
No change being proposed to land use.
The scope of work is for new exterior signs and paint for the Sam's Club and Sam's fuel station only.
3. How does the proposed use align with the surrounding properties?
Not applicable.
4. Identify any unique development standards, and/or code deviations proposed with this request, cite the sections from the Garland Development Code and state why the deviation(s) are necessary.
Not applicable.
5. Provide SUP time period (if applicable), days of week and hours of operation.
Not applicable. No changes.
6. Provide proposed building size and building height.
Not applicable, no change to building structure.
7. Are you proposing any retention / detention pond?
No. Not applicable.
8. Is your property within a floodplain?
No. Not applicable.
9. What are the required landscape buffers along the street frontages?
Not applicable.
10. Are you providing any perimeter screening?
No. Not applicable, signs and paint only.
11. Provide number of dwelling units, dwelling size and number of bedrooms and density of any Multi-Family, Single-Family Detached, Single-Family Attached and Two-Family developments.
Not applicable.
12. What amenities are you proposing with your request?
Not applicable.
13. What types of attached, detached, freestanding signage are proposed?
Not applicable. No new site signs are being proposed. Existing site signs to remain.



0 500 Feet

1 inch = 500 feet

ZONING MAP SV 26-02

INDICATES AREA OF REQUEST

INDICATES NOTIFICATION AREA

5130 & 5150 N Garland Ave

To date we have not received any responses for this case.

Planning Report

File No: Z 26-24/District 6

Agenda Item:

Meeting: Plan Commission

Date: September 28, 2026



GARLAND

TEXAS MADE HERE

REQUEST

Hold a public hearing and consider approval of 1) a change in zoning from Industrial (IN) District for the properties at 721 and 725 Marion Drive and Planned Development (PD) District 93-8 for the property at 1729 Davis Boulevard to a Planned Development (PD) District with a base zoning of Industrial (IN) District to allow a Distribution Center, Large (indoors only) use and permit the existing Retail Store use by right and 2) a Concept Plan for the Planned Development.

LOCATION

721 and 725 Marion Drive and 1729 Davis Boulevard

APPLICANT

Kimley-Horn

OWNER

RHE Inc and RHE Hatco Inc.

BACKGROUND

The subject property consists of two lots. Lot 1, addressed as 721 and 725 Marion Drive, is developed with an existing Distribution Center, Small (indoors only) use and a Retail Store. Lot 2, addressed as 1729 Davis Boulevard, is undeveloped.

The applicant proposes to combine Lots 1 and 2 under a new Planned Development with an Industrial base zoning district and construct an approximately 91,260-square-foot expansion of the existing distribution building. The expansion would change the overall use classification to Distribution Center, Large (indoors only). The PD would also retain the existing Retail Store and establish project-specific parking, landscaping, screening and building-design standards.

According to the applicant, *Hatco* has operated in Garland since 1938 and currently supports more than 400 jobs. According to Dallas Central Appraisal District records, the existing storage warehouse was constructed in 1990, and the existing freestanding retail store was constructed in 1979. The proposed expansion is intended to accommodate continued warehousing and distribution of *Hatco* products.

SITE DATA

The subject property is approximately 9.95 acres in size and consists of two lots. Lot 1 has an approximately 74,500-square-foot distribution building, an approximately 10,625-square-foot retail building, and 47 existing parking spaces. The existing distribution building has three (3) loading dock doors. Lot 2 is undeveloped. Vehicular access is provided from Marion Drive along the eastern side of the site and Davis Boulevard (an existing public right of way) along the southern side.

USE OF PROPERTY UNDER CURRENT ZONING

Lot 1 is zoned IN District and is intended to provide for a wide range of industrial uses. Such uses include manufacturing, processing, assembling, research and development, and

warehousing and distribution. The IN District also accommodates support services for industrial development such as office, commercial, personal and professional services, and limited retail activities. The Industrial District regulations are designed to ensure compatibility among the various uses allowed in the district, and to protect adjacent non-industrial development from potentially incompatible uses and conditions

Lot 2 is zoned Planned Development (PD) District 93-8 with an IN base District and is undeveloped. PD 93-8 was established to permit industrial development while providing for tree and vegetation preservation, drainage improvements, and visual compatibility with nearby residential development. Its permitted-use list includes general warehousing, general wholesaling, and light and medium industrial uses, among other uses. PD 93-8 also prohibits outside storage and display; establishes screening along the east property line; screening, and an 80-foot building setback along the southern boundary adjacent to the single-family neighborhood. It includes separate landscaping and parking provisions that would apply if Davis Boulevard were abandoned.

SITE DEVELOPMENT STANDARDS

1. **Proposed Development and Site Layout:** The concept plan shows the expansion attached to the west side of the existing distribution building. Following the expansion, approximately 165,760 square feet would be devoted to the distribution center, and the site would contain approximately 176,385 square feet of total building area, including the existing retail building.

The expansion would be approximately 36.5 feet in height and would add ten loading dock doors along its south facade, for a total of thirteen dock doors on the distribution building. The detention pond and associated landscaping would be located between the expansion and the southern property line. The Concept Plan also identifies the proposed abandonment of an existing 20-foot public access, fire lane, and utility easement. Any easement abandonment is subject to the applicable separate review and approval process.

2. **Parking:** Section 4.20(A) of the Garland Development Code (GDC) and the Land Use Matrix requires one (1) parking space per 300 square feet of office area and one (1) space per 1,000 square feet of the remaining distribution-center area. A Retail Store requires one (1) parking space per 333 square feet of floor area. The applicant requests one (1) space per 2,000 square feet for the distribution center and one (1) space per 400 square feet for the existing retail building. The applicant states that *Hatco's* distribution operation has a lower parking demand than the standard ratio and that the existing retail building operates adequately with its current parking supply.
3. **Loading:** Under GDC Section 4.22(B), an industrial building between 50,001 and 200,000 square feet requires at least two off-street loading spaces. The concept plan shows thirteen dock doors serving the approximately 165,760-square-foot distribution building. The applicant will comply with the applicable off-street loading requirements.
4. **Landscaping:** The site will comply with Chapter 4, Article 3, Screening and Landscaping, of the GDC.
5. **Tree Preservation:** Tree replacement and protection remain subject to GDC Sections 4.58 through 4.60.
6. **Building Design:** Section 4.83(B) of the GDC requires horizontal and vertical articulation on street-facing non-residential facades. The applicant requests a deviation

from all horizontal and vertical facade-articulation requirements in Section 4.83(B) so the expansion can match the massing and form of the existing distribution building. The applicant further states that the expansion would primarily face Davis Boulevard, which is mainly used by the subject business. The expansion remains subject to the six (6) required architectural elements in Section 4.83(A)(1).

7. Loading areas, fire lanes, drive aisles, and maneuvering areas must comply with the GDC and the City's Technical Standards, except where expressly modified by the PD.
8. Site lighting must comply with Chapter 4, Article 7 of the GDC.
9. Refuse containers must be in compliance with Sec. 4.45 of the GDC. Rooftop and ground-mounted mechanical and Wall- Mounted equipment must be screened in accordance with Sec. 4.46 and Sec 4.47 of GDC.
10. **Signage:** No new attached or freestanding signs are proposed with this request. The existing tenant signage on the retail building would remain. Any future signage must comply with Chapter 4, Article 5 of the GDC unless otherwise approved through the applicable process.

CONSIDERATIONS

Planned Development:

Scope of proposed Planned Development: Land uses within the proposed PD would be allowed in accordance with the Industrial (IN) District use restrictions, except that a Retail Store use would be permitted by right. The new PD would apply only to Lots 1 and 2. The remaining lots governed by PD District 93-8 would retain their existing zoning and development standards.

1. **Parking:** Based on the submitted building areas, 203 parking spaces would be required under the GDC ratios, while 110 spaces would be required under the proposed PD ratios; resulting in a reduction of 93 spaces. The Concept Plan identifies 47 existing parking spaces and 63 new parking spaces, providing a total of 110 spaces. The applicant states that Hatco's distribution operation has a lower parking demand than the standard ratio and that the current parking supply adequately serves the existing retail building.

<i>Land use</i>	<i>GDC Requirement Ratio</i>	<i>Total Parking per GDC</i>	<i>Proposed PD Ratio</i>	<i>Total as per PD</i>
Distribution Center	1/300 sf office; 1/1,000 sf remainder	171	1/2000 sf	83
Retail	1/ 333 gfa	32	1/ 400 sf	27
Total		203		110

2. **Site Access:** Under the proposed PD, Davis Boulevard shall remain as a public right-of-way. Parking of vehicles and trucks shall be permitted along Davis Boulevard. No gate or other access-control device shall be installed between Davis Boulevard and Marion Dr.
3. **Screening:** PD District 93-8 requires an eight (8)-foot green-clad chain-link fence or an approved alternative material along the east property line adjacent to Marion Drive. The proposed PD replaces that requirement for Lots 1 and 2 with the existing six-foot wrought-iron fence along Marion Drive. The Concept Plan also shows a six (6)-foot

wrought-iron fence along Davis Boulevard, an existing six (6)-foot galvanized chain-link fence along the north and west boundaries of Lot 2, and a proposed six (6)-foot galvanized chain-link fence along the south boundary of Lot 2. The proposed PD Conditions also prohibit barbed-wire fencing along Marion Drive and Davis Boulevard.

PD District 93-8's vegetation-preservation zone, eight-foot screening fence, and 80-foot building setback along the southern boundary adjacent to the single-family development would remain applicable on Lots 3 through 10. The proposed PD expressly states that those conditions do not apply to Lots 1 and 2 because those lots do not share that southern boundary with the single-family neighborhood.

4. **Building Design:** GDC Section 4.83(B) requires horizontal and vertical articulation on street-facing nonresidential facades. The applicant requests a deviation from all horizontal and vertical facade-articulation requirements in Section 4.83(B) so the expansion can match the massing and form of the existing distribution building.

The articulation deviation does not modify Section 4.83(A)(1), which requires at least six architectural elements. The proposed expansion provides a canopy, distinctive lighting features, planters, benches, storefront or display windows, and transoms. The applicant proposes decorative horizontal reveals and an accent-color band that coordinates with the existing building. The submitted elevation for the existing Retail Store adds display windows, benches, and planters to the front facade while retaining the existing tenant signage.

The PD Conditions also require new structures to comply with the Industrial District standards in Chapter 2, Table 2-5; the existing structures are expressly exempted from Table 2-5 by the PD.

COMPREHENSIVE PLAN

The Future Land Use Map of the Envision Garland Plan recommends Business Center for the subject site. Business centers provide a cluster of business offices and/or low impact industry, including campus-type development, that cumulatively employ large numbers of people. Operations within this development type occur internal to buildings resulting in minimal negative impacts (sound, air, traffic, outdoor lighting, storage, etc.) and are compatible with adjacent development types in architecture, character, scale, and intensity.

Business centers are generally located at intersections of major and/or secondary arterial streets or significant transit areas (bus/rail). Proximity and access to residential areas are encouraged to reduce travel times to employment. Site design addresses function and visual aesthetics providing appropriate buffering at gateway corridors, between adjacent developments, and for residential neighborhoods.

The request expands an existing indoor distribution operation within an established industrial campus. The use would remain indoors, and no outdoor storage is proposed. The expansion would provide landscaping, detention, fencing, and building-design improvements while retaining separation from nearby residential properties. The proposal is consistent with the Business Centers designation.

GARLAND ON THE RISE STRATEGIC PLAN

Although the subject property is not located within a designated Economic Focus Area, *Garland on the Rise* calls for increasing economic productivity within the City's existing geography and attracting continued private investment. The proposed expansion supports

these objectives by facilitating additional investment and expansion by an established Garland employer.

COMPATIBILITY OF REQUEST WITH SURROUNDING ZONING AND LAND USES

To the north are properties zoned Industrial (IN) District and developed with *Resistol* manufacturing, warehousing, and related industrial operations. To the east, across Marion Drive, are single-family residences zoned Single-Family-7 District (SF-7). To the south are undeveloped properties within PD 93-8, with SF-7 residences located farther south. To the west are properties zoned IN District and they are developed with warehouse, distribution, and other industrial uses.

The proposed expansion is compatible with the established industrial development to the north and west. It would be located west of the existing distribution and retail buildings, and would provide separation from the residences across Marion Drive. The proposed detention pond, landscaping, and undeveloped properties to the south provide additional separation from the residential neighborhood farther south. The indoor operation, wrought-iron fencing (screening), and proposed retail facade improvements further support compatibility with the surrounding land uses.

STAFF RECOMMENDATION

The proposal is consistent with the Comprehensive Plan and is compatible with the surrounding industrial developments. The project would expand an established Garland employer while providing site, landscape, fencing, drainage, and building-design improvements.

Staff recommends approval of a 1) Planned Development (PD) with a base zoning of IN District to allow a Distribution Center, Large (indoors only) use and 2) a concept plan as requested, subject to compliance with the approved PD Conditions and all applicable codes.

ADDITIONAL INFORMATION

- i. Location Map
- ii. PD Conditions
- iii. Concept Plan
- iv. Elevations for reference
- v. Tree mitigation and Landscape plans for reference
- vi. Site Photos
- vii. Applicant's Written Request

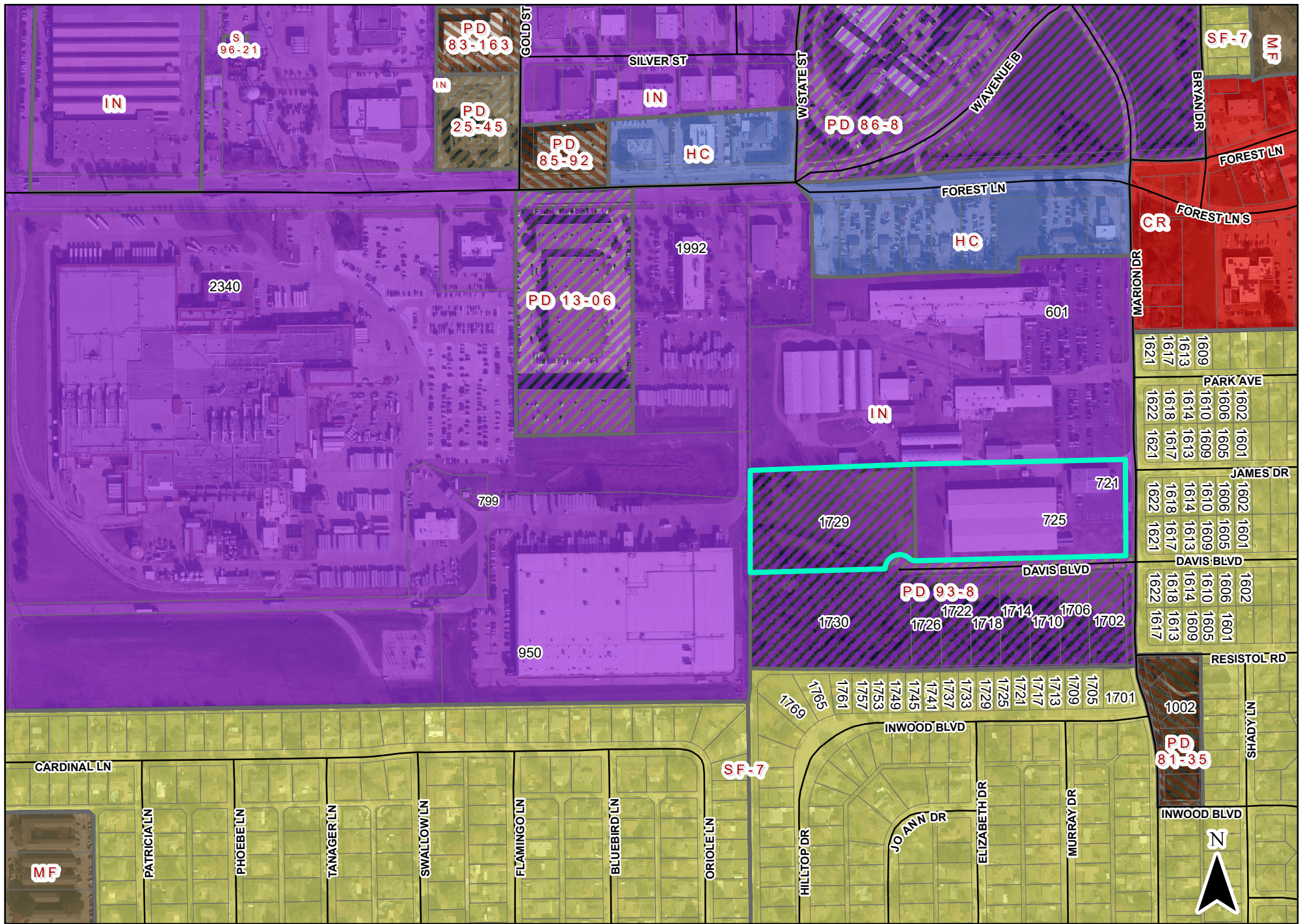
CITY COUNCIL DATE: October 20, 2026

PREPARED BY:

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KMutukundu@garlandtx.gov

REVIEWED BY:

Emma Chetuya PhD., AICP
Planning Administrator
Planning and Development
972-205-2453
EChetuya@garlandtx.gov



0 420 Feet

1 inch = 420 feet

ZONING MAP Z 26-24

INDICATES AREA OF REQUEST

1729 Davis Blvd, 721 & 725 Marion Dr

PLANNED DEVELOPMENT CONDITIONS

ZONING FILE Z 26-24

721 and 725 Marion Drive and 1729 Davis Boulevard

- I. Statement of Purpose:** The purpose of this Planned Development (PD) District is to allow a Distribution Center, Large (indoors only) use with a base zoning of Industrial (IN) District through the expansion of the existing distribution building and to maintain the existing Retail Store use.
- II. Statement of Effect:** This Planned Development amendment shall not affect any regulation found in the Garland Development Code, Ordinance No. 6773, as amended prior to adoption of this ordinance, except as specifically provided herein.
- III. General Regulations:** All regulations of the Industrial (IN) District as set forth in Chapter 2 of the Garland Development Code, Ordinance 6773, are included by reference and shall apply, except as otherwise specified by this ordinance.
- IV. Development Plans:**
- Concept Plan: Development shall be in general conformance with the concept plan labeled Exhibit C. In the event there is conflict between the approved concept plan and the Specific Regulations below, the Specific Regulations shall apply.
- V. Specific Conditions:**
- A. Permitted Uses:** Land uses shall be permitted in accordance with the Industrial (IN) District use restrictions in the Garland Development Code, including all applicable Specific Use Provision and special-standard requirements, except that a Retail Store use shall be permitted by right.
- B. Screening and Fencing:** The existing six-foot-tall wrought-iron fence along the eastern property line adjacent to Marion Drive shall remain and be maintained. A minimum six-foot-tall wrought-iron fence shall be provided along Davis Boulevard as shown on the concept

EXHIBIT B

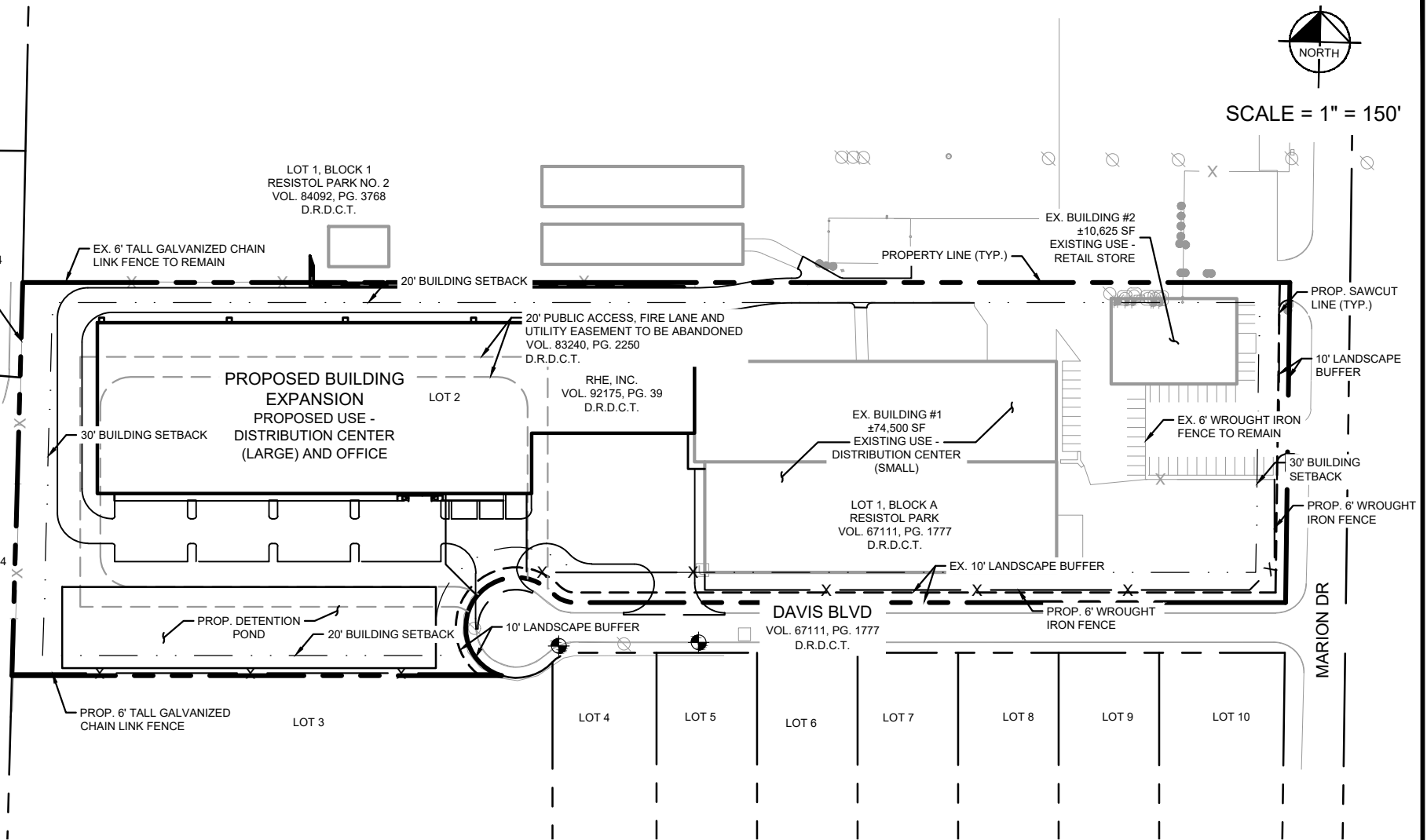
plan. Barbed-wire fencing shall not be permitted along Marion Drive or Davis Boulevard. All other fencing shall be in general conformance with the concept plan.

C. Parking: A minimum off-street parking ratio of one (1) space per 2,000 square feet of gross floor area shall apply to the Distribution Center, Large (indoors only) use. A minimum off-street parking ratio of one space per 400 square feet of gross floor area shall apply to the existing retail building.

D. Building Design:

- a. The proposed distribution-center expansion shall not be required to comply with the horizontal and vertical façade-articulation requirements of Section 4.83(B) of the Garland Development Code.
- b. The Marion Drive façade of the existing retail building shall be improved with a feature band, a minimum of four display windows. A minimum of two benches and two planters will be installed in front of the Retail building.

Plotted By: Brisco, Martha Sheet Set: KHA Layout: EX-1 August 26, 2026 11:04:16am K:\RCH_Civil\060085700 - Hatco Garland\4 - Design\CAD\Exhibits\IPD - Concept Plan - 8.5X11.dwg
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RHE, INC. AND RHE HATCO, INC.

