

Landscape Construction Documents for:

CIVIC CENTER TURF RENOVATION

City of Carson, CA

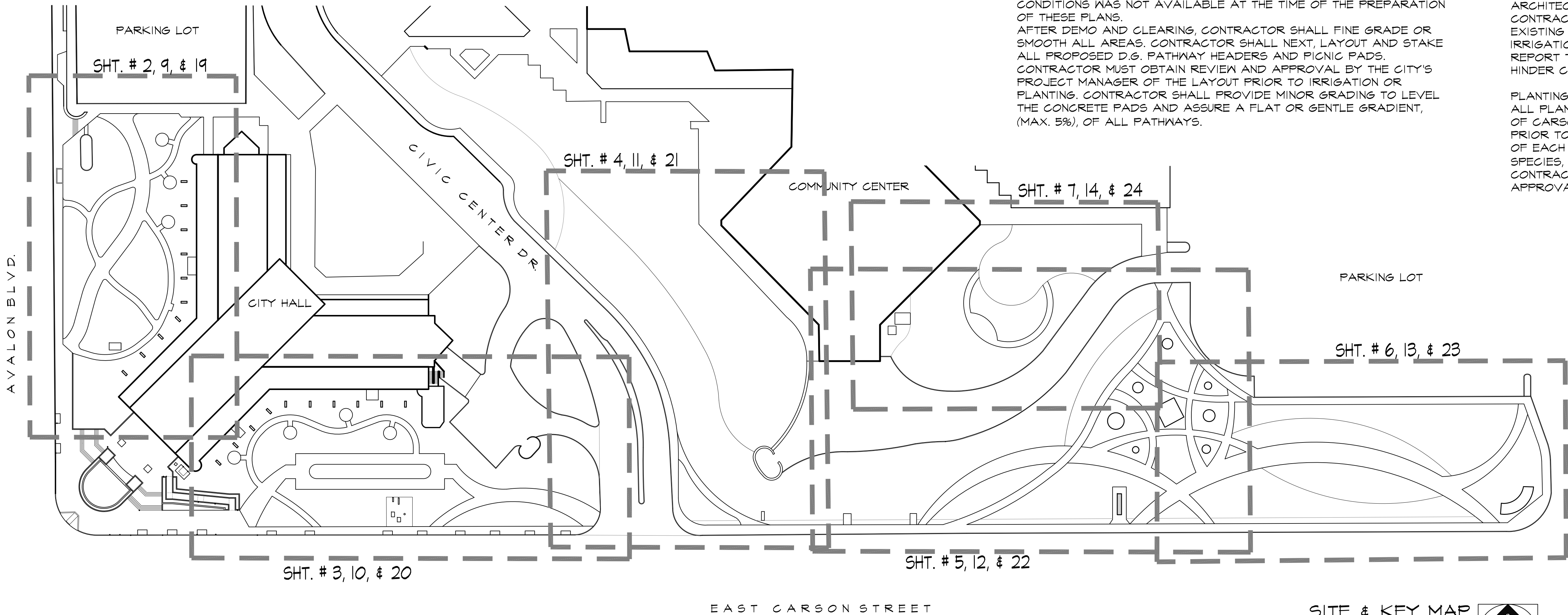
GENERAL SCOPE OF WORK:

SITE PREPARATION:
PRIOR TO ANY SITE WORK, CONTRACTOR SHALL CONFIRM THAT ALL AREAS HAVE SUCCESSFULLY BEEN TREATED WITH 2 SERIES OF A @GROW AND KILLA PROCESS AND ALL DEAD OR DORMANT GRASS HAS BEEN REMOVED FROM THE SITE. IF SUCH ABATEMENT HAS NOT BEEN COMPLETED, CONTRACTOR MUST UNDERTAKE IMMEDIATELY. NO PLANTING SHALL COMMENCE WITHOUT GRASS ABATEMENT SIGNOFF BY THE CITY REPRESENTATIVE. SITE DEMO INCLUDES THE REMOVAL OF EXISTING CONCRETE MOW CURBS AND 3 EXISTING TREES, ALONG WITH CLEARING AND GRUBBING OF ALL AREAS PROPOSED FOR IMPROVEMENTS.

GRADING AND LAYOUT:
THE INTENT OF THE GRADING DESIGN IS TO MINIMIZE THE AMOUNT OF SITE DISTURBANCE AS A TOPOGRAPHIC SURVEY OF EXISTING CONDITIONS WAS NOT AVAILABLE AT THE TIME OF THE PREPARATION OF THESE PLANS.
AFTER DEMO AND CLEARING, CONTRACTOR SHALL FINE GRADE OR SMOOTH ALL AREAS. CONTRACTOR SHALL NEXT, LAYOUT AND STAKE ALL PROPOSED D.G. PATHWAY HEADERS AND PICNIC PADS. CONTRACTOR MUST OBTAIN REVIEW AND APPROVAL BY THE CITY'S PROJECT MANAGER OF THE LAYOUT PRIOR TO IRRIGATION OR PLANTING. CONTRACTOR SHALL PROVIDE MINOR GRADING TO LEVEL THE CONCRETE PADS AND ASSURE A FLAT OR GENTLE GRADIENT, (MAX. 5%), OF ALL PATHWAYS.

IRRIGATION:
ALL WORK SHALL COMPLY WITH STATE, COUNTY AND CITY OF CARSON CODES AND STANDARD LANDSCAPE PRACTICES.
THE INTENT OF THE IRRIGATION DESIGN IS TO UTILIZE EXISTING IRRIGATION MAINLINE SERVICE, CONTROLLER AND CONTROLLER STATIONS, TO THE EXTENT POSSIBLE. WITHIN EACH GEOGRAPHIC AREA OF THE SITE, A NEW MAINLINE SYSTEM SHALL REPLACE AN EXISTING SYSTEM THAT SERVED THE PREVIOUS TURF IRRIGATION LAYOUT/SYSTEM. THE NEW SYSTEM SHALL TIE INTO THE EXISTING MAINLINE AT THE LOCATIONS INDICATED ON THE PLANS AND THE OLD TURF SYSTEM SHALL BE DEMOED AND SUBSURFACE PIPES ABANDONED. CARE SHALL BE GIVEN TO SAVE RCV WIRES TO RE-USE FOR NEW REMOTE CONTROL VALVES. IF THE NUMBER OF NEW RCV'S EXCEEDS THE AVAILABLE/SAVED CONTROLLER STATIONS, CONTRACTOR SHALL, WITH THE ASSISTANCE OF THE LANDSCAPE ARCHITECT, DOUBLE-UP LOW FLOW CIRCUITS WITHIN THE CONTROLLER. CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW AND ASSESS THE EXISTING WATER PRESSURE, CONTROLLER, WIRING AND OVERALL IRRIGATION CONDITIONS PRIOR TO INSTALLING NEW MAINLINE AND REPORT TO CITY PROJECT MANAGER ITEMS OR ISSUES THAT MAY HINDER COMPLETION OF THE INTENDED IRRIGATION DESIGN.

PLANTING:
ALL PLANTING WORK SHALL COMPLY WITH STATE, COUNTY AND CITY OF CARSON CODES AND STANDARD LANDSCAPE PRACTICES.
PRIOR TO ANY PLANTING, CONTRACTOR SHALL LAYOUT BOUNDARIES OF EACH PLANT AREA AND PROVIDE A SAMPLE OF EACH PLANT SPECIES, (TYPE AND CONTAINER SIZE), ASSOCIATED WITH EACH AREA. CONTRACTOR SHALL NOT INSTALL PLANTS WITHOUT REVIEW AND APPROVAL OF THE PROJECT MANAGER OR LANDSCAPE ARCHITECT.



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GENERAL NOTES:

1. PRIOR TO INITIATING ANY PHASE OF THE LANDSCAPE INSTALLATION, THE CONTRACTOR SHALL VERIFY EXISTENCE, SIZE, AND LOCATION OF ALL RELATED UTILITIES, SERVICES, AND METERS AND NOTIFY CITY OF ANY DISCREPANCIES.
2. THE CONTRACTOR SHALL NOTIFY THE CITY PRIOR TO BEGINNING THE WORK AND SHALL BE RESPONSIBLE FOR COORDINATING WITH THE CITY, GOVERNING AGENCIES AND OTHER TRADES.
3. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CITY INSPECTOR OF ANY ERRORS, OMISSIONS OR DISCREPANCIES IN EXISTING CONDITIONS OR WITHIN THE PLANS PRIOR TO BEGINNING THE WORK.
4. ALL MATERIAL SHALL BE NEW UNLESS OTHERWISE SPECIFIED.
5. THE CONTRACTOR SHALL, IMMEDIATELY UPON BEING AWARDED THE CONTRACT, MAKE ANY ARRANGEMENTS NECESSARY TO INSURE THAT ALL MATERIALS, CONNECTIONS, AND SUPPLIES WILL BE AVAILABLE WHEN NEEDED FOR THIS PROJECT.
6. NO SUBSTITUTIONS WILL BE CONSIDERED FOR ITEMS SPECIFICALLY CALLED FOR ON THESE PLANS UNLESS APPROVED BY CITY.
7. DETERMINATION OF "EQUAL" SUBSTITUTIONS FOR SPECIFIED VENDOR OR SUPPLIER AS NOTED WITHIN THESE DOCUMENTS ARE SUBJECT TO REVIEW AND APPROVAL OF THE CITY.
8. LANDSCAPE ARCHITECT SHALL BE NOTIFIED VIA THE CITY NO LESS THAN 48 HOURS IN ADVANCE OF ANY SITE OBSERVATIONS OR MEETINGS.

9. SITE OBSERVATIONS AND MEETINGS SHALL INCLUDE:
- A. PRE-CONSTRUCTION
 - B. LANDSCAPE CONSTRUCTION
 - C. IRRIGATION PRESSURE AND COVERAGE TEST
 - D. SPOTTING OF SPECIMEN PLANTS
 - E. PRE-MAINTENANCE
 - F. POST-MAINTENANCE (FINAL)

10. SITE OBSERVATIONS BY THE CITY OR LANDSCAPE ARCHITECT DURING ANY PHASE OF THIS PROJECT DOES NOT RELIEVE THE CONTRACTOR OF HIS PRIMARY RESPONSIBILITY TO PERFORM ALL WORK IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND GOVERNING CODES.
11. CONTRACTOR SHALL BE BACK CHARGED FOR LANDSCAPE ARCHITECTS TIME WHEN OBSERVATIONS ARE CALLED FOR AND IT IS FOUND THAT THE WORK IS NOT SIGNIFICANTLY READY UPON OBSERVATION OR APPOINTMENT IS NOT KEPT. TIME WILL BE CHARGED ON AN HOURLY BASIS, PLUS TRANSPORTATION, IF ANY, AT THE THEN EXISTING HOURLY RATE FOR PERSONNEL PROVIDING THE OBSERVATIONS.
12. THIS FIRM DOES NOT PRACTICE OR CONSULT IN THE FIELD OF SAFETY ENGINEERING. THIS FIRM DOES NOT DIRECT THE CONTRACTORS OPERATIONS, AND IS NOT RESPONSIBLE FOR THE SAFETY OF PERSONNEL OTHER THAN OUR OWN ON THE SITE. THE SAFETY OF OTHERS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHOULD NOTIFY THE OWNER IF HE CONSIDERS ANY OF THE RECOMMENDED ACTIONS PRESENTED HEREIN TO BE UNSAFE.



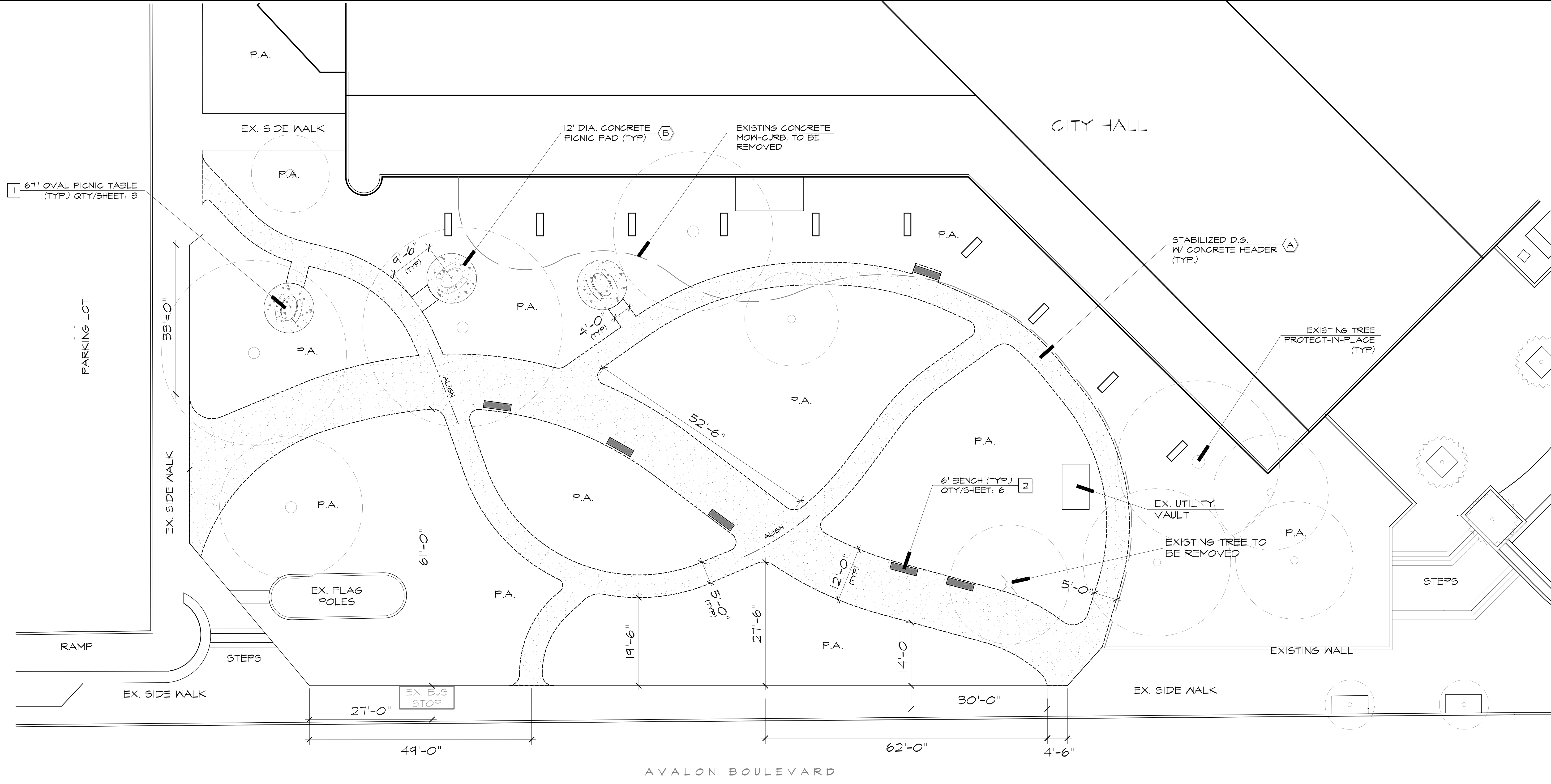
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11-21-22

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



SHEET
1
CITY OF CARSON
CIVIC CENTER TURF RENOVATION
TITLE SHEET
SHEETS
26

APPROVED _____ DATE _____

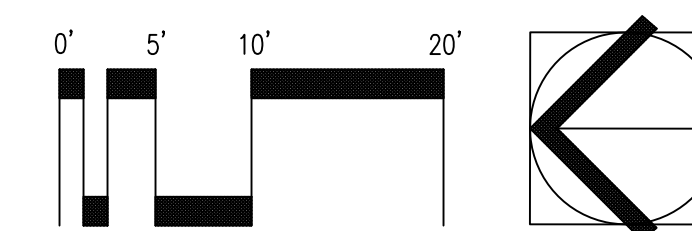


CALLOUT LEGEND

-  COMPONENT SCHEDULE CALLOUT (SEE SHEET 8 FOR COMPONENT LEGEND)
-  MATERIAL/FINISH SCHEDULE CALLOUT (SEE SHEET 8 FOR MATERIAL/FINISH LEGEND)

SEE SHEET 8 FOR CONSTRUCTION LEGEND, NOTES & DETAILS

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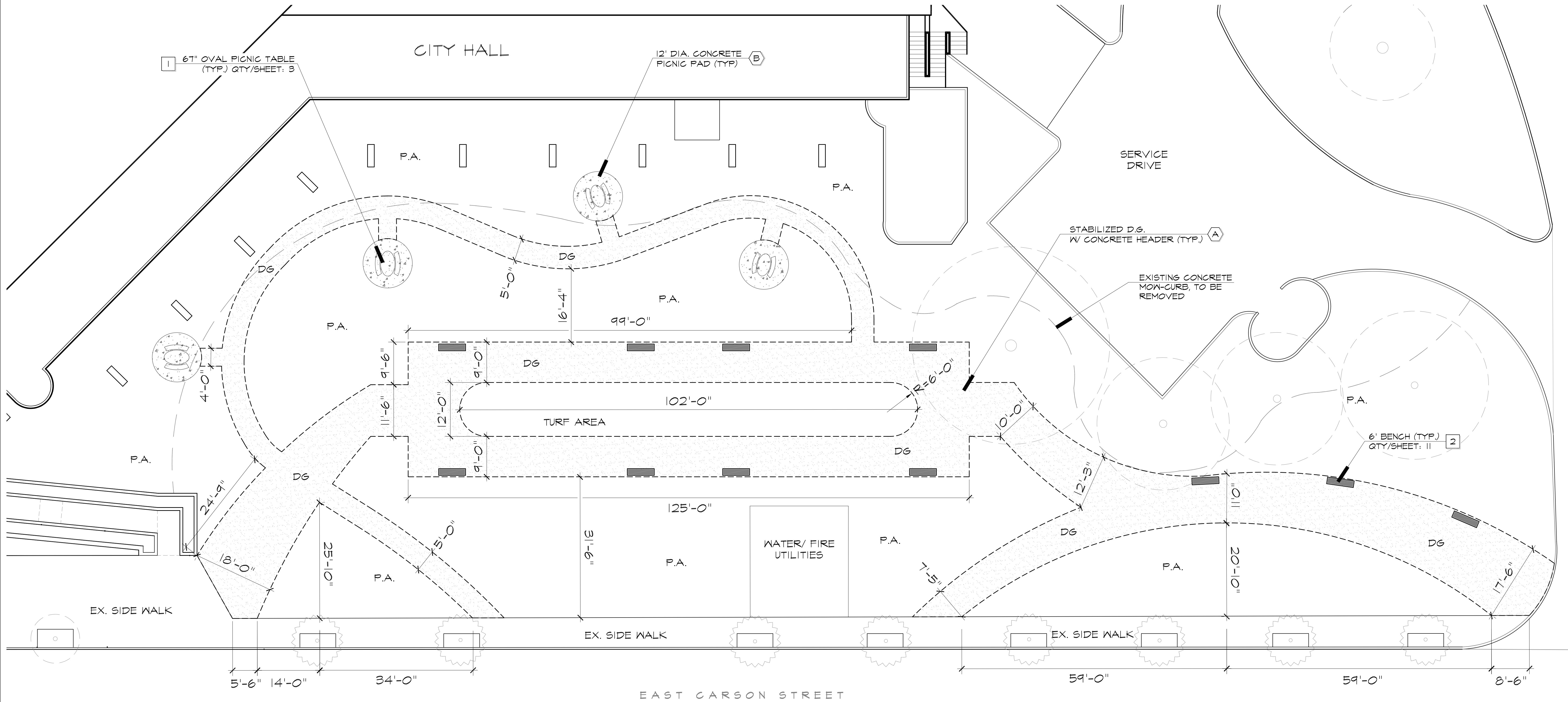


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SHEET 2	CITY OF CARSON	SHEETS 26
CIVIC CENTER TURF RENOVATION CONSTRUCTION PLAN		

APPROVED _____ DATE _____

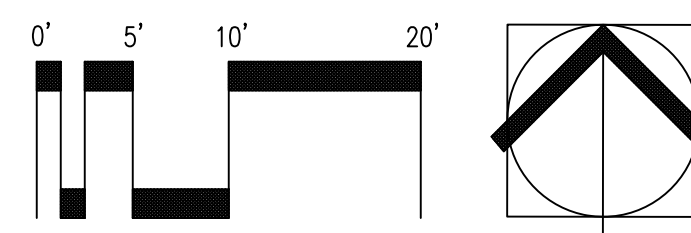


CALLOUT LEGEND

- X COMPONENT SCHEDULE CALLOUT (SEE SHEET 8 FOR COMPONENT LEGEND)
- X MATERIAL/FINISH SCHEDULE CALLOUT (SEE SHEET 8 FOR MATERIAL/FINISH LEGEND)

SEE SHEET 8 FOR CONSTRUCTION LEGEND, NOTES & DETAILS

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SHEET 3	CITY OF CARSON	SHEETS 26
CIVIC CENTER TURF RENOVATION CONSTRUCTION PLAN		

APPROVED _____ DATE _____

CALLOUT LEGEND

 COMPONENT SCHEDULE CALLOUT (SEE SHEET 8 FOR COMPONENT LEGEND)
 MATERIAL/FINISH SCHEDULE CALLOUT (SEE SHEET 8 FOR MATERIAL/FINISH LEGEND)

SEE SHEET 8 FOR CONSTRUCTION LEGEND, NOTES & DETAILS

COMMUNITY CENTER

MATCHLINE
SEE SHEET L-4

EX. SIGN
WALL

EXISTING TREE TO
BE REMOVED


EX. P.A.

P.A.

EX. SIDE WALK

AVALON BOULEVARD

EX. P.A.

 STABILIZED D.G.
W/ CONCRETE
HEADER (TYP.)

6'-0"
MAX

P.A.

23'-6"

58'-0"

EX. SIDE WALK

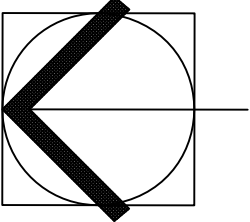
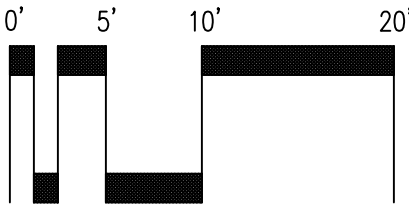
64'-0"

CIVIC CENTER DRIVE

 6" MOW CURB
(TYP.)
(ALIGN TO RIDGE)

+/- 42'-0"

EXISTING TURF
AND TREES TO
REMAIN



EX. SIDEWALK

P.A.

