

Issue Dates:	Revisions:	Date:
1	1 City Comments	1/5/18
2	2 City Comments	1/17/18
3	3 City Comments	2/12/18
4		
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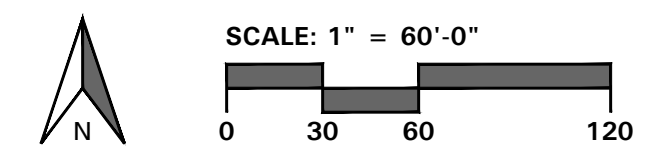


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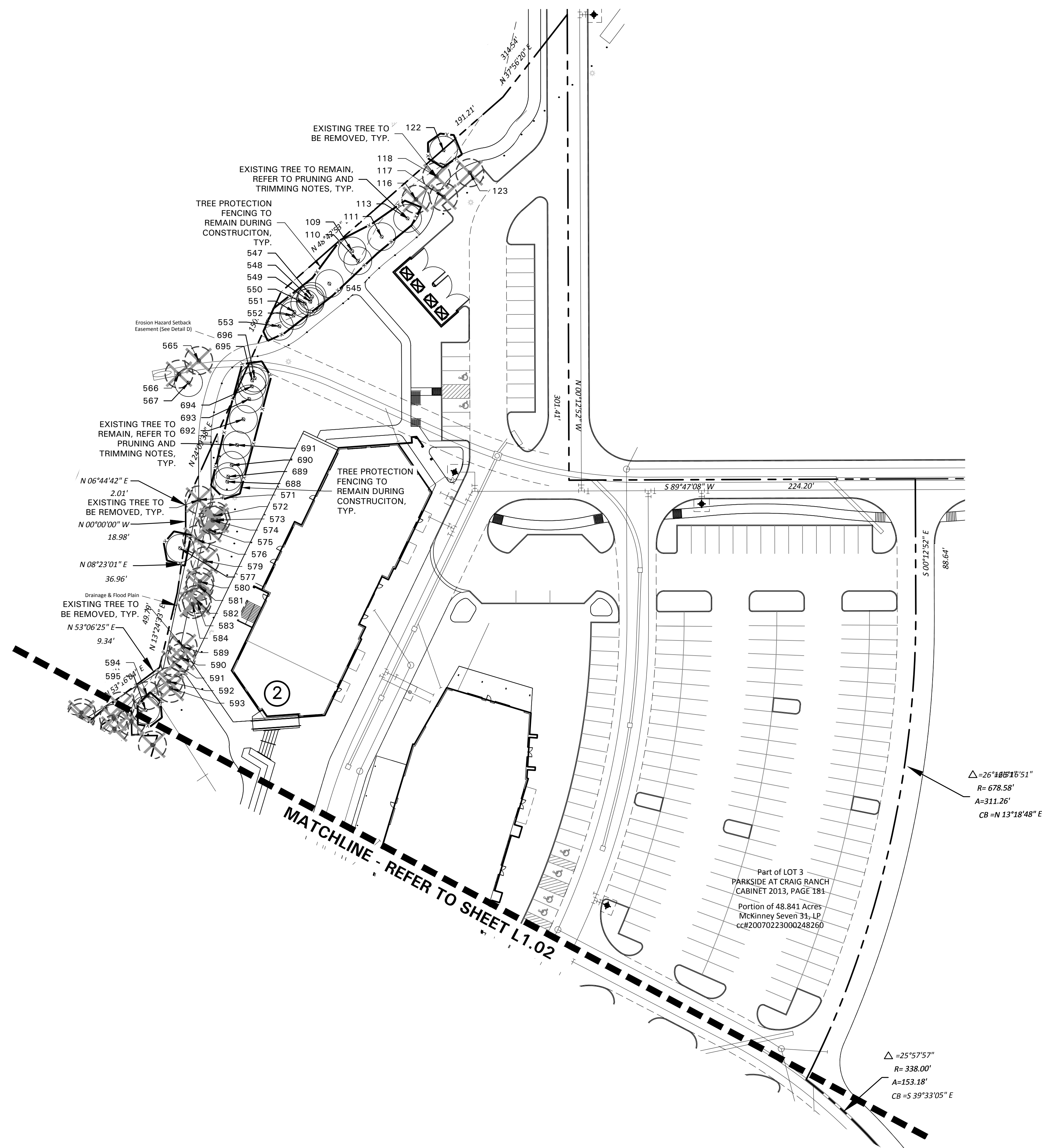
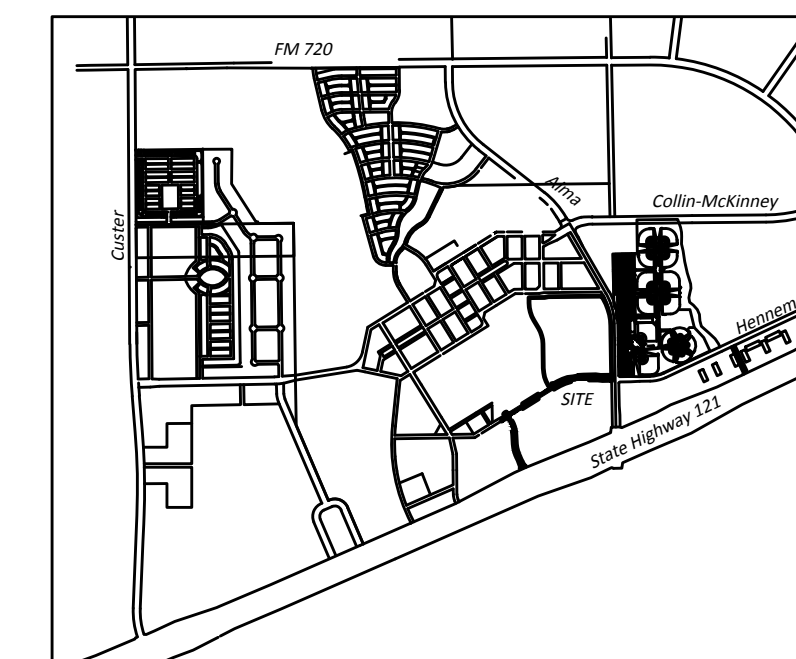
**OVERALL LANDSCAPE PLAN**  
HUB 121 - CRAIG RANCH  
JORDAN REALTY ADVISORS  
CITY OF MCKINNEY, TEXAS

Sheet No.  
**LO.00**  
Project No.  
17082



HUB 121 - CRAIG RANCH

VICINITY MAP  
NOT TO SCALE

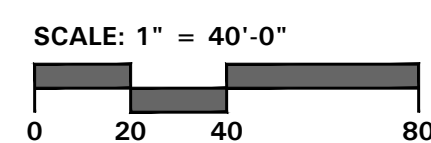
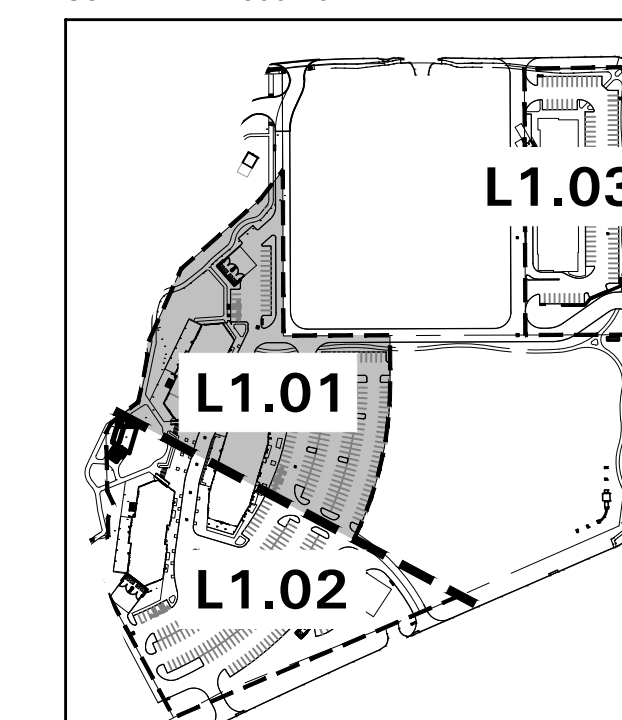


EXISTING TREE LEGEND

- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- TREE PROTECTION FENCING TO REMAIN DURING CONSTRUCTION  
REFER TO 01/L1.03

KEY MAP

SCALE: 1" = 350' -0"



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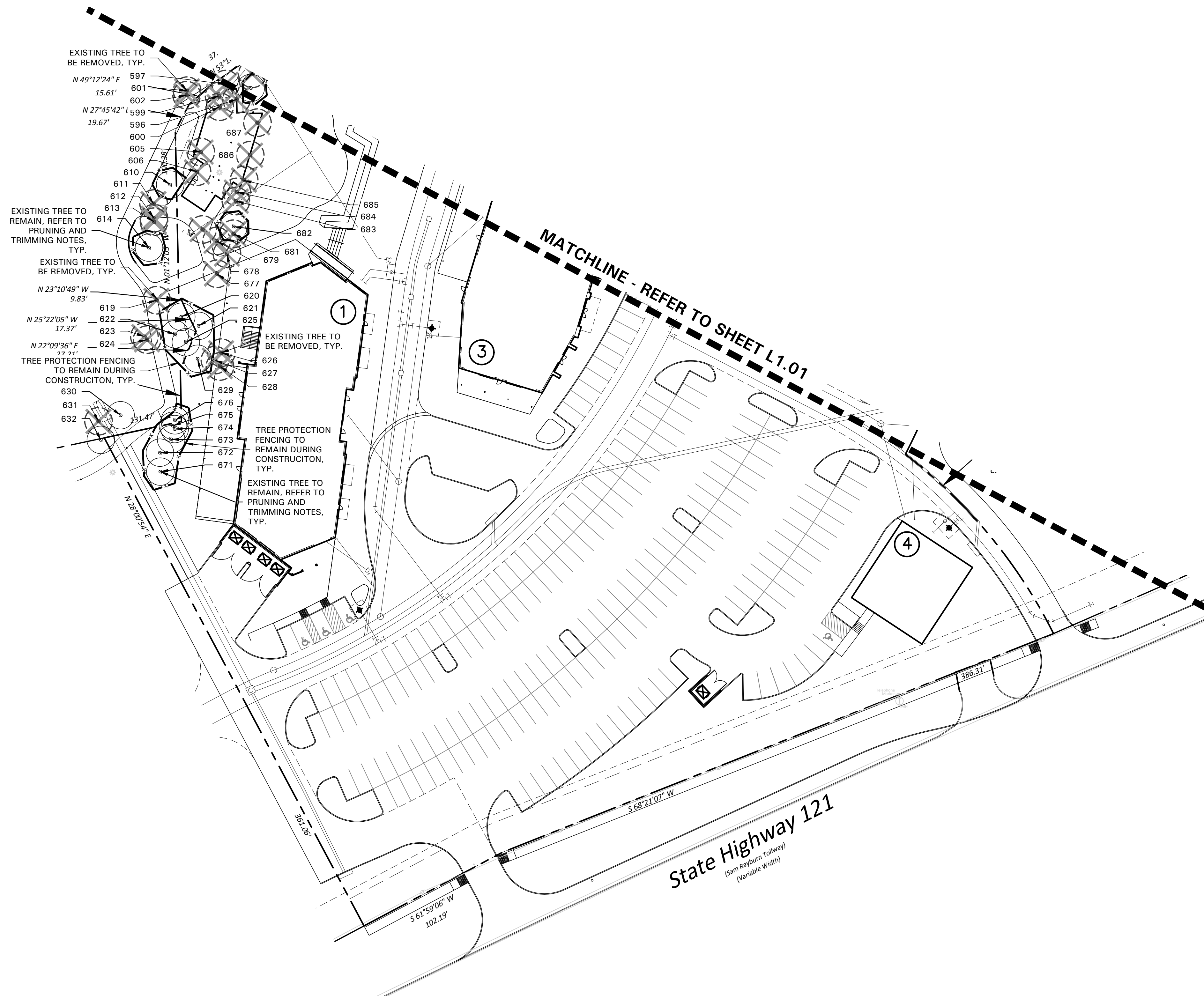
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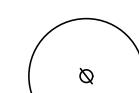

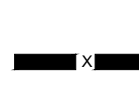
**TREE PRESERVATION PLAN**  
HUB 121 - CRAIG RANCH  
JORDAN REALTY ADVISORS  
CITY OF MCKINNEY, TEXAS