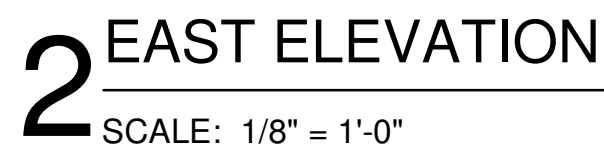
601 MARION DRIVE
GARLAND, TX 75042

PH: (972) 494-7169

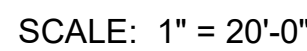
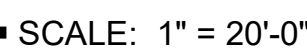
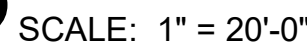
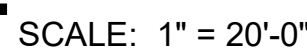
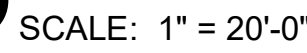
CONTACT: DUSTIN NOBLITT AND DEVIN MARCUM

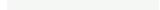
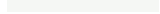
EMAIL: DMARCUM@HAT-CO.COM

SHEET 1 OF 1 SHEETS	DATE: 07/07/2026	CONCEPT PLAN EXHIBIT C	CASE NO. 260331-1 1729 DAVIS BLVD LOT 1 & 2, BLOCK A RESISTOL PARK HATCO EXPANSION GARLAND, TX	 2600 N. CENTRAL EXPRESSWAY SUITE 400, DALLAS, TX 75080 PHONE: 972-770-1300 WWW.KIMLEY-HORN.COM TX F-928 © 2026 KIMLEY-HORN AND ASSOCIATES, INC.
	DRAWN: MYB			
	CHECKED: DPG			
	KHA NO: 060085700			



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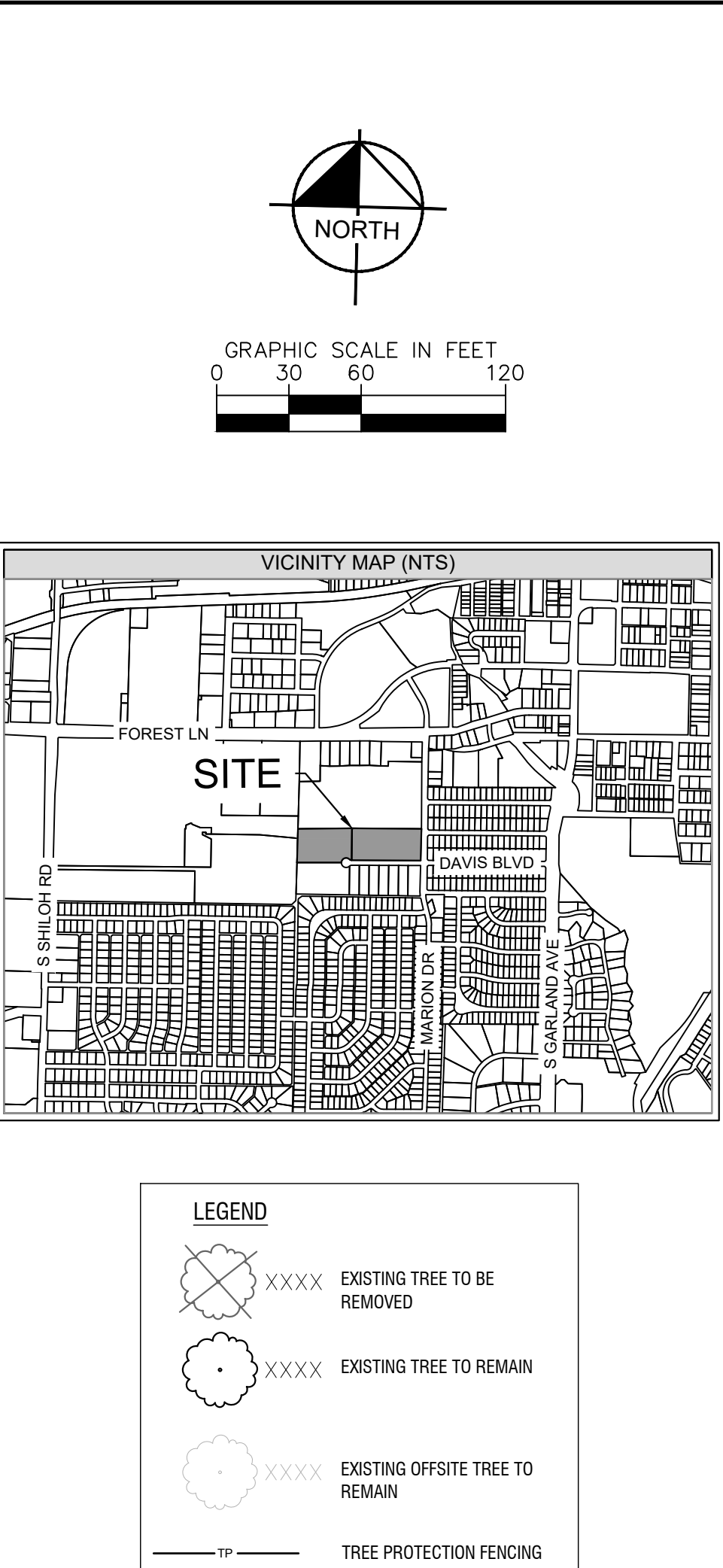


MATERIAL LEGEND		
	(A)	LIGHT GRAY FIELD COLOR - T.B.D
	(B)	GRAY ACCENT PAINT COLOR - T.B.D
	(C)	ACCENT PAINT COLOR - TO MATCH WITH ADJACENT BLDG

OWNER
RESISTOL/HATCO
601 MARION DRIVE
GARLAND, TX

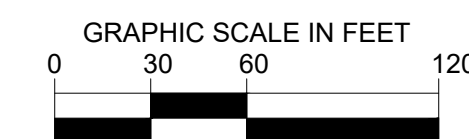
ARCHITECT
PROSS DESIGN GROUP, INC.
BOBBY PROSS
PROSS DESIGN GROUP INC.
5310 HARVEST HILL RD. SUITE 180
DALLAS TX 75230
972. 759. 1400

ENGINEER & APPLICANT



Know what's **below**.
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SHEET NUMBER TP 0.00	OVERALL TREE PRESERVATION PLAN	HATCO GARLAND LOT 1 & 2, BLOCK A	KHA PROJECT 060085700	DATE AUGUST 2026	SCALE AS SHOWN	DESIGNED BY LC	DRAWN BY AGP	CHECKED BY BDM	CASE NO. 260331-1	GARLAND, TEXAS	 2600 N. CENTRAL EXPRESSWAY SUITE 400, RICHARDSON, TX 75080 PHONE: (972) 341-1000 WWW.KIMLEY-HORN.COM TX 626 © 2026 KIMLEY-HORN AND ASSOCIATES, INC.	PROLIFERATORY FOR REVIEW ONLY Not for construction or permit purposes. Kimley-Horn R.L.A. _____ BLAINE D. HENSLER L.A. No. _____ 3488 _____ DATE: 06/26/2026	REVISIONS No.	DATE



 XXXX EXISTING TREE TO BE REMOVED
 XXXX EXISTING TREE TO REMAIN
 XXXX EXISTING OFFSITE TREE TO REMAIN
 TREE PROTECTION FENCING

LOT 2R1, BLOCK 1
KRAFT FOODS
U.S FOODSERVICE ADDITION
INST. NO. 20070222834
O.P.R.D.C.T.

LOT 2
RHE, INC.
VOL. 92175, PG. 39
D.R.D.C.T.

WARNING: CONTRACTOR TO
VERIFY PRESENCE AND EXAC
LOCATION OF ALL UTILITIES
PRIOR TO CONSTRUCTION.



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TREE PRESERVATION PLAN

HATCO GARLAND
LOT 1 & 2, BLOCK A

1

GARI AND TEXAS

CASE NO. 260331-1

DRAWN BY	AGP
CHECKED BY	BDM

PRELIMINARY
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Kimley»Horn

R.L.A. BLAINE D. MIKULIK
L.A. No. 3486 DATE 08/26/2026

Kimley»Horn

2600 N. CENTRAL EXPRESSWAY
SUITE 400, RICHARDSON, TX 75080
PHONE: 972-770-1300 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM TX F-928

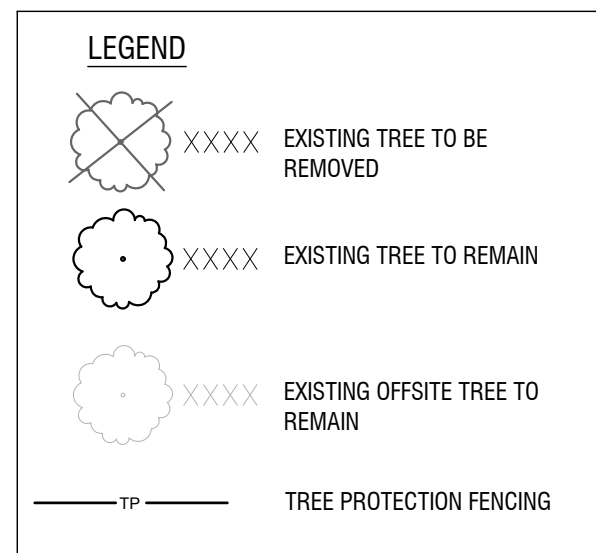
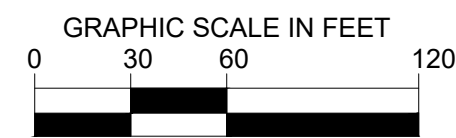
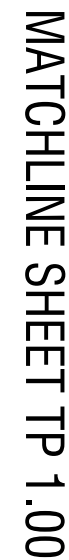
4

DEVISIONS

DATE _____

IMAGES
XREFS
LAST SAVED
PLOTTED BY
XREFS
DRAWING PATH
8/26/2026 1:19 PM
PECINA, ANDREA 8/26/2026 3:41 PM
K:\RCH_Civil\060065700 - Hanco Garland\4_Design\CAD\Plan\Sheet\1.Landscape
8/26/2026 1:19 PM
xStd: xBody : xExSite : xStd24x36 - LA : xTree : Standard Planting Details

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LOT 1, BLOCK A
RESISTOL PARK
VOL. 67111, PG. 1777
D.R.D.C.T.

DAVIS BLVD
VOL. 67111, PG. 1777
D.R.D.C.T.

MARION DR

PROPERTY LINE

OSCAPE BUFFER

EMAIL (TYP.)

NT REF. CIVIL

EX. BUILDING

EX. BUILDING

PROTECTION FENCING (TYP.)
F. DETAIL A SHEET TP 2.00

LOADING AREA
REF. CIVIL

REF. CIVIL

WARNING: CONTRACTOR TO
VERIFY PRESENCE AND EXACT
LOCATION OF ALL UTILITIES
PRIOR TO CONSTRUCTION.



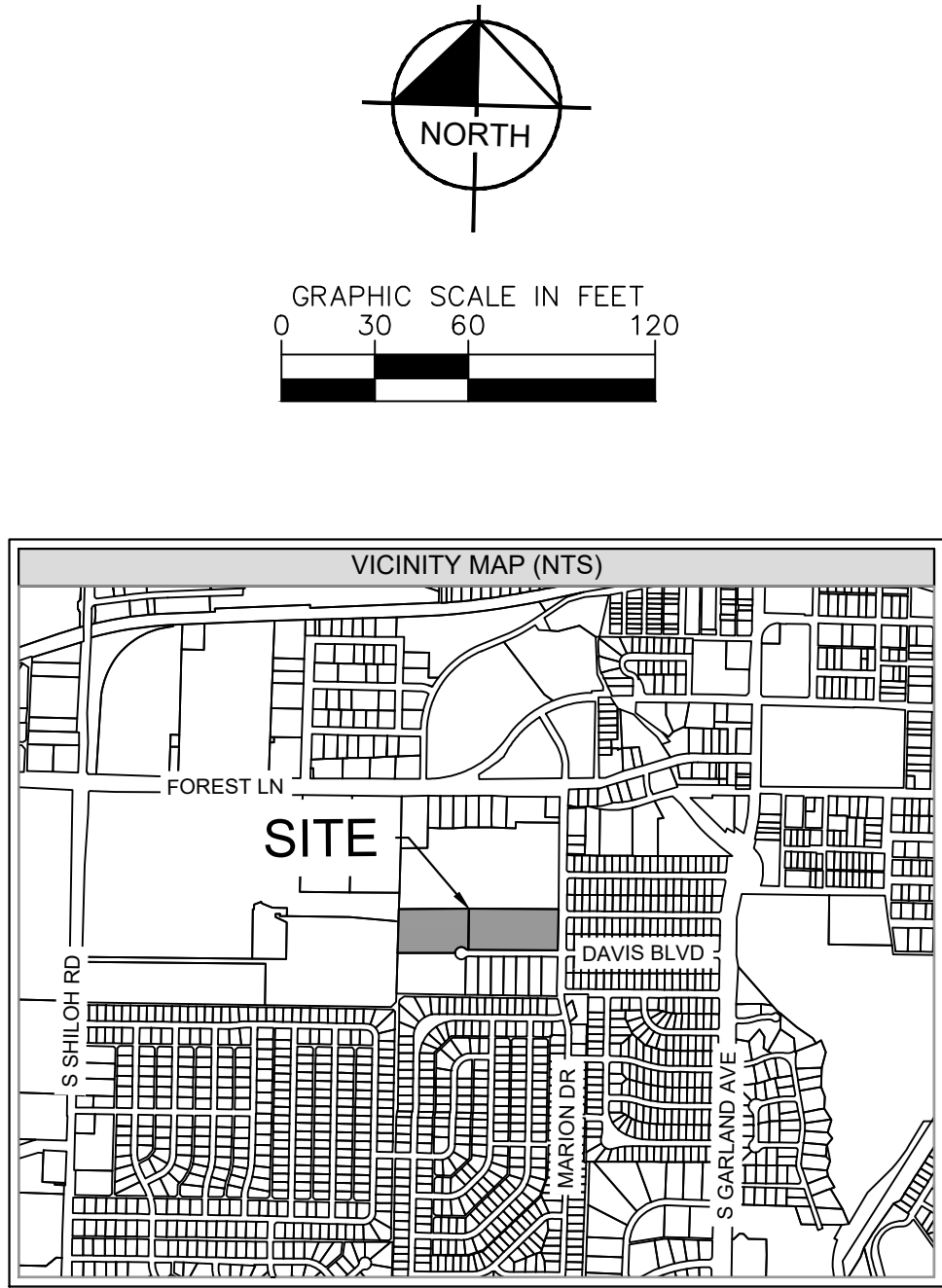
Know what's **below**.
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SHEET NUMBER TP 1.01	TREE PRESERVATION PLAN	HATCO GARLAND LOT 1 & 2, BLOCK A	GARLAND, TEXAS	CASE NO. 260331-1	KHA PROJECT 060085700 DATE AUGUST 2026 SCALE AS SHOWN DESIGNED BY LC DRAWN BY CHECKED BY AGP BDM	FOR REVIEW ONLY Not for construction or permit purposes. Kimley»Horn P.L.A. _____ BLAINE D. LEMOULU L.A. No. _____ 3486 DATE: 08/26/2026		Kimley»Horn 2600 N. CENTRAL EXPRESSWAY SUITE 400, RICHARDSON, TX 75080 PHONE: 972-770-1300 FAX: 972-259-3820 WWW.KIMLEY-HORN.COM TX F-1528 © 2026 KIMLEY-HORN AND ASSOCIATES, INC.		No.	REVISIONS	DATE

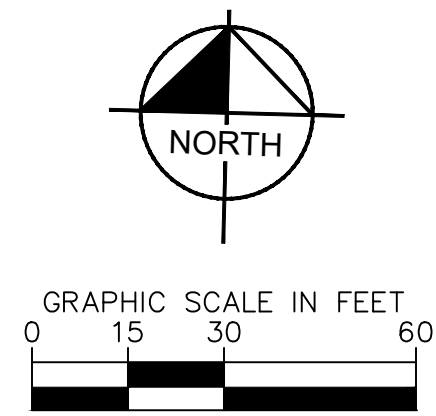
TAG#	DBH	COMMON NAME	SCIENTIFIC NAME	CONDITION	MULTIPLE-STEMMED	ACTION	LOCATION	CLASS	Mitigation Ratio	Required Mitigation
6051	7.2	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	FORKED	REMOVE	DIA	CLASS 2	1:1	7.2
6052	13.5	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	13.5
6053	9.1	CHINESE PISTACHE	PISTACIA CHINENSIS	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	9.1
6054	8.6	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	8.6
6055	8.4	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	FORKED	REMOVE	DIA	CLASS 2	1:1	8.4
6056	10.1	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	MULTI	REMOVE	DIA	CLASS 2	1:1	10.1
6057	6.4	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	FORKED	REMOVE	DIA	CLASS 2	1:1	6.4
6058	6.5	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	3.25
6059	6.5	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	3.25
6060	6.8	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	3.4
6061	12.1	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	MULTI	REMOVE	DIA	CLASS 3	5:1	6.05
6062	7.1	HERCULES CLUB	ZANTHOXYLUM CLAVA-HERCULIS	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	7.1
6063	8.7	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	4.35
6064	6.4	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	3.2
6065	25.5	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	MULTI	REMOVE	DIA	CLASS 3	5:1	12.75
6066	25.3	OSAGE ORANGE (BOIS D'ARC)	MACLURA POMIFERA	HEALTHY	MULTI	REMOVE	DIA	CLASS 2	1:1	25.3
6067	6.2	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	6.2
6068	6.6	HERCULES CLUB	ZANTHOXYLUM CLAVA-HERCULIS	HEALTHY	FORKED	REMOVE	DIA	CLASS 2	1:1	6.6
6069	7	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	7
6070	14.9	AMERICAN ELM	ULMUS AMERICANA	HAZARD	MULTI	REMOVE	DIA	N/A	0	0
6071	12.2	AMERICAN ELM	ULMUS AMERICANA	HAZARD	FORKED	REMOVE	DIA	N/A	0	0
6072	14.8	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	MULTI	REMOVE	DIA	CLASS 2	1:1	14.8
6073	7.2	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	3.6
6074	6.3	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	6.3
6075	10.5	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	10.5
6076	7.4	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	7.4
6077	12.2	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMAIN	DIA	UNPROTECTED	N/A	0
6078	11.7	CHINESE PISTACHE	PISTACIA CHINENSIS	HEALTHY	SINGLE	REMAIN	DIA	CLASS 2	1:1	0
6079	25.2	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 1	2:1	50.4
6080	7.4	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	3.7
6081	14.3	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMAIN	DIA	CLASS 2	1:1	0
6082	38.8	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	MULTI	REMOVE	DIA	CLASS 1	2:1	77.6
6083	16.6	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	MULTI	REMOVE	DIA	CLASS 3	5:1	8.3
6084	14.1	HACKBERRY	CELTIS LAEVIGATA	HAZARD	SINGLE	REMAIN	DIA	N/A	0	0
6085	25.8	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 1	2:1	51.6
6086	7.4	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	FORKED	REMOVE	DIA	CLASS 3	5:1	3.7
6087	8.8	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	FORKED	REMOVE	DIA	CLASS 3	5:1	4.4
6088	7.5	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	3.75
6089	6.8	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	FORKED	REMOVE	DIA	CLASS 3	5:1	3.4
6090	28.3	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 1	2:1	56.6
6091	7.8	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	7.8
6092	17.1	CHINESE PISTACHE	PISTACIA CHINENSIS	DECLINING	SINGLE	REMOVE	DIA	N/A	0	0
6093	20.1	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 1	2:1	40.2
6094	22.4	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 1	2:1	44.8
6095	10	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	10
6096	9.4	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	9.4
6097	34.4	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	MULTI	REMOVE	DIA	CLASS 1	2:1	68.8
6098	12.4	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	12.4
6099	16	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	FORKED	REMOVE	DIA	CLASS 3	5:1	8
6100	19.8	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	9.9
6101	10.8	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	10.8
6102	11	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	5.5
6103	19.5	WHITE ASH	FRAXINUS VELUTINA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	9.75

TAG#	DBH	COMMON NAME	SCIENTIFIC NAME	CONDITION	MULTIPLE-STEMMED	ACTION	LOCATION	CLASS	Mitigation Ratio	Required Mitigation
6104	15.1	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	15.1
6105	11.3	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	11.3
6106	21.9	SHUMARD OAK	QUERCUS SHUMARDII	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	21.9
6107	6.7	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	6.7
6108	11.4	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	11.4
6109	6.1	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	3.05
6110	10.1	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	FORKED	REMOVE	DIA	CLASS 3	5:1	5.05
6111	27.6	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	FORKED	REMOVE	DIA	CLASS 1	2:1	55.2
6112	6.4	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	3.2
6113	29.4	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 1	2:1	58.8
6114	11.5	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	FORKED	REMOVE	DIA	UNPROTECTED	N/A	0
6115	6.2	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	3.1
6116	10.7	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	FORKED	REMOVE	DIA	CLASS 3	5:1	5.35
6117	6.3	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6118	7.6	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6119	9.7	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	MULTI	REMOVE	DIA	CLASS 3	5:1	4.85
6120	10.3	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6121	26.2	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	MULTI	REMOVE	DIA	CLASS 1	2:1	52.4
6122	8.2	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	4.1
6123	9.7	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6124	10.6	GUM BELIA	SIDEROKYLON LANUGINOSUM	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	10.6
6125	11.7	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	FORKED	REMOVE	DIA	UNPROTECTED	N/A	0
6126	9.5	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	9.5
6127	13.8	OSAGE ORANGE (BOIS D'ARC)	MACLURA POMIFERA	DECLINING	FORKED	REMOVE	DIA	N/A	0	0
6128	8.5	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6129	19	OSAGE ORANGE (BOIS D'ARC)	MACLURA POMIFERA	HEALTHY	MULTI	REMOVE	DIA	CLASS 2	1:1	19
6130	6.3	GUM BELIA	SIDEROKYLON LANUGINOSUM	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	6.3
6131	8.9	CHINESE PISTACHE	PISTACIA CHINENSIS	HEALTHY	FORKED	REMOVE	DIA	CLASS 2	1:1	8.9
6132	9.4	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6133	14.7	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	FORKED	REMOVE	DIA	UNPROTECTED	N/A	0
6134	7.4	CHINESE PISTACHE	PISTACIA CHINENSIS	HEALTHY	FORKED	REMOVE	DIA	CLASS 2	1:1	7.4
6135	8.4	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	FORKED	REMOVE	DIA	CLASS 3	5:1	4.2
6136	6.7	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	FORKED	REMOVE	DIA	CLASS 3	5:1	3.35
6137	9.4	SHUMARD OAK	QUERCUS SHUMARDII	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	9.4
6138	7.6	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	3.8
6139	13	CHINESE TALLOW	TRIADICA SEBIFERA	DECLINING	FORKED	REMOVE	DIA	N/A	0	0
6140	7.7	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	7.7
6141	8.4	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	4.2
6142	6	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6143	11.1	CHINESE PISTACHE	PISTACIA CHINENSIS	HEALTHY	MULTI	REMOVE	DIA	CLASS 2	1:1	11.1
6144	15.2	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6145	12	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	FORKED	REMOVE	DIA	CLASS 3	5:1	6
6146	18.4	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 1	2:1	36.8
6147	6.2	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6148	7.6	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	3.8
6149	17.5	RED MULBERRY	MORUS RUBRA	HEALTHY	FORKED	REMOVE	DIA	CLASS 3	5:1	8.75
6150	9.9	CHINESE PISTACHE	PISTACIA CHINENSIS	HEALTHY	MULTI	REMOVE	DIA	CLASS 2	1:1	9.9
6151	13.4	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	FORKED	REMOVE	DIA	CLASS 2	1:1	13.4
6152	8.1	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	4.05
6153	6.3	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	3.15
6154	18.3	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	MULTI	REMOVE	DIA	CLASS 3	5:1	9.15
6155	14.2	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	FORKED	REMOVE	DIA	CLASS 3	5:1	7.1
6156	22.3	AMERICAN ELM	ULMUS AMERICANA	DECLINING	SINGLE	REMOVE	DIA	N/A	0	0

TAG#	DBH	COMMON NAME	SCIENTIFIC NAME	CONDITION	MULTIPLE-STEMMED	ACTION	LOCATION	CLASS	Mitigation Ratio	Required Mitigation
6157	6.8	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	3.4
6158	8	CHINESE PISTACHE	PISTACIA CHINENSIS	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	8
6159	6.6	CHINESE PISTACHE	PISTACIA CHINENSIS	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	6.6
6160	9.3	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	FORKED	REMOVE	DIA	CLASS 3	5:1	4.65
6161	16.3	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	MULTI	REMOVE	DIA	CLASS 3	5:1	8.15
6162	10.9	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	FORKED	REMOVE	DIA	CLASS 3	5:1	5.45
6163	6	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	3
6164	6.5	CHINESE PISTACHE	PISTACIA CHINENSIS	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	6.5
6165	8.8	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	4.4
6166	19.9	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	FORKED	REMOVE	DIA	CLASS 3	5:1	9.95
6167	11.8	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	FORKED	REMAIN	OFFSITE	CLASS 2	1:1	0
6168	6.8	CHINESE PISTACHE	PISTACIA CHINENSIS	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	6.8
6169	15.7	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6170	13.6	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6171	10.4	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6172	8.3	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6173	9	CHINESE PISTACHE	PISTACIA CHINENSIS	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	9
6174	9.3	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6175	10.8	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6176	6.8	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6177	10.8	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6178	10.3	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	MULTI	REMOVE	DIA	UNPROTECTED	N/A	0
6179	12.8	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6180	11.6	GUM BELLA	SIDEROKYLON LANUGINOSUM	HEALTHY	FORKED	REMAIN	OFFSITE	CLASS 2	1:1	0
6181	9.7	GUM BELLA	SIDEROKYLON LANUGINOSUM	HEALTHY	MULTI	REMAIN	OFFSITE	CLASS 2	1:1	0
6182	8.3	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6183	13.2	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6184	12.8	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6185	10.4	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMAIN	OFFSITE	UNPROTECTED	N/A	0
6186	10.2	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMAIN	OFFSITE	UNPROTECTED	N/A	0
6187	7.4	GUM BELLA	SIDEROKYLON LANUGINOSUM	HEALTHY	SINGLE	REMOVE	DIA	CLASS 2	1:1	7.4
6188	6.6	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6189	13.4	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6190	12.3	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	FORKED	REMOVE	DIA	UNPROTECTED	N/A	0
6191	6.9	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	SINGLE	REMOVE	DIA	UNPROTECTED	N/A	0
6192	17.7	HACKBERRY	CELTIS LAEVIGATA	HEALTHY	FORKED	REMOVE	DIA	CLASS 3	5:1	8.85
6193	14.7	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	FORKED	REMOVE	DIA	UNPROTECTED	N/A	0
6194	8.8	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	FORKED	REMOVE	DIA	UNPROTECTED	N/A	0
6195	8	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	HEALTHY	FORKED	REMOVE	DIA	UNPROTECTED	N/A	0
6196	7.5	AMERICAN ELM	ULMUS AMERICANA	HEALTHY	FORKED	REMOVE	DIA	CLASS 2	1:1	7.5
6197	12.6	VELVET ASH	FRAXINUS VELUTINA	HEALTHY	SINGLE	REMOVE	DIA	CLASS 3	5:1	6.3
6198	11.8	VELVET ASH	FRAXINUS VELUTINA	HEALTHY	FORKED	REMOVE	DIA	CLASS 3	5:1	5.9
TOTAL CALIPER INCHES ON SITE:										1756
TOTAL PROTECTED INCHES REMOVED										1276
PROPOSED REQUIRED LANDSCAPE INCHES:										300.0
PROTECTED NET INCHES TO BE MITIGATED										976.1



SHEET NUMBER
LP 0.00

 CYNODON DACTYLON / BERMUDA GRASS

Know what's **below**.
Call before you dig.

LANDSCAPE PLAN

IMAGES
XREFS
LAST SAVED
PRINTED BY
DRAWN BY
PLOTTED
DWG NAME
DWG NAME
LP 0.00.dwg
K-IRCH_Civil/660085700 - Hatzop/CAD/Plan/Sheets/L
PECINA, ANDREA 8/26/2026 3:42 PM
8/26/2026 3:40 PM
xSite : xbody : xE:Site : xE:Util : xbd24x36 - LA : xLandscape



<u>SYMBOL</u>	<u>BOTANICAL / COMMON NAME</u>
---------------	--------------------------------

TREES

(•) ULMUS PARVIFOLIA 'ALLEE' / ALLEE LACEBARK ELM

• ULMUS CRASSIFOLIA / CEDAR ELM

QUERCUS VIRGINIANA / LIVE OAK

QUERCUS SHUMARDII / SHUMARD RED OAK

ORNAMENTAL TREES

LAGERSTROEMIA INDICA X FAURIEI 'TUSCARORA' / TUSCARORA CRAPE MYRTLE

ILEX VOMITORIA / YAUPEON HOLLY

SHRUBS

GROUND COVER:

TRACHELOSPERMUM ASIATICUM / ASIAN J

AGGREGATE / RIVER ROCK

TURF/GRASSES

CYNODON DACTYLON / BERMUDA GRASS

 CYNODON DACTYLON / BERMUDA SEED

MARION DR

DAVIS BLVD
VOL. 67111, PG. 1777
D.R.D.C.T.

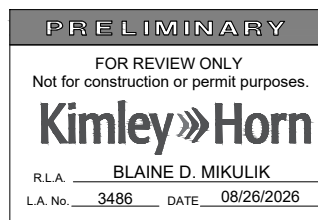
WARNING: CONTRACTOR TO
VERIFY PRESENCE AND EXACT
LOCATION OF ALL UTILITIES
PRIOR TO CONSTRUCTION.