EX. MOW
CURB

EX. PLANTER

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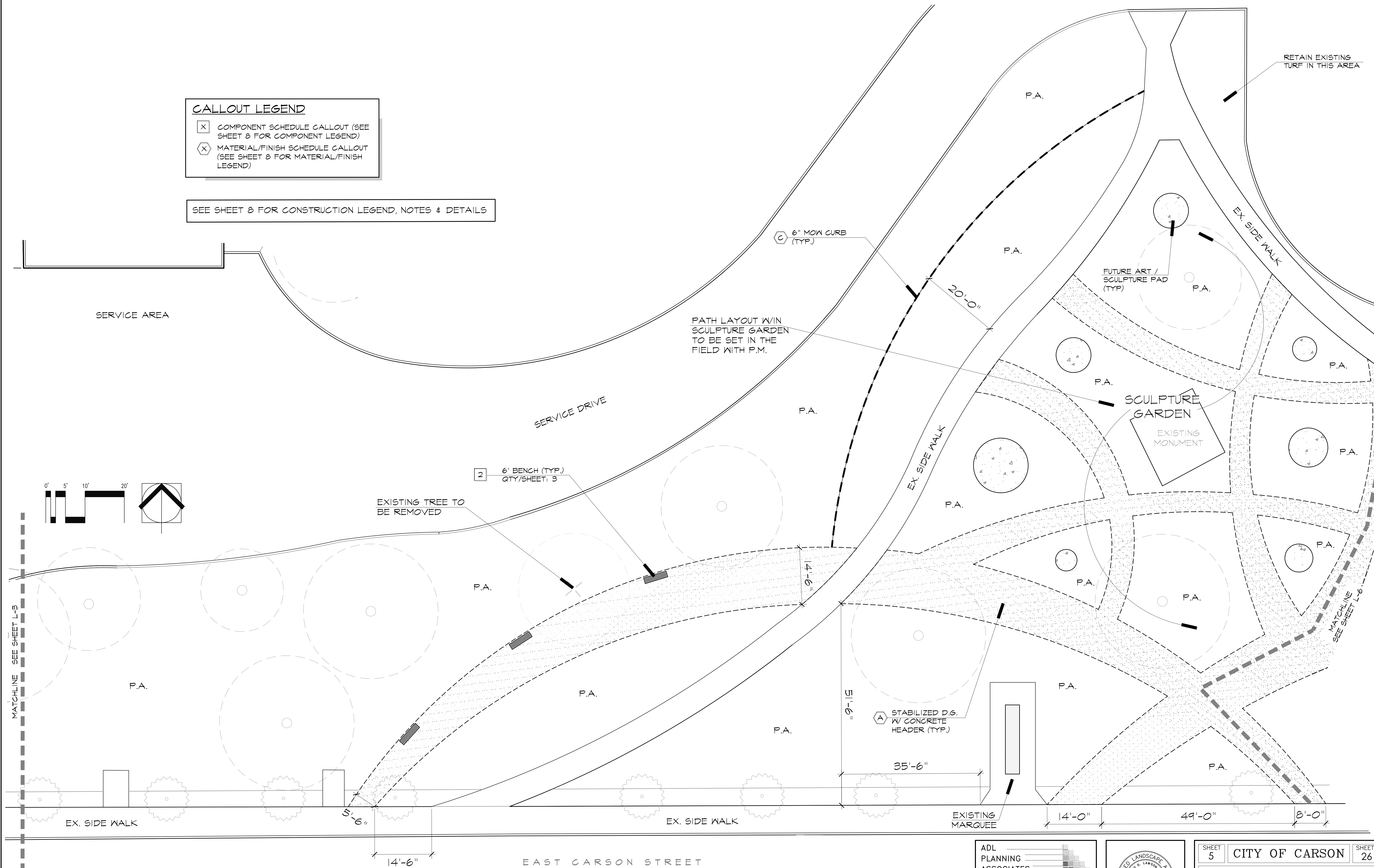
SHEET 4	CITY OF CARSON	SHEETS 26
CIVIC CENTER TURF RENOVATION CONSTRUCTION PLAN		

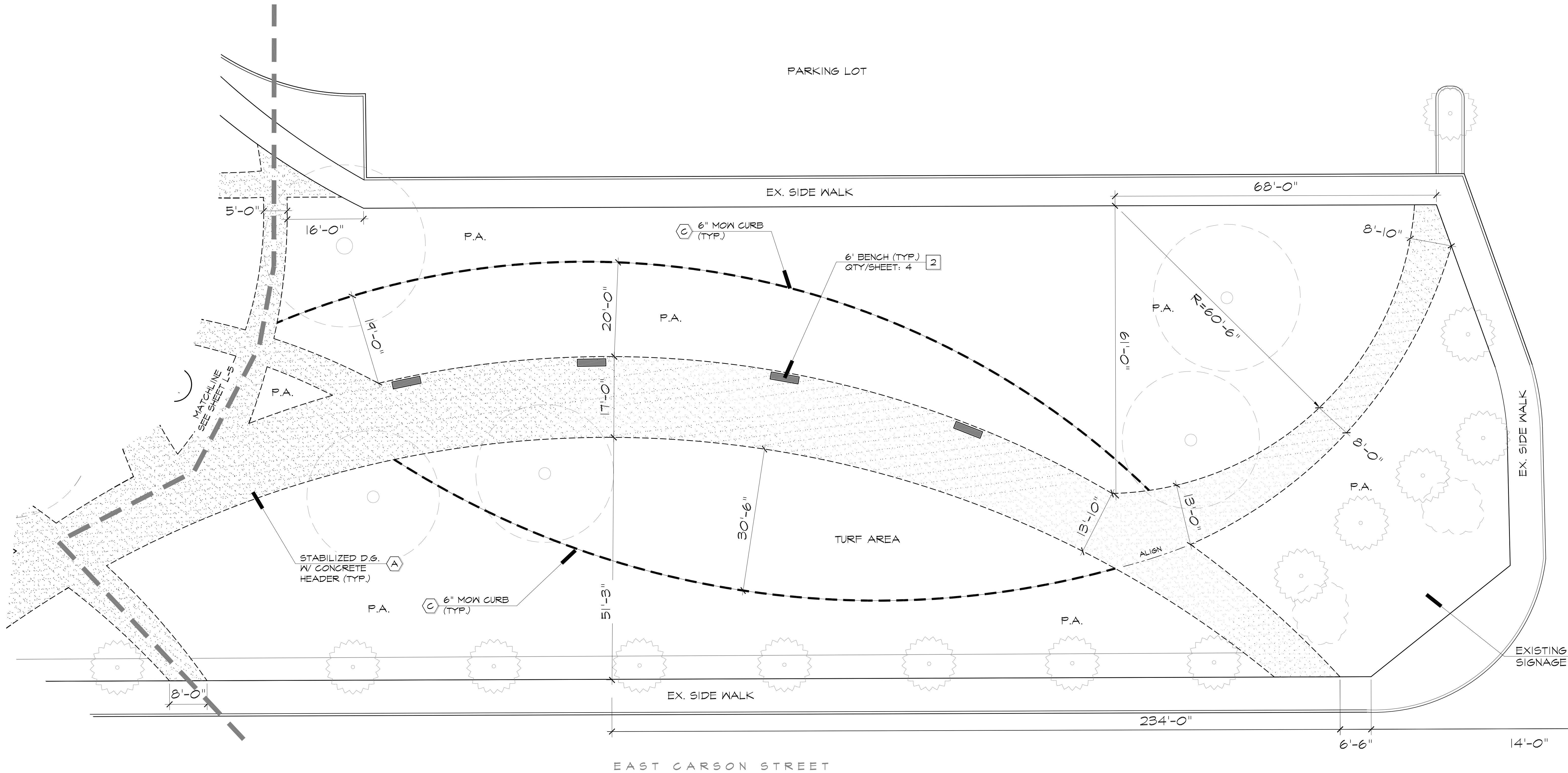
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CALLOUT LEGEND

- [X] COMPONENT SCHEDULE CALLOUT (SEE SHEET 8 FOR COMPONENT LEGEND)
- [X] MATERIAL/FINISH SCHEDULE CALLOUT (SEE SHEET 8 FOR MATERIAL/FINISH LEGEND)

SEE SHEET 8 FOR CONSTRUCTION LEGEND, NOTES & DETAILS





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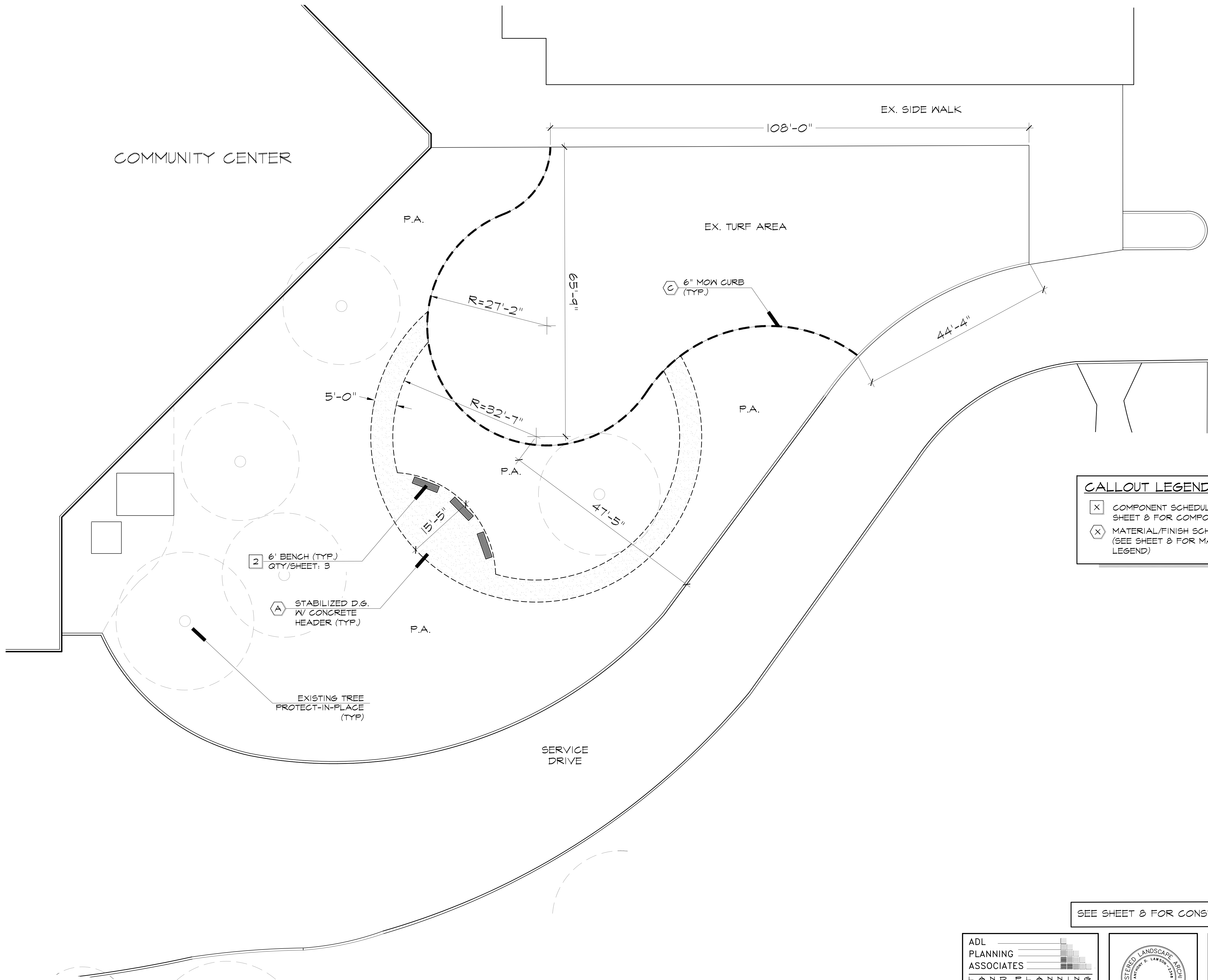
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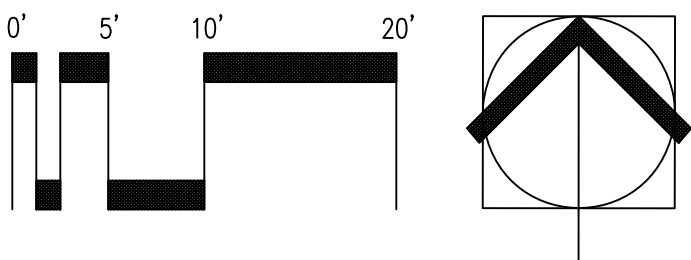


SHEET 6 CITY OF CARSON SHEETS 26
CIVIC CENTER TURF RENOVATION
CONSTRUCTION PLAN

APPROVED _____ DATE _____



CALLOUT LEGEND	
	COMPONENT SCHEDULE CALLOUT (SEE SHEET 8 FOR COMPONENT LEGEND)
	MATERIAL/FINISH SCHEDULE CALLOUT (SEE SHEET 8 FOR MATERIAL/FINISH LEGEND)



SEE SHEET 8 FOR CONSTRUCTION LEGEND, NOTES & DETAILS

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SHEET 7	CITY OF CARSON	SHEETS 26
CIVIC CENTER TURF RENOVATION CONSTRUCTION PLAN		

APPROVED _____ DATE _____

CONSTRUCTION NOTES:

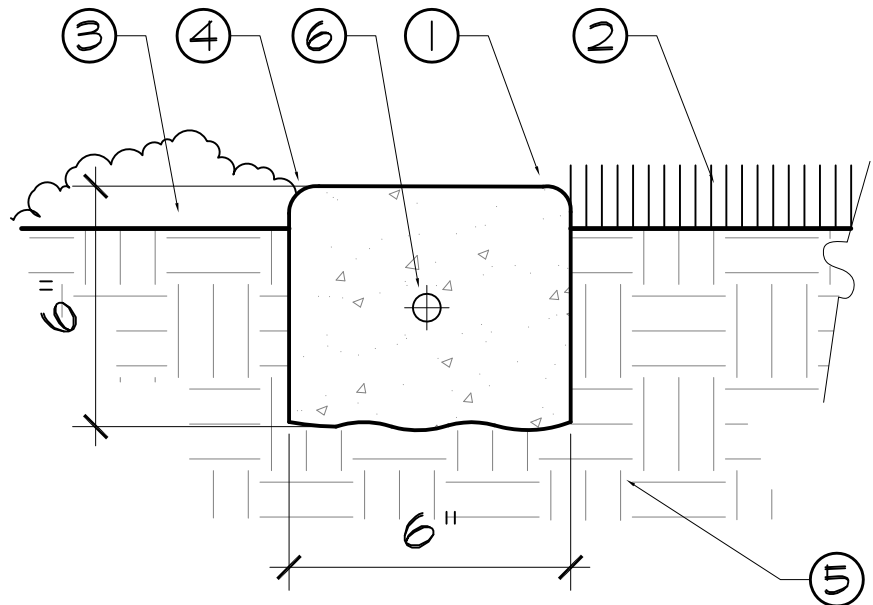
- 1. SEE IRRIGATION PLANS FOR UNDER PAVING SLEEVE LOCATIONS PRIOR TO CONSTRUCTION.
- 2. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR THE CITY'S REVIEW AND APPROVAL FOR DETAILS AS NOTED ON THE PLANS AND SPECIFICATIONS.
- 3. LAYOUT POINTS OF ALL RADII SHALL BE CONNECTED BY SMOOTH EVEN LINES TO CREATE THE CURVED CONFIGURATION AS SHOWN ON THE PLANS.
- 4. THE LOCATIONS OF ALL SITE FURNITURE SHALL BE REVIEWED AND CONFIRMED IN THE FIELD BY THE PROJECT MANAGER PRIOR TO INSTALLATION.
- 5. ALL HARDWARE SUCH AS NAILS, BOLTS, FASTENERS, ETC. SHALL BE HOT DIPPED GALVANIZED.
- 6. CONTRACTOR SHALL CONTACT THE PROJECT MANAGER TO VERIFY STAKING OF LAYOUT PRIOR TO INSTALLATION.
- 7. DIMENSIONS INDICATED ON PLANS SHALL PREVAIL OVER PLAN SCALE. ALL ANGLES AND CONNECTIONS ARE (90) DEGREES UNLESS NOTED OTHERWISE.

COMPONENT SCHEDULE

SYMBOL	ITEM	MANUFACTURER/MODEL	FINISH/ (SPECIAL ORDER)	COMMENTS / DETAILS	QTY.
1	6T" OVAL PICNIC TABLE	LANDSCAPE FORMS	MODEL: CHARLIE FINISH: POWDER COAT COLOR: BRONZE	CONFIRM ORIENTATION WITH PROJECT MANAGER (SEE DETAIL "C", THIS SHEET)	7
2	6' BENCH	T2 SITE AMENITIES	MODE: DAWSON - USC-DEIII3C FINISH: POWDER COAT COLOR: BURST RUST	COORD. PRECISE LOCATION WITH PROJECT MANAGER (SEE DETAIL "D", THIS SHEET)	27

MATERIAL/FINISH SCHEDULE

SYMBOL	TITLE/DESCRIPTION	MATERIAL/MANF.	FINISH	COMMENTS / DETAILS
A	STABILIZED D.G. WITH HEADER	STABILIZED DECOMPOSED GRANITE, 4" DEPTH (90% COMPACTION)	DG BLENDED W/ "STABILIZER" FROM STABILIZER SOLUTIONS, INC.	SEE DETAIL "B" ON THIS SHEET
B	PEDESTRIAN CONCRETE PAVING	CONCRETE W/ SCORE LINES AS SHOWN, 560-C-3250, 4" DEPTH	STANDARD GREY BROOM FINISH	-
C	6" MOW CURB	NATURAL GREY CONCRETE	BROOM FINISH	SEE DETAIL "A" ON THIS SHEET

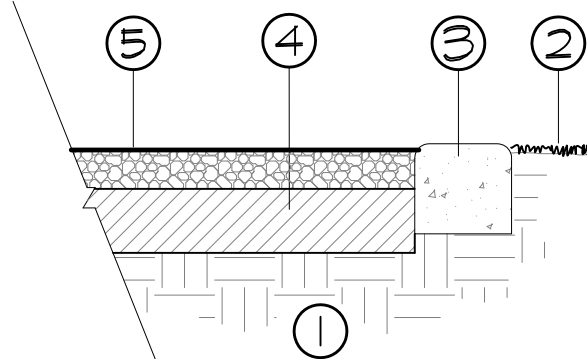


- 1 NATURAL GREY MEDIUM BROOM FINISH 520-C-2500 CONCRETE
- 2 TURF OR MEADOW AREA
- 3 PLANTING AREA
- 4 1/2" RADIUS (TYPICAL ON BOTH EDGES)
- 5 90% COMPACTED SUB-GRADE
- 6 # 3 BAR (MIN. 6" LAP @ SEAMS) MOW STRIPS SHALL HAVE W.P. JOINTS @ 5' O.C., & AT CORNERS, AND CHANGES IN DIRECTION

C SEE MATERIALS/FINSIH SCHEDULE

A 6" MOW CURB

N.T.S.



- 1 90% COMPACTED SUBGRADE
- 2 FINISH GRADE
- 3 CONCRETE HEADER (SEE DETAIL D, THIS SHEET)
- 4 5" CLASS II AGGREGATE BASE COMPACTED TO 95%
- 5 STABILIZED DECOMPOSED GRANITE TO A MINIMUM DEPTH OF 3". A

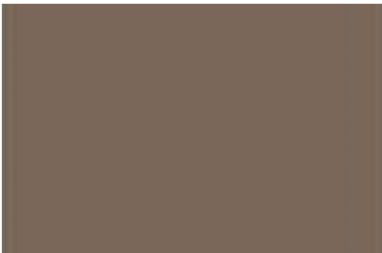
X SEE MATERIALS/FINSIH SCHEDULE

B DECOMPOSED GRANITE W/ CONC. EDGE

N.T.S.



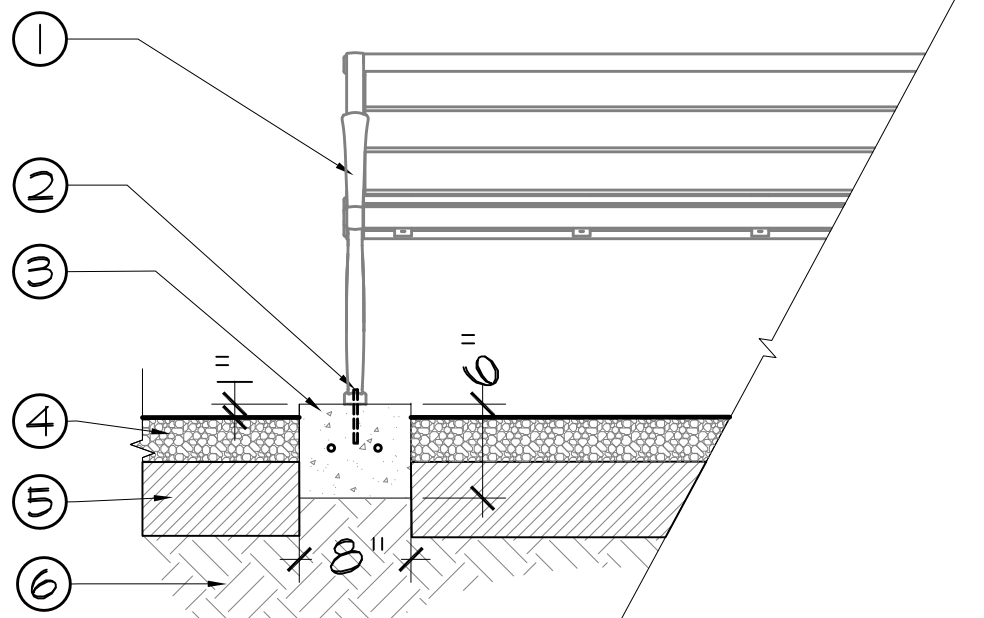
PHOTO REPRESENTATION



SAMPLE OF COLOR

C PICNIC TABLE

N.T.S.



- 1 BENCH 2
- 2 TIE DOWN TO CONCRETE AS PER MANUFACTURER'S REGMNTS.
- 3 8" X 30" X 6" CONCRETE FOOTING (TOP SURFACE TO BE 1" ABOVE FINISH GRADE)
- 4 3" STABILIZED DECOMPOSED GRANITE .
- 5 5" CLASS II AGGREGATE BASE COMPACTED TO 95%
- 6 90% COMPACTED SUBGRADE

NOTES:
-ALL DIMENSIONS ARE APPROXIMATE AND SHALL BE CONFIRMED IN THE FIELD. CONTRACTOR SHOULD REVIEW POSITION AND DIMENSIONS OF CONCRETE BANDS PRIOR TO CONSTRUCTION.
-PRECISE BENCH LOCATION TO BE APPROVED BY CITY OFFICIAL BEFORE INSTALLATION



PHOTO REPRESENTATION



SAMPLE OF COLOR

D BENCH INSTALATION

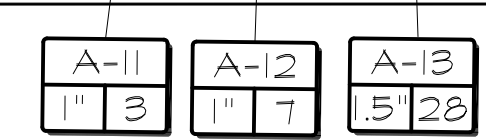
N.T.S.

APPROVED _____ DATE _____

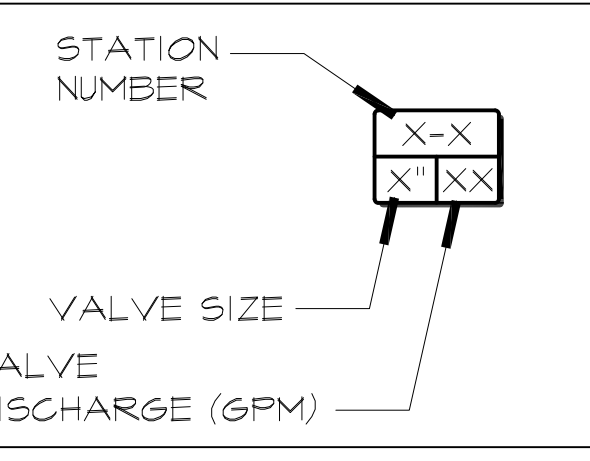
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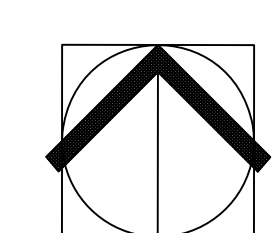
SHEET 8 CITY OF CARSON SHEETS 26
CIVIC CENTER TURF RENOVATION
CONSTRUCTION LEGEND & DETAILS



1. PLANS ARE DIAGRAMMATIC AND APPROXIMATE. ALL PIPING, VALVE BOXES, BACKFLOW PREVENTERS, ETC., SHALL BE LOCATED IN LANDSCAPE AREAS. NO IRRIGATION EQUIPMENT SHALL BE LOCATED IN, OR UNDER THE HARDSCAPE UNLESS WITHIN A SLEEVE. GROUP VALVE BOXES AND LOCATE IN SHRUB AREAS WHENEVER POSSIBLE.
2. ALL END-RUNS SHALL BE 3/4" PVC SCH 40 PIPE UNLESS STATED OTHERWISE.
3. CONTRACTOR TO COORDINATE PRECISE IRRIGATION CONTROLLER LOCATION WITH CITY ENGINEER OR HIS REPRESENTATIVE.
4. CONTRACTOR TO VERIFY DEPTH & LOCATION OF EXISTING WATER, SEWER & ANY OTHER UTILITY LINES THAT MAY BE ON SITE PRIOR TO TRENCHING OR INSTALLING IRRIGATION.
5. CONTRACTOR TO OBTAIN FIELD VERIFICATION FROM PROJECT ENGINEER FOR VALVE BOX LOCATIONS.
6. CONTRACTOR TO OBTAIN FIELD VERIFICATION FROM PROJECT ENGINEER, OF ALL TREE LOCATIONS, PRIOR TO INSTALLATION OF BUBBLERS



THE DESIGN OF THE IRRIGATION SYSTEM IS TO HAVE THE PROPOSED IRRIGATION MAINLINE TO THE NEAREST EXISTING IRRIGATION MAINLINE WITHIN THE PROJECT AREA. THE IRRIGATION SYSTEM IS ALSO TO UTILIZES EXISTING IRRIGATION CONTROLLERS AND IRRIGATION STATION NUMBERS. CONTRACTOR IS TO VERIFY LOCATION OF CONTROLLERS AND VERIFY QUANTITY OF AVAILABLE STATIONS.



SEE SHEET 16 - 17 FOR IRRIGATION DETAILS
SEE SHEET 18 FOR IRRIGATION SPECIFICATIONS

SHEET 10	CITY OF CARSON	SHEETS 26
<h1 style="margin: 0;">CIVIC CENTER TURF RENOVATION</h1> <h2 style="margin: 0;">IRRIGATION PLAN</h2>		

COMMUNITY CENTER

EXISTING TURF AREA
(CONTRACTOR TO ADJUST
EXISTING IRRIGATION IN
THESE AREAS)

EX. SIGN
WALL

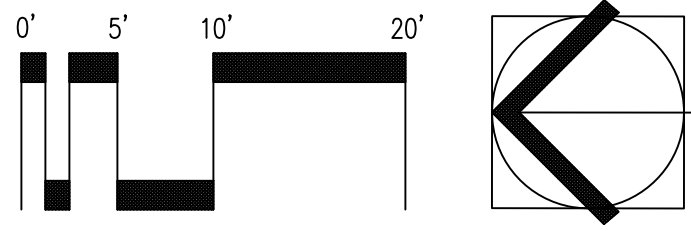
MATCHLINE
SEE SHEET 12

CONTRACTOR TO CONNECT NEW
PROPOSED IRRIGATION MAINLINE
TO EXISTING 2 1/2" IN THIS
APPROXIMATE LOCATION. THE NEW
IRRIGATION IS DESIGNED UTILIZING
A MINIMUM OF 55 PSI AT THIS
LOCATION, AND CONTRACTOR
SHALL VERIFY THAT 55 PSI IS
AVAILABLE.