Sheet No.  
**L1.01**  
Project No.  
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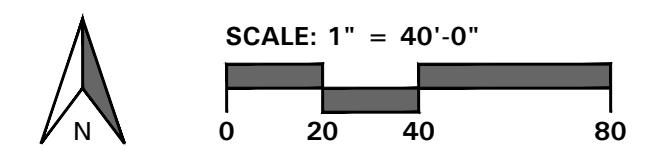
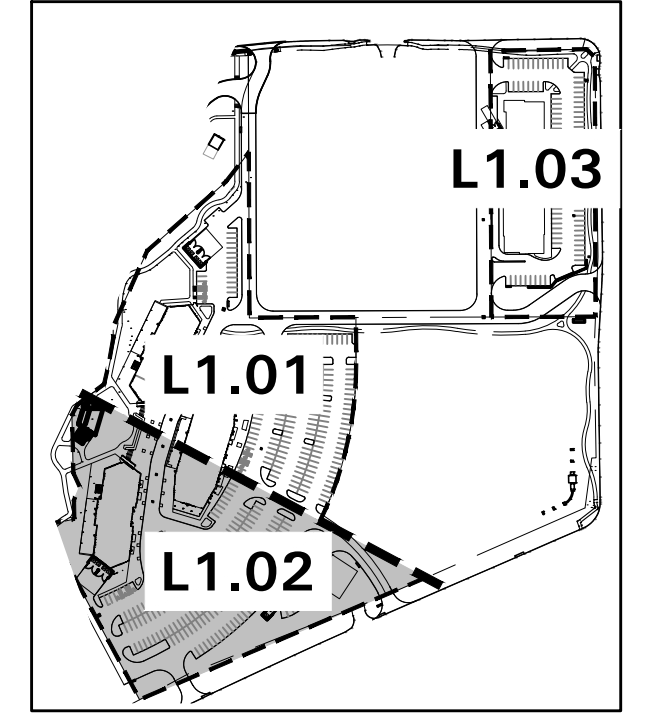
HUB 121 - CRAIG RANCH



**EXISTING TREE LEGEND**

-  EXISTING TREE TO REMAIN
-  EXISTING TREE TO BE REMOVED
-  TREE PROTECTION FENCING TO REMAIN DURING CONSTRUCTION REFER TO 01/L1.03

**KEY MAP**  
SCALE: 1" = 350'-0"



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**TREE PRESERVATION PLAN**

HUB 121 - CRAIG RANCH

JORDAN REALTY ADVISORS

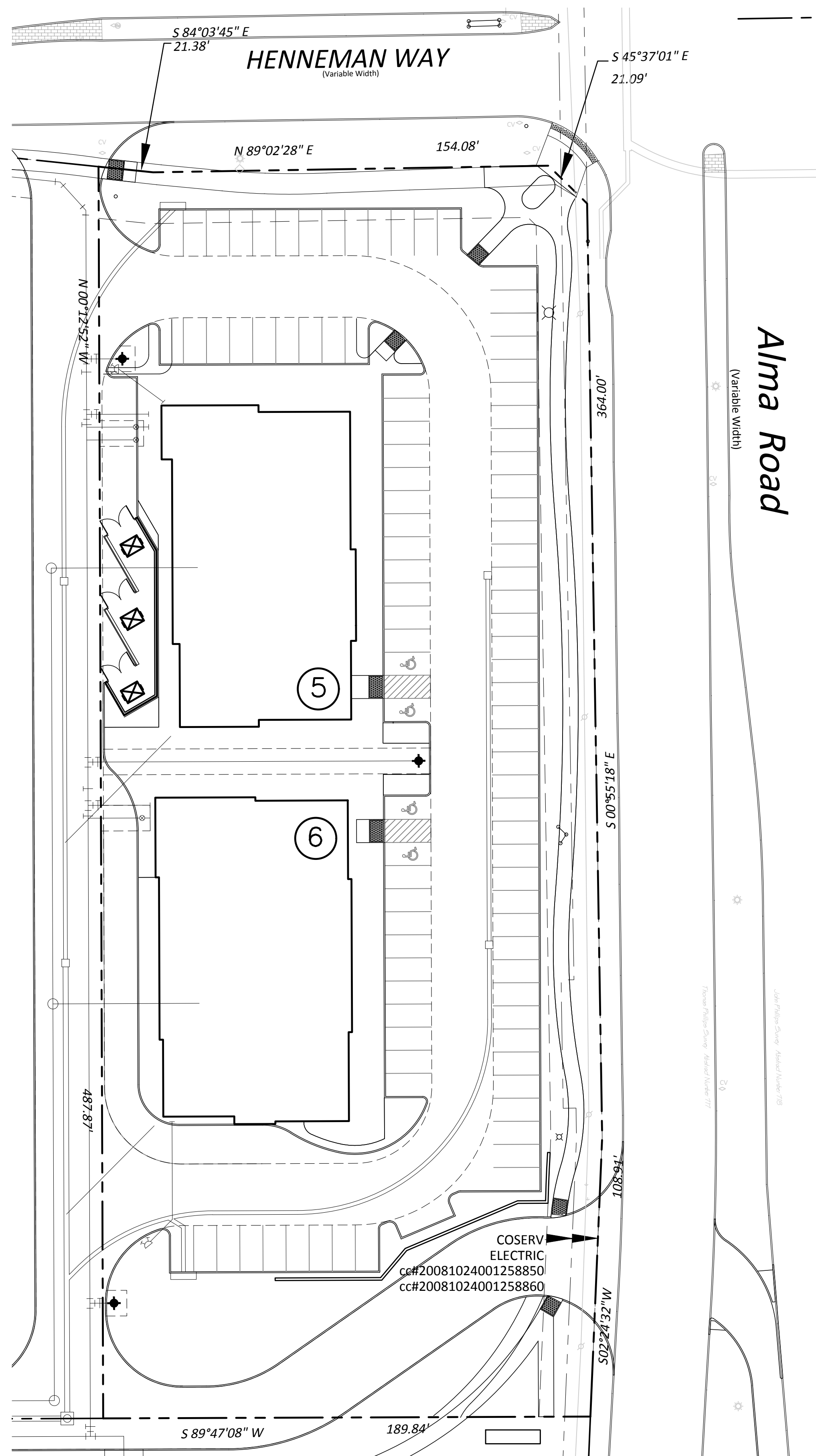
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HUB 121 - CRAIG RANCH





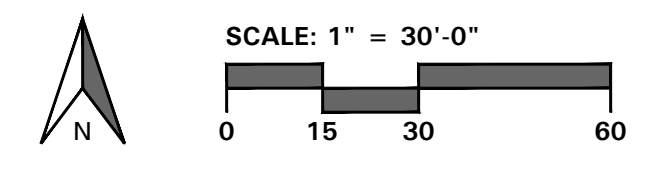
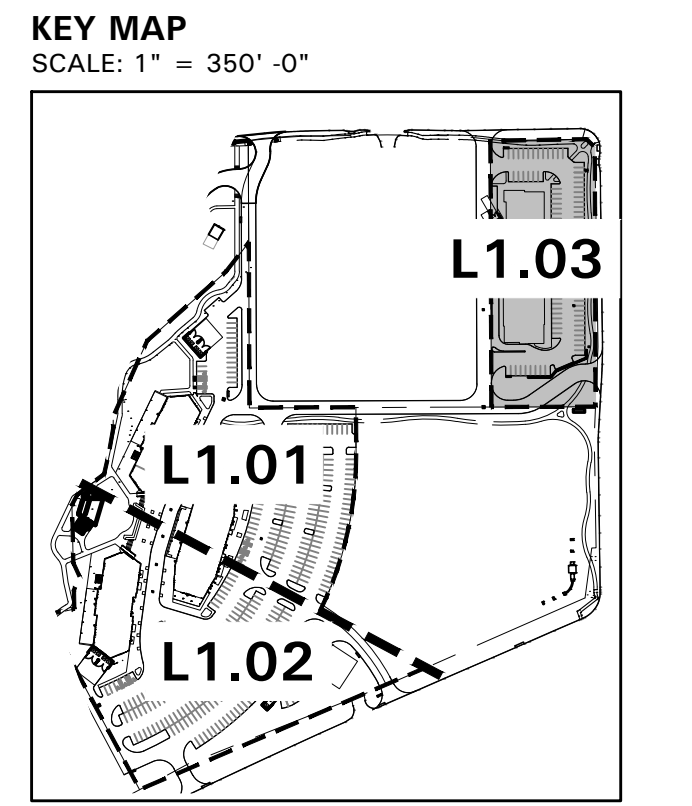
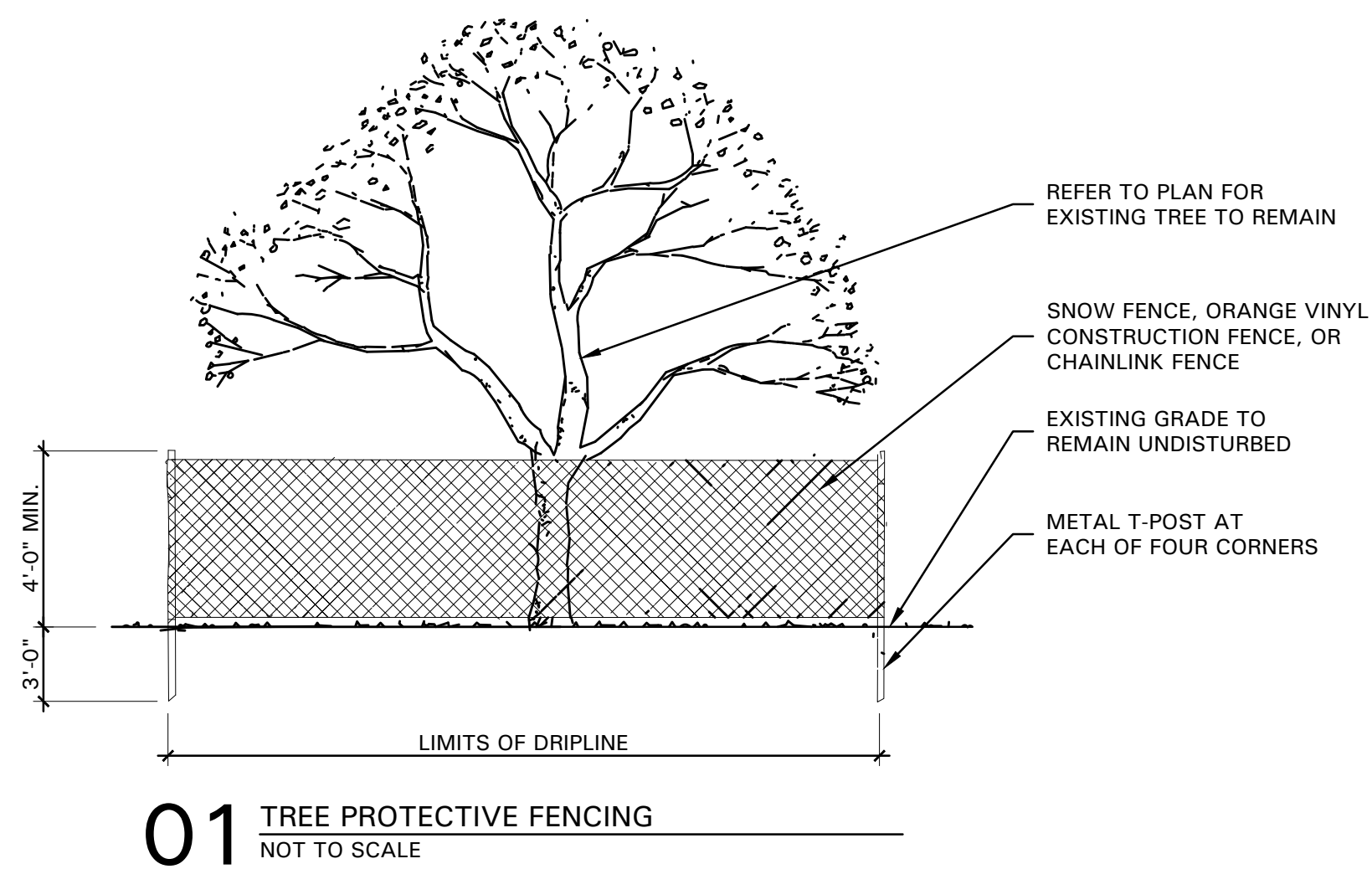
**EXISTING TREE LEGEND**

- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- TREE PROTECTION FENCING TO REMAIN DURING CONSTRUCTION REFER TO 01/L1.03