LANDSCAPE PLAN

HATCO GARLAND
LOT 1 & 2, BLOCK A

KHA PROJECT	DATE	AS SHOWN	LC	AG	RD
060085700	AUGUST 2026	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY



Kimley»»Horn

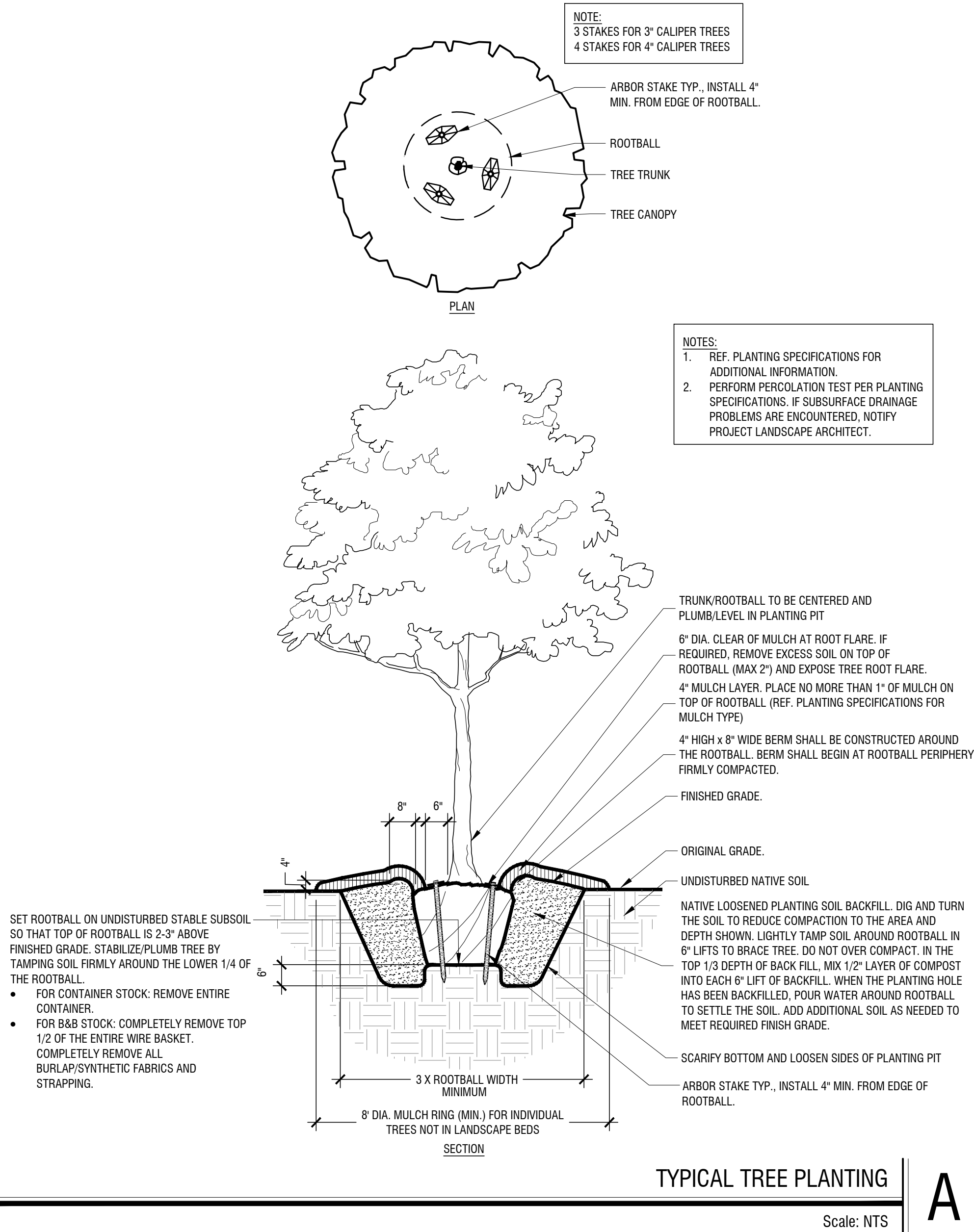
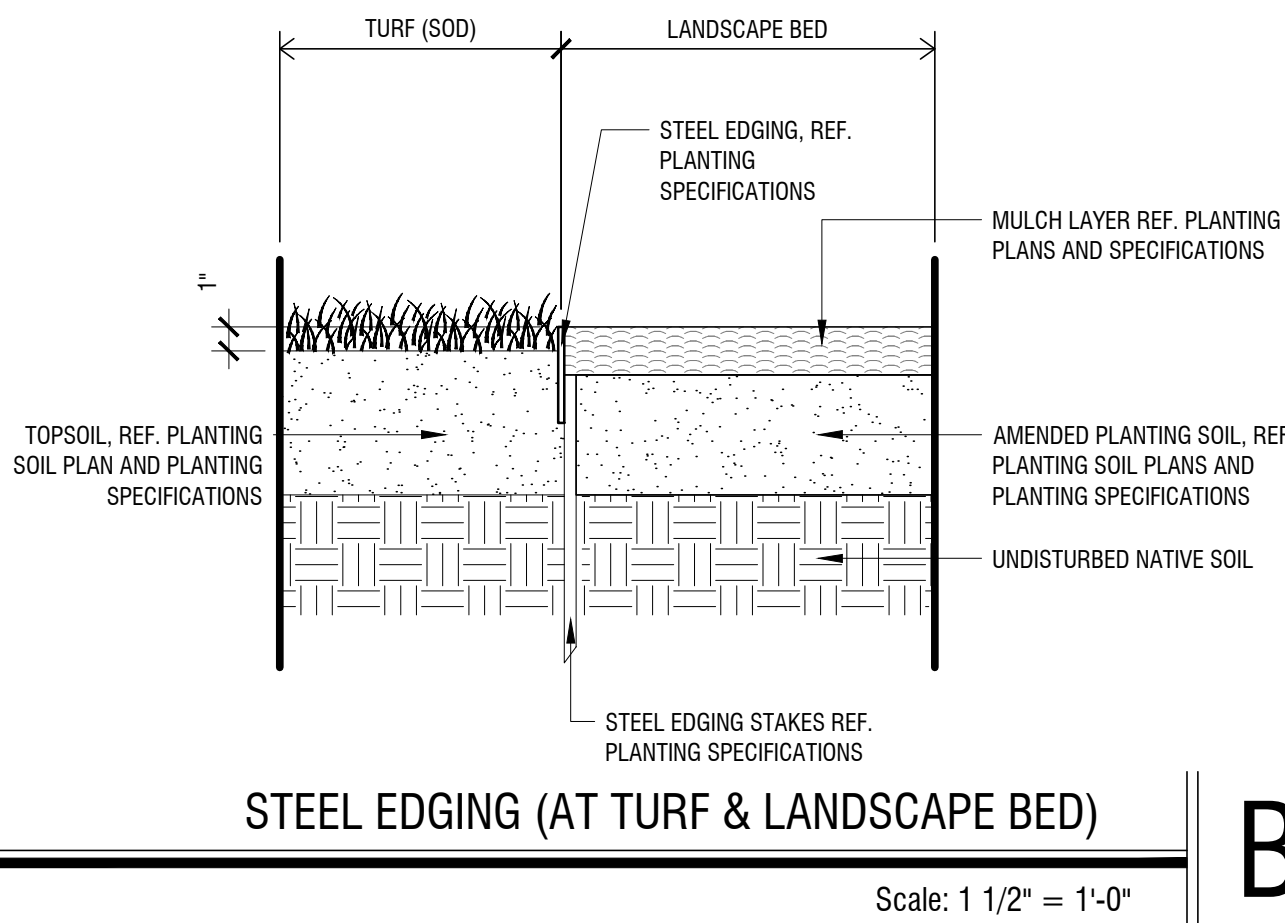
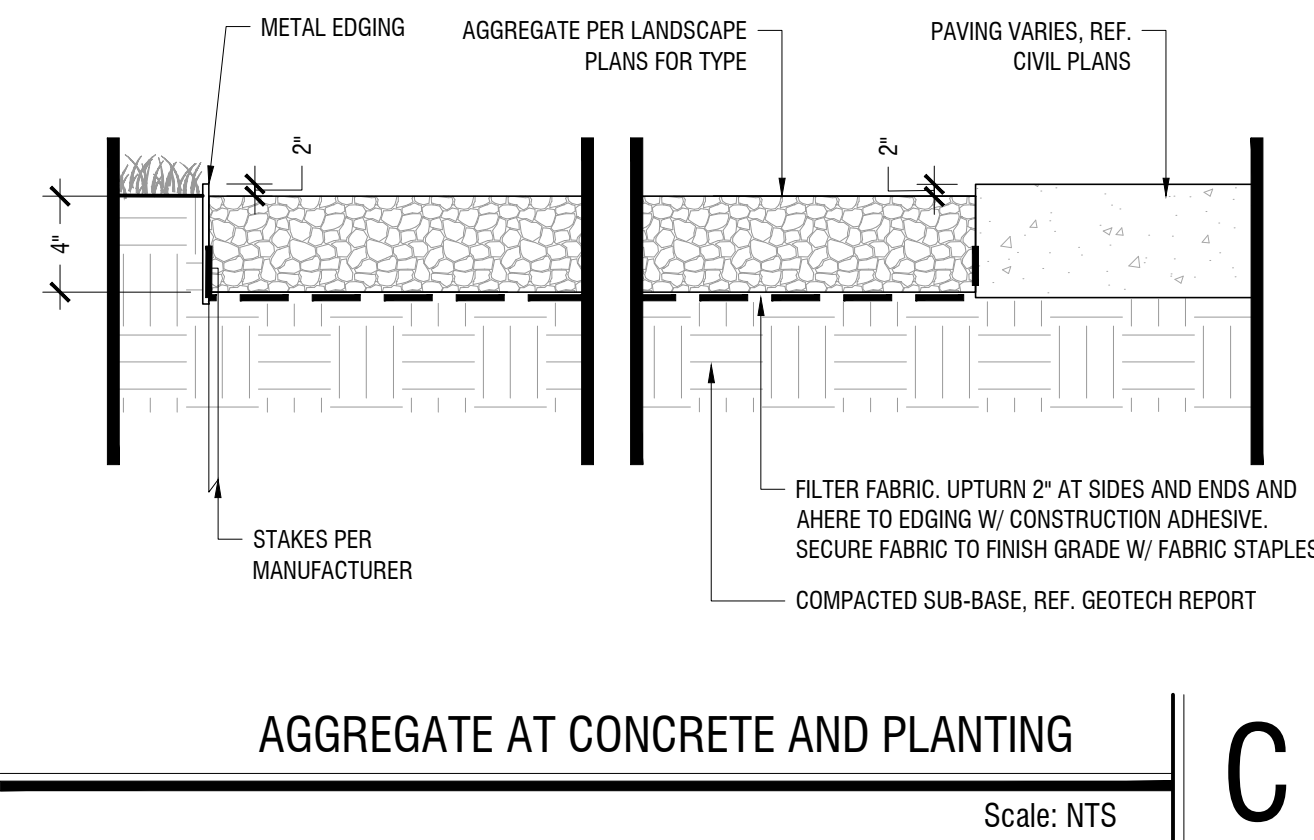
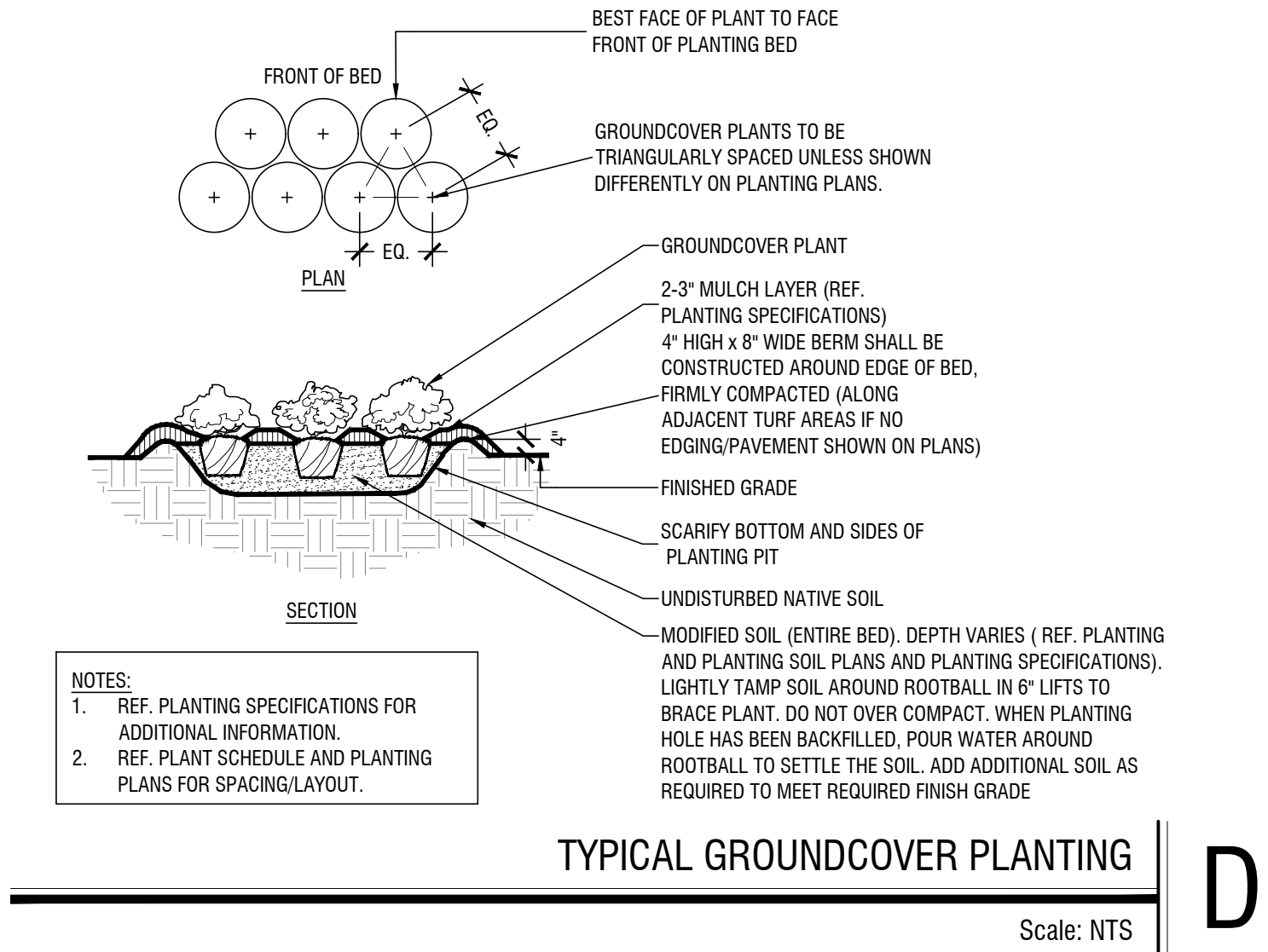
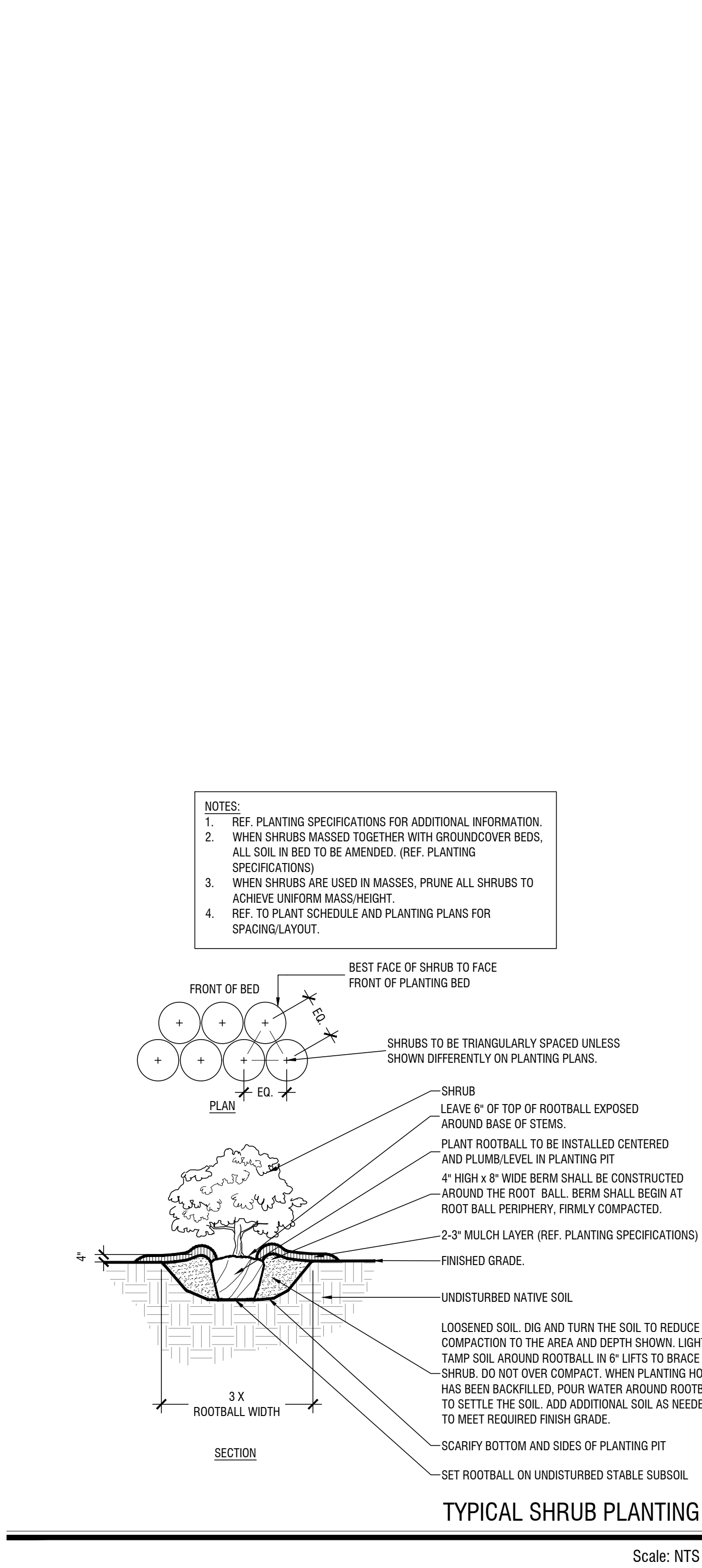
2600 N. CENTRAL EXPRESSWAY
SUITE 400, RICHARDSON, TX 75080
PHONE: 972-770-1300 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM TX F-928

REVISIONS

No

DATA

Images
XREFS
PLOTTED BY
DWG NAME
06/26/2026 3:48 PM
REDAWN ANDREA 6/26/2026 3:48 PM
L:\Projects\260331-1_Landscaping\260331-1_Landscaping.dwg
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SHEET NUMBER		DATE	
LP 2.00			
LANDSCAPE DETAILS		REVISIONS	
HATCO GARLAND		No.	
LOT 1 & 2, BLOCK A			
GARLAND, TEXAS			
CASE NO. 260331-1			
KHA PROJECT			
060085700			
DATE			
AUGUST 2026			
SCALE			
AS SHOWN			
DESIGNED BY			
LC			
DRAWN BY			
AGP			
CHECKED BY			
BDM			
KIMLEY-HORN & ASSOCIATES, INC.			
2600 N. CENTRAL EXPRESSWAY			
SUITE 400, RICHARDSON, TX 75080			
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WWW.KIMLEY-HORN.COM TX F-928			
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PART 1 GENERAL

A. THE SCOPE OF WORK INCLUDES ALL LABOR, MATERIALS, APPLIANCES, TOOLS, EQUIPMENT, FACILITIES, TRANSPORTATION AND SERVICES NECESSARY FOR, AND INCIDENTAL TO PERFORMING ALL OPERATIONS IN CONNECTION WITH FURNISHING, DELIVERY, AND INSTALLATION OF PLANT (ALSO KNOWN AS "LANDSCAPING") COMPLETE AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN.

B. THE SCOPE OF WORK IN THIS SECTION INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:

1. LOCATE, PURCHASE, DELIVER AND INSTALL ALL SPECIFIED PLANTS.
2. WATER ALL SPECIFIED PLANTS.
3. MULCH, FERTILIZE, STAKE, AND PRUNE ALL SPECIFIED PLANTS.
4. MAINTENANCE OF ALL SPECIFIED PLANTS UNTIL THE BEGINNING OF THE WARRANTY PERIOD.
5. PLANT WARRANTY.
6. CLEAN UP AND DISPOSAL OF ALL EXCESS AND SURPLUS MATERIAL.
7. MAINTENANCE OF ALL SPECIFIED PLANTS DURING THE WARRANTY PERIOD.

A. SHALL CONSIST OF SPECIFICATIONS AND GENERAL CONDITIONS AND THE CONSTRUCTION DRAWINGS. THE INTENT OF THESE DOCUMENTS IS TO INCLUDE ALL LABOR, MATERIALS, AND SERVICES NECESSARY FOR THE PROPER EXECUTION OF THE WORK. THE DOCUMENTS ARE TO BE CONSIDERED AS ONE. WHATEVER IS CALLED FOR BY ANY PARTS SHALL BE AS BINDING AS IF CALLED FOR IN ALL PARTS.

RELATED DOCUMENTS:

1. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION I SPECIFICATIONS APPLY TO WORK OF THIS SECTION
2. RELATED SPECIFICATION SECTIONS
 - a. IRRIGATION
 - b. LAWN AND GRASSES
3. REFERENCES: THE FOLLOWING SPECIFICATIONS AND STANDARDS OF THE ORGANIZATIONS AND DOCUMENTS LISTED IN THIS PARAGRAPH FORM A PART OF THE SPECIFICATION TO THE EXTENT REQUIRED BY THE REFERENCES THERETO, IN THE EVENT THAT THE REQUIREMENTS OF THE FOLLOWING REFERENCED STANDARDS AND SPECIFICATION CONFLICT WITH THIS SPECIFICATION SECTION THE REQUIREMENTS OF THIS SPECIFICATION SHALL PREVAIL. IN THE EVENT THAT THE REQUIREMENTS OF ANY OF THE FOLLOWING REFERENCED STANDARDS AND SPECIFICATIONS CONFLICT WITH EACH OTHER THE MORE STRINGENT REQUIREMENT SHALL PREVAIL OR AS DETERMINED BY THE OWNERS REPRESENTATIVE.
 1. ANSI Z60.1- AMERICAN STANDARD FOR NURSERY STOCK, MOST CURRENT EDITION.
 2. ANSI A 300 - STANDARD PRACTICES FOR TREE, SHRUB AND OTHER WOODY PLANT MAINTENANCE, MOST CURRENT EDITION AND ALL PARTS.
 3. INTERPRETATION OF PLANT NAMES AND DESCRIPTIONS SHALL REFERENCE THE FOLLOWING DOCUMENTS, WHERE THE NAMES OR PLANT DESCRIPTIONS DISAGREE BETWEEN THE SEVERAL DOCUMENTS, THE MOST CURRENT DOCUMENT SHALL PREVAIL.
 - a. USDA - THE GERMPASM RESOURCES INFORMATION NETWORK (WWW.ARS-GRIN.GOV/NPGS.HTML)
 - b. MANUAL OF WOODY LANDSCAPE PLANTS; MICHAEL DIRR; STIPE'S PUBLISHING, CHAMPAIGN, ILLINOIS MOST CURRENT EDITION.
 - c. THE NEW SUNSET WESTERN GARDEN BOOK, OXMOOR HOUSE, MOST CURRENT EDITION.
 4. PRUNING PRACTICES SHALL CONFORM TO RECOMMENDATIONS "STRUCTURAL PRUNING: A GUIDE FOR THE GREEN INDUSTRY" MOST CURRENT EDITION; PUBLISHED BY URBAN TREE FOUNDATION, VISALIA, CALIFORNIA.
 5. GLOSSARY OF ARBORICULTURAL TERMS, INTERNATIONAL SOCIETY OF ARBORICULTURE, CHAMPAIGN IL, MOST CURRENT EDITION.

A. ALL SCALED DIMENSIONS ON THE DRAWINGS ARE APPROXIMATE. BEFORE PROCEEDING WITH ANY WORK, THE CONTRACTOR SHALL CAREFULLY CHECK AND VERIFY ALL DIMENSIONS AND QUANTITIES, AND SHALL IMMEDIATELY INFORM THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES BETWEEN THE INFORMATION ON THE DRAWINGS AND THE ACTUAL CONDITIONS, REFRAINING FROM DOING ANY WORK IN SAID AREAS UNTIL GIVEN APPROVAL TO DO SO BY THE OWNER'S REPRESENTATIVE.

B. IN THE CASE OF A DISCREPANCY IN THE PLANT QUANTITIES BETWEEN THE PLAN DRAWINGS AND THE PLANT CALL OUTS, LIST OR PLANT SCHEDULE, THE NUMBER OF PLANTS OR SQUARE FOOTAGE OF THE PLANTING BED ACTUALLY DRAWN ON THE PLAN DRAWINGS SHALL BE DEEMED CORRECT AND PREVAIL.

A. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS RELATED TO THIS SECTION OF THE WORK UNLESS PREVIOUSLY EXCLUDED UNDER PROVISION OF THE CONTRACT OR GENERAL CONDITIONS. THE CONTRACTOR SHALL COMPLY WITH ALL CITY, COUNTY, STATE AND FEDERAL REQUIREMENTS FOR OBTAINING SUCH PERMITS AS DRAWN AND SPECIFIED. IF THE CONTRACTOR OBSERVES THAT A CONFLICT EXISTS BETWEEN PERMIT REQUIREMENTS AND THE WORK OUTLINED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING INCLUDING A DESCRIPTION OF ANY NECESSARY CHANGES TO THE CONTRACT DOCUMENTS.

B. WHEREVER REFERENCES ARE MADE TO STANDARDS OR CODES IN ACCORDANCE WITH WHICH WORK IS TO BE PERFORMED OR TESTED, THE EDITION OR REVISION OF THE STANDARDS AND CODES CURRENT ON THE EFFECTIVE DATE OF THIS CONTRACT SHALL APPLY, UNLESS OTHERWISE EXPRESSLY SET FORTH.

STANDARDS AND CODES AND THE SPECIFICATIONS, THE MORE RESTRICTIVE STANDARD SHALL APPLY. ON
OWNER'S REPRESENTATIVE SHALL DETERMINE WHICH SHALL GOVERN.