AVALON BOULEVARD

EX. SIDE WALK

CIVIC CENTER DRIVE



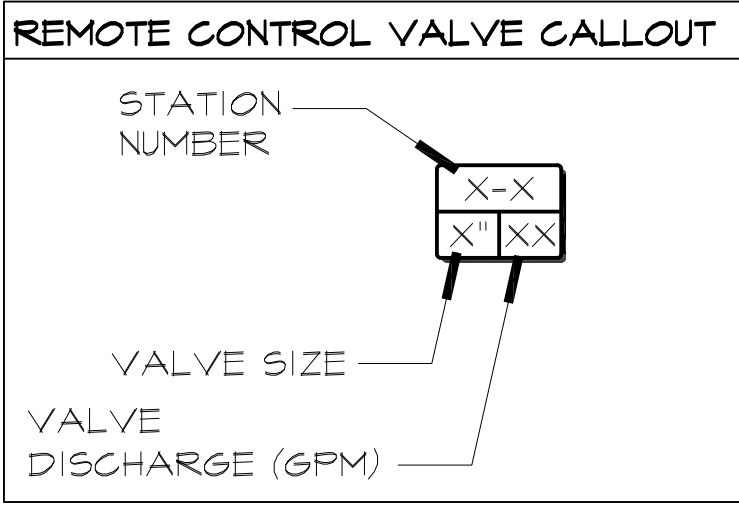
NOTES:

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5. CONTRACTOR TO OBTAIN FIELD VERIFICATION FROM PROJECT ENGINEER FOR VALVE BOX LOCATIONS.
6. CONTRACTOR TO OBTAIN FIELD VERIFICATION FROM PROJECT ENGINEER, OF ALL TREE LOCATIONS, PRIOR TO INSTALLATION OF BUBBLERS

SEE SHEET 15 FOR IRRIGATION LEGEND AND NOTES
SEE SHEET 16 - 17 FOR IRRIGATION DETAILS
SEE SHEET 18 FOR IRRIGATION SPECIFICATIONS

IRRIGATION DESIGN PARAMETERS:

THE DESIGN OF THE IRRIGATION SYSTEM IS TO HAVE THE PROPOSED IRRIGATION MAINLINE TO THE NEAREST EXISTING IRRIGATION MAINLINE WITHIN THE PROJECT AREA. THE IRRIGATION SYSTEM IS ALSO TO UTILIZES EXISTING IRRIGATION CONTROLLERS AND IRRIGATION STATION NUMBERS. CONTRACTOR IS TO VERIFY LOCATION OF CONTROLLERS AND VERIFY QUANTITY OF AVAILABLE STATIONS.



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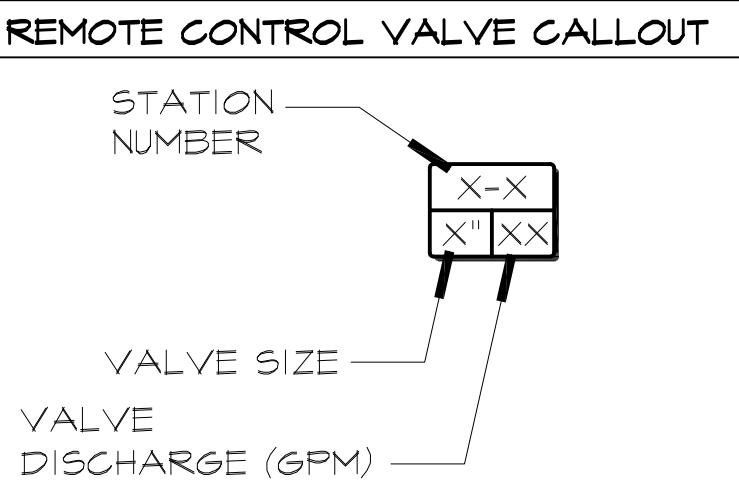


SHEET 11	CITY OF CARSON	SHEETS 26
CIVIC CENTER TURF RENOVATION IRRIGATION PLAN		

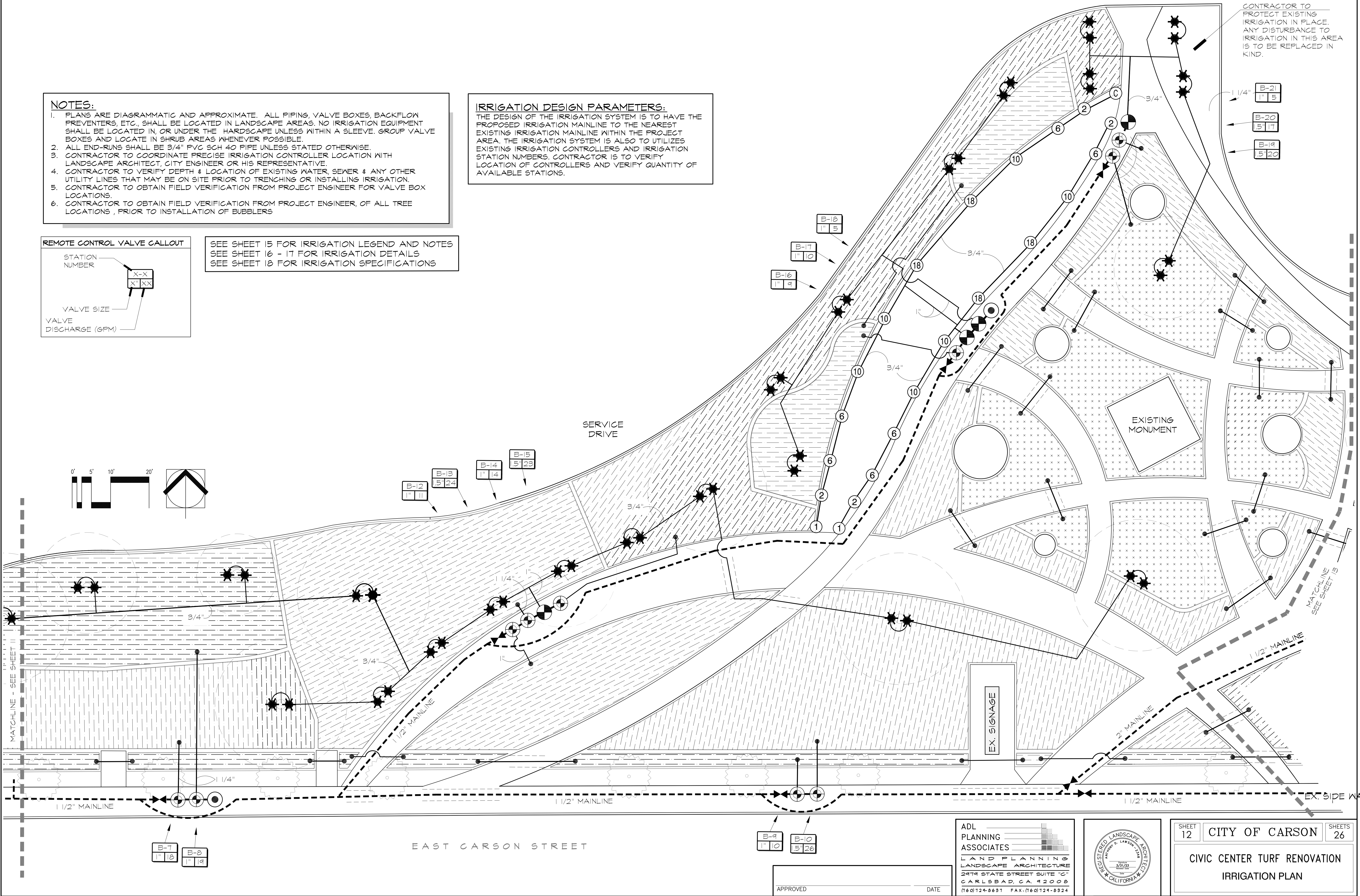
APPROVED _____ DATE _____

- NOTES:**
1. PLANS ARE DIAGRAMMATIC AND APPROXIMATE. ALL PIPING, VALVE BOXES, BACKFLOW PREVENTERS, ETC., SHALL BE LOCATED IN LANDSCAPE AREAS. NO IRRIGATION EQUIPMENT SHALL BE LOCATED IN, OR UNDER THE HARDSCAPE UNLESS WITHIN A SLEEVE. GROUP VALVE BOXES AND LOCATE IN SHRUB AREAS WHENEVER POSSIBLE.
 2. ALL END-RUNS SHALL BE 3/4" PVC SCH 40 PIPE UNLESS STATED OTHERWISE.
 3. CONTRACTOR TO COORDINATE PRECISE IRRIGATION CONTROLLER LOCATION WITH LANDSCAPE ARCHITECT, CITY ENGINEER OR HIS REPRESENTATIVE.
 4. CONTRACTOR TO VERIFY DEPTH & LOCATION OF EXISTING WATER, SEWER & ANY OTHER UTILITY LINES THAT MAY BE ON SITE PRIOR TO TRENCHING OR INSTALLING IRRIGATION.
 5. CONTRACTOR TO OBTAIN FIELD VERIFICATION FROM PROJECT ENGINEER FOR VALVE BOX LOCATIONS.
 6. CONTRACTOR TO OBTAIN FIELD VERIFICATION FROM PROJECT ENGINEER, OF ALL TREE LOCATIONS, PRIOR TO INSTALLATION OF BUBBLERS

IRRIGATION DESIGN PARAMETERS:
THE DESIGN OF THE IRRIGATION SYSTEM IS TO HAVE THE PROPOSED IRRIGATION MAINLINE TO THE NEAREST EXISTING IRRIGATION MAINLINE WITHIN THE PROJECT AREA. THE IRRIGATION SYSTEM IS ALSO TO UTILIZES EXISTING IRRIGATION CONTROLLERS AND IRRIGATION STATION NUMBERS. CONTRACTOR IS TO VERIFY LOCATION OF CONTROLLERS AND VERIFY QUANTITY OF AVAILABLE STATIONS.



SEE SHEET 15 FOR IRRIGATION LEGEND AND NOTES
SEE SHEET 16 - 17 FOR IRRIGATION DETAILS
SEE SHEET 18 FOR IRRIGATION SPECIFICATIONS

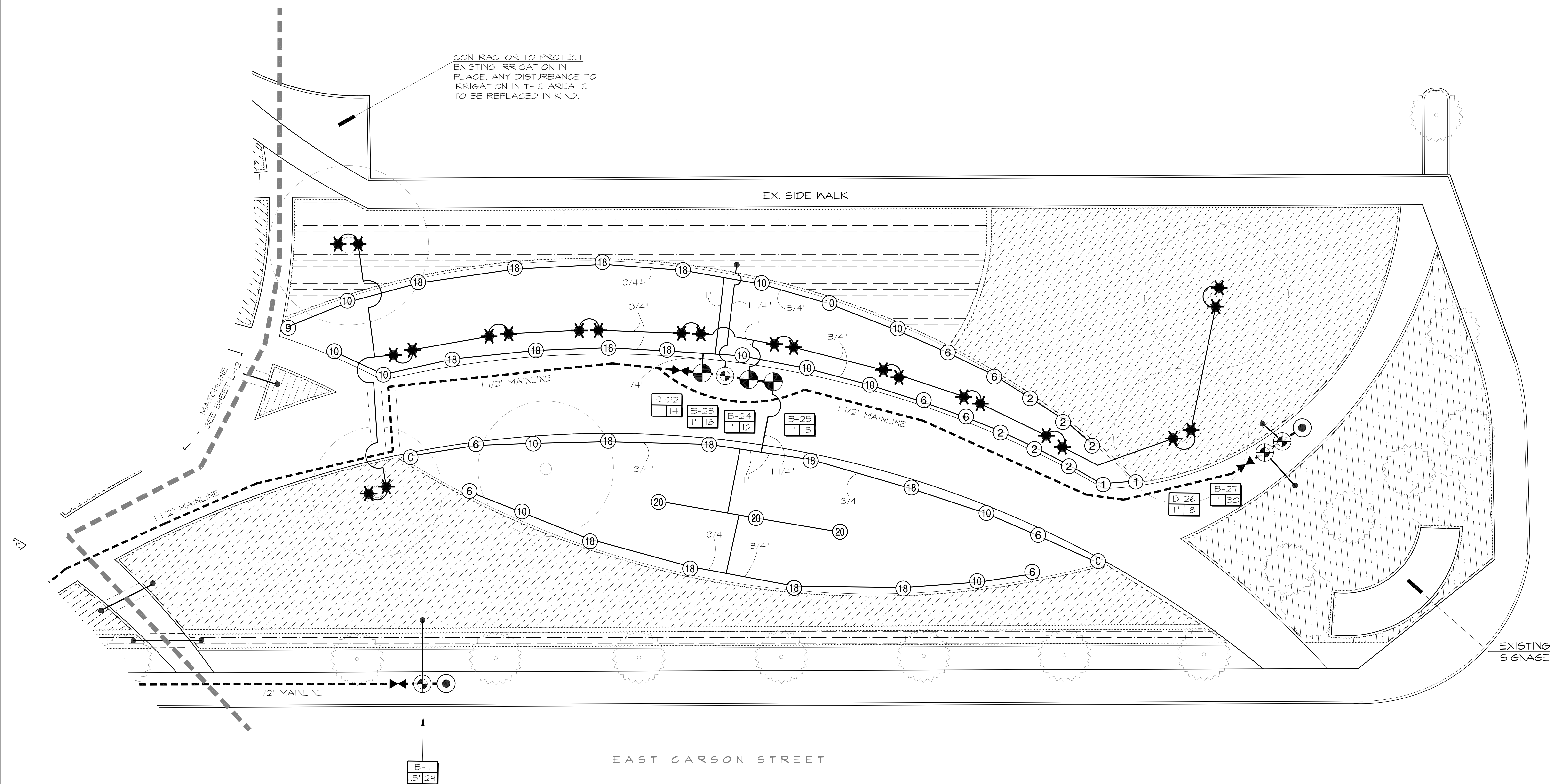


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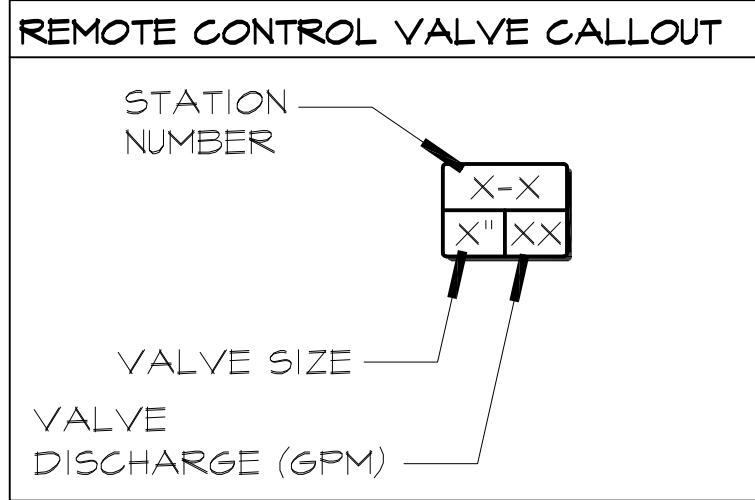
SHEET 12 CITY OF CARSON SHEETS 26
CIVIC CENTER TURF RENOVATION
IRRIGATION PLAN

APPROVED _____ DATE _____



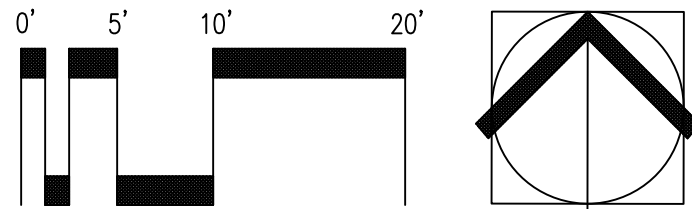
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SHEET 13 CITY OF CARSON SHEETS 26
CIVIC CENTER TURF RENOVATION
IRRIGATION PLAN

APPROVED _____ DATE _____

COMMUNITY CENTER

EX. SIDE WALK

EXISTING TURF AREA
(CONTRACTOR TO ADJUST
EXISTING IRRIGATION IN THESE
AREAS)

SERVICE DRIVE

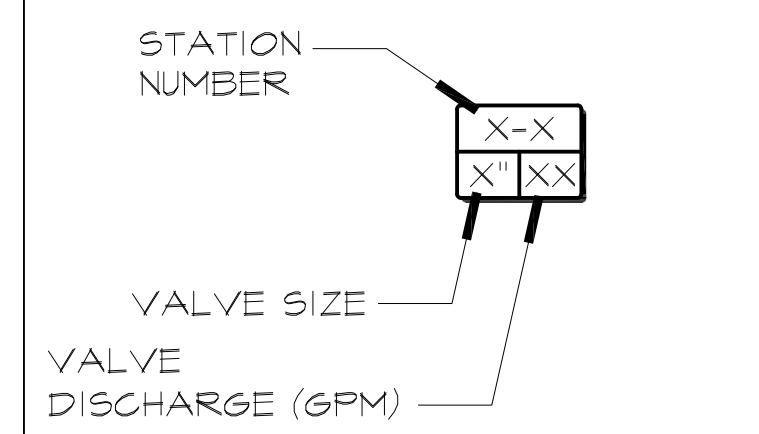
SERVICE DRIVE

CONTRACTOR TO CONNECT NEW
PROPOSED IRRIGATION
MAINLINE TO EXISTING 2 1/2" IN
THIS APPROXIMATE LOCATION
AND VERIFY THAT A MINIMUM
OF 55 PSI IS AVAILABLE.

NOTES:

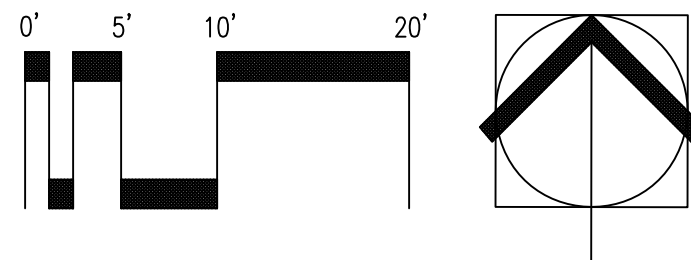
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REMOTE CONTROL VALVE CALLOUT



IRRIGATION DESIGN PARAMETERS:

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








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















APPROVED _____ DATE _____

IRRIGATION EQUIPMENT LEGEND

SYMBOL	EQUIPMENT	MANUFACTURER / MODEL #	NOTES	DETAILS
	BALL VALVE (LINE SIZE)	SPEARS MFG. / TRUE UNION 2000	--	DETAIL "X", SHEET "X"
	QUICK COUPLER VALVE	RAINBIRD / #44NP W/PURPLE COVER ACME THREADS - 1" SIZE	INSTALLED IN 6" ROUND VALVE BOX	
	REMOTE CONTROL VALVE	RAINBIRD/ 100-PGA(2 GPM-12.0 GPM) 150-PGA(12 GPM-20 GPM)	--	
	DRIP CONTROL ZONE KIT	RAINBIRD / XCZ-075-PRF (2 GPM-5.0 GPM) XCZ-100-PRBR (3.0 GPM-20.0 GPM)	--	
	PVC WATER LATERAL LINE - POTABLE OR RECYCLED PURPLE	PACIFIC PLASTICS	PVC CLASS 315 (2" & GREATER) SCH. 40 (1-1/2" & SMALLER)	
	PVC WATER MAINLINES - POTABLE OR RECYCLED PURPLE	PACIFIC PLASTICS	PVC CLASS 315 (2" & GREATER) SCH. 40 (1-1/2" & SMALLER)	
	PVC PIPE SLEEVING	PACIFIC PLASTICS	PVC CLASS 315	
	SPRING TYPE IN-LINE CHECK VALVE	SPEARS MFG. / S1580	(SIZE PER LATERAL LINE)	
NO SYMBOL	VALVE BOX	RAINBIRD	7" ROUND VB - VB7RND STD VB - VBSTDDBH JUMBO VB - VBJMBH	
	PRESSURE COMPENSATING LOW FLOW BUBBLERS	RAINBIRD / PCT-T-05, PCT-T-10	05 GPH EMITTERS (1 PER 1 GAL. PLANTS) 05 GPH EMITTERS (2 PER 5 GAL. PLANTS) 10 GPH EMITTERS (2 PER 15 GAL. PLANTS)	
	DRIP TUBING (6 GPH EMITTERS 12" ON CENTER. TUBING ROWS TO BE MAX 16" APART IN PLANTING AREAS)	RAINBIRD / XFS-06-12	--	
	END CAP OF DRIP DISCHARGE HEADER	RAINBIRD / MDCFCAP	INSTALL FLUSH VALVE INSIDE A SEPARATE VALVE BOX	
	AIR / VACUUM RELIEF VALVE	RAINBIRD / ARV050	--	
	OPERATING INDICATOR SET	HUNTER / ECO-ID	INSTALL IN VISIBLE AREA OF PLANTING BED	

IRRIGATION HEAD LEGEND:

SYMBOL 	DESCRIPTION	MAKE / MODEL	ARC	PSI	RAD.	DISCHARGE (GPM)	SPACING	DETAIL
   	MP ROTATOR	HUNTER / PROS-12-PRS30-CV-MP800-(90, 180, 270, 360)	VARIABLE	30	6'-8'	.17, .33, .5, .66	8'	DETAIL "X"/"X"/"X" SHEET L-"X"
   	MP ROTATOR	HUNTER / PROS-12-PRS40-CV-MP800-(90, 180, 270, 360)	VARIABLE	40	8'-12'	.19, .37, .57, .75	10'	DETAIL "X"/"X"/"X" SHEET L-"X"
   	MP ROTATOR	HUNTER / PROS-12-PRS40-CV-MP1000-(90, 180, 270, 360)	VARIABLE	40	10'-15'	.23, .42, .57, .78	12'	DETAIL "X"/"X"/"X" SHEET L-"X"
   	MP ROTATOR	HUNTER / PROS-12-PRS40-CV-MP2000-(90, 180, 270, 360)	VARIABLE	40	15'-21'	.4, .74, 1.10, 1.47	20'	DETAIL "X"/"X"/"X" SHEET L-"X"
	TREE BUBBLER	HUNTER / SCH.80 NIPPLE WITH PCB-50 PRESSURE COMPENSATING TRICKLE PATTERN BUBBLER	TRICKLE	40	2'-4'	0.5 (1.0)	2'-4'	DETAIL "X"/"X"/"X" SHEET L-"X"

NOTES:
ALL SHRUB HEADS INSTALLED FARTHER THAN TEN (10) FEET FROM PAVING, CURBS, SIDEWALKS, STEPS, TURF BOUNDARIES OR OTHER PEDESTRIAN AREAS MAY BE INSTALLED ON RISER WITH HUNTER PROS-00-PRS-XX, WITH IN LINE CHECK VALVE, AND WITH NOZZLE AS PER PLAN

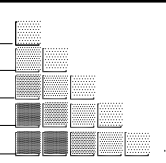
ALL SPRAY AND ROTOR HEADS INSTALLED ON RECYCLED WATER SYSTEMS SHALL HAVE A FACTORY INSTALLED PURPLE RECLAIMED WATER COVER.

INSTALL HEADS ON 12" POP-UPS ON SHRUBS AREA AND ON 6" POP-UPS ON TURF AREA.

IRRIGATION NOTES:

- ALL IRRIGATION SYSTEM COMPONENTS SHALL BE INSTALLED AS PER LOCAL CODE. CONTRACTORS SHALL SECURE ALL NECESSARY PERMITS.
- CHECK AND VERIFY ALL SITE CONDITIONS, UTILITIES AND SERVICES PRIOR TO TRENCHING. IF DURING CONSTRUCTION IT IS FOUND THAT THE SITE VARIES FROM THE DRAWINGS, NOTIFY THE LANDSCAPE ARCHITECT, CITY ENGINEER OR HIS REPRESENTATIVE BEFORE PROCEEDING WITH WORK.
- PLANS ARE DIAGRAMMATIC AND APPROXIMATE. ALL PIPING SHALL BE INSTALLED IN PLANTING AREAS EXCEPT WHERE IT IS INFEASIBLE.
- PVC PIPE CEMENT , IPS WELD-ON PVC 72I BLUE MEDIUM-BODIED, SHOULD BE USED WITH 1/2" TO 1-1/2" PVC PIPES.
- PVC PIPE CEMENT, IPS WELD-ON PVC 71I GREY HEAVY-BODIED, SHOULD BE USED WITH 2" AND LARGER PVC PIPES, AND ALL MAIN LINES.
- PVC PIPE PRIMER, IPS WELD-ON P-70 PRIMER PURPLE, SHOULD BE USED WITH ALL PVC CONNECTIONS.
- ALL VALVES ARE TO BE LABELED WITH CHRISTY'S VALVE IDENTIFICATION TAGS, IDENTIFYING STATION # AND APPROPRIATE CONTROLLER IDENTIFICATION INFORMATION.
- CONTRACTOR SHALL FLUSH ALL MAINLINES PRIOR TO INSTALLATION OF VALVES AND ALL LATERAL LINES PRIOR TO INSTALLATION OF HEADS.
- WHERE POSSIBLE, ALL PIPING, PVC ELECTRICAL SLEEVES, ETC., UNDER PAVING SHALL BE INSTALLED PRIOR TO PAVING WORK. NO TEES, ELLS, OR OTHER TURNS IN PIPING SHALL BE LOCATED UNDER PAVING.
- UNDERGROUND MARKING TAPE SHALL BE RUN WITH ALL MAIN LINES AND MUST BE INSTALLED AT LEAST 6" ABOVE TOP OF PIPE.
- COORDINATE IRRIGATION WORK WITH PLANTING PLANS TO AVOID CONFLICTING LOCATIONS BETWEEN PIPING AND PLANT PITS.
- QUICK COUPLERS ARE TO BE LOCATED IN SHRUB AREAS WHENEVER POSSIBLE AND PLACED SIX (6) INCHES FROM OUTSIDE HEADER.
- TRACING WIRE: ONE #10 AWG, SOLID COPPER, 600 VOLT, TYPE OF WIRE CABLE MUST BE TAPED TO ALL MAIN LINES AND BE VISIBLY MARKED AND ACCESSIBLE AT ALL GATE AND/OR BALL VALVES.
- SPEAR DRI-SPLICE SHOULD BE USED AS WIRE CONNECTORS: USE EXTRA D8300 SEALANT INSIDE CONNECTORS.
- EACH WIRE SHAL BE INSTALLED WITH A 30" COILED EXCESS WIRE LENGTH AT WIRE END/VALVE.
- LANDSCAPE IRRIGATION SHALL BE APPLIED AT A RATE NOT EXCEEDING THE INFILTRATION RATE OF THE SOIL (MINIMIZING EROSION AND WATER WASTE) BUT SUFFICIENTLY TO ALLOW FOR HEALTHY PLANT GROWTH.
- INSTALL CHECK VALVES AS NEEDED TO PREVENT LOW HEAD DRAINAGE.
- SPECIAL CONSIDERATION SHALL BE GIVEN TO WATER AND ELECTRICAL SERVICES.
- IRRIGATION AND PLANTING SHALL TAKE PLACE AS IMPROVEMENTS PROGRESS.
- ALL IRRIGATION PIPE UNDER PAVING/HARDSCAPE TO BE INSTALLED IN SLEEVE.
- INSTALLATION DEPTH OF PIPING:
 - PVC PRESSURE MAINLINE: 18"MIN.
 - PVC NON PRESSURE LATERAL: 12"MIN.
 - POLYPROPELENE TUBING: 4" MIN.