TREE SURVEY FIELD DATA				
No.	Dia. (inches)	Species (common name)	Status	Remarks
109	5	ELM	TO REMAIN	
110	15	ELM	TO REMAIN	
111	9	ELM	TO REMAIN	
113	15	ELM	TO REMAIN	
116	8	BOIS D'ARC	TO BE REMOVED	EXEMPT - PROHIBITED
117	30	ELM	TO BE REMOVED	EXEMPT - PARKING
118	9	BOIS D'ARC	TO BE REMOVED	EXEMPT - PROHIBITED
122	10	ELM	TO REMAIN	
123	18	ELM	TO BE REMOVED	EXEMPT - PARKING
545	7	ELM	TO REMAIN	
547	7	HACKBERRY	TO REMAIN	
548	7	HACKBERRY	TO REMAIN	
549	7	HACKBERRY	TO REMAIN	
550	7	HACKBERRY	TO REMAIN	
551	17	ELM	TO REMAIN	
552	11	HACKBERRY	TO REMAIN	
553	6	HACKBERRY	TO REMAIN	
565	11	ELM	TO BE REMOVED	EXEMPT - UTILITY
566	9	ELM	TO BE REMOVED	EXEMPT - UTILITY
567	13	ELM	TO REMAIN	
571	12	ELM	TO BE REMOVED	EXEMPT - SIDEWALK
572	7	HACKBERRY	TO BE REMOVED	EXEMPT - PROHIBITED
573	9	ELM	TO BE REMOVED	EXEMPT - SIDEWALK
574	13	ELM	TO BE REMOVED	EXEMPT - SIDEWALK
575	10	ELM	TO BE REMOVED	EXEMPT - SIDEWALK
576	13	ELM	TO BE REMOVED	EXEMPT - SIDEWALK
577	9	ELM	TO REMAIN	
579	14	HACKBERRY	TO BE REMOVED	EXEMPT - PROHIBITED
580	9	PECAN	TO BE REMOVED	EXEMPT - SIDEWALK
581	10	PECAN	TO BE REMOVED	EXEMPT - SIDEWALK
582	7	HACKBERRY	TO BE REMOVED	EXEMPT - PROHIBITED
583	11	ELM	TO BE REMOVED	EXEMPT - SIDEWALK
584	10	PECAN	TO BE REMOVED	EXEMPT - SIDEWALK
589	8	HACKBERRY	TO BE REMOVED	EXEMPT - PROHIBITED
590	12	ELM	TO BE REMOVED	EXEMPT - SIDEWALK
591	16	ELM	TO BE REMOVED	EXEMPT - SIDEWALK
592	24	ELM	TO BE REMOVED	EXEMPT - SIDEWALK
593	12	HACKBERRY	TO BE REMOVED	EXEMPT - PROHIBITED
594	20	BOIS D'ARC	TO BE REMOVED	EXEMPT - PROHIBITED
595	7	ELM	TO REMAIN	
596	7	ELM	TO BE REMOVED	EXEMPT - BUILDING
597	6	HACKBERRY	TO BE REMOVED	EXEMPT - PROHIBITED
599	8	HACKBERRY	TO BE REMOVED	EXEMPT - PROHIBITED
600	16.5	BOIS D'ARC	TO BE REMOVED	EXEMPT - PROHIBITED
601	16	ELM	TO BE REMOVED	EXEMPT - SIDEWALK
602	12	ELM	TO BE REMOVED	EXEMPT - SIDEWALK
605	18	ELM	TO BE REMOVED	EXEMPT - BUILDING
606	11.5	HACKBERRY	TO BE REMOVED	EXEMPT - BUILDING
610	10	ELM	TO REMAIN	
611	11	ELM	TO BE REMOVED	EXEMPT - SIDEWALK
612	9	ELM	TO BE REMOVED	EXEMPT - SIDEWALK
613	12	ELM	TO BE REMOVED	EXEMPT - SIDEWALK
614	22	ELM	TO REMAIN	
619	9	ELM	TO BE REMOVED	EXEMPT - SIDEWALK
620	19	ELM	TO REMAIN	
621	24	ELM	TO REMAIN	
622	7	HACKBERRY	TO REMAIN	
623	10	ELM	TO BE REMOVED	EXEMPT - SIDEWALK
624	22	ELM	TO BE REMOVED	EXEMPT - SIDEWALK
625	12	ELM	TO REMAIN	
626	7	HACKBERRY	TO BE REMOVED	EXEMPT - PROHIBITED
627	7	HACKBERRY	TO BE REMOVED	EXEMPT - PROHIBITED
628	7	HACKBERRY	TO BE REMOVED	EXEMPT - PROHIBITED
629	14	ELM	TO REMAIN	
630	25	BOIS D'ARC	TO REMAIN	
631	12	ELM	TO BE REMOVED	EXEMPT - UTILITY
632	12	HACKBERRY	TO REMAIN	
671	30	BOIS D'ARC	TO REMAIN	
672	30	BOIS D'ARC	TO REMAIN	
673	10	HACKBERRY	TO REMAIN	
674	13	HACKBERRY	TO REMAIN	
675	7	HACKBERRY	TO REMAIN	
676	8	ELM	TO REMAIN	
677	24	ELM	TO BE REMOVED	EXEMPT - SIDEWALK
678	10	HACKBERRY	TO BE REMOVED	EXEMPT - PROHIBITED
679	24	BOIS D'ARC	TO BE REMOVED	EXEMPT - PROHIBITED
681	10	HACKBERRY	TO BE REMOVED	EXEMPT - PROHIBITED
682	10	ELM	TO REMAIN	
683	24	ELM	TO BE REMOVED	EXEMPT - BUILDING
684	28	ELM	TO BE REMOVED	EXEMPT - BUILDING
685	7	HACKBERRY	TO BE REMOVED	EXEMPT - PROHIBITED
686	14	HACKBERRY	TO BE REMOVED	EXEMPT - PROHIBITED
687	12	HACKBERRY	TO BE REMOVED	EXEMPT - PROHIBITED
688	10	PECAN	TO REMAIN	
689	10	PECAN	TO REMAIN	
690	14	PECAN	TO REMAIN	
691	7	HACKBERRY	TO REMAIN	
692	16	ELM	TO REMAIN	
693	7	HACKBERRY	TO REMAIN	
694	12	ELM	TO REMAIN	
695	12	ELM	TO REMAIN	
696	12	ELM	TO REMAIN	
Total Caliper Inches on Site				1161
Total Caliper Inches Removed				656

**TREE PRESERVATION NOTES**

- EXISTING TREES TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION FROM TREE STRUCTURE DAMAGE AND COMPACTION OF SOIL UNDER AND AROUND DRIP LINE (CANOPY) OF TREE.
- IF ANY ROOT STRUCTURE IS DAMAGED DURING ADJACENT EXCAVATION / CONSTRUCTION, NOTIFY OWNER'S AUTHORIZED REPRESENTATIVE IMMEDIATELY. IT IS RECOMMENDED THAT A LICENSED ARBORIST BE SECURED FOR THE TREATMENT OF ANY POSSIBLE TREE WOUNDS.
- NO DISTURBANCE OF THE SOIL GREATER THAN 4" SHALL BE LOCATED CLOSER TO THE TREE TRUNK THAN 1/2 THE DISTANCE OF THE DRIP LINE TO THE TREE TRUNK. A MINIMUM OF 75% OF THE DRIP LINE AND ROOT ZONE SHALL BE PRESERVED AT NATURAL GRADE.
- ANY FINE GRADING DONE WITHIN THE CRITICAL ROOT ZONES OF THE PROTECTED TREES MUST BE DONE WITH LIGHT MACHINERY SUCH AS A BOBCAT OR LIGHT TRACTOR. NO EARTH MOVING EQUIPMENT WITH TRACKS IS ALLOWED WITHIN THE CRITICAL ROOT ZONE OF THE TREES.
- NO MATERIALS INTENDED FOR USE IN CONSTRUCTION OR WASTE MATERIALS ACCUMULATED DUE TO EXCAVATION OR DEMOLITION SHALL BE PLACED WITHIN THE LIMITS OF THE DRIP LINE OF ANY TREE.
- NO EQUIPMENT MAY BE CLEANED OR TOXIC SOLUTIONS, OR OTHER LIQUID CHEMICALS, SHALL BE DEPOSITED WITHIN THE LIMITS OF THE DRIP LINE OF A TREE, INCLUDING BUT NOT LIMITED TO: PAINT, OIL, SOLVENTS, ASPHALT, CONCRETE, MORTAR, PRIMERS, ETC.
- NO SIGNS, WIRES OR OTHER ATTACHMENTS, OTHER THAN THOSE OF A PROTECTIVE NATURE, SHALL BE ATTACHED TO ANY TREE.
- NO VEHICULAR / CONSTRUCTION EQUIPMENT TRAFFIC OR PARKING IS ALLOWED WITHIN THE LIMITS OF THE DRIP LINE OF TREES.
- BORING OF UTILITIES MAY BE PERMITTED UNDER PROTECTED TREES IN CERTAIN CIRCUMSTANCES. THE MINIMUM LENGTH OF THE BORE SHALL BE THE WIDTH OF THE TREE'S CANOPY AND SHALL BE A MINIMUM DEPTH OF FORTY-EIGHT (48") INCHES.
- IRRIGATION TRENCHING WHICH MUST BE DONE WITHIN THE CRITICAL ROOT ZONE OF A TREE SHALL BE DUG BY HAND AND ENTER THE AREA IN A RADIAL MANNER.
- ALL TREES TO BE REMOVED FROM THE SITE SHALL BE FLAGGED BY THE CONTRACTOR WITH BRIGHT RED VINYL TAPE (3" WIDTH) WRAPPED AROUND THE MAIN TRUNK AT A HEIGHT OF FOUR (4') FEET ABOVE GRADE. FLAGGING SHALL BE APPROVED BY OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO ANY TREE REMOVAL. CONTRACTOR SHALL CONTACT OWNER'S AUTHORIZED REPRESENTATIVE WITH 72 HOURS NOTICE TO SCHEDULE ON-SITE MEETING.
- ALL TREES TO REMAIN, AS NOTED ON DRAWINGS, SHALL HAVE PROTECTIVE FENCING LOCATED AT THE TREE'S DRIP LINE. THE PROTECTIVE FENCING MAY BE COMPRISED OF SNOW FENCING, ORANGE VINYL CONSTRUCTION FENCING, CHAIN LINK FENCE OR OTHER SIMILAR FENCING WITH A FOUR (4') FOOT APPROXIMATE HEIGHT. THE PROTECTIVE FENCING SHALL BE LOCATED AS INDICATED ON THE TREE PROTECTION DETAIL.
- WHEN A LOW HANGING LIMB IS BROKEN DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE OWNER'S AUTHORIZED REPRESENTATIVE IMMEDIATELY. UNDER NO CIRCUMSTANCE SHALL THE CONTRACTOR PRUNE ANY PORTION OF THE DAMAGED TREE WITHOUT THE PRIOR APPROVAL BY THE OWNER'S AUTHORIZED REPRESENTATIVE.