A. THE CONTRACTOR SHALL ADEQUATELY PROTECT THE WORK, ADJACENT PROPERTY, AND THE PUBLIC, AND SHALL BE RESPONSIBLE FOR ANY DAMAGES OR INJURY DUE TO HIS/HER ACTIONS.

A. THE OWNER'S REPRESENTATIVE MAY ORDER CHANGES IN THE WORK, AND THE CONTRACT SUM SHOULD BE ADJUSTED ACCORDINGLY. ALL SUCH ORDERS AND ADJUSTMENTS PLUS CLAIMS BY THE CONTRACTOR FOR EXTRA COMPENSATION MUST BE MADE AND APPROVED IN WRITING BEFORE EXECUTING THE WORK INVOLVED.

A. THE CONTRACTOR, AT THEIR OWN COST, SHALL RE-EXECUTE ANY WORK THAT FAILS TO CONFORM TO THE REQUIREMENTS OF THE CONTRACT AND SHALL REMEDY DEFECTS DUE TO FAULTY MATERIALS OR WORKMANSHIP UPON WRITTEN NOTICE FROM THE OWNER'S REPRESENTATIVE, AT THE SOONEST AS POSSIBLE TIME THAT CAN BE COORDINATED WITH OTHER WORK AND SEASONAL WEATHER DEMANDS.

ALL TERMS IN THIS SPECIFICATION SHALL BE AS DEFINED IN THE "GLOSSARY OF ARBORICULTURAL TERMS" OR AS MODIFIED BELOW.

INSISTS, IT SHALL MEAN AT LEVELS LOW ENOUGH THAT NO TREATMENT WOULD BE REQUIRED WHEN APPLYING RECOGNIZED INTEGRATED PLANT MANAGEMENT PRACTICES.

THIS SPECIFICATION RECOGNIZES THAT SOME DECISIONS CANNOT BE TOTALLY BASED ON MEASURED FINDINGS AND THAT PROFESSIONAL JUDGMENT IS REQUIRED. IN CASES OF DIFFERING OPINION, THE OWNER'S REPRESENTATIVE'S EXPERT SHALL DETERMINE WHEN CONDITIONS ARE JUDGED AS REASONABLE.

M. ROOT BALL: THE MASS OF ROOTS INCLUDING ANY SOIL OR SUBSTRATE THAT IS SHIPPED WITH THE TREE WITHIN THE ROOT BALL PACKAGE.

N. ROOT BALL PACKAGE: THE MATERIAL THAT SURROUNDS THE ROOT BALL DURING SHIPPING. THE ROOT PACKAGE MAY INCLUDE THE MATERIAL IN WHICH THE PLANT WAS GROWN, OR NEW PACKAGING PLACED AROUND THE ROOT BALL FOR SHIPPING.

O. ROOT COLLAR (ROOT CROWN, ROOT FLARE, TRUNK FLARE, FLARE): THE REGION AT THE BASE OF THE TRUNK WHERE THE MAJORITY OF THE STRUCTURAL ROOTS JOIN THE PLANT STEM, USUALLY AT OR NEAR GROUND LEVEL.

P. SHRUB: WOODY PLANTS WITH MATURE HEIGHT APPROXIMATELY LESS THAN 15 FEET.

Q. SPADE HARVESTED AND TRANSPLANTED: FIELD GROWN TREES THAT ARE MECHANICALLY HARVESTED AND IMMEDIATELY TRANSPLANTED TO THE FINAL GROWING SITE WITHOUT BEING REMOVED FROM THE DIGGING MACHINE.

R. STEM: THE TRUNK OF THE TREE.

S. SUBSTANTIAL COMPLETION ACCEPTANCE: THE DATE AT THE END OF THE PLANTING, PLANTING SOIL, AND IRRIGATION INSTALLATION WHERE THE OWNER'S REPRESENTATIVE ACCEPTS THAT ALL WORK IN THESE SECTIONS IS COMPLETE AND THE WARRANTY PERIOD HAS BEGUN. THIS DATE MAY BE DIFFERENT THAN THE DATE OF SUBSTANTIAL COMPLETION FOR THE OTHER SECTIONS OF THE PROJECT.

T. STEM GIRDLING ROOT: ANY ROOT MORE THAN 1/4 INCH DIAMETER CURRENTLY TOUCHING THE TRUNK, OR WITH THE POTENTIAL TO TOUCH THE TRUNK, ABOVE THE ROOT COLLAR APPROXIMATELY TANGENT TO THE TRUNK CIRCUMFERENCE OR CIRCLING THE TRUNK. ROOTS SHALL BE CONSIDERED AS STEM GIRDLING THAT HAVE, OR ARE LIKELY TO HAVE IN THE FUTURE, ROOT TO ROOT BARK CONTACT.

U. STRUCTURAL ROOT: ONE OF THE LARGEST ROOTS EMERGING FROM THE ROOT COLLAR.

V. TREE: SINGLE AND MULTI-STEMMED PLANTS WITH MATURE HEIGHT APPROXIMATELY GREATER THAN 15 FEET.

A. **SUBMIT CONTRACT GENERAL CONDITIONS FOR POLICY AND PROCEDURE RELATED TO SUBMITTALS.**

B. **SUBMIT ALL PRODUCT SUBMITTALS 4 WEEKS PRIOR TO INSTALLATION OF PLANTINGS.**

C. **PRODUCT DATA: SUBMIT MANUFACTURER PRODUCT DATA AND LITERATURE DESCRIBING ALL PRODUCTS REQUIRED BY THIS SECTION TO THE OWNER'S REPRESENTATIVE FOR APPROVAL. PROVIDE SUBMITTAL FOUR WEEKS BEFORE THE INSTALLATION OF PLANTS.**

D. **SAMPLES: SUBMIT SAMPLES OF EACH PRODUCT AND MATERIAL WHERE REQUIRED BY THE SPECIFICATION TO THE OWNER'S REPRESENTATIVE FOR APPROVAL. LABEL SAMPLES TO INDICATE PRODUCT, CHARACTERISTICS, AND LOCATION. THE TWO SAMPLES WILL BE REVIEWED FOR APPEARANCE ONLY. COMPLIANCE WITH ALL OTHER REQUIREMENTS IS THE EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR.**

E. **CLOSE OUT SUBMITTALS: SUBMIT TO THE OWNER'S REPRESENTATIVE FOR APPROVAL.**

F. **PLANT MAINTENANCE DATA AND REQUIREMENTS.**

G. **WARRANTY PERIOD SITE VISIT RECORD: IF THERE IS NO MAINTENANCE DURING THE WARRANTY PERIOD, AFTER EACH YEAR DURING THE WARRANTY PERIOD, THE CONTRACTOR, AS REQUIRED BY THIS SPECIFICATION, SHALL WRITE A WRITTEN RECORD OF THE VISIT, INCLUDING ANY PROBLEMS, POTENTIAL PROBLEMS, AND ANY RECOMMENDED CORRECTIVE ACTION TO THE OWNER'S REPRESENTATIVE FOR APPROVAL.**

A. THE OWNER'S REPRESENTATIVE MAY OBSERVE THE WORK AT ANY TIME. THEY MAY REMOVE SAMPLES OF MATERIALS FOR CONFORMITY TO SPECIFICATIONS. REJECTED MATERIALS SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND REPLACED AT THE CONTRACTOR'S EXPENSE. THE COST OF TESTING MATERIALS NOT MEETING SPECIFICATIONS SHALL BE PAID BY THE CONTRACTOR.

B. THE OWNER'S REPRESENTATIVE SHALL BE INFORMED OF THE PROGRESS OF THE WORK SO THE WORK MAY BE OBSERVED AT THE FOLLOWING TIMES: 1. PRIOR TO CONSTRUCTION PROCESS. 2. THE OWNER'S REPRESENTATIVE SHALL BE AFFORDED SUFFICIENT TIME TO SCHEDULE VISIT TO THE SITE. FAILURE OF THE OWNER'S REPRESENTATIVE TO MAKE FIELD OBSERVATIONS SHALL NOT RELIEVE THE CONTRACTOR FROM MEETING ALL THE REQUIREMENTS OF THIS SPECIFICATION.

1. SITE CONDITIONS PRIOR TO THE START OF PLANTING: REVIEW THE SOIL AND DRAINAGE CONDITIONS.
2. COMPLETION OF THE PLANT LAYOUT STAKING: REVIEW OF THE PLANT LAYOUT.
3. PLANT QUALITY: REVIEW OF PLANT QUALITY AT THE TIME OF DELIVERY AND PRIOR TO INSTALLATION. REVIEW TREE QUALITY PRIOR TO UNLOADING WHERE POSSIBLE, BUT IN ALL CASES PRIOR TO PLANTING.
4. COMPLETION OF THE PLANTING: REVIEW THE COMPLETED PLANTING.

A. SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE OWNER'S REPRESENTATIVE AT LEAST SEVEN (7) DAYS BEFORE BEGINNING WORK TO REVIEW ANY QUESTIONS THE CONTRACTOR MAY HAVE REGARDING THE WORK, ADMINISTRATIVE PROCEDURES DURING CONSTRUCTION AND PROJECT WORK SCHEDULE.

A. SUBSTANTIAL COMPLETION ACCEPTANCE - ACCEPTANCE OF THE WORK PRIOR TO THE START OF THE WARRANTY PERIOD:

1. ONCE THE CONTRACTOR COMPLETES THE INSTALLATION OF ALL ITEMS IN THIS SECTION, THE OWNER'S REPRESENTATIVE WILL OBSERVE ALL WORK FOR SUBSTANTIAL COMPLETION ACCEPTANCE UPON WRITTEN REQUEST OF THE CONTRACTOR. THE REQUEST SHALL BE RECEIVED AT LEAST TEN CALENDAR DAYS BEFORE THE ANTICIPATED DATE OF THE OBSERVATION.
2. SUBSTANTIAL COMPLETION ACCEPTANCE BY THE OWNER'S REPRESENTATIVE SHALL BE FOR GENERAL CONFORMANCE TO SPECIFIED SIZE, CHARACTER AND QUALITY AND NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR FULL CONFORMANCE TO THE CONTRACT DOCUMENTS, INCLUDING CORRECT SPECIES.
3. ANY PLANTS THAT ARE DEEMED DEFECTIVE AS DEFINED UNDER THE PROVISIONS BELOW SHALL NOT BE ACCEPTED.

B. THE OWNER'S REPRESENTATIVE WILL PROVIDE THE CONTRACTOR WITH WRITTEN ACKNOWLEDGMENT OF THE DATE OF SUBSTANTIAL COMPLETION ACCEPTANCE AND THE BEGINNING OF THE WARRANTY PERIOD AND PLANT MAINTENANCE PERIOD (IF PLANT MAINTENANCE IS INCLUDED).

C. CONTRACTOR'S QUALITY ASSURANCE RESPONSIBILITIES: THE CONTRACTOR IS SOLELY RESPONSIBLE FOR QUALITY CONTROL OF THE WORK.

D. INSTALLER QUALIFICATIONS: THE INSTALLER SHALL BE A FIRM HAVING AT LEAST 5 YEARS OF SUCCESSFUL EXPERIENCE OF A SCOPE SIMILAR TO THAT REQUIRED FOR THE WORK, INCLUDING THE HANDLING AND PLANTING OF LARGE SPECIES TREES IN URBAN AREAS. THE SAME FIRM SHALL INSTALL PLANTING SOIL (WHERE APPLICABLE) AND PLANT MATERIAL.

2. INSTALLER'S FIELD SUPERVISOR SHALL HAVE A MINIMUM OF FIVE YEARS EXPERIENCE AS A FIELD SUPERVISOR INSTALLING PLANTS AND TREES OF THE QUALITY AND SCALE OF THE PROPOSED PROJECT, AND WHO CAN COMMUNICATE IN ENGLISH WITH THE OWNER'S REPRESENTATIVE.
3. THE INSTALLER'S CREW SHALL HAVE A MINIMUM OF 3 YEARS EXPERIENCE IN THE INSTALLATION OF PLANTING SOIL, PLANTINGS, AND IRRIGATION (WHERE APPLICABLE) AND INTERPRETATION OF SOIL PLANS, PLANTING PLANS AND IRRIGATION PLANS.
4. SUBMIT RECOMMENDS OF PAST PROJECTS, EMPLOYEE TRAINING CERTIFICATIONS THAT SUPPORT THAT THE CONTRACTORS MEETS ALL OF THE ABOVE INSTALLER QUALIFICATIONS AND APPLICABLE LICENSURES.

A. THE CONTRACTOR AGREES TO REPLACE DETERMINATIVE WORK AND DEFECTIVE PLANTS "THE OWNERS" REPRESENTATIVE SHALL MAKE THE FINAL DETERMINATION IF PLANTS MEET THESE SPECIFICATIONS OR THAT PLANTS ARE DEFECTIVE.

B. PLANTS WARRANTY SHALL BEGIN ON THE DATE OF SUBSTANTIAL COMPLETION ACCEPTANCE AND CONTINUE FOR THE FOLLOWING PERIODS, CLASSIED BY PLANT TYPE:

1. TREES - 1 YEAR.
2. SHRUBS - 1 YEAR.
3. GROUND COVER AND PERENNIAL FLOWER PLANTS - 1 YEAR.
4. BULBS, ANNUAL FLOWER AND SEASONAL COLOR PLANTS - FOR THE PERIOD OF EXPECTED BLOOM OR PRIMARY DISPLAY.

C. WHEN THE WORK IS ACCEPTED IN PARTS, THE WARRANTY PERIODS SHALL EXTEND FROM EACH OF THE PARTIAL SUBSTANTIAL COMPLETION ACCEPTANCES TO THE TERMINAL DATE OF THE LAST WARRANTY PERIOD. THUS, ALL WARRANTY PERIODS FOR EACH CLASS OF PLANT WARRANTY, SHALL TERMINATE AT ONE TIME.

D. ALL PLANTS SHALL BE WARRANTED TO MEET ALL THE REQUIREMENTS FOR PLANT QUALITY AT INSTALLATION IN THIS SPECIFICATION. DEFECTIVE PLANTS SHALL BE DEFINED AS PLANTS NOT MEETING THESE REQUIREMENTS. THE OWNERS REPRESENTATIVE SHALL MAKE THE FINAL DETERMINATION THAT PLANTS ARE DEFECTIVE.

E. PLANTS REPRESENTED TO BE DEFECTIVE SHALL BE REMOVED IMMEDIATELY UPON NOTIFICATION BY THE OWNERS DETERMINATIVE AND REPLACED WITHOUT COST TO THE OWNER, AS SOON AS WEATHER CONDITIONS PERMIT AND WITHIN THE SPECIFIED PLANTING PERIOD.

F. ANY WORK REQUIRED BY THIS SPECIFICATION OR THE OWNERS REPRESENTATIVE DURING THE PROGRESS OF THE WORK, TO CORRECT PLANT DEFECTS INCLUDING THE REMOVAL OF ROOTS OR BRANCHES, TO OBSERVE FOR OR CORRECT ROOT DEFECTS SHALL NOT BE CONSIDERED AS GROUNDS TO VOID ANY CONDITIONS OF THE

6. THE CONTRACTOR IS EXEMPT FROM REPLACING PLANTS, AFTER SUBSTANTIAL COMPLETION ACCEPTANCE AND DURING THE WARRANTY PERIOD, THAT ARE REMOVED BY OTHERS, LOST OR DAMAGED DUE TO OCCUPANCY OF PROJECT, LOST OR DAMAGED BY A THIRD PARTY, VANDALISM, OR ANY NATURAL DISASTER.

H. REPLACEMENTS SHALL CLOSELY MATCH ADJACENT SPECIMENS OF THE SAME SPECIES. REPLACEMENTS SHALL BE MADE AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL MAKE ALL NECESSARY REPAIRS DUE TO PLANT REPLACEMENTS. SUCH REPAIRS SHALL BE DONE AT NO EXTRA COST TO THE OWNER.

I. THE WARRANTY OF ALL REPLACEMENT PLANTS SHALL EXTEND FOR AN ADDITIONAL ONE-YEAR PERIOD FROM THE DATE OF THEIR ACCEPTANCE AFTER REPLACEMENT. IN THE EVENT THAT A REPLACEMENT PLANT IS NOT ACCEPTABLE DURING OR AT THE END OF THE SAID EXTENDED WARRANTY PERIOD, THE OWNER'S REPRESENTATIVE MAY EJECT ONE MORE REPLACEMENT ITEMS OR CREDIT FOR EACH ITEM. THESE TERTIARY REPLACEMENT ITEMS ARE NOT PROTECTED UNDER A WARRANTY PERIOD.

J. DURING THE END OF THE WARRANTY PERIOD, REMOVE ALL ABOVE GROUND TREE ASSESSMENTS PRESENT (IE. TREE WRAP, TIES, AND GUYING) UNLESS AGREED TO BY THE OWNER'S REPRESENTATIVE TO REMAIN. THE CONTRACTOR SHALL NOT REMOVE ANY SUBSEQUENT GUYING TO REMAIN UPRIGHT, OR THOSE REQUIRING ADDITIONAL ANCHORAGE IN WINDY LOCATIONS. SHALL BE STAKED OR REMAIN STAKED, IF REQUIRED BY THE OWNER'S REPRESENTATIVE.

K. END OF WARRANTY FINAL ACCEPTANCE - ACCEPTANCE OF PLANTS AT THE END OF THE WARRANTY PERIOD.

1. AT THE END OF THE WARRANTY PERIOD, THE OWNER'S REPRESENTATIVE SHALL OBSERVE ALL WARRANTED WORK, UPON WRITTEN REQUEST OF THE CONTRACTOR. THE REQUEST SHALL BE RECEIVED AT MOST TEN CALENDAR DAYS BEFORE THE ANTICIPATED DATE FOR FINAL OBSERVATION.

2. END OF WARRANTY FINAL ACCEPTANCE WILL BE GIVEN ONLY WHEN ALL THE REQUIREMENTS OF THE WORK UNDER THIS SPECIFICATION AND IN SPECIFICATION SECTION IRRIGATION HAVE BEEN MET.

A. THE OWNER'S REPRESENTATIVE MAY REVIEW ALL PLANTS SUBJECT TO APPROVAL OF STATE, HEALTH, QUALITY, AND OTHERS. REVENUE PROCEEDS OF ANY PLANT DURING THE PERIOD OF SELECTION, DELIVERY, INSTALLATION, AND ESTABLISHMENT PERIOD SHALL NOT PREVENT THAT PLANT FROM LATER REJECTION IN THE EVENT THAT THE PLANT QUALITY CHANGES OR PREVIOUSLY EXISTING DEFECTS BECAME APPARENT THAT WERE NOT OBSERVED.

B. PLANT SELECTION: THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO SELECT AND OBSERVE ALL PLANTS AT THE NURSERY PRIOR TO DELIVERY AND TO REJECT PLANTS THAT DO NOT MEET SPECIFICATIONS AS SET FORTH IN THIS SPECIFICATION. IF A PARTICULAR DEFECT OR SUBSTANDARD ELEMENT CAN BE CORRECTED AT THE NURSERY, AS DETERMINED BY THE OWNER'S REPRESENTATIVE, THE AGREED UPON REMEDY MAY BE APPLIED AT THE NURSERY OR THE CONTRACTOR PROVIDED THAT THE CORRECTION ALLOWS THE PLANT TO MEET THE REQUIREMENTS SET FORTH IN THIS SPECIFICATION. ANY WORK TO CORRECT PLANTS DEFECTS SHALL BE AT THE CONTRACTOR'S EXPENSE.

1. THE OWNER'S REPRESENTATIVE MAY MAKE INVASIVE OBSERVATION OF THE TREE'S ROOT SYSTEM IN THE AREA OF THE ROOT COLLAR AND THE TOP OF THE ROOT BALL IN GENERAL IN ORDER TO DETERMINE THAT THE TREE MEETS THE QUALITY REQUIREMENTS OF THE ROOT COLLAR AND PRESENCE OF ROOT ABOVE THE ROOT COLLAR, SUCH OBSERVATIONS WILL NOT HARM THE PLANT.
2. CORRECTIONS ARE TO BE UNDERTAKEN AT THE NURSERY PRIOR TO SHIPPING.
- C. THE CONTRACTOR SHALL BEAR ALL COST RELATED TO PLANT CORRECTIONS.
- D. ALL PLANTS THAT ARE REJECTED SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND ACCEPTABLE REPLACEMENT PLANTS PROVIDED AT NO COST TO THE OWNER.
- E. SUBMIT TO THE OWNER'S REPRESENTATIVE, FOR APPROVAL, PLANT SOURCES INCLUDING THE NAMES AND LOCATIONS OF NURSERIES PROPOSED AS SOURCES OF ACCEPTABLE PLANTS, AND A LIST OF THE PLANTS THEY WILL PROVIDE. THE PLANT LIST SHALL INCLUDE THE BOTANICAL AND COMMON NAME AND THE SIZE AT THE TIME OF SELECTION. OBSERVE ALL NURSERY MATERIALS TO DETERMINE THAT THE MATERIALS MEET THE REQUIREMENTS OF THIS SECTION.
- F. TREES SHALL BE PURCHASED FROM THE GROWING NURSERY. RE-WHOLESALE PLANT SUPPLIERS SHALL NOT BE USED AS SOURCES UNLESS THE CONTRACTOR CAN CERTIFY THAT THE REQUIRED TREES ARE NOT DIRECTLY AVAILABLE FROM A GROWING NURSERY. WHEN RE-WHOLESALE SUPPLIERS ARE UTILIZED, THE CONTRACTOR SHALL SUBMIT THE NAME AND LOCATION OF THE GROWING NURSERY FROM WHERE THE TREES WERE OBTAINED BY THE RE-WHOLESALE SELLER. THE RE-WHOLESALE NURSERY SHALL BE RESPONSIBLE FOR ANY REQUIRED PLANT QUALITY CERTIFICATIONS.
- G. THE CONTRACTOR SHALL REQUIRE THE GROWER OR RE-WHOLESALE SUPPLIER TO PERMIT THE OWNER'S REPRESENTATIVE TO OBTAIN ALL PLANT MATERIALS FROM THE NURSERY OR JOB SITE PRIOR TO PLANTING INCLUDING RANDOM REMOVAL OF SOIL OR SUBSTRATE AROUND THE BASE OF THE PLANT. OBSERVATION MAY BE AS FREQUENT AND AS EXTENSIVE AS NEEDED TO VERIFY THAT THE PLANTS MEET THE REQUIREMENTS OF THE SPECIFICATIONS AND CONFORM TO REQUIREMENTS.

1. DO NOT PLACE SEALS ON BRANCHES THAT ARE SO LARGE THAT THERE IS NOT SUFFICIENT ROOM FOR THE BRANCH GROWTH OVER THE PERIOD OF THE WARRANTY.

I. THE OWNER'S REPRESENTATIVE MAY CHOOSE TO ATTACH THEIR SEAL TO EACH PLANT, OR A REPRESENTATIVE SAMPLE, VIEWING AND/OR SEALING OF PLANTS BY THE OWNER'S REPRESENTATIVE AT THE NURSERY DOES NOT PRECLUDE THE OWNER'S REPRESENTATIVE FROM REQUESTING THAT THE CONTRACTOR BE RESPONSIBLE FOR PAYING ANY UP CHARGE FOR THE OWNER'S REPRESENTATIVE TO ATTACH THEIR SEAL TO SPECIFIC PLANTS.

J. WHERE REQUESTED BY THE OWNER'S REPRESENTATIVE, SUBMIT PHOTOGRAPHS OF PLANTS OR REPRESENTATIVE SAMPLES OF PLANTS. PHOTOGRAPHS SHALL BE LEGIBLE AND CLEARLY IDENTIFY THE PLANT SPECIMEN. EACH SUBMITTED IMAGE SHALL CONTAIN A HEIGHT REFERENCE, SUCH AS A MEASURING STICK. THE SUBMISSION OF PLANTS BY THE OWNER'S REPRESENTATIVE TO THE NURSERY DOES NOT PRECLUDE THE OWNER'S REPRESENTATIVE FROM REQUESTING THAT THE CONTRACTOR BE RESPONSIBLE FOR PAYING ANY UP CHARGE FOR THE OWNER'S REPRESENTATIVE TO ATTACH THEIR SEAL TO SPECIFIC PLANTS.

A. SUBMIT ALL REQUESTS FOR SUBSTITUTIONS OF PLANT SPECIES, OR SIZE TO THE OWNER'S REPRESENTATIVE, FOR APPROVAL. PRIOR TO PURCHASING THE PROPOSED SUBSTITUTION, REQUEST FOR SUBSTITUTION SHALL BE ACCOMPANIED WITH A LIST OF NURSERIES CONTACTED IN THE SEARCH FOR THE REQUIRED PLANT AND A RECORD OF OTHER ATTEMPTS TO LOCATE THE REQUIRED MATERIAL. REQUESTS SHALL ALSO INCLUDE SOURCES OF PLANTS FOUND THAT MAY BE OF A SMALLER OR LARGER SIZE, OR A DIFFERENT SHAPE OR HABIT THAN SPECIFIED, OR PLANTS OF THE SAME GENUS AND SPECIES BUT DIFFERENT CULTIVAR ORIGIN, WHICH MAY OTHERWISE NOT MEET THE REQUIREMENTS OF THE SPECIFICATIONS, BUT WHICH MAY BE AVAILABLE FOR SUBSTITUTION.

- A. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF ALL SURFACE AND SUB-SURFACE CONDITIONS, AND TO NOTIFY THE OWNER'S REPRESENTATIVE, IN WRITING, OF ANY CIRCUMSTANCES THAT WOULD NEGATIVELY IMPACT THE HEALTH OF PLANTINGS. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
- 1. SHOULD SUBSURFACE DRAINAGE OR SOIL CONDITIONS BE ENCOUNTERED WHICH WOULD BE DETRIMENTAL TO THE GROWTH OF PLANTS, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING, STATING THE CONDITIONS AND SUBMIT A PROPOSAL COVERING COST OF CORRECTIONS. IF THE CONTRACTOR FAILS TO NOTIFY THE OWNER'S REPRESENTATIVE OF SUCH CONDITIONS, HE/SHE SHALL REMAIN RESPONSIBLE FOR PLANT MATERIAL UNDER THE WARRANTY CLAUSE OF THE SPECIFICATIONS.
- B. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH THE LOCAL GROWING CONDITIONS, AND IF ANY SPECIFIED PLANTS WILL BE IN CONFLICT WITH THESE CONDITIONS. REPORT ANY POTENTIAL CONFLICTS, IN WRITING, TO THE OWNER'S REPRESENTATIVE.
- C. THIS SPECIFICATION REQUIRES THAT ALL PLANTING SOIL AND IRRIGATION (IF APPLICABLE) WORK BE COMPLETED AND ACCEPTED PRIOR TO THE INSTALLATION OF ANY PLANTS.
- 1. PLANTING OPERATIONS SHALL NOT BEGIN UNTIL SUCH TIME THAT THE IRRIGATION SYSTEM IS COMPLETELY OPERATIONAL FOR THE AREA(S) TO BE PLANTED, AND THE IRRIGATION SYSTEM FOR THAT AREA HAS BEEN PRELIMINARILY OBSERVED AND APPROVED BY THE OWNER'S REPRESENTATIVE.
- D. ACTUAL PLANTING SHALL BE PERFORMED DURING THOSE PERIODS WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE IN ACCORDANCE WITH LOCALLY ACCEPTED HORTICULTURAL PRACTICES.
- 1. DO NOT INSTALL PLANTS INTO SATURATED OR FROZEN SOILS. DO NOT INSTALL PLANTS DURING INCLEMENT WEATHER, SUCH AS RAIN OR SNOW OR DURING EXTREMELY HOT, COLD OR WINDY CONDITIONS.