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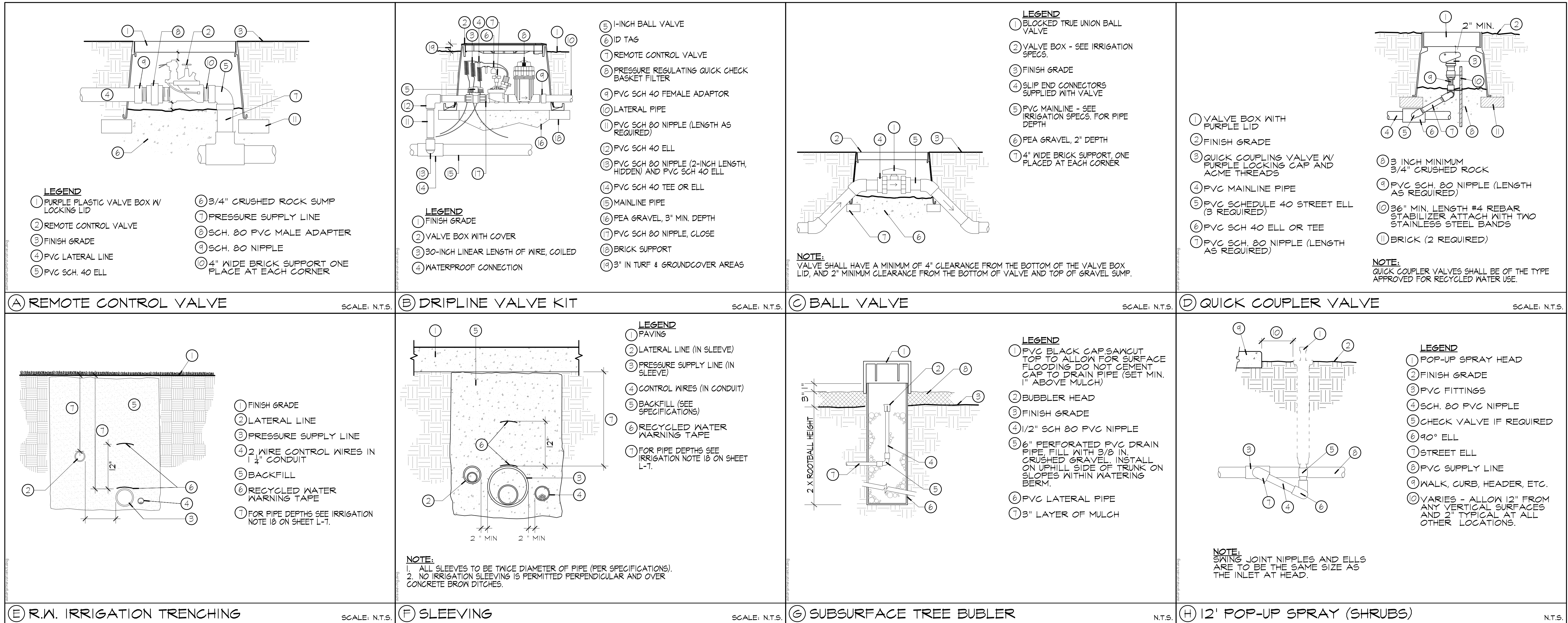
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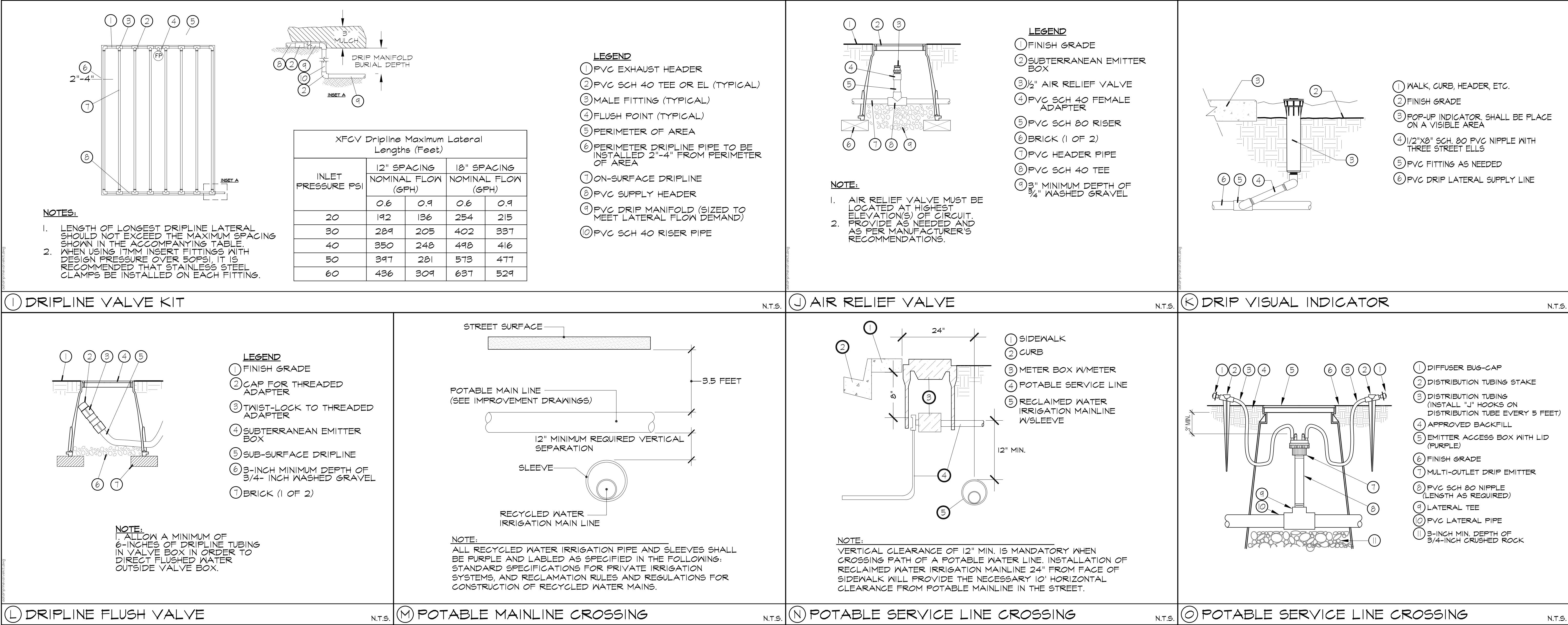
CITY OF CARSON

SHEETS
26

CIVIC CENTER TURF RENOVATION
IRRIGATION LEGEND & NOTES

APPROVED _____ DATE _____





IRRIGATION SYSTEM

PART 1: GENERAL

- 1.01 QUALITY ASSURANCE
- A. ALL LOCAL, MUNICIPAL, COUNTY AND STATE LAWS, SAFETY ORDERS, RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THE WORK DEPICTED ON THESE PLANS ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR. NOTIFY THE CITY PRIOR TO INSTALLATION IN THE EVENT ANY EQUIPMENT OR METHODS INDICATED ON THE DRAWINGS OR SPECIFICATIONS CONFLICT WITH LOCAL CODES.
- B. PRIOR TO THE SUBMISSION OF A BID, THE CONTRACTOR SHALL EXAMINE THE SITE AND THE COMPLETE DRAWINGS AND SPECIFICATIONS FOR THE PROJECT IN ADDITION TO THE SPRINKLER IRRIGATION PORTION OF THE WORK.
- C. VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES, AND SERVICES BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES, AND SERVICES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT, CITY ENGINEER, OR HIS REPRESENTATIVE.
- D. OBTAIN THE PERTINENT ENGINEERING PLANS BEFORE COMMENCING WORK.
- E. OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND INSPECTIONS REQUIRED BY AUTHORITIES STATED ABOVE TO PERFORM THE WORK INDICATED HEREIN BEFORE COMMENCING WORK.
- F. NOTIFY THE CITY PRIOR TO COMMENCING WORK, AND BE RESPONSIBLE FOR COORDINATING WORK WITH THE CITY, PROJECT MANAGER, LANDSCAPE ARCHITECT, OTHER CONSTRUCTION TRADES, AND GOVERNING AGENCIES. CAUSE MINIMUM INTERFERENCE WITH THE WORK, MATERIALS, OR EQUIPMENT OF OTHER CONTRACTORS.
- G. IRRIGATION PLAN IS DIAGRAMMATIC ONLY. REFER TO THE IRRIGATION LEGEND AND DETAILS FOR EQUIPMENT AND INSTALLATION.
- H. NOTIFY THE CITY PRIOR TO COMMENCING WORK IN THE EVENT OF CONFLICTS BETWEEN THE DRAWINGS AND SPECIFICATIONS.
- I. THIS IRRIGATION SYSTEM IS NOT DESIGNED FOR RECLAIMED WATER USE. ALL PIPING, EQUIPMENT, AND IRRIGATION PRACTICES SHALL BE IN ACCORDANCE WITH THE LOCAL WATER DISTRICT STANDARDS FOR IRRIGATION USE.
- 1.02 SCOPE OF WORK
- A. THE WORK CONSISTS OF FURNISHING ALL LABOR, MATERIALS, MACHINERY, AND PROCESSES REQUIRED TO COMPLETE THE SPRINKLER IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS AND DESCRIBED HEREIN.
- B. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO INDICATE AND SPECIFY A COMPLETE IRRIGATION SYSTEM, INSTALLED READY FOR USE WITHOUT FURTHER COST IN LABOR OR MATERIAL TO THE CITY.
- C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK TO BE PERFORMED UNDER THIS CONTRACT. NO SUBCONTRACTOR SHALL RELIEVE THE CONTRACTOR OF HIS LIABILITY TO COMPLETE THE WORK AS SHOWN ON THE DRAWINGS AND SPECIFICATIONS IN A TIMELY MANNER.
- 1.03 PROTECTION
- A. USE ALL MEANS NECESSARY TO PROTECT ALL MATERIALS OF THIS SECTION BEFORE, DURING, AND AFTER INSTALLATION AND TO PROTECT ALL OBJECTS DESIGNATED TO REMAIN.
- B. IN THE EVENT OF DAMAGE, OR THEFT, IMMEDIATELY MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY AT NO ADDITIONAL COST TO THE CITY.
- C. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND FEATURES ON AND ADJACENT TO THE PROJECT SITE FROM DAMAGE AS A RESULT OF CONSTRUCTION OR MALFUNCTION DURING CONSTRUCTION. CONTRACTOR SHALL REPAIR, AT HIS OWN EXPENSE, ALL DAMAGE RESULTING FROM HIS OPERATIONS OR NEGLIGENCE.
- D. THE CONTRACTOR SHALL CAREFULLY NOTE ALL FINISHED GRADES BEFORE COMMENCING WORK. ANY FINISHED GRADE CHANGED DURING THE COURSE OF HIS WORK SHALL BE RESTORED TO THE ORIGINAL CONTOURS.
- 1.04 SUBMITTALS
- A. THE CONTRACTOR SHALL FURNISH THE ARTICLES, EQUIPMENT, MATERIALS OR PROCESSES SPECIFIED IN NAME ON THE DRAWINGS. NO SUBSTITUTIONS WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL BY THE PROJECT MANAGER, CITY ENGINEER, OR HIS REPRESENTATIVE. EQUIPMENT OR MATERIALS FURNISHED OR INSTALLED WITHOUT THE PRIOR APPROVAL OF THE PROJECT MANAGER, CITY ENGINEER, OR HIS REPRESENTATIVE MAY BE REJECTED AND THE CONTRACTOR REQUIRED TO REMOVE SUCH MATERIALS FROM THE SITE AT HIS OWN EXPENSE.
- B. SUBMIT CATALOG DATA AND FULL DESCRIPTIVE LITERATURE FOR APPROVAL OF ITEMS DIFFERENT THAN THOSE SPECIFIED.
- C. SUBMIT RECORD DRAWINGS IN ACCORDANCE WITH PART 3.
- 1.05 EXTRA MATERIALS / MATERIALS TO BE FURNISHED
- A. DELIVER EXTRA MATERIALS TO CITY. FURNISH EXTRA MATERIALS MATCHING PRODUCTS INSTALLED AS DESCRIBED BELOW. PACKAGE THEM WITH PROTECTIVE COVERING FOR STORAGE AND LABEL CLEARLY DESCRIBING CONTENTS.
1. EMITTERS: (TWENTY EACH TYPE).
2. TWO SETS OF SPRINKLER WRENCHES FOR ADJUSTING, CLEANING, OR DISASSEMBLING EACH TYPE OF SPRINKLER OR SPRAY HEAD.
3. TWO KEYS FOR AUTOMATIC CONTROLLER, IF PROVIDED BY CONTRACTOR.
4. TWO QUICK COUPLER KEYS WITH HOSE SWIVELS.
5. TWO EACH OF ANY SPECIAL TOOLS REQUIRED FOR OTHER EQUIPMENT.
6. TWO SERVICE MANUALS FOR ALL EQUIPMENT SHALL BE FURNISHED TO THE CITY. MANUALS MAY BE LOOSE LEAF AND SHOULD SHOW DRAWINGS OR EXPLODED VIEWS OF EQUIPMENT AND CATALOG NUMBER.
7. OPERATING INSTRUCTIONS FOR ALL EQUIPMENT SHALL BE FURNISHED.

PART 2: PRODUCTS

- 2.01 GENERAL
- A. ALL EQUIPMENT AND MATERIALS SHALL BE NEW AND UNUSED PRIOR TO INSTALLATION.
- 2.02 BRASS PIPE AND FITTINGS
- A. BRASS PIPE SHALL BE HEAVY WALL TYPE, WITH THREADS COMPLYING TO A.S.A. SPECIFICATIONS.
- B. FITTINGS TO BE USED WITH BRASS PIPE SHALL BE CASE BRASS OR CASE BRONZE THREADED JOINT, AND SHALL COMPLY WITH A.S.A. SPECIFICATIONS. THREADS ON PIPE AND FITTINGS SHALL BE TAPER TYPE.
- 2.03 PLASTIC PIPE AND FITTINGS
- A. PLASTIC PIPE SHALL BE EXTRUDED FROM 100% VIRGIN POLY(VINYL CHLORIDE (PVC) TYPE I, GRADE II (CLASS 1220 AS MANUFACTURED BY LASCO, JOHNS-MANVILLE, OR EQUAL.
- B. ALL PLASTIC PIPE SHALL BE CONTINUOUSLY AND PERMANENTLY MARKED WITH THE FOLLOWING INFORMATION: MANUFACTURER'S NAME, NOMINAL PIPE SIZE, PVC 1220, SDR (STANDARD DIMENSION RATIO OR PRESSURE RATING IN PSI).
- C. PIPE SHALL BE OF THE SIZE AND CLASS OR SCHEDULE AS NOTED IN THE IRRIGATION LEGEND. EXPOSED PIPE SHALL BE "BROWNLINE " UVR PVC OR EQUAL. PIPE USED IN NON-POTABLE WATER SYSTEMS SHALL BE "ALERTLINE" OR EQUAL, PURPLE IN COLOR THROUGHOUT, AND CONTINUOUSLY MARKED "CAUTION RECLAIMED WATER".
- D. PLASTIC FITTINGS SHALL BE PVC II, IPS, SCHEDULE 40 NSF AND SCHEDULE 80 THREADED AND OR SLIP FITTINGS AS SHOWN IN THE DETAILS.
- E. ALL THREADED NIPPLES SHALL BE STANDARD WEIGHT SCHEDULE 80 MOLDED THREADS. THREADED NIPPLES EXPOSED ABOVE GRADE SHALL BE GRAY IN COLOR.
- F. SOLVENT TO BE USED FOR JOINING PLASTIC PIPE AND FITTINGS SHALL BE AS PER THE PIPE MANUFACTURERS RECOMMENDATIONS.
- 2.04 SLEEVING
- A. SLEEVE ALL MAINLINE AND LATERAL LINES WITH PVC, SCH. 40 PIPE TWICE THE DIAMETER OF THE SLEEVED LINE WHERE IT PASSES UNDER PAVED AREAS. EXTEND SLEEVE 12" BEYOND THE EDGE OF THE PAVEMENT.
- 2.05 WIRING
- A. CONTROL WIRE: AWG UF 600 (12 OF 14 GAUGE). COMMON WIRE SHALL BE BLACK. USE ALTERNATE COLOR(S) FOR CONTROL WIRES. ALL CONTROL WIRE SHALL BE IN CONDUIT.
- B. WIRE CONNECTIONS: MADE WITH "PEN-TITE" CONNECTORS (OR EQUAL). LOCATE MID WIRE SPLICES IN FULL BOX (8" ROUND PLASTIC VALVE BOX).
- C. HIGHER VOLTAGE CONNECTIONS OR 110 V SHALL BE MADE BY CLAMP AND SHALL BE WEATHER PROTECTED PER LOCAL CODES.
- D. OTHER EQUIPMENT SHALL BE AS SPECIFIED IN THE IRRIGATION LEGEND ON THE DRAWINGS.
- 2.06 CONCRETE THRUST BLOCKS
- A. INSTALL THRUST BLOCKS AS DETAILED AT ALL BENDS OR CORNERS ON 2 1/2" O.D. OR LARGER PRESSURE MAINLINE.
- B. INSTALL THRUST BLOCKS AT BASE OF RISERS FOR BACKFLOW PREVENTERS.
- 2.07 ASSEMBLIES
- A. ALL THREADED PIPE AND FITTINGS SHALL BE ASSEMBLED USING TEFLON TAPE OR EQUAL, APPLIED TO THE MALE THREADS ONLY.
- 2.08 EQUIPMENT
- A. QUICK COUPLING VALVES, CONTROLLERS, REMOTE CONTROL (AUTOMATIC) VALVES, BALL VALVES, GATE VALVES, SPRINKLER HEADS, BACKFLOW PREVENTION UNITS, AND OTHER EQUIPMENT SHALL BE AS SPECIFIED IN THE IRRIGATION NOTES AND LEGEND ON THE DRAWINGS.
- 2.09 VALVE BOXES
- A. ALL REMOTE CONTROL, GATE, BALL, AND ISOLATION VALVES SHALL BE HOUSED IN PLASTIC VALVE BOXES AS DETAILED. VALVE BOXES SHALL BE AS MANUFACTURED BY BROOKS OR EQUAL.
- B. VALVE BOXES SHALL BE LOCK TOP OR BOLTED. PROVIDE TWO KEYS MINIMUM FOR LOCKABLE BOXES.
- C. VALVE BOX LIDS SHALL BE MARKED AS NOTED IN THE DETAILS.
- D. ALL REMOTE CONTROL, GATE, BALL, AND ISOLATION VALVES SHALL BE HOUSED IN PLASTIC VALVE BOXES AS DETAILED. VALVE BOXES SHALL BE AS MANUFACTURED BY BROOKS OR EQUAL.
- 2.10 CHECK VALVES
- A. ANTI-DRAIN VALVES SHALL BE OF HEAVY DUTY VIRGIN PVC CONSTRUCTION WITH F.I.P. THREAD INLET AND OUTLET. INTERNAL PARTS SHALL BE STAINLESS STEEL AND NEOPRENE.
- B. ANTI-DRAIN VALVE SHALL BE FIELD ADJUSTABLE AGAINST DRAWOUT FROM 5 TO 40 FEET OF HEAD. ANTI-DRAIN VALVE SHALL BE VALCON ADV OR APPROVED EQUAL.

PART 3: EXECUTION

- 3.01 SITE CONDITIONS
- A. ALL SCALED DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS ON THE SITE PRIOR TO PROCEEDING WITH THE WORK OF THIS CONTRACT.
- B. THE INSTALLATION OF ALL SPRINKLER MATERIALS, INCLUDING PIPE SHALL BE COORDINATED WITH THE PLANTING PLANS TO AVOID INTERFERING WITH TREE, SHRUB, OR OTHER PLANT LOCATIONS.
- 3.02 WATER SUPPLY
- A. THE CONTRACTOR SHALL CONNECT TO THE WATER SOURCE AS INDICATED ON THE DRAWINGS. VERIFY STATIC PRESSURE AS STATED ON THE PLANS PRIOR TO BEGINNING WORK. NOTIFY THE PROJECT MANAGER, CITY ENGINEER, OR HIS REPRESENTATIVE PROMPTLY IF STATIC PRESSURE OR POINT OF CONNECTION DIFFER FROM THAT REFERENCED ON PLANS.
- 3.03 SPRINKLER HEAD LOCATIONS
- A. LAYOUT SPRINKLER HEADS AND MAKE MINOR ADJUSTMENTS REQUIRED DUE TO DIFFERENCES BETWEEN SITE AND DRAWINGS. ANY SUCH DEVIATIONS IN LAYOUT SHALL BE WITHIN THE INTENT OF THE ORIGINAL DRAWINGS, AND WITHOUT ADDITIONAL COSTS TO THE CITY. WHEN DIRECTED BY THE PROJECT MANAGER, THE LAYOUT SHALL BE APPROVED PRIOR TO INSTALLATION.
- B. DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS INDICATED ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS OR GRADE DIFFERENCES EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED DURING ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER.
- 3.04 VALVE LOCATIONS
- A. BACKFLOW PREVENTION DEVICES SHALL NOT BE LOCATED MORE THAN 18" FROM THE SERVICING WATER METER, UNLESS SPECIFICALLY INDICATED ON DRAWINGS.
- B. CHECK VALVES AND ANTI-DRAIN VALVES SHALL BE INSTALLED WHERE INDICATED, AND WHERE NECESSARY TO PREVENT WATER FLOW FROM LOWER ELEVATION SPRINKLER HEADS WHEN IRRIGATION SYSTEM IS TURNED OFF.
- C. STAMP VALVE AND CONTROLLER NUMBER ON TOP OF AUTOMATIC VALVE BOX LIDS. SECURE A PLASTIC TAG WITH THE VALVE NUMBER EMBOSSED ONTO EACH AUTOMATIC VALVE.
- 3.05 PIPE DEPTH
- A. ALL PRESSURE MAINLINES SHALL BE BURIED EIGHTEEN (18") INCHES DEEP, MINIMUM.
- B. ALL LATERAL PIPING SHALL BE BURIED TWELVE (12") INCHES DEEP, UNLESS OTHERWISE INDICATED.
- C. PRESSURE MAINS UNDER PAVING SHALL BE 30" DEEP MINIMUM. NON-PRESSURE LATERALS UNDER PAVING SHALL BE 24" DEEP MINIMUM.
- 3.06 TRENCHING AND BACKFILLING
- A. MAKE ALL EXCAVATIONS IN OPEN CUT TO WIDTH AND DEPTH NECESSARY TO CONSTRUCT THE WORK IN ACCORDANCE WITH THE DRAWINGS. EXERCISE CAREFULLY TO CARRY THE EXCAVATION TO THE PROPER LINE AND GRADE AND TO PROVIDE AN EVEN, UNIFORM BEARING SURFACE FOR ALL PIPING.
- B. HAND TRIM EXCAVATIONS TO REQUIRED ELEVATIONS. DO NOT OVER EXCAVATE. REMOVE LARGE STONES OR OTHER HARD MATTER WHICH COULD DAMAGE PIPE.
- C. BACKFILLING
1. BACKFILL FOR TRENCHING SHALL BE COMPACTED TO DRY DENSITY EQUAL TO THE ADJACENT UNDISTURBED SOIL IN PLANTING AREAS, AND TO 90% UNDER PAVED AREAS. BACKFILL SHALL CONFORM TO THE ADJACENT GRADES WITHOUT DIPS, SUNKEN AREAS, HUMPS, OR OTHER IRREGULARITIES. PLACE EXCAVATED MATERIAL IN SIX INCH (6") LAYERS, LOOSE MEASURE, AND THOROUGHLY TAMP UNDER AND AROUND THE PIPE ACROSS THE FULL WIDTH OF THE TRENCH. PROVIDE MOIST, NOT WET, BACKFILL. INCLUDE NO STONES LARGER THAN ONE INCH (1").
2. ALLOW FOR SETTLEMENT. IN THE EVENT OF BACKFILL SETTLEMENT, THE IRRIGATION CONTRACTOR SHALL PERFORM REQUIRED REPAIRS AT THIS OWN COST.
3. TRENCHES SHALL BE BACKFILLED PROMPTLY, AND ONLY AFTER THE OPEN TRENCH INSPECTION HAS BEEN COMPLETED.
- 3.07 PRESSURE TESTING PRIOR TO BACKFILLING IRRIGATION TRENCHES:
- A. ALL MAINLINES IN THE SYSTEM SHALL BE CAPPED AND HYDROSTATICALLY PRESSURE TESTED AT 125 P.S.I. FOR A PERIOD OF 24 HOURS WITH 0 P.S.I LEAK DOWN. ANY LEAKS FOUND SHALL BE CORRECTED BY REMOVING AND REPLACING THE LEAKING PIPE OR FITTINGS, AND INSTALLING NEW MATERIAL IN ITS PLACE.
- B. ALL LATERALS SHALL BE PRESSURE TESTED AT DESIGN PRESSURE FOR FOUR HOURS.
- C. THE CONTRACTOR SHALL NOT ALLOW OR CAUSE ANY OF THIS WORK TO BE COVERED UNTIL IT HAS BEEN INSPECTED, TESTED, AND APPROVED BY THE PROJECT MANAGER, CITY ENGINEER OR HIS REPRESENTATIVE.
- D. CONTACT PROJECT MANAGER, CITY ENGINEER OR HIS REPRESENTATIVE A MINIMUM OF 48 HOURS PRIOR TO PERFORMING PRESSURE TESTS.