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**BELLE FIRMA**

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Drawn By: MGC  
Checked By: KAH  
Scale: 1" = 30'-0"



**TREE PRESERVATION PLAN**

HUB 121 - CRAIG RANCH

JORDAN REALTY ADVISORS  
CITY OF MCKINNEY, TEXAS

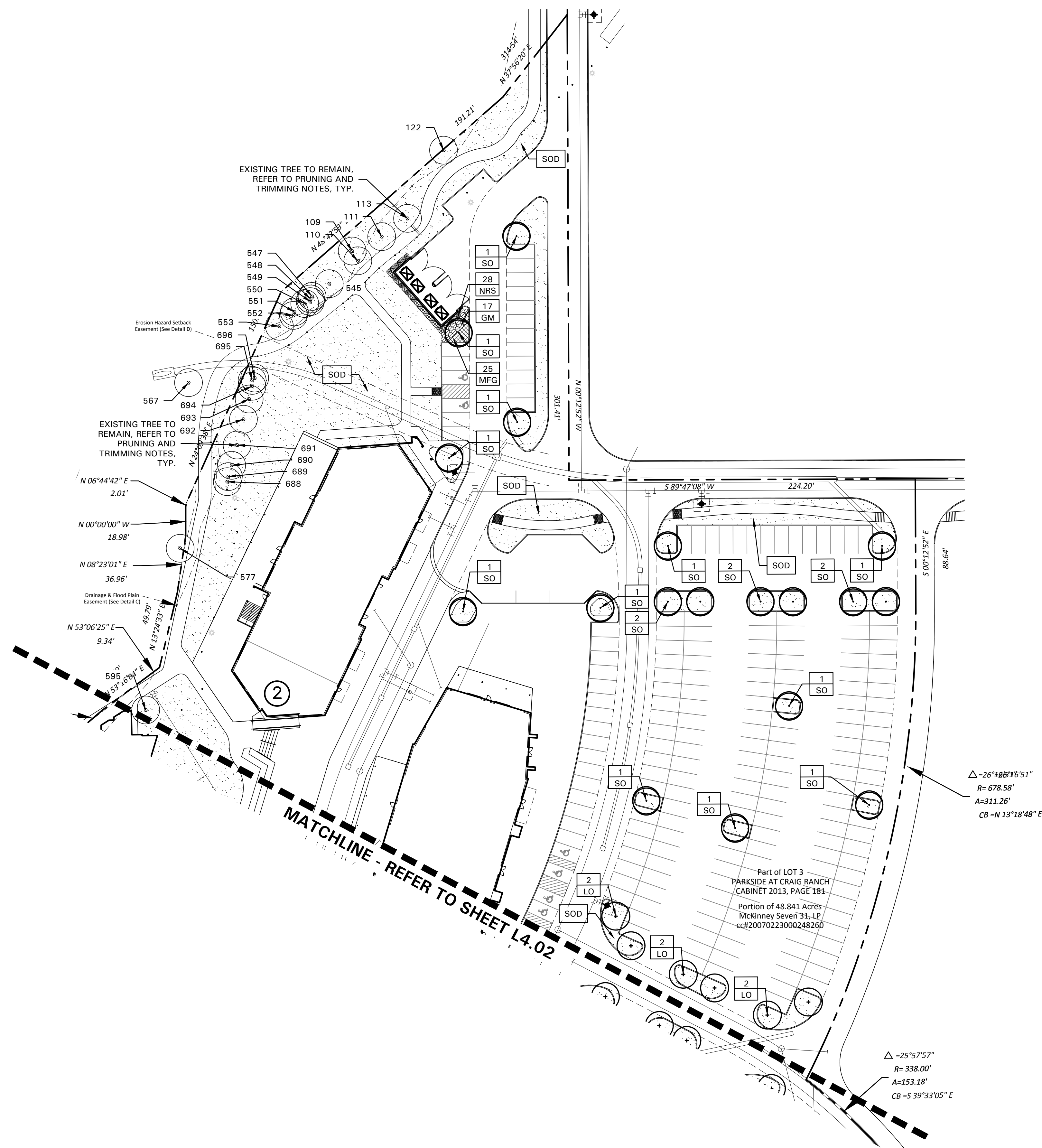
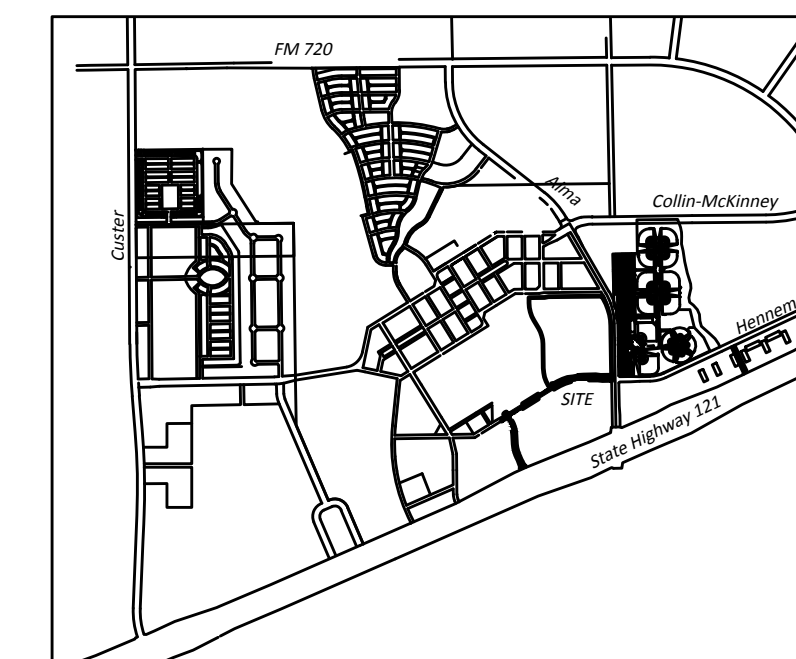
Sheet No. **L1.03**

Project No. 17082

HUB 121 - CRAIG RANCH



VICINITY MAP  
NOT TO SCALE



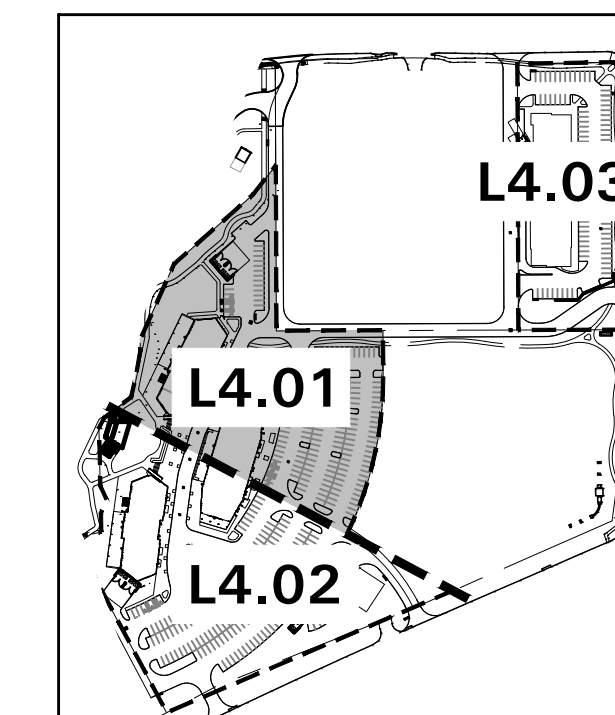
PLANT LEGEND

SYMBOL	COMMON NAME
AG	Green Agave
CD	Caddo Maple
CM	Crape Myrtle 'Natchez'
CP	Chinese Pistache
GM	Gulf Muhly
LE	Lacebark Elm
LO	Live Oak
LOR	Loropetalum 'Purple Diamond'
MFG	Mexican Feathergrass
NRS	Nellie R. Stevens Holly
RY	Red Yucca
SG	Salvia Greggii
SJ	Sea Green Juniper
SO	Shumard Red Oak
RR	Colorado River Rock
SOD	Common Bermudagrass

REFER TO L4.03 FOR PLANT LIST

KEY MAP

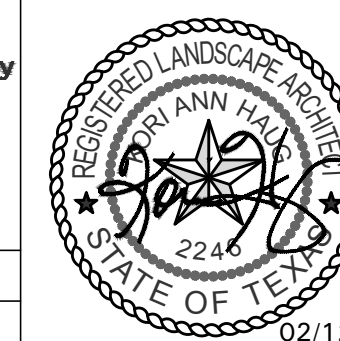
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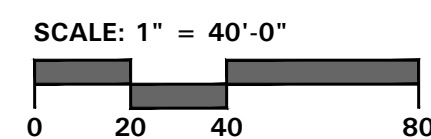


LANDSCAPE PLAN  
HUB 121 - CRAIG RANCH  
JORDAN REALTY ADVISORS  
CITY OF MCKINNEY, TEXAS

Sheet No.

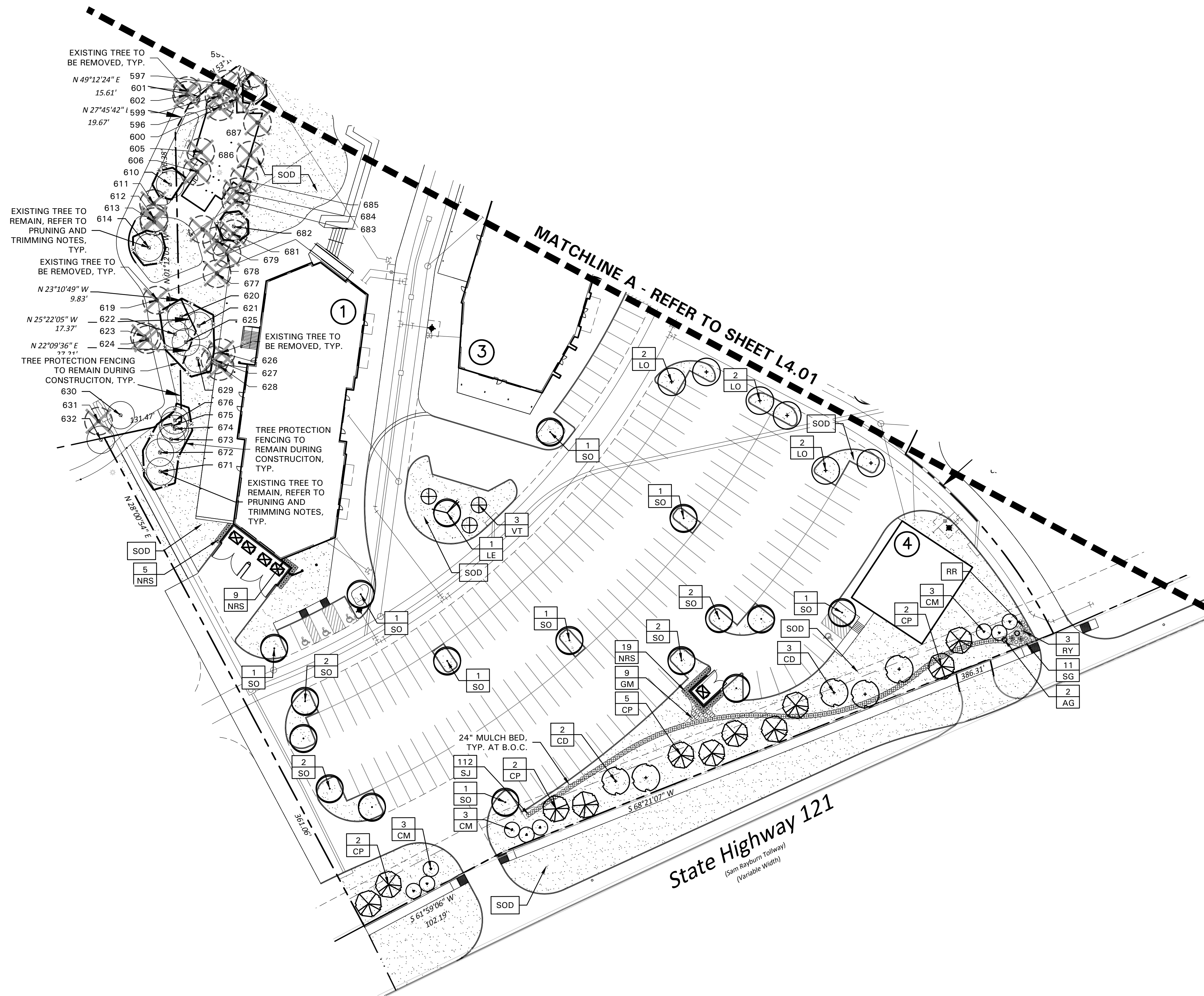
L4.01

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HUB 121 - CRAIG RANCH



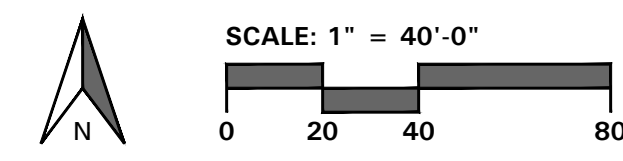
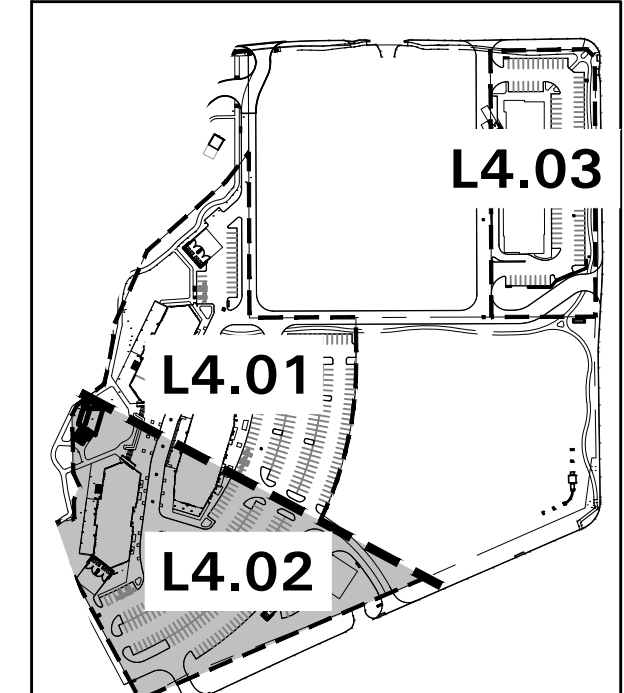