8 PLANTING AROUND UTILITIES

- A. CONTRACTOR SHALL CAREFULLY EXAMINE THE CIVIL, RECORD, AND SURVEY DRAWINGS TO BECOME FAMILIAR WITH THE EXISTING UNDERGROUND CONDITIONS BEFORE DIGGING.
- B. DETERMINE LOCATION OF UNDERGROUND UTILITIES AND PERFORM WORK IN A MANNER THAT WILL AVOID POSSIBLE DAMAGE. HAND EXCAVATE, AS REQUIRED, MAINTAIN GRADE STAKES SET BY OTHERS UNTIL PARTIES CONCERNED MUTUALLY AGREE UPON REMOVAL.
- C. NOTIFICATION OF LOCAL UTILITY LOCATOR SERVICE (AS NOTED ON DRAWINGS) IS REQUIRED FOR ALL PLANTING AREAS THE CONTRACTOR IS RESPONSIBLE FOR KNOWING THE LOCATION AND AVOIDING UTILITIES THAT ARE NOT COVERED BY THE LOCAL UTILITY LOCATOR SERVICE.

A. STANDARDS AND MEASUREMENT: PROVIDE PLANTS OF QUANTITY, SIZE, GENUS, SPECIES, AND VARIETY OR CULTIVARS AS SHOWN AND SCHEDULED IN CONTRACT DOCUMENTS.

1. ALL PLANTS INCLUDING THE ROOT BALL DIMENSIONS OR CONTAINER SIZE TO TRUNK CALIPER RATIO, SHALL CONFORM TO ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK" STANDARDS, UNLESS MODIFIED BY PROVISIONS IN THIS SPECIFICATION, WHEN THERE IS A CONFLICT BETWEEN THIS SPECIFICATION AND ANSI Z60.1, THIS SPECIFICATION SECTION SHALL BE CONSIDERED CORRECT.
2. PLANTS LARGER THAN SPECIFIED MAY BE USED IF ACCEPTABLE TO THE OWNER'S REPRESENTATIVE. USE OF SUCH PLANTS SHALL NOT INCREASE THE CONTRACT PRICE. IF LARGER PLANTS ARE ACCEPTED THE ROOT BALL SIZE SHALL BE IN ACCORDANCE WITH ANSI Z-60.1. LARGER PLANTS MAY NOT BE ACCEPTABLE IF THE RESULTING ROOT BALL CANNOT BE FIT INTO THE REQUIRED PLANTING SPACE.
3. IF A RANGE OF SIZE IS GIVEN, NO PLANT SHALL BE LESS THAN THE MINIMUM SIZE AND NOT LESS THAN 50 PERCENT OF THE PLANTS SHALL BE AS LARGE AS THE MAXIMUM SIZE SPECIFIED. THE MEASUREMENTS SPECIFIED ARE THE MINIMUM AND MAXIMUM SIZE ACCEPTABLE AND ARE THE MEASUREMENTS AFTER PRUNING, WHERE PRUNING IS REQUIRED.
- B. PROPER IDENTIFICATION: ALL TREES SHALL BE TRUE TO NAME AS ORDERED OR SHOWN ON PLANTING PLANS AND SHALL BE LABELED INDIVIDUALLY OR IN GROUPS BY GENUS, SPECIES, VARIETY AND CULTIVAR.
- C. COMPLIANCE: ALL TREES SHALL COMPLY WITH FEDERAL AND STATE LAWS AND REGULATIONS REQUIRING OBSERVATION FOR PLANT DISEASE, PESTS, AND WEEDS. OBSERVATION CERTIFICATES REQUIRED BY LAW SHALL ACCOMPANY EACH SHIPMENT OF PLANTS.
1. CLEARANCE FROM THE LOCAL COUNTY AGRICULTURAL COMMISSIONER, IF REQUIRED, SHALL BE OBTAINED BEFORE PLANTING TREES ORIGINATING OUTSIDE THE COUNTY IN WHICH THEY ARE TO BE PLANTED.
- D. PLANT QUALITY:
1. GENERAL: PROVIDE HEALTHY STOCK, GROWN IN A NURSERY AND REASONABLY FREE OF DIE-BACK, DISEASE, INSECTS, EGGS, BORES, AND LARVAE. AT THE TIME OF PLANTING ALL PLANTS SHALL HAVE A ROOT SYSTEM, STEM, AND BRANCH FORM THAT WILL NOT RESTRICT NORMAL GROWTH, STABILITY AND HEALTH FOR THE EXPECTED LIFE OF THE PLANT
2. PLANT QUALITY ABOVE THE SOIL LINE:
- a. PLANTS SHALL BE HEALTHY WITH THE COLOR, SHAPE, SIZE AND DISTRIBUTION OF TRUNK, STEMS, BRANCHES, BUDS AND LEAVES NORMAL TO THE PLANT TYPE SPECIFIED. TREE QUALITY ABOVE THE SOIL LINE SHALL COMPLY WITH THE PROJECT CROWN ACCEPTANCE DETAILS AND THE FOLLOWING:
- 1.) CROWN: THE FORM AND DENSITY OF THE CROWN SHALL BE TYPICAL FOR A YOUNG SPECIMEN OF THE SPECIES OR CULTIVAR PRUNED TO A CENTRAL AND DOMINANT LEADER.
- a.) CROWN SPECIFICATIONS DO NOT APPLY TO PLANTS THAT HAVE BEEN SPECIFICALLY TRAINED IN THE NURSERY AS TOPIARY, ESPALIER, MULTI-STEM, CLUMP, OR UNIQUE SELECTIONS SUCH AS CONTORTED OR WEEPING CULTIVARS.
- 2.) LEAVES: THE SIZE, COLOR, AND APPEARANCE OF LEAVES SHALL BE TYPICAL FOR THE TIME OF YEAR AND STAGE OF GROWTH OF THE SPECIES OR CULTIVAR. TREES SHALL NOT SHOW SIGNS OF PROLONGED MOISTURE STRESS OR OVER WATERING AS INDICATED BY WILTED, SHRIVELED, OR DEAD LEAVES.
- 3.) BRANCHES: SHOOT GROWTH (LENGTH AND DIAMETER) THROUGHOUT THE CROWN SHOULD BE APPROPRIATE FOR THE AGE AND SIZE OF THE SPECIES OR CULTIVAR. TREES SHALL NOT HAVE DEAD, DISEASED, BROKEN, DISTORTED, OR OTHERWISE INJURED BRANCHES.
- A.) MAIN BRANCHES SHALL BE DISTRIBUTED ALONG THE CENTRAL LEADER NOT CLUSTERED TOGETHER. THEY SHALL FORM A BALANCED CROWN APPROPRIATE FOR THE CULTIVAR SPECIES.
- B.) BRANCH DIAMETER SHALL BE NO LARGER THAN TWO-THIRDS (ONE-HALF IS PREFERRED) THE DIAMETER OF THE CENTRAL LEADER MEASURED 1 INCH ABOVE THE BRANCH UNION.
- C.) THE ATTACHMENT OF THE LARGEST BRANCHES (SCAFFOLD BRANCHES) SHALL BE FREE OF INCLUDED BARK.
- 4.) TRUNK: THE TREE TRUNK SHALL BE RELATIVELY STRAIGHT, VERTICAL, AND FREE OF WOUNDS THAT PENETRATE TO THE WOOD (PROPERLY MADE PRUNING CUTS, CLOSED OR NOT, ARE ACCEPTABLE AND ARE NOT CONSIDERED WOUNDS), SUNBURNED AREAS, CONKS (FUNGAL FRUITING BODIES), WOOD CRACKS, SAP LEAKAGE, SIGNS OF BORING INSECTS, GALLS, CANKERS, GIRDLING TIES, OR LESIONS (MECHANICAL INJURY).
- 5.) TEMPORARY BRANCHES, UNLESS OTHERWISE SPECIFIED, CAN BE PRESENT ALONG THE LOWER TRUNK ABOVE THE LOWEST MAIN (SCAFFOLD) BRANCH, PARTICULARLY FOR TREES LESS THAN 1 INCH IN CALIPER. THESE BRANCHES SHOULD BE NO GREATER THAN 30-INCH DIAMETER. CLEAR TRUNK SHOULD BE NO MORE THAN 40% OF THE TOTAL HEIGHT OF THE TREE. UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS (WHICHEVER IS GREATER).
- b. TREES SHALL HAVE ONE CENTRAL LEADER AS NOTED IN PLANT LIST. IF THE LEADER WAS HEADED, A NEW LEADER (WITH A LIVE TERMINAL BUD) AT LEAST ONE-HALF THE DIAMETER OF THE PRUNING CUT SHALL BE PRESENT.
- 1.) ALL TREES ARE ASSUMED TO HAVE ONE CENTRAL LEADER UNLESS A DIFFERENT FORM IS SPECIFIED IN THE PLANT LIST OR DRAWINGS.
- 2.) ALL GRAFT UNIONS, WHERE APPLICABLE, SHALL BE COMPLETELY COVERED WITHOUT VISIBLE SIGN OF GRAFT REJECTION. ALL GRAFTS SHALL BE VISIBLE ABOVE THE SOIL LINE.
- 3.) TRUNK CALIPER AND TAPER SHALL BE SUFFICIENT SO THAT THE LOWER FIVE FEET OF THE TRUNK REMAINS VERTICAL WITHOUT A STAKE. AUXILIARY STAKE MAY BE USED TO MAINTAIN A STRAIGHT LEADER IN THE UPPER HALF OF THE TREE.
3. PLANT QUALITY AT OR BELOW THE SOIL LINE:
- a. PLANT ROOTS SHALL BE NORMAL TO THE PLANT TYPE SPECIFIED. ROOT OBSERVATIONS SHALL TAKE PLACE WITHOUT IMPACTING TREE HEALTH. ROOT QUALITY AT OR BELOW THE SOIL LINE SHALL COMPLY WITH THE PROJECT ROOT ACCEPTANCE DETAILS AND THE FOLLOWING:
- 1.) THE ROOTS SHALL BE REASONABLY FREE OF SCRAPES, BROKEN OR SPLIT WOOD.
- 2.) THE ROOT SYSTEM SHALL BE REASONABLY FREE OF INJURY FROM BIOTIC (E.G. INSECTS AND PATHOGENS) AND ABIOTIC (E.G. HERBICIDE TOXICITY AND SALT INJURY) AGENTS. WOUNDS RESULTING FROM ROOT PRUNING USED TO PRODUCE A HIGH QUALITY ROOT SYSTEM ARE NOT CONSIDERED INJURIES.
- 3.) A MINIMUM OF THREE STRUCTURAL ROOTS REASONABLY DISTRIBUTED AROUND THE TRUNK (NOT CLUSTERED ON ONE SIDE) SHALL BE FOUND IN EACH PLANT. ROOT DISTRIBUTION SHALL BE UNIFORM THROUGHOUT THE ROOT BALL, AND GROWTH SHALL BE APPROPRIATE FOR THE SPECIES.
- A.) PLANTS WITH STRUCTURAL ROOTS ON ONLY ONE SIDE OF THE TRUNK (J ROOTS) SHALL BE REJECTED.
- 4.) THE ROOT COLLAR SHALL BE WITHIN THE UPPER 2 INCHES OF THE SUBSTRATE SOIL. TWO STRUCTURAL ROOTS SHALL REACH THE SIDE OF THE ROOT BALL NEAR THE TOP SURFACE OF THE ROOT BALL. THE GROWER MAY REQUEST A MODIFICATION TO THIS REQUIREMENT FOR SPECIES WITH ROOTS THAT RAPIDLY DESCEND, PROVIDED THAT THE GROWER REMOVES ALL STEM GIRDLING ROOTS ABOVE THE STRUCTURAL ROOTS ACROSS THE TOP OF THE ROOT BALL.
- 5.) THE ROOT SYSTEM SHALL BE REASONABLY FREE OF STEM GIRDLING ROOTS OVER THE ROOT COLLAR OR KINKED ROOTS FROM NURSERY PRODUCTION PRACTICES.
- 6.) AT TIME OF OBSERVATION AND DELIVERY, THE ROOT BALL SHALL BE MOIST THROUGHOUT. ROOTS SHALL NOT SHOW SIGNS OF EXCESS SOIL MOISTURE CONDITIONS AS INDICATED BY STUNTED, DISCOLORED, DISTORTED, OR DEAD ROOTS.
- 2.2 ROOT BALL PACKAGE OPTIONS:** THE FOLLOWING ROOT BALL PACKAGE OPTIONS ARE PERMITTED. SPECIFIC ROOT BALL PACKAGES SHALL BE REQUIRED WHERE INDICATED ON THE PLANT LIST OR IN THIS SPECIFICATION. ANY TYPE OF ROOT BALL PACKAGES THAT IS NOT SPECIFICALLY DEFINED IN THIS SPECIFICATION SHALL NOT BE PERMITTED.
- A. BALLED AND BURLAPPED PLANTS
1. ALL BALLED AND BURLAPPED PLANTS SHALL BE FIELD GROWN, AND THE ROOT BALL PACKAGED IN A BURLAP AND TWINE AND/OR BURLAP AND WIRE BASKET PACKAGE.
2. PLANTS SHALL BE HARVESTED WITH THE FOLLOWING MODIFICATIONS TO STANDARD NURSERY PRACTICES.
- a. PRIOR TO DIGGING ANY TREE THAT FAILS TO MEET THE REQUIREMENT FOR MAXIMUM SOIL AND ROOTS ABOVE THE ROOT COLLAR, CAREFULLY REMOVED THE SOIL FROM THE TOP OF THE ROOT BALL OF EACH PLANT, USING HAND TOOLS, WATER OR AN AIR SPADE, TO LOCATE THE ROOT COLLAR AND ATTAIN THE SOIL DEPTH OVER THE STRUCTURAL ROOTS REQUIREMENTS. REMOVE ALL STEM GIRDLING ROOTS ABOVE THE ROOT COLLAR. CARE MUST BE EXERCISED NOT TO DAMAGE THE SURFACE OF THE ROOT COLLAR AND THE TOP OF THE STRUCTURAL ROOTS.
- b. TREES SHALL BE DUG FOR A MINIMUM OF 4 WEEKS AND A MAXIMUM OF 52 WEEKS PRIOR TO SHIPPING. TREES DUG 4 TO 52 WEEKS PRIOR TO SHIPPING ARE DEFINED AS HARDENED-OFF. DIGGING IS DEFINED AS CUTTING ALL ROOTS AND LIFTING THE TREE OUT OF THE GROUND AND EITHER MOVING IT TO A NEW LOCATION IN THE NURSERY OR PLACING IT BACK INTO THE SAME HOLE. TREES THAT ARE STORED OUT OF THE GROUND SHALL BE PLACED IN A HOLDING AREA PROTECTED FROM EXTREMES OF WIND AND SUN WITH THE ROOT BALL PROTECTED BY COVERING WITH MULCH OR STRAW AND IRRIGATED SUFFICIENTLY TO KEEP MOISTURE IN THE ROOT BALL ABOVE WILT POINT AND BELOW SATURATION
- c. TWINE AND BURLAP USED FOR WRAPPING THE ROOT BALL PACKAGE SHALL BE NATURAL, BIODEGRADABLE MATERIAL. IF THE BURLAP DECOMPOSES AFTER DIGGING THE TREE THEN THE ROOT BALL SHALL BE RE-WRAPPED PRIOR TO SHIPPING IF ROOTS HAVE NOT YET GROWN TO KEEP ROOT BALL INTACT DURING SHIPPING.
- B. CONTAINER (INCLUDING ABOVE-GROUND FABRIC CONTAINERS AND BOXES) PLANTS
1. CONTAINER PLANTS MAY BE PERMITTED ONLY WHEN INDICATED ON THE DRAWING, IN THIS SPECIFICATION, OR APPROVED BY THE OWNER'S REPRESENTATIVE.
2. PROVIDE PLANTS SHALL BE ESTABLISHED AND WELL ROOTED IN REMOVABLE CONTAINERS.
3. CONTAINER CLASS SIZE SHALL CONFORM TO ANSI Z60.1 FOR CONTAINER PLANTS FOR EACH SIZE AND TYPE OF PLANT.
- 2.3 ANNUAL FLOWERING AND SEASONAL COLOR PLANTS**
- A. CONTAINER OR FLAT-GROWN PLANTS SHOULD BE SIZED AS NOTED IN THE PLANTING PLAN. PLANTS SHALL BE WELL-ROOTED AND HEALTHY.

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2.4 PLANTING SOIL

- A. PLANTING SOIL AS USED IN THIS SPECIFICATION MEANS THE SOIL AT THE PLANTING SITE, OR IMPORTED AS MODIFIED AND DEFINED IN SPECIFICATION SECTION PLANTING SOIL. IF THERE IS NO PLANTING SOIL SPECIFICATION, THE TERM PLANTING SOIL SHALL MEAN THE SOIL AT THE PLANTING SITE WITHIN THE PLANTING HOLE.
- B. PLANTING SOIL SHALL BE 2" LAYER OF IMPORTED MIXED SOIL WITH COMPOST FROM LIVING EARTH OR APPROVED EQUAL.
1. CONTACT: PAUL TOMASO, 214.533.6296
- 2.5 MULCH**
- A. MULCH SHALL BE COARSE, GROUND, FROM HARDWOOD TREES AND WOODY BRUSH SOURCES. THE SIZE RANGE SHALL BE A MINIMUM (LESS THAN 25% OR LESS OF VOLUME) FINE PARTICLES 3/8 INCH OR LESS IN SIZE, AND A MAXIMUM SIZE OF INDIVIDUAL PIECES (LARGEST 20% OR LESS OF VOLUME) SHALL BE APPROXIMATELY 1 TO 1-1/2 INCH IN DIAMETER AND MAXIMUM LENGTH APPROXIMATELY 4 TO 8". PIECES LARGER THAN 8 INCH LONG THAT ARE VISIBLE ON THE SURFACE OF THE MULCH AFTER INSTALLATION SHALL BE REMOVED.
1. IT IS UNDERSTOOD THAT MULCH QUALITY WILL VARY SIGNIFICANTLY FROM SUPPLIER TO SUPPLIER AND REGION TO REGION. THE ABOVE REQUIREMENTS MAY BE MODIFIED TO CONFORM TO THE SOURCE MATERIAL FROM LOCALLY RELIABLE SUPPLIERS AS APPROVED BY THE OWNER'S REPRESENTATIVE.
- B. SUBMIT SUPPLIER'S PRODUCT SPECIFICATION DATA SHEET AND A ONE GALLON SAMPLE FOR APPROVAL.

2.6 TREE STAKING AND GUYING MATERIAL

- A. TREE STAKING SHALL BE PER PLANTING DETAILS.
- B. ARBOR STAKE OR APPROVED EQUAL.
1. MANUFACTURER: WWW.ARBORSTAKES.COM
- C. SUBMIT MANUFACTURER'S PRODUCT DATA FOR APPROVAL.

2.7 CHEMICAL OR BIOLOGICAL ADDITIVES

- A. PER SOILS TEST RESULTS.

2.8 COMPOST

- A. LIVING EARTH COMPOST OR APPROVED EQUAL

1. MANUFACTURER: LIVING EARTH: 972-869-4332

2.10 PLANTER POTTING SOIL

- A. LIVING EARTH CONTAINER POTTING SOIL OR APPROVED EQUAL
1. MANUFACTURER: LIVING EARTH: 972-869-4332

PART 3 EXECUTION

3.1 SITE EXAMINATION

- A. EXAMINE THE SURFACE GRADES AND SOIL CONDITIONS TO CONFIRM THAT THE REQUIREMENTS OF THE SPECIFICATION SECTION - PLANTING SOIL - AND THE SOIL AND DRAINAGE MODIFICATIONS INDICATED ON THE PLANTING SOIL PLAN AND DETAILS (IF APPLICABLE) HAVE BEEN COMPLETED. NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING OF ANY UNSATISFACTORY CONDITIONS.

3.2 DELIVERY, STORAGE AND HANDLING

- A. PROTECT MATERIALS FROM DETERIORATION DURING DELIVERY AND STORAGE. ADEQUATELY PROTECT PLANTS FROM DRYING OUT. EXPOSURE OF ROOTS TO SUN, WIND OR EXTREMES OF HEAT AND COLD TEMPERATURES. IF PLANTING IS DELAYED MORE THAN 24 HOURS AFTER DELIVERY, SET PLANTS IN A LOCATION PROTECTED FROM SUN AND WIND. PROVIDE ADEQUATE WATER TO THE ROOT BALL PACKAGE DURING THE SHIPPING AND STORAGE PERIOD.
1. ALL PLANT MATERIALS MUST BE AVAILABLE FOR OBSERVATION PRIOR TO PLANTING.
2. USING A SOIL MOISTURE METER, PERIODICALLY CHECK THE SOIL MOISTURE IN THE ROOT BALLS OF ALL PLANTS TO ASSURE THAT THE PLANTS ARE BEING ADEQUATELY WATERED. VOLUMETRIC SOIL MOISTURE SHALL BE MAINTAINED ABOVE WILTING POINT AND BELOW FIELD CAPACITY FOR THE ROOT BALL SUBSTRATE OR SOIL.
- B. DO NOT DELIVER MORE PLANTS TO THE SITE THAN THERE IS SPACE WITH ADEQUATE STORAGE CONDITIONS. PROVIDE A SUITABLE REMOTE STAGING AREA FOR PLANTS AND OTHER SUPPLIES.
1. THE OWNER'S REPRESENTATIVE OR CONTRACTOR SHALL APPROVE THE DURATION, METHOD AND LOCATION OF STORAGE OF PLANTS.
- C. PROVIDE PROTECTIVE COVERING OVER ALL PLANTS DURING TRANSPORTING.

3.3 PLANTING SEASON

- A. PLANTING SHALL ONLY BE PERFORMED WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE FOR PLANTING THE MATERIALS SPECIFIED IN ACCORDANCE WITH LOCALLY ACCEPTED PRACTICE BELOW UNLESS OTHERWISE APPROVED IN WRITING BY THE OWNER'S REPRESENTATIVE. IN THE EVENT THAT THE CONTRACTOR REQUEST PLANTING OUTSIDE THE DATES OF THE PLANTING SEASON, APPROVAL OF THE REQUEST DOES NOT CHANGE THE REQUIREMENTS OF THE WARRANTY.

3.4 ADVERSE WEATHER CONDITIONS

- A. NO PLANTING SHALL TAKE PLACE DURING EXTREMELY HOT, DRY, WINDY OR FREEZING WEATHER.

3.5 COORDINATION WITH PROJECT WORK

- A. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER WORK THAT MAY IMPACT THE COMPLETION OF THE WORK.
- B. PRIOR TO THE START OF WORK, PREPARE A DETAILED SCHEDULE OF THE WORK FOR COORDINATION WITH OTHER TRADES.
- C. COORDINATE THE RELOCATION OF ANY IRRIGATION LINES, HEADS OR THE CONDUITS OF OTHER UTILITY LINES THAT ARE IN CONFLICT WITH TREE LOCATIONS. ROOT BALLS SHALL NOT BE ALTERED TO FIT AROUND LINES. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY CONFLICTS ENCOUNTERED.
- 3.6 LAYOUT AND PLANTING SEQUENCE**
- A. RELATIVE POSITIONS OF ALL PLANTS AND TREES ARE SUBJECT TO APPROVAL OF THE OWNER'S REPRESENTATIVE.
- B. NOTIFY THE OWNER'S REPRESENTATIVE, ONE (1) WEEK PRIOR TO LAYOUT. LAYOUT ALL INDIVIDUAL TREE AND SHRUB LOCATIONS. PLACE PLANTS ABOVE SURFACE AT PLANTING LOCATION OR PLACE A LABELED STAKE AT PLANTING LOCATION. LAYOUT BED LINES WITH PAINT FOR THE OWNER'S REPRESENTATIVE'S APPROVAL. SECURE THE OWNER'S REPRESENTATIVE'S ACCEPTANCE BEFORE DIGGING AND START OF PLANTING WORK.
- C. WHEN APPLICABLE, PLANT TREES BEFORE OTHER PLANTS ARE INSTALLED.
- D. IT IS UNDERSTOOD THAT PLANTS ARE NOT PRECISE OBJECTS AND THAT MINOR ADJUSTMENTS IN THE LAYOUT WILL BE REQUIRED AS THE PLANTING PLAN IS CONSTRUCTED. THESE ADJUSTMENTS MAY NOT BE APPARENT UNTIL SOME OR ALL OF THE PLANTS ARE INSTALLED. MAKE ADJUSTMENTS AS REQUIRED BY THE OWNER'S REPRESENTATIVE INCLUDING RELOCATING PREVIOUSLY INSTALLED PLANTS.

3.7 SOIL PROTECTION DURING PLANT DELIVERY AND INSTALLATION

- A. PROTECT SOIL FROM COMPACTION DURING THE DELIVERY OF PLANTS TO THE PLANTING LOCATIONS, DIGGING OF PLANTING HOLES AND INSTALLING PLANTS.
1. WHERE POSSIBLE DELIVER AND PLANT TREES THAT REQUIRE THE USE OF HEAVY MECHANIZED EQUIPMENT PRIOR TO FINAL SOIL PREPARATION AND TILLING. WHERE POSSIBLE, RESTRICT THE DRIVING LANES TO ONE AREA INSTEAD OF DRIVING OVER AND COMPACTING A LARGE AREA OF SOIL.
2. TILL TO A DEPTH OF 6 INCHES. ALL SOIL THAT HAS BEEN DRIVEN OVER DURING THE INSTALLATION OF PLANTS.