- 3.08 FLUSHING
- A. AFTER ALL NEW PVC PIPE, LINES, AND RISERS ARE IN PLACE AND CONNECTED, ALL NECESSARY DIVERSION WORK HAS BEEN COMPLETED, AND PRIOR TO THE INSTALLATION OF HEADS, THE CONTROL VALVES SHALL BE OPENED AND A FULL HEAD OF WATER USED TO FLUSH OUT THE SYSTEM.
- B. CAP OFF EACH HEAD IN SEQUENCE, FROM THE CONTROL VALVE TO THE END OF THE LINE. PROCEED TO THE NEXT HEAD ONLY AFTER THE FLOW OF WATER IS CLEAN AND FREE OF DIRT, GRIT, AND PARTICULATE MATTER.
- C. ALL DRIP AND SUB-SURFACE CIRCUITS SHALL BE FLUSHED PRIOR TO CAPPING AND POP-UP INDICATOR SHALL BE VERIFIED.
- 3.09 SPRINKLER COVERAGE
- A. IRRIGATION CONTRACTOR SHALL ADJUST ALL SPRINKLER HEADS TO ENSURE AN EVEN COVERAGE AND TO KEEP SPRAY OFF OF STRUCTURES, WALLS, WALKS, DRIVES, STREETS, CURBS OR GUTTERS.
- B. ADJUST SPRINKLER HEADS ON A DAILY BASIS AS THE SYSTEM IS BEING BALANCED THROUGHOUT THE CONSTRUCTION AND MAINTENANCE PERIODS. OVERSPRAY AND OVERWATERING ARE TO BE KEPT TO AN ABSOLUTE MINIMUM.
- C. IF IT IS DETERMINED THAT ADJUSTMENTS IN THE IRRIGATION EQUIPMENT OR NOZZLE CHANGES WILL PROVIDE PROPER AND MORE ADEQUATE COVERAGE, MAKE NECESSARY CHANGES WITHOUT ADDITIONAL COST TO THE CITY.
- 3.11 CLEAN-UP
- A. UPON COMPLETION OF THE WORK, MAKE THE GROUND SURFACE LEVEL, REMOVE EXCESS MATERIALS, RUBBISH, DEBRIS, ETC. AND REMOVE CONSTRUCTION AND INSTALLATION MATERIALS FROM THE PREMISES.
- 3.12 RECORD DRAWINGS
- A. THE CONTRACTOR SHALL FURNISH TO THE CITY A COMPLETE SET OF "AS-BUILT" DRAWINGS ON CLEAN BOND COPIES OF THE APPROVED IRRIGATION PLANS, WITH DIMENSIONS INDICATING EXACT LOCATIONS OF ALL MAINLINE AND COMPONENTS INSTALLED. CORRECTIONS AND CHANGES ARE TO BE DRAWN IN RED INK. DRAWINGS ARE TO BE LEGIBLE AND ACCURATE. DIMENSION LOCATIONS OF VALVES, MAINLINES, CONTROL WIRES, WATER SOURCES, AND OTHER EQUIPMENT FROM TWO VISIBLE STATIONARY POINTS SHALL BE INCLUDED. THESE ARE TO BE DELIVERED ON OR BEFORE FINAL INSPECTION AND APPROVAL.
- B. A REDUCED IRRIGATION PLAN INDICATING ALL IRRIGATION SYSTEMS AND THEIR APPROPRIATE SEQUENCED CONTROL VALVE SHALL BE LAMINATED AND PROVIDED TO THE CITY. THE DRAWING SHALL CLEARLY SHOW LOCATIONS OF MAINLINE, NUMBERED CONTROL VALVES (AND MANIFOLDS), SHUT OFF VALVES, AND VALVE COVERAGE AREAS.
- 3.13 INSPECTIONS
- A. IN NO EVENT SHALL THE CONTRACTOR COVER-UP OR OTHERWISE REMOVE FROM VIEW ANY WORK UNDER THIS CONTRACT WITHOUT THE PRIOR APPROVAL OF THE CITY. ANY WORK COVERED PRIOR TO INSPECTION SHALL BE UNCOVERED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- B. MAINLINE PRESSURE TEST AND TRENCH DEPTH INSPECTIONS SHALL BE MADE PRIOR TO BACKFILLING OF TRENCHES.
- C. WHEN THE IRRIGATION SYSTEM IS COMPLETED AND PRIOR TO PLANTING, THE CONTRACTOR SHALL, IN THE PRESENCE OF THE CITY'S AUTHORIZED REPRESENTATIVE PERFORM A COVERAGE TEST ON ALL PLANTING AREAS TO ENSURE IT IS COMPLETE AND ADEQUATE. THE CONTRACTOR SHALL FURNISH ALL MATERIALS AND PERFORM ALL WORK REQUIRED TO CORRECT ANY INADEQUACIES OF COVERAGE AT HIS OWN COST.
- D. NOTIFY THE CITY IN WRITING SEVEN DAYS PRIOR TO FINAL INSPECTION AT THE END OF THE MAINTENANCE PERIOD. FINAL INSPECTION WILL BE TO INSURE THAT THE SYSTEM IS FULLY OPERATIONAL, AND THAT ALL HEADS, VALVES, AND WATERING SEQUENCES HAVE BEEN ADJUSTED FOR THE PROPER IRRIGATION OF THE PLANTINGS.
- E. SHOW EVIDENCE THAT THE CITY HAS RECEIVED ALL REQUIRED ACCESSORIES, CHARTS, RECORD DRAWINGS, ETC. AT THE TIME OF FINAL INSPECTION. THE MAINTENANCE PERIOD MAY BE EXTENDED IF THESE MATERIALS HAVE NOT BEEN DELIVERED.
- 3.14 MAINTENANCE AND GUARANTEE
- A. THE ENTIRE SPRINKLER SYSTEM SHALL BE GUARANTEED BY THE LANDSCAPE CONTRACTOR AS TO MATERIAL AND WORKMANSHIP, INCLUDING SETTling OF BACKFILL AREAS AND TRENCHES FOR A PERIOD OF ONE YEAR FOLLOWING THE DATE OF FINAL ACCEPTANCE OF THE WORK.
- B. SHOULD ANY OPERATIONAL DIFFICULTIES IN CONNECTION WITH THE SPRINKLER SYSTEM DEVELOP WITHIN THE SPECIFIED GUARANTEE PERIOD, WHICH IN THE OPINION OF THE CITY MAY BE DUE TO INFERIOR MATERIAL AND/OR WORKMANSHIP, SAID DIFFICULTIES SHALL BE IMMEDIATELY CORRECTED BY THE LANDSCAPE CONTRACTOR TO THE SATISFACTION OF THE CITY, AT NO ADDITIONAL COST.

APPROVED

DATE

ADL
PLANNING
ASSOCIATES
LAND PLANNING
LANDSCAPE ARCHITECTURE
2979 STATE STREET SUITE "C"
CARLSBAD, CA 92008
(602) 224-8831 FAX: (602) 224-8324



SHEET
18

CITY OF CARSON

SHEETS
26

CIVIC CENTER TURF RENOVATION
IRRIGATION SPECIFICATIONS




TREES						
SYM.	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	MUGOLs	COMMENTS
<input checked="" type="checkbox"/>	10	LAGERSTROEMIA INDICA	GRAPE MYRTLE	48" BOX	LOW	STANDARD FORM
<input type="checkbox"/>						
<input checked="" type="checkbox"/>	3	QUERCUS VIRGINIANA	SOUTHERN LIVE OAK	48" BOX	MOD.	STANDARD FORM

1	96	TEUCRIUM X LUCIDRYS	WALL GERMANDER	1 GAL.	LOW	36" O.C. SPACING
4	108	DIANELLA TASMANICA 'DESTINY'	DESTINY DIANELLA	1 GAL.	LOW	36" O.C. SPACING
6	84	JUNIPERUS HORIZONTALIS 'BAR HARBOR'	BAR HARBOR JUNIPER	1 GAL.	LOW	36" O.C. SPACING
7	36	BERBERIS THUNBERGII 'ATROPURPUREA NANA'	DWARF DEEP RED BARBERRY	5 GAL.	LOW	36" O.C. SPACING
9	44	MAHONIA 'SOFT CARESS'	'SOFT CARESS' MAHONIA	5 GAL.	LOW	42" O.C. SPACING
10	40	NANDINA DOMESTICA 'BLUSH PINK'	BLUSH PINK NANDINA	5 GAL.	LOW	36" O.C. SPACING
11	30	PHORMIUM 'AFRICOT QUEEN'	APRICOT QUEEN FLAX	15 GAL.	LOW	72" O.C. SPACING
12	50	STRELITZIA REGINAE	BIRD OF PARADISE	5 GAL.	LOW	60" O.C. SPACING

13	33	WESTRINGIA FRUTICOSA 'GREY BOX'	COAST ROSEMARY	5 GAL.	LOW	60" O.C. SPACING
15	37	ANIGOZANTHOS FLAVIDUS 'BUSH GOLD'	BUSH GOLD KANGAROO PAM	5 GAL.	LOW	36" O.C. SPACING
17	43	LOMANDRA LONGIFOLIA 'BREEZE'	DWARF MAT RUSH	5 GAL.	LOW	48" O.C. SPACING
18	58	MUHLENBERGIA CAPILLARIS	PINK MUHLY	1 GAL.	MODERATE	48" O.C. SPACING
19	72	SENEGIO MANDRALISCAE	BLUE CHALKSTICKS	1 GAL.	LOW	30" O.C. SPACING
20	22	KNIPHOFIA 'POGO SUNSET'	POGO SUNSET HOT POKER	5 GAL.	LOW	60" O.C. SPACING
23a	8	ALOE 'BLUE ELF'	BLUE ELF ALOE	1 GAL.	LOW	42" O.C. SPACING
23b	10	ALOE CAMPERI	TORCH ALOE	1 GAL.	LOW	60" O.C. SPACING
23c	7	ALOE CHABAUDII 'ORANGE BURST'	DWALA ALOE	1 GAL.	LOW	48" O.C. SPACING
23d	6	ALOE GLIARIS 'FIREWALL'	FIREWALL ALOE	5 GAL.	LOW	60" O.C. SPACING
23e	10	ALOE 'MOONGLOW'	MOONGLOW ALOE	1 GAL.	LOW	42" O.C. SPACING
23f	8	ALOE 'SAFARI ROSE'	SAFARI ROSE ALOE	1 GAL.	LOW	48" O.C. SPACING
23g	18	ALOE VERA	ALOE VERA	1 GAL.	LOW	42" O.C. SPACING
23h	16	ALOE X SPINOSISSIMA	SPIDER ALOE	1 GAL.	LOW	48" O.C. SPACING
24	28	HESPERALOE P. 'PERPA' BRAKELIGHT	BRAKELIGHTS RED YUCCA	1 GAL.	VERY LOW	48" O.C. SPACING

PLANT TYPE — (X)
QUANTITY — (XX)

ADL _____
PLANNING _____
ASSOCIATES _____



LAND PLANNING
LANDSCAPE ARCHITECTURE
2919 STATE STREET SUITE "C"
CARLSBAD, CA. 92008
(760) 729-8637 FAX: (760) 729-8324



SHEET 19	CITY OF CARSON	SHEETS 26
CIVIC CENTER TURF RENOVATION PLANTING PLAN		

PLANTING LEGEND

TREES					
SYM.	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	WUCOLS COMMENTS
A	10	LAGERSTROEMIA INDICA	GRAPE MYRTLE	48" BOX	LOW STANDARD FORM
B	10	PROSOPIS CHILENSIS	CHILEAN MESQUITE	48" BOX	LOW STANDARD FORM
D	12	TIPUANA TIPU	TIPU TREE	48" BOX	LOW STANDARD FORM

SHRUBS, GROUNDCOVERS, & SUCULENTS

1	200	TEUCRIUM X LUCIDRYS	MALL GERMANDER	1 GAL.	LOW	36" O.C. SPACING
2	306	VERBENA 'TEMARI BRIGHT RED'	TEMARI BRIGHT RED VERBENA	LINER	LOW	18" O.C. SPACING
3	3380	MYOPORUM PARVIFOLIUM	GROUND COVER MYOPORUM	FLATS	LOW	12" O.C. SPACING
4	208	DIANELLA TASMANICA 'DESTINY'	DESTINY DIANELLA	1 GAL.	LOW	36" O.C. SPACING

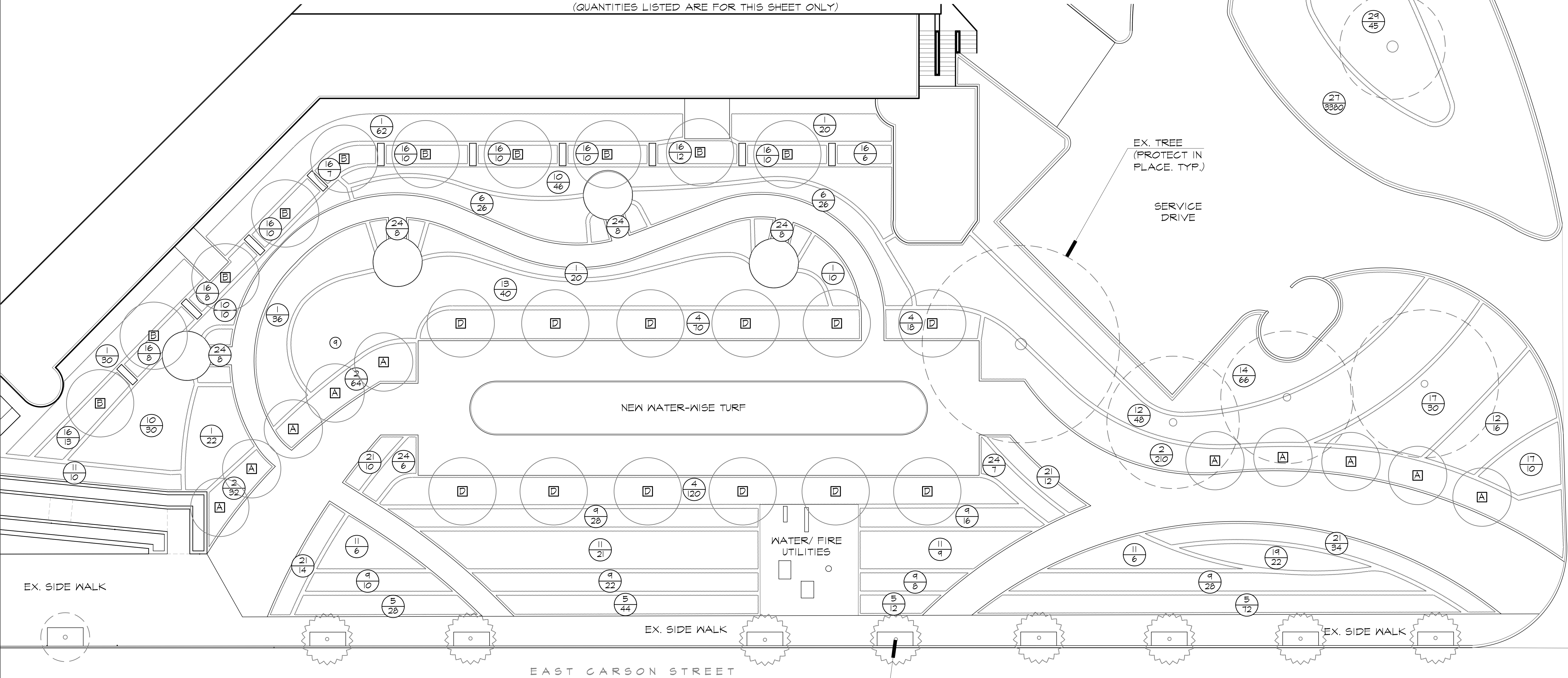
SHRUBS, GROUNDCOVERS, & SUCULENTS CONTINUED

5	156	CAREX TESTACEA	ORANGE OR BROWN SEDGE	1 GAL.	MODERATE	24" O.C. SPACING
6	52	JUNIPERUS HORIZONTALIS 'BAR HARBOR'	BAR HARBOR JUNIPER	1 GAL.	LOW	36" O.C. SPACING
9	112	MAHONIA 'SOFT CARESS'	'SOFT CARESS' MAHONIA	5 GAL.	LOW	42" O.C. SPACING
10	86	NANDINA DOMESTICA 'BLUSH PINK'	BLUSH PINK NANDINA	5 GAL.	LOW	36" O.C. SPACING
11	52	PHORMIUM 'APRICOT QUEEN'	APRICOT QUEEN FLAX	15 GAL.	LOW	12" O.C. SPACING
12	64	STRELITZIA REGINAE	BIRD OF PARADISE	5 GAL.	LOW	60" O.C. SPACING
13	40	WESTRINGIA FRUTICOSA 'GREY BOX'	COAST ROSEMARY	5 GAL.	LOW	60" O.C. SPACING
14	66	TRACHELOSPERMUM JASMINOIDES	STAR JASMINE	1 GAL.	LOW	36" O.C. SPACING
16	104	BOUTELOUA GRACILIS 'BLONDE AMBITION'	BLONDE AMBITION BLUE GRAMA	5 GAL.	LOW	36" O.C. SPACING
17	40	LOMANDRA LONGIFOLIA 'BREEZE'	DWARF MAT RUSH	5 GAL.	LOW	48" O.C. SPACING
19	22	SENECIO MANDRALISCAE	BLUE CHALKSTICKS	1 GAL.	LOW	30" O.C. SPACING
21	70	AGAVE 'BLUE GLOW'	BLUE GLOW AGAVE	1 GAL.	LOW	48" O.C. SPACING
24	45	HESPERALOE P. 'PERPA' BRAKELIGHT	BRAKELIGHTS RED YUCCA	1 GAL.	VERY LOW	48" O.C. SPACING
29	45	LANTANA CAMARA 'TRAILING YELLOW'	TRAILING LANTANA YELLOW	5 GAL.	LOW	48" O.C. SPACING

GRASSES, MEADOW

1,140 S.F.	POLLINATOR FLOWER MEADOW	50% - "FLOWERING MEADOW MIX" 50% - "XERCES POLLINATOR MIX FOR Central Coast & So. CA"	HYDROSEED	AVAIL.: S&S SEEDS, (805)684-0436
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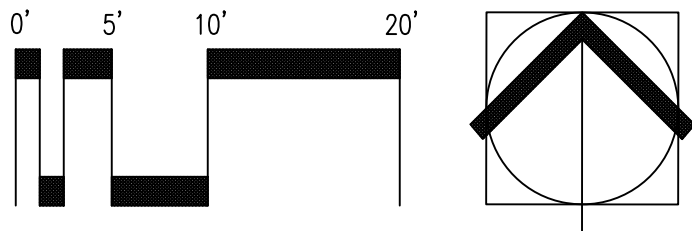
(QUANTITIES LISTED ARE FOR THIS SHEET ONLY)



CALLOUT LEGEND

PLANT TYPE (X)
QUANTITY (XX)

SEE SHEET 24 FOR IRRIGATION LEGEND, FULL PROJECT
PLANT QUANTITIES, DETAILS AND NOTES.
SEE SHEET 25 FOR PLANTING SPECIFICATIONS.




EX. PALM
(PROTECT IN
PLACE. TYP.)

APPROVED _____ DATE _____

ADL
PLANNING
ASSOCIATES
LAND PLANNING
LANDSCAPE ARCHITECTURE
2979 STATE STREET SUITE "C"
CARLSBAD, CA 92008
(760) 124-8831 FAX: (760) 124-8324



PLANTING LEGEND

TREES						
SYM.	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	MULCH	COMMENTS
	7	QUERCUS VIRGINIANA	SOUTHERN LIVE OAK	48" BOX	MOD.	STANDARD FORM

SHRUBS, GROUNDCOVERS, & SUCULENTS

1	275	TEUCRIUM X LUCIDRYS	WALL GERMANDER	1 GAL.	LOW	36" O.C. SPACING
2	204	VERBENA 'TEMARI BRIGHT RED'	TEMARI BRIGHT RED VERBENA	LINER	LOW	18" O.C. SPACING
3	2250	MYOPORUM PARVIFOLIUM	GROUND COVER MYOPORUM	FLATS	LOW	12" O.C. SPACING
5	48	CAREX TESTACEA	ORANGE OR BROWN SEDGE	1 GAL.	MODERATE	24" O.C. SPACING
8	28	CALLISTEMON X VIMALIS 'LITTLE JOHN'	BOTTLEBRUSH LITTLE JOHN	5 GAL.	LOW	48" O.C. SPACING
9	30	MAHONIA 'SOFT CARESS'	'SOFT CARESS' MAHONIA	5 GAL.	LOW	42" O.C. SPACING
11	5	PHORMIUM 'APRICOT QUEEN'	APRICOT QUEEN FLAX	15 GAL.	LOW	72" O.C. SPACING
13	48	WESTRINGIA FRUTICOSA 'GREY BOX'	COAST ROSEMARY	5 GAL.	LOW	60" O.C. SPACING
17	304	LOMANDRA LONGIFOLIA 'BREEZE'	DWARF MAT RUSH	5 GAL.	LOW	48" O.C. SPACING
21	164	AGAVE 'BLUE GLOW'	BLUE GLOW AGAVE	1 GAL.	LOW	48" O.C. SPACING
22	46	AGAVE GEMINIFLORA	TWIN FLOWERED AGAVE	5 GAL.	LOW	60" O.C. SPACING
27	16	BOUGAINVILLEA 'OO-LA-LA'	OO-LA-LA BOUGAINVILLEA	5 GAL.	LOW	60" O.C. SPACING
28	8	BOUGAINVILLEA 'ROYAL PURPLE'	ROYAL PURPLE BOUGAINVILLEA	5 GAL.	LOW	48" O.C. SPACING

(QUANTITIES LISTED ARE FOR THIS SHEET ONLY)

CALLOUT LEGEND

PLANT TYPE

QUANTITY

X

XX

COMMUNITY
CENTER

MATCHLINE
SEE SHEET 22

EX. PALM
(PROTECT IN
PLACE. TYP.)

EX. TREE
(PROTECT IN
PLACE. TYP.)