**PLANT LEGEND**

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GM	Gulf Muhly
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MFG	Mexican Feathergrass
NRS	Nellie R. Stevens Holly
RY	Red Yucca
SG	Salvia Greggii
SJ	Sea Green Juniper
SO	Shumard Red Oak
RR	Colorado River Rock
SOD	Common Bermudagrass

REFER TO L4.03 FOR PLANT LIST

**KEY MAP**  
SCALE: 1" = 350'-0"



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**LANDSCAPE PLAN**

HUB 121 - CRAIG RANCH

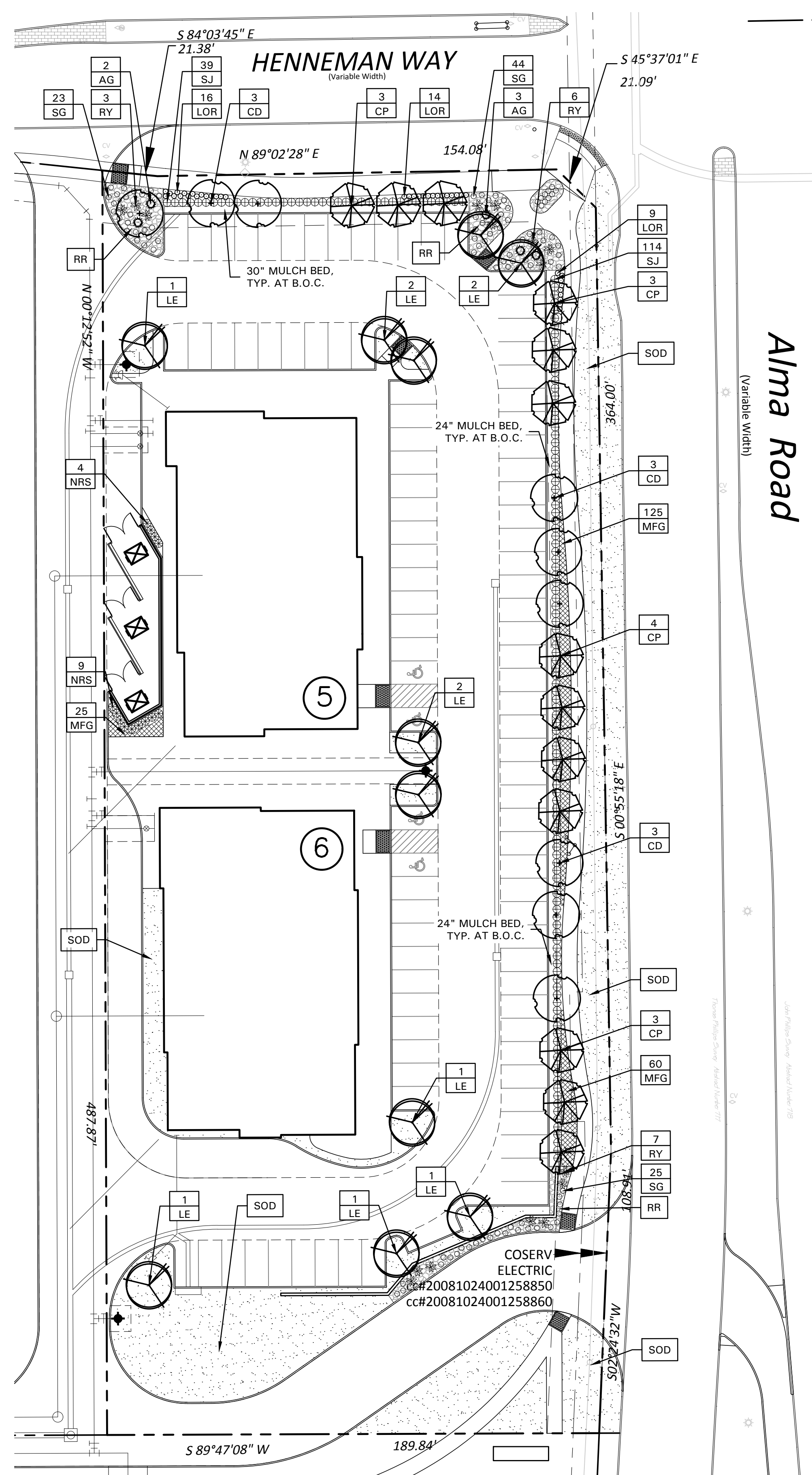
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Project No.  
17082

HUB 121 - CRAIG RANCH





**LANDSCAPE TABULATIONS - LOT 1, BLOCK B**  
CITY OF MCKINNEY, TEXAS

**STREETYARD**  
1. 15% of the streetyard to be landscape.

Total Streetyard: 13,098 s.f.  
Required 1,965 s.f. (15%) Provided 7,546 s.f. (57%)

**SITE LANDSCAPE - REC OVERLAY**  
1. 10% of the total site to be landscape.

2. Energy conservation: Planting of windbreaks to block the northwest winds in winter, deciduous trees shall be planted near the southern facades of buildings to block summer sun

Total Site: 93,555 s.f. (2.15 acres)  
Required 9,356 s.f. (10%) Provided 17,001 s.f. (18%)

**STREET LANDSCAPE - REC OVERLAY**  
1. Min. 10' setback adjacent to minor thoroughfares.

2. Min. 20' landscape setback adjacent to major thoroughfares. If the lot is a corner lot, all frontages must observe the 20' setback.

3. One (1) tree, 4" cal., 10' ht. min. at time of planting, per 30 l.f. of street frontage.

**HENNEMANS WAY: 186 l.f.**  
Required (6) trees, 4" cal., 10' ht. Provided (6) trees, 3" cal., 10' ht.

**ALMA ROAD: 483 l.f.**  
Required (16) trees, 4" cal., 10' ht. Provided (16) trees, 3" cal., 10' ht.

**PARKING LOT (97 spaces) - REC OVERLAY**  
1. One shade tree shall be provided for every 12 parking spaces. All spaces shall be within 25' of a shaded area.

2. Min. of one tree located at the terminus of each parking row.

3. Parking lots visible from the right-of-way and adjacent property shall have a visible 3' high evergreen hedge.

Required (8) trees, 4" cal., 12' ht. Provided (12) trees, 4" cal., 12' ht.  
36" ht. evergreen screen 36" ht. evergreen screen

**SITE TREES**  
1. 50% of total trees on-site shall be canopy trees.

Total Site Trees: (33)  
(33) canopy trees, 4" cal., 12' ht. = 100%

**LANDSCAPE TABULATIONS - LOT 6, BLOCK B**  
CITY OF MCKINNEY, TEXAS

**STREETYARD**  
1. 15% of the streetyard to be landscape.

Total Streetyard: 9,783 s.f.  
Required 1,467 s.f. (15%) Provided 9,000 s.f. (92%)

**SITE LANDSCAPE - REC OVERLAY**  
1. 10% of the total site to be landscape.

2. Energy conservation: Planting of windbreaks to block the northwest winds in winter, deciduous trees shall be planted near the southern facades of buildings to block summer sun

Total Site: 339,817 s.f. (7.80 acres)  
Required 33,982 s.f. (10%) Provided 71,028 s.f. (20%)

**STREET LANDSCAPE - REC OVERLAY**  
1. Min. 10' setback adjacent to minor thoroughfares.

2. Min. 20' landscape setback adjacent to major thoroughfares. If the lot is a corner lot, all frontages must observe the 20' setback.

3. One (1) tree, 4" cal., 10' ht. min. at time of planting, per 30 l.f. of street frontage.

**ALMA ROAD: 490 l.f.**  
Required (16) trees, 4" cal., 12' ht. Provided (16) trees, 4" cal., 12' ht.

**PARKING LOT (408 spaces) - REC OVERLAY**  
1. One shade tree shall be provided for every 12 parking spaces. All spaces shall be within 25' of a shaded area.

2. Min. of one tree located at the terminus of each parking row.

3. Parking lots visible from the right-of-way and adjacent property shall have a visible 3' high evergreen hedge.

Required (34) trees, 4" cal., 12' ht. Provided (46) trees, 4" cal., 12' ht.  
36" ht. evergreen screen 36" ht. evergreen screen

**SITE TREES**  
1. 50% of total trees on-site shall be canopy trees.

Total Site Trees: (75)  
(63) canopy trees, 4" cal., 12' ht. = 84%

**PRUNING AND TRIMMING NOTES**

- CONTRACTOR SHALL PRUNE ALL EXISTING TREES ON-SITE USING THE FOLLOWING GUIDELINES.
- ALL TREES SHALL BE TRIMMED SO THAT NATURAL SHAPES OF THE PLANTS ARE RETAINED.
- DO NOT 'TOP' OR 'HEAD' TREES.
- IF BALLING OR SHEARING OF TREES HAS OCCURRED IN THE PAST, DISCONTINUE THIS PRACTICE AND ALLOW PLANTS TO GROW INTO NATURAL SHAPE.
- REMOVE SUCKERS, DEAD, DYING, DISEASED, BROKEN AND / OR WEAK BRANCHES FROM ALL TREES ALONG THE MAIN TRUNK STRUCTURE AND WITHIN THE BRANCHING AREA.
- CONTRACTOR SHALL PRUNE EXISTING DECIDUOUS HARDWOOD BY REMOVING LOWER LIMBS TO RAISE THE CANOPY. THE BOTTOM OF THE CANOPY SHALL BE RAISED TO 12'-0" ABOVE GRADE FOR DECIDUOUS HARDWOOD TREES, WHEN POSSIBLE. THE INTEGRITY OF THE CANOPY AND STRUCTURE OF THE TREE SHALL BE MAINTAINED. DO NOT CUT OR PRUNE CENTRAL LEADERS.
- CONTRACTOR SHALL THIN THE CANOPY BY ONE-FOURTH. PRUNE TREE TO EVENLY SPACE BRANCHES WITHIN THE CANOPY WHENEVER POSSIBLE. REMOVE THOSE LIMBS THAT CROSS OTHERS, DOUBLE LEADERS AND THOSE THAT EXCESSIVELY EXTEND BEYOND THE NATURAL CROWN OF THE TREE.
- CONTRACTOR SHALL PROVIDE DEEP ROOT FEEDING AND INVIGORATION OF EXISTING TREES. THIS SHALL BE ORGANIC BASED NUTRIENTS BASED FOR ROOT GROWTH AND LEAF GROWTH STIMULATION.
- CONTRACTOR SHALL BE REQUIRED TO CHIP ALL REMOVED BRANCHES, LEAFS, ETC.

**LANDSCAPE NOTES**

- CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED SITE ELEMENTS AND NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES. SURVEY DATA OF EXISTING CONDITIONS WAS SUPPLIED BY OTHERS.
- CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES AND NOTIFY LANDSCAPE ARCHITECT OF ANY CONFLICTS. CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IN THE VICINITY OF UNDERGROUND UTILITIES.
- CONTRACTOR SHALL PROVIDE A MINIMUM 2% SLOPE AWAY FROM ALL STRUCTURES.
- CONTRACTOR SHALL FINE GRADE AREAS TO ACHIEVE FINAL CONTOURS AS INDICATED. LEAVE AREAS TO RECEIVE TOPSOIL 3" BELOW FINAL FINISHED GRADE IN PLANTING AREAS AND 1" BELOW FINAL FINISHED GRADE IN LAWN AREAS.
- ALL PLANTING BEDS AND LAWN AREAS SHALL BE SEPARATED BY STEEL EDGING. NO STEEL EDGING SHALL BE INSTALLED ADJACENT TO BUILDINGS, WALKS, OR CURBS. CUT STEEL EDGING AT 45 DEGREE ANGLE WHERE IT INTERSECTS WALKS AND CURBS.
- TOP OF MULCH SHALL BE 1/2" MINIMUM BELOW THE TOP OF WALKS AND CURBS.
- ALL LAWN AREAS SHALL BE SOLID SOD BERMUDAGRASS, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- ALL REQUIRED LANDSCAPE AREAS SHALL BE PROVIDED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM WITH RAIN AND FREEZE SENSORS AND EVAPOTRANSPIRATION (ET) WEATHER-BASED CONTROLLERS AND SAID IRRIGATION SYSTEM SHALL BE DESIGNED BY A QUALIFIED PROFESSIONAL AND INSTALLED BY A LICENSED IRRIGATOR.
- CONTRACTOR SHALL PROVIDE BID PROPOSAL LISTING UNIT PRICES FOR ALL MATERIAL PROVIDED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED LANDSCAPE AND IRRIGATION PERMITS.