3.8 SOIL MOISTURE

- A. VOLUMETRIC SOIL MOISTURE LEVEL, IN BOTH THE PLANTING SOIL AND THE ROOT BALLS OF ALL PLANTS, PRIOR TO, DURING AND AFTER PLANTING SHALL BE ABOVE PERMANENT WILTING POINT AND BELOW FIELD CAPACITY FOR EACH TYPE OF SOIL TEXTURE WITHIN THE FOLLOWING RANGES.

SOIL TYPE	PERMANENT WILTING POINT	FIELD CAPACITY
SAND, LOAMY SAND, SANDY LOAM	5 - 8%	12-18%
LOAM, SANDY CLAY, SANDY CLAY LOAM	14 - 25%	27-36%
CLAY LOAM, SILT LOAM	11 - 22%	31 - 36%
SILTY CLAY, SILTY CLAY LOAM	22 - 27%	38 - 41%

1. VOLUMETRIC SOIL MOISTURE SHALL BE MEASURED WITH A DIGITAL MOISTURE METER. THE METER SHALL BE THE DIGITAL SOIL MOISTURE METER, DSM5000 BY GENERAL SPECIALTY TOOLS AND INSTRUMENTS, OR APPROVED EQUIVALENT.
- B. THE CONTRACTOR SHALL CONFIRM THE SOIL MOISTURE LEVELS WITH A MOISTURE METER. IF THE MOISTURE IS TOO HIGH, SUSPEND PLANTING OPERATIONS UNTIL THE SOIL MOISTURE DRAINS TO BELOW FIELD CAPACITY.

3.9 INSTALLATION OF PLANTS: GENERAL

- A. OBSERVE EACH PLANT AFTER DELIVERY AND PRIOR TO INSTALLATION FOR DAMAGE OF OTHER CHARACTERISTICS THAT MAY CAUSE REJECTION OF THE PLANT. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY CONDITION OBSERVED.
- B. NO MORE PLANTS SHALL BE DISTRIBUTED ABOUT THE PLANTING BED AREA THAN CAN BE PLANTED AND WATERED ON THE SAME DAY.
- C. THE ROOT SYSTEM OF EACH PLANT, REGARDLESS OF ROOT BALL PLANT TYPE, SHALL BE OBSERVED BY THE CONTRACTOR, AT THE TIME OF PLANTING TO CONFIRM THAT THE ROOTS MEET THE REQUIREMENTS FOR PLANT ROOT QUALITY IN PART 2 PRODUCTS: PLANTS GENERAL: PLANT QUALITY. THE CONTRACTOR SHALL UNDERTAKE AT THE TIME OF PLANTING, ALL MODIFICATIONS TO THE ROOT SYSTEM REQUIRED BY THE OWNER'S REPRESENTATIVE TO MEET THESE QUALITY STANDARDS.

1. MODIFICATIONS, AT THE TIME OF PLANTING, TO MEET THE SPECIFICATIONS FOR THE DEPTH OF THE ROOT COLLAR AND REMOVAL OF STEM GIRDLING ROOTS AND CIRCLING ROOTS MAY MAKE THE PLANT UNSTABLE OR STRESS THE PLANT TO THE POINT THAT THE OWNER'S REPRESENTATIVE MAY CHOOSE TO REJECT THE PLANT RATHER THAN PERMITTING THE MODIFICATION.
2. ANY MODIFICATIONS REQUIRED BY THE OWNER'S REPRESENTATIVE TO MAKE THE ROOT SYSTEM CONFORM TO THE PLANT QUALITY STANDARDS OUTLINED IN PART 2 PRODUCTS: PLANTS GENERAL: QUALITY, OR OTHER REQUIREMENTS RELATED TO THE PERMITTED ROOT BALL PACKAGE, SHALL NOT BE CONSIDERED AS GROUNDS TO MODIFY OR VOID THE PLANT WARRANTY.
3. THE RESULTING ROOT BALL MAY NEED ADDITIONAL STAKING AND WATER AFTER PLANTING. THE OWNER'S REPRESENTATIVE MAY REJECT THE PLANT IF THE ROOT MODIFICATION PROCESS MAKES THE TREE UNSTABLE OR IF THE TREE IS NOT HEALTHY AT THE END OF THE WARRANTY PERIOD. SUCH PLANTS SHALL STILL BE COVERED UNDER THE WARRANTY.
4. THE CONTRACTOR REMAINS RESPONSIBLE TO CONFIRM THAT THE GROWER HAS MADE ALL REQUIRED ROOT MODIFICATIONS NOTED DURING ANY NURSERY OBSERVATIONS.
- D. CONTAINER AND BOXED ROOT BALL SHAVING (IF REQUIRED - SEE DRAWINGS FOR CONDITIONS); THE OUTER SURFACES OF ALL PLANTS IN CONTAINERS AND BOXES, INCLUDING THE TOP, SIDES AND BOTTOM OF THE ROOT BALL SHALL BE SHAVED TO REMOVE ALL CIRCLING, DESCENDING, AND MATTED ROOTS. SHAVING SHALL BE PERFORMED USING SAWS, KNIVES, SHARP SHOVELS OR OTHER SUITABLE EQUIPMENT THAT IS CAPABLE OF MAKING CLEAN CUTS ON THE ROOTS. SHAVING SHALL REMOVE A MINIMUM OF ONE INCH OF ROOT MAT OR UP TO 2 INCHES AS REQUIRED TO REMOVE ALL ROOT SEGMENTS THAT ARE NOT GROWING REASONABLY RADIAL TO THE TRUNK.
- E. EXPOSED STEM TISSUE AFTER MODIFICATION: THE REQUIRED ROOT BALL MODIFICATIONS MAY RESULT IN STEM TISSUE THAT HAS NOT FORMED TRUNK BARK BEING EXPOSED ABOVE THE SOIL LINE. IF SUCH CONDITION OCCURS, WRAP THE EXPOSED PORTION OF THE STEM IN A PROTECTIVE WRAPPING WITH A WHITE FILTER FABRIC. SECURE THE FABRIC WITH BIODEGRADABLE MASKING TAPE. DO NOT USE STRING, TWINE, GREEN NURSERY TIES OR ANY OTHER MATERIAL THAT MAY GIRDLE THE TRUNK IF NOT REMOVED.
- F. EXCAVATION OF THE PLANTING SPACE: USING HAND TOOLS OR TRACKED MINI-EXCAVATOR, EXCAVATE THE PLANTING HOLE INTO THE PLANTING SOIL TO THE DEPTH OF THE ROOT BALL MEASURED AFTER ANY ROOT BALL MODIFICATION TO CORRECT ROOT PROBLEMS, AND WIDE ENOUGH FOR WORKING ROOM AROUND THE ROOT BALL OR TO THE SIZE INDICATED ON THE DRAWING OR AS NOTED BELOW.

1. FOR TREES AND SHRUBS PLANTED IN SOIL AREAS THAT ARE NOT TILLED OR OTHERWISE MODIFIED TO A DEPTH OF AT LEAST 12 INCHES OVER A DISTANCE OF MORE THAN 10 FEET RADIUS FROM EACH TREE, OR 5 FEET RADIUS FROM EACH SHRUB, THE SOIL AROUND THE ROOT BALL SHALL BE LOOSENE AS DEFINED BELOW OR AS INDICATED ON THE DRAWINGS.
- a. THE AREA OF LOOSENING SHALL BE A MINIMUM OF 3 TIMES THE DIAMETER OF THE ROOT BALL AT THE SURFACE SLOPING TO 2 TIMES THE DIAMETER OF THE ROOT BALL AT THE DEPTH OF THE ROOT BALL.
- b. LOOSENING IS DEFINED AS DIGGING INTO THE SOIL AND TURNING THE SOIL TO REDUCE THE COMPACTION. THE SOIL DOES NOT HAVE TO BE REMOVED FROM THE HOLE, JUST DUG, LIFTED AND TURNED. LIFTING AND TURNING MAY BE ACCOMPLISHED WITH A TRACKED MINI EXCAVATOR, OR HAND SHOVELS.
2. IF AN AUGER IS USED TO DIG THE INITIAL PLANTING HOLE, THE SOIL AROUND THE AUGER HOLE SHALL BE LOOSEN AS DEFINED ABOVE FOR TREES AND SHRUBS PLANTED IN SOIL AREAS THAT ARE NOT TILLED OR OTHERWISE MODIFIED.
3. THE MEASURING POINT FOR ROOT BALL DEPTH SHALL BE THE AVERAGE HEIGHT OF THE OUTER EDGE OF THE ROOT BALL AFTER ANY REQUIRED ROOT BALL MODIFICATION.
4. IF MOTORIZED EQUIPMENT IS USED TO DELIVER PLANTS TO THE PLANTING AREA OVER EXPOSED PLANTING BEDS, OR USED TO LOOSEN THE SOIL OR DIG THE PLANTING HOLES, ALL SOIL THAT HAS BEEN DRIVEN OVER SHALL BE TILLED TO A DEPTH OF 6 INCHES.

- G. FOR TREES TO BE PLANTED IN PREPARED PLANTING SOIL THAT IS DEEPER THAN THE ROOT BALL DEPTH, COMPACT THE SOIL UNDER THE ROOT BALL USING A MECHANICAL TAMPER TO ASSURE A FIRM BEDDING FOR THE ROOT BALL. IF THERE IS MORE THAN 12 INCHES OF PLANTING SOIL UNDER THE ROOT BALL EXCAVATE AND TAMP THE PLANTING SOIL IN LIFTS NOT TO EXCEED 12 INCHES.
- H. SET TOP OUTER EDGE OF THE ROOT BALL AT THE AVERAGE ELEVATION OF THE PROPOSED FINISH. SET THE PLANT PLUMB AND UPRIGHT IN THE CENTER OF THE PLANTING HOLE. THE TREE GRAFT, IF APPLICABLE, SHALL BE VISIBLE ABOVE THE GRADE. DO NOT PLACE SOIL ON TOP OF THE ROOT BALL.

- I. THE OWNER'S REPRESENTATIVE MAY REQUEST THAT PLANTS ORIENTATION BE ROTATED WHEN PLANTED BASED ON THE FORM OF THE PLANT.
- J. BACKFILL THE SPACE AROUND THE ROOT BALL WITH THE SAME PLANTING SOIL OR EXISTING SOIL THAT WAS EXCAVATED FOR THE PLANTING SPACE. SEE SPECIFICATION SECTION PLANTING SOIL, FOR REQUIREMENTS TO MODIFY THE SOIL WITHIN THE PLANTING BED.

- K. BRACE ROOT BALL BY TAMPING PLANTING SOIL AROUND THE LOWER PORTION OF THE ROOT BALL. PLACE ADDITIONAL PLANTING SOIL AROUND BASE AND SIDES OF BALL IN SIX-INCH (6") LIFTS. LIGHTLY TAMP EACH LIFT USING FOOT PRESSURE OR HAND TOOLS TO SETTLE BACKFILL, SUPPORT THE TREE AND ELIMINATE VOIDS. DO NOT OVER COMPACT THE BACKFILL OR USE MECHANICAL OR PNEUMATIC TAMPING EQUIPMENT. OVER COMPACTION SHALL BE DEFINED AS GREATER THAN 85% OF MAXIMUM DRY DENSITY. STANDARD PROCTOR OR GREATER THAN 250 PSI AS MEASURED BY A CONE PENETROMETER WHEN THE VOLUMETRIC SOIL MOISTURE IS LOWER THAN FIELD CAPACITY.
1. WHEN THE PLANTING HOLE HAS BEEN BACKFILLED TO THREE QUARTERS OF ITS DEPTH, WATER SHALL BE Poured AROUND THE ROOT BALL AND ALLOWED TO SOAK INTO THE SOIL TO SETTLE THE SOIL. DO NOT FLOOD THE PLANTING SPACE. IF THE SOIL IS ABOVE FIELD CAPACITY, ALLOW THE SOIL TO DRAIN TO BELOW FIELD CAPACITY BEFORE FINISHING THE PLANTING. AIR POCKETS SHALL BE ELIMINATED AND BACKFILL CONTINUED UNTIL THE PLANTING SOIL IS BROUGHT TO GRADE LEVEL.

- L. WHERE INDICATED ON THE DRAWINGS, BUILD A 4 INCH HIGH, LEVEL BERM OF PLANTING SOIL AROUND THE OUTSIDE OF THE ROOT BALL TO RETAIN WATER. TAMP THE BERM TO REDUCE LEAKING AND EROSION OF THE SAUCER.
- M. THOROUGHLY WATER THE PLANTING SOIL AND ROOT BALL IMMEDIATELY AFTER PLANTING.
- N. REMOVE ALL NURSERY PLANT IDENTIFICATION TAGS AND RIBBONS AS PER OWNER'S REPRESENTATIVE INSTRUCTIONS. THE OWNER'S REPRESENTATIVE'S SEALS ARE TO REMAIN ON PLANTS UNTIL THE END OF THE WARRANTY PERIOD.
- O. REMOVE ANY CORRUGATED CARDBOARD TRUNK PROTECTION AFTER PLANTING.
- P. FOLLOW ADDITIONAL REQUIREMENTS FOR THE PERMITTED ROOT BALL PACKAGES.

3.10 PERMITTED ROOT BALL PACKAGES AND SPECIAL PLANTING REQUIREMENTS

- A. THE FOLLOWING ARE PERMITTED ROOT BALL PACKAGES AND SPECIAL PLANTING REQUIREMENTS THAT SHALL BE FOLLOWED DURING THE PLANTING PROCESS IN ADDITION TO THE ABOVE GENERAL PLANTING REQUIREMENTS.
- B. BALLED AND BURLAPPED PLANTS
1. AFTER THE ROOT BALL HAS BEEN BACKFILLED, REMOVE ALL TWINE AND BURLAP FROM THE TOP OF THE ROOT BALL. CUT THE BURLAP AWAY AS INDICATED ON DRAWINGS; DO NOT FOLD DOWN ONTO THE PLANTING SOIL.
2. IF THE PLANT IS SHIPPED WITH A WIRE BASKET REMOVE THE BASKET WIRES JUST BEFORE THE FINAL BACKFILLING OF THE TREE AS INDICATED ON THE DRAWINGS.
3. EARTH ROOT BALLS SHALL BE KEPT INTACT EXCEPT FOR ANY MODIFICATIONS REQUIRED BY THE OWNER'S REPRESENTATIVE TO MAKE ROOT PACKAGE COMPLY WITH THE REQUIREMENT IN PART 2 PRODUCTS.
- C. CONTAINER PLANTS
1. THIS SPECIFICATION ASSUMES THAT MOST CONTAINER PLANTS HAVE SIGNIFICANT STEM GIRDLING AND CIRCLING ROOTS, AND THAT THE ROOT COLLAR IS TOO LOW IN THE ROOT BALL.
2. REMOVE THE CONTAINER.
3. PERFORM ROOT BALL SHAVING AS DEFINED IN INSTALLATION OF PLANTS: GENERAL ABOVE.
4. REMOVE ALL ROOTS AND SUBSTRATE ABOVE THE ROOT COLLAR AND THE MAIN STRUCTURAL ROOTS ACCORDING TO ROOT CORRECTION DETAILS SO ROOT SYSTEM CONFORMS TO ROOT OBSERVATIONS DETAIL.
5. REMOVE ALL SUBSTRATE AT THE BOTTOM OF THE ROOT BALL THAT DOES NOT CONTAIN ROOTS.
6. USING A HOSE, POWER WASHER OR AIR EXCAVATION DEVICE, WASH OUT THE SUBSTRATE FROM AROUND THE TRUNK AND TOP OF THE REMAINING ROOT BALL AND FIND AND REMOVE ALL STEM GIRDLING ROOTS WITHIN THE ROOT BALL ABOVE THE TOP OF THE STRUCTURAL ROOTS.

3.11 GROUND COVER, PERENNIAL AND ANNUAL PLANTS

- A. ASSURE THAT SOIL MOISTURE IS WITHIN THE REQUIRED LEVELS PRIOR TO PLANTING. IRRIGATION, IF REQUIRED, SHALL BE APPLIED AT LEAST 12 HOURS PRIOR TO PLANTING TO AVOID PLANTING IN MUDDY SOILS.
- B. ASSURE THAT SOIL GRADES IN THE BEDS ARE SMOOTH AND AS SHOWN ON THE PLANS.
- C. PLANTS SHALL BE PLANTED IN EVEN, TRIANGULARLY SPACED ROWS, AT THE INTERVALS CALLED OUT FOR ON THE DRAWINGS. UNLESS OTHERWISE NOTED, THE FIRST ROW OF ANNUAL FLOWER PLANTS SHALL BE 6 INCHES FROM THE BED EDGE UNLESS OTHERWISE DIRECTED.
- D. DIG PLANTING HOLES SUFFICIENTLY LARGE ENOUGH TO INSERT THE ROOT SYSTEM WITHOUT DEFORMING THE ROOTS. SET THE TOP OF THE ROOT SYSTEM AT THE GRADE OF THE SOIL.
- E. SCHEDULE THE PLANTING TO OCCUR PRIOR TO APPLICATION OF THE MULCH. IF THE BED IS ALREADY MULCHED, PULL THE MULCH FROM AROUND THE HOLE AND PLANT INTO THE SOIL. DO NOT PLANT THE ROOT SYSTEM IN THE MULCH. PULL MULCH BACK SO IT IS NOT ON THE ROOT BALL SURFACE.
- F. PRESS SOIL TO BRING THE ROOT SYSTEM IN CONTACT WITH THE SOIL.
- G. SPREAD ANY EXCESS SOIL AROUND IN THE SPACES BETWEEN PLANTS.

- H. APPLY MULCH TO THE BED BEING SURE NOT TO COVER THE TOPS OF THE PLANTS WITH OR THE TOPS OF THE ROOT BALL WITH MULCH.

- I. WATER EACH PLANTING AREA AS SOON AS THE PLANTING IS COMPLETED. APPLY ADDITIONAL WATER TO KEEP THE SOIL MOISTURE AT THE REQUIRED LEVELS. DO NOT OVER WATER.

3.12 STAKING AND GUYING

- A. DO NOT STAKE TREES UNLESS SPECIFICALLY REQUIRED BY THE CONTRACT DOCUMENTS, OR IN THE EVENT THAT THE CONTRACTOR FEELS THAT STAKING IS THE ONLY ALTERNATIVE WAY TO KEEP PARTICULAR TREES PLUMB.
1. THE OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO REQUIRE THAT TREES ARE STAKED OR TO REJECT STAKING AS AN ALTERNATIVE WAY TO STABILIZE THE TREE.
2. TREES THAT REQUIRED HEAVILY MODIFIED ROOT BALLS TO MEET THE ROOT QUALITY STANDARDS MAY BECOME UNSTABLE. THE OWNER'S REPRESENTATIVE MAY CHOOSE TO REJECT THESE TREES RATHER THAN UTILIZE STAKING TO TEMPORARILY SUPPORT THE TREE.
3. PLANTS SHALL STAND PLUMB AFTER STAKING.
4. STAKES SHALL BE DRIVEN TO SUFFICIENT DEPTH TO HOLD THE TREE RIGID.

3.13 STRAIGHTENING PLANTS

- B. MAINTAIN ALL PLANTS IN A PLUMB POSITION THROUGHOUT THE WARRANTY PERIOD. STRAIGHTEN ALL TREES THAT MOVE OUT OF PLUMB INCLUDING THOSE NOT STAKED. PLANTS TO BE STRAIGHTENED SHALL BE EXCAVATED AND THE ROOT BALL MOVED TO A PLUMB POSITION, AND THEN RE-BACKFILLED.
- C. DO NOT STRAIGHTEN PLANTS BY PULLING THE TRUNK WITH GUYS.

3.14 INSTALLATION OF FERTILIZER AND OTHER CHEMICAL ADDITIVES

- A. DO NOT APPLY ANY SOLUBLE FERTILIZER TO PLANTINGS DURING THE FIRST YEAR AFTER TRANSPLANTING UNLESS SOIL TEST DETERMINES THAT FERTILIZER OR OTHER CHEMICAL ADDITIVES IS REQUIRED. APPLY CHEMICAL ADDITIVES ONLY UPON THE APPROVAL OF THE OWNER'S REPRESENTATIVE.
- B. CONTROLLED RELEASE FERTILIZERS SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS, STANDARD HORTICULTURAL PRACTICES, AND PER THE SOIL TEST RECOMMENDATIONS.

3.15 PRUNING OF TREES AND SHRUBS

- A. PRUNE PLANTS AS DIRECTED BY THE OWNER'S REPRESENTATIVE. PRUNING TREES SHALL BE LIMITED TO ADDRESSING STRUCTURAL DEFECTS AS SHOWN IN DETAILS; FOLLOW RECOMMENDATIONS IN "STRUCTURAL PRUNING: A GUIDE FOR THE GREEN INDUSTRY" PUBLISHED BY URBAN TREE FOUNDATION, VISALIA CA.
- B. ALL PRUNING SHALL BE PERFORMED BY A PERSON EXPERIENCED IN STRUCTURAL TREE PRUNING.
- C. EXCEPT FOR PLANTS SPECIFIED AS MULTI-STEMMED OR AS OTHERWISE INSTRUCTED BY THE OWNER'S REPRESENTATIVE, PRESERVE OR CREATE A CENTRAL LEADER.
- D. PRUNING OF LARGE TREES SHALL BE DONE USING POLE PRUNERS OR IF NEEDED, FROM A LADDER OR HYDRAULIC LIFT TO GAIN ACCESS TO THE TOP OF THE TREE. DO NOT CLIMB IN NEWLY PLANTED TREES. SMALL TREES CAN BE STRUCTURALLY PRUNED BY LAYING THEM OVER BEFORE PLANTING. PRUNING MAY ALSO BE PERFORMED AT THE NURSERY PRIOR TO SHIPPING.
- E. REMOVE AND REPLACE EXCESSIVELY PRUNED OR MALFORMED STOCK RESULTING FROM IMPROPER PRUNING THAT OCCURRED IN THE NURSERY OR AFTER.
- F. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.
- G. NO TREE PAINT OR SEALANTS SHALL BE USED.

3.16 MULCHING OF PLANTS

- A. APPLY MULCH BEFORE SETTLEMENT TO DEPTH SHOWN ON PLANS, COVERING THE ENTIRE PLANTING BED AREA. INSTALL NO MORE THAN 1 INCH OF MULCH OVER THE TOP OF THE ROOT BALLS OF ALL PLANTS. TAPER TO 2 INCHES WHEN ABUTTING PAVEMENT.
- B. FOR TREES PLANTED IN LAWN AREAS THE MULCH SHALL EXTEND TO A 4 FOOT RADIUS AROUND THE TREE OR TO THE EXTENT INDICATED ON THE PLANS.
- C. LIFT ALL LEAVES, LOW HANGING STEMS AND OTHER GREEN PORTIONS OF SMALL PLANTS OUT OF THE MULCH IF COVERED.

3.17 PLANTING BED FINISHING

- A. AFTER PLANTING, SMOOTH OUT ALL GRADES BETWEEN PLANTS BEFORE MULCHING.
- B. SEPARATE THE EDGES OF PLANTING BEDS AND LAWN AREAS WITH A SMOOTH, FORMED EDGE CUT INTO THE TURF WITH THE BED MULDIE LOWER, 1 AND 2 INCHES, THAN THE ADJACENT TURF SOO OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. BED EDGE LINES SHALL BE A DEPICTED ON THE DRAWINGS.

3.18 WATERING

- A. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE TO ENSURE THAT ADEQUATE WATER IS PROVIDED TO ALL PLANTS FROM THE POINT OF INSTALLATION UNTIL THE DATE OF SUBSTANTIAL COMPLETION ACCEPTANCE. THE CONTRACTOR SHALL ADJUST THE AUTOMATIC IRRIGATION SYSTEM, IF AVAILABLE, AND APPLY ADDITIONAL OR ADJUST FOR LESS WATER USING HOSES AS REQUIRED.
- B. HAND WATER ROOT BALLS OF ALL PLANTS TO ASSURE THAT THE ROOT BALLS HAVE MOISTURE ABOVE WILT POINT AND BELOW FIELD CAPACITY. TEST THE MOISTURE CONTENT IN EACH ROOT BALL AND THE SOIL OUTSIDE THE ROOT BALL TO DETERMINE THE WATER CONTENT.

3.19 CLEAN-UP

- A. DURING INSTALLATION, KEEP THE SITE FREE OF TRASH, PAVEMENTS REASONABLY CLEAN AND WORK AREA IN AN ORDERLY CONDITION AT THE END OF EACH DAY. REMOVE TRASH AND DEBRIS IN CONTAINERS FROM THE SITE NO LESS THAN ONE A WEEK.
1. IMMEDIATELY CLEAN UP ANY SPILLED OR TRACKED SOIL, FUEL, OIL, TRASH OR DEBRIS DEPOSITED BY THE CONTRACTOR FROM ALL SURFACES WITHIN THE PROJECT OR ON PUBLIC RIGHT OF WAYS AND NEIGHBORING PROPERTY.
- B. ONCE INSTALLATION IS COMPLETE, WASH ALL SOIL FROM PAVEMENTS AND OTHER STRUCTURES. ENSURE THAT MULCH IS CONFINED TO PLANTING BEDS AND THAT ALL TAGS AND FLAGGING TAPE ARE REMOVED FROM THE SITE. THE OWNER'S REPRESENTATIVE'S SEALS ARE TO REMAIN ON THE TREES AND REMOVED AT THE END OF THE WARRANTY PERIOD.
- C. MAKE ALL REPAIRS TO GRADES, RUTS, AND DAMAGE BY THE PLANT INSTALLER TO THE WORK OR OTHER WORK AT THE SITE.
- D. REMOVE AND DISPOSE OF ALL EXCESS PLANTING SOIL, SUBSOIL, MULCH, PLANTS, PACKAGING, AND OTHER MATERIAL BROUGHT TO THE SITE BY THE CONTRACTOR.

3.20 PROTECTION DURING CONSTRUCTION

- A. THE CONTRACTOR SHALL PROTECT PLANTING AND RELATED WORK AND OTHER SITE WORK FROM DAMAGE DUE TO PLANTING OPERATIONS, OPERATIONS BY OTHER CONTRACTORS OR TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION UNTIL SUBSTANTIAL COMPLETION ACCEPTANCE. TREAT, REPAIR OR REPLACE DAMAGED WORK IMMEDIATELY.
- B. DAMAGE DONE BY THE CONTRACTOR, OR ANY OF THEIR SUB-CONTRACTORS TO EXISTING OR INSTALLED PLANTS, OR ANY OTHER PARTS OF THE WORK OR EXISTING FEATURES TO REMAIN, INCLUDING ROOTS, TRUNK OR BRANCHES OF LARGE EXISTING TREES, SOIL, PAVING, UTILITIES, LIGHTING, IRRIGATION, OTHER FINISHED WORK AND SURFACES INCLUDING THOSE ON ADJACENT PROPERTY, SHALL BE CLEANED, REPAIRED OR REPLACED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER. THE OWNER'S REPRESENTATIVE SHALL DETERMINE WHEN SUCH CLEANING, REPLACEMENT OR REPAIR IS SATISFACTORY.