EX. SIGN
WALL

EX. SIDE WALK

AVALON BOULEVARD

EX. SIDE WALK

CIVIC CENTER DRIVE

EX. SIDE WALK

SEE SHEET 25 FOR PLANTING LEGEND, NOTES & DETAILS
SEE SHEET 25 FOR FULL PROJECT PLANT QUANTITIES

ADL
PLANNING
ASSOCIATES

LAND PLANNING
LANDSCAPE ARCHITECTURE
2979 STATE STREET SUITE 101
CARLSBAD, CA 92008
(760) 724-8831 FAX: (760) 724-8324

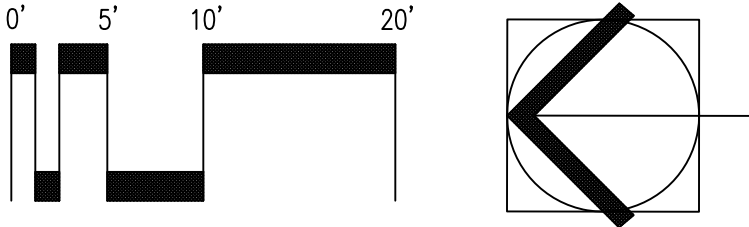
REGISTERED LANDSCAPE ARCHITECT
ANTHONY D. LAWSON, L.S.A.
3/31/23
CALIFORNIA

SHEET
21

CITY OF CARSON

SHEETS
26

CIVIC CENTER TURF RENOVATION
PLANTING PLAN



APPROVED _____ DATE _____

PLANTING LEGEND

TREES						
SYM.	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	MUGOLs	COMMENTS
A	4	LAGERSTROEMIA INDICA	GRAPE MYRTLE	48" BOX	LOW	STANDARD FORM
C	5	QUERCUS VIRGINIANA	SOUTHERN LIVE OAK	48" BOX	MOD.	STANDARD FORM
D	5	TIPUANA TIPU	TIPU TREE	48" BOX	LOW	STANDARD FORM

SHRUBS, GROUNDCOVERS, & SUCULENTS

1	178	TEUCRIUM X LUCIDRYS	MALL GERMANDER	1 GAL.	LOW	36" O.C. SPACING
3	420	MYOPORUM PARVIFOLIUM	GROUND COVER MYOPORUM	FLATS	LOW	12" O.C. SPACING
4	138	DIANELLA TASMANICA 'DESTINY'	DESTINY DIANELLA	1 GAL.	LOW	36" O.C. SPACING
5	210	CAREX TESTACEA	ORANGE OR BROWN SEDGE	1 GAL.	MODERATE	24" O.C. SPACING
8	102	CALLISTEMON X VIMINALIS 'LITTLE JOHN'	BOTTLEBRUSH LITTLE JOHN	5 GAL.	LOW	48" O.C. SPACING
9	125	MAHONIA 'SOFT CARESS'	'SOFT CARESS' MAHONIA	5 GAL.	LOW	42" O.C. SPACING
11	26	PHORMIUM 'APRICOT QUEEN'	APRICOT QUEEN FLAX	15 GAL.	LOW	72" O.C. SPACING
13	74	WESTRINGIA FRUTICOSA 'GREY BOX'	COAST ROSEMARY	5 GAL.	LOW	60" O.C. SPACING
15	22	ANIGOZANTHOS FLAVIDUS 'BUSH GOLD'	BUSH GOLD KANGAROO PAM	5 GAL.	LOW	30" O.C. SPACING
18	56	MUHLENBERGIA CAPILLARIS	PINK MUHLY	1 GAL.	MODERATE	48" O.C. SPACING
19	224	SENECIO MANDRALISCAE	BLUE CHALKSTICKS	1 GAL.	LOW	30" O.C. SPACING
20	22	KNIPHOFIA 'POCO SUNSET'	POCO SUNSET HOT POKER	5 GAL.	LOW	60" O.C. SPACING
21	64	AGAVE 'BLUE GLOW'	BLUE GLOW AGAVE	1 GAL.	LOW	48" O.C. SPACING
22	8	AGAVE GEMINIFLORA	TWIN FLOWERED AGAVE	5 GAL.	LOW	60" O.C. SPACING
23a	25	ALOE 'BLUE ELF'	BLUE ELF ALOE	1 GAL.	LOW	42" O.C. SPACING
23b	10	ALOE CAMPERI	TORCH ALOE	1 GAL.	LOW	60" O.C. SPACING
23c	6	ALOE CHABAUDII 'ORANGE BURST'	DWALA ALOE	1 GAL.	LOW	48" O.C. SPACING
23d	22	ALOE CILIARIS 'FIREWALL'	FIREWALL ALOE	5 GAL.	LOW	60" O.C. SPACING
23e	10	ALOE 'MOONGLOW'	MOONGLOW ALOE	1 GAL.	LOW	42" O.C. SPACING
23f	14	ALOE 'SAFARI ROSE'	SAFARI ROSE ALOE	1 GAL.	LOW	48" O.C. SPACING
24	24	HESPERALOE P. 'PERFA' BRAKELIGHT	BRAKELIGHTS RED YUCCA	1 GAL.	VERY LOW	48" O.C. SPACING

GRASSES, MEADOW

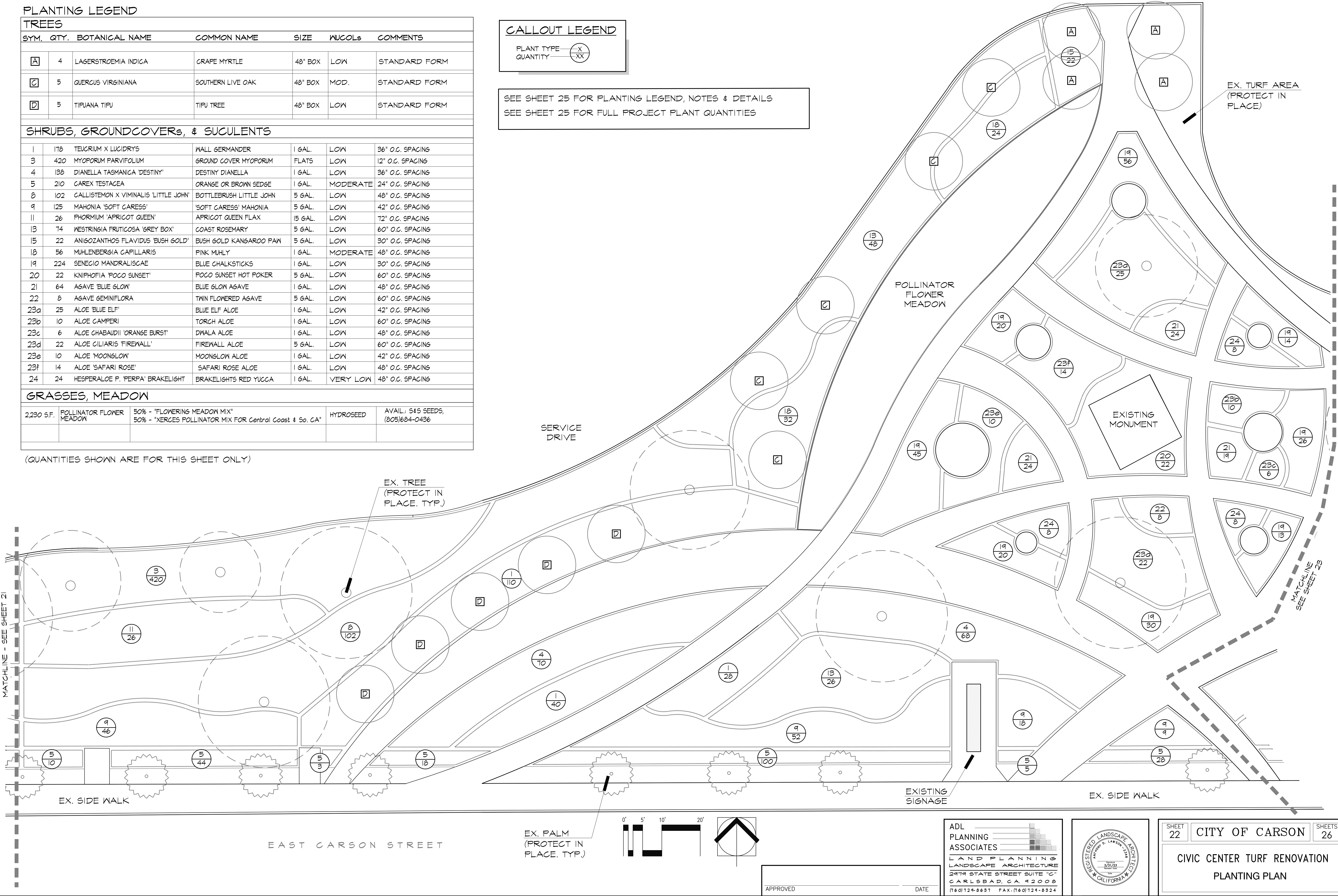
2,230 S.F.	POLLINATOR FLOWER MEADOW	50% - "FLOWERING MEADOW MIX" 50% - "XERCES POLLINATOR MIX FOR Central Coast & So. CA"	HYDROSEED	AVAIL.: 545 SEEDS, (805)684-0436
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(QUANTITIES SHOWN ARE FOR THIS SHEET ONLY)

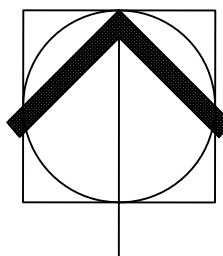
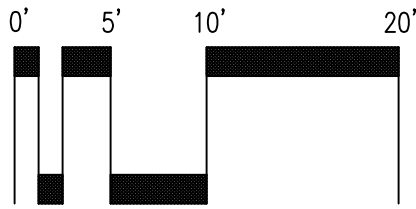
CALLOUT LEGEND

PLANT TYPE — X
QUANTITY — XX

SEE SHEET 25 FOR PLANTING LEGEND, NOTES & DETAILS
SEE SHEET 25 FOR FULL PROJECT PLANT QUANTITIES



EX. PALM
(PROTECT IN
PLACE. TYP.)



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CARLSBAD, CA 92008
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SHEET 22 CITY OF CARSON SHEETS 26
CIVIC CENTER TURF RENOVATION
PLANTING PLAN

PLANTING LEGEND

TREES

SYM.	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	MUCOLs	COMMENTS
	9	TIPUANA TIPU	TIPU TREE	48" BOX	LOW	STANDARD FORM

SHRUBS, GROUNDCOVERS, & SUCULENTS

2	30	VERBENA 'TEMARI BRIGHT RED'	TEMARI BRIGHT RED VERBENA	LINER	LOW	18" O.C. SPACING
4	93	DIANELLA TASMANICA 'DESTINY'	DESTINY DIANELLA	1 GAL.	LOW	36" O.C. SPACING
5	290	CAREX TESTACEA	ORANGE OR BROWN SEDGE	1 GAL.	MODERATE	24" O.C. SPACING
9	132	MAHONIA 'SOFT CARESS'	'SOFT CARESS' MAHONIA	5 GAL.	LOW	42" O.C. SPACING
11	10	PHORMIUM 'APRICOT QUEEN'	APRICOT QUEEN FLAX	15 GAL.	LOW	12" O.C. SPACING
12	50	STRELITZIA REGINAE	BIRD OF PARADISE	5 GAL.	LOW	60" O.C. SPACING
13	32	WESTRINGIA FRUTICOSA 'GREY BOX'	COAST ROSEMARY	5 GAL.	LOW	60" O.C. SPACING
16	130	BOUTELOUA GRACILIS 'BLONDE AMBITION'	BLONDE AMBITION BLUE GRAMA	5 GAL.	LOW	36" O.C. SPACING
17	107	LOMANDRA LONGIFOLIA 'BREEZE'	DWARF MAT RUSH	5 GAL.	LOW	48" O.C. SPACING
18	76	MUHLENBERGIA CAPILLARIS	PINK MUHLY	1 GAL.	MODERATE	48" O.C. SPACING

GRASSES, MEADOW

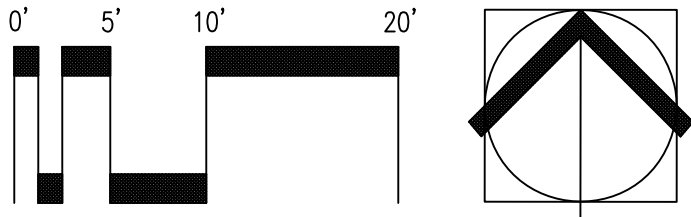
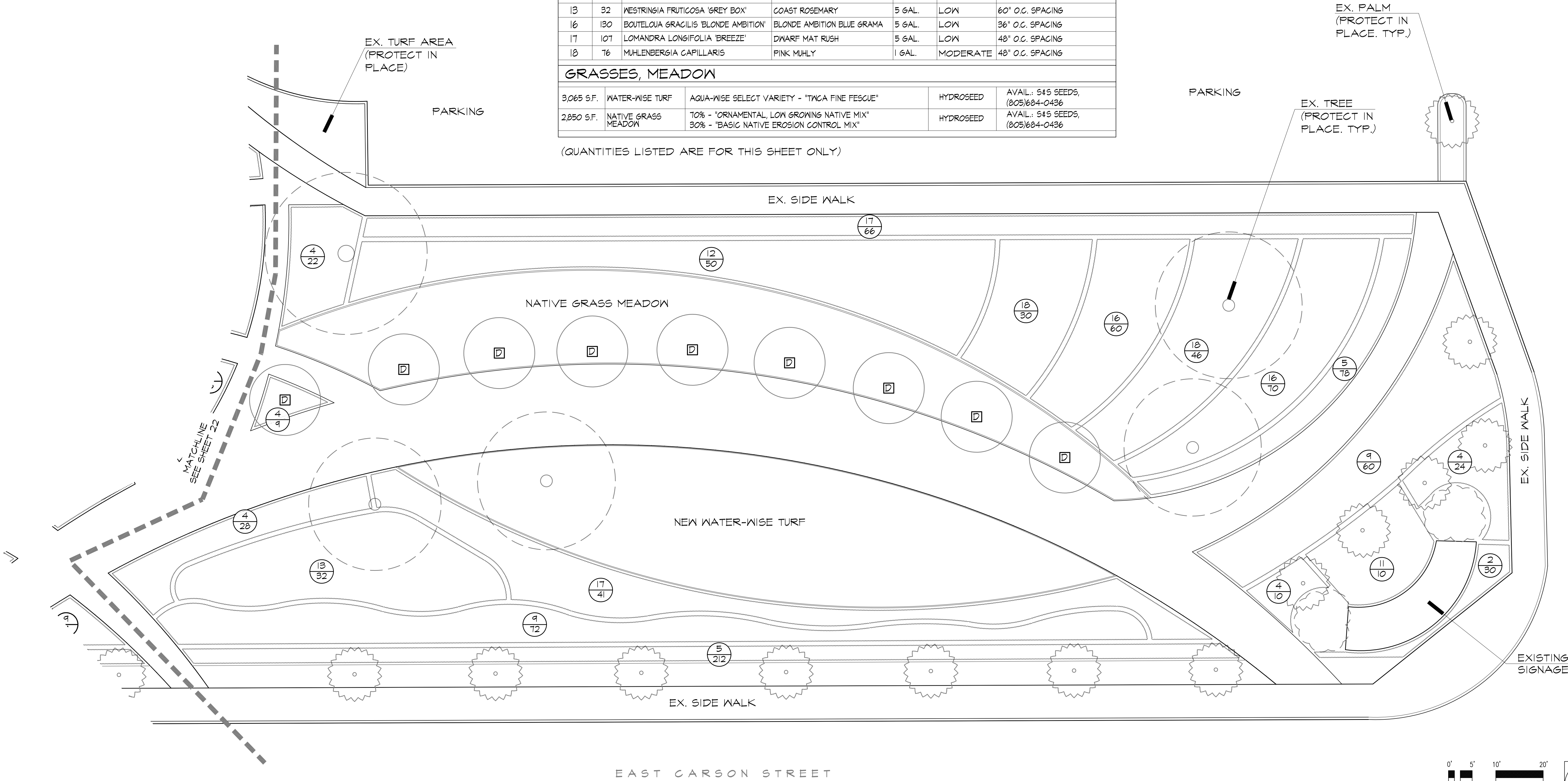
3065 S.F.	WATER-WISE TURF	AQUA-WISE SELECT VARIETY - "TACA FINE FESCUE"	HYDROSEED	AVAIL.: 545 SEEDS, (805)684-0436
2850 S.F.	NATIVE GRASS MEADOW	70% - "ORNAMENTAL, LOW GROWING NATIVE MIX" 30% - "BASIC NATIVE EROSION CONTROL MIX"	HYDROSEED	AVAIL.: 545 SEEDS, (805)684-0436

(QUANTITIES LISTED ARE FOR THIS SHEET ONLY)

CALLOUT LEGEND

PLANT TYPE — (X)
QUANTITY — (XX)

SEE SHEET 25 FOR PLANTING LEGEND, NOTES & DETAILS
SEE SHEET 25 FOR FULL PROJECT PLANT QUANTITIES

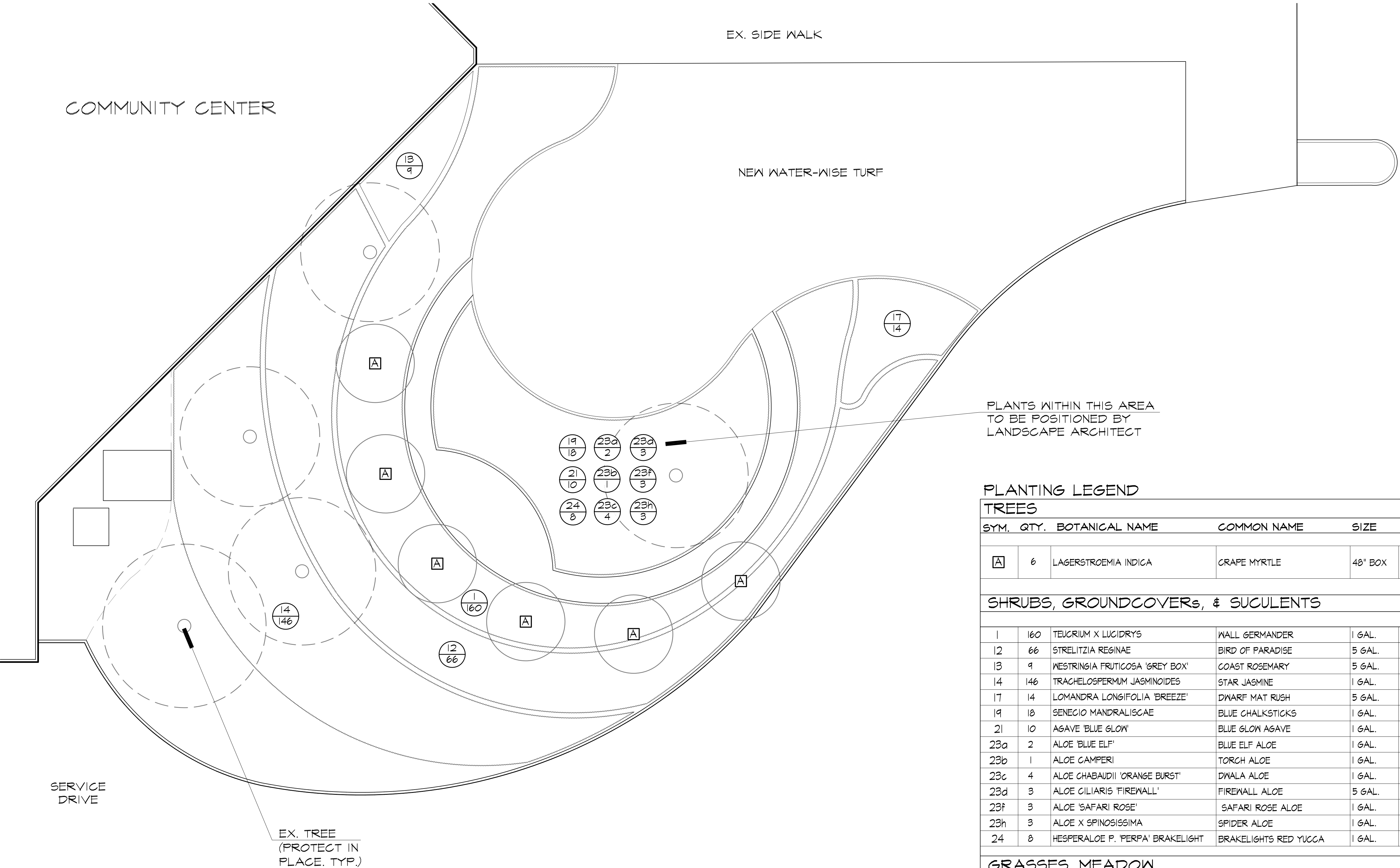


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SHEET 23	CITY OF CARSON	SHEETS 26
CIVIC CENTER TURF RENOVATION PLANTING PLAN		

APPROVED _____ DATE _____



PLANTING LEGEND

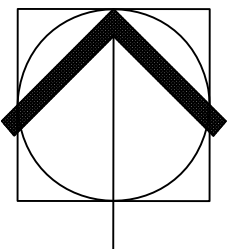
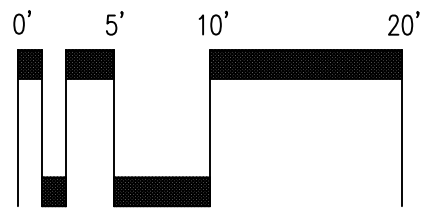
TREES						
SYM.	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	WUCOLs	COMMENTS
A	6	LAGERSTROEMIA INDICA	GRAPE MYRTLE	48" BOX	LOW	STANDARD FORM
SHRUBS, GROUNDCOVERS, & SUCULENTS						
1	160	TEUCRUM X LUCIDRYS	WALL GERMANDER	1 GAL.	LOW	36" O.C. SPACING
12	66	STRELITZIA REGINAE	BIRD OF PARADISE	5 GAL.	LOW	60" O.C. SPACING
13	9	WESTRINGIA FRUTICOSA 'GREY BOX'	COAST ROSEMARY	5 GAL.	LOW	60" O.C. SPACING
14	146	TRACHELOSPERMUM JASMINOIDES	STAR JASMINE	1 GAL.	LOW	36" O.C. SPACING
17	14	LOMANDRA LONGIFOLIA 'BREEZE'	DWARF MAT RUSH	5 GAL.	LOW	48" O.C. SPACING
19	18	SENECIO MANDRALISCAE	BLUE CHALKSTICKS	1 GAL.	LOW	30" O.C. SPACING
21	10	AGAVE 'BLUE GLOW'	BLUE GLOW AGAVE	1 GAL.	LOW	48" O.C. SPACING
23a	2	ALOE 'BLUE ELF'	BLUE ELF ALOE	1 GAL.	LOW	42" O.C. SPACING
23b	1	ALOE CAMPERI	TORCH ALOE	1 GAL.	LOW	60" O.C. SPACING
23c	4	ALOE CHABAUDI 'ORANGE BURST'	DWALA ALOE	1 GAL.	LOW	48" O.C. SPACING
23d	3	ALOE GILIARIS 'FIREWALL'	FIREWALL ALOE	5 GAL.	LOW	60" O.C. SPACING
23f	3	ALOE 'SAFARI ROSE'	SAFARI ROSE ALOE	1 GAL.	LOW	48" O.C. SPACING
23h	3	ALOE X SPINOSISSIMA	SPIDER ALOE	1 GAL.	LOW	48" O.C. SPACING
24	8	HESPERALOE P. 'PERPA' BRAKELIGHT	BRAKELIGHTS RED YUCCA	1 GAL.	VERY LOW	48" O.C. SPACING
GRASSES, MEADOW						
6,085 S.F.	WATER-WISE TURF	AQUA-WISE SELECT VARIETY - "TWCA FINE FESCUE"		HYDROSEED		AVAIL.: \$45 SEEDS, (805)684-0436

(QUANTITIES LISTED ARE FOR THIS SHEET ONLY)

CALLOUT LEGEND

PLANT TYPE — (X)
QUANTITY — (XX)

SEE SHEET 25 FOR PLANTING LEGEND, NOTES & DETAILS
SEE SHEET 25 FOR FULL PROJECT PLANT QUANTITIES



APPROVED _____ DATE _____

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LAND PLANNING
LANDSCAPE ARCHITECTURE
2979 STATE STREET SUITE "C"
CARLSBAD, CA 92008
(760) 124-8837 FAX: (760) 124-8324



SHEET 24 CITY OF CARSON SHEETS 26
CIVIC CENTER TURF RENOVATION
PLANTING PLAN

PLANTING LEGEND
TREES

SYM.	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	MUCOLs	COMMENTS
A	30	LAGERSTROEMIA INDICA	GRAPE MYRTLE	48" BOX	LOW	STANDARD FORM
B	10	PROSOPIS CHILENSIS	CHILEAN MESQUITE	36" BOX	LOW	STANDARD FORM
C	15	QUERCUS VIRGINIANA	SOUTHERN LIVE OAK	48" BOX	MOD.	STANDARD FORM
D	26	TIPUANA TIPU	TIPU TREE	48" BOX	LOW	STANDARD FORM