**MAINTENANCE NOTES**

- THE OWNER, TENANT AND THEIR AGENT, IF ANY, SHALL BE JOINTLY AND SEVERALLY RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPE.
- ALL LANDSCAPE SHALL BE MAINTAINED IN A NEAT AND ORDERLY MANNER AT ALL TIMES. THIS SHALL INCLUDE MOWING, EDGING, PRUNING, FERTILIZING, WATERING, WEEDING AND OTHER SUCH ACTIVITIES COMMON TO LANDSCAPE MAINTENANCE.
- ALL LANDSCAPE AREAS SHALL BE KEPT FREE OF TRASH, LITTER, WEEDS AND OTHER SUCH MATERIAL OR PLANTS NOT PART OF THIS PLAN.
- ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY AND GROWING CONDITION AS IS APPROPRIATE FOR THE SEASON OF THE YEAR.
- ALL PLANT MATERIAL WHICH DIES SHALL BE REPLACED WITH PLANT MATERIAL OF EQUAL OR BETTER VALUE.
- CONTRACTOR SHALL PROVIDE SEPARATE BID PROPOSAL FOR ONE YEAR'S MAINTENANCE TO BEGIN AFTER FINAL ACCEPTANCE.

**GENERAL LAWN NOTES**

- CONTRACTOR SHALL COORDINATE OPERATIONS AND AVAILABILITY OF EXISTING TOPSOIL WITH ON-SITE CONSTRUCTION MANAGER.
- CONTRACTOR SHALL LEAVE LAWN AREAS 1" BELOW FINAL FINISHED GRADE PRIOR TO TOPSOIL INSTALLATION.
- CONTRACTOR SHALL FINE GRADE AREAS TO ACHIEVE FINAL CONTOURS AS INDICATED ON CIVIL PLANS. ADJUST CONTOURS TO ACHIEVE POSITIVE DRAINAGE AWAY FROM BUILDINGS. PROVIDE UNIFORM ROUNDING AT TOP AND BOTTOM OF SLOPES AND OTHER BREAKS IN GRADE. CORRECT IRREGULARITIES AND AREAS WHERE WATER MAY STAND.
- ALL LAWN AREAS SHALL BE FINE GRADED, IRRIGATION TRENCHES COMPLETELY SETTLED AND FINISH GRADE APPROVED BY THE OWNER'S CONSTRUCTION MANAGER OR LANDSCAPE ARCHITECT PRIOR TO LAWN INSTALLATION.
- CONTRACTOR SHALL REMOVE ALL ROCKS 3/4" DIAMETER AND LARGER, DIRT CLODS, STICKS, CONCRETE SPOOLS, ETC. PRIOR TO PLACING TOPSOIL AND LAWN INSTALLATION.
- CONTRACTOR SHALL MAINTAIN ALL LAWN AREAS UNTIL FINAL ACCEPTANCE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: MOWING, WATERING, WEEDING, CULTIVATING, CLEANING AND REPLACING DEAD OR BARE AREAS TO KEEP PLANTS IN A VIGOROUS, HEALTHY CONDITION.
- CONTRACTOR SHALL GUARANTEE ESTABLISHMENT OF ACCEPTABLE TURF AREA AND SHALL PROVIDE REPLACEMENT FROM LOCAL SUPPLY IF NECESSARY.

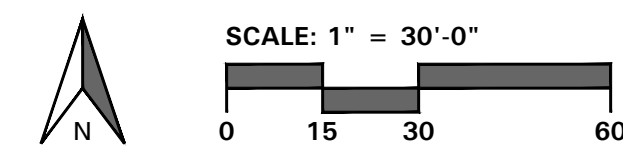
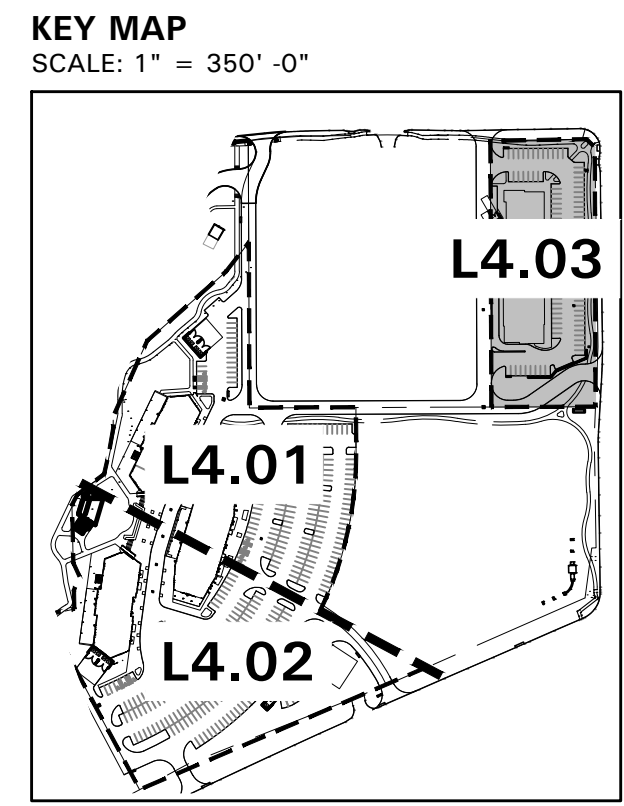
**SOLID SOD NOTES**

- PLANT SOD BY HAND TO COVER INDICATED AREAS COMPLETELY. ENSURE EDGES OF SOD ARE TOUCHING. TOP DRESS JOINTS BY HAND WITH TOPSOIL TO FILL VOIDS.
- ROLL GRASS AREAS TO ACHIEVE A SMOOTH, EVEN SURFACE, FREE FROM UNNATURAL UNDULATIONS.
- WATER SOD THOROUGHLY AS SOD OPERATION PROGRESSES.
- GRASS SHALL BE ESTABLISHED WITH 100% COVERAGE AND 70% DENSITY WITH AN APPROVED PERENNIAL GRASS PRIOR TO ISSUANCE OF A CO. APPROVED GRASSES INCLUDE BUFFALO, BERMUDAGRASS, AND ZOYSIA.
- CONTRACTOR TO VERIFY WATER RESTRICTIONS WITH THE CITY OF MCKINNEY AT TIME OF PLANTING. SHOULD WATER RESTRICTIONS NOT ALLOW FOR HYDROMULCH, HYDROSEEDING, OR SPRIGGING (CITY OF MCKINNEY DOES NOT ALLOW HYDROMULCH IN STAGE 3 AND 4 WATER RESTRICTIONS), AN APPROVED ALTERNATIVE FOR GRASSING MUST BE INSTALLED.

**PLANT LIST**

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	REMARKS
<b>TREES</b>					
CD	<i>Acer saccharum 'Caddo'</i>	Caddo Maple	14	4" cal.	container or B&B, 15' ht., 5' spread, 5' branching ht., matching
CM	<i>Lagerstroemia indica 'Natchez'</i>	Creepe Myrtle 'Natchez'	9	2" cal.	container grown, 3.5' trunk, no cross canes, 8' ht., 4' spread, matching
CP	<i>Pistacia chinensis</i>	Chinese Pistache	24	4" cal.	container grown, 15' ht., 5' spread, 5' branching ht., matching
LE	<i>Ulmus parvifolia 'Sempervirens'</i>	Lacebark Elm	12	4" cal.	container grown, 15' ht., 5' spread, 5' branching ht., matching
LO	<i>Quercus virginiana</i>	Live Oak	12	4" cal.	container grown, 15' ht., 5' spread, 5' branching ht., matching
SO	<i>Quercus shumardii</i>	Shumard Red Oak	34	4" cal.	container grown, 15' ht., 5' spread, 5' branching ht., matching
<b>SHRUBS/GROUND COVER</b>					
AG	<i>Agave parvasana</i>	Green Agave	7	24" box	container full
GM	<i>Muhlenbergia capillaris</i>	Gulf Muhly	26	5 gal.	container full, 36" o.c.
LOR	<i>Loropetalum chinense 'Purple Diamond'</i>	Loropetalum 'Purple Diamond'	39	3 gal.	container full, 20" spread, 24" o.c.
MFG	<i>Nesselia tenuissima</i>	Mexican Feathergrass	235	1 gal.	container full, 24" o.c.
NRS	<i>Ilex spp. 'Nellie R. Stevens'</i>	Nellie R. Stevens Holly	74	7 gal.	container full to base, 36" ht., 36" o.c.
RY	<i>Hesperaloe parvifolia</i>	Red Yucca	19	5 gal.	container full
SG	<i>Salvia greggii 'Red'</i>	Salvia Greggii	103	5 gal.	container full
SJ	<i>Juniperus chinensis 'Sea Green'</i>	Sea Green Juniper	285	5 gal.	container full, 24" spread, 36" o.c.
SOD	<i>Cynodon dactylon</i>	Common Bermudagrass			refer to notes
<b>MISCELLANEOUS</b>					
RR		Colorado River Rock			4" depth with weed barrier fabric, typ.

NOTE: ALL TREES SHALL HAVE STRAIGHT TRUNKS AND BE MATCHING WITHIN VARIETIES. PLANT LIST IS AN AID TO BIDDERS ONLY. CONTRACTOR SHALL VERIFY ALL QUANTITIES ON PLAN. ALL HEIGHTS AND SPREADS ARE MINIMUMS. ALL PLANT MATERIAL SHALL MEET OR EXCEED REMARKS AS INDICATED.



Issue Dates:	Revisions:	Date:
1	1 City Comments	1/5/18
2	2 City Comments	1/17/18
3	3 City Comments	2/12/18
4		
5		
6		

**BELLE FIRMA**  
4245 North Central Expy  
Suite 501  
Dallas, Texas 75205  
214.865.7192 office



**LANDSCAPE PLAN**  
HUB 121 - CRAIG RANCH  
JORDAN REALTY ADVISORS  
CITY OF MCKINNEY, TEXAS

Sheet No.  
**L4.03**  
Project No.  
17082

HUB 121 - CRAIG RANCH



**SECTION 32 9300 - LANDSCAPE**

**PART 1 - GENERAL**

**1.1 REFERENCED DOCUMENTS**

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

**1.2 DESCRIPTION OF WORK**

- A. Work included: Furnish all supervision, labor, materials, services, equipment and appliances required to complete the work covered in conjunction with the landscaping covered in these specifications and landscaping plans, including:
  1. Planting (trees, shrubs and grasses)
  2. Bed preparation and fertilization
  3. Notification of sources
  4. Water and maintenance until final acceptance
  5. Guarantee

**1.3 REFERENCE STANDARDS**

- A. American Standard for Nursery Stock published by American Association of Nurserymen, 27 October 1980, Edition; by American National Standards Institute, Inc. (Z60.1) - plant material
- B. American Joint Committee on Horticultural Nomenclature: 1942 Edition of Standardized Plant Names.
- C. Texas Association of Nurserymen, Grades and Standards
- D. Horis Third, 1976 - Cornell University

**1.4 NOTIFICATION OF SOURCES AND SUBMITTALS**

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

**1.5 JOB CONDITIONS**

- A. General Contractor to complete the following punch list: Prior to Landscape Contractor initiating any portion of landscape installation, General Contractor shall leave planting bed areas three (3") inches below final finish grade of sidewalks, drives and curbs as shown on the drawings. All lawn areas to receive solid sod shall be left one (1") inch below the final finish grade of sidewalks, drives and curbs. All construction debris shall be removed prior to Landscape Contractor beginning any work.
- B. Storage of materials and equipment at the job site will be at the risk of the Landscape Contractor. The Owner cannot be held responsible for theft or damage.