3.21 PLANT MAINTENANCE PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE

- A. DURING THE PROJECT WORK PERIOD AND PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE, THE CONTRACTOR SHALL MAINTAIN ALL PLANTS.
- B. MAINTENANCE DURING THE PERIOD PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE SHALL CONSIST OF PRUNING, WATERING, CULTIVATING, WEEDING, MULCHING, REMOVAL OF DEAD MATERIAL, REPAIRING AND REPLACING OF TREE STAKES, TIGHTENING AND REPAIRING OF GUYS, REPAIRING AND REPLACING OF DAMAGED TREE WRAP MATERIAL, RESETTling PLANTS TO PROPER GRADES AND UPRIGHT POSITION, AND FURNISHING AND APPLYING SUCH SPRAYS AS ARE NECESSARY TO KEEP PLANTINGS REASONABLY FREE OF DAMAGING INSECTS AND DISEASE, AND IN HEALTHY CONDITION. THE THRESHOLD FOR APPLYING INSECTICIDES AND HERBICIDE SHALL FOLLOW ESTABLISHED INTEGRATED PEST MANAGEMENT (IPM) PROCEDURES. MULCH AREAS SHALL BE KEPT REASONABLY FREE OF WEEDS, GRASS.

3.22 SUBSTANTIAL COMPLETION ACCEPTANCE

- A. UPON WRITTEN NOTICE FROM THE CONTRACTOR, THE OWNER'S REPRESENTATIVE SHALL REVIEW THE WORK AND MAKE A DETERMINATION IF THE WORK IS SUBSTANTIALLY COMPLETE.
1. NOTIFICATION SHALL BE AT LEAST 7 DAYS PRIOR TO THE DATE THE CONTRACTOR IS REQUESTING THE REVIEW.
- B. THE DATE OF SUBSTANTIAL COMPLETION OF THE PLANTING SHALL BE THE DATE WHEN THE OWNER'S REPRESENTATIVE ACCEPTS THAT ALL WORK IN PLANTING, PLANTING SOIL, AND IRRIGATION INSTALLATION SECTIONS IS COMPLETE.
- C. THE PLANT WARRANTY PERIOD BEGINS AT DATE OF WRITTEN NOTIFICATION OF SUBSTANTIAL COMPLETION FROM THE OWNER'S REPRESENTATIVE. THE DATE OF SUBSTANTIAL COMPLETION MAY BE DIFFERENT THAN THE DATE OF SUBSTANTIAL COMPLETION FOR THE OTHER SECTIONS OF THE PROJECT.

3.23 MAINTENANCE DURING THE WARRANTY PERIOD BY OTHERS

- A. AFTER SUBSTANTIAL COMPLETION ACCEPTANCE, THE CONTRACTOR SHALL MAKE SUFFICIENT SITE VISITS TO OBSERVE THE OWNER'S MAINTENANCE AND BECOME AWARE OF PROBLEMS WITH THE MAINTENANCE IN TIME TO REQUEST CHANGES, UNTIL THE DATE OF END OF WARRANTY FINAL ACCEPTANCE.
1. NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING IF MAINTENANCE, INCLUDING WATERING, IS NOT

SUFFICIENT TO MAINTAIN PLANTS IN A HEALTHY CONDITION. SUCH NOTIFICATION MUST BE MADE IN A TIMELY PERIOD SO THAT THE OWNER'S REPRESENTATIVE MAY TAKE CORRECTIVE ACTION.

- A. NOTIFICATION MUST DEFINE THE MAINTENANCE NEEDS AND DESCRIBE ANY CORRECTIVE ACTION REQUIRED.

2. IN THE EVENT THAT THE CONTRACTOR FAILS TO VISIT THE SITE AND OR NOTIFY, IN WRITING, THE OWNER'S REPRESENTATIVE OF MAINTENANCE NEEDS, LACK OF MAINTENANCE SHALL NOT BE USED AS GROUNDS FOR VOIDING OR MODIFYING THE PROVISIONS OF THE WARRANTY.

3.24 MAINTENANCE DURING THE WARRANTY PERIOD BY THE PLANT INSTALLER

- A. DURING THE WARRANTY PERIOD, PROVIDE ALL MAINTENANCE FOR ALL PLANTINGS TO KEEP THE PLANTS IN A HEALTHY STATE AND THE PLANTING AREAS CLEAN AND NEAT.

B. GENERAL REQUIREMENTS:

1. ALL WORK SHALL BE UNDERTAKEN BY TRAINED PLANTING CREWS UNDER THE SUPERVISION OF A FOREMAN WITH A MINIMUM OF 5 YEARS EXPERIENCE SUPERVISING COMMERCIAL PLANT MAINTENANCE CREWS.
2. ALL CHEMICAL AND FERTILIZER APPLICATIONS SHALL BE MADE BY LICENSED APPLICATORS FOR THE TYPE OF CHEMICALS TO BE USED. ALL WORK AND CHEMICAL USE SHALL COMPLY WITH ALL APPLICABLE LOCAL, PROVINCIAL AND FEDERAL REQUIREMENTS.
3. ASSURE THAT HOSES AND WATERING EQUIPMENT AND OTHER MAINTENANCE EQUIPMENT DOES NOT BLOCK PATHS OR BE PLACED IN A MANNER THAT MAY CREATE TRIPPING HAZARDS. USE STANDARD SAFETY WARNING BARRIERS AND OTHER PROCEDURES TO MAINTAIN THE SITE IN A SAFE MANNER FOR VISITORS AT ALL TIMES.
4. ALL WORKERS SHALL WEAR REQUIRED SAFETY EQUIPMENT AND APPAREL APPROPRIATE FOR THE TASKS BEING UNDERTAKEN.
5. THE CONTRACTOR SHALL NOT STORE MAINTENANCE EQUIPMENT AT THE SITE AT TIMES WHEN THEY ARE NOT IN USE UNLESS AUTHORIZED IN WRITING BY THE OWNER'S REPRESENTATIVE.
6. MAINTENANCE VEHICLES SHALL NOT PARK ON THE SITE INCLUDING WALKS AND LAWN AREAS AT ANY TIME WITHOUT THE OWNER'S REPRESENTATIVE'S WRITTEN PERMISSION.
7. MAINTAIN A DETAILED LOG OF ALL MAINTENANCE ACTIVITIES INCLUDING TYPES OF TASKS, DATE OF TASK, TYPES AND QUANTITIES OF MATERIALS AND PRODUCTS USED, WATERING TIMES AND AMOUNTS, AND NUMBER OF EACH CREW. PERIODICALLY REVIEW THE LOGS WITH THE OWNER'S REPRESENTATIVE, AND SUBMIT A COPY OF THE LOGS AT THE END OF EACH YEAR OF THE MAINTENANCE AGREEMENT.
8. MEET WITH THE OWNER'S REPRESENTATIVE A MINIMUM OF THREE TIMES A YEAR TO REVIEW THE PROGRESS AND DISCUSS ANY CHANGES THAT ARE NEEDED IN THE MAINTENANCE PROGRAM. AT THE END OF THE WARRANTY PERIOD ATTEND A HAND OVER MEETING TO FORMALLY TRANSFER THE RESPONSIBILITIES OF MAINTENANCE TO THE OWNER'S REPRESENTATIVE. PROVIDE ALL INFORMATION ON PAST MAINTENANCE ACTIVITIES AND PROVIDE A LIST OF CRITICAL TASKS THAT WILL BE NEEDED OVER THE NEXT 12 MONTHS. PROVIDE ALL MAINTENANCE LOGS AND SOIL TEST DATA. MAKE THE CONTRACTOR'S SUPERVISOR AVAILABLE FOR A MINIMUM OF ONE YEAR AFTER THE END OF THE WARRANTY PERIOD TO ANSWER QUESTIONS ABOUT PAST MAINTENANCE.

C. PROVIDE THE FOLLOWING MAINTENANCE TASKS:

1. WATERING: PROVIDE ALL WATER REQUIRED TO KEEP SOIL WITHIN AND AROUND THE ROOT BALLS AT OPTIMUM MOISTURE CONTENT FOR PLANT GROWTH.
- a. MAINTAIN ALL WATERING SYSTEMS AND EQUIPMENT AND KEEP THEM OPERATIONAL.
- b. MONITOR SOIL MOISTURE TO PROVIDE SUFFICIENT WATER. CHECK SOIL MOISTURE AND ROOT BALL MOISTURE WITH A SOIL MOISTURE METER ON A REGULAR BASIS AND RECORD MOISTURE READINGS. DO NOT OVER WATER.
2. SOIL NUTRIENT LEVELS: TAKE A MINIMUM OF 4 SOIL SAMPLES FROM AROUND THE SITE IN THE SPRING AND FALL AND HAVE THEM TESTED BY AN ACCREDITED AGRICULTURAL SOIL TESTING LAB FOR CHEMICAL COMPOSITION OF PLANT REQUIRED NUTRIENTS, PH, SALT AND % ORGANIC MATTER. TEST RESULTS SHALL INCLUDE LABORATORY RECOMMENDATIONS FOR NUTRIENT APPLICATIONS. APPLY FERTILIZERS AT RATES RECOMMENDED BY THE SOIL TEST.
- a. MAKE ANY OTHER SOIL TEST AND/OR PLANT TISSUE TEST THAT MAY BE INDICATED BY PLANT CONDITIONS THAT MAY NOT BE RELATED TO SOIL NUTRIENT LEVELS SUCH AS SOIL CONTAMINATED BY OTHER CHEMICALS OR LACK OF CHEMICAL UPTAKE BY THE PLANT.
3. PLANT PRUNING: REMOVE CROSS OVER BRANCHING, SHORTEN OR REMOVE DEVELOPING CO DOMINANT LEADERS, DEAD WOOD AND WINTER-DAMAGED BRANCHES. UNLESS DIRECTED BY THE OWNER'S REPRESENTATIVE, DO NOT SHEAR PLANTS OR MAKE HEADING CUTS.
4. RESTORE PLANTS: RESET ANY PLANTS THAT HAVE SETTLED OR ARE LEANING AS SOON AS THE CONDITION IS NOTICED.
5. GUYING AND STAKING: MAINTAIN PLANT GUYS IN A TAUGHT POSITION. REMOVE TREE GUYS AND STAKING AFTER THE FIRST FULL GROWING SEASON UNLESS DIRECTED BY OWNER'S REPRESENTATIVE.
6. WEED CONTROL: KEEP ALL BEDS FREE OF WEEDS. HAND-REMOVE ALL WEEDS AND ANY PLANTS THAT DO NOT APPEAR ON THE PLANTING PLAN. CHEMICAL WEED CONTROL IS PERMITTED ONLY WITH THE APPROVAL OF THE OWNER'S REPRESENTATIVE. SCHEDULE WEEDING AS NEEDED BUT NOT LESS 12 TIMES PER YEAR.
7. TRASH REMOVAL: REMOVE ALL TRASH AND DEBRIS FROM ALL PLANTING BEDS AND MAINTAIN THE BEDS IN A NEAT AND TIDY APPEARANCE. THE NUMBER OF TRASH AND DEBRIS REMOVAL VISITS SHALL BE NO LESS THAN 12 TIMES PER YEAR AND MAY COINCIDE WITH OTHER MAINTENANCE VISITS.
8. PLANT PEST CONTROL: MAINTAIN DISEASE, INSECTS AND OTHER PESTS AT MANAGEABLE LEVELS. MANAGEABLE LEVELS SHALL BE DEFINED AS DAMAGE TO PLANTS THAT MAY BE NOTICEABLE TO A PROFESSIONAL BUT NOT TO THE AVERAGE PERSON. USE LEAST INVASIVE METHODS TO CONTROL PLANT DISEASE AND INSECT OUTBREAKS.
- D. THE OWNER'S REPRESENTATIVE MUST APPROVE IN ADVANCE THE USE OF ALL CHEMICAL PESTICIDE APPLICATIONS.

1. PLANT REPLACEMENT: REPLACE ALL PLANTS THAT ARE DEFECTIVE AS DEFINED IN THE WARRANTY PROVISIONS, AS SOON AS THE PLANT DECLINE IS OBVIOUS AND IN SUITABLE WEATHER AND SEASON FOR PLANTING AS OUTLINED IN ABOVE SECTIONS. PLANTS THAT BECOME DEFECTIVE DURING THE MAINTENANCE PERIOD SHALL BE COVERED AND REPLACED UNDER THE WARRANTY PROVISIONS.
2. MULCH: REFRESH MULCH ONCE A YEAR TO MAINTAIN COMPLETE COVERAGE BUT DO NOT OVER MULCH. AT NO TIME SHALL THE OVERALL MULCH THICKNESS BE GREATER THAN 4 INCHES. DO NOT APPLY MULCH WITHIN 6 INCHES OF THE TRUNKS OR STEMS OF ANY PLANTS. REPLACEMENT MULCH SHALL MEET THE REQUIREMENTS OF THE ORIGINAL APPROVED MATERIAL. MULCH SHALL BE NO MORE THAN ONE INCH ON TOP OF THE ROOT BALL SURFACE.
3. BED EDGING: CHECK AND MAINTAIN EDGES BETWEEN MULCH AND LAWN AREAS IN SMOOTH NEAT LINES AS ORIGINALLY SHOWN ON THE DRAWINGS.
4. LEAF, FRUIT AND OTHER PLANT DEBRIS REMOVAL: REMOVE LIFT LEAF, SPENT FLOWERS, FRUIT AND PLANT PART ACCUMULATIONS FROM BEDS AND PAVED SURFACES. MAINTAIN ALL SURFACE WATER DRAINS FREE OF DEBRIS. DEBRIS REMOVAL SHALL BE UNDERTAKEN AT EACH VISIT TO WEED OR PICK UP TRASH IN BEDS.
5. DAMAGE FROM SITE USE: REPAIR OR DAMAGE BY SITE VISITORS AND EVENTS, BEYOND NORMAL WEAR, ARE NOT PART OF THIS MAINTENANCE. THE OWNER'S REPRESENTATIVE MAY REQUEST THAT THE CONTRACTOR REPAIR DAMAGE BEDS OR PLANTINGS FOR AN ADDITIONAL COST. ALL ADDITIONAL WORK SHALL BE APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE.
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PART 1 - GENERAL

A. FURNISH ALL LABOR, MATERIAL, EQUIPMENT RELATED SERVICES AND SUPERVISION NECESSARY FOR OR INCIDENTAL TO THE INSTALLATION OF THE LAWNS AND GRASSES AS SHOWN OR INDICATED ON THE DRAWINGS AND/OR AS SPECIFIED.

B. WORK INCLUDED:

1. SOIL PREPARATION AND FINE GRADING.
2. FERTILIZATION.
3. GRASS SODDING
4. SEEDING

- A. DELIVERY RECEIPTS AND INVOICES: SUBMIT ORIGINAL DELIVERY RECEIPTS AND INVOICES FOR MATERIALS USED.
- B. PRODUCT DATA: SUBMIT SAMPLE LABEL OR SPECIFICATION OF FERTILIZER.
- C. CERTIFICATE: SUBMIT STATE CERTIFICATE STATING VARIETY AND PURITY OF GRASS SOD.
- D. SOIL FERTILITY TEST REPORTS:
 1. SUBMIT ANALYSIS, TEST RESULTS AND CORRECTIVE RECOMMENDATIONS TO THE OWNER'S REPRESENTATIVE.
 2. ONE TEST PER MEDIAN IS REQUIRED OF EXISTING SOIL TAKEN AT DIFFERENT LOCATIONS ON THE PROJECT SITE AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

- A. PROTECT PAVING SURFACES, CURBS, UTILITIES, PLANT MATERIALS, AND OTHER EXISTING IMPROVEMENTS FROM DAMAGE BY HEAVY EQUIPMENT.
- B. LOCATE AND STAKE IRRIGATION HEADS, VALVE RISERS AND EQUIPMENT PRIOR TO BEGINNING SOIL PREPARATION WORK.
- C. DURING WORK AND MAINTENANCE PERIOD, MAINTAIN TOPSOIL IN PLACE AT ESTABLISHED GRADES. REPLACE TOPSOIL AND GRASS LOSSES DUE TO EROSION.
- D. PROTECT IN PLACE WORK FROM DAMAGE BY HEAVY EQUIPMENT. PREPARE, GRADE, LEVEL, AND REPLANT DAMAGED AREAS.

A. THE CERTIFICATE OF SUBSTANTIAL COMPLETION WILL BE ISSUED WHEN THE WORK PERFORMED UNDER THE CONTRACT HAS BEEN REVIEWED AND FOUND TO BE IN ACCORDANCE WITH THE BEST INTERESTS OF THE OWNER.

B. THE CERTIFICATE OF SUBSTANTIAL COMPLETION SHALL BE ISSUED UPON RECEIPT OF THE FOLLOWING:

1. THE CONTRACTOR SHALL COMPLETE SUBSTANTIAL COMPLETION IN THE STAGE OF THE PROGRESS OF THE WORK WHEN THE WORK OR DESIGNATED PORTION THEREOF IS SUFFICIENTLY COMPLETE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS SO THE OWNER CAN OCCUPY OR UTILIZE THE WORK FOR ITS INTENDED USE. THE DATE OF SUBSTANTIAL COMPLETION OF THE PROJECT OR PORTION THEREOF IS ALSO THE DATE OF COMMENCEMENT OF APPLICABLE GUARANTEES AS SPECIFIED.

2. A LIST OF ITEMS TO BE COMPLETED OR CORRECTED WILL BE ATTACHED TO THE CERTIFICATE OR SUBSTANTIAL COMPLETION. THE CONTRACTOR SHALL FALLUALLY CORRECT OR COMPLETE THE LISTED ITEMS AT THE EXPENSE OF THE CONTRACTOR TO COMPLETE ALL WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

3. THE CONTRACTOR WILL COMPLETE OR CORRECT THE WORK ON THE LIST OF ITEMS WITHIN A SPECIFIC NUMBER OF DAYS AS SHOWN ON THE CERTIFICATE OF SUBSTANTIAL COMPLETION.

4. THE OWNER AND ITS REPRESENTATIVE SHALL REVIEW THE WORK AND, IF NECESSARY, THE OWNERS REPRESENTATIVE WILL RECOMMEND TO THE OWNER THAT THE WORK OF THIS SECTION IS READY FOR FINAL ACCEPTANCE.

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 SUPERVISION BY A QUALIFIED FOREMAN.

A. GUARANTEE LAWNS AND GRASSES FOR ONE YEAR AFTER DATE OF FINAL ACCEPTANCE AT THE END OF THIS GUARANTEE PERIOD, ALL LAWN AND GRASS AREAS WILL HAVE ACHIEVED COVERAGE OF THE SPECIFIED GRASS AT A DENSITY OF 100% COVERAGE, FREE OF WEEDS, UNDESIRABLE GRASS SPECIES, DISEASE, AND INSECTS. REPLACE DEAD MATERIALS AND MATERIALS NOT IN VIGOROUS, THRIVING CONDITION AS SOON AS WEATHER PERMITS AND ON NOTIFICATION BY THE OWNER'S REPRESENTATIVE.

IRRIGATION SYSTEM AND OTHER PIPING, CONDUIT, OR OTHER WORK DURING REPLACEMENT. REPAIR DAMAGE IMMEDIATELY.

JOB CONDITIONS

A. DO NOT INSTALL SOD OR SEED ON SATURATED OR FROZEN SOIL.

B. SOD AND SEED INSTALLATION SHALL BE SUBJECT TO SUITABILITY OF THE WEATHER AND OTHER CONDITIONS AFFECTING SOD GROWTH.

A. CONTRACTOR SHALL ATTEND ALL PROGRESS MEETINGS AS REQUESTED BY THE OWNER'S REPRESENTATIVE DURING INSTALLATION.

A. THE BIDDING CONTRACTOR IS RESPONSIBLE FOR THE INCLUSION OF ALL MATERIALS, LABOR AND EQUIPMENT AS OUTLINED IN THE PLANS AND SPECIFICATION. THE PLANT LIST IS PROVIDED TO THE BIDDING CONTRACTOR AS A CONVENIENCE AND THE QUANTITIES ARE APPROXIMATE. VERIFICATION OF ALL QUANTITIES IS THE SOLE RESPONSIBILITY OF THE BIDDING CONTRACTOR. ANY DISCREPANCIES MUST BE REPORTED TO THE OWNER'S REPRESENTATIVE PRIOR TO SUBMITTAL OF BID.

PART 2 PRODUCTS

GENERAL:

1. SOD SHALL BE NURSERY GROWN ON CULTIVATED AGRICULTURAL SOILS. SOD SHALL HAVE BEEN MOWED REGULARLY AND CAREFULLY AND OTHERWISE MAINTAINED FROM PLANTING TO HARVEST. SOD SHALL BE OF SPECIES INDICATED.
2. THATCH OF CUT SOD SHALL BE CUT TO THE SUPPLIER'S STANDARD WIDTH AND LENGTH. MAXIMUM ALLOWABLE DEVIATION FROM STANDARD WIDTHS AND LENGTHS SHALL BE PLUS OR MINUS .25 INCHES ON WIDTH AND PLUS OR MINUS % ON LENGTH.
4. BROKEN STRIPS AND TORN OR UNEVEN ENDS WILL NOT BE ACCEPTED.
5. STRENGTH OF SOD STRIPS: SOD STRIPS SHALL BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SET AND SHAPE IF SUSPENDED VERTICALLY WHEN GRASPED IN THE UPPER 10% OF THE SECTION.
6. MOISTURE CONTENT: SOD SHALL NOT BE HARVESTED OR TRANSPORTED WHEN MOISTURE CONTENT IS EITHER TOO WET OR TOO DRY MAY AFFECT ITS SURVIVAL. SOD SHALL BE STORED IN A COMPACT GROUP TO PREVENT DRYING OUT OR FREEZING.
7. TIME LIMITATIONS: SOD SHALL BE HARVESTED, DELIVERED, AND TRANSPORTED WITHIN A 30-HOUR PERIOD UNLESS A SUITABLE PRESERVATION METHOD IS APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO DELIVERY. SOD NOT TRANSPORTED WITHIN THIS PERIOD SHALL BE SPECIFIED FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO ITS INSTALLATION.
8. THATCH: SOD SHALL BE FREE OF THATCH.
9. DISEASES, NEMATODES AND INSECTS: SOD SHALL BE FREE OF DISEASES, NEMATODES, AND SOIL-BORNE INSECTS.
10. WEEDS: SOD SHALL BE FREE OF OBJECTIONABLE GRASSY AND BROADLEAF WEEDS.

B. SOD:

1. CYNODON DACTYLON (COMMON BERMUDA GRASS)

C. SEED:

1. SEED: FRESH, CLEAN, AND NEW CROP SEED MIXTURE.
A. COMPOSED OF THE FOLLOWING VARIETIES, MIXED TO THE SPECIFIED PROPORTIONS BY WEIGHT, AND TESTED TO MINIMUM PERCENTAGES OF PURITY AND GERMINATION. SHALL BE FREE OF: POA ANNUA, BENT GRASS, AND NOXIOUS WEED SEED.
- B. RATE: 2 - 3 POUNDS PER 1,000 SQUARE FEET.

2. TYPES:

TYPES	PARTS	PURITY	GERMINATION
MIX	100%	95%	95%

2.2 MULCH

A. HYDRO-MULCH: CELLULOSE FIBER MULCH SHALL CONSIST OF SPECIALLY PREPARED CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE. THE FIBER MULCH, INCLUDING DYE, SHALL CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS. THE MULCH MATERIAL SHALL BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER, AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH SHALL COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITH OUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.

A. GENERAL TOPSOIL

1. REFERENCE PLANTING SOIL PLANS.

A. WEED KILLER:
IF NECESSARY IN THE OPINION OF THE LANDSCAPE ARCHITECT, AN APPLICATION OF BROADLEAF WEED KILLER MAY BE APPLIED PRIOR TO FINAL ACCEPTANCE. ORTHO WEED-B-GONE OR EQUAL AT A RATE OF 3 TEASPOONS/GALLON OF WATER OR 3 CUPS (25 OZ.) PER 50 GALLONS OF WATER SHALL BE APPLIED AT LEAST 48 HOURS BEFORE WATERING OR ANTICIPATED RAINFALL.

APPLY LIQUID TACKIFIER UNIFORMLY AT THE RATE OF 60 GALLONS PER ACRE, IF NEEDED, TO KEEP STRAW MULCH PLACE.

GROUND LIMESTONE SHALL CONTAIN NOT LESS THAN 85% OF TOTAL CARBONATES AND GROUND TO SUCH FINENESS THAT 50% WILL PASS THROUGH A NO. 100 MESH SIEVE, AND 90% WILL PASS THROUGH A NO. 20 MESH SIEVE.

1. FERTILIZER SHALL BE COMMERCIAL PRODUCT, UNIFORM IN COMPOSITION, FREE FLOWING, AND SUITABLE FOR APPLICATION WITH APPROVED EQUIPMENT.

- ## PART 3 EXECUTION

A. EXECUTE GRASS PLANTING OPERATIONS ACROSS SLOPE AND PARALLEL TO FINISHED GRADE CONTOURS

- A. IRRIGATED AND NON-IRRIGATED GRASS AREAS:
 1. IF GRASSY OR BROADLEAF WEEDS EXIST ON SITE AT THE BEGINNING OF WORK, SPRAY WITH A NON-SELECTIVE SYSTEMIC CONTACT HERBICIDE, AS RECOMMENDED AND APPLIED BY AN APPROVED LICENSED LANDSCAPE PEST CONTROL ADVISOR AND APPLICATOR. LEAVE SPRAYED PLANTS INTACT FOR AT LEAST 15 DAYS TO ALLOW SYSTEMIC KILL.
 2. CLEAR AND REMOVE THESE EXISTING WEEDS BY MOWING OR GRUBBING OFF ALL PLANT PARTS AT LEAST 0.25 INCHES BELOW THE SURFACE OF THE SOIL OVER THE ENTIRE AREA TO BE PLANTED.

1. AFTER IRRIGATION SYSTEM IS OPERATIONAL, APPLY WATER FOR 5 TO 10 DAYS AS NEEDED TO ACHIEVE WEED GERMINATION. APPLY CONTACT HERBICIDES AND WAIT AS NEEDED BEFORE PLANTING. REPEAT AS NEEDED.
2. MAINTAIN LAWN AND GRASS AREAS WEED FREE UNTIL FINAL ACCEPTANCE BY OWNER'S REPRESENTATIVE UTILIZING MECHANICAL AND CHEMICAL TREATMENT.