SHRUBS, GROUNDCOVERS, & SUCULENTS

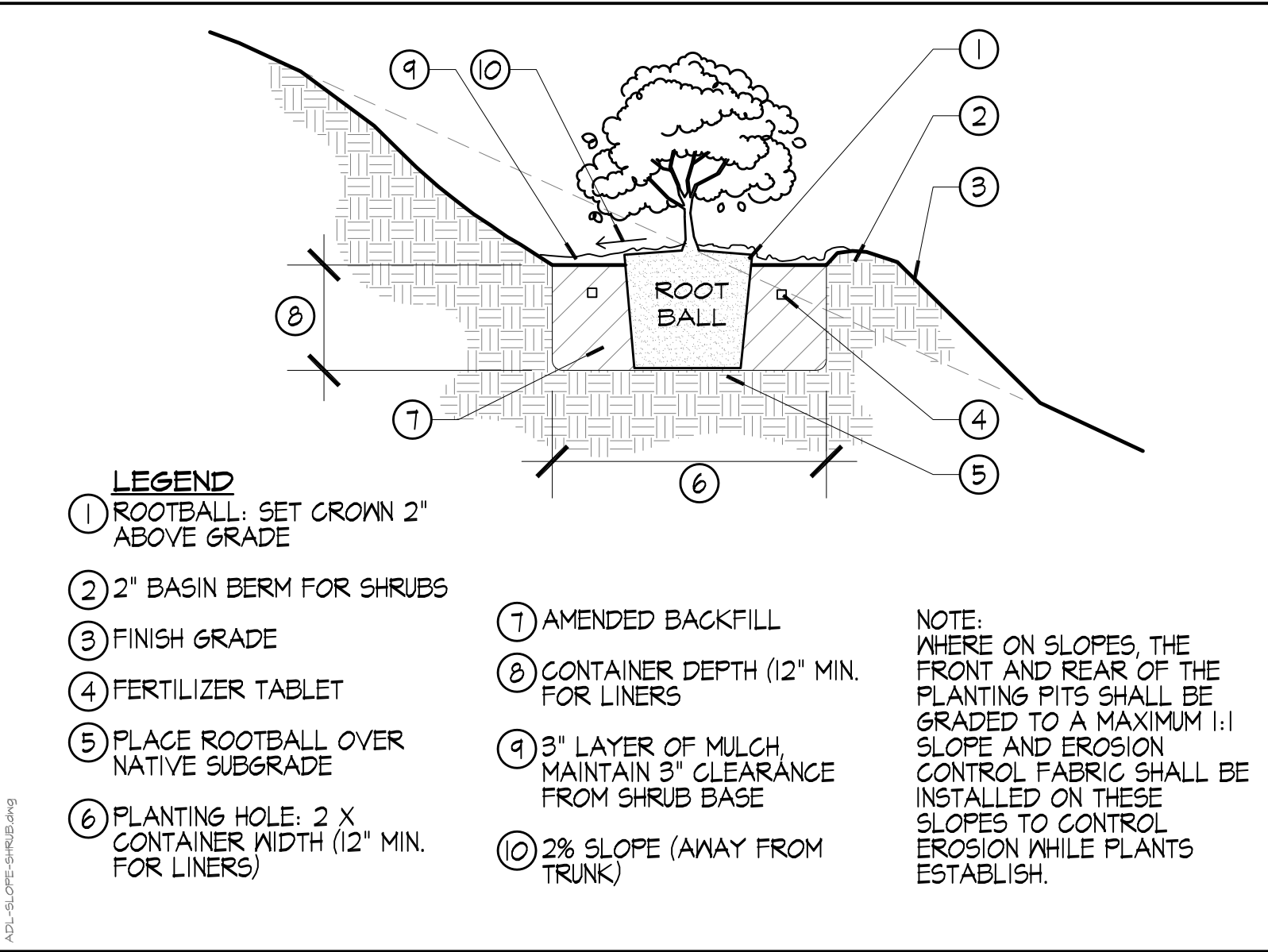
1	909	TEUCRUM X LUCIDRYS	WALL GERMANDER	1 GAL.	LOW	36" O.C. SPACING
2	540	VERBENA 'TEMARI BRIGHT RED'	TEMARI BRIGHT RED VERBENA	LINER	LOW	18" O.C. SPACING
3	3120	MYOPORUM PARVIFOLIUM	GROUND COVER MYOPORUM	FLATS	LOW	12" O.C. SPACING
4	547	DIANELLA TASMANICA 'DESTINY'	DESTINY DIANELLA	1 GAL.	LOW	36" O.C. SPACING
5	704	CAREX TESTACEA	ORANGE OR BROWN SEDGE	1 GAL.	MODERATE	24" O.C. SPACING
6	141	JUNIPERUS HORIZONTALIS 'BAR HARBOR'	BAR HARBOR JUNIPER	1 GAL.	LOW	36" O.C. SPACING
7	36	BERBERIS THUNBERGII 'ATROPURPUREA NANA'	DWARF DEEP RED BARBERRY	5 GAL.	LOW	36" O.C. SPACING
8	130	CALLISTEMON X VIMINALIS 'LITTLE JOHN'	BOTTLEBRUSH LITTLE JOHN	5 GAL.	LOW	48" O.C. SPACING
9	448	MAHONIA 'SOFT CARESS'	'SOFT CARESS' MAHONIA	5 GAL.	LOW	42" O.C. SPACING
10	126	NANDINA DOMESTICA 'BLUSH PINK'	BLUSH PINK NANDINA	5 GAL.	LOW	36" O.C. SPACING
11	123	PHORMIUM 'APRICOT QUEEN'	APRICOT QUEEN FLAX	15 GAL.	LOW	72" O.C. SPACING
12	230	STRELITZIA REGINAE	BIRD OF PARADISE	5 GAL.	LOW	60" O.C. SPACING
13	236	WESTRINGIA FRUTICOSA 'GREY BOX'	COAST ROSEMARY	5 GAL.	LOW	60" O.C. SPACING
14	212	TRACHELOSPERMUM JASMINOIDES	STAR JASMINE	1 GAL.	LOW	36" O.C. SPACING
15	89	ANIGOZANTHOS FLAVIDUS 'BUSH GOLD'	BUSH GOLD KANGAROO PAW	5 GAL.	LOW	30" O.C. SPACING
16	234	BOUETLOUA GRACILIS 'BLONDE AMBITION'	BLONDE AMBITION BLUE GRAMA	5 GAL.	LOW	36" O.C. SPACING
17	304	LOMANDRA LONGIFOLIA 'BREEZE'	DWARF MAT RUSH	5 GAL.	LOW	48" O.C. SPACING
18	190	MUHLENBERGIA CAPILLARIS	PINK MUHLY	1 GAL.	MODERATE	48" O.C. SPACING
19	336	SENECIO MANDRALISCAE	BLUE CHALKSTICKS	1 GAL.	LOW	30" O.C. SPACING
20	44	KNIPHOFIA 'POCO SUNSET'	POCO SUNSET HOT POKER	5 GAL.	LOW	60" O.C. SPACING
21	164	AGAVE 'BLUE GLOW'	BLUE GLOW AGAVE	1 GAL.	LOW	48" O.C. SPACING
22	46	AGAVE GEMINIFLORA	TWIN FLOWERED AGAVE	5 GAL.	LOW	60" O.C. SPACING
23a	35	ALOE 'BLUE ELF'	BLUE ELF ALOE	1 GAL.	LOW	42" O.C. SPACING
23b	21	ALOE CAMPERI	TORCH ALOE	1 GAL.	LOW	60" O.C. SPACING
23c	17	ALOE CHABAUDII 'ORANGE BURST'	DWALA ALOE	1 GAL.	LOW	48" O.C. SPACING
23d	31	ALOE GILIARIS 'FIREWALL'	FIREWALL ALOE	5 GAL.	LOW	60" O.C. SPACING
23e	20	ALOE 'MOONGLOW'	MOONGLOW ALOE	1 GAL.	LOW	42" O.C. SPACING
23f	25	ALOE 'SAFARI ROSE'	SAFARI ROSE ALOE	1 GAL.	LOW	48" O.C. SPACING
23g	18	ALOE VERA	ALOE VERA	1 GAL.	LOW	42" O.C. SPACING
23h	19	ALOE X SPINOSISSIMA	SPIDER ALOE	1 GAL.	LOW	48" O.C. SPACING
24	105	HESPERALOE P. 'PERPA' BRAKELIGHT	BRAKELIGHTS RED YUCCA	1 GAL.	VERY LOW	48" O.C. SPACING
25	0	SISYRINCHIUM BELLUM	BLUE-EYED GRASS	1 GAL.	LOW	36" O.C. SPACING
26	0	CAREX PANSA	CALIFORNIA MEADOW SEDGE	1 GAL.	MODERATE	30" O.C. SPACING
27	16	BOUGAINVILLEA 'OO-LA-LA'	OO-LA-LA BOUGAINVILLEA	5 GAL.	LOW	60" O.C. SPACING
28	8	BOUGAINVILLEA 'ROYAL PURPLE'	ROYAL PURPLE BOUGAINVILLEA	5 GAL.	LOW	48" O.C. SPACING
29	45	LANTANA CAMARA 'TRAILING YELLOW'	TRAILING LANTANA YELLOW	5 GAL.	LOW	48" O.C. SPACING

GRASSES, MEADOW

10,305 S.F.	WATER-WISE TURF	AQUA-WISE SELECT VARIETY - "TACA FINE FESCUE"	HYDROSEED	AVAIL.: S4S SEEDS, (805)684-0436
2,850 S.F.	NATIVE GRASS MEADOW	70% - "ORNAMENTAL, LOW GROWING NATIVE MIX" 30% - "BASIC NATIVE EROSION CONTROL MIX"	HYDROSEED	AVAIL.: S4S SEEDS, (805)684-0436
2,230 S.F.	POLLINATOR FLOWER MEADOW	50% - "FLOWERING MEADOW MIX" 50% - "XERCES POLLINATOR MIX FOR Central Coast & So. CA"	HYDROSEED	AVAIL.: S4S SEEDS, (805)684-0436

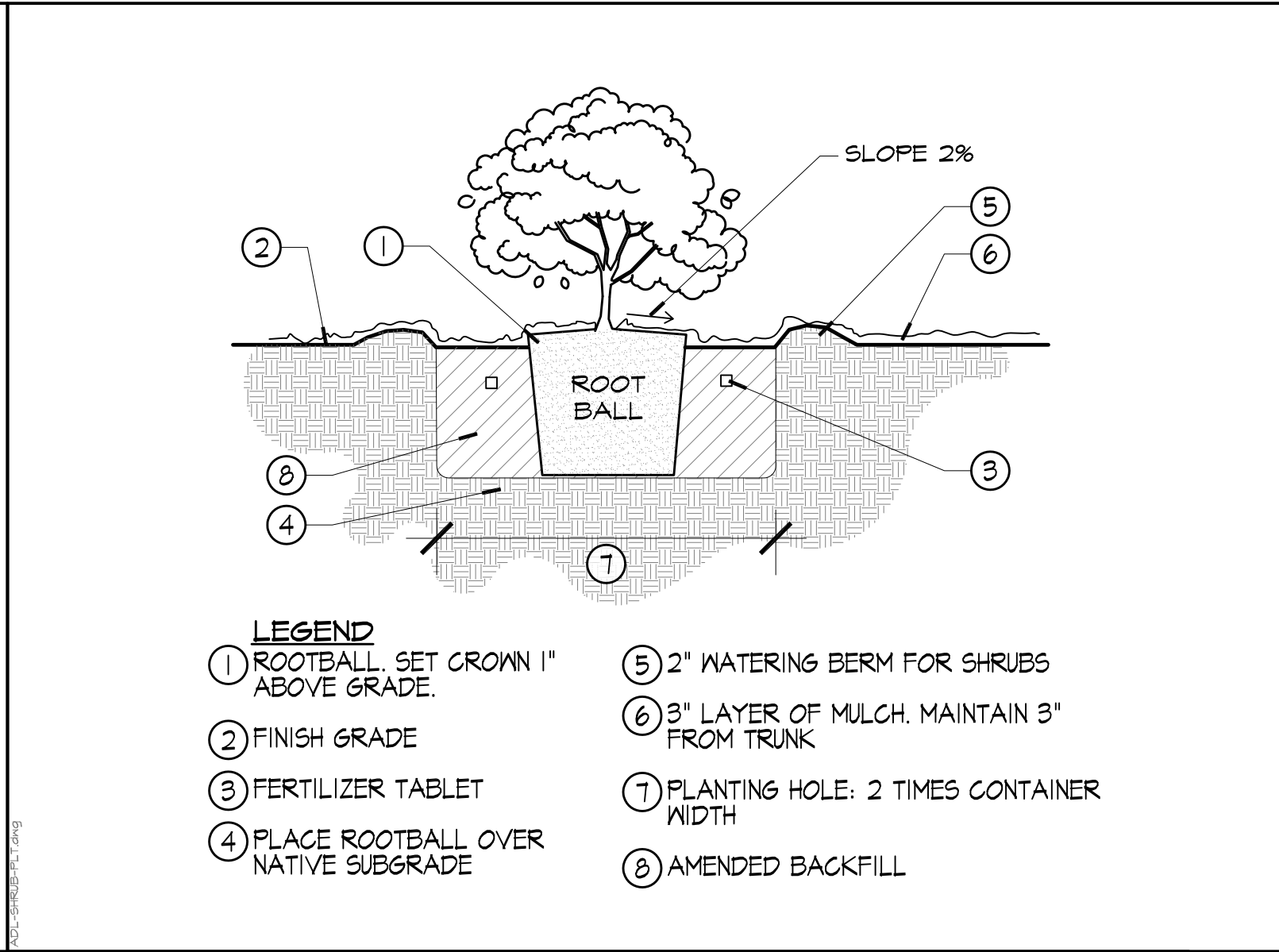
PLANTING NOTES:

- SHRUB AND TREE ROOT BALLS - SET CROWN 2" ABOVE GRADE
- UNLESS CALLED OUT AS DECOMPOSED GRANITE, ALL SHRUB BEDS SHALL HAVE A 3" MULCH LAYER. FINISH SURFACE SHALL BE 1" BELOW ADJACENT PAVING OR AS SPECIFIED IN PARKWAY DETAILS.



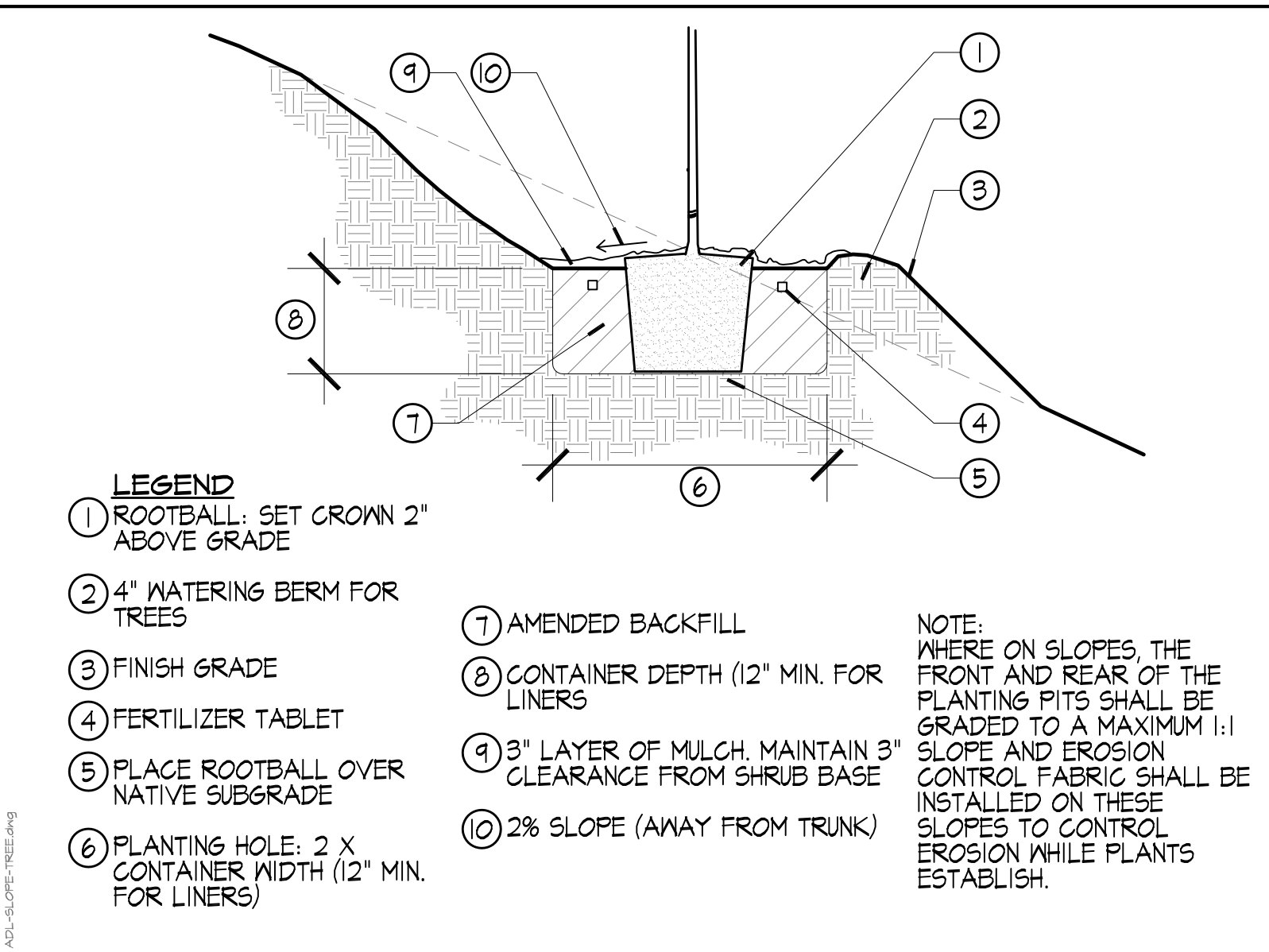
A SLOPE PLANTING: SHRUBS

SCALE: N.T.S.



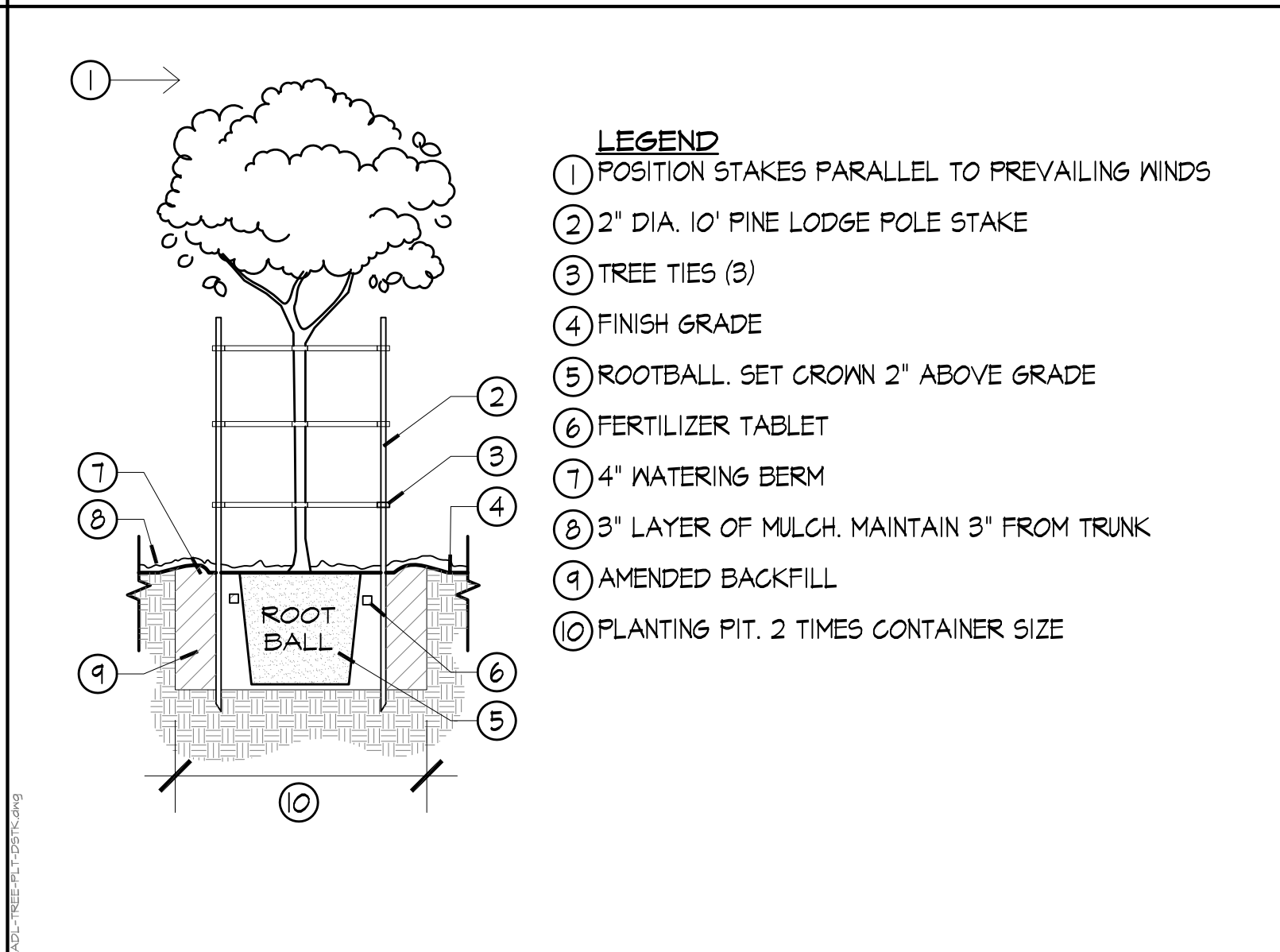
B SHRUB PLANTING

SCALE: 3/8\"/>



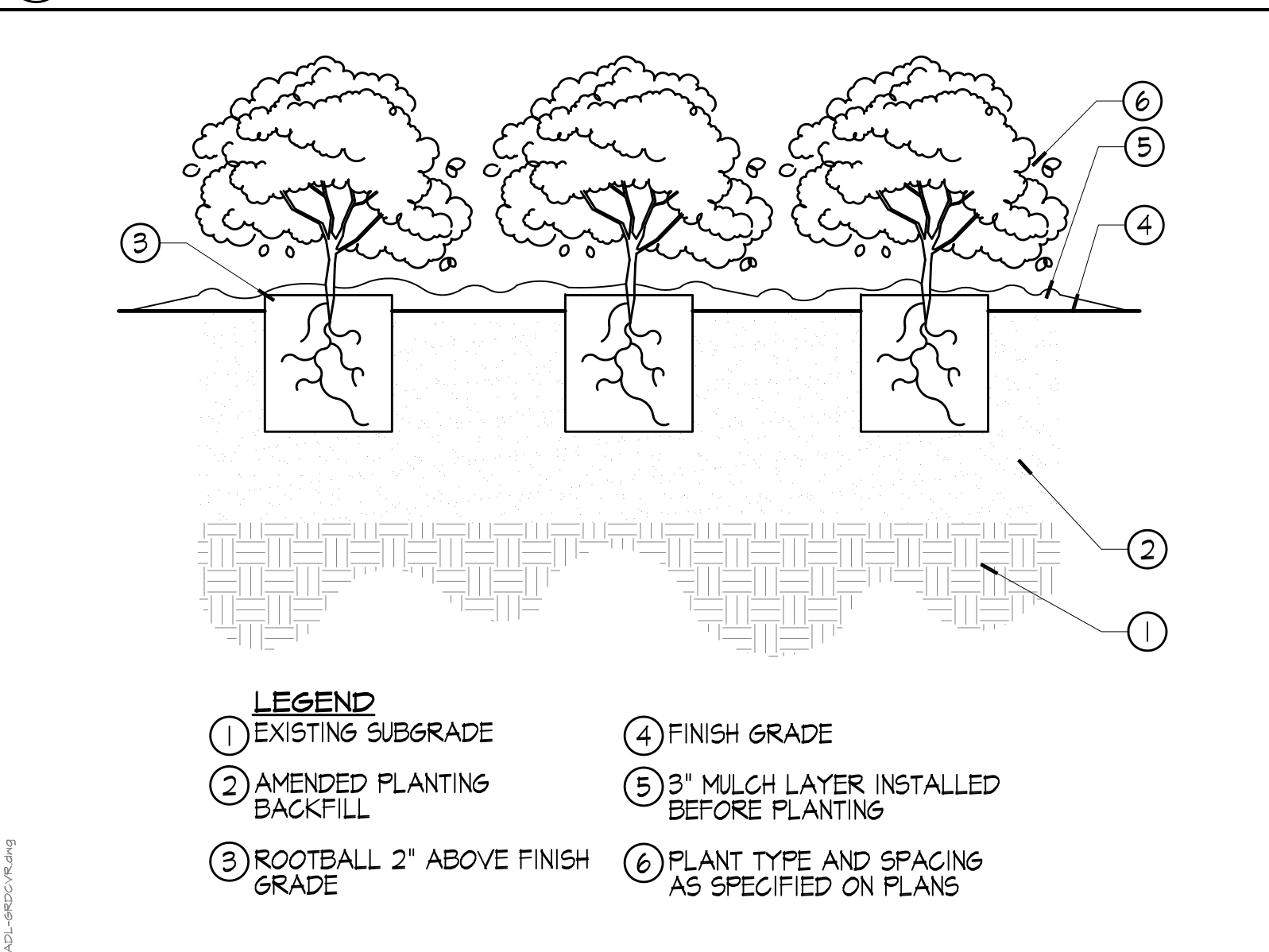
C SLOPE PLANTING: TREES

SCALE: N.T.S.



D TREE PLANTING: DOUBLE STAKE

SCALE: N.T.S.



E GROUND COVER PLANTING

SCALE: N.T.S.