**1.6 MAINTENANCE AND GUARANTEE**

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

1. Trees, shrubs and groundcover shall be guaranteed for a twelve (12) month period after final acceptance. The Contractor shall replace all dead materials as soon as weather permits and upon notification of the Owner. Plants, including trees, which have partially died so that shape, size, or symmetry have been damaged, shall be considered subject to replacement. In such cases, the opinion of the Owner shall be final.
  - a. Plants used for replacement shall be of the same size and kind as those originally planted and shall be planted as originally specified. All work, including materials, labor and equipment used in replacements, shall carry a twelve (12) month guarantee. Any damage, including ruts in lawn or bed areas, incurred as a result of making replacements shall be immediately repaired.
  - b. At the direction of the Owner, plants may be replaced at the start of the next year's planting season. In such cases, dead plants shall be removed from the premises immediately.
  - c. When plant replacements are made, plants, soil mix, fertilizer and mulch are to be utilized as originally specified and re-inspected for full compliance with the contract requirements. All replacements are to be included under "Work" of this section.

2. The Owner agrees that for the guarantee to be effective, he will water plants at least twice a week during dry periods and cultivate beds once a month after final acceptance.
3. The above guarantee shall not apply where plants die after acceptance because of injury from storms, hail, freeze, insects, diseases, injury by humans, machines or theft.
4. Acceptance for all landscape work shall be given after final inspection by the Owner provided the job is in a complete, undamaged condition and there is a stand of grass in all lawn areas. At that time, the Owner will assume maintenance on the accepted work.

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

6. The Owner agrees that for the guarantee to be effective, he will water plants at least twice a week during dry periods and cultivate beds once a month after final acceptance.
7. The above guarantee shall not apply where plants die after acceptance because of injury from storms, hail, freeze, insects, diseases, injury by humans, machines or theft.
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21. Repairs: Any necessary repairs under the Guarantee must be made within ten (10) days after receiving notice, weather permitting. In the event the Landscape Contractor does not make repairs accordingly, the Owner, without further notice to Contractor, may provide materials and men to make such repairs at the expense to the Landscape Contractor.

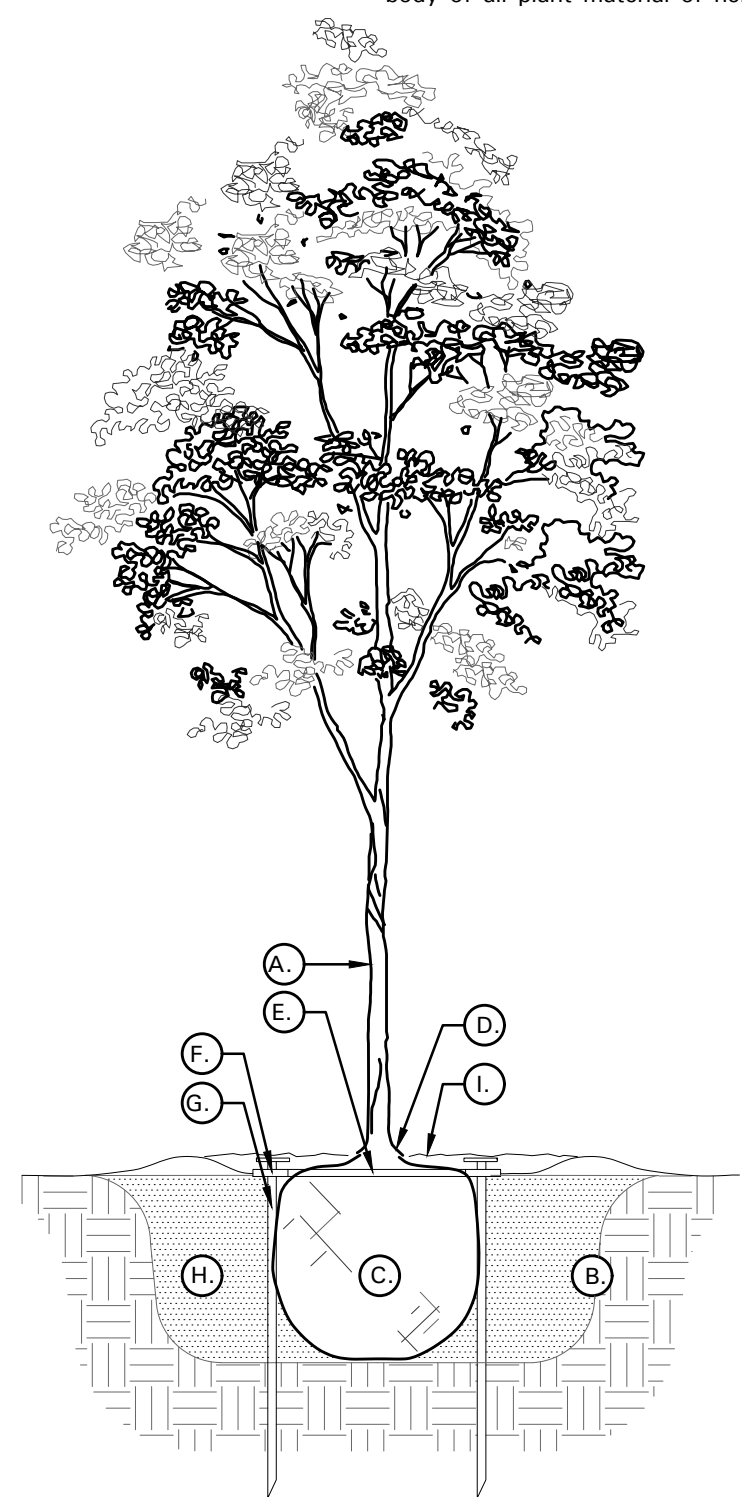
22. The Owner agrees that for the guarantee to be effective, he will water plants at least twice a week during dry periods and cultivate beds once a month after final acceptance.
23. The above guarantee shall not apply where plants die after acceptance because of injury from storms, hail, freeze, insects, diseases, injury by humans, machines or theft.
24. Acceptance for all landscape work shall be given after final inspection by the Owner provided the job is in a complete, undamaged condition and there is a stand of grass in all lawn areas. At that time, the Owner will assume maintenance on the accepted work.

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

26. The Owner agrees that for the guarantee to be effective, he will water plants at least twice a week during dry periods and cultivate beds once a month after final acceptance.
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30. The Owner agrees that for the guarantee to be effective, he will water plants at least twice a week during dry periods and cultivate beds once a month after final acceptance.
31. The above guarantee shall not apply where plants die after acceptance because of injury from storms, hail, freeze, insects, diseases, injury by humans, machines or theft.
32. Acceptance for all landscape work shall be given after final inspection by the Owner provided the job is in a complete, undamaged condition and there is a stand of grass in all lawn areas. At that time, the Owner will assume maintenance on the accepted work.



**01 TREE PLANTING DETAIL**  
NOT TO SCALE

**TREE PLANTING DETAIL LEGEND AND NOTES**

- A. TREE: TREES SHALL CONFORM WITH LATEST AMERICAN STANDARD FOR NURSERY STOCK. www.anla.org
- B. TREE PIT: WIDTH TO BE AT LEAST TWO (2) TIMES THE DIAMETER OF THE ROOT BALL CENTER TREE IN HOLE & REST ROOT BALL ON UNDISTURBED NATIVE SOIL.
- C. ROOT BALL: REMOVE TOP 1/2 BURLAP AND ANY OTHER FOREIGN OBJECT; CONTAINER GROWN STOCK TO BE INSPECTED FOR GIRDLING ROOTS.
- D. ROOT FLARE: ENSURE THAT ROOT FLARE IS EXPOSED, FREE FROM MULCH, AND AT LEAST TWO INCHES ABOVE GRADE. TREES SHALL BE REJECTED WHEN GIRDLING ROOTS ARE PRESENT & ROOT FLARE IS NOT APPARENT.
- E. ROOTBALL ANCHOR RING: REFER TO MANUFACTURER'S GUIDELINES FOR SIZING. PLACE ROOTBALL ANCHOR RING ON BASE OF ROOTBALL. TRUNK SHOULD BE IN THE CENTER OF THE RING.
- F. "U" BRACKET.
- G. NAIL STAKE: REFER TO MANUFACTURER'S GUIDELINES FOR SIZING. INSTALL NAIL STAKES WITH HAMMER OR MALLET FIRMLY INTO UNDISTURBED GROUND. DRIVE NAIL STAKES FLUSH WITH "U" BRACKET ADJACENT TO ROOTBALL (DO NOT DISTURB ROOTBALL).
- H. BACKFILL: USE EXISTING NATIVE SOIL (no amendments) WATER THOROUGHLY TO ELIMINATE AIR POCKETS.
- I. MULCH: DOUBLE SHREDDED HARDWOOD MULCH 2 INCH SETTLED THICKNESS, WITH 2" HT. WATERING RING; ENSURE THAT ROOT FLARE IS EXPOSED. BELOW GROUND STAKE SHOULD NOT BE VISIBLE.
- J. TREE STAKES: TREE STAKE SOLUTIONS SAFETY STAKE BELOW GROUND MODEL AVAILABLE FROM: Tree Stake Solutions ATTN: Jeff Tuley (903) 676-6143 jeff@treestakesolutions.com www.treestakesolutions.com OR APPROVED EQUAL. TREES SHALL BE STAKED BELOW GROUND WHERE NECESSARY; ABOVE GROUND STAKING IS EXPRESSLY PROHIBITED.
- K. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN A COPY OF THE MANUFACTURER'S SPECIFICATIONS PRIOR TO INSTALLATION OF TREE STAKES. CONTRACTOR SHALL ADHERE TO MANUFACTURER'S INSTALLATION GUIDELINES, SPECIFICATIONS, AND OTHER REQUIREMENTS FOR TREE STAKE INSTALLATION.

- do not measure from branch or root tip-to-tip.
- 5. Owner's Authorized Representative shall inspect all plant material with requirements for genus, species, cultivar / variety size and quality.
- 6. Owner's Authorized Representative retains the right to further inspect all plant material upon arrival to the site and during installation for size and condition of root balls and root systems, limbs, branching habit, insects, injuries and latent defects.
- 7. Owner's Authorized Representative may reject unsatisfactory or defective material at any time during the process work. Remove rejected materials immediately from the site and replace with acceptable material at no additional cost to the Owner. Plants damaged in transit or at job site shall be rejected.

**1.8 PRODUCT DELIVERY, STORAGE AND HANDLING**

- A. Preparation:
  1. Balled and Burlapped (B&B) Plants: Dig and prepare shipment in a manner that will not damage roots, branches, shape and future development.
  2. Container Grown Plants: Deliver plants in rigid container to hold ball shape and protect root mass.
- B. Delivery:
  1. Deliver packaged materials in sealed containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery and while stored on site.
  2. Deliver only plant materials that can be planted in one day unless adequate storage and watering facilities are available on job site.
  3. Protect root balls by heeling in with sawdust or other approved moisture retaining material if not planted within 24 hours of delivery.
  4. Protect plants during delivery to prevent damage to root balls or desiccation of leaves. Keep plants moist at all times. Cover all materials during transport.
  5. Notify Owner's Authorized Representative of delivery schedule 72 hours in advance job site.
  6. Remove rejected plant material immediately from job site.
  7. To avoid damage or stress, do not lift, move, adjust to plumb, or otherwise manipulate plants by trunk or stems.

**PART 2 - PRODUCTS**

**2.1 PLANTS**

- A. General: Well-formed No. 1 grade or better nursery grown stock. Listed plant heights are from tops of root balls to nominal tops of plants. Plant spread refers to nominal outer width of the plant, not to the outer leaf tips. Plants will be individually approved by the Owner's Authorized Representative and his decision as to their acceptability shall be final.
- B. Quantities: The drawings and specifications are complimentary. Anything called for on one and not the other is as binding as if shown and called for on both. The plant schedule is an aid to bidders only. Confirm all quantities on plan.
- C. Quality and size: Plant materials shall conform to the size given on the plan, and shall be healthy, symmetrical, well-shaped, full branched and well rooted. The plants shall be free from injurious insects, diseases, injuries to the bark or roots, broken branches, objectionable disfigurements, insect eggs and larvae, and are to be of specimen quality.
- D. Approval: All plants which are found unsuitable in growth, or are in any unhealthy, badly shaped or undersized condition will be rejected by the Owner's Authorized Representative either before or after planting and shall be removed at the expense of the Landscape Contractor and replaced with acceptable plant as specified at no additional cost to the Owner.