- A. TILLAGE:
 1. TILLAGE SHALL BE COMPLETED TO LOOSEN ALL AREAS OF COMPACTED SOIL. WHEN PLACEMENT OF TILLAGE IS SPECIFIED, TILL COMPACTED AREAS PRIOR TO PLACEMENT.
 2. TILL WITH DRAY DIRT DISC, ROTOTILLER, OR CHISEL-TYPE BREAKING PLOW, CHISELS SET NO MORE THAN 1 INCHES APART. TILL TO A DEPTH OF 1 TO 3 INCHES.
 3. INITIAL TILLAGE SHALL BE DONE IN CROSSING PATTERN FOR DOUBLE COVERAGE THEN FOLLOWED BY A DISC HARROW.
- B. CLEANING:
 1. REMOVE DEBRIS, BUILDING MATERIALS, RUBBISH, WEEDS, AND STONES LARGER THAN 1 INCH IN DIAMETER.
 2. USE ROCK PICK OR OTHER MACHINERY TO GATHER SURFACE STONES LARGER THAN 1 INCH IN DIAMETER.
- C. FINAL GRADING:
 1. AFTER TILLAGE AND PLACEMENT OF TILLSOIL, LEVEL, FINE GRADE, AND DRAG WITH A WEIGHTED SPIKE HARROW OR FLOAT DRAG.
 2. ELIMINATE RUTS, DEPRESSIONS, HUMPS, AND OBJECTIONABLE SOIL CLODS.

A. THE FERTILIZER TYPES AND RATES SPECIFIED HEREIN ARE APPLICABLE UNLESS COUNTERMANDED BY THE SOIL FERTILITY TEST CORRECTIVE RECOMMENDATIONS, IN WHICH CASE THEY WILL BE APPLICABLE.

2. SECOND AND THIRD APPLICATIONS: APPLY EVERY 25 DAYS AFTER SODDING AT A RATE OF 10 POUNDS PER 1,000 SQUARE FEET.
3. IRRIGATE THE AREA WITH A MINIMUM OF .25 INCHES OF WATER TO PROPERLY INCORPORATE THE FERTILIZER INTO THE TURF.

A. WEATHER CONDITIONS:

1. SCHEDULE WORK FOR PERIODS OF FAVORABLE WEATHER.
2. SOD PLACEMENT ON DAYS WHICH, IN THE JUDGMENT OF THE OWNER'S REPRESENTATIVE, ARE TOO HOT, COLD, SUNNY, DRY, OR WINDY FOR OPTIMAL INSTALLATION MAY BE PROHIBITED.

1. THE FIRST ROW SHALL BE LAID IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PARALLEL TO THE FIRST ROW AND THIGHTLY ABUTTING EACH OTHER.
2. LATERAL JOINTS SHALL BE STAGGERED. CARE SHALL BE EXERCISED TO ENSURE THAT THE SOG IS NEITHER STRETCHED NOR OVERLAPPED. JOINTS MUST BE BUTTED THIGHTLY TO PREVENT VOIDS THAT COULD PERMIT AIR TO DRY OUT ROW.
3. IMMEDIATELY AFTER PLACING, SOG SHALL BE PRESSED FIRMLY INTO CONTACT WITH BED BY TAMPING OR ROLLING TO ELIMINATE AIR POCKETS. FOLLOWING TAMPING, SCREENED TOPSOIL SHALL BE USED TO FILL ALL CRACKS AND EXCESS SOIL SHALL BE WORKED INTO THE SOG WITH RAKES OR OTHER SUITABLE EQUIPMENT. EXCESS SOG SHALL NOT BE SHOWN TO EXPOSE PIPES.
4. ON SLOPES STEEPER THAN 3 TO 1, SOG SHALL BE SECURED BY GALVANIZED PINS,WOOD PEGS OR OTHER METHODS APPROVED BY THE OWNER'S REPRESENTATIVE.
5. IMMEDIATELY AFTER SODDING OPERATIONS HAVE BEEN COMPLETED, THE ENTIRE SURFACE SHALL BE COMPACTED WITH A ROLLER OR OTHER APPROVED EQUIPMENT. THE COMPLETED AREA AFTER SODDING SHALL BE UNIFORMLY EVEN, FIRM, AND TRUE TO FINISHED GRADE LINES.

C. WATERING:

1. WATER NEWLY LAID SOIL UNTIL SATURATION OF THE ENTIRE AREA IS APPARENT. AS A RESULT OF INITIAL IRRIGATION, STANDING WATER MAY BE PRESENT AND MODERATE TO HEAVY RUN OFF MAY OCCUR. CONTINUE TO IRRIGATE DAILY IN SHORTER DURATIONS SO THE ENTIRE AREA STAYS THROUGHOUT WET BUT WITHOUT STANDING WATER. THE LENGTH OF IRRIGATION TIME AND FREQUENCY OF APPLICATIONS WILL VARY AT DIFFERENT LOCATIONS DUE TO WEATHER CONDITIONS AND INDIVIDUAL SITE CHARACTERISTICS.
2. AFTER 7 TO 10 DAYS: CHECK FOR NEW ROOT GROWTH BY LIFTING CORNERS OF SOIL BLOCKS. IF CONSISTENT ROOT GROWTH OVER THE ENTIRE SITE IS OBSERVED, WATER APPLICATIONS CAN BE REDUCED TO ONCE EVERY OTHER DAY.
3. AFTER 12 TO 14 DAYS: RECHECK FOR ADDITIONAL ROOTING. IF SOIL BLOCKS ARE DIFFICULT TO PULL UP OR ADDITIONAL NEW ROOTS ARE PRESENT ALLOW THE AREA TO DRY TO THE EXTENT THAT MOWING CAN BE PERFORMED.

A. SEEDING LIMITS: ALL GROUND AREA WITHIN THE INDICATED PROJECT LIMIT LINES, OR ANY ADDITIONAL AREA WHICH HAS BEEN DISTURBED IN ANY WAY BY THE CONSTRUCTION OPERATIONS, SHALL BE FINE GRADED AND PLANTED IN SEED OR SOD UNLESS OTHERWISE INDICATED ON THE DRAWINGS TO BE COVERED WITH TREES, SHRUBS, STRUCTURE(S), WALKS, ROADS, OR OTHER SURFACED AREAS.

1. ANY AREAS EXCEEDING 5:1 SLOPE SHOULD BE TREATED WITH EROSION CONTROL BLANKETS BY CURLEX®, APPROVED EQUAL, OR OTHER EROSION CONTROL METHODS DEEMED NECESSARY BY THE CONTRACTOR TO ESTABLISH A SOLID LAWN AREA.

1. APPLY FERTILIZER TO INDICATED TURF AREAS AT A RATE EQUAL TO 1.0 POUND OF ACTUAL NITROGEN PER 1,000 SQUARE FEET (430 POUNDS OF FERTILIZER PER ACRE).
2. APPLY FERTILIZERS BY MECHANICAL ROTARY OR DROP TYPE DISTRIBUTOR, THOROUGHLY AND EVENLY INCORPORATED INTO SOIL TO A DEPTH OF 3". BY DISCING OR OTHER APPROVED METHOD. FERTILIZER AREAS INACCESSIBLE TO POWER EQUIPMENT WITH HAND TOOLS AND INCORPORATE INTO SOIL.
3. RESTORE PREPARED AREAS TO SPECIFIED CONDITION IF ERODED, SETTLED, OR OTHERWISE DISTURBED, AFTER FINE GRADING AND PRIOR TO SEEDING.

USE A HYDROMULCHER (SPRAYER) AND APPLY MIXTURE(S) AT THE FOLLOWING RATES. MIX IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

1. LAWN
 - a. GRASS SEED: PER SEED TYPE.
 - b. FERTILIZER: PER SOIL TEST REPORT RECOMMENDATIONS.

A. MAINTAIN EXISTING ESTABLISHED GRADES, PROTECT TRUE AND EVEN DURING OPERATIONS

A. DURING WORK AND MAINTENANCE PERIOD, MAINTAIN TOPSOIL IN PLACE AT ESTABLISHED GRADES. REPLACE TOPSOIL AND TURF GRASS LOSSES DUE TO EROSION.

A. REMOVE EXCESS MATERIAL AND DEBRIS FROM SITE

4. UNTIL FINAL ACCEPTANCE, MAINTAIN LAWN AND GRASS AREAS BY WATERING, MOWING, WEEDING, SPRAYING, CLEANING AND REPLACING AS NECESSARY TO KEEP THE TURF AND GRASS IN A VIGOROUS, HEALTHY CONDITION.

1. WATERING: AS NECESSARY.
2. MOWING:
 - a) MOW NEWLY PLANTED GRASS AREAS WEEKLY AFTER INITIAL GROWTH REACHES 1.5 TO 2 INCHES.
3. WEEDING: REMOVE WEEDS AND FOREIGN GRASS OVER LAWN AND GRASS AREAS AT LEAST ONCE A WEEK. HERBICIDES MAY BE USED ONLY WHEN APPROVED BY THE OWNER'S REPRESENTATIVE.

Kimley»»Horn
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KHA PROJECT	DATE
060085700	AUGUST 2026
SCALE	AS SHOWN
DESIGNED BY	LC
DRAWN BY	AGP
CHECKED BY	BDM

HA-

SHEET NUMBER
LP 3.02



Viewing site from East side along Marion Drive



Viewing site from East side along Marion Dr



Zoning Sign on Property



June 18, 2026

Emma Chetuya Ph.D. AICP
Planning Administrator
Planning and Development Department
800 Main Street
Garland, TX 75040

**RE: *Written Narrative Guide
Hatco Planned Development
1729 Davis Boulevard
Garland, Texas***

Dear Emma:

In accordance with the guidelines provided in the City's Public Hearing Application, Kimley-Horn is submitting this Written Narrative Guide for the Planned Development submittal for 1729 Davis Boulevard.

The intent of the Owner (Hatco) is to combine Lots 1 and 2 of Resistol Park and to establish a Planned Development to allow for industrial development. A FIT meeting for the site was held on 03/31/2026 under Pre Submittal #260331-1.

Hatco is proud to call Garland home. Since 1938, the company has been an integral part of the community and one of Garland's earliest economic development success stories. From their Garland roots, Hatco has built two of the world's most recognized hat brands, Resistol and Stetson, helping put Garland on the map as a center of American manufacturing and craftsmanship. Today, Hatco supports more than 400 jobs, providing meaningful employment opportunities for local families and contributing to the city's economic strength. The development of this new warehouse represents continued commitment to Garland, allowing Hatco to expand operations, support future growth, and create additional opportunities for the workforce. Garland has been home for nearly a century, and the company looks forward to continuing to invest, grow, and succeed alongside this great community for many years to come.

Existing Conditions - Lot 1 has a current base zoning of IN (Industrial) and Lot 2 is Planned Development 93-8. The existing use on Lot 1 is small distribution center for Building #1 and retail for Building #2. Lot 2 is undeveloped. The property is not located within a floodplain.

Proposed Development – For the building expansion, proposed land use is large distribution center with approximately 2,040 SF of office use. This building will be used for distributing Hatco's products with 10 dock doors on the expansion and 3 doors on the existing building. This proposed use aligns very well with the surrounding properties. There are existing distribution uses on the properties to the west and north. The property to the south is undeveloped. There are single family lots on the east side of Marion Dr, however the industrial land use is already allowed by right for Lot 1.

The proposed building expansion is 91,260 SF with a building height of 36.5'. There is a proposed detention pond on the south side of the site to match existing runoff conditions. The required landscape buffer is 10' from Davis Blvd and 10' from Marion Dr. The landscape buffer for the existing building is 30' and the buffer for the proposed expansion is 15'.

There is an existing 6' tall wrought iron fence adjacent to Marion Dr. acting as perimeter screening for the east side. There is also a 6' tall barb wire fence south of the existing building and a 6' tall galvanized chain link fence on the north and west side of Lot 2 that are to remain. There is a proposed 6' tall galvanized chain link fence for the south side of Lot 2. The gate currently shown between Marion Dr and Davis Blvd will be removed. There will be no attached or freestanding signage.

Unique Development Standards - To match the existing building, no building articulations are proposed. The proposed color scheme also matches the existing building to create a cohesive visual.

A parking ratio of 1 auto spot per 2,000 SF of total building area is requested for the expansion. This differs from the code requirement of 1/300 office gross floor area (GFA) and 1/1000 remainder (GFA). Hatco does not anticipate the building requiring more parking than is provided, especially given the existing parking areas throughout their neighboring sites. For the existing retail building, a parking ratio of 1 auto spot per 400 SF is requested, varying from the code requirement of 1 per 333 SF. As this is an existing building that functions well, there is no need for additional parking.

We look forward to navigating the City's process in close coordination with City Staff. Please reach out with any questions or concerns regarding our application. Please contact me at (972) 776-1780 or dan.gallagher@kimley-horn.com should you need any further information.

Sincerely,

A handwritten signature in black ink, appearing to read "Dan Gallagher".

Dan Gallagher, P.E.



To date we have not received any responses for this case.

Planning Report

GDC Amendment ORD 26-08

Agenda Item:

Meeting: Plan Commission

Date: September 28, 2026



GARLAND

TEXAS MADE HERE

REQUEST

A public hearing to consider amendments for provisions related to short-term rentals to Chapter 2 Zoning Regulations, Article 5 Use Regulations, including Section 2.50, 2.51, and 2.52 and the Land Use Matrix, amendments to Chapter 6 Definitions, and amendment to Chapter 7 Downtown (DT) District Table 7-1 Downtown District Land Use Matrix.

BACKGROUND

Following the Fifth Circuit's decision in *Marfil v. City of New Braunfels*, the City has taken the legal position to treat a Short-Term Rental (STR) as a distinct transient-lodging land use rather than assuming that it is merely another form of residential occupancy.

Through the *Marfil* decision, the Fifth Circuit rejected the prior argument that a property owner has a fundamental constitutional right to operate a residence as an STR and upheld New Braunfels's decision to exclude STRs from specified residential districts. The court recognized preservation of residential neighborhood character as a legitimate governmental purpose and concluded that distinguishing transient STR occupancy from ordinary residential use satisfies rational-basis review. The decision also rejected the theory that prior Texas cases establish a categorical common-law right to operate an STR. In short, the case confirms that a city may use its zoning authority prospectively to determine where STRs are compatible land uses, provided the classifications have a rational relationship to legitimate land-use objectives.

The amendments are intended to protect the residential character and stability of Garland's neighborhoods and to direct transient lodging uses to districts better suited to their operational characteristics. STRs involve successive groups of temporary occupants, frequent turnover, advertising to the traveling public, and potentially greater parking, traffic, noise, trash, and enforcement demands than ordinary residential occupancy. Those characteristics provide a rational land-use basis for distinguishing STRs from owner-occupied homes and long-term rentals.

Under the proposed framework, new STRs would be permitted by right in the Light Commercial and Heavy Commercial Districts, and allowed in a Planned Development District only when the PD ordinance expressly authorizes the use. New STRs would otherwise be prohibited.

The proposed amendments also protects an STR that is operating under a valid City permit when the ordinance is adopted, so long as the property remains with the current owner, the permit remains continuously valid, and the operation remains compliant. Staff also proposes a 12-month period where a current owner can sell the property and the use would still be allowed to the new owner. The intention behind this is to help address an argument by the current owner that conditioning continuation of the use on retention of ownership improperly burdens the owner's existing use, alienability, or property value.

STAFF RECOMMENDATION

Staff recommends approval of the GDC amendment.

ADDITIONAL INFORMATION

GDC Sections Related to the Amendments.

PREPARED BY:

Nabila Nur, AICP

Director

Planning & Development

972-205-2449

nnur@garlandtx.gov

ORDINANCE NO. _____

AN ORDINANCE AMENDING THE GARLAND DEVELOPMENT CODE OF THE CITY OF GARLAND, TEXAS, BY AMENDING CHAPTER 2, "ZONING REGULATIONS," ARTICLE 5, "USE REGULATIONS," INCLUDING SECTIONS 2.50, 2.51, AND 2.52 AND THE LAND USE MATRIX; AMENDING CHAPTER 6, "DEFINITIONS"; AMENDING CHAPTER 7 DOWNTOWN (DT) DISTRICT TABLE 7-1 DOWNTOWN DISTRICT LAND USE MATRIX; ESTABLISHING SHORT-TERM RENTAL AS A DISTINCT LAND USE; ALLOWING THE USE BY RIGHT IN THE LIGHT COMMERCIAL AND HEAVY COMMERCIAL DISTRICTS, AND ONLY BY EXPRESS AUTHORIZATION IN A PLANNED DEVELOPMENT DISTRICT; PROVIDING A LIMITED CONTINUATION PROVISION FOR QUALIFYING EXISTING PERMITTED SHORT-TERM RENTALS; PROVIDING A PENALTY, A SAVINGS CLAUSE, A SEVERABILITY CLAUSE, AND AN EFFECTIVE DATE.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GARLAND, TEXAS:

WHEREAS, the City of Garland is a home-rule municipality possessing the full power of local self-government under Article XI, Section 5 of the Texas Constitution, including authority to regulate land use and protect the health, safety, welfare, property, and quality of life of its residents, except as expressly limited by state or federal law; and

WHEREAS, Chapter 211 of the Texas Local Government Code authorizes the City to regulate the use of land and buildings, divide the City into zoning districts, and adopt regulations designed to promote public health, safety, and general welfare with reasonable consideration for the character of each district and the suitability of particular uses; and

WHEREAS, a short-term rental provides transient lodging to successive groups of occupants and may reasonably be distinguished from the ordinary occupancy of a dwelling by an owner or long-term tenant based on duration of stay, frequency of turnover, commercial offering to the traveling public, and associated operational characteristics; and

WHEREAS, short-term rentals may generate more frequent arrivals and departures, additional vehicle trips and parking demand, and an increased potential for noise, litter, overcrowding, parties, and other disturbances, and the City is not required to await the occurrence of a nuisance at each property before regulating the location and operation of the use; and

WHEREAS, the City has legitimate governmental interests in preserving stable residential neighborhoods and residential character, promoting compatible land uses, protecting public

safety and welfare, reducing adverse secondary effects, and directing transient lodging uses to suitable locations; and

WHEREAS, the City Council desires, as a legislative policy and without conceding the existence of a vested right, to allow a short-term rental lawfully operating under a valid City permit on the effective date of this Ordinance to continue, subject to continuous permitting and compliance, and to allow the continuation authorization to survive one qualifying transfer of the property completed within twelve months after the effective date of this Ordinance, after which the authorization becomes nontransferable; and

WHEREAS, allowing new short-term rentals by right in the Light Commercial and Heavy Commercial Districts and prohibiting them in other districts is rationally related to the character, intensity, infrastructure, and intended uses of the respective zoning districts; and

WHEREAS, requiring express authorization in a Planned Development ordinance prevents an unintended expansion of short-term rental use and preserves the site-specific legislative judgments embodied in each Planned Development; and

WHEREAS, the City Council finds that permitting only the rental of an entire dwelling unit to a single booking party, rather than separate room rentals or simultaneous bookings, distinguishes a short-term rental from a boarding, lodging, or rooming-house operation and facilitates occupancy, parking, safety, and enforcement requirements; and

WHEREAS, the amendments adopted by this Ordinance are prospective, preserve qualifying existing permitted short-term rentals, leave affected properties available for the other uses authorized by their zoning, and are rationally related to legitimate governmental interests; and

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

Section 1

That Section 2.50, "Uniformity," of Division 1, Article 5, Chapter 2 of the Garland Development Code is amended by adding Subsection (D) to read as follows:

Sec. 2.50. Uniformity.

(D) Short-Term Rentals and Planned Development Districts. Notwithstanding Subsection (C), a short-term rental may not be classified as another listed use or authorized through an administrative similar-use determination. Within a Planned Development District, a short-term rental is prohibited unless

the Planned Development ordinance expressly identifies and authorizes "Short-Term Rental" as an allowed use. A reference in a Planned Development ordinance to residential uses, dwelling units, lodging, hotels, motels, bed and breakfasts, uses permitted in a base district, or substantially similar uses does not constitute express authorization.

Section 2

That Sections 2.51, "The Land Use Matrix," and the Land Use Matrix attached to Chapter 2, and Table 7-1, "Downtown District Land Use Matrix," of Chapter 7 are amended by adding the following row within "Office, Retail & Service Uses":

Chapter 2 Land Use Matrix

Land Use	AG	SF-E	SF - 10	S F - 7	SF -5	SF A	2 F	MF	NO	CO	NS	CR	LC	HC	IN	UR	UB	DT	Parking	Special Standards
Office, Retail & Service																				
. . .																				
<u>Short-Term Rental</u>													<u>P</u>	<u>P</u>					<u>1/dwell ing unit</u>	<u>Sec. 2.52 (A) (41)</u>
. . .																				

Chapter 7 Downtown District Land Use Matrix

	Downtown Historic	Downtown Square	Uptown	InTown Residential	Suburban Corridor	Parking Requirements (Does not apply to DH and DS)	Cross-Reference Special Standards
Office, Retail, & Service							
. . .							
<u>Short-term Rental</u>							<u>Sec. 2.52 (A) (41)</u>
. . .							

Section 3

That Section 2.52(A), "Specific Requirements," of Division 2, Article 5, Chapter 2 is amended by adding Subsection (41) to read as follows:

Sec. 2.52. Special Standards for Certain Uses.

(A) (41) Short-Term Rentals.

(a) General. A short-term rental must comply with this GDC, Chapters 26 and 32 of the City Code, and all applicable building, fire, housing, occupancy, parking, nuisance, and property-maintenance requirements.

(b) Eligible Premises. A short-term rental may be established only within a lawful dwelling unit. The use is prohibited within an accessory dwelling, guest house, recreational vehicle, mobile home not lawfully established as a dwelling, tent, garage, shed, or other accessory structure.

(c) Entire Dwelling Unit. The entire dwelling unit must be rented to one booking party under one booking agreement. A bedroom, sleeping area, outdoor area, pool, or other portion of a dwelling unit may not be separately advertised, booked, rented, or occupied by a separate booking party during the same rental period.

(d) Zoning Districts.

(1) LC and HC Districts: permitted by right, provided that the dwelling unit itself is a lawful conforming use or a lawful nonconforming use and all other requirements are satisfied.

(2) PD District: permitted only when the PD ordinance expressly authorizes "Short-Term Rentals."

(3) All other districts: prohibited, except for an existing permitted short-term rental authorized to continue under Subsection (i).

(e) Parking. At least one lawful off-street parking space must be available for each STR dwelling unit, subject to any lower maximum imposed by state law. The number of occupant and guest vehicles may not exceed the lawful off-street spaces assigned to or available for the unit. Required residential parking may not be displaced by the STR use.

(h) No Event Use. An STR may not be used or represented as a reception facility, event venue, banquet facility, party house, commercial amusement, or other assembly use.

(i) Existing Permitted STRs.

(1) A short-term rental lawfully operating under a valid City permit on the effective date of this Ordinance may continue at that location in accordance with this subsection and the applicable provisions of the City Code, provided that the permit remains continuously valid and the use remains in compliance with all applicable requirements.

(2) The authorization to continue under this subsection may survive one transfer of ownership of the property if:

(i) the transfer is completed and the instrument conveying ownership is recorded in the real property records of the applicable county not later than twelve months after the effective date of this Ordinance;

(ii) the short-term rental permit was valid and had not expired, been suspended, revoked, surrendered, or terminated immediately before the transfer;

(iii) the transferee submits a complete application for a new short-term rental permit within thirty calendar days after the date the conveyance is recorded;

(iv) the transferee satisfies all permitting, inspection, insurance, tax, and operational requirements applicable to a short-term rental; and

(v) the use is not enlarged, expanded, relocated, or extended to any additional dwelling unit or portion of the property.

(3) A permit issued to a qualifying transferee under Subparagraph (ii) does not constitute a transfer or assignment of the prior owner's permit. It is a new permit issued in recognition of the property's one-time continuation authorization.

(4) After one qualifying transfer under Subparagraph (ii), the continuation authorization is personal to the qualifying transferee, does not run with the land, and may not be

assigned or transferred. Any subsequent transfer of ownership terminates the authorization immediately, unless short-term rental use is independently authorized by the zoning applicable to the property.

(5) If the original owner does not complete a qualifying transfer within twelve months after the effective date of this Ordinance, the continuation authorization becomes personal to that owner when the twelve month period expires and terminates upon a subsequent transfer of ownership.

(6) For purposes of this subsection, a transfer of ownership includes a conveyance of legal or equitable title and, when the property is owned by a corporation, partnership, limited liability company, trust, or other entity, a cumulative transfer of more than fifty percent of the ownership, membership, partnership, voting, beneficial, or controlling interest in that entity. A transfer may not be divided, structured, or completed through related persons or entities to obtain more than one qualifying transfer.

(vii) The continuation authorized by this subsection is a limited legislative protection. It does not constitute recognition that the use was previously authorized by the property's zoning, acknowledgment of a vested right, or recognition of general legal-nonconforming-use status under Article 7 of this Chapter.

(j) Permit Required. Zoning authorization does not authorize operation without a valid permit issued under Chapter 32 of the City Code.

Section 4

That Article 1, "Definitions," of Chapter 6 of the Garland Development Code is amended by adding the following definition in alphabetical order:

SHORT-TERM RENTAL: The use of an entire dwelling unit for lodging by one booking party for compensation for a period of not less than 48 consecutive hours and not more than 30 consecutive days. The term does not include a hotel, motel, bed and breakfast, hospital, nursing or convalescent care facility, residential rehabilitation facility, a dwelling subject to a lease of more

than 30 consecutive days, or a dwelling occupied without compensation by the owner's family or invited guests.

Section 5

That the Garland Development Code of the City of Garland, Texas, as amended, shall be and remain in full force and effect save and except as amended by this Ordinance.

Section 6

That a violation of any provision of this Ordinance shall be a misdemeanor punishable in accordance with Sec. 10.05 of the Code of Ordinances of the City of Garland, Texas, unless another penalty is expressly provided by law.

Section 7

That the terms and provisions of this Ordinance are severable and are governed by Sec. 10.06 of the Code of Ordinances of the City of Garland, Texas.

Section 8

That this Ordinance shall be and become effective immediately upon and after its passage and approval and publication as required by law.

PASSED AND APPROVED this the ____ day of _____, 2026.

CITY OF GARLAND, TEXAS

Mayor

ATTEST:

City Secretary