TREES, PLANTS AND GROUND COVERS

PART 1: GENERAL

- 1.01 SCOPE OF WORK
- A. CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT TO PROVIDE, INSTALL, AND MAINTAIN SOIL PREPARATION, HEADERS, FINISH GRADING, PLANTING, AND ESTABLISHMENT PERIOD AS DESCRIBED HEREIN AND ON THE PLANS.
- B. THE CONTRACTOR SHALL ADEQUATELY PROTECT THE WORK, ADJACENT PROPERTY, AND THE PUBLIC, AND SHALL BE RESPONSIBLE FOR ANY DAMAGE, INJURY, AND LOSS DUE TO HIS ACTS OR NEGLIGENCE.
- C. WORK NOT INCLUDED: ROUGH GRADING.
- 1.02 QUALITY ASSURANCE
- A. VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES, AND SERVICES BEFORE COMMENCING WORK. AS-BUILT PLANS WERE NOT AVAILABLE TO THE DESIGN TEAM AND THE LOCATIONS OF UTILITIES, STRUCTURES, AND SERVICES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT.
- B. PROTECT ALL EXISTING UTILITIES AND FEATURES ON AND ADJACENT TO THE PROJECT SITE DURING CONSTRUCTION. CONTRACTOR SHALL REPAIR, AT HIS OWN EXPENSE, ALL DAMAGE RESULTING FROM HIS OPERATIONS OR NEGLIGENCE.
- C. THE CONTRACTOR SHALL OBTAIN THE PERTINENT ENGINEERING PLANS BEFORE COMMENCING WORK.
- D. NOTIFY THE PROJECT MANAGER PRIOR TO COMMENCING WORK, AND BE RESPONSIBLE FOR COORDINATING WORK WITH THE CITY, PROJECT MANAGER, OTHER CONSTRUCTION TRADES, AND GOVERNING AGENCIES.
- E. THE PLANTING PLAN IS DIAGRAMMATIC, AND ALL PLANT LOCATIONS DEPICTED THEREON ARE APPROXIMATE. PLANT SYMBOLS TAKE PRECEDENCE OVER PLANT QUANTITIES SPECIFIED, IF OR WHERE PROVIDED. NOTIFY THE PROJECT MANAGER OF DISCREPANCIES BETWEEN QUANTITIES AND SYMBOLS SHOWN.
- F. PRIOR TO PLANTING, THE IRRIGATION SYSTEM SHALL BE FULLY OPERATIONAL AND ALL PLANTING AREAS SHALL BE PROPERLY TREATED FOR WEED AND GRASS ABATEMENT.
- G. THE CONTRACTOR SHALL BE RESPONSIBLE FOR, AND PAY FOR, ALL PERMITS AND CERTIFICATES OF INSPECTION OF PLANT MATERIALS THAT MAY BE REQUIRED BY FEDERAL, STATE, LOCAL, OR OTHER AUTHORITIES. COPIES OF PERMITS AND INSPECTION CERTIFICATES SHALL BE FURNISHED TO THE OWNER WITHOUT CHARGE.
- H. PROTECT BENCH MARKS, EXISTING STRUCTURES, FENCES, ROADS, SIDEWALKS, LAWNS, AND OTHER FINISH SURFACES AGAINST DAMAGE FROM EQUIPMENT OR OTHER PLANTING OPERATIONS. REPAIR ANY DAMAGE AT NO COST TO CITY.
- 1.03 SUBMITTALS
- A. OBTAIN, PAY FOR, AND SUBMIT TO THE PROJECT MANAGER, A SOIL ANALYSIS REPORT FROM AN AUTHORIZED SOIL TESTING AGENCY PRIOR TO COMMENCEMENT OF WORK. SOIL AMENDMENTS LISTED BELOW ARE SUBJECT TO CHANGE PER THIS SOIL ANALYSIS.
- B. IF A PLANT IS FOUND NOT TO BE SUITABLE OR AVAILABLE, THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER, CITY ENGINEER, OR HIS REPRESENTATIVE IN WRITING PRIOR TO BIDDING. THE PROJECT MANAGER WILL SELECT A SUITABLE ALTERNATE AND/OR INFORM CONTRACTORS OF THE AVAILABILITY OF THE PLANT.
- C. SUBMIT PHOTOGRAPHS FROM THE NURSERY OF TREES TAGGED FOR SHIPMENT AND INSTALLATION ON THIS PROJECT. PHOTOGRAPHS SHALL INCLUDE A SCALED REFERENCE & SHOW TREES OF SIZE AND BRANCHING STRUCTURE TYPICAL OF THOSE SUPPLIED FOR EACH SPECIES. PROJECT MANAGER, CITY ENGINEER, OR HIS REPRESENTATIVE RESERVES THE RIGHT TO REJECT PLANT MATERIAL ON SITE WHICH DOES NOT MEET THE STANDARD ESTABLISHED BY THE APPROVED PHOTOGRAPHS.
- 1.04 MODIFICATIONS
- A. DESIGN MODIFICATIONS MAY BE MADE ONLY AS NECESSARY TO MEET FIELD CONDITIONS. PLANTING SHALL BE LOCATED WHERE SHOWN ON THE PLANS EXCEPT WHERE OBSTRUCTIONS BELOW GROUND OR OVERHEAD ARE ENCOUNTERED, OR AS APPROVED BY THE PROJECT MANAGER, CITY ENGINEER, OR HIS REPRESENTATIVE.
- B. EXACT POSITIONING OF BOX TREES WILL BE DETERMINED IN THE FIELD. POSITION MATERIALS AS DIRECTED BY THE PROJECT MANAGER, CITY ENGINEER, OR HIS REPRESENTATIVE.

PART 2: PRODUCTS

- 2.01 PLANTING MATERIALS
- A. PLANTS SHALL HAVE A HABIT OF GROWTH THAT IS NORMAL FOR THE SPECIES AND SHALL BE SYMMETRICAL, SOUND, HEALTHY, VIGOROUS, AND FREE OF INSECT PESTS, PLANT DISEASE, AND INJURY. TREES SHALL NOT HAVE CROSSING BRANCHES OR WEAK BRANCH STRUCTURES ATYPICAL OF THEIR SPECIES.
- B. ROOT BOUND PLANT MATERIAL IS NOT ACCEPTABLE. FIVE GALLON PLANTS AND LARGER SHALL BE GROWN IN THEIR CONTAINERS FOR A MINIMUM OF SIX MONTHS AND A MAXIMUM OF TWO YEARS. ALL PLANT MATERIAL SHALL BE SUBJECT TO INSPECTION AND POSSIBLE REJECTION PRIOR TO INSTALLATION.
- C. ALL PLANTS SHALL EQUAL OR EXCEED THE MEASUREMENTS SPECIFIED IN THE PLANT LIST, WHICH ARE MINIMUM ACCEPTABLE SIZES.
- D. SUBSTITUTIONS FOR INDICATED PLANT MATERIALS WILL NOT BE PERMITTED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE PROJECT MANAGER. SUBSTITUTIONS ARE TO BE AT NO ADDITIONAL COST TO THE CITY. IF ACCEPTED SUBSTITUTE MATERIALS ARE OF LESS VALUE THAN THOSE ORIGINALLY SPECIFIED, THE CONTRACT PRICE WILL BE ADJUSTED IN ACCORDANCE WITH THE PROVISIONS OF THE CONTRACT.
- E. IN ALL CASES, QUANTITIES OF PLANT MATERIALS SHALL BE FURNISHED AS NEEDED TO COMPLETE THE WORK AND INDICATED ON THE DRAWINGS, INCLUDING RE-SEEDING, RE-DRESSING, AND MAINTENANCE (REPLACEMENTS) DURING THE CONTRACT PERIOD.
- F. PROVIDE WATERPROOF SPECIES IDENTIFICATION TAGS ON ONE PLANT PER SPECIES PER GROUPING.
- G. THE FOLLOWING SOIL AMENDMENTS ARE TO BE USED AS THE BASIS FOR BIDS.
- AMENDMENTS PER 1,000 SQUARE FEET:
- 3 CUBIC YARDS OF NITROLIZED SHAVINGS OR GOOD QUALITY COMPOST
- 20 POUNDS AGRICULTURAL GYPSUM
- 200 POUNDS 5-3-1 GRO-POWER PLUS FERTILIZER (WWW.GROPOWER.COM) - OR SUITABLE ALTERNATIVE CONTAINING THE 5-3-1 RECOMMENDED PROPORTIONS.
- H. SOIL: PLANT BACKFILL SHALL BE NATIVE SITE SOIL, AMENDED AS NOTED ON THE PLANS AND IN ACCORDANCE WITH SOIL TEST RESULTS.
- I. IMPORT SOIL OR TOPSOIL SHALL BE NATURAL, FRIABLE SOIL POSSESSING THE SAME CHARACTERISTICS OF THE EXISTING SITE SOIL. PROVIDE TOPSOIL FREE FROM SUBSOIL, BRUSH, OBJECTIONABLE WEEDS, ROCKS, ORGANIC OR INORGANIC DEBRIS, AND CLAY. SOIL SHALL BE FREE OF TOXIC SUBSTANCES, SOIL STERILANTS, AND SALTS. DO NOT PROVIDE SOIL FROM ROADBED EXCAVATIONS. IMPORT SOIL SHALL BE TESTED AS NOTED FOR NATIVE SOIL.

2.03 TREE STAKES

- A. TREE STAKES SHALL BE 2" DIAMETER BY 10' LONG NEW LODGE PINE POLES TREATED WITH COPPER NAPHTHENATE UNLESS OTHERWISE NOTED.

PART 3: EXECUTION


- 3.01 SCHEDULING
- A. PLANTING SHALL NOT COMMENCE UNTIL COMPLETION OF ALL CONSTRUCTION WORK, GRADING, SOIL PREPARATION, WEED/GRASS CONTROL AND SPRINKLER INSTALLATION.
- 3.02 WEED & GRASS CONTROL (KILL)
- A. MANUALLY REMOVE ALL EXISTING UNWANTED VEGETATION AND DISPOSE OF IT OFF SITE.
- B. FERTILIZE ALL PLANTING AREAS WITH A 12-2-2 COMMERCIAL FERTILIZER AT THE RATE OF TWO HUNDRED LBS (200) PER ACRE AND BEGIN WATERING PROCESS.
- C. UPON COMPLETION OF THE IRRIGATION SYSTEM, WATER ALL AREAS TWO (2) TIMES DAILY FOR 3 WEEKS AND UNTIL WEED SEEDS HAVE GERMINATED AND/OR NEW GRASS SURFACES. CEASE WATERING FOR THREE (3) DAYS. SPRAY A NON-SELECTIVE CONTACT HERBICIDE (IE ROUNDUP PRO OR RODEO) TO ERADICATE THE GERMINATED WEEDS AND GRASS. WAITING PERIOD PRIOR TO CLEARING WEEDS/GRASS SHALL BE SEVEN (7) TO TEN (10) DAYS.
- D. ALLOW HERBICIDE TO KILL ALL WEEDS. RAKE OR HOE OFF ALL DEAD WEEDS AND GRASS TO A MINIMUM DEPTH OF ½-INCH INCH BELOW THE SURFACE OF THE SOIL. REMOVE ALL CLEARED WEEDS AND GRASS FROM SITE.
- E. RE-WATER CLEARED PLANTING AREAS AN ADDITIONAL TWO (2) TIMES DAILY FOR 14- CONSECUTIVE DAYS, UNTIL NEW GROWTH APPEARS. RE-APPLY HERBICIDE. CLEAR WEEDS AND GRASS, AFTER SEVEN (7) TO TEN (10) DAYS OR AN APPROVED ALTERNATE TIME PERIOD. REMOVE ALL CLEARED WEEDS AND LEGALLY DISPOSE OF OFFSITE.
- 3.03 PRE-PLANTING
- A. ALL AREAS TO BE PLANTED, WHICH HAVE A SLOPE OF 2:1 OR LESS SHALL BE CROSS-RIPPED TO A DEPTH OF SIX (6) INCHES AND SOIL AMENDMENTS SPREAD EVENLY AS SPECIFIED AND THOROUGHLY BLENDED-IN PER 1,000 SQUARE FEET.
- B. MAINTAIN PROOF OF DELIVERY FOR ALL PLANTING AMENDMENTS ON-SITE AND AVAILABLE FOR INSPECTION UNTIL ACCEPTANCE OF THE ENTIRE INSTALLATION.
- 3.04 FINISH GRADING
- A. FINISH GRADING AFTER SOIL PREPARATION SHALL ESTABLISH FINAL FLOW LINES AND GRADIENTS FOR UNIFORM WATER DRAINAGE. FLOW LINES AND GRADIENTS SHALL BE ESTABLISHED FROM THE HIGH POINT TO THE DRAINAGE OUTLET OR AN INLET STRUCTURE.
- B. RAKE-OUT AND REMOVE ALL ROCKS 1/2" INCH DIAMETER AND LARGER FROM THE TOP TWO INCHES OF FINISHED GRADE.
- C. FINISHED GRADES SHALL BE 2" BELOW THE TOP OF CURBS, SILLS, AND WALKWAYS IN PLANTING AREAS. AT LOCATIONS WHERE DRAINAGE IS TO FLOW ACROSS HARDSCAPE, THE GRADE SHALL BE FLUSH, OR NO MORE THAN ½" BELOW HARDSCAPING.
- D. MAINTAIN A MINIMUM 2% SURFACE DRAINAGE IN PLANTING AREAS. FINISHED GRADES SHALL BE RAKED AND SMOOTHED TO ELIMINATE PUDDLING OR STANDING WATER AND ALLOW SMOOTH, EVEN FLOW.
- 3.05 LAYOUT AND SPACING
- A. STAKE LOCATIONS OF TREES AND OUTLINE PLANTING AREAS AS SHOWN ON PLANS. OBTAIN PROJECT MANAGER'S APPROVAL PRIOR TO EXCAVATION OF PLANT PITS. LANDSCAPE ARCHITECT, CITY ENGINEER, OR HIS REPRESENTATIVE RESERVES THE RIGHT TO INTERCHANGE OR SHIFT PLANT LOCATIONS PRIOR TO PLANTING.
- B. WHEN PLANT MATERIAL IS SPACED IN ROWS, THE TOTAL DIMENSION SHALL BE VERIFIED, AND THE PLANTS EQUALLY SPACED WITHIN THE DESIGNATED AREA. WHEN PLANT MATERIAL IS SHOWN IN A LOOSE PATTERN, THE CONTRACTOR SHALL SPACE MATERIAL AS SHOWN ON THE PLANS AND AS DIRECTED BY THE LANDSCAPE ARCHITECT, PROJECT MANAGER, OR HIS REPRESENTATIVE.
- C. GROUND COVER MATERIAL SHALL BE TRIANGULARLY SPACED PER DIMENSION SHOWN ON THE PLANS.
- 3.06 PLANT MATERIAL INSPECTION
- A. REVIEW BY THE LANDSCAPE ARCHITECT, PROJECT MANAGER, OR HIS REPRESENTATIVE OF THE PLANTS UPON DELIVERY SHALL BE FOR QUALITY, SIZE, AND VARIETY ONLY, AND SHALL NOT IN ANY WAY IMPAIR THE RIGHT OF REJECTION FOR FAILURE TO MEET OTHER REQUIREMENTS DURING PROGRESS OF THE WORK.
- 3.07 PLANTING
- A. PLANT PITS SHALL BE AS SHOWN IN THE PLANTING DETAILS. ROUGHEN SMOOTH PIT WALLS CAUSED BY AUGERING HOLES. SLICK PIT WALLS CAUSED BY AUGERING IN TOO WET SOIL WILL NOT BE ACCEPTED.
- B. PLANT MATERIAL WITH ROOT BALLS BROKEN OR CRACKED PRIOR TO OR DURING PLANTING OPERATIONS SHALL NOT BE PLANTED.
- C. EACH PLANT SHALL RECEIVE TRI-C "MYCO TABS" (WWW.NATURALSOILUTIONS.COM) OR EQUAL, PLANT TABLETS AS FOLLOWS:
- 1 GALLON CONTAINER - 1
 - 5 GALLON CONTAINER - 2
 - 15 GALLON CONTAINER - 3
 - 1 PER 6 INCH BOXED TREE SIZE - 1-21 GM
- D. BACKFILL PIT WITH PLANTING MIX HALF-WAY TO FINISH GRADE AND WATER THOROUGHLY. BACKFILL TO FINISH GRADE AND TAMP FIRM. FORM A SHALLOW BASIN AROUND EACH PLANT PIT AS DETAILED.
- E. REMOVE NURSERY STAKES ON ALL VINES AND ATTACH TO ADJACENT WALL OR FENCE WITH GREEN PLASTIC VINE TIES.
- F. REMOVE NURSERY STAKES FROM ALL CONTAINER STOCK. PRUNE SIDE GROWTH ON TREES ONLY AS DIRECTED BY LANDSCAPE ARCHITECT, PROJECT MANAGER, OR HIS REPRESENTATIVE.
- G. PLANTS SHALL NOT BE PLACED WITHIN 12 INCHES OF SPRINKLER HEADS.
- H. SHRUBS AND TREES SHOWN IN PLANTING AREAS SHALL BE UNDER-PLANTED WITH GROUND COVER SHOWN BY ADJACENT SYMBOL, TO WITHIN 12 INCHES OF MAIN PLANT STEM, WHERE APPLICABLE.
- I. UPON COMPLETION OF THE WORK, ALL TREES AND SHRUBS SHALL HAVE HAD ANY BROKEN BRANCHES REMOVED AND INJURIES REPAIRED. CLEAN AND RE-CUT WOUNDS OVER ¾" AND COAT WITH TREE WOUND PAINT.

- 3.08 TREE STAKING
- A. STAKE ALL TREES, 15 GALLON AND LARGER PER DETAILS. DRIVE STAKE INTO FIRM SOIL NEXT TO ROOT BALL. TREE STAKES SHALL BE VERTICAL IN ALL CASES.
- 3.09 FLATTED GROUND COVER
- A. ROOTED CUTTINGS SHALL BE PLANTED SUFFICIENTLY DEEP TO COVER ALL ROOTS, AND SHALL BE SPACED AS NOTED ON THE DRAWINGS.
- B. ROOTED CUTTINGS SHALL HAVE BEEN GROWN IN FLATS AND SHALL REMAIN IN THOSE FLATS UNTIL TIME OF TRANSPLANTING. AT TIME OF TRANSPLANTING THE SOIL SHALL CONTAIN SUFFICIENT MOISTURE SO THAT THE SOIL DOES NOT FALL APART WHEN LIFTING PLANTS FROM THE FLAT. EACH PLANT SHALL BE PLANTED WITH ITS PROPORTIONATE AMOUNT OF SOIL IN A MANNER THAT WILL ENSURE A MINIMUM OF DISTURBANCE TO THE ROOT SYSTEM.
- C. ROOTED CUTTINGS SHALL NOT BE ALLOWED TO DRY OUT OR WILT BEFORE OR DURING PLANTING. WILTED PLANTS WILL NOT BE ACCEPTED.
- D. AT THE TIME OF PLANTING EACH GROUND COVER PLANT, THE EARTH SHALL BE FIRMED SUFFICIENTLY TO FORCE OUT AIR POCKETS. WATER GROUND COVER BEDS IMMEDIATELY AFTER PLANTING.
- 3.10 MULCHING
- A. WHEN PLANTING OPERATIONS ARE COMPLETE AND SHRUB AREAS HAVE BEEN RAKED AND DRESSED, MULCH ALL NON-TURF AREAS WITH A 3" LAYER OF WALK ON BARK (WALK-ON BARK OR APPROVED EQUAL). MULCH FLATTED GROUND COVER BEDS PRIOR TO PLANTING. SUBMIT SAMPLE TO CITY INSPECTOR FOR APPROVAL PRIOR TO "BULK DELIVERY" TO SITE. IN NO SUCH CASE SHALL BARK MULCH CONTAIN NATURAL COLORED OR STAINED COLORED FLYWOOD.
- 3.11 PROTECTION AND CLEAN-UP
- A. THE CONTRACTOR SHALL CAREFULLY AND CONTINUOUSLY PROTECT ALL AREAS INCLUDED IN THE CONTRACT, INCLUDING LAWN AREAS, PLANT MATERIAL, SUPPORTS, ETC. UNTIL FINAL ACCEPTANCE BY THE CITY. REPAIR AND/OR REPLACE ANY DAMAGED AREAS AT NO ADDITIONAL COST TO THE CITY.
- B. AFTER PLANTING OPERATIONS ARE COMPLETED, THE CONTRACTOR SHALL REMOVE ALL TRASH, EXCESS SOIL, EMPTY PLANT CONTAINERS, AND OTHER ACCUMULATED DEBRIS FROM THE SITE. LEAVE THE SITE IN A CLEAN, WASHED CONDITION, REMOVING ALL UNUSED MATERIAL, TRASH, AND TOOLS.
- 3.12 INSPECTIONS
- A. THE CONTRACTOR SHALL GIVE 48 HOURS NOTICE AND SET APPOINTMENTS FOR THE REVIEW OF THE FOLLOWING OPERATIONS BY THE LANDSCAPE ARCHITECT, CITY ENGINEER, OR HIS REPRESENTATIVE:
- * FINISH GRADING
 - * REVIEW OF PLANT MATERIAL AFTER DELIVERY TO THE SITE
 - * TREE AND SHRUB PLACEMENT PRIOR TO DIGGING HOLES
 - * GROUND COVER LINES AND HEADERBOARD PLACEMENT
 - * PRE-MAINTENANCE PERIOD WALK-THRU
 - * POST MAINTENANCE / FINAL ACCEPTANCE WALK-THRU
- B. IN THE EVENT THE CONTRACTOR REQUESTS INSPECTION OF THE WORK, AND SAID WORK IS SUBSTANTIALLY INCOMPLETE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LANDSCAPE ARCHITECT'S HOURLY CHARGES AND PER DIEM.
- 3.13 COMPLETION AND WALK-THRU
- A. AT THE COMPLETION OF ALL WORK AS OUTLINED ON THESE PLANS, THE LANDSCAPE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT, CITY ENGINEER, OR HIS REPRESENTATIVE AND SCHEDULE A REVIEW OF SAID WORK ("WALK-THRU") TO DETERMINE THAT ALL ASPECTS OF WORK ARE COMPLETE. WORK MUST BE FULLY COMPLETED ACCORDING TO ALL DRAWINGS AND SPECIFICATIONS, AND MUST BE ACCEPTED BY THE CITY IN WRITING PRIOR TO COMMENCEMENT OF THE MAINTENANCE PERIOD.

- 3.14 MAINTENANCE AND ACCEPTANCE
- A. THE CONTRACTOR SHALL CONTINUOUSLY MAINTAIN ALL AREAS INCLUDED IN THE CONTRACT DURING THE PROGRESS OF THE WORK, THROUGH THE ESTABLISHMENT PERIOD, AND UNTIL FINAL ACCEPTANCE OF THE WORK.
- B. THE CONTRACTOR SHALL MAINTAIN ALL PLANTINGS FOR A PERIOD OF ONE HUNDRED AND TWENTY (120) CALENDAR DAYS AFTER APPROVAL OF COMPLETION AND NOTIFICATION IN WRITING OF THE START OF THE MAINTENANCE PERIOD. THE MAINTENANCE PERIOD SHALL INCLUDE THE FOLLOWING SCOPE OF WORK:
1. MONITORING, LEVELING AND SMOOTHING D.G. PATHWAYS
 2. DAILY WATERING OF ALL PLANT MATERIAL.
 3. REMOVAL OF ALL WEEDS FROM PLANTING AREAS.
 4. REPLACEMENT OF ANY DEAD, DYING, OR DAMAGED TREES, SHRUBS, OR GROUND COVERS.
 5. PROPER ADJUSTMENT AND MAINTENANCE OF THE IRRIGATION SYSTEM.
 6. FILLING, RECOMPACTION, AND REPLANTING OF ANY ERODED OR SETTLED AREAS.
 7. WEEKLY REMOVAL OF ALL TRASH, LITTER, CLIPPINGS AND FOREIGN DEBRIS.
 8. DISEASE, INSECT AND RODENT PREVENTION AND CONTROL MEASURES.
 9. AT 30-DAYS AFTER COMPLETION OF PLANTING, APPLY AMMONIUM PHOSPHATE AT THE RATE OF 5 LBS. PER 1,000 SQUARE FEET TO ALL PLANTING AREAS.
 10. AT 60-DAYS AFTER COMPLETION OF PLANTING, APPLY 16-6-8 FERTILIZER AT THE RATE OF 6 LBS. PER 1,000 SQUARE FEET TO ALL PLANTING AREAS.
 11. ANY DAY THE CONTRACTOR FAILS TO ADEQUATELY WATER, REPLACE UNSUITABLE PLANTS, WEED, OR OTHER WORK OF THE MAINTENANCE PERIOD WILL NOT BE CREDITED TOWARDS THE COMPLETION OF THE PERIOD. PLANTS AND LAWNS WHICH DECLINE DUE TO LACK OF CONTRACTOR MAINTENANCE SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE.
 12. PRIOR TO THE END OF THE MAINTENANCE PERIOD, AGAIN CONTACT THE PROJECT MANAGER, CITY ENGINEER, OR HIS REPRESENTATIVE TO SCHEDULE A FINAL REVIEW ("WALK-THRU"). THE CITY MUST ACCEPT ALL MAINTAINED AREAS IN WRITING TO RATIFY THE END OF THE MAINTENANCE PERIOD.
 13. IF, DURING THE MAINTENANCE PERIOD, ON SITE OBSERVATIONS BY THE LANDSCAPE ARCHITECT, PROJECT MANAGER OR CITY DETERMINE THAT PROPER MAINTENANCE PROCEDURES ARE NOT BEING FOLLOWED, THE CONTRACTOR WILL BE NOTIFIED IN WRITING. CORRECTIONS SHALL BE MADE WITHIN TWO WORKING DAYS OF NOTIFICATION, OR THE CITY MAY ELECT TO EXTEND THE MAINTENANCE PERIOD BEYOND 90 DAYS, SUCH EXTENSION BEING EQUAL TO THE AMOUNT OF TIME REQUIRED TO CORRECT THE MAINTENANCE PRACTICES.
- 3.15 PROTECTION
- A. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING THE WORK COVERED BY THIS SECTION FROM VANDALISM AND ACCIDENTAL DAMAGE. ANY DAMAGE SHALL BE PROMPTLY REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY.
- B. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING THE WORK COVERED BY THIS SECTION FROM DAMAGE CAUSED BY FROST OR TORRENTIAL RAINS. ANY DAMAGE SHALL BE PROMPTLY REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY.
- 3.16 GUARANTEE
- A. ALL SHRUBS, GROUND COVERS, LAWN AREAS SHALL BE GUARANTEED AS TO GROWTH AND HEALTH FOR A PERIOD OF 6 MONTHS AFTER FINAL ACCEPTANCE BY THE CITY. 15 GALLON AND ALL BOX SIZED TREES AND LARGER SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE BY THE CITY.
- B. PLANTS WHICH DIE OR LOOSE MORE THAN THIRTY PERCENT (30%) OF THEIR LEAF OR BRANCHING STRUCTURE SHALL BE REPLACED UNDER THIS SECTION.
- C. THE CONTRACTOR, WITHIN FOURTEEN (14) DAYS OF WRITTEN NOTIFICATION BY THE CITY, SHALL REMOVE AND REPLACE ALL GUARANTEED PLANTS WHICH FOR ANY REASON FAIL TO MEET THE REQUIREMENTS OF THE GUARANTEE. ALL PLANT MATERIALS REPLACED SHALL BE GUARANTEED FOR THE ORIGINAL PERIOD, BEGINNING WITH THE DATE OF REPLACEMENT.

APPROVED _____ DATE _____

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PLANNING
ASSOCIATES



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