- E. Trees shall be healthy, full-branched, well-shaped, and shall meet the minimum trunk and diameter requirements of the plant schedule. Balls shall be firm, neat, slightly tapered and well wrapped in burlap. Any tree loose in the ball or with a broken root ball at time of planting will be rejected. Balls shall be ten (10") inches in diameter for each one (1") inch of trunk diameter, measured six (6") inches above ball. (Nomenclature confirms to the customary nursery usage. For clarification, the term "multi-trunk" defines a plant having three (3) or more trunks of nearly equal diameter.)
- F. Pruning: All pruning of trees and shrubs, as directed by the Landscape Architect prior to final acceptance, shall be executed by the Landscape Contractor at no additional cost to the Owner.

**2.2 SOIL PREPARATION MATERIALS**

- A. Sandy Loam:
  1. Friable, fertile, dark, loamy soil, free of clay lumps, subsoil, stones and other extraneous material and reasonably free of weeds and foreign grasses. Loam containing Dallassgrass or Nutgrass shall be rejected.
  2. Physical properties as follows:
    - a. Clay - between 7-27 percent
    - b. Silt - between 15-25 percent
    - c. Sand - less than 52 percent
  3. Organic matter shall be 3%-10% of total dry weight.
  4. If requested, Landscape Contractor shall provide a certified soil analysis conducted by an approved soil testing laboratory verifying that sandy loam meets the above requirements.
- B. Organic Material: Compost with a mixture of 80% vegetative matter and 20% animal waste. Ingredients should be a mix of course and fine textured material.
- C. Premixed Bedding Soil as supplied by Vitel Earth Resources, Gladewater, Texas; Professional Bedding Soil as supplied by Living Earth Technology, Dallas, Texas or Acid Gro Municipal Mix as supplied by Soil Building Systems, Dallas, Texas or approved equal.
- D. Sharp Sand: Sharp sand must be free of seeds, soil particles and weeds.
- E. Mulch: Double Shredded Hardwood Mulch, partially decomposed, dark brown. Living Earth Technologies or approved equal.
- F. Organic Fertilizer: Fertilaid, Sustane, or Green Sense or equal as recommended for required applications. Fertilizer shall be delivered to the site in original unopened containers, each bearing the manufacturer's guaranteed statement of analysis.
- G. Commercial Fertilizer: 10-20-10 or similar analysis. Nitrogen source to be a minimum 50% slow release organic Nitrogen (SCU or UF) with a minimum 8% sulfur and 4% iron, plus micronutrients.
- H. Peat: Commercial sphagnum peat moss or partially decomposed shredded pine bark or other approved organic material.

**2.3 MISCELLANEOUS MATERIALS**

- A. Steel Edging: All steel edging shall be 3/16" thick x 4" deep x 16' long with 6 stakes per section, painted black at the factory as manufactured by The J.D. Russell Company and under its trade name DURAEDEG Heavy Duty Steel.
- B. Staking Material for Shade Trees: refer to details.
- C. Gravel: Washed native pea gravel, graded 1 inch to 1-1/2 inch.
- D. Filter Fabric: 'Mirafi Mirascap' by Mirafi Construction Products available at Lone Star Products, Inc. (469) 523-0444 or approved equal.
- E. River Rock: "Colorado" or native river rock, 2" - 4" dia.

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

**PART 3 - EXECUTION**

**3.1 BED PREPARATION & FERTILIZATION**

- A. Landscape Contractor to inspect all existing conditions and report any deficiencies to the Owner.
- B. All planting areas shall be conditioned as follows:
  1. Prepare new planting beds by scraping away existing grass and weeds as necessary. Till existing soil to a depth of six (6") inches prior to placing compost and fertilizer. Apply fertilizer as per Manufacturer's recommendations. Add six (6") inches of compost and till into a depth of six (6") inches of the topsoil. Apply organic fertilizer such as Sustane or Green Sense at the rate of twenty (20) pounds per one thousand (1,000) square feet.
  2. All planting areas shall receive a two (2") inch layer of specified mulch.
  3. Backfill for tree pits shall be as follows: Use existing top soil on site (use imported topsoil as needed) free from large clumps, rocks, debris, caliche, subsoils, etc., placed in nine (9") inch layers and watered in thoroughly.
- C. Grass Areas:
  1. Blocks of sod shall be laid joint to joint (staggered joints) after fertilizing the ground first. Roll grass areas to achieve a smooth, even surface. The joints between the blocks of sod should be filled with topsoil where they are evidently gaped open, then watered thoroughly.

**3.2 INSTALLATION**

- A. Maintenance of plant materials shall begin immediately after each plant is delivered to the site and shall continue until all construction has been satisfactorily accomplished.
- B. Plant materials shall be delivered to the site only after the beds are prepared and areas are ready for planting. All shipments of nursery materials shall be thoroughly protected from the drying winds during transit. All plants which cannot be planted at once, after delivery to the site, shall be well protected against the possibility of drying by wind and Balls of earth of B & B plants shall be kept covered with soil or other acceptable material. All plants remain the property of the Contractor until final acceptance.
- C. Position the trees and shrubs in their intended location as per plan.
- D. Notify the Owner's Authorized Representative for inspection and approval of all positioning of plant materials.
- E. Excavate pits with vertical sides and horizontal bottom. Tree pits shall be large enough to permit handling and planting without injury to balls of earth or roots and shall be of such depth that when planted and settled, the crown of the plant shall bear the same relationship to the finish grade as it did to soil surface in original place of growth.
- F. Shrub and tree pits shall be no less than twenty-four (24") inches wider than the lateral dimension of the earth ball and six (6") inches deeper than it's vertical dimension. Remove and haul from site all rocks and stakes over three-quarter (3/4") inch in diameter. Plants should be thoroughly moist before removing containers.
- G. Dig a wide, rough sided hole exactly the same depth as the height of the ball, especially at the surface of the ground. The sides of the hole should be rough and jagged, never slick or glazed.
- H. Percolation Test: Fill the hole with water. If the water level does not percolate within 24 hours, the tree needs to move to another location or have drainage added. Install a PVC stand pipe per

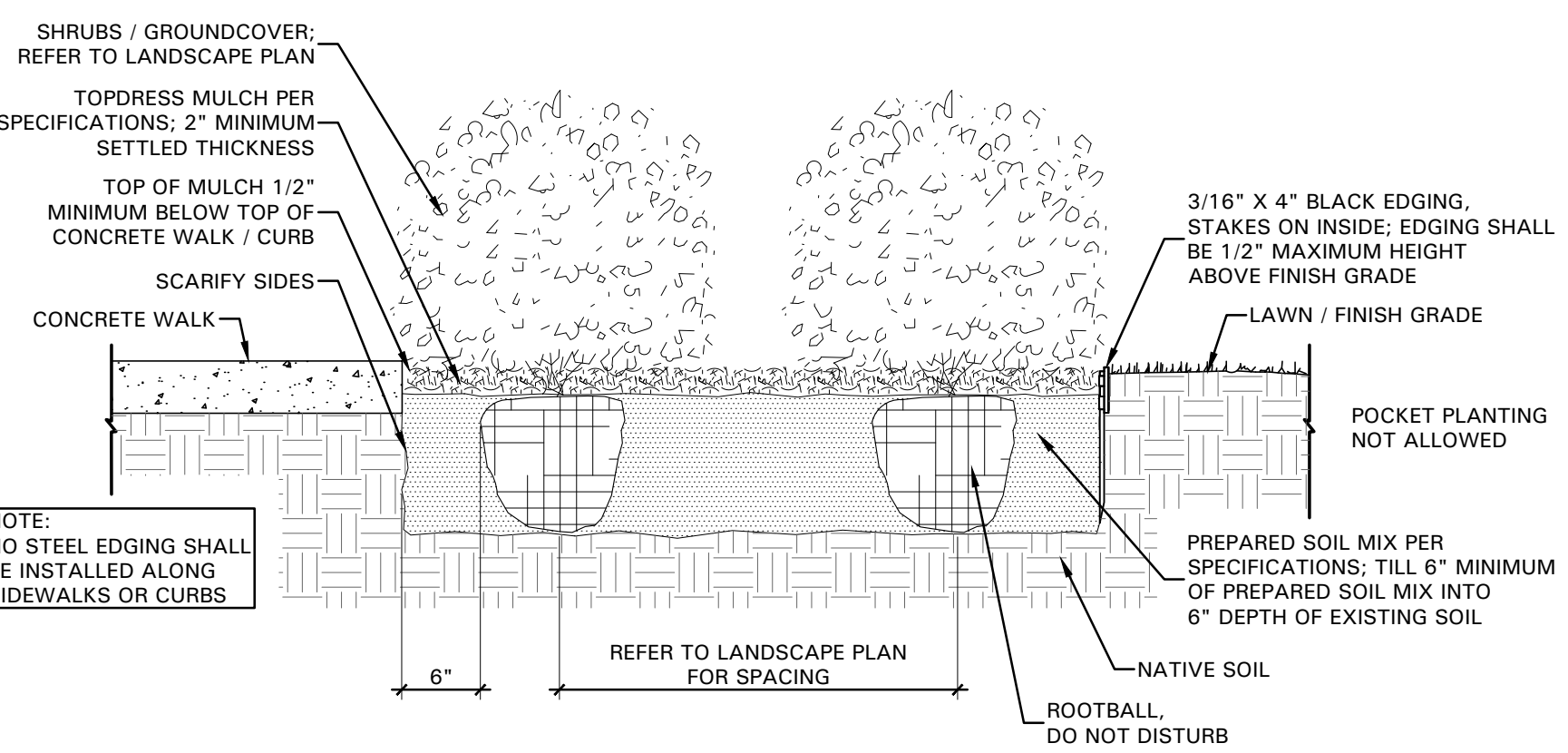
tree planting detail as approved by the Landscape Architect if the percolation test fails.

- I. Backfill only with 5 parts existing soil or sandy loam and 1 part bed preparation. When the hole is dug in solid rock, topsoil from the same area should not be used. Carefully settle by watering to prevent air pockets. Remove the burlap from the top 1/2 of the ball, as well as all nylon, plastic string and wire. Container trees will usually be root bound, if so follow standard nursery practice of 'root scoring'.
- J. Do not wrap trees.
- K. Do not over prune.
- L. Mulch the top of the ball. Do not plant grass all the way to the trunk of the tree. Leave the area above the top of the ball and mulch with at least two (2") inches of specified mulch.
- M. All plant beds and trees to be mulched with a minimum settled thickness of two (2") inches over the entire bed or pit.
- N. Obstruction below ground: In the event that rock, or underground construction work or obstructions are encountered in any plant pit excavation work to be done under this section, alternate locations may be selected by the Owner. Where locations cannot be changed, the obstructions shall be removed to a depth of not less than three (3') feet below grade and no less than six (6") inches below the bottom of ball when plant is properly set at the required grade. The work of this section shall include the removal from the site of such rock or underground obstructions encountered at the cost of the Landscape Contractor.
- O. Trees and large shrubs shall be staked as site conditions require. Position stakes to secure trees against seasonal prevailing winds.
- P. Pruning and Mulching: Pruning shall be directed by the Landscape Architect and shall be pruned in accordance with standard horticultural practice following Fine Pruning, Class I pruning standards provided by the National Arborist Association.
  1. Dead wood, suckers, broken and badly bruised branches shall be removed. General tipping of the branches is not permitted. Do not cut terminal branches.
  2. Pruning shall be done with clean, sharp tools.
  3. Immediately after planting operations are completed, all tree pits shall be covered with a layer of organic material two (2") inches in depth. This limit of the organic material for trees shall be the diameter of the plant pit.
- Q. Steel Curbing Installation:
  1. Curbing shall be aligned as indicated on plans. Stake out limits of steel curbing and obtain Owners approval prior to installation.
  2. All steel curbing shall be free of kinks and abrupt bends.
  3. Top of curbing shall be 1/2" maximum height above final finished grade.
  4. Stakes are to be installed on the planting bed side of the curbing, as opposed to the grass side.
  5. Do not install steel edging along sidewalks or curbs.
  6. Cut steel edging at 45 degree angle where edging meets sidewalks or curbs.

**3.3 CLEANUP AND ACCEPTANCE**

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

**END OF SECTION**



**02 SHRUB / GROUNDCOVER DETAIL**  
NOT TO SCALE

Issue Dates:	Revisions:	Date:			
1	1 City Comments	1/5/18			
2	2 City Comments	1/17/18			
3	3 City Comments	2/12/18			
4					
5					
6					

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**LANDSCAPE SPECIFICATIONS AND DETAILS**  
HUB 121 - CRAIG RANCH  
JORDAN REALTY ADVISORS  
CITY OF MCKINNEY, TEXAS

Sheet No. **L4.04**  
Project No. 17082